



深圳市美创仪器仪表有限公司  
MCH Instruments CO., Ltd.



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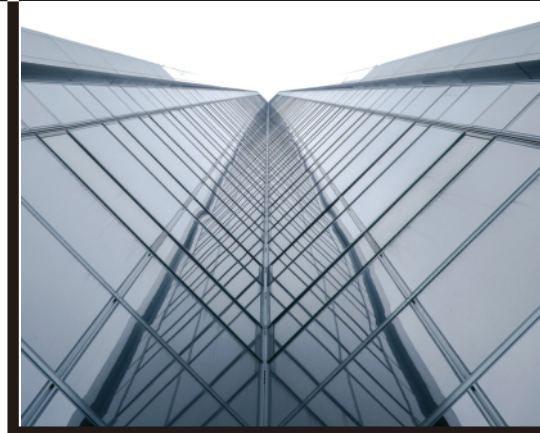


Product Catalogue

# 产品目录

专业铸就品质 信誉成就未来

Professional achieve Quality  
Creditbility achieve Future



MCH is a leading high-tech enterprise engaged in research, development, production and sales of measuring instruments.  
It is a member of China Electronic Instrument Industry Association and China Instrument Association.



## 公司简介

# COMPANY PROFILE

本公司专业生产示波器、频谱分析仪、函数信号发生器、频率计、毫伏表、直流稳压电源等上百款测量仪器。

本公司成立于1995年, 发展至今, 已经拥有强大的生产及研发能力。质量第一, 服务至上, 性价比是我们一贯的追求。愿能成为您长期的合作伙伴。

MCH specializes in manufacturing up to hundred models of measuring instruments, such as Oscilloscope, Spectrum Analyzer, Function Generator, Frequency Counter, Millivoltmeter, DC Power Supply and so on.

The Company was founded in 1995. After many years of development, it has become strong not only in size, but also in production and R & D capability. Quality first, service utmost and economic pricing is our consistent commitment. We look forward to being your long-term partner.

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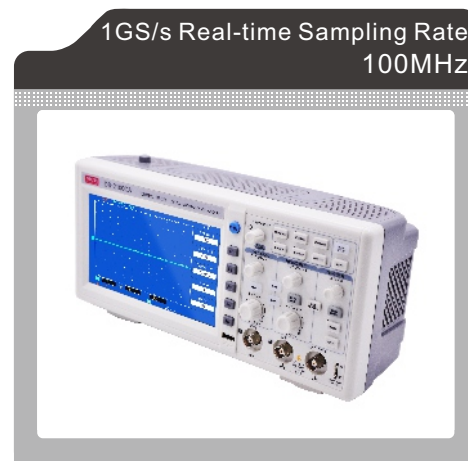
# DS-2100CA

## DIGITAL STORAGE OSCILLOSCOPE

数字存储示波器

特点

- 1GS/s实时采样率
- 2个模拟通道
- 25kpts存储深度
- 触发类型标配: 边沿, 脉宽, 视频, 交替
- 7英寸WVGA, 800×480, TFT液晶屏
- 支持USB OTG, PASS/FAIL
- 支持同时打开Y-T和X-Y模式, 可观测李沙育波形
- 输入AC电压220V(110V可选)



FEATURES

- 1GS/s Real-time Sampling Rate
- 25 KPTS storage depth
- Trigger Type Matching: Edge, Pulse Width, Video, Alternation
- Supporting opening Y-T and X-Y modes at the same time, observable Lishayu waveform
- 7-inch WVGA (800 x 480) TFT LCD screen
- 2 analog channels
- Supporting USB OTG, PASS/FAIL
- Power supply: AC 220V (110V optional)

| SPECIFICATIONS                 | MODEL               | DS-2100CA                                                               |
|--------------------------------|---------------------|-------------------------------------------------------------------------|
| Channels (通道)                  |                     | 2 + Ext. Trigger                                                        |
| Bandwidth (带宽)                 |                     | 100MHz                                                                  |
| Rise Time (上升时间)               |                     | 7ns                                                                     |
| Time Base (时基)                 |                     | 5ns - 50s/div                                                           |
| Real Time Sample Rate (实时采样率)  |                     | 1GSa/s                                                                  |
| Equivalent Sample Rate (等效采样率) |                     | 50GSa/s                                                                 |
| Input Impedance (输入阻抗)         |                     | 1MΩ/13pF                                                                |
| Input Coupling (输入耦合)          |                     | DC, AC, GND                                                             |
| Trigger (触发模式)                 |                     | Edge, Pulse Width, Video, Alternation (边沿, 脉宽, 视频, 交替)                  |
| Acquisition Modes (获取模式)       |                     | Auto, Normal, Single                                                    |
| Trigger Sources (触发源)          |                     | Ch1, CH2, Ext, Ext/5, Ext(50Q)                                          |
| Horizontal Accuracy (水平精度)     |                     | ±0.01%                                                                  |
| Vertical Sensitivity (垂直灵敏度)   |                     | 1 mV/div - 20V/div                                                      |
| Vertical Resolution (垂直分辨率)    |                     | 8bit                                                                    |
| Max. Input Voltage (最大输入电压)    |                     | 400V(DC+AC peak), 5Vrms@50Q                                             |
| Auto Measurements (自动测量)       |                     | Vpp, Vamp, Vrms, Vmax, Vmin, Vtop, Vbase, Vavg, Freq, Period, Rise time |
|                                |                     | Fall time, +Width, -Width, Overshoot, Preshoot, +Duty, -Duty, etc       |
| Math (数学运算)                    |                     | +, -, x, ÷, FFT                                                         |
| Storage Depth (存储深度)           |                     | 25 kpts                                                                 |
| Storage Method (存储方式)          |                     | Settings, Waveforms, bitmaps (设置, 波形, 位图)                               |
| FFT                            | Window (窗口)         | Hanning, Hamming, Blackman-Harris, Rectangular                          |
|                                | Sample Points (采样点) | 1024 points                                                             |
| X-Y                            | Bandwidth (带宽)      | 100MHz                                                                  |
|                                | Phase Diff. (相差)    | ±3 degrees                                                              |
| Display (显示屏)                  |                     | A/CA: Mono/Color, 800x480 resolution                                    |
| Power supply (输入电源)            |                     | Worldwide 100-225V/40VA Max. optional                                   |
| Interface (接口)                 |                     | USB Port                                                                |
| Accessories (配件)               |                     | Probe x2, Power Cord, User's Manual                                     |
| Dimension (尺寸)                 |                     | 306(W) x 134(H) x 122(D) mm                                             |
| Weight (重量)                    |                     | 2.2 Kg                                                                  |

1GS/s Real-time Sampling Rate  
25/40/60/100/150/200 MHz

数字存储示波器

# DS-2000CA

## DIGITAL STORAGE OSCILLOSCOPE

特点

- 1GS/s实时采样率
- 2个模拟通道
- 单声道/彩色320 X 240 分辨率
- 支持同时打开Y-T和X-Y模式, 可观测李沙育波形
- 触发类型标配: 边沿, 脉宽, 视频, 交替
- 输入AC电压220V(110V可选)



FEATURES

- 1GS/s Real-time Sampling Rate
- Trigger Type Matching: Edge, Pulse Width, Video, Alternation
- Supporting opening Y-T and X-Y modes at the same time
- Mono/Color 320 X 240 resolution
- 2 analog channels
- Power supply: AC 220V (110V optional)

| SPECIFICATIONS                 | MODEL               | DS-2025CA                                                               | DS-2040CA        | DS-2060CA        | DS-2100CA        | DS-2200CA        | DS-2300CA        |
|--------------------------------|---------------------|-------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Channels (通道)                  |                     | 2 + Ext. Trigger                                                        | 2 + Ext. Trigger | 2 + Ext. Trigger | 2 + Ext. Trigger | 2 + Ext. Trigger | 2 + Ext. Trigger |
| Bandwidth (带宽)                 |                     | 25MHz                                                                   | 40MHz            | 60MHz            | 100MHz           | 200MHz           | 300MHz           |
| Rise Time (上升时间)               |                     | 13.8ns                                                                  | 8.7ns            | 5.8ns            | 3.5ns            | 2.3ns            | 1.8ns            |
| Time Base (时基)                 |                     | 5ns - 50s/div                                                           | 5ns - 50s/div    | 5ns - 50s/div    | 2ns - 50s/div    | 1ns - 50s/div    | 1ns - 50s/div    |
| Real Time Sample Rate (实时采样率)  |                     | 1GSa/s                                                                  |                  |                  |                  |                  |                  |
| Equivalent Sample Rate (等效采样率) |                     | 50GSa/s                                                                 |                  |                  |                  |                  |                  |
| Input Impedance (输入阻抗)         |                     | 1MΩ/13pF                                                                |                  |                  |                  |                  |                  |
| Input Coupling (输入耦合)          |                     | DC, AC, GND                                                             |                  |                  |                  |                  |                  |
| Trigger (触发模式)                 |                     | Edge, Pulse Width, Video, Alternation (边沿, 脉宽, 视频, 交替)                  |                  |                  |                  |                  |                  |
| Acquisition Modes (获取模式)       |                     | Auto, Normal, Single                                                    |                  |                  |                  |                  |                  |
| Trigger Sources (触发源)          |                     | Ch1, CH2, Ext, Ext/5, Ext(50Q)                                          |                  |                  |                  |                  |                  |
| Horizontal Accuracy (水平精度)     |                     | ±0.01%                                                                  |                  |                  |                  |                  |                  |
| Vertical Sensitivity (垂直灵敏度)   |                     | 2 mV/div - 5V/div                                                       |                  |                  |                  |                  |                  |
| Vertical Resolution (垂直分辨率)    |                     | 8bit                                                                    |                  |                  |                  |                  |                  |
| Max. Input Voltage (最大输入电压)    |                     | 400V(DC+AC peak), 5Vrms@50Q                                             |                  |                  |                  |                  |                  |
| Auto Measurements (自动测量)       |                     | Vpp, Vamp, Vrms, Vmax, Vmin, Vtop, Vbase, Vavg, Freq, Period, Rise time |                  |                  |                  |                  |                  |
|                                |                     | Fall time, +Width, -Width, Overshoot, Preshoot, +Duty, -Duty, etc       |                  |                  |                  |                  |                  |
| Math (数学运算)                    |                     | +, -, x, ÷, FFT                                                         |                  |                  |                  |                  |                  |
| Storage Depth (存储深度)           |                     | 10 kpts                                                                 |                  |                  |                  |                  |                  |
| FFT                            | Window (窗口)         | Hanning, Hamming, Blackman-Harris, Rectangular                          |                  |                  |                  |                  |                  |
|                                | Sample Points (采样点) | 1024 points                                                             |                  |                  |                  |                  |                  |
| X-Y                            | Bandwidth (带宽)      | 25MHz                                                                   | 40MHz            | 60MHz            | 100MHz           | 200MHz           | 200MHz           |
|                                | Phase Diff. (相差)    | ±3 degrees                                                              |                  |                  |                  |                  |                  |
| Display (显示屏)                  |                     | A/CA: Mono/Color, 320x240 resolution                                    |                  |                  |                  |                  |                  |
| Power supply (输入电源)            |                     | Worldwide 100-225V/40VA Max. optional                                   |                  |                  |                  |                  |                  |
| Interface (接口)                 |                     | USB Port                                                                |                  |                  |                  |                  |                  |
| Accessories (配件)               |                     | Probe x2, Power Cord, User's Manual                                     |                  |                  |                  |                  |                  |
| Dimension (尺寸)                 |                     | 306(W) x 134(H) x 122(D) mm                                             |                  |                  |                  |                  |                  |
| Weight (重量)                    |                     | 2.2 Kg                                                                  |                  |                  |                  |                  |                  |

## V-212/V-5030

## OSCILLOSCOPE

## 模拟示波器

## 特点

- DC-20MHz / DC-30MHz
- 双通/双踪, X-Y方式
- 6英寸大屏幕, 进口高亮度示波管
- 高灵敏度触发, 达到1mV/格
- 电视同步分离电路可以观察到稳定的TV信号
- 触发方式: 自动、常态、电视场、电视行
- 垂直方式: CH1, CH2, 交替, 断续, 相加
- X-x10, Y-x5
- 相位正负反转
- CH1同步输出
- 输入AC电压220V(110V可选)

6" DISPLAY  
20MHz / 30MHz

## FEATURES

- DC-20MHz / DC-30MHz
- 6" display, imported high brightness oscilloscope tube
- High sensitivity of triggering, up to 1mV/division
- TV synchronous separation circuit to observe stable TV signal
- Trigger mode: AUTO/NORM/TV-V/TV-H
- X-x10/Y-x5
- CH1 Sync output
- Dual channels/dual traces, X-Y mode
- Vertical: CH1/CH2/ALT/CHOP/ADD
- Polarity inversion
- Power supply: AC 220V (110V optional)

| SPECIFICATIONS                     | MODEL      | V-212                                                                                                       | V-5030            |
|------------------------------------|------------|-------------------------------------------------------------------------------------------------------------|-------------------|
| CRT                                |            | 6" rectangular screen with internal graticule, 8x10div (6英寸带内部格画线的屏幕 8x10格, 1格=1cm)                         |                   |
| Bandwidth (带宽)                     |            | 20MHz                                                                                                       | 30MHz             |
| Vertical deflection (垂直偏置)         |            |                                                                                                             |                   |
| Display model (显示模式)               |            | CH1, CH2, ADD, ALT, CHOP (CH1, CH2, 相加, 交替, 断续)                                                             |                   |
| Deflection factor (偏转因子)           |            | 5mV/div to 5V/div $\pm 3\%$ , 1mV/div to 1V/div $\pm 5\%$ (x5), 10steps (5mV/格到5V/格, 5倍时: 1mV/格到1V/格, 10个档) |                   |
| Rise time (上升时间)                   |            | $\leq 17.2\text{ns}$                                                                                        |                   |
| Max. input voltage (最大输入电压)        |            | 250V(DC+AC peak) $\leq 1\text{KHz}$                                                                         |                   |
| Input Coupling (输入耦合)              |            | AC, DC, GND                                                                                                 |                   |
| Polarity selection (极性选择)          |            | + or - (CH2 Only) (仅CH2)                                                                                    |                   |
| Horizontal deflection (水平偏置)       |            |                                                                                                             |                   |
| Display mode (显示模式)                |            | 1, 10, X-Y                                                                                                  |                   |
| Time base (时基)                     |            | 0.2 $\mu\text{s}/\text{div}$ to 0.2s/div, 9 ranges (0.2 $\mu\text{s}/\text{格}$ 到0.2s/格, 9个档)                |                   |
| Sweep magnification (扫描展宽)         |            | $\times 10$ (10倍)                                                                                           |                   |
| Accuracy (精度)                      |            | $\pm 3\%$                                                                                                   |                   |
| Trigger system (触发系统)              |            |                                                                                                             |                   |
| Trigger mode (触发模式)                |            | NORM, AUTO, TV-V, TV-H (常态, 自动, 电视场, 电视行)                                                                   |                   |
| Trigger source (触发源)               |            | CH1, CH2, VERT, LINE, EXT                                                                                   |                   |
| Sensitivity and frequency (灵敏度与频率) |            | 20Hz~20MHz (VERT)                                                                                           | 20Hz~30MHz (VERT) |
|                                    | AUTO, NORM | 0.5div (INT), 0.5Vp-p (EXT)                                                                                 |                   |
|                                    | TV-V, TV-H | At least 1 div or 1Vp-p (大于1格或1.0Vp-p)                                                                      |                   |
| Input impedance (输入阻抗)             |            | 1M $\Omega$                                                                                                 |                   |
| X-Y operation (X-Y操作)              |            |                                                                                                             |                   |
| X-Y phase difference (X-Y相位差)      |            | $\leq 3^\circ$ , DC-50kHz                                                                                   |                   |
| Others (其他)                        |            |                                                                                                             |                   |
| Calibration waveform (校正波形)        |            | Frequency: 1KHz $\pm 20\%$ , Voltage: 0.5V $\pm 10\%$ (频率: 1KHz $\pm 20\%$ , 电压: 0.5V $\pm 10\%$ )          |                   |
| Power supply (电源)                  |            | 220V/110V $\pm 10\%$ ; 50/60Hz                                                                              |                   |
| Dimensions (尺寸)                    |            | 310(W) $\times$ 130(H) $\times$ 370(D)mm                                                                    |                   |
| Weight (重量)                        |            | 8.5KG                                                                                                       |                   |

Dual channels/dual traces  
40MHz / 60MHz

## V-5040/V-5060

## OSCILLOSCOPE

## 模拟示波器

## 特点

- 双通/双踪, X-Y方式
- 6英寸大屏幕, 高亮度示波管
- 高灵敏度触发, 达到1mV/格
- Ch1通道具有分段放大功能比一般示波器看得更清楚
- 电视同步分离电路可以观察到稳定的TV信号
- 触发方式: 自动、常态、电视场、电视行
- 垂直方式: CH1, CH2, 交替, 断续, 相加
- X-x10, Y-x5
- 相位正负反转
- CH1同步输出
- 输入AC电压220V(110V可选)

## FEATURES

- DC-40MHz/DC-60MHz
- 6" display, high brightness oscilloscope tube
- High sensitivity of triggering, up to 1mV/division
- CH1 channel incremental magnification function for clearer observation than ordinary oscilloscope
- TV synchronous separation circuit for displaying stable TV signal
- Triggering mode: AUTO/NORM/TV-V/TV-H
- X-x10/Y-x5
- CH1 Sync output
- Dual channels/dual traces, X-Y mode
- Vertical: CH1/CH2/ALT/CHOP/ADD
- Polarity inversion
- Power supply: AC 220V (110V optional)

| SPECIFICATIONS                     | MODEL      | V-5040                                                                                                    | V-5060              |
|------------------------------------|------------|-----------------------------------------------------------------------------------------------------------|---------------------|
| CRT                                |            | 6 inch rectangular screen with internal graticule, 8x10div (1div=1cm) (6英寸带内部格画线的屏幕 8x10格, 1格=1cm)        |                     |
| Bandwidth (带宽)                     |            | 40MHz                                                                                                     | 60MHz               |
| Vertical deflection (垂直偏置)         |            |                                                                                                           |                     |
| Display model (显示模式)               |            | CH1, CH2, ADD, ALT, CHOP (CH1, CH2, 相加, 交替, 断续)                                                           |                     |
| Deflection factor (偏转因子)           |            | 5mV/div to 5V/div $\pm 3\%$ , 1mV/div 1V/div $\pm 5\%$ (x5), 10 steps (5mV/格到5V/格, 5倍时: 1mV/格到1V/格, 10个档) |                     |
| Rise time (上升时间)                   |            | $\leq 8.8\text{ns}$                                                                                       | $\leq 5.9\text{ns}$ |
| Max. input voltage (最大输入电压)        |            | 250V(DC+AC peak) $\leq 1\text{KHz}$                                                                       |                     |
| Input Coupling (输入耦合)              |            | AC, DC, GND                                                                                               |                     |
| Polarity selection (极性选择)          |            | + or - (CH2 only) (仅CH2)                                                                                  |                     |
| Horizontal deflection (水平偏置)       |            |                                                                                                           |                     |
| Display mode (显示模式)                |            | 1, 10, X-Y                                                                                                |                     |
| Time base (时基)                     |            | 0.2 $\mu\text{s}/\text{div}$ to 0.2s/div, 9 ranges (0.2 $\mu\text{s}/\text{格}$ 到0.2s/格 9个档)               |                     |
| Sweep magnification (扫描展宽)         |            | $\times 10$ (10倍)                                                                                         |                     |
| Ch1 ALT Magnification (交替展宽)       |            | $\times 10$ (10倍)                                                                                         |                     |
| Accuracy (精度)                      |            | $\pm 3\%$                                                                                                 |                     |
| Trigger system (触发系统)              |            |                                                                                                           |                     |
| Trigger mode (触发模式)                |            | NORM, AUTO, TV-V, TV-H (常态, 自动, 电视场, 电视行)                                                                 |                     |
| Trigger source (触发源)               |            | CH1, CH2, VERT, LINE, EXT                                                                                 |                     |
| Sensitivity and frequency (灵敏度与频率) |            | 20Hz~40MHz (VERT)                                                                                         | 20Hz~60MHz (VERT)   |
|                                    | AUTO, NORM | 1.5div (INT), 0.8Vp-p (EXT)                                                                               |                     |
|                                    | TV-V, TV-H | At least 1 div or 1Vp-p (大于1格或1.0Vp-p)                                                                    |                     |
| Input impedance (输入阻抗)             |            | 1M $\Omega$                                                                                               |                     |
| X-Y operation (X-Y操作)              |            |                                                                                                           |                     |
| X-Y phase difference (X-Y相位差)      |            | $\leq 3^\circ$ , DC-50kHz                                                                                 |                     |
| Others (其他)                        |            |                                                                                                           |                     |
| Calibration waveform (校正波形)        |            | Frequency: 1KHz $\pm 20\%$ , Voltage: 0.5V $\pm 10\%$ (频率: 1KHz $\pm 20\%$ , 电压: 0.5V $\pm 10\%$ )        |                     |
| Power supply (电源)                  |            | 220V/110V $\pm 10\%$ ; 50/60Hz                                                                            |                     |
| Dimensions (尺寸)                    |            | 310(W) $\times$ 130(H) $\times$ 370(D)mm                                                                  |                     |
| Weight (重量)                        |            | 9KG                                                                                                       |                     |

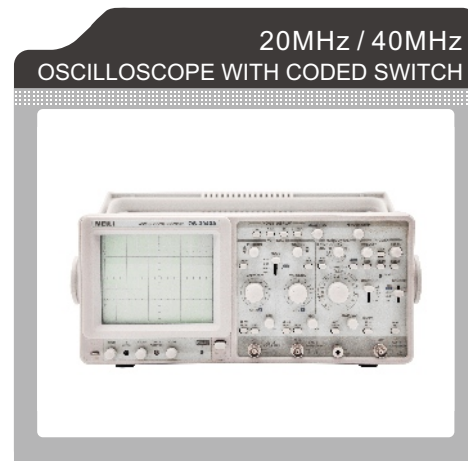
# OS-3020A/3040A OS-3050A

## OSCILLOSCOPE

### 带编码的开关示波器

#### 特点

- 双通四踪, X-Y操作作为进口编码开关控制系统, 手感好, 可靠性高、寿命长, A/B扫描
- 1mV/格高灵敏度触发、低漂移
- 延迟扫描便于仔细检验主时基的细小部分
- 触发电平锁定功能便于建立触发点, 在很宽的信号偏移变化范围内均可锁定
- 专用的视频H和V同步分离器可以使视频波形异常稳定
- 释抑时间可调, 便于观察长时间的复杂波形
- CH1输出可使CH1放大器作为一个高增益的校准前置放大级使用
- 6英寸大屏幕, 进口高亮度示波管



#### FEATURES

- Dual channel/four trace, X-Y mode, imported coded switch provides good feeling, high reliability and long life, A/B Sweep.
- 1mV/div High sensitivity, low drift. ● Delayed sweep helps to closely examine small parts of main time base.
- Trigger level lock function establish the trigger point within the p-p signal swing and ensure rock-solid triggering despite wide variations in signal excursions.
- Dedicated video H and V sync separator provides stable video waveform.
- Variable holdoff for viewing long, complicated wavetrains,
- CH1 OUTPUT enables scope's CH1 amplifiers to be used as a high-gain calibrated pre-amp.
- 6" display, imported high brightness CRT tube.

| SPECIFICATIONS                     | MODEL      | OS-3020A                                                                                       | OS-3040A | OS-3050A |
|------------------------------------|------------|------------------------------------------------------------------------------------------------|----------|----------|
| CRT                                |            | 6" rectangular screen with internal graticule, 8×10div (6英寸带内部格画线的屏幕 8X10格, 1格=1cm)            |          |          |
| Bandwidth (带宽)                     |            | 20MHz                                                                                          | 40MHz    | 50MHz    |
| Vertical deflection (垂直偏转)         |            | CH1, CH2, ADD, ALT, CHOP (CH1, CH2, 相加, 交替, 断续)                                                |          |          |
| Deflection factor (偏转因子)           |            | 5mV/div to 5V/div ±3%, 1mV/div to 1V/div ±5% (×5), 10steps (5mV/格到5V/格, 5倍时: 1mV/格到1V/格, 10个档) |          |          |
| Rise time (上升时间)                   |            | ≤17.2ns                                                                                        |          |          |
| Max. input voltage (最大输入电压)        |            | 250V(DC+AC peak) ≤1kHz                                                                         |          |          |
| Input Coupling (输入耦合)              |            | AC, DC, GND                                                                                    |          |          |
| Polarity selection (极性选择)          |            | + or - (CH2 Only) (仅CH2)                                                                       |          |          |
| Horizontal deflection (水平偏转)       |            | 1, 10, X-Y                                                                                     |          |          |
| Display mode (显示模式)                |            | 1, 10, X-Y                                                                                     |          |          |
| Time base (时基)                     |            | 0.2μs/div to 0.2s/div, 9 ranges (0.2μs/格到0.2s/格, 9个档)                                          |          |          |
| Sweep magnification (扫描展宽)         |            | ×10 (10倍)                                                                                      |          |          |
| Accuracy (精度)                      |            | ±3%                                                                                            |          |          |
| Trigger system (触发系统)              |            | NORM, AUTO, TV-V, TV-H (常态, 自动, 电视场, 电视行)                                                      |          |          |
| Trigger mode (触发模式)                |            | CH1, CH2, VERT, LINE, EXT                                                                      |          |          |
| Trigger source (触发源)               |            | 20Hz~20MHz (VERT)                                                                              |          |          |
| Sensitivity and frequency (灵敏度与频率) |            | 20Hz~40MHz (VERT)                                                                              |          |          |
|                                    | AUTO, NORM | 0.5DIV (INT), 0.5Vp-p (EXT)                                                                    |          |          |
|                                    | TV-V, TV-H | At least 1 div or 1Vp-p (大于1格或1.0Vp-p)                                                         |          |          |
| Input impedance (输入阻抗)             |            | 1MΩ                                                                                            |          |          |
| X-Y operation (X-Y操作)              |            | ≤3° DC-50kHz                                                                                   |          |          |
| X-Y phase difference (X-Y相位差)      |            | ≤3° DC-50kHz                                                                                   |          |          |
| Others (其他)                        |            |                                                                                                |          |          |
| Calibration waveform (校正波形)        |            | Frequency: 1kHz ± 20%, Voltage: 0.5V ± 10% (频率: 1kHz ± 20%, 电压: 0.5V ± 10%)                    |          |          |
| Power supply (电源)                  |            | 220V/110V ± 10%; 50/60Hz                                                                       |          |          |
| Dimensions (尺寸)                    |            | 310(W) × 130(H) × 370(D)mm                                                                     |          |          |
| Weight (重量)                        |            | 8.5KG                                                                                          |          |          |

# 60MHz / 100MHz DUAL CHANNELS/FOUR TRACES



# OS-3060G OS-3100G

## OSCILLOSCOPE

### 模拟示波器

#### 特点

- 频率带宽: OS-3060G: DC-60MHz  
OS-3100G: DC-100MHz
- 双通四踪, X-Y方式
- 数字直读, 记忆功能
- 6英寸大屏幕, 高亮度示波管
- X: 2mV-5V; Y: 50ns-0.5s
- X-x10, Y-x10
- 触发方式: 自动, 电视, H场等。

