PIGTAIL INTEGRATED INGAAS PIN PHOTODIODE ARRAY

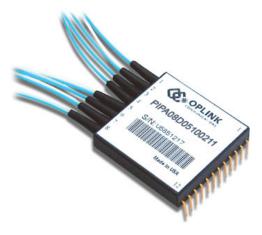
PIPA Series

Product Description

Oplink's Pigtail Integrated Photodiode Array (PIPA) 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.

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 | 1510~1610 | mm | |
| Optical | Return Loss (exclude connector) | | >40 | | dB |
| Monitoring | Responsivity (relat power at input po | | >0.75 | >0.8 | A/W |
| | Responsivity Temperature Depen- dence (@1310nm or 1550nm) | | <0.2 | | dB |
| | Responsivity Polarization Depen- dence | | <0.1 | | dB |
| PD | PD Dark Current | 0.5G Bandwidth | <10 | | nA |
| | (@ 70°C, -5V bias) | 2.0G Bandwidth | <2.5 | | nA |
| | Reverse Voltage | | <20 | | V |
| | Forward Current | | <10 | | mA |
| Conditions | Input Optical Power | | <4 | | dBm |
| | Operating Temperature Range (<85%RH, Non-condensing) | | -5 to +70 | | °C |
| | Storage Temperature Range (<85%RH, Non-condensing) | | -40 to -85 | | °C |

Notes:

1) Excluding connectors.

Features

- Standard, 12/14-pin package easily mounted on a PCB
- ♦ 4, 8 and 10 channel configurations
- Wide operating wavelength range
- 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



Mechanical Drawing / Package Dimensions (dimension in mm)

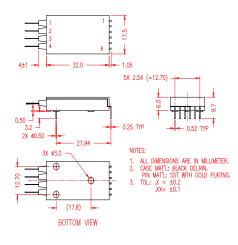
2) 8-ch PIPA

Electrical Pin Assignment Pin#: Common Cathode Assig Pin1: Common Cathode for Ch1 Pin2: Anode Ch1

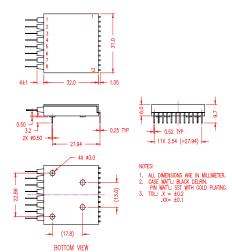
Pin11: Common Cathode for Ch7 & 8 Pin12: Anode Ch8

Pin2: Anode Ch1 Pin3: Anode Ch2 Pin4: Common Ca Pin5: Anode Ch3 Pin6: Anode Ch4 Pin7: Anode Ch4 Pin8: Common Ca Pin8: Common Ca Pin9: Anode Ch6 Pin10: Anode Ch7

I) 4-ch PIPA



| Pin#: | Common Cathode Assignment | Common Anode Assignment |
|--------|----------------------------|--------------------------|
| Pin I: | 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 |

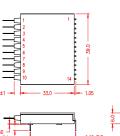


Common Anode Assignm Common Anode for Ch1 & 2 Cathode Ch1

Cathode Ch2 Common Anode for Ch3 & 4 Cathode Ch3

Common Anode for Ch7 & 8 Cathode Ch8

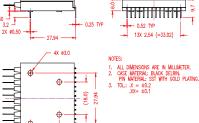
Cathode Ch4 Cathode Ch5 Common Anode for Ch5 & 6 Cathode Ch6 Cathode Ch7



(17.78)

BOTTOM VIEW

3) 10-ch PIPA



PIPA SERIES

| Electrical Pin Assignment | | | | | |
|---------------------------|-----------------------------|---------------------------|--|--|--|
| Pin#: | Common Cathode Assignment | Common Anode Assignment | | | |
| Pin I: | Common Cathode for Ch1 to 4 | Common Anode for Ch1 to 4 | | | |
| Pin2: | Anode Ch1 | Cathode Ch1 | | | |
| Pin3: | Anode Ch2 | Cathode Ch2 | | | |
| Pin4: | Anode Ch3 | Cathode Ch3 | | | |
| Pin5: | Anode Ch4 | Cathode Ch4 | | | |
| Pin6: | Anode Ch5 | Cathode Ch5 | | | |
| Pin7: | Common Cathode for Ch5 to 8 | Common Anode for Ch5 to 8 | | | |
| Pin8: | Anode Ch6 | Cathode Ch6 | | | |
| Pin9: | Anode Ch7 | Cathode Ch7 | | | |
| Pin I 0: | Anode Ch8 | Cathode Ch8 | | | |
| Pin I I : | Anode Ch9 | Cathode Ch9 | | | |
| Pin I 2: | Common Cathode for Ch9 & 10 | Common Anode for Ch9 & 10 | | | |
| Pin I 3: | Anode Ch10 | Cathode Ch10 | | | |
| Pin 14: | Not connected | 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.

de for Ch3 & 4

hode for Ch5 & 6

| PIPA | | | ● ● | 0 | |] | |
|--------|-----------------------------------|--|---------------------------------|--|---|------------------------------------|--|
| | No. of Channal | Bandwidt | th | | Fiber Length | Connector | |
| | 4 channels= 04 | 0.5G= 05 | | | 0.5meter= H | Туре | |
| | 8 channels= 08 10 channels= 10 | 2.0G= 20 | | | 1.0meter= 1 1.5meter= 5 2.0meter= 2 | None= 1 FC/PC= 2 | |
| | V | Vavelength | Package Type | | 2.01112121-2 | FC/SPC= 3 FC/APC= 4 | |
| | C | 310nm= 3 :+L band= E 310/1550nm= D | Common Anode= Common Cathode | - | | SC/PC= 5 SC/SPC= 6 SC/APC= 7 | |
| | | | | Fiber Type | | ST= 8 | |
| PollS. | | | | SMF-28 250 SMF-28 w/ 9 SMF-28 ribb | 900µm loose tube= 2 | LC/PC= 9 MU= A LC/APC= B | |

RoHS:

1. Add "G" to the end of the above PN for RoHS 6 Requirement.

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 WTIH1598S012111

 WTIH1598S012111
 WTIH1514SF3111
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