

WELLZION[®]

-Focus On Test Instruments-



Company **Introduction**

Wellzion Electronics Technology Co., Ltd

Wellzion devoted to Test Measurement Industry 10 years.

We worked with international 15 years. Since 2006 we promote and selling digital oscilloscope to international market. Now we distribute wide range qualified test instruments and introduce new reliable products for our customers.

Thanks to the experiences in Test industry and International trade we offer: easy and precision communication; qualified products; competitive quotation; speed shipment; overall supports.

We are aware more of customer need and provide various choices also flexible solutions upon specific request. We keep continuous attention to future industry trend and share industry information with customers and partners.

We are young people with passion and keep persistently on the things we devoted. With our “HAPPY” rule of Honest, Adaptation, Passion, Persistence and Young, we serve every customer with satisfaction.

Partner



IT-Conn



By Industry: Test and measurement, Food, Medical, Chemical, Energy, Power monitor, Electronic Toys, Auto Test etc

Education Partners including:

University of Ferrara

Yildiz Technical University

University of Macau

Cape Peninsula University of Technology



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SDS2000 Series - Features and Benefits Phosphor Oscilloscope, 110,000 wfs/s



- Innovative SPO technology with 2~4 Channels
- 8-inch TFT LCD(800*480) display
- Bandwidth 70MHz,100MHz,200MHz,300MHz
- Sample rate up to 2GSa/s and Memory Depth up to 28Mpts
- Waveform capture rate up to 110,000 wfs/s
- Advanced math operations(FFT,d/dt,intergrate,square root)
- Built-in waveform generator with the max.frequency 25MHz
- A variety of serial trigger and decode functions(I²C,SPI,UART/RS232,CAN,LIN)
- A variety of smart trigger functions(Pattern,Window,Interval,Dropout,Run)
- Support HDTV video trigger function

Specifications	Model	SDS2072/SDS2074	SDS2102/SDS2104	SDS2202/SDS2204	SDS2302/SDS2304
	Bandwidth	70MHz	100MHz	200MHz	300MHz
	Rise Time	<5.0ns	<3.5ns	<1.7ns	<1.2ns
	Real Time Sample Rate	2GSa/s			
	Memory Depth	Max.28Mpts, available			
	Channels	2/4			
	Coupling	AC,DC,GND			
	Max.Input voltage	400Vrms,CAT I,10X,1MΩ			
	Vertical Resolution	8 bit			
	Vertical Scale	2 mV/div ~ 10 V/div			
	Time base Scale	1.0ns/div~50s/div			
	Waveform Capture	110,000 wfm/s			
	Time base Accuracy	±25ppm			
	Trigger Mode	Edge,Slope,Pulse,Video,Window,Interval,Dropout,Run,Pattern,I ² C,SPI,UART/RS232,CAN,LIN			
	Trigger Type	Auto,Normal,Single			
	Trigger Level Range	Internal:±4.5 div from the center of the screen; EXT:±1.2V; EXT/5:±6V			
	Trigger Coupling	AC,DC,LF,Rej,HF Rej			
	Trigger Accuracy	±0.2div			
	Math operation	+,-,*,./,FFT,d/dt,∫ dt,√			
	Auto Measurement	Vpp, Vmax, Vmin, Vamp, Vtop, Vbase, Vavg, Mean, Crms,Vrms, ROV, FOV,RPRE, FPRE, Rise time, Fall time, Freq,Period, +Wid, -Wid, +Dut, -Dut, BWid, Phase, FRR,FRF, FFR, FFF, LRR, LRF, LFR, LFF			
Cursor	Time (X1, X2), (X1 X2); Voltage(Y1, Y2), (Y1 Y2)				
Statistics	Current, Mean, Min, Max, Std-Dev, Count				
Interface	USB Host,USB Device(USBTMC,PictBridge),LAN(VXI-11),EXT TRIG,PASS/FAIL,TRIG OUT				
Display Type	8.0 inch color TFT-LCD,800(Horizontal)*480(Vertical) pixel				
Language	Chinese, English				
Dimension	352mm(L)*112mm(W)*224mm(H)				
Weigh	6.2kg(Net)				

SDG1000 Series - Features and Benefits Arbitrary Waveform Generator,30MHz



- Dual-channel output,125MSa/s sample rate,14bit vertical resolution
- 5 types of standard output waveform, built-in 48 arbitrary waveforms
- Complete set of modulation functions: AM,FM, PM, FSK ASK, PWM, linear/logarithmic sweep, burst
- Synchronous,signal,output,External modulation source input, 10MHz clock input,external trigger input, internal triggeroutput etc
- Channel coupling and duplication function
- Built-in 200MHz (single channel) accurate frequency counter
- High precision clock(1ppm & 10ppm)is optional
- Interfaces: USB Device, USB Host,GPIB(Optional)
- Remote control support

Specifications	Model	SDG1005	SDG1010	SDG1020	SDG1025	SDG1030
Waveform	Sine, Square, Ramp, Pulse, Noise, Arbitrary					
Sine	1μHz~5MHz	1μHz~10MHz	1μHz~20MHz	1μHz~25MHz	1μHz~50MHz	
Square	1μHz~5MHz	1μHz~10MHz	1μHz~20MHz	1μHz~25MHz	1μHz~50MHz	
Pulse	500μHz~5MHz					
Ramp/Triangular	1μHz~300kHz					
Gaussian white noise	>5MHz (-3dB)	>10MHz(-3dB)	>20MHz (-3dB)	>25MHz (-3dB)	50MHz (-3dB)	
Arbitrary	1μHz ~ 5MHz					
Resolution	1μHz					
Accuracy	Within 90days±50ppm within 1 year ±100ppm 18°C~28°C					
Temperature coefficient	<5ppm/°C					
Harmonic Distortion	DC~1MHz:<-60dBc					
Total harmonic waveform distortion	DC~20kHz 1Vpp<0.2%					
Spurious signal(non-harmonic)	DC~1MHz<-70dBc 1MHz~10MHz<-70dBc+6dB/spectrum phase					
Phase noise	10kHz Offset,-108dBc/Hz(typical value)					
Waveform length	16k points					
Vertical resolution	14bits					
Sample rate	125MSa/s					
Min. Rise/Fall time	7ns(typical)					
Jitter(pk-pk)	8ns(typical)					
Storage in non-volatile RAM memory	10 waveforms (10 in total)					
Amplitude Vertical accuracy	±(0.3dB+1mVpp of setting value)					
Amplitude flatness	±0.3 dB (compared to 100 kHz sine,5Vpp)					
Impedance	50Ω					
Protection	short-circuit protection					
Modulation functions	AM,DSB-AM,FM,PM, FSK, ASK, PWM, Sweep,Burst					
Abundant input/output	waveform output,Synchronous signal output,external trigger input					
Frequency Counter	Single Channel:100mHz~200MHz					
Standard Interface	USB Device, USB Host					
Display type	3.5inch'TFT-LCD 320×RGB×240					
Dimension	229(W)mm*105(H)mm*281(D)mm					
Weight	N.W: 2.6kg; G.W: 3.4kg					

SA5061 - Features and Benefits

Bench Type Multimeter, 6½ digits



- VFD display with high-brightness
- True 6½ digits
- Reading rates up to 1000 readings per second
- True RMS measurement of AC voltage and current
- Built-in math operations
- Full measuring functions to meet user's test need
- Standard interface RS-232 ,USB Device; optional interface of GPIB

Specifications	Basic Function	Range	Best Accuracy
	DC Voltage	100mV/1V/10V/100V/1000V	± (0.0035% + 0.0005%)
	AC Voltage	100mV/1V/10V/100V/750V	± (0.06% + 0.03%)
	DC Current	10mA/100mA/1A/3A	± (0.05%+0.02%)
	AC Current	1A/3A	± (0.30%+0.04%)
	Resistance	100Ω/1KΩ/10KΩ/100KΩ/1MΩ/10MΩ/100MΩ	± (0.01%+0.002%)
	Frequency	3Hz/300KHz	± 0.01%
	Temperature	-270 ~ 1372°C	
Features			
Reading Rate	1000 reading/s		
Auto Range	√		
Diode	√		
Continuity	√		
Null	√		
Trigger	√		
Save/Read	√		
Math	MAX.MIN, Average, dB, dBm, Limit Test		
General Characteristics			
Interface	USB, RS-232, GBIP (optional)		
Power	110 V/220 V±10%, 50 Hz/60 Hz, 15 VA		
Dimension	260x106x375 mm		
Weight	Approx. 3.0 kg		

HSA800 Series - Features and Benefits

Handheld Spectrum Analyzer, Max. to 7.5GHz



- Frequency range: 9kHz~3.6GHz(HSA830); 9kHz~7.5GHz(HSA870)
- RBW: 1Hz~3MHz
- 6.5 inches TFT LCD display
- Five trace lines displayed simultaneously
- Various communication interface : USB, LAN
- Tracking Generator optional
- Support SCPI and remote control



3.6GHz/7.5GHz 3MHz RBW 3MHz VBW
USB_Device/USB_Host/LAN/RS232/VGA/GPIB(Optional)

Specifications		Model	HSA830	HSA870
		Frequency range		9kHz~3.6GHz
Resolution		1Hz	1Hz	
Aging rate		<1ppm/year	<1ppm/year	
Temperature stability		<0.5ppm(15 °C~35 °C)	<0.5ppm(15 °C~35 °C)	
Resolution Bandwidth(RBW)		1Hz to 500kHz(1 to 10 continuous), 1MHz, 3MHz		
Selectivity(60dB:3dB)		<5:1 representative value(Digital realization, near to Gauss form)		
RBW Accuracy		< 5%, representative value		
Maximum safe input level		+27 dBm	+23 dBm	
Maximum DC voltage		50Vdc	50Vdc	
Input attenuator range		0dB to 39dB, 3dB step	0dB to 30dB, 1dB step	
1dB Compression Point		+7dBm	+10dBm	
Video Bandwidth(VBW)		10Hz~3MHz		
SSB Phase Noise	Carrier Shift 30kHz	-90 dBc/Hz	-80 dBc/Hz	
	Carrier Shift 100kHz	-100 dBc/Hz	-90 dBc/Hz	
	Carrier Shift 1MHz	-110 dBc/Hz	-110 dBc/Hz	
Sweep specifications	Span≠0Hz	10ms~3000s		
	Span=0 Hz	1ms~3000s		
	Sweep mode	continuous; single		
Marker frequency counter	Resolution	1 Hz, 10Hz, 100Hz, 1kHz		
	TOI	+13dBm(>30MHz)	+15dBm(>30MHz)	
Spurious response	SHI	+30dBm	+40dBm(>30MHz)	
	Input related spurious	<-60dBc	<-60dBc	
	Residual response(Inherent)	<-85dBm	<-85dBm	
	DANL(1Hz resolution)	Support		

General Spec.	
Internal memory	128M
Interface	RF, USB_HOST, USB_DEVICE, LAN, AM/FM
Display	6.5 inch TFT LCD display, 600 pixels*480 pixels
Dimension	288mm×182mm×142mm
Weight	<3kg (including battery)

Analog Oscilloscope



CA8005 student oscilloscope

5MHz bandwidth,single channel
Vertical Sensitivity:50mV / DIV ±10%
Max. Input Voltage:400V (DC+AC peak)
Input Coupling:AC, DC
Trigger:INT (positive or negative)
Easy to operate,Low cost, high performance
Signal input with binding post



ST16A student oscilloscope

10MHz bandwidth,single channel
Pocket, light weight, easy to use
Max. Input Voltage:400V (DC+AC peak)
Input Coupling:AC, DC , GND
Trigger mode:AUTO, NORM, TV
Trigger source:INT, LINE, EXT
High performance-cost ratio, better applicability



CA8016B

10MHz bandwidth,single channel
Pocket, light weight, easy to use
Max. Input Voltage:400V (DC + ACpeak)
Input Coupling:AC, DC , GND
Trigger mode:int,ext,line,TV
Trigger source:INT, LINE, EXT
Sweep mode: auto, norm
High performance-cost ratio, better applicability



CA8222

20MHz bandwidth
6 inch screen,observe clear wave shape
Observe the stable TV-H and TV-V signal
Auto adjusting focus level at measuring
Max. Input Voltage:400V (DC+AC peak) ≤ 1kHz
Input Coupling:AC, DC , GND
Trigger mode: AUTO, NORM, TV
Trigger source:VERT-MODE,CH1,EXT,LIN



MOS-630CH

30MHz bandwidth, Dual Channels
High luminance,internal graticule CRT
Fully sealed long live vertical mode switch
ALT Triggering Function. Two indepen dent signals
Simultaneous observation
10 times sweep magnification
TV Synchronization,X-Y mode

Analog Oscilloscope



MOS-620CF/MOS640CF

20MHz/40MHz Dual Channel
High luminance,internal graticule CRT
Fully sealed long live vertical mode switch
ALT Triggering Function. Two indepen dent signals
Build-in 6 Digit Frequency Counter
10 times sweep magnification
TV Synchronization,X-Y mode



MOS-620

20MHz bandwidth; Dual Channels
High luminance,internal graticule CRT
ALT Triggering Function. Two indepen dent signals
10 times sweep magnification
TV Synchronization,X-Y mode
Input Coupling:AC, DC , GND
Trigger mode:AUTO; NORM: TV-V: TV-H
Trigger source:CH1,CH2,LINE,EXT



MOS-620CH

20MHz bandwidth, Dual Channels
High luminance,internal graticule CRT
Fully sealed long live vertical mode switch
ALT Triggering Function. Two indepen dent signals
Simultaneous observation
10 times sweep magnification
TV Synchronization,X-Y mode



MOS-6100

100MHz Bandwidth,Dual Channel
Time Base Auto-range,Delayed Sweep
Cursor Readout with 7 Measurements
Panel Setup Lock of Digital-Control Functions
Buzzer Alarm;LED Indicators
TV Synchronization;Trigger Signal Output
Z-Axis Modulation Input
SMD Technology, High Stability and Reliability



MOS-6103

100MHz Bandwidth,Dual Channel,Delayed Sweep
10 Sets Memory for Front Panel Setting Save Recall
Time Base Auto-range
Cursor Readout with 7 Measurements
Panel Setup Lock of Digital-Control Functions
Buzzer Alarm;LED Indicators
TV Synchronization;Trigger Signal Output
Z-Axis Modulation Input
SMD Technology, High Stability and Reliability

SHS1000 Series (SHS1062/SHS1102)

Develop with patent Isolated Channel technology to provide isolation from ground and isolation between Channels

5.7 inch TFT LCD display, 2 Channel
60/100MHz bandwidth with 2M record length
Max. 1GS/s Real-time sample rate
50GSa/s Equivalent sampling rate
Integrated oscilloscope, multimeter and data recorder
With 6000 dots display resolution Multimeter
Support Scope/Meter/Data Recorder TrendPlot
32 automatic measurements
3 cursor measure modes
Digital filter: Low/High pass, Band pass, Band limit
Rechargeable Li battery pack
Standard interface: USB_Host, USB_Device
Support PC remote control and PictBridge print



SHS800 Series (SHS806/SHS810/SHS815/SHS820)

5.7 inch TFT LCD display
2 Channel with 2M record length
60MHz/100MHz/150MHz/200MHz bandwidth
50GSa/s Equivalent sampling rate
Integrated oscilloscope, multimeter and data recorder
With 6000 dots display resolution Multimeter
Support Scope/Meter/Data Recorder TrendPlot
32 automatic measurements
3 cursor measure modes
Digital filter: Low/High pass, Band pass, Band limit
Rechargeable Li battery pack
Standard interface: USB_Host, USB_Device
Support PC remote control and PictBridge print



HDS1021M Single channel

20 MHz bandwidth, 100MS/s Sample-rate
Support alternative trigger and Auto-scale
Advantage video trigger function
Optimize trigger sensitivity
With 4000 dots display resolution Multimeter
Dual independent galvanic separated
(for multimeter and between DSO and multimeter)
Safety: CAT II 400 V



SDS2000 Series Phosphor Oscilloscope (SDS2074/SDS2104/SDS2204/SDS2304)

8-inch TFT LCD(800*480) display, 4 Channels
Innovative SPO technology, Phosphor Oscilloscope
Bandwidth 70MHz, 100MHz, 200MHz, 300MHz
Sample rate up to 2GSa/s
Trigger functions: Window, runt, Interval, DropOut, Pattern
Support HDTV video trigger function
Hardware-based zoom and high speed PASS/FAIL
32 kinds of automatic measurements
Advanced math: FFT, d/dt, integrater, square root
Interface: USB, LAN, EXT TRIG, PASS/FAIL, TRIG OUT
Support SCPI remote control commands
Multi-language user interface
Built-in online help system



SDS2000 Series Phosphor Oscilloscope (SDS2072/SDS2102/SDS2202/SDS2302)

8-inch TFT LCD(800*480) display, 2 Channels
Innovative SPO technology, Phosphor Oscilloscope
Bandwidth 70MHz, 100MHz, 200MHz, 300MHz
Sample rate up to 2GSa/s
Trigger functions: Window, runt, Interval, DropOut, Pattern
Support HDTV video trigger function
Hardware-based zoom and high speed PASS/FAIL
32 kinds of automatic measurements
Advanced math: FFT, d/dt, integrater, square root
Interface: USB, LAN, EXT TRIG, PASS/FAIL, TRIG OUT
Support SCPI remote control commands
Multi-language user interface
Built-in online help system



SDS5032E

30MHz bandwidth, 250MSa/s real-time sample rate
8 inch High-resolution TFT color display
Direct save to the U-disk
VGA-output port for external monitor(optional)
Autoset and autoscale function for easy operation
LAN connection for remote access via network
Internal memory of 10 million points per channel
20 automatic measurement modes
FFT and PASS/FAIL function



SDS1004CFL Series **4 Channels**

(SDS1074CFL/SDS1104CFL/SDS1204CFL/SDS1304CFL)



7 inch TFT LCD and support 8x18 division display
4 Channels with 24K record length
70MHz/100MHz/200MHz/300MHz bandwidth
2GS/s Real Time Sampling
50GS/s Equivalent Sampling Rate
Unique digital filter and waveform recorder function
32 automatic measurements
3 cursor measure modes
6 bit frequency counter for real-time counter display
Multi-language (12 types) menu support
Support Pass/Fail function
Compatible LXI standard, Support SCPI
Support PC Remote Control
PictBridge Printing Function

SDS1002CFL Series

(SDS1072CFL/SDS1102CFL/SDS1202CFL/SDS1302CFL)



7 inch TFT LCD and support 8x18 division display
2 Channels with 24K record length
70MHz/100MHz/200MHz/300MHz bandwidth
2GS/s Real Time Sampling
50GS/s Equivalent Sampling Rate
Unique digital filter and waveform recorder function
32 automatic measurements
3 cursor measure modes
6 bit frequency counter for real-time counter display
Multi-language (12 types) menu support
Support Pass/Fail function
Compatible LXI standard, Support SCPI
Support PC Remote Control
PictBridge Printing Function

SDS1000DL Series

(SDS1022DL/SDS1052DL/SDS1102DL/SDS1202DL)



7 inch TFT LCD and support 8x18 division display
2 Channels with 32kps record length
25MHz/50MHz/100MHz/200MHz bandwidth
50GSa/s Equivalent sampling rate
Multi-language (12 types) menu support
Support PC Remote Control
Support PictBridge Printing

SDS1000CML Series

(SDS1072CML/SDS1102CML/SDS1152CML)



7 inch TFT LCD and support 8x18 division display
2 Channels with record length max to 2M
70MHz/100MHz/150MHz bandwidth
50GSa/s Equivalent sampling rate
Unique Digital Filter function
Waveform recorder function
32 automatic measurements
3 cursor measure modes
6 bit frequency counter for real-time counter display
Multi-language (12 types) menu support
Support Multilingual online help system
Support Pass/Fail function
Support PC Remote Control
Support PictBridge Printing

SDS1000CNL Series

(SDS1072CNL/SDS1102CNL/SDS1202CNL+)



7 inch TFT LCD and support 8x18 division display
2 Channels with 40kps record length
70MHz/100MHz/200MHz bandwidth
50GSa/s Equivalent sampling rate
Multi-language (12 types) menu support
Support PC Remote Control
Support PictBridge Printing

TDO3102BS/TDO3202B/TDO3202BS



The first digital storage oscilloscope with 40MHz Function/Arbitrary Generator built in

5.6-inch TFT LCD display with Dual Channels
100MHz/200MHz bandwidth
1GS/s real-time sample rate
50G equivalence sample rate
10 setup files and 10 trace files internal storage
File format: Setup, Waveform, Trace, BMP and CSV
Built-in 5 digits hardware frequency counter
Function/Arbitrary Generator Specifications:
Sine waveform: 1μHz~40MHz
Pulse waveform: 1μHz~10MHz
Other waveforms: 1mHz~1MHz
Frequency resolution: 1μHz (Sine, Square, Pulse)
1mHz (other)
Modulation Types: AM, FM, PWM, FSK, PSK, DCOM, Sweep, Burst

Digital Oscilloscope



MSO5000D Series *Mixed Signal Oscilloscope*
(MSO5062D/MSO5102D/MSO5202D)

16 CH logic analyzer+2 CH oscilloscope+EXT trigger
7.0-inch color TFT LCD, high resolution 800 x 480
1GSa/s real time sampling rate

Oscilloscope Function

60MHz/100MHz/200MHz Bandwidth
Each channel record length up to 1M
Real time sampling rate up to 1GSa/s
Powerful trigger function

32 kinds of automatic measurement function

Logic Analyzer Function

16 channels divided into 2 groups which is able to
setup threshold level individually.
Real time sampling rate up to 500MSa/s.
Powerful trigger function:edge,duration,pulse width,
code-type, queen, repeat

MSO8002T Series *Mixed Signal Oscilloscope*
(MSO8102T/MSO8202T)



2 CH + 16 CH logic analyzer + external trigger
100 MHz/200MHz Bandwidth
2 GSa/s sampling rate
Save data directly to an USB-stick
Logic analyzer with 16 input channels
20 automatic measurement functions
FFT measurement function
Max. 2 M points record length for each channel
Support USB data transmission,display by real-time
Advanced trigger functions
Autoscale-function,supports automatic setting of
waveform and data detecting
safety: CAT II

Mini Oscilloscope



DSO201

DSO201 *Mini 2.8 inch ARM Pocket Oscilloscope*
2.8 inch color TFT LCD display with single channel
200kHz bandwidth with 1Mps sampling rate
Automatic measurement: frequency, cycle, duty,
Vpp, Vram, Vavg and DC voltage



DSO203

DSO203 *Mini 3 inch ARM Pocket Oscilloscope*
3 inch TFT LCD display,400x240
Two 8MHz analog channels and 2 digital channels
30S/s~72MS/s sampling rate
Build-in Signal Generator

PC Oscilloscope



WPD2042

40MHz bandwidth, 200MS/s real-time sampling
Support Labview \VB \VC \Delphi \C++Builder Second Design
Support XP~Win8 series of operating system
Input channel arithmetic and FFT analysis
Saves Waveform in TXT,JPG/BMP formats
Saved files can be sent as email attachments
Optional signal generator and logic analyzer

VDS2062/VDS3102

Isolation between pc and oscilloscope



Up to 60MHz/100MHz bandwidth with 2 Channels
Real-time sample rate max to 1GS/s
Record length up to 10M
FFT or X-Y and waves display on the same screen
Multi-trigger :edge,video,slope,pulse and alternate
Isolation between pc and oscilloscope
USB and LAN (optional)

VDS3104 4 channels

Isolation between pc and oscilloscope



Up to 100MHz bandwidth with 4 Channels
Real-time sample rate max to 1GS/s
Record length up to 10M
FFT or X-Y and waves display on the same screen
Multi-trigger : edge,video,slope,pulse,and alternate
Isolation between pc and oscilloscope
USB and LAN (optional)

PC Spectrum Analyzer



MSA800 Series

(MSA820/MSA830)

Frequency range:9kHz~1.6GHz(MSA820);
9kHz~3.6GHz(MSA830)

RBW:1Hz~3MHz
VBW:10Hz~3MHz

Support SCPI command set

Various communication interface :USB, LAN

Tracking Generator optional

PC Protocol



USB480-II

Packet-level timing with 16.67 ns resolution
OTG Protocol Analyzer
Synchronized digital output and External Trigger input
Bus Events Analyzer
VBUS Voltage and Current Measurement
Data Filtering by Softwar
Data Filtering by Hardware
Repetitive packets compression
Detailed Features can be found in the technical document

Oscilloscope Probe



P6060 Oscilloscope probe 1x / 10x 60MHz
Attenuation :1X/10X
Input resistance:1MΩ\10MΩ
Input capacitance:1x:85pF~120pF
10x:18.5pF~22.5pF
Compensation scope:15pF~45pF
System bandwidth:1x: DC~6MHz
10x:DC~60MHz



P6100 Oscilloscope probe 1x / 10x 100MHz
Attenuation :1X/10X
Input resistance:1MΩ\10MΩ
Input capacitance:1x:85pF~120pF
10x:18.5pF~22.5pF
Compensation scope:10pF~30pF
System bandwidth:1x: DC~6MHz
10x:DC~100MHz



P6200 Oscilloscope probe 1x / 10x 200MHz
Attenuation :1X/10X
Input resistance:1MΩ\10MΩ
Input capacitance:1x:85pF~120pF
10x:18.5pF~22.5pF
Compensation scope:10pF~30pF
System bandwidth:1x: DC~6MHz
10x:DC~200MHz



P6300 Oscilloscope probe 10x 300MHz
Attenuation :10X
Input resistance:10MΩ
Input capacitance:10x:10pF~13pF
Compensation scope:9pF~25pF
System bandwidth:10x:DC~300MHz
Input voltage 10:1: <600V DC +Peak AC
Cable length:130cm



P7100 Oscilloscope probe 1x / 10x 100MHz
Attenuation :1X/10X
Input resistance:1MΩ\10MΩ
Input capacitance:1x:85pF~135pF
10x:15pF~19pF
Compensation scope:15pF~35pF
System bandwidth:1x: DC~6MHz
10x:DC~100MHz

Oscilloscope Probe



P7200 Oscilloscope probe 1x / 10x 200MHz
Attenuation :1X/10X
Input resistance:1MΩ\10MΩ
Input capacitance:1x:85pF~135pF
10x:15pF~19pF
Compensation scope:9pF~30pF
System bandwidth:1x: DC~6MHz
10x:DC~200MHz



P7300 Oscilloscope probe 1x / 10x 300MHz
Attenuation :1X/10X
Input resistance:1MΩ\10MΩ
Input capacitance:1x:85pF~135pF
10x:15pF~19pF
Compensation scope:9pF~30pF
System bandwidth:1x: DC~6MHz
10x:DC~300MHz