#### FEATURES

- Bandwidth: OS-3060G: DC-60MHz, OS-3100G: DC-100MHz
- Digital readout directly, memory function
- 6" display, high brightness oscilloscope tube
- Trigger mode: AUTO/NORM/TV-V/TV-H
- Dual channels/four traces, X-Y mode
- X-x10, Y-x10
- X: 2mV~5V; Y: 50ns~0.5s

| SPECIFICATIONS                | MODEL | OS-3060G                                                                                 | OS-3100G  |
|-------------------------------|-------|------------------------------------------------------------------------------------------|-----------|
| CRT                           |       | 6-inch rectangular type with internal graticule, 8×10div (1 DIV = 1cm)                   |           |
| Bandwidth (带宽)                |       | 60MHz                                                                                    | 100MHz    |
| Vertical deflection (垂直偏转)    |       | 2mV/Div~5V/div, 11 steps in 1-2-5 sequence.                                              |           |
| Sensitivity (灵敏度)             |       | ±3% (in middle 5 Divs)                                                                   |           |
| Sensitivity accuracy (灵敏度准确度) |       | DC-60MHz                                                                                 |           |
| Bandwidth (带宽)                |       |                                                                                          | DC-100MHz |
| Rise time (上升时间)              |       | 5.9ns                                                                                    |           |
| Signal Delay (信号延时)           |       | Rising edge observable                                                                   |           |
| Max. input Voltage (最大输入电压)   |       | 400V(DC+AC) ≤ 1kHz                                                                       |           |
| Input Coupling (输入耦合)         |       | AC, DC, GND                                                                              |           |
| Input Impedance (输入阻抗)        |       | Approx. 1MΩ±2% 25pF                                                                      |           |
| Vertical Modes (垂直模式)         |       | CH1, CH2, CHOP, ALT, ADD, CH2 INV.                                                       |           |
| CHOP Frequency (重复频率)         |       | 250kHz                                                                                   |           |
| Polarity Inversion (极性反转)     |       | Only for CH2                                                                             |           |
| HORIZONTAL SYSTEM (水平偏转)      |       |                                                                                          |           |
| Sweep Modes (扫描模式)            |       | Main A, ALT, Delay B                                                                     |           |
| A Sweep time (A扫描时间)          |       | 50ns~0.5s/div, continuously variable (UNCAL)                                             |           |
| B Sweep time (B扫描时间)          |       | 50ns~50ms/div                                                                            |           |
| Accuracy (准确度)                |       | ±3% (±5% with ×10 MAG)                                                                   |           |
| Sweep Magnification (放大倍率)    |       | ×10 (max. sweep time 5ns/div)                                                            |           |
| Hold off time (释抑时间)          |       | Variable                                                                                 |           |
| Delay time (延迟时间)             |       | 1μs-5s                                                                                   |           |
| TRIGGER SYSTEM (触发系统)         |       |                                                                                          |           |
| Trigger mode (触发模式)           |       | NORM, AUTO, TV-V, TV-H                                                                   |           |
| Trigger source (触发源)          |       | CH1, CH2, LINE, EXT                                                                      |           |
| Trigger Coupling (输入耦合)       |       | AC, DC, LFR, HFR                                                                         |           |
| Trigger Slope (触发频率)          |       | + or -, TV Sync.                                                                         |           |
| Trigger sensitivity (触发灵敏度)   | Mode  | OS-3060G (INT/EXT)                                                                       |           |
|                               | AUTO  | 0.5DIV/50mV (20Hz-10MHz) 1.5DIV/150mV (10MHz-40MHz)                                      |           |
|                               | NORM  | 0.35DIV/50mV (20Hz-20MHz) 1.5DIV/150mV (20MHz-100MHz)                                    |           |
|                               | TV    | 0.5DIV/50mV (DC-10MHz) 1.5DIV/150mV (10MHz-40MHz)                                        |           |
|                               |       | 1DIV/200mV (sync signal) 1.5DIV/150mV (20MHz-100MHz)                                     |           |
| Trigger Offset (触发偏置)         |       | INT: ±4 DIV or more, EXT: ±4V more                                                       |           |
| Max. input voltage (最大输入电压)   |       | 400V(DC+AC peak) at 1 kHz                                                                |           |
| X-Y MODE (X-Y模式)              |       |                                                                                          |           |
| Sensitivity Accuracy (灵敏度准确度) |       | X-axis: CH1, CH2: 2mV~5V/div ± 3%, EXT: 0.1 V/div ± 5% Y-axis: CH1, CH2: 2mV~5V/div ± 3% |           |
| CURSOR READOUT (光标读出)         |       |                                                                                          |           |
| Cursor Measurement (光标测量)     |       | Cursor Measurement Function: ΔV, ΔT, 1/ΔT, Cursor Resolution: 1/25 div.                  |           |
| Cursor Resolution (分辨率)       |       | 1/100 div                                                                                |           |
| Cursor Range (光标有效范围)         |       | Vertical: ± 3 DIV, Horizontal: ± 4 div                                                   |           |
| Save & Recall (记忆功能)          |       | 10 settings                                                                              |           |
| OTHERS (其他)                   |       |                                                                                          |           |
| Line power (电源)               |       | 110V/220V ± 10 selectable, 50Hz/60Hz                                                     |           |
| Dimensions (尺寸)               |       | Meas: 450(L) × 310(W) × 150(H)mm                                                         |           |
| Weight (重量)                   |       | 10kg                                                                                     |           |

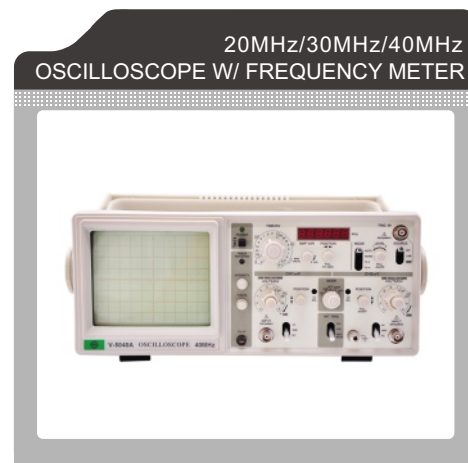
# V-212A/V-5030A V-5040A/5060A

## OSCILLOSCOPE

### 模拟示波器

#### 特点

- 带6位频率显示功能
- 双通/双踪, X-Y方式
- 6英寸大屏幕, 高亮度示波管
- CH1 具有分段放大功能, 比一般示波器看得更清楚
- 高灵敏度触发, 达1mV/格
- 电视同步分离电路可观察稳定的TV信号
- 触发方式: 自动、常态、电视场、电视行
- 垂直方式: CH1, CH2, 交替, 断续, 相加
- X×10, Y×5
- 相位正负反转
- CH1同步输出

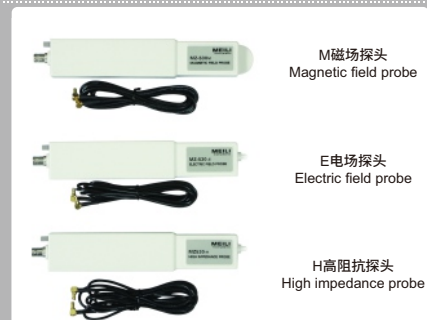


#### FEATURES

- DC-20MHz/DC-30MHz/DC-40MHz /DC-60MHz
- Dual channels/dual traces, X-Y mode
- CH1×10 magnification alternative
- TV synchronous separation circuit enable to observe stable TV signal
- Trigger mode: AUTO/NORM/TV-V/TV-H
- X×10, Y×5
- CH1 Sync. Output
- With 6 digit frequency meter
- 6" display, high brightness oscilloscope tube
- High sensitivity up to 1mV/division
- Vertical mode: CH1/CH2/ALT/CHOP/ADD
- Polarity inversion

| SPECIFICATIONS               | MODEL | V-212A                                                                                    | V-5030A | V-5040A                            | V-5060A |
|------------------------------|-------|-------------------------------------------------------------------------------------------|---------|------------------------------------|---------|
| Bandwidth (带宽)               |       | 20MHz                                                                                     | 30MHz   | 40MHz                              | 60MHz   |
| CRT                          |       | 6 rectangular screen with internal graticule,8×10div.(1div=1cm)(6英寸带内部格画线的屏幕8×10格,1格=1cm) |         |                                    |         |
| Vertical deflection(垂直偏向)    |       |                                                                                           |         |                                    |         |
| Display model(显示模式)          |       | CH1,CH2,ADD,ALT,CHOP (CH1,CH2,相加、交替、断续)                                                   |         |                                    |         |
| Deflection factor(偏转因子)      |       | 5mV/div to 5V/div ± 3% (1mV/div to 1V/div ± 5% in ×5)                                     |         | (5mV/格到5V/格±3%, 5倍时:1mV/格到1V/格±5%) |         |
| Rise time(上升时间)              |       | ≤17.2ns                                                                                   | ≤11.8ns | ≤8.8ns                             | ≤5.9ns  |
| Max. input voltage(最大输入电压)   |       | 250V(DC+AC peak)≤1KHz                                                                     |         |                                    |         |
| Input Coupling(输入耦合)         |       | AC,DC,GND                                                                                 |         |                                    |         |
| Polarity selection(极性选择)     |       | + or - (CH2 only) (仅CH2)                                                                  |         |                                    |         |
| Horizontal deflection(水平偏向)  |       |                                                                                           |         |                                    |         |
| Display mode(显示模式)           |       | 1,10,X-Y                                                                                  |         |                                    |         |
| Time base(时基)                |       | 0.2μs/div to 0.2s/div in 9 steps. (0.2μs/格到0.2s/格 9档)                                     |         |                                    |         |
| Sweep magnification(扫描展宽)    |       | ×10(10倍)                                                                                  |         |                                    |         |
| Ch1 ALT Magnification(交替展宽)  |       | ×10(10倍)                                                                                  |         |                                    |         |
| Accuracy(精度)                 |       | ±3%                                                                                       |         |                                    |         |
| Trigger system(触发系统)         |       |                                                                                           |         |                                    |         |
| Trigger mode(触发模式)           |       | NORM,AUTO,TV-V,TV-H(常态、自动、电视场、电视行)                                                        |         |                                    |         |
| Trigger source(触发源)          |       | CH1,LINE,EXT,INT                                                                          |         |                                    |         |
| Input impedance(输入阻抗)        |       | 1MΩ                                                                                       |         |                                    |         |
| X-Y operation(X-Y操作)         |       |                                                                                           |         |                                    |         |
| X-Y phase difference(X-Y相位差) |       | ≤3°,DC-50kHz                                                                              |         |                                    |         |
| Frequency Meter(频率计)         |       |                                                                                           |         |                                    |         |
| Measurement Range(测量范围)      |       | 0~20MHz                                                                                   | 0~30MHz | 0~40MHz                            | 0~60MHz |
| Power supply(电源)             |       | 220V/110V±10%;50/60Hz                                                                     |         |                                    |         |
| Dimensions(尺寸)               |       | 310(W) ×130(H) ×370(D)mm                                                                  |         |                                    |         |
| Weight(重量)                   |       | 8.5kg                                                                                     | 8.5kg   | 9kg                                | 9kg     |

0.1-1000MHz



# Mz530 SPECTRUM'S PROBE

## 频谱探头

Mz530探头是探测射频电磁场的理想工具, 包括交阻探头、磁场探头和电场探头。它是电磁干扰认证测试不可缺少的手段。当与频谱分析仪或测量接收机连用时, 使用探头可以找出或划定电磁干扰波。同样可以评做电路板和开发样机的电磁兼容问题。帮助使用者估计发射场及加屏蔽后的性能比较等。详见Mz530使用说明书。

#### 技术参数:

频率范围: 0.1到1000MHz  
输出阻抗: 50Ω  
输出插头: BNC  
输入电容: 约2PF  
输入电平(MAX): +10dBm(根据频率范围), 直流电压: 20V  
供电电压: DC+6V 电流8mA(磁场探头), 5mA(交阻探头), 24mA(电场探头)  
尺寸: 40X19X195mm

Mz530 probes are ideal tools for detecting the electromagnetic fields of radio frequency. They include resistance probes, magnetic field probes and electric field probes. They are indispensable tools for test in pre-accreditation of electromagnetic interference. When the probes are used with spectrum analyzer or measurement receiving unit, they can be used to find or define the electromagnetic interference wave, and at the same time can be used to evaluate the EMI of PCBs and newly developed sample units. They can help users to evaluate the performance comparison of the transmitting field and after adding the shield. See the instruction manual of Mz530 for more details.

#### Technical specifications:

- Frequency range: 0.1- 1000MHz
- Output jack: BNC
- Maximum input level: + 10dBm (according to frequency range), DC voltage: 20V
- Power supply voltage: +6V DC Current: 8mA (probe for magnetic field), 5mA (probe for resistance field), 24mA (probe for electric field)
- Output impedance: 50Ω
- Input capacitance: about 2PF
- Dimensions: 40X19X195mm

# PROBE OSCILLOSCOPE'S PROBE

## 示波器系列探头

20MHz  
40MHz  
60MHz  
100MHz

### CH1 ALT MAGNIFICATION



# SM5005/SM5006 SM5010/SM5011

## SPECTRUM ANALYZER

### 频谱分析仪

SM5005/SM5006/SM5010/SM5011频谱分析仪适用于电子产品开发研制的先期测试, CATV/MATV系统的故障检查, 蜂窝电话/传呼系统的测试和电磁兼容性的诊断等。和Mz530近场探头组合, 可对射频漏场进行检测。

SM5006/SM5011装有跟踪信号发生器; 频谱仪和跟踪信号发生器组合使用可以使它完成其它扫频系统做不到的事情, 如扫频仪、示波器等。

图为SM5005/SM5011外观, 和SM5006/SM5011外观有部分不同。

SM-5005/5006/5010/5011 spectrum analyzer is used for the early test in the development of electrical products, troubleshooting of CATV/MATV system as well as the test and trouble diagnosis of cellular phone/paging systems. Combined with the near field probes of Mz530 optinal, it can detect the missing field of radio frequency.

SM-5006/5011 is equipped with tracing signal generator, and in the combined use of spectrum analyzer and tracing signal generator, it can complete the work which cannot be done by other frequency sweep, such as sweep generator, oscilloscope, etc.

The picture shows the appearance of the SM5005/SM5011, which is partially different from the appearance of the SM5006/SM5011.



# MFG-8202/8203 8205

## AM FM FUNCTION GENERATOR

### 函数信号发生器

#### 特点

- 低失真, 高稳定度
- 具有线性及扫频功能
- 扫描时间和宽度可调
- 外部电压控制频率(VCF)
- 内外调制AM/FM, 带调制度控制
- 可输出TTL/CMOS兼容之信号
- 输出正弦波, 方波, 三角波和斜波等七种之多的波形
- 主输出信号具有直流补偿和40dB衰减功能
- 内置0.1Hz-30MHz频率计功能

#### FEATURES

- Low distortion, high stability
- Sweep time and width adjustable
- Output signal compatible with TTL/CMOS
- Internal and External modulation AM/FM with modulation control
- Seven types of waveforms such as Sine, Square, triangle and ramp
- Linear and logarithmic sweep function
- External Voltage Control Frequency(VCF)
- Frequency response at 0.1Hz~30MHz

| SPECIFICATIONS                                      | MODEL | SM5005                                                                                                                                                                 | SM5010       | SM5006                                | SM5011       |
|-----------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------|--------------|
| Input frequency response(输入频响)                      |       | 500MHz, 3dB                                                                                                                                                            | 1050MHz, 3dB | 500MHz, 3dB                           | 1050MHz, 3dB |
| Display accuracy of central frequency<br>(中心频率显示精度) |       | ±200KHz (frequency sweep width +200KHz) (扫频宽度+200KHz)                                                                                                                  |              |                                       |              |
| Accuracy of mark frequency(标记频率精度)                  |       | ±0.1% (frequency sweep width +100KHz) (扫频宽度+100KHz)                                                                                                                    |              |                                       |              |
| Frequency display resolution(显示分辨率)                 |       | 100KHz (41/2 bit LED display) (41/2 位 LED 显示)                                                                                                                          |              |                                       |              |
| Frequency sweep width(扫频宽度)                         |       | 0.1MHz/div-100KHz/div with 1, 2 and 5 step system And 0Hz/div (0 frequency sweep) Accuracy ±10% (each range) (0.1MHz/div到100KHz/div按1,2,5进制)(和0Hz/div(0扫频) 精度:±10%(各档) |              |                                       |              |
| Intermediate frequency bandwidth(中频带宽)              |       | 20KHz and 400KHz (20KHz和400KHz)                                                                                                                                        |              |                                       |              |
| Video filter(视频滤波器)                                 |       | (When on) 4KHz (按通时)4KHz                                                                                                                                               |              |                                       |              |
| Amplitude range(幅度范围)                               |       | -107~+13dB                                                                                                                                                             |              |                                       |              |
| Reference level(参考电平)                               |       | -27dB~+13dB (10dB for every step) ±2dB (-27dB到+13dB (每级10dB)±2dB)                                                                                                      |              |                                       |              |
| Average noise level(平均噪声水平)                         |       | -97dB(20KHz intermediate frequency width) (中频带宽20KHz)                                                                                                                  |              |                                       |              |
| Display range of CRT screen(CRT显示范围)                |       | 80 dB(10dB/div)                                                                                                                                                        |              |                                       |              |
| Error of vertical display(垂直显示误差)                   |       | ±2dB (2 With attenuator) 250MHz signal (±2dB(2.加衰减器)/250MHz信号)                                                                                                         |              |                                       |              |
| Input attenuator(输入衰减器)                             |       | 0~40dB (4x10dB step) error: +/-1dB/10dB (0到40dB(4X10dB步进)误差:±1dB/10dB)                                                                                                 |              |                                       |              |
| Maximum input level(最大输入电平)                         |       | +10dBm,+25V DC(Input attenuator set at 0dB) (+10dBm,+25V DC(输入衰减器0dB), +20dBm (input attenuator set at 40dB) (+20dBm(输入衰减器置于40dB)                                      |              |                                       |              |
| Frequency stability(频率稳定性)                          |       | Over 150KHz/hour (优于150KHz/小时)                                                                                                                                         |              |                                       |              |
| Input socket type(输入插座类型)                           |       | BNC                                                                                                                                                                    |              |                                       |              |
| Input impedance(输入阻抗)                               |       | 50Ω                                                                                                                                                                    |              |                                       |              |
| Power supply(电源)                                    |       | 220V/110V; ±10%; 50Hz/60Hz                                                                                                                                             |              |                                       |              |
| Tracing signal generator(SM5006 only)(追踪信号发生器)      |       |                                                                                                                                                                        |              |                                       |              |
| Input frequency response(输入频响)                      |       |                                                                                                                                                                        |              | 0.15~500MHz, 3dB                      |              |
| Output level range(输出电平范围)                          |       |                                                                                                                                                                        |              | -50~+1dBm (4x10dB) ±3dB               |              |
| Output attenuator(输出衰减器)                            |       |                                                                                                                                                                        |              | 0~40dB (4x10dB step) error: ±1dB/10dB |              |
| Input socket type(输入插座类型)                           |       | +6V (for probe) (+6V(供探头使用)                                                                                                                                            |              | BNC                                   |              |
| Input impedance(输入阻抗)                               |       | Impedance of load ≥16W (负载阻抗≥16W)                                                                                                                                      |              | 50Ω                                   |              |
| Others(其它)                                          |       |                                                                                                                                                                        |              |                                       |              |
| DC output(直流输出)                                     |       |                                                                                                                                                                        |              |                                       |              |
| AM demodulation output(AM解调输出)                      |       |                                                                                                                                                                        |              |                                       |              |

| SPECIFICATIONS            | MODEL | MFG-8202                                                            | MFG-8203                         | MFG-8205                         |
|---------------------------|-------|---------------------------------------------------------------------|----------------------------------|----------------------------------|
| Frequency range(频率范围)     |       | 0.1Hz-2MHz                                                          | 0.1Hz-3MHz                       | 0.1Hz-5MHz                       |
| Output Amplitude(输出幅度)    |       | 10Vp-p(50Ωload)                                                     |                                  |                                  |
| Output impedance(输出阻抗)    |       | 50Ω ±10%                                                            |                                  |                                  |
| Attenuation(衰减)           |       | -20dB ±1dB                                                          |                                  |                                  |
| DC Offset(直流偏置)           |       | <-5V to >+5V(50Ωload)                                               |                                  |                                  |
| Duty rate(占空比控制)          |       | 80%: 20%: 80%                                                       |                                  |                                  |
| Display(显示器)              |       | 6 digit LED display (6位 LED显示)                                      |                                  |                                  |
| Amplitude control(输出幅度控制) |       | 0dB/20dB and fine tune (0dB/20dB 和微调)                               |                                  |                                  |
| Sine waveform(正弦波)        |       |                                                                     |                                  |                                  |
| Distortion(失真度)           |       | ≤1%, 0.5Hz~100kHz                                                   |                                  |                                  |
| Flatness(平坦度)             |       | ≤0.3dB(<200kHz)<br>≤0.53dB(≥200kHz)                                 | ≤0.3dB(<300kHz)<br>≤1dB(≥300kHz) | ≤0.3dB(<500kHz)<br>≤1dB(≥500kHz) |
| Square(方波)                |       |                                                                     |                                  |                                  |
| Rise/fall time(上升/下降时间)   |       | ≤30ns                                                               |                                  |                                  |
| VCF output(VCF输出)         |       |                                                                     |                                  |                                  |
| Input voltage(输入电压)       |       | 0V~10V ±1V(100:1)                                                   |                                  |                                  |
| Sweep operation(扫频操作)     |       |                                                                     |                                  |                                  |
| Sweep width(扫频宽度)         |       | Max. 100:1 adjustable (最大100:1连续可调)                                 |                                  |                                  |
| Sweep mode(扫频模式)          |       | Linear/Logarithmic selectable (线性/对数开关切换)                           |                                  |                                  |
| Frequency meter(频率计)      |       |                                                                     |                                  |                                  |
| Measuring Range(测量范围)     |       | 0.1Hz~30MHz                                                         |                                  |                                  |
| Internal/external(内部/外部)  |       | Selectable (开关可供选择)                                                 |                                  |                                  |
| Resolution(分辨率)           |       | Max. 10nHz at 1Hz (最大1Hz 为 10nHz)<br>0.1Hz at 50MHz (50MHz 为 0.1Hz) |                                  |                                  |
| Sensitivity(灵敏度)          |       | ≤35mVrms (5Hz~30MHz)                                                |                                  |                                  |
| Input impedance(输入阻抗)     |       | 1MΩ/150pF                                                           |                                  |                                  |
| Power supply(电源)          |       | 220V/110V±10%; 50Hz/60Hz                                            |                                  |                                  |
| Dimension(尺寸)             |       | 250 (W) x 100 (H) x 260 (D) mm                                      |                                  |                                  |
| Weight(重量)                |       | 4kg                                                                 |                                  |                                  |

# MFG-2125

## FUNCTION GENERATOR

### 函数信号发生器

#### 特点

- 低失真, 高稳定度
- 具有线性及对数扫频功能
- 扫描时间和宽度可调
- 内外调制AM/FM, 带调制控制
- 可输出TTL/CMOS兼容之信号
- 输出正弦波、方波、三角波和斜波等波形
- 内置0.1Hz~160MHz高精度频率计
- 带RS232接口, 带USB接口

#### FEATURES

- Low distortion, high stability
- Linear and logarithmic sweep function
- Sweep time and width adjustable
- Output signal compatible with TTL/CMOS
- Frequency response at 0.1Hz~160MHz
- Internal and External modulation AM/FM with modulation control
- Seven types of waveforms such as Sine, Square, triangle and ramp
- RS232, USB



RS232 INTERFACE  
FSK/ASK/AM/FM

1Hz~30MHz FREQUENCY COUNTER  
2MHz/5MHz/10MHz/13MHz/15MHz



# MFG-3002/3005

## 3010/3013/3015

## FUNCTION GENERATOR

### 函数信号发生器

#### 特点

- 产生频率2MHz/5MHz/10MHz/13MHz/15MHz
- 输出波形: 正弦波, 三角波, 方波, 斜波, 正向或负向脉冲, 锯齿波等
- 具有VCF输入控制功能
- TTL/CMOS 可以 OUTPUT 作同步输出
- 失真10Hz-100kHz, 小于1%
- 频率响应0.1Hz-100kHz, 不大于±0.5dB
- 计频1Hz-30MHz

#### FEATURES

- Frequency of the models: 0.1Hz~2MHz/5MHz/10MHz/13MHz/15MHz
- Output waveform: Sine, Triangle, Square, Ramp, Pulse
- TTL/CMOS and OUTPUT synchronous output
- 1Hz~30MHz frequency counter
- Voltage Control Frequency (VCF) capability
- Less than 1% distortion at 10Hz~100kHz
- frequency response at 0.1Hz~100kHz

| SPECIFICATIONS                                | MODEL                                                                            | DDS-2125                                                               |
|-----------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Waveform types (波形)                           | Sine, square, triangle, pulse, noise and arbitrary waves (including DC)          | Sine, square, ramp, pulse and arbitrary waveforms (excluding DC)       |
| Sine (正弦)                                     | 1uHz~25MHz                                                                       | Internal/external                                                      |
| Square (方波)                                   | 1uHz~5MHz                                                                        | Sine, square, triangle and ramp                                        |
| Triangle (三角波)                                | 1uHz~500kHz                                                                      | Modulation frequency (调制频率)                                            |
| Noise (噪声)                                    | 7MHz Bandwidth                                                                   | 2MHz~20kHz                                                             |
| Pulse (脉冲)                                    | 100uHz~5MHz                                                                      | 0~Maximum carrier frequency                                            |
| Arbitrary wave (任意波)                          | 1uHz~5MHz                                                                        | FSK Modulation (CH1) (FSK调制)                                           |
| Frequency Resolution (频率分辨率)                  | 1uHz                                                                             | Carrier wave (载波)                                                      |
| Frequency Accuracy (频率准确度)                    | ±50ppm                                                                           | Sine, square, ramp, pulse and arbitrary waveforms (excluding DC)       |
| Sine Wave Characteristics (正弦波特性)             |                                                                                  | Source (源)                                                             |
| Harmonic distortion (CH1) > 1Vpp 谐波失真         | 0~1MHz: < 45dBc; 1MHz~10MHz: < 40dBc; 10MHz~20MHz: < 30dBc; 20MHz~40MHz: < 25dBc | Internal/external                                                      |
| Harmonic distortion (CH2) > 1Vpp 谐波失真         | 0~1MHz: < 45dBc; 1MHz~40MHz: < 40dBc; < 0.2% (20Hz~20kHz, 1Vpp)                  | Modulation wave (调制波形)                                                 |
| Sine Wave Signal Characteristics (正弦波特性)      |                                                                                  | Square wave of 50% duty ratio                                          |
| Rise/fall (上升/下降)                             | < 20ns                                                                           | 2MHz~1MHz                                                              |
| Overshoot (过冲)                                | < 5%                                                                             | ASK Modulation (CH1) (ASK调制)                                           |
| Duty cycle (占空比)                              | ≤ 100kHz: 1%~99%; ≤ 5MHz: 20%~80%; ≤ 10MHz: 40%~60% (0.1% resolution)            | Carrier wave (载波)                                                      |
| Dis-symmetry (50% duty cycle) 不对称             | 1% Period ± 5ns                                                                  | Sine, square, ramp, pulse or arbitrary waveforms (excluding DC)        |
| Jitter (抖动)                                   | 6ns ± 0.1% Period                                                                | Source (源)                                                             |
| Ramp Wave Characteristics (斜坡特性)              |                                                                                  | Internal/external                                                      |
| Linearity (线性度)                               | ≤ 0.1% Peak output                                                               | Modulation wave (调制波形)                                                 |
| Symmetry (对称)                                 | 0~100.0% (resolution 0.1%)                                                       | Square wave of 50% duty ratio                                          |
| Pulse Wave Characteristics (脉冲特性)             |                                                                                  | Up-ramp wave of 100% symmetry ratio; Up-ramp wave of 0% symmetry ratio |
| Pulse width (脉冲宽度)                            | Min 20ns; 1ns resolution                                                         | 0~360°                                                                 |
| Edge transition Time (边沿过渡时间)                 | Min 20ns                                                                         | PM Modulation (CH1) (PM调制)                                             |
| Overshoot (过冲)                                | < 5%                                                                             | Carrier wave (载波)                                                      |
| Jitter (抖动)                                   | 6ns ± 0.1% Period                                                                | Sine, square, ramp, pulse or arbitrary waveforms (excluding DC)        |
| Arbitrary Wave Characteristics (任意波特性)        |                                                                                  | Source (源)                                                             |
| Sampling speed (采样速度)                         | 160MS/s                                                                          | Internal/external                                                      |
| Waveform amplitude resolution CH1 分辨率         | 12bits                                                                           | Modulation wave (调制波形)                                                 |
| Waveform amplitude resolution CH2 分辨率         | 10bits                                                                           | Square wave of 50% duty ratio                                          |
| Waveform length CH1 波形长度                      | 16k                                                                              | Up-ramp wave of 100% symmetry ratio; Up-ramp wave of 0% symmetry ratio |
| Waveform length CH2                           | 4k                                                                               | 0~360°                                                                 |
| Minimum rise/fall time 上升/下降时间                | < 20ns                                                                           | Frequency Sweep (CH1) (频率扫描)                                           |
| Jitter (抖动)                                   | 6ns ± 30ppm                                                                      | Carrier wave (载波)                                                      |
| Output Characteristics (输出特性)                 |                                                                                  | Sine, square, ramp, pulse and arbitrary waveforms (excluding DC)       |
| Amplitude (50Ω) 幅度                            | 10 waveforms                                                                     | Source (源)                                                             |
| CH1 Range 范围                                  | 1mVpp~10Vpp ≤ 20MHz; 1mVpp~5Vpp > 20MHz                                          | Internal/external                                                      |
| CH2 Range 范围                                  | 1mVpp~5Vpp ≤ 20MHz                                                               | Modulation wave (调制波形)                                                 |
| Accuracy (准确度)                                | ± 1% set value ± 1mVpp (1kHz Sine, 0 offset, > 10mVpp)                           | Square wave of 50% duty ratio                                          |
| Resolution (分辨率)                              | 1mV or 3 bit                                                                     | Up-ramp wave of 100% symmetry ratio; Up-ramp wave of 0% symmetry ratio |
| CH1 Flatness (relative to 1K Sine, 1 Vpp) 平坦度 | ± 0.1dB ≤ 100kHz; ± 0.3dB ≤ 5MHz; ± 0.4dB ≤ 45MHz; ± 1dB ≤ 70MHz                 | 0~360°                                                                 |
| CH2 Flatness (relative to 1K Sine, 1 Vpp) 平坦度 | ± 0.1dB ≤ 100kHz; ± 0.2dB ≤ 5MHz; ± 0.2dB ≤ 40MHz; ± 0.5dB ≤ 70MHz               | Frequency Meter (频率计)                                                  |
| Offset (50Ω) 偏移                               |                                                                                  | Frequency range (频率范围)                                                 |
| CH1 Range 范围                                  | ± 5Vpk, ac + dc                                                                  | 1Hz~100MHz                                                             |
| CH2 Range 范围                                  | ± 1Vpk, ac + dc                                                                  | Frequency resolution (分辨率)                                             |
| Accuracy (准确度)                                | ± 1% set value ± 5mV ± 0.5% amplitude                                            | 6 bits                                                                 |
| Output Impedance (输出阻抗)                       | 50Ω                                                                              | Voltage range and sensitivity (电压范围和灵敏度)                               |
| Protection (保护)                               | Short circuit protection, automatically disables the waveform output             | 100mVpp~5Vpp                                                           |
| Output Impedance (输出阻抗)                       | 50Ω                                                                              | Input adjustment (输入调整)                                                |
| When overloading (过载时)                        | TTL compatibility                                                                | input impedance: 1MΩ, coupled modes: AC                                |
| Impedance (阻抗)                                | 50Ω                                                                              | Trigger input (触发输入)                                                   |
| Rise/fall time (上升/下降)                        | < 25ns                                                                           | TTL compatibility                                                      |
| Maximum frequency (频率)                        | 25MHz                                                                            | Rise/Fall                                                              |
| AM Modulation (CH1) (AM调制)                    |                                                                                  | Slope (斜率)                                                             |
| Carrier wave (载波)                             | Sine, square, ramp, pulse and arbitrary waveforms (excluding DC)                 | Pulse width (脉冲宽度)                                                     |
| Source (源)                                    | Internal/external                                                                | > 100ns                                                                |
| Modulation wave (调制波形)                        | Sine, square, triangle and ramp                                                  | Reaction time (反应时间)                                                   |
| Modulation frequency (调制频率)                   | 2MHz~20kHz                                                                       | < 500ns (burst), < 10us (sweep frequency)                              |
| Modulation depth (调制深度)                       | 0%~120%                                                                          | Modulation input (调制输入)                                                |
|                                               |                                                                                  | Impedance (阻抗)                                                         |
|                                               |                                                                                  | 1MΩ                                                                    |
|                                               |                                                                                  | Signal range (信号范围)                                                    |
|                                               |                                                                                  | ± 5V ac/dc                                                             |
|                                               |                                                                                  | Power supply (电源)                                                      |
|                                               |                                                                                  | Supply voltage (电源电压)                                                  |
|                                               |                                                                                  | 200~240V, 45~65Hz                                                      |
|                                               |                                                                                  | Power consumption (功率消耗)                                               |
|                                               |                                                                                  | < 40W                                                                  |
|                                               |                                                                                  | Display (显示)                                                           |
|                                               |                                                                                  | 3.5-inch TFT LCD screen                                                |
|                                               |                                                                                  | Resolution (分辨率)                                                       |
|                                               |                                                                                  | 480 × 320                                                              |
|                                               |                                                                                  | Color (颜色)                                                             |
|                                               |                                                                                  | 16M color                                                              |
|                                               |                                                                                  | Environment (环境)                                                       |
|                                               |                                                                                  | Temperature range (温度范围)                                               |
|                                               |                                                                                  | Operation: -10°C~+40°C, Non-operation: -10°C~+60°C                     |
|                                               |                                                                                  | Cooling method (冷却方式)                                                  |
|                                               |                                                                                  | Natural cooling                                                        |
|                                               |                                                                                  | Humidity range (湿度范围)                                                  |
|                                               |                                                                                  | Below +35°C: ≤ 90% relative humidity                                   |
|                                               |                                                                                  | +35°C ~ +40°C: ≤ 60% relative humidity                                 |
|                                               |                                                                                  | Interface (接口)                                                         |
|                                               |                                                                                  | RS232, USB Host/USB Device                                             |

