

TEKTRONIX

TLA5204 Opt. 7S

The Tektronix TLA5204 Opt. 7S is a high-performance 136-channel logic analyzer featuring 125 ps MagniVu™ timing resolution, 235 MHz state acquisition, and a built-in touch screen display running under Windows 7.

SPECIFICATIONS

General

Interfaces	USB 2.0 (4 ports), Gigabit LAN (10/100/1000 Base-T), GPIB (IEEE 488.2), RS-232, Parallel, VGA, PS/2
Display	10.4-inch active-matrix color TFT LCD, 1024 × 768 (XGA) resolution, with touch screen (Opt. 18)
Calibration Interval	1 year
Warm-up Time	30 minutes

Physical

Power Supply	90 to 250 VAC, 45 to 66 Hz, 300 W maximum
Operating Temperature	5 °C to 50 °C °C
Dimensions (W×H×D)	438 mm × 285 mm × 374 mm mm
Weight	12 kg (26.5 lb.) kg
Cooling Clearance	51 mm (2 in.) left and right sides, 76 mm (3 in.) rear

Acquisition Channels

Total Channels	136
Clock Channels	4
Qualifier Channels	4
Data Channels	128

Timing Acquisition

MagniVu™ Timing Resolution	125 ps (8 GHz)
MagniVu™ Record Length	16 Kb per channel
Max Timing Sample Rate (Quarter Channel)	2.0 GHz (500 ps)
Max Timing Sample Rate (Half Channel)	1.0 GHz (1 ns)
Max Timing Sample Rate (Full Channel)	500 MHz (2 ns)

State Acquisition

Max State Clock Rate	235 MHz
Max State Data Rate	235 Mb/s
State Setup/Hold Window Size	1.5 ns
State Setup/Hold Range	-1.0 ns to +4.5 ns
Minimum State Clock Pulse Width	1.5 ns

Memory Depth Options

Memory Depth Options	2 Mb (Opt. 1S) / 8 Mb (Opt. 2S) / 16 Mb (Opt. 3S) / 32 Mb (Opt. 4S) per channel
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Trigger System

Trigger States	16
Word Recognizers	16 (all-channel wide)
Transition Recognizers	4
Range Recognizers	4
Counter/Timers	2 (32-bit each)
Trigger Out	BNC connector (TTL compatible, 50 Ω)
Trigger In	BNC connector

Threshold & Signal Input

Threshold Range	-2.0 V to +4.5 V
Threshold Resolution	10 mV
Minimum Input Signal Swing	500 mV p-p

Computer System

Operating System	Windows 7 (with Opt. 7S)
Processor Class	Intel Pentium M
System Memory (RAM)	512 MB (Standard) / 1 GB (Maximum)
Storage Capacity	$\geq$ 80 GB Hard Disk Drive (HDD)

Probing System

Recommended Probes	P6417, P6418, P6419, P6434
Probe Input Impedance	20 k Ω in parallel with 2 pF (P6417/P6418/P6419)
Probe Input Dynamic Range	-2.0 V to +4.5 V

Interfaces

USB Ports	4× USB 2.0 (2 front, 2 rear)
LAN Interface	10/100/1000 Base-T (Gigabit Ethernet)
GPIO Interface	IEEE 488.2
Serial Port	DB-9 RS-232
Parallel Port	DB-25
PS/2 Ports	2× (1 Keyboard, 1 Mouse)
External Video Output	DB-15 VGA
Audio Ports	Mic input, Line input, Line output (3.5 mm jacks)

External Connectivity

iView™ Oscilloscope Support	Tektronix TDS3000, TDS5000, TDS6000, TDS7000, DPO4000, DPO7000, DPO70000 series
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Standards & Compliance

Safety Standards	UL61010B-1, CAN/CSA-C22.2 No. 1010.1, EN61010-1
EMC Compliance	EN61326, FCC Class A

Environmental

Storage Temperature	-20 °C to +60 °C
Operating Humidity	20% to 80% RH, non-condensing
Storage Humidity	5% to 90% RH, non-condensing
Operating Altitude	Up to 3,000 m (10,000 ft.)
Storage Altitude	Up to 12,190 m (40,000 ft.)
Operating Vibration	0.31 GRMS, 5 Hz to 500 Hz
Non-operating Vibration	2.46 GRMS, 5 Hz to 500 Hz
Non-operating Shock	510 m/s ² (52 G), half-sine, 11 ms
Operating Shock	290 m/s ² (30 g) half-sine, 11 ms duration

Electrical

Power Consumption (Maximum)	300 W
AC Input Voltage Range	90 VAC to 250 VAC
AC Input Frequency Range	45 Hz to 66 Hz

Display

Display Size	10.4 in.
Display Resolution	800 × 600 pixels
Display Type	Active-matrix color TFT LCD

Triggering

Trigger Input to Trigger Output Latency	45 ns (typical)
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Acquisition

Minimum Detectable Glitch	1.25 ns
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Inputs & Outputs

Trigger Input Level	TTL compatible
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TECHNOLOGY

Logic Analysis

APPLICATIONS

Digital system debugging, hardware/software integration, state and timing logic analysis

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