

PMI-10G-L

Photodiode module with TIA with AGC, 10 Gbps

DESCRIPTION

In this module a PIN InGaAs photodiode (working wavelength range 1260 – 1620 nm) is integrated with a low noise high gain TIA with auto gain control (AGC). It is equipped with an SM or MM fiber.

PMI-10G-L-RM is the module with optical matching (space between a fiber and a photodiode is filled with an index-matched medium).

PMI-10G-L-R50 provides low back reflection (<-50 dB).

Applications: optical communications.

ABSOLUTE MAXIMUM RATINGS

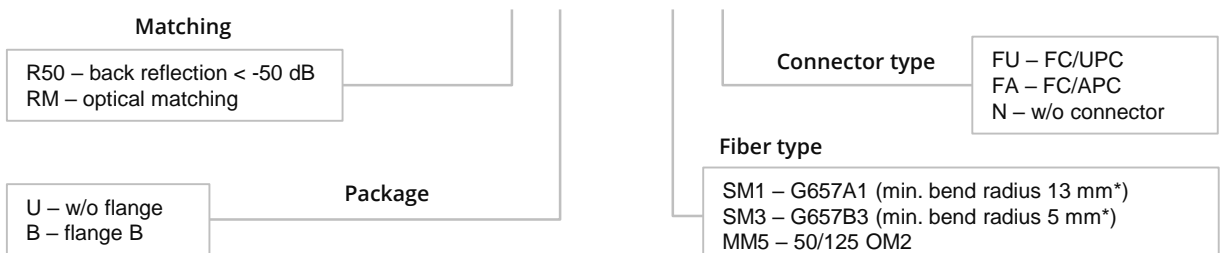
Parameter	Value	Unit
Operating temperature, T_c	-40 ÷ +80	°C
Storage temperature, T_{stg}	-40 ÷ +85	°C
Lead solder temperature, time 10 s	260	°C

ELECTRICAL-OPTICAL CHARACTERISTICS (SINGLE MODE, $\lambda = 1310$ nm, $T = 25$ °C)

Parameter	Min	Typ	Max	Unit	Test conditions
Operating voltage	V_{cc}	3.0	3.6	V	
Operating current	I_{cc}		62	mA	no load
Differential responsivity	R_d	2.8	6.8	mV/ μ W	$R_{load} = 100 \Omega$, $P = -18$ dBm, $\lambda = 1310$ nm
Single-ended responsivity	R_s	1.4	3.4	mV/ μ W	$R_{load} = 50 \Omega$, $P = -18$ dBm, $\lambda = 1310$ nm
Bandwidth	BW	7.0		GHz	$P = -18$ dB
Low frequency cut-off	LF		70	kHz	
Rise/fall time	t_R, t_F		50	ps	$P = -18$ dBm, 20% - 80%, $\lambda = 1310$ nm
Saturation power	P_{sat}	0		dBm	
Impedance	R_0		50	Ω	
Sensitivity			-15.5	dBm	$\lambda = 1310$ nm, 10.31 Gbps, BER = 10^{-12} , PRBS31, ER = 7 dB
TIA RSSI	Slope	0.9	1.0	1.1	mA/mA
	Offset	0	40	100	nA
	Linearity Limit			1.6	mA

ORDERING INFORMATION

PMI-10G-L-X-X-13-X-X



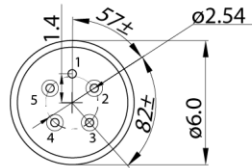
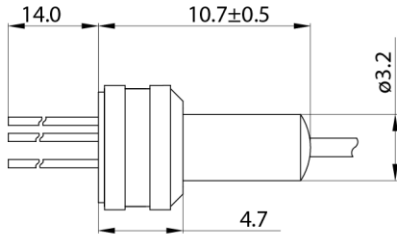
Typical fiber length = 50 cm *Attenuation 0.1 dB/loop at 1550 nm

Our products are certified by Belarusian Chamber of Commerce. All the components used in production are ISO 9001:2008 certified and comply with RoHS directive. Characteristics, data, materials and structures specified in this datasheet are subject to change without notice.

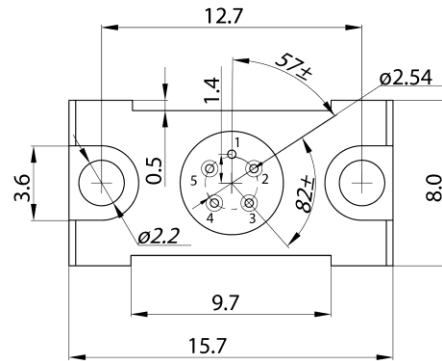
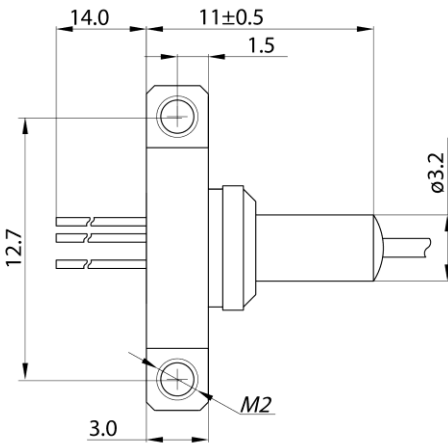
This document was updated on 31.08.2017

PMI-10G-L

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- 1.Gnd
- 2.Dout
- 3.Vcc
- 4.Isink
- 5. Dout



- 1.Gnd
- 2.Dout
- 3.Vcc
- 4.Isink
- 5. Dout

B