

Digital Mixed Signal Oscilloscope

Protek 8000 Series



Features

The New Protek 8000 Series consist of two types of Line-up.

The first line-up is recommended for efficient and practical use. It offers clean & fast signal analysis, 8-inch High Define resolution display, high memory of 28Mpts for every channel, basic serial BUS decoding and 16-Channel digital signal analysis and arbitrary function generator. It is a reasonable products that can be effectively used in various measurement environments.

Specifications

Description	Protek 8102	Protek 8104
Frequency Band width	100MHz	
Analog Channel	2CH	4CH
Digital Channel	16Ch Digital Logic Analysis(Optional)	
Real-Time Sampling	1GSa/s	
Memory Depth	28Mpts	
Display	8 inch High Define Resolution TFT LCD	
Digital Arbitrary Function Generator	Built-in 25MHz Function Generator(Optional)	

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Features

The Second model in the dual line-up of Protek 8000 Series, it is a high-performance, high-end Oscilloscope. It is unique mixed signal oscilloscope with a frequency bandwidth up to 500MHz, high sampling rate of 4GSa/s and a large memory of 280Mpts. With a fast waveform capture rate of 200,000wfm/s, it provides stable signal acquisition with fast and excellent display for complete signal analysis.

In addition to analog signal test and data analysis functions, serial BUS trigger and decoding, logic circuit testing, and waveform recording and playback analysis with Super Fine Recorder make it deal for highly accurate embedded design and application development measurement environments.

Specification

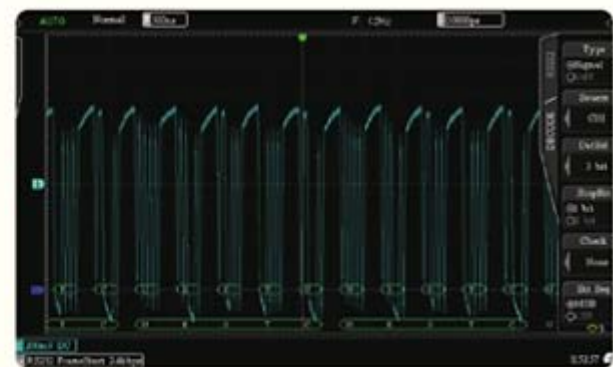
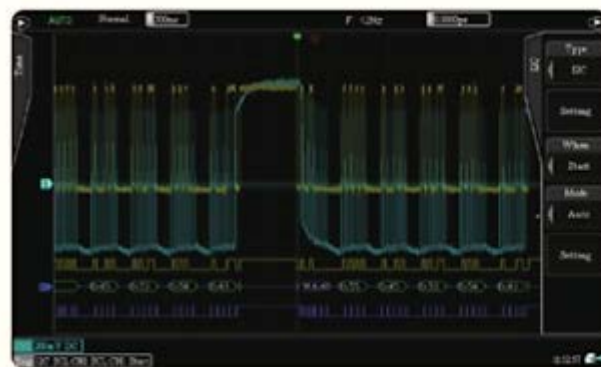
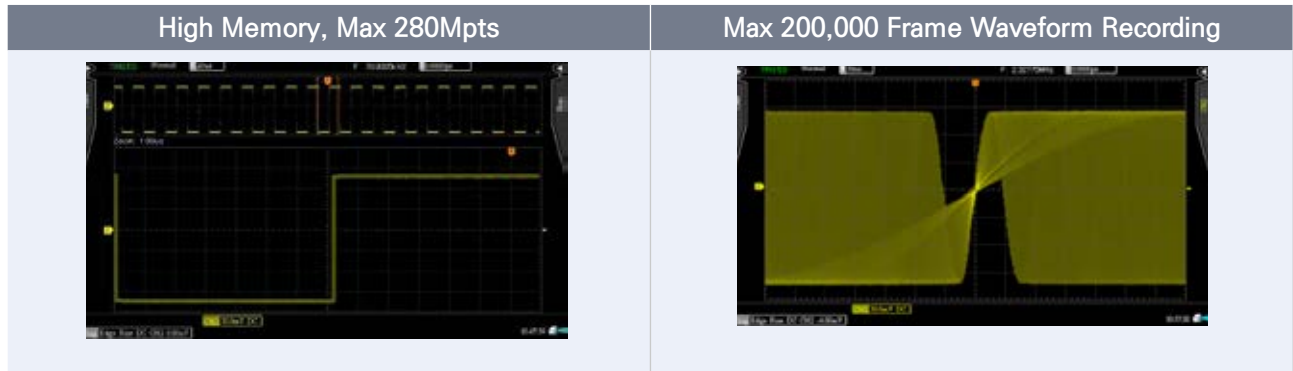
Description	Protek 8204	Protek 8354	Protek 8504
Frequency Band width	200 MHz	350 MHz	500 MHz
Analog Channel	4 Ch		
Digital Channel	16 Channel(Optional)		
Waveform Sensitivity level	256 Level		
Real-Time Sampling	4 GSa/s		
Memory Depth	280 Mpts		
Display	9 inch High Define Resolution TFT LCD		

