

MiniLab E100 Specifications:

◀ GENERAL ▶

MECHANICAL

Overall Dimensions	5.1 x 5.1 x 1.4 inches
Weight	6.2 ounces
Material	30% Glass Reinforced Nylon
Operating Temperature	0°C to 40°C

ELECTRICAL

Power	5V DC input; 2.5mm Jack
Current Consumption	1.50 Amps

PC INTERFACE & REQUIREMENTS

PC Interface	USB 2.0 and 1.1 Compatible; Full-Speed
Operating System	Windows 2000, XP, Vista
PC Hardware	IBM PC Compatible 800MHz CPU minimum; 1.2GHz Recommended 256MB minimum; 512MB Recommended .NET Framework Installed (Free from Microsoft)



◀ OSCILLOSCOPE ▶

TRIGGER SYSTEM

Maximum Sampling Rate	250MSPS simultaneous on both channels
Vertical Resolution	8-bits
Record Length	2048 points

VERTICAL SYSTEM

Analog Bandwidth	100MHz (-3dB)
Channels	2
Vertical Sensitivity	10mV/div to 5V/div
Vertical Position Range	±4 divisions
BW Limit	40MHz
Input Coupling	DC and AC
Input Impedance	1MΩ in parallel with 20pF

TIME BASE SYSTEM

Time Base	5ns/div to 5s/div
Time Base Accuracy	100ppm

TRIGGER SYSTEM

Trigger Modes	Auto, Normal, Single Shot
Trigger Types	Edge: rising, falling
Trigger Source	CH1, CH2

MEASUREMENT SYSTEM

Cursor Types	Voltage, Time
Cursor Measurement	Delta Voltage, Delta Time
Automatic Measurements	Period, Frequency, Mean, Peak-to-Peak, Amplitude, RMS, Cycle RMS, Min, Max, Rise Time, Fall Time, Negative Width, Positive Width
Waveform Math	Add, Subtract, Multiply

PROBES

Probe Attenuation Modes	10:1 (x10) and 1:1 (x1)
Probe Bandwidth	100MHz in x10 mode 15MHz in x1 mode
Input Impedance	10MΩ / 15pF in x10 1MΩ / 46pF in x1

◀ FUNCTION GENERATOR ▶

GENERAL CHARACTERISTICS

Synthesis Technique	Direct Digital Synthesis
Amplitude Resolution	10 Bits
Sample Rate	25 MSPS
Waveforms	Sine, Triangle, Square, Pulse

FREQUENCY CHARACTERISTICS

Range	0.1Hz to 5MHz* in 7 ranges
Resolution	4 Digits
Tuning Range	Coarse: 10:1, Fine: ±5% of Coarse setting
Variable	10% to 90%
Frequency Stability	100ppm

OUTPUT CHARACTERISTICS

Amplitude (into open-circuit)	Variable: 20mVp-p to 9.5Vp-p 54dB of dynamic range, 10-bit resolution
DC Offset	Variable: -4V to +4V, 10-bit resolution
Output Impedance	50Ω ±10%

* Triangle waveforms are limited to 2.5MHz

◀ DIGITAL MULTIMETER ▶

GENERAL

Display	3 1/2 Digits, Bargraph, 2000 Counts
Available Functions	AC Voltage, DC, Voltage, Resistance, Continuity, Diode, AC Current, DC Current
Special Features	Hold Function; Max, Min, Average Measurements
Maximum Voltage*	38Vrms / 42.4Vpk
Fuse for A Input	2.5A, 125V

AC VOLTAGE FUNCTION

200mV	Resolution: 0.1 mV; Accuracy: ±2.0%
2.00 V	Resolution: 0.001 V; Accuracy: ±2.0%
20.0 V	Resolution: 0.01 V; Accuracy: ±2.0%
200 V	Resolution: 0.1 V; Accuracy: ±2.0%

DC VOLTAGE FUNCTION

200mV	Resolution: 0.1 mV; Accuracy: ±2.0%
2.00 V	Resolution: 0.001 V; Accuracy: ±2.0%
20.0 V	Resolution: 0.01 V; Accuracy: ±2.0%
200 V	Resolution: 0.1 V; Accuracy: ±2.0%

RESISTANCE FUNCTION

200 Ω	Resolution: 0.1 Ω; Accuracy: ±1.5%
2.00 kΩ	Resolution: 0.001 kΩ; Accuracy: ±1.5%
20.0 kΩ	Resolution: 0.01 kΩ; Accuracy: ±1.5%
200 kΩ	Resolution: 0.1 kΩ; Accuracy: ±1.5%
2.00 MΩ	Resolution: 0.001 MΩ; Accuracy: ±1.5%
20.0 MΩ	Resolution: 0.01 MΩ; Accuracy: ±1.5%

CONTINUITY FUNCTION

200 Ω	Resolution: 0.1 Ω; Beeps < 25 Ω
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DIODE FUNCTION

2.00 V	Resolution: 0.001 V; Beeps < 0.25 V
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AC CURRENT FUNCTION

2.00 A	Resolution: 0.001 A; Accuracy: ±3% > 10mA, ± 10% < 10mA
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DC CURRENT FUNCTION

2.00 A	Resolution: 0.001 A; Accuracy: ±3% > 10mA, ± 10% < 10mA
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* Maximum Voltage Between Any DMM Terminal and Earth Ground



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