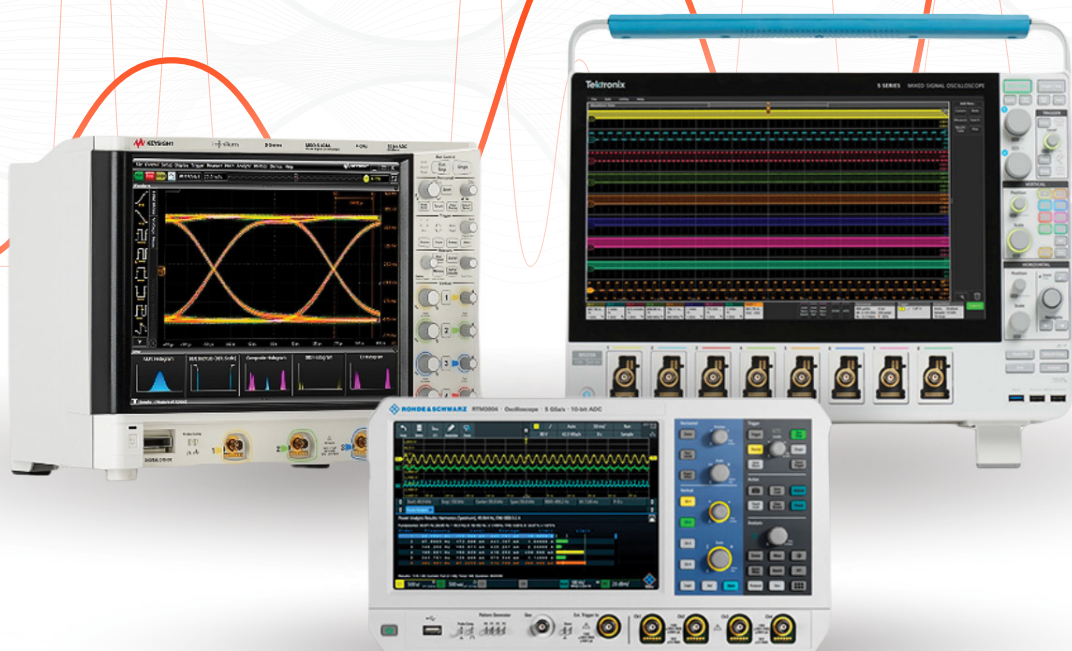


Oscilloscopes for Every Application

A guide to solutions for today's
measurement challenges



Choose the oscilloscope for the problem, not just the spec sheet.

Are you debugging an intermittent issue, validating performance, or checking compliance? The answer often determines which oscilloscope class is the best fit.

The best way to choose an oscilloscope is to begin with what you are trying to measure. Different applications place different demands on the instrument, and understanding those demands can help narrow the field quickly.

POWER INTEGRITY AND POWER ELECTRONICS

When working on power rails, switching devices, converters, and power electronics, engineers often need to capture low-level ripple, transients, startup behavior, and switching events with confidence. In these applications, low noise performance, high vertical resolution, and the right probe options can be just as important as bandwidth.

What to prioritize: Low-noise measurements, high vertical sensitivity, power analysis software, current and differential probe support, and enough memory to capture startup or transient events.

HIGH-SPEED SERIAL VALIDATION

Interfaces are running faster, margins are tighter, and signal integrity issues are harder to isolate. For serial buses and high-speed digital links, engineers need oscilloscopes that can reveal timing issues, jitter, eye closure, and signal degradation that may not be obvious in a simple waveform view.

What to prioritize: Appropriate bandwidth and sample rate, jitter and eye analysis, serial decode and compliance software, high-performance probes, and strong signal fidelity.

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Global Reach

Wherever your teams operate, you can access the equipment, local expertise, and logistics support to keep tests running smoothly and without delay.

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We offer independent advice on products from 200+ world-class manufacturers.