CP-3501Rpro Oscilloscope Probe
500MHz,X10,600Vp-p
Division Ratio: 10:1
Bandwidth: DC~500MHz
Rise Time: 0.7ns
Input capacitor:About 16PF
Compensation Range:13~23PF
Operating voltage:600V DC+AC peak



CP-3601R Oscilloscope Probe
600MHz,X10,600Vp-p
Division Ratio: 10:1
Bandwidth: DC~600MHz
Rise Time: 0.58ns
Input capacitor:About 12PF
Compensation Range:6~22PF
Operating voltage:600V DC+AC peak



PTE002 Flexible current probe
Pulse peak current:0.5A~10kA, 5Hz ~ 20kHz
600 V CAT IV or 1,000 V CAT III
Special for Multimeter and power meter

Oscilloscope Probe



DK-Mini070/140/350 Flexible Current Probe
Sensitivity mV/A:100/50/20
Peak-peak Current(A): 70/140/350
Measurement from: 20(mA)
DC offset mV: ±2; Peak di/dt kA/μs:0.2
Bandwidth(3db): 0.2Hz-20MHz; Accuracy: 1%
Coil circumference: 100,200 or 1000mm
Coil cross section(max): 5Kv
Cable length(from box to coil): 2m or 4m



DK-0700/3500/7000 Flexible Current Probe
Sensitivity mV/A:10/2/1
Peak-peak Current(A): 700/3500/7000
Measurement from: 10 A
DC offset mV: ±2 ; Peak di/dt kA/μs:0.6
Bandwidth(3db): 0.2Hz-20MHz; Accuracy: 1%
Coil circumference: 100,200 or 1000mm
Coil cross section(max): 5Kv
Cable length(from box to coil): 2m or 4m



PT-710 Current Probe
Frequency range(-3dB): DC~100kHz
Working voltage: Max 600Vrms
Common mode voltage: Max 600Vrms
0.01Ω insert impedance
Current range:0.05A~10A(100mV/A);
1~100A(10mV/A)
Low battery indicator and Overload indicator



PT710-A Current Probe
Bandwidth(-3dB): DC~100kHz
Max. DC AC Current: ±100A DC
Range Selection Division:2 Range 10mV/A;100mV
Max. Sensitivity:10mA
DC Accuracy(Typical)
±3%:50mA~10A peak at 100mV/A
±4%:400mA~40A peak at 10mV/A
±15%:40A~100A peak



PT-7802/7803 Current Probe
Precision: 0.1(V)/(A)+1%,-0.5%
Output impedance: 50Ω
Maximum pulse peak current: 600A/7500A
Maximum RMS current : 15A/80A
3 db low frequency : 25Hz/1Hz
3 db high freque:60MHz/20MHz
Rise time:5ns/20ns

Oscilloscope Probe



N1008A N Differential Probe
800Vp-p,50MHz
Bandwidth: 50MHz;Accuracy: ±1%
Attenuation Ratio: 1:100/10
Max. input differential-mode voltage
(DC+ Peak AC): ±800V@1/100; ±80V@1/10
Max. input and ground potential difference
(DC +Peak AC): ±800V@1/100 & 1/10
CMRR:1000V rms CAT III



N1008B N Differential Probe
800Vp-p,100MHz
Bandwidth: 100MHz;Accuracy: ±1%
Attenuation Ratio: 1:100/10
Max. input differential-mode voltage
(DC+ Peak AC): ±800V@1/100; ±80V@1/10
Max. input and ground potential difference
(DC +Peak AC): ±800V@1/100 & 1/10
CMRR:1000V rms CAT III



N1015A N Differential Probe
1500Vp-p,100MHz
Bandwidth: 100MHz;Accuracy: ±1%
Attenuation Ratio: 1:1000/100
Max. input differential-mode voltage
(DC+ Peak AC): ±1500V@1/1000; ±150V@1/100
Max. input and ground potential difference
(DC +Peak AC): ±1500V@1/1000; ±150V@1/100
CMRR:1000V rms CAT III



P6008 High-Voltage Probe 8KV,40MHz
Single/Noise:DC ≥ 60dB(1KHz), ≥ 50dB(1MHz)
Bandwidth: DC ~ 40MHz(-3dB)
Division Ratio:1:1000
Rise Time: ≤ 9ns
Cable Length: 2.0meter(±0.2M)
Max.Working Voltage:DC:0~8KV DC
AC:Pluse ≤ 16KVpeak to peak
AC: ≤ 6KV rms



P6010A High-Voltage Probe 10KV,120MHz
Attenuation Ratio:100:1
DC+AC peak:10KV CAT II; AC RMS:7KV CAT II
Rise Time: 3.0 ns
Cable Length: 2.0meter(±0.2M)
Bandwidth:DC~120MHz
Signal /Noise: >60dB at 1KHz; >50dB at 1MHz
Safety: Meets EN61010-031CATII

SA2100 - Features and Benefits

Power Quality Analyzer, 1400V/3000mA



- Safety: CAT III 1000V / CAT IV 600V
- Standards: IEC61000-4-30 (2008) S class, EN50160 (2007)
- Easy operation to capture the power quality problem
- Single-phase 2 W/Single-phase 3 W/ 3-phase 3 W/ 3-phase 4 W
- Display: Run Chart, Bar Chart, Vector Graphic, Waveform, Event List, Readings
- 8G Memory Card to make the long-term measuring data storage
- Support USB and LAN Interface
- Optional Current Probe: 5A/50A/100A/1000A/3000A

SPEC.	Measurement Range	Resolution	Accuracy
Voltage/Current/Frequency			
Channel	3-phase line input + 1 neutral line input		
Vrms(dc+ac)	1 ~ 1000Vrms	0.1Vrms	±5%
Vpk	1 ~ 1400Vpk	0.1Vpk	±5%
V(CF)	1.0 ~ >2.8	0.01	±5%
Arms	1~ 3000A 1~ 300A	1A 0.1A	±1% ± 5digits ±1% ± 5digits
Apk	1 ~ 4000Apk	1A	±1% ± 5digits
A(CF)	1 ~ 10	0.01	±5%
Frequency	42.5~57.5Hz(50Hz nominal) 51~69Hz(60Hz nominal)	0.01Hz 0.01Hz	±0.01% ±0.01%
Harmonic			
Harmonic Order	1 ~ 50		
Inter-Harmonic Order	1 ~ 49		
Voltage	0.0 ~ 100.0%	0.10%	±0.1% ± nx0.1%
Current	0.0 ~ 100.0%	0.10%	±0.1% ± nx0.1%
THD	0.0 ~ 100.0%	0.10%	±2.5%
DC Relative	0.0 ~ 100.0%	0.10%	±2%
Frequency	0 ~ 3500Hz	1Hz	1Hz
Phase	-360° ~ 0°	1°	± nx1.5°
Power And Energy			
Active Power/Apparent Power/Reactive Power	1.0 ~ 20.00MW	0.1kW	±1.5±10 counts
Energy	0.00kWh ~ 200GWh	10Wh	±1.5±10 counts
Power Factor	0 ~ 1	0.01	±0.03
Unbalance			
Voltage	0.0 ~ 5.0%	0.10%	±0.5%
Current	0.0 ~ 20.0%	0.10%	±1%
Voltage Phase Angle	-360° ~ 0°	1°	±2digits
Current Phase Angle	-360° ~ 0°	1°	±5digits
General Characteristics			
Logger Memory	8G		
Max. recording time	1 year		
Interface	USB_HOST, LAN		
Display	5.6" TFT LCD, 320*240		
Dimension & Weight	262×173×66mm, 1.6kg		

Please contact us for details!

Selection Guide

Model	SPD3303D	SPD3303S	MPD-3303C	MPD-3303D	MPD-3303S	MPD-3305C	MPD-3305	MPD-3305D
CH1 Output Ratings	0~30V/0~3A	0~30V/0~3A	0~30V/0~3A	0~30V/0~3A	0~30V/0~3A	0~30V/0~5A	0~30V/0~5A	0~30V/0~5A
CH2 Output Ratings	0~30V/0~3A	0~30V/0~3A	0~30V/0~3A	0~30V/0~3A	0~30V/0~3A	0~30V/0~5A	0~30V/0~5A	0~30V/0~5A
CH3 Output Ratings	2.5/3.3/5V/3A	2.5/3.3/5V/3A	2.5/3.3/5V/3A	2.5/3.3/5V/3A	2.5/3.3/5V/3A	2.5/3.3/5V/3A	2.5/3.3/5V/3A	2.5/3.3/5V/3A
Resolution	Voltage	10mV	1mV	100mV	1mV	100mV	100mV	100mV
	Current	10mA	1mA	10mA	1mA	10mA	10mA	10mA
Parallel	Line regulation	≤0.01%+3mV		≤0.01%+3mV		≤0.01%+3mV		
	Load regulation	≤0.01%+3mV(rating current≤3A) ≤0.02%+5mV(rating current>3A)		≤0.01%+5mV(I≤3A)		≤0.01%+5mV(I≤3A); ≤0.02%+10mV (I>3A)		
Series	Line regulation	≤ 0.01%+5mV		≤ 0.01% +5 mV		≤ 0.01% +5 mV		
	Load regulation	≤ 300mV		≤ 300mV		≤ 300mV		
Constant Voltage	Line regulation	≤0.01%+3mV		≤0.01%+3mV		≤0.01%+3mV		
	Load regulation	≤0.01%+3mV(rating current≤3A) ≤0.02%+5mV(rating current>3A)		≤0.01%+3mV(I≤3A)		≤0.01%+3mV(I≤3A)		
	Ripple & noise	≤2mVrms(5Hz~1MHz)		≤1.0mVrms(I≤3A) (5Hz~1MHz)		≤1.0mVrms(I≤3A); ≤2.0mVrms(I>3A)		
	Recover time	≤100μs		≤100μS (50% load change, minimum load 0.5A)		≤100μS (50% load change, minimum load 0.5A)		
	Temperature	≤300ppm/°C		≤300ppm/°C		≤300ppm/°C		
Constant Current	Line regulation	≤0.2%+3mA		≤0.2%+3mA		≤0.2%+3mA		
	Load regulation	≤0.2%+3mA		≤0.2%+3mA (I ≤ 3A)		≤0.2%+3mA (I ≤ 3A); ≤ 0.2% +5 mA (I> 3A)		
	Ripple & noise	≤3mArms		≤3mArms(I≤3A)		≤3mArms(I≤3A);≤6mArms(I>3A)		
CH3	Line regulation	≤5mV		≤ 25mV		≤ 25mV		
	Load regulation	≤15mV		≤ 25mV		≤ 25mV		
	Ripple & noise	≤2mVrms (5Hz~1MHz)		≤2mVrms		≤2mVrms		
Lock key	Support		Support		Support			
Save/Read	5 groups		4 sets of panel setup 1 set of the memory status before closed		4 sets of panel setup 1 set of the memory status before closed			
USB Interface	Support		No Support Support		No Support		Support	
Display	4.3 inches TFT-LCD		3 digits, 0.5-inch LED display		3 digits, 0.5-inch LED display			
Dimension(W)×(H)×(D)	210mm×130mm×265mm		250mm×150mm×310mm		250mm×150mm×310mm			
Weight	7kg		7.5kg		10kg			

Programmable DC Power Supply



SPD3303S

4.3" TFT color LCD display with content of 16M
5 digits voltage and 4 digits current display

Three output modes: independent, series and parallel

Support timing output, waveform display and SCPI

Total power up to 195W

Resolution:1mV of Voltage,1mA of Current

Save/Recall 5 group system specifications

Support data storage expansion

MPD-3303 Series
(MPD-3303C/MPD-3303D/MPD-3303S)



3 ways output:two-ways adjustable & one-way Fixed
0~30V/0~3A; Fixed output: 2.5V/3.3V/5V/3A

Smart cooling fan achieving low noise

Resolution:100mV of Voltage,10mA of Current

Programmable DC Power Supply



SPD3303D

4.3" TFT color LCD display with content of 16M
4 digits voltage and 3 digits current display

Three output modes: independent, series and parallel

Support timing output, waveform display and SCPI

Total power up to 195W

Resolution:10mV of Voltage,10mA of Current

Save/Recall 5 group system specifications

Support data storage expansion

MPD-3305 Series
(MPD-3305C/MPD-3305D/MPD-3305D)



3 ways output:two-ways adjustable & one-way Fixed
0~30V/0~5A; Fixed output: 2.5V/3.3V/5V/3A

Smart cooling fan achieving low noise

Resolution:100mV of Voltage,10mA of Current

MPD-S - Features and Benefits

Programmable DC Power Supply, Single Channel



- 24 bits ADC and 16 bits DAC, high accuracy, high resolution
- Safety design: over load, over voltage, over current, over temperature and reverse polarity productions
- Auto CC and CV switch and warning buzzer
- Key-lock to prevent improper operation
- Output ON/OFF control
- Save and Recall function of 100 groups setting and proceed together
- Standard interface: USB or RS232
- Support SCPI commands

Specification	Model	MPD-6005S	MPD-2010S	MPD-3010S	MPD-7503S	MPD-7505S
	Output range	60V/5A	20V/10A	30V/10A	75V/3A	75V/5A
Rating DC output (0 ~40°C)						
Voltage	0~60V	0~20V	0~30V	0~75V	0~75V	
Current	0~5A	0~10A	0~10A	0~3A	0~5A	
OVP	0.1~64V	0.1~24V	0.1~34V	0.1~80V	0.1~80V	
OCP	0~5.5A	0.1~11A	0.1~11A	0~3.5A	0~5.5A	
Voltage output						
Line regulation	≤0.01%+3mV					
Load regulation	≤0.01%+3mV (I≤3A) / ≤0.02%+5mV (I>3A)					
Recovery time	≤100us (50% load change, minimum load 0.5A)					
Ripple & Noise	≤1mV rms (I≤3A) (5Hz~1MHz) / ≤2mV rms (I>3A) (5Hz~1MHz)					
Temp. co-efficient	≤300ppm/°C					
Setting accuracy	±(0.03% of reading + 10mV) (25±5) °C					
Setting resolution	1mV	1mV	1mV	2mV	2mV	
Current output						
Line regulation	≤0.2%+3mA					
Load regulation	≤0.2%+3mA (I≤3A) / ≤0.2%+5mA (I>3A)					
Ripple & Noise	≤3mA rms (I≤3A) / ≤6mA rms (I>3A)					
Setting accuracy	±(0.2% of reading + 10mA) (25±5) °C					
Setting resolution	0.1mA	1mA	1mA	0.1mA	0.1mA	
Display						
Voltage	5 digits display					
Current	5 digits display					
Voltage resolution	1mV					
Current resolution	0.1mA	1mA	1mA	0.1mA	0.1mA	
General Specification						
Protection	over load, over voltage, over current, over temperature and reverse polarity productions					
Key lock	Provided					
Interface	RS232 or USB interface, SCPI commands provided					
Save /Recall	100 sets					
Dimension	296 (D) ×126 (W) ×143 (H)mm				396(D)×126(W)×143(H)mm	
Weight	≤7kg	≤6.4kg	≤7.5kg	≤6.3kg	≤8.8kg	

MPM&MPD-S - Features and Benefits
Programmable DC Power Supply, **Single Channel**



- Single output with dual range (MPM-3003S, MPM-3005S)
- 24 bits ADC and 16 bits DAC, high accuracy, high resolution
- Safety design: over load, over voltage, over current, over temperature and reverse polarity productions
- Auto CC and CV switch and warning buzzer
- Key-lock to prevent improper operation
- Output ON/OFF control
- Save and Recall function of 100 groups setting and proceed together
- Standard interface: USB or RS232
- Support SCPI commands

Specification	Model	MPM-3003S		MPM-3005S		MPD-3003S	MPD-3005S	MPD-6001S	MPD-6003S
	Output range		36V/3A	15V/6A	36V/5A	15V/10A	30V/3A	30V/5A	60V/1A
Rating DC output (0 ~40°C)									
Voltage		0~36V	0~15V	0~36V	0~15V	0~30V	0~30V	0~60V	0~60V
Current		0~3A	0~6A	0~5A	0~10A	0~3A	0~5A	0~1A	0~3A
OVP		0.1~38V	0.1~38V	0.1~38V	0.1~38V	0.1~34V	0.1~34V	0.1~64V	0.1~64V
OCP		0.1~6.5A	0.1~6.5A	0.1~11A	0.1~11A	0~3.5A	0~5.5A	0~1.5A	0~3.5A
Voltage output									
Line regulation		≤0.01%+3mV							
Load regulation		≤0.01%+3mV (I≤3A) / ≤0.02%+5mV (I>3A)							
Recovery time		≤100us (50% load change, minimum load 0.5A)							
Ripple & Noise		≤1mV rms (I≤3A) (5Hz~1MHz) / ≤2mV rms (I>3A) (5Hz~1MHz)							
Temp. co-efficient		≤300ppm/°C							
Setting accuracy		±(0.03% of reading + 10mV) (25±5) °C							
Setting resolution		1mV							
Current output									
Line regulation		≤0.2%+3mA							
Load regulation		≤0.2%+3mA (I≤3A) / ≤0.2%+5mA (I>3A)							
Ripple & Noise		≤3mA rms (I≤3A) / ≤6mA rms (I>3A)							
Setting accuracy		±(0.2% of reading + 10mA) (25±5) °C							
Setting resolution		0.1mA		1mA		0.1mA	0.1mA	0.1mA	0.1mA
Display									
Voltage		5 digits display							
Current		5 digits display							
Voltage resolution		1mV							
Current resolution		0.1mA		1mA		0.1mA	0.1mA	0.1mA	0.1mA
General Specification									
Protection		over load, over voltage, over current, over temperature and reverse polarity productions							
Key lock		Provided							
Interface		RS232 or USB interface, SCPI commands provided							
Save /Recall		100 sets							
Dimension		296 (D) ×126 (W) ×143 (H)mm							
Weight		≤5.5kg		≤6.2kg		≤5.5kg	≤5.5kg	≤5.5kg	≤5.5kg

Adjustable Power Supply Selection Guide

Model	Channels	Voltage	Current	Resolution	Voltage display	Current display	Series/Parallel Supports	Thermo-controlled fan	Limitation protect to voltage/current	Output on/off control	On/off preset control	Radiator
MPS3303C	2	0~30V*2	0~3A	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	No	No	Inside
MPS3303	3	0~30V*2 5V*1	0~3A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	No	No	Inside
MPS3305	3	0~30V*2 5V*1	0~5A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	No	No	Inside
MPS3303K	3	0~30V*2 5V*1	0~3A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	Yes	No	Inside
MPS3305K	3	0~30V*2 5V*1	0~5A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	Yes	No	Inside
MPS3003LK-3	3	0~30V*2 5V*1	0~3A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	No	Yes	Yes	No	Outside
MPS3005LK-3	3	0~30V*2 5V*1	0~5A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	Yes	No	Outside
MPS3003LP-3	3	0~30V*2 5V*1	0~3A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	No	Yes	Yes	Yes	Outside
MPS3005LP-3	3	0~30V*2 5V*1	0~5A*2 3A*1	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	Yes	Yes	Outside
MPS3010LP-2	2	0~30V*2	0~10A	100mV/10mA	3 digits LED	3 digits LED	Yes	Yes	Yes	Yes	Yes	Inside
MPS6005LP-2	2	0~60V*2	0~5A	100mV/10mA	3 digits LED	4 digits LED	Yes	Yes	Yes	Yes	Yes	Inside
MPS3010LK-1	1	0~30V	0~10A	100mV/10mA	3 digits LED	3 digits LED	No	Yes	Yes	Yes	No	Outside
MPS6005LK-1	1	0~60V	0~5A	100mV/10mA	3 digits LED	3 digits LED	No	Yes	Yes	Yes	No	Outside
MPS3003LK-2	2	0~30V*1 5V*1	0~3A*1 1A*1	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	Yes	No	Inside
MPS3005LK-2	2	0~30V*1 5V*1	0~5A*1 1A*1	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	Yes	No	Inside
MPS6003LK-2	2	0~60V*1 5V*1	0~3A*1 1A*1	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	Yes	No	Inside
MPS3003LK-1	1	0~30V	0~3A	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	Yes	No	Inside
MPS3003L-1	1	0~30V	0~3A	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	No	No	Inside
MPS3005LK-1	1	0~30V	0~5A	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	Yes	No	Inside
MPS6003LK-1	1	0~60V	0~3A	100mV/10mA	3 digits LED	3 digits LED	No	No	Yes	Yes	No	Inside
MPS3020LP-1	1	0~30V	0~20A	100mV/10mA	3 digits LED	3 digits LED	No	Yes	Yes	Yes	Yes	Outside
MPS6010LP-1	1	0~60V	0~10A	100mV/10mA	3 digits LED	4 digits LED	No	Yes	Yes	Yes	Yes	Outside

Specification

MPS-3303K/3305K - Features and Benefits



- 0-30V,0-3A/5A Dual Channels adjustable and one fixed 5V/3A output
- Overload Protection,Pre-set current limited point
- Both outputs are automatically connected in series or parallel without extracables in tracking mode
- Can be connected as positive and negative supply in series mode
- Multi tune potentiometers,easy to setup voltage
- High efficient toroidal transformer
- The built-in radiator,built-in temperature-controlled fan
- MPS-3303K has out control function

Specifications	MPS-3303K		MPS-3305K	
	CH1&CH2	CH3	CH1&CH2	CH3
Output Voltage	0~30V	5V	0~30V	5V
Output Current	0~3A	3A	0~5A	3A
Load Regulation	CV ≤ 0.01% +3 mV,CC ≤ 0.2% +3 mA		CV ≤ 0.01% +3 mV (I ≤ 3A), CV ≤ 0.02 % +5 mV (I > 3A) CC ≤ 0.2% +3 mA (I ≤ 3A), CC ≤ 0.2 % +5 mA (I > 3A)	
Ripple&Noise	CV≤1.0mVr.m.s ,CC≤3mAr.m.s		CV≤1.0mVr.m.s (I≤3A),CV≤2.0mVr.m.s (I>3A) CC≤3mAr.m.s (I≤3A) ,CC≤6mAr.m.s (I>3A)	
Parallel	Power rate of change: ≤ 0.01% +3 mV Load change: ≤ 0.01% +5 mV (I ≤ 3A)		Power changes rate: ≤ 0.01% +3 mV Load change: ≤ 0.01% +5 mV (I ≤ 3A) ; ≤ 0.02% +10 mV (I > 3A)	
Input Voltage	Standard: AC220V ± 10% Optional: AC110V/220V ± 10% 50/60Hz			
Voltage Regulation	CV ≤ 0.01% +3 mV, CC ≤ 0.2% +3 mA			
Series	Power rate of change: ≤ 0.01% +5 mV; Load change: ≤ 300mV			
Tracking error	≤ 0.5% +100 mV (master, no load, loaded with the load required to effect ≤ 300mV)			
Response Time	≤ 100μS (50% load change, Minimum load 0.5A)			
Temperature Coefficient	300ppm/°C			
Measurements Display	Voltage: three A / D converter digital LED display ;Current: three A / D converter digital LED display			
Measurement Resolution	Voltage: 100mV current: 10mA			
Channel 3 output voltage	5V ± 0.25V			
Channel 3 Output Current	3A			
Channel 3 change	Power effect: ≤ 5mV Load effect: ≤ 15mV			
Channel 3 ripple and noise	≤2.0mVr.m.s			
Dimension	370(D)*255(W)*155(H)mm		330(D)*255(W)*155(H)mm	
Weight	7kg		8kg	



MPS-3003LK-1/3005LK-1/6003LK-1 - Features and Benefits

- One Channel adjustable
- Two Digital Panel Meters
- Overload and Reverse Polarity Protection
- Constant Voltage, Constant Current
- Low ripple noise, Low temperature drift
- Preset current limited point

Specifications	Model	MPS-3003LK-1&MPS-3003L-1	MPS-3005LK-1	MPS-6003LK-1
	Channel	CH1	CH1	CH1
	Output Voltage	0~30V	0~30V	0~60V
	Output Current	0~3A	0~5A	0~3A
	Voltage Regulation	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA
	Load Regulation	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA	CV ≤ 0.01% +3 mV (I ≤ 3A), CV ≤ 0.02 % +5 mV (I > 3A) CC ≤ 0.2% +3 mA (I ≤ 3A) ,CC ≤ 0.2 % +5 mA (I > 3A)	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA
	Ripple&Noise	CV≤1.0mVr.m.s CC≤3mAr.m.s	CV≤1.0mVr.m.s (I≤3A) ,CV≤2.0mVr.m.s (I>3A) CC≤3mAr.m.s (I≤3A) CC≤6mAr.m.s (I>3A)	CV≤1.0mVr.m.s CC≤3mAr.m.s



MPS-3003LK-2/3005LK-2/6003LK-2 - Features and Benefits

- One Channel adjustable,one fixed 5V/1A output
- Two Digital Panel Meters
- Overload and Reverse Polarity Protection
- Constant Voltage, Constant Current
- Low ripple noise, Low temperature drift
- Preset current limited point

Specifications	Model	MPS-3003LK-2		MPS-3005LK-2		MPS-6003LK-2	
	Channel	CH1	CH2	CH1	CH2	CH1	CH2
	Output Voltage	0~30V	5V	0~30V	5V	0~60V	5V
	Output Current	0~3A	1A	0~5A	1A	0~3A	1A
	Voltage Regulation	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA		CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA		CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA	
	Load Regulation	CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA		CV ≤ 0.01% +3 mV (I ≤ 3A), CV ≤ 0.02 % +5 mV (I > 3A) CC ≤ 0.2% +3 mA (I ≤ 3A) ,CC ≤ 0.2 % +5 mA (I > 3A)		CV ≤ 0.01% +3 mV CC ≤ 0.2% +3 mA	
	Ripple&Noise	CV≤1.0mVr.m.s CC≤3mAr.m.s		CV≤1.0mVr.m.s (I≤3A) ,CV≤2.0mVr.m.s (I>3A) CC≤3mAr.m.s (I≤3A) CC≤6mAr.m.s (I>3A)		CV≤2.0mVr.m.s CC≤3mAr.m.s	
Input Voltage	Standard: AC220V ± 10% Optional: AC110V/220V ± 10% 50/60Hz						
Response Time	≤ 100μS (50% load change, Minimum load 0.5A)						
Temperature Coefficient	300ppm/°C						
Measurements show	Voltage: three A / D converter digital LED display ;Current: three A / D converter digital LED display						
Measurement resolution	Voltage: 100mV; Current: 10mA						
Dimension	310(D)*160(W)*130(H)mm		310(D)*160(W)*130(H)mm		310(D)*160(W)*130(H)mm		
Weight	5kg		6.3kg		6.5kg		



