

## FEATURES

- 6 digit frequency counter
- Multi-language display
- Embedded online help
- Digital filter function
- Waveform recorder

# RS PRO RSDS1102CML+ Oscilloscope, Digital Storage, 2 Channels, 100MHz

RS Stock No.: 123-6437



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

RS PRO RSDS1000CML+/DL+ Series is a dual-channel universal digital oscilloscope available in 50 MHz, 70 MHz, 100 MHz and 150 MHz bandwidth models.

Options available:

- [1236435](#) - 50MHz,2 channels
- [1236436](#) - 70MHz,2 channels
- [1236437](#) - 100MHz,2 channels
- [1236438](#) - 150MHz,2 channels

## General Specifications

<b>Series</b>	RSDS1000CML+/DL+
<b>Model Number</b>	RSDS1102CML+
<b>Oscilloscope Type</b>	Digital Storage
<b>Bandwidth</b>	100MHz
<b>Low Frequency</b>	≤10Hz
<b>Sampling Type</b>	Real Time, Equivalent
<b>Sampling Mode</b>	Sampling, Peak Detection, Average
<b>Average Time</b>	4, 16, 32, 64, 128, 256
<b>Standard Interfaces</b>	USB
<b>Additional Interfaces</b>	LAN, Pass/Fail out
<b>Calibration Available</b>	Yes
<b>Applications</b>	Educational laboratories, Electronics troubleshooting and measurement, Embedded electronics, Mixed-signal and video designing, Automotive electronics

### Input System

<b>Input Coupling</b>	AC, DC, GND
<b>Input impedance</b>	1MΩ ±2%. 18pf ±3pf
<b>Probe attenuator</b>	1X, 10X
<b>Probe attenuator Factor Set</b>	1X, 10X, 50X, 100X, 500X, 1000X
<b>Maximum Input Voltage</b>	400V
<b>Input Sensitivity</b>	2mV/div to 10V/div
<b>Channel to Channel Isolation</b>	>35dB
<b>Single Channel Common Mode Rejection Ratio</b>	> 100:1
<b>Input Channel Connectors Type</b>	BNC

### Vertical System

<b>Maximum Vertical Sensitivity</b>	2mV/div
<b>Minimum Vertical Sensitivity</b>	10V/div
<b>Vertical Resolution</b>	8 bit
<b>DC Gain Accuracy</b>	5mv/div-10v/div: ≤±3% , ≤±4.0%: ≤2mV/div
<b>DC Measurement Accuracy (≤200mv/div)</b>	±[3.0%*(  reading  +  offset  +1% * offset +0.2div+2mV]
<b>DC Measurement Accuracy (&gt;200mv/div)</b>	±[3.0%*(  reading  +  offset  +1% * offset +0.2div+100mV]
<b>Rise Time</b>	≤3.5ns
<b>Channel Voltage Offset Range</b>	2mV-200mV: ±1.6V, 206mV ~ 10V: ± 40V
<b>Math Operation</b>	+, -, *, /, FFT
<b>FFT</b>	Hanning, Hamming, Blackman, Rectangular
<b>Channel-to-channel skew</b>	<500ps

### Horizontal System

<b>Real Time Sampling Rate</b>	1GSa/s
<b>Interaction Mode</b>	X, Sinx
<b>Memory Depth</b>	2Mpts
<b>Measure Display Mode</b>	Y-T, X-Y, Roll
<b>Time Base Range</b>	2.5ns/div~50s/div
<b>Horizontal Scan Rate</b>	100ms/div ~ 50s/div

### X-Y Mode

<b>X-Pole Input / Y-Pole Input</b>	Channel 1 (CH1), Channel 2 (CH2)
<b>Sample Frequency</b>	1GSa/s

### Measurement System

<b>Auto Measure</b>	Vpp, Vmax, Vmin, Vamp, Vtop, Vbase, Vavg, Mean, Crms, Vrms, ROVShoot, FOVShoot, RPREShoot, FPREShoot, Rise time, Fall time, Freq, Period, + Wid, –Wid, + Dut, –Dut, BWid, Phase, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF
<b>Cursor Measure</b>	Manual, Track and Auto

