www.ozoptics.com
219 Westbrook Rd, Ottawa, ON, Canada, K0A 1L0 Toll Free: 1-800-361-5415 Tel:(613) 831-0981 Fax:(613) 836-5089 E-mail: sales@ozoptics.com

HAND HELD OPTICAL POWER METER

Features

- Wide dynamic range
- Wide wavelength range
- Interchangeable optical connectors available
- Long battery lifetime, up to 300 hours
- Powered by rechargeable battery or AC adaptor
- RS-232 interface for computer control
- Protective rubber boot
- Built-in backlight
- CE compliant
- Low cost

POM-300 Optical Power Meter

Applications

- Fiber optic assembling and testing
- Quality control and measurement
- Network installation
- Component and system troubleshooting
- Education
- General optical power measurement

Product Description

The OZ Optics POM-300 offers a high-resolution optical power meter with a wide dynamic range covering a broad spectrum of wavelengths. A user-friendly keypad and easy-to-read back-lit display makes it well suited to most user applications. Extremely low power consumption allows extended operation in the field. Alternatively, the AC adaptor may be used, either directly, or to recharge the internal battery.

The POM-300 can accommodate a variety of standard, interchangeable screw-in receptacles. Power levels as high as +10 dBm or as low as -75 dBm can be easily measured, with the values displayed in watts or dBm. Relative measurements can be displayed in dB. The wavelength can be selected in increments of 10 nm, or set to a specific value, within 1 nm.

Through the keypad and liquid crystal display, the user can configure various modes of operation and format the displayed measurements. Alternatively, using the RS232 serial interface, the POM-300 can be controlled by a host PC using a series of simple commands.

Ordering Information for Standard Parts:

Bar Code	Part Number	Description
21504	POM-300-IR	Hand Held Optical Power Meter with InGaAs detector and battery, for 800nm -1650nm wavelengths, -75dBm to 10dBm measurement range. Measurements are in watts/dBm/dB with 4 or 5 digit display. Power supply included. Receptacle is not included.
23700	POM-300-VIS	Hand Held Optical Power Meter with silicon detector and rechargable battery, for 440nm-900nm wavelenghts, -65dBm measurement range. Measurements are in watt/dBm/dB with 4 digit display. Rechargable is not included.
22093	POM-300-R-3	Interchangeable FC/PC Receptacle for POM-300 Optical Power Meter
22092	POM-300-R-SC	Interchangeable SC Receptacle for POM-300 Optical Power Meter
23699	USB-RS232	USB - to -RS232 converter for connecting an RS232 device to a USB port.
4572	GPIB-RS232	GPIB to RS232 converter
4571	GPIB-CABLE-2	GPIB Cable, 2m long

Standard Product Specifications:

Measurement range[1] IR Visible	 -75 to + 10 dBm -65 to + 10 dBm
Wavelength range	800 to 1650 nm with IR detector 440 to 900 nm with visible detector
Calibrated wavelengths (IR version)	1625, 1550, 1480, 1310, 1064, 980, 850, and 830 nm
Resolution	0.01 dB
Accuracy[2]	± 5%(+10 to -60 dBm) at calibrated wavelengths using singlemode fiber and FC/PC receptacle.
Linearity	± 0.05 dB (+10 to -60 dBm), at 1550 nm using singlemode fiber and FC/PC receptacle
Measurement units	Watts, dBm, dB
Available optical receptacles	Standard flat, Super, or Ultra NTT-FC/PC; angled NTT-FC/PC; AT&T-ST; SC; angled SC; LC; MU; 1.25 or 2.5 mm ID universal receptacles.
Sampling rate	3.75, 7.5, or 15 samples per second
Dimensions (L x W x H)(not including receptacle)	150 x 81 x 46 mm (5.9 x 3.2 x 1.8 inches) without boot 190 x 90 x 60 mm (6.5 x 3.75 x 2.5 inches) with boot
Weight (with protective boot)	0.5 kg (1.1 lb)
Communications interface	RS-232 serial port
Power supply	110/220V AC 50/60 Hz Universal power supply; built-in rechargeable Lithium ion battery pack
Temperature range: Operating Storage	 -20 to +50 °C -20 to +50 °C

Notes:

1) Maximum measurement range is dependent on wavelength, which is related to the responsivity of the detector. Please consult OZ Optics for high power measurement.
2) Measured at 23 °C

Ordering Examples for Standard Parts

A customer needs to measure the insertion loss, at 1550 nm, of fibers terminated with FC/PC connectors. If he already has an optical source, then all he needs to order are the following parts:

Bar Code	Part Number	Description
21504	POM-300-IR	Hand Held Optical Power Meter with InGaAs detector and battery, for 800nm -1650nm wavelengths, -75dBm to 10dBm measurement range. Measurements are in watts/dBm/dB with 4 or 5 digit display. Receptacle is not included.
22093	POM-300-R-3	Interchangeable FC/PC Receptacle for POM-300 Optical Power Meter

Questionnaire:

1. What is the wavelength range that you need?
2. What is the maximum power level that you need to measure?
3. What is the minimum power level that you need to measure?
4. What type of optical receptacle do you need?
5. Do you need to be able to control the power meter from a computer?

Ordering Information for Custom Parts

Description	Part Number
Optical Power Meter	**POM-300-*W***

W:
Wavelength range: IR = infrared, 800 to 1650 nm
VIS = visible, 440 to 900 nm

Description	Part Number
Optical receptacle	**POM-300-R-*X***

X: Receptacle style:
3 = Standard flat, Super, or Ultra FC/PC
3A = Angled FC/PC
8 = AT&T-ST
SC = SC
SCA = Angled SC
LC = LC
MU = MU
1.25U = Universal adaptor for 1.25 mm diameter ferrules
2.5U = Universal adaptor for 2.5 mm diameter ferrules

Ordering Examples for Custom Parts:

A customer needs to measure optical power from a system operating at 650 nm, which has an LC connector on the end of a fiber. He can do this by ordering the following parts:

Part Number	Description
POM-300-VIS	Hand Held Optical Power Meter with silicon detector and battery, for 440nm - 900nm wavelengths, -65dBm to 10dBm measurement range. Measurements are in watts/dBm/dB with 4 or 5-digit display. Receptacle is not included.
POM-300-R-LC	Interchangeable LC/PC receptacle for POM-300 Optical Power Meter

Frequently Asked Questions (FAQs)

Q: I need to measure a noisy signal. Can I do this?

A: Yes. The POM-300 allows the user to set the length of an averaging queue, which will filter much of the noise to provide a steady average reading.

Q: I need to make measurements in a fairly dark room. Does the POM-300 have a backlit display?

A: Yes. The backlight can be easily turned on or off. It can also be set to automatically turn off after a user-selectable time period has passed.

Q: How long will the rechargeable battery last between charges?

A: The POM-300 can be run for up to 300 hours on a single charge. Using the backlight continuously will increase the power consumption and drain the battery faster. For maximum battery life, the backlight should only be turned on when it is required.