



## MSO/DS2000A Series Digital Oscilloscope

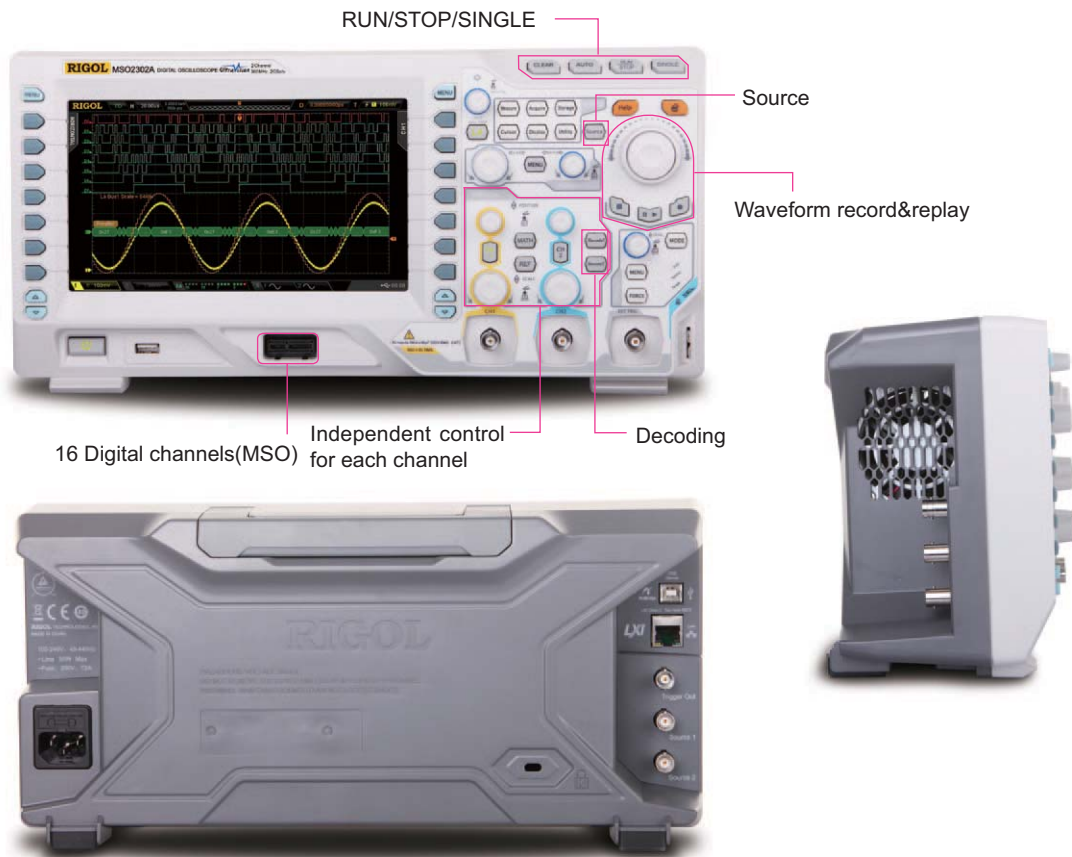
*UltraVision*

- Bandwidth up to 300MHz, standard with 50Ω input
- Lower noise floor, Wider vertical range: 500uV/div ~ 10V/div
- Max. Sample Rate: Analog channel up to 2G Sa/s, Digital channel up to 1G Sa/s(MSO)
- Memory Depth :Analog channel up to 14Mpts /56Mpts(Opt.), Digital channel up to 14Mpts/28Mpts(Opt.)
- Innovative "UltraVision" technology
- Waveform capture rate up to 50,000 wfs/s
- Up to 256 Levels intensity grading waveform display
- Up to 65,000 frames Hardware based Real Time waveform, Record, Replay & Analysis functions(Std.)
- A variety of trigger and serial bus decoding functions (RS232,I2C,SPI,CAN)
- Built-in 2 Ch Waveform generator (MSO/DS2000A-S)
- Complete connectivity: USB Host& Device, LAN(LXI), AUX
- 8 inch TFT (800x480) WVGA

MSO/DS2000A Series is the new mainstream digital scope to meet the customer's applications with its innovative technology. MSO2000A Series has 2+16channels, target for the embedded design and test market with its industry leading specifications, powerful trigger functions and broad analysis capabilities.



