

ETRPD32xxK573AHxxxx-xxx

With 1310nm DFB Laser Diode and 1550nm 1.25G PIN-TIA



Features

- ◆ Single-mode fiber pigtailed with SC, LC, FC or ST connector
- ◆ High output power uncooled DFB Laser Diode
- ◆ High sensitive PIN- TIA
- ◆ ROHS Compliant Products Available

Applications

- ◆ Telecommunication
- ◆ Data Communication

Performance Specification

Absolute Maximum Ratings(Tc=25°C ,unless otherwise noted)

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	Tstg	-40	85	°C
Operating Case Temperature	Topr	-40	85	°C
Storage and Operating Humidity	--	85	--	%
LD Reverse Voltage	V _{RL}	--	2	V
LD Forward Current	I _{FL}	--	100	mA
Monitor PD Reverse voltage	V _{RMP}	---	10	V
Monitor PD Reverse current	I _{RMP}	---	2	mA
Power Supply Voltage	V _{CC}	-0.1	4	V
Soldering temperature (<10s)	S _{temp}	---	260	°C

Transmitter Optical And Electrical Characteristics

(Unless specified else,the specifications below are defined at Tc=25°C)

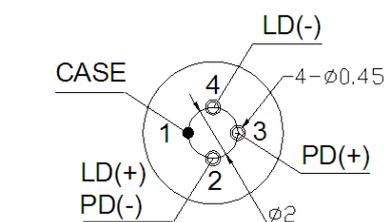
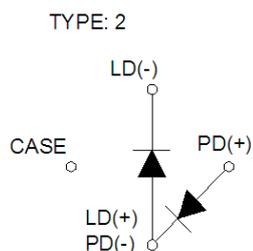
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Threshold current	Ith	5	10	15	mA	CW
Output Power (After coupled)	Pf	0.2	--	1.99	mW	CW, Iop = Ith+20mA
Optical Wavelength	λ	1300	1310	1320	nm	CW, Iop=Ith+20mA,
Operating Voltage	Vf	--	1.2	1.5	V	CW, Iop=Ith+20mA
Spectrum Width (-20dB)	$\Delta \lambda$	--	--	1.0	nm	CW, Pop=Ith+20mA,
Side Mode Suppression Ratio	SMSR	30	--	--	dB	CW, Pop=Ith+20mA,
Rise Time/ Fall Time	Tr/Tf	--	150/150	--	Ps	20% to 80%
Monitor Current	Im	0.1	--	1.0	mA	CW, Pf=3dBm
Monitor Dark Current	Id	--	--	100	nA	VRD=5V
PD Capacitance	C	--	10	20	Pf	VRD=5V @ 1MHz
Slope Efficiency	SE	0.01	--	0.1	mW/mA	Iop=Ith+20mA

Receiver Optical and Electrical Characteristics

(Unless specified else,the specifications below are defined at Tc=25°C)

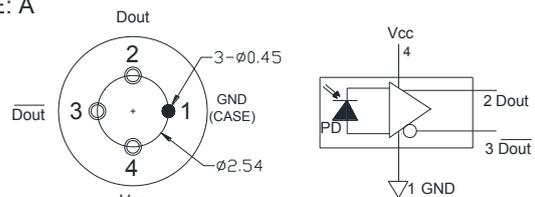
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Supply Voltage	Vcc	3.0	3.3	3.6	V	
Receiving Wavelength	λ	1500	1550	1550	nm	
Optical sensitivity	S	--	--	-28	dBm	,Vcc 3.3V 1.25Gbps, PRBS=2 ⁷ -1 ER=9dB, BER=10 ⁻¹⁰
Overload Power	Pload	0	--	--	dBm	
TIA Supply Current	Icc	23	28	35	mA	Vcc=3.3V
-3dBm Bandwidth	BW	730	800	--	MHz	RL= 50Ω

