Electronix EXPRESS
A division of RSR Electronics, Inc.
1-800-972-2225 | www.elexp.com | electron@elexp.com

Technical Specifications

Unless otherwise specified, the technical specifications applied are for SDS-E only, and Probes attenuation set as 10X. Only if the oscilloscope fulfills the following two conditions at first, these specification standards can be reached.

■ This instrument should run for at least 30 minutes continuously under the specified operating temperature.

■ If change of the operating temperature is up to or exceeds 5 ℃, a "Self-calibration" procedure (see "*How to Implement Self-calibration*" on P15).

All specification standards can be fulfilled, except one(s) marked with the word "Typical".

Performance Characteristics		Instruction	
Bandwidth		SDS5032E(V)	30MHz
		SDS6062E(V)	60MHz
		SDS7072E(V)	70MHz
		SDS7102E(V)	100MHz
		SDS7122E(V)	125MHz
Channel		2 + 1 (External)	
Acquisition	Mode	Normal, Peak detect, Averaging	
	Sample rate (real time)	SDS5032E(V)	Dual CH	125MS/s
			Single CH	250MS/s
		SDS6062E(V)	Dual CH	250MS/s
			Single CH	500MS/s
		SDS7072E(V)	Dual CH	500MS/s
			Single CH	1GS /s
		SDS7102E(V)	Dual CH	500MS/s
			Single CH	1GS /s
		SDS7122E(V)	Dual CH	500MS/s
			Single CH	1GS /s
Input	Input coupling	DC, AC , Ground	
	Input impedance	SDS5032E(V)	1MΩ±2%, in parallel with 10pF±5pF
		SDS6062E(V) SDS7072E(V) SDS7102E(V) SDS7122E(V)	1MΩ±2%, in parallel with 15pF±3pF
	Probe attenuation factor	1X, 10X, 100X, 1000X	
	Max. input voltage	400V (PK-PK) (DC + AC PK-PK)	

Performance Characteristics		Instruction		
	Channel –channel isolation	50Hz: 100 : 1 10MHz: 40 : 1		
	Time delay between channel(typical)	150ps		
	Bandwidth limit	20MHz, full bandwidth (Only SDS7102E(V) and SDS7122E(V) have this function)		
Horizontal System	Sampling rate range	SDS5032E(V)	Dual CH	5S/s~125MS/s
			Single CH	5S/s~250MS/s
		SDS6062E(V)	Dual CH	0.5S/s～250MS/s
			Single CH	0.5S/s～500MS/s
		SDS7072E(V)	Dual CH	0.5S/s～500MS/s
			Single CH	0.5S/s～1GS /s
		SDS7102E(V)	Dual CH	0.5S/s～500MS/s
			Single CH	0.5S/s～1GS /s
		SDS7122E(V)	Dual CH	0.5S/s～500MS/s
			Single CH	0.5S/s～1GS /s
	Interpolation	(sin x)/x		
	Max Record length	SDS5032E(V)	Dual CH	≤Max sampling rate	10K
			Single CH		
		SDS6062E(V) SDS7072E(V) SDS7102E(V) SDS7122E(V)	Dual CH	≤Max sampling rate	100K (can be upgraded to 10M)
			Single CH		
	Scanning speed (S/div)	SDS5032E(V)	4ns/div～100s/div, step by1~2~4	
		SDS6062E(V) SDS7072E(V) SDS7102E(V) SDS7122E(V)	2ns/div～100s/div, step by1~2~5	
	Sampling rate / relay time accuracy	±100ppm		
	Interval($\triangle$T) accuracy (DC～100MHz)	Single： ±(1 interval time+100ppm×reading+0.6ns); Average>16： ±(1 interval time +100ppm×reading+0.4ns)		
Vertical system	A/D converter	8 bits resolution (2 Channels simultaneously)		
	Sensitivity	SDS5032E(V)	5mV/div~5V/div	

