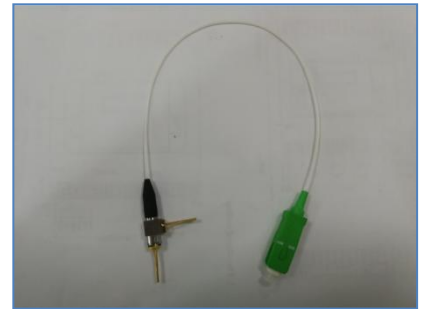




# Bi-directional Optical Sub Assembly

## Features

Designed for short or long reach application  
 InGaAs Photodiode  
 Integrated 1610/1550nm WDM for a single fiber  
 MQW DFB Laser device



## Specifications:

### Absolute Maximum Ratings

Parameter	Symbol	Min	Max.	Unit
LD Reverse Voltage	$V_{r(LD)}$	--	2	V
LD Forward Current	$I_{f(LD)}$	--	120	mA
Reverse Voltage (MPD)	$V_{r(MPD)}$	--	10	V
Input optical power	$P_{in}$	--	3	dBm
Operating Temperature	$T_{op}$	-20	85	
Storage Temperature	$T_{stg}$	-40	100	
Lead Solder Temperature	--	--	260	
Lead Soldering Time	--	--	2	s

### Transmitter Optical & Electrical Characteristics (T=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Threshold Current	$I_{th}$	25	--	12	20	mA
Forward Voltage	$V_f$	$I_{op}=I_{th}+20mA$	--	1.1	1.6	V
Monitor Current(MPD)	$I_m$	$I_{op}=I_{th}+20mA$	100	--	1000	uA
Dark Current(MPD)	$I_d$	$V_r=5V$	--	--	200	nA
Optical Output Power	$P_o$	$I_{op}=I_{th}+20mA$	1.0	--	3.2	mW
Slope Efficiency	SE	$I_{op}=I_{th}+20mA$	0.05	--	0.16	W/A
Central Wavelength		$I_{op}=I_{th}+20mA$	1607	1610	1613	nm
Spectral Width (-20dB)		$I_{op}=I_{th}+20mA$	--	--	1	nm
Side-mode Suppression Ratio	SMSR	$I_{op}=I_{th}+20mA$	30	--	--	dB
Optical Isolation	ISO	--	30	--	--	dB

### Receiver Optical/Electrical Characteristics

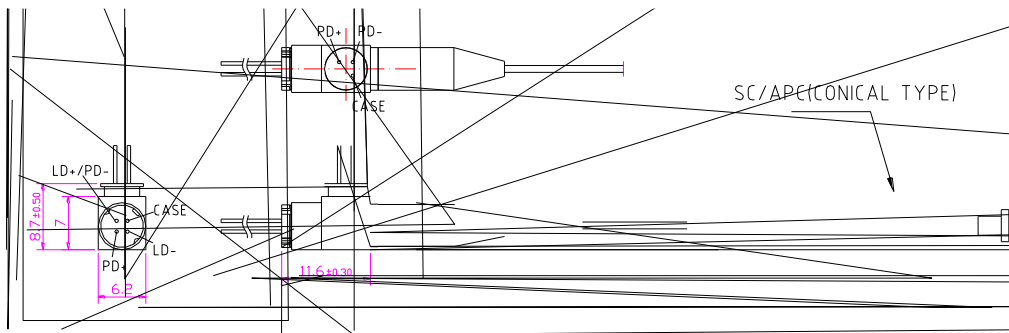


Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Responsivity	Res	1550nm	0.8	0.85	--	A/W
Dark Current	Id	--	--	--	2	nA
Optical Return Loss	ORL	1550nm	--	--	-40	dB
Operating Wavelength		--	1525	1550	1565	nm

### Optical Connector & Pigtail Characteristics

Parameter		Specifications	Remarks
Optical Port	Connector	SC/APC	CONICAL TYPE
	Fiber Color	white	Loose tube is Hytel
	Fiber Length	22cm±3cm	Length to the connector end
	Fiber	SMF	

### Mechanical Dimension and Pin Assignment:



### Order Information:

**BOSA 2.5G 1610nm DFB-1550PD**

□
Fiber Length
1m:1.0±0.1m
2m:2.0±0.1m
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