Infiniium Application Software Bundles for EXR/MXR/S-Series Oscilloscopes

Save 40% off list price

Application Software Bundles Overview

To simplify configuration and provide a cost-effective solution, Keysight offers seven different subscription-only bundles of oscilloscope software optimized for specific technologies and applications. Select the bundle that meets your needs, choose a subscription duration between 6 to 36 months, and save 40% off the list price relative to purchasing the same subscription items individually. Each bundle is available on Keysight's Infiniium MXR, EXR, and S-Series oscilloscopes and may be purchased at any time.

- D9110ESSB – Essential Bundle
- D9110AUTB – Automotive Bundle
- D9110MILB – Aerospace and Defense Bundle
- D9110HSSB – High-Speed Serial Bundle
- D9110SINB – Signal Integrity Bundle
- D9110POWB – Power Bundle
- D9110PREB – Premium Bundle

KEYSIGHT

Essential Software Bundle (D9110ESSB)

The Essentials Bundle combines all of the essential tools you need to complete everyday tasks — event identification, low-speed serial triggering and decoding, and offline analysis. Keysight's event identification software, InfiniiScan, includes zone triggering and finders for measurements, serial patterns, and non-monotonic edges, so you can quickly and easily identify waveform anomalies. Our low-speed serial trigger and debug package enables you to debug faster with support of over ten of the most popular low-speed standards. Finally, our Infiniium Offline analysis software makes viewing, analyzing, sharing, and documenting scope measurements possible on your PC, including low-speed serial decoding, so you do not have to physically be near the scope to complete these activities.

To learn more about each application in the Essential Bundle, view the data sheets on the web pages linked below:

Essential bundle components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software

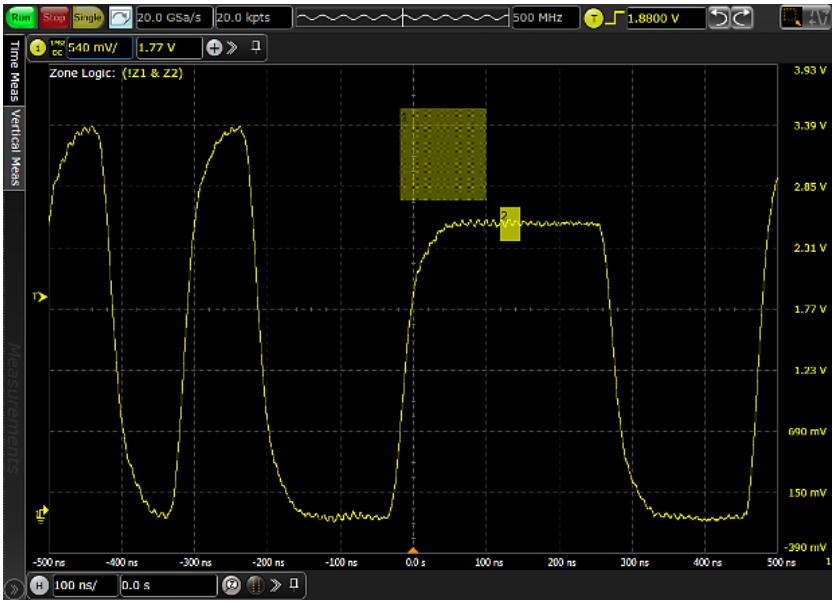


Figure 1. InfiniiScan D9110SCNA measurement finder triggers on all edges, then only displays signals with rise times less than 50 or greater than 70 ns.

Automotive Software Bundle (D9110AUTB)

The harsh environments in which automotive electronics must operate can induce unwanted transients and critical serial bus control errors. You need a tool that is not only reliable and accurate, but a tool that can handle the unique intricacies of automotive applications. Keysight's EXR, MXR, and S-Series oscilloscopes are specialized measurement tools designed to handle the unique challenges of the automotive industry. These oscilloscopes have higher bandwidth and sample rates that capture fast-changing signals in the high-frequency range of modern vehicles such as those in the battery management system, powertrain, infotainment systems, and other electronic components. They also have specialized software such as serial bus decoding and jitter analysis to help engineers troubleshoot and debug automotive systems.