Keysight UXR1104A | Infiniium UXR-Series Oscilloscope; 110GHz 4CH 256GSa/s

- 110 GHz, 4 channels, 256 GSa/s real-time capture
- 10-bit ADC for ultra-low noise and high signal fidelity
- Up to 2 Gpts memory; DDC upgrade path to 2.16 GHz
- Built for mmWave, USB4, PCIe, DDR and phase-noise work



Keysight UXR0594B | Infiniium UXR-Series Oscilloscope; 59GHz 4CH 256GSa/s

- 59 GHz, 4 channels, 256 GSa/s real-time capture
- 10-bit ADC with low noise and low jitter floor
- 500 Mpts/ch standard, upgradable to 2 Gpts/ch
- 160 MHz DDC included; upgradeable to 2.16 GHz



Tektronix DPS75004SX | ATI Performance Oscilloscope; 50GHz 2CH 200GS/s

- 50 GHz, 2 ch at 200 GS/s or 4 ch at 33 GHz / 100 GS/s
- ATI architecture for accurate high-speed signal capture
- Up to 1 Gpoint record length for long acquisitions
- PCIe Gen5/6 debug and compliance apps available



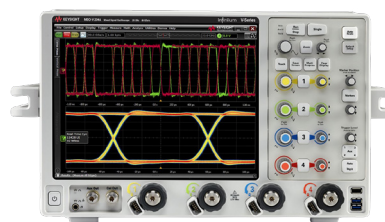
Rohde & Schwartz RTP164B | RTP-B Series Oscilloscope; 16GHz 4CH 40GSa/s

- 16 GHz, 4 channels, 40 GSa/s with long record length
- Real-time de-embedding with S-parameters in hardware
- Strong app support for USB3.2, DDR, MIPI and Auto Ethernet
- High-performance RTP platform in a compact form factor



Keysight UXR0134B | Infiniium UXR-B Series Oscilloscope; 13GHz 4CH 128GSa/s

- 13 GHz, 4 channels, 128 GSa/s real-time capture
- 10-bit ADC with low noise and high signal fidelity
- 500 Mpts/ch standard, upgradable to 2 Gpts/ch
- 160 MHz DDC included; upgradeable to 2.16 GHz



Keysight MSOV | V-Series Mixed Signal Oscilloscope; 33GHz 4CH+16CH

- 33 GHz V-Series mixed-signal scope with 4 analog + 16 digital
- Up to 80 GSa/s and 2 Gpts acquisition memory
- Low noise with very low jitter floor and strong ENOB
- Tuned for high-speed design analysis and debug

NEW



Tektronix DP0714AX

7 Series Digital Phosphor Oscilloscope;
25GHz 4CH 125GS/s

- Configured to 25 GHz, 4 channels, up to 125 GS/s
- High ENOB, low noise and low jitter signal path
- Up to 2 Gpoints record length for long captures
- TekScope UI speeds high-speed serial and RF debug

NEW



Keysight XR804KA

Infiniium XR8-Series Oscilloscope; 33GHz
4CH 128GSa/s 12-Bit

- Configured to 33 GHz, 4 channels, 128 GSa/s with 12-bit ADC
- Compact XR8 platform with custom ASIC and up to 8 Gpts
- Lower noise and stronger signal integrity for SerDes debug
- Built for next-gen digital validation and faster analysis



Tektronix MSO64B | 6B-Series Mixed Signal Oscilloscope;
10GHz 4 FlexChannel 6B-Series

- 10 GHz, 4 FlexChannel inputs; up to 50 GS/s
- Each FlexChannel supports 1 analog or 8 digital signals
- Up to 1 Gpoint record length with 12-bit ADC
- 15.6 in. HD touchscreen for mixed-signal debug



Keysight S-series | Infiniium S-series Real-Time
Oscilloscope; 8GHz 4CH 16GSa/s

- 8 GHz, 4 channels, 20 GS/s high-definition capture
- 10-bit ADC with up to 16-bit High Resolution mode
- Low-noise front end and large capacitive touch display
- Strong app suite for high-speed serial troubleshooting