Dimension:370(D)*255(W)*155(H)mm
Weight:10kg



MPS-3010LK-1/6005LK-1 - Features and Benefits

- One Channel adjustable
- Two Digital Panel Meters
- Overload and Reverse Polarity Protection
- Constant Voltage, Constant Current
- Low ripple noise, Low temperature drift
- Preset current limited point

Specifications	Model	MPS-3010LK-1	MPS-6005LK-1
	Channel	CH1	CH1
	Output Voltage	0~30V	0~60V
	Output Current	0~10A	0~5A
	Voltage Regulation	CV ≤ 0.01% +3 mV ,CC ≤ 0.2% +3 mA	CV ≤ 0.01% +3 mV , CC ≤ 0.2% +3 mA
	Load Regulation	CV ≤ 0.01% +3 mV (I ≤ 3A) ,CV ≤ 0.02 % +5 mV (I > 3A) CC ≤ 0.2% +3 mA (I ≤ 3A) ,CC ≤ 0.2 % +5 mA (I > 3A)	CV ≤ 0.01% +3 mV (I ≤ 3A) ,CV ≤ 0.02 % +5 mV (I > 3A) CC ≤ 0.2% +3 mA (I ≤ 3A) ,CC ≤ 0.2 % +5 mA (I > 3A)
	Ripple&Noise	CV≤1.0mVr.m.s (I≤3A) ,CV≤2.0mVr.m.s (I>3A) CC≤3mAr.m.s (I≤3A) ,CC≤6mAr.m.s (I>3A)	CV≤1.0mVr.m.s (I≤3A) ,CV≤2.0mVr.m.s (I>3A) CC≤3mAr.m.s (I≤3A) ,CC≤6mAr.m.s (I>3A)

MPS-3010LP-2/MPS-6005LP-2 - Features and Benefits

- One Channel adjustable,one fixed 5V/1A output
- Two Digital Panel Meters
- Overload and Reverse Polarity Protection
- Constant Voltage, Constant Current
- Low ripple noise, Low temperature drift
- Preset current limited point



Specifications	Model	MPS-3010LP-2	MPS-6005LP-2
	Channel	CH1&CH2	CH1&CH2
	Output Voltage	0~30V×2	0~60V×2
	Output Current	0~10A×2	0~5A×2
	Input Voltage	Standard: AC220V ± 10% ,Optional: AC110V/220V ± 10% 50/60Hz	
	Voltage Regulation	CV ≤ 0.01% +3 mV, CC ≤ 0.2% +3 mA	
	Load Regulation	CV ≤ 0.01% +3 mV (I ≤ 3A) , CV ≤ 0.02 % +5 mV (I > 3A) ; CC ≤ 0.2% +3 mA (I ≤ 3A) , CC ≤ 0.2 % +5 mA (I > 3A)	
	Ripple&Noise	CV≤1.0mVr.m.s (I≤3A) , CV≤2.0mVr.m.s (I>3A) ;CC≤3mAr.m.s (I≤3A),CC≤6mAr.m.s (I>3A)	
	Parallel	Power changes rate: ≤ 0.01% +3 mV Load change: ≤ 0.01% +5 mV (I ≤ 3A) ;≤ 0.02% +10 mV (I > 3A)	
	Series	Power rate of change: ≤ 0.01% +5 mV Load change: ≤ 300mV	
	Tracking error	≤ 0.5% +100 mV (master, no load, loaded with the load required to effect ≤ 300mV)	
	Response Time	≤ 100μs (50% load change, Minimum load 0.5A),	
	Temperature Coefficient	300ppm/°C	
	Measurements Display	Voltage: three A / D converter digital LED display ;Current: three A / D converter digital LED display	
	Measurement resolution	Voltage: 100mV current: 10mA	
	Dimension	460(D)*255(W)*155(H)mm	
	Weight	16kg	

MSD-3606 - Features and Benefits

Switching Power Supply, Dual Range



- CH1/CH2 dual-range output of 30V/6A or 60V/3A
- CH3 adjustable output: 0.1~5V/3A
- Auto series/parallel tracking operation, providing flexible output of 30V/12A, 60V/6A or 120V/3A
- Improving the power efficiency by 25% than traditional power supply
- Manual and remote ON/OFF control
- Multiple protections: OVP, OTP, OLP and reverse polarity protection
- Automatically switching AC115V/230V source
- Fan speed control circuit, minimizing fan acoustic noise

Model		MSD-3606				
Specifications	Channel	CH1&CH2 Independent mode	CH1&CH2 Series mode	CH1&CH2 Parallel mode	CH3	
	Output ratings	0~30V/0~6A; 0~60V/0~3A	0~60V/0~6A; 0~120V/0~3A	0~30V/0~12A;0~60V/0~6A	0.1~5V/3A	
	Voltage	Line regulation	≤0.01%+3mV			
		Load regulation	≤0.01%+5mV (rating current≤6A); ≤0.01%+8mV (rating current≤12A)			
		Ripple & Noise	≤5mV rms (5Hz~1MHz); ≤50mVpp (20Hz~20MHz)			
		Recovery time	≤100us (50% load change, minimum load 0.5A)			
	Current	Line regulation	≤0.2%+3mA			
		Load regulation	≤0.2%+3mA			
		Ripple & Noise	≤3mA rms			
	Tracking Operation	Tracking error	≤0.5%+10mV of the master			
Series regulation		≤300mV				
Ripple & Noise		≤10mVrms (5Hz~1MHz); ≤100mVpp (20Hz~20MHz)				
Output On/Off Response Time	Voltage up (10%~90%)	≤100ms (≤95% rating load)				
	Voltage down (90%~10%)	≤100ms (≥10% rating load)				
Meter	Type	3½ digits 0.39" LED display				
	Accuracy	±(0.5% of reading +2 digits)				
	Resolution	100mV/10mA				
OVP Accuracy	±(0.5% of reading+0.5V)					
Protection	OVP, OTP, OLP , reverse polarity protections					
Remote control	Output On/Off					
Fan noise	≤50dB					
Temperature co-efficient	Voltage: ≤100ppm/°C+3mV Current: ≤150ppm/°C+3mA					
Insulation	Between chassis and output terminal: ≥100MΩ/1000VDC; Between chassis and AC cord: ≥100MΩ/1000VDC					
Power source	AC 115V/230V±15%, 50/60Hz					
Accessories	Operation manual ×1, Power cord ×1					
Dimension	310(D)×250(W)×150(H)mm					
Weight	5.5kg					

KI Series - Features and Benefits

Line Interactive UPS , 1KVA/24V



- Digital technology
- Intelligent battery charger
- Reliable online interactive design
- Intelligent regulation system on utility power voltage
- Fully functional protection
- Intelligent RS232 Communication Port
- UPS management software (optional)
- External SNMP or USB or Dry contactor (optional)
- External battery bank (optional)

Model		KI1000	KI1000L	KI2000	KI2000L	KI3000	KI3000L
INPUT	Voltage (Vac)	150~300					
	Frequency (Hz)	50/60 ± 5% (50/60Hz settings)					
OUTPUT	Capacity (VA/W)	1000/700		2000/1400		3000/2100	
	Voltage (Vac)	220/230/240±2% (battery mode)					
	Frequency (Hz)	50 /60± 0.1% (battery mode)					
	Waveform	Pure sine wave, THD < 3%					
	Transfer Time	Typically 4ms (Synchronous switch-over)					
	Overload	Utility mode: 150% for 5 minutes, above 200% for 3 seconds					
		Battery mode: 120% for 30 seconds, above 150% for 1 second					
BATTERY	Voltage (Vdc)	24		48		72	
	BATT Type	2×7Ah12V	External	4×7Ah12V	External	6×7Ah12V	External
	Charger Current(A)Max	1	10	1	10	1	10
Others Characteristics							
Communication Interface		RS232 (Dry contactor, USB and SNMP adapter are optional)					
Display		LED or LCD display operation status of UPS					
Alarm		Low battery, abnormal AC input, UPS failure					
Protection		Low battery, overload, short-circuit and over temperature					
Dimension (W×D× H)mm		156×450×220		198×525×347		198×525×347	
Weight (kg)		16	13	35	26	44	30

Selection Guide

Model	SA9115	SA9122	SA9130	SA2031	SA2070	SA1020A	HSA830	HSA870	E8000A
Frequency range	9kHz~1.5GHz	9kHz~2.2GHz	9kHz~3.0GHz	9kHz~3.6GHz	9kHz~7.5GHz	9kHz~2.2GHz	9kHz~3.6GHz	9kHz~7.5GHz	9kHz~7.5GHz
Resolution	1Hz			1Hz	1Hz	1Hz	1Hz	1Hz	1Hz
Aging rate	<2ppm/year			<2ppm/year	<1ppm/year	<2ppm/year	<2ppm/year	<1ppm/year	<1ppm/year
RBW	10Hz~1MHz			1Hz~3MHz	1Hz~3MHz	10Hz~3MHz	1Hz~3MHz	1Hz~3MHz	1Hz~3MHz
VBW	1Hz~1MHz			10Hz~3MHz	10Hz~3MHz	10Hz~3MHz	10Hz~3MHz	10Hz~3MHz	10Hz~3MHz
Phase Noise	<-82dBc/Hz@ 10kHz			-90dBc/Hz@30kHz	-80 dBc/Hz@30kHz	-80 dBc/Hz@10kHz	-90dBc/Hz@30kHz	-80 dBc/Hz@30kHz	-80 dBc/Hz@30kHz
TOI	No support			+13dBm(>30MHz)	+15dBm(>30MHz)	+13dBm(>30MHz)	+13dBm(>30MHz)	+15dBm(>30MHz)	+15dBm(>30MHz)
SHI	No support			+30dBm	+40dBm(>30MHz)	+30dBm	+30dBm	+40dBm(>30MHz)	+40dBm(>30MHz)
DANL (Preamplifier Off)	-125 dBm			-135 dBm	-133 dBm	-132 dBm	-135 dBm	-133 dBm	-133 dBm
DANL (Preamplifier On)	-140 dBm			-155 dBm	-148 dBm	-152 dBm	-155 dBm	-148 dBm	-148 dBm
Sweep Time Range (SPAN=0)	20μs~2200s			1ms~3000s	1ms~3000s	1ms~3000s	1ms~3000s	1ms~3000s	1ms~3000s
Sweep Time Range (SPAN>0)	10ms~2200s			10ms~3000s	10ms~3000s	10ms~3000s	10ms~3000s	10ms~3000s	10ms~3000s
Interface	USB_HOST,USB_DEVICE, LAN, RS232, VGA			USB_HOST,USB_DEVICE, LAN, RS232, VGA,GPIB(Optional)		USB, LAN, RS232, VGA,GPIB(Optional)	USB_HOST,USB_DEVICE, LAN		USB, LAN
Display	7 Inch WVGA display			8.4 inch TFT LCD display		6.5 inch TFT LCD	6.5 inch TFT LCD display		6.5 inch TFT LCD

Spectrum Analyzer

SA9100 Series (SA9115/SA9122/SA9130)



9KHz ~ 1.5G / 9KHz ~ 2.2G / 9KHz ~ 3.0G

1Hz Frequency resolution

Amplitude Resolution:<1.5dB

All-digital IF technology to realize accurate measuring, clear uncertainty during switching between base level and display scale

Interface:USB_HOST,USB_Device,LAN,RS232,VGA

Tracking Generator optional

SA2000 Series (SA2031/SA2070)



Frequency range: 9kHz ~ 3.6G;9kHz ~ 7.5G

8.4 inch color display with high resolution

Frequency resolution: 1Hz

Interface: USB, LAN, VGA, RS232, GPIB (optional)

Functions and Benefits:

Signal recognition & Noise marker test

Modulation signal measurement

Harmonic distortion measurement

Adjacent channel power measurement

Occupied bandwidth measurement and so on.

SA1020A/ SA1030



9kHz ~ 2.2GHz / 9kHz~3.0GHz

6.4 inch color display with high resolution

Frequency resolution: 1Hz

RBW: 10Hz to 3MHz

VBW:10Hz~3MHz

Multi-window and local-scale measurement display

Five -trace- line display

Latest mini-model in the industry

Equipped with trace source

Interface: USB, LAN, VGA, RS232, GPIB (optional)

Spectrum Analyzer

HSA800 Series (HSA830/HSA870)



6.5 inch LCD display

Frequency Range :9kHz~3.6GHz;9kHz~7.5GHz

Phase Noise:-80dBc/Hz(10kHz offset)

RBW:1Hz to 500kHz(1 to 10 continuous),1MHz,3MHz

VBW:10Hz~3MHz

Frequency resolution:1Hz

Li-ion battery for 6000mAH inside

Standard Interface:USB,LAN

Tracking Generator optional

Support SCPI and remote control

PC support for remote control

Integrate to user systems for further R&D develop

E8000A



6.5 inch TFT color LCD,640 x 480 pixels

Frequency Range:100 kHz ~ 3GHz

Aging:± 1 ppm per year

RBW:10 Hz to 3 MHz in 1-3-10 sequence

VBW:10 Hz to 1 MHz in 1-3-10 sequence

Temperature Stability: ± 2 ppm (0 to +50°C)

Frequency Resolution: 10 Hz

Trigger Type:Free run, Single, Video, TV

Reference Level:-130 dBm to +30 dBm

SHI:< -70 dBc for -20 dBm signal at input mixer

TOI:>+15 dBm

Supports FM/AM demodulation.

GPS receiver option.

SA1020A - Features and Benefits



- Frequency range:9kHz~2.2GHz
- RBW:1Hz~3MHz
- 6.5 inches TFT LCD display
- Five trace lines displayed simultaneously
- Various Interface :USB, LAN,RS232,VGA,GPIB(Optional)
- Equipped with trace source
- Appearance of rich colors.Latest mini-model in the industry



2.2GHz 3MHz RBW 3MHz VBW
USB_Device/USB_Host/LAN/RS232/VGA/GPIB(Optional)

Specifications	Model		SA1020A
	Frequency range	9kHz~2.2GHz	
	Resolution	1Hz	
	Aging rate	<2ppm/year	
	Temperature stability	<1ppm(15 °C~35 °C)	
	Resolution Bandwidth(RBW)	10Hz to 3MHz	
	Selectivity(60dB:3dB)	<5:1 representative value(Digital realization,near to Gauss form)	
	RBW Accuracy	< 5%,representative value	
	Maximum safe input level	+23 dBm	
	Maximum DC voltage	50Vdc	
	Input attenuator range	0dB to 30dB,1dB step	
	1dB Compression Point	+7dBm	
	Video Bandwidth(VBW)	10Hz~3MHz	
	SSB Phase Noise	Carrier Shift 10kHz	-80 dBc/Hz
Carrier Shift 1MHz		-115 dBc/Hz	
Sweep specifications	Span≠0Hz	10ms~3000s	
	Span=0 Hz	1ms~3000s	
	Sweep mode	continuous; single	
Spurious response	TOI	+13dBm(>30MHz)	
	SHI	+30dBm	
	Input related spurious	<-60dBc	
	Residual response(Inherent)	<-85dBm	

DANL	Frequency	Preampifier off	Preampifier on
	100kHz	<-105dBm	<-125dBm
	1MHz~500MHz	<-132dBm	<-152dBm
	500MHz~1GHz	<-130dBm	<-150dBm
	1GHz~2.2GHz	<-125dBm	<-145dBm

General	Internal momery	128M
	Interface	RF,USB_HOST, USB_DEVICE, LAN, RS232, VGA,GPIB(Optional),AM/FM
	Display	6.5 inch TFT LCD display
	Dimension	330(W)mm×163(H)mm×165(D)mm
	Weight	4kg



Delivery Detail: 1 week
Payment Terms: T/T, Western Union



S7000 - Features and Benefits

TV & Satellite Analyzer, Digital/Analog TV and Satellite TV analysis

- 7" TFT LCD Display
- All standards in one: QAM(J.83A/B/C), 8VSB, DVB-T/H/T2, DVB-S/S2
- Digital/Analog TV and Satellite TV analysis
- MPEG2 Transport stream analyzer and monitoring via TS-ASI input & RF input
- Fast spectrum analysis with 5~2150 MHz frequency span DSP Technology to support different Video decoding: MPEG-2, MPEG-4 and H.264 for 1080i, 720p and 576i, support PAL/NTSC/ SECAM color system
- Support SD&HD Video format and DVB-CI module (Conditional Access)
- TS-ASI input and output; TS record and TS replay
- IPTV analysis and GPS option;
- HDMI, LAN and USB interface

- Digital TV Analyzer
- Video decoder
- GPS
- Handheld TS Analyzer
- Spectrum Analyzer

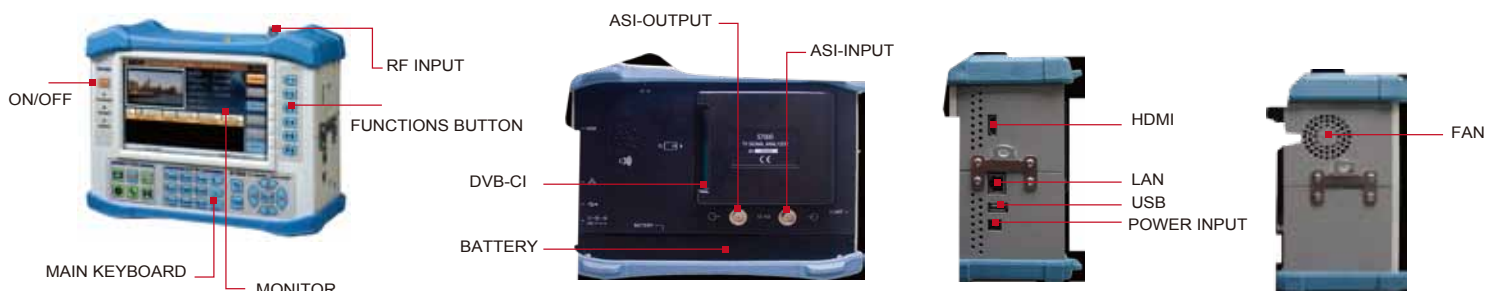
Model Guide

Specification	S7000	S7000L
Analog TV, FM	■	■
DVB-C	■	■
DVB-T	■	■
DVB-S/S2	■	■
DVB-T2	□	×

	S7000	S7000L
DTMB	□	×
CI Module	□	×
ASI Output/Input	■	×
TS Analyzer Module	□	□
IPTV	□	□

Remark: ■ : Included □ : Software Option × : Not Available

Panel Guide



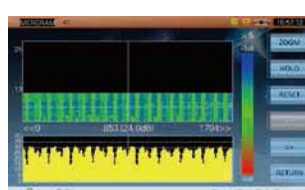
Features and Benefits



MPEG4 HD for 1080i Decode



Satellite Signal Sweep



DVB-T MER versus carriers



DVB-T signal measurement

Specifications

Spectrum Analyzer	
Frequency Range	5 MHz ~ 1050 MHz (TV), 950 MHz ~ 2150 MHz (Satellite)
Frequency Span	1 MHz ~ 1045 MHz (TV), 10 MHz ~ 1200 MHz(Satellite)
Frquency Step	10 kHz (TV), 1 MHz (Satellite)
Resolution Bandwidth (-3 dB)	30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz (TV) 1 MHz, 3 MHz Auto Select (Satellite)
Level Measurement Range	10 dBμV ~ 120 dBμV (TV) 30 dBμV ~ 120 dBμV (Satellite)
Accuracy Of Measurements	<1.5 dB
Measurement Detector	Peak, sample, AVG (TV) , No Select for Satellite
Reference Level	30 dBμV ~ 120 dBμV
Markers	2 (TV) 1 (Satellite)
Analogue TV Measurement	
Standards	B/G, I, D/K, L/L', M/N
Colour Standards	PAL, SECAM, NTSC
Frequency Step	10 kHz
Hum Measurement	> 50dB
C/N	> 50dB
Level Measurement Range	30 dBμV ~ 120 dBμV
Accuracy Of Measurements	< 1.5 dB
Level Resolution	0.1 dB
Digital CATV Measurement	
Modulation Type	16/32/64/128/256 QAM ITU-T J.83 ANNEX A/B/C
Symbol Rate	4.0 MS/s ~ 7.0 MS/s
Power Level Range	30 dBμV ~ 110 dBμV
Level Resolution	0.1 dB
Power Level Accuracy	±1.5 dB(C/N > 20 dB)
MER Measurement	~40 dB
MER Accuracy	±2.0 dB
BER	1E-3 ~ 1E-9
Constellation	√
DVB-T/H Measurement	
Modulation Type	QPSK, 16 QAM, 64 QAM
Power Level Range	25 dBμV ~ 110 dBμV
Level Resolution	0.1 dB
Power Level Accuracy	±1.5 dB (C/N >20 dB)
MER Measurement	> 30 dB
MER Accuracy	±2.0 dB
CBER/VBER	√
Constellation	√
MER Versus Carriers	√
Echo Pattern	√
DVB-T2 Measurement	
Modulation Type	QPSK, 16 QAM, 64 QAM, 256QAM
Power Level Range	25 dBμV ~ 110dBμV
Level Resolution	0.1dB
Power Level Accuracy	±1.5 dB(C/N >20 dB)
MER Measurement	>30 dB
MER Accuracy	±2.0 dB
CBER/LBER	√
Constellation	√
Echo Pattern	√
ATSC Measurement	
Modulation Type	8 VSB
Power Level Range	25 dBμV ~ 110 dBμV
Level Resolution	0.1 dB
Power Level Accuracy	±1.5 dB(C/N >20 dB)
MER Measurement	>35 dB
MER Accuracy	±2.0 dB
BER	√
Constellation	√
DTMB Measurement	
Carriers	C=1, 3780
Power Level Range	25 dBμV ~ 110 dBμV
Level Resolution	0.1 dB
Power Level Accuracy	±1.5 dB (C/N >20dB)
MER Measurement	>28 dB
MER Accuracy	±2.0 dB
BER	√

Constellation	√
Echo Pattern	√
DVB-S/S2 Measurement	
Modulation Type	QPSK, 8PSK
Symbol Rate	2 - 45 MS/s (DVB-S) 1 - 45 MS/s (QPSK DVB-S2) 1 - 45 MS/s (8PSK DVB-S2)
Power Level Range	40 - 110 dBμV
Level Resolution	0.1 dB
Power Level Accuracy	±1.5 dB (C/N>20dB)
MER Measurement	> 25 dB
MER Accuracy	±2.0 dB
BER	DVB-S (CBER/VBER) DVB-S2 (CBER/LBER)
Constellation	√
Video/Audio Decoder	
Video	MPEG1/2/4, H.264
Video Resolution	1080i, 720p and 576i
Audio	MPEG1/2/4, AAC
CAM Module	EN50221 (DVB-CI) PCMCIA interface
TS-ASI Input And Output	√
TS Record	√
TS Analyzer	
En 50083-9(DVB SPI, ASI)	
DVB-ASI Interface	75 Ω BNC
DVB-ASI Clock	270 MHz
DVB-ASI Max Data Rate	0 to 72 Mbps
DVB-ASI Output Signal Level	1.0 Vp-p nominal
DVB-ASI Return Response	> 15dB
DVB-ASI Input Level	800 mV +/- 10%
Realtime Decoder	Display the real television pictures (through CA system). Including program numbers, program names, provider information, video & audio PIDs
TR101290 Monitor	TR101 290 three levels real time monitor
Base Information	Count the PIDs percent according to the type of the streams. Videos, Audios, PSI/SI, Null Packages
PID List	Display all the PIDs in current stream
Program Information	The detail infos about a program if it isn't encrypted. The video resolutions and audio compress rate.
PCR Monitor	Calculate PCR interval and PCR accuracy
PSI/SI List	Display the PSI/SI infos by tree view. Including PAT,PMT,CAT,(NIT,SDT,RST,TDT,EIT options)
Program Info	EPG
PID Capture	Capture a specified PID by it's type: Video, Audio, PSI(PAT,PMT,NIT,TDT,RST,SDT,EIT) etc. And display the data in HEX format
TransportStreamRecord and Replay	<2 GB (udisk) for TS record and TS Replay
Interface	
RF Input	75 Ω F
HDMI Output	
USB	1 USB 2.0
LAN	1 10/100 M
DVB-CI	1 PCMCIA
TS-ASI Input/Output	2 75 Ω BNC
DC Supply Input	12 V / 5 A
GPS Input	USB
General	
Display	7 inches TFT LCD 800 × 480 pixels
AC/DC Adapter	AC 100 - 240 V/50-60 Hz DC 12 V/5 A
Battery	Li-ion, 7.4 V/13 Ah
Charge Time	Around 5 Hours
Working Time	>5 Hours
Remote Feeding	5/13/15/18/24 V, Max. 5 W
22 kHz Control Signals	DiSEqC 1.2 and SaTCR
Dimension (W×H×L)	245 mm × 194 mm × 105mm
Weight	Around 2.8 kg
Working Temperature	-10 ~ +50 °C
Storage Temperature	-20 ~ +70 °C

TR300 Series - Features and Benefits



OTDR

- 3.5 inch TFT Touch screen and keypad for easy to operate
- Large-capacity polymer lithium battery supporting
- Operation of more than 10 hours
- Supporting data exchange between the SD card and USB flash drive
- One-click automatic operations are supported for important tests, ensuring high test efficiency
- 1310/1550 dual-wavelength test visual light source, facilitating detection of optical fiber breakpoint
- Complete PC analysis software, help you generate a complete and professional OTDR report rapidly

Main Specifications	Model	TR300	TR303	TR306
	Dynamic	26/24dB	30/28dB	32/30dB
	Attenuation dead zone	15m	10m	10m
	Event dead zone	3m	1.8m	1.8m
	Wavelength(±20 nm)	1310/1550		
	Display	3.5 inch TFT LCD touch screen		
	Light source type	LD		
	Optical interface	FC/UPC		
	Distance range (km)	0.3, 1, 5, 10, 30, 60, 120		
	Pulse width (ns)	5, 10, 20, 40, 80, 160, 320, 640, 1280, 2560, 5120, 10240, 20480, Auto		
Measurement duration	15s, 30s, 1min, 2min, 3min			

DG0708 Series - Features and Benefits

Optical Fiber Cleaver



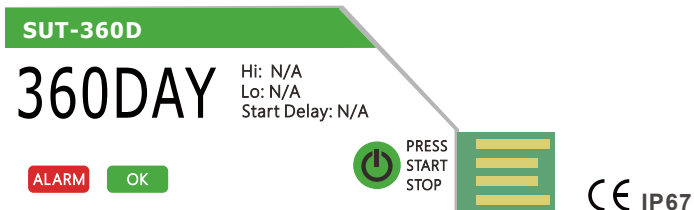
- Used for Single Fiber Cleaving
- Typical cleave angle: ± 0.5°
- High precision cleaving blade with 16 cleave spots
- Simplified blade adjustment & replacements
- Has Superior Blade Height and Rotational Adjustment
- Available With Automatic Fiber Scrap Collection
- Support Auto Return Function

Specifications	Model	DG0708A	DG0708B	DG0708C	DG0708D
	Suitable Fiber	Single Fiber			
	Coating Fiber Diameter	0.25 & 0.9mm			
	Cladding Diameter	125µm			
	Cleaving Length	9~16mm (Φ0.25mm) ; 10~16mm (Φ0.9mm)			
	Cleaving Angle	0.5°			
	Blade Life	48000 fibers (1000 fiber x 3 height x 16 positions)			
	Fiber Dustbin	Support	NO	NO	Support
	Auto Return	Support	NO	Support	NO
	Dimension	63mm(W)×76mm(D)×63mm(H)			
Weight	430g				

■ Introductions

Small, light, waterproof and in a food safe wrapper, the single used data logger is ideal for monitoring the temperature of shipments in transit. Recordings are started by pressing the start button. The data logger is then placed inside the carton and dispatched. At the receiving end, the data logger is taken from the package and removed from the protective wrapper.