The Automotive bundle includes the following software applications:

Automotive bundle components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
D9110JITA	Jitter, vertical, and phase noise analysis software
D9110PAMA	Pulse Amplitude Modulation PAM-N analysis
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
D9110EMBP	Embedded protocol decode/trigger software
D9110AUTP	Automotive protocol decode/trigger software
D9120AUTP	High-speed automotive protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software
D9010HSPO	Infiniium Offline – High-speed protocol software
Compliance package	
AE6910T	Automotive Ethernet Tx test software 10 M to 5 Gbps
D9010USBC	USB 2.0 compliance test software

Figure 2. Controller Area Network (CAN) bus decode using Infiniium D9110AUTP software.

Aerospace and Defense Software Bundle (D9110MILB)

The aerospace and defense industry has some of the highest standards and lowest tolerances for electrical equipment. Engineers in this industry expect electronic devices to be high-quality, durable, and secure since failures or maintenance problems may result in life-or-death situations. Test engineers are expected to validate, characterize, and debug a broad range of electronic equipment with oscilloscopes that meet military standards and requirements. Keysight oscilloscopes meet the latest security and calibration standards required by A&D customers, and also support protocol triggers and decodes specific to military applications.

The Aerospace and Defense bundle includes the following software applications:

Aerospace and defense bundle components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
D9110JITA	Jitter, vertical, and phase noise analysis software
D9110POWA	Power integrity analysis software
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
D9110EMBP	Embedded protocol decode/trigger software
D9110MILP	Military protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software

Figure 3. Protocol decoding of MIL-STD-1553 with D9110MILP showing a real-time trace, protocol decoding table, and packet details using a symbolic decode.

High-Speed Serial Software Bundle (D9110HSSB)

High-speed digital standards are quickly evolving to keep pace with emerging technologies such as 5G, the Internet of Things (IoT), artificial intelligence (AI), virtual reality (VR), and autonomous vehicles. Engineers need to capture clean and accurate high-speed serial waveform characteristics and eye diagrams to optimize the performance of high-speed computing interfaces, data center connections, and consumer electronics. Keysight has software that automates high-speed serial analysis, debugging, and compliance testing that reduces test time and speeds up time to market.

The High-Speed Serial bundle includes the following software applications:

High-Speed Serial Bundle Components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
D9110JITA	EZJIT complete jitter, vertical, and phase noise analysis software
D9110POWA	Power integrity analysis software
D9110ASIA	Advanced signal integrity software
D9110PAMA	Pulse Amplitude Modulation PAM-N analysis
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
D9110EMBP	Embedded protocol decode/trigger software
D9110MPLP	Low-speed MIPI protocol decode/trigger software
D9110MCDP	MIPI CSI and DSI protocol decode/trigger software
D9110MPMP	MIPI M-PHY protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software
D9010HSPO	Infiniium Offline – High-speed protocol
D9010JITO	Infiniium Offline – EZJIT complete software
D9010ASIO	Infiniium Offline – Advanced signal integrity software
Compliance package	
D9010USBC	USB 2.0 compliance test software
D9010ETHC	10M/100M/1GBASE-T and energy efficient Ethernet compliance test application software

Figure 4. In addition to providing timing jitter separation, EZJIT Complete D9110JITA offers a comprehensive suite of vertical noise separation charts and phase noise measurements.