Tektronix MSO68B | 6B-Series Mixed Signal Oscilloscope;
4GHz 8 FlexChannel

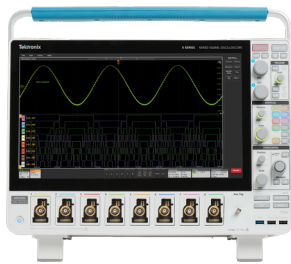
- 4 GHz, 8 FlexChannel inputs; 25 GS/s on 4 channels
- FlexChannel supports analog, digital or mixed views
- Up to 500 Mpoints record length with 12-bit ADC
- Built-in FFT and spectral views accelerate debug



Keysight MXR | Infiniium MXR B-Series Oscilloscope;
6GHz, 4 Channels

- 6 GHz MXR B-Series platform with 16 GSa/s performance
- 200 Mpts standard memory per channel
- Integrates up to 8 instruments in one platform
- Fully upgradeable hardware and app ecosystem

MID-TIER PERFORMANCE SCOPES



12-bit ADC or
Superior Signal Fidelity

Tektronix MSO58B | Mixed Signal Oscilloscope; 2GHz 8CH FlexChannel

- 2 GHz, 8 analog channels with FlexChannel architecture
- Supports analog, digital and spectrum views per input
- Up to 500 Mpoints record length
- Optional AFG and up to 64 digital channels



Rohde & Schwartz RT064 | RTO-6 Series Oscilloscope; 4GHz 4CH 20GSa/s

- 4 GHz, 4 channels, 20 GSa/s performance
- 1 million waveforms/s for fast anomaly capture
- 16-bit HD digital trigger with zone and spectrum tools
- Apps for power, jitter, de-embedding and TDR analysis



Keysight EXR | Infiniium EXR Real-Time Oscilloscope; 2.5GHz 4CH 16GSa/s

- 2.5 GHz EXR platform with 16 GSa/s capture
- Up to 1.6 Gpts memory depth
- Up to 8 instruments integrated in one scope
- Flexible upgrade path for bandwidth and applications



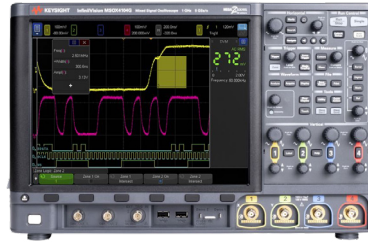
Rohde & Schwartz MX05 | MX05 Series Oscilloscope; 1GHz 4CH 40GSa/s

- 1 GHz, 4 channels, 500 Mpoints standard memory
- More than 4.5 million wfms/s and over 50 kFFT/s
- 12-bit ADC with 18-bit HD mode and strong ENOB
- Zone trigger works on analog, spectrum and math



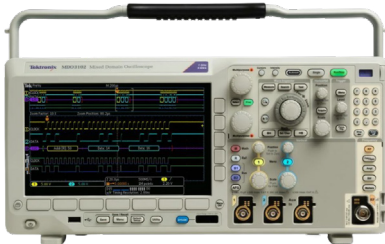
Keysight MSOX6 | Mixed Signal Oscilloscope; 16Hz 4 + 16Ch

- 1 GHz, 4 analog + 16 digital channels
- 12.1 in. multi-touch display with Zone touch triggering
- Voice control and up to 6 instruments in 1
- Portable 6000 X-Series platform with upgrade paths



Keysight MSOX4 | 4 Analog Plus 16 Digital Channels; 1.5GHz

- 1.5 GHz, 4 analog + 16 digital channels
- 1,000,000 wfms/s update rate finds intermittent issues fast
- 12.1 in. capacitive touch display with Zone triggering
- Fully upgradable 4000 X-Series with 5-in-1 integration



Tektronix MD03 | Mixed Domain Oscilloscope + 3GHz Spectrum Analyzer; 1GHz 4CH

- 1 GHz, 4 channels with built-in spectrum analysis
- 6-in-1 platform: scope, SA, AFG, logic, protocol and DVM
- Time-correlated analog, digital and RF views in one box
- Customizable and upgradeable as needs change



