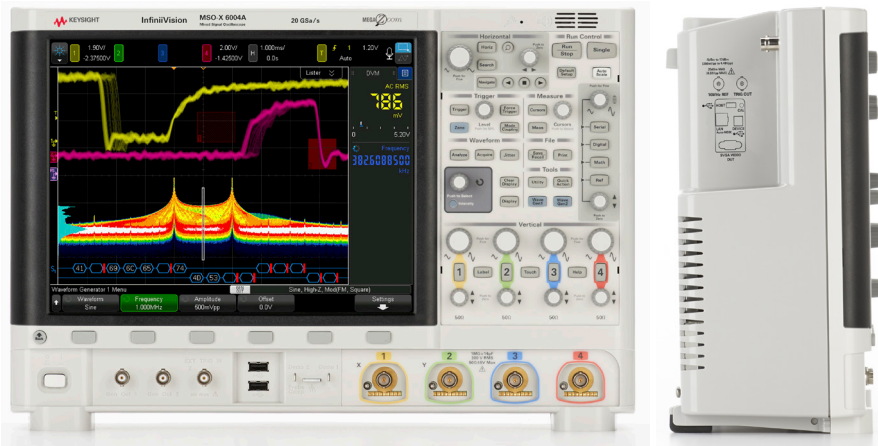# InfiniiVision 6000 X-Series Oscilloscopes

New price performance standard

## Key specifications

Product	Description
Bandwidth	1, 2.5, 4, 6 GHz
Channels	2 or 4 analog channels (DSO)
	+16 digital channels (MSO)
Max sample rate	20 GSa/s
Max memory	4 Mpts
Display	12.1-inch capacitive multi-touch display
Waveform update rate	> 450,000 waveforms per second
Trigger	InfiniiScan Zone touch trigger + standard advanced triggers
Advanced math	Standard, display four funtions simultaneously
Connectivity	Standard USB 2.0, LAN, video (GPIB option), USB mouse, keyboard, and microphone support
Upgradable (option)	Bandwidth, MSO, dual-channel WaveGen, serial protocol trigger and decode, 10-digit counter, and other measurement applications
Analysis	Histogram, color grade, jitter/real-time eye diagram (option), enhanced FFT, segmented memory, search/navigate, advanced math functions, limit/mask test (option)
Serial protocol options	I²C/SPI, RS232/UART, CAN, CAN FD, LIN, SENT, FlexRay, I²S, MIL-STD1553, ARINC429, USB 2.0
Voice control	Standard
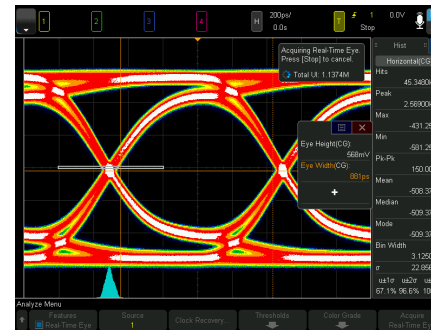
New bandwidth standard

Performance meets price: two opposing concepts meet in a portable 6-GHz oscilloscope.
 – Surprisingly low starting prices
 – 210 uVrms noise floor at 1 mV/div (6 GHz)
 – 115 uVrms noise floor at 1 mV/div (1 GHz)
 – Standard hardware bandwidth limit control
 – Only 6" (15 cm) deep, 15 lbs (6.8 kg)
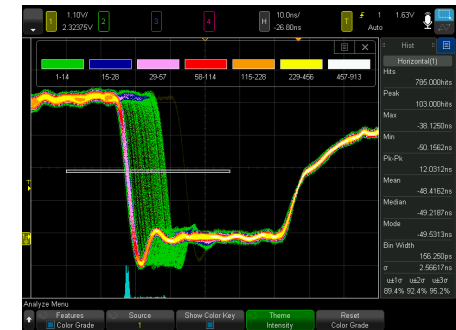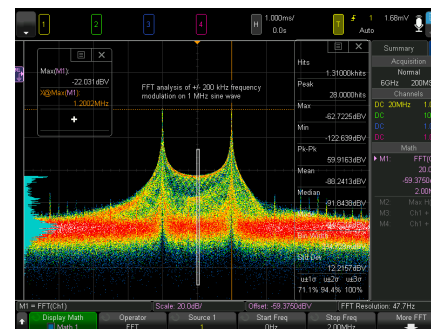
New visualization standard

