

## Competitive Comparison

# Keysight InfiniiVision 3000 X-Series vs. Danaher-Tektronix DPO/MSO4000 Oscilloscopes

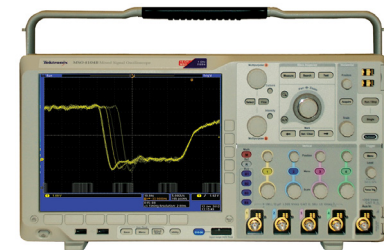
Keysight Technology, Inc.'s new 3000 X-Series oscilloscopes use breakthrough technology to deliver value, functionality and flexibility at prices that fit into existing budgets. Using an Keysight-designed *MegaZoom IV* Custom ASIC technology, the 3000 X-Series provides unprecedented signal visibility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

## InfiniiVision 3000 X-Series

- 1,000,000 wfms/s
- 5 instruments in 1
- Fully upgradable



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

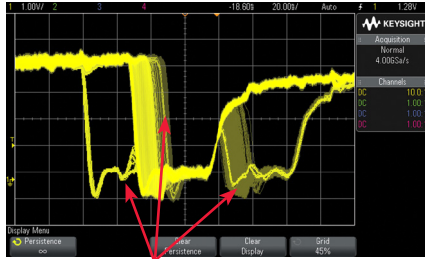


	Keysight 3000 X-Series	Danaher-Tektronix DPO/MSO4000	Danaher-Tektronix DPO/MSO4000B-L
Bandwidth	100/200/350/500 MHz, 1 GHz ■	350, 500 MHz, 1 GHz □	1 GHz □
Channels	2, 4 ■	4 only □	2, 4 ■
Upgradable bandwidth	Yes ■	No □	No □
Maximum sampling rate	5 GSa/s ( 1 GHz) ■	5 GSa/s (1 GHz) ■	2.5 GSa/s (1 GHz) □
	4 GSa/s (100 - 500 MHz) ■	2.5 GSa/s (350 - 500 MHz) □	N/A □
Maximum memory depth	4 Mpts □	20 Mpts ■	5 Mpts □
Maximum full channel SR	2.5 GSa/s (1 GHz) □	5 GSa/s (1 GHz) ■	2.5 GSa/s (1 GHz) □
	2 GSa/s (100-500 MHz) □	2.5 GSa/s (350-500 MHz) ■	N/A □
Maximum full channel memory	2 Mpts □	20 Mpts ■	5 Mpts □
Memory depth default	Always maximized ■	10 kpts □	10 kpts □
Segmented memory option	Yes ■	No □	No □
Update rate	>1,000,000 wfms/s ■	55,000 wfms/s □	55,000 wfms/s □
Display	8.5" WVGA □	10.4" XGA ■	10.4" XGA ■
Function generator/AWG	Yes ■	No □	No □
Integrated Digital Voltmeter (DVM)	Yes ■	No □	No □
Upgradable MSO	Yes ■	No □	No □
Hardware-based serial decode	Yes ■	No, software based □	No, software based □
Standard calibration time period	2 years ■	1 year □	1 year □

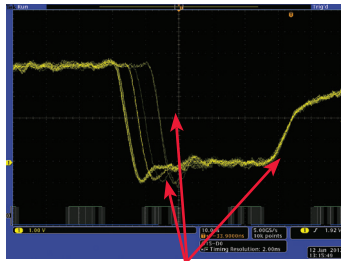
## See more

### 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 DPO4000B will miss



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



DPO4000B after 20 seconds—it never sees the glitches and shows limited signal jitter due to its slower update rate



Three-Year Warranty

[www.keysight.com/find/ThreeYearWarranty](http://www.keysight.com/find/ThreeYearWarranty)

[www.keysight.com/find/3000X-Series](http://www.keysight.com/find/3000X-Series)



## Do more

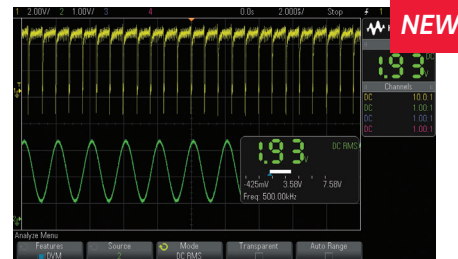
### With the power of 5 instruments in 1:

- Best-in-class oscilloscope
- Industry's only upgradable scope from 100 MHz through 1 GHz
- Protocol analyzer
- Hardware-based serial decode
- Logic timing analyzer (MSO)
- Integrated, upgradable MSO
- WaveGen 20 MHz built-in function/arbitrary waveform generator
- Industry-exclusive
- Integrated 3-digit voltmeter
- Industry-exclusive

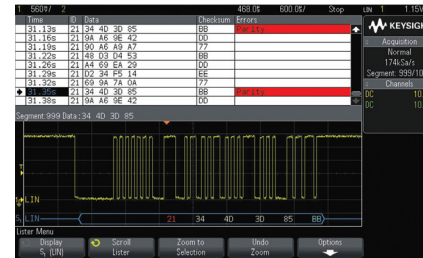
## Get more

### Investment protection and productivity:

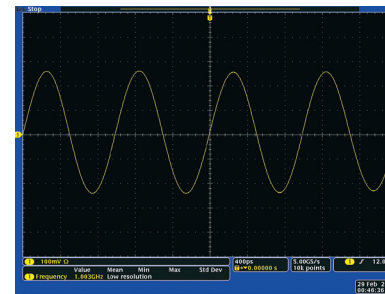
- Upgradable bandwidth through 1 GHz
- Upgradable MSO
- Upgradable memory
- Upgradable WaveGen 20 MHz built-in function/arbitrary waveform generator
- Upgradable Digital Voltmeter
- Upgradable measurement applications



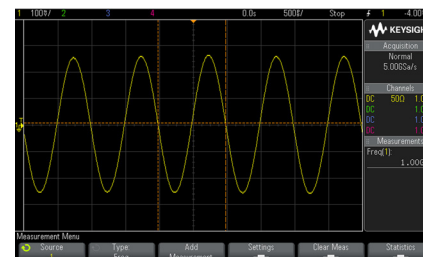
Integrated Digital Voltmeter (DVM) allows you to characterize signals independent of the scopes triggering system.



Hardware-based serial decode: Infrequent LIN bus parity error captured on the 3000 X-Series in less than a second.

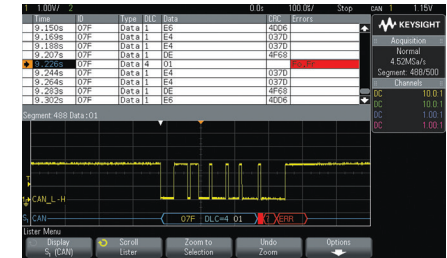


1 GHz sine wave captured on Tektronix 1 GHz scope\* at 5 GSa/s sample rate in half-channel mode.

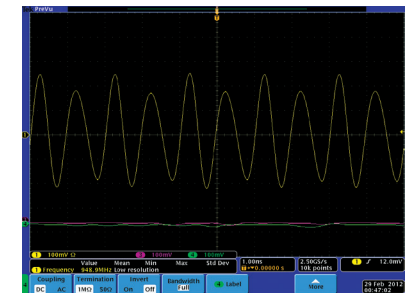


1 GHz sine wave captured on Keysight 1 GHz 3000 X-Series scope at 5 GSa/s sample rate in half-channel mode.

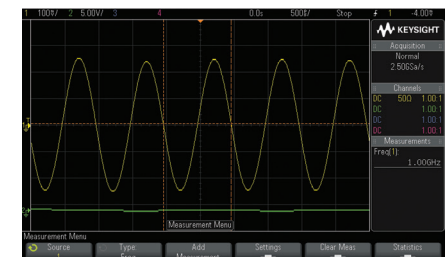
\* Tektronix MDO4104-6 1 GHz scope model tested with 5 GSa/s half-channel sample rate, 2.5 GSa/s full channel sample rate. Tektronix 1 GHz DPO/MSO4000B-L series scopes only provide a maximum 2.5 GSa/s full channel sample rate.



Segmented memory: 500 CAN serial packets over 9 seconds, captured at a high sample rate.



Same 1 GHz sine wave captured on 1 GHz scope\* at 2.5 GSa/s sample rate. Does not provide accurate 1 GHz signal reproduction on all channels simultaneous.



Same 1 GHz sine wave captured on Keysight 1 GHz 3000 X-Series scope at 2.5 GSa/s sample rate. Provides accurate 1 GHz signal reproduction on all channels simultaneous.

This information is subject to change without notice.  
© Keysight Technologies, 2013 - 2014  
Published in USA, August 3, 2014  
5990-9879EN  
[www.keysight.com](http://www.keysight.com)