Keysight MSOX3104G | 4 Analog Plus 16 Digital Channels Oscilloscope; 1GHz

- 1 GHz, 4 analog + 16 digital channels
- Compact 3000G platform with touch UI and Zone trigger
- High waveform update rate exposes elusive glitches
- Eight standard features help speed everyday debug

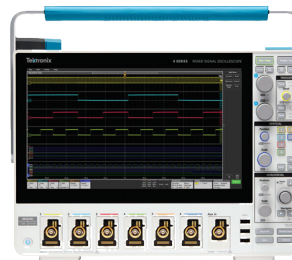
GENERAL PURPOSE SCOPES



14-bit ADC or
Superior Signal Fidelity

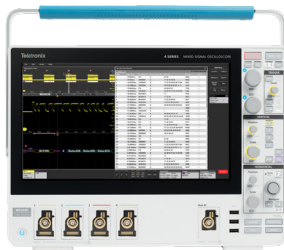
Keysight HD304MSO | InfiniiVision Oscilloscope; 1GHz 4CH

- 1 GHz, 4 channels with 14-bit ADC resolution
- 100 Mpts memory and 1.3M wfms/s update rate
- Very low-noise front end in a compact 10.1 in. scope
- Mixed-signal option with built-in waveform generator



Tektronix MD034 | 3-Series Mixed Domain Oscilloscope; 500MHz 4 Analog Channel

- 500 MHz, 4 channels, up to 5 GS/s
- Integrated hardware spectrum analyzer up to 3 GHz
- 6-in-1 platform with logic, AFG, protocol and DVM options
- 10 M record length with 11.6 in. HD touch display



Tektronix MS044B | 4B-Series Mixed Signal Oscilloscope; 200MHz 4 FlexChannel

- 200 MHz, 4 analog channels, 6.25 GS/s
- Up to 32 digital channels and 62.5 Mpoints record length
- Faster processing platform improves responsiveness
- Bench-friendly scope for embedded and power debug



Tektronix MS02 | Mixed Signal Oscilloscope (4); Analog Channels, 200MHz

- Portable mixed-signal scope with 4 analog channels
- Up to 2.5 GS/s and 16 digital channels
- Optional 50 MHz AFG and 4-bit pattern generator
- Thin, battery-capable form factor for field or bench use



Keysight N1000A | DCA-X Wide-Bandwidth Oscilloscope Mainframe

- Modular DCA-X mainframe for 50 MBd to over 80 GBd signals
- Scales to more than 100 GHz and up to 16 channels
- Supports optical, electrical and TDR/TDT plug-in modules
- Precision platform for R&D and manufacturing validation



Keysight N1060A | Electrical Precision Waveform Analyzer Module for DCA-X; 2CH 90GHz 64Gbaud

- 2-channel precision waveform analyzer for DCA-X
- More than 90 GHz bandwidth with residual jitter down to 45 fs
- Integrated compliant clock recovery to 64 GBd
- Jitter spectrum and software clock recovery tools included



Keysight N1046A | Electrical Sampling Head Module for DCA-X; 4CH 100GHz

- 4-channel remote electrical sampling head for DCA-X
- 100 GHz-class performance with 1 mm inputs
- Remote head architecture minimizes path loss at the DUT
- Designed for uncompromised performance to 100 GHz and beyond



Keysight N1092A | Single Optical Channel Sampling Scope; DCA-M 40GHz

- Single optical DCA-M for waveform analysis and clock recovery
- Supports solutions from 8.4 to 64 GBaud
- Very low noise and jitter with fast sampling throughput
- Compact USB-controlled platform for R&D or manufacturing



Keysight N1055A | Electrical Sampling Head with TDR/TDT Module for DCA-X; 4CH 50GHz

