

KEYSIGHT TECHNOLOGIES (AGILENT HP)

DSO81004A

The Keysight Technologies (formerly Agilent) DSO81004A is an ultra-high performance 10 GHz real-time digital oscilloscope from the Infiniium series. Designed to meet the stringent demands of engineers working on high-speed serial communication links and ultra-high-speed electronic systems, it features up to a 40 GSa/s real-time sampling rate, electronic attenuators for enhanced reliability, and support for the high-bandwidth InfiniiMax II probing system.

SPECIFICATIONS

General

Interfaces	USB 2.0 host, LAN (10/100Base-T), GPIB, RS-232
Display	12.1-inch active-matrix TFT color LCD (1024 × 768)
Compatible Probing System	InfiniiMax II 1168A probing system
Calibration Interval	1 year

Physical

Power Supply	100-240 VAC, 47-63 Hz
Operating Temperature	5 °C to +40 °C °C
Dimensions (W×H×D)	425 mm × 216 mm × 520 mm mm

Vertical System

Analog Bandwidth (-3 dB)	10 GHz
Number of Input Channels	4
Input Impedance	50 Ω
Input Coupling	DC
Vertical Resolution (ADC)	8 bits
Maximum Input Voltage	5 Vrms
Attenuator Type	Electronic attenuators (no mechanical relay wear)
Rise Time (10% to 90%)	43 ps (typical)
Rise Time (20% to 80%)	28 ps (typical)
Channel-to-Channel Isolation	≥ 40 dB (DC to 2 GHz), ≥ 30 dB (2 GHz to 10 GHz)

Horizontal System

Maximum Real-Time Sampling Rate	40 GSa/s (on 2 channels), 20 GSa/s (on 4 channels)
Time Base Range	5 ps/div to 20 s/div
Timebase Accuracy	±0.1 ppm (initial)
Minimum Sample Interval	25 ps

Trigger System

Trigger Sources	Channel 1, Channel 2, Channel 3, Channel 4, Aux, Line
Trigger Modes	Edge, Glitch, Width, Transition, Runt, Timeout, Pattern, State, Window, Setup/Hold, Sequence

Acquisition System

Acquisition Modes	Real-time, Equivalent-time, Averaging
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Waveform Measurements and Analysis

Automatic Measurements	Voltage, time, jitter, and eye diagram measurements
Analysis Options	Jitter analysis, serial data analysis, compliance test packages for PCI-Express, Ethernet, DVI, USB, FireWire
Fast Fourier Transform (FFT) Window Types	Hanning, Hamming, Rectangular, Blackman-Harris, Flat Top

Connectivity and Ports

External Video Output Port	VGA
Auxiliary Output	Trigger Out, Probe Compensation

Processor and Storage

Internal Operating System	Windows XP Professional
Internal Non-Volatile Storage	Hard Disk Drive

Environmental Specifications

Storage Temperature Range	-40 °C to +70 °C
Operating Humidity Range	Up to 95% relative humidity (non-condensing) at +40 °C

Physical Characteristics

Form Factor	Benchtop
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Power & Electrical

Power Consumption	800 VA (maximum)
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Inputs & Outputs

Input Connector	3.5 mm female
Compatible Probe Interface	Agilent AutoProbe interface
Reference Clock Input	10 MHz BNC on rear panel
Reference Clock Output	10 MHz BNC on rear panel

Acquisition

Standard Memory Depth	512 kpts per channel (1 Mpts on 2 channels)
Maximum Memory Depth	Up to 64 Mpts per channel (option dependent)

Triggering

Trigger Coupling	DC
Trigger Types	Edge, Glitch, Line, State, Pattern, Runt, Setup/Hold, Transition, Window

Environmental

Maximum Operating Altitude	4,600 m (15,000 ft)
Maximum Non-Operating Altitude	15,300 m (50,000 ft)

Connectivity

LXI Compliance	Class C compliant
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TECHNOLOGY

Digital Phosphor / Real-Time Digital Oscilloscope

APPLICATIONS

High-speed serial link design, jitter analysis, 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.