# Industry Comparison Guide: Agilent 2000 X-Series versus Danaher Tektronix TDS2000C Oscilloscopes

Agilent's new 2000 X-Series oscilloscopes use breakthrough technology to deliver value, functionality, and flexibility at prices that fit into existing budgets. The 2000 X-Series offers an 8.5-inch WVGA high resolution display and our new industry-exclusive integrated function generator, digital voltmeter and logic analyzer. Agilent-designed MegaZoom IV Custom ASIC technology allows you to see more signal detail with update rates of over 50,000 waveforms per second. Now with hardware serial decodes, deeper memory and a standard 5-year warranty.
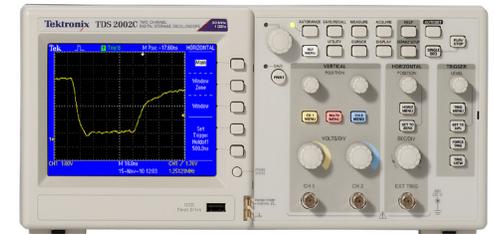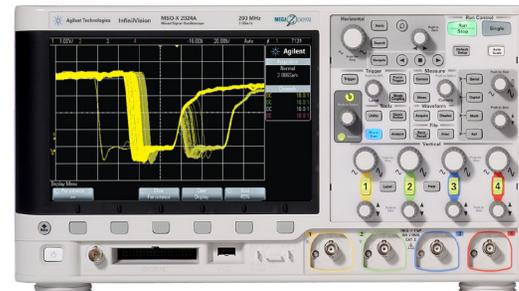
InfiniiVision 2000 X-Series

- 50,000 waveforms per second
- 5 instruments in 1
- Fully upgradable

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

	Agilent 2000 X-Series		Tektronix TDS2000C	
Bandwidth	70 MHz, 100 MHz, 200 MHz	X	50 MHz, 70 MHz, 100 MHz, 200 MHz	√
Upgradable bandwidth	Yes	√	No	X
Maximum sampling rate	Up to 2 GSa/s (2X more) [1]	√	Up to 1 GSa/s [1]	X
	Up to 2 GSa/s [2]	√	Up to 2 GSa/s [2]	√
Memory depth	Up to 1 M (all models) (400X more)	√	Up to 2.5 kpts	X
Display	8.5-inch WVGA (800 x 480) (2X area and 5X pixels)	√	5.7-inch QVGA (320 x 240)	X
WaveGen built-in function generator	Yes	√	No	X
Integrated Digital Voltmeter	Yes	√	No	X
Mixed signal oscilloscope	Yes – 8 channels	√	No	X
Update rate	> 50,000 wfms/s (250X more)	√	200 wfms/s	X
Segmented memory	Yes	√	No	X
Hardware-based mask test	Yes	√	No	X
Standard warranty	5 years [3]	X	Limited lifetime	√
Serial decode	Yes – I²C, SPI, RS232, CAN, LIN	√	No	X

1. On 70 MHz models.
2. On 100 and 200 MHz models.
3. Applies to all orders on or after January 1, 2013.

Anticipate ___*Accelerate* ___*Achieve*

Agilent Technologies

See more

Of your signal, more of the time:

- The 8.5-inch WVGA display offers 2x the viewing area and 5x the resolution versus a 5.7-inch QVGA display
- > 50,000 waveforms per second update rate allows you to see infrequent events and subtle signal details that the TDS2000C will miss
- Memory depth up to 1 Mpts (400X the TDS2000C) allows you to keep your sample rate high at longer time/division settings

2000 X-Series 8.5 inches

TDS2000C 5.7 inches
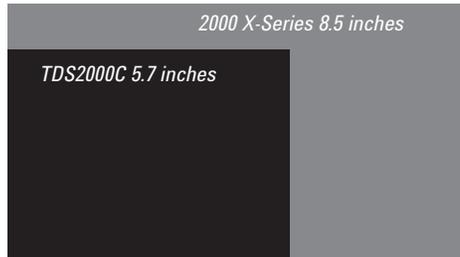
8.5-inch WVGA display offers 2x the viewing area and 5x the resolution
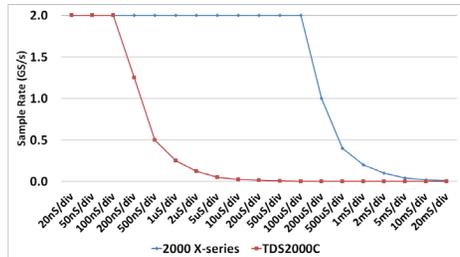
40x the memory allows you to keep sample rates higher on longer time/div settings

