

The Infiniium EXR-Series

POWERFUL, EASY TO OWN, INTUITIVE TO USE

Keysight Technologies

**10 NOVEMBER
2020**

Embargoed until Nov. 10



Meet the Infiniium EXR-Series



Specifications

Analog channels	4 or 8
Bandwidth	500 MHz → 2.5 GHz
Sample rate	16 GSa/s
Memory	100 Mpts/ch → 400 Mpts/ch
Resolution	10 bits, 16 with high-res
Logic channels	16 (dedicated connector)
Integrated tools	7-in-1

See an Accurate Representation of Signals

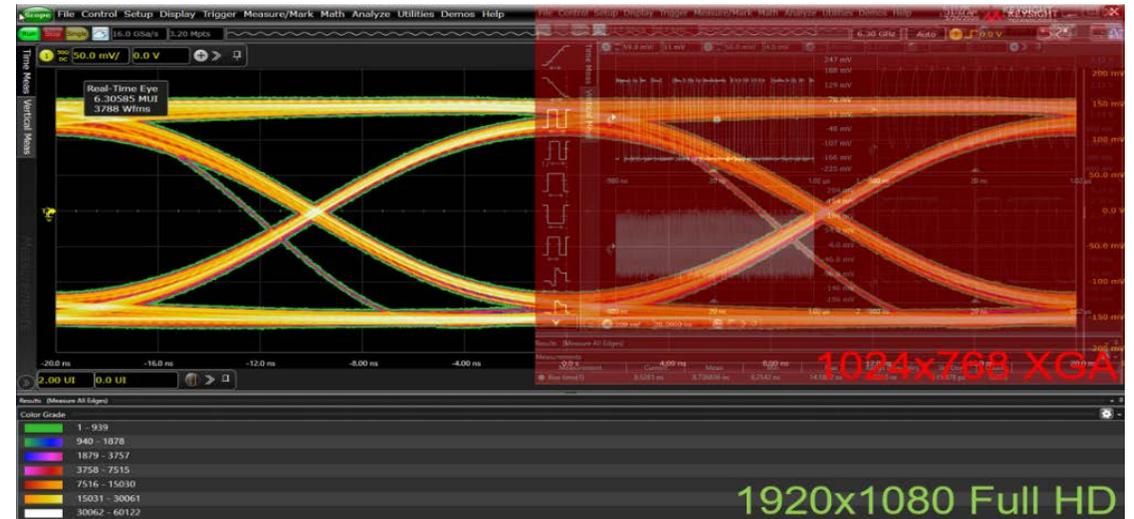


More Accurate

- ✓ High effective number of bits (up to 9.0)
- ✓ High resolution (up to 16 bits)
- ✓ Low noise (down to 43 μ V)
- ✓ Accurate timebase (8 parts per billion)

More Capability

- ✓ 100 Mpts/ch standard memory *
- ✓ 2.5 GHz on 8 channels *
- ✓ 16 GSa/s on 8 channels *
- ✓ Full HD 1920x1080 resolution *





The Infiniium EXR-Series Is...

