



Digital Oscilloscope DPO8000 Series

1GHz, 8GSa/s, 2Gpts Memory Depth

Digital
Oscilloscope



Product Features

- 7-in-1 instrument integration: oscilloscope, 16-channel logic analyzer, spectrum analyzer, frequency counter, DVM, arbitrary waveform generator, protocol analyzer;
- Up to 8GSa/s real-time sampling rate, 2G memory depth, hardware real-time waveform recording and playback up to 2 million frames;
- Rich serial protocol triggering and decoding;
- Up to 500,000 wfms/s waveform capture rate;
- Up to 41 automated measurements;
- Multiple data gathering and analysis: search, navigate and lister, histogram, bode plotter, power analyzer, counter.

Specification

Model	DPO8104E	DPO8084E	DPO8054E	DPO8034E
Analog Channels	4			
Bandwidth	1GHz	800MHz	500MHz	300MHz
Sampling Rate	8GSa/s single channel, 8GSa/s half channels, 4GSa/s all channels			
Memory Depth	2Gpts (single channel), 1Gpts (dual channels), 500Mpts (three or four channels)			
Waveform Capture Rate	500,000 wfms/s [for 25ns, dots display, single channel, auto memory depth]			
Vertical Resolution	8 bit			
Input Sensitivity	1 M Ω : 500 μ V/div ~ 10 V/div			
	50 Ω : 500 μ V/div ~ 1 V/div			
Timebase Range	200ps/div~1 ks/div	500ps/div~1 ks/div	500ps/div~1 ks/div	1ns/div~1 ks/div
Timebase Accuracy	\pm 1 ppm \pm 1 ppm/year aging			
Bandwidth Limit	20 MHz, 100MHz, 200MHz, 350MHz, 650MHz, 750MHz (Independent option for each channel)			
Trigger Type	Edge, Pulse, Video, Slope, Overtime, Window, Runt, Superamp, Pattern, Delay, Setup/Hold, RS232, LIN, CAN, SPI, I ² C			
Serial Bus Decode	RS232, I ² C, SPI, LIN, CAN			
Arithmetic	Add, Subtract, Multiply, Divide, FFT, A&B, A B, A*B, !A, Intg, Diff, Sqrt, Lg, Ln, Exp, Abs, AX+B, Low Pass, High Pass, Band Pass, Band Stop			
Automatic Measurements	41 measurements, measurements update continuously with statistics			
Analyze	Counter, DVM, Power analyzer, Histogram, Search, Navigate, Bode plotter			
Recorder	\geq 2 million frames (single channel)			
Input Coupling	DC, AC or GND			
Input Impedance	1 M Ω \pm 1%, 50 Ω \pm 1% ; 21 pF \pm 3 pF			
Waveform Generator	Sampling Rate	200 MSa/s		
	Amplitude Resolution	12 bit		
Generator	Max. Frequency	25 μ Hz		
	Waveform	Sine, Square, Pulse, Ramp, Noise, DC, Sinc, EXP, Rise, Fall, Lorentz, Gauss, ECG, Haver Sine, Arb.		
Digital Channels	Input Channels	16		
	Sampling Rate	1GSa/s		
Connectivity	USB host, USB device, LAN, Optional ports: HDMI, RS232			
Display	10.1 inch capacitive multi-touch, 256 intensity levels, color graded persistence			

Model

Model	Analog Channels	Bandwidth	Max. Real-time Sampling Rate	Max. Memory Depth	Max. Waveform Capture Rate	Digital Channels	Waveform Generator
DPO8104E	4	1GHz	8GSa/s	2Gpts	500,000 wfms/s	16	200MHz, 2 Output
DPO8084E	4	800MHz	8GSa/s	2Gpts	500,000 wfms/s	16	200MHz, 2 Output
DPO8054E	4	500MHz	8GSa/s	2Gpts	500,000 wfms/s	16	200MHz, 2 Output
DPO8034E	4	350MHz	8GSa/s	2Gpts	500,000 wfms/s	16	200MHz, 2 Output
DPO8104C	4	1GHz	8GSa/s	2Gpts	500,000 wfms/s	--	--
DPO8084C	4	800MHz	8GSa/s	2Gpts	500,000 wfms/s	--	--
DPO8054C	4	500MHz	8GSa/s	2Gpts	500,000 wfms/s	--	--
DPO8034C	4	350MHz	8GSa/s	2Gpts	500,000 wfms/s	--	--