Competitive Comparison

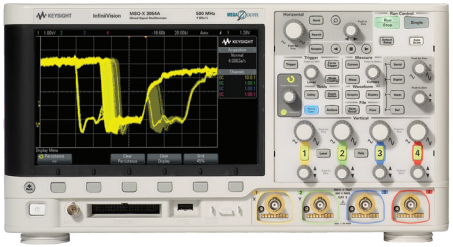
Keysight InfiniiVision 3000 X-Series versus Tektronix DPO/MSO3000 Oscilloscopes

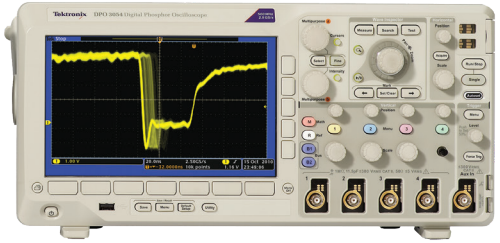
The Keysight Technologies, Inc. new 3000 X-Series oscilloscopes use breakthrough technology to deliver value, functionality and flexibility at prices that fit into existing budgets. Using a Keysight-designed *MegaZoom* IV Custom ASIC technology, the 3000 X-Series provides unprecedented signal visibility with over 1,000,000 waveforms per second. The 3000 X-Series is a 5-in-1 product with a full-featured scope, logic analyzer, protocol analyzer, and a function/arbitrary waveform generator, digital voltmeter all integrated into one design with a large, 8.5-inch display.

InfiniiVision 3000 X-Series

- 1,000,000 waveforms per second
- 5 instruments in 1
- Fully upgradable

Keysight-designed *MegaZoom* IV custom ASIC technology powers the fasters waveform update rates, responsive deep memory, integrated MSO, integrated industry-exclusive WaveGen, and integrated protocol analyzer.





	Keysight 3000 X-Series		Tektronix DPO/MSO3000	
Bandwidth	100 MHz, 200 MHz, 350 MHz, 500 MHz, 1 GHz	√	100 MHz, 300 MHz, 500 MHz	X
Upgradable bandwidth	Yes	√	Not available	X
Maximum sampling rate	5 GSa/s	√	2.5 GSa/s	X
Maximum memory depth	4 M	X	5 M	√
Maximum full channel SR	2.5 GSa/s	X	2.5 GSa/s	√
Maximum full channel memory	2 M	X	5 M	√
Display	8.5-inch WVGA (800 x 480)	√	9-inch WVGA (800 x 480)	√
Update rate	> 1,000,000 wfms/s	√	55,000 wfms/s	X
Mixed signal oscilloscope	Yes – 16 channels integrated	√	Yes – 16 channels integrated	√
Upgradable MSO	Yes	√	No	X
WaveGen built-in function/arbitrary waveform generator	Yes	√	Not available	X
Integrated Digital Voltmeter	Yes	√	No	X
Serial trigger, decode, search	I^2C, SPI, RS232, CAN, LIN, MIL-STD 1553, ARINC 429, FlexRay, I^2S	√	I^2C, SPI, RS232, CAN, LIN, I^2S	√
Hardware-based serial decode	Yes	√	No	X
Segmented memory	Yes	√	Not available	X
Hardware-based mask test	Yes – up to 240,000 tests per second	√	Not available	X

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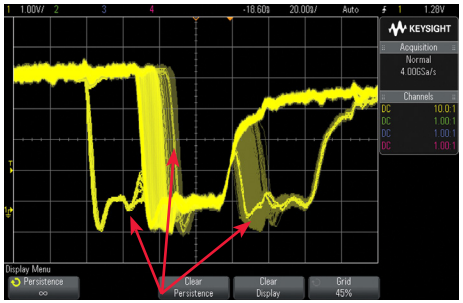
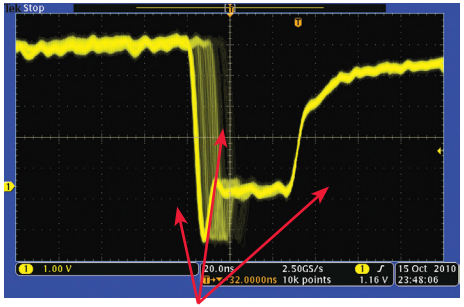
See More

Of your signal, more of the time:

– > 1,000,000 waveforms per second update rate allows you to see infrequent events and subtle signal detail that the DPO3000 will miss



