

# Optical Power Monitors

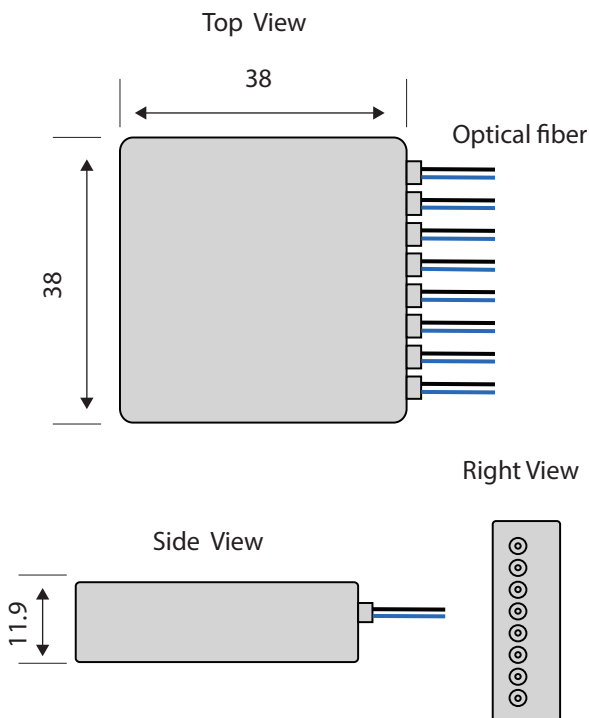
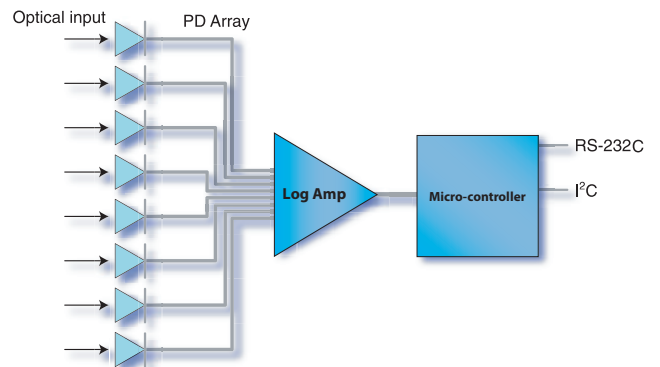
## IPM-8

Santec's IPM-8 is an integrated tap-monitor and high dynamic range log-amplifier module for any DWDM application. This device detects optical signal, and calculates to absolute optical power using a calibration data. The optical power data can be accessed from electrical communication interface.



### Features

- ▶ Small package
- ▶ Good accuracy
- ▶ Wide dynamic range
- ▶ I<sup>2</sup>C and RS-232C interface



Pin#	Name	Comment
1	POWER_A	DC 5V supply (for analog circuit)
2	AGND	DC GND (for analog circuit)
3	POWER_D	DC 5V supply (for digital circuit)
4	DGND	DC GND (for digital circuit)
5	TX	RS-232C
6	RX	RS-232C
7	DGND	DC GND (RS-232C / I <sup>2</sup> C)
8	SCL	I <sup>2</sup> C Clock
9	SDA	I <sup>2</sup> C Data In
10	RESET	N / W Reset

## ■ Specifications

Parameter	Unit		Specification		Comments
Tap ratio	Typ.	%	2%	10%	
Channel number	-	-	8		
Wavelength range	-	THz (nm)	196.40 to 191.30 (1526.44 to 1567.13)		L-band is available
Insertion loss	Max.	dB	0.5	0.8	Dependent built-in IPD's tap ratio
Polarization dependent loss	Max.	dB	0.1		
Power accuracy	-	dB	-0.4	+0.4	@25 °C
	-	dB	-0.75	+0.75	All condition
Operating optical input power	-	dBm	-17 to +20	-30 to +10	
Rating optical input power	Max.	dBm	+23	+20	
Operating temperature range	-	°C	-5 to 70		
Supply Voltage(for analog)	-	V	5 + / - 0.25V		Max.current: 100 mA
Supply Voltage(for digital)	-	V	5 + / - 0.25V		Max.current: 200 mA
Power consumption	Max.	W	1.6		
Interface	RS-232C	Max.	kbps	38.4	
	I <sup>2</sup> C	Max.	kHz	400	Fast mode
Response time	RS-232C	Max.	ms	50	Excluding communication time
	I <sup>2</sup> C	Max.	ms	7.5	Excluding communication time

## ■ Calibration condition

Wavelength	1550 nm	Specified λ
Temperature	25 °C	RoomTemp.
Optical power	-	2 point calibration

[www.santec.com/en/](http://www.santec.com/en/)

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