

# Oscilloscope



## Features:

- 60MHz high bandwidth with 2 channels
- 150MSPS real time sampling rate
- Multi-language support, easy to use
- USB2.0 interface, no external power required
- 23 measurement functions, PASS/FAIL check, FFT
- OS: Windows NT, Windows 2000, Windows XP, Windows 7
- Labview/VB/VC SDK

## Specifications:

	Model	72-10160
Acquisition	Sample Mode	Real-Time Sample
	Sample Rate	150MSPS
	Average	N acquisitions, all channels simultaneously, N is selectable from 1-128
Input	Input Coupling	DC, AC, GND
	Input Impedance	Resistance: 1M $\Omega$ ; Capacitance: 25pF
	PP-80,PP-150,PP-200 Probe Attenuation	10X
	Probe Attenuation Factors	1X, 10X
	Maximum Input Voltage	35Vpk (DC + peak)
Horizontal	Scanning Speed Range(Sec/Div)	4ns/div ~ 1h/div(1-2-4 sequences)
	Sample Rate and Delay Time Accuracy	$\pm 50$ ppm( any interval $\geq 1$ ms )
	Wave form Interpolation	Step, Linear, Sin(x)/x
	Memory Depth(Sample Points)	10K : available all timebase; 32K : 40 $\mu$ s/div-400ms/div(Dual channel); 20 $\mu$ s/div-400ms/div(Signal channel); 64K : 40 $\mu$ s/div-400ms/div
Vertical	Analog Bandwidth	60MHz (-3dB)
	A/D converter	8 bit resolution
	Vertical Scale(Volt/div) Range	10mV ~ 5V/div @ x1 probe(1,2,5 sequence); 100mV ~ 50V/div @ x10 probe
	Position Range	$\pm 4$ division
	Selectable Analog Bandwidth Limit(typical)	20MHz
	Lower Frequency Response(-3dB)	$\leq 10$ Hz(at input BNC)
	Rise Time at BNC(typical)	$\leq 5.8$ ns
	DC Gain Accuracy	$\pm 3$ %



# Oscilloscope



<b>Trigger</b>	Trigger Source		CH1,CH2, EXT
	Trigger Mode		Auto, Normal and Single
	Trigger Type		Edge trigger: Rising edge, falling edge.
	Trigger Sensitivity		0.02 div increments
	Trigger Level Range		±4V
	Trigger Level Accuracy		±4 division
<b>Measurement</b>	Cursor Measure		Amplitude difference between cursors ( $\Delta V$ ); Time difference between cursors ( $\Delta t$ ); Reciprocal of $\Delta t$ in Hertz ( $1/\Delta t$ ) (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 Cycl
	Temperature		Operating: 0°C to 40°C Non-operating: -20°C to +60°C)
<b>Environmental</b>	Cooling Method		Forced air
	Humidity		Below +35°C, ≤90% relative humidity; +35°C to +40°C, ≤60% relative humidity
	Altitude		Operating: 3,000m or below; Non-operating: 15,000m or below
	<b>Mechanical</b>	Size	190mm(L)×100mm(W)×35mm(H)
Heavy		Without Packaged 0.29kg; Packaged 0.9kg;	
<b>Accessories</b>	Probe		X1, X10 two 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
	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.
	Installation CD		A software installation CD and it also contains the user manual for the Tenma Oscilloscope.

## Part Number Table

Description	Part Number
Oscilloscope, PC, 2 Channel, 60MHz	72-10160

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# Palm Size Digital Multimeter **TENMA™**



## Specifications:

Basic Functions	Range	Best Accuracy
DC Voltage	200mV/2,000mV/20V/200V/250V	±(0.5%+2)
AC Voltage	200V/250V	±(1.2%+10)
DC Current	2,000µA/20mA/200mA/10A	±(1%+2)
Resistance	200Ω/2,000Ω/20kΩ/200kΩ/20MΩ/200MΩ	±(0.8%+2)

## Special Functions

Display Count		2,000
Manual Range		√
Square Wave Output		√
Diode		√
Continuity Buzzer		√
Low Battery Indication		√
Data Hold		√
LCD Backlight		√
Input Protection		√
Input Impedance for DCV	Around :10MΩ	√

## General Characteristics

Power	9V Battery (6F22)
LCD Size	48mm×16mm
Product Colour	Orange and Grey
Product Net Weight	180g (Including Holster)
Product Size	130mm × 73.5mm × 35mm
Standard Accessories	Battery, Test Lead, Holster

## Part Number Table

Description	Part Number
Palm Size Digital Multimeter	72-7770A

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