10G EPON OLT BOSA(10G1577T 10G1270R)

Description

- LD：10G EML 7pin　APD-TIA：10G 6pin
- Mode of Fiber：SM
- Product structure note：SC/PC receptacle, Machining housing structure, receiver sealed with epoxy, with Isolator.

Absolute Maximum Ratings:

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	Tstg	-40	85	℃
Operating Temperature	Tcase	-5	75	℃
Soldering Temperature	Tsld	---	260<10s	℃
10G 1577nm EML Transmitter				
EML LD Reverse Voltage	V_{RL}	---	2	V
EML LD Forward Current	If	---	150	mA
EA Reverse Voltage	Vm	-3	1	V
EML MPD Reverse Voltage	Vmon	---	20	V
EML MPD Forward Current	Imon	---	2	mA
TEC Cooling Voltage	VTEC	---	1.45	V
TEC Cooling Current	ITEC	---	0.8	A
10G 1270nm APD Receiver				
Storage Temperature	Tstg	-40	85	℃
Reverse Current	IR	---	2	mA
ESD Susceptibility	ESD	---	150	V
Lead Soldering (Temperature)/(Time)	---	---	260/10	℃/Sec

Electrical and Optical Characteristics – Transmitter:

Unless otherwise specified, the specifications below are defined at TC=25±3℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Laser Operating Temperature	Tld	---	45	---	℃	CW, Iop=Ith+20mA, Tc=25℃
Threshold Current	Ith	---	8	40	mA	at Tc=25℃
Operating Current	Iop	---	---	115	mA	at Tc=25℃ Pf=6.8dBm
LD Forward Voltage	Vf	---	---	2.5	V	If=Iop
Center Wavelength	λc	1575	1577	1580	nm	CW, Pop=4ddBm, Tld
Spectral Wildth(-20dB)	△λ	---	0.2	0.4	nm	CW, Pop=4ddBm, Tld
Side Mode Suppression Ratio	SMSR	35	---	---	dB	CW, Pop=4ddBm, Tld

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Monitor Current	Imon	50	---	2000	uA	at Tc=25℃ Pf=6.8dBm
Monitor Dark Current	Id	---	---	0.1	μA	V_{RD}=1V
Thermistor Resistance	Rth	9.5	10	10.5	ΩK	at Tc=25℃ Tld
B constant of Rth	B	3365	3435	3505	K	---
Optical Isolation	ISO	30	---	---	dB	---
Tracking Error	TE	-1.2	---	1.0	dB	APC, -5/℃+75℃, +75℃/+25℃

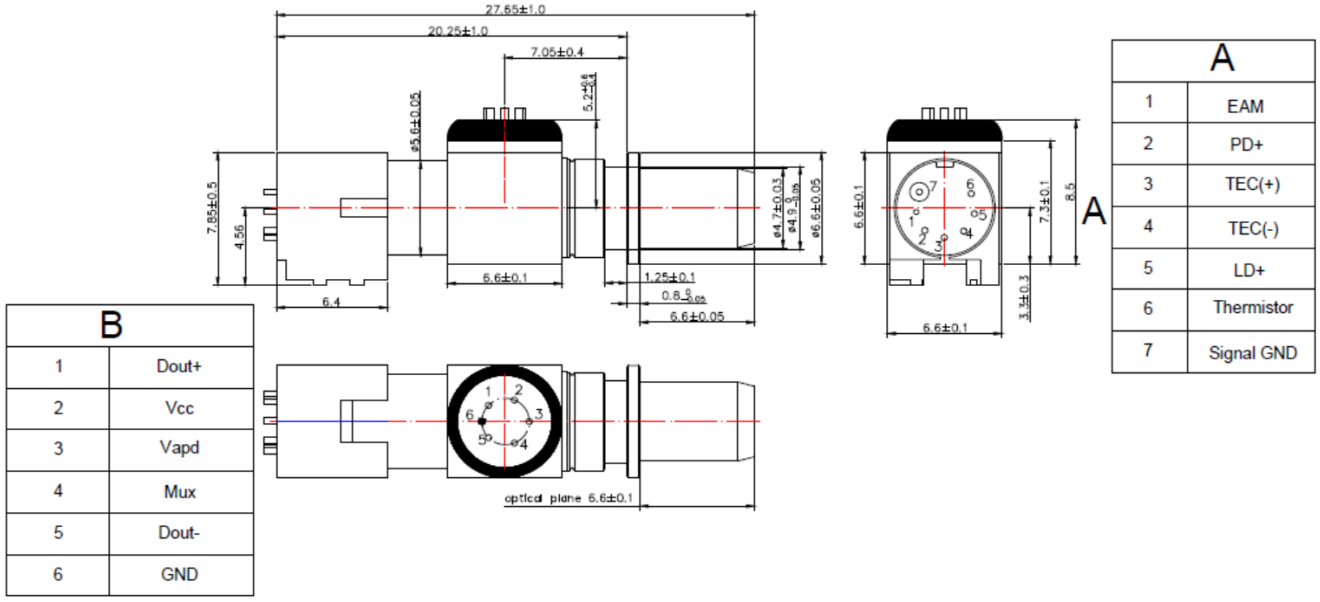
Electrical / Optical Specifications – Receiver:

Unless otherwise specified, the specifications below are defined at TC=25±3℃

Description	Symbol	Min.	Typ.	Max.	Unit	Note
Operating wavelength	λ	---	1270	---	nm	---
TIA Supply Voltage	Vcc	3.0	3.3	3.6	V	---
Supply Current	Icc	---	40	---	mA	---
Break Down Voltage	Vbr	22	27	32	V	I_d=10μA
Operating Current	Iop	---	10	---	μA	λ=1270nm Pin=-30dBm Vop=Vbr-2V
Sensitivity	Sen	---	---	-29	dBm	λ=1270nm 9.95G ER=6, BER=10^{-3} PRBS=2^{31}-1, V_R=Vbr-2

Mechanical Outline Dimensions and PIN Assignment

Note ： Machining housing structure, receiver sealed with black epoxy.



B	
1	Dout+
2	Vcc
3	Vapd
4	Mux
5	Dout-
6	GND

A	
1	EAM
2	PD+
3	TEC(+)
4	TEC(-)
5	LD+
6	Thermistor
7	Signal GND

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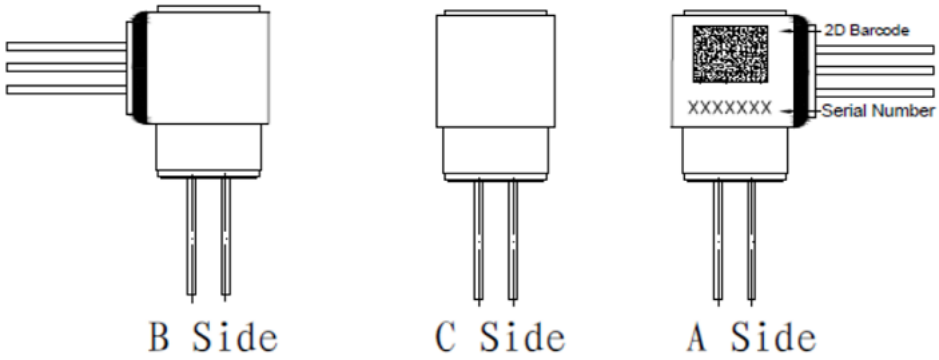
Marking Requirements

According to the Sunstar's Marking Requirements of Optical Active Devices ASSY.



The Inspection Requirements of End face

According to the International Standard of IPC8497-1.

Appearance and Packaging

According to the OSM's Specifications of Optical Active Devices Packaging Standard and Management.

Precaution:

(1) The modules should be handled in the same manner as ordinary semiconductor devices to prevent the electro-static damages. For safe keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
(2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
(3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.

Notice:

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