

# LabMax Touch

## Laser Power and Energy Meters

The Coherent LabMax Touch is a full featured laser power and energy measurement instrument that makes extensive data acquisition and analysis capabilities easy to access through an intuitive, touchscreen interface. For example, measurement data and analytics—including live display, statistics, trending, tuning, histogram, and beam position information—are all reached with just a gesture or two on the display.

LabMax Touch provides full compatibility with the entire, comprehensive catalog of Coherent laser power and energy sensors. This includes thermopile, pyroelectric, and semiconductor sensors, plus our unique PowerMax Pro sensors for rapid power measurement of high-power beams.

The standard LabMax Touch samples up to 25 kHz with pyroelectric energy sensors and 10 Hz with power sensors. The LabMax Touch Pro model increases sample rate to 1 MHz with PowerMax-Pro sensors and adds advanced analytics like integrated energy and laser pulse width.

### Features and Benefits

- Compatible with thermopile, optical, pyroelectric, and transverse thermoelectric sensors
- High-speed sampling up to 1 MHz with transverse thermoelectric and 25 kHz with pyroelectric sensors
- 7" touchscreen LCD
- USB, RS-232, and Ethernet PC interfaces
- Dual USB ports (for flash drive or mouse)
- HDMI output (for external monitor)
- External trigger input
- Trigger, Analog, and TTL outputs
- Compatible with Coherent Meter Connection PC software
- Windows 10 compatible
- ISO 17025 accredited

### Applications

- R&D and Laboratory
- Scientific
- Manufacturing
- Quality Assurance
- Field Service



### DEVICE SPECIFICATIONS<sup>1</sup>

	LabMax Touch	LabMax Touch Pro
Sensor Compatibility <sup>3</sup>	Thermopile, Optical, Pyroelectric, and Transverse Thermoelectric	
Measurement Range	1 $\mu$ W to 30 kW, with 100 nW resolution in lowest range using corresponding thermopiles 100 pW to 5 W with 10 pW resolution in lowest range using corresponding optical sensors 10 nJ to 100 J with 1 nJ resolution in the lowest range using corresponding pyroelectric detectors 1 mW to 3 kW, with 100 $\mu$ W resolution in lowest range using corresponding transverse thermoelectric sensors	
Display Resolution	3 to 5 digits (user selectable)	
Meter Accuracy (%)	$\pm 1$	
System Accuracy	Meter accuracy + sensor accuracy	
Calibration Uncertainty (%) (k = 2)	$\pm 1$	
Channel Sampling Rate (Hz)		
Thermopile	10	
Optical	10	
Pyroelectric	25,000	
PowerMax Pro (Hz)	10	10 to 1,000,000
Analog Output (VDC)	0.02 to 1, 2, or 4 (selectable)	
Analog Output Resolution (mV)	0.1	
Analog Output Accuracy (%)	$\pm 0.04$ (25% to full scale) $\pm 0.26$ (5% to 25% of full scale) $\pm 1$ (min to 5% of full scale)	
Analog Output Update Rate (Hz)	500	
Measurement Analysis	Trending, tuning, histogram, data logging, statistics (min., max., mean, range, std. dev., dose, stability)	LabMax Touch features + Pulse analysis, Pulse shape, and high speed analytics with PowerMax-Pro Sensors
Display	1024 x 600 pixel color TFT LCD, 7" diagonal, capacitive touch-screen, LED backlight	
Computer Interface	Ethernet, USB and RS-232	
Pulse Triggering	Internal and External	
Battery Operating Temp. Range	0 to 40°C [32 to 104°F (0 to 95% RH, non-condensing)]	
Power Adapter Operating Temp. Range	0 to 50°C [32 to 122°F (0 to 95% RH, non-condensing)]	
Storage Temperature Range	-20 to 60°C [-4 to 140°F (0 to 95% RH, non-condensing)]	
Instrument Power (external supply)	90 to 260 VAC, 50/60 Hz	
Compliance	CE, RoHS, WEEE, ISO 17025	
Dimensions	23.8 x 16.2 x 5.1 cm (9.37 x 6.38 x 2.01 in.)	
Weight	1190 g (2.62 lbs)	
Top Panel and Front Panel	2x Type A USB ports	
Top Panel	Illuminated power switch Miniature USB PC Interface port Ethernet RJ-45 port RS-232 port (2.5 mm stereo AUX socket) HDMI output Power supply input (12 VDC)	
Right Panel	Multi Output (Analog, Trigger, and 5V TTL) (3.5 mm AUX Socket) Trigger Input (3.5 mm AUX Socket) DB-25 sensor port	
Part Number	PN 2256258	PN 2256259

<sup>1</sup> Meter supplied with AC power adapter, power cord, USB cable, 2.5mm stereo AUX to DB9 RS-232 cable, 3.5mm AUX to BNC Trigger-in cable, Multi-Output cable (analog out, trigger out, flag out), and certificate of calibration.

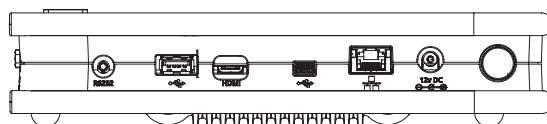
<sup>2</sup> Coherent Meter Connection PC Software and User Manuals are available for download from Coherent website.

<sup>3</sup> Cat5 Ethernet cable and HDMI cable are customer supplied.

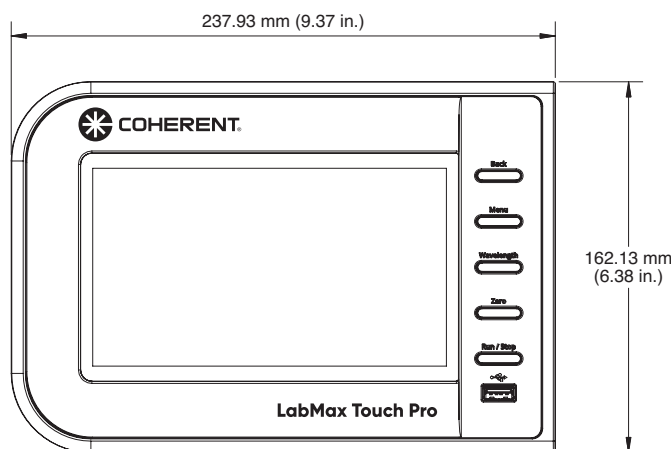
## MECHANICAL SPECIFICATIONS

### LabMax Touch

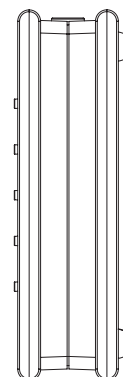
Top View



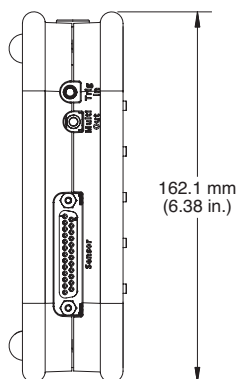
Front View



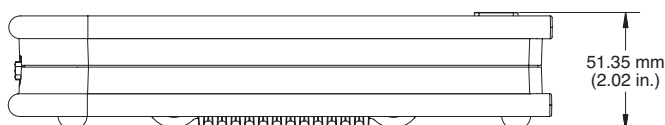
Right Side View



Left Side View



Bottom View



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all LabMax Touch Meters. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative.

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