| SPECIFICATIONS               | MODEL | MFG-3002                                                                                                                                                                                                                  | MFG-3005   | MFG-3010    | MFG-3013    | MFG-3015    |
|------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|-------------|-------------|
| Frequency range (频率范围)       |       | 0.1Hz~2MHz                                                                                                                                                                                                                | 0.1Hz~5MHz | 0.1Hz~10MHz | 0.1Hz~13MHz | 0.1Hz~15MHz |
| Output waveforms (输出波形)      |       | Sine, Triangle, Square, Positive and Negative Pulse, Positive and Negative Ramp<br>正弦波、三角波、方波、斜波、正向或负向脉冲、锯齿波                                                                                                              |            |             |             |             |
| Output Impedance (输出阻抗)      |       | 50Ω ± 10%                                                                                                                                                                                                                 |            |             |             |             |
| Output Amplitude (输出幅度)      |       | Not less than 20Vp-p (open circuit); "10Vp-p (50Ω load)"                                                                                                                                                                  |            |             |             |             |
| DC Voltage (直流电压)            |       | 0~± 10V continuously adjustable (0~± 10V连续可调)                                                                                                                                                                             |            |             |             |             |
| Symmetry Range (对称度范围)       |       | 90:10 -- 10:90                                                                                                                                                                                                            |            |             |             |             |
| Rising Edge of Square        |       | < 100ns                                                                                                                                                                                                                   |            |             |             |             |
| Sine Characteristic (正弦波特性)  |       | < 50ns                                                                                                                                                                                                                    |            |             |             |             |
| Distortion (失真)              |       | Less than (小于) 1% at 10Hz~100KHz                                                                                                                                                                                          |            |             |             |             |
| Frequency Response (频响)      |       | 0.1Hz~100KHz: less than (小于) ± 0.5dB<br>100KHz~2MHz: less than (小于) ± 1dB                                                                                                                                                 |            |             |             |             |
| TTL/CMOS Output (输出)         |       |                                                                                                                                                                                                                           |            |             |             |             |
| Level (电平)                   |       | TTL low level less than 0.4V in pulse wave, high level less than 3.5V.<br>CMOS low less than 0.5V in pulse wave, high level 5V~14V continuously variable.<br>TTL脉冲低电平小于0.4V, 高电平小于3.5V, CMOS脉冲低电平小于0.5V, 高电平小于5V~14V连续可调。 |            |             |             |             |
| Rising Time (上升时间)           |       | Less than 100ns (小于 100ns)                                                                                                                                                                                                |            |             |             |             |
| VCF Input (输入)               |       |                                                                                                                                                                                                                           |            |             |             |             |
| Input Voltage (输入电压)         |       | -5V~0V ± 10%                                                                                                                                                                                                              |            |             |             |             |
| Max. volt-controlled (最大压控比) |       | 1000:1                                                                                                                                                                                                                    |            |             |             |             |
| Input Signal (输入信号)          |       | DC~1KHz                                                                                                                                                                                                                   |            |             |             |             |
| Frequency counter (频率计)      |       |                                                                                                                                                                                                                           |            |             |             |             |
| Measuring Range (测量范围)       |       | 1Hz~30MHz                                                                                                                                                                                                                 |            |             |             |             |
| Input Impedance (输入阻抗)       |       | Not less than (不小于) 1MW/ 20pF                                                                                                                                                                                             |            |             |             |             |
| Sensitivity (灵敏度)            |       | 100mVrms                                                                                                                                                                                                                  |            |             |             |             |
| Max. Input (最大输入)            |       | 150V(AC+DC)                                                                                                                                                                                                               |            |             |             |             |
| Input Attenuation (输入衰减)     |       | 20dB                                                                                                                                                                                                                      |            |             |             |             |
| Accuracy (精度)                |       | Less than (小于) 0.003% ± 1 digit                                                                                                                                                                                           |            |             |             |             |
| Line Power (电源)              |       | 220V/110V ± 10%, 50Hz/60Hz                                                                                                                                                                                                |            |             |             |             |
| Dimension (尺寸)               |       | 310(W) x 100(H) x 260(D) mm                                                                                                                                                                                               |            |             |             |             |
| Weight (重量)                  |       | 4kg                                                                                                                                                                                                                       |            |             |             |             |

## MAG-203D

### SIGNAL GENERATOR

#### 低频信号发生器

##### 特点

- 先进线路设计均为进口器件安装, 确保精度偏差极小
- 产生信号频率: 10Hz~1MHz,  $\pm 3\%$
- 产生波形: 正弦波和方波  $\leq 0.5$
- 输出信号强度  $\geq 10\text{Vp-p}$
- 60dB精确衰减, 分6段设置



##### FEATURES

- Advanced circuit design with imported components ensure minimum accuracy deviation.
- Signal frequency: 10Hz~1MHz,  $\pm 3\%$
- Intensity of output signal:  $\geq 10\text{Vp-p}$
- Wave form: sine and square  $\leq 0.5$
- 60dB accurate attenuate in 6 steps

| SPECIFICATIONS                        | MODEL | MAG-203D                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oscillation frequency (振荡频率)          |       | x1 range: 10Hz to 100Hz (X1档: 10Hz到100Hz)<br>x10 range: 100Hz to 1KHz (X10档: 100Hz到1KHz)<br>x100 range: 1KHz to 10KHz (X100档: 1KHz到10KHz)<br>x1K range: 10KHz to 100KHz (X1K档: 10KHz到100KHz)<br>x10K range: 100KHz to 1MHz (X10K档: 100KHz到1MHz)                                                                                             |
| Frequency accuracy (频率精度)             |       | $\pm 3\% + 1\text{Hz}$                                                                                                                                                                                                                                                                                                                      |
| Output impedance (输出阻抗)               |       | 600 $\Omega$                                                                                                                                                                                                                                                                                                                                |
| Output attenuator (输出衰减器)             |       | 0dB, 10dB, 20dB, 30dB, 40dB, 60dB<br>(6 ranges for selection) (6档可选)<br>(with an accuracy of $\pm 1\text{dB}$ under a load of 600 $\Omega$ ) (600W负载时, 准确率 $\pm 1\text{dB}$ )                                                                                                                                                               |
| Characteristics of sine wave (正弦波特性)  |       |                                                                                                                                                                                                                                                                                                                                             |
| Output voltage (输出电压)                 |       | $\geq 5\text{Vrms}$                                                                                                                                                                                                                                                                                                                         |
| Frequency response (频率响应)             |       | 10Hz to 1MHz: $\pm 0.5\text{dB}$                                                                                                                                                                                                                                                                                                            |
| Distortion (失真)                       |       | 400Hz to 20KHz: $\leq 0.1\%$ (400Hz到20KHz: $\leq 0.1\%$ )<br>100Hz to 100KHz: $\leq 0.3\%$ (100Hz到100KHz: $\leq 0.3\%$ )<br>(100Hz: x10 range) (100Hz: X10档)<br>50Hz to 200KHz: $\leq 0.5\%$ (50Hz到200KHz: $\leq 0.5\%$ )<br>20Hz to 500KHz: $\leq 1\%$ (20Hz到500KHz: $\leq 1\%$ )<br>10Hz to 1KHz: $\leq 1.5\%$ (10Hz到1KHz: $\leq 1.5\%$ ) |
| Characteristics of square wave (方波特性) |       |                                                                                                                                                                                                                                                                                                                                             |
| Output voltage (输出电压)                 |       | $\geq 10\text{Vp-p}$                                                                                                                                                                                                                                                                                                                        |
| Rise/down time (上升/下降时间)              |       | 200ns (at maximum output) (在最大输出时200ns)                                                                                                                                                                                                                                                                                                     |
| Duty ratio (占空比)                      |       | 45:55 (1KHz, at maximum output) (45:55(1KHz, 在最大输出时))                                                                                                                                                                                                                                                                                       |
| Synchronizing range (同步范围)            |       | $\leq 1\% \text{ Vrms}$                                                                                                                                                                                                                                                                                                                     |
| Max input voltage (输入电压)              |       | 15V (DC+AC peak value) (15V(DC+AC峰值))                                                                                                                                                                                                                                                                                                       |
| Nominal operation (工作环境)              |       | 10°C to 35°C/within 85%RH                                                                                                                                                                                                                                                                                                                   |
| Power supply (电源)                     |       | 220V/110V $\pm 10\%$ ; 50Hz/60Hz                                                                                                                                                                                                                                                                                                            |
| Dimensions (尺寸)                       |       | 128(W) x 190(H) x 239(D) mm                                                                                                                                                                                                                                                                                                                 |
| Weight (重量)                           |       | 3kg                                                                                                                                                                                                                                                                                                                                         |

## 0.1Hz-2MHz

### DIGITAL SIGNAL GENERATOR



##### FEATURES

- Signal frequency: 0.1Hz~2MHz, continuously variable
- Output attenuator: 0dB, 20dB, 40dB, 60dB
- Output level: 20Vp-p in open circuit, not less than 10Vp-p with 50W load
- Rising and falling edge of square not more than 35ns
- Sine distortion less than 1%, amplitude-frequency characteristic:  $\pm 0.3\text{dB}$  within 100kHz,  $\pm 1\text{dB}$  above 1MHz
- Frequency Meter: 10Hz~30MHz
- Wave form: square, sine
- Power supply: AC 220V(110V optional)

## MAG-203AD

### SIGNAL GENERATOR

#### 数字信号发生器

##### 特点

- 产生频率范围: 0.1Hz~2MHz, 连续可调
- 输出波形: 方波、正弦波
- 输出衰减器: 0dB, 20dB, 40dB, 60dB
- 输出电平: 开路时20Vp-p, 50 $\Omega$ 负载时不小于10Vp-p值
- 方波前后沿不大于35ns
- 正弦波失真度小于1%, 幅频特性100kHz内小于 $\pm 0.3\text{dB}$ , 1MHz以上小于 $\pm 1\text{dB}$
- 频率计: 10Hz~30MHz
- 输入AC电压220V(110V可选)

## 0.1Hz-15MHz

### DIGITAL SIGNAL GENERATOR



##### FEATURES

- Signal frequency: 0.1Hz~15MHz, continuously variable
- Output attenuator: 0dB, 20dB, 40dB, 60dB
- Output level: 20Vp-p in open circuit, not less than 10Vp-p with 50W load
- Not more than 35ns rising edge of square within 2MHz
- Sine distortion less than 2%, amplitude-frequency characteristic:  $\pm 0.5\text{dB}$  within 2MHz,  $-3\text{dB}$  above 10MHz
- Wave form: square, sine
- Frequency Meter: 10Hz~30MHz
- Power supply: AC 220V(110V optional)

## MAG-2015AD

### SIGNAL GENERATOR

#### 数字信号发生器

##### 特点

- 产生频率范围: 0.1Hz~15MHz, 连续可调
- 输出波形: 方波、正弦波
- 输出衰减器: 0dB, 20dB, 40dB, 60dB
- 输出电平: 开路时20Vp-p, 50 $\Omega$ 负载时不小于10Vp-p值
- 方波前沿2MHz内不大于35ns
- 正弦波失真度小于2%, 幅频特性2MHz内小于 $-0.5\text{dB}$ , 10MHz以上小于 $-3\text{dB}$
- 频率计: 10Hz~30MHz
- 输入AC电压220V(110V可选)

## MAG-450 SIGNAL GENERATOR

高频信号发生器

特点

- 先进线路设计均为进口器件安装, 确保精度偏差极小
- 产生信号频率100kHz~150MHz,  $\pm 3\%$ 三次谐波可达450MHz
- 产生波形: 正弦波和调幅波
- 1kHz内调制信号达80%或100%的过调制, 用 过调制信号来观察波形异变现象的优良功能
- 输出为RF/AM, 最大信号强度 $\geq 10\text{Vp-p}$
- 外调制可在50Hz~20kHz任意设定

FEATURES

- Advanced circuit design with imported components ensure minimum accuracy deviation.
- Signal frequency: 100kHz~150MHz, 3 harmonic up to 450MHz
- Output wave form: sine and amplitude-modulation wave
- RF/AM output, max. intensity  $\geq 10\text{Vp-p}$
- External modulation signal can be set between 50Hz~20kHz

| SPECIFICATIONS               | MODEL | MAG-450                                                                                                    |
|------------------------------|-------|------------------------------------------------------------------------------------------------------------|
| Frequency ranges(频段)         |       | A: 100KHz~300KHz<br>B: 300KHz~1MHz<br>C: 1MHz~3.2MHz<br>D: 3MHz~10MHz<br>E: 10MHz~35MHz<br>F: 32MHz~150MHz |
| Frequency range(频率范围)        |       | 100KHz~150MHz (3rd harmonic wave up to 450MHz 三次谐波达到450MHz)                                                |
| Frequency accuracy(频率精度)     |       | $\pm 3\%$                                                                                                  |
| Output waveform(输出波形)        |       | RF/AM signal waveform (RF/AM信号波形)                                                                          |
| Output impedance(输出阻抗)       |       | 600 $\Omega$                                                                                               |
| Radio frequency output(射频输出) |       | Over 100 mVrms (when frequency $\leq 35\text{MHz}$ 在频率 $\leq 35\text{MHz}$ 时)                              |
| Level control(电平控制)          |       | 1mV~100mV                                                                                                  |
| Internal modulation(内调制)     |       | 1KHz $\pm 2\%$ >2Vrms output (1KHz $\pm 2\%$ >2Vrms输出)                                                     |
| External modulation(外调制)     |       | 50Hz~20KHz for any setting (50Hz~20KHz任意设定)                                                                |
| Normal operation(工作环境)       |       | 10°C to 35°C/within 85%RH                                                                                  |
| temperature/humidity         |       |                                                                                                            |
| Power supply(电源)             |       | 220V/110V $\pm 10\%$ ; 50Hz/60Hz                                                                           |
| Dimensions(尺寸)               |       | 128(W) x 190(H) x 239(D) mm                                                                                |
| Weight(重量)                   |       | 4kg                                                                                                        |

## 100kHz-150MHz RF SIGNAL GENERATOR



## 100kHz-150MHz DIGITAL RF SIGNAL GENERATOR



## SG-4162AD SIGNAL GENERATOR

数字高频信号发生器

特点

- 信号发生器频率范围100kHz-150MHz
- 8位数字显示内部或外部信号的频率
- 内置频率计, 可测外部信号频率10Hz-150MHz
- 带内外部调制
- 输出正弦波, 且幅度可调

FEATURES

- Signal generator frequency range 100kHz-150MHz
- 8-digit LED display internal and external frequency
- Built-in frequency meter, measuring external signal range 10Hz-150MHz
- Internal and external modulation
- sine waveform output, and amplitude adjustable

| SPECIFICATIONS              | MODEL | SG-4162AD                                                                                                                                             |
|-----------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency range(频段)         |       | A: 100KHz~300KHz<br>B: 300KHz~1MHz<br>C: 1MHz~3.2MHz<br>D: 3MHz~10MHz<br>E: 10MHz~35MHz<br>F: 32MHz~150MHz<br>3rd harmonic up to 450MHz(三次谐波达到450MHz) |
| Frequency accuracy(频率精度)    |       | $\pm \text{Resolution} \pm 1 \text{ digit}$ ( $\pm$ 读数精度 $\pm 1$ 位)                                                                                   |
| RF output Amplitude(射频输出幅度) |       | 100mVrms(at 35MHz)                                                                                                                                    |
| Amplitude Control(输出幅度控制)   |       | 0dB/20dB and fine tune.(0dB/20dB和微调)                                                                                                                  |
| Modulation(调制)              |       | INT. 1kHz(内部: 1KHz), EXT. 50Hz~20kHz(at $< 1\text{Vrms}$ ), (外部: 50Hz~20KHz, 在 $< 1\text{Vrms}$ )                                                     |
| Audio output(音频输出)          |       | 1kHz(fixed), Min. 1Vrms(1KHz固定, 最小1Vrms)                                                                                                              |
| Frequency meter(频率计)        |       |                                                                                                                                                       |
| Frequency range(频率范围)       |       | Low frequency 10Hz~10MHz(低频: 10Hz~10MHz)<br>High frequency 10MHz~150MHz(高频: 10MHz~150MHz)                                                             |
| Input sensitivity(输入电压)     |       | Less than 50mV(小于50mV)                                                                                                                                |
| Max. input voltage(最大输入电压)  |       | Approx. less than 3Vrms(约小于3Vrms)                                                                                                                     |
| Accuracy(精确度)               |       | Low frequency 1Hz/High frequency 10Hz(低频1Hz/高频10Hz)                                                                                                   |
| Input impedance(输入阻抗)       |       | Low frequency 1M $\Omega$ /High frequency 50 $\Omega$ (低频1M $\Omega$ /高频50 $\Omega$ )                                                                 |
| Operating Temperature(工作温度) |       | 0°C~40°C                                                                                                                                              |
| Weight(重量)                  |       | 3.2kg                                                                                                                                                 |

# SG-1501B

## SIGNAL GENERATOR

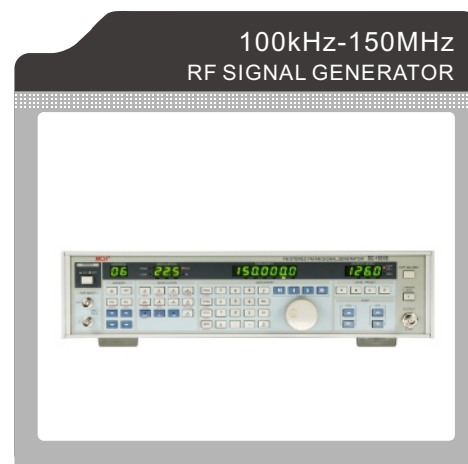
高频信号发生器

特点

- 可编程110MHz调频立体声
- 100种可编程步骤
- 锁相环合成发生器
- 输出电平-200dBμ至100dBμ(1dB级变)
- 7位数字LED频率显示

FEATURES

- Programmable up to 110MHz FM stereo
- 100 types of programmable steps
- Phase-locked loop digital synthesis generator
- Output Level -200dBμ to 100dBμ (in 1dB step)
- 7 digit LED frequency display



| FREQUENCY(频率)                  |  | SG-1501                                                                                                                  | SG-1501B |
|--------------------------------|--|--------------------------------------------------------------------------------------------------------------------------|----------|
| Range(范围)                      |  | 100kHz~150MHz, (76MHz~110MHz, FM Stereo)                                                                                 |          |
| Resolution(分辨率)                |  | 100Hz                                                                                                                    |          |
| Accuracy(精确度)                  |  | 5×10-6(5ppm)                                                                                                             |          |
| GPB                            |  |                                                                                                                          | With GPB |
| OUTPUT LEVEL(输出电平)             |  |                                                                                                                          |          |
| Range(范围)                      |  | -20dBμ~100dBμ at open circuit, (-133dBm~13dBm into 50Ω termination)                                                      |          |
| Resolution(分辨率)                |  | 0.1dB                                                                                                                    |          |
| Accuracy(精确度)                  |  | ±1dB at 100dBμ                                                                                                           |          |
| Attenuator Accuracy(衰减器精度)     |  | ±1.5dB(126~100dBμ), ±1dB(20~100dBμ), ±2dB(-20~20dBμ)                                                                     |          |
| Output Impedance(输出阻抗)         |  | 50Ω, VAWR less than 1.2                                                                                                  |          |
| Spurious & Harmonics(谐波)       |  | ≤-30dBc                                                                                                                  |          |
| Residual Modulation(S/N)(残留调制) |  | FM Component:70dB or more, AM Component:50dB or more                                                                     |          |
| MODULATION(调制)                 |  |                                                                                                                          |          |
| Internal Modulation(内调制)       |  | Frequency:400Hz, 1kHz                                                                                                    |          |
| External Modulation(外调制)       |  | Input Impedance:10kΩ unbalanced±10%, Input Voltage:3Vp-p±2%                                                              |          |
| FM Range(调频范围)                 |  | 0~100kHz (at 1MHz~150MHz), Carrier Frequency×10% (at<1MHz)                                                               |          |
| - Accuracy (精度)                |  | ±10% of maximum frequency deviation                                                                                      |          |
| - Pre-Emphasis(预加重)            |  | off, 25μsec, 50μsec, 75μsec                                                                                              |          |
| - Distortion(失真度)              |  | <0.06% (at 10.7MHz, 76~110MHz), <0.11% (at other range);<br>with Dev=75kHz, AF 1kHz, Demod. BW=50Hz~15kHz, DE-emp.=50μec |          |
| AM Range(调幅范围)                 |  | 0~60%                                                                                                                    |          |
| - Resolution(分辨率)              |  | 0.1%                                                                                                                     |          |
| - Accuracy (精度)                |  | ±5% at internal rate(100kHz~110MHz), ±10% at internal rate(110MHz~150MHz)                                                |          |
| - Distortion(失真度)              |  | <0.65% (at 400kHz~30MHz), <1.5% (at other range), with Depth =30%, AF 1kHz,<br>Demod. BW=50Hz~15kHz                      |          |
| STEREO(立体声)                    |  |                                                                                                                          |          |
| Separation(分离度)                |  | ≥50dB(at 400Hz~1kHz), ≥35dB(at 100Hz~10kHz), ≥30dB(at 50Hz~15kHz)                                                        |          |
| Pilot(导频)                      |  | 19kHz ±2Hz                                                                                                               |          |
| Distortion(失真度)                |  | <0.07% (at Main 90%, Pilot off)                                                                                          |          |
| MEMORY(储存)                     |  |                                                                                                                          |          |
| Preset Keys(预置键)               |  | FM: 3.5kHz, 22.5kHz, 75kHz, AM: 30%, Stereo: 30%, 100%, Output Level: 4points                                            |          |
| Memories(储存)                   |  | 100 points                                                                                                               |          |
| OTHERS(其他)                     |  |                                                                                                                          |          |
| Power Requirements(输入电源)       |  | 115/230VAC, 50/60Hz                                                                                                      |          |
| Dimensions(尺寸)                 |  | 115(H) × 430(W) × 310(D) mm                                                                                              |          |
| Weight(重量)                     |  | Approx. 7kg                                                                                                              |          |
| Standard Accessories(标准配件)     |  | Power Cable, BNC Cable, Operating Manual, Fuse                                                                           |          |
| Options(选件)                    |  | GPB, Remote Controller                                                                                                   |          |

# 5Hz-1MHz

## SINGLE/DUAL-NEEDLE MILLIVOLTMETER



# MVT-171

# MVT-172

## MILLIVOLTMETER

单/双针毫伏表

特点

- 先进线路设计均为进口器件安装, 确保精度偏差极小
- 单/双指针显示, 可独立操作或跟踪测试
- 测量频率5Hz~1MHz
- AC测量电压: 1mV~100V, 最大电压(DC+AC500V)
- dB测量: -80dB到+50dB
- 171带有电压调节测试/172可跟踪测量
- 微触360°数码开关自由旋转
- 10MΩ输入阻抗

FEATURES

- Advanced circuit design with imported components ensure minimum accuracy deviation.
- Single needle, operate solely
- AC Voltage: 1mV~300V, Max. (DC+AC 500V)
- Measuring with voltage adjustment
- 10MΩ input impedance
- Frequency: 5Hz~1MHz
- dB measurement: -80dB~50dB
- 360° rotation knob

| SPECIFICATIONS             | MODEL | MVT-171                                                                                                                             | MVT-172         |
|----------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Measuring Range(测量范围)      |       | Voltage: 1mV~100V in 12 steps (电压: 1mV至100V分12档)<br>dB: -80到+50dB, dBm: -80到+52dBm (0dBm=1mV, 600WΩ)                                |                 |
| Display Mode(显示模式)         |       | Single-Needle(单针)                                                                                                                   | Dual-Needle(双针) |
| Measuring Mode(测量方式)       |       | Measuring with voltage adjustment (带有电压调节测试)                                                                                        |                 |
| Error(误差)                  |       | Within 3% at 1KHz, full scale. (1KHz测量下: 满刻度3%内)                                                                                    |                 |
| Frequency Response(频率响应)   |       | 5Hz~1MHz: ±10%<br>10Hz~500KHz: ±5%<br>20Hz~200KHz: ±3%<br>30Hz~100KHz: ±2%<br>Readout at 1KHz as a reference (以1KHz读值作参考点)          |                 |
| Input Impedance(输入阻抗)      |       | 10MΩ±5%, 45pF                                                                                                                       |                 |
| Max. Input Voltage(最大输入电压) |       | 500V(DC+AC peak): 1V~300V(500V(DC+AC峰值): 1V到300V档)<br>100V(DC+AC peak): 1mV~300mV(100V(DC+AC峰值): 1mV到300mV档)                        |                 |
| Stability(稳定度)             |       | ±5% of full scale, at 10% variety of line voltage (电压作10%改变所造成的影响为满刻度的±5%)                                                          |                 |
| Survival Voltage(残余电压)     |       | Less than 200μV at 1mV range and short-circuit of input (在1mV档, 输入端短路时, 低于200mV)                                                    |                 |
| Cross-talk(串音)             |       | Independent: ≤80dB connecting 600Ω load (独立: 当一端接上600Ω负载时 ≤80dB)<br>consistent: ≤50dB connecting 600Ω load (一致: 当一端接上600Ω负载时 ≤50dB) |                 |
| Gain(增益)                   |       | 60dB                                                                                                                                |                 |
| Output Voltage(输出电压)       |       | 1Vrms ±20% at full scale (满刻度为1Vrms ±20%)                                                                                           |                 |
| Output Resistance(输出电阻)    |       | 600Ω ±20% at 1KHz (600Ω ±20%在1KHz时)                                                                                                 |                 |
| Distortion(失真)             |       | Less than 1% at full scale (满刻度低于1%)                                                                                                |                 |
| Signal to Noise Ratio(信噪比) |       | More than 30dB at 0.3mV range (0.3mV档时大于30dB)                                                                                       |                 |
| Frequency Response (频率响应)  |       | 5Hz~500KHz: within ±3% (5Hz到500KHz: ±3%内)                                                                                           |                 |
| Ambient(额定工作温度/湿度)         |       | 10°C~40°C/85%RH                                                                                                                     |                 |
| Power Supply(电源)           |       | 220V/110V ±10%; 50Hz/60Hz                                                                                                           |                 |
| Dimension(尺寸)              |       | 128(W) × 190(H) × 239(D) mm                                                                                                         |                 |
| Weight(重量)                 |       | 3kg                                                                                                                                 | 3.5kg           |

## HFJ-8AD RF MILLIVOLTMETER

数显超高频毫伏表

特点

- 采用双二极管检波, 低噪声深负反馈电路
- 测量电压范围1mV~10V
- 只用一只探头可测频率范围达100Hz~1000MHz
- 具有自动量程功能
- 3999位LCD数字显示



