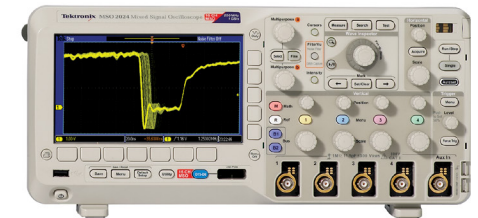
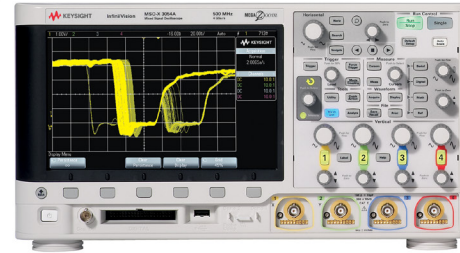


# Keysight Technologies InfiniiVision 3000 X-Series vs Tektronix DPO/MSO2000 Oscilloscopes Comparison Guide



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



## InfiniiVision 3000 X-Series

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

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 an Agilent-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.

	Keysight 3000 X-Series		Tektronix DPO2000	
Bandwidth	100, 200, 350, 500 MHz, 1 GHz	■	100, 200 MHz	–
Upgradable bandwidth	Yes	■	Not available	–
Maximum sampling rate	5 GSa/s	■	1 GSa/s	–
Maximum memory depth	4 M	■	1 M	–
Maximum full channel SR	2.5 GSa/s	■	1 GSa/s	–
Maximum full channel memory	2 M	■	1 M	–
Display	8.5-inch WVGA (800 x 480)	■	7-inch WQVGA (480 x 234)	–
Update rate	> 1,000,000 wfms/s	■	5,000 wfms/s	–
Mixed signal oscilloscope	Yes – 16 channels integrated	■	Yes – 16 channels integrated	■
Upgradable MSO	Yes	■	No	–
WaveGen built-in function/arbitrary waveform generator	Yes	■	Not available	–
Integrated Digital Voltmeter	Yes	■	No	–
Serial trigger, decode, search	I2C, SPI, RS232, CAN, LIN, MIL-STD 1553, ARINC 429, FlexRay, I2S	■	I2C, SPI, RS232, CAN, LIN	■
Hardware-based serial decode	Yes	■	No	–
Segmented memory	Yes	■	Not available	–
Hardware-based mask test	Yes – up to 240,000 tests per second	■	Not available	–

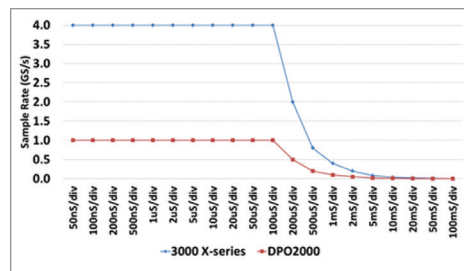
## See more

Of your signal, more of the time:

- An 8.5-inch WVGA display offers 50% more viewing area and > 3 times more resolution versus a 7-inch QWVGA display
- > 1,000,000 waveforms per second update rate allows you to see infrequent events and subtle signal details that the DPO2000 will miss
- Memory depth up to 4 M (4x the DPO2000) allows you to keep your sample rate high at longer time/division settings



8.5-inch WVGA display offers 50% more viewing area and > 3x more resolution



4x the memory allows you to keep sample rates higher on longer time/div settings

## Do more

With the power of 5 instruments in 1:

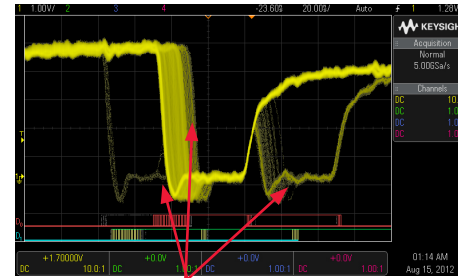
- High-performance oscilloscope – Provides features not normally found in this class of scope such as a large display, deep memory, and powerful triggering
- Protocol analyzer – Provides protocol-aware triggering, decode, search, and navigate for serial buses.
- Logic timing analyzer (MSO) – Ideal for R&D engineers on a tight budget who need more than the traditional 2 or 4 analog channels.
- WaveGen built-in 20 MHz 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

## Get more

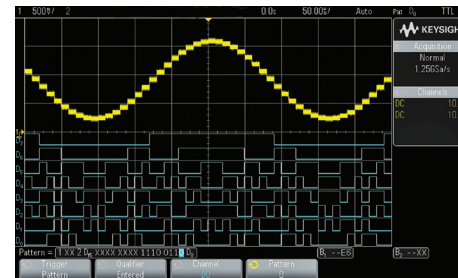
Investment protection and productivity:

- Upgradable bandwidth
- Upgradable MSO
- Upgradable memory
- Upgradable WaveGen Function/Arbitrary Waveform Generator
- Upgradable Digital Voltmeter
- Optional measurement applications

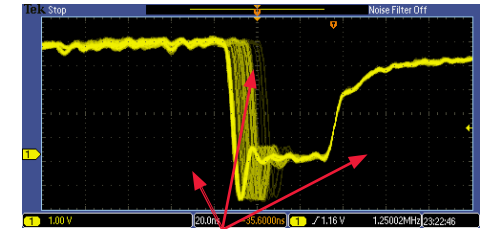
Buy only what you need today. Simple, after purchase upgrades protect your investment and allow you to enhance your equipment as your needs change.



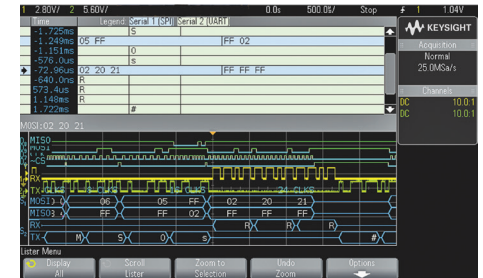
Infrequent glitches and signal jitter captured after 1 second on 3000 X-Series with > 1,000,000 wfms/sec



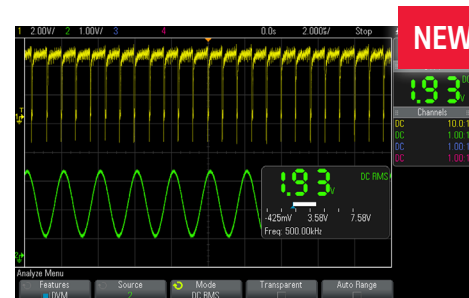
3000 X-Series MSO adds 16 integrated digital channels for extra triggering and analysis; DSO models are customer-upgradable to MSO models



DPO2000 after 40 seconds—it never sees the glitches and shows limited signal jitter due to its slower update



3000 X-Series protocol-aware triggering, decode, search, and navigate for serial buses; hardware-based to maintain fast waveform update rate and capture elusive errors



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

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