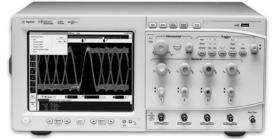
# Oscilloscopes

## High-Performance Infiniium Oscilloscopes

- Industry's lowest noise floor for both oscilloscopes and probes
- Industry's lowest jitter measurement floor
- Industry's lowest trigger jitter less than 500 fs rms
- Industry's flattest frequency response
- Industry's only bandwidth upgradeable series from 2 GHz to 13 GHz
- Industry's largest selection of application software packages
  Industry's only full bandwidth economical lead-free solder-in
- probe solution • Industry's first software event finder "InfiniiScan" (option)
- Now LXI functional class C compliant



# Superior Signal Integrity and Probing for Your Application

The superior signal integrity, probing and application software selection of Agilent Technologies' Infiniium DSO/DSA80000B Series and InfiniiMax II probing system will lead to improved measurements and increased design margins.

The signal integrity advantages of Agilent's Infiniium 80000B Series Scopes and InfiniiMax Probing System include the industry's lowest noise floor, lowest jitter measurement floor, lowest trigger jitter and flattest frequency response. These foundational capabilities are crucial for achieving accurate and repeatable measurements. These superior signal integrity capabilities come from Agilent's RFdesign experience, proprietary packaging technologies and unique CMOS ADC architecture. Superior signal integrity maximizes engineer's design margins by not wasting any measurement accuracy due to the poor noise, jitter or frequency response of the scope or probing system.

#### Agilent Infiniium DSO/DSA80000B Series Oscilloscopes Selection Guide

	DSO/DSA81304B	DSO/DSA81204B	DSO/DSA81004B	DSO/DSA80804B	DSO/DSA80604B	DSO/DSA80404B	DSO/DSA80304B	DS0/DSA80204E
Bandwidth	13 GHz	12 GHz	10 GHz	8 GHz	6 GHz	4 GHz	3 GHz	2 GHz
Channels	4	4	4	4	4	4	4	4
Sampling Rate	20-40 GSa/s	20-40 GSa/s	20-40 GSa/s	20-40 GSa/s	20-40 GSa/s	20-40 GSa/s	20-40 GSa/s	20-40 GSa/s
Standard Memory	0.25-0.5 M	0.25-0.5 M	0.25-0.5 M	0.25-0.5 M	0.25-0.5 M	0.25-0.5 M	0.25-0.5 M	0.25-0.5 M
Max Memory (Option 001, standard on DSA Models)				1 – 2 M (64 M at	4 GSa/s)			
<b>Rise Time/Fall Time</b> (20 – 80%) (10 – 90%)	23 ps 33 ps	25 ps 36 ps	30 ps 42 ps	38 ps 54 ps	48 ps 70 ps	91 ps 105 ps	108 ps 108 ps	152 ps 152 ps
Noise (rms at 100 mV/div)	3.3 mV	2.7 mV	2.3 mV	2.1 mV	1.8 mV	1.4 mV	1.2 mV	1.0 mV
Hardware Sensitivity (SW Expansion to 1 mV/div)	5 mV/div to 1 V/div	5 mV/div to 1 V/div	5 mV/div to 1 V/div	5 mV/div to 1 V/div	5 mV/div to 1 V/div	5 mV/div to 1 V/div	5 mV/div to 1 V/div	5 mV/div to 1 V/div
Timebase Range	5 ps/div to 20 s/div	5 ps/div to 20 s/div	5 ps/div to 20 s/div	5 ps/div to 20 s/div	5 ps/div to 20 s/div	5 ps/div to 20 s/div	5 ps/div to 20 s/div	5 ps/div to 20 s/div
Popular Scope Options		EZJIŤ I	Speed Serial Dat Plus Advanced Jit Noise Reduction My Infi	lysis Software (O a Analysis Softwa tter Analysis Soft Software (Option iniium Customiza an Event Identific	are (Option 003, S ware (Option 004, 005, Standard on tion Software (Op	tandard on DSA n Standard on DSA DSO/DSA81304 tion 006)	nodels) A models)	

User Defined Function Software (Option 010)

Oscilloscopes

### High-Performance Infiniium Oscilloscopes (cont.)



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#### Infiniimax Probing System – Probe Amplifiers

	6	1

	1169A	1168A	1134A	1132A	1131A	1130A
BW Spec	12 – 13 GHz	10 GHz	7 GHz	5 GHz	3.5 GHz	1.5 GHz
Recommended Oscilloscope	DS081304B DS081204B	DS081004B DS080804B	DS080604B	DS080404B	DS080304B DS080204B	DS080204B
Attenuation	3.45:1	3.45:1	10:1	10:1	10:1	10:1
Dynamic Range	3.3 Vp-р	3.3 Vp-p	5 Vp-p	5 Vp-p	5 Vp-p	5 Vp-p
Noise Referred to Input	2.5 mV rms	2.5 mV rms	3.0 mV rms	3.0 mV rms	3.0 mV rms	3.0 mV rms

