

TEKTRONIX

TDS754D

The Tektronix TDS754D is a 4-channel, 500 MHz digital oscilloscope equipped with proprietary InstaVu acquisition technology, enabling a waveform capture rate of up to 400,000 waveforms per second to rapidly isolate elusive glitches and rare transients. Offering a maximum real-time sample rate of 2 GS/s, it provides detailed signal visibility across complex electronic systems. The instrument is equipped with a high-contrast NuColor CRT display, comprehensive trigger and math capabilities, and legacy communication interfaces (GPIB, RS-232, Centronics) suited for established automated test systems and intensive electronics debugging applications.

SPECIFICATIONS

General

Display	Color NuColor LCS CRT
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Physical

Power Supply	90 to 250 VAC, 45 to 440 Hz, 300 W maximum
Operating Temperature	+4 to +50 °C
Dimensions (W×H×D)	362 × 191 × 432 mm
Weight	14.1 kg

Vertical System

Number of Channels	4
Analog Bandwidth (-3 dB)	DC to 500 MHz
Input Sensitivity Range	1 mV/div to 10 V/div (1 M Ω); 1 mV/div to 1 V/div (50 Ω)
Input Impedance	1 M Ω $\pm$ 0.5% or 50 Ω $\pm$ 1%
Input Coupling	AC, DC, GND
Calculated Rise Time	700 ps
Hardware Bandwidth Limits	20 MHz, 250 MHz
Maximum Input Voltage	400 V (DC + peak AC) at 1 M Ω ; 5 V RMS at 50 Ω

Horizontal System

Maximum Real-Time Sample Rate	2 GS/s (on 1 or 2 channels), 1 GS/s (on 3 or 4 channels)
Time Base Range	500 ps/div to 10 s/div
Maximum Record Length	Up to 8M points (option dependent)
Time Base Delay Time Range	16 ns to 250 s

Acquisition System

Maximum Waveform Capture Rate	> 400,000 wfms/s (InstaVu mode)
Acquisition Modes	Sample, Envelope, Average, Peak Detect, Hi Res

Trigger System

Trigger Coupling	DC, AC, HF Rej, LF Rej, Noise Rej
Trigger Holdoff Range	250 ns to 12 s

Interfaces and Connectivity

Input Connectors	BNC (female)
Probe Interface	TekProbe Level II

Storage and Mass Media

Removable Media Drive	3.5-inch 1.44 MB floppy disk drive
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Performance

Time Base Accuracy	±25 ppm over any ≥1 ms interval
Position Range	±5 divisions
Offset Range (1 mV to 100 mV/div)	±1 V
Offset Range (101 mV to 1 V/div)	±10 V
Offset Range (1.01 V to 10 V/div)	±100 V
Channel-to-Channel Isolation	≥100:1 at 100 MHz

Features

Automated Measurements	25 parametric measurements
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Environmental

Non-Operating Temperature	-22 °C to +60 °C
Operating Altitude	Up to 3,000 m (9,843 ft)
Non-Operating Altitude	Up to 15,000 m (49,212 ft)
Operating Humidity	20% to 80% RH at or below +32°C; 5% to 45% RH from +32°C to +50°C

Compliance

Safety Compliance	UL 3111-1, CSA 1010.1, EN 61010-1, IEC 61010-1
Electromagnetic Compatibility	Meets EN50081-1, EN50082-1, FCC Part 15 Class A

Power Requirements

Source Voltage	90 to 250 VRMS
Source Frequency	45 to 440 Hz
Power Consumption	≤ 300 W

TECHNOLOGY

Digital

APPLICATIONS

Oscilloscopes

