InfiniiVision Oscilloscope Application Bundles

Save 25% off list price when purchased as a bundle

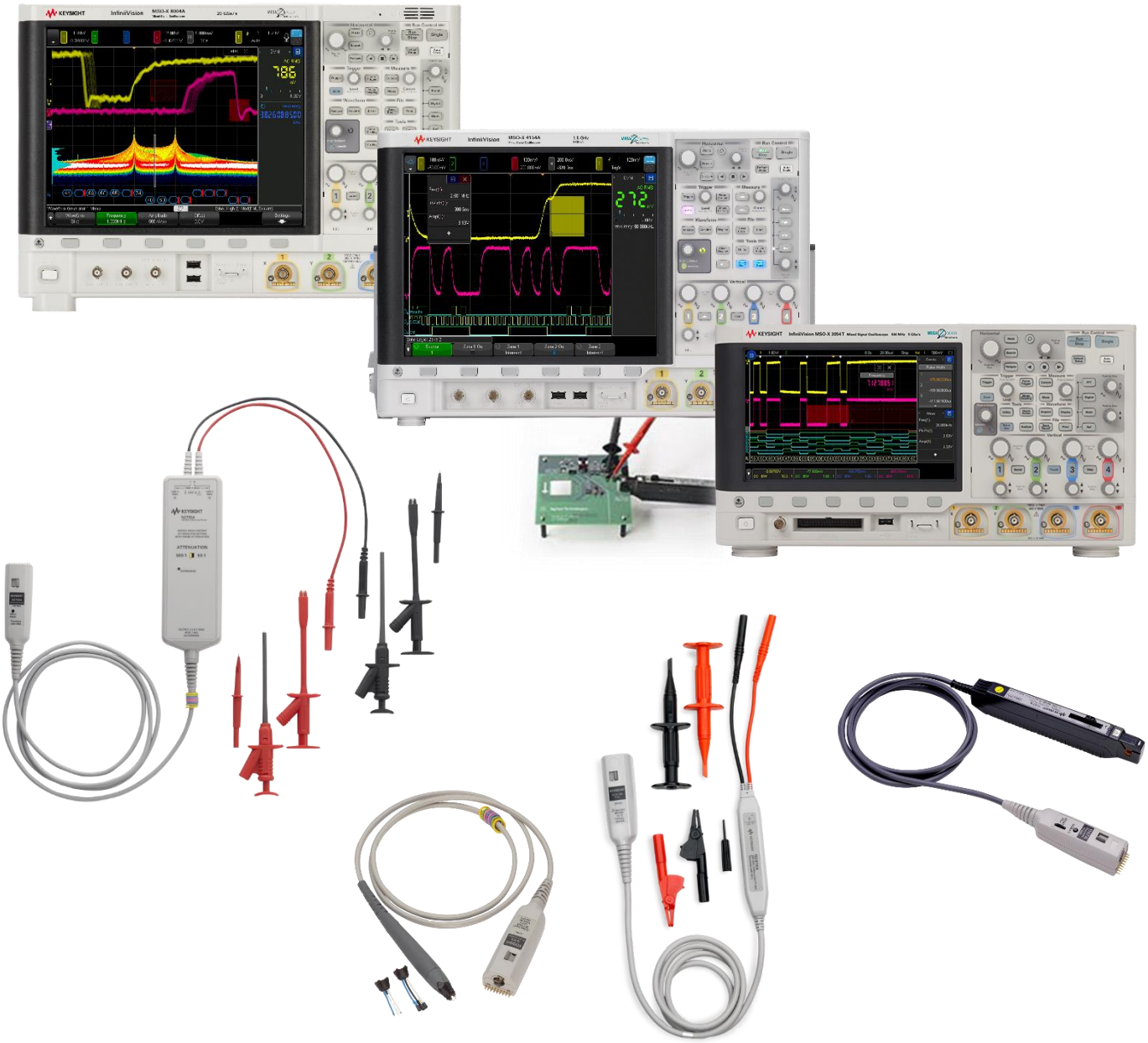

Table of Contents

Application Bundles Overview

Deciding which probes, which hardware upgrades, and which software options to purchase along with your InfiniiVision X-Series oscilloscope for a specific measurement application can be a daunting task. Keysight has made it easy for you by pre-configuring multiple products under single bundled model numbers. Keysight now offers six different bundles of products optimized for automotive test & debug, power supply characterization & testing, and high-speed signal integrity/jitter testing. Choose the one that best fits your measurement application & budget and save 25% off the list price relative to purchasing the same items individually.