3 WARRANTY **Three-Year Warranty ***

Do more

## With the power of 5 instruments in 1:

- **Best-in-class 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
- **Industry-exclusive WaveGen 20 MHz built-in function 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
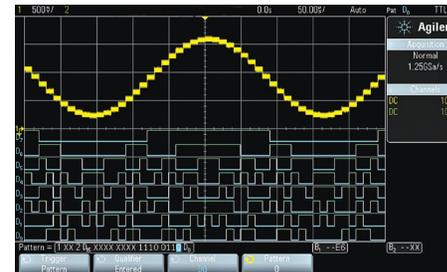
Get more

Investment protection and productivity:
- Upgradable bandwidth
- Upgradable MSO
- Upgradable memory
- Upgradable WaveGen 20 MHz built-in function generator
- Upgradable Digital Voltmeter
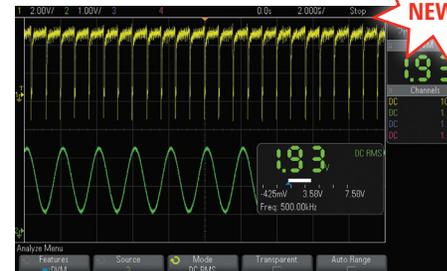- Optional measurement applications

Buy only what you need today. Simple, after purchase upgrades protect your investment and allow you to enhance your equipment as your needs change.
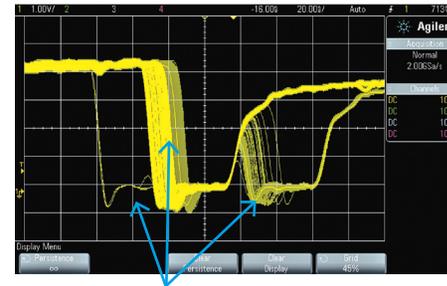
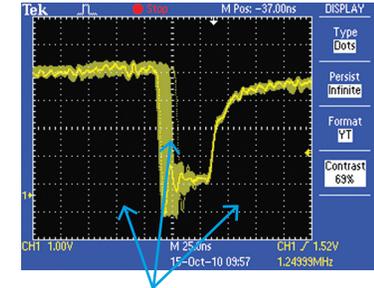Infrequent glitch and signal jitter captured after 2 seconds on 2000 X-Series with > 50,000 wfms/s

TDS2000C after 40 seconds—it never sees the glitches and shows limited signal jitter due to its slow update rate of 180 wfms/s

2000 X-Series' MSO adds eight integrated digital channels for extra triggering or logic analysis; DSO models are customer-upgradable to MSO models
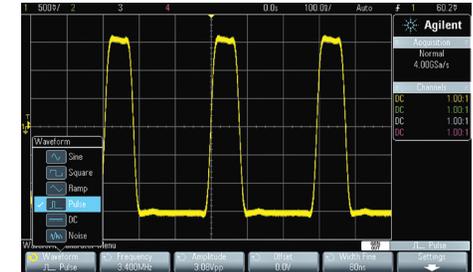
2000 X-Series' exclusive WaveGen built-in 20-MHz function generator saves money and space

Integrated digit voltmeter (DVM) allows you to characterize signals independent of the scopes triggering system.
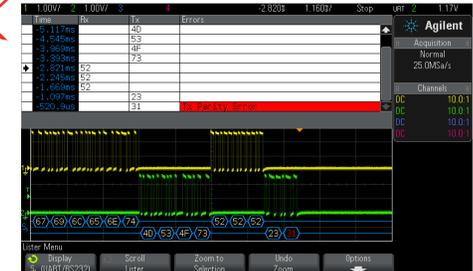
2000 X-Series' hardware-based serial decode provides the industry's fastest update rate while decoding serial busses

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