Pin Assignment



LD-pin-2

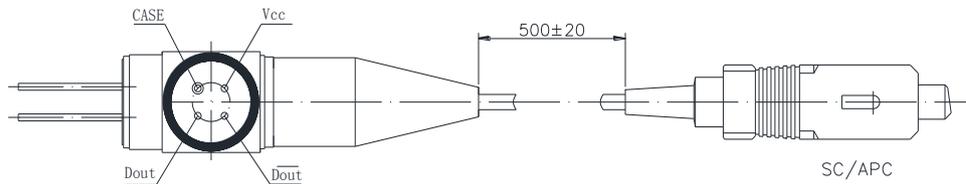
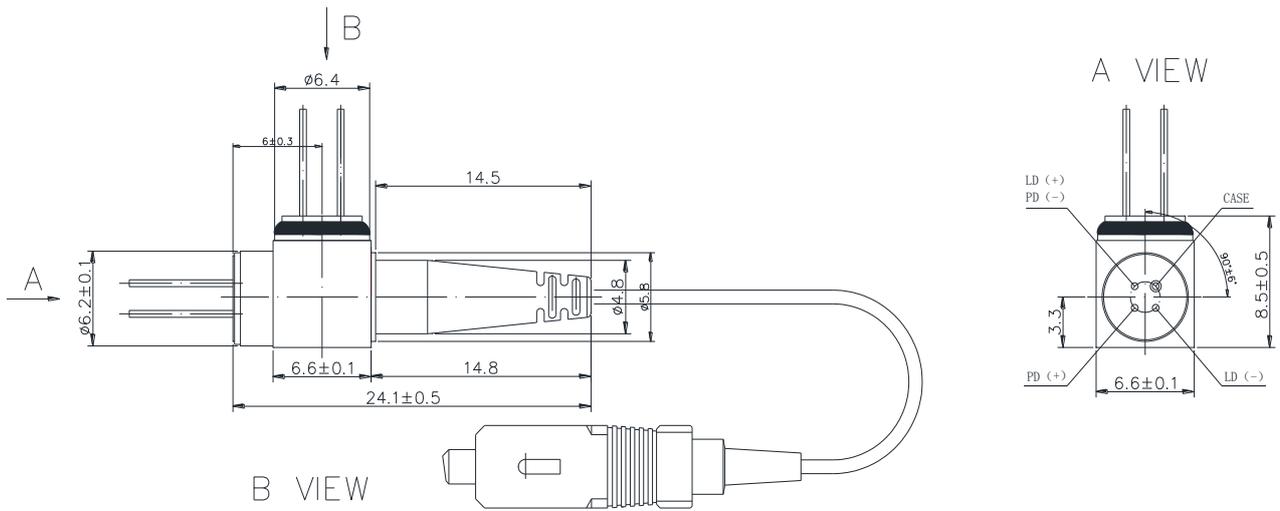
TYPE: A