- Automotive *Better* Application Bundle (DSOX3054AUT)
- Automotive *Best* Application Bundle (MSOX4254AUT)
- Power *Better* Application Bundle (DSOX3054PWR)
- Power *Best* Application Bundle (MSOX4254PWR)
- High-speed/Jitter *Better* Application Bundle (DSOX6004JIT)
- High-speed/Jitter *Best* Application Bundle (MSOX6004JIT)

Automotive Application Bundles

The Automotive *Better* Bundle (DSOX3054AUT) is built around the 4-channel, 500-MHz bandwidth InfiniiVision 3000T X-Series digital storage oscilloscope (DSO) with a built-in function/arbitrary waveform generator and the automotive software option. The automotive software package includes the broadest support for triggering on and decoding the most common automotive serial protocols including CAN, CAN FD, LIN, FlexRay, SENT, PSI5, and CXPI. Also supported is eye-diagram mask testing of CAN, CAN FD, and FlexRay differential buses, as well as symbolic decoding of the CAN, CAN FD, and LIN buses based on importing .dbc and .ldf files respectively. For probing automotive differential buses such as CAN, CAN FD, and FlexRay, the N2818A 200-MHz differential active probe is included in this bundle.

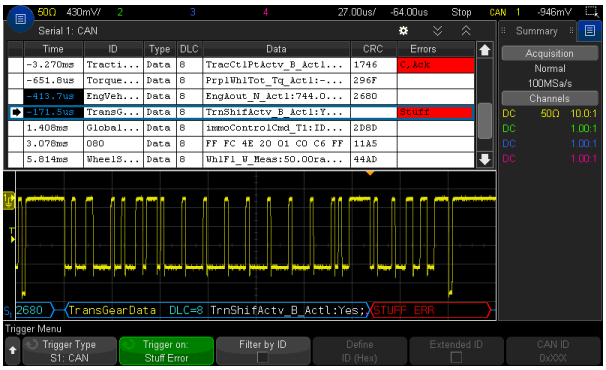

Figure 1: CAN Symbolic trigger and decode using the DSOX3154AUT automotive *better* bundle.

The Automotive *Best* Bundle (MSOX4154AUT) is built around the 4+16 channel, 1.5-GHz bandwidth InfiniiVision 4000 X-Series mixed signal oscilloscope (MSO), which includes 16 additional logic/digital channels of acquisition, a 2-channel function/arbitrary waveform generator, and the ultimate bundle software option. In addition to the automotive-focused serial protocols and advanced measurement capabilities that are available in the *better* automotive bundle, the *best* automotive bundle also supports power supply analysis, as well as a broader array of embedded serial protocols including I²C, SPI, UART/RS232/484, I²S, USB 2.0, USB PD, user-definable NRZ, and NFC. The automotive *best* bundle also includes the N2818A 200-MHz differential active probe.

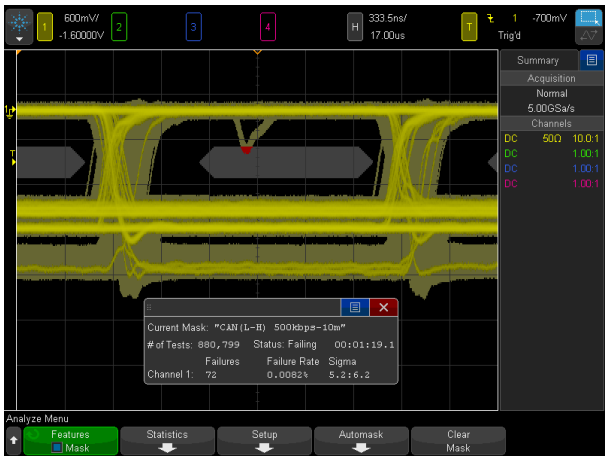

Figure 2: Pass/fail eye-diagram mask test of the differential CAN bus using the MSOX4154AUT automotive *best* bundle.

