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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# INTEGRATED TAP MONITOR ARRAYS

## ITMA Series

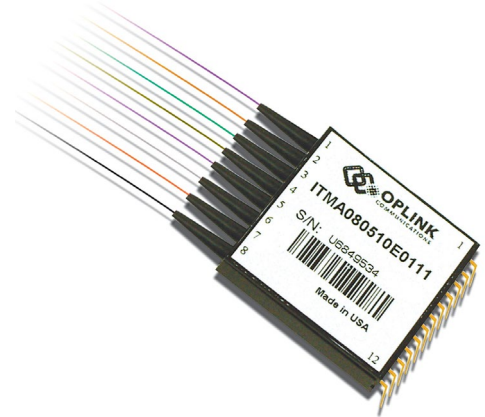
### Product Description

Oplink's Integrated TAP Monitor Array (ITMA) is a compact, multi-channel power-monitoring device. It increases module design flexibility and efficiency by significantly reducing the number of assembly components and facilitating fiber management.

ITMA integrates the functionality of an optical coupler and a photodiode while delivering low insertion loss and low dark current with high temperature stability over a wide operating wavelength range.

Easily mounted on a PCB, Oplink's standard 12/14-pin package provides power monitoring for up to ten 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.



### Performance Specification

Parameters		Specification		Unit	
Operating Wavelength Range		1260 ~ 1360	1520~1620	nm	
Through	Insertion Loss (@ $\lambda_{op}$ , Top, All SOP, Exclude Connectors)	2%	< 0.4	dB	
		5%	< 0.6		
		10%	< 0.9		
	Polarization Dependent Loss	< 0.05		dB	
Return Loss		> 45		dB	
Tapped Monitoring	Responsivity (Relative to Nominal Power at Input Port)	2%	10 ~ 23	14 ~ 26	mA/W
		5%	26 ~ 59	36 ~ 65	
		10%	52 ~ 110	70 ~ 120	
	Responsivity Temperature Dependence (@1310nm or 1550nm)		< 0.3		dB
Responsivity Polarization Dependence		< 0.1		dB	
PD	PD Dark Current (@ -5V bias, 70°C)	0.5G Bandwidth	< 10		nA
		2.0G Bandwidth	< 2.5		
	Reverse Voltage		< 20		V
Forward Current		< 10		mA	
Conditions	Input Optical Power	2%	< 21		dBm
		5%	< 16		
		10%	< 12		
	Operating Temperature Range (<85%RH, Non-condensing)		-5	+70	°C
Storage Temperature Range (<85%RH, Non-condensing)		-40	+85	°C	
Fiber Type		Corning SMF-28			

### Features

- ◆ Standard, 12/14-pin Package Easily Mounted on a PCB
- ◆ 4, 8 and 10 Channel Configurations
- ◆ Wide Operating Wavelength Range
- ◆ Various Tap Ratio Available
- ◆ Low Insertion Loss and PDL
- ◆ Low Dark Current
- ◆ High Temperature Stability

### Applications

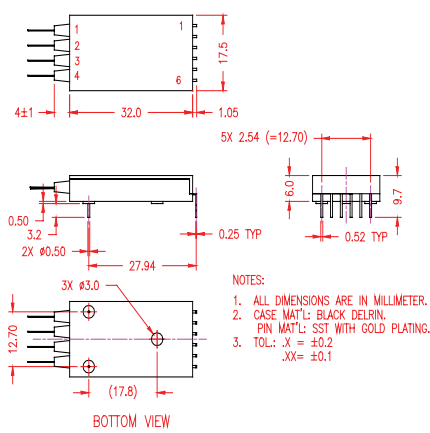
- ◆ DWDM Channel Monitoring
- ◆ Optical Network Switch/Protection Monitoring
- ◆ Re-configurable Optical Add/Drop Multiplexers
- ◆ Gain/Attenuation Monitoring in Amplifier Systems
- ◆ EDFAs and Raman Amplifiers

\* Excluding connectors

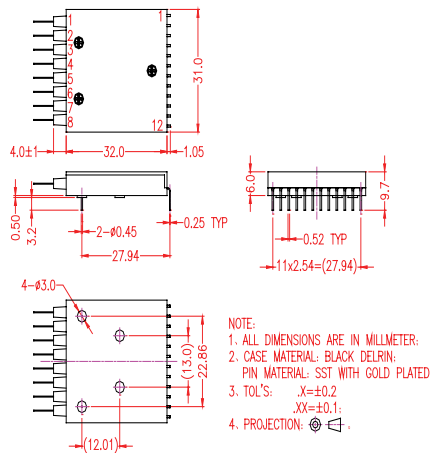
\*\* The maximum IL is under all states of polarization and within the full operating temperature and wavelength ranges specified

Mechanical Drawing / Package Dimensions (dimension in mm)