Signal Integrity Software Bundle (D9110SINB)

As rise times get shorter, clock frequencies increase, and parallel lines move closer together, signal quality is more susceptible to degradation and interference. The combination of higher bit rates and tightly-spaced lines leads to an increased amount of crosstalk, noise, jitter, loss, and attenuation — all important problems that need a diagnosis. Additionally, power supplies create interference on the data lanes they drive in the form of noise and jitter, and they are susceptible to data-dependent noise such as Simultaneous Switching Noise (SSN), which leads to ground bounce. Keysight's software enables engineers to troubleshoot signal integrity issues with deep analysis into closed eyes, equalization modeling, crosstalk aggressor identification, and more.

The signal integrity bundle includes the following software applications:

Signal integrity bundle components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
D9110JITA	EZJIT complete jitter, vertical, and phase noise analysis software
D9110POWA	Power integrity analysis software
D9110ASIA	Advanced signal integrity software
D9110PAMA	Pulse Amplitude Modulation PAM-N analysis
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software
D9010JITO	Infiniium Offline – EZJIT complete software
D9010ASIO	Infiniium Offline – Advanced signal integrity software

Figure 5. Before and after view of a victim waveform with FEXT using Advanced Signal Integrity software D9110ASIA.

Power Software Bundle (D9110POWB)

The increased functionality, higher density, and higher frequency operation of many modern electronic products have driven the need for lower supply voltages, each of them having tighter tolerances than in previous product generations. Engineers need to zoom in on power rails to look for transients, measure ripple, and analyze coupling.

Ripple, noise, and transients riding on DC supplies are a major source of clock and date jitter in digital systems. Dynamic loading of the DC supply by the processor, memory, or similar features occurs at the clock frequency and can create high-speed transients and noise on the DC supply that can easily have content above 1 GHz. Consider the case of high-speed digital designs such as USB 3.1 with 10 Gbps data rates creating switching transients at 5GHz. Designers need high-bandwidth tools to evaluate and understand high-speed noise and transients on their DC power rails. Keysight's power-specific software automates measurements and analysis to characterize power supplies and verify power integrity.

The power bundle includes the following software applications:

Power bundle components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
D9110JITA	EZJIT complete jitter, vertical, and phase noise analysis software
D9110POWA	Power integrity analysis software
D9110PWRA	Power supply test software
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
D9110EMBP	Embedded protocol decode/trigger software
D9110MPLP	Low-speed MIPI protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software

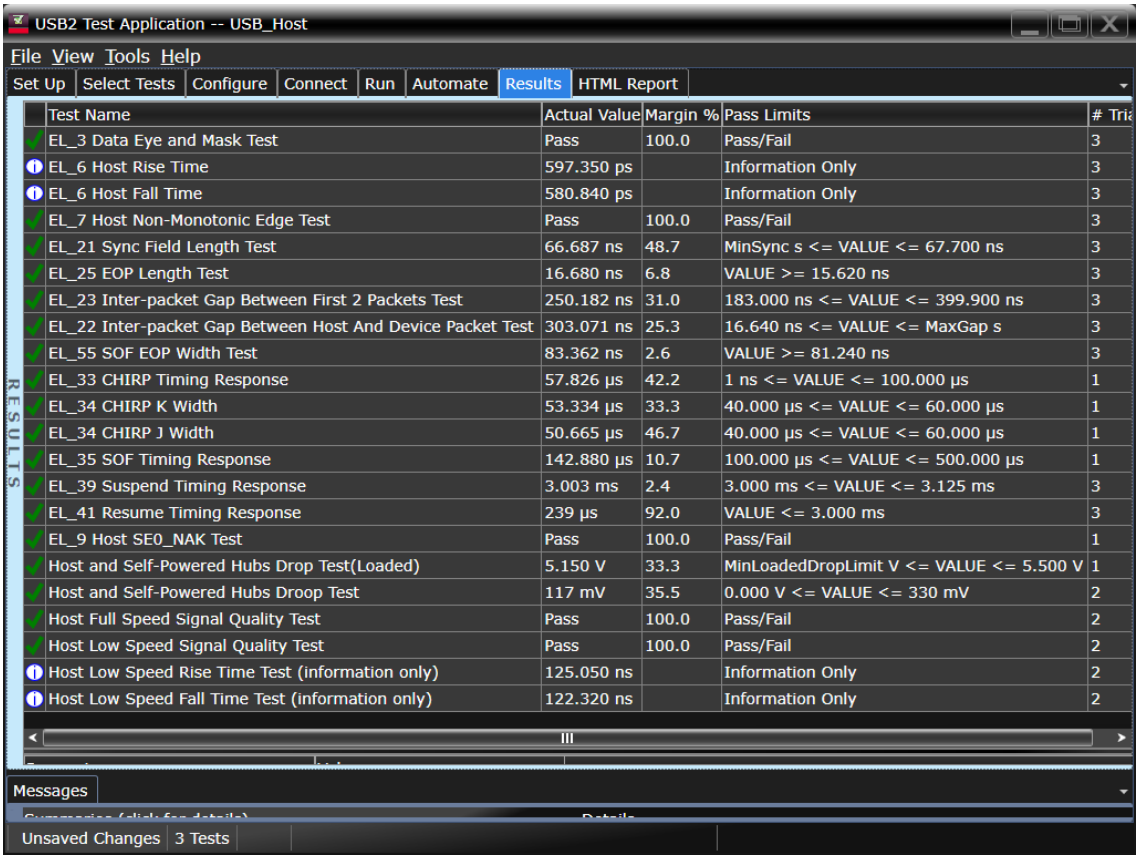
Figure 6. Output from the Power Integrity software application D9110POWA shows a reduction in the noise on a 3.3 V supply after the effects of removing the switching loads.