- 4-channel 50 GHz TDR/TDT remote sampling head
- Fast impedance and S-parameter measurements up to 16 ports
- Built for multi-port high-speed interconnect characterization
- Supports efficient NEXT/FEXT and channel analysis



Keysight N1030A | Single Electrical/Optical Channel Module for DCA-X; 95GHz/56Gbaud

- Single optical module for DCA-X with 65 GHz optical bandwidth
- Option EC1 adds a 95 GHz electrical channel
- Supports transmitter and compliance analysis on optical designs
- FlexDCA apps extend eye, jitter and standards testing

NEW

Anritsu MP2110A

Quad Optical Channel Sampling Scope;
60GHz



- 4-channel sampling scope plus BERT for 10G to 1.6T optics
- Built-in 4-channel sampling scope and 4-channel BERT
- Supports accurate optical testing up to 120 GBd
- Built-in PC and clock recovery simplify production workflows

NEW

Keysight N1093B

Dual Optical Channel Sampling Scope;
DCA-M 60GHz



- 60 GHz dual optical DCA-M with integrated clock recovery
- Low-noise, low-jitter, high-sensitivity optical measurements
- Supports accurate optical testing up to 120 GBd
- USB-controlled platform scales to high-volume manufacturing



Keysight M8050A | 120 Gbaud PPG/Clock 1-Channel PAM-6 BERT System

- 120 GBd BERT for 800G, 1.6T and next-gen interfaces
- Supports NRZ, PAM4, PAM3, PAM6 and PAM8
- High signal integrity for receiver characterization
- Combines with UXR scopes for full 1.6T Tx/Rx solutions



Keysight M8040A | 64 Gbaud PPG/ED/Clock 2-Channel PAM-4 BERT System

- 64 GBaud BERT for 400 GbE and related standards
- Supports clean NRZ and PAM4 signals with low intrinsic jitter
- Remote head concept minimizes loss to the DUT
- Strong fit for tolerance and stressed receiver testing



Anritsu MP1900A | 64 Gbaud PPG/ED/Clock/Noise/PCIE6 1-Channel PAM-4 BERT System

- 8-slot modular BERT for NRZ, PAM4 and PCIe/USB testing
- All-in-one physical-layer measurements for network and bus I/F
- Scalable platform with very high aggregate capability
- Strong expandability for next-gen interface validation



Keysight M8020A | 16Gbs PPG/ED/Clock 2-Channel NRZ BERT System

- J-BERT for fast receiver characterization up to 16 or 32 Gb/s
- Supports single-lane and multi-lane device testing
- Automated in-situ calibrations improve repeatability
- Interactive link training speeds PCIe, USB and SAS workflows



Anritsu MP2110A | 14Gbs PPG/ED/Clock 4-Channel NRZ BERT + Optical and Single-ended Sampling Scope System

- All-in-one 4-channel BERT plus sampling scope system
- Designed for optical module R&D and manufacturing
- Fast eye, BER and mask-margin measurements improve yield
- Built-in PC and clock recovery simplify optical test setups



Keysight M8053A | Interference Source Module; 64GHz, 2 Channels

- 64 GHz interference source for 224 Gb/s-class testing
- Supports random-level and sinusoidal interference together
- Built for optical receiver stress and future PCIe validation
- 2-channel module for highest-speed tolerance tests

HIGH PERFORMANCE BERTs AND MODULES



Keysight M8043A | Analyzer Module; 64 Gbaud, PAM4

- Error analyzer module for 32 or 64 Gbaud NRZ and PAM4
- 2-slot AXIe module used in M8000 and M8050A systems
- Works with M8070B software and related clock modules
- Designed for high-speed BERT receiver analysis workflows



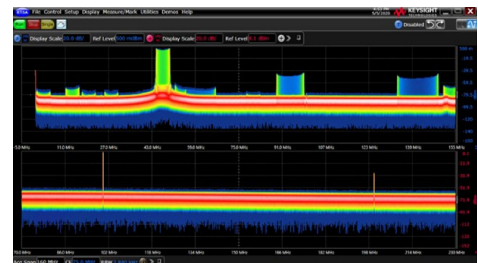
Keysight M8054A | Interference Source Module; 32GHz, 1 Channel

- 32 GHz interference source for receiver tolerance testing
- Generates repeatable random and sinusoidal impairments
- Supports symbol rates up to 64 Gbaud
- Targets PCIe 4/5, CEI-56G, 400GbE, SAS and similar links

Scopes as RF Test Equipment?