### FEATURES

- Double diode rectifier, low-noise deep negative feedback circuit
- Voltage measuring range 1mV~10V
- Frequency range 100Hz~1000Hz using only one probe
- Auto range function

- LCD display with 3999 readout

| SPECIFICATIONS                                                   | MODEL | HFJ-8AD                                                                                                                                                                                                                   |
|------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input voltage range(输入电压范围)                                      |       | 1mV~10V (resolution: 1mV)Max. display 3999 Extended to 300V using 40dB voltage divider(Optional)<br>(1mV~10V, 可指示至: 1mV, 最大显示3999位, 如使用40db分压器(选购件)扩展到300V)<br>Full scale in 4 ranges are (满度值4档): 40 mV, 400 mV, 4V, 10V |
| Frequency range(频率范围)                                            |       | 100Hz~1000MHz(10Hz~1000MHz when using low frequency probe)(如选用低频探头可至10Hz~1GHz)                                                                                                                                            |
| Voltage measuring range(电压测量范围)                                  |       | -20~+40dBm(0dBm-0.224V, 50Ωload)                                                                                                                                                                                          |
| Voltage error(电压测量误差)                                            |       | ≥40mV: ±1%±10digits<br>≥10mV: ±1.5%±20digits<br><10mV: ±2%±20digits                                                                                                                                                       |
| Frequency response error(固有频响误差)<br>(Base on 100kHz)(以100kHz为基准) |       | 100kHz~50MHz: ±3%<br>1kHz~600MHz ±8%<br>100Hz~1000MHz ±10%<br>10Hz~1000MHz ±15%(Low frequency probe)(选用低频探头)                                                                                                              |
| Operation error(工作误差)                                            |       | ≥40mV: ±2%±10digits<br>≥10mV: ±3%±20digits<br><10mV: ±5%±40digits                                                                                                                                                         |
| Input impedance(输入阻抗)                                            |       | ≤15KΩ (at range 40mV), Capacitance: <2.5pF (40mV档, 输入电容: <2.5PF)                                                                                                                                                          |
| Power supply(电源)                                                 |       | 220V/110V ±10%; 50Hz/60Hz                                                                                                                                                                                                 |
| Dimension(尺寸)                                                    |       | 210(W) x 140(H) x 245(D)mm                                                                                                                                                                                                |
| Weight(重量)                                                       |       | 4kg                                                                                                                                                                                                                       |

## 0-360V/1mA-30A PROGRAMMABLE DC ELECTRONIC LOAD



### FEATURES

- Number operation and control
- Short-circuit, Battery, Dynamic test
- Panel and exterior trigger function
- Protection function: over-voltage, over-current, over-power, over-heat

## EL3615A EL3630A ELECTRONIC LOAD

可编程直流电子负载

特点

- 全数字化操作与控制
- 可多机并用扩大负载能力
- 短路、电池、动态测试功能
- 远端电压测量
- 面板及外部触发功能
- 保护功能: 过电压, 过电流,
- 过功率, 过热, 极性反接

- Multi units used to multiple load ability
- Remote voltage measurement
- polarity connection in reverse

| SPECIFICATIONS                  | MODEL                                                                                                            | EL3615A | EL3630A |
|---------------------------------|------------------------------------------------------------------------------------------------------------------|---------|---------|
| Rated value(额定值)                | Input voltage(输入电压)                                                                                              | 0-360V  | 0-360V  |
|                                 | Input current(输入电流)                                                                                              | 1mA-15A | 1mA-30A |
|                                 | Input power(输入功率)                                                                                                | 150W    | 300W    |
| Range(量程)                       |                                                                                                                  |         |         |
| Load accuracy(基本精度)             | 0-36V                                                                                                            | 1mV     |         |
|                                 | 0-360V                                                                                                           | 10mV    |         |
|                                 | 0-3A                                                                                                             | 1mA     |         |
|                                 | 0-30A                                                                                                            | 10mA    |         |
| Constant-voltage mode(定电压模式)    | 1.5-36V                                                                                                          | 1mV     |         |
|                                 | 1.5-360V                                                                                                         | 10mV    |         |
| Constant-current mode(定电流模式)    | 0-3A                                                                                                             | 1mA     |         |
|                                 | 0-30A                                                                                                            | 10mA    |         |
| Constant-resistance mode(定电阻模式) | 0.1Ω-10Ω                                                                                                         | 0.001Ω  |         |
|                                 | 10-99Ω                                                                                                           | 0.01Ω   |         |
|                                 | 100-999Ω                                                                                                         | 0.1Ω    |         |
|                                 | 1KΩ-4KΩ                                                                                                          | 1Ω      |         |
| Constant-power mode(定功率显示)      | 0-10W                                                                                                            | 1mW     |         |
|                                 | 10-100W                                                                                                          | 10mW    |         |
|                                 | 100-300W                                                                                                         | 0.1W    |         |
| Current display (电流显示)          | 0-3A                                                                                                             | 1mA     |         |
|                                 | 0-30A                                                                                                            | 10mA    |         |
| Voltage display(电压显示)           | 1.5V-36V                                                                                                         | 1mV     |         |
|                                 | 1.5-360V                                                                                                         | 10mV    |         |
| Power display(功率显示)             | 0-10W                                                                                                            | 1mW     |         |
|                                 | 10-100W                                                                                                          | 10mW    |         |
|                                 | 100-300W                                                                                                         | 0.1W    |         |
| Battery test(电池测试)              | Input(输入)=0.8-120V Max measurement capacity(最大测量容量)=999A/H<br>Resolution(分辨率)=10 mA Timer range(时间范围)=1~60000sec |         |         |
| Dynamic test(动态测试)              | Range of Pulse Width(脉冲宽度范围) 10ms-10s                                                                            |         |         |

## MCH-2811C

## LCR METER

## 数字电桥

## 特点

- 低价位带标准功能
- 100Hz~10kHz, 3个典型测试频率
- 高稳定性



## FEATURES

- Low price with standard functions
- High stability

- 3 typical test frequencies in 100Hz to 10kHz

| SPECIFICATIONS              | MODEL | 2811C                                                                                                   |
|-----------------------------|-------|---------------------------------------------------------------------------------------------------------|
| Measurement Parameter(测量参数) |       | L-Q, C-D, R-Q                                                                                           |
| Test Frequency(测量频率)        |       | 100 Hz, 1 kHz, 10 kHz                                                                                   |
| Test Level(测试电平)            |       | 0.3 Vrms                                                                                                |
| Basic Accuracy(基本精度)        |       | 0.25%                                                                                                   |
| Display Range(显示范围)         |       | R 0.001 Ω ~ 99.99 MΩ<br>C 0.01 pF ~ 9999 μF<br>L 0.01 μH ~ 9999 H<br>D 0.0001 ~ 9.999<br>Q 0.001 ~ 9999 |
| Sampling Rate(采样率)          |       | Approx. 5 times/second                                                                                  |
| Equivalent Circuit(等效电路)    |       | Series, Parallel.                                                                                       |
| Mode(量程模式)                  |       | Auto, Hold.                                                                                             |
| Calibration(校准)             |       | Open circuit. Short circuit setting zero.                                                               |
| Measuring Terminals(测试端口)   |       | 5 Terminals                                                                                             |
| Display Mode(显示模式)          |       | Direct reading                                                                                          |
| Operation Ambient(工作环境)     |       | 0°C ~ 40°C, ≤90% RH                                                                                     |
| Power supply(输入电源)          |       | 198 V ~ 242 V AC, 47.5 Hz ~ 52.5 Hz                                                                     |
| Power consumption(功耗)       |       | ≤20 VA                                                                                                  |
| Size(W×H×D)(尺寸)             |       | 360 mm×125 mm×320 mm                                                                                    |
| Weight(重量)                  |       | Approx. 3.5 kg                                                                                          |

100Hz/120Hz/1kHz/2kHz/5kHz/10kHz  
DIGITAL LCR METER

## FEATURES

- Multiple functions with easy operation
- 6 typical test frequencies
- 2 selectable output impedances: 30Ω and 100Ω

## 8817/8817A

## 2817/2817D

## 2818

## LCR METER

## 数字电桥

## 特点:

- 简便操作与强大功能的结合
- 大型白色背光LCD显示屏
- 6个典型测试频率
- 0.1V, 0.3V, 1.0V三个典型测试电平
- 30Ω/100Ω两种可选源阻抗

- Big white back-light LCD display
- 3 typical test levels: 0.1V, 0.3V and 1.0V

| SPECIFICATIONS              | MODEL | 8817/8817A                                                                                                                  | MCH2817                                                                                                                                                                                                 | MCH2818                                                                                                                                                                                             | MCH2817D                                                                                                                                                                                 |
|-----------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement Parameter(测量参数) |       | L/Q, C/D, R/Q, Z/Q, Z/D                                                                                                     |                                                                                                                                                                                                         | Z, C, L, X, B, R, G, D, Q, θ                                                                                                                                                                        | L/Q, C/D, R/Q, Z/θ, C/R, L/R                                                                                                                                                             |
| Test Frequency(测量频率)        |       | 100Hz, 120Hz, 1kHz, 2kHz, 2kHz, 10kHz                                                                                       | 100Hz, 120Hz, 1kHz, 10kHz, 20kHz, 30kHz, 60kHz, 100kHz                                                                                                                                                  | 50Hz-200kHz (37 points)                                                                                                                                                                             | 100Hz, 120Hz, 1kHz, 10kHz, 30kHz, 60kHz, 100kHz                                                                                                                                          |
| Basic Accuracy(基本精度)        |       | 0.1%                                                                                                                        | 0.05%                                                                                                                                                                                                   | 0.10%                                                                                                                                                                                               | 0.10%                                                                                                                                                                                    |
| Test Level(测试电平)            |       | 0.1Vrms, 0.3Vrms, 1.0Vrms                                                                                                   |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Display Range(显示范围)         |       | L 0.001μH~99.999H<br>C 0.001pF~99999μF<br>Z, R 0.0001Ω~99.999MΩ<br>D 0.00001~9.99999<br>Q 0.00001~99999.9<br>Δ% 0.00%~9999% | L 0.00001μH~9.99999kH<br>C 0.00001pF~999.999mF<br>Z, R, X 0.00001Ω~99.9999MΩ<br>D 0.00001~9.99999<br>Q 0.00001~99999.9<br>θ(Deg) -179.999°~179.999°<br>θ(Rad) -3.14159~3.14159<br>Δ% -999.999%~999.999% | L 0.00001μH~9.99999kH<br>C 0.00001pF~999.999mF<br>Z, R, X 0.00001Ω~99.9999MΩ<br>D 0.00001~9.99999<br>Q 0.00001~99999.9<br>θ(Deg) -179.999°~179.999°<br>θ(Rad) -3.14159~3.14159<br>Δ% -99.99%~99.99% | L 0.001μH~99999kH<br>C 0.001pF~999.999μF<br>Z, R, X 0.0001Ω~99.9999MΩ<br>D 0.0001~9.9999<br>Q 0.001~99999.9<br>θ(Deg) -179.999°~179.999°<br>θ(Rad) -3.14159~3.14159<br>Δ% -99.99%~99.99% |
| Test Speed(测试速度)            |       | Fast: 20 times/s, Medium: 5.1 times/s, Slow: 1.5 times/s                                                                    |                                                                                                                                                                                                         | Fast: 30 times/s, Medium: 11.1 times/s, Slow: 1.5 times/s                                                                                                                                           | Fast: 16 times/s, Medium: 8 times/s, Slow: 2 times/s                                                                                                                                     |
| Equivalent Circuit(等效电路)    |       | Series, Parallel                                                                                                            |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Ranging(档位)                 |       | Auto, Hold                                                                                                                  |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Triggering(触发)              |       | Internal, Manual, External                                                                                                  |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Averaging(平均)               |       | 1~99 times                                                                                                                  |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Zeroing(清零)                 |       | Open/Short/Sweep                                                                                                            | Open/Short/Spot/Sweep                                                                                                                                                                                   |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Display Mode(显示模式)          |       | Measured Value(直读), Absolute Deviation(Δ), Relative Deviation(Δ%)                                                           |                                                                                                                                                                                                         | Measured Value(直读), Absolute Deviation(Δ), Relative Deviation(Δ%), V/I                                                                                                                              | Measured Value(直读), Absolute Deviation(Δ), Relative Deviation(Δ%)                                                                                                                        |
| Display(显示屏)                |       | 240 X 128 LCD                                                                                                               |                                                                                                                                                                                                         | 5 digits LED                                                                                                                                                                                        |                                                                                                                                                                                          |
| Output Impedance(输出阻抗)      |       | 30Ω, 100Ω                                                                                                                   |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Sorting Mode(分选模式)          |       | 4 sorting bins; Alarm volume control and Alarm status selection                                                             |                                                                                                                                                                                                         | 11 sorting bins: 9 pass, 1 fail and 1 auxiliary                                                                                                                                                     | 4 sorting bins; Alarm volume control and Alarm status selection                                                                                                                          |
| Interface(接口)               |       | RS-232, HANDLER                                                                                                             | HANDLER, RS-232C, GPIB(Optional)                                                                                                                                                                        |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Operating Ambient(工作环境)     |       | 10°C ~ 30 °C, ≤80%RH for precise measurement, 0°C ~ 40 °C, ≤90%RH for normal usage.                                         |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Power supply(线电源)           |       | 198V-242V, 47.5Hz-63Hz                                                                                                      |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Power Consumption(功耗)       |       | ≤30VA                                                                                                                       |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Size(尺寸)                    |       | 320mm X 140mm X 400mm                                                                                                       |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                                                          |
| Weight(重量)                  |       | Approx. 3.5kg                                                                                                               | Approx. 3.8kg                                                                                                                                                                                           | Approx. 4.5kg                                                                                                                                                                                       | Approx. 6kg                                                                                                                                                                              |

## MCH 直流稳压电源

MCH DC POWER SUPPLY

## 参数规格

额定工作条件及面板特征

电源电压 220V±10% 50/60Hz  
(根据要求可以在110±10% 50/60Hz)

工作条件 温度:-10°C~40°C

相对湿度 &lt;90%

储存条件 温度:-20°C~80°C

相对湿度 &lt;80%

## 稳压状态

输出电压从0到标称值之间连续可调

电压稳定度:

电源稳定度 ≤0.01%+2mV

负载稳定度 ≤0.01%+2mV

恢复时间 ≤100ms

纹波噪声 ≤1mVrms(有效值)

温度系数 ≤300PPM/°C

## 恒流状态

输出电流从0到标称值之间连续可调

电流、负载变化稳定度 ≤0.2%+3mA

纹波和噪声 ≤3mArms

MCH 系列电源为高精度恒压, 恒流型直流稳压电源,

特点为精度高、可靠性强。适用于科技产品开发、实验室、

电子生产线及移动电话使用。

## 技术参数

|                                          |                    |                                                                                     |
|------------------------------------------|--------------------|-------------------------------------------------------------------------------------|
| Constant Voltage(稳压状态)                   | Stability          | 0 to Nominal Value Continuously Variable<br>Voltage: <0.01%+2mV<br>Load: <0.01%+2mV |
|                                          | Recovery Time      | ≤100ms                                                                              |
|                                          | Ripple & Noise     | ≤1mVrms(efficient value)                                                            |
|                                          | Temperature Factor | ≤300PPM/°C                                                                          |
| Current, Load<br>Constant Current (恒流状态) |                    | 0 to Nominal Value Continuously Variable                                            |
|                                          | Stability          | ≤0.2%+3mA                                                                           |
|                                          | Ripple & Noise     | ≤3mArms                                                                             |
| Working Condition(工作条件)                  | Line Power Supply  | 220V±10% 50/60Hz<br>(Alterable if needed :110±10%50/60Hz)                           |
|                                          | Operating          | Temperature:-10°C~40°C Moisture<90%                                                 |
|                                          | Storage            | Temperature:-20°C~80°C Moisture<80%                                                 |

302D-II/303D-II  
305D-II/K3010D-II  
K6010D-II

## DC POWER SUPPLY

双通道直流电源

## 特点

- 高稳定度的双路直流电源
- 具有固定2A/5V输出功能
- 全功能输出保护功能
- CC/CV自动切换
- 电流/电压在标称值内连续可调

## FEATURES

- High stability DC Power Supply
- Extra fixed 2A/5V output
- Overall output protection
- CC/CV auto switching
- Voltage and current continuously variable within nominal value

30V/2A/3A/5A/10A  
DUAL CHANNEL DC POWER SUPPLY

| SPECIFICATIONS              | MODEL | 302D-II                                              | 303D-II     | 305D-II     | K3010D-II  | K6010D-II  |
|-----------------------------|-------|------------------------------------------------------|-------------|-------------|------------|------------|
| Dual Output Voltage(双路输出电压) |       | 0~30V                                                |             |             |            | 0~60V      |
| Dual Output Current(双路输出电流) |       | 0-2A                                                 | 0-3A        | 0-5A        | 0-10A      | 0-10A      |
| Display(显示)                 |       | 3/4 digit voltage and current display(3/4位数字显示电压、电流) |             |             |            |            |
| Fixed Output(固定输出)          |       | 5V/2A Fixed Output(5V/2A 固定输出)                       |             |             |            |            |
| Others(其它)                  |       | Independent, series and Parauel modes(可独立、串联或并联使用)   |             |             |            |            |
| Dimension(尺寸)               |       | 260(W) x 165(H) x 300(D) mm                          |             |             |            |            |
| Weight(重量)                  |       | Appro 7.8kg                                          | Appro 8.9kg | Appro 9.4kg | Appro 12kg | Appro 12kg |

30V/60V/2A/3A/5A  
LINEAR DC POWER SUPPLY302A/303A/305A  
302B/303B/305B  
605D

## DC POWER SUPPLY

线性直流稳压电源

## 特点

- 高稳定度的数显直流电源
- 具有固定5V/1A输出功能(只限“B”型号)
- 全功能输出保护功能
- 可满负载连续输出
- 电流/电压在标称值内连续可调
- 电压电流预置输出
- CC/CV自动切换

## FEATURES

- High stability
- Overall output protection
- Voltage and current continuously variable within nominal value
- Voltage and current output preset
- Extra Fixed 5V/1A output(only for "B" model)
- Allow full scale long time operation
- CC/CV auto switching

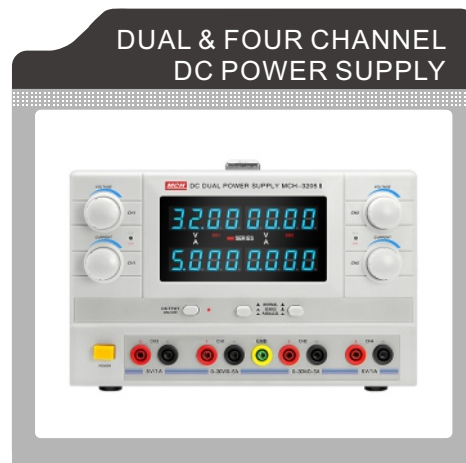
| SPECIFICATIONS         | MODEL | 302A                      | 303B        | 305A        | 605D        | 302B        | 303B        | 305B        |
|------------------------|-------|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Variable Output(可变输出)  |       |                           |             |             |             |             |             |             |
| Output Voltage(输出电压)   |       | 30V                       |             |             | 60V         | 30V         |             |             |
| Output Current(输出电流)   |       | 2A                        | 3A          | 5A          | 5A          | 2A          | 3A          | 5A          |
| Source Regulation(源效应) |       | 1 x 10 <sup>-4</sup> +3mV |             |             |             |             |             |             |
| Load Regulation(负载效应)  |       | 1 x 10 <sup>-4</sup> +3mV |             |             |             |             |             |             |
| Ripple & Noise(纹波)     |       | ≤1mV(rms)                 |             |             |             |             |             |             |
| Display Error(显示误差)    |       | ≤0.5% + 1 digit           |             |             |             |             |             |             |
| Fixed Output(固定输出)     |       |                           |             |             |             |             |             |             |
| Output Voltage(输出电压)   |       |                           |             |             |             | 5V          |             |             |
| Output Current(输出电流)   |       |                           |             |             |             | 1A          |             |             |
| Source Regulation(源效应) |       |                           |             |             |             | ≤5mV        |             |             |
| Load Regulation(负载效应)  |       |                           |             |             |             | ≤15mV       |             |             |
| Ripple & Noise(纹波)     |       |                           |             |             |             | ≤2mV rms    |             |             |
| Dimension(尺寸)          |       | 130 x 165 x 330 mm        |             |             |             |             |             |             |
| Weight(重量)             |       | Appro 4.8ka               | Appro 5.5ka | Appro 5.5ka | Appro 6.0ka | Appro 5.0ka | Appro 5.8ka | Appro 6.5ka |

## 3205-II/3205-IV DC LINEAR POWER SUPPLY

多通道线性直流电源

特点

- 4位数显线性直流电源
- 可串联/并联/独立使用
- 全功能输出保护功能
- 4通道自动负载输出
- 电压/电流预置输出
- 过压/过流短路保护



FEATURES

- 4 Digital Display Linear DC Power Supply
- Full-function output protection function
- Voltage/Current Preset Output

- Series/Parallel/Independent Use
- Four-channel automatic load output
- Over-voltage/Over-current Short Circuit Protection

| SPECIFICATIONS                                      | MODEL | 3205D-II                                                                                                                                                           | 3205D-IV                                                                         |
|-----------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Line Voltage(输入电压)                                  |       | 110V/220VAC, 60Hz/50Hz(state before order)                                                                                                                         |                                                                                  |
| Voltage Display(电压显示)                               |       | Four digital tubes: 00.00; Resolution: 00.01V(4位数数码管:00.00;分辨率:00.1V)                                                                                              |                                                                                  |
| Current Display(电流显示)                               |       | Four digital tubes: 00.00; Resolution: 00.01A(4位数数码管:00.00;分辨率:00.1A)                                                                                              |                                                                                  |
| Display Error(显示误差)                                 |       | ±0.3%+1                                                                                                                                                            |                                                                                  |
| CH1 Output(CH1输出)                                   |       | Adjustable DC voltage: 0~32V; adjustable DC current: 0~5A                                                                                                          |                                                                                  |
| CH2 Output(CH2输出)                                   |       | 可调直流电压0-32V; 可调直流电流0-5A                                                                                                                                            |                                                                                  |
| CH3 Output(CH3输出)                                   |       | DC fixed voltage: 5V; DC Fixed Current: 1A<br>固定直流电压:5V; 固定直流电流:1A                                                                                                 | Adjustable DC voltage: 0~6.5V; adjustable DC current: 3A(可调直流电压0-6.5V, 可调直流电流1A) |
| CH4 Output(CH4输出)                                   |       | DC fixed voltage: 5V; DC Fixed Current: 1A<br>固定直流电压:5V; 固定直流电流:1A                                                                                                 | Adjustable DC voltage: 0~15V; adjustable DC current: 1A(可调直流电压0-15V, 可调直流电流1A)   |
| Serial output(CH1 and CH2 only)<br>(CH1, CH2通道串联)   |       | Adjustable DC voltage: 0~60V; adjustable DC current: 5A. CH1 is connected in series with CH2 and the voltage is added.(可调直流电压0-60V; 可调直流电流5A, CH1与CH2串联, 电压相加)     |                                                                                  |
| Parallel output(CH1 and CH2 only)<br>(CH1, CH2通道并联) |       | Adjustable DC voltage: 0~32V; adjustable DC current: 10A. CH1 and CH2 are connected in parallel and the current is added.(可调直流电压0-30V; 可调直流电流10A, CH1与CH2并联, 电流相加) |                                                                                  |
| Output Power(输出功率)                                  |       | 2X150W; 2X5W                                                                                                                                                       | 2X150W; 1X20W; 1X15W                                                             |
| Ripple(纹波)                                          |       | ≤3mV rms                                                                                                                                                           |                                                                                  |
| Source effect(源效应)                                  |       | ≤0.5%                                                                                                                                                              |                                                                                  |
| Load effect(负载效应)                                   |       | ≤0.3%                                                                                                                                                              |                                                                                  |
| Temperature Coefficient(温度系数)                       |       | 300ppm/°C                                                                                                                                                          |                                                                                  |
| Fuse specifications(保险丝规格)                          |       | Φ5X20mm 7A/250 V                                                                                                                                                   |                                                                                  |
| working environment(工作环境)                           |       | 0~40°C; <80%RH                                                                                                                                                     |                                                                                  |
| Dimension(尺寸)                                       |       | 275x 160 x 240 mm                                                                                                                                                  |                                                                                  |
| Weight(重量)                                          |       | Appro 10kg                                                                                                                                                         |                                                                                  |

## DUAL CHANNEL DC POWER SUPPLY



## MCH-3205SK DC LINEAR PROGRAM MABLE POWER SUPPLY

双通道线性直流程控电源

特点

- 3位数显线性直流电源
- 可串联/并联/独立使用
- 全功能输出保护功能
- 2通道自动负载输出
- 电压/电流预置输出
- 过压/过流短路保护
- RS232接口

FEATURES

- 3 Digital Display Linear DC Power Supply
- Full-function output protection function
- Voltage/Current Preset Output
- Over-voltage/Over-current Short Circuit Protection

- Series/Parallel/Independent Use
- Four-channel automatic load output
- RS232

| SPECIFICATIONS                                      | MODEL | 3205SK                                                                                                                                                             |
|-----------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line Voltage(输入电压)                                  |       | 110V/220VAC, 60Hz/50Hz(state before order)                                                                                                                         |
| Voltage Display(电压显示)                               |       | Three digital tubes: 000; Resolution: 0.01V-0.1V(3位数数码管:000;分辨率:0.01V)                                                                                             |
| Current Display(电流显示)                               |       | Three digital tubes: 000; Resolution: 0.01A-0.1A(3位数数码管:000;分辨率:0.01A)                                                                                             |
| Display Error(显示误差)                                 |       | ±0.3%+1                                                                                                                                                            |
| CH1 Output(CH1输出)                                   |       | Adjustable DC voltage: 0~32V; (可调直流电压0-32V)                                                                                                                        |
| CH2 Output(CH2输出)                                   |       | Adjustable DC current: 0~5A(可调直流电流0-5A)                                                                                                                            |
| CH3 Output(CH3输出)                                   |       | DC fixed voltage: 2.5V/3V/5V; DC Fixed Current: 2A(固定直流电压2.5/3.5/5V; 固定直流电流2A)                                                                                     |
| Serial output(CH1 and CH2 only)<br>(CH1, CH2通道串联)   |       | Adjustable DC voltage: 0~64V; adjustable DC current: 5A. CH1 is connected in series with CH2 and the voltage is added.(可调直流电压0-64V; 可调直流电流5A, CH1与CH2串联, 电压相加)     |
| Parallel output(CH1 and CH2 only)<br>(CH1, CH2通道并联) |       | Adjustable DC voltage: 0~32V; adjustable DC current: 10A. CH1 is connected in Parallel with CH2 and the voltage is added.(可调直流电压0-32V; 可调直流电流10A, CH1与CH2并联, 电压相加) |
| Output Power(输出功率)                                  |       | 2X150W; 2X5W; 1X6.6W; 1X160W                                                                                                                                       |
| Ripple(纹波)                                          |       | ≤3mV rms                                                                                                                                                           |
| Source effect(源效应)                                  |       | ≤0.5%                                                                                                                                                              |
| Load effect(负载效应)                                   |       | ≤0.3%                                                                                                                                                              |
| Temperature Coefficient(温度系数)                       |       | 300ppm/°C                                                                                                                                                          |
| Fuse specifications(保险丝规格)                          |       | Φ5X20mm 7A/250 V                                                                                                                                                   |
| working environment(工作环境)                           |       | 0~40°C; <80%RH                                                                                                                                                     |
| storage temperature(存储温度)                           |       | 0~0°C; <80%RH                                                                                                                                                      |
| Dimension(尺寸)                                       |       | 275x 160 x 240 mm                                                                                                                                                  |
| Weight(重量)                                          |       | Appro 7kg                                                                                                                                                          |

# K3020D/K3030D K3050D/K6050D K1004D/K1005D K1204D/K1205D K1504D/K1505D

## DC SWITCHING POWER SUPPLY

大功率可调直流电源

特点

- 大功率的开关直流电源
- 4A/5A/20A/30A/50A输出
- 全功能输出保护功能
- 允许定制“0-100A”“0-300V”，起订量≥100 pcs
- CC/CV自动切换
- 前段输出精细可调
- 大风扇加热敏控制

