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Data Sheet

August 13, 2026

SANTEC

Santec MPM-211 4-Channel Power Meter Module

Key Features - 4 optical ports per module; 5 modules = 20 ports - -80 to +10 dBm InGaAs; 0.001 dB resolution - 100 kHz; 1e6 points x 2 buffers per port; ~50 dB per scan - Linearity +/-0.03 dB at -55 to 9 dBm (averaging greater than 100 ms, auto range) - PDR typically less than 0.025 dB (1525-1585 nm) - FC receptacles; ports numbered 1-4 top to bottom Technical Specifications Model: MPM-211 Manufacturer: Santec Instrument Type: 4 Channel Optical Power Meter Plug In Module Series: MPM-210 / MPM-210H / MPM-220 Alias: MPM-211; MPM211 Port Count: 4 optical power ports Maximum Ports Per Mainframe: 20 (five MPM-211 modules) Wavelength Range: 1250 to 1680 nm Specification Wavelength Range: 1250 to 1630 nm Sensor Element: InGaAs Power Range: -80 to +10 dBm Maximum Safe Power: +16 dBm Power Resolution: 0.



MODEL

Santec MPM-211

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

MPM-211

LISTING

<https://aumictechlabs.com/products/mpm-211-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Santec MPM-211 is a 4-channel optical power meter module engineered for simultaneous measurement of optical power across multiple channels in multichannel optical devices and components. This plug-in module integrates into Santec's MPM-210H and MPM-210 mainframes to deliver high-precision power monitoring with extremely low polarization-dependent sensitivity. The InGaAs sensor element provides accurate measurements across the infrared spectrum, ideal

for telecommunications, sensing, and component characterization applications requiring parallel channel acquisition.

Technical Specifications

Channel Count: 4 channels per module

Wavelength Range: 1250 to 1680 nm

Power Measurement Range: -80 to +10 dBm

Measurement Dynamic Range (typical): > 30 dB

High Dynamic Range (Logging Mode): Typically 50 dB per scan

Data Logging Capacity: Up to 1 million sampling points per port; 2 memory buffers per port

Averaging Time: > 50 μ s (gain 1, 2, or 3); > 100 ms (auto range mode)

Sensor Element: InGaAs

Polarization-Dependent Sensitivity: Extremely low

Connector Type: FC

Operating Temperature: 23 $\pm$ 5 $^{\circ}$ C

Operating Humidity: < 80% non-condensing

Key Features

- High linearity across the measurement range
- Dual memory buffers per port enable continuous logging and data management
- Rapid averaging times support both fast transient capture and precision averaging modes
- Extreme insensitivity to polarization effects minimizes measurement uncertainty in real-world deployed fiber

Typical Applications

- Multichannel optical power monitoring in wavelength-division multiplexed (WDM) systems
- Insertion loss and power distribution testing
- Component characterization in production and R&D environments
- Parallel channel measurements in swept-wavelength test configurations

Compatibility & Integration

The MPM-211 module mounts within Santec MPM-210H or MPM-210 mainframes. System-level interfaces GPIB, TCP/IP, and RS-232C - are provided by the host mainframe. Integration with Santec TSL-Series tunable lasers enables full swept-wavelength test automation for IL and PDL measurement workflows.

Features & description

From manufacturer datasheet

Features

- 4 optical ports per module; 5 modules = 20 ports
- -80 to +10 dBm InGaAs; 0.001 dB resolution
- 100 kHz; 1e6 points x 2 buffers per port; ~50 dB per scan
- Linearity +/-0.03 dB at -55 to 9 dBm (averaging greater than 100 ms, auto range)
- PDR typically less than 0.025 dB (1525-1585 nm)
- FC receptacles; ports numbered 1-4 top to bottom

MPM211 Characteristics / Specifications

PARAMETER	VALUE
Model	MPM-211
Manufacturer	Santec
Instrument Type	4 Channel Optical Power Meter Plug In Module
Series	MPM-210 / MPM-210H / MPM-220
Alias	MPM-211; MPM211
Port Count	4 optical power ports
Maximum Ports Per Mainframe	20 (five MPM-211 modules)
Wavelength Range	1250 to 1680 nm
Specification Wavelength Range	1250 to 1630 nm
Sensor Element	InGaAs
Power Range	-80 to +10 dBm
Maximum Safe Power	+16 dBm
Power Resolution	0.001 dB
Measurement Speed	100 kHz
Logging Points	1000000 per port times 2 buffers
Fixed Gain Dynamic Range	45 dB typical
Logging Dynamic Range	typically 50 dB per scan
Linearity	+/-0.03 dB at -55 to 9 dBm (averaging greater than 100 ms, auto range)
PDR Typical 1525 to 1585 nm	less than 0.025 dB
PDR Typical 1270 to 1630 nm	less than 0.03 dB
Averaging Time	10 us to 10 s
Optical Connector	FC receptacle
Port Numbering	1, 2, 3, 4 from top to bottom
Module Dimensions	30.3 × 183.5 × 114.8 mm (connectors not included)
Sibling MPM2	4 ports, -70 to +5 dBm, ~70 dB per scan (do not mix with other types)