It is placed into the USB slot on a computer to download data and export report via easy software that can be downloaded on a website anywhere. Or it can export pdf report directly without any software support.



■ Features and Benefits

- Single Use
- Multiple Data Loggers can Be Graphed Together
- Easy to Use, Very Low Cost
- One Button to Start and Stop

Specifications	Use Type	Single Use
	Temperature Measurement Range	-30°C~+80°C
	Temperature Measurement Accuracy	±0.5°C
	Resolution	0.1°C
	Shelf Life / Battery	1 Year/3.0V Lithium Battery
	Data Capacity	32000 (MAX)
	Recording Interval	12secs, 36secs, 1mins, 2mins, 3mins, 5mins, 6mins, 12mins
	Selectable	2 secs~12 hours selectable
	Recording Period	24 hours, 72 hours, 5 days, 10 days, 15 days, 30 days, 45 days, 60 days, 90 days, 120 days, 240 days, 360 days Selectable
	Startup Mode	Manual To Start (Push the button)
	Alarm Type	Single Type / Accumulation Type
	Protection Class	IP67
	Authenticate	CE, ROHS, GSP, EN12830
	Supporting Software	DGraph Easy
Report Generation Mode	PC Software Report	
Communication Interface	USB 2.0	

■ Applications

This data logger is used mainly to monitor and verify temperature sensitive goods, equipment or areas. Example:

- Cold Chain
- Refrigeration
- Transportations
- Food&Pharmaceutical



Product Selection Guide

Our USB data logger available for:

---Temperature or both temperature and humidity

---Various temperature range: -35 to 80 or -40 to 100

---Accuracy for 0.1% degree/0.2% degree/0.5% degree

---With LCD display or without LCD display

Part#	Measurement Parameters	Range	Accuracy (Typ.)	LCD	Readings (Total)	Sample Rate	Sensor Location	Battery Life (Years, Typ.)
SSN-10	Temperature	-35 to 80°C (-31 to 176°F)	±0.5°C (±0.9°F)	NO	32000	2s to 12h	Internal	3
SSN-11	Temperature	-35 to 80°C (-31 to 176°F)	±0.5°C (±0.9°F)	YES	32000	2s to 12h	Internal	3
SSN-10E	Temperature	-40 to 125°C (-40 to 257°F)	±0.5°C (±0.9°F)	NO	32000	2s to 12h	External	3
SSN-11E	Temperature	-40 to 125°C (-40 to 257°F)	±0.5°C (±0.9°F)	YES	32000	2s to 12h	External	3
SSN-12	Temperature	-35 to 80°C (-31 to 176°F)	±0.2°C (±0.4°F)	NO	32000	2s to 12h	Internal	3
SSN-13	Temperature	-35 to 80°C (-31 to 176°F)	±0.2°C (±0.4°F)	YES	32000	2s to 12h	Internal	3
SSN-12E	Temperature	-40 to 125°C (-40 to 257°F)	±0.2°C (±0.4°F)	NO	32000	2s to 12h	External	3
SSN-13E	Temperature	-40 to 125°C (-40 to 257°F)	±0.2°C (±0.4°F)	YES	32000	2s to 12h	External	3
SSN-20	Temperature Relative Humidity	-35 to 80°C (-31 to 176°F) 0 to 100%RH	±0.3°C (±0.5°F) ±3%RH	NO	32000	10s to 12h	Internal	3
SSN-22	Temperature Relative Humidity	-35 to 80°C (-31 to 176°F) 0 to 100%RH	±0.3°C (±0.5°F) ±3%RH	YES	32000	10s to 12h	Internal	3
SSN-20E	Temperature Relative Humidity	-40 to 100°C (-40 to 212°F) 0 to 100%RH	±0.3°C (±0.5°F) ±3%RH	NO	32000	10s to 12h	External	3
SSN-22E	Temperature Relative Humidity	-40 to 100°C (-40 to 212°F) 0 to 100%RH	±0.3°C (±0.5°F) ±3%RH	YES	32000	10s to 12h	External	3
SSN-21	Temperature Relative Humidity	-35 to 80°C (-31 to 176°F) 0 to 100%RH	±0.2°C (±0.4°F) ±2%RH	NO	32000	10s to 12h	Internal	3
SSN-23	Temperature Relative Humidity	-35 to 80°C (-31 to 176°F) 0 to 100%RH	±0.2°C (±0.4°F) ±2%RH	YES	32000	10s to 12h	Internal	3
SSN-21E	Temperature Relative Humidity	-40 to 100°C (-40 to 212°F) 0 to 100%RH	±0.2°C (±0.4°F) ±2%RH	NO	32000	10s to 12h	External	3
SSN-23E	Temperature Relative Humidity	-40 to 100°C (-40 to 212°F) 0 to 100%RH	±0.2°C (±0.4°F) ±2%RH	YES	32000	10s to 12h	External	3
SSN-30	DC Voltage	0 to 30V (Range can be customized)	±1%	NO	32000	1s to 12h	External	3
SSN-31	DC Voltage	0 to 30V (Range can be customized)	±1%	YES	32000	1s to 12h	External	3
SSN-30S	DC Voltage	0 to 30V (Range can be customized)	±1%	NO	256000	400Hz~12h	External	3
SSN-31S	DC Voltage	0 to 30V (Range can be customized)	±1%	YES	256000	400Hz~12h	External	3
SSN-32	DC Voltage	0 to 30V (Range can be customized)	±0.05%±1count	NO	32000	1s to 12h	External	3
SSN-33	DC Voltage	0 to 30V (Range can be customized)	±0.05%±1count	YES	32000	1s to 12h	External	3
SSN-32S	DC Voltage	0 to 30V (Range can be customized)	±0.05%±1count	NO	256000	400Hz~12h	External	3
SSN-33S	DC Voltage	0 to 30V (Range can be customized)	±0.05%±1count	YES	256000	400Hz~12h	External	3
SSN-40	Current Loop	4 to 20mA (0~20mA can be customized)	±1%±1count	NO	32000	1s to 12h	External	3
SSN-41	Current Loop	4 to 20mA (0~20mA can be customized)	±1%±1count	YES	32000	1s to 12h	External	3
SSN-40S	Current Loop	4 to 20mA (0~20mA can be customized)	±1%±1count	NO	256000	400Hz~12h	External	3
SSN-41S	Current Loop	4 to 20mA (0~20mA can be customized)	±1%±1count	YES	256000	400Hz~12h	External	3
SSN-42	Current Loop	4 to 20mA (0~20mA can be customized)	±0.1%±1count	NO	32000	1s to 12h	External	3
SSN-43	Current Loop	4 to 20mA (0~20mA can be customized)	±0.1%±1count	YES	32000	1s to 12h	External	3
SSN-42S	Current Loop	4 to 20mA (0~20mA can be customized)	±0.1%±1count	NO	256000	400Hz~12h	External	3
SSN-43S	Current Loop	4 to 20mA (0~20mA can be customized)	±0.1%±1count	YES	256000	400Hz~12h	External	3
SSN-50	Carbon Monoxide	0 to 1000 PPM	±6%	NO	32000	10s to 12h	Internal	1
SSN-51	Carbon Monoxide	0 to 1000 PPM	±6%	YES	32000	10s to 12h	Internal	1
SSN-52	Carbon Monoxide	0 to 300 PPM	±4%	NO	32000	10s to 12h	Internal	1
SSN-53	Carbon Monoxide	0 to 300 PPM	±4%	YES	32000	10s to 12h	Internal	1
SSN-60	Thermocouple	-200 to 1370°C (328 to 2498°F)	±0.3%±1°C	NO	32000	1s to 12h	External	1.5
SSN-61	Thermocouple	-200 to 1370°C (328 to 2498°F)	±0.3%±1°C	YES	32000	1s to 12h	External	1.5
SSN-70	Air Pressure Temperature Relative Humidity	300 to 1100 hPa -35 to 80°C (-31 to 176°F) 0 to 100%RH	±1.5hPa ±0.3°C (±0.5°F) ±3%RH	NO	31998	10s to 12h	Internal	2
SSN-71	Air Pressure Temperature Relative Humidity	300 to 1100 hPa -35 to 80°C (-31 to 176°F) 0 to 100%RH	±1.5hPa ±0.3°C (±0.5°F) ±3%RH	YES	31998	10s to 12h	Internal	2
SSN-80	Counter Event State				32000		External	1

USB Data Logger

SSN-11 & SSN-10

Temperature Data Logger with USB Interface

USB interface and LCD Display(for SSN-11)
 Temperature range: -35~80 °C(-31~176 °F)
 0.1°C / 0.2 °F resolution and ±0.5°C / ±0.9°F accuracy
 USB interface directly communicate with PC
 User can set access password for data logger
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button,Delayed



SSN-11E & SSN-10E

Temperature Data Logger with Extended Temperature Range and External Probe

External Probe and LCD Display(for SSN-11E)
 Temperature range: -40~125°C(-40~257 °F)
 0.1°C / 0.2 ° F temperature resolution
 USB interface directly communicate with PC
 User can set access password for data logger
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 External probe is waterproof and its length can be customized



SSN-13 & SSN-12

Temperature Data Logger with USB Interface

USB interface and LCD Display(for SSN-13)
 Temperature range: -35~80 °C(-31~176 °F)
 0.1°C / 0.2 °F resolution and ±0.2°C / ±0.4°F accuracy
 USB interface directly communicate with PC
 User can set access password for data logger
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button,Delayed



SSN-13E & SSN-12E

Temperature Data Logger with Extended Temperature Range and External Probe

USB interface and LCD Display(for SSN-13)
 Temperature range: -35~80 °C(-31~176 °F)
 0.1°C / 0.2 °F resolution and ±0.2°C / ±0.4°F accuracy
 USB interface directly communicate with PC
 User can set access password for data logger
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button,Delayed
 External probe is waterproof and its length can be customized



SSN-22 & SSN-20

Humidity, Temperature and Dew Point Data Logger with USB Interface

Two-Channel Humidity, Temperature and Dew Point Data
 Logger With USB Interface and LCD Display(for SSN-22)
 Temperature range: -35~80 °C(-31~176 °F)
 0.1°C / 0.2 °F resolution and ±0.3°C / ±0.5°F accuracy
 Relative Humidity range:0~100%RH
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button, Delayed



USB Data Logger

SSN-22E & SSN-20E

Humidity, Temperature and Dew Point Data Logger with Extended Temperature Range and Probe

Two-Channel Humidity, Temperature and Dew Point Data
 Logger With USB Interface and LCD Display(for SSN-22E)
 Temperature range: -40~100 °C(-40~212 °F)
 0.1°C / 0.2 °F resolution and ±0.3°C / ±0.5°F accuracy
 Relative Humidity range:0~100%RH
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button, Delayed



SSN-23 & SSN-21

Humidity, Temperature and Dew Point Data Logger with USB Interface

Two-Channel Humidity, Temperature and Dew Point Data
 Logger With USB Interface and LCD Display(for SSN-23)
 Temperature range: -35~80 °C(-31~176 °F)
 0.1°C / 0.2 °F resolution and ±0.2°C / ±0.4°F accuracy
 Relative Humidity range:0~100%RH
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button, Delayed



SSN-23E & SSN-21E

Humidity, Temperature and Dew Point Data Logger with Extended Temperature Range and Probe

Two-Channel Humidity, Temperature and Dew Point Data
 Logger With USB Interface and LCD Display(for SSN-23E)
 Temperature range: -40~100 °C(-40~212 °F)
 0.1°C / 0.2 °F resolution and ±0.2°C / ±0.4°F accuracy
 Relative Humidity range:0~100%RH
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button, Delayed



SSN-60 & SSN-61

Thermocouple Temperature Data Logger with USB Interface

K-type: -200 to 1370°C(-328 to 2498°F)
 J-type: -200 to 1190°C(-328 to 2174°F)
 T-type: -200 to 390°C(-328 to 734°F)
 Logger With USB Interface and LCD Display(for SSN-61)
 0.5°C / 1 °F resolution and ±0.3%±1°C accuracy
 USB interface directly communicate with PC
 Support for multiple file formats: txt, xls, csv, bmp, jpg
 Start logging method: Immediately, Button,Delayed



SSN-70 & SSN-71

Air Pressure, Humidity and Temperature Data Logger with USB Interface

Air Pressure Range: 300~1100 hPa
 Air Pressure Accuracy: ±1.5 hPa
 Air Pressure Resolution: ±0.1 hPa
 Humidity Range: 0~100% RH
 Humidity Accuracy: ±3% RH
 Humidity Resolution: 0.1% RH
 Temperature Range: -35~80°C(-31~176 °F)
 Temperature Accuracy: ±0.3°C(±0.5°F)
 Temperature Resolution: 0.1°C(0.2°F)



DDS Function Generator Selection Guide

Model	MFG1005/MFG1010 MFG1015/MFG1020	MFG2010/MFG2020 MFG2040/MFG2060	TFG6080/TFG6120 TFG6300	TFG3050L TFG3150L	MFG3005CH/MFG3010CH MFG3015CH/MFG3020CH	MFG3010/MFG3020 MFG3040/MFG3060	TFG1905B TFG1910B TFG1920B
Waveform	32 waveforms including: Sine, Square, Triangle, Ramp, Pulse etc	sine, square, pulse, DC	CHA: Sine, Square, Ramp, Pulse and 4 built in waves	CHA: Sine, Square, Pulse, DC CHB: Sine, Square, Triangle, Ramp, Pulse etc, totally 11 waveforms	32 waveforms including: Sine, Square, Triangle, Ramp, Pulse etc	sine, square, pulse, DC	16 kinds of waveforms including: sine, square, ramp, exponent, logarithm, noise and so on.
Sine	5MHz/10MHz/15MHz/20MHz	10MHz/20MHz/40MHz/60MHz	80MHz/120MHz/300MHz	50MHz/150MHz	5MHz/10MHz/15MHz/20MHz	10MHz/20MHz/40MHz/60MHz	5MHz/10MHz/20MHz
Square	1µHz~5MHz	40µHz~20MHz	1µHz~80MHz	--	1µHz~5MHz	40µHz~20MHz	10µHz~5MHz
Pulse	1µHz~1MHz	40µHz~10MHz	--	--	1µHz~5MHz	40µHz~10MHz	10µHz~1MHz
Ramp/Triangular	1µHz~1MHz	--	--	--	1µHz~1MHz	--	10µHz~1MHz
Resolution	1µHz	40µHz	1µHz/1Hz	100mHz	1µHz	40µHz/40 mHz	10µHz, 6 digits
Channel	Dual	Dual	Dual	Dual	Dual	Dual	Single
Amplitude Resolution	8bits	10bits	--	14bits	8bits	10bits	8 bits
Sine wave distortion	≤1% (20Hz~200kHz)	≤0.5%(20Hz~200kHz)	--	≤0.5%(20Hz~100kHz)	≤1% (20Hz~200kHz)	≤0.5% (20Hz~200kHz)	≤0.5% (20Hz~20kHz)
Wave Length	1024 points	4~16000 points	--	4~16000 points	1024 points	4~16000 points	1024 points
Sample Rate	100MSa/s	180MSa/s	--	400MSa/s	100MSa/s	180MSa/s	100MSa/s
Modulation	FM,FSK,ASK,PSK	FM,AM,FSK,ASK,PSK	FM,AM,FSK,PSK	FM,AM,FSK,ASK,OSK,PSK	FM,FSK,ASK,PSK	FM,AM,FSK,ASK,PSK	FM,AM,FSK,PM,PWM
Alternative rate	10ms~60s	10ms~60s	0.1ms~800s	0.1ms~1000s	10ms~60s	10ms~60s	50ms~500s
Spectrum Purity	--	--	√	√	--	--	--
DC Offset	√	√	√	√	√	√	√
TTL Output	√	√	√	√	√	√	√
Sweep mode	linear, logarithmic	linear, logarithmic	linear, logarithmic	linear, logarithmic	linear, logarithmic	linear, logarithmic	linear, logarithmic
Burst	Channel A, Channel B	Channel B	Channel A, Channel B	Channel A, Channel B	Channel A, Channel B	Channel B	Channel A
Frequency Counter	1Hz~200MHz(optional)	1Hz~200MHz(optional)	--	0.1Hz~100MHz	1Hz~200MHz(optional)	1Hz~200MHz(optional)	--
Clock	--	--	10 MHz	--	--	--	--
SYNC	--	--	√	√	--	--	√
10MHz Input	--	--	√	--	--	--	--
Display	LCD display	LCD display	3.5" TFT LCD	5.7" TFT LCD	3.5" TFT LCD	3.5" TFT LCD	VFD
Interface(Standard)	--	--	RS232, USB_Device	USB_Device, RS232	USB_Device	USB_Device	USB_Device
Interface(Optional)	RS232	RS232	GPIO, Stereo out	GPIO, TCXO	RS232	RS232	--
Dimension	415×295×195mm	415×295×195mm	254 × 103 × 374 mm	329×283×155 mm	415×295×195mm	415×295×195mm	322×256×102 mm
Weight	3.5 kg	3.5 kg	2.9 kg	5.35 kg	3.5 kg	3.5 kg	1.5 kg

Specification

DDS Function Generator

MFG1000 Series

(MFG-1005/MFG-1010/MFG-1015/MFG-1020)



Frequency Range:1μHz~5/10/15/20MHz
Dual independent output channels
32 kinds of built-in pre-stored waveforms
1mV(50Ω) Minimum stable output waveform
FM, FSK, ASK, PSK modulation functions
Frequency sweep, amplitude sweep and burst

MFG2000 Series

(MFG-2010/MFG-2020/MFG-2040/MFG-2060)



Frequency Range:40μHz~10/20/40/60MHz
Dual independent output channels
32 kinds of built-in pre-stored waveforms
1mV(50Ω) Minimum stable output waveform
FM, FSK, ASK, PSK modulation functions
Frequency sweep, amplitude sweep and burst

TFG6000 Series

(TFG6080/TFG6120/TFG6300)



3.5 inch TFT LCD display
Two independent channels
4 basic waveforms and 4 fixed arbitrary waveforms
Frequency range:1μHz~80MHz/120MHz/300MHz
1μHz Frequency Resolution
Output FM,AM,PSK,FSK modulation signal,
external modulation input
High accuracy and low distortion output waveforms
Accurate pulse width, with the function of burst
Data storage and recall,with Clock count
Standard interface of USB device and RS-232
Optional interface of GPIB

TFG3000L Series

(TFG3050L/TFG3150L)



5.7 inch TFT LCD display
Frequency range from 100mHz to 50MHz/150MHz
100mHz frequency resolution
Dual channels output independently
0.1Hz to 100MHz frequency counter
FM, AM,2FSK,4FSK,ASK,OSK,2PSK,4PSK,Burst
Data storage and recall function
Standard interface of RS-232 and USB device
Optional interface of GPIB

DDS Function Generator

MFG3000CH Series

(MFG-3005CH/MFG-3010CH/MFG-3015CH/MFG-3020CH)



Frequency Range: 1μHz~5/10/15/20MHz
3.5 inch TFT LCD display, Dual channels
32 kinds of built-in pre-stored waveforms
FM,AM, FSK, ASK, PSK modulation functions
Frequency sweep, amplitude sweep and burst
Optional parts: RS232 interface, USB interface
200MHz frequency counter
7W(8Ω) power amplifier

MFG3000 Series

(MFG-3010/MFG-3020/MFG-3040/MFG-3060)



Frequency Range: 40μHz~10/20/40/60MHz
3.5 inch TFT LCD display, Dual channels
32 kinds of built-in pre-stored waveforms
FM,AM, FSK, ASK, PSK modulation functions
Frequency sweep, amplitude sweep and burst
Optional parts: RS232 interface, USB interface
200MHz frequency counter
7W(8Ω) power amplifier

TFG1900B Series

(TFG1905B/TFG1910B/TFG1920B)



Frequency Range: 10μHz~5/10/20MHz
High frequency resolution:10μHz.
Multi-waveform:16 types of waveforms
Ramp characteristics:accurate ramp symmetry
Modulation characteristics:FM, AM,PM,PWM,FSK
Computation function:Frequency or period,amplitude
virtual value or peak-peak value can be selected
Programmable interface:Equipped with USB device

CA1645 Series

(CA1645-03/CA1645-05/CA1645-08)



Frequency Range:0.1Hz~3MHz/5MHz/8MHz
100mHz resolution;6 digits LED display
Output waveform: sine, square, triangle
Attenuator: -40dB, 0dB ;
Output amplitude 0.2~20Vp-p;
Sine wave distortion is less than 0.6%
TTL/CMOS output;Duty control(Square)

VC2002



Frequency Range:0.2Hz~2MHz;
7 ranges:0.2Hz/2Hz/20Hz/200Hz/2kHz/20kHz/200kHz /2MHz
Output waves:sine,square,rectangle,sawtooth and triangle
5-digit LED frequency display

VC2002



VC2003

Frequency Range:1Hz~3MHz
Output wave:Sine wave , square wave distortion
Harmonic distortion:-40dBc
Square wave distortion:20ns
Output TTL level square wave synchronous

Arbitrary Waveform Generator Selection Guide

Model	SDG805/SDG810/SDG830	SDG1005/SDG1010/SDG1020 SDG1025/SDG1050	SDG5082/SDG5122/SDG5162	TFG6920A/TFG6930A TFG6940A/TFG6960A	TFG908A/TFG9312A TFG9316A	MFG-6005CH/MFG-6010CH MFG-6015CH/MFG-6020CH
Waveform	Sine, Square, Ramp, Pulse, Gaussian Noise, DC 46 built-in arbitrary waveforms	Sine, Square, Ramp, Pulse, Noise, Arbitrary	Sine, Square, Ramp, Triangle, Pulse, Noise, Arb	Sine, Square, Ramp, Pulse, Noise 50 built-in arbitrary waveforms 5 user-defined arbitrary waveforms	sine, square, ramp, pulse, noise, DC 150 built-in arbitrary waveforms	32 pre-stored waveforms and 8 user defined arbitrary waveforms including: Sine, Square, Triangle, Ramp, Pulse etc
Sine	1μHz ~ 5/10/30MHz	1μHz ~ 5/10/20/25/50MHz	1μHz~80MHz/120MHz/160MHz	1μHz~20/30/40/60MHz	1μHz~80/120/160MHz	1μHz~5/00/15/20MHz
Square	1μHz ~ 5/10/10MHz	1μHz ~ 5/10/20/25/50MHz	1μHz ~ 30MHz/40MHz/50MHz	1μHz ~ 10MHz	1μHz ~ 60MHz	1μHz ~ 5MHz
Pulse	500μHz ~ 5MHz	500μHz ~ 5MHz	1μHz~20MHz/30MHz/40MHz	1μHz~10MHz	1μHz~60MHz	1μHz~1MHz
Ramp/Triangular	1μHz ~ 300kHz	1μHz ~ 300kHz	1μHz~2MHz/3MHz/4MHz	1μHz~5MHz	1μHz~5MHz	1μHz~1MHz
Gaussian white noise	>5MHz/10MHz/30MHz (-3dB)	>5/10/20/25/50MHz (-3dB)	100MHz (-3dB)	1μHz ~ 5MHz		
Arbitrary	1μHz ~ 5MHz	1μHz ~ 5MHz	1μHz~20MHz/30MHz/40MHz	1μHz ~ 5MHz	1μHz ~ 60MHz	1μHz ~ 1MHz
Resolution	1μHz	1μHz	1μHz	1μHz	1μHz, 12 digits	1μHz
Channel	1	2	2	2	2	2
Sine wave distortion	DC~20kHz 1Vpp<0.2%	DC~20kHz 1Vpp<0.2%	DC~20kHz 1Vpp<0.2%	≤0.1%(20Hz to 20kHz, 20Vpp)	≤0.1%	≤1% (20Hz~200kHz)
Vertical resolution	14bits	14bits	14bits	14 bits (CHA), 10bits (CHB)	14 bit	8 bit
Wave Length	16k points	16k points	16k points(CH1);512k points(CH2)	4096 points	2-16k points	1024 points
Sample Rate	125MSa/s	125MSa/s	500MSa/s	120MSa/s	500MSa/s	100MSa/s
Modulation	AM,DSB-AM,FM,PM,FSK,ASK,PWM	AM,FM,PM,FSK,ASK,PWM	AM,DSB-AM,FM,PM,FSK,ASK,PWM	AM,FM,PM,Sum,FSK, BPSK,PWM	AM,FM,PM,Sum,FSK, 3FSK, 4FSK BPSK, QPSK,ASK, OSK,PWM	FM,FSK,ASK,PSK
DC Offset	±5V(50Ω);±10V(High-Z)	±5V(50Ω);±10V(High-Z)	±5V(50Ω);±10V(High-Z)	±5V(50Ω);±10V(High-Z)	±5V(pk ac+dc (50Ω load)	±10V(high impedance,attenuation 0dB)
TTL Output	√	√	√	√	√	√
Sweep time	1ms~500s	1ms~500s	1ms~500s ±0.1%	50ms~500s	10ms ~ 300s	10ms~60s/step
Burst	√	√	√	√	√	√
Frequency Counter	--	100mHz~200MHz	100mHz~200MHz	0.1Hz~350MHz	0.1Hz~350MHz	1Hz~200MHz(optional)
Frequency reference input	--	--	10MHz±50Hz	--	--	--
Frequency reference output	--	--	10MHz	--	--	--
SYNC Output	√	√	√	√	√	--
Display	3.5inch TFT-LCD	3.5inch TFT-LCD	4.3 inch TFT-LCD	4.3 inch TFT-LCD	4.3 inch TFT-LCD	3.5 inch TFT-LCD
Interface(Standard)	USB Device, USB Host	USB Device, USB Host	USB Device, USB Host	USB Host, USB Device, RS-232	USB Host, USB Device, LAN	RS232
Interface(Optional)	--	GPB	GPB, LAN	--	--	7W(8Ω) power amplifier
Dimension	229(W)×105(H)×281(D)mm	229(W)×105(H)×281(D)mm	261(W)×105(H)×344(D)mm	334mm×256mm×106 mm	256mm×102mm×322 mm	415mm×295mm×195mm
Weight	N.W: 2.6kg; G.W: 3.4kg	N.W: 2.6kg; G.W: 3.4kg	2.8kg	3kg	3kg	3.5kg