Yes. We included scopes on purpose. As oscilloscope technology advances, they are seeing more use in RF labs everywhere. The bandwidth increases alone are enough to earn them an important role in demodulating signals for 5G, 6G and SATCOM communications.

With additional unique capabilities that include digital down-conversion, real-time spectrum analysis, and multi-channel FFTs, scopes have earned their place in the RF testing world. If you don't see what you need, give us a call. We have models for every application you can think of.





Keysight M8199B | Arbitrary Waveform Generator (requires Clock Source); 256 GSa/s 2-Channel

- 256 GSa/s AWG for 160 GBaud and higher designs
- Up to 8 synchronized channels with very high analog bandwidth
- Enables 400+ Gb/s IM/DD or 1.6+ Tb/s coherent carriers
- Works with M8008A clock module for ready-to-use setups



Keysight M8008A | Clock Generator Module for M8199B

- Sample clock source for M8199A and M8199B AWG systems
- Supports up to four M8199A/B modules or standalone use
- Low-jitter 32 GHz or 64 GHz class clock generation
- 1-slot AXIe module simplifies synchronized AWG setups



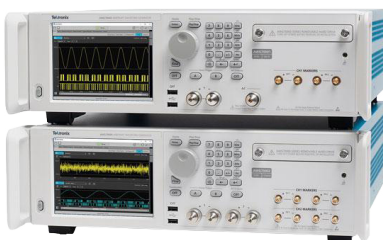
Keysight M8194A | Arbitrary Waveform Generator; 120 GSa/s 2-Channel

- 120 GSa/s AWG with 45 GHz bandwidth in 1-slot AXIe format
- Supports very high symbol-rate optical and electrical testing
- Synchronize channels and modules for coherent generation
- Strong fit for 400G and 1 Tb/s class workflows



Keysight M8195A | Arbitrary Waveform Generator; 65GSa/s 4-Channel

- 65 GSa/s AWG with 25 GHz bandwidth on up to 4 channels
- Deep memory up to 16 Gsa for long complex waveforms
- Real-time mode, sequencing and deep-memory flexibility
- Great for wideband SATCOM, radar and optical test



Tektronix AWG7 | Memory Arbitrary Waveform Generator; 25GS/s 2CH 16Gsa

- 25 GS/s, 2 channels, 10-bit vertical resolution
- 16 GSamples memory per channel for long records
- High signal fidelity for ideal, distorted and real-life signals
- Built for complex component, system and experiment stimulus



Tektronix AWG5 | Memory Arbitrary Waveform Generator; 10GS/s 8CH 2Gsa

- 8 channels with 5 GS/s performance and 10 GS/s interpolation
- 16-bit DAC resolution for clean, precise signal generation
- Class-leading memory depth and strong signal fidelity
- Great for multichannel RF, baseband and research workflows

ARBITRARY WAVEFORM GENERATORS (AWGs)



Keysight M8190A | Arbitrary Waveform Generator; 12GSa/s 2CH 2GSa Memory CH

- 12 GSa/s, 2 channels with 14-bit or 12-bit DAC modes
- Up to 2 GSa waveform memory with advanced sequencing
- Up to 90 dBc SFDR for clean complex signal generation
- Well suited to RF, radar and dense communications test



Tektronix AWG5 | Arbitrary Waveform Generator; 5GS/s 4CH 2GSa Memory

- 4 channels with 5 GS/s performance
- 16-bit DAC resolution for clean, precise signal generation
- Part of the AWG5200 family with deep memory and high fidelity
- Good fit for multichannel RF, baseband and research use

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