



Multichannel Optical Power Meter

OPM-150



Product Overview

Santec's OPM-150 Multichannel Optical Power Meter is a cost-effective solution for manufacturers or labs requiring high channel counts. Available with up to 24 individual detectors, the OPM-150 includes simultaneous power measurements on all channels and built-in USB and Ethernet communication.

The OPM-150 is capable of faster than 30 ms sampling time over the USB interface allowing for fast feedback in active optical alignment applications for fiber coupling and silicon photonics.

It's simultaneous optical power measurement capability enables users to instantly spot a port failure, making the OPM-150 an ideal instrument for demanding production and lab applications.

Software is available for easy automated testing and data export.

Features

- Mix and match different detector types (Si or InGaAs) and sizes (1, 3, 5 or 10 mm)
- Simultaneous readings from up to 24 detectors
- < 30 ms sampling time
- Color touch screen display
- USB or Ethernet

Applications

- Optical alignment
- Silicon photonics
- Optical signal monitoring
- Environmental testing
- Transceiver testing
- Lab and R&D
- Parallel laser burn-in testing



Individual Power Meters for Maximum Flexibility

Up to 24 individual optical power meters can be built into each OPM-150 enabling large channel counts for signal monitoring.

Wide Operating Ranges and Spectrums

The OPM-150 can be configured with both InGaAs and Silicon (Si) detectors, each with its own measurement range and wavelength spectrum. InGaAs detectors are capable of measurements from +6 dBm to -72 dBm at 830 nm to 1700 nm wavelengths. Si detectors are capable of measurements from +3 to -65 dBm at 400 to 1100 nm wavelengths.



Fast On-Demand Sampling Time

Faster than 30 ms sampling rate for up to all 24 channels over the USB interface allowing for responsive measurements for automation and alignment purposes.

USB and Ethernet Communication Ports

Easily integrate the OPM-150 into automation routines.

OPM-150 Optical / Electrical Specifications

Parameter	Specification						
	1 mm InGaAs	3 mm InGaAs	5 mm InGaAs	10 mm InGaAs	2 mm HP InGaAs	3 mm Silicon	10 mm Silicon
Wavelength Range (nm)	850 to 1650				400 to 1100		
Power Range (dBm)	6 to -72	3 to -72	0 to -65	0 to -55	27 to -40	0 to -65	3 to -55
Total Uncertainty ¹	± 0.25 dB						
Power Resolution (dB)	0.001						
Linearity (dB) ^{2,3}	± 0.02 (< 10 dB)						
	± 0.05 (> 10 dB)						
Sampling Time	12.5 ms						
Remote Interface	USB or Ethernet						
Display	4.3" touch screen						
Power Supply	Input: 90 - 264 V AC, 47 - 63 Hz						
	Output: 18V DC, 5 A						
Power Consumption (VA)	36 maximum						

Notes:

¹ At calibration conditions for all NIST traceable wavelengths

² Measured for InGaAs at 1490 nm, between 3 to -65 for 1 mm, 0 to -65 for 3 mm, 0 to -55 for 5 mm, 0 to -45 for 10 mm

³ Measured for Si at 980 nm, between 0 to -55 for 3 mm

OPM-150 Mechanical / Environmental Specifications

Parameter	Chassis size	
	2U Full (2F) option	2U Half (2H) option
Unit Dimensions W x H x D (cm) ¹	43 x 8.8 x 22.9	22.2 x 8.8 x 32.5
Max Detector Count	24	4
Operating Temperature (°C)	5 to 40	
Humidity (Non-Condensing) (°C)	Maximum 95% RH from 5 to 40	


Notes:


¹ Excluding removable rubber bezels. Add 1.5 cm to W and 3.5 cm to H with the removable rubber bezels.

² W*H*D / 5000

Ordering Scheme & Instructions

1. Configure OPM Multichannel Optical Power Meter

OPM-150 - 



CHANNELS		DETECTOR		CHASSIS SIZE	
01	1-channel	IN1	1 mm InGaAs	2H	2U half rack
04	4-channel	INE1	1 mm Extended InGaAs	2F	2U full rack
08	8-channel	IN2HP	High power 2 mm InGaAs		
12	12-channel	IN3	3 mm InGaAs		
16	16-channel	IN5	5 mm InGaAs		
24	24-channel	IN10	10 mm InGaAs		
		SI3	3 mm Silicon		
		SI10	10 mm Silicon		
		R	Remote head port		



In the Box

OPM-150 - Multichannel Optical Power Meter

- OPM-150
- Power cable (North American & Japan shipments only)
- USB A to B cable
- 18V AC/DC Power Supply



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