



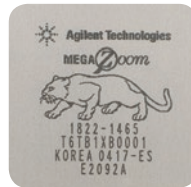
# Competitive Comparison: Agilent InfiniiVision 7000B Series vs. Danaher-Tektronix MDO4000 Series Oscilloscopes

Agilent's InfiniiVision Series oscilloscopes are engineered for the best signal visibility. The InfiniiVision 7000B offers: the industry's largest display (12.1 inch), fastest uncompromised update rate (100,000 waveforms per second), the only integrated and upgradable mixed signal oscilloscope option - all in a small, portable form factor. With best-in-class application support, the InfiniiVision 7000B will speed your time to market.

InfiniiVision scopes incorporate acquisition memory, waveform processing, and display memory in an advanced 0.13  $\mu$ ASIC.

This patented 3rd generation technology, known as MegaZoom III, delivers up to 100,000 waveforms (acquisitions) per second with responsive deep memory always available.\*

This means the InfiniiVision scopes have a higher probability of capturing infrequent/random glitches than the Tektronix MDO4000 Series.



Tektronix MDO	Agilent Scope	Agilent Spectrun Analyzer
MDO4054-3	MSO7054B	N9340B
MDO4054-6	MSO7054B	N9342C
MDO4104-3	MSO7104B	N9340B
MDP4104-6	MSO7104B	N9342C

\* Tektronix MDO4000 Series requires manual setting of memory depth to maintain high sample rates. Although it offers up to 20 Mpts of memory, the default setting is 10 Kpts in an attempt to speed the responsiveness of the scope.

	Agilent 7000B Series		Danaher-Tektronix MDO4000 Series
Bandwidth	100 MHz, 350 MHz, 500 MHz, 1 GHz	✓	500 MHz, 1 GHz
Memory depth	Up to 8 M	✗	Up to 20 M*
Sample rate - 1 GHz model	Up to 4 GSa/s	✗	Up to 5 GSa/s
Sample rate - 500 MHz model	Up to 4 GSa/s	✓	Up to 2.5 GSa/s
Max update rate - Analog Ch only	100,000 wfms/s	✓	62,000 wfms/s
Max update rate - Analog and MSO	100,000 wfms/s	✓	90 wfms/s
Max update rate - Analog and MSO and Serial	100,000 wfms/s	✓	30 wfms/s
Max update rate - Analog, MSO, RF and Serial	N/A		1 update every 9 seconds
Display	12.1 inch XGA LCD	✓	10.4 inch XGA LCD
Upgradable MSO	Yes	✓	No
MSO sample rate (full memory)	Up to 2 GSa/s	✓	Up to 500 MSa/s
Hardware-based serial decode	Yes	✓	No
Channel to channel isolation (100 MHz and above)	100:1	✓	30:1

Anticipate \_\_\_Accelerate \_\_\_Achieve



Agilent Technologies

## Industry's best signal visibility

Fastest uncompromised update rate:

- 100,000 waveforms/sec shows jitter, infrequent events and subtle signal detail that the Tektronix MDO4000 Series misses
  - 2 times faster compared to Tektronix's banner spec 50,000 wfms/sec
  - Up to 500,000 times faster when Tektronix enables the features they promote like 10M of memory, digital channels and/or serial decode
- 12 inch 1024x768 XGA resolution display provides excellent viewing area for analog, digital and serial information
  - Nearly 40% more viewing area than the Tektronix MDO4000 Series

## Insightful applications

Agilent's InfiniiVision 7000B offers the broadest range of insightful application support in its class:

- Industry's only hardware-based decode provides responsive decode of serial buses without slowing down the oscilloscope and also increases probability of capturing infrequent communication errors

## Additional form factors

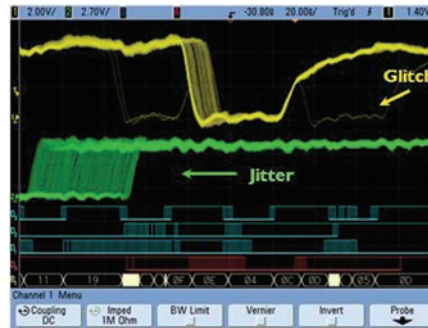
- 6000 Series → Stackable
- 6000L Series → Rackable
- 6000 BAT → Battery power



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

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 2013  
Printed in USA, June 18, 2013  
5990-9421EN



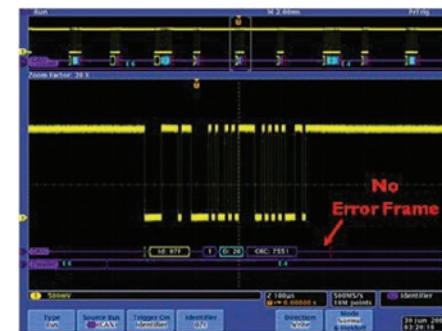
Agilent InfiniiVision 7000B clearly shows signal jitter and metastable state after just a couple seconds, even with deep memory and digital channels on



Turning on serial decode on Agilent's InfiniiVision 7000B has no impact on its waveform update rate, and it is able to capture the error frame on this CAN bus



Tektronix MDO4000 Series update rate drops when you turn on deep memory and digital channels, and the scope misses the signal jitter and metastable state



Turning on serial decoding severely limits the update rate of the Tektronix MDO4000 Series as it is not able to capture the error frame

	Agilent 7000 Series	Tektronix MDO4000 Series
Hardware-based serial decode	Yes ✓	No ✗
I <sup>2</sup> C, SPI, RS-232/UART, I <sup>2</sup> S, CAN/LIN, FlexRay, Altera/Xilinx FPGA, 1553, Power	Yes ✓	Yes ✓
Vector signal analysis	Yes ✓	No ✗
Segmented memory	Yes ✓	No ✗
Hardware accelerated mask testing	Yes ✓	No ✗

[www.agilent.com](http://www.agilent.com)  
[www.agilent.com/find/7000demo](http://www.agilent.com/find/7000demo)