Specifications

Description	Specifications				
	Protek 8102	Protek 8104	Protek 8204	Protek 8354	Protek 8504
Freq Band width	100MHz	100MHz	200MHz	350MHz	500MHz
Channel	2Ch + EXT	4Ch + EXT			
Real-Time Sampling	1GSa/s		4GSa/s		
Waveform Capture Range	50,000 wfms/s		200,000 wfms/s		
Input Impedance	(1M Ω \pm 2%) // (20pF \pm 3pF)		(1M Ω \pm 1%) (15pF \pm 3pF, 50 Ω : 50 Ω \pm 1.5%)		
Memory Depth	28Mpts		280Mpts		
Rise Time	\leq 3.5 ns		\leq 1.8 ns	\leq 1.0 ns	\leq 700ps
Time base range	5ns/div ~ 50s/div		2ns/div ~ 1,000s/div	1ns/div ~ 1,000s/div	
DC Accuracy	\pm 3 % of Full Scale		\pm 2 % of Full Scale		
Max Waveform Storage	65,000 waveforms		200,000 waveforms		
Voltage base Range	1 mV/div ~ 20V/div (1M Ω)		1 mV/div ~ 5V/div (1M Ω) \pm 40V 1 mV/div ~ 1V/div (50 Ω) \pm 12V		
Vertical resolution	8 bit				
Trigger Mode	Edge, Pulse Width, Alternate, Runt, Nth Edge, Delay, Duration, Setup/Hold, Slope, Vedio, Pattern, RS232/UART, I2C, SPI		Edge, Pulse Width, Alternate, Runt, Nth Edge, Delay, Duration, Setup/Hold, Slope, Vedio, Pattern, RS232/UART, I2CSPI, CAN , USB, FlexRay		
BUS Decoding(Optional)	Standard Parallel decoding ; RS232/UART, I2C, SPI		Standard Parallel decoding ; RS232/UART, I2C, SPI, CAN, USB, FlexRay		
Math function	A+B, A-B, A \times B, A/B, FFT, Logic Operation($\sqrt{\quad}$), Editable Advanced				
Data Storage	256 Data(Waveform & Set value)		20 Data(Waveform & Set value)		
Direct Help Function	Yes		Yes		
Max Input Voltage	CAT I 300Vrms, CAT II 100Vrms, Transient overvoltage 1000Vpk				
Automatic Measurement	Max, Min, Peak-Peak, Top, Bottom, Amplitude, Cycle Mean, Mean, Middle, Cycle RMS, RMS, Overshoot, Pre shoot, Frequency, Cycle, Rise Time, Fall Time, Positive Pulse, Negative Pulse, Positive Duty Ratio, Negative Duty Ratio, Delay A \rightarrow B, Delay A \rightarrow B, Phase A \rightarrow B, Phase B \rightarrow A, Area, Cycle Area		Max, Min, Top, Bottom, Middle, PK-PK, Amplitude, Average, RMS, Cycle Average, Cycle RMS, Area, Cycle Area, Frequency, Period, Rising, Falling, +Width, -Width, BrstW, Overshoot, Preshoot, +Duty, -Duty, RiseDelay, FallDelay, Phase		
Others	16Ch Digital logic analyzer, 25MHz arbitrary function generator, LXI(Lan) interface module(Optional)		USB to GPIB Converter & LA module(Optional)		
Storage Type	Setting ,Waveforms,BMP, Recording and PC Remote Program Data Acquisition				
Interface	USB Host&Device, Pass/Fail, Trigger-Out, AUX Out		USB Host&Device, LAN, Pass/Fail, Trigger-Out, AUX, VGA out, Clock In/Output port(10MHz)		
Display	8" TFT Display (800x480) 24bit		9" TFT Display (800x480) 24bit		
Dimensions & Weight	336mm(W) x 164mm(H) x 108mm(D) / \pm 3.5kg		456mm(W) x 210mm(H) x 120mm(D) / \pm 4.5kg		
Operating Condition	Temperature 0 ~ 40 $^{\circ}$ C / Humidity : < 70%RH				
Standard products	Probe Kit Set, Power Cable, Manual				
Input Power	100V ~ 240VACrms , 50Hz/60Hz				

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Measurement Application



Various decoding functions, RS232/UART, I2C, SPI, CAN, USB, Flex Ray