TEKTRONIX

CSA8000

The Tektronix CSA8000 is a high-performance Communications Signal Analyzer designed for equivalent-time sampling applications, offering modular flexibility for optical and electrical signal analysis. It supports 8000-series modules for high-speed eye diagram analysis, jitter measurements, and compliance testing.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE 488.2), 10/100 Base-T Ethernet, RS-232, Centronics Parallel, VGA, PS/2 Keyboard, PS/2 Mouse
Display	10.4-inch active-matrix color LCD, 640 x 480 resolution

Physical

Operating Temperature	10 °C to 40 °C °C
Dimensions (W×H×D)	457 mm × 343 mm × 419 mm mm
Weight	21 kg kg

Signal Acquisition & Vertical System

Module Compartments	4 compartments (supports up to 8 acquisition channels)
A/D Converter Resolution	14 bits

Horizontal & Trigger System

Timebase Range	2 ps/div to 5 ms/div
Record Length	50, 100, 250, 500, 1000, 2000, or 4000 points
Direct Trigger Frequency Range	DC to 3.0 GHz
Direct Trigger Jitter	< 1.6 ps RMS (typical)
Direct Trigger Sensitivity	200 mV p-p at 3 GHz
Direct Trigger Maximum Input Voltage	±2 V (DC + peak AC)

Measurement & Analysis Functions

Eye Diagram Measurements	Extinction ratio, eye height, eye width, crossing percentage, jitter, noise, duty cycle distortion
Waveform Math Functions	Addition, subtraction, multiplication, division, integration, differentiation, FFT
Histogram Analysis	Vertical and Horizontal histograms with statistical measurements

Module Compatibility & Configurations

Supported Modules	Tektronix 8000-series optical, electrical, and clock recovery modules

Software & Control

Internal Operating System	Windows-based

Connectivity & Interfaces

Removable Storage	3.5-inch 1.44 MB floppy drive

Environmental & Compliance

Storage Temperature Range	-20 °C to +60 °C
Operating Humidity Range	20% to 80% RH (non-condensing)
Operating Altitude	3,000 m (9,843 ft)
Non-operating Altitude	12,190 m (40,000 ft)

Trigger System

Prescaled Trigger Frequency Range	1.25 GHz to 10.0 GHz
Prescaled Trigger Jitter	< 1.5 ps RMS (typical)
Prescaled Trigger Input Impedance	50 Ohms
Prescaled Trigger Sensitivity	200 mV p-p to 2 V p-p
Prescaled Trigger Connector Type	SMA
Internal Clock Rate	100 kHz
Direct Trigger Connector Type	SMA Female

Acquisition System

Maximum Sampling Rate	200 kS/s

Power System

Line Frequency Range	45 Hz to 440 Hz

Environmental

Cooling Clearance	76 mm (3 in) minimum on left, right, and rear
Operating Vibration	0.31 g RMS (5 Hz to 500 Hz)
Non-operating Vibration	2.46 g RMS (5 Hz to 500 Hz)
Non-operating Shock	30 g (11 ms half-sine)

Horizontal System

Timebase Resolution	10 fs

Vertical System

Maximum Channels	8 channels (using four 2-channel modules)

Connectivity

GPIB Interface	IEEE 488.2
LAN Interface	RJ-45 (10/100 Base-T)
Serial Interface	Two RS-232-C DB-9 ports
Parallel Interface	Centronics DB-25 female
External Monitor Interface	VGA 15-pin D-sub
Keyboard Interface	PS/2
Mouse Interface	PS/2

Compliance

Safety Compliance	UL 3111-1, CSA 1010.1, EN 61010-1, IEC 61010-1

TECHNOLOGY

Equivalent-Time Sampling Oscilloscope

APPLICATIONS

High-speed optical and electrical communication signal analysis, eye-diagram, and jitter measurements