

# WaveMaster

## Laser Wavelength Meter

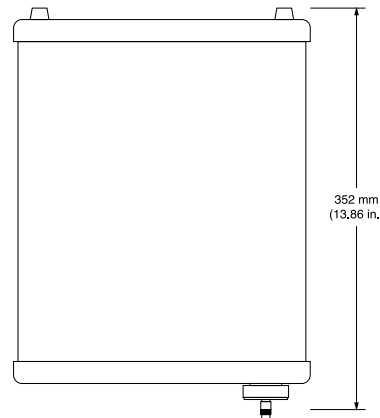
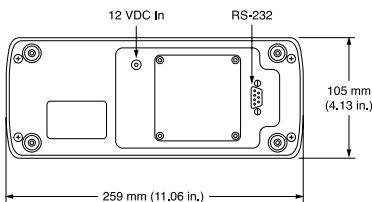
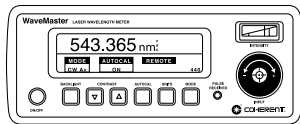


### Features

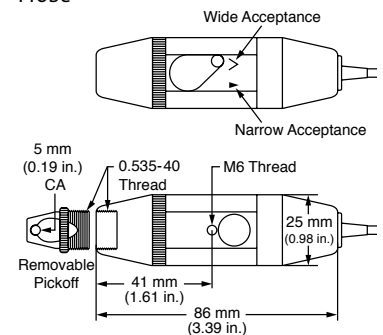
- 380 nm to 1095 nm wavelength range
- RS-232 interface
- Internal self-calibration
- Fiber input with sampling probe

Device Specifications	Model	WaveMaster
Wavelength Coverage (nm)		380 to 1095
Accuracy (nm)		0.005
Resolution (nm)		0.001
Minimum Pulse Rep. Rate		Single shot
Maximum Pulse Rep. Rate		CW
Minimum Signal		20 $\mu$ W CW at 632 nm 2 mJ pulsed at 1064 nm
Maximum Signal		100 mW CW at 632 nm 100 mJ pulsed at 1064 nm
Display Update (Hz)		3
Size (W x H x D) (mm)		259 x 105 x 352
Storage		
Storage Condition		-10°C to 50°C (14°F to 122°F)
Relative Humidity		Non-condensing and <80%
Shock (g)		>4
Use Conditions		
Relative Humidity		-10°C to 40°C (14°F to 104°F) Non-condensing and <80%
Shock (g)		<4
Power Supply (included)		Universal 90 to 250 VAC; 40 to 72 Hz in; 12 VDC out
Part Number		33-2650-000

WaveMaster



Sampling Probe



# WaveMaster

## Laser Wavelength Meter

The WaveMaster measures the wavelength of both CW and pulsed lasers of any repetition rate. The wavelength can be displayed in GHz, wave numbers, or nanometers, with vacuum and air readings available. The WaveMaster is intended for use with lasers with relatively narrow emission spectrums..

The WaveMaster is easy to use. Just turn on the readout and get the beam within 10 degrees of normal incidence to the sampling probe. The probe has a 2-meter fiberoptic cable and takes up a minimum of beam path space. Most intensity variances are automatically accommodated, but for the strongest and weakest signals a front panel attenuator adjustment and intensity readout quickly produce accurate readings. No special triggering modes or setups are required for pulse capture.

### User-Friendly

The WaveMaster is easy to read with front panel adjustments of contrast and back-lighting for the extra-large display. Parameters that have been set-up are clearly displayed, in addition to signal intensity and pulse-retrieved indicators. Configuration settings are maintained in memory and retrieved on start-up for convenience. Communication with the WaveMaster is also easy with a built-in RS-232 port.

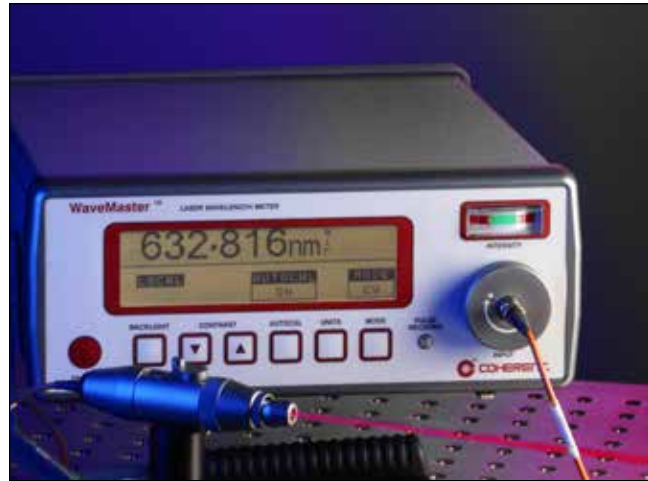
Sophisticated algorithms that monitor the WaveMaster's response maintain calibration. Periodically, and upon indication from the algorithms, the WaveMaster is referenced to the fundamental lines of an internal NE source.

### Pulse or CW Operation

The operational mode can be changed from CW, to CW with averaging, to pulse. In CW mode the display is updated at 3 Hz. In CW with averaging, the display is updated at 3 Hz with an average of the last 10 readings taken at 3 Hz. For pulse mode, when a valid pulse is received the display will show the wavelength reading of the pulse for 15 seconds, or until another valid pulse is received.

### No Warm-Up Time

When the WaveMaster is first powered on, it will perform a self-test cycle and then enter the auto-calibration mode. After 10 seconds, the AUTOCAL message is cleared from the display and the WaveMaster is ready to make measurements.



### Accurate

With its self-monitoring algorithms and an internal spectral line source, the WaveMaster auto-calibrates the internal spectrometer to maintain accuracy.

### Easy Set-Up

Feedback from the WaveMaster is straightforward. Once the signal is applied to the probe, the unit begins sampling to simplify set-up. In CW mode, the WaveMaster will auto-range to adjust the sensor integration time to match the incoming signal. This allows the quickest set-up and greatest versatility.

### Selected Display Units

The wavelength readings can be displayed in nanometers in "air" at standard temperature and pressure (STP), or shown as a calculated conversion from STP to nanometers in a "vacuum", or displayed as wave numbers (cm<sup>-1</sup>), or as frequency (GHz).

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