



Integrated Tap Photodiode Array (TPDA)

Rev 11B

Description

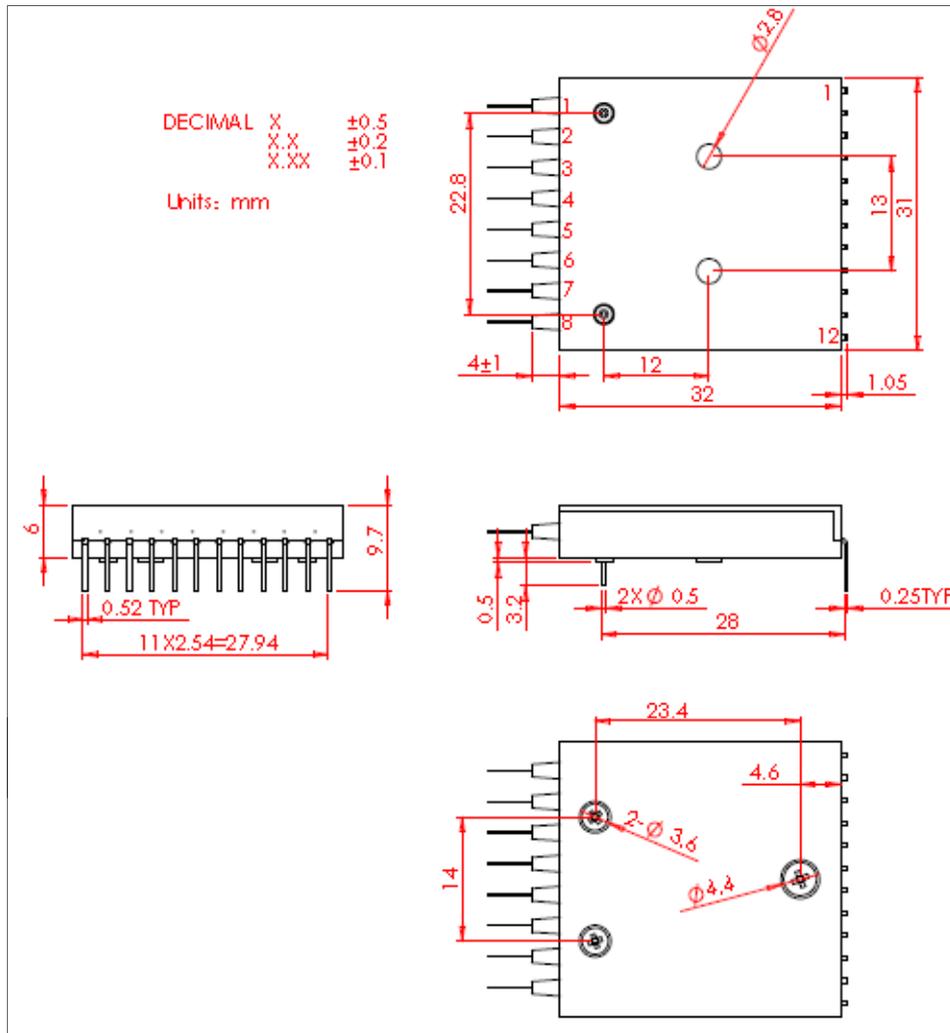
The Integrated Tap Photodiode Array (TPDA) is a compact, multi-channel power-detecting device. It obviously simplifies module design and assembling process by pre-integrating several single power detectors in one. It provides standard pins with 2.54 mm space to easily mount on PCB. It can be applied for channel power monitoring in DWDM system, in-line optical network switching protection monitoring (OLP), re-configurable optical add/drop multiplexer(OADM), and gain/attenuation monitoring in network's power detection.

Specifications

Parameter	Unit	Value
Center Wavelength (λ_c)	nm	1310 1550
Operating Wavelength Range (λ_{op})	nm	$\lambda_c \pm 50$
Max. Insertion Loss	1%	0.4
	2%	0.6
	5%	0.6
	10%	0.9
Wavelength Flatness	dB	≤ 0.2
Max. Polarization Dependent Loss	dB	0.05
Min. Return Loss	dB	45
Responsivity	1%	mA/W 6 - 14 7 - 15
	2%	mA/W 12 - 23 14 - 25
	5%	mA/W 30 - 60 35 - 65
	10%	mA/W 60 - 110 70 - 120
Max. Responsivity Temperature Dependence (λ_c)	dB	0.3
Max. Responsivity Polarization Dependence	dB	0.1
Dark Current (@ 70 °C, - 5 V bias)	0.5G Bandwidth	nA 8
	2.0G Bandwidth	nA 2
Max. Power on Photodetector	mW	10 ¹
Reverse Voltage	V	20 ¹
Forward Current	mA	10 ¹
Fiber Type	-	SMF-28 Fiber
Operating Temperature	°C	0 to + 70
Storage Temperature	°C	- 40 to + 85
Soldering Temperature (Over 2 mm from head, less than 5s)	°C	≤ 260

¹Guaranteed by Photodiode²RL is 5 dB lower for each connector added.

Package Dimensions



Pin Assignment

Electrical Pin Assignment

Pin#	Common Cathode Assignment	Common Anode Assignment
pin1	Common Cathode for Ch 1 & 2	Common Anode for Ch 1 & 2
pin2	Anode Ch 1	Cathode Ch 1
pin3	Anode Ch 2	Cathode Ch 2
pin4	Common Cathode for Ch 3 & 4	Common Anode for Ch 3 & 4
pin5	Anode Ch 3	Cathode Ch 3
pin6	Anode Ch 4	Cathode Ch 4
pin7	Anode Ch 5	Cathode Ch 5
pin8	Common Cathode for Ch 5 & 6	Common Anode for Ch 5 & 6
pin9	Anode Ch 6	Cathode Ch 6
pin10	Anode Ch 7	Cathode Ch 7
pin11	Common Cathode for Ch 7 & 8	Common Anode for Ch 7 & 8
pin12	Anode Ch 8	Cathode Ch 8



Ordering Information

TPDA-①①-②②-③③-④④-⑤-⑥-⑦-⑧

①①: Channel Number

08 - 8 channel

②②: Wavelength

55 - 1550 nm

31 - 1310 nm

③③: Tap Ratio

01 - 1%

02 - 2%

05 - 5%

10 - 10%

④④: Bandwidth

05 - 0.5G

20 - 2.0G

⑤: Connector Type

1 - FC/UPC

2 - FC/APC

3 - SC/UPC

4 - SC/APC

N - None

S - Specify

⑥: Fiber Jacket

B - 250 μm Bare Fiber

L - 900 μm Loose Tube

⑦: Fiber Length

1 - 1.0 m

⑧: Package Type

1 - Common Cathode

2 - Common Anode