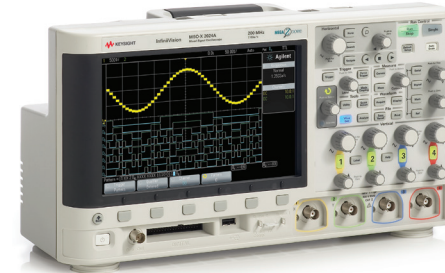
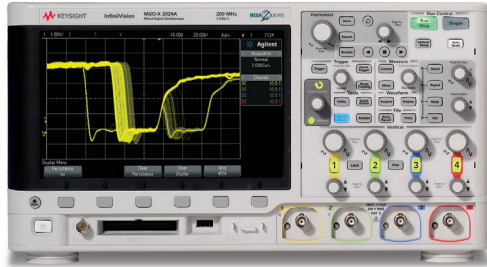


Competitive Comparison:

Keysight 2000 X-Series versus GW Instek GDS-2000A Series Oscilloscopes

The Keysight Technologies, Inc. 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 and logic analyzer. Keysight-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 decode, deeper memory and standard 5-year warranty.



| | Keysight DSO-X 2000A Series | | GW Instek GDS-2000A Series | |
|------------------------------------|--|---|-----------------------------------|---|
| Bandwidth | 70 MHz, 100 MHz, 200 MHz | X | 70 MHz, 100 MHz, 200 MHz, 300 MHz | ✓ |
| Upgradable bandwidth | Yes | ✓ | Not available | X |
| Sampling rate | 2 GSa/s | ✓ | 2 GSa/s | ✓ |
| Voltage range | 1 mV to 5 V | X | 1 mV to 10 V | ✓ |
| BW at 1mV/div | Full | ✓ | Limited to 20 MHz | X |
| High resolution mode | Up to 12 bits | ✓ | Not available | X |
| Vernier/fine mode | Yes | ✓ | Not available | X |
| Analog channels | 2 or 4 | ✓ | 2 or 4 | ✓ |
| Max update rate (standard mode) | > 50,000 wfms/s | ✓ | < 2,000 wfms/s | X |
| Max update rate (special mode) | No special mode, always > 50,000 wfm/s | X | 80,000 wfm/s | ✓ |
| Max full channel memory depth | 1 Mpt/ch | X | 2 Mpt/ch | ✓ |
| MSO | Yes – 8 ch | X | Yes – 8 ch or 16 ch | ✓ |
| Integrated dual function generator | Yes | ✓ | Yes | ✓ |
| Function generator bandwidth | 20 MHz | ✓ | 5 MHz | X |
| Function generator accuracy | < 2% | ✓ | ± 10% | X |
| Integrated DVM | Yes | ✓ | Not available | ✓ |
| Display | 8.5-inch WVGA (800 x 480) | ✓ | 8-inch SVGA (800 x 600) | ✓ |
| Localized interface | Yes – 13 languages | ✓ | Yes – 6 languages | X |
| Calibration interval | 2 years | ✓ | 1 year | X |
| Standard warranty | 5 years | ✓ | 3 years | X |

InfiniiVision 2000 X-Series

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

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



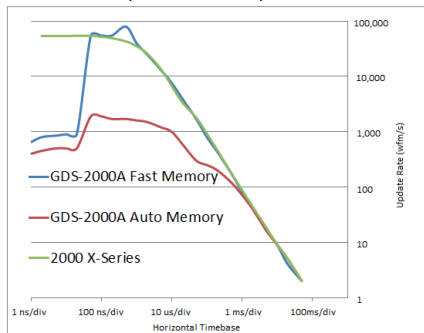
* See back page for more information on GW Instek's short record mode, in section titled "See More".

