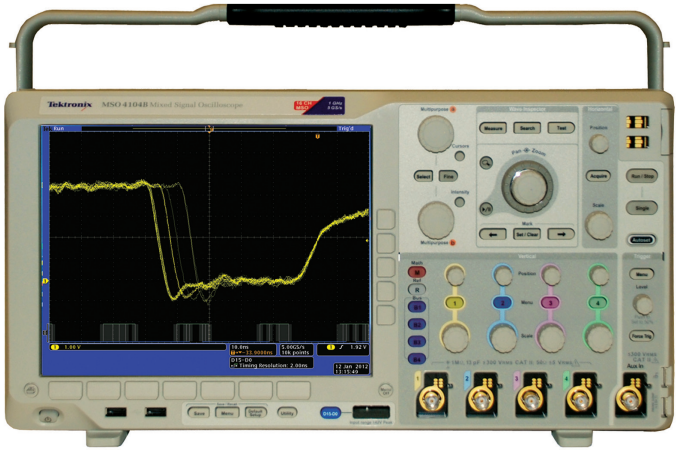
# Keysight Competitive Comparison

## Keysight 6000 X-Series versus Danaher-Tektronix DPO/MSO/MDO4000B

### Keysight 6000 X-Series

### Danaher-Tektronix DPO/MSO/MDO4000B Series

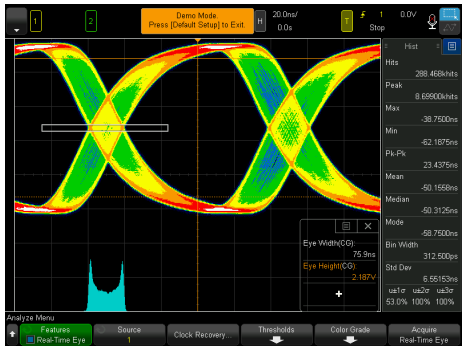


KEYSIGHT TECHNOLOGIES

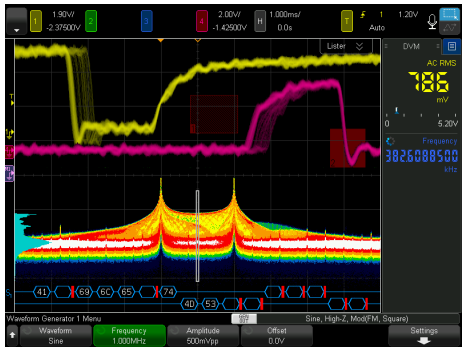
Unlocking Measurement Insights

The Keysight Technologies, Inc. 6000 X-Series oscilloscopes offer bandwidths up to 6 GHz with the key benefits of our InfiniiVision line: affordability, excellent visualization, 6-in-1 integration and investment protection. Speed your debugging with its uncompromised fast update rate, combined with the industry's only hardware zone trigger. Operation is simplified with a localized GUI that is designed for touch and the industry's first 12.1" multi-touch capacitive display. Voice control makes doing oscilloscope inputs easy while your hands are holding probes.

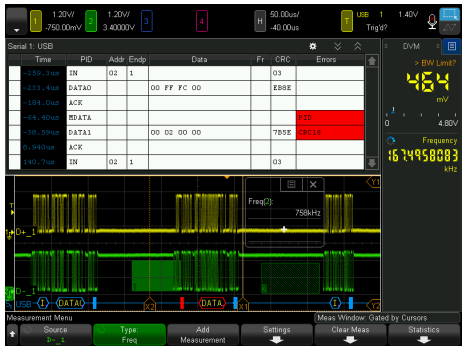
| | **Tektronix DPO/MSO/ MDO4000** | | **Keysight 6000 X-Series** | |
|---|---|---|---|---|
| Bandwidth | Up to 1 GHz | X | Up to 6 GHz | √ |
| Upgradable bandwidth | No | X | Yes – license key | √ |
| Max sample rate | 5 GSa/s | X | 20 GSa/s | √ |
| Standard memory depth | Up to 20 M | √ | Up to 4 M | X |
| Segmented smart memory | Not available | X | Standard | √ |
| Noise at 5 mV/div 1 GHz to 50 Ohms | 375 uV RMS | X | 183 uV RMS | √ |
| Max waveform update rate | Up to 340,000 wfms/s | X | Up to 450,000 wfms/s | √ |
| Max update rate with digital channels on | ~100 wfms/s | X | Up to 450,000 wfms/s | √ |
| Zone trigger | Not available | X | Yes – hardware-based > 100 K triggers/s | √ |
| Display | 10.4" no touch | X | 12.1" capacitive multi-touch | √ |
| Mouse/keyboard | Keyboard only | X | Mouse/keyboard | √ |
| Upgradable MSO | No | X | Yes | √ |
| Other integration | Spectrum analyzer (MDO only) | √ | 2 channel FG, 10-digit counter/totalizer | √ |
| Advanced analysis | Not available | X | Jitter, RTE, color grading | √ |
| Standard passive probe | 500 MHz or 1 GHz | √ | 700 MHz | X |
| Measurements | 29, 8 simultaneously, cursor gating | X | 56, 10 simultaneously, cursor gating | √ |
| Math functions | Displays one math function | X | Displays four math functions | √ |
| Hardware-based serial decode and mask testing | No, software post processing | X | Yes | √ |
| Standard calibration interval | 1 year | X | 2 years | √ |
| Voice control | Not available | X | Yes – localized | √ |



Jitter/RTE



FFT



Protocol

Built-in AWG

Infrequent glitches and signal jitter captured after one second on 6000 X-Series with standard update rate.

DPO7000 after 60 seconds. It never sees the glitches and shows limited signal jitter due to its slow update rate.

A fast update rate allows you to see an infrequent glitch, but then you want to isolate it. With the 6000 X-Series' hardware zone trigger, you can draw a box to isolate the signal of interest. If you can see it, you can trigger on it.

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