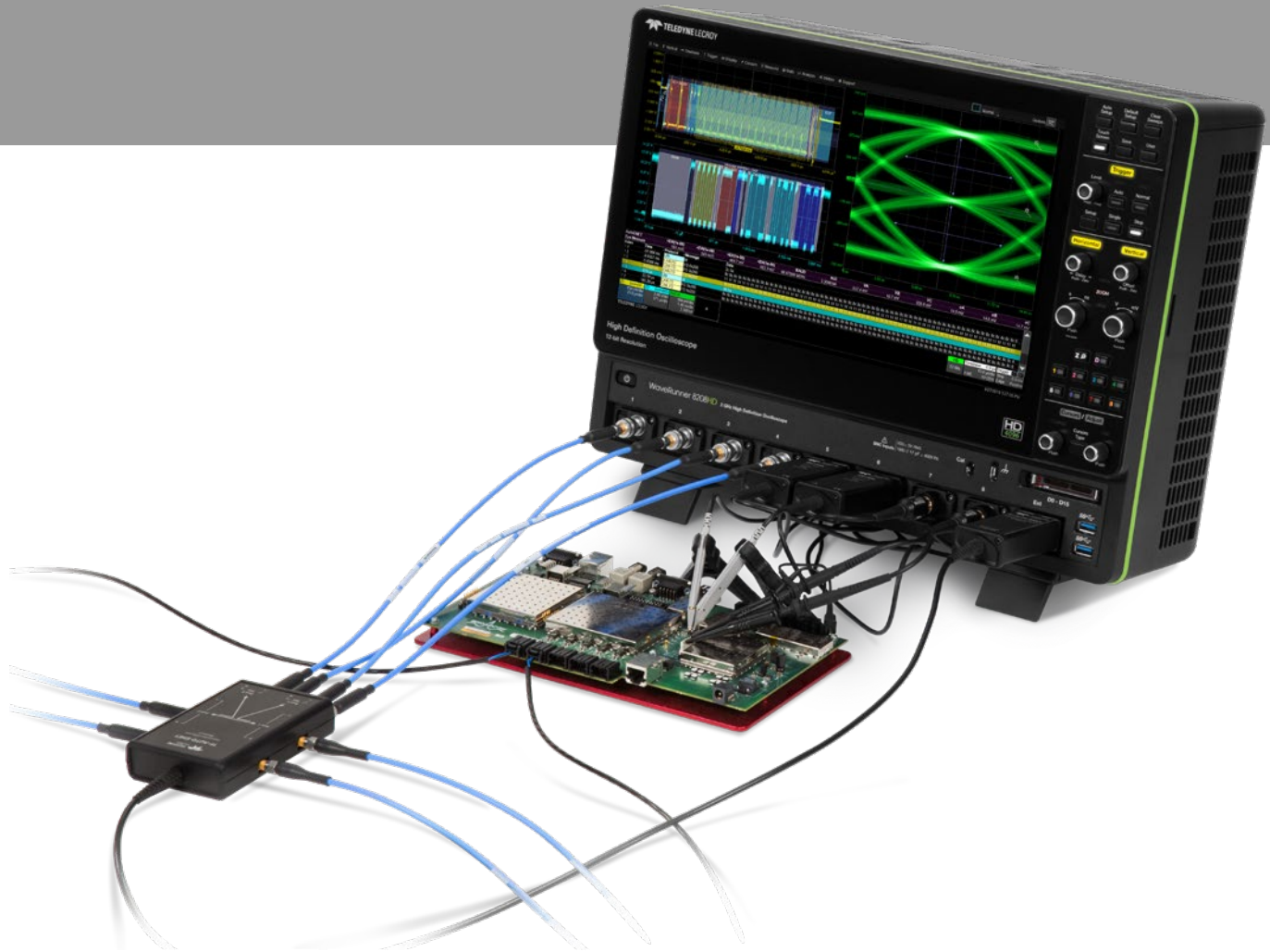# Automotive Electronics

WaveRunner 8000HD 12-bit oscilloscopes combine a high channel count, long memory, and wide range of validation and debug software to best address the specific test needs of the automotive industry.

