

TEKTRONIX

TLA5201 Opt. 8S

The Tektronix TLA5201 Opt. 8S is a portable 34-channel logic analyzer in the TLA5000 Series, designed to deliver high-speed timing resolution and deep-memory acquisitions. Featuring 125 ps MagniVu™ timing resolution simultaneously with state or deep memory timing, it simplifies identifying elusive hardware and software anomalies without the need for double probing. Under Option 8S, this model is equipped with an expanded record length of 32 Mb per channel to capture intermittent events over a wide time window.

SPECIFICATIONS

General

Interfaces	LAN (10/100 Base-T), USB (4 ports: 2 front, 2 rear), External Display (VGA), PS/2 Keyboard, PS/2 Mouse, Parallel (DB-25), Serial (DB-9)
Display	10.4 in. active-matrix TFT color display, 800 x 600 resolution

Physical

Operating Temperature	+5 °C to +50 °C °C
Dimensions (W×H×D)	438 mm x 285 mm x 254 mm mm
Weight	12 kg kg

Acquisition Specifications

Number of Channels	34 channels (32 data, 2 clock)
Maximum State Clock Rate	235 MHz
Maximum Timing Sample Rate (Half Channel)	2.0 GHz (500 ps)
Maximum Timing Sample Rate (Full Channel)	1.0 GHz (1 ns)
MagniVu Timing Resolution	125 ps (8 GHz)
MagniVu Record Length	16 Kb per channel (independent of deep memory)
Record Length / Memory Depth (Per Channel)	32 Mb
Minimum Detectable Pulse Width	225 ps (MagniVu), 1.25 ns (timing)
Setup and Hold Window	1.5 ns (typical)
Channel-to-Channel Skew	250 ps (typical)

Triggering System

Trigger State Sequences	16 states
Word Recognizers	16
Transition Recognizers	4
Range Recognizers	2
Counter/Timers	2 (16-bit)
Glitch/Violation Triggering	Glitch, setup/hold violation, transition
Trigger Position	Anywhere in memory

Probing & Input Characteristics

Input Impedance (P6417/18 Probe)	20 kOhm parallel with 2.0 pF
Input Impedance (P6419 Probe)	20 kOhm parallel with 1.4 pF
Threshold Range	-2.0 V to +4.5 V in 10 mV increments
Threshold Accuracy	±(100 mV + 3% of threshold setting)
Maximum Input Voltage	±15 V
Minimum Input Voltage Swing	300 mV (single-ended)

System & Processing

Operating System	Windows XP Professional
Processor Type	Intel Celeron 2.0 GHz
System Memory (RAM)	512 MB DDR SDRAM
Storage Capacity (HDD)	40 GB HDD
Removable Media	CD-RW Drive

External Connections & Ports

External Trigger Input	BNC connector
External Trigger Output	BNC connector
System Clock Input	BNC connector (Ref In)
System Clock Output	BNC connector (Ref Out)

Power & Physical Characteristics

Form Factor	Portable Benchtop
-------------	-------------------

Environmental & Compliance

Storage Temperature	-20 °C to +60 °C
Humidity Range	20% to 80% relative humidity, non-condensing
Operating Altitude	Up to 3,000 m (10,000 ft)
Safety Certifications	UL3111-1, CSA1010.1, EN61010-1
EMC Compliance	EN61326-1, FCC Class A

Computer System

Processor	Intel Celeron 2.0 GHz
Optical Drive	CD-RW
Floppy Drive	3.5 in. 1.44 MB

Acquisition System

Data Channels	32
Clock/Qualifier Channels	2
Record Length (Option 8S)	8 Mb per channel
Sample Clock Accuracy	±100 ppm
Minimum Eye Width	1.5 ns
Minimum Clock Pulse Width	1.5 ns

Environmental

Cooling Clearance	51 mm (2 in.) on sides and rear
Acoustic Noise	<53 dBA (at operator position)
Operating Vibration	0.31 g RMS (random, 5 to 500 Hz)
Non-operating Vibration	2.46 g RMS (random, 5 to 500 Hz)
Operating Shock	290 m/s ² (30 g), 11 ms half-sine

Triggering

Word Recognizer Pattern Length	34 bits
Range Recognizer Size	32-bit each
Counter/Timer Size	32-bit each
Counter/Timer Maximum Rate	235 MHz
Trigger Sequencer Actions per State	8

TECHNOLOGY

Logic Analyzer

APPLICATIONS

Digital hardware debugging, bus analysis, timing analysis, and hardware/software integration troubleshooting

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