

OPM-160

High-Speed Optical Power Meter



Features

- Simultaneous 125 kHz readings from up to 24 detectors
- Software driven high-speed data capture
- Colour touch screen display
- USB 3.1 interface



Applications

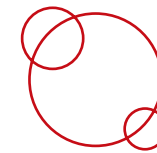
- Transient loss compliance (IEC 61300-2-38)
- Shock and vibration testing
- Cable strain and retention testing
- High-speed IL/BR monitoring
- Lab and R&D



Product Overview

The OPM-160 is a multichannel, high-speed optical power meter. Unlike other solutions, all channels are measured simultaneously. Up to 24 channels of data can be acquired at up to 125,000 readings per second or 8 μ s sampling time. This surpasses the IEC 61300-3-28 standard for measuring transient loss as well as the military standard 1678-2A for monitoring high-speed optical discontinuities.

The 2U full rack housing is shallow enough for convenient benchtop use. The colour touchscreen can control the unit and display the readings on one or all channels simultaneously. PC software can also be used for instrument control, setting pass/fail limits, and monitoring readings.

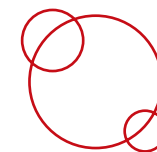
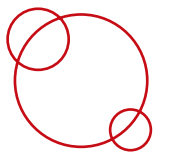


Software Driven High-Speed Data Capture

The OPM-160 includes HSOPM software for customizable high-speed data capture from 1 to 24 channels. The HSOPM software allows simultaneous monitoring of all 24 channels and performs automated IEC 61300-3-28 transient loss tests.

Unparalleled Variable Sample Rate

A maximum rate of 125,000 samples per second with an 8 μ s sampling period, from 1 to 24 detectors simultaneously, exceeds all requirements of the IEC 61300-3-28 standard.

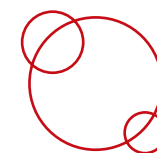
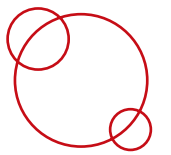


Interchangeable Adapter Interface

Our universal OPM adapter system readily accommodates industry standard connector types including FC, SC, LC, and ST, as well as universal adapters for 1.25 mm and 2.5 mm ferrules. The OPM-160 can also be built with electrical ports for remote head detectors.

Software Configurable Event Analysis

The HS-OPM software suite allows user to define trigger thresholds for easy data analysis and event detection for transient analysis or shock and vibration testing.



Endless Software Buffer Extends Measurement Time

The HS-OPM software provides an endless measurement buffer, using computer memory to store acquired data for an extended timeframe. No need to fear running out of memory during long-term tests.

Ordering Scheme & Instructions

1. Configure OPM High-Speed Optical Power Meter

OPM-160- -



| CHANNELS | | DETECTOR | |
|----------|------------|----------|------------------------|
| 08 | 8-channel | IN1 | 1 mm InGaAs |
| 12 | 12-channel | IN3 | 3 mm InGaAs |
| 16 | 16-channel | SI3 | 3 mm Silicon |
| 24 | 24-channel | HPIN2 | High power 2 mm InGaAs |
| | | INE1 | 1 mm Extended InGaAs |
| | | IN5 | 5 mm InGaAs |
| | | IN10 | 10 mm InGaAs |
| | | S10 | 10 mm Silicon |
| | | R | Remote head port |



In the Box

OPM-160 - High-Speed Optical Power Meter



Santec Regional Sales Offices

Santec Japan Corporation
5823 Ohkusa-Nenjozaka, Komaki,
Aichi, 485-0802, Japan
Tel: +81-568-79-3536 | Fax: +81-568-79-1718

Santec Europe Ltd.
99 Park Drive, Milton Park, Abingdon,
Oxfordshire, OX14 4RY, UK
Tel: +44-20-3176-1550

Santec USA Corporation
400 Kelby Street, Suite 1501
Fort Lee NJ 07024 USA.
Toll Free: +1-800-726-8321

Santec (Shanghai) Corporation Limited
21F Room H, Hua Du Bldg., No.838 Zhangyang Road
Pudong District, Shanghai, 200122, China
Tel: +86-21-5836-1261 | Fax: +86-21-5836-1263

OPM-160 Optical / Electrical Specifications

| Parameter | Specification | | |
|--------------------------------|----------------------------------|----------------|--------------|
| | 1 mm InGaAs | 2 mm HP InGaAs | 3 mm Silicon |
| Wavelength Range (nm) | 830 to 1700 | 830 to 1700 | 400 to 1100 |
| Power Range (dBm) | 6 to -72 | 27 to -40 | 3 to -65 |
| Total Uncertainty ¹ | ± 0.25 dB | | |
| Power Resolution (dB) | 0.001 | | |
| Linearity (dB) ² | ± 0.02 (< 10 dB) ³ | | |
| | ± 0.05 (> 10 dB) | | |
| Sampling Time | 8 μs | | |
| Remote Interface | USB | | |
| Display | 2.8" touch screen | | |
| Power Supply | Input: 90 - 264 V AC, 47 - 63 Hz | | |
| | Output: 9 V DC, 2.2 A | | |
| Power Consumption (VA) | 18 maximum | | |

Notes:

¹ At calibration conditions for all NIST traceable wavelengths

² Above -65 dBm

³ Within a single gain stage

Mechanical / Environmental Specifications

| Parameter | Specification |
|-------------------------------|-------------------------------|
| | OPM-160 |
| 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 |