Competitive Comparison

Keysight InfiniiVision 3000 X-Series versus Hameg HMO3000 Oscilloscopes
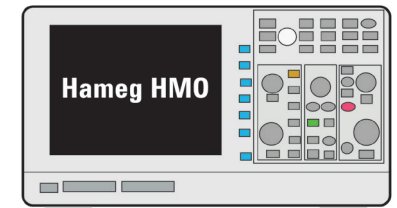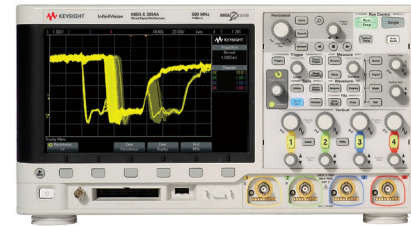
The Keysight T echnologies, Inc. new 3000 X-Series oscilloscopes use breakthrough technology to deliver value, functionality and flexibility at prices that fit into existing budgets. Using an Keysight-designed MegaZoom IV Custom ASIC technology, the 3000 X-Series provides unprecedented signal visibility with an uncompromised update rate of more than 1,000,000 waveforms per second. The 3000 X-Series is the industry's first 5-in-1 product with a full-featured scope, logic analyzer, protocol analyzer, and a function/arbitrary waveform generator, 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 fastest waveform update rates, responsive deep memory, integrated MSO, integrated industry-exclusive WaveGen, integrated digital voltmeter, and integrated protocol analyzer.
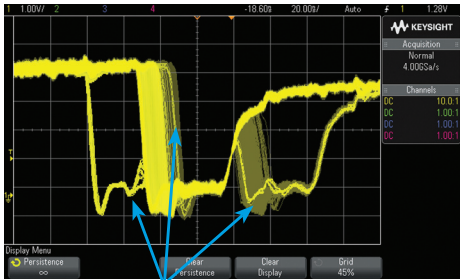
	Keysight 3000 X-Series		Hameg HMO3000	
Bandwidth	100 MHz, 200 MHz, 350 MHz, 500 MHz, 1 GHz	√	300 MHz, 400 MHz, 500 MHz	X
Upgradable bandwidth	Yes – from 100 MHz to 1 GHz	√	Available only for 300 MHz to 500 MHz	X
Maximum sampling rate	4 GSa/s (100 to 500 MHz), 5 GSa/s (1 GHz)	√	8M	√
Maximum memory depth	4M	X	One multiplexed among four	√
Display	8.5-inch WVGA (800 x 480) (> 50% more viewing area)	√	6.5-inch VGA (640x480)	X
Update area	> 1,000,000 wfms/s (> 200x faster)	√	Up to 4,800 wfms/sec	X
Mixed signal oscilloscope	Yes – 16 channels integrated	√	Yes – 16 channels integrated	√
Setup/hold trigger	Yes	√	No	X
Knob per channel	Yes	√	No	X
Function generator	Yes – integrated AWG	√	Not available	X
Serial trigger, decode, search	I^2C, SPI, RS232, CAN, LIN, I2S, 1553, ARINC, FlexRay	√	I^2C, SPI, RS232, CAN/LIN, no search	X
Mask test	Yes – up to 240 K/sec (~100x faster)	√	Yes, but throughput not specified–likely 4.8 K/sec or less	X
Calibration interval	2 years	√	1 year	X
Maximum input voltage	400 Vp	√	200 Vp	X
High-resolution mode	Up to 12 bits	√	Up to 10 bits	X
Operating range	0 °C to +55 °C	√	+5 °C to +40 °C	X

See more

Of your signal, more of the time:

- > 1,000,000 waveforms per second update rate allows you to see infrequent events and subtle signal detail that the Hameg HMO will miss
- An 8.5-inch WVGA display offers 50% more viewing area and 25% more resolution versus a 6.5-inch VGA display

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

Hameg HMO 6.5 inches | 3000 x-Series 8.5 inches

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

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 to troubleshoot today's digital designs

- Industry-exclusive WaveGen 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 (DVM) and 5-digit counter inside the oscilloscopes. 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/arbitrary waveform generator

Infrequent LIN bus parity error captured on the 3000 X-Series in less than a second due to hardware-based serial decode

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

- 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.

500 CAN serial packets over 9 seconds, captured at a high sample rate, using the 3000 X-Series's segmented memory

3000 X-Series industry-exclusive WaveGen function generator saves money and bench space

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
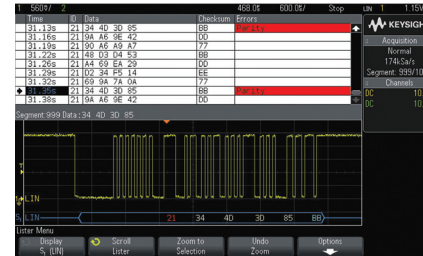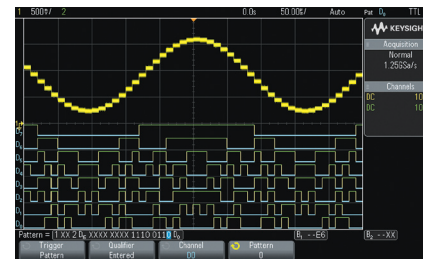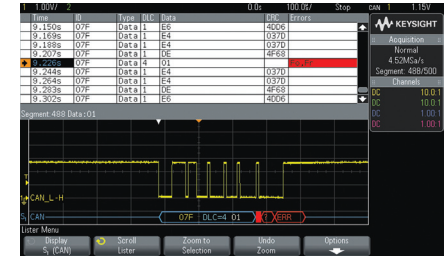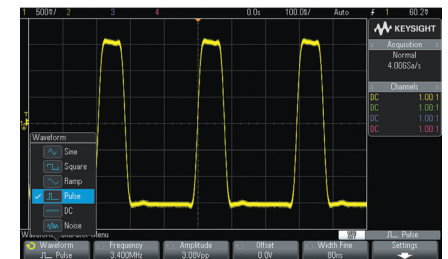www.keysight.com/find/AssurancePlans
Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

www.keysight.com/find/3000x-series

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TECHNOLOGIES