

KEYSIGHT TECHNOLOGIES (AGILENT HP)

DSAX91604A

The Keysight Technologies Infiniium DSAX91604A is a high-performance Digital Signal Analyzer (DSA) oscilloscope. As part of the Infiniium 90000 X-Series, it offers a real-time analog bandwidth of 16 GHz across 4 channels, with sample rates up to 80 GSa/s on 2 channels and 100 Mpts of standard memory depth per channel. This analyzer is optimized for high-speed serial bus testing, featuring integrated hardware-accelerated measurements, standard EZJIT Plus jitter analysis, and advanced compliance software compatibility.

SPECIFICATIONS

General

Interfaces	LAN (LXI Class C), USB 2.0 (Host/Device), USB 3.0 (Host), GPIB (optional), DisplayPort, DVI-I
Display	15.1-inch XGA (1024 x 768) color touchscreen LCD
Calibration Interval	1 year

Physical

Power Supply	100–240 VAC (50/60 Hz), 100–120 VAC (400 Hz), maximum power consumption 1350 W
Operating Temperature	5 to +40 °C °C
Dimensions (W×H×D)	462 mm × 322 mm × 495 mm mm
Weight	25.4 kg

Vertical System

Analog Bandwidth	16 GHz (real-time)
Input Channels	4 analog channels
Hardware ADC Resolution	8 bits
Rise Time (10-90%)	27.5 ps
Rise Time (20-80%)	18.5 ps
Input Coupling	DC
Vertical Sensitivity Range	1 mV/div to 1 V/div
Maximum Input Voltage	±5 V
DC Gain Accuracy	±2% of full scale
Offset Range	±0.4 V (1 to 50 mV/div), ±1.2 V (51 to 200 mV/div), ±4.0 V (201 mV/div to 1 V/div)
Channel-to-Channel Isolation	40 dB (DC to 12 GHz), 30 dB (12 GHz to 16 GHz)

Horizontal System

Maximum Sample Rate (2 Channels)	80 GSa/s
Maximum Sample Rate (4 Channels)	40 GSa/s
Standard Memory Depth (2 Channels)	200 Mpts
Standard Memory Depth (4 Channels)	100 Mpts
Maximum Expandable Memory Depth	2 Gpts (option dependent)
Timebase Aging	±0.1 ppm per year
Channel-to-Channel Deskew Range	±2 ms

Control and Software

Standard Analysis Software	EZJIT, EZJIT Plus, and Serial Data Analysis (SDA)
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Inputs, Outputs, and Connectivity

RF Input Connector Type	Precision 3.5 mm female with AutoProbe II interface
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Trigger System

Trigger Modes	Edge, Glitch, Width, Transition, Runt, Timeout, Pattern, State, Window, Setup/Hold
Trigger Level Range	±4 divisions from center screen
Internal Edge Trigger Sensitivity	0.5 div (DC to 2 GHz), 1.0 div (2 GHz to 16 GHz)
Minimum Detectable Pulse Width	125 ps (hardware-based)

Compliance

LXI Compliance	LXI Class C
Safety Standards	IEC 61010-1, CAN/CSA-C22.2 No. 61010-1, UL 61010-1

Environmental

Operating Altitude	Up to 3,000 m (9,842 ft)
Operating Humidity	Up to 95% relative humidity (non-condensing) at +40 °C
Storage Humidity	Up to 90% relative humidity at +65 °C

Standard Software Packages

Included Software Applications	EZJIT, EZJIT Plus, Serial Data Analysis (SDA)
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Performance

RMS Noise Floor (at 50 mV/div)	1.13 mV (typical)
RMS Noise Floor (at 100 mV/div)	2.14 mV (typical)

TECHNOLOGY

Digital Real-Time Oscilloscope

APPLICATIONS

High-speed serial data compliance, jitter analysis, and signal integrity testing

