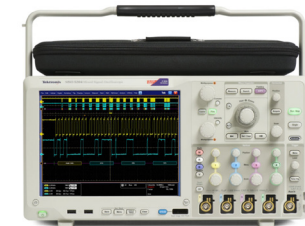
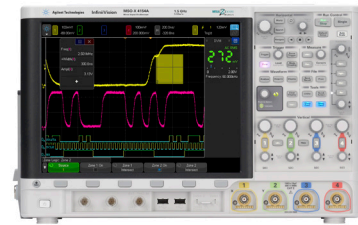
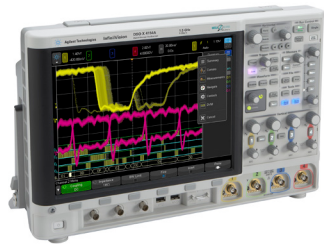




Competitive Comparison: Agilent InfiniiVision 4000 X-Series vs. Danaher-Tektronix DPO5000 Series Oscilloscope

Imagine an oscilloscope that sees everything, triggers on anything, has the ease-of-use of a tablet device, and grows with your projects. The new 4000 X-Series oscilloscopes are engineered for next-generation performance, delivering waveform update rates 20 times faster than the competition to display the most signal detail on an industry-leading 12.1-inch capacitive touch screen with innovative hardware-based InfiniiScan Zone touch triggering for the most intuitive and responsive oscilloscope measurements. Coupled with a fully-upgradable 5-instruments-in-1, the 4000 X-Series provide maximum investment protection.

It's without a doubt the very best embedded-operating system oscilloscope in the market today.



InfiniiVision 4000 X-Series: Oscilloscope experience redefined

- 12.1-inch capacitive touch display
- InfiniiScan Zone touch trigger
- 1,000,000 wfms/sec
- Standard segmented memory
- Bandwidth upgrade up to a class-leading 1.5 GHz
- Fully upgradable 5-instruments-in-1
 - Oscilloscope
 - Digital channels (MSO)
 - Protocol analysis
 - Dual-channel WaveGen with arbitrary waveform and modulation support
 - Digital voltmeter (DVM)
- InfiniiView oscilloscope analysis software

MegaZoom IV custom ASIC powers the fast update rate, MSO, function generator, protocol analysis and responsive, deep memory.



	Agilent 4000 X-Series		Danaher-Tektronix DPO5000 Series	
Price range	Starts from \$5,611 US (as of October 23, 2013)	✓	Starts from \$12,300 US (as of December 3, 2013)	✗
Bandwidth	200, 350, 500 MHz, 1, 1.5 GHz	✓	350, 500 MHz, 1, 2 GHz	✓
Channels	2 or 4 analog + 16 digital	✓	2 or 4 analog + 16 digital	✓
Bandwidth upgrade	Yes	✓	Not available	✗
Max sample rate	5 GSa/s	✗	5 GSa/s or 10 GSa/s	✓
Max memory depth	4 Mpts	✗	50 Mpts (option up to 250 Mpts)	✓
Segmented memory	Standard	✓	Standard	✓
Display size	12.1 inch	✓	10.4 inch	✗
Touch screen	Capacitive, designed for touch	✓	Resistive, designed for mouse	✗
Waveform update rate (standard mode)	> 1,000,000 wfms/s	✓	60 wfms	✗
Waveform update rate (special mode)	No special mode. Always up to > 1 M wfms/s	✓	Up to > 230,000 wfms/s with a special mode	✗
Hardware-based zone trigger	InfiniiScan Zone touch trigger (standard)	✓	No, software based (standard)	✗
WaveGen	Option, dual-channel WaveGen	✓	Not available	✗
Integrated digital voltmeter	Option	✓	Not available	✗
Hardware-based serial decode and mask test	Yes (option)	✓	No, software based (option except limit test)	✗
Serial decode options	10 series protocols	✗	13 serial protocols	✓
Compliance test	USB 2.0 signal quality testing (limited)	✗	5 serial protocol compliance tests	✓
Operating system	Embedded OS	✓	Windows	✓
Search and navigation	Serial and parametric	✓	Serial and parametric	✓
Standard passive probe	700 MHz passive	✗	500 MHz or 1 GHz passive	✓
Offline analysis software	Yes, N8900A InfiniiView	✓	Not available	✗



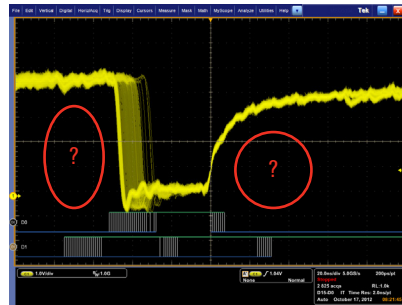
Experience the speed

With one million wfm/sec update rate:



Both analog and digital channels are turned on. Many infrequent glitches and metastable signals were observed after **five seconds** of acquisition on the 4000 X-Series.

