

KEYSIGHT TECHNOLOGIES (AGILENT HP)

UXR0334A

The Keysight Technologies UXR0334A is a ultra-high-performance digital real-time oscilloscope from the Infiniium UXR-Series. Engineered with a 10-bit ADC architecture, it provides 33 GHz of analog bandwidth across 4 active channels, a 128 GSa/s sample rate, and an exceptionally low noise floor. This instrument is ideal for high-speed digital designs, optical modulation analysis, and wideband RF/radar testing.

SPECIFICATIONS

General

Interfaces	USB 3.0 (Host and Device), USB 2.0, 10G/1000/100 Base-T Ethernet (RJ-45), DisplayPort, HDMI, Reference Clock I/O
Display	15.4-inch color capacitive touchscreen, Full HD (1920 x 1080) resolution
Semiconductor Technology	Indium Phosphide (InP) ASICs

Physical

Power Supply	100 to 240 VAC, 50/60 Hz, maximum power consumption 1350 W
Operating Temperature	5 to 40 °C °C
Weight	36.1 kg
Form Factor	Benchtop (rackmount kit optional, 7U height)
Cooling	Forced air, rear-exhaust fan cooling

Vertical System

Analog Bandwidth (-3 dB)	33 GHz
Number of Channels	4 (simultaneous analog channels)
Calculated Rise Time (10% to 90%)	13.3 ps
Calculated Rise Time (20% to 80%)	9.5 ps
Vertical Resolution (ADC)	10 bits
Vertical Resolution (High Resolution Mode)	Up to 16 bits
Input Impedance	50 Ω
Input Coupling	DC
Input Connector	3.5 mm female (ruggedized)
Input Sensitivity Range	1 mV/div to 1 V/div (full scale)
DC Gain Accuracy	±1.5% of full scale
Maximum Input Voltage	± 5 V
Bandwidth Limits	Adjustable from 1 GHz to 33 GHz in 1 GHz increments
Input VSWR	< 1.20:1 (DC to 20 GHz), < 1.35:1 (20 to 33 GHz)
Probe Interface	AutoProbe III

Acquisition System

Maximum Real-Time Sample Rate	128 GSa/s per channel (4 channels simultaneously)
Standard Memory Depth	200 Mpts per channel
Maximum Memory Depth (Optional)	2 Gpts per channel
Sample Clock Jitter (Intrinsic)	< 25 fs rms (typically 9 fs rms)
Acquisition Modes	Real-Time, Segmented, Averaging, High Resolution

Horizontal System

Timebase Range	2 ps/div to 20 s/div
Delta Time Measurement Accuracy	Down to 15 fs (typical)
Timebase Aging Rate	±0.1 ppm per year
Channel-to-Channel Intrinsic Jitter	< 10 fs RMS
Timebase Temperature Stability	±0.015 ppm

Trigger System

Trigger Sources	Any analog channel
Trigger Modes	Auto, Normal, Single
Trigger Coupling	DC, AC, LF Reject, HF Reject, Noise Reject
Trigger Holdoff Range	100 ns to 10 s
Trigger Jitter	< 100 fs rms (typically 50 fs rms)
Standard Trigger Types	Edge, Edge Transition, Glitch, Width, Runt, Timeout, Pattern, State, Window, Setup/Hold
Trigger Level Range	±4 divisions from screen center
Hardware Trigger Types	Edge, Edge-then-Edge, Glitch, Pattern, Runt, State, Timeout, Width, Window, Setup/Hold, Burst, Sequence

Waveform Measurements and Analysis

Automatic Measurements	Over 50 standard parameters (Amplitude, Timing, Jitter, Eye, Frequency)
Waveform Math Operators	Addition, Subtraction, Multiplication, Division, FFT, Integrate, Differentiate, Square Root, Absolute, Log, Exponential
FFT Window Types	Hanning, Rectangular, Hamming, Blackman-Harris, Flattop
Jitter and Eye Analysis	EZJit, EZJit Plus, Jitter Spectrum (optional software)

Display and User Interface

Waveform Display Formats	YT, XY, XYZ
--------------------------	-------------

Connectivity

Reference Clock Input	10 MHz or 100 MHz (user selectable)
Reference Clock Output	10 MHz or 100 MHz
Auxiliary Output	Trigger Out, Calibration Output
LXI Compliance	Class C compliant
LAN Interface Ports	2 × 10GBASE-T, 1 × 1000BASE-T
USB Ports	4 × USB 3.0 host, 4 × USB 2.0 host, 1 × USB 3.0 device
Expansion Slot	PCI Express Gen 3 ×16
Remote Control Languages	SCPI, IEEE 488.2

Processor and OS

Operating System	Windows 10 IoT Enterprise 64-bit
CPU	Intel Xeon 4-core processor

General Specifications

Built-In Calibration	Internal self-calibration with precision internal voltage sources
----------------------	---

Environmental

Storage Temperature Range	-40 to +70 °C
Operating Humidity	Up to 95% RH at 40 °C (non-condensing)
Operating Altitude	Up to 3,000 meters (9,842 feet)
Environmental Shock and Vibration	MIL-PRF-28800F Class 3 Random

Compliance

EMC Certifications	Electromagnetic Compatibility Directive 2014/30/EU, IEC 61326-1
Safety Certifications	IEC 61010-1, CAN/CSA-C22.2 No. 61010-1

Display

Display Size	15.4 inch
Display Resolution	1920 × 1200 pixels (WUXGA)
Display Touch Screen	Capacitive touch with multi-touch support

Analyze and Trigger

Protocol Analysis Options	I2C, SPI, RS-232/422/485/UART, CAN, CAN FD, LIN, FlexRay, Sentinel, PCIe Gen1-5, USB 2.0/3.x/4, DDR2/3/4/5, LPDDR2/3/4/5, MIPI D-PHY/M-PHY, HDMI, DisplayPort, Ethernet, SATA, SAS
---------------------------	--

Performance

Effective Number of Bits (ENOB)	5.4 bits at 33 GHz (100 mV/div)
Digital Downconverter (DDC) Option	Up to 2.16 GHz DDC real-time analysis bandwidth

TECHNOLOGY

Digital Real-Time Oscilloscope

APPLICATIONS

High-speed digital bus verification, coherent optical communication analysis, radar, and wideband satellite communication

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