# MSO/DS2000A Series Digital Oscilloscope



Product Dimensions: Width X Height X Depth=361.6 mm×179.6 mm×130.8 mm Weight: 3.9 kg ± 0.5 kg(Without Package)

## ► Innovative UltraVision technology(Analog Channel)



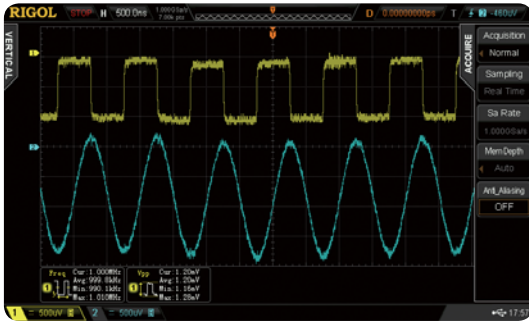
- Deeper Memory Depth (Up to 56Mpts)
- Higher Waveform Capture Rate (Up to 50,000 wfms/s)
- Realtime Waveform Record,Replay & Analysis (Up to 65,000 frames)
- Multi-level Intensity Grading Display (Up to 256 Levels)

## ► Models and Key Specifications

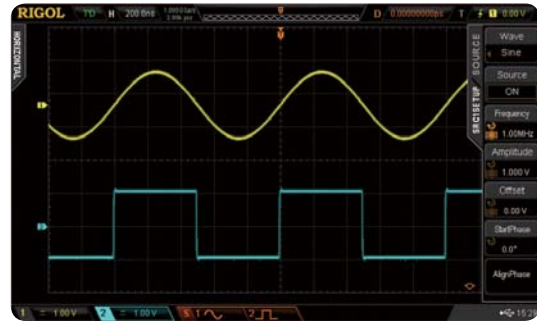
Model Number	DS2072A	DS2072A-S	DS2102A	DS2102A-S	DS2202A	DS2202A-S	DS2302A	DS2302A-S
	MSO2072A	MSO2072A-S	MSO2102A	MSO2102A-S	MSO2202A	MSO2202A-S	MSO2302A	MSO2302A-S
Analog BW	70 MHz		100MHz		200 MHz		300 MHz	
Analog Channels	2							
Digital Channel(MSO )	16							
Max. Sample rate	Analog Channel: Max. 2 GSa/s single channel, 1 GSa/s dual channel; Digital Channel: 1GSa/s(8 CH), 500MSa/s(16 CH)							
Max. Memory Depth	Analog channel: 7 Mpts(2 CH) / 14 Mpts( 1 CH) std.; 28 Mpts(2 CH) / 56 Mpts( 1 CH) opt.; Digital channel: 7 Mpts(16 CH) / 14 Mpts(8 CH) std.; 14 Mpts(16 CH) / 28 Mpts(8 CH) opt.							
Max. Waveform Capture rate	50, 000 wfms/s							
Real Time waveform Record, Replay and Analysis function	Up to 65, 000 Frames ( LA Channel turn off ) Up to 32, 000 Frames ( LA Channel turn on )							
Std. Probes	RP3300A 350MHz BW Passive Probe:2 sets; 1 set RPL2316 LA Probe(MSO only)							
Built-in 2Ch 25MHz Source	No	Yes	No	Yes	No	Yes	No	Yes

## ► Features and Benefits

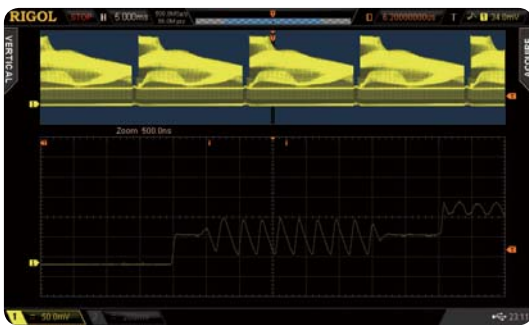
Wider Vertical range(500uV/div~10V/div),Lower noise floor, Better for small signal capturing



Built-in 2CH Source (MSO/DS2000A-S)



UltraVision: Deeper memory(Std.14Mpts,Opt.56Mpts)



UltraVision: Up to 50,000 wfms/s Waveform capture rate



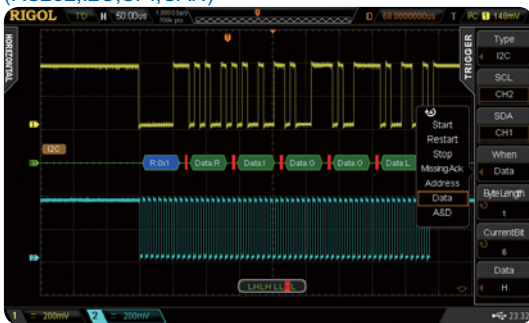
UltraVision:Realtime waveform record,replay,analysis function (std.)