See more

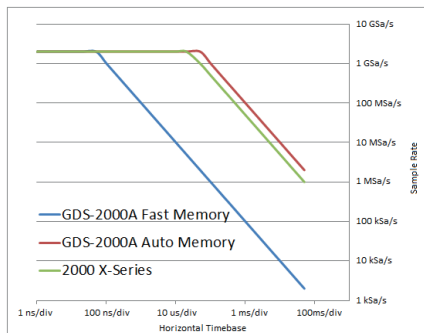
Of your signal, more of the time:

- 64 levels of intensity grading in the 2000 X-Series shows significantly more detail than the GDS-2000A
- Don't sacrifice bandwidth for speed: The 2000 X-Series achieves > 50,000 waveforms per second update rate with up to 500X the sample rate of the GDS-2000A
- The GDS-2000A achieves fast update rates by reducing its acquisition memory to 1,000 points. This can cause sample rate to drop by a factor of 500. The 2000 X-Series does this automatically to get fast update rate and long memory, without having to manually switch between modes

Update Rate Comparison



Sample Rate Comparison



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

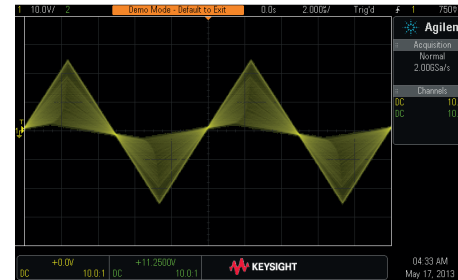
Get more

Investment protection and productivity:

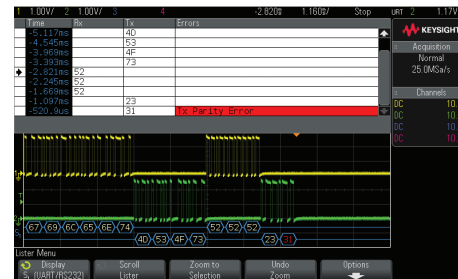
- Upgradable bandwidth
- Upgradable MSO
- Upgradable memory
- Upgradable WaveGen 20 MHz built-in function generator
- Upgradable digital voltmeter
- Optional measurement applications

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

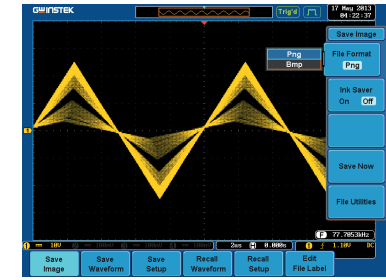
www.keysight.com/find/e5072a



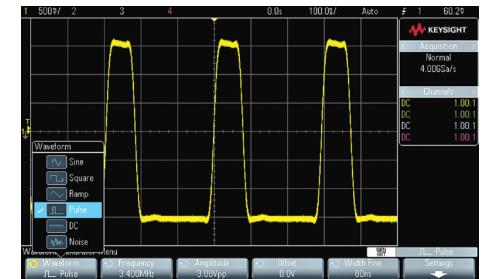
The 2000 X-Series offers 64 levels of intensity, showing significantly more signal detail compared to the GDS-2000A.



2000 X-Series' hardware-based serial decode provides the industry's fastest update rate while decoding serial buses



The GDS-2000A offers minimal levels of intensity grading, with number of levels undisclosed in any literature.



2000 X-Series' exclusive WaveGen built-in 20-MHz function generator saves money and space

| | Update rate | | | Sample rate | | |
|------------|----------------------------------|---------------------------------|----------------|----------------------------------|---------------------------------|----------------|
| | GW Instek GDS-2000A Short memory | GW Instek GDS-2000A Auto memory | Keysight 2000X | GW Instek GDS-2000A Short memory | GW Instek GDS-2000A Auto memory | Keysight 2000X |
| 10 nS/div | 900 | 500 | 54,000 | 2 GS/s | 2 GS/s | 2 GS/s |
| 100 nS/div | 55,000 | 1,900 | 52,300 | 1 GS/s | 2 GS/s | 2 GS/s |
| 500 nS/div | 80,000 | 1,700 | 43,200 | 200 MS/s | 2 GS/s | 2 GS/s |
| 5 uS/div | 13,000 | 1,200 | 13,500 | 20 MS/s | 2 GS/s | 2 GS/s |
| 50 uS/div | 1,700 | 300 | 1,800 | 2 MS/s | 2 GS/s | 1 GS/s |
| 1 mS/div | 82 | 72 | 89 | 100 KS/s | 100 MS/s | 50 MS/s |
| 50 mS/div | 2 | 2 | 2 | 2 KS/s | 2 MS/s | 1 MS/s |

Three-Year Warranty



www.keysight.com/find/ThreeYearWarranty

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans

www.keysight.com/find/AssurancePlans



Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements. InfiniVision 2000 X-Series oscilloscopes bought on or after January 1, 2013, have a 5-year warranty.