

25Gbps LC Pin Type BOSA w/ Isolator (Preliminary)

TYPE NAME:

Tx 1330 nm / Rx 1270 nm Part No. L-AB-XH33-02

Product Description:

Optical Connector: non- XMD LC Receptacle

Tx Module: 25Gbps 1330nm DFB TO-56 with Pin Type

Rx Module: 25Gbps InGaAs CM PIN-TIA TO-46 with Pin Type

Absolute Maximum Ratings

Item	Unit	Min	Max	Note
Forward Current for LD	mA	--	100	
Reverse Voltage for LD	V	--	2	
Forward Current for MPD	mA	--	10	
Reverse Voltage for MPD	V	--	15	
TIA Supply Voltage	V	--	4	
Operating Temp	°C	-40	85	
Storage Temperature	°C	-40	85	
Solder Reflow Temperature	°C/sec	--	260/10	

Transmitter Electro-Optical Characteristics (T_C=25°C, CW)

Parameter	Symbol	Units	Min	Typ	Max	Test condition
Threshold Current	I _{th}	mA	-	8		CW, T _c = 25°C
					30	CW, T _c = 85°C
Forward Voltage	V _f	V	-	-	2	CW, T _c = 25°C, I _{op} = I _{th} +30mA
Optical Output Power	SMF	P _f	-0.5		+3	CW, T _c = 25°C, I _{op} = I _{th} +30mA
Peak Wavelength	λ	nm	1320	1330	1340	CW, T _c = -40~85°C, I _{op} = I _{th} +30mA
Tracking error (*1)	ΔP _f /P _f	dB	-1.5	-	+1.5	APC, -40~85°C
Side Mode Suppression Ratio	SMSR	dB	30	-	-	T _c = 25°C, I _{op} = I _{th} +30mA Scan resolution <0.1nm
Rise Time / Fall Time	τ _r / τ _f	ps	-	20	-	I _{op} = I _{th} +30mA 20-80%

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Parameter	Symbol	Units	Min	Typ	Max	Test condition
PD Monitor Current	I _{pd}	mA	0.1	-	-	CW, I _{op} = I _{th} +30mA
PD Dark Current	I _d	nA	-	-	100	V _r = 3.3V
PD Capacitance	C	pF	-	10	20	V _r = 5V @ 1MHz

(*1): TE =10xlog(Pf(Tc)/Pf(25°C)), I_m hold constant (@Pf=3.0mW, 25°C)

Receiver Electro-Optical Characteristics (T_c=25°C, V_{cc}=3.3V)

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Power Supply Voltage	V _{cc}	V	2.97	3.3	3.63	
Supply Current	I _{cc}	mA		30		V _{cc} =3.3V, no light
Wavelength	λ	nm	-	1270	-	
Responsivity	Res	A/W	0.85	-	-	
Sensitivity	Sen	dBm	-	-11.5	-	ER=4.0dB, PRBS 2 ³¹ -1 , BER=1E-12
Overload	P _{max}	dBm	3.0	-	-	ER=4.0dB, PRBS 2 ³¹ -1 , BER=1E-12,

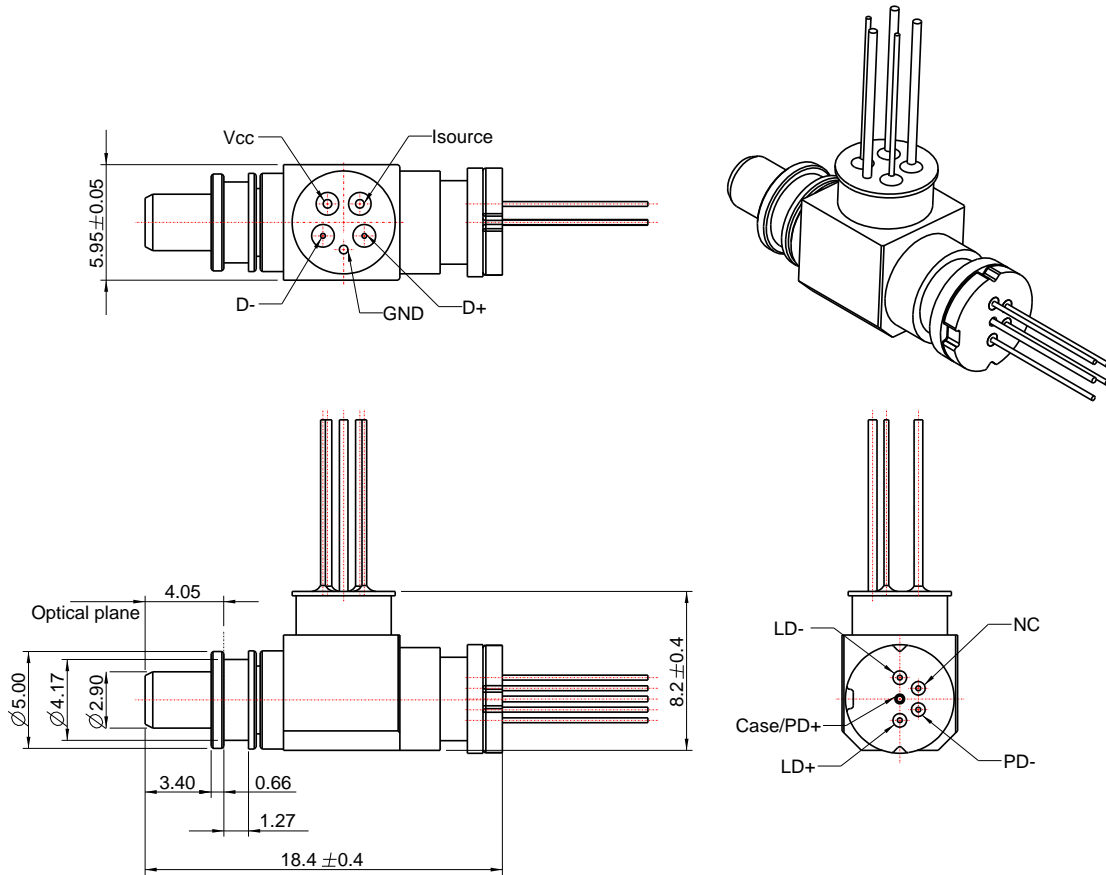
Optical Characteristics (T_c=25°C)

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Optical Crosstalk	I _{xtalk}	dB	-	-	-40	CW, T _c = 25°C, λ =1330nm
Optical return Loss	ORL	dB	-	-	-20	CW, T _c = 25°C, λ =1260~1340nm
Optical Isolation	ISO	dB	-	-	-30	CW, T _c = 25°C, λ =1260~1340nm

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Version 1.1

Dimension Outline:

Notice

Version	Date	Status	Description	Signature
1.0	2018/07/24	Initial		Daniel Lee
1.1	2018/08/17		Changed the wavelength range for LR and BiDi by $\pm 10\text{nm}$	Daniel Lee

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