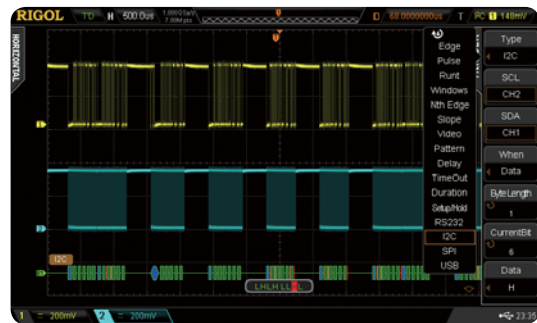
UltraVision: Deeper Memory with Multi-Level intensity grading display(Up to 256 levels)



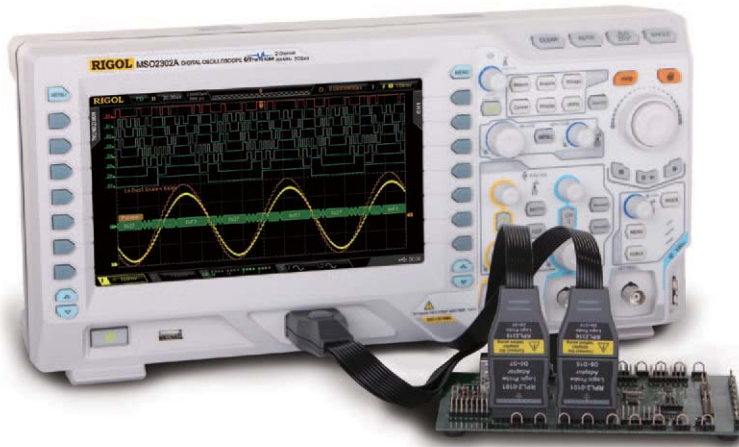
Serial bus Trigger&Decoding functions (RS232,I2C,SPI,CAN)



Versatile Trigger Functions(Runt, Nth Edge,Setup/Hold ...)



► **MSO2000A Series Mixed Signal Oscilloscope**



**Besides the powerful functions of DS2000A, you could get more from MSO2000A with:**

- 16 Digital channels
- Sample rate of Digital channel up to 1 GSa/s
- Memory depth of Digital channel up to 28Mpts
- Waveform capture rate of Digital channel up to 50,000wfms/s
- Real Time Waveform Record, Replay and analysis functions, up to 65,000 frames
- Triggering and Decoding across Analog and Digital channels
- Easy to be grouped for digital channels
- Support a variety of logic levels
- Time correlation display for both analog and digital signals

**Innovative UltraVision technology(Digital Channel)**



- Deeper Memory Depth( Up to 28Mpts )
- Higher Waveform capture rate(Up to 50,000wfms/s)
- Real Time waveform record & replay(Up to 65,000 frames)
- Multi-level intensity grading display

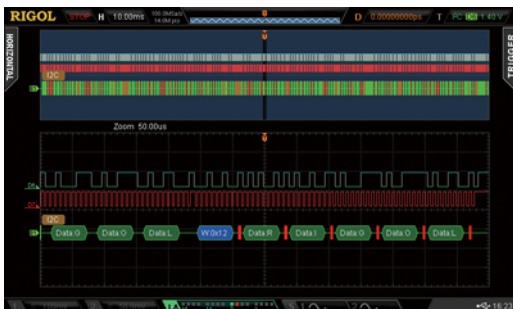
Mixed Signal Analysis with analog and digital channels



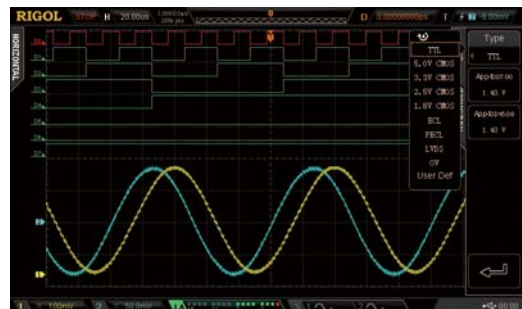
Easy to be grouped and labeled for digital channels