#### Infiniimax Probing Systems - Probe Heads

	N5380A	N5381A	N5382A	N5425A/ N5426A	E2675A	E2676A	E2677A	E2678A	E2679A	E2695A
Typ BW	13 GHz	13 GHz	13 GHz	13 GHz	6 GHz	6 GHz	12 GHz	12 GHz	6 GHz	8 GHz
Description	Hi-BW Differential SMA	Hi-BW Differential Solder-in	Hi-BW Differential Browser	Hi-BW Differential ZIF Solder-in	Differential Browser	Single-Ended Browser	Differential Solder-in	Differential Socket	Single-Ended Solder-in	Differential SMA
Diff Capacitance	_	0.21 pF	0.21 pF	0.33 pF	0.32 pF	0.67 pF	0.27 pF	0.34 pF	0.50 pF	_

#### Infiniimax Probing Systems – Connectivity Kits and Misc

	E2669A	E2668A	E2697A	
Description	Differential Kit	Single-Ended Kit	1 Mohm High Impedance Adapter	
Includes	E2675A, E2677A x4, E2678A	E2676A, E2679A, E2678A	500 MHz Passive Probe	

#### InfiniiMax Extreme Temperature Cable Extension

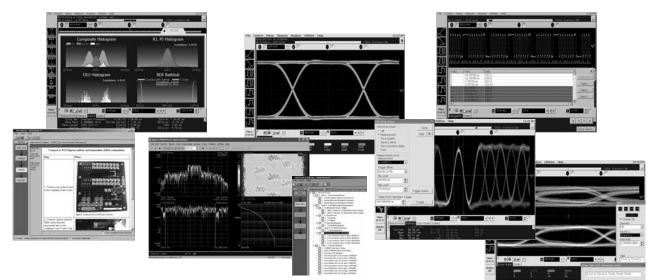
A SMP microwave extension cable from Gore (W. L. Gore & Associates, Inc.) is available for extending the reach of InfiniiMax probes into tight environments or into test chambers (Part number PRP042105-01). Please contact Gore at 1-800-311-3060 or look up international contacts at www.gore.com

Operating Temperature Range: 0 to 105°C

Oscilloscopes

# High-Performance Infiniium Oscilloscopes (cont.)

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## Infiniium Software Applications

Area	Part Number	Name	Description				
Jitter	E2681A	EZJIT Jitter Analysis (Option 002)	Wizard based – measurements, histograms, measurement trending, jitter frequency spectrum				
	N5400A	EZJIT Plus Jitter Analysis (Option 004)	Adds jitter separation into components and bit error rate projections. Same UI as 86100C Infiniium DCA-J				
	E2690B	M1 Jitter Analysis (3rd Party)	Most advanced and flexible jitter analysis package. Supports offline analysis as well.				
Serial Analysis	E2688A	High Speed SDA Serial Data Analysis (Option 003)	Wizard based – clock recovery, mask testing, real-time eyes with unfolding, 8b/10b decode, listing, and trigger				
Compliance	N5393A	PCI Express 1.0/1.1 Compliance	Wizard based framework – test selection, configuration, connection, execution, results. Requires SDA				
	N5392A	Ethernet Compliance (10/100BaseTX, Gigabit)	Wizard based framework - test selection, configuration, connection, execution, result				
	N5394A	DVI Compliance	Wizard based framework – test selection, configuration, connection, execution, results				
N N N	N5399A	HDMI Compliance	Wizard based framework solution, supporting the latest HDMI 1.3. Listed in CTS 1.3.				
	N5409A	Fully Buffered DIMM Compliance	Wizard based framework solution supporting FBD1/AMB1				
	N5410A	Fiber Channel Compliance	Wizard based framework. Industry's only Fiber Channel compliance solution				
	N5411A	Serial ATA Compliance	Wizard based framework, supporting both SATA gen 1 and gen 2				
	N5412A	SAS Compliance	Wizard based framework for Serial Attached SCSI				
	N5413A	DDR2 Full Compliance	Wizard based framework solution for both clock and data characterization				
	N5416A	USB 2.0 Compliance	Wizard based framework based on USB-IF developed MATLAB script				
	N5431A	XAUI Compliance	Wizard based framework for Industry's only XAUI compliance solution				
	N5402A	CAN Serial Data Analysis	For CAN data analysis and decoding				
	Serial ATA	Serial ATA Compliance	Free SATA I compliance solution from compliance body				
	Fire-Wire	Fire-Wire Compliance (3rd Party)	FW compliance solution from 3rd party partner				
Frequency	89601A	Vector Signal Analysis	Ultra-wide-band, multi-port vector signal analysis				
Analysis	N5403A	Noise Reduction (Option 005)	DSP noise reduction feature at 10, 8, 6, 4, 2 and 1 GHz (DS081204A/81004A/80804A Only				
Utilities	N5420A-G	After Burner II Bandwidth Upgrades	Upgrade any 80000 Series model to a higher bandwidth model				
	N5391A	Low Speed Serial Data Analysis (Opt 21)	Decode I <sup>2</sup> C and SPI low speed serial bus protocols				
	N5414A	InfiniiScan Event Identification Software	Industry's first software triggering solution including the "Zone Trigger" feature				
	N5430A	User Defined Function	Build your own analysis function through a seamless link to MATLAB				
	E2625A	Communications Mask Test Kit	Low speed electrical mask testing for ANSI and ITU standards				
	E2699A	My Infiniium Integration Package (Opt 6)	Customize Infiniium user interface to launch user-created or 3rd party executable programs				
	E2682A	Voice Control Option	Hands free operation of the Infiniium Oscilloscope				