Quickly troubleshoot your design by visualizing your challenges.
 – > 450,000 wfms/sec update rate
 – Hardware InfiniiScan Zone touch trigger
 – 12.1-inch capacitive multi-touch screen
 – Standard histogram and color grade
 – Optional jitter and real-time eye diagram analysis

New integration standard

Get the power of 7 instruments in 1, fully upgradable.
 – Best-in-class oscilloscope
 – Integrated 16 digital channels on MSO models
 – Serial protocol trigger and decode (option)
 – Integrated dual-channel function/ arbitrary waveform generator (option)
 – Integrated 3-digit digital voltmeter
 – Integrated 10-digit counter and totalizer
 – Frequency response analyzer, Bode plots (optional)
Also with multi-language voice control and enhanced color FFT with peak search.

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InfiniiVision 6000 X-Series oscilloscope models

Half-channel real-time bandwidth (–3 db)		1 GHz	2.5 GHz	4 GHz	6 GHz
Full-channel real-time bandwidth (–3 db)		1 GHz	2.5 GHz	4 GHz	4 GHz
Input channels	DSOX6002A	2			
	DSOX6004A	4			
	MSOX6002A	2 + 16			
	MSOX6004A	4 + 16			
Bandwidth options		1 GHz	2.5 GHz	4 GHz	6 GHz
	For 2-channel models	Default	DSOX6B10T252BW	DSOX6B10T402BW	DSOX6B10T602BW
	For 4-channel models	Default	DSOX6B10T254BW	DSOX6B10T404BW	DSOX6B10T604BW
Sampling rate	20 GSa/s half channel, 10 GSa/s all channel				
Memory	≤ 2 GSa/s: 4 Mpts half, 2 Mpts all channels, > 2 GSa/s: 1 Mpts half, 500 kpts all channels				

1. For example, if you want a 4 GHz, 4 + 16 channel 6000 X-Series, the model config will be MSOX6004A and DSOX6B10T404BW.

Recommended probes and accessories

Model	Recommended probes and accessories	Standard/optional
N2894A	Passive probe 700 MHz, 10:1, 9.5 pF, 10 MΩ	Included standard (1 per channel)
N2756A	16 digital channel MSO cable	Included standard on MSOX models and DSOX6MSO
N2870A	Passive probe 35 MHz, 1:1, 1 MΩ	Optional
10076B	High-voltage passive probe (4 kV)	Optional
N2795A	Active single-ended probe 1 GHz, 1 pF, 1 MΩ with AutoProbe	Optional
N2796A	Active single-ended probe 2 GHz, 1 pF, 1 MΩ with AutoProbe	Optional
N2797A	Active single-ended probe 1.5 GHz extreme temperature	Optional
N2750A	InfiniiMode differential probe 1.5 GHz, 700 fF, 200 kΩ with AutoProbe	Optional
N2751A	InfiniiMode differential probe 3.5 GHz, 700 fF, 200 kΩ with AutoProbe	Optional
N2752A	InfiniiMode differential probe 6.0 GHz, 700 fF, 200 kΩ with AutoProbe	Optional
1130A	InfiniiMax differential probe 1.5 GHz, 270 fF, 50 kΩ with AutoProbe	Optional
1131A	InfiniiMax differential probe 3.5 GHz, 270 fF, 50 kΩ with AutoProbe	Optional
1132A	InfiniiMax differential probe 5 GHz, 270 fF, 50 kΩ with AutoProbe	Optional
1134A	InfiniiMax differential probe 7 GHz, 270 fF, 50 kΩ with AutoProbe	Optional
N2790A	Differential active probe 100 MHz, ± 1.4 kV, 8 MΩ with AutoProbe	Optional
N2791A	Differential active probe 25 MHz, ± 700 V, 8 MΩ	Optional
N2818A	200 MHz 10:1 differential probe 1 MΩ with AutoProbe	Optional
N2819A	800 MHz 10:1 differential probe 200 kΩ with AutoProbe	Optional
1147B	AC/DC current probe 50 MHz, 15 A with AutoProbe	Optional
N2893A	AC/DC current probe 100 MHz, 15 A with AutoProbe	Optional
N2820A	2-channel high-sensitivity current probe 50 µA to 5 A	Optional
N2821A	1-channel high-sensitivity current probe 50 µA to 5 A	Optional
N7040A	23 MHz, 3 kA, AC current probe	Optional
N7041A	30 MHz, 600 A, AC current probe	Optional
N7042A	30 MHz, 300 A, AC current probe	Optional
N7026A	150 MHz, 40 Apk, AC/DC high-sensitivity current probe with AutoProbe	Optional

