TEKTRONIX

TDS754A

The Tektronix TDS754A is a high-performance 4-channel digital phosphor and digitizing oscilloscope with a 500 MHz analog bandwidth, designed for precise waveform acquisition, analysis, and visualization in advanced electronic engineering applications.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2) standard; RS-232 and Centronics parallel optional
Display	Color CRT (NuColor liquid crystal shutter display)
Warm-up Time	20 minutes

Vertical System

Number of Channels	4
Analog Bandwidth (-3 dB)	500 MHz
Vertical Resolution	8 bits
Input Impedance	1 MΩ or 50 Ω
Input Coupling	AC, DC, GND
Vertical Sensitivity Range	1 mV/div to 10 V/div
Position Range	±5 divisions
Offset Range (1 mV/div to 99.5 mV/div)	±1 V
Offset Range (100 mV/div to 995 mV/div)	±10 V
Offset Range (1 V/div to 10 V/div)	±100 V
Maximum Input Voltage (50 Ω)	5 V RMS (peaks ≤ ±30 V)
Maximum Input Voltage (1 MΩ)	400 V (DC + peak AC), derated above 1 MHz

Horizontal System

Maximum Real-Time Sample Rate	2 GS/s on 1 channel, 1 GS/s on 2 channels, 500 MS/s on 3 or 4 channels
Standard Record Length	50,000 points per channel

Trigger System

Trigger Modes	Auto, Normal, Single
Trigger Coupling	DC, AC, HF Reject, LF Reject, Noise Reject
Trigger Types	Edge, Pulse (Glitch, Width, Runt, Slew Rate, Setup/Hold), Logic (Pattern, State), Video (with Option 05)
Internal Trigger Level Range	±12 divisions from center of screen

Display & User Interface

Display Type	Color CRT

Storage & File System

Floppy Disk Drive	3.5-inch 1.44 MB or 720 KB floppy drive

Connectivity & Interfaces

VGA Output	15-pin analog D-sub connector

Acquisition

Maximum Waveform Capture Rate (InstaVu Mode)	400,000 wfs/s

Storage

Internal Waveform Storage	4 reference waveforms
Internal Setup Storage	10 front-panel setups

Display

Display Resolution	640 × 480 pixels
Graticule Size	8 × 10 divisions (1 division = 1 cm)

Interfaces

Optional Interfaces (Option 13)	RS-232 (DB-9) and Centronics parallel ports

Triggering

Optional Video Triggering (Option 05)	NTSC, PAL, SECAM, and custom video formats

TECHNOLOGY

Digital Phosphor / Digitizing Oscilloscope

APPLICATIONS

Electronic design, debug, and high-speed signal analysis