POWERFUL

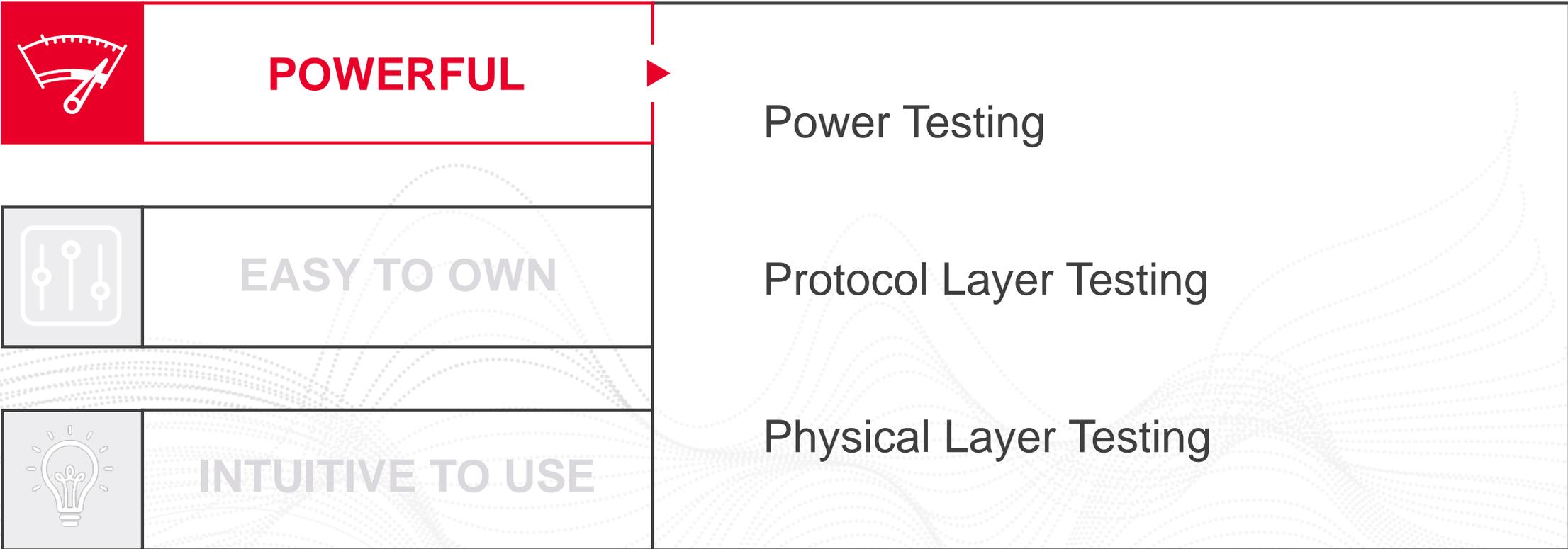


EASY TO OWN



INTUITIVE TO USE





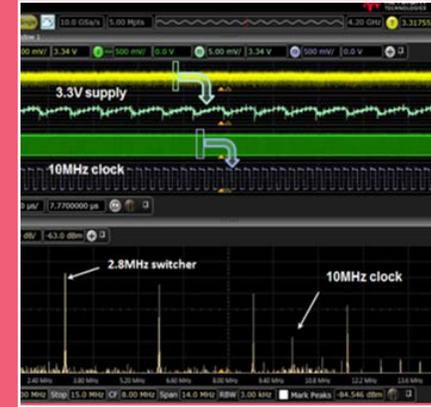
Testing Throughout the Power Ecosystem



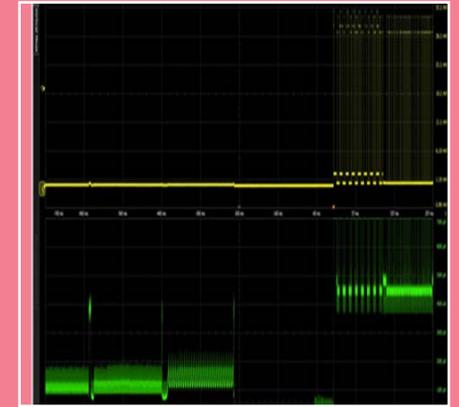
Power Conversion



Power Up/Down Sequencing



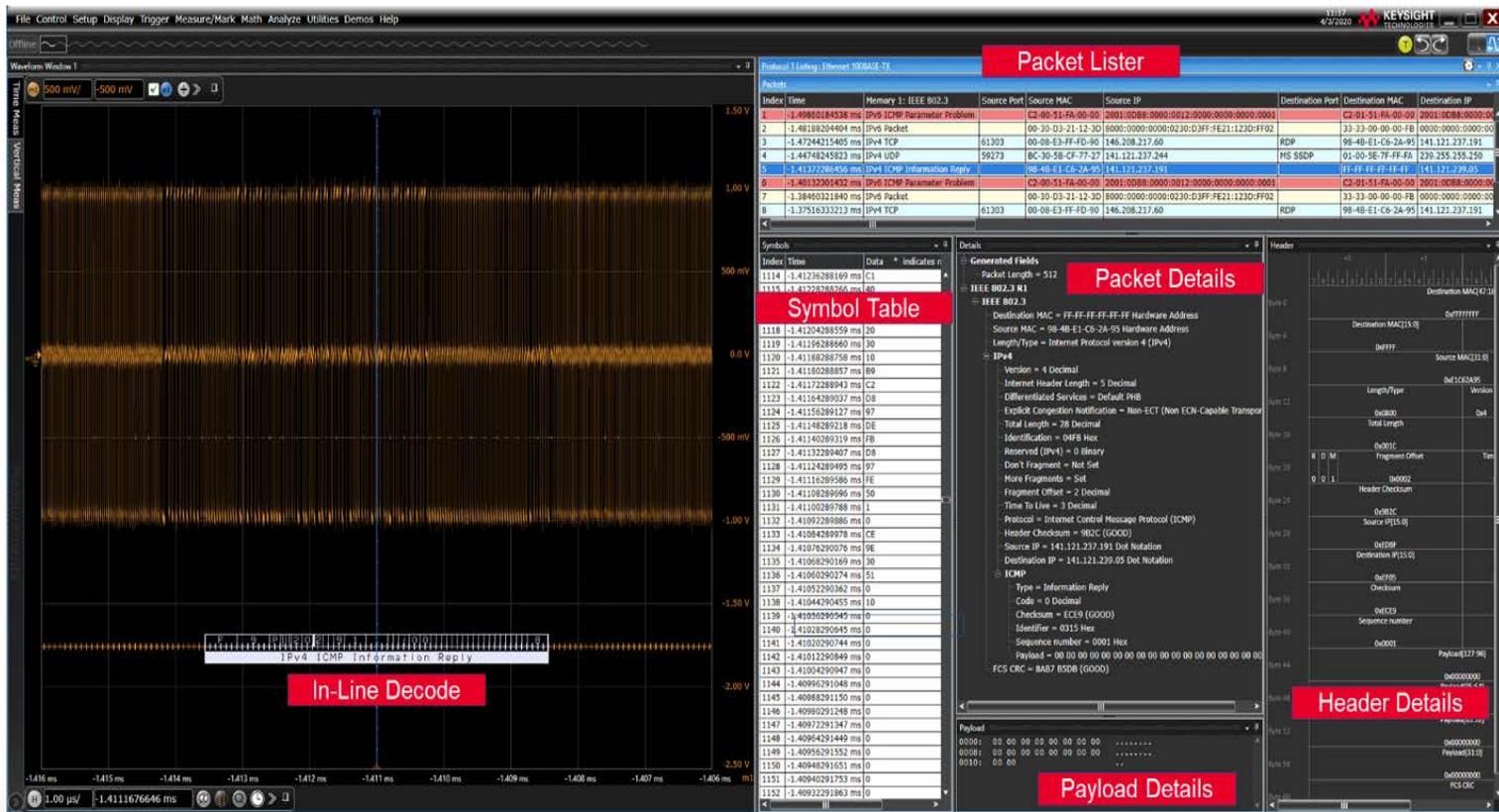
Power Rails / Distribution



Power Consumption

Protocol Layer Testing

- Hardware triggering lets you capture physical layer anomalies
- Powerful trigger and decode customization to drill down farther
- Test your signals against industry standards with compliance tests



Low Speed Serial	Embedded
I ² C	USB 2.0 ¹
SPI	eUSB2
Quad SPI	USB-PD
eSPI	10/100 Ethernet ¹
Quad eSPI	
RS232/UART	
I ² S	
SVID	MIPI
JTAG ²	RFEE ²
Manchester	I3C
	SPMI
Automotive	
CAN / CAN FD	
LIN	Military / Aero
SENT	ARINC 429
FlexRay ²	MIL STD 1553
100Base-T1 ¹	SpaceWire

1. Compliance Test Also Offered
2. Software trigger

Physical Layer Testing

Trigger by Waveform Shape – D9010SCNA Event Identification Software

- InfiniiScan Zone Trigger: draw zones for a signal to hit or miss or based on measured parameters.

