

TEKTRONIX

TDS2014

The Tektronix TDS2014 is a 100 MHz, 4-channel digital storage oscilloscope from the TDS2000 series. Designed for general-purpose electronic test and troubleshooting, it features a 1 GS/s maximum sample rate, a 2.5k point record length on all channels, and a 1/4 VGA color LCD display. It includes 11 automatic measurements, standard FFT math functions, and advanced triggering capabilities.

SPECIFICATIONS

General

Interfaces	Optional (RS-232, GPIB, and Centronics via extension modules)
Display	1/4 VGA Active TFT Color LCD (320 x 240 pixels)
Included Probes	4 x P2220 (200 MHz, 10X/1X switchable passive probes)

Physical

Power Supply	100 to 240 V AC, 50-60 Hz; 100 to 120 V AC, 400 Hz; 20 W maximum
Operating Temperature	0 to 50 °C
Dimensions (W×H×D)	323.8 × 151.4 × 124.5 mm
Weight	2.0 kg

Key Specifications

Bandwidth	100 MHz
Analog Channels	4
Maximum Sample Rate	1 GS/s
Record Length	2.5k points

Vertical System

Hardware Bandwidth Limits	20 MHz
Input Coupling	AC, DC, GND
Input Impedance	1 MΩ ±2% in parallel with 20 pF ±3 pF
Vertical Resolution	8 bits
Maximum Input Voltage	300 V RMS CAT II
Sensitivity Range	2 mV/div to 5 V/div
DC Gain Accuracy	±3% (10 mV/div to 5 V/div)
Input Capacitance	20 pF ±3 pF

Horizontal System

Time Base Range	5 ns/div to 50 s/div
Time Base Accuracy	50 ppm
Horizontal Zoom	Dual Time Base function

Trigger System

Trigger Modes	Auto, Normal, Single Sequence
Trigger Types	Edge, Video, Pulse Width
Trigger Sources	CH1, CH2, CH3, CH4, AC Line
Trigger Coupling	DC, AC, Noise Reject, HF Reject, LF Reject

Acquisition System

Acquisition Modes	Sample, Peak Detect, Average
Hardware Peak Detect	Captures high-frequency and random glitches as narrow as 12 ns
Averaging Options	4, 16, 64, 128 waveforms

Waveform Measurements and Math

Cursors	Amplitude, Time
Automatic Measurements	11 types (Period, Frequency, +Width, -Width, Rise Time, Fall Time, Max, Min, Peak-to-Peak, Mean, Cycle RMS)
Math Functions	Add, Subtract, FFT
FFT Windows	Hanning, Flat Top, Rectangular

Display System

Waveform Interpolation	Sin(x)/x
Display Format	YT, XY

Environmental and Compliance

Operating Humidity	Up to 80% RH at or below +40 °C; Up to 45% RH up to +50 °C
Operating Altitude	Up to 3,000 m (10,000 ft)
Non-operating Altitude	Up to 15,000 m (50,000 ft)

Performance

Rise Time	< 3.5 ns
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Triggering

Trigger Holdoff Range	500 ns to 10 s
Trigger Level Range (Internal)	±8 divisions from center screen
Trigger Level Range (EXT)	±1.6 V
Trigger Level Range (EXT/5)	±8 V
Trigger Sensitivity (Internal)	1 div from DC to 10 MHz; 1.5 div from 10 MHz to 100 MHz
Trigger Sensitivity (EXT)	100 mV from DC to 10 MHz; 150 mV from 10 MHz to 100 MHz
Trigger Sensitivity (EXT/5)	500 mV from DC to 10 MHz; 750 mV from 10 MHz to 100 MHz
Video Trigger Formats	NTSC, PAL, SECAM (Line and Field)
Trigger Frequency Counter	6-digit resolution

Inputs & Outputs

Probe Compensator Output	5 V at 1 kHz (typical) into ≥ 1 MΩ load
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Data Storage

Setup Storage	10 front-panel setups
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Power

Power Consumption	20 W maximum
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Storage

Waveform Reference Storage	4 reference waveforms
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Display

Display Resolution	320 x 240 pixels (1/4 VGA)
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Environmental

Non-operating Temperature	-40 °C to +71 °C
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TECHNOLOGY

Digital Storage Oscilloscope

APPLICATIONS

General Purpose Electronic Test and Troubleshooting

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.