Premium Software Bundle (D9110PREB)

The Premium bundle combines all of the aforementioned bundles into one — your full-service subscription to all relevant oscilloscope software. This option is ideal for engineers that need a variety of different analysis, decode, offline, and pre-compliance testing capabilities at an affordable price, especially those that share equipment between labs.

The premium bundle includes the following software applications:

Premium bundle components	Description
Analysis package	
D9110SCNA	InfiniiScan event identification software
D9110JITA	EZJIT complete jitter, vertical, and phase noise analysis software
D9110POWA	Power integrity analysis software
D9110ASIA	Advanced signal integrity software
D9110PWRA	Power supply test software
D9110PAMA	Pulse Amplitude Modulation PAM-N analysis
D9110UDAA	User defined application software
Decode package	
D9110LSSP	Low-speed protocol decode/trigger software
D9110EMBP	Embedded protocol decode/trigger software
D9110AUTP	Automotive protocol decode/trigger software
D9120AUTP	High-speed automotive protocol decode/trigger software
D9110MPLP	Low-speed MIPI protocol decode/trigger software
D9110MCDP	MIPI CSI and DSI protocol decode/trigger software
D9110MPMP	MIPI M-PHY protocol decode/trigger software
D9110MILP	Military protocol decode/trigger software
Offline package	
D9010BSEO	Infiniium Offline – Base software
D9010LSPO	Infiniium Offline – Low-speed protocol software
D9010HSPO	Infiniium Offline – High-speed protocol
D9010JITO	Infiniium Offline – EZJIT complete software
D9010ASIO	Infiniium Offline – Advanced signal integrity software
Compliance package	
AE6910T	Automotive Ethernet Tx test software 10 M to 5 Gbps
D9010USBC	USB 2.0 compliance test software
D9010ETHC	10M/100M/1GBASE-T and energy efficient Ethernet compliance test application software



