

# Keysight S-Series Oscilloscopes

The New Standard for Superior Measurements



## Key specifications

Bandwidth	500 MHz, 1, 2, 2.5, 4, 6, 8 GHz
Channels	4-ch and 4-ch+16 digital channel on MSO models
Maximum sample rate	20 GSa/s
ADC bits	10
Standard memory depth (2/4-channel/mode)	100 Mpts/50 Mpts
Display	15" XGA capacitive touch screen



## Industry's best signal integrity

New technology blocks deliver superior signal integrity

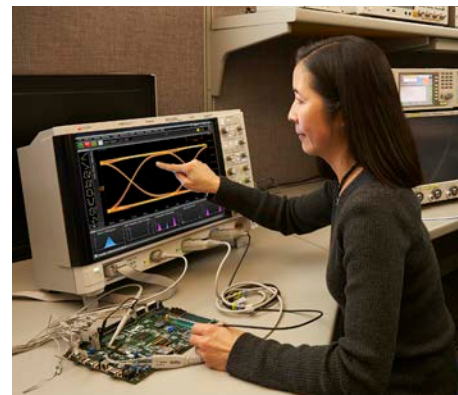
- 10-bit ADC
- Low noise front end
- Less than 200 fs intrinsic jitter
- Analog and hardware correction filters
- Responsive deep memory



## Most advanced platform

Next-generation Infiniium user interface

- Capacitive touch screen with multi-touch
- Powerful motherboard for fast processing
- Removable solid state drive (SSD) for fast boot-up and high reliability
- Fast offload (up to 200 MB/s)



## Broadest range of capability

- 16 digital channels on MSO models
- Standard feature-rich software with > 50 automated measurements, 16 math functions, gating, and spectral viewer
- Expandable with optional software applications
- Support for > 100 probes

## Oscilloscope models

Model	Bandwidth	Sample rate	Memory depth	Scope channels
DSOS054A	500 MHz	20 GSa/s	50 Mpts	4
MSOS054A	500 MHz	20 GSa/s	50 Mpts	4+16 digital
DSOS104A	1 GHz	20 GSa/s	50 Mpts	4
MSOS104A	1 GHz	20 GSa/s	50 Mpts	4+16 digital
DSOS204A	2 GHz	20 GSa/s	50 Mpts	4
MSOS204A	2 GHz	20 GSa/s	50 Mpts	4+16 digital
DSOS254A	2.5 GHz	20 GSa/s	50 Mpts	4
MSOS254A	2.5 GHz	20 GSa/s	50 Mpts	4+16 digital
DSOS404A	4 GHz	20 GSa/s	50 Mpts	4
MSOS404A	4 GHz	20 GSa/s	50 Mpts	4+16 digital
DSOS604A	6 GHz	20 GSa/s	50 Mpts	4
MSOS604A	6 GHz	20 GSa/s	50 Mpts	4+16 digital
DSOS804A	8 GHz	20 GSa/s	50 Mpts	4
MSOS804A	8 GHz	20 GSa/s	50 Mpts	4+16 digital

## Probes

Model	Description
N2873A (qty. 4 ship standard)	Passive single-ended voltage up to 500 MHz
1130A/31A/32A/34A	InfiniiMax active single-ended or differential voltage
N2750A-52A	InfiniiMode single-ended, differential, or common mode voltage
N2795A, N2796A, N2797A	Active single-ended voltage up to 2 GHz
N2790A, N2791A, N2818A, N2819A, N2891A	General purpose high voltage differential signal up to 7 kV with high CMRR
1146B, 1147B, N2780B-83B, N2893A	High current, AC/DC (mA – 100's of A)
N2820A, N2821A	High sensitivity current, AC/DC (10's of $\mu$ A – A)
10076B	Passive high voltage up to 4 kV peak pulse
N2870A – N2876A	General purpose up to 1.5 GHz
N7040A, N7041A, N7042A	High current AC, up to 3 kA
N7026A	High sensitivity AC/DC clamp-on current 150 MHz, 40 Apk

For additional information and a complete listing of applications, visit [www.keysight.com/find/S-Series](http://www.keysight.com/find/S-Series)



### Keysight Assurance Plans

[www.keysight.com/find/AssurancePlans](http://www.keysight.com/find/AssurancePlans)

Up to ten years of protection and no budgetary surprises to ensure your instruments are operating to specification, so you can rely on accurate measurements.

## Accessories

Model	Description
Option 100	Increase to 100 Mpts/200 Mpts (4-ch/2-ch)
Option 200	Increase to 200 Mpts/400 Mpts (4-ch/2-ch)
Option 400	Increase to 400 Mpts/800 Mpts (4-ch/2-ch)
DSOS8GBW	Upgrade to 8 GHz bandwidth
DSOS6GBW	Upgrade to 6 GHz bandwidth
DSOS4GBW	Upgrade to 4 GHz bandwidth
DSO2G5BW	Upgrade to 2.5 GHz bandwidth
DSOS2GBW	Upgrade to 2 GHz bandwidth
DSOS1GBW	Upgrade to 1 GHz bandwidth
Option A6J	ANSI Z540 complaint calibration
N2902B	S-Series rack mount kit (8U high)
N2746A	Additional SSDs with Win7
N2865A	GPIO to LAN adapter

## Key protocol applications

Model	Description
N8803B-1FP	CAN, LIN, FlexRay decode and trigger
N8800B-1FP	I <sup>2</sup> C, SPI, and RS-232/UART decode and trigger
N5391B-1FP	I <sup>2</sup> C/SPI decode
N8817B-1FP	JTAG decode
N5463B-1FP	PCIe Gen1 and Gen2 decode and trigger
N5462B-1FP	RS-232/UART decode and trigger
N5464B-1FP	USB 2.0 decode and trigger

## Key analysis applications

Model	Description
Option DSA	DSA (EZJIT Complete and SDA bundle)
E2681B-1FP	EZJIT
N5400B-1FP	EZJIT Plus
N8823B-1FP	EZJIT Complete
N5415B-1FP	InfiniiScan
N2808A-1FP	PrecisionProbe
N5384A-1FP	Serial data analysis

## Key compliance applications

Model <sup>1</sup>	Description
U7233B-1FP	DDR1 <sup>2</sup>
N5413C-1FP	DDR2 + LPDDR2 <sup>2</sup>
U7231C-1FP	DDR3 + LPDDR3 <sup>2</sup>
N5392C-3FP	Ethernet <sup>2</sup>
N5392C-1FP	Ethernet + EEE <sup>2</sup>
U7238D-1FP	MIPI D-PHY <sup>2</sup>
U7249D-1FP	MIPI M-PHY <sup>2</sup>
N5393E-3FP	PCIe Gen 1 <sup>2</sup>
N5416B-1FP	USB 2.0 <sup>2</sup>

1. Factory-installed license on new oscilloscopes
2. May have minimum bandwidth required