

## FEATURES

- 4 channel models
- Memory depth 24 Kpts
- Four Screen display styles
- Multiple language user interface
- Internal save/recall function
- 2/4 groups' reference waveforms
- Powerful digital filter function

# RS PRO RSDS1304CFL Oscilloscope, Digital Storage, 4 Channels, 300MHz

RS Stock No.: 123-6442



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 RSDS1000CFL Series digital storage oscilloscopes offer faster sampling rates and higher bandwidths than other RSDS1000 Series scopes. They provide four channels, with an external trigger input channel. Bandwidth is up to 300 MHz, depending on choice of model. A set of separate vertical controls for each input channel means there are no risks of accidentally modifying the wrong trace. There is no need to switch between channels, as is the case with some other oscilloscopes. Powerful triggering and analysis capabilities make it easy to capture and analyse waveforms, greatly improving test efficiency.

## General Specifications

<b>Series</b>	RSDS1000CFL
<b>Model Number</b>	RSDS1204CFL
<b>Oscilloscope Type</b>	Digital Storage
<b>Bandwidth</b>	300MHz
<b>Low Frequency</b>	≤10Hz
<b>Sampling Type</b>	Real Time, Equivalent
<b>Sampling Mode</b>	Sampling, Peak Detection, Average
<b>Standard Interfaces</b>	USB
<b>Additional Interfaces</b>	LAN, Pass/Fail out
<b>Calibration Available</b>	No
<b>Applications</b>	Laboratories, Educational establishments, Product testing and Quality Assurance, Service operation and post-sales support, Product development and debugging

### Input System

<b>Input Coupling</b>	AC, DC, GND
<b>Input impedance</b>	50Ω ±2%. 18pf ±3pf
<b>Probe attenuator</b>	1X, 10X
<b>Probe attenuator Factor Set</b>	1X, 5X, 10X, 50X, 100X, 500X, 1000X
<b>Maximum Input Voltage</b>	400V
<b>Input Sensitivity</b>	2mV/div to 5V/div
<b>Channel to Channel Isolation</b>	> 100:1 at 100MHz
<b>Single Channel Common Mode Rejection Ratio</b>	>35dB

### Vertical System

<b>Maximum Vertical Sensitivity</b>	2mV/div
<b>Minimum Vertical Sensitivity</b>	5V/div
<b>Vertical Resolution</b>	8 bit
<b>DC Gain Accuracy</b>	5mv/div-5v/div: ≤±3% in Fixed gain ranges 2mv/div: ≤±4% in Variable gain ranges
<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>	≤1.2ns
<b>Channel Voltage Offset Range</b>	2mV-100mV: ±800mV, 102mV-5V: ±40V
<b>Math Operation</b>	+, -, *, /, FFT
<b>FFT</b>	Window Mode: Hanning, Hamming, Blackman, Rectangular Sampling: 1024 points
<b>Channel-to-channel skew</b>	≤1ns

### Horizontal System

<b>Real Time Sampling Rate</b>	Single Channel: 2GSa/s Double Channels: 1GSa/s
<b>Memory Depth</b>	24Kpts
<b>Measure Display Mode</b>	MAIN, WINDOW, WINDOW ZOOM, SCAN, X-Y
<b>Time Base Range</b>	1ns/div to 50s/div
<b>Horizontal Scan Rate</b>	100ms/div~50s/div

### X-Y Mode

<b>X-Pole Input / Y-Pole Input</b>	(CH1) / (CH2) or (CH3) / (CH4)
<b>Sample Frequency</b>	25KSa/s to 250MSa/s (1-2.5-5 step)

### 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, CH3, CH4, 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>	CH1,CH2,CH3,CH4: $\pm 6$ 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 / 1.5DIV: 10MHz – Max BW EXT : 200m Vpp DC – 10MHz / 300m Vpp 10MHz – Max BW EXT/5: 1Vpp DC – 10MHz / 1.5Vpp 10MHz – Max BW
<b>Pulse Width Trigger</b>	Trigger Mode: Positive, Negative Pulse width Range : 20ns - 10s
<b>Video Trigger</b>	Support Signal Format: PAL/NTSC/SECAM Trigger Condition : odd field, even field, all line, all num
<b>Slope Trigger</b>	Positive, Negative
<b>Alternative Trigger</b>	CH1 trigger type: Edge, Pulse, Video, Slope
	CH2 trigger type: Edge, Pulse, Video, Slope
	CH3 trigger type: Edge, Pulse, Video, Slope
	CH4 trigger type: Edge, Pulse, Video, Slope

### Control Panel Function

<b>Auto Set</b>	Auto adjusting the Vertical system, Horizontal system and Trigger Position
<b>Save/Recall</b>	2 groups of referenced waveforms, 20 groups of setups, 10 groups of captured waveforms internal save/recall function and USB flash driver storage function.

### Display System

<b>Display Mode</b>	7.0 inch TFT colour LCD
<b>Resolution</b>	480 horizontal by 234 vertical pixels
<b>Display Colour</b>	64K colour
<b>Display Contrast</b>	150:1
<b>Backlight Intensity</b>	300nit
<b>Waveform Display Range</b>	8 x 18 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, Linear
<b>Colour model</b>	Normal , Invert
<b>Language</b>	English, Arabic, French, German, Russian, Spanish, Portuguese, Japanese, Korean, Italian, Simplified Chinese, Traditional Chinese

### Electrical Specifications

<b>Operating Supply Voltage</b>	100V-240V
<b>Safety Category Level and Voltage</b>	CAT I 400V, CAT II 400V

## Mechanical Specifications

<b>Dimensions</b>	358mm x 156mm x 118mm
<b>Length</b>	358mm
<b>Width</b>	156mm
<b>Height</b>	118mm
<b>Weight</b>	4.3kg

## Operation Environment Specifications

<b>Altitude</b>	3000m
<b>Relative Humidity</b>	85%RH
<b>Operating Temperature Range</b>	10°C to 40°C
<b>Storage Temperature Range</b>	-20°C to 60°C

## Approvals

<b>Compliance/Certifications</b>	CAN/CSA-C22.2 No. 61010-1, CE
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