

High Speed (up to 50 Gbit/s) Multi-Mode Fiber-Coupled Photodetector Module (840-1550 nm)

WITH FC CONNECTORIZED FIBER PIGTAIL

Product Code: D50-1300M



Sample image only. Actual product may vary
Not hermetically sealed

Preliminary

Product Description

These high speed photodetector modules consist of an InP *pin* photodetector integrated with a 50 μm -core diameter multimode fiber for optical input. The responsivity is greater than 0.5 A/W at 980 nm and 0.6 A/W at 1310nm. The modules are engineering samples and use an external DC.

Features

- Up to 50Gbit/s NRZ
- MMF Pigtail (50 μm core, 1 m length)
- Anritsu V electrical connector
- FC/ PC optical output connector

Applications

- Fiber optics systems tests
- Research and development
- VCSEL testing

| Parameter | Typical |
|----------------------|--|
| Operating Wavelength | 840 ~ 1550 nm |
| 3 dB Bandwidth | 30 GHz |
| Responsivity | 0.4 A/W at 850 nm 0.5 A/W at 980 nm 0.6 A/W at 1310 nm 0.6 A/W at 1550 nm |
| Dark current | 5 nA |

All product specifications and descriptions are subject to change without notice.

Please contact our sales department for additional information and to receive a quotation: sales@v-i-systems.com

Datasheet

D50-1300M



Vertically Integrated Systems

Electro-optical characteristics (at T_{case} = 25 °C)

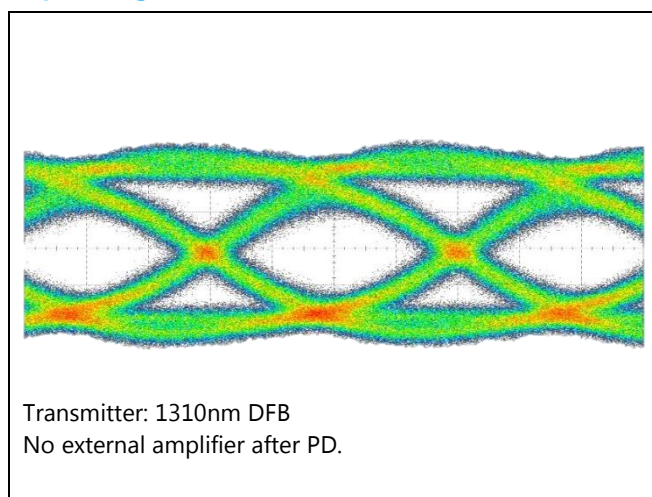
Preliminary

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|----------------------|-------------|---------------------------------|-----|-----|------|------|
| Operating wavelength | λ | | 840 | | 1550 | nm |
| Responsivity | R | $\lambda = 850\text{nm}$ | | 0.4 | | A/W |
| | | $\lambda = 980\text{nm}$ | | 0.5 | | |
| | | $\lambda = 1310\text{nm}$ | | 0.6 | | |
| | | $\lambda = 1550\text{nm}$ | | 0.6 | | |
| Bandwidth | BW | $V_{\text{bias}} = -2\text{ V}$ | | 30 | | GHz |
| Dark current | I_D | | | 5 | | nA |
| Rise/Fall time | T_R / T_F | | 9 | | 10 | ps |

Absolute Maximum Ratings

| Parameter | Symbol | Min | Max | Unit |
|------------------------------|----------------------|-----|-----|------|
| Storage temperature | T_{st} | -40 | +90 | °C |
| Maximum input power | P_{max} | | 10 | dBm |
| Maximum reverse bias voltage | V_{bias} | | -25 | V |
| Maximum forward voltage | V_{forward} | | 1 | V |

Eye diagram at 50 Gbit/s (1310nm)



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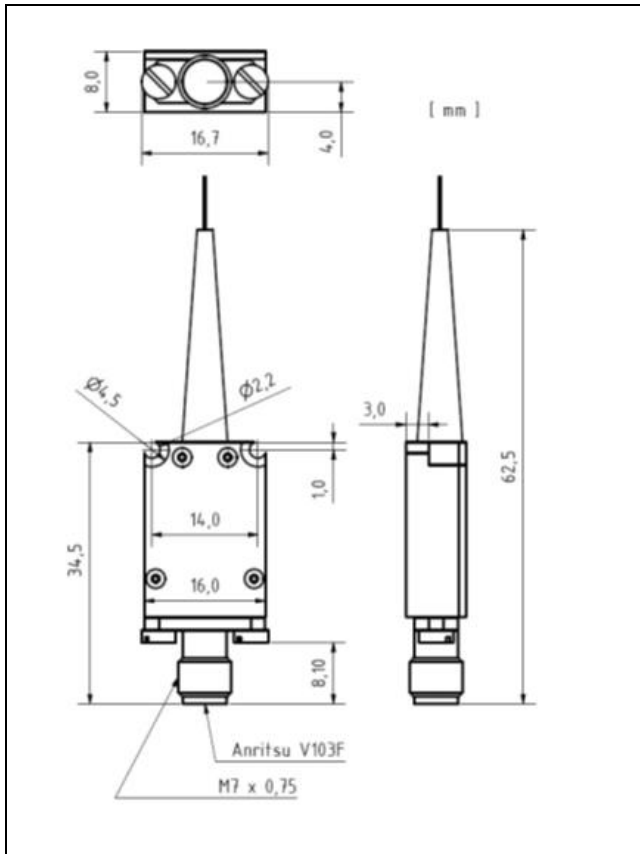
Datasheet

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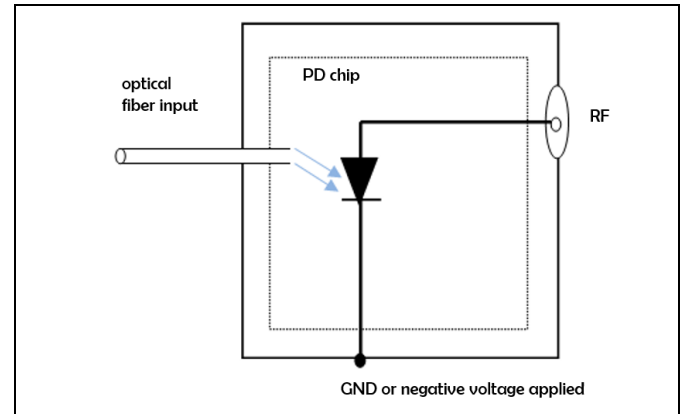


Vertically Integrated Systems

Mechanical dimensions



Schematic diagram



LASER RADIATION

LASER RADIATION. DO NOT VIEW
DIRECTLY WITH OPTICAL
INSTRUMENTS
CLASS 1M LASER PRODUCT



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