FEATURES

- High Power Switched DC Power Supply
- Full-function output protection function
- Heating Sensitive Control of Large Fan
- Allured customized pnduct from "0-100A""0-300A", MOQ:≥100pcs
- 20A/30A Point Output
- Fine adjustable front output
- CC/CV Automatic Switchover



| SPECIFICATIONS                | MODEL | K3020D                                                                                                                   | K3030D | K3050D | K6050D | K1004D | K1005D | K1204D | K1205D | K1504D | K1505D |
|-------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Line Voltage(输入电压)            |       | 110V/220VAC, 60Hz/50Hz(state before order)                                                                               |        |        |        |        |        |        |        |        |        |
| Variable Output(可调节输出)        |       |                                                                                                                          |        |        |        |        |        |        |        |        |        |
| Output Voltage(输出电压)          |       | 0-30V                                                                                                                    |        | 0-60V  |        | 0-120V |        | 0-120V |        | 0-150V |        |
| Output Current(输出电流)          |       | 0-20A                                                                                                                    | 0-30A  | 0-50A  | 0-50A  | 0-4A   | 0-5A   | 0-4A   | 0-5A   | 0-4A   | 0-5A   |
| Display(显示位数)                 |       | 2 sets, 3 digit LED for voltage and current(4 digit LED for voltage above 100V)<br>(2组显示, 3位LED用于电压和电流(4位LED用于电压高于100V)) |        |        |        |        |        |        |        |        |        |
| Display Error(显示差异)           |       | ≤ 0.5%+1 digit                                                                                                           |        |        |        |        |        |        |        |        |        |
| Efficiency(效能)                |       | >98%                                                                                                                     |        |        |        |        |        |        |        |        |        |
| Voltage Regulation(电压调节)      |       |                                                                                                                          |        |        |        |        |        |        |        |        |        |
| Load Regulation 10-100%(负载调节) |       | 50mV                                                                                                                     |        |        |        |        |        |        |        |        |        |
| Ripple & Noise(P-P)(波纹及噪音)    |       | 30mV-50mV                                                                                                                |        |        |        |        |        |        |        |        |        |
| Current Regulation(电流调节)      |       |                                                                                                                          |        |        |        |        |        |        |        |        |        |
| Load Regulation(负载调节)         |       | 20mA                                                                                                                     |        |        |        |        |        |        |        |        |        |
| Ripple & Noise(P-P)(波纹及噪音)    |       | 20mA                                                                                                                     |        |        |        |        |        |        |        |        |        |
| Others(其他)                    |       |                                                                                                                          |        |        |        |        |        |        |        |        |        |
| working environment(工作环境)     |       | 0-40°C; <90%RH                                                                                                           |        |        |        |        |        |        |        |        |        |
| storage temperature(存储温度)     |       | 20-80°C; <80%RH                                                                                                          |        |        |        |        |        |        |        |        |        |

30V/60V/10A  
HIGH POWER SWITCHING POWER SUPPLY



# 3010D/3020D DC LINEAR POWER SUPPLY

大功率线性电源

特点

- 高稳定度的数显直流电源
- 全功能输出保护功能
- 电流/电压在标称值内联续可调
- 电压电流预置输出
- CC/CV自动切换

FEATURES

- High stability, digital display, DC power supply
- Current and voltage continuously adjustable within nominal value
- Voltage and current output preset
- Overall output protection function
- CC/CV auto switching

| SPECIFICATIONS             | MODEL | 3010D                                      | 3020D |
|----------------------------|-------|--------------------------------------------|-------|
| Line Voltage(输入电压)         |       | 110V/220VAC, 60Hz/50Hz(state before order) |       |
| Output Voltage(输出电压)       |       | 0-30V                                      |       |
| Output Current(输出电流)       |       | 0-10A                                      | 0-20A |
| Source effect(源效应)         |       | 1 x 10 <sup>-4</sup> +3mV                  |       |
| Load effect(负载效应)          |       | 1 x 10 <sup>-4</sup> +3mV                  |       |
| Display Error(显示误差)        |       | ≤ 0.5%+1 digit                             |       |
| Ripple & Noise(P-P)(波纹及噪音) |       | ≤ 1mV                                      |       |
| Dimension(尺寸)              |       | 332 x 200 x 130 mm                         |       |
| Weight(重量)                 |       | Appro 8kg                                  |       |

## 3203D/3205D

### DC SWITCHING POWER SUPPLY

可编程直流电源

#### 特点

- 精度高, 稳定性高
- ON/OFF输出开关, 固定5V输出。
- 全功能输出保护功能
- 满负载连续输出
- 电压/电流在标称值内连续可调
- CC/CV自动切换
- 带5组存储设定

#### FEATURES

- High accuracy, high stability
- Overall output protection
- Voltage and current continuously variable within nominal value
- CC/CV auto switching
- ON/OFF output switch, fixed 5V output.
- Allow full scale long time operation
- 5 sets of storage settings



| SPECIFICATIONS                     | MODEL | 3203D                                                                                                                       | 3205D |
|------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------|-------|
| Output Voltage(输出电压)               |       | 0-32V                                                                                                                       | 0-32V |
| Output Current(输出电流)               |       | 0-3A                                                                                                                        | 0-5A  |
| Source effect(源效应)                 |       | CV≤0.01%+3mV(mA)                                                                                                            |       |
| Load regulation(负载调节)              |       | CV≤0.01%+3mV(1≤3A); CC≤0.2%+3mA(1≤3A); CV≤0.02%+3mV(1≤3A); CC≤0.2%+3mA(1≤3A)                                                |       |
| Ripple & Noise(波纹及噪声)              |       | CV≤1.0mVrms(1≤3A); CC≤3mArms(1≤3A); CV≤2.0mVrms(1≤3A); CC≤6mArms(1≤3A)                                                      |       |
| Protection type(保护类型)              |       | Overcurrent protection (OCP), Overvoltage protection (OVP); 过流保护(OCP); 过压保护(OVP)                                            |       |
| Show the accuracy(显示精度)            |       | Precision voltage directive, ±(0.5%+2 digits) Accuracy of current instructions, ±(1%+2 digits) 电压精度±(0.5%+2位); 电流精度±(1%+2位) |       |
| Output voltage rise time(输出电压上升时间) |       | <60ms                                                                                                                       |       |
| Output voltage fall time(输出电压下降时间) |       | <100ms                                                                                                                      |       |
| Working Voltage(工作电压)              |       | AC 110V/220V/230V±10%, 50Hz/60Hz                                                                                            |       |
| Operating environment(操作环境)        |       | 0-40°C; ≤80%RH                                                                                                              |       |
| Dimensions(外形尺寸)                   |       | 310 X 150 X 205 mm                                                                                                          |       |
| Gross Weight(总重量)                  |       | Appro 6kg                                                                                                                   |       |

## 30V/3A

### AC POWER SUPPLY



#### FEATURES

- High stability
- Allow full scale long time operation
- Voltage and current continuously variable within nominal value.
- CC/CV auto switching
- Overall output protection
- Voltage and current output preset

## MCH-303AD

### AC LINEAR POWER SUPPLY

交流线性电源

#### 特点

- 高稳定度的数显交流线性电源
- 全功能输出保护功能
- 可满负载连续输出
- 电流/电压在标称值内连续可调
- 电压电流预置输出
- CC/CV自动切换

| SPECIFICATIONS                        | MODEL | 303AD              |
|---------------------------------------|-------|--------------------|
| Output Voltage(输出电压)                  |       | 30V                |
| Output Current(输出电流)                  |       | 3A                 |
| Stability of Power Supply(电源稳定度)      |       | ≤0.01%+2mV         |
| Load Stability(负载稳定度)                 |       | ≤0.01%+2mV         |
| Continuous Current Regulation(连续电流调节) |       | 3A                 |
| Load Change Stability(负载变化稳定度)        |       | ≤0.01%+2mV         |
| Ripple & Noise(纹波及噪声)                 |       | ≤2mV(有效值)          |
| Dimension(尺寸)                         |       | 120 x 160 x 270 mm |
| Weight(重量)                            |       | Appro 6kg          |

# 302DA/302DB 303DA/303DB 305DA/305DB HIGH-PRECISION SUPPLY

高精度直流线性电源

特点

- 高精度, 高稳定度
- 具有输出ON/OFF的外电路保护功能
- 带固定5V/1A输出功能 (只限"DB"型号)
- 全功能输出保护功能
- 可满负载连续输出
- 电流/电压在标称值内连续可调
- CC/CV自动切换

FEATURES

- High accuracy, high stability.
- Extra fixed 5V/1A output (only for "DB" model).
- Allow full scale long time operation.
- Voltage and current continuously variable within nominal value.

- ON/OFF output switch.
- Overall output protection.
- CC/CV auto switching.

| SPECIFICATIONS                   | MODEL | 302DA                                                                                                                                                                                                                             | 302BD          | 303DA          | 303DB          | 305DA                         | 305DB          |
|----------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|-------------------------------|----------------|
| Output Voltage(输出电压)             |       | 30V                                                                                                                                                                                                                               | 30V/5V         | 30V            | 30V/5A         | 30V                           | 30V/5A         |
| Output Current(输出电流)             |       | 2A                                                                                                                                                                                                                                | 2A/1A          | 3A             | 3A/1A          | 5A                            | 5A/1A          |
| C.V. Characteristic(恒压特性)        |       |                                                                                                                                                                                                                                   |                |                |                |                               |                |
| Source Regulation(源效应)           |       | $5 \times 10^{-5}+2\text{mV}$                                                                                                                                                                                                     |                |                |                | $1 \times 10^{-4}+2\text{mV}$ |                |
| Load Regulation(负载效应)            |       | $5 \times 10^{-5}+2\text{mV}$                                                                                                                                                                                                     |                |                |                | $1 \times 10^{-4}+2\text{mV}$ |                |
| Ripple & Noise(纹波)               |       | 0.5mV(rms)                                                                                                                                                                                                                        |                |                |                | 0.5mV(rms)                    |                |
| Temperature Coefficient(温度系数)    |       | 150PPM/°C                                                                                                                                                                                                                         |                |                |                |                               |                |
| C.C Characteristic(恒流特性)         |       |                                                                                                                                                                                                                                   |                |                |                |                               |                |
| Source Regulation(源效应)           |       | $2 \times 10^{-4}+2\text{mA}$                                                                                                                                                                                                     |                |                |                |                               |                |
| Load Regulation(负载效应)            |       | 5mA                                                                                                                                                                                                                               |                |                |                |                               |                |
| Temperature Coefficient(温度系数)    |       | 500PPM/°C                                                                                                                                                                                                                         |                |                |                |                               |                |
| Display(显示)                      |       |                                                                                                                                                                                                                                   |                |                |                |                               |                |
| Digital Display(数字显示)            |       | 4 digit displays $\leq \pm 0.1\%+1\text{d}$ (only for "DB" models)(4位数显示 $\leq \pm 0.1\%+1\text{d}$ )(仅适用于“DB”型号)<br>3 digit displays $\pm 0.4\%+1\text{d}$ (only for "DA" models)(3位数显示 $\leq \pm 0.4\%+1\text{d}$ )(仅适用于“DA”型号) |                |                |                |                               |                |
| Resolution(分辨率)                  |       |                                                                                                                                                                                                                                   |                |                |                |                               |                |
| 4 Digits Voltage Display(电压4位显示) |       | 10mV                                                                                                                                                                                                                              |                |                |                |                               |                |
| 3 Digits Voltage Display(电压3位显示) |       | 100mV                                                                                                                                                                                                                             |                |                |                |                               |                |
| 3 Digits Current Display(电流3位显示) |       | 10mA                                                                                                                                                                                                                              |                |                |                |                               |                |
| Recovery Time(恢复时间)              |       | $\leq 100\text{ms}$                                                                                                                                                                                                               |                |                |                |                               |                |
| Others(其他)                       |       |                                                                                                                                                                                                                                   |                |                |                |                               |                |
| Dimension(尺寸)                    |       | 120x155x275 mm                                                                                                                                                                                                                    | 120x155x255 mm | 120x155x275 mm | 120x155x255 mm | 120x155x275 mm                | 120x155x255 mm |
| Weight(重量)                       |       | Appro 3.6kg                                                                                                                                                                                                                       |                | Appro 5.4kg    |                | Appro 7.0kg                   |                |

30V/60V/100V/120V/150V  
HIGH-PRECISION DC POWER SUPPLY



1.5V/3V/6V/9V/12V  
AC & DC LINEAR POWER SUPPLY



## MCH-127D

AC & DC LINEAR POWER  
SUPPLY-BY STEP

交直流稳压电源

特点

- 稳定性高
- 全功能输出保护功能
- 可满负载连续输出
- 电压/电流在标称值内连续可调
- 电压电流预置输出

## MCH-127D-II

POWER SUPPLY BY  
CONTINUED  
ADJUSTABLE

交直流稳压电源

FEATURES

- High stability
- Overall output protection
- Allow full scale long time operation
- Voltage and current continuously variable within nominal value
- Voltage and current output preset

1.5V/3V/6V/9V/12V  
AC & DC LINEAR POWER SUPPLY



| SPECIFICATIONS             | MODEL | 127D                                                                                                                                                     | 127D-II                     |
|----------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Input Voltage(输入电压)        |       | 220V $\pm 10\%$ , 50/60Hz                                                                                                                                |                             |
| Variable output(可变输出)      |       | 1.5V-3V-6V-9V-12V                                                                                                                                        | 3V/6V/9V/12V/15V/18V        |
| AC Voltage(交流电压)           |       | 1.5V-3V-6V-9V-12V                                                                                                                                        | 3V/6V/9V/12V/15V/18V        |
| AC Current(交流电流)           |       | Depending on the load (Note: the maximum output current of the power supply is 7A) (取决于负载, 电源的最大输出电流为7A)                                                 | 3A                          |
| Source Regulation(源效应)     |       | $\leq 12\%$                                                                                                                                              |                             |
| Load Regulation(负载效应)      |       | $\leq 13.5\%$                                                                                                                                            |                             |
| DC Voltage(直流电压)           |       | 1.5V-3V-6V-9V-12V, by step                                                                                                                               | 0-30V, continued adjustable |
| DC Current(直流电流)           |       | Depending on the load (Note: the maximum output current of the power supply is 7A, it is 4A when setting at 1.5V) (取决于负载, 注意: 电源的最大输出电流为7A, 设置为1.5V时为4A) | 3A                          |
| Source Regulation(源效应)     |       | $\leq 1\%$                                                                                                                                               |                             |
| Load Regulation(负载效应)      |       | $\leq 2.5\%$                                                                                                                                             |                             |
| Ripple & Noise(P-P)(波纹及噪音) |       | $\leq 100\text{mV}$                                                                                                                                      |                             |
| Dimension(尺寸)              |       | 120 x 150 x 270 mm                                                                                                                                       |                             |
| Weight(重量)                 |       | Appro 4kg                                                                                                                                                |                             |

# MCH-S203D

## 2 IN 1

### DC POWER SUPPLY

带万用表手机维修电源

特点

- 高精度的维修检测电源
- 全功能输出保护功能
- 二三极管通断测试
- RF射频信号接收指示
- 安培/毫安输出切换
- 短路截止/蜂鸣报警
- 功能选择切换按钮
- 带万用表功能



#### FEATURES

- High Precision Maintenance and Detection Power Supply
- On-off test of bipolar transistor
- Ampere/milliamper output switching
- Function Selection Switch Button
- 2 in 1 function with digit multimeter
- Full-function output protection function
- RF Radio Frequency Signal Receiving Instruction
- Short-circuit cut-off/buzzing alarm

| SPECIFICATIONS                           | MODEL | S203D                                                                                                                                                                                                                                                                                                  |
|------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line Voltage(输入电压)                       |       | 110V/220VAC, 60Hz/50Hz(state before order)                                                                                                                                                                                                                                                             |
| Voltage Display(电压显示)                    |       | Four-digit tube: 00.00; resolution: 00.01V(四位数码管:00.00;分辨率:00.01V)                                                                                                                                                                                                                                     |
| Current Display(电流显示)                    |       | Three Digit Tubes: 0.00; Resolution: 0.01A; Switchable to Display: 000; Resolution: 001mA (三位数码管:0.00;分辨率:0.01A;可切换到显示:000;分辨率:001mA)                                                                                                                                                                  |
| Voltage Display Error(电压显示误差)            |       | ≤±0.5%                                                                                                                                                                                                                                                                                                 |
| Current Display Error(电流显示误差)            |       | In units A < 0.4%; in units mA < 0.3%. (以A为单位≤±0.4%;以mA为单位≤±0.3%)                                                                                                                                                                                                                                      |
| USB Port Output(USB端口输出)                 |       | DC Fixed Voltage: 5V; Maximum Output DC Current: 2A(直流固定电压:5V;最大输出直流电流:2A)                                                                                                                                                                                                                             |
| Output Power(电源端口输出)                     |       | DC voltage adjustable: 0-20V; maximum output DC current: 3A; maximum output power: 60W (直流电压可调:0-20V;最大输出直流电流:3A;最大输出功率:60W)                                                                                                                                                                           |
| Load effect(负载效应)                        |       | ≤3mV rms                                                                                                                                                                                                                                                                                               |
| Ripple(纹波)                               |       | ≤0.2%                                                                                                                                                                                                                                                                                                  |
| Load effect(负载效应)                        |       | ≤0.2%                                                                                                                                                                                                                                                                                                  |
| Temperature(温度系数)                        |       | 300ppm/°C                                                                                                                                                                                                                                                                                              |
| DC Voltage Range(直流电压测量)                 |       | Max imum DC voltage can only be measured: 30V.(只能测量直流最高电压:30V)                                                                                                                                                                                                                                         |
| On-Off Detection(通断检测)                   |       | Measuring output voltage: 2.2V or so; measuring line shows constant voltage when open circuit; buzzing sound when short circuit.(测量输出电压:2.2V左右;测量线路开路时显示电压不变;短路时蜂鸣发声)                                                                                                                                  |
| Diode and Triode measurement (二极管与三极管测量) |       | Measuring output voltage: about 2.2V; When measuring PN section of diode and transistor, red and black meter pen connection or PN section open circuit, display voltage remains unchanged; when display 0.500~0.800 are normal.(测量输出电压:2.2V左右;当测量二极管与三极管的PN节时,红、黑表笔接反或PN节开路,显示电压不变;当显示0.500~0.800均为正常) |
| RF Radio Frequency Detection(RF射频检测)     |       | When the mobile phone dials and calls, it is close to the receiving point of the radio frequency signal, and the radio frequency signal indicator flashes. (手机在拨打和来电时,靠近射频信号接收点,射频信号指示灯闪烁发光)                                                                                                           |
| Tube Value(保险丝规格)                        |       | Φ5X20mm 0.5A/250V                                                                                                                                                                                                                                                                                      |
| Working Temperature(工作环境)                |       | 0~40°C; <80% RH                                                                                                                                                                                                                                                                                        |
| Storage Condition(存储环境)                  |       | -10~70°C; <80%RH                                                                                                                                                                                                                                                                                       |
| Dimension(尺寸)                            |       | 223 x 160 x 70 mm                                                                                                                                                                                                                                                                                      |
| Weight(重量)                               |       | Appro 3kg                                                                                                                                                                                                                                                                                              |
| Accessory(配件)                            |       | One power cord; One set of watch pens; User's manual.(电源线1根;表笔1套;用户手册)                                                                                                                                                                                                                                 |

# 20V/2A

## TATTOOING TRADE POWER SUPPLY



# MCH-K202D

## TATTOOING TRADE POWER SUPPLY

纹身电源

特点

- 稳定性高
- 全功能输出保护功能
- 可满负载连续输出
- 电压/电流在标称值内连续可调

# MCH-K202W

## TATTOOING TRADE POWER SUPPLY

迷你纹身电源

FEATURES

- High stability.
- Overall output protection.
- Allow full scale long time operation.
- Voltage and current continuously variable within nominal value.

# 18V/1.8A

## SUPERME MINI TATTOO POWER SUPPLY



| SPECIFICATIONS                               | MODEL | K202D                                      | K202W           |
|----------------------------------------------|-------|--------------------------------------------|-----------------|
| Line Voltage(输入电压)                           |       | 110V/220VAC, 60Hz/50Hz(state before order) |                 |
| Output Voltage(输出电压)                         |       | 0-20V                                      | 0-18A           |
| Output Current(输出电流)                         |       | 0-2A                                       | 0-1.8A          |
| Display Error(显示误差)                          |       | ≤ ±0.5%                                    | ≤ ±0.5%+1       |
| Voltage load regulation(10-100%) (电压负载调节)    |       | 50mV                                       |                 |
| Current load adjustment(10-100%) (电流负载调节)    |       | 20mA                                       |                 |
| Line voltage a djustment(200-240VAC) (线电压调整) |       | 20mA                                       |                 |
| Ripple & Noise(P-P)(波纹及噪音)                   |       | 20mA                                       |                 |
| Dimension(尺寸)                                |       | 70 x 160 x 220 mm                          | 38 x 75 x 90 mm |
| Weight(重量)                                   |       | Appro 2kg                                  | Appro 200g      |

## K305DN/K3010DN K605DN

### DC FINE-TUNE CONTROL POWER SUPPLY

可微调稳压直流电源

特点

- 高精度的可调直流电源
- 全功能输出保护功能
- 可满负载连续输出
- 电流/电压在标称值内连续可调
- 电压电流预置输出
- 4位数字显示
- 具有微调控制功能



#### FEATURES

- High Precision Adjustable DC Power Supply
- Full load continuous output
- Electric Current / voltage can be continuously adjusted within nominal values
- Voltage and Current Preset Output
- WITH fine-tune control
- Full-function output protection function
- 4 digit display

| SPECIFICATIONS                   | MODEL | K305DN                                      | K3010DN | K605DN |
|----------------------------------|-------|---------------------------------------------|---------|--------|
| Line Voltage(输入电压)               |       | 110V/220VAC, 60Hz/50Hz (state before order) |         |        |
| Output Voltage Range(输出电压)       |       | 30V                                         | 30V     | 60V    |
| Output Current Range(输出电流)       |       | 5A                                          | 10A     | 5A     |
| Voltage Display Accuracy(电压显示精度) |       | 0.01V                                       | 0.01V   | 0.01V  |
| Current Display Accuracy(电流显示精度) |       | 0.010A                                      | 0.01A   | 0.010A |
| Effectiveness(有效差)               |       | ±0.5%                                       |         |        |
| Source effect(源效应)               |       | ≤0.5%                                       |         |        |
| Load effect(负载效应)                |       | ≤0.3%                                       |         |        |
| Ripple and noise(纹波及噪声)          |       | ≤50mV rms                                   |         |        |
| Temperature Coefficient(温度系数)    |       | 300ppm/°C                                   |         |        |
| Operating environment(操作温度)      |       | -10°C to +60°C/ 30%RH to 90% RH             |         |        |
| Dimension(尺寸)                    |       | 70(W) x 160(H) x 220(D) mm                  |         |        |
| Weight(重量)                       |       | Appro 2kg                                   |         |        |

## 2A/3A/5A/10A DIGITAL DC POWER SUPPLY



#### FEATURES

- High Precision Adjustable DC Power Supply
- Full load continuous output
- Electric Current / voltage can be adjusted within nominal values
- Voltage and Current Preset Output
- Full-function output protection function
- Temperature controlled fan

| SPECIFICATIONS                    | MODEL | K302D                                        | K303D | K305D | K3010D | K3205D |
|-----------------------------------|-------|----------------------------------------------|-------|-------|--------|--------|
| Line Voltage(输入电压)                |       | 105-130VAC, 50Hz-60Hz, 200-240VAC, 50Hz-60Hz |       |       |        |        |
| Input Current (full load)(输入电流)   | 100V  | 0.8A                                         | 1.2A  | 1.5A  | 3.0A   | 3.0A   |
|                                   | 220V  | 0.4A                                         | 0.6A  | 0.9A  | 1.5A   | 1.5A   |
| Output Voltage Range(输出电压)        |       | 30V                                          | 30V   | 30V   | 30V    | 32V    |
| Output Current Range(输出电流)        |       | 2A                                           | 3A    | 5A    | 10A    | 5A     |
| Voltage Display Accuracy(电压显示精度)  |       | ±0.5%                                        |       |       |        |        |
| Current Display Accuracy(电流显示精度)  |       | ±0.5%                                        |       |       |        |        |
| Efficiency                        |       | >98%                                         |       |       |        |        |
| Voltage Regulation(电压调节)          |       |                                              |       |       |        |        |
| Load Regulation(10-100%)(负载调节)    |       | 50mV                                         |       |       |        |        |
| Line Regulation(200-240VAC)(线性调节) |       | 20mV                                         |       |       |        |        |
| Ripple & Noise(P-P)(波纹与噪音)        |       | 30mV                                         | 50mV  | 50mV  | 50mV   | 50mV   |
| Current Regulation(电流调节)          |       |                                              |       |       |        |        |
| Load Regulation(10-100%)(负载调节)    |       | 20mA                                         |       |       |        |        |
| Line Regulation(200-240VAC)(线性调节) |       | 20mA                                         |       |       |        |        |
| Ripple & Noise(P-P)(波纹与噪音)        |       | 20mA                                         |       |       |        |        |
| Others(其他)                        |       |                                              |       |       |        |        |
| Operating Condition(操作环境)         |       | -10°C to +60°C/ 30%RH to 90% RH              |       |       |        |        |
| Dimension(尺寸)                     |       | 70(W) x 160(H) x 220(D) mm                   |       |       |        |        |
| Weight(重量)                        |       | Appro 2kg                                    |       |       |        |        |

## DOM801B

### DC IOW-OHM METER

直流低欧姆表

特点

- 自动量程
- 4端测量
- 百分比误差三级分选
- 单测/循测
- 双显示

FEATURES

- Auto range
- Single/Repeating measuring
- Four-terminal measuring
- Percentage error three steps selectable
- Dual display



| MODEL                      | 20mΩ                                         | 200mΩ            | 2Ω                                                       | 20Ω | 200Ω  | 2kΩ   | 20kΩ | 200kΩ |
|----------------------------|----------------------------------------------|------------------|----------------------------------------------------------|-----|-------|-------|------|-------|
| DOM801                     |                                              | +(0.2%+2 digit)  | LCD Display sampling rate 8times/s (LCD显示, 测试速度: 8次/秒)   |     |       |       |      |       |
| DOM801A                    | +(0.1%+2 digit)                              | +(0.05%+2 digit) | LCD Display sampling rate 8times/s (LCD显示, 测试速度: 8次/秒)   |     |       |       |      |       |
| DOM801B                    |                                              | +(0.5%+2 digit)  | LED Display sampling rate 17times/s (LED显示, 测试速度: 17次/秒) |     |       |       |      |       |
| DOM801C                    |                                              | +(0.2%+2 digit)  | LED Display (LED显示)                                      |     |       |       |      |       |
| Output Current(输出电流)       | 1A                                           | 100mA            | 10mA                                                     | 1mA | 100mA |       |      | 10mA  |
| Resolution(分辨率)            | 1mΩ                                          | 10mΩ             | 0.1mΩ                                                    | 1mΩ | 10mΩ  | 100mΩ | 1Ω   |       |
| Open Circnit Voltage(开路电压) | <1.0V                                        |                  |                                                          |     | <4.0V |       |      |       |
| Function(功能)               | I/O Terminal ,Printing(输入输出接口、打印功能)(DOM801A) |                  |                                                          |     |       |       |      |       |

## HC-F1000C/L

### FREQUENCY COUNTER

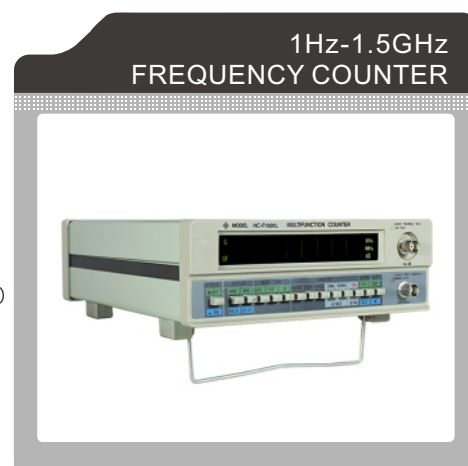
数显频率计

特点

- HC-F1000C: 1Hz~1000MHz, 最大可测1.3-1.5GHz
- 可测周期、计频、计数及自检
- 最高灵敏度: 优于25mVrms
- 稳定度为±3x10-9/秒
- 8位数LED显示
- 100KHz以下设有低通滤波器以改善低频特性, 增强抗干扰能力
- 闸门时间: 0.01s, 0.1s, 1s
- 输入AC电压220V(110V可选)

FEATURES

- HC-F1000C: 10Hz-1000MHz, max to 1.3-1.5GHz
- Period, totalize measurement, self test
- High sensitivity: 85dBV(25mVrms)
- Stability: ±3x10-9/s
- 8 digit LED display
- Gate Time: 0.01s, 0.1s, 1s
- Power supply: AC 220V(110V optional)



## 3.7GHz

### RF FREQUENCY COUNTER



## FC-3000

### FREQUENCY COUNTER

数显高频频率计

特点

- 频率测量范围: A输入: 0.1Hz-100MHz  
C输入: 80MHz-3.7GHz
- A输入具有周期、总计和转速测量功能
- 9位LED显示, 0.01mHz分辨率/秒(外部参考信号)
- 自检功能
- 内置低通滤波器
- AC/DC 耦合功能可选
- 10:1输入衰减
- 数据保存功能

