

Industry Comparison Guide: Agilent InfiniiVision 6000/7000 Series versus Tektronix 4000 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 μ 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 Tek 4000 Series.

	Agilent 7000 Series		Tektronix 4000 Series	
Bandwidth	100 MHz, 350 MHz, 500 MHz, 1 GHz	✓	350 MHz, 500 MHz, 1 GHz	✗
Memory depth	Up to 8 M	✗	Up to 10 M	✓
Sample rate	Up to 4 GSa/s	✗	Up to 5 GSa/s	✓
Update rate	100,000 wfms/s	✓	50,000 wfms/s (only analog channels in certain time bases)	✗
Display	12.1 inch XGA LCD	✓	10.4 inch XGA LCD	✗
1U high rack height	DSO/MSO6000L	✓	No equivalent form factor	✗
Vertical noise	20 mV at 100 mV/div	✓	30 mV at 100 mV/div	✗
Integrated MSO	Yes	✓	Yes	✓
Upgradable MSO	Yes	✓	No	✗
Hardware accelerated serial decode	Yes	✓	No	✗
Battery option	DSO/MSO6000	✓	No battery option	✗



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Industry's best signal visibility

Fastest uncompromised update rate:

- 100,000 waveforms/sec shows jitter, infrequent events and subtle signal detail that the Tektronix 4000 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
- 12.1 inch 1024x768 XGA resolution display provides excellent viewing area for analog, digital and serial information

Nearly 40% more viewing area than the Tektronix 4000 Series

Insightful applications

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

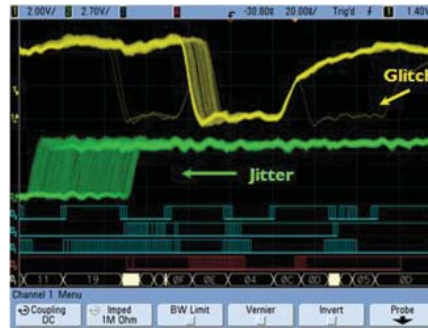
- Industry's only hardware accelerated decode
- Hardware accelerated decode provides responsive decode of serial buses without slowing down the oscilloscope and also increases probability of capturing infrequent communication errors

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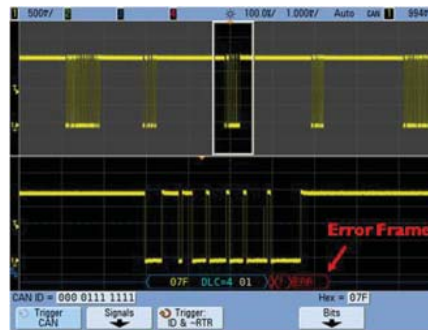
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Agilent InfiniiVision 7000B clearly shows signal jitter and metastable state after just a couple seconds, even with deep memory and digital channels on



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 4000 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 4000 series as it is not able to capture the error frame

	Agilent 7000 Series	Tektronix 4000 Series
Hardware accelerated serial decode	Yes ✓	No ✗
I ² C, SPI, RS-232/UART, I ² S, CAN/LIN, FlexRay, Altera/Xilinx FPGA	Yes ✓	Yes ✓
Vector signal analysis	Yes ✓	No ✗
Segmented memory	Yes ✓	No ✗
Hardware accelerated mask testing	Yes ✓	No ✗
MIL-STD 1553	Yes ✓	No ✗



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