Best vehicle bus debug tools

Unique capabilities that build on our legacy serial data trigger and decode provide the most complete debug and validation of automotive buses. Cover all aspects of physical layer Automotive Ethernet testing with compliance test software and a dedicated Automotive Ethernet debug toolkit.

More channels for ECU debug

The flexibility of 8 12-bit analog channels and 16 digital channels make WaveRunner 8000HD the best way to analyze the array of analog, digital, and sensor signals in today's complex ECUs. Easily capture system startup behavior and perform causal analysis with 5 Gpt of memory.
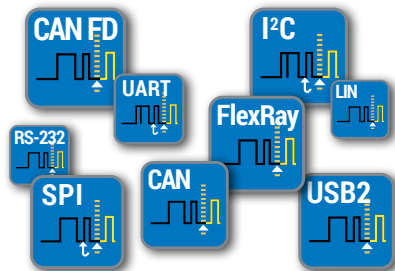
EMI/EMC pre-compliance test

12-bit resolution for spectral analysis provides more insight. Specialized EMC/EMI pulse parameters provide measurement flexibility. Support for all relevant electrical and magnetic field units of measure. Capability to measure sub-1 Hz magnetic field strengths.

		Teledyne LeCroy WaveRunner 8000HD		Tektronix MSO58 (5 Series)
Analog Channels	✓	8 (16 with OscilloSYNC™)	X	8 (without digital)
Digital Channels	✓	16 (with MSO option)	X	8 to 64 (optional) Each 8 digital channels consumes 1 analog channel
Resolution	✓	12 bits	X	12-bit ADC but 8-bit real-world noise performance
Bandwidth	✓	350 MHz - 2 GHz	X	350 MHz - 2 GHz Resolution is 8 bits at 2 GHz
Sample Rate	✓	10 GS/s	X	6.25 GS/s
Memory	✓	50 Mpts/Ch standard 1.25 Gpts/Ch maximum	X	62.5 Mpts/Ch standard 125 Mpts/Ch maximum
Display Size / Resolution	✓	15.6", 1920 x 1080 pixels Supports UHD (4096 x 2304) external monitor	✓	15.6", 1920 x 1080 pixels Supports HD (1920 x 1080) external monitor
Baseline Noise (rms, 2 GHz)	✓	330 uV @ 50 mV/div	X	1848 uV @ 50 mV/div (measured)
Low-speed Serial Decode	✓	Yes	✓	Yes
Low-speed Serial Trigger	✓	Yes	✓	Yes
Low-speed Serial Measure/Graph	✓	Yes	X	No
Low-speed Serial Eye Diagram	✓	Yes	X	No
Automotive Etherent Compliance	✓	Yes	✓	Yes
Automotive Etherent Signal Separation	✓	Yes	✓	Yes
Automotive Etherent Debug	✓	Yes	✓	Yes

Superior low-speed serial data toolsets

Serial Trigger, Decode, Measure/Graph and Eye Diagram (TDME) software options offer complete serial message debug and validation for over 20 supported protocols. Extend your knowledge of cause-effect behaviors and physical layer problems.

Trigger

Powerful Triggers

- Conditional DATA
- Adaptable ERROR
- Symbolic options

Decode

Intuitive Decoder

- 4 simultaneous
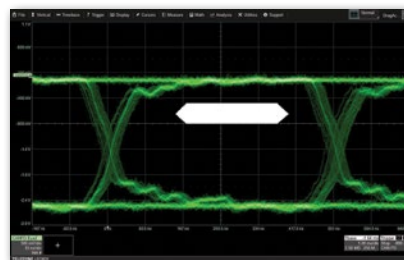- Color-coded overlay
- Interleaved table
- Table filtering

Measure/Graph

Measure/Graph

- Automated
- Serial DAC + graph
- Timing measure
- Bus status

Eye Diagram

Physical Layer Test

- One button setup
- Mask testing
- Eye diagram filtering
- "P" options add measurements

TELEDYNE LECROY
Everywhere**you**look™

1-800-5-LeCroy
teledynelecroy.com

Local sales offices are located throughout the world. Visit our website to find the most convenient location.