

KEYSIGHT TECHNOLOGIES (AGILENT HP)

DSOS404A

The Keysight Technologies Infiniium S-Series DSOS404A is a 4 GHz, 4-channel digital oscilloscope designed to provide high-fidelity measurements. It features a high-resolution 10-bit ADC, a low-noise front end, a 15-inch capacitive touch screen, and is powered by an Intel i5 motherboard with 8 GB of RAM to deliver excellent signal integrity and fast processing capabilities.

SPECIFICATIONS

General

Interfaces	USB 3.0 host and device ports, LAN (10/100/1000Base-T Ethernet), DisplayPort, DVI-D
Display	15-inch capacitive multi-touch screen, XGA (1024x768) resolution
Calibration Cycle	1 year

Physical

Operating Temperature	5 to 40 °C °C
Dimensions (W×H×D)	422 mm × 341 mm × 232 mm (without feet) mm
Weight	12.1 kg kg

Vertical System

Analog Bandwidth (-3 dB)	4 GHz
Number of Input Channels	4 analog channels
Vertical Resolution (ADC)	10-bit
Calculated Rise/Fall Time (10% to 90%)	107.5 ps (typical)
Input Impedance	50 Ω (±3.5%), 1 MΩ (±1% with standard input)
Input Coupling	DC (50 Ω); AC, DC (1 MΩ)
Vertical Sensitivity Range (50 Ω)	2 mV/div to 1 V/div
Vertical Sensitivity Range (1 MΩ)	2 mV/div to 5 V/div
Maximum Input Voltage (50 Ω)	5 Vrms
Maximum Input Voltage (1 MΩ)	135 V (DC + peak AC)
DC Vertical Gain Accuracy	±2% of full scale
Inter-channel Isolation	≥ 40 dB (DC to 1 GHz), ≥ 30 dB (1 GHz to 4 GHz)

Horizontal System

Maximum Real-Time Sampling Rate	20 GSa/s on 2 channels, 10 GSa/s on 4 channels
Standard Record Length	50 Mpts per channel
Time Base Range	5 ps/div to 20 s/div
Time Base Accuracy	±0.1 ppm (initial), ±0.1 ppm/year (aging)

Trigger System

Trigger Sources	Channel 1, Channel 2, Channel 3, Channel 4, Aux, Line
Trigger Modes	Auto, Normal, Single
Trigger Coupling	DC, AC, LF Reject, HF Reject, Noise Reject
Trigger Holdoff Range	100 ns to 10 s
Standard Trigger Types	Edge, Glitch, Width, Runt, Timeout, Transition, Pattern, State, Window, Setup/Hold, Sequence, TV/Video

Acquisition System

Acquisition Modes	Normal, Peak Detect, Averaging, High Resolution, Segmented
High Resolution Mode (HiRes)	Up to 16-bit vertical resolution
Maximum Waveform Capture Rate	> 300,000 wfms/s (in segmented memory mode)

Processor and Storage

Processor Type	Intel Core i5
System Memory (RAM)	8 GB
Internal Storage	Standard Solid State Drive (SSD)

Environmental Specifications

Storage Temperature Range	-40 to +70 °C
Operating Humidity Range	Up to 95% relative humidity at +40 °C (non-condensing)
Operating Altitude	Up to 3,000 m (10,000 ft)

Physical Characteristics

Form Factor	Benchtop
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System Software

Operating System	Windows 10 IoT Enterprise 64-bit
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Timebase

Timebase Aging	±100 ppb per year
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Trigger

Trigger Jitter	< 100 fs rms (internal edge trigger)
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Interfaces

Video Outputs	1 × DisplayPort, 1 × VGA
LAN Port	1 × 10/100/1000Base-T Gigabit Ethernet (RJ-45)
LXI Compliance	LXI Core 2011 compliant

Inputs & Outputs

Probe Interface	Keysight AutoProbe II
Reference Clock Input	10 MHz (BNC, 50 Ω)
Reference Clock Output	10 MHz (BNC, 50 Ω)

Performance

Max Upgradeable Memory Depth	400 Mpts per channel / 800 Mpts interleaved (option dependent)
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Signal Analysis

Waveform Math Functions	Up to 16 math channels with standard math, advanced math, and FFT
FFT Window Types	Hanning, Flat Top, Rectangular, Blackman-Harris, Hamming

TECHNOLOGY

Digital Phosphor / High-Definition Oscilloscope (10-bit ADC)

APPLICATIONS

High-speed digital design, signal integrity analysis, power integrity, and general-purpose electronic test

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