Specification

Arbitrary Waveform Generator

SDG 800 Series

(SDG805/SDG810/SDG830)



3.5 inch TFT-LCD display with **single channel**
Frequency range from 1μHz to 5/10/30MHz
125MSa/s sample rate, 14bit vertical resolution
5 types of standard output waveform
Built-in 46 arbitrary waveforms(include DC)
Modulation functions: AM,DSB-AM,FM, PM, FSK,
ASK, PWM, Sweep,Burst
Standard interfaces: USB Device, USB Host

SDG 1000 Series

(SDG1005/SDG1010/SDG1020/SDG1025/SDG1050)



3.5inch TFT-LCD display
Dual channels,125MSa/s sample rate,14 bit
Frequency range from 1μHz to 5/10/20/25/50MHz
5 types of standard output waveform
built-in 48 arbitrary waveforms
Modulation functions: AM,FM,PM,FSK ASK,PWM,
linear/logarithmic, sweep, burst
Synchronous output,External modulation source
input, 10MHz clock input,external trigger input,
internal trigger output etc
Channel coupling and duplication function
Built-in 200MHz accurate frequency counter
High precision clock(1ppm & 10ppm)is optional
Interfaces: USB Device, USB Host,GPIB(Optional)
Support remote control

SDG 5000 Series

(SDG5082/SDG5122/SDG5162)



4.3 inchTFT-LCD display,14bit resolution
Dual channels,500MSa/s sample rate
Frequency range from 1μHz to 80/120/160MHz
512Kpts wave length
2ppm high frequency stability
-116dBc/Hz low phase noise
Modulation functions:AM,DSB-AM,FM,PM,FSK ASK,
PWM,linear/logarithmic, sweep, burst
Built-in 200MHz high precision frequency counter
Standard interfaces: USB Device, USB Host
Optional interface:LAN,GPIB(IEEE-488)
Seamlessly workwith SIGLENT Oscilloscope
Support remote control

Arbitrary Waveform Generator

TFG6900A Series

(TFG6920A/TFG6930A/TFG6940A/TFG6960A)



4.3 inch TFT LCD display
Frequency range from 1μHz to 20/30/40/60MHz
1μHz Frequency Resolution
120MS/s sampling rate,14 bits vertical resolution
Modulation function: FM, AM, PM, PWM, Sum,
FSK,BPSK, Sweep and Burst
Built-in 350MHz frequency counter
Standard port: RS-232, USB device and USB host
Optional port:Amplifier,TCXO

TFG3900A Series

(TFG3908A/TFG3912A/TFG3916A)



4.3 inch TFT LCD display
Frequency range from 1μHz to 80/120/160MHz
1μHz Frequency Resolution
500MS/s sampling rate
14 bits vertical resolution
2ppm accuracy to ensure the high quality waves
Modulation type:FM,AM,PM,PWM,Sum,FSK,BPSK,
QPSK,ASK,OSK,Sweep and Burst
6 standard waveforms
150 arbitrary waveforms
Full and complete modulation functions
Build in 350MHz frequency counter
Arbitrary Waveform Edit PC Software
Standard port: USB device,USB host and LAN

MFG-6000CH Series

(MFG-6005CH/MFG-6010CH/MFG-6015CH/MFG-6020CH)



3.5-inch TFT display, English/Chinese menu
Frequency range from 1μHz to 5/10/15/20MHz
1μHz Frequency Resolution
32 built-in pre-stored waveforms
8 user defined arbitrary waveforms
100MSa/s sample rate, 8bits vertical resolution
Standard parts: RS232 interface

HDG2072C 1μHz~70MHz



7 inch, TFT display, WVGA(800X480)
Frequency Range:1uHz~70MHz
Isolation between the Channel and GND
16 bits resolution, 250MSa/s Sample rate
2 Channels, 64 Mpts Max. Memory Depth
Modulation:AM,FM,PM,ASK,FSK,PSK and PWM
Plenty of interfaces: USB Host, USB Device, LAN

DDS Frequency Sweeper

SP30120, 120MHz Frequency Sweeper



6.4" TFT color LCD display
 Output signal: +13dBm~-87dBm, flatness $\leq\pm 0.5$ dB
 Detector inside, not need external detector
 Can apply test in any area within 20Hz~120MHz
 Display maker pointer's frequency and measurement value simultaneously
 5 markers can be set and display simultaneously
 Embedded operating system
 Store, recall and analyze data of sweep waveforms
 Auto scan limited value
 Can auto scan, set and compare reference lines
 Can measure -3dB bandwidth and Q value
 RS232, VGA port inside
 GPIB, USB port is optional

SP31000, 1.0G Frequency Sweeper



6.4" TFT color LCD display
 Frequency Range: 1MHz~1024MHz
 Frequency Resolution: 100Hz
 Harmonic Distortion: ≥ -25 dBc (400MHz~600MHz) ≥ -20 dBc
 Phase Locked Logic (PLL) techniques, accurate output signal output power range +13dBm~-67dBm, flatness $\leq\pm 1.0$ dB
 Display maker pointer's frequency and measurement value simultaneously
 5 markers can be set and display simultaneously
 Embedded operating system
 Store, recall and analyze data of sweep waveforms
 Auto scan limited value
 Can auto scan, set and compare reference lines
 Can measure -3dB bandwidth and Q value
 RS232, VGA port inside
 GPIB, USB port is optional

RF Signal Generator

SP8648A/B/C/D



Frequency Range: 9kHz~1003MHz (SP8648A)
 9kHz~2002MHz (SP8648B)
 9kHz~3002MHz (SP8648C)
 9kHz~4000MHz (SP8648D)
 Δ Σ -modulation and single PLL frequency synthesis
 Using surface mount technology (SMT) Technology
 Save and Recall function
 RS232 standard interface
 Optional interface: GPIB, USB

Pulse Generator

TFG1900P Series

(TFG1905P/TFG1910P/TFG1920P)

Frequency range: 10 μ Hz~5MHz/10MHz/20MHz
 One dual-purpose instrument: function & pulse generator
 16 waveforms including: Sine, Square, Ramp, Exponent, Logarithm, Noise, etc
 1024 points wave length, 100MSa/s sample rate
 Amplitude Resolution: 8 bits
 Standard interface of USB Device



SU5202G



5.7 inch TFT LCD display with dual channels
 Crystal Oscillation Reference
 Trigger mode: Internal, External, Manual
 Data Storage and Recall
 Pulse Type: Single/Dobule, Logic Positive/Negative
 Pulse period range: 20ns~10000s
 Time interval range: 5ns~10000s
 Resolution 5ns (T ≤ 4 s): 10 μ s (T ≥ 4 s)
 Time interval error: $\pm(T \times 5 \times 10^{-5}) + 5$ ns (T ≤ 4 s)
 Time Resolution: 5ns (T ≤ 4 s) 10 μ s (T ≥ 4 s)
 Burst mode: continuous, single
 External standard frequency input: 10MHz
 Interface: RS232, GPIB (optional)

Pulse /Pattern Generators

SU5302



5.7 inch TFT LCD display with dual channels
 Crystal Oscillation Reference
 Data Storage and Recall
 Pulse Type: Single/Dobule, Logic Positive/Negative
 Pulse period range: 20ns~10000s
 Pattern Length: 4095bits; NRZ Pattern Format
 100mHz ~ 50MHz Pattern Rate, 0.1Hz Resolution
 Interface: RS232, GPIB (optional)

SU5303



4.3 inch TFT LCD display with single channel
 Crystal Oscillation Reference
 Data Storage and Recall
 Pulse Type: Logic Positive/Negative
 Pattern Length: 16384 bits
 Pattern Rate: 100mHz~50MHz
 Interface: RS232, GPIB (optional)

Audio Signal Generator

CA-101



Frequency range:10Hz~1MHz divided into five steps
Sine wave characteristics:output voltage $\geq 20V_{p-p}$
Nolierar distortion: $\leq 0.1\%$
Square characteristics:
output voltage: $\geq 10V_{p-p}$ (No Load)
Rise time:200ns
External synchronization characteristics: $\pm 1\%/V$
Power output:about 5W
Frequency counter range:1Hz~1MHz
External Frequency range:1Hz~100MHz

SP1651



Frequency range: 0.1Hz to 200kHz
Resolution:0.1Hz
Sweep start and stop frequency can be set independent
Amplitude error : $< 1\%$
THD: $\leq 0.2\%$ (20Hz~20kHz 1Vrms 8 Ω Load)
Sweep frequency ratio: MAX 2000000:1
Sweep time: 0.1s ~100s
Sweep interval: 0s~100s
Sweep mode: single, Continue (Repeat, Round)
About 10 seconds output delay after power-on operation, and short circuit protection
LSI, SMT technics and new type metal box.
High Reliability:MTBF> 10000h

FM/AM Signal Generator

SP1501



Wide band coverage from 100kHz to 150MHz
High accuracy (100Hz in full range)
Output Level extended to +13dBm
Output level can be specified 0.1dB step
Spurious & Harmonics: $\leq -30dBc$
Attenuator Accuracy: $\pm 1dB$ (20dB μ ~100 dB μ),
 $\pm 2dB$ (-20dB μ ~20dB μ)
Options: RS232 interface

SP1502



Wide band coverage from 100kHz to 300MHz
Frequency Resolution:100Hz
Output level can be specified 0.1dB step
SWR $< 1.5:1$
Harmonics: $< -30dBc$ (Output $\leq +10dBm$)
Subharmonics: $< -40dBc$ (Output $\leq +10dBm$)
Nonharmonics: $< -40dBc$ (Output +10dBm,Offset $> 5kHz$)
Interface:RS-232
Options: GPIB

Stand-alone Logic Analyzer

SA8320



15 cm (5.7") color LCD display
32 input channels,Two external clock channels
256 k points storage depth
Simultaneous display of 8 timing wave forms
Timing Sample: internal clock, 1Hz to 100MHz
(10ns to 1s cycle), resolution: 10ns
Sampling rate: 1Hz to 35MHz
USB and RS232 interface

Digital AC Millivolt Meter

SM2030A



Bright large screen VFD display, 3 1/2 digits
Frequency range 5 Hz to 3 MHz
AC voltage 50 μV to 300 V
ACV test resolution is up to 1 μV
Two independent input channels
Standard accessory interface is RS-232

SM2050A



Bright large screen VFD display, 4 1/2 digits
Frequency range 5 Hz to 5 MHz
AC voltage 50 μV to 300 V
ACV test resolution is up to 1 μV
Two independent input channels
Auto or manual ranging can be selected
Standard accessory interface is RS-232

SP2281 Digital RF Millivoltmeter/ frequency counter



Frequency Range of Voltage to be measured:
1.2GHz RF Probe:9kHz~1200MHz
2G Coaxial Detector:10kHz~2000MHz
3G Coaxial Detector:10kHz~3000MHz
QVGA, using numerical keys
Produced by SMT, new_type metal box
MTBF: $> 20000h$
RS-232 Interface
Option GPIB Interface,USB Interface

TH1912



Bright large screen VFD display, 4 1/2 digits
Frequency Bandwidth from 5Hz to 3MHz
Math function: %,dB,dBm
Trigger mode: INT/MAN/BUS
Standard RS 232 interface
Optional GPIB interface

NA7000 Series - Features and Benefits

Network Analyzer, Max to 3.0GHz

- 50Ω input impedance
- Mainly for telecom and broadcast
- Measure the index of transmission, Insertion Loss, Gain, Insertion Phase, Isolation, Group Delay, Return Loss, VSWR and so on
- Function of Automatically judging to eligibility
- Transmission & Reflection, 1G Byte memory
- Two channels, Four traces display
- Shorter sweep time, Save/ print/ recall function
- USB, parallel, RS-232 and VGA interface



CE

Specifications	Model	NA7300	NA7100
	Frequency Range		300 kHz ~ 3 GHz
Frequency stability		±5 ppm	±5 ppm
Frequency Resolution		1 Hz	1 Hz
Phase Noise		≤ -65 dBc/Hz @10 kHz	≤ -67 dBc/Hz (10 kHz Offset)
Output Level Range		-48 dBm ~ +10 dBm	-50 dBm ~ +10 dBm
Source Level Accuracy		±1.5 dB (-45 dBm ~ +5dBm)	±1.5 dB (25 °C +5 °C)
Harmonic Rejection		≥ -30 dBc (>1 MHz); ≤ -25 dBc (≤1 MHz)	≥ -30 dBc (>1 MHz); ≤ -25 dBc (≤1 MHz)
Directivity		≥ 50 dB (After Vector calibration)	≥ 50 dB (After Vector calibration)
Source VSWR		≤ 1.3	≤ 1.3
Resolution Bandwidth		100 Hz ~ 15 kHz	100 Hz ~ 15 kHz
Dynamic Range		≥ 100 dB (RBW=1 kHz)	≥ 100 dB (RBW=1 kHz)
Receiver Level Accuracy		±1.5 dB	±1.5 dB
Measurement Resolution		0.01 dB	0.01 dB
Maximum Input Level		+ 10 dBm	+ 10 dBm
Receiver VSWR		≤ 1.2	≤ 1.2
Phase Resolution		0.01 °	0.01 °
Phase Stability		0.5 ° (RBW=1 kHz); 1 ° (RBW=3 kHz)	0.5 ° (RBW=1 kHz); 1 ° (RBW=3 kHz)
Sweep Time		150 ms/field ~ 20 s/field (201points)	150 ms/field ~ 5 s/field (201points)
Display		7.5" Color TFT LCD	7.5" Color TFT LCD
Measurement Channels		2 channels, 4 tracks	
Measurement Format		A, B, R, A/R, B/R, A/B	
Measurement Parameters		Logarithm amplitude, Linearity amplitude, Phase, Group delay, Real part, Imaginary part, VSWR, Smith chart, Pole chart	
Front Panel Interface		Type-N Input and Output port, USB 1.1 port	
Rear Panel Interface		RS-232, Parallel interface, Standard VGA output and Standard keyboard interface	
General Specifications	Power Supply	AC 90 V ~ 250 V / 50 Hz, P≤113 W	
	Working Environment	Temperature: -10°C ~ 40°C, Humidity: ≤75%	
	Store Environment	-10°C ~ 50°C	
	Inside Storage	1 G Byte	
	Dimension	400 mm × 220 mm × 470 mm	
	Weight	15 kg	

SDM3055 Series - Features and Benefits

Bench Type Digital Multimeter, 5½ digits



- 4.3 inch TFT-LCD display(480*272), 5½ digits True-RMS
- Max to 150rdgs/s measurement speed
- 1Gb Nand Flash Storage,mass storage settings and data files, extensible U disk external memory
- Built-in thermocouple cold junction compensation
- Rich math operation function support measure MIN. ,MAX. ,average, standard deviation,dBm,dB,Pass/Fail
- Graphic display, such as relative,histogram, trend curves,bar graphs
- Support remote control, compatible with mainstream multimeter command set , equipped with EASYSDM software
- Interface:USB Device, USB Host, LAN, GPIB(only for SDM3055A)

Specifications	Model	SDM3055	SDM3055A
		DCV	200mV,2V,20V,200V,1000V
	ACV	True-RMS,200mV,2V,20V,200V,750V	
	DCA	200μA,2mA,20mA,200mA,2A,10A	
	ACA	True-RMS,20mA,200mA,2A,10A	
	Resisitance(Ω2W/Ω4W)	200Ω,2kΩ,20kΩ,200kΩ,2MΩ,10MΩ,100MΩ	
	Capacitance	2nF,20nF,200nF,2μF,20μF,200μF,10000μF	
	Frequency	20Hz ~ 1MHz	
	Temerature	Support thermocouple,thermal resistance temperature sensor	
	Nand Flash Sorage	1GB	
	Continuity	Support	
	Diode test	Support	
	True-RMS	Support	
	Period test	1μs ~ 0.05 s	
	Max.input voltage	1000V	
	Measurement Speed	150 rdgs/s	
	Math	MIN. ,MAX. ,average, standard deviation,dBm,dB,Pass/Fail	
	Graphic display	Relative,Histogram, Trend curves,Bar graphs	
	Display	4.3 inch TFT-LCD display	
	Max.reading	5½ digits	
	Interface	USB_Device,USB_Host,LAN	USB_Device,USB_Host,LAN,GPIB

Bench Type Multimeter Selection Guide

Specification	Model	SA5041	VC8045	VC8045-II	TH1941
DCV		200mV/2V/20V/200V/1000V	200mV/2V/20V/200V/1000V	200mV/2V/20V/200V/1000V	200mV/2V/20V/200V/1000V
ACV		2V/20V/200V/750V	200mV/2V/20V/200V/750V	200mV/2V/20V/200V/750V	200mV/2V/20V/200V/750V
DCA		200μA~10A	20mA/200mA/2A/20A	20mA/200mA/2A/20A	2mA~20A
ACA		200μA~10A	200mA/2A/20A	200mA/2A/20A	2mA~20A
Resistance		200Ω~20MΩ	200Ω~20MΩ	200Ω~20MΩ	200Ω~20MΩ
Frequency		20Hz ~ 200MHz	20kHz/200kHz	20kHz/200kHz	5Hz~1MHz
Capacitance		20nF ~ 20mF	20nF/2μF/200μF	20nF/2μF/200μF	×
Temperature		-200~800°C	×	×	×
Duty ratio		√	×	×	×
Auto Range		√	×	×	√
HFE Test		×	√	√	×
AC+DC Test		×	√	×	√
Relative Test		√	×	×	√
Low Battery Indication		×	√	√	×
Math		dB, dBm	×	×	%,dB,dBm,REL
Peak Hold		×	×	×	√
Max/Min Hold		√	×	×	√
Auto Power off		×	×	×	×
RS232 interface		×	×	×	√
USB		√	×	×	×
GPIO(optional)		×	×	×	×
Max.display		19999	19999	19999	21,000

Bench Type Digital Multimeter

SA5041

True 4½ digits with 19999 count; True RMS Measures including DCV, ACV, DCA, ACA, resistance, capacitance, frequency, temperature, diode and continuity tests

Built-in math operations

Standard interface of USB Device

VC8045

True 4½ digits

High accuracy True RMS

30mm LCD with backlight display

With the DCV, ACV, DCA, ACA, OHM, CAP, Hz, hFE, diode and continuity test function.

AC measuring adopt high accuracy true RMS and AC+DC Test.

Bench Type Digital Multimeter

TH1941

4 1/2-digit true-RMS digital multimeter

True RMS AC voltage and current measurements, bandwidth up to 100kHz

Measurement including DCV / ACV, DCI / ACI, Ω, frequency/period, diode, Continuity, dBm, dB, etc

VC8045-II

True 4½ digits with True RMS

DC and AC Voltage, DC and AC current, Resistance, Capacitance, Hz, hFE, Diodes and Continuity.

SA5051	TH1951	VC8145	SA5061 (Details in page 5)	TH1961
100mV/1V/10V/100V/1000V	100mV/1V/10V/100V/1000V	80mV/800mV/8V/80V/800V/1000V	100mV/1V/10V/100V/1000V	100mV/1V/10V/100V/1000V
100mV/1V/10V/100V/750V	100mV/1V/10V/100V/750V	80mV/800mV/8V/80V/750V	100mV/1V/10V/100V/750V	100mV/1V/10V/100V/750V
1A~10A	10mA/100mA/1A/10A	80mA/800mA/8A/20A	10mA/100mA/1A/3A	10mA/100mA/1A/10A
1A~10A	10mA/1A/10A	80mA/800mA/8A/20A	1A/3A	10mA/1A/10A
100Ω~100MΩ	100Ω~100MΩ	800Ω/8kΩ/80kΩ/800kΩ/8MΩ/80MΩ	100Ω~100MΩ	100Ω~100MΩ
5Hz~1MHz	5Hz~1MHz	0.5Hz~8MHz	3Hz~300kHz	5Hz~1MHz
2nF/20nF/200nF/2μF/10μF	x	1nF/10nF/100nF/1μF/10μF/100μF	x	x
x	x	-50°C~1372°C/-58°F~2502°F	-270°C~1372°C	x
x	x	1%~99%	x	x
√	√	√	√	√
x	x	x	x	x
x	x	√	x	x
√	√	√	√	√
x	x	√	x	x
dBV,dBm	mX+b, %, dB, dBm, REL	dB,dBm,REL	dB,dBm,Limit Test	mX+b, %, dB, dBm, REL
x	x	√	x	x
√	√	√	√	√
x	x	√	x	x
√	√(Optional)	√	√	√(Optional)
√	√	√	√	√
√	√	x	√	√
199,999	119,999	80000	6½ digits	1,199,999

Bench Type Digital Multimeter

VC8145

True 4 7/8 digits;High accuracy True RMS
50 kinds of measuring function,with basicly DCV, ACV, DCA, ACA, Ω, CAP, Hz, TEMP, diode and continuity measuring function etc
Timing measuring function



SA5051

VFD display with high-brightness, 5½ digits
The reading rate is up to 88 rdgs/s
True RMS measurement of AC voltage and current
To determine the maximum and minimum of save
Standard interface of RS-232 and USB Device
Optional interface of GPIB



Bench Type Digital Multimeter

TH1900 Series

(TH1951/TH1961)
TH1951 5 ½ digit display(119,999 counts)
TH1961 6 ½ digit display(1,199,999 counts)
Max. measurement rate: 1000 meas/sec
Built-in mX +b,%, dB, dBm etc math calculation
HI/IN/LO comparator function



MS8050 Max.reading 53000

Auto/Manual range
ACV and ACV measurements reach up to 1000V
DC measurement accuracy reaches up to 0.03%
0.1Ω resistance and 1μV voltage resolution
Voltage/Current linear frequency measurement
Logic frequency/duty cycle measurement
Capacitance measurement from 0.01nF to 5000μF
RS-232C interface and PC Windows software
Software calibrates automatically



Handheld Digital Multimeter



DT9208A 3 ½ digits, Max. reading: 1999
 DCV: 200m-2-20-200-1000V ±0.5%
 ACV: 200m-2-20-200-750V ±1.0 %
 DCA: 2 m -20m-200m-20A ±1.0%
 ACA: 20m-200m-20A ±1.5%
 Resistance: 200-2k-20k-200k-2M-20M-200MΩ ±2.0%
 Capacitance: 2n -20n-200n-2u-20uF ±4.0%
 Frequency: 2K-20KHz ±1.5%
 Temperature: -40°C~1000°C ±3.0%
 Diode Test, Triode Test, Logic level Test
 Continuity test, Data hold, Auto Power Off



DT820D 3 ½ digits, Max. reading: 1999
 DCV: 200m-2000m-20-200-1000V ±0.5%
 ACV: 200-750V ±1.2%
 Current: 2000u-20m-200m-10A ±1.2%
 Resistance :200-2000-20K-200K-2MΩ ±1.0%
 hFE, Diodes, Low battery indication, Continuity test
 Square-wave output, Overload protection



DT-33B 3 ½ digits, Max. reading: 1999
 DCV: 200m-2000m-20-200-500V ±0.5%
 ACV: 200-500V ±1.2%
 DCA: 200u-200m-10A ±1.0%
 ACA: 200-2000-20k-200k-20MΩ ±0.8%
 Battery Test: 1.5V-9V-12V
 Diode Test, Continuity test, Backlight display



VICTOR 9802A+ 3 ½ digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V ±(0.5%+3)
 ACV: 2V/20V/200V/750V ±(0.8%+5)
 DCA: 20mA/200mA/20A ±(0.8%+3)
 ACA: 20mA/200mA/20A ±(1.0%+5)
 Resistance: 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/200MΩ ±(0.8%+3)
 Capacitance: 20nF/200nF/2uF/200uF ±(2.5%+20)
 Frequency: 2kHz/200kHz; Temperature: -40°C~1000°C
 Diode/Transistor test, Continuity buzzer, Live wire judging
 Low battery indication, Data Hold, Auto power off, Manual range
 Backlight, Function protection, Shockproof protection
 Restorable Fuse protection, TTL, Square wave output



Victor 9808+ 3 ½ digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V ±(0.5%+3)
 ACV: 200mV/2V/20V/200V/750V ±(0.8%+5)
 DCA: 2mA/20mA/200mA/20A ±(0.8%+10)
 ACA: 2mA/20mA/200mA/20A ±(1.0%+15)
 Resistance: 200/2k/20k/200k/2M/20M/200MΩ ±(0.8%+3)
 Inductance: 2mH/20mH/200mH/2H/20H ±(2.5%+30)
 Capacitance: 20nF/200nF/2uF/20uF/200uF ±(2.5%+20)
 Frequency: 2k/20k/200k/2000k/10MHz ±(1.0%+10)
 Temperature/Celsius: -40°C~1000°C ±(1.0%+5)
 Diode/Transistor test, Continuity buzzer, Low battery indication, Peak hold, Auto power off, Manual range
 Backlight, Function protection, Shockproof protection

Handheld Digital Multimeter



VC9804A+ 3 ½ digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V
 ACV: 2V/20V/200V/750V
 DCA: 20mA/200mA/20A
 ACA: 20mA/200mA/20A
 Resistance : 200Ω/2k/20k/200k/2M/200MΩ
 Capacitance: 20nF/200nF/20uF/2000uF
 Frequency: 2kHz/200kHz
 Temperature Range: -40°C ~ 1000°C
 Overload Protection, Data Hold, Auto Power Off
 Transistor test, Continuity test, Low battery indication



VC86 3 ½ digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V ±(0.5%+4)
 ACV: 200mV/2V/20V/200V/750V ±(0.8%+5)
 DCA: 200uA/2000uA/20mA/200mA/2A/20A ±(1.0%+5)
 ACA: 200uA/2000uA/20mA/200mA/2A/20A ±(1.5%+5)
 Resistance: 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ ±(0.8%+3)
 Temperature: -40°C~1000°C ±(0.8%+4)
 (0~1832)°F ±(1.2%+4)
 Non-contact voltage detect, Diode test, hFE test, Continuity test,
 Low battery indication, Backlight display, Data hold, Auto power off,
 Function protect, Auto range



VC9808+ 3 ½ digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V ±(0.5%+3)
 ACV: 200mV/2V/20V/200V/750V ±(0.8%+5)
 DCA: 2mA/20mA/200mA/20A ±(0.8%+3)
 ACA: 2mA/20mA/200mA/20A ±(1.0%+5)
 Resistance: 200/2k/20k/200k/2M/20M/200MΩ ±(0.8%+3)
 Inductance: 2mH/20mH/200mH/2H/20H ±(2.5%+20)
 Capacitance: 20nF/200nF/2uF/20uF/2000uF ±(2.5%+20)
 Frequency: 2k/20k/200k/2000k/10MHz ±(0.5%+4)
 Temperature/Celsius: -40°C~1000°C ±(0.8%+4)
 Diode/hFE test, Continuity buzzer, Low battery indication,
 Peak hold, Auto power off, Manual range/Auto range(Frequency)
 Backlight, Function protection, Shockproof protection



MS8321D 3 ½ digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V ±(0.8%+2)
 ACV: 2V/20V/200V/750V ±(1.2%+3)
 DCA: 200uA/2mA/20mA/200mA/20A ±(2.0%+5)
 ACA: 2mA/20mA/200mA/20A ±(3.0%+10)
 Resistance: 200/2k/20k/200k/2M/20M ±(1.0%+1)
 Diode test, hFE test, Transistor test, Continuity buzzer
 Manual range, Data hold, Low battery indication, Auto power off
 ECBE(NPN, PNP)



MS8239D 3 ½ digits, Max. reading: 1999
Motor Vehicle Engine Multifunction Analyzer Multimeter
 DCV: 200mV/2V/20V/200V/600V ±(0.7%+2)
 ACV: 200mV/2V/20V/200V/600V ±(1.0%+3)
 DCA: 10A ±(2.0%+10)
 ACA: 10A ±(3.0%+10)
 Resistance: 200/2k/20k/200k/2M/20MΩ ±(1.0%+3)
 DWELL Test: 4CYL/6CYL/8CYL
 TACH Test: 4CYL/6CYL/8CYL
 Max. reading: 2000 counts
Built-in Engine Analyzer
 Diode test, Auto range, Continuity buzzer, Fuses protection
 Backlight display, Data hold
CE, RoHS, IEC1010-1 CAT.III 600V certified

Handheld Digital Multimeter



VICTOR 86C 3 3/4 digits, Max. reading: 4000

DCV: 400mV/4V/40V/400V/1000V ±(0.5%+4)
 ACV: 400mV/4V/40V/400V/750V ±(0.8%+10)
 DCA: 400uA/4000uA /40mA/400mA/4A/10A ±(1.0%+10)
 ACA: 400uA/4000uA /40mA/400mA/4A/10A ±(1.5%+10)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(0.8%+4)
 Capacitance: 40nF/400nF/4uF/40uF/200uF ±(3.5%+8)
 Frequency: 10/100/1k/10k/100k/1M/30MHz ±(0.5%+4)
 Temperature: (-20 ~ 1000)°C ±(1.0%+5)
 (0~1832)°F ±(1.5%+15)

Duty cycle, Diode/Transistor test, Continuity buzzer, Data hold,
 Low battery indication, Auto power off, Bar graph display

RS232 interface jack, Function protection, Max./Min.