Serial bus triggering and decoding on digital channels



Support a variety of logic levels



## RIGOL Probes supported by MSO/DS2000A Series:

### ► RIGOL Passive Probes

Model Number	Type	Description
 RP2200	High Z Probe	1X: DC~7MHz 10X:DC~150MHz Compatibility: All RIGOL Scopes.
 RP3300A	High Z Probe	10X:DC~350MHz Compatibility: All RIGOL Scopes.
 RP3500A	High Z Probe	DC~500MHz Compatibility: All RIGOL Scopes.
 RP1300H	High Voltage Probe	DC~300MHz CATI 2000V(DC+AC), CATII 1500 V(DC+AC) Compatibility: All RIGOL Scopes.
 RP1010H	High Voltage Probe	DC~50MHz DC:0~10KV DC,AC:pulse <=20KVp-p, AC:sine wave <=7KVrms Compatibility: All RIGOL Scopes.
 RP1018H	High Voltage Probe	DC~150MHz DC+AC Peak:18KV CAT II AC RMS : 12KVrms CAT II Compatibility: All RIGOL Scopes.
 RPL2316	Logic analysis Probe	Logic analysis Probe (For MSO4000 & MSO2000A)

### ► RIGOL Active & Current Probes

Model Number	Type	Description
 RP1001C	Current Probe	BW:DC~300kHz, Max.DC: ± 100A, AC P-P:200A,AC RMS:70A Compatibility: All RIGOL Scopes.
 RP1002C	Current Probe	BW:DC~1MHz, Max.DC: ± 100A, AC P-P:140A,AC RMS:50A Compatibility: All RIGOL Scopes.
 RP1003C	Current Probe	BW:DC~50MHz, Max.AC RMS:30A AC Peak:50A(Noncontinuous) Compatibility: All RIGOL Scopes. Must order RP1000P Power supply.
 RP1004C	Current Probe	BW:DC~100MHz, Max. AC RMS:30A, AC Peak:50A(Noncontinuous) Compatibility: All RIGOL Scopes. Must order RP1000P Power supply.
 RP1005C	Current Probe	BW:DC~10MHz, Max. 150 A rms, 300 A peak (Noncontinuous), 500 A peak (@pulse width <=30 ms) Compatibility: All RIGOL Scopes. Must order RP1000P Power supply.
 RP1000P	Power Supply	Power supply for RP1003C,RP1004C,RP1005C, support 4 channels.
 RP1025D	High Voltage Differential Probe	BW:25MHz; Max. Voltage ≤ 1400Vpp Compatibility: All RIGOL Scopes.
 RP1050D	High Voltage Differential Probe	BW:50MHz; Max. Voltage ≤ 7000Vpp Compatibility: All RIGOL Scopes.
 RP1100D	High Voltage Differential Probe	BW:100MHz; Max. Voltage ≤ 7000Vpp Compatibility: All RIGOL scopes

## ► Specifications

All the specifications are guaranteed except the parameters marked with "Typical" and the oscilloscope needs to operate for more than 30 minutes under the specified operation temperature.

### Sample

Sample Mode	Real-time Sample
Maximum Sample Rate	<b>Analog channel:</b> 2 GSa/s (single-channel), 1 GSa/s (dual-channel) <b>Digital channel:</b> 1GSa/s(8CH), 500MSa/s(16CH)
Peak Detect	<b>Analog channel:</b> 500 ps (single-channel), 1 ns (dual-channel) <b>Digital channel:</b> 1ns(8 CH), 2ns(16CH)
Averaging	After all the channels finish N samples at the same time, N can be 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096 or 8192.
High Resolution	12 bits of resolution when $\geq 5 \mu\text{s}/\text{div}$ @ 1 GSa/s (or $\geq 10 \mu\text{s}/\text{div}$ @ 500 MSa/s).
Minimum Detectable Pulse Width	<b>Digital channel:</b> 5 ns
Memory Depth	<b>Analog channel:</b> single-channel: Auto, 14k pts, 140k pts, 1.4M pts, 14M pts and 56M pts (option) are available dual-channel: Auto, 7k pts, 70k pts, 700k pts, 7M pts and 28M pts (option) are available <b>Digital channel:</b> 7Mpts(16 CH), 14Mpts(8 CH) std.; 14Mpts(16 CH), 28Mpts(8 CH) opt.

### Input

Number of Channels	MSO2XX2A/2XX2A-S: 2-analog-channel + 16-digital-channel DS2XX2A/2XX2A-S: 2-analog-channel
Input Coupling	DC, AC or GND
Input Impedance	<b>Analog channel:</b> (1 M $\Omega$ ±1%)    (16 pF±3 pF) or 50 $\Omega$ ±1.5% <b>Digital channel:</b> (101 k $\Omega$ ±1%)    (9 pF±1 pF)
Probe Attenuation Coefficient	<b>Analog channel:</b> 0.01X to 1000X, in 1-2-5 step
Maximum Input Voltage (1M $\Omega$ )	<b>Analog channel:</b> CAT I 300 Vrms, CAT II 100 Vrms, Transient Overvoltage 1000 Vpk with RP2200 10:1 probe: CAT II 300 Vrms with RP3300A 10:1 probe: CAT II 300 Vrms with RP3500A 10:1 probe: CAT II 300 Vrms with RP5600A 10:1 probe: CAT II 300 Vrms <b>Digital channel:</b> CAT I 40 Vrms, transient overvoltage 800 Vpk

