

NEW

Multi-Port Optical Power Meter

**MPM-210 (Main Frame)****MPM-211 (4ch power meter)****MPM-212 (2ch power meter)****MPM-213 (4ch current meter)**

The MPM-210 is a new multi-port optical power meter that is perfect for measuring the optical characteristics of multi-port optical devices. The MPM-210 can simultaneously measure up to 20 ports (4 ports per MPM-211 module) very fast with high resolution. It features high accuracy, high linearity, and extremely low polarization-dependent sensitivity with power levels from -80 to +10 dBm over a wavelength range of 1250-1650 nm. GPIB, TCP/IP and RS-232C interfaces provide a convenient automated measurement solution.

The MPM-210 is ideal for IL and PDL measurement of multi-port optical components including Dense Wavelength Division Multiplexing (DWDM), AWG, Wavelength Selective Switches (WSS) and more. When combined with a santec TSL-Series laser equipped with a power monitor output, the MPM-210 allows the user to complete high precision IL measurements while referencing in real-time.

As the new MPM-210 multi-port optical power meter has compatible commands with the previous MPM-200 model, switching to the new MPM-210 is as simple as swapping out your devices.



### First-class features (benefits)

- ▶ High speed measurement
  - 15 times faster data transfer than the previous Swept Test System
  - Up to 1 million logging sampling points per port
  - 2 memory buffers per port
  - Fast measurement (100 kHz) with high resolution
- ▶ High dynamic range (logging mode)
  - 1.5 times higher than the previous Swept Test System (typically 50 dB)

### Applications

- ▶ Wavelength Range 1250 - 1650 nm
- ▶ Power meter module (MPM-211/212)
  - Dynamic power range -80 to +10 dBm
- ▶ Current meter module (MPM-213)
  - Dynamic power range -70 to +10 dBmA
- ▶ Up to 20 ports measurement
- ▶ Analog output (MPM-212)

### Applications

- ▶ Optical power measurements
- ▶ IL and PDL measurements

## Specifications

### Main frame, MPM-210

Parameter	Unit	Specifications	Notes
Module number	-	Up to 5	
Interface	For Power meter	GP-IB, Ethernet, RS-232C	
	For System	USB	
Trigger input	-	TTL(3.3 V)	BNC
Trigger output	-	TTL(3.3 V)	BNC
Power monitor	V	0 to 3	BNC
Supply voltage	V	AC 100 to 240, 50/60 Hz	
Maximum power consumption	VA	50	
Operating temperature	°C	10 to 40	
Operating humidity	%	< 80	non condensing
Weight	kg	6	
Dimensions (W) x (D) x (H)	mm	210 x 350 x 133	

### Power meter module, MPM-211(4ch), MPM-212(2ch)

Parameter	Unit	MPM-211	MPM-212	Notes
Sensor element	-	InGaAs		
Wavelength range	nm	1250 to 1680		
Specification wavelength range	nm	1250 to 1630		
Power dynamic range	dBm	-80 to +10		
Maximum safe power	dBm	+16		
Total uncertainty	%	+/-5 @ -60 to 9 dBm		
Power resolution	dB	0.001		
Linearity *1	dB	+/-0.03 @ -55 to 9 dBm		Averaging time > 100 ms
Polarization dependent responsivity (typ.) *1, 2	dB	< 0.025		@ 1525-1585 nm
		< 0.03		@ 1270-1630 nm
Averaging time	sec	10μ to 10		
Port number per module	-	4 ports	2ports	
Analog output *3	-	None	With (2ports)	
Data logging capability	-	1,000,000 x 2buffer per port		
Connector type	-	FC		
Operating temperature	°C	10 to 40		
Operating humidity	%	< 80		non condensing
Dimensions (W) x (D) x (H)	mm	30.3 x 183.5 x 114.8		Connectors are not included

\*1: Temperature: 20-30 °C, \*2: SMF, Straight connector \*3: Output voltage 0 to 2 V, Measurement dynamic range > 30 dB (typ.)

### Current meter module, MPM-213

Parameter	Unit	Specifications	Notes
Current dynamic range	dBmA	-70 to +10 @ 100pA to 10 mA	
Maximum safe power	dBmA	16	
Total uncertainty	%	+/-5 @ -45 to 9 dBm	Averaging time > 10ms
		+/-1 @ > -35 dBm (typ.)	Averaging time > 10ms
Power resolution	dB	0.001	
Linearity	dB	+/-0.03	@ -45 to +9 dBmA, Averaging time > 10ms
Averaging time	sec	10μ to 10	
Port number per module	-	4 ports	
Data logging capability	-	1,000,000 per port x2	
Connector type	-	BNC Connector	
Reverse Bias Voltage	V	-	
Operating temperature	°C	10 to 40	
Operating humidity	%	< 80	non condensing
Dimensions (W) x (D) x (H)	mm	30.3 x 183.5 x 114.8	Connectors are not included

## Ordering Code

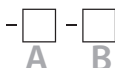
Main frame

**MPM-210**

Module

4 port power meter

**MPM-211**



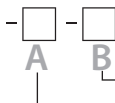
2 port power meter

**MPM-212**



4 port current meter

**MPM-213**



Connector Type : F : FC  
Port: 04

Connector Type : F : FC  
Port: 02

Connector Type : F : FC  
Port: 04

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