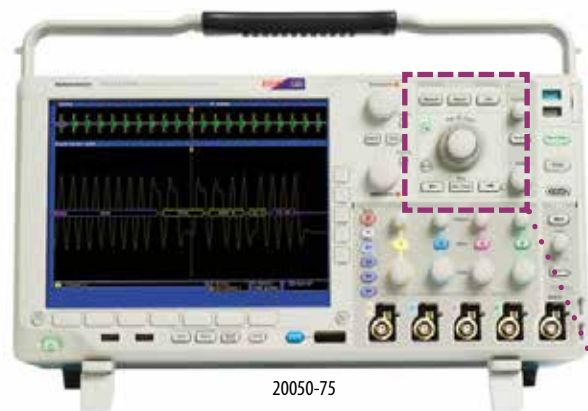


# DPO4000B Digital and MSO4000B Mixed Signal Phosphor Oscilloscopes

Debug smarter, not harder



Tiny footprint (only 5.4" deep)  
and light weight (11 lb.)

- Over 125 trigger combinations, including setup/hold, serial packet, and parallel data
- Easy "book marking" for quick navigation between marks
- Mass storage—two front-panel USB ports
- Sample rates up to 5 GS/s on all channels
- I<sup>2</sup>C, SPI, CAN, RS-232, LIN serial triggering and analysis
- Built-in Ethernet port
- 41 automated measurements and FFT analysis

These DPO and MSO series oscilloscopes deliver the performance you need to visualize even your most demanding signals. Bandwidth ranges from 100 MHz to 1 GHz, with all models offering a minimum of 5x over sampling on all channels and sin(x)/x interpolation standard. The standard 20 M samples record length on all channels enables you to capture long windows of signal activity while maintaining fine timing resolution. Oscilloscopes offer a variety of analytical solutions including 41 automatic measurements, statistics and waveform math.

The MSO4000B Series offer all the same functions as the DPO4000B series with the addition of 16 digital channels—ideal for debugging embedded system designs. Additional features include parallel bus trigger and analysis capabilities along with MagniVu 60.6 ps technology providing finer timing resolution.



Wave Inspector® Controls provide unprecedented efficiency in viewing, navigating, and analyzing waveform data

## SPECIFICATIONS

Input impedance	50 $\Omega$ , 75 $\Omega$ , 1 M $\Omega$
Waveform capture rate	50,000 wfms/s
Record length	20 M (5 M on -L models)
Connectivity	USB 2.0, Ethernet (10/100 BaseT), RS-232, LAN, Compact Flash, GPIB4
Trigger types	Edge, sequence, logic, pulse width, runt, setup & hold, rise/fall time, video, extended video*, I <sup>2</sup> C*, SPI*, CAN*, MIL-STD-1553*, LIN*, FlexRay*, RS-232/422/485/UART*, parallel (MSO models only)
Waveform math	Simple waveform math, FFT, arbitrary expression math
Display	10.4" (264 mm) XGA
Dimensions (W x H x D)	16½" x 8½" x 6" (419 x 216 x 152 mm)
Power	Power source voltage: 100 to 240 V $\pm$ 10% power source frequency: 47 to 66 Hz (90 to 264 V), 360 to 440 Hz (100 to 132 V)
*Optional	

What's included: Four TPP0500 (500 MHz, 10x) passive probes (DPO/MSO4014B/4034B/4054B models), four TPP1000 (1 GHz, 10X) passive probes (DPO/MSO4104B models), protective front cover, documentation CD, OpenChoice® software, user manual, accessory bag, power cord, calibration document supplied by the manufacturer and ISO9001 Quality System Registration. MSO models also include one P6616 16-channel digital probe and a logic probe accessory kit.

Catalog No.	Model No.	Bandwidth	Channels	Sample rate	Rise time	
TS-20054-42	DPO4014B	100 MHz	4	2.5 GS/s	8.4 ns to 3.5 ns	
TS-20050-70	DPO4034B	350 MHz	4	2.5 GS/s	8.4 ns to 3.5 ns	
TS-20050-71	DPO4054B	500 MHz	4	2.5 GS/s	8.4 ns to 3.5 ns	
TS-20053-41	DPO4102B	1 GHz	2	5/5 GS/s	8.4 ns to 3.5 ns	
TS-20053-42	DPO4102B-L	1 GHz	2	5/2.5 GS/s	8.4 ns to 3.5 ns	
TS-20050-72	DPO4104B	1 GHz	4	5 GS/s	8.4 ns to 3.5 ns	
TS-20053-43	DPO4104B-L	1 GHz	4	5/5/2.5 GS/s	8.4 ns to 3.5 ns	
TS-20054-43	MSO4014B	100 MHz	4 + 16 digital	2.5 GS/s	5.8 ns to 2.1 ns	
TS-20050-73	MSO4034B	350 MHz	4 + 16 digital	2.5 GS/s	5.8 ns to 2.1 ns	
TS-20050-74	MSO4054B	500 MHz	4 + 16 digital	2.5 GS/s	5.8 ns to 2.1 ns	
TS-20053-44	MSO4102B	1 GHz	2 + 16 digital	5/5 GS/s	8.4 ns to 3.5 ns	
TS-20053-45	MSO4102B-L	1 GHz	2 + 16 digital	5/2.5 GS/s	8.4 ns to 3.5 ns	
TS-20050-75	MSO4104B	1 GHz	4 + 16 digital	5 GS/s	5.8 ns to 2.1 ns	
TS-20053-46	MSO4104B-L	1 GHz	4 + 16 digital	5/5/2.5 GS/s	5.8 ns to 2.1 ns	
<b>Accessories</b>						
TS-17111-32	—	NIST-traceable calibration with data for models DPO4014B, 4034B, 4054B; MSO4014B, 4034B, 4054B				
TS-17100-14	—	NIST-traceable calibration with data for models DPO4102B(-L)/4104B(-L); MSO4102B(-L)/4104B(-L).				