### Horizontal

Time Base Scale	MSO/DS2302A/2302A-S: 1 ns/div to 1.000 ks/div MSO/DS2202A/2202A-S: 2.000 ns/div to 1.000 ks/div MSO/DS2102A/2102A-S/2072A/2072A-S: 5.000 ns/div to 1.000 ks/div
Channel-to-Channel Skew	1 ns (typical), 2 ns (maximum)
Time-base Range	1 ns – 1000 s
Maximum Record Length	14 Mpts per channel
Time Base Accuracy <sup>[1]</sup>	$\leq \pm 25$ ppm
Time Base Drift	$\leq \pm 5$ ppm/year
Delay Range	negative delay: $\geq 1$ screen width positive delay: 1 s to 100,000 s
Time Base Mode	Y-T, X-Y, Roll
Number of X-Ys	1 path
Waveform Capture Rate <sup>[2]</sup>	50,000 wfms/s (dots display)

### Vertical

Bandwidth (–3dB)	MSO/DS2302A/2302A-S: DC 至 300 MHz MSO/DS2202A/2202A-S: DC 至 200 MHz MSO/DS2102A/2102A-S: DC 至 100 MHz MSO/DS2072A/2072A-S: DC 至 70 MHz
Single Bandwidth	MSO/DS2302A/2302A-S: DC 至 300 MHz MSO/DS2202A/2202A-S: DC 至 200 MHz MSO/DS2102A/2102A-S: DC 至 100 MHz MSO/DS2072A/2072A-S: DC 至 70 MHz
Vertical Resolution	<b>Analog channel:</b> 8 bits <b>Digital channel:</b> 1 bit
Vertical Scale	500 $\mu\text{V}/\text{div}$ to 1 V/div ( 50 $\Omega$ ) 500 $\mu\text{V}/\text{div}$ to 10 V/div ( 1 M $\Omega$ )
Offset Range	500 $\mu\text{V}/\text{div}$ to 50 mV/div: $\pm 2$ V 51 mV/div to 200 mV/div: $\pm 10$ V 205 mV/div to 2 V/div: $\pm 50$ V 2.05 V/div to 10 V/div: $\pm 100$ V
Bandwidth Limit <sup>[1]</sup>	MSO/DS2302A/2302A-S/2202A/2202A-S: 20 MHz/100 MHz MSO/DS2102A/2102A-S/2072A/2072A-S: 20 MHz
Low Frequency Response (AC Coupling –3dB)	$\leq 5$ Hz (on BNC)
Calculated Rise Time <sup>[1]</sup>	MSO/DS2302A/2302A-S: 1.2ns MSO/DS2202A/2202A-S: 1.8 ns MSO/DS2102A/2102A-S: 3.5 ns MSO/DS2072A/2072A-S: 5 ns
DC Gain Accuracy	$\pm 2\%$ full scale

DC Offset Accuracy	$\pm 0.1 \text{ div} \pm 2 \text{ mV} \pm 1\% \text{ offset value}$
Channel to Channel Isolation	DC to maximum bandwidth: >40 dB

### Vertical (Digital Channel)

Threshold LevelType	1 group with 8 channels adjustable threshold
	TTL (1.4 V)
	5.0 V CMOS (+2.5 V), 3.3 V CMOS (+1.65 V)
	2.5 V CMOS (+1.25 V), 1.8 V CMOS (+0.9 V)
	ECL (-1.3 V)
	PECL (+3.7 V)
	LVDS (+1.2 V)
	0 V
	User
Threshold range	$\pm 20.0 \text{ V}$ , in 10 mV step
Threshold accuracy	$\pm (100 \text{ mV} + 3\% \text{ of threshold setting})$
Dynamic range	$\pm 10 \text{ V} + \text{threshold}$
Min Voltage Swing	500 mVpp
Input Impedance	//101 K $\Omega$
Probe Loading	$\approx 8 \text{ pF}$
Vertical resolution	1 bit

### Trigger

Trigger Level Range	Internal	$\pm 5 \text{ div}$ from center of the screen
	EXT	$\pm 4 \text{ V}$
Trigger Mode	Auto, Normal, Single	
Holdoff Range	100 ns to 10 s	
High Frequency Rejection <sup>[1]</sup>	75 kHz	
Low Frequency Rejection <sup>[1]</sup>	75 kHz	
Trigger Sensitivity	1 div (below 10 mV or noise rejection is enabled)	
	0.3 div (above 10 mV and noise rejection is disabled)	

