Pigtail Triplexer-1310T/1490R/1550R-DFB (SC/APC)

1310nm Tx/1490nm Digital Rx /1550nm Analog Rx

HETP-3423SA

Description:

Triplexer is a hybrid optical assembly with three optical ports for bi-direction transmission. It's a basic component for the FTTH system, which can transmit CATV and voice/data at the same time on a single fiber.1310nm wavelength light is used for transmitting the signals from user's homes to a central office. On the other hand, analog(graphic/video) and digital(voice/data) signals are transmitted from the central office to the user's homes with 1550nm and 1490nm light respectively.

Features:

- Integrated WDM filters for operation at 1310/1490/1550nm
- High power output of 1310 nm transmitter with uncooled DFB LD suitable for data rates up to 2.5Gb/s
- Single mode fiber pigtailed with SC/FC/other connector
- Low optical crosstalk
- -40℃~+85℃ operating temperature range
- Hermetically sealed Tx & Rx sub-components for high reliability

Applications:

FTTx networks over BPON

Absolute Maximum Rating:

Parameter	Symbol	Unit	Min.	Max.
Storage Temperature Range	Tstg	℃	-40	85
Operating Case Temperature	Topr	℃	-40	85
Reverse Voltage(LD)	V_{RL}	V	---	2
Reverse Voltage(PD)	V_{RD}	V	---	20
Lead Soldering (Temperature)/(Time)	---	℃/Sec	---	260/10
PIN Forward Current	IFP	mA	-	2

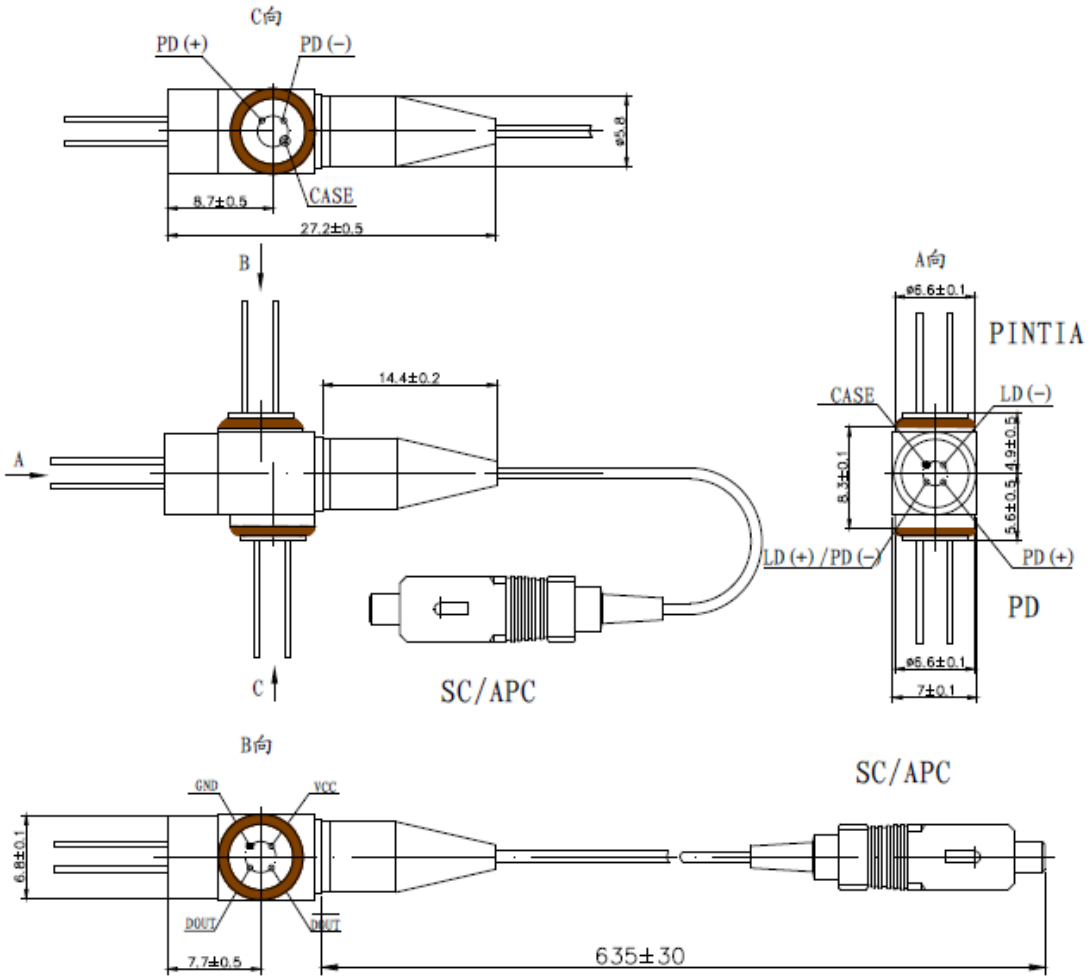
ADD: 1F-A4,Innovation Center,Kechuang Park,Mianyang 621000
TEL: +86-816-2577930
E-mail: sales@higheasy-electronics.com http://www. higheasy-electronics.com

Specifications(T=25°C, unless otherwise noted) :

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test condition
Transmitter: LD Electro-Optical Characteristics						
Optical Output Power	Po	mW	1	---	2	Ith+20mA
Threshold Current	Ith	mA		8.5	15	at Tc=25±3℃
Peak Wavelength	λp	nm	1290	1310	1330	CW, Iop=Ith+20mA,
Operating Voltage	Vop	V	---	1.1	1.5	CW, Iop=Ith+20mA,
Side Mode Suppression Ratio	SMSR	dB	35	43	---	CW, Iop=Ith+20mA
Monitor Current	Im	0.15	---	1.2	mA	CW, Iop=Ith+20mA,
Monitor Dark Current	Id	μA	---	---	0.1	V_{RD}=5V
Rise Time	Tr	ns	---	---	0.1	20%~80%
Fall Time	Tf	ns	---	---	0.15	80%~20%
Tracking Error	TE	dB	-1.5	---	1.5	APC, -40℃/+25℃, +25℃/+85℃
Receiver: Digital PIN-TIA Electro-Optical Characteristics						
Wavelength range	λ	nm	1480	1490	1500	CW
TIA Supply Voltage	Vcc	V	3.0	3.3	3.6	---
Supply Current	Icc	mA	---	48	70	---
Bandwidth	BW	MHz	---	1700	---	---
Saturation Power	Psat	dBm	-3	---	---	---
Optical Sensitivity	Sens	dBm	---	---	-23	λ =1490nm PRBS23, BER=10^{-10}@2.5Gbps
Receiver: Analog PIN photodiode Electro-Optical Characteristics						
Wavelength range	λ	nm	1540	1550	1560	---
Responsvity	R	A/W	--	0.8	---	@1550nm
Dark Current	Id	nA	---	---	1.0	V_R=5V
Capacitance	C	PF	---	---	1.0	---
Bandwidth	BW	GHz	---	1.25	2.5	---
Bandwidth	BW	MHz	155	1.25	2.5	
Optical Isolation	ISO1	dB	-30	---	---	λ =1480-1500nm
Optical Isolation	ISO2	dB	-32	---	---	λ=1260-1360nm

ADD: 1F-A4,Innovation Center,Kechuang Park,Mianyang 621000
TEL: +86-816-2577930
E-mail: sales@higheasy-electronics.com http://www. higheasy-electronics.com

Pigtail Package series



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:

HighEasy reserves the right to make changes or discontinue any product or service identified in this publication, without notice, in order to improve design and/or performance. Applications that are described herein for any of the products are for illustrative purposes only. HighEasy makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.