Shockproof protection, **Auto range**

USB interface can connect to computer



VC 88 3 3/4 digits, Max. reading: 4000

DCV: 400mV/4V/40V/400V/1000V ±(0.5%+4)
 ACV: 400mV/4V/40V/400V/750V ±(0.8%+10)
 DCA: 400uA/4000uA /40mA/400mA/4A/20A ±(1.0%+5)
 ACA: 400uA/4000uA /40mA/400mA/4A/20A ±(1.5%+5)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(0.8%+1)
 Capacitance: 4nF/40nF/400nF/4uF/40uF/200uF ±(3.5%+8)
 Frequency: 100/1k/10k/100k/1M/30MHz ±(0.5%+4)
 Temperature: (-40 ~ 1000)°C ±(0.8%+4)

TTL Logic function, Duty cycle, Diode and hFE test,
 Continuity buzzer, Data hold, Low battery indication,
 Auto power off, Backlight display, Function protection,

Auto range



VC97 3 3/4 digits, Max. reading: 4000

DCV: 400mV/4V/40V/400V/1000V ±(0.5%+4)
 ACV: 4V/40V/400V/750V ±(0.8%+6)
 DCA: 400uA/4000uA/40mA/400mA/20A ±(1.0%+5)
 ACA: 400uA/4000uA/40mA/400mA/20A ±(1.5%+5)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(0.8%+1)
 Capacitance: 4nF/40nF / 400nF/4uF/40uF/200uF ±(3.5%+8)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/30MHz ±(0.5%+4)
 Temperature: -40°C~1000°C ±(0.8%+4)

Diode test, hFE test, Continuity test, Low battery indication

Duty cycle, Data hold, Auto power off, Function protect, **Auto range**



VICTOR 98A Intelligent digital multimeter

DCV: 40mV-400mV-4V-40V-400V-1000V ±(0.2%+4)
 ACV: 400mV-4V-40V-400V-750V ±(0.5%+4)
 DCA: 400uA~10A ±(0.5%+4)
 ACA: 400uA~10A ±(1.0%+4)
 Capacitance: 50nF-500nF-5uF-50uF-100uF ±(5.0%+5)
 Frequency: 50Hz-500Hz-5kHz-50kHz-100kHz ±(0.1%+3)
 Duty Cycle: 0.1%~99% ±1.0%

Diode Test, Continuity Test, Thermocouple, dBm,
 Thermo resistance, Auto hold, Display hold, Peak hold

Panel calibration function

Three convenient data recording modes: LOG
 mode, MANUAL mode and COMPmode

USB-IR jack to connect with PC

4000 Max. reading



VICTOR 86B 3 3/4 digits, Max. reading: 4000

DCV: 400mV/4V/40V/400V/1000V ±(0.5%+4)
 ACV: 400mV/4V/40V/400V/750V ±(0.8%+10)
 DCA: 400uA/4000uA /40mA/400mA/4A/10A ±(1.0%+10)
 ACA: 400uA/4000uA /40mA/400mA/4A/10A ±(1.5%+10)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(0.8%+4)
 Capacitance: 50nF/500nF/5uF/50uF/100uF ±(3.5%+8)
 Frequency: 4Hz/40Hz/400Hz/4kHz/40kHz/400kHz/
 4MHz/30MHz ±(0.1%+4)
 Temperature: (-20 ~ 1000)°C ±(1.0%+5)

Duty cycle, Diode test, Continuity buzzer, Data hold,
 Low battery indication, Auto power off, Bar graph display

RS232 interface jack, Function protection,
 Shockproof protection, **Auto range**

USB interface can connect to computer

Handheld Digital Multimeter



MS8229 3 3/4 digits, Max. reading: 4000

**5-in-1: Multimeter, Sound Level Meter, Light Meter
 Ambient Temperature and Humidity Tester**

DCV: 400mV/4V/40V/400V/1000V ±(0.7%+2)
 ACV: 400mV/4V/40V/400V/750V ±(0.8%+3)
 DCA: 400uA/4000uA/40mA/400mA/4A/10A ±(2.0%+10)
 ACA: 400uA/4000uA/40mA/400mA/4A/10A ±(3.0%+10)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(1.2%+5)
 Capacitance: 40nF/ 400nF/4uF/40uF/100uF ±(3.0%+3)
 Frequency: 10Hz/100Hz/1kHz/10kHz/100kHz ±(2.0%+5)
 Temperature: -20°C~1000°C ±2.0%

-4°F~1832°F ±2.0%

Duty Cycle: 0.1%~99% ±3.0%

Ambient temperature: 0°C~40°C ±2.0°C

32°F~104°F ±4.0°F

Relative humidity: 30%~95% ±5.0%

Sound level: 35dB~100dB ±3.5%

Luminance: 4000 Lux/40000 Lux ±5.0%

Diode test, Continuity buzzer, Low battery indication

Data hold, Auto power off, Backlight display

Relative measurement, **Auto range**



MS8251C 3 3/4 digits, Max. reading: 4000

DCV: 400mV/4V/40V/400V/1000V ±(0.8%+3)
 ACV: 400mV/4V/40V/400V/1000V ±(1.0%+3)
 DCA: 400uA/4000uA/40mA/400mA/10A ±(2.0%+5)
 ACA: 400uA/4000uA/40mA/400mA/10A ±(3.0%+5)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(1.5%+5)
 Capacitance: 4nF/40nF/400nF/4uF/40uF/400uF/4mF/40mF ±(4.0%+5)
 Frequency (V position): 40Hz/400Hz/4kHz/10kHz ±(1.5%+5)
 Frequency (Hz position): 40/400/4k/40k/400k/4M/40MHz ±(1.5%+5)
 Temperature: 0°C~1000°C / 32°F~1832°F ±(1.0%+3)
 Duty cycle: 1%~99% ±(2.0%+2)

True RMS, Diode test, Non-contact voltage detection, Continuity buzzer,

Low battery indication, Data hold, Auto power off, Backlight display,

Max./Min., Auto range



VC87 3 5/6 digits, Max. reading: 6000

DCV: 600mV/6V/60V/600V/1000V ±(0.5%+3)
 ACV (TRMS): 6V/60/600/750V ±(1.0%+10)
 VSD-V (TRMS): 6V/60/600/750V ±(1.0%+10)
 DCA: 600uA/6000uA/60mA/600mA/6A/20A ±(0.8%+3)
 ACA: 600uA/6000uA/60mA/600mA/6A/20A ±(1.0%+20)
 Resistance: 600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ ±(0.8%+5)
 Capacitance: 40nF/ 400nF/4uF/40uF/400uF/2000uF ±(3.5%+8)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/60MHz ±(0.5%+4)
 Temperature: -40°C~1000°C ±(0.75%+3); 0°F~1832°F ±(1.2%+3)

True RMS, Diode test, hFE test, Continuity test,

Low battery indication, Duty cycle, Data hold, Auto power

off, Analog bar, Backlight display, Function protection, **Auto range**



VC99 3 5/6 digits, Max. reading: 6000

DCV: 600mV/6V/60V/600V/1000V ±(0.5%+4)
 ACV: 6V/60/600/750V ±(0.8%+6)
 DCA: 600uA/6000uA/60mA/600mA/6A/20A ±(0.8%+3)
 ACA: 600uA/6000uA/60mA/600mA/6A/20A ±(1.5%+10)
 Resistance: 600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ ±(0.8%+5)
 Capacitance: 40nF/ 400nF/4uF/40uF/400uF/2000uF ±(3.5%+8)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/60MHz ±(0.5%+4)

Temperature: -40°C~1000°C ±(0.75%+3) 0°F~1832°F ±(1.2%+3)

Diode and hFE test, Continuity test, Low battery indication, Duty cycle

Data hold, Auto power off, Analog bar, Function protect, **Auto range**

Handheld Digital Multimeter



VICTOR 86D 3 5/6 digits, Max. reading: 6000
 DCV: 600mV/6V/60V/600V/1000V ±(0.5%+4)
 ACV: 6V/60V/600V/750V ±(0.8%+10)
 DCA: 600uA/6000uA /60mA/600mA/10A ±(1.2%+10)
 ACA: 600uA/6000uA /60mA/600mA/10A ±(1.5%+10)
 Resistance: 600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ ±(0.8%+4)
 Capacitance: 40nF/400nF/4uF/40uF/200uF ±(3.5%+8)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/30MHz ±(0.5%+15)
 Temperature/Celsius: (-20 ~ 1000) / (0~1832) ±(1.5%+15)
 Duty cycle, Diode test ,Continuity buzzer ,Data hold, Max./ Min,
 Auto power off ,Unit symbol display, RS232 interface jack,
 Shkproof protection, Auto range, Low battery indication
USB interface can connect to computer



DT-5803 4 1/2 digits, Max. reading: 19999
 DCV: 200m-2-20-200-1000V ±0.5%
 ACV: 2-20-200-750V ±1.0 %
 DCA: 200u-2m-20m-200m-20A ±1.0%
 ACA: 2m-20m-200m-20A ±1.5%
 Resistance: 200-2K-20K-200K-2M-20MΩ ±1.0%
 Capacitance: 2n-20n-200n-2u-20uF ±4.0%
 Frequency: 20KHz ±1.5%
 Diode Test, Triode Test, Continuity test, Auto Power Off



VC980+ 4 1/2 digits, Max. reading: 19999
 DCV: 200mV/2V/20V/200V/1000V ±(0.05%+3)
 ACV: 200mV/2V/20V/200V/750V ±(0.8%+25)
 DCA: 200uA/20mA/200mA /20A ±(0.5%+4)
 ACA: 200mA /20A ±(1.5%+25)
 Resistance: 200/2k/20k/200k/2M/20M/200MΩ ±(0.2%+5)
 Capacitance: 20nF/2uF/200uF ±(4.5%+50)
 Frequency: 20kHz/200kHz ±(1.5%+25)
True RMS, Diode & Transistor test, Continuity buzzer, Data hold
 Low battery indication, Auto power off, Function protection,
 Restorable Fuse protection, Shock proof protection ,Auto range



VC9806+ 4 1/2 digits, Max. reading: 19999
 DCV: 200mV/2V/20V/200V/1000V ±(0.05%+3)
 ACV: 2V/20V/200V/750V ±(0.8%+25)
 DCA: 200uA/2mA/20mA/200mA/20A ±(0.5%+4)
 ACA: 200mA /20A ±(1.5%+25)
 Resistance: 200/2k/20k/200k/2M/200MΩ ±(0.2%+5)
 Capacitance: 2nF/20nF/200nF/2uF/200uF ±(2.0%+20)
 Frequency: 200KHz ±(3.0%+15)
 Diode test, hFE test, Continuity buzzer, Data hold, Backlight
 Low battery indication, Auto power off, Function protection,
 Anti-shock protect, Manual range



VC9807A+ 4 1/2 digits, Max. reading: 19999
 DCV: 200mV/2V/20V/200V/1000V ±(0.1%+5)
 ACV: 2V/20V/200V/750V ±(0.8%+25)
 DCA: 200uA/2mA/20mA/200mA/20A ±(0.5%+4)
 ACA: 200mA /20A ±(1.5%+25)
 Resistance: 200/2k/20k/200k/2M/20MΩ ±(0.4%+5)
 Conductance: (0.1~100)ns ±(1.0%+30)
 Capacitance: 20nF/2uF/200uF ±(2.0%+20)
 Frequency: 2kHz/200kHz ±(3.0%+15)
 Diode test, hFE test, Continuity buzzer, Data hold, Backlight
 Low battery indication, Auto power off, Function protection,
 Anti-shock protect, Manual range

Digital Clamp Multimeter



DT3266L 3 1/2 digits, Max. reading: 1999
 DCV: 2-20-200-600V ±(0.8%+3dgt)
 ACV: 2-20-200-600V ±(1.2%+5dgt)
 ACA: 2-20-200-600A ±(2.0%+5dgt)
 Resistance: 200-2K-20K-200K-2M-20MΩ ±(1.0%+3dgt)
 Clamp open: ∅ 26mm
 Low battery indication, Overload protection,



DT-203 3 1/2 digits, Max. reading: 1999
 DCV: 200m-2-20-200-600V ±1.0%
 ACV: 200m-2-20-200-600V ±1.2%
 ACA: 2-20-200-400A ±2.0%
 Resistance: 200-2K-20K-200K-2M-20MΩ ±1.0%
 Clamp open: ∅ 28.5mm
Auto Range, Diode Test, Continuity test,
 Data hold, Peak hold, Backlight display



DT-203T 3 1/2 digits, Max. reading: 1999
 DCV: 400m-4-40-400-600V ±1.0%
 ACV (True RMS): 400m-4-40-400-600V ±1.2%
 ACA (True RMS): 400-600A ±2.0%
 Resistance: 400-4K-40K-400K-4M-40MΩ ±1.0%
 Capacitance: 400n-40u-100uF ±5.0%
 Frequency: 5-50-500-5k-50k-500k-5MHz ±0.3%
 Temperature: -40°C~400°C, -40°F~752°F ±3.0%
 Duty Cycle: 0.01%~99.9% ±0.1%
 Clamp open: ∅ 40mm
Auto Range, Diode Test, Continuity test,
 Data hold, Peak hold, Backlight display



DM201 3 1/2 digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/600V ±(1.0%+3)
 ACV: 200mV/2V/20V/200V/600V ±(1.5%+5)
 ACA: 2A/20A/200A/600A ±(2.0%+5)
 Resistance: 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ ±(1.0%+3)
 Diode test ,Continuity alarming, Low battery indication
 Data hold/Max. hold ,Auto power off ,Function protect
 Clamp open 35mm



DM204 3 3/4 digits, Max. reading: 3999
 DCV: 200mV/2V/20V/200V/600V ±(1.0%+3)
 ACV: 200mV/2V/20V/200V/600V ±(1.5%+5)
 ACA: 2A/20A/200A/600A ±(2.0%+5)
 Resistance: 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ ±(1.0%+3)
 Capacitance: 40nF/400nF/4uF/40uF/200uF ±(3.0%+5)
 Temperature: (-40~ 1000)°C ±(0.8%+4)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/10MHz ±(0.5%+3)
 Diode test, Continuity alarming, Low battery indication
 Data hold/Max. hold, Auto power off, Function protect
 Clamp open 35mm

Digital Clamp Multimeter



DM6016A 3 3/4 digits, Max. reading: 4000
 DCV: 400mV/4V/40V/400V/600V ±(1.0%+3)
 ACV: 400mV/4V/40V/400V/600V ±(1.5%+5)
 ACA: 40A/400A/1000A ±(2.0%+5)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(1.0%+3)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/10MHz ±(0.5%+3)
 Temperature: (-40~ 1000)°C ±(0.8%+4)
 Diode test, Continuity alarming, Low battery indication
 Data hold/Max. hold, Auto power off, Function protect
 Clamp open 35mm



DM6016B 3 3/4 digits, Max. reading: 4000
 DCV: 400mV/4V/40V/400V/600V ±(1.0%+3)
 ACV: 400mV/4V/40V/400V/600V ±(1.5%+5)
 ACA: 40A/400A/1000A ±(2.0%+5)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(1.0%+3)
 Capacitance: 40nF/400nF/4uF/40uF/200uF ±(3.0%+5)
 Frequency: 100Hz/1kHz/10kHz/100kHz/1MHz/10MHz ±(0.5%+3)
 Temperature: (-40~ 1000)°C ±(0.8%+4)
 Diode test, Continuity alarming, Low battery indication
 Data hold/Max. hold, Auto power off, Function protect
 Clamp open 35mm



AC Clamp Meter

CM-2070FT 3 3/4 digits, Max. reading: 4000
 DCV: 400mV/4V/40V/400V/1000V ±(0.5%+5)
 ACV: 400mV/4V/40V/400V/750V ±(1.0%+5)
 ACA: 400A/1000A ±(2.0%+5)
 Resistance: 400Ω/4kΩ/40kΩ/400kΩ/4MΩ/40MΩ ±(0.8%+3)
 Capacitance: 40nF/400nF/4uF/40uF/100uF ±(3.5%+5)
 Frequency: 10Hz/100Hz/1kHz/10kHz/100kHz/1MHz/10MHz ±(0.5%+5)
 Temperature: (-40~ 1000)°C ±(1.0%+5)
 Diode test, Continuity test, Low battery indicator, Data hold
 Auto power off, Function protection, Clamp light,
 Backlight display; Clamp open 52mm



AC Clamp Meter

CM-2070C 3 1/2 digits, Max. reading: 1999
 DCV: 200mV/2V/20V/200V/1000V ±(0.5%+5)
 ACV: 200mV/2V/20V/200V/750V ±(1.0%+5)
 ACA: 200A/1000A ±(2.0%+5)
 Resistance: 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ ±(0.8%+3)
 Temperature: (-40~ 1000)°C ±(1.0%+5)
 (0~ 1832)°F ±(1.0%+5)
 Diode test, Continuity test, Low battery indicator,
 Data hold, Auto power off, Function protection,
 Clamp light, Backlight display, Clamp open 52mm



VICTOR 6056A+
 DCV: 400mV/4V/40V/400V ±(0.5%+4d); 1000V ±(1.0%+6d)
 DCA: 40A ±(3%+8d); 400A ±(2.5%+8d); 1000A ±(3%+10d)
 ACV: 400mV ±(1.6%+8d)
 4V/40V/400V ±(0.8%+10d); 750V ±(1.0%+10d)
 ACA: 40A ±(3%+10d); 400A ±(2.5%+8d); 1000A ±(3%+10d)
 Resistance: 400Ω ±(0.8%+5d); 40MΩ ±(1.2%+10d)
 4kΩ/40kΩ/400kΩ/4MΩ ±(0.8%+4d)
 Capacitance: 4nF ±(3.5%+30d); 100uF ±(5.0%+10d)
 40nF/400nF/4uF/40uF ±(3.0%+10d)
 Frequency: 9.999Hz/99.99Hz/999.9Hz/9.999kHz/99.99kHz
 ± (0.5%+4d)

Digital Clamp Multimeter



VICTOR 6050 3 3/4 digits, Max. reading: 4000
 DCV 400mV/4V/40V/400V ± (0.5%+4d)
 1000V ± (1.0%+6d)
 DCA 400A ±(2.5%+20d); 2000A ±(3.5%+20d)
 ACV 400mV ± (1.6%+8d)
 4V/40V/400V ± (0.8%+10d)
 750V ± (1.0%+10d)
 ACA 400A ±(2.5%+20d)
 2000A ±(3%+10d)
 Resistance 400Ω ± (0.8%+5d)
 4kΩ/40kΩ/400kΩ/4MΩ ± (0.8%+4d)
 40MΩ ± (1.2%+10d)
 Capacitance 40nF ±(5.0%+30d)
 400nF/4μF/40μF ±(3.5%+8d)
 100μF ±(5.0%+10d)
 Frequency 5.120Hz/51.20Hz/512.0Hz/5.120kHz
 /51.20kHz/512.0kHz/100.0kHz ±(0.5%+4d)
 Duty cycle 0.1%~99.9%
 Clamp open: 55mm
 Diode test, Continuity Buzzer, Low battery indication
 Auto power off, Data hold/Peak hold, Manual range
 Relative value measurement



VICTOR 6052 3 3/4 digits, Max. reading: 4000
 DCV 4V/40V/400V ± (0.5%+4d)
 1000V ± (1.0%+6d)
 DCA 400A ±(2.5%+20d)
 2000A ±(3.5%+20d)
 ACV 400mV ± (1.6%+8d)
 4V/40V/400V ± (0.8%+10d)
 750V ± (1.0%+10d)
 ACA 400A ±(2.5%+20d)
 2000A ±(3%+10d)
 Resistance 400Ω ± (0.8%+5d)
 4kΩ/40kΩ/400kΩ/4MΩ ±(0.8%+4d)
 40MΩ ± (1.2%+10d)
 Capacitance 40nF ±(5.0%+30d)
 400nF/4μF/40μF ±(3.5%+8d)
 100μF ±(5.0%+10d)
 Frequency 5.120Hz/51.20Hz/512.0Hz/5.120kHz
 /51.20kHz/512.0kHz/100.0kHz ±(0.5%+4d)
 Duty cycle: 0.1%~99.9%
 Clamp open: 55mm
 Diode test, Continuity Buzzer, Low battery indication
 Auto power off, Data hold/Peak hold, Manual range
 Relative value measurement

SP4481 - Features and Benefits

Power Meter, Max to 50.0GHz

- Frequency Range:100kHz~50GHz(sensor dependent)
- Offset measurements
- Limit measurements
- Allows entry of input frequency for automatic calibration factor selection
- Remote Function
- Range Setting
- ≥ 20000 hours MBTF
- Save up to 9 types measurement setup
- Option interface:USB,GPIB



Machine Specifications	Frequency Range	100kHz~50GHz(sensor dependent)
	Power Range	-70dBm~+44dBm(sensor dependent)
	Display Unit	dBm,W
	Resolution	0.1~0.001dB(log); 1%~0.01%(line)
	Absolution accuracy	±0.02dB(log) or ±0.5%(line) + Corresponding Power sensor linearity percentage
	Relative accuracy	±0.04dB(log) or ±1%(line) + Corresponding Power sensor linearity percentage
	Power Reference	
	Frequency	50MHz±0.75MHz
	Power	1mW(0dBm)±1.2%(Worse case)
	Connector	N(f)
Output impedance	50Ω	
SWR	1.1	

Sensor & General Specifications	Frequency	10MHz~18GHz(SP8481A) 10MHz~12.4GHz(SP8481AB) 100kHz~4.2GHz(SP8482A)
	Power Range	-30dBm~+20dBm
	Maxim Power	300mW
	Power Line	3%(+10~+20dBm),Negligible deviation except for those power ranges
	Power Sensor Nominal impedance	50Ω
	Sensor input Maxim SWR	1.4(SP8481A/SP8481AB); 1.6(SP8482A)
	RF Connector	N type
	Option interface	USB,GPIB
	Dimension(W*H*D)	255mm*100mm*370mm (SP4418); 30mm*40mm*130mm (SP8480)
	Weight	≤3.5kg(SP4418); ≤0.3kg(SP8481A)

MS5908 - Features and Benefits

TRMS Voltage GFCI RCD Tester Circuit Analyzer Meter



- True RMS for measuring AC voltage
- Artificial load 12A, 15A, 20A for measuring line voltage drop
- Measuring phase voltage, neutral line(zero line) voltage to earth, peak voltage, frequency
- Measure phase (live line), neutral line(zero line), earth line conductor impedance
- Identifying 3-wire socket connection mode(zero for left and live for right, having earth or not)
- Test the reliability of residual current device (RCD) and response action time
- Test the reliability of GFCI action and response action time
- Back light and data hold functions

Measurement	Ranges	Resolution	Accuracy
Line Voltage	85.0~265.0V	0.1V	±(1.0%+0.2V)
Neutral-Ground V	0.0~10.0V	0.1V	±(2.5%+0.2V)
Peak Line Voltage	121.0~374.0V	0.1V	±(1.0%+0.2V)
Frequency	45.0~65.0Hz	0.1Hz	±(1.0%+0.2Hz)
% Voltage Drop	0.1%~99.9%	0.10%	±(2.5%+0.2%)
Voltage Loaded	10.0~265.0V	0.1V	±(2.5%+0.2V)
Impedance-Hot	0.00~3.00Ω	0.01Ω	±(2.5%+0.02Ω)
Neutral & Ground	>3.00Ω	----	----
RCD Trip Time	1ms~6.500s	1ms	±(1.0%+2ms)
RCD Trip Current	30mA	0.1mA	±(1.0%+0.2mA)
GFCI Trip timer	1ms~6.500s	1ms	±(1.0%+2ms)
GFCI Trip Current	6mA	0.1mA	±(1.0%+0.2mA)

MS5900 - Features and Benefits

Three Phase Rotation Indicator



- 4 main functions: rotary field direction, non-contact rotary field indication, motor connection & magnetic field detection
- Indicate phase orientation (Clockwise or anticlockwise)
- Fast and accurate measurement
- With simultaneous indications via LEDs
- Portable and compact design
- Battery operated