PARAMETER	VALUE
Mainframe Interfaces	GPIO, Ethernet, RS232C, USB (on MPM-210/210H)
Mainframe Supply	AC 100 to 240 V, 50/60 Hz, 50 W max
Mainframe Operating Temperature	10 to 40 C
Mainframe Humidity	less than 80 percent noncondensing
Total Uncertainty Family	+/-5 dB class at -60 to 9 dBm (module table notes at 23+/-5 C)
Trigger Family	TTL 3.3 V in and out BNC on mainframe
Power Monitor Inputs Family	0 to 3 BNC on mainframe Notes Specs from Santec MPM-210H datasheet/operation manual module tables. MPM-211 is the 4-port power module, not the mainframe. Confirm mainframe (MPM-210 versus 210H versus 220), that MPM-215 is not mixed in the same frame, and FC connector condition.
Operating temperature	10 to 40 C
Humidity	less than 80 percent noncondensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	10 to 40 C
Operating Temperature	10 to 40 C
Humidity	less than 80 percent noncondensing
Mainframe Humidity	less than 80 percent noncondensing
Total Uncertainty Family	+/-5 dB class at -60 to 9 dBm (module table notes at 23+/-5 C)
Trigger Family	TTL 3.3 V in and out BNC on mainframe
Power Monitor Inputs Family	0 to 3 BNC on mainframe Notes Specs from Santec MPM-210H datasheet/operation manual module tables. MPM-211 is the 4-port power module, not the mainframe. Confirm mainframe (MPM-210 versus 210H versus 220), that MPM-215 is not mixed in the same frame, and FC connector condition.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	MPM-211
Manufacturer	Santec
Instrument Type	4 Channel Optical Power Meter Plug In Module
Series	MPM-210 / MPM-210H / MPM-220
Alias	MPM-211; MPM211
Port Count	4 optical power ports
Maximum Ports Per Mainframe	20 (five MPM-211 modules)
Wavelength Range	1250 to 1680 nm
Specification Wavelength Range	1250 to 1630 nm
Sensor Element	InGaAs
Power Range	-80 to +10 dBm
Maximum Safe Power	+16 dBm
Power Resolution	0.001 dB
Measurement Speed	100 kHz
Logging Points	1000000 per port times 2 buffers
Fixed Gain Dynamic Range	45 dB typical
Logging Dynamic Range	typically 50 dB per scan
Linearity	+/-0.03 dB at -55 to 9 dBm (averaging greater than 100 ms, auto range)
PDR Typical 1525 to 1585 nm	less than 0.025 dB
PDR Typical 1270 to 1630 nm	less than 0.03 dB
Averaging Time	10 us to 10 s
Optical Connector	FC receptacle
Port Numbering	1, 2, 3, 4 from top to bottom
Module Dimensions	30.3 x 183.5 x 114.8 mm (connectors not included)
Sibling MPM212	2 power ports plus analog 0 to 2 V

PARAMETER	VALUE
Sibling MPM215	4 ports, -70 to +5 dBm, ~70 dB per scan (do not mix with other types)
Sibling MPM213	4-channel current meter, BNC
Mainframe Interfaces	GPIO, Ethernet, RS232C, USB (on MPM-210/210H)
Mainframe Supply	AC 100 to 240 V, 50/60 Hz, 50 W max
Mainframe Operating Temperature	10 to 40 C
Mainframe Humidity	less than 80 percent noncondensing
Total Uncertainty Family	+/-5 dB class at -60 to 9 dBm (module table notes at 23+/-5 C)
Trigger Family	TTL 3.3 V in and out BNC on mainframe
Power Monitor Inputs Family	0 to 3 BNC on mainframe

Notes

Specs from Santec MPM-210H datasheet/operation manual module tables. MPM-211 is the 4-port power module, not the mainframe. Confirm mainframe (MPM-210 versus 210H versus 220), that MPM-215 is not mixed in the same frame, and FC connector condition.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.