

Digital Real-Time™ Oscilloscopes

TDS 340A * TDS 360 * TDS 380

This product is discontinued.

Characteristics

Signal Acquisition System.

Bandwidth -

TDS 340A: 100 MHz.

TDS 360: 200 MHz.

TDS 380: 400 MHz.

Sample Rate -

TDS 340A: 500 MS/s on each channel.

TDS 360: 1 GS/s on each channel.

TDS 380: 2 GS/s on each channel.

Channels - Two identical channels, each with invert function.

Sensitivity - 2 mV to 10 V/div (with calibrated fine adjust).

Position Range - ± 5 divisions.

Calibrated Offset Ranges -

Volts/Div Setting	Offset Range
2 - 99.5 mV/div	± 1 V
100 - 995 mV/div	± 10 V
1 - 10 V/div	± 100 V

DC Gain Accuracy - $\pm 2\%$.

Vertical Resolution - 8-Bits (256 levels over 10.24 vertical divisions).

Acquisition Modes Sample, Envelope, Average

Peak Detect - High frequency and random glitch capture; Captures glitches as narrow as 10 ns using acquisition hardware at all time/div settings between 25 μ s/div and 5 s/div (inclusive).



TDS 300 Series

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Time Base System (Main and Delayed)

Time/Division Range -

TDS 340A: 5 ns to 5 s/div.

TDS 360: 2.5 ns to 5 s/div.

TDS 380: 1 ns to 5 s/div.

Record Length - 1000 sample points per channel.

Horizontal Accuracy - $\pm 0.01\%$.

Roll Mode - 0.1 s/div and slower when Auto Trigger Mode is selected.

Triggering System (Main Only)

Trigger Types - Edge, Video.

Trigger Modes - Auto, Normal.

Trigger Inputs - CH1, CH2, Line, External.

Video -Type Trigger Formats and Field Rates - Triggers on Field 1, Field 2, Any Field (noninterlaced systems), or Lines; from Sync-negative composite video. Triggers on broadcast standard NTSC, PAL, or SECAM video and other interlaced and noninterlaced video with horizontal line rates from 15 to 65 kHz (in 5 ranges) and field rates from 50 to 60 Hz.

Display

Sin(x)/x Interpolation.

Vector - Connects sample points to display a continuous waveform.

Dots - Displays sample points only.

Vector Accumulate Mode - Accumulates waveform points over a pre-set period of time (500 ms to infinity) and superimposes the current waveform with bright vectors.

Dot Accumulate Mode - Accumulates waveform points over a pre-set period of time (500 ms to infinity).

Format - YT and XY.

Automatic Measurements

Period

Frequency

+Width
 -Width
 Rise Time
 Fall Time
 +Duty Cycle
 -Duty Cycle
 +Overshoot
 -Overshoot
 High
 Low
 Max
 Min
 Pk-Pk
 Amplitude
 Mean
 Cycle Mean
 RMS
 Cycle RMS
 Burst Width

Cursors

Types - Horizontal bars, vertical bars, paired (volts @ time).

Measurements - Absolute volts, DELTA volts, time, and frequency.

Physical Characteristics

	Portable		Rackmount	
Dimensions	mm	in.	mm	in.
Width w/ handle	362	14.3	483	19
Height w/ pouch	191	7.5		
w/o pouch	165	6.5	178	7
Depth (stand alone)	472	18.6	472	18.6
w/ front cover	490	19.3		
w/ handle(s)	564	22.2	518	20.4
Weight	kg	lbs.	kg	lbs.
TDS 300	6.9	15.5		
Domestic Shipping	13.1	29	14.4*1	32*1

*1 Weight of conversion kit only.

Waveform Processing

Arithmetic Operators - Add, subtract, multiply.

AutoSetup - Single button automatic setup on selected input signal for vertical, horizontal, and trigger systems.

FFT Analysis - A mixed radix FFT routine is applied to the time domain waveforms to analyze frequency content. A Hanning Window is always applied to the acquired signal. The display uses dBVRMS vertical scaling.

Non-Volatile Storage

Waveforms - Two 1000 point reference waveforms.

Setups - 10 front panel setups.

Floppy Drive - 3.5 in., 1.44 MB or 720 K DOS-compatible; PC formats: .BMP, .TIF, .PCX, .EPS; spreadsheet formats: Excel, Lotus123, and MathCAD for mathematical modeling and analysis.

Option 14: I/O Interface

GPIB (IEEE -488.2) Programmability - Full talk/listen modes; Control of all modes, settings, and measurements.

RS -232 -C Interface Programmability - Full talk/listen modes; Control of all modes, settings, and measurements. Baud Rate up to 38,400. 9-Pin, DTE.

VGA - Monitor output for direct display on large VGA-equipped monitors.

Hardcopy Port - Centronics-type parallel, RS-232-C, or GPIB.

DC Power for Printer

Programmer Manual - (070-9442-00).

Hard Copy Capability

Graphics File Formats - Interleaf (.img), TIF, PCX (PC Paintbrush), BMP (Microsoft Windows), and Encapsulated PostScript (EPS).

Printer Formats - Thinkjet, Deskjet, Laserjet, Epson (9- & 24-Pin), Seiko DPU 411/II, DPU 412, DPU 414.

Available Printer Packs - 4 in. thermal printer and storage pack (TDS4F5P).

Mechanical

Cooling Method - Forced air circulation with no air filter.

Environmental and Safety

Temperature - -10° to +55°C (operating); -51°C to +71°C (non-operating).

Humidity - Up to 95% RH at or below +40°C; up to 75% RH from 41°C to 55°C (operating and non-operating).

Altitude - To 15,000 ft/4,570 m (operating); to 40,000 ft/12,190 m (non-operating).

Electromagnetic Emissions - Meets EN50081-1; VFG 0243; FCC Rules and Regs, 47 CFR, Part 15, Subpart B, Class A.

Safety - UL 3111-1 Listed, EN61010 Certified CAN/CSA C-22.2 No. 1010.1-92.

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Product(s) complies with IEEE Standard 488.1-1987, RS-232-C, and with Tektronix Standard Codes and Formats.



Tektronix Measurement products are manufactured in ISO registered facilities.



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