Machine Specifications	Operating Temperature	0 C ~ 40 C
	Operating Altitude	2000 m
	Pollution Degree	2
	Type of Protection	IP 40
	Humidity	15 % to 80 %
	Max. Operating Voltage (Ume)	400 V AC for all ranges
	Protection Level	CAT III, 600 V
	Battery	6F22/9V (Not Included)
	Current Consumption	Max. 20 mA
	Battery Life	minimum 1 year for average use
Rotary Field Direction		
Nominal Voltage Rotary Direction	1 to 400 V AC	
Nominal Voltage Phase Indication	120 to 400 V AC	
Frequency Range (fn)	2 to 400 Hz	
Test Currents (In per phase)	less than 3.5 mA	
Non-Contact Rotary Field Indication		
Frequency Range (fn)	2 to 400 Hz	
Determine the Motor Connection		
Nominal Test Voltage (Ume)	1 to 400 V AC	
Nominal Test Currents (In per phase)	less than 3.5 mA	

LCR Meter

AT820 Series
(AT824/ AT825/ AT826)



2.8 inch True-color TFT display
Parameters: L, C, R, Z
Monitor: D, Q, θ_r , θ_d , X, ESR
Keypad and Touch screen double control
Frequency range: 100Hz ~ 1kHz/10kHz/100 kHz
USB interface, Li-on battery supply power

VICTOR 6243



Capacitance: 2nF/20nF/200nF/2uF/20uF/200uF/1000uF
Inductance: 2mH/20mH/200mH/2H/20H
Buzzer alarm, data hold, Diode function
Transistor function

DM4070



Capacitance: 200pF/2nF/20nF/200nF/2uF/20uF
/200uF/2000uF
Inductance: 200uH/2mH/20mH/200mH/2H/20H
Resistance: 20 Ω /200 Ω /2k Ω /20k Ω /200k Ω /20M Ω
Strong antimagnetic and anti-jamming performance

AT810A



Frequency range from 10Hz to 20kHz
Parameters: Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, Rs-Q, R-X, Z- θ rad, Z- θ deg
Monitor: Z, D, Q, θ_r , θ_d , R, X, G, B, Y, Vac, Iac, Δ , Δ %
Accuracy: 0.05% \pm 5 dgt
Interface: RS232C and Handler
Optional Interface: USB

AT2817A



Frequency range from 50Hz to 100kHz
Parameters: Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, Rs-Q, R-X, Z- θ rad, Z- θ deg
Monitor: Z, D, Q, θ_r , θ_d , R, X, G, B, Y, Vac, Iac, Δ , Δ %
Accuracy 0.05% \pm 5 dgt
Interface: RS232C and Handler
Optional Interface: USB

LCR Meter

AT2816 Series
(AT2816A/ AT2816B)



Frequency range from 50Hz to 200kHz
Parameters: Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, G-B, R-X, Z- θ rad, Z- θ deg
Monitor: Z, D, Q, θ_r , θ_d , R, X, G, B, Y, Vac, Iac, Δ , Δ %
Accuracy 0.05% \pm 5 dgt / 0.1%
Interface: RS232C and Handler
Optional Interface: USB

AT2818



Frequency range from 10Hz to 300kHz
(continuous frequency, frequency resolution 0.001Hz)
Parameters: Cs-Rs, Cs-D, Cp-Rp, Cp-D, Lp-Rp, Lp-Q, Ls-Rs, Ls-Q, Rs-Q, R-X, Z- θ rad, Z- θ deg
Monitor: Z, D, Q, θ_r , θ_d , R, X, G, B, Y, Vac, Iac, Δ , Δ %
Accuracy: 0.05% \pm 5 dgt
Interface: RS232C and Handler
Optional Interface: USB-Disk and USB-232

TH2827 Series



(TH2827A/TH2827B/TH2827C)
4.3-inch TFT LCD display
Frequency range: 20Hz ~ 300kHz/500kHz/1MHz
10mHz resolution, 4-digit frequency input
0.01% accuracy
Test parameters: |Z|, |Y|, C, L, X, B, R, G, D, Q, θ , DCR, Vdc-I dc
Integrated transformer test function
Balance test function
Maximum test speed: 13ms/time
Automatic level control (ALC) function for V and I
Test signal level monitor function for V and I
Included interior DC bias source
External DC bias source of large current
10-point list sweep function
Selectable internal resistance of 30 Ω , 50 Ω and 100 Ω
Internal file storage and external USB-disk
RS232C, USB, LAN, HANDLER, GPIB, DCI interface

Automatic Component Analyzer

TH2829 Series

(TH2829A/TH2829B/TH2829C)



7-inch TFT LCD display, 0.05% basic accuracy
 Frequency range:20Hz ~ 300kHz/500kHz/1MHz
 1MHz frequency and 1mHz resolution
 Strongest signal source selection:
 10V/100mA programmable AC test level
 10V/100mA programmable DC bias supply
 10V/50mA standalone DC voltage source
 1A interior DC bias current source (optional)
 120A external bias source (optional)
 Test parameters:|Z|,|Y|,C,L,X,B,R,G,D,Q,θ,DCR,Vdc-I_{dc}
 Simultaneous display of 4 kinds of test parameters
 10 pages/150-point list sweep function
 Continuous curve scanning/graphical analysis function
 USB storage GIF image and CSV data files directly
 Standard interface:HANDLER,USB,LAN,RS232C,DCI
 Standard interface:GPIB

Digital Capacitance Meter

VC6013

Range:200pF/2nF/20nF/200nF/2uF/20uF/200uF
 /2000uF/20mF



Strong antimagnetic and anti-jamming performance
 Full protect function, with capacitor self discharge
 This digital capacitance multimeter can accurately
 measure low capacitance.
 0.5% high accuracy

TH2622

Measurement accuracy up to 0.5%
 Measurement range:0.1pF~199.99mF
 4 ½ digits display,maximum readings up to 11,000
 Measurement range from 0.1pF to 199.99mF
 Auto/Manual range selection and relative function
 25 sets of HI/LO limit comparison setup
 4 tolerance comparator modes: 1%,5%,10%,20%
 Standard Mini-USB interface
 Support SCPI commands



Digital Milliohm Meter

VC480C+

Range:20 mΩ/200 mΩ/2Ω/20Ω/200Ω/2kΩ
 3 ½ digits display,Max.display: 1999
 3 times/s Sampling rate
 lightning protection network,equalizing ring of glass
 curtain walls, and communication antenna;
 High measurement range of 0.01mΩ to 2kΩ at 6 ranges
 HOLD key for data hold
 Backlit LCD for easy reading under dark light
 Connection for external power supply
 Strong anti-magnetic and anti-jamming functions
 Full function protection



Resistance Tester

AT518 Series Handheld DC milliohm Meter (AT518/ AT518L) Internal Resistance Battery Test



3.5 inches, Truecolor 16M, TFT-LCD Display
 Test parameters: DC resistance
 Measurement Range: 10μΩ~20MΩ /10μΩ~200KΩ
 Accuracy: 0.05% / 0.10%
 Automatic power off Function
 ABS/ PER/SEQ comparison criteria
 Comparator Function: GD/NG Show
 Auto Zero-Adjust for each range
 Four-terminal resistance measurement.
 Mini-USB interface;SCPI command sets
 Keypad lock function; Automatic shutdown set
 Background-lightness adjustment function
 Suitable for low resistance character of
 Electromechanical Components

AT528 Series Handheld AC milliohm meter (AT528/ AT528L) Battery resistance meter



Test parameters: AC resistance, DC voltage
 Resistance: 0.01 mΩ~2kΩ Voltage: 1 mV~50V (AT528)
 Resistance: 0.1 mΩ~200Ω Voltage: 0.001V~50V(AT528L)
 Accuracy: Resistance: 0.5%±5dgt Voltage: 0.1%±5dgt (AT528)
 Resistance: 0.5%±5dgt Voltage: 0.5%±5dgt(AT528L)

Gorgeous dual-coloure cast shell,TFT-LCD Display
 Double display: ΔABS/Δ%/Sorting Result
 Comparator Function:GD/NG VFD Show or HANDLER out
 Auto Zero-Adjust for each range
 Four-terminal resistance measurement
 Mini-USB interface
 SCPI compatible command sets
 Keypad lock and Data Hold function

VC4105A Earth Resistance Tester



Earth resistance range: 0-1999Ω.
 Earth voltage range: 0-199.9V.
 3 ½ digit LCD display with 32mm high figure
Overload protection:
 At earth voltage range,Max voltage can be 450V AC
 At earth resistance range,Max voltage can be 280V AC
 Test lock and hold function
 White backlight

Resistance Tester

Victor 4105 Series Earth Resistance Tester
(4105A/ 4105B)



Earth resistance range: 20Ω~2000Ω/ 10Ω~1000Ω
Earth voltage range: 200V / 750V
Full-featured,high accuracy,convenient and reliable operation, dustproof moisture-proof structure
Can be used to measure a variety of power systems, electrical equipment, lightning protection equipment grounding system grounding resistance value and AC voltage

AT510 Series Micro ohm Meter
(AT510/ AT510L)



Parameters: DC resistance
Measurement Range: 1μΩ~3MΩ/1μΩ~30kΩ
Basic accuracy:0.05% / 0.1%
High brightness, ultra clear four-color VFD Display
Double display: ΔABS/Δ%/Sorting Result
Zero-setting Function: short circuit zero-setting function
Self-Calibration: Thermoelectromotive force compensation
Heavy current test mode(Open voltage <20mV)
Four-terminal resistance measurement
Build-in RS-232C, Handler(EXT-I/O) interface
Beeper and brightness can be adjusted
Internal,Manual,External or Remote Trig
GPIB/USB Interface(Optional)
SCPI compatible command sets
Keypad lock and Data Hold functions

AT520 Series AC Low ohm Meter
(AT520/ AT520L) **Battery Resistance Meter**



Parameters:AC resistance,DC voltage, X,Z,θ,L(AT520)
Parameters:AC resistance, DC voltage, θ (AT520L)
Resistance range: 10μΩ~3 kΩ/ 10μΩ~32Ω;
Voltage range: 100μV~60VDC / 1mV~60VDC
Inductance: 10nH - 1H (Only for AT520)
Four Colors VFD Display
Vector Measurement, 3 Parameters Display
Comparator (sorting) Function: Build-in 30 sets comparators,
HI/IN/LOW/GD/NG Display and Output
Four-terminal resistance measurement
Beeper and brightness can be adjusted
Internal,Manual,External and Remote Trig
Build-in RS232C and Handler, GPIB(Optional)
Compatible with SCPI command sets
Keypad lock and Data Hold functions

Resistance Tester

VC60B+ Insulation Resistance Meter



Insulation resistance: 0~2GΩ
Resistance: 0~2kΩ
Large LCD display, easy to read
Strong anti-magnetic and anti-jamming function
Full function protection,anti high voltage circuit design
Unit symbol display, easy to use
High voltage and short circuit input alarm

VICTOR 60E+ Insulation Resistance Meter



Measuring Range: 0.05GΩ~200GΩ
AC-DC voltage:DC:2500V/5000V; AC:750V
Max display:1999
Low Battery Indication
Alarm Function
Overload Indication
Unit Symbol Display
Auto power off

VICTOR 60D+ Insulation Resistance Tester



Max display:1999
Measuring Range: 6MΩ~20GΩ
AC-DC voltage: DC:1000V/2500V; AC:750V
Low Battery Indication,Overload Indication,Alarm Function,Overload Indication,Unit Symbol Display,
Auto power off on

VICTOR 3125 Insulation Resistance Tester



Measuring Range: 0~1.20TΩ
Measurement speed approx.0.5 times/s
AC-DC voltage:DC:0~±1000V;AC:30~600V(50/60Hz)
Max display:9999,36 bar graph display
Measurement speed approx.0.5 times/s
Build-in real-time clock
Isolate USB interface with computer communications

AT682/AT683 Insulation Resistance Meter



Parameters:Leakage current and insulation resistance
Measurement Range :

AT682	AT683
10kΩ~1TΩ (104~1012W)	100kΩ~10TΩ
10V: 10kΩ~10GΩ	10V: 100kΩ~100GΩ;
100V: 100kΩ~100GΩ	100V: 1MΩ~1TΩ;
1000V: 1MΩ~1000GΩ	1000V: 10MΩ~10TΩ

3-lines VFD Display
Comparator: 30 files, GD/NG Beeper
Interface: RS232C and Handler
Optional Interface: USB
Programming Language: SCPI

DC Electronic Load

CH9711:0~120V/1mA~30A/150W

CH9711A:0~500V/1mA~30A/150W

Modes of CC, CV, CR, CP

Battery test mode can automatically record discharge time and the capacity

The dynamic transition time of 0.1mA can effectively detect the power dynamic response



CH9712:0~120V/1mA~30A/300W

CH9712B:0~60V/1mA~60A/300W

Modes of CC, CV, CR, CP

Battery test mode can automatically record discharge time and the capacity

The dynamic transition time of 0.1mA can effectively detect the power dynamic response



CH8711A:0~360V/1mA~30A/150W

CH8711B:0~60V/1mA~60A/150W

Modes of CC, CV, CR, CP

Battery measurement mode

Auto list measurement mode



CH8711A:0~360V/1mA~30A/150W

CH8711B:0~60V/1mA~60A/150W

Modes of CC, CV, CR, CP

Battery measurement mode

Auto list measurement mode



CH8811:0~120V/0~60A/600W

CH8811A:0~360V/0~60A/600W

CH8812:0~120V/0~60A/900W

CH8812A:0~360V/0~60A/900W

CH8813:0~120V/0~60A/1200W

CH8813A:0~360V/0~60A/1200W

CH8821:0~120V/0~60A/1800W

CH8821A:0~360V/0~60A/1800W

CH8822:0~120V/0~60A/2400W

CH8822A:0~360V/0~60A/2400W

Modes of CC, CV, CR, CP

Standard RS232C interface



DC Electronic Load

JT6314:0~500V/0~15A/300W

CC, CV, CP, CR, DYNA, List, Sweep, OCP mode

LED mode, real simulating LED loading

With 0.03% accuracy and 500kHz frequency

Support frequency sweep up to 50kHz

Support up to 16 loads synchronous control

SCPI Protocol, isolated RS232 serial port



JT6315:0~500V/0~30A/300W

CC, CV, CP, CR, DYNA, List, Sweep, OCP mode

LED mode, real simulating LED loading

With 0.03% accuracy and 500kHz frequency

Support frequency sweep up to 50kHz

Support up to 16 loads synchronous control

SCPI Protocol, isolated RS232 serial port



JT6321:0~150V/0~120A/600W

JT6322:0~150V/0~240A/1200W

JT6323:0~500V/0~60A/600W

JT6324:0~500V/0~120A/1200W

JT6325:0~500V/0~120A/1500W

JT6326:0~150V/0~240A/1500W

CC, CV, CP, CR, DYNA, List, Sweep, OCP mode

LED mode, real simulating LED loading

With 0.03% accuracy and 500kHz frequency

SCPI Protocol, isolated RS232 serial port



JT6331:0~150V/0~360A/1800W

JT6332:0~150V/0~500A/2400W

JT6333:0~150V/0~500A/3000W

JT6334:0~500V/0~180A/1800W

JT6335:0~500V/0~240A/2400W

JT6336:0~500V/0~240A/3000W

CC, CV, CP, CR, DYNA, List, Sweep, OCP mode

LED mode, real simulating LED loading

With 0.03% accuracy and 500kHz frequency

SCPI Protocol, isolated RS232 serial port



JT6341:0~150V/0~240A/4500W

JT6342:0~150V/0~500A/6000W

JT6343:0~500V/0~120A/4500W

JT6344:0~500V/0~240A/6000W

CC, CV, CP, CR, DYNA, List, Sweep, OCP mode

LED mode, real simulating LED loading

With 0.03% accuracy and 500kHz frequency

SCPI Protocol, isolated RS232 serial port



DC Electronic Load



M9711:0~150V/0~30A/150W
M9712:0~150V/0~30A/300W
M9712B:0~500V/0~15A/300W
M9712C:0~150V/0~60A/300W
Modes of CC, CR, CV, CW, CC+CV, CR+CW
RS232/RS485/USB (Optional)



M9713:0~150V/0~120A/600W
M9713B:0~500V/0~30A/600W
M9714:0~150V/0~240A/1200W
M9714B:0~500V/0~60A/1200W
Modes of CC, CR, CV, CW, CC+CV, CR+CW
RS232/RS485/USB (Optional)



M9715:0~150V/0~240A/1800W
M9715B:0~500V/0~120A/1800W
M9716:0~150V/0~240A/2400W
M9716B:0~500V/0~120A/2400W
M9716E:0~500V/0~480A/3000W
Modes of CC, CR, CV, CW, CC+CV, CR+CW
RS232/RS485/USB (Optional)



M9717:0~150V/0~240A/3600W
M9717B:0~500V/0~120A/3600W
Modes of CC, CR, CV, CW, CC+CV, CR+CW
RS232/RS485/USB (Optional)



M9718:0~150V/0~240A/6000W
M9718B:0~500V/0~120A/6000W
Modes of CC, CR, CV, CW, CC+CV, CR+CW
RS232/RS485/USB (Optional)

DC Electronic Load



M9811 LED Electronic Load
0-150V/0-30A/200W
Six operation modes:CC,CR,CV,CW,CC+CV,CR+CV
Modes of CC, CV, CR, CP
Battery test and short-circuit test functions
LED mode for LED power driver test
Capable of rising edge and falling edge dynamic test
Available with RS232/RS485/USB serial interfaces



M9812 LED Electronic Load
0-150V/0-30A/300W
Six operation modes:CC,CR,CV,CW,CC+CV,CR+CV
Modes of CC, CV, CR, CP
Battery test and short-circuit test functions
LED mode for LED power driver test
Capable of rising edge and falling edge dynamic test
Available with RS232/RS485/USB serial interfaces



M9812B LED Electronic Load
0-500V/0-15A/300W
Six operation modes:CC,CR,CV,CW,CC+CV,CR+CV
Modes of CC, CV, CR, CP
Battery test and short-circuit test functions
LED mode for LED power driver test
Capable of rising edge and falling edge dynamic test
Available with RS232/RS485/USB serial interfaces



M9836:0~150V/0~500A/15KW
M9835B:0~500V/0~240A/15KW
Modes of CC, CR, CV, CW, CC+CV, CR+CW
RS232/RS485/USB (Optional)



AT8612
3.5 inch TFT-LCD display
0~150V/0~30A/300W
Four load modes:CC, CV, CP, CR
6 modes of test: NRM,TRN,SEQ,ATF,BAT and SHT
List Test: 10 files,100 steps/file
Test File: 10 files, 20 steps/file
Interface: RS232, Handler interface
Optional: RS485 interface

Frequency Counter

VC3165

CH.A measuring range:0.01Hz~50MHz
CH.B measuring range B:50MHz~2.4GHz
Frequency, period and equal-precision measurement
3-step function selection, 8-digit LED display
Continuous and adjustable gate time
Low frequency and other precision measurement
Input attenuation, AC/DC coupling select



VC2000

8-digit LED display
CH.A :50MHz~2.4GHz
CH.B :10Hz~50MHz
Frequency, pulse counting and crystal measurement
4-step gate time,5-range function select
Working mode memorized, range and gate time can be set according to the requirement



SS7200A/SS7300 Universal Frequency Counter/Timer SS7400 Universal Frequency Counter/Timer/Analyzer

High accuracy with 8 / 10 / 11 digits/s resolution
Time resolution 50ps
Single resolution can reach 500ps
200MHz frequency measuring for CH1 and CH2
Max. frequency's measurement can reach to 16GHz (options)
With the statistics functions of multi-average,Max., Min., PPM, standard deviation and Allan Variance for frequency measurement



SS7201/SS7301

High accuracy, the resolution is 10 digits /s.
Single resolution can reach 500ps.
Frequency measurement of CH1 can reach to 200MHz
Max. frequency's measurement can reach to 16GHz (options)
With the statistics functions of multi-average,Max., Min.,PPM, standard deviation and Allan Variance for frequency measurement
Standard interface is USB, GPIB and RS232



SP3382A Series Microwave Frequency Counter (SP3382A-I/ SP3382A-II/ SP3382A-III/ SP3382A-IV/ SP3382A-V)

Frequency from 10Hz to 9GHz/12.4GHz/18GHz/20GHz /22GHz
Dynamic and wide measure range
High accuracy and high performance
Advanced design, compact and plastic die-casting
Reliability MTBF>8000h
3.5 QVGA color LCD and soft keys
Automatic and manual frequency,period measurement
USB interface and GPIB optional



Frequency Counter

SP10B

Frequency range: 1Hz~10MHz
Period range: 100ns~1s
Measure speed: 20 times/s
Under the control of MCU
Speical apply to crystal with PPM FM
PPM measure F0 preset able
CH A has LP filiter and x20 attenuator function
10 LED display (8 data, 2 eponent)



SP100B

Frequency range: 1Hz~100MHz
Period range: 10ns~1s
Measure speed: 20 times/s
Under the control of MCU
Speical apply to crystal with PPM FM
PPM measure F0 preset able
CH A has LP filiter and x20 attenuator function
10 LED display (8 data, 2 eponent)



SP1500B

Frequency range: 1Hz~1.5GHz
Period range: 10ns~1s
Measure speed: 20 times/s
Under the control of MCU
Speical apply to crystal with PPM FM
PPM measure F0 preset able
CH A has LP filiter and x20 attenuator function
10 LED display (8 data, 2 eponent)



SP2500B

Frequency range: 1Hz~2.5GHz
Period range: 10ns~1s
Measure speed: 20 times/s
Under the control of MCU
Speical apply to crystal with PPM FM
PPM measure F0 preset able
CH A has LP filiter and x20 attenuator function
10 LED display (8 data, 2 eponent)



SP3000B

Frequency range: 1Hz~3.0GHz
Period range: 10ns~1s
Measure speed: 20 times/s
Under the control of MCU
Speical apply to crystal with PPM FM
PPM measure F0 preset able
CH A has LP filiter and x20 attenuator function
10 LED display (8 data, 2 eponent)



Rubidium Frequency Standards



TR2000 Series

(TFG1905P/TFG1910P/TFG1920P)

TR2001: 1MHz~10MHz 2 Channels

Precise frequency standards

high frequency stability

high frequency accuracy

TR2002T& TR2004D: max to 16MHz, 4 Channels

Calibrate long-term stability, drift and accuracy by GPS, VFD display, show the parameters of time, GPS state, frequency deviation, etc.

GPS calibration and keypad calibration.

RS232 interface

TR2005C: 1pps Pulse TTL,max to 10MHz,9 Channels

Low phase noise

more output point

RS232 interface

Piezoceramics Characteristic Analyzer



SA3501

8" TFT LCD, clarity display and easy operation

Parameter:|Z|, |Y|, θ , R, X, G, B, different parameters combination

$\pm 0.5\%$ accuracy

1 Ω ~ 1M Ω impedance

Frequency Range:1Hz ~ 2MHz

Frequency Sweep type:Linear/Log

Frequency Resolution:1mHz

Cursor type: 1 host cursor and 7 child cursors

Interface:USB_Host, USB_Device, LAN

Wide measurement range with high resolution

Large storage memory, support U-disk storage

Cursor list and trace plus function

Automatic Distortion Meter



SA3602A

Automatic switch of range and unit

Automatic position of decimal

20Hz to 20kHz frequency range

100mVrms to 300Vrms voltage range

<0.03% remain distortion

Max. Input Voltage:DC+AC Peak<400V

Synchronous measurement of distortion, frequency and level

LED with double 4-bit digit display

The Lissajou's figure of input signal can be measured through the external-connection oscilloscope terminal

Time Interval Analyzer



ST2001

6.4" color LCD, clarity display

1MHz ~30MHz frequency range

10Hz system bandwidth with **single channel**

3dBm~13dBm input signal level

With expanded measuring technology of dual mixer time difference

Measurement functions:Allan Deviation,Accuracy,Booting

Characteristic,Aging Rate,Reproducibility

Standard interface:USB,LAN

ST2002 8 Channels

6.4" color LCD, clarity display

5MHz,10MHz frequency

10Hz system bandwidth with 8 channels

3dBm~13dBm input signal level

With expanded measuring technology of dual mixer time difference

Measurement functions:Allan Deviation,Accuracy,Booting

Characteristic,Aging Rate,Reproducibility

Standard interface:USB,LAN

ST2003 4 Channels

6.4" color LCD, clarity display

5MHz,10MHz frequency

10Hz system bandwidth with 4 channels

3dBm~13dBm input signal level

With expanded measuring technology of dual mixer time difference

Measurement functions:Allan Deviation,Accuracy,Booting

Characteristic,Aging Rate,Reproducibility

Standard interface:USB,LAN

Time Synthesizer



TFG5010T

Direct digital synthesis technique

Pulse Period Range:20 ns ~ 10000 s

Time Range:10 ns ~ 10000 s

Resolution:5 ns ($T \leq 4$ s) 10 μ s ($T \geq 4$ s)

Output diverse pulse signal continuously or by trigger

Pulse signal can be burst by counting or single

Keyboard operation, Two-level menu, sequence

adjusting with knob, data storage and recall

Optional interface of GPIB,USB device and optional

test fixture of stopwatch

Frequency Response Analyzer



SA3102

Mainly apply for low frequency test measurement, including electronic testing, vibration testing, electrochemical testing etc

7 inch TFT-LCD display 800*480

Frequency Range: 1mHz~2MHz

Frequency Resolution: 100 μ Hz

Output Waveform:Sine, square, triangle wave,sawtooth

Input Channel: CHA,CHB

Test mode: CHA-OSC, CHB-OSC, CHA-CHB

Sweep type: Linear; Logarithmic



EC-770 Series - Features and Benefits

- 128 * 128 dot matrix LCD display, **standard menu operations**
- Two measure mode: single and continuous
- 80 readings can be stored for each group
- Zero point and multi-point calibration for each group
- Can recall, delete specified readings, or delete group readings
- Statistics display: mean, min., max. and standard deviation
- Three probe mode:auto, magnetic and eddy current
- User can set high or low limit alarm for each group
- Power off automatically
- USB interface to data transmission
- Low battery and error indication

Specifications	EC-770	EC-770F	EC-770N
Model	EC-770	EC-770F	EC-770N
Probe	F-Probe & N-Probe	F-Probe	N-Probe
Measuring principle	Magnetic induction & Eddy Currents	Magnetic induction	Eddy Currents
Minimum thickness of substrate	F-probe: 0.5mm(0.02") N-probe: 0.3mm(0.012")	0.5mm(0.02")	0.3mm(0.012")
Measuring range	0 to 1300um (0 to 51.2mils)		
Accuracy	± (3%+2um) ± (3%+0.078mils)		
Resolution	0um~999um(1um) 1000um~1300um(0.01mm)	0mils~39.39mils(0.01mils)	39.4mils~51.2mils(0.1mils)
Calibration	One point to four point calibration, zero point calibration, Basic		
Statistics	No. of readings, mean, minimum, maximum and standard deviation		
Units	um , mm, mils		
Computer interface	Download data via USB		