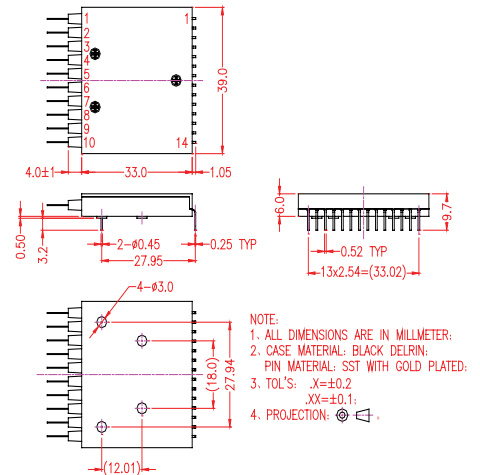
1) 4-ch ITMA



2) 8-ch ITMA



3) 10-ch ITMA



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

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

Electrical Pin Assignment	
Pin#:	Common Cathode Assignment
Pin1:	Common Cathode for Ch1 & 2
Pin2:	Anode Ch1
Pin3:	Anode Ch2
Pin4:	Common Cathode for Ch3 & 4
Pin5:	Anode Ch3
Pin6:	Anode Ch4
Pin7:	Anode Ch5
Pin8:	Common Cathode for Ch5 & 6
Pin9:	Anode Ch6
Pin10:	Anode Ch7
Pin11:	Common Cathode for Ch7 & 8
Pin12:	Anode Ch8

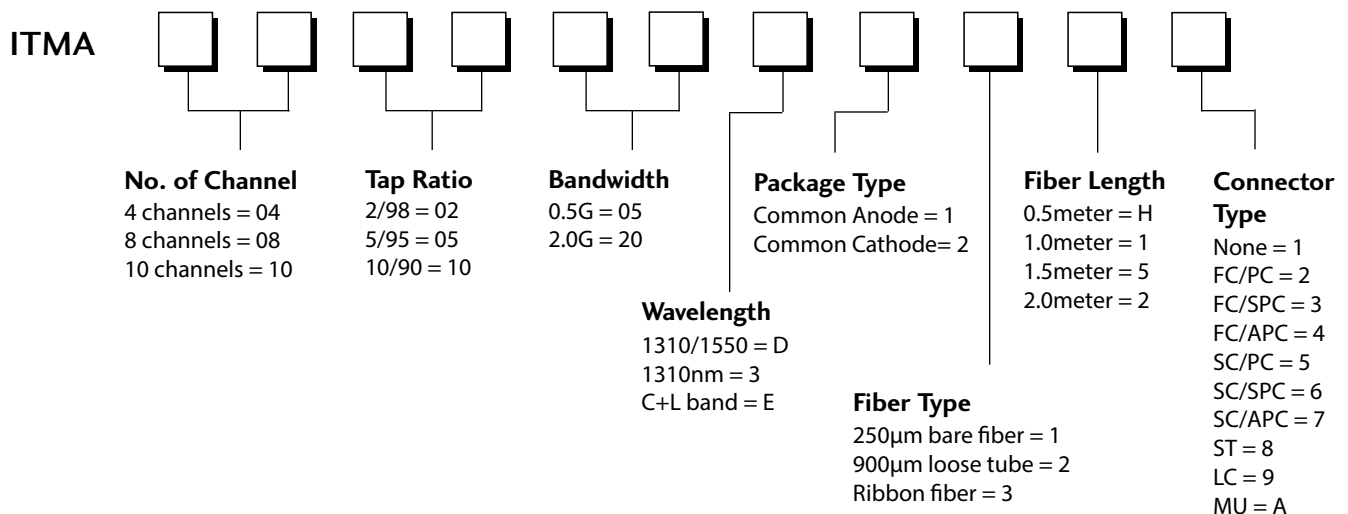
Common Anode Assignment	
Pin#:	Common Anode for Ch1 & 2
Pin1:	Common Anode for Ch1 & 2
Pin2:	Cathode Ch1
Pin3:	Cathode Ch2
Pin4:	Common Anode for Ch3 & 4
Pin5:	Cathode Ch3
Pin6:	Cathode Ch4
Pin7:	Cathode Ch5
Pin8:	Common Anode for Ch5 & 6
Pin9:	Cathode Ch6
Pin10:	Cathode Ch7
Pin11:	Common Anode for Ch7 & 8
Pin12:	Cathode Ch8

Electrical Pin Assignment	
Pin#:	Common Cathode Assignment
Pin1:	Common Cathode for Ch1 to 4
Pin2:	Anode Ch1
Pin3:	Anode Ch2
Pin4:	Anode Ch3
Pin5:	Anode Ch4
Pin6:	Anode Ch5
Pin7:	Common Cathode for Ch5 to 8
Pin8:	Anode Ch6
Pin9:	Anode Ch7
Pin10:	Anode Ch8
Pin11:	Anode Ch9
Pin12:	Common Cathode for Ch9 & 10
Pin13:	Anode Ch10
Pin14:	Not connected

Common Anode Assignment	
Pin#:	Common Anode for Ch1 to 4
Pin1:	Common Anode for Ch1 to 4
Pin2:	Cathode Ch1
Pin3:	Cathode Ch2
Pin4:	Cathode Ch3
Pin5:	Cathode Ch4
Pin6:	Cathode Ch5
Pin7:	Common Anode for Ch5 to 8
Pin8:	Cathode Ch6
Pin9:	Cathode Ch7
Pin10:	Cathode Ch8
Pin11:	Cathode Ch9
Pin12:	Common Anode for Ch9 & 10
Pin13:	Cathode Ch10
Pin14:	Not connected

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.



RoHS:

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