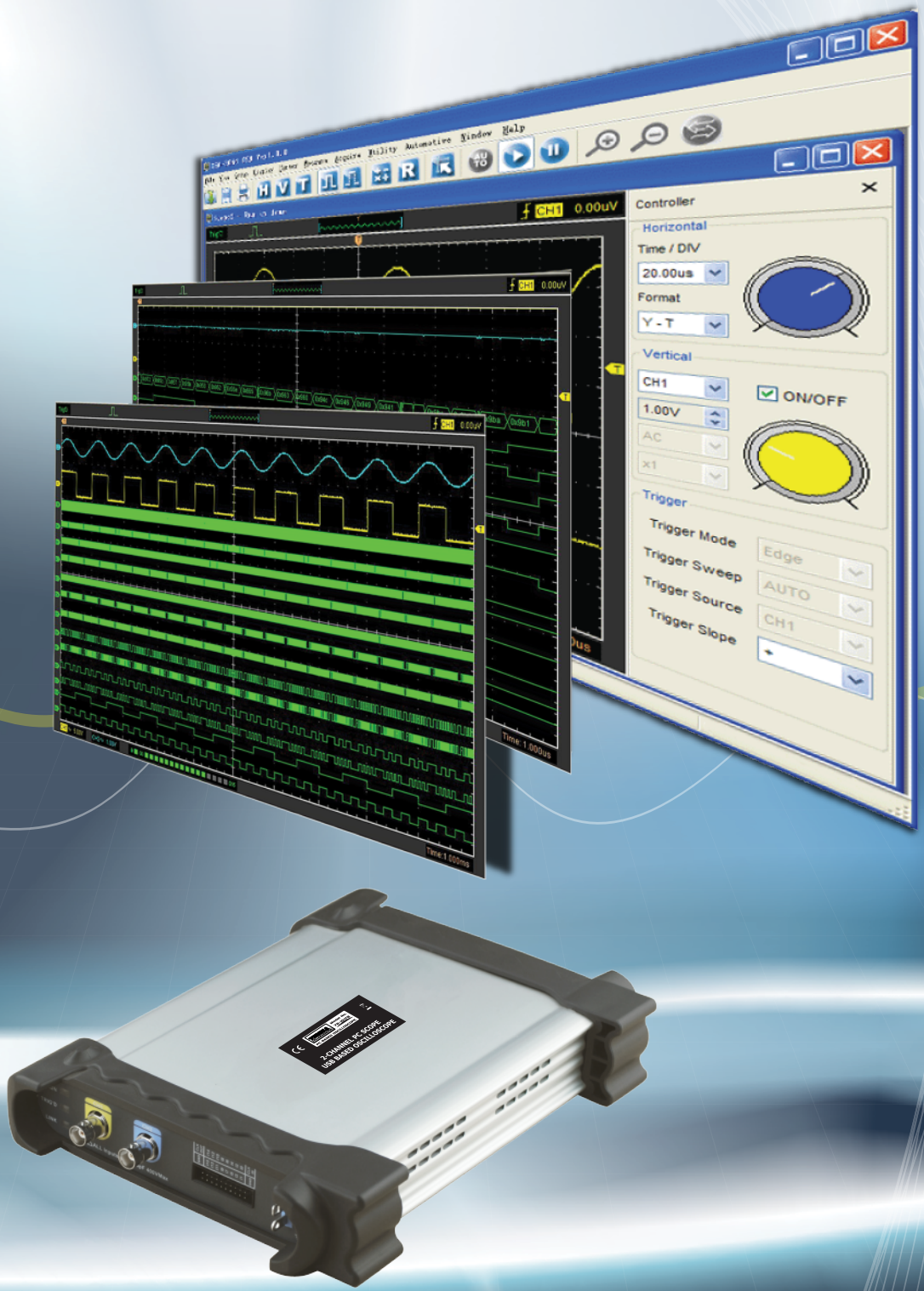
PC USB Digital Oscilloscope

60MHz; 2CH; 72-10178



Feature

5 in 1 multifunctional testing instrument:
Oscilloscope / Logic Analyzer / Arb. Waveform Generator / FFT Spectrum Analysis / Frequency Counter.
16M memory depth oscilloscope; 16 data input channels and 16M sample depth logic analyzer;
200MSa/s DDS arb. waveform generator;