Timing, Vertical, and Phase Noise – D9010JITA

- Analyze, measure, deconstruct and plot different components of jitter and noise

Cable and Fixture Removal – D9010DMBA

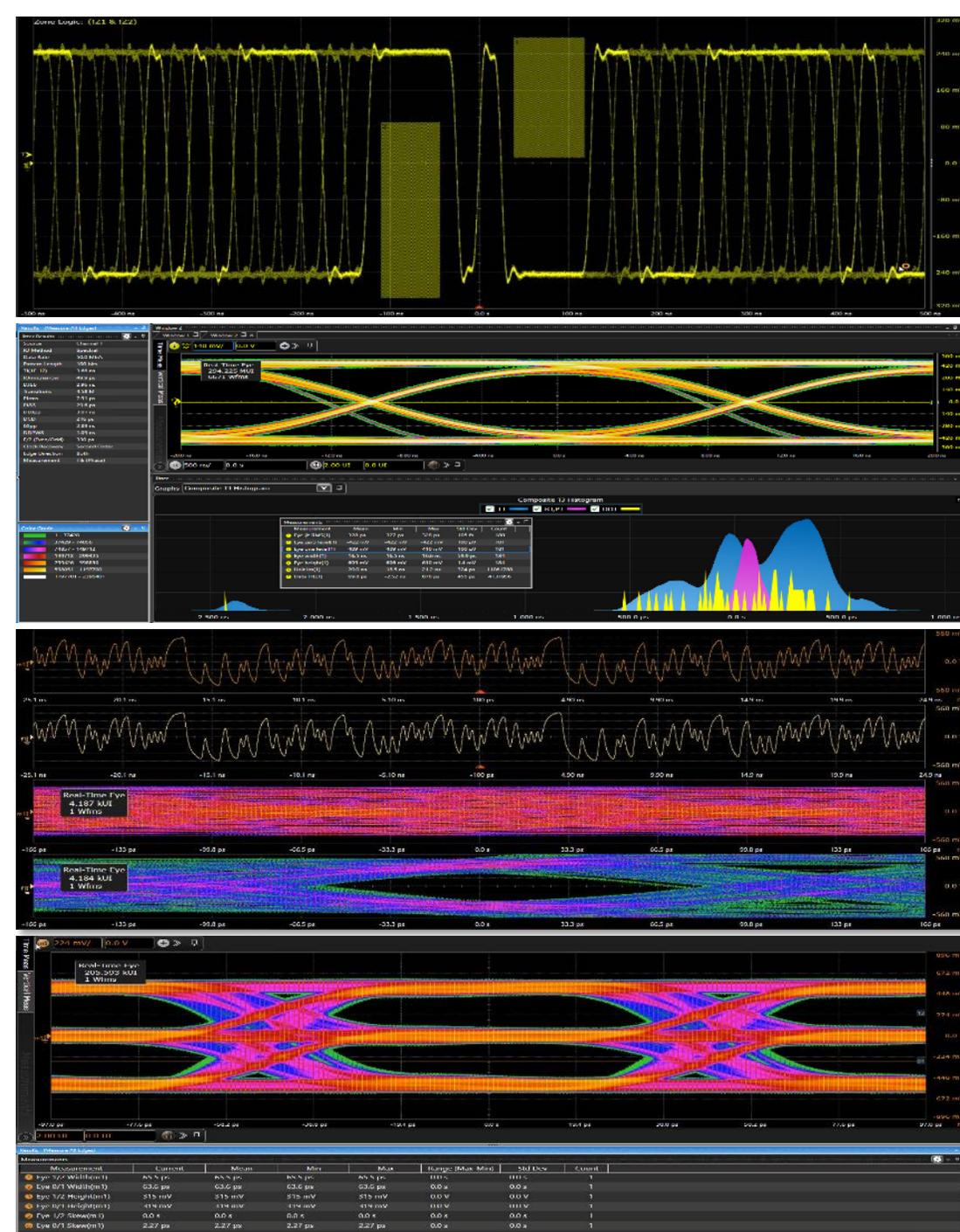
- Widen eyes by removing effects of cables or fixtures

