

TEKTRONIX

DPO7054

The Tektronix DPO7054 is a 4-channel, 500 MHz Digital Phosphor Oscilloscope from the DPO7000 series. Featuring real-time sampling rates up to 10 GS/s, a FastAcq waveform capture rate exceeding 250,000 wfms/s, and standard Pinpoint™ triggering, the DPO7054 is optimized for signal integrity analysis, digital design verification, and troubleshooting.

SPECIFICATIONS

General

Display	12.1-inch color TFT-LCD touchscreen, 1024 × 768 XGA resolution
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Vertical System

Input Channels	4
Analog Bandwidth (-3 dB)	500 MHz
Calculated Rise Time (10% to 90%)	700 ps
Calculated Rise Time (20% to 80%)	500 ps
Hardware Bandwidth Limits	250 MHz or 20 MHz
Vertical Resolution	8 bits (>11 bits in Hi-Res mode)
Input Coupling	DC, AC, GND
Input Sensitivity Range (1 MΩ)	1 mV/div to 10 V/div
Input Sensitivity Range (50 Ω)	1 mV/div to 1 V/div
Maximum Input Voltage (50 Ω)	5 V rms with peaks ≤ ±24 V
DC Gain Accuracy	±1%

Horizontal System

Maximum Real-Time Sample Rate (1 Channel)	10 GS/s
Maximum Real-Time Sample Rate (2 Channels)	5 GS/s
Maximum Real-Time Sample Rate (4 Channels)	2.5 GS/s
Maximum Record Length (Standard)	10M points per channel (4-ch)
Maximum Record Length (Optional Upgrade)	Up to 400M points (1-ch) / 100M points (4-ch) with Option 10RL
Time Base Accuracy	±2.5 ppm
Channel-to-Channel Deskew Range	±75 ns

Acquisition System

Acquisition Modes	Sample, Peak Detect, Averaging, Envelope, Hi-Res, FastAcq, FastFrame
Maximum Waveform Capture Rate (FastAcq)	>250,000 wfms/s

Trigger System

Trigger Modes	Auto, Normal, Single
Trigger System	Pinpoint™ Trigger System
Trigger Types	Edge, Glitch, Width, Runt, Window, Timeout, Transition, Setup/ Hold, Logic Pattern, Logic State, Video, Serial Pattern
Trigger Coupling	DC, AC, HF Reject, LF Reject, Noise Reject

Display & User Interface

Display Size	12.1 in (307.3 mm)
Display Resolution	1024 × 768 (XGA)
Touchscreen Interface	Standard integrated touchscreen

Connectivity & I/O Interfaces

Probe Interface System	TekVPI Probe Interface
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Power Supply

Mains Frequency	47 to 63 Hz (100 to 240 V), 360 to 440 Hz (115 V)
Maximum Power Consumption	550 W

Environmental & Safety

Non-Operating Temperature	-40 °C to +71 °C
Operating Altitude	3,000 m (9,843 ft)

Environmental

Non-Operating Altitude	12,192 m (40,000 ft)
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Connectivity

LAN Port	1× RJ-45, 10/100/1000Base-T
GPIO Interface	IEEE-488.2 standard connector

Performance

Automated Measurements	53 built-in measurements
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Compliance

Safety Certifications	UL61010-1, CSA22.2 No. 61010-1, EN61010-1, IEC61010-1
LXI Compliance	LXI Class C

Accessories

Standard Included Probes	4× P6139A 500 MHz 10x Passive Probes
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Inputs & Outputs

Probe Interface Compatibility	TekVPI Probe Interface (supports auto-scaling, units, and power for active/current probes)
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Waveform Analysis

Math Waveforms	4 math waveforms (Math 1 to Math 4)
FFT Window Functions	Rectangular, Hamming, Hanning, Kaiser-Bessel, Blackman-Harris, Gaussian, Flattop2, Tek Exponential

Automated Measurements

Measurement Statistics	Mean, Minimum, Maximum, Standard Deviation, Population
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Software & Control

Remote Web Interface	e*Scope web-based remote control via standard web browser
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TECHNOLOGY

Digital Phosphor Oscilloscope (DPO)

APPLICATIONS

Signal Integrity Verification, Debugging, Compliance Testing, Embedded Systems

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