Test Name	Actual Value	Margin %	Pass Limits	# Tri
EL_3 Data Eye and Mask Test	Pass	100.0	Pass/Fail	3
EL_6 Host Rise Time	597.350 ps		Information Only	3
EL_6 Host Fall Time	580.840 ps		Information Only	3
EL_7 Host Non-Monotonic Edge Test	Pass	100.0	Pass/Fail	3
EL_21 Sync Field Length Test	66.687 ns	48.7	MinSync s <= VALUE <= 67.700 ns	3
EL_25 EOP Length Test	16.680 ns	6.8	VALUE >= 15.620 ns	3
EL_23 Inter-packet Gap Between First 2 Packets Test	250.182 ns	31.0	183.000 ns <= VALUE <= 399.900 ns	3
EL_22 Inter-packet Gap Between Host And Device Packet Test	303.071 ns	25.3	16.640 ns <= VALUE <= MaxGap s	3
EL_55 SOF EOP Width Test	83.362 ns	2.6	VALUE >= 81.240 ns	3
EL_33 CHIRP Timing Response	57.826 µs	42.2	1 ns <= VALUE <= 100.000 µs	1
EL_34 CHIRP K Width	53.334 µs	33.3	40.000 µs <= VALUE <= 60.000 µs	1
EL_34 CHIRP J Width	50.665 µs	46.7	40.000 µs <= VALUE <= 60.000 µs	1
EL_35 SOF Timing Response	142.880 µs	10.7	100.000 µs <= VALUE <= 500.000 µs	1
EL_39 Suspend Timing Response	3.003 ms	2.4	3.000 ms <= VALUE <= 3.125 ms	3
EL_41 Resume Timing Response	239 µs	92.0	VALUE <= 3.000 ms	3
EL_9 Host SE0_NAK Test	Pass	100.0	Pass/Fail	1
Host and Self-Powered Hubs Drop Test(Loaded)	5.150 V	33.3	MinLoadedDropLimit V <= VALUE <= 5.500 V	1
Host and Self-Powered Hubs Droop Test	117 mV	35.5	0.000 V <= VALUE <= 330 mV	2
Host Full Speed Signal Quality Test	Pass	100.0	Pass/Fail	2
Host Low Speed Signal Quality Test	Pass	100.0	Pass/Fail	2
Host Low Speed Rise Time Test (information only)	125.050 ns		Information Only	2
Host Low Speed Fall Time Test (information only)	122.320 ns		Information Only	2

Figure 7. The USB test application D9010USBC documents your test parameters, pass or fail status, test limits, and measured values and margin

Updates and Enhancements

Each bundle that includes Offline and Compliance packages comes standard with KeysightCare support subscriptions that match the duration of the chosen bundle subscription, which will be visible when quoted. This KeysightCare subscription enables you to receive updates and enhancements to the Offline and Compliance packages over the lifetime of your subscription. Analysis and Decode packages will receive updates and enhancements automatically when new firmware updates are installed. There is no subscription required to receive updates and enhancements to Analysis and Decode packages.

Related Literature

- Infiniium MXR-Series Oscilloscope data sheet
- Infiniium EXR-Series Oscilloscope data sheet
- Infiniium S-Series Oscilloscope data sheet
- Infiniium Oscilloscope Probe and Accessories data sheet

Ordering Information

Model number	Description
D9110ESSB	Infiniium Essential Software Bundle for MXR/EXR/S-Series Oscilloscopes
D9110AUTB	Infiniium Automotive Software Bundle for MXR/EXR/S-Series Oscilloscopes
D9110MILB	Infiniium Aerospace/Defense Software Bundle for MXR/EXR/S-Series Oscilloscopes
D9110HSSB	Infiniium High-Speed Serial Software Bundle for MXR/EXR/S-Series Oscilloscopes
D9110SINB	Infiniium Signal Integrity Software Bundle for MXR/EXR/S-Series Oscilloscopes
D9110POWB	Infiniium Power Software Bundle for MXR/EXR/S-Series Oscilloscopes
D9110PREB	Infiniium Premium Software Bundle for MXR/EXR/S-Series Oscilloscopes

Renewals: Once your bundle subscription expires, renew your subscription by simply re-purchasing the bundle again.