

INTEGRATED WDM MONITOR ARRAY

IWMA Series

Product Description

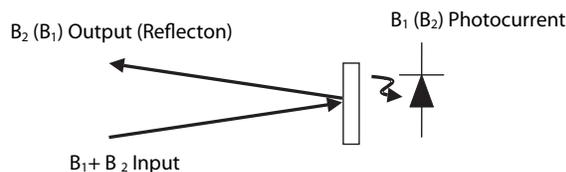
Oplink's Integrated WDM Monitor Array (IWMA) is a compact, multi-channel WDM power-monitoring device. It allows power monitoring at one set of wavelengths while transmitting another set of wavelengths.

IWMA integrates the functionality of a WDM filter and a photodiode, delivering low insertion loss and low dark current with high temperature stability over a wide wavelength range. It increases module design flexibility and efficiency by significantly reducing the number of assembly components and facilitating fiber management.

Easily mounted on a PCB, Oplink's standard 12-pin package provides power monitoring for up to eight channels. Applications include DWDM channel power monitoring, optical network switching/protection monitoring, re-configurable optical add/drop multiplexers, and gain/attenuation monitoring in amplifier systems.

Oplink can provide customized designs to meet specialized feature applications. Also, Oplink offers modular assemblies that integrate other components to form a full function module or subsystem.

Functional Diagram



Performance Specification

Parameters		Min	Typical	Max	Unit
Number of Channels		4 or 8			
B ₁ Wavelength Range	1310 band	1260 ~ 1360		nm	
B ₂ Wavelength Range	C-band	1525 ~ 1570		nm	
	L-band	1570 ~ 1620		nm	
Insertion Loss for Transmitted Signal ^{[1], [2]}				0.6	dB
Polarization Dependent Loss			0.03	0.05	dB
Reflection Isolation		15			dB
Detection Isolation		35			dB
Return Loss ^[2]		45			dB
PD Responsivity		0.6			A/W
Input Optical Power				10	dBm
Dark Current @ -5V bias, 70°C	PD Bandwidth = 0.5G			10	nA
	PD Bandwidth = 2.0G			5	nA
Operating Temperature Range		- 5 to +70			°C
Storage Temperature Range		- 40 to +85			°C
Fiber Type		SMF-28			



Features

- ◆ Standard, 12-pin package easily mounted on a PCB
- ◆ 4 or 8 channel configurations
- ◆ Wide operating wavelength range
- ◆ Low insertion loss
- ◆ Low polarization dependent loss
- ◆ Low dark current
- ◆ High temperature stability

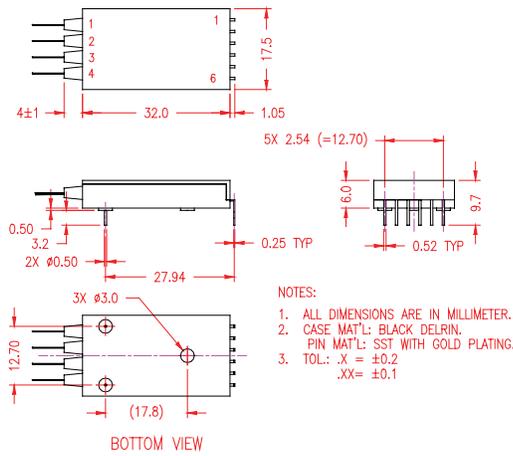
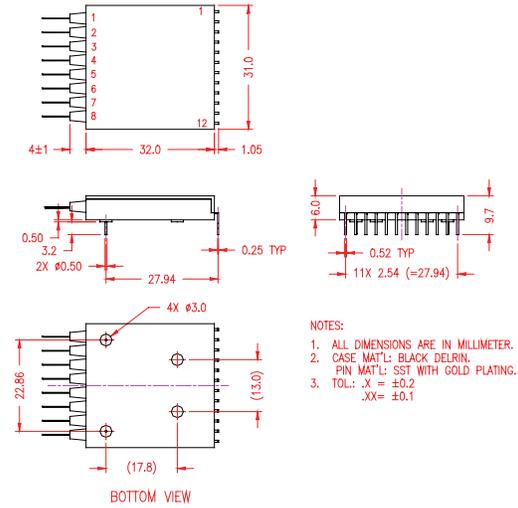
Applications

- ◆ DWDM channel monitoring
- ◆ Optical network switch/protection monitoring
- ◆ Re-configurable Optical Add/Drop Multiplexers
- ◆ Gain/attenuation monitoring in amplifier systems

Notes:

^[1] Within operating wavelength range and temperature ranges specified, under all states of polarization.

