

DPO2000B Digital and MSO2000B Mixed Signal Phosphor Oscilloscopes

Feature-rich tools are ideal for debugging mixed signal designs

These DPO2000B digital and MSO2000B mixed signal phosphor series oscilloscopes deliver the performance and tools you need to visualize your signals and find answers quickly. Units feature Wave Inspector® navigation and search providing unprecedented efficiency in waveform analysis. Remove unwanted signal noise while still capturing high-frequency events with the included FilterVu™ variable low-pass filter. These lightweight, compact oscilloscopes are designed to make your work easier with all the power you need to solve problems quickly.

DPO2000B Series Oscilloscopes are the first to provide 1 M points of usable record length on all channels, serial trigger, and decode analysis options, a variable low-pass filter that also allows you to see signal details to the oscilloscope's full bandwidth, and all in a compact form factor.

MSO2000B Series Oscilloscopes add 16 integrated digital channels, enabling you to visualize and time-correlate analog and digital signals on a single instrument. This integration extends triggering functionality across all 20 channels, which is ideal for debugging mixed analog and digital designs.



- 70, 100, and 200 MHz models
- 2 or 4 analog channels; plus 16 digital channels (MSO)
- 1 M standard record length on all channels
- Up to 1 GS/s sample rate on all channels
- Large 7" (180 mm) wide-format TFT screen
- Front-panel USB port for removable data storage
- Optional LAN, GPIB and video out connectivity
- Serial triggering and analysis options for I²C, SPI, CAN, LIN, RS-232/422/485/UART
- Parallel bus decoding and triggering (MSO)
- Multichannel setup and hold triggering (MSO)

SPECIFICATIONS	
Input impedance	1 MΩ ±2%, 11.5 pF ±2 pF
Waveform capture rate	Up to 5000 wfms/s
Record length	1 M
Connectivity	USB 2.0, LAN port, GPIB*, Video out port, RS-232
Trigger types	Edge, sequence, logic, pulse width, runt, setup & hold, rise/fall time, video, I ² C†, SPI†, CAN LIN†, RS-232/422/485/UART†, Parallel (MSO models only)
Waveform math	Simple waveform math: add, subtract, and multiply waveforms
Display	7.0" (180 mm), liquid crystal TFT color display
Dimensions (W x H x D)	16 1/2" x 7 1/2" x 5 1/2" (419 x 191 x 140 mm)
Power	360 to 440 Hz (100 to 132 V) Power source frequency: 47 to 66 Hz (90 to 264 V), Power source voltage: 100 to 240 V ±10%

Catalog No.	Model No.	Bandwidth	Channels	Sample rate	Rise time
TS-20054-30	DPO2002B	70 MHz	2	1 GS/s	3.5 ns
TS-20054-31	DPO2004B	70 MHz	4	1 GS/s	3.5 ns
TS-20054-32	DPO2012B	100 MHz	2	1 GS/s	3.5 ns
TS-20054-33	DPO2014B	100 MHz	4	1 GS/s	3.5 ns
TS-20054-34	DPO2022B	200 MHz	2	1 GS/s	2.1 ns
TS-20054-35	DPO2024B	200 MHz	4	1 GS/s	2.1 ns
TS-20054-36	MSO2002B	70 MHz	2 + 16 digital	1 GS/s	3.5 ns
TS-20054-37	MSO2004B	70 MHz	4 + 16 digital	1 GS/s	3.5 ns
TS-20054-38	MSO2012B	100 MHz	2 + 16 digital	1 GS/s	3.5 ns
TS-20054-39	MSO2014B	100 MHz	4 + 16 digital	1 GS/s	3.5 ns
TS-20054-40	MSO2022B	200 MHz	2 + 16 digital	1 GS/s	2.1 ns
TS-20054-41	MSO2024B	200 MHz	4 + 16 digital	1 GS/s	2.1 ns
Accessories					
TS-20054-42	TEKUSB488	GPIB to USB adapter			
TS-17110-34	—	NIST-traceable recalibration with data			