

TEKTRONIX

CSA803C

The Tektronix CSA803C is a high-performance Communications Signal Analyzer designed for equivalent-time sampling applications up to 50 GHz. It features dual sampling head slots supporting up to four channels of simultaneous acquisition, advanced jitter and noise analysis, built-in communication mask testing, and a high-resolution touch-screen display.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), RS-232-C (9-pin), Centronics parallel printer port
Display	9-inch magnetic deflection Liquid Crystal Color Shutter (LCCS) display with infrared touch panel
Warm-up Time	20 minutes

Physical

Power Supply	90 to 132 V AC / 180 to 250 V AC, 48 to 440 Hz, 290 W maximum power consumption
Operating Temperature	0 °C to +50 °C °C
Dimensions (W×H×D)	448 mm x 236 mm x 599 mm mm
Weight	22.3 kg

Vertical System

Sampling Head Slots	2 dual-channel plug-in slots
Maximum Channels	4 channels (using two dual-channel sampling heads)
Vertical Resolution (A/D Converter)	8 bits (expandable to 14 bits through averaging)
Maximum System Bandwidth	Up to 50 GHz (sampling head dependent)
Input Impedance	50 ohms (sampling head dependent)
Vertical Sensitivity Range	2 mV/div to 200 mV/div

Horizontal System and Timebase

Timebase Range	1 ps/div to 5 ms/div
Timebase Jitter (RMS)	< 1.5 ps RMS + 3 ppm of position (typical)
Maximum Record Length	5120 points per waveform
Maximum Equivalent Sample Rate	Maximum Sample Rate = 200 kSa/s

Trigger System

Trigger Sources	External Direct, External Prescaled, Internal (sampling head dependent)
Direct Trigger Frequency Range	DC to 3 GHz
Prescaled Trigger Frequency Range	2 GHz to 10 GHz
Trigger Input Impedance	50 ohms
Minimum Trigger Holdoff	5 μ s

Acquisition and Signal Processing

Acquisition Modes	Sample, Envelope, Average
Number of Average Cycles	1 to 4096
Waveform Math Functions	Addition, Subtraction, Multiplication, Division, Integration, Differentiation
FFT Capability	Built-in Fast Fourier Transform processing
Histogram Axis Options	Vertical or Horizontal
Histogram Statistics	Mean, Standard Deviation, Peak-to-Peak, Peak Hits

Communications and Eye Diagram Analysis

Eye Diagram Measurements	Jitter, Noise, Duty Cycle, Overshoot, Undershoot, Extinction Ratio, Eye Width, Eye Height
Mask Testing Templates	Standard SONET/SDH, Fibre Channel, FDDI, and custom user-defined masks

Display and User Interface

Display Resolution	512 x 256 active waveform area pixels
Touch Screen Technology	Infrared touch panel

Environmental and Compliance

Storage Temperature Range	-40 °C to +75 °C
Operating Altitude	Up to 4,570 m (15,000 ft)

Storage

Floppy Disk Drive	3.5-inch, 1.44 MB or 720 KB, MS-DOS compatible
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Display

CRT Technology	Liquid Crystal Color Shutter (LCCS) monochrome-based color display
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Timebase

Time Interval Accuracy	4 ps + 0.004% of interval
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Triggering

Internal Clock Frequency	100 kHz
Direct Trigger Level Range	-1.0 V to +1.0 V

Power

Maximum Power Consumption	270 W
Line Frequency Range	48 Hz to 440 Hz

Time Domain Reflectometry (TDR)

TDR Step Rise Time	≤28 ps (using SD-24 sampling head)
TDR Step Amplitude	250 mV nominal (using SD-24 sampling head)

Power Specifications

Line Voltage Range	90 to 250 VAC
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Inputs & Outputs

Direct Trigger Connector	BNC female
Prescaled Trigger Connector	SMA female
Calibrator Output Connector	SMA female
Internal Clock Output Connector	SMA female
RS-232-C Port Baud Rates	110 to 19200 bps

TECHNOLOGY

Equivalent-Time Sampling Oscilloscope

APPLICATIONS

Communications signal integrity, jitter analysis, mask testing, and ultra-high bandwidth waveform analysis

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