Model	Description
Hardware upgrade options	
DSOX6WAVEGEN2	WaveGen: 2-channel 20 MHz function generator/AWG
DSOX6MSO	6000 X-Series MSO
DSOX6B10T252BW	1.0 GHz to 2.5 GHz bandwidth, 2-channel model
DSOX6B10T402BW	1.0 GHz to 4.0 GHz bandwidth, 2-channel model
DSOX6B10T602BW	1.0 GHz to 6.0 GHz bandwidth, 2-channel model
DSOX6B10T254BW	1.0 GHz to 2.5 GHz bandwidth, 4-channel model
DSOX6B10T404BW	1.0 GHz to 4.0 GHz bandwidth, 4-channel model
DSOX6B10T604BW	1.0 GHz to 6.0 GHz bandwidth, 4-channel model
DSOX6B25T402BW	2.5 GHz to 4.0 GHz bandwidth, 2-channel model
DSOX6B25T602BW	2.5 GHz to 6.0 GHz bandwidth, 2-channel model
DSOX6B40T602BW	4.0 GHz to 6.0 GHz bandwidth, 2-channel model
DSOX6B25T404BW	2.5 GHz to 4.0 GHz bandwidth, 4-channel model
DSOX6B25T604BW	2.5 GHz to 6.0 GHz bandwidth, 4-channel model
DSOX6B40T604BW	4.0 GHz to 6.0 GHz bandwidth, 4-channel model
Software packages	
D6000GENA	Embedded software package: I2C, SPI, UART (RS232/422/485), I2S, and USB PD serial trigger & decode, plus Mask Limit Testing, Frequency Response Analysis (Bode plots), and Enhanced Video Analysis
D6000AUTA	Automotive software package: CAN (symbolic with .dbc file), CAN FD (symbolic with .dbc file), LIN (symbolic with .ldf file), FlexRay, SENT, CXPI, PSI5 (user-definable Manchester), and User-definable NRZ serial trigger & decode, plus Mask Limit Testing (CAN/CAN FD mask files available to download) and Frequency Response Analysis (Bode plots)
D6000AERA	Aero software package: MIL-STD 1553 and ARINC 429 serial trigger & decode, plus Mask Limit Testing (standard mask files available to download), Frequency Response Analysis (Bode plots), and Enhanced Video Analysis
D6000USBA	USB software package: USB 2.0 Low-, Full-, & Hi-speed, USB PD trigger & decode, plus USB 2.0 Signal Quality Test, Jitter & Real-time Eye Analysis, Mask Limit Testing, and Frequency Response Analysis (Bode plots)
D6000PWRA	Power measurements & analysis software package: Power quality, current harmonics, switching loss, transient response, turn-on/off time, output ripple, efficiency, loop response, PSRR, etc., plus Mask Limit Testing and Frequency Response Analysis (Bode plots), and USB PD serial trigger & decode
D6000BDLA	Ultimate bundle software package: Includes all serial protocols and measurements contained in D6000GENA, D6000AUTA, D6000AERA, D6000USBA, and D6000PWRA
Productivity tools	
D9010BSEO	Infiniium offline oscilloscope decode software
D9010UDAA	User-defined Application (UDA) PC-based test automation software
BV0004B	BenchVue oscilloscope control and automation (standard)

Model number	Recommended accessories
N4865A	GPIB connection module
N2111A	Rack mount kit
N2733B	Soft carrying case
N2112A	Hard copy manual
3A1311-2710J	Hard transit case (available from CPD Industries **http://www.casecruzer.com/oscilloscope/3a1311-2710j.html**)

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