Performance Characteristics		Instruction	
		SDS6062E(V) SDS7072E(V) SDS7102E(V) SDS7122E(V)	2mV/div～10V/div
	Displacement	SDS5032E(V)	±10 div
		SDS7102E(V) SDS7122E(V) SDS6062E(V) SDS7072E(V)	±1V(2mV～100mV)；±10V(200mV～1V)；±100V(2V～10V)
	Analog bandwidth	SDS5032E(V)	30MHz
		SDS6062E(V)	60MHz
		SDS7072E(V)	70MHz
		SDS7102E(V)	100MHz
		SDS7122E(V)	125MHz
	Single bandwidth	Full bandwidth	
	Low Frequency	≥10Hz (at input, AC coupling, -3dB)	
	Rise time	SDS5032E(V)	≤11ns (at input, Typical)
		SDS6062E(V)	≤5.8ns (at input, Typical)
		SDS7072E(V)	≤5.0ns (at input, Typical)
		SDS7102E(V)	≤3.5ns (at input, Typical)
		SDS7122E(V)	≤2.8ns (at input, Typical)
	DC accuracy	±3%	
	DC accuracy (average)	Average > 16: ±(3% rdg + 0.05 div) for △	
	Waveform inverted ON/OFF		
Measurement	Cursor	$\triangle V$ and $\triangle T$ between cursors	
	Automatic	PK-PK, Max, Min, Vtop, Vbase, Vamp, Mean, Cycrms, Overshoot, Preshoot, Freq, Period, Rise Time, Fall Time, Delay A→B⌐, Delay A→B⌐, +D Width, -D Width, +Duty, -Duty	
	Waveform Math	＋, －, *, / ,FFT	
	Waveform storage	15 waveforms	
	Lissajous figure	Bandwidth	Full bandwidth
		Phase difference	±3 degrees

Performance Characteristics	Instruction
Communication port	USB2.0, USB for file storage; LAN port; VGA port or RS-232 (Optional);

Trigger:

Performance Characteristics		Instruction
Trigger level range	Internal	±6 div from the screen center
	EXT	±600mV
	EXT/5	±3V
Trigger level Accuracy (typical)	Internal	±0.3div
	EXT	±(40mV + 6% of Set Value)
	EXT/5	±(200mV +6% of Set Value)
Trigger displacement		According to Record length and time base
Trigger Holdoff range		100ns~10s
50% level setting (typical)		Input signal frequency ≥50Hz
Edge trigger	slope	Rising, Falling
	Sensitivity	0.3div
Pulse trigger	Trigger condition	Positive pulse：>, <, = negative pulse：>, <, =
	Pulse Width range	30ns～10s
Video Trigger	Modulation	Support standard NTSC, PAL and SECAM broadcast systems
	Line number range	1-525 (NTSC) and 1-625 (PAL/SECAM)
Slope Trigger	Trigger condition	Positive pulse：>, <, = negative pulse：>, <, =
	Time setting	24ns～10s
Alternate Trigger (SDS5032E(V) does not support Alternate)	Trigger on CH1	Edge, Pulse, Video, Slope
	Trigger on CH2	Edge, Pulse, Video, Slope

General Technical Specifications

Display

Display Type	8" Colored LCD (Liquid Crystal Display)
Display Resolution	800 (Horizontal) × 600 (Vertical) Pixels
Display Colors	65536 colors, TFT screen

Output of the Probe Compensator

Output Voltage (Typical)	About 5V, with the Peak-to-Peak voltage ≥1MΩ.
Frequency (Typical)	Square wave of 1KHz

Power

Mains Voltage	100～240 VAC RMS, 50/60Hz, CAT II
Power Consumption	< 15W
Fuse	2A, T grade, 250V

Environment

Temperature	Working temperature: 0 ℃ 40 ℃ Storage temperature: -20 ℃ 60 ℃
Relative Humidity	≤ 90%
Height	Operating: 3,000 m Non-operating: 15,000 m
Cooling Method	Natural convection

Mechanical Specifications

Dimension	348mm× 170mm×78mm (L*H*W)
Weight	About 1.5 kg

Interval Period of Adjustment:

One year is recommended for the calibration interval period.

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