Equalization and Crosstalk – D9020ASIA

- Widen eyes by removing effects of channel noise, ISI
- Simulate and remove effects of aggressors on signals

PAM-3 – D9010PAMA

- Measurements, clock recovery, and eye diagrams





POWERFUL

Reduce Bench Clutter – 7 Instruments in 1



EASY TO OWN

▶ Optimize Lab Time – Infiniium Offline



INTUITIVE TO USE

Plan for the Future – Full Upgradeability

Reduce Bench Clutter – 7 Instruments in 1



Integrated Instruments

Digital Oscilloscope	Digital Voltmeter
Logic Analyzer (MSO)	Counter
Protocol Analyzer	Function Generator
	Frequency Response Analyzer

Product sizes to scale!



Plan for the Future – Full Upgradeability

The EXR-Series will **future-proof your budget**. Buy what you need today, add performance later!



- Upgrade to **8 channels**
- Upgrade 500 MHz to **2.5 GHz bandwidth**
- Upgrade **400 Mpts** memory
- Upgrade 50 MHz **Arbitrary Function Generator**
- Upgrade 16 **digital channels**
- Upgrade **protocol** decode/trigger
- Upgrade **frequency response analysis**
- Upgrade storage to **1 Terabyte**
- Upgrade **application** support
- Upgrade **warranty**, services

Optimize Lab Time - Infiniium Offline

D9010BSEO – Analyze Data Anywhere



Access your
results across
The Globe

Leverage
Infiniium
**without
hardware**

**Optimize equipment use with the full
Infiniium user experience on a PC!**



POWERFUL

Always Fast – No Special Modes



EASY TO OWN

One Click Debug – Fault Hunter



INTUITIVE TO USE ▶

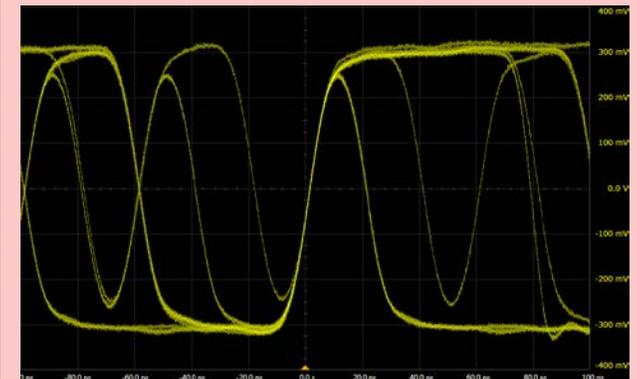
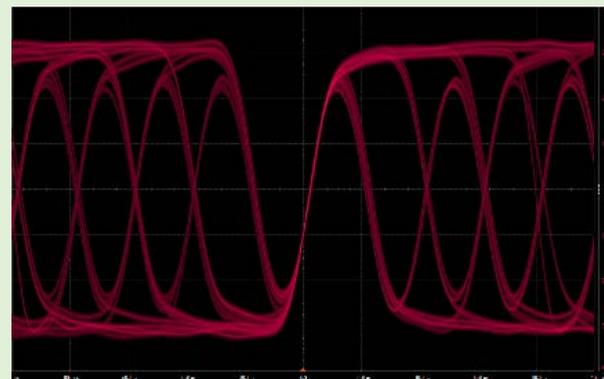
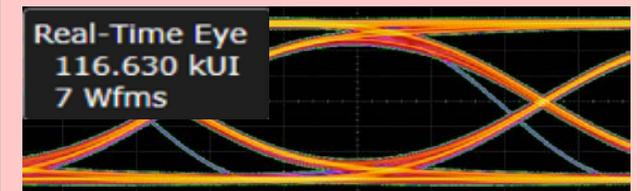
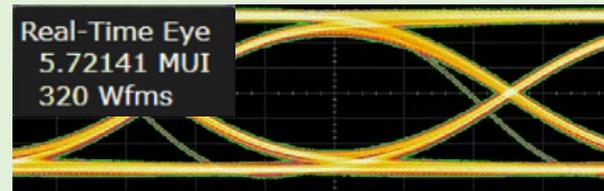
Save Time – Quick Analysis, Wizards, Help