^[2] Exclude connectors.

Mechanical Drawing / Package Dimensions (dimension in mm)
1) 4-ch IWMA

2) 8-ch IWMA

Electrical Pin Assignment

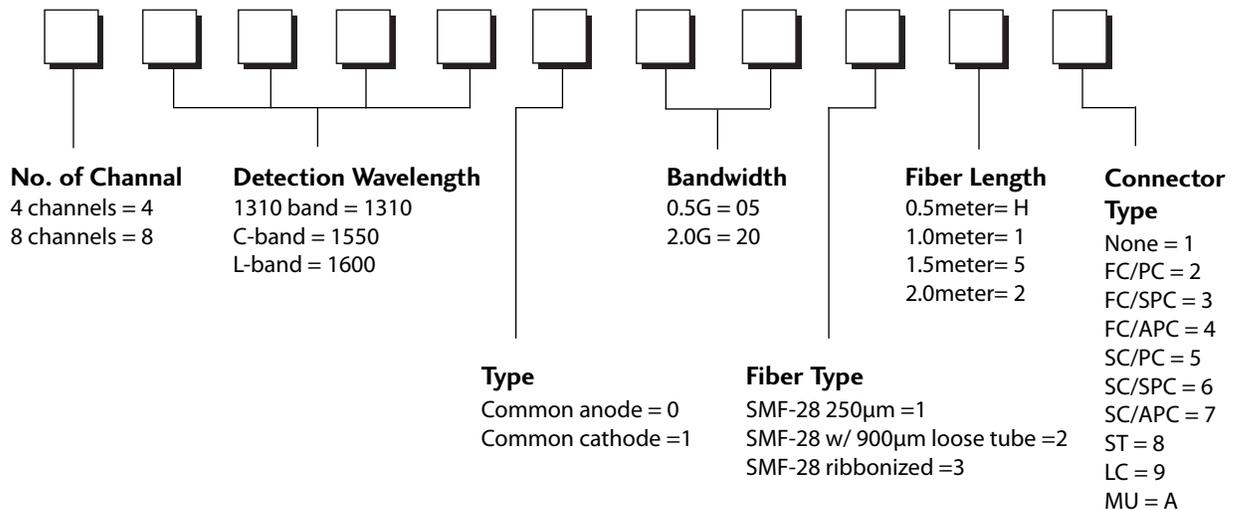
Pin#:	Common Cathode Assignment	Common Anode Assignment
Pin1:	Common Cathode for Ch1 & 2	Common Anode for Ch1 & 2
Pin2:	Anode Ch1	Cathode Ch1
Pin3:	Anode Ch2	Cathode Ch2
Pin4:	Common Cathode for Ch3 & 4	Common Anode for Ch3 & 4
Pin5:	Anode Ch3	Cathode Ch3
Pin6:	Anode Ch4	Cathode Ch4

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Pin2:	Anode Ch1	Cathode Ch1
Pin3:	Anode Ch2	Cathode Ch2
Pin4:	Common Cathode for Ch3 & 4	Common Anode for Ch3 & 4
Pin5:	Anode Ch3	Cathode Ch3
Pin6:	Anode Ch4	Cathode Ch4
Pin7:	Anode Ch5	Cathode Ch5
Pin8:	Common Cathode for Ch5 & 6	Common Anode for Ch5 & 6
Pin9:	Anode Ch6	Cathode Ch6
Pin10:	Anode Ch7	Cathode Ch7
Pin11:	Common Cathode for Ch7 & 8	Common Anode for Ch7 & 8
Pin12:	Anode Ch8	Cathode Ch8

Ordering Information

Oplink can provide a remarkable range of customized optical solutions. For detail, please contact Oplink's OEM design team or account manager for your requirements and ordering information (510) 933-7200.

IWMA

RoHS:

- IWMA is RoHS 5 compliant (RoHS permitted Lead in solder exemption is applied).
- Add "G" to the end of the above PN for RoHS 6 Requirement.