FICER Technology Co., Ltd.
明虹科技股份有限公司
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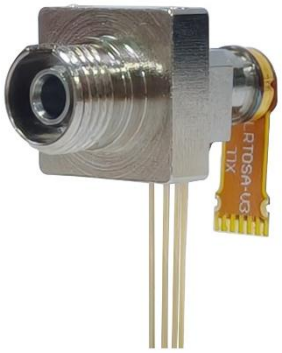
www.Ficer.com

SKU: 00JBHF4

10G FC BOSA Tx1330nm DFB / Rx1270nm SMF 40KM, I-Temp

Part Number: FBML-H4-3327-40i-MS1



Applications

- Telecommunication
- Data communication
- 10 Gigabit Ethernet

Features

- Data Rate up to 10.3125Gb/s
- 1330nm DFB laser transmitter and PIN-TIA receiver
- Low threshold current, High bandwidth
- FC/UPC Receptacle
- For the transmission up to 40km
- Operating Temperature -40~+85°C
- RoHS Compliant

Laser Safety

- This is a Class 1 Laser Product complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.
- Caution: Use of control or adjustments or performance of procedure other than those specified herein may result in hazardous radiation exposure.

Absolute Maximum Ratings

Parameters	Symbol	Min.	Max.	Unit
Forward Voltage (LD)	V_{FL}	-	2	V
Forward Current (LD)	I_{FL}		120	mA
Reverse Voltage (MPD)	V_{RM}	-	20	V
Forward Current (MPD)	I_{FM}	-	2	mA
Operating Temperature	T_{OP}	-40	+85	°C
Storage Temperature	T_{ST}	-40	+85	°C
Lead Soldering Temperature	T_{Sold}	-	260/10	°C/Sec

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Transmitter Electro-optical Characteristics

T_{OP} = -40 °C to +85 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Threshold Current	I_{TH}		10	15	mA	CW, T_{OP}=25°C
				35	mA	CW, T_{OP}=-40~85°C
Fiber Output Power	Pf	1.3		3.2	mW	I_{OP}=I_{TH}+20mA, T_C=+25°C
Slope Efficiency	η	0.065		0.16	W/A	I_{OP}=I_{TH}+20mA, T_C=+25°C
Central Wavelength	λc	1320	1330	1340	nm	I_{OP}=I_{TH}+20mA, T_C=+25°C
Spectral Width (RMS)	Δλ			1	nm	I_{OP}=I_{TH}+20mA, T_C=+25°C
Side Mode Suppression Ratio	SMSR	35			dB	I_{OP}=I_{TH}+20mA, T_C=+25°C
Extinction Ratio	ER	3.5			dB	10.3125Gbps
Tracking Error	TE	-1.5		1.5	dB	T_{OP}=-40~85°C
Forward Voltage	V_{FL}		1.2		V	I_{OP}=I_{TH}+20mA, T_C=+25°C
Rise / Fall Time	Tr/Tf		50		ps	Unfiltered, 20~80%, 10.3125Gbps, ER=4dB
Monitor Current	Im	100		1000	μA	V_R=1V, T_C=+25°C

Receiver Electro-optical Characteristics

T_{OP} = -40 °C to +85 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Receiver Sensitivity	SEN			-15	dBm	PRBS 2^{31}-1, NRZ 10.3125Gbps, BER<10^{-12}
Maximum Receive Power	P_{RX-MAX}	-3			dBm	
Operating Wavelength	λc	1260	1270	1280	nm	
Supply Voltage	V_{CC}	2.9	3.3	3.6	V	
Supply Current	I_{CC}		40	60	mA	
Bandwidth	BW		10G		GHz	
Low frequency cutoff				100	KHz	
Optical Return Loss	ORL	14			dB	
Differential Output Voltage	V_{OUT}			285	mV	
Rise / Fall time	Tr/Tf		50		ps	

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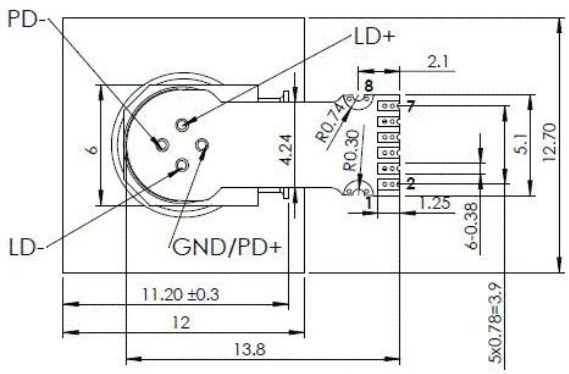
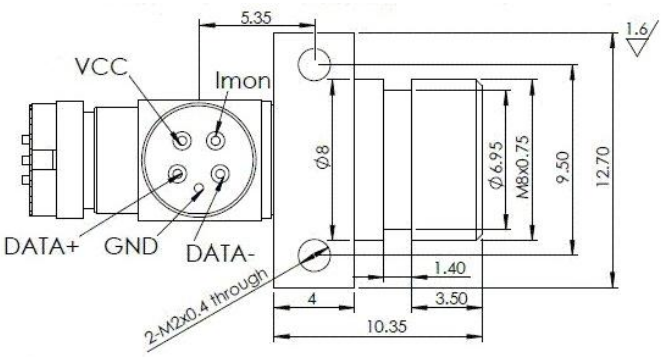
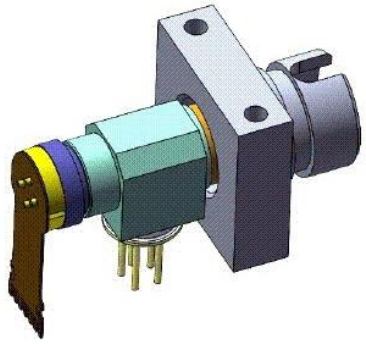
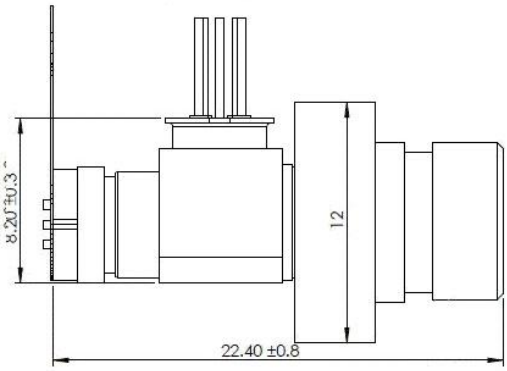
Mechanical Dimensions







PIN Description:
1.GROUND
2.PD CATHODE
3.GROUND
4.LD CATHODE
5.LD ANODE
6.GROUND
7.NO CONNECT
8.GROUND



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