

# OPM-150

## Multichannel Optical Power Meter



### 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
- Colour 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

## Multichannel Optical Power Meter



### 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.



## Ordering Scheme & Instructions

### 1. Configure OPM Multichannel Optical Power Meter

**OPM-150-**   -      -



CHANNELS		DETECTOR		OPTION 2	
01	1-channel	IN1	1 mm InGaAs	2H	2U half rack
04	4-channel	IN3	3 mm InGaAs	2F	2U full rack
08	8-channel	SI3	3 mm Silicon		
12	12-channel	INE1	1 mm Extended InGaAs		
16	16-channel	IN5	5 mm InGaAs		
24	24-channel	IN10	10 mm InGaAs		
		S10	10 mm Silicon		
		HPIN2	High power 2 mm InGaAs		
		R	Remote head port		

## OPM-150 Optical / Electrical Specifications

Parameter	Specification				
	1 mm InGaAs	3 mm InGaAs	5 mm InGaAs	10 mm InGaAs	3 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	0 to -65
Total Uncertainty <sup>1</sup>	± 0.25 dB				
Power Resolution (dB)	0,001				
Linearity (dB) <sup>2,3</sup>	± 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:

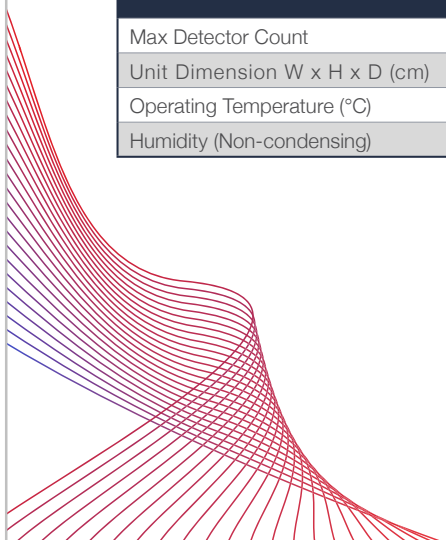
<sup>1</sup> At calibration conditions for all NIST traceable wavelengths

<sup>2</sup> 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

<sup>3</sup> Measured for Si at 980 nm, between 0 to -55 for 3 mm

## Mechanical / Environmental Specifications

Parameter	Specification
	OPM-150
Max Detector Count	24
Unit Dimension W x H x D (cm)	42.5 x 8.9 x 20.3
Operating Temperature (°C)	5 to 40
Humidity (Non-condensing)	Maximum 95% RH from 5 to 40 °C





## In the Box

**OPM-150** - Multichannel Optical Power Meter

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