Below is a summary of what's included in the automotive application bundles:

Automotive *Better* Bundle: DSOX3054AUT	
DSOXT3054T	4-channel, 500 MHz oscilloscope
D3000AUTB	Automotive software option
DSOX3WAVEGEN	Function/AWG
N2818A	200-MHz diff active probe
DSOXLAN	LAN/VGA module

Automotive *Best* Bundle: MSOX4154AUT	
MSOX4154A	4+16 channel, 1.5-GHz MSO
D4000BDLB	Ultimate bundle software option
DSOX4WAVEGEN2	2-ch Function/AWG
N2818A	200-MHz diff active probe

Power Testing Application Bundles

The Power *Better* Bundle (DSOX3054AUT) is built around the 4-channel, 500-MHz bandwidth InfiniiVision 3000T X-Series digital storage oscilloscope (DSO) with the built-in function/arbitrary waveform generator and the power supply characterization and analysis software option. The power analysis software package includes the broadest support for testing linear and switch mode power supplies (SMPS) including input AC power quality, current harmonics, switching losses, turn-on/off analysis, transient analysis, output ripple, efficiency, and frequency response testing including power supply rejection ratio (PSRR) and control loop response (gain & phase Bode plots). Included in the power *better* test bundle are the N2790A 100-MHz high-voltage (±1500V) differential active probe, the 1147B 50-MHz 15A current probe, and the U1880A voltage-to-current probe deskew fixture.

Figure 3: Control loop response test using the DSOX3054AUT automotive *better* bundle.

Figure 4: Switching loss measurement using the MSOX4154AUT power *best* bundle.

The Power *Best* Bundle (MSOX4154AUT) is built around the 4+16 channel, 1.5-GHz bandwidth InfiniiVision 4000 X-Series mixed signal oscilloscope (MSO), which includes 16 additional logic/digital channels of acquisition, a 2-channel function/arbitrary waveform generator, and the ultimate bundle software option. In addition to the extensive selection of power supply characterization measurements that are available in the power test software option of the power *better* bundle, the ultimate bundle software option also includes a broad array of serial protocol trigger and decoding capabilities including I^2C, SPI, UART/RS232/484, I^2S, USB 2.0, USB PD, user-definable NRZ, CAN, CAN FD, LIN, SENT, CXPI, and NFC. The power *best* test bundle also includes the N2790A 100-MHz high-voltage (±1500V) differential active probe, the N7026A 150-MHz high-sensitivity 30A current probe, and the U1880A voltage-to-current probe deskew fixture.

Below is a summary of what's included in the power testing application bundles:

Power *Better* Bundle: DSOX3054PWR	
DSOXT3054T	4-channel, 500 MHz oscilloscope
D3000PWRB	Power analysis software option
DSOX3WAVEGEN	Function/AWG
N2790A	100-MHz HV diff active probe
1147B	50-MHz current probe
U1880A	Deskew fixture
DSOXLAN	LAN/VGA module

Power *Best* Bundle: MSOX4154PWR	
MSOX4154A	4+16 channel, 1.5-GHz MSO
D4000BDLB	Ultimate bundle software option
DSOX4WAVEGEN2	2-ch Function/AWG
N2790A	100-MHz HV diff active probe
N7026A	150-MHz current probe
U1880A	Deskew fixture

High-speed/Jitter Application Bundles

The High-speed Signal Integrity/Jitter *Better* Bundle (DSOX6004JIT) is built around the 4-channel, 1-GHz bandwidth InfiniiVision 6000 X-Series digital storage oscilloscope (DSO) that samples at rates up to 20 GSa/s and comes with a built-in 2-channel function/arbitrary waveform generator and the ultimate bundle software package.

The ultimate bundle software package includes all software options available in the InfiniiVision 6000 X-Series oscilloscopes, including high-speed jitter analysis. Jitter analysis on the InfiniiVision 6000 X-Series oscilloscope measures various types of jitter with multiple views and quantization of jitter to provide you with valuable insight into the source of unwanted timing errors. Also included is a broad range of automotive and embedded serial bus trigger and decoding capabilities including USB 2.0 low-, full-, and hi-speed, as well as frequency response analysis (Bode plots) and automated pass/fail limit testing based on either measurement limits or waveform mask limits.

Included in the high-speed signal integrity jitter *better* bundle is the N2750A 1.5-GHz differential active probe for probing high-speed differential signals such as the USB 2.0 hi-speed bus.