Coating Thickness Gauge



CM8802 Series 0-1250µm, 0-49mils

- Rang: 0-1250µm, 0-49mils
- Accuracy: ± (2µm+3%H), H is standard thickness
- Auto recognize the substrate of Ferrous or Non-Ferrous
- Auto switch on by place the the probe on a surface
- Auto goes off after 30s of inaction
- Flip display
- The MAX. MIN and AVE value are clearable
- Low voltage indicator

ST-01

- Pocket size tester which enables checking the condition of car body and approximate determining the thickness of the varnish layer.
- Range(um): 0~150, 150~200, 200~350, 350~500, 500~1000, 1000~1200.
- Accuracy: +/-5%
- Length: 170mm
- Diameter: 29mm



Coating Thickness Gauge



CM8801 Series

Range: 0 - 1250µm; M, 0 - 50mil

- CM-8801F: F type
- CM-8801N: NF type
- CM-8801FN: F/NF 2 in 1 type
- Range: 0 - 1250µm; M, 0 - 50mil
- Resolution: 1um or 0.1mils
- Accuracy: +/- (3%+2um) or +/- (3%+0.1mils)
- Modes: Single
- Microcomputer based, auto-detection, no damage to the coating surface
- 10 points value memory

Digital Calibrator



ETX-1825/ ETX-2025 Multifunction Calibrator

A split-screen display. The upper display allows you to measure volts, current (with loop power), resistance and continuity test. The lower display allows you to measure and source volts, current, RTD, TC, frequency, and ohms.
ETX-1825 Accuracy: 0.05% of reading + 2 Counts
ETX-2025 Accuracy: 0.025% of reading + 2 Counts
Thermocouples type: J, K, T, E, R, S, B, N
RTD sensors of Pt100, Pt1000, Cu50 and Cu100



ETX-1815/ ETX-2015 Current and Voltage Calibrator

Source of voltage, current and frequency
Measure of voltage, current, loop current and frequency
ETX-1815 Accuracy: 0.05% of reading + 2 Counts
ETX-2015 Accuracy: 0.02% of reading + 2 Counts



ETX-1814/ ETX-2014 Thermocouple Calibrator

Output of DC mV and simulation of thermocouple output
Voltage, DC mV and thermocouple measurement
Manual stepping, automatic stepping, 0~100% phase step and slope output
Thermocouples type: J, K, T, E, R, S, B, N
ETX-1814 Accuracy: 0.05% of reading + 2 Counts
ETX-2014 Accuracy: 0.02% of reading + 2 Counts



ETX-1812/ ETX-2012 RTD Calibrator

Measure voltage, resistance, and RTD
Outputs resistance, simulation of RTD
Manual stepping, automatic stepping, 0~100% phase step and ramp output
RTD sensors of Pt100, Pt1000, Cu50 and Cu100
ETX-1812 Accuracy: 0.05% of reading + 2 Counts
ETX-2012 Accuracy: 0.02% of reading + 2 Counts



ETX-1810/ ETX-2010 Temperature Calibrator

Measure DC V, DC mV, resistance, TC and RTD
Outputs resistance, simulation of TC and RTD
Manual stepping, automatic stepping, 0~100% phase step and slope output
Thermocouples type: J, K, T, E, R, S, B, N
RTD sensors of Pt100, Pt1000, Cu50 and Cu100
ETX-1810 Accuracy: 0.05% of reading + 2 Counts
ETX-2010 Accuracy: 0.02% of reading + 2 Counts

Digital Calibrator



VICTOR 25 Multi-function Process Calibrator

Measures DC Voltage, Current to 50mA, Ohms to 5.5000KΩ, Frequency to 10KHz,
Thermocouple types: R, S, K, E, J, T, N and B;
RTD sensors of PT100, PT1000 and Cu50
Switch, continuity test and pressure through pressure transducer modules
Accuracy: ±0.02%



VICTOR 11+ Process Calibrator

High Accuracy of 0.02% for source
6 digits display for source
The range of the internal temperature compensation sensor is from 0°C to 40°C
Thermocouple types: R, S, B, E, K, J, T, N, L and U



Victor 02 Thermocouple Calibrator

Measures Voltage: 100mV/1000mV
Thermocouple types: R, S, B, E, K, J, T and N;

Victor 02



Victor 03 Thermo Resistance Calibrator

Resistance to 400Ω
Thermo-resistance of PT100 and Cu50,

Victor 03



VICTOR 01 Temperature Calibrator

Measures Voltage, Resistance to 400Ω
Thermocouple types: R, S, B, E, K, J, T and N
RTD sensors of PT100 and Cu50

Victor 01



VICTOR 14+ Temperature Calibrator

High Accuracy of 0.02% for measure and source
5 digits display for measure and 6 digits for source
DCV to 500mV; Ohm to 5kΩ
Thermocouple types: R, S, B, E, K, J, T, N, L and U
RTD sensors of PT100, PT1000, PT500, Cu10 and Cu50

Victor 14+



VICTOR 04 V/mA Calibrator

Voltage to 10V; Current to 20mA
Analogue transducer to -20mA
24V Loop power

Victor 04



VICTOR 15+ V/mA Calibrator

High Accuracy of 0.02% for measure and source
5 digits display for measure and 6 digits for source
DCV to 10V; DCA to 20mA
FREQ: 100Hz/1kHz/10kHz
PULSE: 100Hz/1kHz/10kHz; 24V LOOP

Victor 15+

Multi-channels Temperature Meter

AT4200 Series

(AT4202/ AT4204/ AT4208)

2.8 inch TFT-LCD display, Touch screen

Standard model for **2/4/8 channels**

Thermocouple: J/K/T/E/S/N/B

Measurement Range: -200.0 °C~1300.0 °C

(variation depend on graduation)

Li 1400mA rechargeable battery



AT4808

Standard model for **8 channels**

(Max extend to 128 channels)

Thermocouple: J/K/T/E/S/N/B

Measurement Range: -200.0 °C~1300.0 °C

(According to different thermocouple type)

Built in li-ion battery



AT4500 Series

(AT4508/ AT4516/ AT4524/ AT4532)

3.5 inch TFT-LCD display

Standard model for **8/16/24/32 channels**

(Max extend to 128 channels)

Thermocouple: J/K/T/E/S/N/B

Measurement Range: -200.0 °C~1300.0 °C

(According to different thermocouple type)



AT4600 Series

(AT4610/ AT4620/ AT4640)

7 inch TFT-LCD display, Touch screen

Standard model for **10/20/40 channels**

Thermocouple: J/K/T/E/S/N/B

Measurement Range: -200.0 °C~1300.0 °C

(According to different thermocouple type)

Support communication transmission



Infrared Thermometer

ST530 Series

(ST530A/ ST530B/ ST530C)

Temperature range: -32°C~530°C (-25.6° F~986° F)

Distance Spot Ratio: 12: 1

Spectral response: 8~14um

Resolution: 0.1° C of 0.1° F

Accuracy :± 2 °C or 2 %

Non contact Infrared thermometer

Over-range indication

Automatic data holding



Infrared Thermometer

ST380 Series

(ST380+/ ST380B/ ST380C)

Temperature range: -32° C~380° C (-25.6° F~716° F)

Distance Spot Ratio: 12: 1

Spectral response: 8~14um

Resolution: 0.1° C of 0.1° F

Accuracy :± 2 °C or 2 %

Non contact Infrared thermometer

Over-range indication; Automatic data holding



Thermometer

DM6801A+ 3 ½ digits, Max. reading: 1999

K type thermometer with large LCD display

Temperature range: -50~1300 °C(-50~1999 °F)

0.1°C / 0.2 °F resolution

Low battery indication

Data hold, Unit symbol display

Function protect

Anti-shock protect

Manual range



DM6802A+ 3 ½ digits, Max. reading: 1999

K type thermometer with large LCD display

Temperature range: -50~1300 °C(-50~1999 °F)

0.4% high resolution

Low battery indication

Data hold, Unit symbol display

Function protect

Anti-shock protect

Manual range



DM6803A+ 4 ½ digits, Max. reading: 19999

Support K, E, J, T, N, B, R, S thermocouples

Temperature range: -40°C~1760°C (R type)

-200°C~1370°C (K type)

0.1°C high resolution

Low battery indication

Data hold, Unit symbol display

Function protect, Anti-shock protect

Manual range



DM6804A+

Support K, E, J, T, N, B, R, S thermocouples

Dual channel display T1, T2, T1-T2

Temperature range: -40°C~1760°C (R type)

-200°C~1370°C (K type)

0.1°C high resolution

Low battery indication

Data hold, Unit symbol display

Function protect, Anti-shock protect

Manual range



TI395 - Features and Benefits

Thermal imaging camera for temperature measurement

- UFPA detector, 384x288 pixels
- Excellent thermal images : NETD<50mk at 30°C
- Auto|Manual focus for one-hand operation
- 270°rotatable LCD, Built-in 3.0 mega pixel visual camera
- Movable and resizable P-I-P and thermal fusion
- Optional wide-angel lens & telephoto lens
- Built-in microphone and voice annotation
- Real time thermal video transfer to PC via USB, remote transfer via MSN and Skype
- Li-ion battery more than 3 hours'operation



Machine Specifications	Detector Data	
	Detector type	Uncooled FPA
	IR resolution	384 x288 pixels
	Pixel pitch	25 μm
	Spectral range	8~14μm
	Field of view (FOV)/min focus distance	21°x 16°/0.4m(standard lens); 38°x 28°/0.3m (wide angle lens,optional); 11° x8.5° /1.2m (telephoto lens,optional)
	Spatial resolution (IFOV)	1.2 mrad(standard lens)
	Thermal sensitivity(NETD)	<65mk at 30°C
	Image Presentation	
	Image Display	3.2" 270° tiltable LCD
	Image modes	Thermal image,visual image,thermal fusion,PIP,WIW,thumbnail gallery
	Thermal fusion	IR image shown above, below or within temp interval on visual image
	Picture in Picture	Resizable and movable IR area on visual image
	Focus	Auto/Motor
	Digital Zoom	1-8X Continuous (Expand to SX)
	Visual camera	3.0 mega pixel
	Spotlight	10cd/m2
	Frequency	50Hz(PAL)/60Hz(NTSC)
	Measurement	
	Temperature range	-20°C ~ 250°C (Industrial); -20°C ~ 600°C (Optional A); -20°C ~ 1200°C (Optional B)
Accuracy	±2°C or ±2% of reading	
Measurement spot	Up to 4 moveable spots	
Measurement area	Up to 3 moveable boxes with max./min./average	
Line profile	Vertical, Horizontal	
Isotherms analysis	Detect high/low temperature/interval	
Hot/cold spot Auto detection	Max/Min/Average temp	
Emissivity correction	Adjustable from 0.01 to 1.0	
Alarm	Voice and Color	
Color palettes	Iron, anti-iron, feather red, black hot, white hot, medical	
Set-up commands	Date/time, temperature units °C/°F/K, language, scale	
Image Storage	Up to 500 images in built-in flash card Up to 8000 images in 4G SD card	
Dimensions&Weight	128mm(L) × 62mm(W) × 154mm(H); 393g (with battery and standard lens)	

Carbon Monoxide



SSN-50/SSN-51/SSN-52/SSN-53

Carbon Monoxide Data Logger with USB Interface

Carbon Monoxide Range:

0 ~ 1000PPM(SSN-50)

0 ~ 1000PPM(SSN-51)

0 ~ 3000PPM(SSN-52)

0 ~ 3000PPM(SSN-53)

Carbon Monoxide Accuracy:

±6% (SSN-50/SSN-51)

±4% (SSN-52/SSN-53)

Carbon Monoxide Resolution:0.5PPM

USB interface directly communicate with PC

Logger With USB Interface and LCD Display(for SSN-51/53)

Support for multiple file formats: txt, xls, csv, bmp, jpg

Start logging method: Immediately, Button, Delayed

Digital Anemometer



AM821/AM831/AM841

AM821: Flow velocity measuring instrument.

AM831: Flow velocity measuring instrument with temperature measurement and chill temperature.

AM841: Measure flow speed, volume flow, temperature and chill temperature

Parameters: Knots, mph, km/h, m/s, ft/min, Bft

Air speed: 0.4~ 30m/s ;

Temperature: -10~ 50°C/14~122°F

Volume flow: CFM: 0 ~ 999, 990 ft3/min

CMM: 0 ~ 999, 990 m3/min

Resolution: 0.1m/s, 0.1° C or 0.1° F

Built-in Ø 65 mm vane

ST8020

Special function: Auto power off; Data hold; MAX, MIN and AVG; Backlit

Measure: M/s,km/h, FPM,mph, kts,Beaufort scale, ° C, ° F, wind chill.

Resolution: 0.1 m/s, 1 FPM, 0.1° C, 0.1° F

Range: 0.4~20 m/s, 80~4000 FPM, -10-50C

Sample Rate: 0.5sec

Auto power off: About 10 minutes idle

Battery life: Continuous work 360 Hours(without backlit)

Operating temperature: -10~50° C, 14~122° F

ST8021

Special function: Auto power off; Data hold; MAX, MIN and AVG; Backlit; Overload display; Low battery indicator

Measure: M/s, km/h, FPM, mph, kts, Beaufort, %RH, td(dew point temperature), ° C, ° F

Resolution: 0.1 m/s, 1 FPM, 0.1%RH, 0.1° C, 0.1° F

Range: 0.4~20 m/s, 80~4000 FPM, 0~100%RH, -10~50° C, 14~122° F

Accuracy: ± (2% of reading + 0.3m/s)

± 3%RH (5~95%RH) ; ± 1° C, ± 1.8° F

Sample Rate: 0.5sec

Auto power off: About 10 minutes idle

Digital Hygrometer



ST8010

Measure Parameters: ° C, ° F,%RH(relative humidity), td(dew point temperature), wb (wet bulb included)

Range: -10 ~ +50° C, +14 ~ +122° F, 0 ~98%RH

Resolution: 0.1° C, 0.1° F; 0.1%RH

Accuracy: ± 1.0° C, ± 1.8° F, ± 3%RH (5~95%RH)

Sample Rate: 0.5 time sec

Auto power off: About 10 minutes idle

Special function: Auto power off with disable feature; Data hold; MAX MIN; Backlit.

Operating temperature: -10~50° C, 14~122° F

TH821 Humidity / Temperature Meter

Sensor: Long-term stable humidity sensor,Capacitive. NTC Temperature sensor

Measuring Range: 5~95%RH; 0~50° C / +32 to 122° F

Accuracy± 1digit: ± 3%RH (at 5~95%RH) ± 0.5° C

Resolution: 0.1%RH; 0.1° C/° F;Repeatability: ± 2%

Response time (33 to 76%RH, still air): 5Sec.

Long term stability: 0.5%RH per year

Ambient conditions: 0 ~ 50 ° C/32 ~ 122° F

Storage/transport condition: -10~60° C,14 ~140° F

Hold function and max. /min. Values

Air moisture and air temperature



TH816 Thermo / Hygrometer

Probe type: Humidity sensor, Capacitive NTC Temperature sensor

Measuring range:10%~95%RH; 0~50° C / +32 to 122° F

Accuracy± 1digit: ± 3%RH ;± 1° C (+25° C) / ±1.8° F (+77°F)

Resolution: 1%RH, 0.1° C/0.1° F

Comfort level:

HOT (over 34° C, over 80%RH)

WARM (at 30~34° C, 75%~80%RH)

CFT (at 20~28° C, 65%~75%RH)

COOL (at 12~20° C, 55%~65%RH)

COLD (below 12° C, 40%~50%RH).



Sound Level Meter



SL821

Sound pressure level (Lp), equivalent continuous sound pressure level (Laeq), sound exposure level (LAE), and peak sound level (LCpeak)

Microphone: 1/2 polarization capacity microphone

A-weighting: 30dB~130dB; C- weighting:35dB~130dB

Measurement frequency range: 31.5Hz to 8kHz

Time weighting characteristics: FAST; SLOW

Calibration: 94dB;Data recording; 10

Bar graph: Scale range 50dB, 1dBResolution

Warning indicators: OVER (overload), UNDER(underload)

ST8080 30-60dB, 50-80dB, 70-100dB, 90-120dB

Frequency range: 31.5Hz~8kHz

Measuring range: 40~130db (40~80dB, 50-90dB,

60-100dB, 70-110dB,90~130db)

Frequency weighting: A type;Display: 4 digital

Resolution: 0.1 dB; Accuracy: ± 2dB

Time response: Analog bar: 125ms; Digital: 750ms

Auto power off: About 10 minutes idle

Auto power off; Data hold; MAX and MIN; Backlit;

Sound OVER or UNDER display; Low battery indicator;

Software calibrating



Laser Distance Meter



LD80 Measure 0.1-80m (0.32 to 262.5ft)
Measurement Distance: 0.1m~80m;0.32 in~262.5 ft
Accuracy: ± 1.5 mm;± 0.06 in
Laser type: 635nm, <1mW, Class II
laser Auto. switch-off: after 0.5 min
Auto off: 3 minutes ;Continuous measurement
Min/Max distance tracking ;20 data records
Battery Life: 4000times
Power supply: 3*1.5V, AAA



SW-40 40m
Wide measuring range of up to 40m
Automatic calculation of area and volume
Continuous measurement and Min/Max distance tracking
Easy addition/subtraction of measurement
Selectable meter(m), inch(in) and feet (ft)
Bubble level design for precision measurement
99 data records
Pythagorean indirect measurement function



SW-60 60m
Wide measuring range of up to 60m
Automatic calculation of area and volume
Continuous measurement and Min/Max distance tracking
Easy addition/subtraction of measurement
Selectable meter(m), inch(in) and feet (ft)
Bubble level design for precision measurement
99 data records
Pythagorean indirect measurement function



SW-100 100m
Wide measuring range of up to 100m
Automatic calculation of area and volume
Continuous measurement and Min/Max distance tracking
Easy addition/subtraction of measurement
Selectable meter(m), inch(in) and feet (ft)
Bubble level design for precision measurement
99 data records
Pythagorean indirect measurement function



SW-900A/SW-1200A/SW-1500A
Measurement Distance: 5-900m/1200m/1500m
Accuracy: ± 1.0 mm
Magnification:6X
Diopter Adjustable Range:±5°
Objective Caliber: 25.0mm
Eyepiece Caliber: 16.0mm
Exit Pupil Caliber: 3.8mm
Viewing Angle:7°
Laser Wave Length: 905nm

Laser Distance Meter



CP-401 40m
Max Measuring Distance: 40m
Accuracy: ±1.5mm(± 0.06 in); Units: mm/in/ft
Laser Type: Class 2 635nm,<1m W
Consecutive/Area/Volume/Pythagorean Proposition Indirect
Add/Subtract/Max/Min/Backlight/Buzzer Indicator
Splash Proof/Dust Proof ;Auto Power-off
Battery Life: 4000times ; 20 data records
Power supply: 2*1.5V, AAA



CP-501 50m
Max Measuring Distance: 50m
Accuracy: ±1.5mm(± 0.06 in); Units: mm/in/ft
Laser Type: Class 2 635nm,<1m W
Consecutive/Area/Volume/Pythagorean Proposition Indirect
Add/Subtract/Max/Min/Backlight/Buzzer Indicator
Splash Proof/Dust Proof ;Auto Power-off
Battery Life: 4000times ; 20 data records
Power supply: 2*1.5V, AAA



CP-601 60m
Max Measuring Distance: 60m
Accuracy: ±1.5mm(± 0.06 in); Units: mm/in/ft
Laser Type: Class 2 635nm,<1m W
Consecutive/Area/Volume/Pythagorean Proposition Indirect
Add/Subtract/Max/Min/Backlight/Buzzer Indicator
Splash Proof/Dust Proof ;Auto Power-off
Battery Life: 4000times ; 20 data records
Power supply: 2*1.5V, AAA



CP-701 70m
Max Measuring Distance: 70m
Accuracy: ±1.5mm(± 0.06 in); Units: mm/in/ft
Laser Type: Class 2 635nm,<1m W
Consecutive/Area/Volume/Pythagorean Proposition Indirect
Add/Subtract/Max/Min/Backlight/Buzzer Indicator
Splash Proof/Dust Proof ;Auto Power-off
Battery Life: 4000times ; 20 data records
Power supply: 2*1.5V, AAA

Laser Tachometer



ST8030 100 to 30000 rpm; 1.7-500rps
LCD Display: 5 digits, with backlight
Test Range: 100 to 30000 rpm; 1.7-500rps
Resolution: 0.1 rpm (100 to 9999.9 rpm)
0.1rps (1.7 to 100rps)
1 rpm (1000-30000rpm)
1rps (100-500rps)
Accuracy: +/- (0.02%n +2d)
Sampling Time: 1 Sec (over 100 rpm)
Number of impeller setting: 1-9
Test Range Selection: Automatic
Detecting Distance: 100-400mm; 3.9-15.7"

Metal Detector

MCD-3003

Detecting Distance: Coin 100mm
Ø 20mm steel pipe 200mm

Indicator: Red/green LED and sound + vibration (switch)

Low power consumption ,can work for 40 hours continuously and rechargeable friendly

Operating Temperature: -5°C~+55°C

Low battery voltage indication



MD-28

Detecting Distance: Coin 70mm
Ø 20mm steel pipe 120mm

Detection Face: Ø 134mm

Red LED and high-pitched tone alarm

Push on/off button in the grip for simple operation

Low battery indication

Outside sensitivity adjusting hole



Digital Lux Meter

LX821 1~200,000Lux/0.01~20,000FC

Sensor: One silicon photo diode with filter

Measuring Range: 1~200,000Lux/0.01~20,000FC

Accuracies: ± (3% reading+50 digit)
± (4% reading +50 digit)at< 10000LUX
± (5% reading +50 digit)at>10000LUX

Resolution: 1Lux/Fc ; Repeatability: ± 2%

Sampling Time: 0.5second

Ambient conditions: 0 ~ 50 °C/32 ~ 122°F

Storage/transport condition: -10 ~ 60 °C, 14 ~ 140°F



ST8050 0~30000 Lux; 0~2788fc

Parameter : Lux(lm/m2); Foot candle (lm/ft^2)

Range: 0~30000 Lux; 0~2788fc

Resolution: 0.1 Lux(0~9999.9 Lux); 1Lux (>10000Lux) 0.1 fc

Accuracy: ± (3% +5 digits) to reference

Sample rate: 0.5 time/sec

Auto power off: About 10 minutes idle

Battery life: Continuous work 360 Hours (without backlit)

Special function: Auto power off with disable feature; Data hold; MAX MIN; Backlit.

Operating temperature: -10~50° C, 14~122° F



LX1330B Series (LX1332B/LX1334B/LX1336B)

Display: 3 ½ digits, big LCD, max display 1999.

Wide range: 0.1 Lux ~ 200,000 Lux.(LX1332B)

0.1 Lux~200,000 Lux; 0.01FC~20,000FC(LX1334B)

0.01cd~20,000cd (total four ranges) (LX1336B)

1Lux Resolution

2 times/second Sampling rate

Data Hold,Low battery indication,Auto power off



Moisture Meter

TK100W Wood Dust Moisture Meter

Used for measuring moisture content of wood materials.It applicable of paper making,flakeboard, furniture and mechanism of charcoal industry.

Large display with back light

Measuring range: 0~80%

Operation condition

Temperature: -10°C~60°C; Humidity: 5~90%

Electronic Resistance; Temperature compensation



TK100T Tobacco Dust Moisture Meter

Utilize the relationship between moisture content and electrical resistance to effectively measure the moisture content of tobacco quickly and accurately.

Large display with back light

Measuring range: 8~40%

Operation condition

Temperature: -10°C~60°C; Humidity: 5~90%

Resolution: 0.1; Accuracy: ±0.5%n



TK100C Cotton Moisture Meter

Cotton Moisture Meter is a valuable testing instrument during the cotton collection, processing and when buying or selling cotton.

Large display with back light

Measuring range: 4~40%

Operation condition

Temperature: -10°C~60°C; Humidity: 5~90%

Resolution: 0.1; Accuracy: ±0.5%n



TK100G Grain Moisture Meter

Used for fast and accurate measurement of moisture in the process of allotment, acquisition, storage,machining of packed grains.

Large display with back light

Measuring range: 7~30%

Operation condition

Temperature: -10°C~60°C; Humidity: 5~90%

Resolution: 0.1; Accuracy: ±0.5%n

Grains:6 kinds ; Grain Flour :11 kinds(option)



TK100 Multifunctional Moisture Meter

Widely used for wood fibre,grains,Chinese medicine, bran,straw and other un-electric materials.

Large display with back light

Measuring range: 0~80%

Operation condition

Temperature: -10°C~60°C

Humidity: 5~90%

Resolution: 0.1

Accuracy: ±0.5%n





MS7200 Pin Moisture Meter

Pin type moisture meter MS7200 is used for measuring moisture content of wood,timber, paper,bamboo,carton and other relevant materials.

Large display with back light

Measuring range: 0~95%

Operation condition

Temperature: -10°C~60°C; Humidity: 5~90%

Resolution: 0.1; Accuracy: ±0.5%n

Materials Codes:3 kinds



MS7100 Timber Moisture Meter

It applicable of woodwork,paper making, flakeboard, furniture,timber traders and otherrelevant industry.

It can testing 150 species woods.

Large display with back light

Measuring range: 0~80%

Operation condition

Temperature: -10°C~60°C; Humidity: 5~90%

Resolution: 0.1; Accuracy: ±0.5%n

Wood Cods:7 kinds



MS7100C Cotton Lint Moisture Meter

The Cotton Moisture Meter is avaluable testing instrument during the cotton collection,processing.

It can testing cotton,spools,cotton lint and cotton bale.

Large display with back light

Measuring range: 4~40%

Operation condition

Temperature: -10°C~60°C;Humidi ty: 5~90%

Resolution: 0.1;

Accuracy: ±0.5%n



MS320 Tobacco Moisture Meter

The Tobacco Moisture Meter is a valuable testing instrument during the Tobacco collection,processing and when buying or selling.

Large display with back light

Measuring range: 8~40%

Resolution: 0.1

Accuracy: ±0.5%n

Pin: 150mm(default); 15mm,80mm(optional)



MS310 Inductive Moisture Meter

Used for measuring moisture content of wood, paper, bamboo,car ton, concrete,glasses textile, leather, soil and other materials.

Large display with back light

Measuring range: 0~90%

Operation condition

Temperature: 10°C~60°C; Humidity: 5~90%

Resolution: 0.1; Accuracy: ±0.5%n

Material codes:20 kinds

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