TEKTRONIX

TDS820

The Tektronix TDS820 is a 2-channel, 8 GHz digital sampling oscilloscope engineered for high-bandwidth, high-speed signal analysis. Designed for precise characterization of fast transitions, it features a 14-bit vertical resolution, a versatile horizontal system with sweep speeds from 20 ps/div to 2 ms/div in 5 ps steps, a low 3 ps RMS jitter, and an external trigger bandwidth of 2 GHz. It is fully GPIB programmable and offers advanced capabilities like optional DSP waveform math and a variety of persistence display modes.

SPECIFICATIONS

General

Display	Infinite and variable persistence displays

Physical

Power Supply	90 to 250 V AC RMS, 45 to 440 Hz, 300 W maximum
Operating Temperature	0 to +50 °C °C
Dimensions (W×H×D)	445 mm × 193 mm × 448 mm mm
Weight	10.1 kg kg

Vertical System

Analog Bandwidth (-3 dB)	6 GHz
Number of Input Channels	2
Vertical Resolution (ADC)	14-bit
Input Impedance	50 Ω
Input Coupling	DC
Vertical Sensitivity Range	2 mV/div to 200 mV/div
Rise Time	≤ 58.3 ps

Horizontal System

Sweep Speeds (Time Base Range)	20 ps/div to 2 ms/div
Record Length	500 to 15,000 points
Sampling Mode	Equivalent-Time Random Sampling

Trigger System

External Trigger Bandwidth	2 GHz
Standard Trigger Frequency Range	DC to 2 GHz
Enhanced Trigger Frequency Range (Option 1T)	DC to 8 GHz

Waveform Measurements and Analysis

Automatic Measurements	27
Advanced DSP Waveform Math	Optional (includes FFT, Integration, and Differentiation)

Environmental

Maximum Operating Altitude	4,500 m (15,000 ft)

Options

Option 1F	3.5-inch MS-DOS compatible floppy disk drive
Option 1R	Rackmount kit

TECHNOLOGY

Digital Sampling

APPLICATIONS

High-speed digital design, optical communications testing, and semiconductor characterization

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