FEATURES

- Frequency measuring range: 0.1Hz to 100MHz in A input, 80MHz to 3.7GHz in C input.
- Period, total and RPM measurement for input A.
- 9 digit display with 0.01mHz resolution in 1Sec (by reference signal).
- Self check function executed to perform a automatic self diagnosis of various counter function.
- Low-pass filter installed for removing noise signal in low frequency measuring
- AC/DC coupling function
- Data hold function
- 10:1 input attenuation

| SPECIFICATIONS                      | MODEL                                                                                              | FC-3000 |
|-------------------------------------|----------------------------------------------------------------------------------------------------|---------|
| Display(显示)                         | 9digit large LED display, over ow, gate time, mHz, Hz, kHz, MHz, nS, uS, mS, S, HOLD.              |         |
| measurement(频率测量)                   | 0.1Hz to 100MHz (A input), 80MHz to 3.7GHz (C input).                                              |         |
| Range(量程)                           | 0.01Sec, 0.1Sec, 1Sec, 10Sec.                                                                      |         |
| Gate time(闸门时间)                     | 1nHz to 10Hz.                                                                                      |         |
| Resolution(分辨率)                     | ±Resolution ±Time base Error ±Count.                                                               |         |
| Accuracy(精度)                        |                                                                                                    |         |
| Input characteristics(输入特性)         |                                                                                                    |         |
| Terminal(输入端)                       | A, C                                                                                               |         |
| Sensitivity(灵敏度)                    | A input: 20mVrms, C input: 30mVrms.                                                                |         |
| Impedance(阻抗)                       | A input: 1Mohm, Less than 40pF, C input: 50ohm.                                                    |         |
| Max. input voltage(最大输入电压)          | A input: 250Vrms, C input: 3Vrms.                                                                  |         |
| Attenuator(衰减)                      | A input: x1, x10                                                                                   |         |
| Low pass filter(低通滤波器)              | A input: 100kHz, -3dB.                                                                             |         |
| Multi function for input A(A 输入端功能) |                                                                                                    |         |
| Period(周期)                          | Range : 10mSec to 10 Sec. Resolution: 1pSec to 1nSec depending on gate time and input signal.      |         |
| Totalize(总计)                        | Accuracy: ±Resolution ±trigger error ±1Count.                                                      |         |
| RPM(转速)                             | Range : 5Hz to 10MHz, Count capacity: 1 to 999999999 (Max.)                                        |         |
|                                     | 6 RPM t 900 X 106RPM.                                                                              |         |
| Time base characteristics(时基特性)     |                                                                                                    |         |
| Internal time base(内部时基)            | Frequency : 100MHz TCO(TCXO; option). Aging rate: less than X5 10-6/month.                         |         |
|                                     | Temp. stability: less than 5x10-6 (0°C to +50°C) Line voltage: less than 1x10-6 for 10% variation. |         |
| Frequency standard output(标准频率输出)   | Frequency : 10MHz, Amplitude : 1.5Vp-p, Impedance: approx. 600ohm.                                 |         |
| External standard output(标注外部输出)    | Frequency : 10MHz, Amplitude : 1.5Vrms to 5Vrms, Impedance: approx. 600ohm.                        |         |
| Others(其他)                          |                                                                                                    |         |
| Power requirement(电源)               | 110/220VAC ±10%, 50/60Hz.                                                                          |         |
| Operating temperature(工作温度)         | 0-50°C (accuracy speci ed at 25±5°C)                                                               |         |
| Dimension(尺寸)                       | 390 x 260 x 90 mm                                                                                  |         |

## MAD-201C

### DISTORTION METER

自动失真仪

特点

- 自动换挡及失真度测量功能
- 自动或保留选择功能
- 失真测试范围: 从0.1%~100% 7档
- 频率范围: 从20Hz-20kHz 3档连续可调
- 固定频率: 400Hz, 1kHz, 10kHz 3点
- AC电压测量范围: 1mV-300Vrms 12档
- 更为广泛快速对被测信号的失真度进行测量, 也是单针自动量程毫伏表的组合仪器
- 有X轴和Y轴输出端, 便于测量李沙育图形



FEATURES

- Auto range and distortion measurement
- 7 distortion ranges: 0.1%~100%
- Frequency: 20Hz~20kHz continuously adjustable in 3 ranges
- 3 spot frequency: 400Hz, 1kHz, 10kHz
- Device of distortion measurement and combination of two single channel millivoltmeter
- X axle and Y axle output enable observation of Lissajou's figure
- Auto or hold function selectable
- 12 AC voltage ranges: 1mVrms~300Vrms

| SPECIFICATIONS                      | MODEL | MAD-201C                                                                                                                                                                                                              |
|-------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Distortion Measuring(失真度测量)         |       |                                                                                                                                                                                                                       |
| Measuring Range(测量范围)               |       | 0.1%~100% in 7 steps, error $\leq 3\%$ (full scale) (0.1%~100%分7个档, 误差 $\leq 3\%$ 满刻度)                                                                                                                                |
| Fundamental Wave Range(基波频率范围)      |       | 20Hz, 20kHz, three frequency point 400Hz, 1kHz, 10kHz (20Hz~20kHz, 三个点频率400Hz, 1kHz, 10kHz)                                                                                                                           |
| Input Level(输入电平)                   |       | 100mVrms~300Vrms                                                                                                                                                                                                      |
| Fundamental Wave Suppression(基波抑制比) |       | >80dB                                                                                                                                                                                                                 |
| Survival Distortion(残余失真度)          |       | <0.03% (including noise) (<0.03% (包括谐波和噪声))                                                                                                                                                                           |
| AC Voltage Measuring(交流电压测量)        |       |                                                                                                                                                                                                                       |
| Measuring Range(测量范围)               |       | 1mVrms~300Vrms full scale (1mVrms~300Vrms 满刻度)                                                                                                                                                                        |
| Decibel Scale(分贝刻度)                 |       | -60dB~+50dBm steps with 10dB (-60dB~+50dB按10dB递增)<br>-20dB~+1dBm (0dB=1V), -20dB~+3.2dBm (0dB=1mW 600Ω)                                                                                                               |
| Frequency Response(频率响应)            |       | 100mV~300V range 20Hz~200kHz, $\pm 0.5$ dB (100mV~300V范围 20Hz~200kHz, 为 $\pm 0.5$ dB)<br>1mV~30mV range 20Hz~200kHz, $\pm 1$ dB (1mV~30mV范围 20Hz~200kHz, 为 $\pm 1$ dB)                                                |
| Survival Noise(残余噪声)                |       | $\leq 10$ mV (input end grounded) (输入端对地短路时10mV)                                                                                                                                                                      |
| Input Resistance(输入电阻)              |       | 100KW $\pm 10\%$                                                                                                                                                                                                      |
| Output(输出端)                         |       | "X" axis output: Approx. 1Vrms full scale of voltage ("X"轴输出: 约1Vrms电压表满刻度时)<br>"Y" axis output: Approx. 500Vrms full scale of distortion ("Y"轴输出: 约500mVrms失真表满刻度时)<br>Output resistance: approx. 600Ω (输出电阻: 约600Ω) |
| Max. Input Voltage(最大输入电压)          |       | <400V (DC+AC peak)                                                                                                                                                                                                    |
| Power Supply(电源)                    |       | 220V/110V $\pm 10\%$ ; 50Hz/60Hz                                                                                                                                                                                      |
| Dimension(尺寸)                       |       | 310 x 230 x 90 mm                                                                                                                                                                                                     |
| Weight(重量)                          |       | 5.5Kg                                                                                                                                                                                                                 |

100%-0.005%  
AUTOMATIC DIGITAL LOW-DISTORTION METER



## MAD-201D

### DISTORTION METER

全自动数字低失真度测试仪

特点

- 全自动失真测试, 数字LCD显示
- 失真测试范围: 100%-0.005%
- 宽频率测试10Hz-150kHz (不平衡), 10Hz-100kHz (平衡)
- 测试功能: 失真测试, 信噪比率测试, 信纳比率测试, 电压测试, 频率测试。

FEATURES

- Fully automatic distortion test, LCD digital display
- Wide frequency range test 10Hz-150kHz ( imbalance), 10Hz-100kHz (balance).
- Test function: distortion, S/N ratio, SINAD ratio, voltage(.rms), frequency.
- Distortion test range: 100%-0.005%

| SPECIFICATIONS                  | MODEL          | MAD-201D                                                                                                                            |
|---------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Display mode(显示屏)               |                | LCD digital(液晶)                                                                                                                     |
| Input impedance(输入阻抗)           |                | 100kΩ/100pF                                                                                                                         |
| Additional wave filter(附加波形过滤器) |                | 400Hz, 30kHz, 80kHz                                                                                                                 |
| Distortion test(失真测试)           |                |                                                                                                                                     |
| Input signal range(输入信号范围)      |                | 50mV~300V                                                                                                                           |
| Distortion test range(失真测试范围)   |                | 100%-0.005%                                                                                                                         |
| Frequency range(频率范围)           | Imbalance(不平衡) | 10Hz-150kHz                                                                                                                         |
|                                 | Balance(平衡)    | 10Hz-100kHz                                                                                                                         |
| Precision(精度)                   |                | 20Hz-20kHz: $\pm 0.5$ dB<br>20kHz-110kHz: $\pm 1$ dB<br>Distortion not higher than 0.03%: $\pm 0.03\%$ (失真不大于0.03%时: $\pm 0.03\%$ ) |
| Voltage test(电压测试)              |                |                                                                                                                                     |
| Voltage test range(电压测试频率)      |                | 300μV~300V                                                                                                                          |
| Frequency range(频率范围)           | Imbalance(不平衡) | Imbalance (不平衡) 10Hz-550kHz                                                                                                         |
|                                 | Balance(平衡)    | Balance (平衡) 10Hz-120kHz                                                                                                            |
| S/N ratio test(信噪比率测试)          |                |                                                                                                                                     |
| S/N test range(信噪测量范围)          |                | 0-99.99dB                                                                                                                           |
| Frequency range(频率范围)           |                | 10Hz-550kHz                                                                                                                         |
| SINAD test(信纳测量)                |                | 0db-80dB                                                                                                                            |
| SINAD test range(信纳测量范围)        |                |                                                                                                                                     |
| Frequency range(频率范围)           | Imbalance(不平衡) | Imbalance (不平衡) 10Hz-150kHz                                                                                                         |
|                                 | Balance(平衡)    | Balance (平衡) 10Hz-100kHz                                                                                                            |

**BT-3C****FREQUENCY SIGNAL  
CHARACTERISTIC SWEEP  
ANALYZER**

频率特性扫频仪

特点

- 测量频率1~300MHz,450MHz,600MHz,1GHz可选
- 扫频方式:全扫、窄扫、点频三种方式
- 频率标志:50MHz,10MHz,1MHz及外频标
- 扫频输出:0.5Vrms (75W); 不平坦度≤0.5dB
- 输出衰减:10dB X 7和1dB X10步进电控, 数字显示
- 输入AC电压:220V(110V可选)

## FEATURES

- Frequency available for the:1-300MHz/450MHz/600MHz/1GHz
- Frequency sweep mode: full sweep, narrow sweep, spot frequency
- Output level: 500mV±10% at 0dB (loaded 75W)
- Line power: AC 220V(110V optional)
- Output impedance: 75Ω selectable

300MHz/450MHz/600MHz/1GHz  
FREQUENCY SIGNAL ANALYZER

| SPECIFICATIONS                     | MODEL | BT-3C                                                                                                 |
|------------------------------------|-------|-------------------------------------------------------------------------------------------------------|
| Frequency Range(频率范围)              |       | Full sweep: 1-300MHz<br>Narrow sweep: Central frequency 1-300MHz<br>Spot frequency: 1-300MHz variable |
| Output Voltage(输出电压)               |       | 0.5Vrms/75Ω                                                                                           |
| Output Flatness(输出平坦度)             |       | Better than ±0.15dB                                                                                   |
| Output Attenuator(输出衰减)            |       | 10dB in 7 steps and 1dB in 10 steps                                                                   |
| Marker Display(标记显示)               |       | 50MHz, 10MHz, 1MHz and external frequency                                                             |
| Vertical deflection Factor(垂直偏转因数) |       | Better than 2mVp-p/div                                                                                |
| Display(显示器)                       |       | CRT                                                                                                   |
| Dimension(尺寸)                      |       | 340 X 190 X 320 mm                                                                                    |
| Weight(重量)                         |       | 8kg                                                                                                   |

## WITHSTAND VOHAGE HI-POT TESTER



## FEATURES

- High voltage, small current provides high accuracy
- Leakage Current and Test Time continuously adjustable
- Display Time, Voltage and Current simultaneously
- High voltage breakdown protection
- Over limit sound-light alarm

**MCH-2672A  
MCH-2672B****WITHSTAND VOHAGE  
HI-POT TESTER**

耐压测试仪

特点

- 高电压,小电流,高精度
- 漏电流、测试时间、连续任意设定
- 同时显示时间、电压、电流值
- 高压击穿保护
- 超限声光报警

| SPECIFICATIONS              | MODEL | 2672A                                | 2672B        |
|-----------------------------|-------|--------------------------------------|--------------|
| Output Voltage(输出电压)        |       | AC/DC:0-5KV                          | AC/DC:0-10KV |
| Cutoff Current(漏电流)         |       | AC:0-2/20mA DC:0-2/10mA              |              |
| Output Power(输出功率)          |       | 100VA                                |              |
| Output Waveform(输出波形)       |       | 50Hz sine wave of line power.        |              |
| Test time(定时范围)             |       | 1-99 sec. ±5%;Manual; Remote Control |              |
| Voltage Accuracy(电压精度)      |       | ±5% of displayed value               |              |
| Current Accuracy(电流精度)      |       | ±5% of displayed value               |              |
| Power Supply(输入电源)          |       | 220V(110V Optional) AC±10% 50Hz±2Hz  |              |
| Transformer Capacity(变压器容量) |       | 500VA                                | 750VA        |
| Dimension(尺寸)               |       | 320 X 260 X 180 mm                   |              |
| Weight(重量)                  |       | 7kg                                  | 13kg         |

## YBD-868

## IC TESTER

数字集成IC测试仪

## 特点

- 自检功能
- 器件型号判别
- 可测量超过2000种器件
- 可测试54/74系列 TTL
- 可测试4000和4500系列 CMOS
- 最大可测40脚的IC

## FEATURES

- Self-Diagnosis
- Measures more than 2000 kinds of devices
- Tests 4000 and 4500 series CMOS

| SPECIFICATIONS                                   | MODEL | YBD-868                                                                        |
|--------------------------------------------------|-------|--------------------------------------------------------------------------------|
| Controls(控制键)                                    |       | 16 key tact-switch keypad with dual-tone sound indication.(16键轻触开关键盘,带双音声音指示。) |
| Display(显示屏)                                     |       | 6 digit LED display(6位LED显示屏)                                                  |
| Test Socket(测试插座)                                |       | 40 pin ZIF socket(40针ZIF插座)                                                    |
| Library ICs(IC资料库)<br>Over 2000 devices(超过2000种) |       | 1.TTL54 Series                                                                 |
|                                                  |       | 2.TTL55 Series                                                                 |
|                                                  |       | 3.TTL74 Series                                                                 |
|                                                  |       | 4.TTL75 Series                                                                 |
|                                                  |       | 5.CMOS14 Series                                                                |
|                                                  |       | 6.CMOS40 Series                                                                |
|                                                  |       | 7.CMOS45 Series                                                                |
|                                                  |       | 8.Optical Coupler Series(光耦合器系列)                                               |
|                                                  |       | 9.LED Display Series                                                           |
|                                                  |       | 10.RAM Series                                                                  |
|                                                  |       | 11.SCM Series                                                                  |
|                                                  |       | 12.CPU Peripheral Series                                                       |
| Power Consumption(功耗)                            |       | 12VA                                                                           |
| Power Supply(电源)                                 |       | 220V±10%, 50Hz                                                                 |
| Dimension(尺寸)                                    |       | 292 X 235 X 75mm                                                               |
| Weight(重量)                                       |       | 2kg                                                                            |

40 PIN CAPABILITY  
DIGITAL IC TESTER

- Identifies unknown model no. of devices
- Tests 54/74 series TTL
- 40 pin capability

1.5KG/3KG/6KG/15KG30KG  
MCS PRICE COMPUTING SCALE

## FEATURES

- Rechargeable accumulator inside, you can use the scale during recharging.
- Auto zero-setting when switching on.
- 1~30 times of accumulating.
- Power supply: AC 220V (±10%) / 50 Hz, AC 110V/60HZ, DC 6V / 4Ah (Built-in rechargeable battery).
- Working temperature range: 0°C - +40°C
- Auto zero tracking.
- Relative humidity: ≤ 85%RH

| MODEL<br>型号 | CAP.(kg)<br>额定称量(kg) | GRADUATION(d)<br>分度数(d) | DIVISION(g)<br>最小秤重(g) | ACCURACY<br>精确度(g) |
|-------------|----------------------|-------------------------|------------------------|--------------------|
| MCS-3A      | 1.5                  | 3000                    | 0.5                    | 0.1                |
| MCS-3A      | 3                    | 3000                    | 1                      | 0.2                |
| MCS-6A      | 6                    | 3000                    | 2                      | 0.5                |
| MCS-15A     | 15                   | 3000                    | 5                      | 1                  |
| MCS-30A     | 30                   | 3000                    | 10                     | 2                  |

## MCS

## PRICE COMPUTING SCALE

MCS计数秤

## 特点

- 内置可充电蓄电池, 充电时可以开机使用
- 开机自动置零。
- 零点自动跟踪。
- 累计次数1~30次
- 电源: 交流220V(±10%)/50Hz, 交流110V/ 60Hz 直流6V/4Ah (内置可充电蓄电池)
- 工作温度范围: 0°C - +40°C
- 相对湿度: ≤ 85%RH

# SM-936B SM-936D

## REWORK STATION

### 防静电焊台

#### 特点

- 功率:220V-60W
- 温度:200°C-480°C
- 发热体:陶瓷发热体
- 特点:防静电设计、快速升温、安全可靠
- 配件:原厂铝合金、塑料烙铁架



#### FEATURES

- Power consumption:220V-60W
- Heating element: Ceramic heating element
- Feature: Antistatic design, Fast heating up, safe and reliable.
- Accessory: Aluminum alloy of original, make and iron bracket.

- Temperature: 200°C~480°C

| SPECIFICATIONS                  | MODEL | 936B                         | 936D                         |
|---------------------------------|-------|------------------------------|------------------------------|
| Voltage(电压)                     |       | 110V-220V                    | 110V-220V                    |
| Frequency(频率)                   |       | 60 Hz                        | 60 Hz                        |
| Power Consumption(功耗)           |       | 60 W                         | 64 W                         |
| Temperature(温度)                 |       | 200-480°C                    | 200-480°C                    |
| Temperature - rise time(温度上升时间) |       | <30s                         | <30s                         |
| Temperature Adjustment(温度调节)    |       | Potentiometer(电位器)           | Potentiometer(电位器)           |
| Temperature accuracy(温度精度)      |       | ±3%                          | ±2%                          |
| Temperature stability(温度稳定性)    |       | ±2°C                         | ±2°C                         |
| Heating Element(加热元件)           |       | ceramics(陶瓷)                 | ceramics(陶瓷)                 |
| Certificates(证书)                |       | CE certificates              | CE certificates              |
| With Display(显示)                |       | -                            | LED                          |
| Anti Static (ESD Safe)(防静电)     |       | ESD                          | ESD                          |
| Temperature locking(温度锁定)       |       | -                            | YES                          |
| Tip-to-ground impedance(对地阻抗)   |       | 2Ω                           | 2Ω                           |
| Tip-to-ground voltage(对地电压)     |       | <2mV                         | <2mV                         |
| Auto sleep(自动睡眠)                |       | -                            | YES                          |
| Accessories(配件)                 |       | Iron, Sponge, Fame(铁,海绵,烙铁架) | Iron, Sponge, Fame(铁,海绵,烙铁架) |
| Dimension(尺寸)                   |       | 23 x 19 x 14 mm              | 23 x 19 x 14 mm              |
| Weight(重量)                      |       | 1.4Kg                        | 1.5Kg                        |

## HIGH QUALITY SOLDERING TOOLS MAINTENANCE CENTER



# SM-943 SM-943B

## HOT AIR STATION

### 防静电焊台

#### 特点

- 功率消耗:220V-70W
- 温度:200°C-450°C
- 数字显示、自动休眠
- 发热体:陶瓷发热体
- 特点:防静电设计、快速升温、安全可靠
- 配件:原厂铝合金、塑料烙铁架

#### FEATURES

- Power consumption:220V-70W
- Heating element: Ceramic heating element
- Feature: Antistatic design, Fast heating up, safe and reliable.
- Accessory: Aluminum alloy of original, make and iron bracket.

- Temperature: 200°C~450°C
- Digital Display, Auto sleep

| SPECIFICATIONS                  | MODEL | 943                          | 943B                         |
|---------------------------------|-------|------------------------------|------------------------------|
| Voltage(电压)                     |       | 110V-220V                    | 110V-220V                    |
| Frequency(频率)                   |       | 60 Hz                        | 60 Hz                        |
| Power Consumption(功耗)           |       | 70 W                         | 70 W                         |
| Temperature(温度)                 |       | 200-450°C                    | 200-450°C                    |
| Temperature - rise time(温度上升时间) |       | <30s                         | <30s                         |
| Temperature Adjustment(温度调节)    |       | Potentiometer(电位器)           | Potentiometer(电位器)           |
| Temperature accuracy(温度精度)      |       | ±1%                          | ±1%                          |
| Temperature stability(温度稳定性)    |       | ±2°C                         | ±2°C                         |
| Heating Element(加热元件)           |       | ceramics(陶瓷)                 | ceramics(陶瓷)                 |
| Certificates(证书)                |       | CE certificates              | CE certificates              |
| With Display(显示)                |       | LED                          | LED                          |
| Anti Static (ESD Safe)(防静电)     |       | ESD                          | ESD                          |
| Temperature locking(温度锁定)       |       | LED                          | YES                          |
| Tip-to-ground impedance(对地阻抗)   |       | 2Ω                           | 2Ω                           |
| Tip-to-ground voltage(对地电压)     |       | <2mV                         | <2mV                         |
| Auto sleep(自动睡眠)                |       | LED                          | YES                          |
| Accessories(配件)                 |       | Iron, Sponge, Fame(铁,海绵,烙铁架) | Iron, Sponge, Fame(铁,海绵,烙铁架) |
| Dimension(尺寸)                   |       | 23 x 19 x 14 mm              | 23 x 19 x 14 mm              |
| Weight(重量)                      |       | 1.8Kg                        | 1.8Kg                        |

# SM-858 SM-858D

## HOT AIR STATION

### 热风枪

#### 特点

- 功率:220V-700W
- 温度:200°C-450°C
- 发热体: 陶瓷发热体
- 特点:防静电设计、快速升温、安全可靠
- 无刷电机

#### FEATURES

- Power consumption:220V-700W
- Heating element: Ceramic heating element
- Feature: Antistatic design, Fast heating up, safe and reliable.

#### HIGH QUALITY SOLDERING TOOLS ANTISTATIC SOLDERING STATION



- Temperature: 200°C~450°C
- Brushless motor

| SPECIFICATIONS                   | MODEL | 858                   | 858D                                    |
|----------------------------------|-------|-----------------------|-----------------------------------------|
| Voltage(电压)                      |       | 110V - 220V           | 110V - 220V                             |
| Frequency(频率)                    |       | 60 Hz                 | 60 Hz                                   |
| Power Consumption(功耗)            |       | 700W                  | 700W                                    |
| Temperature(温度)                  |       | 200° - 450°C          | 200° - 450°C                            |
| Air flow - Rework station(热风枪气流) |       | > 20L/min             | > 20L/min                               |
| Temperature accuracy(温度精度)       |       | ± 2%                  | ± 2%                                    |
| Temperature stability(温度稳定性)     |       | ± 2°C                 | ± 2°C                                   |
| Temperature Adjustment(温度调节)     |       | Potentiometer(电位器)    | Potentiometer / Control panel(电位器/控制面板) |
| Temperature lock(温度锁定)           |       | YES                   | YES                                     |
| With Display (显示)                |       | -                     | LED                                     |
| Pump(泵)                          |       | Brushless motor(无刷电机) | Brushless motor(无刷电机)                   |
| Heating Element(加热元件)            |       | Ceramic(陶瓷)           | Ceramic(陶瓷)                             |
| Air flow (空气流动)                  |       | 120 L/min             | 120 L/min                               |
| Anti Static (ESD Safe)(防静电)      |       | ESD                   | ESD                                     |
| Dimension(尺寸)                    |       | 157 x 185 x 135 mm    | 260 x 170 x 150 mm                      |
| Weight(重量)                       |       | 2 kg                  | 1.3kg                                   |

#### HIGH QUALITY SOLDERING TOOLS MAINTENANCE CENTER



#### FEATURES

- Power consumption:220V-250W
- Heating element: Ceramic heating element
- Feature: Antistatic design, Fast heating up, safe and reliable.

# SM-850

## HOT AIR STATION

### 热风枪

#### 特点

- 功率:220V-250W
- 温度:200°C-480°C
- 发热体: 陶瓷发热体
- 特点:防静电设计、快速升温、安全可靠
- 风泵

- Temperature: 200°C-480°C
- Air pump

| SPECIFICATIONS                   | MODEL | 850                |
|----------------------------------|-------|--------------------|
| Voltage(电压)                      |       | 110V - 220V        |
| Frequency(频率)                    |       | 60 Hz              |
| Power Consumption(功耗)            |       | 250W               |
| Temperature(温度)                  |       | 200° - 480°C       |
| Air flow - Rework station(热风枪气流) |       | > 24L/min          |
| Temperature accuracy(温度精度)       |       | ± 2%               |
| Temperature stability(温度稳定性)     |       | ± 2°C              |
| Temperature Adjustment(温度调节)     |       | Potentiometer(电位器) |
| Temperature lock(温度锁定)           |       | YES                |
| With Display (显示)                |       | -                  |
| Pump(泵)                          |       | Air pump(风泵)       |
| Heating Element(加热元件)            |       | Ceramic(陶瓷)        |
| Air flow (空气流动)                  |       | 120 L/min          |
| Anti Static (ESD Safe)(防静电)      |       | ESD                |
| Dimension(尺寸)                    |       | 330 x 270 x 200 mm |
| Weight(重量)                       |       | 2.8Kg              |

# SM-898D SM-899D

## 2 IN 1 STATION MINI SIZE

2合1维修台

特点

- 功率:220V-700W
- 温度:200°C-480°C
- 发热体: 陶瓷发热体
- 特点:防静电设计、快速升温、安全可靠
- 无刷电机



### FEATURES

- Power consumption:220V-700W
- Heating element: Ceramic heating element
- Feature: Antistatic design, Fast heating up, safe and reliable.
- Temperature: 200°C~450°C
- Brushless motor

| SPECIFICATIONS                                     | MODEL | 898D                                  | 899D                  |
|----------------------------------------------------|-------|---------------------------------------|-----------------------|
| Voltage(电压)                                        |       | 110V - 220V                           | 110V - 220V           |
| Frequency(频率)                                      |       | 60 Hz                                 | 60 Hz                 |
| With Display (显示)                                  |       | LED - 2 unit(2个)                      | LED                   |
| Power Consumption - Equipment(设备功耗)                |       | 770W                                  | 700W                  |
| Power Consumption - Soldering station(焊台功耗)        |       | 70 W                                  | 50 W                  |
| Temperature - Soldering station(焊台温度)              |       | 200° - 480° C                         | 200°C-480°C           |
| Temperature accuracy - Soldering station(焊台温度精度)   |       | ± 3%                                  | ± 3%                  |
| Temperature stability - Soldering station(焊台温度稳定度) |       | ± 2°C                                 | ± 2°C                 |
| Temperature Adjustment - Soldering station(焊台温度调节) |       | Potentiometer/Control panel(电位器/控制面板) |                       |
| Heating Element - Soldering station(焊台加热元件)        |       | Ceramic(陶瓷)                           | Ceramic(陶瓷)           |
| Power Consumption - Rework station(返修台功耗)          |       | 700W                                  | 650W                  |
| Pump - Rework station(返修台-泵)                       |       | Brushless motor(无刷电机)                 | Brushless motor(无刷电机) |
| Air flow - Rework station(返修台气流)                   |       | >20L/min                              | >20L/min              |
| Temperature - Rework station(返修台温度)                |       | 100° ~ 480°                           | 100° ~ 450°           |
| Temperature accuracy - Rework station(返修台温度精度)     |       | ± 3%                                  | ± 3%                  |
| Temperature stability - Rework station(返修台温度稳定度)   |       | ± 2°C                                 | ± 2°C                 |
| Temperature Adjustment - Rework station(返修台温度调节)   |       | Potentiometer/Control panel(电位器/控制面板) |                       |
| Auto sleep(自动休眠)                                   |       | YES                                   | YES                   |
| Anti Static (ESD Safe)(防静电)                        |       | ESD                                   | ESD                   |
| Tip-to-ground impedance(尖端对地阻抗)                    |       | <2Ω                                   | <2Ω                   |
| Tip-to-ground voltage(尖端对地电压)                      |       | <2mV                                  | <2mV                  |
| Dimension(尺寸)                                      |       | 260 x 170 x 150 mm                    | 260 x 170 x 150 mm    |
| Weight(重量)                                         |       | 2.2kg                                 | 2.1kg                 |