### Edge Trigger

Edge Type	Rising, Falling, Rising/Falling
-----------	---------------------------------

### Pulse Trigger

Pulse Condition	Positive Pulse Width (greater than, lower than, within specific interval)
	Negative Pulse Width (greater than, lower than, within specific interval)
Pulse Width Range	2 ns to 4 s

### Runt Trigger

Pulse Condition	None, >, <, <>
Pulse Polarity	Positive, Negative
Pulse Range	2 ns to 4 s

### Windows Trigger (Option)

Windows Type	Rising, Falling, Rising/Falling
Trigger Position	Enter, Exit, Time
Windows Time	16 ns to 4 s

### Nth Edge Trigger (Option)

Edge Type	Rising, Falling
Idle Time	16 ns to 4 s
Number of Edges	1 to 65535

### Slope Trigger

Slope Condition	Positive Slope (greater than, lower than, within specific interval)
	Negative Slope (greater than, lower than, within specific interval)
Time Setting	10 ns to 1 s
Video Trigger (HDTV Option)	
Signal Standard	NTSC, PAL/SECAM, 480P, 576P (option), 720P, 1080P and 1080i (option)

### Pattern Trigger

Pattern Setting	H, L, X, Rising Edge, Falling Edge
-----------------	------------------------------------

### Delay Trigger (Option)

Edge Type	Rising, Falling
Delay Type	>, <, <>, ><
Delay Time	2 ns to 4 s

### TimeOut Trigger (Option)

Edge Type	Rising, Falling, Rising/Falling
Timeout time	16 ns to 4 s

### Duration Trigger (Option)

Pattern Setting	H, L, X
Trigger Condition	>, <, <>
Duration Time	2 ns to 4 s

### Setup/Hold Trigger

Edge Type	Rising, Falling
Data Type	H, L
Setup Time	2 ns to 1 s
Hold Time	2 ns to 1 s

### RS232/UART Trigger

Polarity	Normal, Invert
Trigger Condition	Start, Error, Check Error, Data
Baud	2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps, User

Data Bits | 5 bit, 6 bit, 7 bit, 8 bit

### I2C Trigger

Trigger Condition | Start, Restart, Stop, Missing ACK, Address, Data, A&D  
Address Bits | 7 bit, 8 bit, 10 bit  
Address Range | 0 to 127, 0 to 255, 0 to 1023  
Byte Length | 1 to 5

### SPI Trigger

Trigger Condition | Timeout  
Timeout Value | 100 ns to 1 s  
Data Bits | 4 bit to 32 bit  
Data Setting | H, L, X

### CAN Trigger (Option)

Signal Type | Rx, Tx, CAN\_H, CAN\_L, Differential  
Trigger Condition | SOP, EOF, Frame Type, Frame Error  
Baud | 10 kbps, 20 kbps, 33.3 kbps, 50 kbps, 62.5 kbps, 83.3 kbps, 100 kbps, 125 kbps, 250 kbps, 500 kbps, 800 kbps, 1 Mbps, User  
Sample Point | 5% to 95%  
Frame Type | Data, Remote, Error, Over Load  
Error Type | Bit Fill, Answer Error, Check Error, Format Error, Random Error  
USB Trigger (Option)  
Signal Speed | Low Speed, Full Speed  
Trigger condition | SOP, EOP, RC, Suspend, Exit Suspend

### Measure

Cursor | Manual Mode | Voltage Deviation between Cursors (  $\Delta V$  )  
| | Time Deviation between Cursors (  $\Delta T$  )  
| | Reciprocal of  $\Delta T$  (Hz) (1/  $\Delta T$  )  
Track Mode | Voltage and Time Values of the Waveform Point  
Auto Mode | Allow to display cursors during auto measurement  
Auto Measurement | Analog channel:  
| | Measurements of Maximum, Minimum, Peak–Peak Value, Top Value, Bottom Value, Amplitude,  
| | Average, Mean Square Root, Overshoot, Pre–shoot, Area, Period Area, Frequency, Period, Rise Time,  
| | Fall Time, Positive Pulse Width, Negative Pulse Width, Positive Duty Cycle, Negative Duty Cycle,  
| | Delay 1→2 **f** , Delay 1→2 **T** , Phase 1→2 **f** , Phase 1→2 **T**  
| | Digital channel:  
| | Frequency, Period, Positive Pulse Width, Negative Pulse Width, Positive Duty Cycle, Negative Duty  
| | Cycle, Delay 1→2 **f** ,  
| | Delay 1→2 **T** , Phase 1→2 **f** , Phase 1→2 **T**  
Number of Measurements | Display 5 measurements at the same time.  
Measurement Range | Screen Region or Cursor Region  
Measurement Statistic | Current, Average, Max, Min, Standard Deviation, Number of Measurements  
Frequency Counter | Hardware 6 bits frequency counter (channels are selectable)