### Trigger Specifications

<b>Trigger Type</b>	Edge, Pulse Width, Video, Slope, Alternative
<b>Trigger Source</b>	CH1/CH2/EXT/(EXT/5)/AC Line
<b>Trigger Modes</b>	Auto, Normal, single
<b>Trigger Coupling</b>	AC, DC, LF Reject, HF Reject
<b>Trigger Level Range</b>	Internal: $\pm 6$ divisions / EXT: $\pm 1.2V$ / EXT/5: $\pm 6V$
<b>Trigger Displacement</b>	Pre Trigger: Memory depth/(2*sampling) Delay Trigger: 260div
<b>Trigger Sensitivity</b>	For Fixed Range : 1DIV = DC – 10MHz EXT : $\pm(6\%$ of setting 40Mv)
<b>Hold-off Range</b>	100ns – 1.5s
<b>Edge Trigger</b>	Edge Type: Rising, Falling, Rising and Falling
<b>Pulse Width Trigger</b>	Trigger Mode: Positive, Negative Pulse width Range : 2ns - 10s
<b>Video Trigger</b>	Support Signal Format: PAL/NTSC/SECAM Trigger Condition : odd field, even field, all lines, line num
<b>Slope Trigger</b>	Rising,Falling

### Control Panel Function

<b>Auto Set</b>	Auto adjusting the Vertical system, Horizontal system and Trigger Position
<b>Save/Recall</b>	Setting, Waveform, Bmp, CSV 2 refs, 20 settings, 10waveforms, internal Save to USB disk

### Display System

<b>Display Mode</b>	5.7 inch TFT colour LCD
<b>Resolution</b>	800 x 480
<b>Display Colour</b>	24 bits
<b>Display Contrast</b>	500:1
<b>Backlight Intensity</b>	300nit
<b>Waveform Display Range</b>	8 x 16 div
<b>Waveform Display Mode</b>	Dots, Vector
<b>Persistence</b>	Off, 1sec, 2sec, 5sec, Infinite
<b>Screen-Saver</b>	Off, 1min, 2min, 5min, 10min, 15min, 30min, 1hour, 2hour, 5hour
<b>Waveform Interpolation</b>	Sin(x), x
<b>Colour model</b>	Normal , Invert
<b>Language</b>	English, Simplified Chinese, Traditional Chinese, Arabic, French, German, Russian, Portuguese Spanish, Japanese, Korean, Italian

### Electrical Specifications

<b>Operating Supply Voltage</b>	100Vrms to 240Vrms 50/60Hz
<b>Safety Category Level and Voltage</b>	CAT I 400V, CAT II 400V

### Mechanical Specifications

<b>Dimensions</b>	323.1mm x 135.6mm x 157mm
<b>Length</b>	323.1mm
<b>Width</b>	135.6mm
<b>Height</b>	157mm
<b>Weight</b>	2.5kg

## Operation Environment Specifications

<b>Altitude</b>	≤3000m
<b>Relative Humidity</b>	85%RH
<b>Operating Temperature Range</b>	0°C to 40°C
<b>Storage Temperature Range</b>	-20°C to 70°C

## Approvals

<b>Compliance/Certifications</b>	EN61340, CE
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## Ordering information

Description	Model
50MHz, 2CH, 500MSa/s (Max.) , 32Kpts, 7inch (800*480) LCD	RSDS1052DL+
70MHz, 2CH, 1GSa/s (Max.) , 2Mpts, 7inch (800*480) LCD	RSDS1072CML+
100MHz, 2CH, 1GSa/s (Max.) , 2Mpts, 7inch (800*480) LCD	RSDS1102CML+
150MHz, 2CH, 1GSa/s (Max.) , 2Mpts, 7inch (800*480) LCD	RSDS1152CML+

### Standard Accessories

- USB Cable -1
- Quick Start -1
- Certificate of Calibration -1
- Passive Probe -2
- Quality Certificate -1
- Power Cord -1
- CD (Included User Manual and EasyScopeX software) -1

