

Optical Power Meter Buyers Guide



What OPM is right for me?

When selecting an optical power meter that aligns with your specific requirements, several factors warrant consideration. These encompass the application scope, technical specifications, and pricing parameters. Santec presents a diverse range of solutions encompassing various optical power meter applications. By perusing further, you will gain insights into our product offerings and determine the most suitable choice for your particular needs.

Optical Power Meter Comparison

		OPM-110 USB	OPM-150 Multichannel	OPM-160 High-speed & Multichannel	OPM-200 High-Performance
1	InGaAs (850-1650)	✓	✓	✓	✓
2	Silicon (400-1100)	✓	✓	✓	
3	Power Range (dBm)	3 to -65 dBm	3 to -65 dBm	3 to -65 dBm	30 to -80 dBm
4	USB	✓	✓	✓	✓
5	Touch Screen		✓	✓	✓
6	Averaging Time	50 ms	10-30 ms	8 μ s	100 μ s
7	Max channel count	1	24	24	4
8	Ethernet		✓		✓
9	Trigger				✓
10	Analog output				✓

SANTEC OPTICAL POWER METERS

OPM-200 High Performance



The OPM-200 High Performance Optical Power Meter is the latest generation of Santec power meters.

FEATURES:

- Up to 4 channels of simultaneous testing with speeds as fast as 100us/10kHz.
- Dynamic range of +30dBm to -80dBm.
- Wavelength range from 840nm to 1700nm, with 1nm spacing.
- Remote control via USB or ethernet, using simple SCPI commands.
- Digital and analog outputs

APPLICATIONS:

- Optical alignment
- Transceiver testing
- Laser and amplifier characterization
- Transient testing
- Lab and R&D settings

OPM-160 Multichannel OPM



The OPM-160 Multichannel High-speed Optical Power Meter is the highest speed power meter with the ability to measure simultaneously up to 24 channels at once.

FEATURES:

- Up to 24 channels of simultaneous data acquisition up to 125,000 samples per second, or 8us sampling time.
- InGaAs detectors capable dynamic range of +6dBm to -72dBm. Silicon detectors available with dynamic range of 0dBm to -65dBm.
- Wavelength calibration at 850nm, 980nm, 1300nm, 1310nm, 1490nm, 1550nm and 1625nm.
- Speed surpasses IEC 61300-3-28 for measuring transient loss as well as military standard 1678-2A for measuring high speed optical discontinuities.
- Standalone software for instrument control, setting pass/fail limits, monitoring readings and data exporting.

APPLICATIONS:

- Transient loss compliance (IEC 61300-2-38)
- Shock and vibration testing
- Cable Strain and retention testing
- High-speed IL/BR monitoring
- Lab and R&D

OPM-150 Multichannel OPM



The OPM-150 Multichannel Optical Power Meter is a cost-effective solution for manufacturers or labs requiring high channel counts.

FEATURES:

- Up to 24 channels of mix and match detector types (Si or InGaAs) and sizes (1, 3, 5, or 10mm)
 1. InGaAS Dynamic Range +6dBm to -72dBm at 830nm to 1700nm wavelengths
 2. SI Dynamic Range +3dBm to -65dBm at 400nm to 1100nm wavelengths
- Simultaneous readings for up to 24 channels.
- <30ms sampling time
- Remote control via USB or Ethernet
- Standalone software for instrument control, setting pass/fail limits, monitoring readings and data exporting.

APPLICATIONS:

- Optical alignment
- Silicon photonics
- Optical signal monitoring
- Transceiver testing
- Lab and R&D
- Freespace optics

OPM-110 USB



The OPM-110 is a standalone USB optical power meter that is operated and powered via USB. It is ideal for measuring IL on fibers terminated with simplex connectors.

FEATURES:

- Single channel, standard detector types (Si or InGaAs) and sizes (1, 3, 5, or 10mm)
 1. InGaAS Dynamic Range +6dBm to -72dBm at 830nm to 1700nm wavelengths
 2. SI Dynamic Range +3dBm to -65dBm at 400nm to 1100nm wavelengths
- Small form factor
- 50ms sampling time
- Remote control via USB

APPLICATIONS:

- Optical alignment
- Silicon photonics
- Optical signal monitoring
- Transceiver testing
- Free space optics
- Lab and R&D

MPM-2XX Multichannel OPM



The MPM-2XX Multichannel Optical Power Meter is the perfect tool for very fast simultaneous measurement of multi-port optical devices

FEATURES:

- High speed measurement
- Up to 1 million logging sampling points per port 2 memory buffers per port
- Fast measurement (100 kHz) with high resolution
- High dynamic range
- - 80 to + 10 dBm (MPM-211 / 212)
- - 70 to + 5 dBmA (MPM-215)
- High dynamic range (logging mode)
- 50 dB per scan (MPM-211 / 212)
- 70 dB per scan (MPM-215)
- Current meter module (MPM-213)
- Dynamic current range - 70 to + 10 dBmA
- Analog output (MPM-212)
- Up to 20-port measurement
- Wavelength Range 1250 to 1650 nm

APPLICATIONS:

- Optical power measurements
- L, WDL and PDL measurements (Swept Test System)



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