

# MDO3000 Series and MDO/DPO4000B Series Oscilloscopes Series Comparison

Fact Sheet

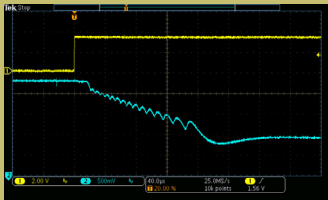


General Specifications	MDO3000	DPO4000B	MDO4000B
Bandwidth Range	100 MHz – 1 GHz	100 MHz – 1 GHz	
2 Channel Models	Available at all Bandwidths	Available only at 1 GHz	--
Sample Rate 100-500 MHz models 1 GHz models	2.5 GS/s on all channels 2.5 / 5 GS/s on all / half channels	2.5 GS/s on all channels <b>5 GS/s on all channels</b>	2.5 GS/s on all channels 2.5 / 5 GS/s on all / half channels
Record Length	10M	20M	
Waveform Capture Rate	up to 280,000 wfm/s	up to 340,000 wfm/s	
Integrated Digital Channels	Opt.	--	16
Integrated Spectrum Analyzer	Std: up to oscilloscope BW Opt: up to 3 GHz	--	Std: Either 3 GHz or 6 GHz models
Integrated Arbitrary Function Generator	Opt.	--	
Integrated DVM	Free with product registration	--	
Serial Bus Support	I <sup>2</sup> C, SPI, RS-232/422/485/UART, CAN, LIN, FlexRay, USB, Audio, MIL-STD-1553 Two buses can be defined	I <sup>2</sup> C, SPI, RS-232/422/485/UART, CAN, LIN, FlexRay, USB, Audio, MIL-STD-1553, <b>Ethernet</b> <b>Four</b> buses can be defined	
Video Support	NTSC, PAL, SECAM, HDTV and Custom trigger, Picture Mode, and <b>75Ω termination</b> all included standard	NTSC, PAL, SECAM standard Optional DPO4VID adds HDTV and Custom trigger, Picture Mode	
Other	Dual edge triggering, act-on-event, search mark table, email printing, enhanced security	Dual edge triggering, act-on-event, search mark table, email printing	
Available Upgrades	Oscilloscope Bandwidth, Spectrum Analyzer Frequency Range, Digital Channels, AFG	--	
Display Size and Resolution	9" WVGA (800 x 480)	10.4" XGA (1,024 x 768)	
Dimensions (HxWxD in inches)	8.0 x 16.4 x 5.8	9.0 x 17.3 x 5.8	
Weight	9 lbs.	11 lbs.	
Warranty	3 years	3 years	

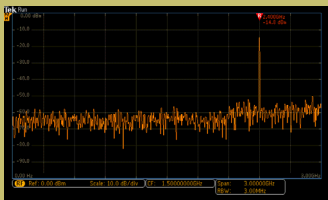
# MDO3000 Series and MDO4000B Series Mixed Domain Oscilloscopes Series Comparison

Fact Sheet

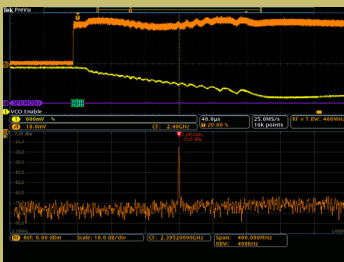
## MDO3000 Time Domain



## OR Frequency Domain



## MDO4000B Time Domain, Frequency Domain OR Both at Once



RF Specifications	MDO3000	MDO4000B	
Frequency Range	9 kHz – 3 GHz	9 kHz – 6 GHz	
Capture Bandwidth	3 GHz max.	3.75 GHz max.	
View Time and Frequency Domains Simultaneously	--	Std.	
Time Correlation Between Domains	--	Std.	
RF vs. Time Traces (Amplitude, Frequency, Phase)	--	Std.	
RF Power Level Triggering	--	Std.	
Phase Noise at 1 GHz CF	10 kHz offset 100 kHz offset 1 MHz offset	-81 dBc/Hz, -85 dBc/Hz (typical) -97 dBc/Hz, -101 dBc/Hz (typical) -118 dBc/Hz, -122 dBc/Hz (typical)	-108 dBc/Hz, -111 dBc/Hz (typical) -110 dBc/Hz, -113 dBc/Hz (typical) -120 dBc/Hz, -123 dBc/Hz (typical)
Displayed Average Noise Level (DANL)	9 kHz – 50 kHz 50 kHz – 5 MHz 5 MHz - 400 MHz 400 MHz – 2 GHz 2 GHz – 3 GHz 3 GHz – 4 GHz 4 GHz – 6 GHz	-109 dBm/Hz , -113 dBm/Hz (typical) -126 dBm/Hz , -130 dBm/Hz (typical) -136 dBm/Hz , -140 dBm/Hz (typical) -136 dBm/Hz , -140 dBm/Hz (typical) -126 dBm/Hz , -130 dBm/Hz (typical) -- --	-116 dBm/Hz , -120 dBm/Hz (typical) -130 dBm/Hz , -134 dBm/Hz (typical) -146 dBm/Hz , -148 dBm/Hz (typical) -147 dBm/Hz , -149 dBm/Hz (typical) -147 dBm/Hz , -149 dBm/Hz (typical) -148 dBm/Hz , -152 dBm/Hz (typical) -140 dBm/Hz , -144 dBm/Hz (typical)
2nd Harmonic Distortion at 1 GHz		-55 dBc, -60 dBc (typical)	-60 dBc, -65 dBc (typical)
3rd Order Intermodulation Distortion at 1 GHz		-55 dBc, -60 dBc (typical)	-62dBc, -65 dBc (typical)
Residual Response		-78 dBm w/ exceptions to -67 dBm	-85 dBm w/ exceptions to -78 dBm
Max Input Power (average continuous power)		+20 dBm (0.1W)	+30 dBm (1W)
Export of .TIQ files for SignalVu-PC / MATLAB		Std. uncalibrated data	Std. calibrated data
LiveLink w/ SignalVu-PC		--	Opt.