Specifications

Model			72-10178
Acquisition	Sample Mode		Real-Time Sample
	Sample Rate		200MSa/s
	Average		N acquisitions, all channels simultaneously, N is selectable from 2, 4, 8, 16, 64, and 128
Input	Input Coupling		DC, AC, GND
	Input Impedance		Resistance: 1MΩ; Capacitance: 25pF
	P-80,PP-150,PP-200 Probe Attenuation		10X
	Probe Attenuation Factors		1X, 10X
	Maximum Input Voltage		400Vpk (DC + peak)
Horizontal	Scanning Speed Range(Sec/Div)		5ns/div ~ 1000s/div(1-2-5 sequences)
	Sample Rate and Delay Time Accuracy		±50ppm(any interval ≥1ms)
	Wave form Interpolation		Step, Linear, Sin(x)/x
	Memory Depth(Sample Points)		10K ~ 16M for each channel; 16M: 5ns/div-1000s/div
	Analog Bandwidth		60MHz (-3dB)
	A/D converter		8 bit resolution
Vertical	Vertical Scale(Volt/div) Range		10mV ~ 5V/div @ x1 probe(1,2,5 sequence);100mV ~ 50V/div @ x10 probe
	Position Range		±4division
	Selectable Analog Bandwidth Limit(typical)		20MHz
	Lower Frequency Response(-3dB)		≤ 10Hz(at input BNC)
	Rise Time at BNC(typical)		≤5.8ns
	DC Gain Accuracy		±3%
Trigger	Trigger Source		CH1,CH2, EXT
	Trigger Mode		Auto, Normal and Single
	Trigger Type		Edge, Pulse,Video, Alternative
	Trigger Sensitivity		0.02 div increments
	Trigger Level Range		±4V
	Trigger Level Accuracy		±4 division
	Edge Trigger Slope		Rising, Falling
	Pulse Width Trigger		Trigger Condition： Trigger when <, >, =, or ≠; Positive pulse or Negative pulse Pulse Width Range： Selectable from 20ns to 10s
	Video Trigger Type (Signal Formats and Field Rates)		Supports NTSC, PAL and SECAM broadcast systems for any field or any line
	Alternative Trigger		CH1/CH2: Internal Trigger, Edge, Pulse Width, Video
Measurement	Cursor Measure		Amplitude difference between cursors (ΔV); Time difference between cursors (Δt); Reciprocal of Δt in Hertz (1/ Δt) (Cross, Trace, Horizontal, Vertical)
	Auto Measure	Voltage	Vp-p, Vmax, Vmin, Vmean, Vamp, Vtop, Vbase, Vmid, Vrms, Vcrms,Preshoot, Overshoot
		Time	Frequency, Period, Rise Time(10%~90%), Fall Time(10%~90%), Positive Width, Negative Width, Duty Cycle
Arbitrary Waveform Generator	Waveform Frequency		DC~25MHz
	DAC clock		2K~200MHz adjustable
	Frequency Resolution		0.10%
	Waveform Depth		4K Sample
	Vertical Resolution		12 bit
	Frequency Stability		<30ppm
	Wave Amplitude		±3.5V Max.
	Output Impedance		50 Ω
	Output Current		50mA ,Ipeak=50mA
	System BW		25MHz
	Harmonic Distortion		-50dB(1KHz), -40dB(10KHz)
Logic Analyzer	High input impendence		200KΩ (C=10pF)
	Input Voltage Range		-60V~60V
	Logic threshold Range		-6~6V
	Max. Sample Rate		100MHz
	Bandwidth		10MHz
	Compatible input		TTL, LVTTL, CMOS, LVCMOS, ECL, PECL, EIA
	Storage depth		10K-68M
Environmental	Temperature		Operating: 0℃ to 40℃; Non-operating: -20℃ to +60℃)
	Cooling Method		Forced air
	Humidity		Below +35℃, ≤90% relative humidity; +35℃ to +40℃, ≤60% relative humidity
	Altitude		Operating: 3,000m or below; Non-operating: 15,000m or below
Mechanical	Size		190mm(L)x100mm(W)x35mm(H)
	Heavy		Without Packaged 0.29kg; Packaged 0.9kg;
Accessories	Probe		X1, X10 four passive probes. The passive probes have a 6MHz bandwidth (rated 100Vrms CAT III) when the switch is in the X1 position, and a maximum bandwidth (rated 300Vrms CAT II) when the switch is in the X10 position. Each probe consists of all necessary fittings.
	Adapter		A power adapter special for this product. In addition to the power adapter shipped with your instrument, you may purchase another one certified for the country of use.
	USB Line		A USB A-B line, used to connect external devices with USB-B interface like a printer or to establish communications between PC and the oscilloscope.
	Software Installation CD		A software installation CD and it also contains the user manual for the Tenma Oscilloscope.
	BNC to BNC		A Probe(BNC to BNC)
	Cable		A 20-pin logic analyzer exhaust cable
	Test Hook		Eighteen little test hooks, Logic analyzer with high-quality test hook