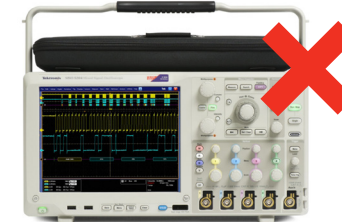
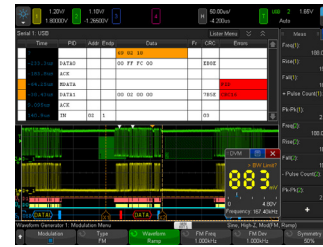
> 1,000,000 waveforms per second update rate allows you to see infrequent events and subtle signal details that Tek DPO5000 will miss. Because of the uncompromised MegaZoom IV memory architecture, the 4000 X-Series won't slow down even with digital channels, protocol decoding, measurements, and math functions turned on.



Both analog and digital channels are turned on. Even after **120 seconds** of acquisition, Tek DPO5000B failed to capture any glitches or metastable signals.

Experience the integration

With class' only fully-upgradable 5-instruments-in-1:



Bandwidth upgrade, MSO upgrade, dual-channel WaveGen, and DVM are not available with Tek DPO5000B.

Best-in-class oscilloscope

- Equipped standard features like InfiniiScan Zone, segmented memory, advanced math, advanced triggers, and class-leading 12.1-inch capacitive touch screen.

Protocol analysis

- Provides hardware-based protocol-aware triggering decode, search, and navigation for serial buses.

Logic timing analyzer (MSO)

- Ideal for R&D engineers and education institutes who need more than the traditional 2 or 4 analog channels.

Industry-exclusive 20 MHz dual-channel WaveGen

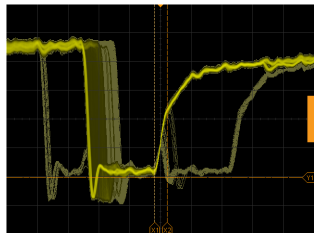
- With a modulation feature, it is ideal for educational or design labs where bench space and budget are limited.

Integrated Digital Voltmeter

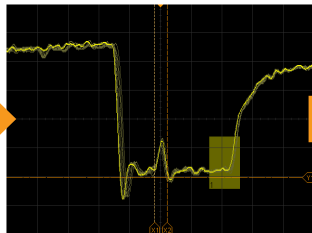
- Provides a 3-digit DVM and 5-digit counter measurements through the same probes as the oscilloscope channels.

Experience the usability

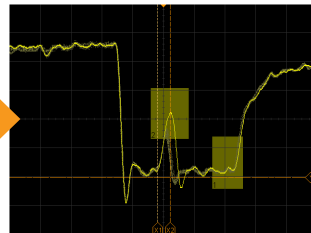
With the hardware InfiniiScan Zone touch trigger and 12.1-inch capacitive touch screen: If you can see it, you can trigger on it.



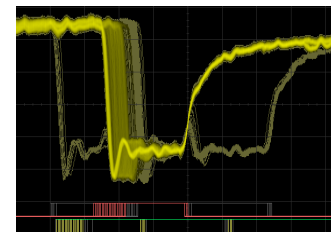
With the InfiniiScan Zone touch trigger, if **you can see it**, you can trigger on it. In five seconds, you see many anomalies.



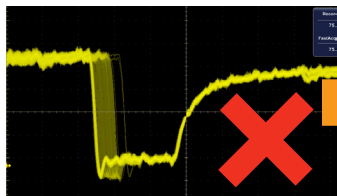
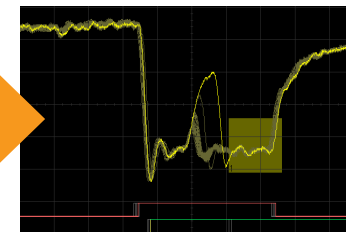
It is as simple as **finding the signal and drawing the zone box**. You are triggering on the metastable signals immediately.



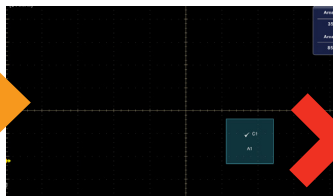
Add the **second zone** to further isolate dangerous glitches above the logical threshold.



In **five seconds**, the 4000 X-Series captured multiple anomalies. In **10 seconds**, the InfiniiScan Zone isolated multiple metastable signals. The InfiniiScan Zone is a standard mode, so it has a fast update rate and works together with digital channels, serial decodes, and other 4000 X-Series functions.



Since **you can't see it**, you don't know if anomalies exist or not after **two minutes** of signal observation with Tek DPO5000B.

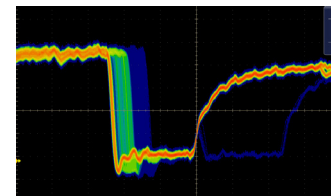


Being a software-based solution, Tek DPO5000B's Visual Trigger **can't trigger on infrequent anomalies** even after **five minutes** of acquisition time.

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5 **ASSURANCE**
Calibration



Tek DPO5000B's DPX/FastAcq mode displays the metastable signal after **five seconds**. However, DPO/FastAcq is a *special mode*, which will not work with the Visual Trigger, MSO channels, or serial decodes. You may see it, but you **cannot** trigger on it, with the combination of DPX/FastAcq and Visual Trigger.

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