TEKTRONIX

DPO70604

The Tektronix DPO70604 is a high-performance 6 GHz digital phosphor oscilloscope from the DPO70000 series, designed to address challenging signal integrity and debugging issues on high-speed serial designs. Operating on a Microsoft Windows XP-based platform, it delivers outstanding real-time acquisition rates up to 50 GS/s, Pinpoint triggering capabilities, and an expansive 12.1-inch touch screen interface.

SPECIFICATIONS

General

Interfaces	USB 2.0 Host and Device, Gigabit Ethernet (RJ-45), GPIB (IEEE-488.2), LXI Class C, DVI, VGA
Display	12.1-inch XGA Touch Screen (1024 × 768 pixels)
Optical Drive	CD-R/W and DVD-ROM drive

Physical

Power Supply	100 to 240 V AC ±10%, 50/60 Hz; 115 V AC ±10%, 400 Hz
Operating Temperature	5 °C to +45 °C °C
Dimensions (W×H×D)	451 mm × 298 mm × 489 mm mm
Weight	19.6 kg kg
Cooling Clearance	76 mm (3 in) on left, right, and rear

Vertical System

Analog Bandwidth (-3 dB)	6 GHz
Calculated Rise Time (10% to 90%)	62 ps (with DSP)
Calculated Rise Time (20% to 80%)	45 ps
Number of Input Channels	4
Input Impedance	50 Ω ±1.5%
Input Coupling	DC, GND
Input Sensitivity Range	10 mV/div to 1 V/div
Vertical Resolution (ADC)	8-bit (up to 11-bit with averaging)
DC Gain Accuracy	±2%
Maximum Input Voltage	1.5 V RMS (<100 mV/div), 5.5 V RMS (≥100 mV/div)
Position Range	±5 divisions
Input Connector Type	TekConnect
Channel-to-Channel Isolation	≥120:1 at ≤100 MHz, ≥80:1 at >100 MHz to 2.5 GHz, ≥50:1 at >2.5 GHz to 5 GHz, ≥40:1 at >5 GHz to 6 GHz
Hardware Bandwidth Limits	250 MHz

Horizontal System

Maximum Real-Time Sampling Rate	25 GS/s (4 channels simultaneously), 50 GS/s (2 channels)
Maximum Record Length	10 MS (standard), up to 200 MS (option dependent)
Time Base Range	20 ps/div to 1000 s/div
Channel-to-Channel Deskew Range	±75 ns
Time Base Accuracy	±1.5 ppm
Horizontal Delay Time Range	-5 ns to 250 s

Trigger System

Trigger Sources	Channel 1, Channel 2, Channel 3, Channel 4, Auxiliary In, Line
Trigger Modes	Auto, Normal, Single
Trigger Coupling	DC, AC, HF Rej, LF Rej, Noise Rej
Trigger Holdoff Range	250 ns to 12 s
Edge Triggering	Yes
Pulse Width Triggering	Yes
Runt Triggering	Yes
Timeout Triggering	Yes
Pattern Triggering	Yes
State Triggering	Yes
Setup/Hold Triggering	Yes
Window Triggering	Yes
Serial Pattern Triggering	Up to 3.125 Gb/s
Transition Triggering	Trigger on pulse edge transition rate (slew rate) faster or slower than specified rate
Enhanced Trigger Jitter	<100 fs RMS (typical)

Acquisition System

Maximum Waveform Capture Rate	>300,000 wfms/s

Waveform Measurements and Analysis

Automatic Measurements	53 parameters
Waveform Math	Basic (Add, Subtract, Multiply, Divide) and Advanced (Formula Editor)
Fast Fourier Transform (FFT)	Yes

Display and User Interface

Display Type	Liquid Crystal Active Matrix TFT Color
Color Grading	Yes

Connectivity and Ports

LAN Port (Ethernet)	10/100/1000 Base-T RJ-45
Reference Clock Input	10 MHz
Reference Clock Output	10 MHz

Processor and Storage

Internal Operating System	Microsoft Windows XP Professional

Environmental Specifications

Storage Temperature Range	-40 °C to +71 °C
Operating Humidity Range	8% to 80% RH (non-condensing)
Operating Altitude	3,000 m (9,843 ft)

Physical Characteristics

Form Factor	Benchtop

Interfaces

LXI Compliance	LXI Class C v1.3

Inputs & Outputs

Auxiliary Trigger Input Impedance	50 Ω
Auxiliary Trigger Max Input Voltage	5 V RMS
GPIB Port	IEEE-488.2

TECHNOLOGY

Digital Phosphor Oscilloscope (DPO)

APPLICATIONS

High-Speed Serial Design, Signal Integrity Analysis, Debugging, and Compliance Testing

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