PIN-TIA-pin-A

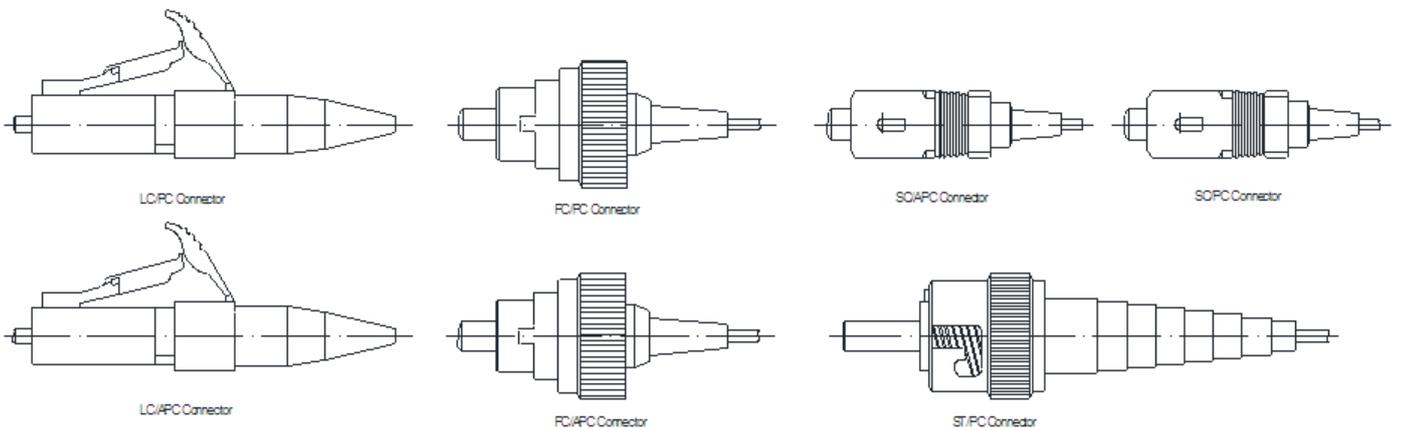
PIN-TIA-pin-A

Pigtail Package Series*Note1

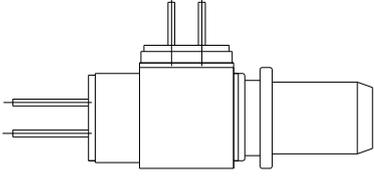
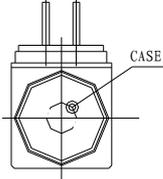
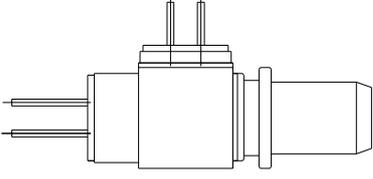
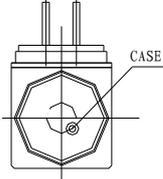
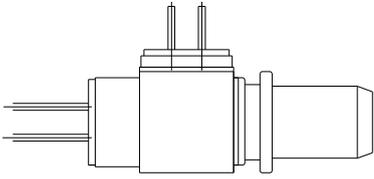
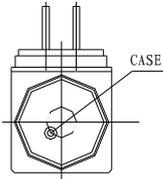
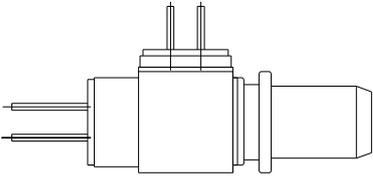
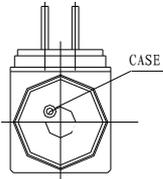
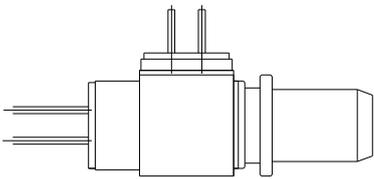
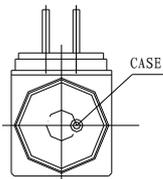
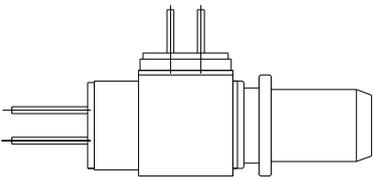
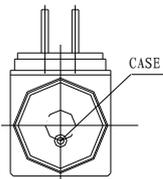
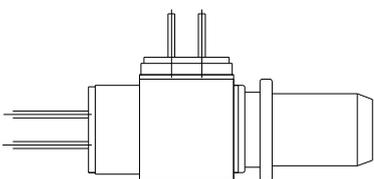
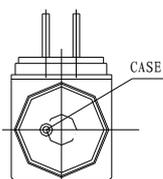
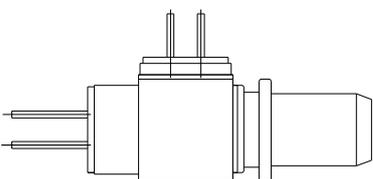
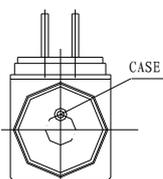


Note1: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

Connector



TX Pin Order Code*Note2.3.4

Launch			
			
Case direction	A Type	Case direction	B Type
			
Case direction	C Type	Case direction	D Type
			
Case direction	E Type	Case direction	F Type
			
Case direction	G Type	Case direction	H Type

Note2: This picture is for pluggable, pigtail BIDI chip PIN package direction's reference

Note3: This picture is suitable for RX Pin direction comparison .

Note4: The package direction is described as "x-x" For example "A-B", "A" is TX chip Pin direction, "B" is RX chip Pin direction.

RX Pin Order Code

Receive			
		A Type	
Case direction			
		B Type	
Case direction			
		C Type	
Case direction			
		D Type	
Case direction			
		E Type	
Case direction			
		F Type	
Case direction			
		G Type	
Case direction			
		H Type	
Case direction			

Ordering information (Standard version ^{*Note5})

Part No.	Power(mW)	Connector	Fiber length(cm)
ETRPD3205K573AHSAAA	0.2~0.99	SC/APC	50
ETRPD3210K573AHFAAA	1.0~1.99	FC/APC	50
ETRPD3205K573AHSAA	0.2~0.99	SC/PC	50
ETRPD3210K573AHFAA	1.0~1.99	FC/PC	50
ETRPD3205K573AHSAAA-030	0.2~0.99	SC/APC	30
ETRPD3210K573AHFAA-060	1.0~1.99	FC/PC	60

*Note5: For more ordering information, please refer the nomenclature and contact EPOTOLINK sales.

ETRP -
A B C D E F G H I J K L M N O P Q - R

Code	Parameter	Detailed Description							
A	Laser Type	D=DFB LD							
B	Launch Wavelength	3=1310nm							
C	Launch Data rate	2=2.5Gbps							
D	Output Power	05=0.2~0.99 mW				10=1.0~1.99mW			
E	TX Pin Type	Blank=LD-pin-2							
F	TX Chip Type	K=EO							
G	Receiver Wavelength	5=1550nm							
H	Receiver Data rate	7=1.25Gbps							
I	TIA Voltage	3=3.3V							
J	RX Pin Type	A=PIN-TIA-pin-A							
K	RX Chip Type	H=HW							
L	Connector	F=FC/PC		S= SC/PC		T=ST/PC		N =NO connector	
		FA=FC/APC		SA= SC/APC		L=LC/PC			
M	TX Pin Package Direction	A	B	C	D	E	F	G	H
N	RX Pin Package Direction	A	B	C	D	E	F	G	H
O	RX TO Insulated With Shell	Blank= Insulation				N=NO Insulation			
P	Isolator	Blank=None				G=with I			
Q	Fiber diameter	Blank=SM White		M=MM White		B=SM Blue		Y=SM Yellow	
R	Fiber length	Blank=50±2cm			030=30±2cm			XXX=Custom±2cm	

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.

Obtaining Document

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<http://www.eoptolink.com>

Or contact Eoptolink Technology Inc., Ltd. listed at the end of the documentation to get the latest documentation.

Revision History

Revision	Initiated	Reviewed	Revision History	Release Date
Va-1	George.zhong	Zore.Zhao Rian.peng	The initial version	2017-06-30

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