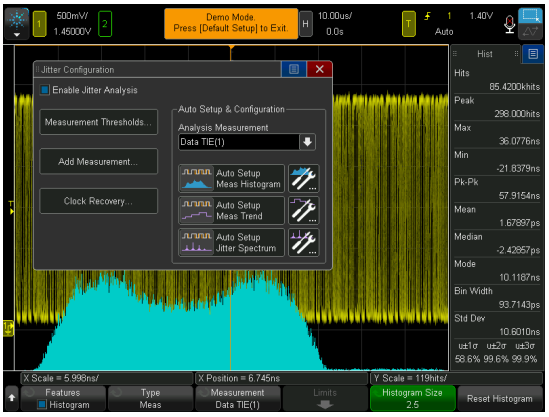

Figure 5: Jitter histogram using DSOX6004JIT HS/Jitter *better* bundle.

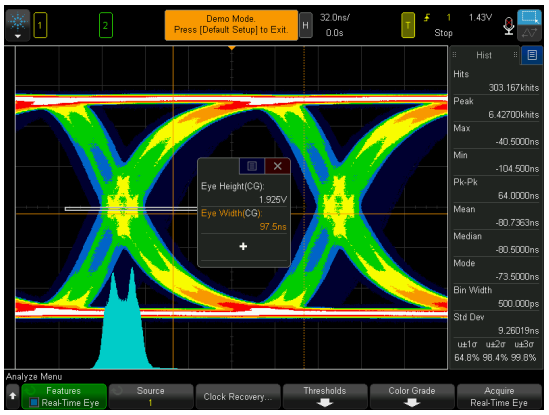

Figure 6: Eye-diagram with jitter histogram using MSO6004JIT HS/Jitter *best* bundle.

The High-speed Signal Integrity/Jitter *Best* Bundle (MSOX6004JIT) is built around the 4-channel, 2.5-GHz bandwidth InfiniiVision 6000 X-Series mixed signal oscilloscope (MSO) that samples at rates up to 20 GSa/s and comes with a built-in 2-channel function/arbitrary waveform generator, as well as the ultimate bundle software package.

Included in the high-speed signal integrity/jitter *best* application bundle is the N2751A 3.5-GHz differential active probe for probing high-speed differential signals such as the USB 2.0 hi-speed bus.

Below is a summary of what's included in the high-speed signal integrity/jitter application bundles:

High-speed/Jitter *Better* Bundle: DSOX6004JIT	
DSOX6004A	4-channel, 1-GHz oscilloscope
D6000BDLB	USB/Jitter software option
DSOX6WAVEGEN2	2-ch function/AWG
N2750A	1.5-GHz diff active probe

High-speed/Jitter *Best* Bundle: MSOX6004JIT	
MSOX6004A	4+16 channel, 1-GHz MSO
DSOX6004A-02G	2.5-GHz bandwidth option
D6000BDLB	Ultimate bundle software option
DSOX6WAVEGEN3	2-ch function/AWG
N2751A	3.5-GHz diff active probe

Performance Characteristics

Performance specifications and characteristics of oscilloscopes and probes & accessories that are included in each of the InfiniiVision application bundles can be found in the data sheets and selection guides of specific products listed in the related literature section below.

Related Literature

Literature Description	Publication Number
InfiniiVision 3000T X-Series oscilloscopes – data sheet	5992-0140
InfiniiVision 4000 X-Series oscilloscopes – data sheet	5991-1103
InfiniiVision 6000 X-Series oscilloscopes – data sheet	5991-4087
InfiniiVision oscilloscopes probes & accessories – selection guide	5968-8153
U1880A voltage-to-current probe deskew fixture – users guide	U1880-97000
D3000AUTB/D4000AUTB/D6000AUTB automotive software – data sheet	5992-3912
D3000PWRB/D4000PWRB/D6000PWRB power software – data sheet	5992-3925
D3000BDLB/D4000BDLB/D6000BDLB ultimate bundle software – data sheet	5992-3918

Ordering Information

Product Description	Model Number
InfiniiVision Automotive *Better* bundle	DSOX3054AUT
InfiniiVision Automotive *Best* bundle	MSOX4154AUT
InfiniiVision Power *Better* bundle	DSOX3054PWR
InfiniiVision Power *Best* bundle	MSOX4154PWR
InfiniiVision High-speed/Jitter *Better* bundle	DSOX6004JIT
InfiniiVision High-speed/Jitter *Best* bundle	MSOX6004JIT