### Math Operation

Waveform Operation | A+B, A–B, A×B, A÷B, FFT, Editable Advanced Operation, Logic Operation  
FFT Window | Rectangle, Hanning, Blackman, Hamming  
FFT Display | Split, Full Screen  
FFT Vertical Scale | Vrms, dB  
Logic Operation | AND, OR, NOT, XOR  
Math Function | Intg, Diff, Lg, Exp, Sqrt, Sine, Cosine, Tangent  
Number of Buses for Decoding | 2  
Decoding Type | Parallel (standard), RS232 (option), I2C (option) , SPI (option), CAN (option)

### Display

Display Type | 8.0 inches (203 mm) TFT LCD display  
Display Resolution | 800 Horizontal × RGB × 480 Vertical Pixel  
Display Color | 160,000 Color (TFT)  
Persistence Time | Min, 50 ms, 100 ms, 200 ms, 500 ms, 1 s, 2 s, 5 s, 10 s, 20 s, Infinite  
Display Type | Dots, Vectors  
Real–time Clock | Time and Date (user adjustable)

### Signal Source (MSO2000A-S/DS2000A-S)

Channels | 2  
Sample Rate | 200 MSa/s  
Vertical Resolution | 14 bits  
Max. Frequency | 25 MHz  
Standard Waveform | Sine, Square, Pulse, Ramp, Noise, DC  
Built–in Waveform | Sinc, Exponential Rise, Exponential Fall, ECG, Gauss, Lorentz, Haversine  
Sine | Frequency Range | 100 mHz to 1 MHz  
| Flatness | ± 0.5 dB (relative to 1 kHz)  
| Harmonic Distortion | –40 dBc  
| Stray(Non–harmonic) | –40 dBc  
| Total Harmonic Distortion | 1%  
| S/N Ratio | 40 dB



Square/Pulse	Frequency Range	Square: 100 mHz to 15 MHz Pulse: 100 mHz to 1 MHz
	Rise/Fall Time	<15 ns
	Overshoot	<5%
	Duty Cycle	Square: 50%
		Pulse: 10% to 90% (user adjustable)
	Duty Cycle Resolution	1% or 10 ns (the larger of the two)
	Min. Pulse Width	20 ns
	Pulse Width Resolution	10 ns or 5 bits (the larger of the two)
	Jitter	500 ps
Ramp	Frequency Range	100 mHz to 100 kHz
	Linearity	1%
	Symmetry	0 to 100%
Noise	Bandwidth	25 MHz (typical)
Built-in Waveform	Frequency Range	100 mHz to 1 MHz
Arbitrary Waveform	Frequency Range	100 mHz to 10 MHz
	Waveform Length	2 to 16k points
	Internal Storage Location	10
Frequency	Accuracy	100 ppm (lower than 10 kHz) 50 ppm (higher than 10 kHz)
	Resolution	100 mHz or 4 bits, the larger of the two
Amplitude	Output Range	20 mVpp to 5 Vpp, HighZ 10 mVpp to 2.5 Vpp, 50 Ω
	Resolution	100 μV or 3 bits, the larger of the two
	Accuracy	2% (1 kHz)
DC Offset	Range	± 2.5 V, HighZ ± 1.25 V, 50 Ω
	Resolution	100 μV or 3 bits, the larger of the two
	Accuracy	Offset setting Value ± 2%
Modulation	AM, FM	

## I/O

Standard Ports	USB HOST (support USB-GPIB), USB DEVICE, LAN, Aux Output (TrigOut/PassFail)
Printer Compatibility	PictBridge

## General Specifications

Probe Compensation Output	
Output Voltage <sup>11</sup>	About 3 V, peak-peak
Frequency <sup>11</sup>	1 kHz

## Power

Power Voltage	100 V to 240 V, 45 Hz to 440 Hz
Power	Maximum 50 W
Fuse	2 A, T Degree, 250 V

## Environment

Temperature Range	Operating: 0 °C to +50 °C Non-operating: -40 °C to +70 °C
Cooling Method	Fan cooling
Humidity Range	0°C to +30°C : ≤ 95% Relative Humidity +30°C to +40°C : ≤ 75% Relative Humidity +40°C to +50°C : ≤ 45% Relative Humidity
Altitude	Operating: under 3,000 meters Non-operating: under 15,000 meters

## Physical Characteristics

Size <sup>31</sup>	Width × Height × Depth = 361.6 mm × 179.6 mm × 130.8 mm	
Weight <sup>141</sup>	Package Excluded	3.9 kg ± 0.5 kg
	Package Included	4.5 kg ± 0.5 kg

## Calibration Interval

The recommended calibration interval is one year.