## HIGH QUALITY SOLDERING TOOLS MAINTENANCE CENTER



# SM-852 SM-852D

## 2 IN 1 STATION LARGE SIZE

2合1维修台

特点

- 功率:220V-320W
- 温度:200°C-480°C
- 发热体: 陶瓷发热体
- 特点:防静电设计、快速升温、安全可靠
- 风泵

### FEATURES

- Power consumption:220V-320W
- Heating element: Ceramic heating element
- Feature: Antistatic design, Fast heating up, safe and reliable.
- Temperature: 200°C-480°C
- Air pump

| SPECIFICATIONS                                     | MODEL | 852                | 852D               |
|----------------------------------------------------|-------|--------------------|--------------------|
| Voltage(电压)                                        |       | 110V - 220V        | 110V - 220V        |
| Frequency(频率)                                      |       | 60 Hz              | 60 Hz              |
| With Display (显示)                                  |       | -                  | LED - 2 unit       |
| Power Consumption - Equipment(设备功耗)                |       | 320 W              | 320 W              |
| Power Consumption - Soldering station(焊台功耗)        |       | 60 W               | 60 W               |
| Temperature - Soldering station(焊台温度)              |       | 200° - 480° C      | 200° - 480° C      |
| Temperature accuracy - Soldering station(焊台温度精度)   |       | ± 3%               | ± 3%               |
| Temperature stability - Soldering station(焊台温度稳定度) |       | ± 2°C              | ± 2°C              |
| Temperature Adjustment - Soldering station(焊台温度调节) |       | Potentiometer(电位器) | Potentiometer(电位器) |
| Heating Element - Soldering station(焊台加热元件)        |       | Ceramic(陶瓷)        | Ceramic(陶瓷)        |
| Power Consumption - Rework station(返修台功耗)          |       | 320W               | 320W               |
| Pump - Rework station(返修台-泵)                       |       | Air pump(风泵)       | Air pump(风泵)       |
| Air flow - Rework station(返修台气流)                   |       | >24L/min           | >24L/min           |
| Temperature - Rework station(返修台温度)                |       |                    |                    |
| Temperature accuracy - Rework station(返修台温度精度)     |       | ± 3%               | ± 3%               |
| Temperature stability - Rework station(返修台温度稳定度)   |       | ± 2°C              | ± 2°C              |
| Temperature Adjustment - Rework station(返修台温度调节)   |       | Potentiometer(电位器) | Potentiometer(电位器) |
| Auto sleep(自动休眠)                                   |       | YES                | YES                |
| Anti Static (ESD Safe)(防静电)                        |       | ESD                | ESD                |
| Tip-to-ground impedance(尖端对地阻抗)                    |       | <2Ω                | <2Ω                |
| Tip-to-ground voltage(尖端对地电压)                      |       | <2mV               | <2mV               |
| Dimension(尺寸)                                      |       | 330 x 270 x 200 mm | 330 x 270 x 200 mm |
| Weight(重量)                                         |       | 4.3kg              | 4.3kg              |

## 9100A/9100B

### DIGITAL AC/DC CLAMP METER

数显交直流钳表



| Specifications        | Range                       | Accuracy    |             |
|-----------------------|-----------------------------|-------------|-------------|
|                       |                             | 9100A       | 9100B       |
| DC Voltage            | 660mV/6.6V/66V              | ±(0.8%+3)   |             |
|                       | 660V                        | ±(1.0%+5)   |             |
|                       | 400mV/4V/40V/400V           |             | ±(0.8%+3)   |
|                       | 600V                        |             | ±(1.0%+5)   |
| AC Voltage            | 660mV/6.6V/66V/660V         | ±(1.5%+5)   |             |
|                       | 4V/40V/400V/600V            |             | ±(1.0%+5)   |
| AC Current            | 66A/600A                    |             |             |
|                       | 40A/400A                    | ±(3.0%+10)  |             |
| DC Current            | 66A/600A                    |             | ±(3.0%+10)  |
|                       | 40A/400A                    | ±(3.0%+10)  |             |
| INRUSH CURRENT(100ms) | 66A/600A                    | ±(10.0%+60) | ±(3.0%+10)  |
|                       |                             |             |             |
| Resistance            | 660Ω/6.6kΩ/66kΩ/660kΩ/6.6MΩ | ±(1.2%+2)   |             |
|                       | 66MΩ                        | ±(2.0%+5)   |             |
|                       |                             |             | ±(0.8%+3)   |
|                       | 40MΩ                        |             | ±(1.2%+3)   |
| Capacitance           | 6.6μF/66μF/660μF/6.6mF/66mF | ±(4.0%+3)   |             |
|                       | 400nF/4μF/40μF/400μF/4000μF |             | ±(4.0%+5)   |
| Frequency             | 10kHz                       | ±(1.5%+5)   |             |
|                       | 10Hz~10MHz                  |             | ±(0.5%+2)   |
| Duty cycle            | 10%~95%                     | ±(3.0%+2)   | ±(3.0%+2)   |
|                       |                             |             |             |
| <b>Feature</b>        |                             | 9100A       | 9100B       |
| Display               |                             | 6600 Counts | 4000 Counts |
| Auto and manual range |                             | ✓           | ✓           |
| Inrush current        |                             | ✓           |             |
| True RMS              |                             | ✓           |             |
| Data hold             |                             | ✓           | ✓           |
| Work light            |                             | ✓           | ✓           |
| Diode test            |                             | ✓           | ✓           |
| Max/Min Value hold    |                             | ✓           | ✓           |
| Continuity            |                             | ✓           | ✓           |
| Back light            |                             | ✓           | ✓           |
| <b>General</b>        |                             |             |             |
| Power supply          | 1.5V(AAA)x3 Batteries       |             |             |
| Weight                | Approx 245g                 |             |             |
| Size                  | 280mmx78mmx35mm             |             |             |
| Jaw Size              | Ø26mm                       |             |             |
| Safety Rating         | CE CAT.III600V RoHS         |             |             |

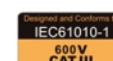


## 9860A/9860B

### DIGITAL AC CLAMP METER

数显交流钳表

| Specifications        | Range                         | Accuracy    |             |
|-----------------------|-------------------------------|-------------|-------------|
|                       |                               | 9860B       | 9860A       |
| DC Voltage            | 200mV/2V/20V/200V             | ±(0.8%+2)   |             |
|                       | 400mV/4V/40V/400V             |             | ±(0.8%+2)   |
|                       | 600V                          | ±(1.0%+2)   | ±(1.0%+2)   |
|                       |                               | ±(1.0%+5)   |             |
| AC Voltage            | 2V/20V/200V                   |             |             |
|                       | 4V/40V/400V                   |             | ±(1.0%+10)  |
| 600V                  |                               | ±(1.2%+5)   | ±(1.2%+10)  |
|                       |                               | ±(3.0%+10)  |             |
| AC Current            | 2A/20A/200A/600A              |             |             |
|                       | 4A/40A/400A/600A              |             | ±(3.0%+10)  |
| Resistance            | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20 MΩ | ±(1.2%+2)   |             |
|                       | 400Ω/4kΩ/40kΩ/400kΩ/4MΩ       |             | ±(1.2%+2)   |
|                       | 40MΩ                          |             | ±(2.0%+5)   |
| Capacitance           | 50nF/500nF/5μF/50μF/100μF     |             | ±(4.0%+5)   |
| Frequency             | 50Hz/500Hz/5kHz/50kHz/100kHz  |             | ±(1.0%+2)   |
| Duty cycle            | 1%~99%                        |             | ±(3.0%+2)   |
| Temperature(°C)       | -20°C~750°C                   |             | ±(2.0%+2)   |
| <b>Feature</b>        |                               | 9860B       | 9860A       |
| Display               |                               | 2000 Counts | 4000 Counts |
| Auto and manual range |                               | ✓           | ✓           |
| Data hold             |                               | ✓           | ✓           |
| Work light            |                               | ✓           | ✓           |
| Diode test            |                               | ✓           | ✓           |
| Maximum Value hold    |                               | ✓           |             |
| Continuity            |                               | ✓           | ✓           |
| Back light            |                               | ✓           | ✓           |
| <b>General</b>        |                               |             |             |
| Power supply          | 1.5V(AAA)x3 Batteries         |             |             |
| Weight                | Approx 245g                   |             |             |
| Size                  | 280mmx78mmx35mm               |             |             |
| Jaw Size              | Ø26mm                         |             |             |
| Safety Rating         | CE CAT.III600V RoHS           |             |             |



# MCH-9208

## DIGITAL TACHOMETER NON-CONTACT

光电(非接触型)数显转速表

| Specifications                                  | MCH-9208                                   |
|-------------------------------------------------|--------------------------------------------|
| Contact Measurement                             | 50 ~ 99999RPM±(0.03%+2)                    |
| Measuring Distance                              | N/A                                        |
| Auto Power Off                                  | 30S                                        |
| MAX/MIN/AVG Functions                           | ✓                                          |
| m/min m/sec ft/min ft/Sec in/min unit selection | ✓                                          |
| Data Logging                                    | 100 groups                                 |
| Data Hold                                       | ✓                                          |
| Display Back light                              | ✓                                          |
| Low Battery indication                          | ✓                                          |
| General                                         |                                            |
| Power Supply                                    | 4x1.5AAA Batteries                         |
| Product Size                                    | 193mm x60mm x 29mm<br>(7.5" x 2.4" x 1.1") |
| Product Weight                                  | 120g(0.31b)                                |
| Category                                        | CE RoHS                                    |



# MCH-9208B

## DIGITAL TACHOMETER CONTACT

接触式数显转速表

| Specifications                                  | MCH-9208B                                  |
|-------------------------------------------------|--------------------------------------------|
| Non-Contact Measurement                         | 50 ~ 19999RPM±(0.03%+2)                    |
| Measuring Distance                              | 50mm ~ 250mm                               |
| Auto Power Off                                  | 30S                                        |
| MAX/MIN/AVG Functions                           | ✓                                          |
| m/min m/sec ft/min ft/Sec in/min unit selection | ✓                                          |
| Data Logging                                    | 100 groups                                 |
| Data Hold                                       | ✓                                          |
| Display Back light                              | ✓                                          |
| Low Battery indication                          | ✓                                          |
| General                                         |                                            |
| Power Supply                                    | 4x1.5AAA Batteries                         |
| Product Size                                    | 193mm x60mm x 29mm<br>(7.5" x 2.4" x 1.1") |
| Product Weight                                  | 120g(0.31b)                                |
| Category                                        | CE RoHS                                    |



# MCH-9208C

## TEMPERATURE AND HUMIDITY METER

数显温湿度计

| specification          | Range                         | Accuracy                                                      | Resolution |
|------------------------|-------------------------------|---------------------------------------------------------------|------------|
| Ambient temperature    | -20 to 60°C<br>(-4 to 140°F)  | ±0.5°C (0 to 45°C)<br>±1.0°C (-20 to 0°C,<br>45°C to 60°C)    | 0.1°C/°F   |
| RH                     | 0 to 100%RH                   | ±2.0% RH (10% to 90%)<br>±3.0% RH (0% to 10%,<br>90% to 100%) | 0.1%       |
| WB                     | -20 to 60°C<br>(-4 to 140°F)  | ±0.5°C (0 to 45°C)<br>±1.0°C (-20 to 0°C,<br>45°C to 60°C)    | 0.1°C/°F   |
| DP                     | -50 to 60°C<br>(-58 to 140°F) | ±0.5°C (0 to 45°C)<br>±1.0°C (-50 to 0°C,<br>45°C to 60°C)    | 0.1°C/°F   |
| <b>Features</b>        |                               |                                                               |            |
| Data Hold              |                               | √                                                             |            |
| MAX/MIN                |                               | √                                                             |            |
| Data Logging           |                               | 100 groups                                                    |            |
| Back light             |                               | √                                                             |            |
| Low battery indication |                               | √                                                             |            |
| <b>General</b>         |                               |                                                               |            |
| Power Supply           | 4x1.5v AAA Batteries          |                                                               |            |
| Product Size           | 184mm x 60mm x29mm            |                                                               |            |
| Product Weight         | 190g(0.41lb)                  |                                                               |            |
| Category               | CE RoHS                       |                                                               |            |



# MCH-9208D

## DIGITAL SOUND LEVEL METER

数显声音监测仪

| <b>Specifications</b>                              |                                                   |
|----------------------------------------------------|---------------------------------------------------|
| Sound pressure accuracy                            | ± 1.5 dB (sound pressure standard, 94 dB @ 1KHz). |
| Sound pressure accuracy                            | ±5 dB (sound pressure standard, 94 dB @ 8KHz)     |
| Sound pressure frequency response                  | 50 dB (for each measurement gear level)           |
| Dynamic range of sound pressure                    | 30-130 dB A, 35-130 dB C.                         |
| Sound pressure frequency weighting characteristics | A and C characteristics                           |
| Dynamic characteristic of sound pressure           | FAST 125ms, SLOW 1sec                             |
| Microphone                                         | polarized capacitive microphone                   |
| <b>Features</b>                                    |                                                   |
| Display                                            | Digital Display & Analog Bars Display             |
| Auto range                                         | √                                                 |
| Reaction rate                                      | Fast/Slow Selection                               |
| MAX/MIN/HOLD                                       | √                                                 |
| Back light                                         | √                                                 |
| Low battery indication                             | √                                                 |
| <b>General</b>                                     |                                                   |
| Power Supply                                       | 4x1.5v AAA Batteries                              |
| Product Size                                       | 184mm x 60mm x29mm                                |
| Product Weight                                     | 190g(0.41lb)                                      |
| Category                                           | CE RoHS                                           |



## 9233A/9233B/9233C

## DIGITAL MULTIMETERS

数显万用表

| Specifications  | Range                            | Accuracy    |             |             |
|-----------------|----------------------------------|-------------|-------------|-------------|
|                 |                                  | 9233A       | 9233B       | 9233C       |
| DC Voltage      | 200mV/2V/20V/200V                | ±(0.5%+2)   | ±(0.5%+2)   | ±(0.5%+2)   |
|                 | 600V                             | ±(0.8%+2)   | ±(0.8%+2)   | ±(0.8%+2)   |
| AC Voltage      | 200V/600V                        | ±(1.2%+10)  | ±(1.2%+10)  | ±(1.2%+10)  |
| DC Current      | 200μA/2mA/20mA                   | ±(1.0%+2)   | ±(1.0%+2)   | ±(1.0%+2)   |
|                 | 200mA                            | ±(1.5%+2)   | ±(1.5%+2)   | ±(1.5%+2)   |
| Resistance      | 10A                              | ±(3.0%+2)   | ±(3.0%+2)   | ±(3.0%+2)   |
|                 | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ          | ±(0.8%+2)   | ±(0.8%+2)   | ±(0.8%+2)   |
| Temperature(°C) | 20MΩ                             | ±(1.0%+2)   | ±(1.0%+2)   | ±(1.0%+2)   |
|                 | -20°C~1000°C                     |             |             | ±(2.0%+3)   |
| Temperature(°F) | -4°F~1832°F                      |             |             | ±(2.0%+3)   |
| Feature         |                                  | 9233A       | 9233B       | 9233C       |
| Display         |                                  | 2000 Counts | 2000 Counts | 2000 Counts |
| Data hold       |                                  | ✓           | ✓           | ✓           |
| Back light      |                                  |             | ✓           | ✓           |
| Diode test      |                                  | ✓           | ✓           | ✓           |
| Continuity      |                                  | ✓           | ✓           | ✓           |
| Temperature     |                                  |             |             | ✓           |
| General         |                                  |             |             |             |
| Power supply    | 9V6F22 Battery                   |             |             |             |
| Weight          | Approx 110g                      |             |             |             |
| Size            | 140mm x67mm x30mm                |             |             |             |
| Safety Rating   | CE CAT.III1000V CAT.III600V RoHS |             |             |             |

## 9233D/9233E

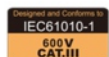
## DIGITAL MULTIMETERS

数显万用表

| Specifications     | Range                            | Accuracy    |                 |
|--------------------|----------------------------------|-------------|-----------------|
|                    |                                  | 9233D       | 9233E (MOQ1000) |
| DC Voltage         | 200mV/2V/20V/200V                | ±(0.5%+2)   | ±(0.5%+2)       |
|                    | 600V                             | ±(0.8%+2)   | ±(0.8%+2)       |
| AC Voltage         | 2V/20V/200V/600V                 | ±(1.0%+3)   | ±(1.0%+3)       |
| DC Current         | 200μA/2mA/20mA/200mA             | ±(1.0%+3)   | ±(1.0%+3)       |
|                    | 10A                              | ±(3.0%+3)   | ±(3.0%+3)       |
| AC Current         | 200μA/2mA/20mA/200mA             | ±(1.2%+3)   | ±(1.2%+3)       |
|                    | 10A                              | ±(3.0%+5)   | ±(3.0%+5)       |
| Resistance         | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ          | ±(0.8%+2)   | ±(0.8%+2)       |
| Frequency          | 20kHz                            | ±(1.0%+2)   | ±(1.0%+2)       |
| Temperature(°C)    | -20°C~1000°C                     |             | ±(3.0%+3)       |
| Temperature(°F)    | -4°F~1832°F                      |             | ±(3.0%+3)       |
| Feature            |                                  | 9233D       | 9233E           |
| Display            |                                  | 2000 Counts | 2000 Counts     |
| Auto range         |                                  | ✓           | ✓               |
| Data hold          |                                  | ✓           | ✓               |
| Back light         |                                  | ✓           | ✓               |
| Diode test         |                                  | ✓           | ✓               |
| Continuity         |                                  | ✓           | ✓               |
| Maximum Value hold |                                  | ✓           | ✓               |
| General            |                                  |             |                 |
| Power supply       | 9V6F22 Battery                   |             |                 |
| Weight             | Approx 110g                      |             |                 |
| Size               | 140mm x67mm x30mm                |             |                 |
| Safety Rating      | CE CAT.III1000V CAT.III600V RoHS |             |                 |



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## 9600A/9880A/9600C

## DIGITAL MULTIMETERS

数显万用表

| Specifications  | Range                            | 9600A       | 9880A       | 9600C (MOQ1000) |
|-----------------|----------------------------------|-------------|-------------|-----------------|
| DC Voltage      | 200mV/2V/20V/200V                | ±(0.5%+2)   | ±(0.5%+2)   | ±(0.5%+2)       |
|                 | 1000V                            | ±(0.8%+2)   | ±(0.8%+2)   | ±(0.8%+2)       |
| AC Voltage      | 200mV                            | ±(1.2%+3)   | ±(1.2%+3)   | ±(1.2%+3)       |
|                 | 2V/20V/200V                      | ±(0.8%+3)   | ±(0.8%+3)   | ±(0.8%+3)       |
| DC Current      | 750V                             | ±(1.2%+3)   | ±(1.2%+3)   | ±(1.2%+3)       |
|                 | 20μA                             | ±(2.0%+5)   |             |                 |
|                 | 200μA                            | ±(0.8%+1)   |             |                 |
|                 | 2mA/20mA/200mA                   | ±(1.2%+3)   | ±(1.2%+3)   | ±(1.2%+3)       |
| AC Current      | 20A                              | ±(2.0%+5)   | ±(2.0%+5)   | ±(2.0%+5)       |
|                 | 20μA                             | ±(2.0%+5)   |             |                 |
| Resistance      | 200μA/2mA/20mA/200mA             | ±(1.8%+5)   | ±(1.8%+5)   | ±(1.8%+5)       |
|                 | 20A                              | ±(3.0%+5)   | ±(3.0%+5)   | ±(3.0%+5)       |
| Capacitance     | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ          | ±(0.8%+3)   | ±(0.8%+3)   | ±(0.8%+3)       |
|                 | 20MΩ                             | ±(1.0%+2)   | ±(1.0%+2)   | ±(1.0%+2)       |
| Frequency       | 200MΩ                            | ±(6.0%+10)  | ±(6.0%+10)  | ±(6.0%+10)      |
|                 | 2nF/20nF/200nF/2μF/20μF          |             | ±(4.0%+3)   | ±(4.0%+3)       |
| Temperature(°C) | 200μF                            |             | ±(6.0%+10)  | ±(6.0%+10)      |
|                 | -20°C~1000°C                     |             |             | ±(2.0%+3)       |
| <b>Feature</b>  |                                  |             |             |                 |
| Display         |                                  | 2000 Counts | 2000 Counts | 2000 Counts     |
| Data hold       |                                  | ✓           | ✓           | ✓               |
| Auto power off  |                                  | ✓           | ✓           | ✓               |
| Diode test      |                                  | ✓           | ✓           | ✓               |
| Transistor      |                                  | ✓           | ✓           | ✓               |
| Continuity      |                                  | ✓           | ✓           | ✓               |
| <b>General</b>  |                                  |             |             |                 |
| Power supply    | 9V6F22 Battery                   |             |             |                 |
| Weight          | Approx 380g                      |             |             |                 |
| Size            | 190mmx89mmx50mm                  |             |             |                 |
| Safety Rating   | CE CAT.III1000V CAT.III600V RoHS |             |             |                 |

## 9600D/9880B/9600F

## DIGITAL MULTIMETERS

数显万用表

| Specifications  | Range                            | 9600D (MOQ1000) | 9880B       | 9600F (MOQ1000) |
|-----------------|----------------------------------|-----------------|-------------|-----------------|
| DC Voltage      | 200mV/2V/20V/200V                | ±(0.5%+2)       | ±(0.5%+2)   | ±(0.1%+3)       |
|                 | 1000V                            | ±(0.8%+2)       | ±(0.8%+2)   | ±(0.15%+3)      |
| AC Voltage      | 2V/20V/200V                      | ±(0.8%+3)       | ±(0.8%+3)   | ±(0.8%+10)      |
|                 | 750V                             | ±(1.2%+3)       | ±(1.2%+3)   | ±(1.0%+15)      |
| AC Current      | 2mA/20mA/200mA                   | ±(1.2%+3)       | ±(1.2%+3)   | ±(0.8%+5)       |
|                 | 20A                              | ±(2.0%+5)       | ±(2.0%+5)   | ±(2.0%+10)      |
| AC Current      | 2mA/20mA/200mA                   | ±(1.8%+5)       | ±(1.8%+5)   | ±(0.8%+10)      |
|                 | 20A                              | ±(3.0%+5)       | ±(3.0%+5)   | ±(2.5%+10)      |
| Resistance      | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ          | ±(0.8%+3)       | ±(0.8%+3)   | ±(0.5%+3)       |
|                 | 20MΩ                             | ±(1.0%+5)       | ±(1.0%+5)   | ±(0.5%+3)       |
| Capacitance     | 200MΩ                            | ±(6.0%+10)      | ±(6.0%+10)  | ±(5.0%+10)      |
|                 | 2nF/20nF/200nF/2μF/20μF          | ±(4.0%+3)       | ±(4.0%+3)   | ±(4.0%+20)      |
| Frequency       | 200μF                            | ±(6.0%+10)      | ±(6.0%+10)  | ±(6.0%+20)      |
|                 | 20kHz                            | ±(2.0%+5)       | ±(2.0%+5)   | ±(1.5%+5)       |
| Temperature(°C) | 2kHz                             | ±(1.5%+5)       |             |                 |
|                 | -20°C~1000°C                     |                 | ±(2.0%+3)   |                 |
| <b>Feature</b>  |                                  |                 |             |                 |
| Display         |                                  | 2000 Counts     | 2000 Counts | 20000 Counts    |
| Data hold       |                                  | ✓               | ✓           | ✓               |
| Auto power off  |                                  | ✓               | ✓           | ✓               |
| Diode test      |                                  | ✓               | ✓           | ✓               |
| Transistor      |                                  | ✓               | ✓           | ✓               |
| Continuity      |                                  | ✓               | ✓           | ✓               |
| <b>General</b>  |                                  |                 |             |                 |
| Power supply    | 9V6F22 Battery                   |                 |             |                 |
| Weight          | Approx 380g                      |                 |             |                 |
| Size            | 190mmx89mmx50mm                  |                 |             |                 |
| Safety Rating   | CE CAT.III1000V CAT.III600V RoHS |                 |             |                 |



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## 9880E/9880D/9880G

## DIGITAL MULTIMETERS

数显万用表

| Specifications | Range                           | Accuracy     |             |             |
|----------------|---------------------------------|--------------|-------------|-------------|
|                |                                 | MCH-9880E    | MCH-9880D   | MCH-9880G   |
| DC Voltage     | 200mV/2V/20V/200V               | ±(0.1%+5)    | ±(0.5%+1)   | ±(0.1%+5)   |
|                | 1000V                           | ±(0.15%+5)   | ±(0.8%+2)   | ±(0.15%+5)  |
| AC Voltage     | 2V/20V/200V                     | ±(0.8%+15)   | ±(0.8%+3)   | ±(0.8%+15)  |
|                | 750V                            | ±(1.0%+15)   | ±(1.2%+3)   | ±(1.0%+15)  |
| DC Current     | 2mA                             | ±(0.5%+10)   |             | ±(0.5%+10)  |
|                | 200mA                           |              | ±(1.5%+1)   |             |
| AC Current     | 20A                             | ±(2.0%+20)   | ±(2.0%+5)   | ±(2.0%+20)  |
|                | 2mA/200mA                       | ±(1.2%+20)   |             | ±(0.8%+20)  |
| Resistance     | 20A                             |              | ±(1.8%+3)   | ±(1.2%+20)  |
|                | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ    | ±(2.5%+50)   | ±(3.0%+7)   | ±(2.5%+50)  |
| Capacitance    | 200MΩ                           | ±(0.8%+5)    | ±(0.8%+1)   | ±(0.8%+5)   |
|                | 20nF/200nF/2μF/200μF            | ±(5.0%+10)   | ±(5.0%+10)  | ±(5.0%+10)  |
| Inductance     | 20nF/200nF/2μF/200μF            | ±(4.0%+20)   |             | ±(4.0%+20)  |
|                | 20mH/200mH/2H/20H               |              | ±(4.0%+5)   |             |
| Frequency      | 20kHz                           | ±(1.5%+5)    |             | ±(1.5%+5)   |
| <b>Feature</b> |                                 |              |             |             |
| Display        |                                 | 20000 Counts | 2000 Counts | 4000 Counts |
| Data hold      |                                 | ✓            | ✓           | ✓           |
| Diode test     |                                 | ✓            | ✓           | ✓           |
| Transistor     |                                 | ✓            | ✓           | ✓           |
| Continuity     |                                 | ✓            | ✓           | ✓           |
| Back light     |                                 | ✓            | ✓           | ✓           |
| <b>General</b> |                                 |              |             |             |
| Power supply   | 9V6F22 Battery                  |              |             |             |
| Weight         | Approx 380g                     |              |             |             |
| Size           | 188mmx92mmx50mm                 |              |             |             |
| Safety Rating  | CE CAT.III1000V CAT.IV600V RoHS |              |             |             |



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CAT.III



## 9840A/9840B/9840C

## DIGITAL MULTIMETERS

数显万用表

| Specifications  | Range                           | 9840A       | 9840B       | 9840C (MOQ1000) |
|-----------------|---------------------------------|-------------|-------------|-----------------|
| DC Voltage      | 200mV/2V/20V/200V               | ±(0.5%+1)   | ±(0.5%+1)   | ±(0.5%+1)       |
|                 | 1000V                           | ±(0.8%+2)   | ±(0.8%+2)   | ±(0.8%+2)       |
| AC Voltage      | 200mV/2V/20V/200V               | ±(0.8%+3)   |             |                 |
|                 | 2V/20V/200V                     |             | ±(0.8%+3)   | ±(0.8%+3)       |
| DC Current      | 750V                            | ±(1.2%+3)   | ±(1.2%+3)   | ±(1.2%+3)       |
|                 | 20uA/200uA/2mA/20mA/200mA       | ±(1.0%+5)   |             |                 |
| AC Current      | 2mA/20mA/200mA                  |             | ±(1.0%+5)   |                 |
|                 | 20mA/200mA                      |             |             | ±(1.5%+1)       |
| Resistance      | 10A                             | ±(2.0%+5)   | ±(2.0%+5)   | ±(2.0%+5)       |
|                 | 20uA/200uA/2mA/20mA/200mA       | ±(1.0%+5)   |             |                 |
| Capacitance     | 20mA/200mA                      |             | ±(1.2%+5)   |                 |
|                 | 10A                             |             |             | ±(1.8%+3)       |
| Resistance      | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ    | ±(3.0%+7)   | ±(3.0%+7)   | ±(3.0%+7)       |
|                 | 200MΩ                           | ±(0.8%+3)   | ±(0.8%+5)   | ±(0.8%+5)       |
| Capacitance     | 2nF/20nF/200nF/2μF/20μF         | ±(5.0%+10)  | ±(5.0%+10)  | ±(5.0%+10)      |
|                 | 20nF/200nF/2μF/20μF             |             |             |                 |
| Frequency       | 200μF                           |             | ±(4.0%+5)   | ±(4.0%+5)       |
|                 | 20kHz                           |             | ±(5.0%+10)  | ±(5.0%+10)      |
| Temperature(°C) | -20°C~1000°C                    |             |             | ±(1.5%+5)       |
| <b>Feature</b>  |                                 |             |             |                 |
| Display         |                                 | 2000 Counts | 2000 Counts | 2000 Counts     |
| Data hold       |                                 | ✓           | ✓           | ✓               |
| Diode test      |                                 | ✓           | ✓           | ✓               |
| Transistor      |                                 |             | ✓           | ✓               |
| Continuity      |                                 | ✓           | ✓           | ✓               |
| Back light      |                                 | ✓           | ✓           | ✓               |
| <b>General</b>  |                                 |             |             |                 |
| Power supply    | 9V6F22 Battery                  |             |             |                 |
| Weight          | Approx 380g                     |             |             |                 |
| Size            | 188mmx92mmx50mm                 |             |             |                 |
| Safety Rating   | CE CAT.III1000V CAT.IV600V RoHS |             |             |                 |



