

KEYSIGHT TECHNOLOGIES (AGILENT HP)

DSO80304B

The Keysight (Agilent) DSO80304B is a high-performance 3 GHz Infiniium digital oscilloscope designed for superior signal integrity. Delivering a 40 GSa/s real-time sample rate, an ultra-low noise floor, and exceptionally low trigger jitter, it provides engineers with the accuracy required for high-speed digital designs. Compatible with the InfiniiMax II probing system, it offers versatile probing solutions for complex browsing, solder-in, and socketed measurements.

SPECIFICATIONS

General

Interfaces	USB 2.0 (Host & Device), LAN (10/100Base-T), GPIB (IEEE-488), Aux Out, External Trigger In
Display	10.4-inch color XGA TFT touch screen, 1024 x 768 resolution, 256-level intensity grading
System Bandwidth with InfiniiMax 1131A	3 GHz
LXI Compliance	Class C
Calibration Interval	1 year
Warm-up Time	30 minutes

Physical

Power Supply	100 - 240 VAC ($\pm 10\%$), 47 - 63 Hz, 550 W maximum power consumption
Operating Temperature	5 °C to +40 °C °C
Dimensions (W×H×D)	425 mm x 281 mm x 524 mm mm
Weight	20.5 kg

Vertical System

Analog Bandwidth (-3 dB)	3 GHz
Calculated Rise Time (10% to 90%)	117 ps
Calculated Rise Time (20% to 80%)	80 ps
Number of Input Channels	4
Input Impedance	50 Ω
Input Coupling	DC
Vertical Resolution	8 bits
Input Sensitivity Range	1 mV/div to 1 V/div
Maximum Input Voltage	5 V rms
DC Gain Accuracy	$\pm 2\%$ of full scale
Noise Floor	161 μ V (at 5 mV/div)
Offset Range	± 1.2 V (1 to 120 mV/div), ± 4 V (121 mV/div to 1 V/div)

Horizontal System

Timebase Range	5 ps/div to 20 s/div
Timebase Resolution	50 fs
Timebase Accuracy	±0.1 ppm

Acquisition System

Maximum Real-Time Sample Rate	40 GSa/s (2 channels), 20 GSa/s (4 channels)
Maximum Record Length	2 Mpts (2 channels) / 1 Mpts (4 channels) standard; up to 64 Mpts (2 channels) / 32 Mpts (4 channels) option-dependent

Trigger System

Trigger Sources	Channel 1, Channel 2, Channel 3, Channel 4, Aux
Trigger Modes	Auto, Triggered, Single
Standard Trigger Types	Edge, Glitch, Width, Transition, Runt, Timeout, Pattern, State, Window, Setup/Hold

Waveform Measurements and Analysis

Automatic Measurements	Voltage, Time, Frequency, Jitter, Eye diagram
Waveform Math Operators	Add, Subtract, Multiply, Divide, FFT, Integrate, Differentiate, Magnify, Min/Max
FFT Window Types	Hanning, Hamming, Rectangular, Blackman-Harris, Flat Top

Display and User Interface

Display Size	10.4-inch (264 mm) diagonal
Display Resolution	1024 x 768 pixels
Intensity Grading	256 levels

Environmental and Compliance

Storage Temperature Range	-40 °C to +70 °C
Operating Humidity	Up to 95% relative humidity at +40 °C
Operating Altitude	Up to 4,600 m (15,000 ft)
Non-operating Altitude	Up to 15,300 m (50,000 ft)

Connectivity and Interfaces

USB Host Ports	5 USB ports (2 front, 3 rear)
Video Output Port	15-pin D-sub (VGA)
Reference Clock Input	10 MHz

Computer System

Operating System	Windows XP Professional
Processor	Intel Celeron 2.0 GHz (or later)
System Memory	1 GB / 2 GB (hardware-revision dependent)

Trigger

Hardware Trigger Bandwidth	3 GHz
Software Trigger Bandwidth	3 GHz (with Option 001 InfiniiScan)
Trigger Holdoff Range	100 ns to 10 s

Inputs & Outputs

Probe Interface Type	AutoProbe
Auxiliary Output	50 Ω BNC (configurable as DC, AC calibration, or trigger out)
Reference Clock Output	10 MHz, BNC
Auxiliary Trigger Input	50 Ω, BNC, Max 5 Vrms

Compliance

Safety Standards	IEC 61010-1, EN 61010-1, CAN/CSA-C22.2 No. 61010-1, UL 61010-1
EMC Standards	IEC 61326-1, EN 61326-1, CISPR 11/EN 55011 Class A
Overvoltage Category	CAT I
Pollution Degree	Pollution Degree 2

Environmental

Operating Random Vibration	0.3 g (rms) (5 Hz to 500 Hz)
Non-operating Random Vibration	2.41 g (rms) (5 Hz to 500 Hz)

TECHNOLOGY

Digital Phosphor / Real-Time Oscilloscope

APPLICATIONS

High-Speed Digital Design, Signal Integrity Testing, Protocol Analysis

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