Always Fast – No Special Modes

Metric	Why You Should Care	EXR-Series	Comparable Oscilloscope
Triggering (wfm/s)	See more of your signal	>200,000 (>200x faster)	1,000
Averaging (wfm/s)	Noise reduction on repetitive signals	>12,000 (>120x faster)	100
Measurements (meas/s)	Reach 6 σ quicker	>300,000 (20% faster)	250,000
Eye plotting (UI/s)	Identify transients and jitter	>750,000 (>50x faster)	15,000

The Infiniium EXR-Series builds **eye diagrams over 50 times faster** than most oscilloscopes in its class. In the same amount of time, the EXR-Series captures 5.7 million UI while a comparable oscilloscope captures only 0.12 million UI.

The Infiniium EXR-Series **displays your waveform over 200 times faster** than most oscilloscopes in its class. On this signal, the EXR-Series triggers 170,000 times per second, while a comparable oscilloscope triggers only 500 times per second. You can easily see the difference in quality.



One-Click Debug - Fault Hunter

- ALL NEW Fault Hunter automatically finds signal anomalies
- View button to see waveform issues
- Analyze glitches, slow edges, runts

Test	Result	Mean	Std Dev	Acceptable Range	Run	View	Copy to Trig
Positive Glitch	Failed	34.8 ns	184 ps	> 17.3951 ns	Run	View	Copy to Trig
Negative Glitch	Passed	34.8 ns	9.32 ns	> 17.3951 ns	Run	View	Copy to Trig
Slow Rising Edge	Passed	11.1 ns	356 ps	< 12.2036 ns	Run	View	Copy to Trig
Slow Falling Edge	Passed	11.5 ns	378 ps	< 12.6759 ns	Run	View	Copy to Trig
Positive Runt	Failed	Low -359 mV : Hi 385 mV	9.19 mV	> -209.8 mV and < 237.0 mV	Run	View	Copy to Trig
Negative Runt	Passed	Low -359 mV : Hi 385 mV	9.19 mV	> -209.8 mV and < 237.0 mV	Run	View	Copy to Trig

**Never miss
an intermittent
signal fault
again**

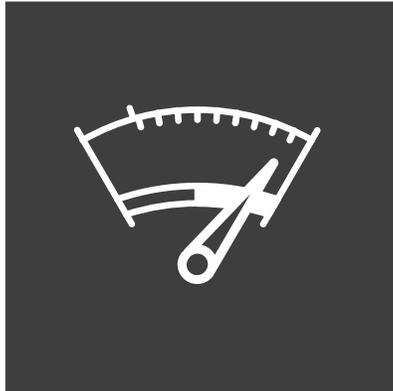
**Debug faster
and with
confidence**



Demonstration

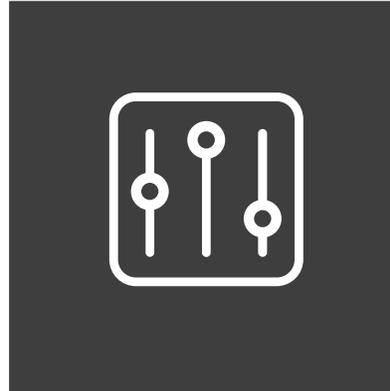
The All-New Infiniium EXR-Series is...

POWERFUL



- ✓ Power Test
- ✓ Protocol Layer Test
- ✓ Physical Layer Test

EASY TO OWN

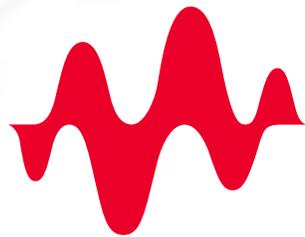


- ✓ 7 Instruments in 1
- ✓ Offline Software
- ✓ Full Upgradeability

INTUITIVE TO USE



- ✓ Always Fast
- ✓ Fault Hunter
- ✓ Setup Wizards



KEYSIGHT
TECHNOLOGIES