Infrequent glitches and signal jitter captured after 1 second on 3000 X-Series with > 1,000,000 wfms/s



DPO3000 after 20 seconds—it never sees the glitches and shows limited signal jitter due to its slower update rate

www.keysight.com/find/3000X-Series

Do More

With the power of 5 instruments in 1:

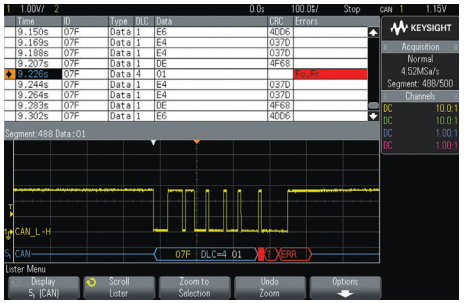
– High-performance oscilloscope
Provides features not normally found in this class of scope such as a large display, deep memory, and powerful triggering
– Protocol analyzer
Provides protocol-aware triggering, decode, search, and navigation for serial buses.
– Logic timing analyzer (MSO)
Ideal for R&D engineers on a tight budget who need more than the traditional 2 or 4 analog channels.
– WaveGen 20 MHz built-in function/ arbitrary waveform generator
Ideal for educational or design labs where bench space and budget are limited
– Integrated Digital Voltmeter
Provides a 3-digit voltmeter measurements (DVM) and 5-digit counter measurements inside the oscilloscope. The voltmeter operates through the same probes as the oscilloscope channels

Buy only what you need today. Simple, after purchase upgrades protect your investment and allow you to enhance your equipment as your needs change.

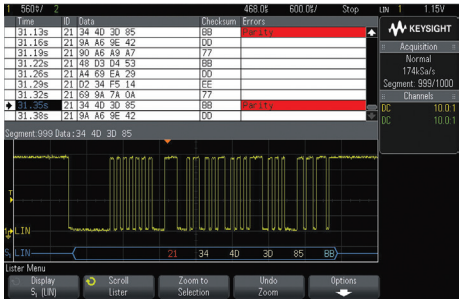
Get More

Investment protection and productivity:

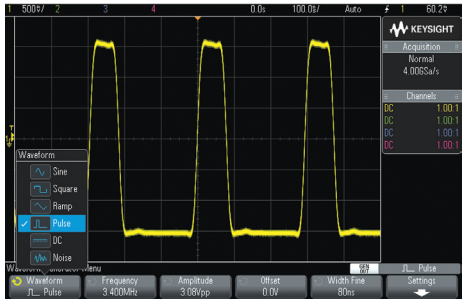
– Upgradable bandwidth
– Upgradable MSO
– Upgradable memory
– Upgradable WaveGen 20 MHz built-in function/arbitrary waveform generator
– Upgradable Digital Voltmeter
– Optional measurement applications



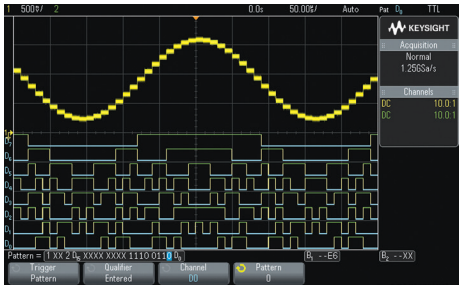
500 CAN serial packets over 9 seconds, captured at a high sample rate, using the 3000 X-Series's segmented memory



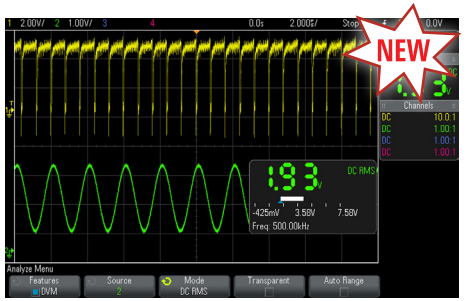
Infrequent LIN bus parity error captured on the 3000 X-Series in less than a second due to hardware-based serial decode



3000 X-Series industry-exclusive WaveGen function/ arbitrary waveform generator saves money and bench space



3000 X-Series MSO adds 16 integrated digital channels for extra triggering and analysis; DSO models are customer-upgradable to MSO models



Integrated digit voltmeter (DVM) allows you to characterize signals independent of the scopes triggering system

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