## MCH-87A/87B/87C

## HANDHELD MULTIMETERS

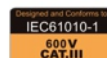
数显万用表



| Specifications          | Range                    | Accuracy   |            |
|-------------------------|--------------------------|------------|------------|
|                         |                          | 87B        | 87C        |
| DC Voltage              | 220V/2V/20V/200V/1000V   | ±(0.5%+3)  |            |
| AC Voltage              | 220V/2V/20V/200V/750V    | ±(0.8%+3)  |            |
|                         | 2V/20V/200V/750V         |            | ±(0.8%+3)  |
| DC Current              | 2mA/20mA/200mA/20A       | ±(0.8%+3)  |            |
|                         | 20mA/200mA/20A           |            | ±(0.8%+3)  |
| AC Current              | 2mA/20mA/200mA/20A       | ±(1.0%+3)  |            |
|                         | 20mA/200mA/20A           |            | ±(1.0%+3)  |
| Resistance              | 200/2K/20K/200KΩ         | ±(0.8%+3)  | ±(0.8%+3)  |
|                         | 2M/20M/200MΩ             |            |            |
| Capacitance             | 2nF/20nF/200nF/2uF/200uF | ±(2.5%+20) |            |
|                         | 2nF/20nF/200nF/2uF       |            | ±(2.5%+20) |
|                         | 20uF/200uF               |            |            |
| Frequency               | 200kHz                   |            | ±(1.5%+5)  |
| Temperature             | -40°C-1000°C             |            | ±(3%+3)    |
| Input impedance         |                          | 10MΩ       | 10MΩ       |
| Sampling Audio Sounding |                          | 400Hz      | 400Hz      |
| <b>Feature</b>          |                          | 87B        | 87C        |
| Diode test              |                          | ✓          | ✓          |
| Audion test             |                          | ✓          | ✓          |
| On-off buzzer           |                          | ✓          | ✓          |
| Low voltage display     |                          | ✓          | ✓          |
| Data hold               |                          | ✓          | ✓          |
| Auto power off          |                          | ✓          | ✓          |
| Function protection     |                          | ✓          | ✓          |
| Maximum display         |                          | 1999       | 1999       |
| <b>General</b>          |                          |            |            |
| Power supply            | 9V Battery (6F22)        |            |            |
| Size                    | 200 X 96 X 57 mm         |            |            |
| Weight                  | 400g                     |            |            |



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## MCH-87D/87E

## HANDHELD MULTIMETERS

数显万用表

| Specifications          | Range                    | Accuracy  |           |
|-------------------------|--------------------------|-----------|-----------|
|                         |                          | 87D       | 87E       |
| DC Voltage              | 220V/2V/20V/200V/1000V   | ±(0.8%+3) | ±(0.8%+3) |
| AC Voltage              | 220V/2V/20V/200V/750V    | ±(0.8%+3) | ±(1.0%+3) |
|                         | 2V/20V/200V/750V         | ±(0.8%+3) |           |
| DC Current              | 2mA/20mA/200mA/20A       | ±(0.8%+3) | ±(0.8%+3) |
|                         | 20mA/200mA/20A           | ±(0.8%+3) |           |
| AC Current              | 2mA/20mA/200mA/20A       | ±(1.0%+5) | ±(1.2%+3) |
|                         | 20mA/200mA/20A           | ±(1.0%+5) |           |
| Resistance              | 200/2K/20K/200KΩ         | ±(0.5%+3) | ±(0.8%+3) |
|                         | 2M/20M/200MΩ             |           |           |
| Capacitance             | 2nF/20nF/200nF/2uF/200uF | ±(3.0%+3) | ±(4.0%+3) |
|                         | 2nF/20nF/200nF/2uF       | ±(3.0%+3) |           |
|                         | 20uF/200uF               |           |           |
| Frequency               | 200kHz                   | ±(2.0%+5) |           |
| Temperature             | -40°C-1000°C             |           |           |
| Input impedance         |                          | 10MΩ      | 10MΩ      |
| Sampling Audio Sounding |                          | 400Hz     | 400Hz     |
| <b>Feature</b>          |                          | 87A       | 87C       |
| Diode test              |                          | ✓         | ✓         |
| Audion test             |                          | ✓         | ✓         |
| On-off buzzer           |                          | ✓         | ✓         |
| Low voltage display     |                          | ✓         | ✓         |
| Data hold               |                          | ✓         | ✓         |
| Auto power off          |                          | ✓         | ✓         |
| Function protection     |                          | ✓         | ✓         |
| Maximum display         |                          | 1999      | 1999      |
| <b>General</b>          |                          |           |           |
| Power supply            | 9V Battery (6F22)        |           |           |
| Size                    | 200 X 96 X 57 mm         |           |           |
| Weight                  | 400g                     |           |           |



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## 9800C/9800F

### DIGITAL MULTIMETERS

数显万用表



| Specifications                    | Range                            | Accuracy                        |             |
|-----------------------------------|----------------------------------|---------------------------------|-------------|
|                                   |                                  | MCH-9880F                       | MCH-9880C   |
| DC Voltage                        | 400mV/4V/40V/400V                | ±(0.5%+2)                       | ±(0.5%+3)   |
|                                   | 1000V                            | ±(0.8%+2)                       | ±(0.8%+5)   |
|                                   | 400mV                            | ±(2.0%+3)                       | ±(1.2%+20)  |
| AC Voltage                        | 4V/40V/400V                      | ±(0.8%+3)                       | ±(0.8%+3)   |
|                                   | 750V                             | ±(1.0%+3)                       | ±(1.0%+5)   |
|                                   | 400μA/4000μA/40mA/400mA          | ±(0.8%+2)                       | ±(1.0%+5)   |
| DC Current                        | 20A                              | ±(1.2%+2)                       | ±(1.5%+8)   |
|                                   | 400μA/4000μA/40mA/400mA          | ±(1.5%+2)                       | ±(1.5%+8)   |
|                                   | 20A                              | ±(2.0%+2)                       | ±(2.0%+10)  |
| Resistance                        | 400Ω/4kΩ/40kΩ/400kΩ/4MΩ          | ±(0.8%+1)                       | ±(1.0%+3)   |
|                                   | 40MΩ                             | ±(1.0%+2)                       | ±(1.2%+15)  |
|                                   | 4nF/40nF/400nF/4μF/40μF/200μF    | ±(4.0%+5)                       |             |
| Capacitance                       | 40nF/400nF/4μF/40μF/400μF/4000μF | ±(4.0%+5)                       |             |
| Frequency                         | 10Hz~10MHz                       | ±(0.5%+2)                       | ±(1.5%+15)  |
| Duty cycle                        | 1%~99%                           | ±(2.0%+2)                       | ±(2.0%+2)   |
| Temperature(°C)                   | -20°C~1000°C                     | ±(2.0%+2)                       |             |
| Feature                           |                                  | MCH-9880F                       | MCH-9880C   |
| Display                           |                                  | 4000 Counts                     | 4000 Counts |
| Auto and manual range             |                                  | ✓                               | ✓           |
| Relative Measurement              |                                  | ✓                               | ✓           |
| Max/Min Value hold                |                                  | ✓                               | ✓           |
| Data hold                         |                                  | ✓                               | ✓           |
| Non-Contact Voltage Detector(NCV) |                                  | ✓                               | ✓           |
| Diode test                        |                                  | ✓                               | ✓           |
| Transistor                        |                                  | ✓                               | ✓           |
| Continuity                        |                                  | ✓                               | ✓           |
| Back light                        |                                  | ✓                               | ✓           |
| General                           |                                  |                                 |             |
| Power supply                      |                                  | 9V6F22 Battery                  |             |
| Weight                            |                                  | Approx 380g                     |             |
| Size                              |                                  | 188mmx92mmx50mm                 |             |
| Safety Rating                     |                                  | CE CAT.III1000V CAT.IV600V RoHS |             |



## 9800A/9800B

### DIGITAL AC CLAMP METER

数显交流钳表

| Specifications  | Range       | Accuracy                        |             |
|-----------------|-------------|---------------------------------|-------------|
|                 |             | 9800A                           | 9800B       |
| DC Voltage      | 1000V       | ±(1.0%+2)                       | ±(1.0%+2)   |
| AC Voltage      | 750V        | ±(1.0%+5)                       | ±(1.0%+5)   |
| AC Current      | 20A/200A    | ±(2.0%+5)                       | ±(2.0%+5)   |
|                 | 1000A       | ±(2.0%+7)                       | ±(2.0%+7)   |
| Resistance      | 200Ω/2000Ω  | ±(1.0%+3)                       | ±(1.0%+3)   |
| Temperature(°C) | -20°C~750°C |                                 | ±(1.0%+5)   |
| Feature         |             | 9800A                           | 9800B       |
| Display         |             | 2000 Counts                     | 2000 Counts |
| Data hold       |             | ✓                               | ✓           |
| Diode           |             | ✓                               | ✓           |
| Continuity      |             | ✓                               | ✓           |
| Back light      |             | ✓                               | ✓           |
| General         |             |                                 |             |
| Power supply    |             | 9V 6F22 Battery                 |             |
| Weight          |             | Approx 410g                     |             |
| Size            |             | 250mmx99mmx43mm                 |             |
| Jaw Size        |             | Ø42mm                           |             |
| Safety Rating   |             | CE CAT.II1000V CAT.III600V RoHS |             |



**MCH-9810B** (MOQ100)**EARTH RESISTANCE CLAMP TESTER**

数显钳形接地电阻表

| Specifications          | Range                                 | Accuracy       | Resolution |
|-------------------------|---------------------------------------|----------------|------------|
| Resistance              | 0.01Ω ~ 0.999Ω                        | ±(1.5%+0.01Ω)  | 0.001Ω     |
|                         | 1Ω ~ 9.99Ω                            | ±(1.5%+0.1Ω)   | 0.01Ω      |
|                         | 10Ω ~ 99.9Ω                           | ±(2.0%+0.3Ω)   | 0.1Ω       |
|                         | 100Ω ~ 199.9Ω                         | ±(3.0%+1Ω)     | 1Ω         |
|                         | 200Ω ~ 400Ω                           | ±(6.0%+5Ω)     | 5Ω         |
|                         | 400Ω ~ 600Ω                           | ±(10%+10Ω)     | 10Ω        |
|                         | 600Ω ~ 1200Ω                          | approx.20%     | 20Ω        |
| Current                 | 100mA                                 | ±(2.5%+1mA))   | 0.1mA      |
|                         | 300mA                                 | ±(2.5%+2mA)    | 0.3mA      |
|                         | 1A                                    | ±(2.5%+0.003A) | 0.001A     |
|                         | 3A                                    | ±(2.5%+0.01A)  | 0.003A     |
|                         | 10A                                   | ±(2.5%+0.03A)  | 0.01A      |
|                         | 40A                                   | ±(2.5%+0.05A)  | 0.03A      |
| Features                |                                       |                |            |
| Auto Ranging            | ✓                                     |                |            |
| Data logging And recall | 99 groups                             |                |            |
| Alarm Limit Setting     | Setting Alarm threshold In 1Ω to 100Ω |                |            |
| LBD                     | Low Battery Display                   |                |            |
| Data Hold               | ✓                                     |                |            |
| Display                 | 9999 Counts                           |                |            |
| General                 |                                       |                |            |
| Power Supply            | 9V6F22 Battery                        |                |            |
| Product Size            | 54mmx104mmx276mm(2.1" x4.1" x10.9" )  |                |            |
| Product Weight          | 1050g(2.3lb)                          |                |            |
| Category                | CE CAT.II600V RoHS                    |                |            |

**MCH-9830F****DIGITAL ANEMOMETER METER**

数显风速计

| Air Velocity                   | Range                                  | Accuracy              | 9830F |
|--------------------------------|----------------------------------------|-----------------------|-------|
| m/s(meter per second)          | 0.40~30.0                              | ±(2.0% reading + 50 ) | ✓     |
| ft/m(feet per minute)          | 80~5900                                | ±(2.0% reading + 50 ) | ✓     |
| km/h(kilometer per hour)       | 1.4~108.0                              | ±(2.0% reading + 50 ) | ✓     |
| mile/h(mile per hour)          | 0.9~67.0                               | ±(2.0% reading + 50 ) | ✓     |
| Knots(nautical miles per hour) | 0.8~58.0                               | ±(2.0% reading + 50 ) | ✓     |
| Air Flow                       | Range                                  | Area                  | 9830F |
| CFM                            | 0 to 99990                             | 0 to 9.999ft2         | ✓     |
| CMM                            | 0 to 99990                             | 0 to 9.999ft2         | ✓     |
| CMS                            | 0 to 9999                              | 0 to 9.999 m²         | ✓     |
| Flow Area Setting              |                                        |                       | ✓     |
| MAX/MIN Function               |                                        |                       | ✓     |
| Display Back light             |                                        |                       | ✓     |
| Auto Power Off                 |                                        |                       | ✓     |
| Low Battery Indication         |                                        |                       | ✓     |
| <b>General</b>                 |                                        |                       |       |
| Power Supply                   | 1x 9V 6 F 22                           |                       |       |
| Product Size                   | 165mm x 85mm x 38mm(6.5" x 3.3" x1.5") |                       |       |
| Product Weight                 | 200g (0.41b)                           |                       |       |
| Category                       | CE RoHS                                |                       |       |



# MCH-9831B

## DIGITAL ANEMOMETER METER WITH TEMPERATURE & HUMIDITY

数显风速风温/湿度仪

| Air Velocity                                        | Range                                    | Accuracy                  | 9831B |
|-----------------------------------------------------|------------------------------------------|---------------------------|-------|
| m/s (meter per second)                              | 0.40~30.0                                | ±(2.0% reading + 50)      | ✓     |
| ft/m (feet per minute)                              | 80~5900                                  | ±(2.0% reading + 50)      | ✓     |
| km/h (kilometer per hour)                           | 1.4~108.0                                | ±(2.0% reading + 50)      | ✓     |
| mile/h (mile per hour)                              | 0.9~67.0                                 | ±(2.0% reading + 50)      | ✓     |
| Knots (nautical miles per hour)                     | 0.8~58.0                                 | ±(2.0% reading + 50)      | ✓     |
| Air Temperature                                     | -20 to 60°C (-14 to 140°F)               | 1.5°C (±2.7°F)            | ✓     |
| Air Relative Humidity                               | 0 to 100% RH                             | ±3%                       | ✓     |
| Air Flow                                            | Range                                    | Area                      | 9831B |
| CFM                                                 | 0 to 99990                               | 0 to 9.999ft <sup>2</sup> | ✓     |
| CMM                                                 | 0 to 99990                               | 0 to 9.999ft <sup>2</sup> | ✓     |
| CMS                                                 | 0 to 9999                                | 0 to 9.999 m <sup>2</sup> | ✓     |
| Flow Area Setting                                   |                                          |                           | ✓     |
| MAX/MIN Function                                    |                                          |                           | ✓     |
| Display Back light                                  |                                          |                           | ✓     |
| Auto Power Off                                      |                                          |                           | ✓     |
| °C/°F Selection                                     |                                          |                           | ✓     |
| Ambient, Dew Point & Wet Bulb Temperature Selection |                                          |                           | ✓     |
| Low Battery Indication                              |                                          |                           | ✓     |
| USB Interface                                       |                                          |                           | ✓     |
| General                                             |                                          |                           |       |
| Power Supply                                        | 1 x 9V 6F22                              |                           |       |
| Product Size                                        | 165mm x 85mm x 38mm (6.5" x 3.3" x 1.5") |                           |       |
| Product Weight                                      | 200g (0.41lb)                            |                           |       |
| Category                                            | CE RoHS                                  |                           |       |



# MCH-9831C

## DIGITAL LUX METER

数显光照度计

| Specifications         | Range                                    |
|------------------------|------------------------------------------|
| Measurement range      | 0~200000Lux/ 0~20000FC                   |
| Accuracy               | +3%                                      |
| Resolution             | 0.01Lux/0.01FC                           |
| Display                | 2000 counts                              |
| Analog Bar Indication  | ✓                                        |
| Auto Range             | ✓                                        |
| Manual Range           | ✓                                        |
| Auto Power Off         | ✓                                        |
| MAX/MIN Function       | ✓                                        |
| Relative Measurement   | ✓                                        |
| Peak Measurement       | ✓                                        |
| FC/Lux Unit Selection  | ✓                                        |
| Data Hold              | ✓                                        |
| Display Backlight      | ✓                                        |
| Low Battery indication | ✓                                        |
| General                |                                          |
| Power Supply           | 1 x 9V 6F22 Battery                      |
| Product Size           | 170mm x 89mm x 43mm (6.7" x 3.5" x 1.7") |
| Product Weight         | 177g (0.39lb)                            |
| Category               | CE RoHS                                  |



## MCH-9820A

### THREE PHASE DIGITAL POWER CLAMP METER

三相数显谐波钳型功率表

| Specifications | Range                   | Accuracy                              |
|----------------|-------------------------|---------------------------------------|
| AC Voltage     | 0.1~600V                | ±(1.2%+5)                             |
| AC Current     | 0.1A~1000A              | ±(2.0%+5)                             |
| Active Power   | 0.1kW~600kW             | ±(3.0%+5)                             |
| Apparent power | 0.1kVA~600kVA           | ±(3.0%+5)                             |
| Reactive power | 0.1kVAr~600kVAr         | ±(4.0%+5)                             |
| Power Factor   | 0.3~1                   | ±((0.02+2)                            |
| Active Energy  | 0.001kWh~10000kWh       | ±(3.0%+2)                             |
| Frequency      | 20Hz~1000Hz             | ±0.5%                                 |
| Feature        | Auto Power Off          | ✓                                     |
|                | Auto Ranging            | ✓                                     |
|                | Max/min                 | ✓                                     |
|                | Data Hold               | ✓                                     |
|                | Display Back Light      | ✓                                     |
|                | Jaw opening             | Ø50mm/2.0"                            |
|                | Data logging And recall | 28 groups                             |
|                | LBD                     | Low Battery indication                |
| General        | Power Supply            | 4 x 1.5V AA Batteries                 |
|                | Product Size            | 300mm x103mm x51mm(11.8" x4.1" x2.0") |
| General        | Product Weight          | 640g(1.4lb)                           |
|                | Category                | CE CAT .III 600V RoHS                 |



## MCH-9820B

### HARMONIOUS POWER CLAMP METER

三相数显谐波钳型功率表

| Specifications                               | Range                   | Accuracy                              |
|----------------------------------------------|-------------------------|---------------------------------------|
| AC Voltage                                   | 0.1~600V                | ±(1.2%+5)                             |
| AC Current                                   | 0.1A~1000A              | ±(2.0%+5)                             |
| Active Power                                 | 0.1kW~600kW             | ±(3.0%+5)                             |
| Apparent power                               | 0.1kVA~600kVA           | ±(3.0%+5)                             |
| Reactive power                               | 0.1kVAr~600kVAr         | ±(3.0%+5)                             |
| Power Factor                                 | 0.3~1                   | ±(0.02+2)                             |
| Harmonic Measurement (fundamental frequency) | Harmonic NO.1           | ±(3.0%+10)                            |
|                                              | Harmonic NO.2-6         | ±(3.5%+10)                            |
|                                              | Harmonic NO.7-8         | ±(4.5%+10)                            |
|                                              | Harmonic NO.9-10        | ±(5.0%+10)                            |
|                                              | Harmonic NO.11-15       | ±(7.0%+10)                            |
| Feature                                      | Harmonic NO.16-20       | ±(10%+10)                             |
|                                              | Auto Power Off          | ✓                                     |
|                                              | Auto Ranging            | ✓                                     |
|                                              | Data Hold               | ✓                                     |
|                                              | Display Back Light      | ✓                                     |
|                                              | Jaw opening             | Ø50mm/2.0"                            |
|                                              | Data logging And recall | 100groups                             |
|                                              | LBD                     | Low Battery indication                |
| General                                      | Power Supply            | 4 x 1.5V AA Batteries                 |
|                                              | Product Size            | 300mm x103mm x51mm(11.8" x4.1" x2.0") |
| General                                      | Product Weight          | 640g(1.4lb)                           |
|                                              | Category                | CE CAT .III 600V RoHS                 |



# MCH-9830

## DIGITAL EARTH RESISTANCE TESTER

数显接地电阻测试仪

| Resistance              | Range                                                    | Accuracy   | Resolution |
|-------------------------|----------------------------------------------------------|------------|------------|
| Earth Ground Resistance | 0Ω ~ 29.99Ω                                              | ±(2%+6dgt) | 0.01Ω      |
|                         | 30Ω ~ 99.9Ω                                              | ±(3%+3dgt) | 0.1Ω       |
|                         | 100Ω ~ 999Ω                                              | ±(3%+3dgt) | 1Ω         |
|                         | 1.00kΩ ~ 4.0KΩ                                           | ±(3%+3dgt) | 10Ω        |
| Voltage                 | Range                                                    | Accuracy   | Resolution |
| Earth voltage           | 0V ~ 200V(50V ~ 60Hz)                                    | ±(1%+5dgt) | 0.1V       |
| Features                | »Digital Display & Analog Bars Display                   |            |            |
|                         | »2 Pole and 3 Pole Mode                                  |            |            |
|                         | »Earth Resistance By Constant Current Inverter 800Hz/3mA |            |            |
|                         | »MAX/MIN/AVG/REL Measurement Functions                   |            |            |
|                         | »Data Logging:100 group                                  |            |            |
|                         | »Display Back Light                                      |            |            |
|                         | »Low Battery Indication                                  |            |            |
| » Auto Power Off        |                                                          |            |            |
| General                 |                                                          |            |            |
| Power Supply            | 6x1.5v AA batteries                                      |            |            |
| Product Size            | 180mm x 140mm x65mm (7.1" x 5.5" x 2.6" )                |            |            |
| Product Weight          | 950g(2.0lb)                                              |            |            |
| Category                | CE CAT.III1000V RoHS                                     |            |            |



# MCH-9831

## RCD/LOOP TESTER

漏电开关回/环路测试仪

| Specifications                         | Range                                           | Accuracy    | Resolution |
|----------------------------------------|-------------------------------------------------|-------------|------------|
| Tripping time                          | x1 1ΔN300(slow 500ms)<br>x5 1ΔN40ms(slow 150ms) | ±3ms        | 0.1ms      |
| Tripping Current                       | (0.2-1.1)IΔN                                    | ±0.1IΔN     | 0.5IΔN     |
| Contact Voltage                        | 0~99.9V                                         | ±(10%+0.2V) | 0.01/0.1V  |
| Alternating Voltage(UI-N,UL-L,UL-B)    | 0~440V                                          | ±(3%+3V)    | 1V         |
| Frequency                              | DC,45~65Hz                                      | ±1Hz        | 1Hz        |
| Loop Resistance(RL)                    | 0.1~2000Ω                                       | ±(10%+0.2d) | 0.1Ω       |
| RL Current Test                        | 0.51 IΔN                                        | ±(10%+10d)  | 0.5IΔN     |
| Multiplying Power of Measuring Current | x0.5,x1,x5                                      |             |            |
| Current Level(IΔN)                     | 10mA,30mA,100mA,300mA,500mA                     |             |            |
| Trigger Phase Angle                    | 0° or 180°                                      |             |            |
| Feature                                |                                                 |             |            |
|                                        | Auto Power Off                                  | ✓           |            |
|                                        | Display Back Light                              | ✓           |            |
|                                        | Data logging And recall                         | 100groups   |            |
|                                        | Low Battery indication                          | ✓           |            |
|                                        | USB2.0 Interface                                | ✓           |            |
| General                                |                                                 |             |            |
| Power Supply                           | 6x1.5v AA batteries                             |             |            |
| Product Size                           | 180mm x 140mm x 65mm (7.1" x 5.5" x 2.6" )      |             |            |
| Product Weight                         | 950g(2.0lb)                                     |             |            |
| Category                               | CE CAT.IV600V RoHS                              |             |            |



## MCH-9850A

## DIGITAL INSULATION TESTER

数显绝缘电阻测试仪

|                       | Source Output Voltage                                     | Measuring Range            |
|-----------------------|-----------------------------------------------------------|----------------------------|
| Insulation Tests      | 50V(0%~+20%)                                              | 0.01MΩ~50MΩ±(3%+5)         |
|                       | 100V(0%~+20%)                                             | 0.01MΩ~100MΩ±(3%+5)        |
|                       | 250V(0%~+20%)                                             | 0.01MΩ~250MΩ±(3%+5)        |
|                       | 500V(0%~+20%)                                             | 0.01MΩ~500MΩ±(3%+5)        |
|                       |                                                           | 1.00GΩ~5.00GΩ±(5%+0.1GΩ)   |
|                       | 1000V(0%~+20%)                                            | 5.00GΩ~10.00GΩ±(10%+0.2GΩ) |
| Short Circuit Current | 1.8mA                                                     |                            |
| Multimeter Functions  | DC Voltage Test                                           | 0.1~1000V±0.5%             |
|                       | AC Voltage Test                                           | 0.1~750V±1%                |
|                       | Continuity Test                                           | 0.01Ω~200Ω±0.5%            |
| Features              | » Design according to the IEC61010-1CATIII1000V.CATIV600V |                            |
|                       | » Auto Calculate PI and DAR                               |                            |
|                       | » Store /Read Function                                    |                            |
|                       | » Compare function                                        |                            |
|                       | » Auto discharge for capacitive load                      |                            |
|                       | » Timer Function for insulation test                      |                            |
|                       | » Lock function for insulation test                       |                            |
|                       | »Low Battery Indication                                   |                            |
|                       | » DCV and ACV Test                                        |                            |
|                       | » Continuity test                                         |                            |
|                       | » Auto Power Off                                          |                            |
|                       | » Digital and analog display                              |                            |
| General               |                                                           |                            |
| Power Supply          | 6x1.5v AA Batteries                                       |                            |
| Product Size          | 180mm x 140mm x65mm (7.1" x 5.5" x 2.6" )                 |                            |
| Product Weight        | 950g(2.0lb)                                               |                            |
| Category              | CE CAT III1000V .CAT IV600V RoHS                          |                            |



## MCH-9850B

## DIGITAL INSULATION TESTER

数显绝缘电阻测试仪

|                              | Source Output Voltage                      | Measuring Range            |
|------------------------------|--------------------------------------------|----------------------------|
| Insulation Tests             | 250V(0%~+20%)                              | 0.01MΩ~250MΩ±(3%+5)        |
|                              | 500V(0%~+20%)                              | 0.01MΩ~500MΩ±(3%+5)        |
|                              | 1000V(0%~+20%)                             | 0.01MΩ~1000MΩ±(3%+5)       |
|                              |                                            | 1.00GΩ~5.00GΩ±(5%+0.1GΩ)   |
|                              |                                            | 5.00GΩ~10.00GΩ±(10%+0.2GΩ) |
|                              | 2500V(0%~+20%)                             | 0.1MΩ~2.00GΩ±(3%+5)        |
| Short Circuit Current        |                                            | 2.00GΩ~20.00GΩ±(5%+0.2GΩ)  |
|                              |                                            | 20.0GΩ~100.0GΩ±(10%+2GΩ)   |
| Multimeter Functions         | 2mA                                        |                            |
|                              | DC Voltage Test                            | 0.1~1000V±0.5%             |
|                              | AC Voltage Test                            | 0.1~750V±1%                |
| Features                     | Continuity Test                            | 0.1Ω~200Ω±0.5%             |
|                              | » Design according to the IEC61010-1 1000V |                            |
|                              | CAT III600V IV                             |                            |
|                              | » Auto Calculate PI and DAR                |                            |
|                              | » Store /Read Function                     |                            |
|                              | » Compare function                         |                            |
|                              | » Auto discharge for capacitive load       |                            |
|                              | » Timer Function for insulation test       |                            |
|                              | » Lock function for insulation test        |                            |
|                              | » DCV and ACV Test                         |                            |
|                              | » Continuity test                          |                            |
| » Auto Power Off             |                                            |                            |
| » Digital and analog display |                                            |                            |
| General                      |                                            |                            |
| Power Supply                 | 6x1.5V LR14 batteries                      |                            |
| Product Size                 | 180mm x 140mm x65mm (7.1" x 5.5" x 2.6" )  |                            |
| Product Weight               | 950g(2.0lb)                                |                            |
| Category                     | CE CAT.III1000V RoHS                       |                            |

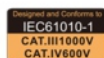


## MCH-9810

### MULTI-FUNCTIONS WIRE TRACKERS

可带电寻线测试仪

| Features               |                                                                                                                                          |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Wire track             | directly track wire type: RJ45,RJ11<br>Track other wire through the attachment                                                           |
| Sequence collation     | Open circuit, short circuit, detection of cable line sequence                                                                            |
| Network wire collation | Test device used with UTP (Unshield Twisted Pair) and STP (Shield twisted Pair) wiring                                                   |
|                        | Tests for open circuits, shorts, miswires, reversals, and split pairs<br>Allow one person to test T568A, T568B, 10Base-T, and Token Ring |
| DC level test          | DC level test                                                                                                                            |
| Telephone line test    | Identify the state of working telephone line(clear,ringing,busy)                                                                         |
| Continuity             | Judge continuity of the cables or wires                                                                                                  |
| Switch port collation  | detection switch connected condition                                                                                                     |
| General                |                                                                                                                                          |
| Power Supply           | Receiver: 9V 6F22 Battery<br>Emitter: 3x1.5V AA                                                                                          |
| Product Size           | Receiver: 212mmx45mmx28mm                                                                                                                |
|                        | Emitter: 120mm x66mm x31mm                                                                                                               |
| Product Weight         | Receiver: 120g                                                                                                                           |
|                        | Emitter: 160g                                                                                                                            |
| Category               | CE CAT.III 300V RoHS                                                                                                                     |



## MCH-9900

### THREE PHASE ROTATION INDICATOR

三相马达相序指示仪

| Specifications                                  | Description                         |
|-------------------------------------------------|-------------------------------------|
| Phase sequence detection                        |                                     |
| Non-contact the rotation direction of the motor |                                     |
| Operating Voltage                               | 120V~400V AC                        |
| Current Consumption                             | ≤20mA                               |
| Frequency Range                                 | 2Hz ~400Hz                          |
| General                                         |                                     |
| Power Supply                                    | 1 x 9V6F22 Battery                  |
| Product Size                                    | 128mm x70mm x30mm(5" x2.75" x1.18") |
| Product Weight                                  | 168g(0.37lb)                        |
| Category                                        | CE CAT.III 600V RoHS                |

