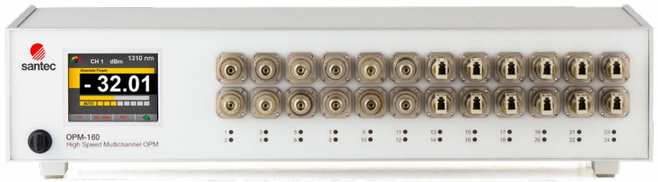
OPM-160

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 µs 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 µs 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.

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

Ordering Scheme & Instructions

1. Configure OPM High-Speed Optical Power Meter

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CHANNELS	
08	8-channel
12	12-channel
16	16-channel
24	24-channel

DETECTOR	
IN1	1 mm InGaAs
IN3	3 mm InGaAs
SI3	3 mm Silicon
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

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