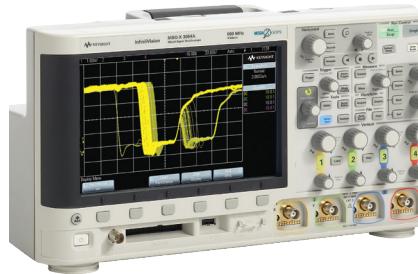


Competitive Comparison

Keysight InfiniiVision 3000 X-Series versus Tektronix TDS3000C Oscilloscopes

The 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 a 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 a 5-in-1 product with a full-featured scope, logic analyzer, protocol analyzer, a function/arbitrary waveform generator and integrated digital voltmeter all integrated into one design with a large, 8.5-inch display.



InfiniiVision 3000 X-Series

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

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



	Keysight 3000 X-Series	Tektronix TDS3000C
Bandwidth	100 MHz, 200 MHz, 350 MHz, 500 MHz, 1 GHz	✓ 100 MHz, 300 MHz, 500 MHz X
Upgradable bandwidth	Yes	✓ Not available X
Maximum sampling rate	Up to 4 GSa/s ^{1, 2, 3} Up to 5 GSa/s ⁴	✓ Up to 1.25 GSa/s ¹ ✓ Up to 2.5 GSa/s ² ✓ Up to 5 GSa/s ³
Maximum memory depth	4 M	✓ Up to 10 K X
Display	8.5-inch WVGA (800 x 480)	✓ 6.5-inch VGA (640 x 480) X
Update rate	> 1,000,000 wfms/s	✓ 3,600 wfms/s X
Mixed signal oscilloscope	Yes – 16 channels integrated	✓ Not available X
WaveGen built-in function/arbitrary waveform generator	Yes	✓ Not available X
Integrated Digital Voltmeter	Yes	✓ No X
Serial trigger, decode, search	I ² C, SPI, RS232, CAN, LIN, MIL-STD 1553, ARINC 429, FlexRay I ² S	✓ Not available X
Hardware-based serial decode	Yes	✓ No X
Segmented memory	Yes	✓ Not available X
Hardware-based mask test	Yes – up to 240,000 tests per second	✓ Not available X

1. 100 MHz

2. 300/350 MHz

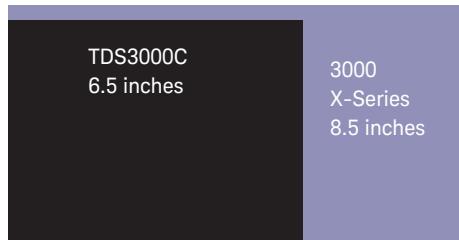
3. 500 MHz

4. 1 GHz

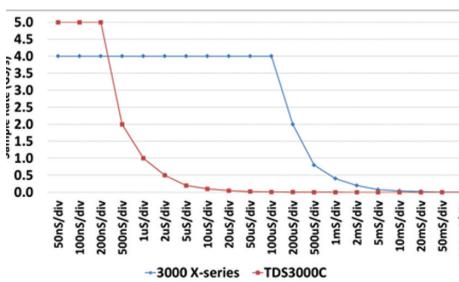
See More

Of your signal, more of the time:

- An 8.5-inch WVGA display offers 50% more viewing area and 25% more resolution versus a 6.5-inch VGA display
- > 1,000,000 waveforms per second update rate allows you to see infrequent events and subtle signal details that the TDS3000C will miss
- Memory depth up to 4 M (400x the TDS3000C) allows you to keep your sample rate high at longer time/division settings



8.5-inch WVGA display offers 50% more viewing area and 25% more resolution



400x 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 navigation 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 20 MHz built-in 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

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

www.keysight.com/find/3000X-Series

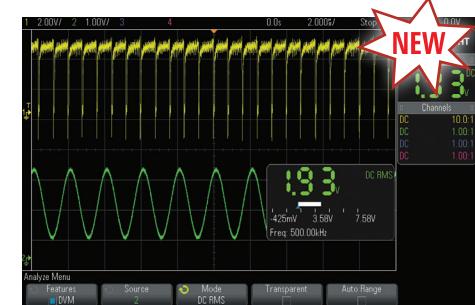
Get More

Investment protection and productivity:

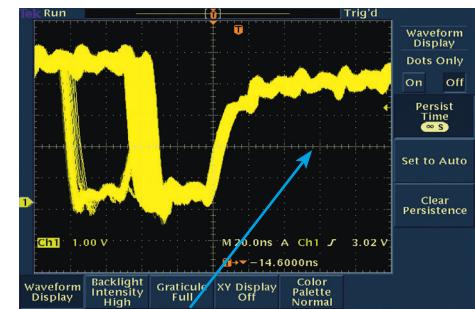
- Upgradable bandwidth
- Upgradable MSO
- Upgradable memory
- Upgradable WaveGen 20 MHz built-in function/arbitrary waveform generator
- Upgradable Digital Voltmeter
- Optional measurement applications



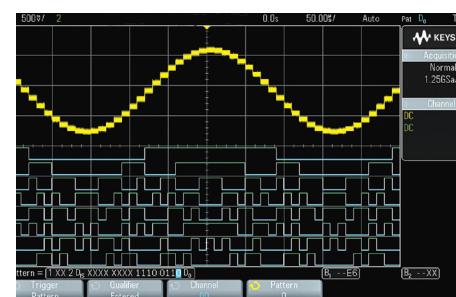
Infrequent glitches and signal jitter captured after 1 second on 3000 X-Series with > 1,000,000 wfms/s



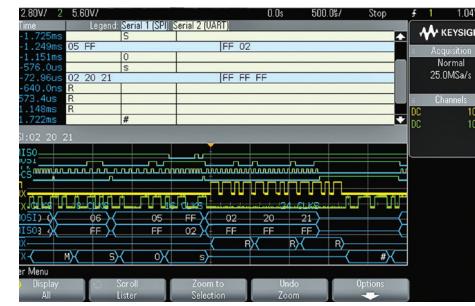
Integrated Digit Voltmeter (DVM) allows you to characterize signals independent of the scopes triggering system.



TDS3000 after 40 seconds—it never sees the glitch due to its slower update rate



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



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