## Regulatory Information

Electromagnetic Compatibility	2004/108/EC Execution standard EN 61326-1:2006 EN 61326-2-1:2006
Safety	UL 61010-1:2004; CAN/CSA-C22.2 NO. 61010-1-2004; EN 61010-1:2001; IEC 61010-1:2001

Note<sup>11</sup>: Typical value.

Note<sup>12</sup>: Maximum value. 20ns, single-channel mode, dots display, auto memory depth.

Note<sup>13</sup>: Supporting legs and handle folded, knob height included.

Note<sup>14</sup>: Standard configuration.

## ► Ordering Information

	Description	Order Number
Model	DS2072A ( 70MHz, 2CH )	DS2072A
	DS2072A-S ( 70MHz, 2CH + 2 CH Source )	DS2072A-S
	MSO2072A ( 70MHz, 2+16 MSO )	MSO2072A
	MSO2072A-S ( 70MHz, 2+16 MSO + 2 CH Source )	MSO2072A-S
	DS2102A ( 100MHz, 2CH )	DS2102A
	DS2102A-S ( 100MHz, 2CH + 2 CH Source )	DS2102A-S
	MSO2102A ( 100MHz, 2+16 MSO )	MSO2102A
	MSO2102A-S ( 100MHz, 2+16 MSO + 2 CH Source )	MSO2102A-S
	DS2202A ( 200MHz, 2CH )	DS2202A
	DS2202A-S ( 200MHz, 2CH + 2 CH Source )	DS2202A-S
	MSO2202A ( 200MHz, 2+16 MSO )	MSO2202A
	MSO2202A-S ( 200MHz, 2+16 MSO + 2 CH Source )	MSO2202A-S
	DS2302A ( 300MHz, 2CH )	DS2302A
	DS2302A-S ( 300MHz, 2CH + 2 CH Source )	DS2302A-S
	MSO2302A ( 300MHz, 2+16 MSO )	MSO2302A
	MSO2302A-S ( 300MHz, 2+16 MSO + 2 CH Source )	MSO2302A-S
	Power Cord conforming to the standard of the country	-
	USB Data Cable	CB-USBA-USBB-FF-150
Standard	2 Passive Probes (350 MHz)	RP3300A
Accessories	1 Set LA probe(MSO only)	RPL2316
	Quick Guide	-
	Resource CD (User' s Guide and Application Software)	-
Optional Accessories	Rack Mount Kit	RM-DS2000A
Deep Memory Option	Analog channel and Digital channel(MSO) memory Depth upgraded upto 24Mpts	MEM-DS2000A
Advanced trigger functions	Windows, Nth Edge,HDTV,Delay, Time Out, Duration, USB	AT-DS2000A
Decoding Options	RS232,I2C,SPI Decoding Kit	SD-DS2000A
	CAN Analysis kit(Trigger+Decoding)	CAN-DS2000A

## Warranty

Three-year warranty,excluding probes and accessories.

# RIGOL

### Headquarter

RIGOL TECHNOLOGIES, INC.  
No.156,Cai He Village,  
Sha He Town,  
Chang Ping District, Beijing,  
102206 P.R.China  
Tel:+86-10-80706688  
Fax:+86-10-80705070  
Email: support@rigol.com

### USA

RIGOL TECHNOLOGIES  
USA,INC.  
7401 First Place,Suite N  
Oakwood Village  
OH 44146,USA  
Tel/Fax: 440-232-4488x111  
Toll free: 877-4-RIGOL-1x111  
Email: info@rigol.com

### Europe

RIGOL TECHNOLOGIES EU,  
GmbH  
Lindbergh str. 4  
82178 Puchheim, Germany  
Tel: +49(0)89-8941895-0  
Email: info-europe@rigol.com



**RIGOL®** is the registered trademark of RIGOL Technologies, Inc. Product information in this document subject to update without notice. For the latest information about RIGOL's products, applications and services, please contact local RIGOL office or access RIGOL official website:

[www.rigol.com](http://www.rigol.com)