

## 10G PIN-TIA Receiver with Pigtail Modules

## HEPTP-C13XXX

**Features:**

- ◆ High sensitivity
- ◆ Differential ended output
- ◆ Single +3.3V operation
- ◆ RoHS Compliant products available

**Applications:**

- ◆ 10G application
- ◆ SDH/SONET application

**General:**

HEPTP-C13EXX Series is a 5 pin PIN-TIA with pigtail operating on 10G. It provides high sensitivity, 5 pin PIN-TIA provides a monitor pin. A photodiode is mounted into a low capacitance coaxial package integrated with a pigtail.

**Ordering Information: (Standard version <sup>\* Note1</sup>)**

Part No.	Wavelength (nm)	Voltage (V)	Package	Pin Type	Connector
HEPTP-C13EAF	1260~1620	3.3	A	E	FC/PC
HEPTP-C13EBSA	1260~1620	3.3	B	E	SC/APC
HEPTP-C13ECT	1260~1620	3.3	C	E	ST/PC
HEPTP-C13EDS	1260~1620	3.3	D	E	SC/PC
HEPTP-C13EES	1260~1620	3.3	E	E	SC/PC

\*Note1: For more ordering information, please refer the nomenclature and contact HighEasy sales.

**Absolute Maximum Ratings:** \*Note2

Parameter	Symbol	Min.	Max.	Unit
Operating Temperature	Top	0	85	°C
Storage Temperature	Tstg	-40	85	°C
Power Supply Voltage	Vp		4	V
Optical Power	Pin		5	dBm
Soldering Temperature / Time	Tstg		260/10	°C/S

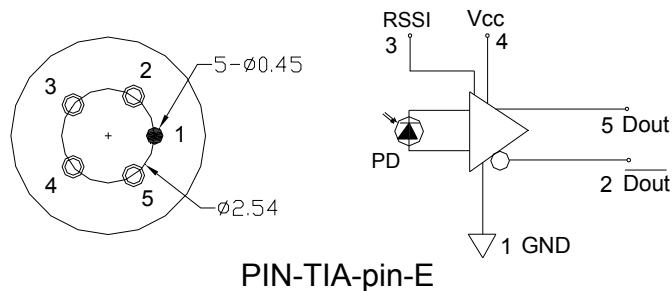
\*Note2: Exceeding any one of these values may destroy the device permanently.

**Electrical and Optical Characteristics:**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Operating Wavelength	$\lambda$	1260	1310	1620	nm	
Supply Current	Icc	34	45	62	mA	Vcc=3.3V,
Supply Voltage	Vcc	2.97	3.3	3.63	Volts	
High Frequency Bandwidth (-3dB)	BW		10		GHz	
Differential Output Voltage	Vout		250		mV	
RSSI slope		0.9	1.0	1.1	mA/mA	1
Responsivity	Sen		17	16	A/W	$\lambda=1310\text{nm}$ , PRBS=2 <sup>23</sup> -1, BER=10 <sup>-12</sup> , ER=5.0, Speed=10.3125G

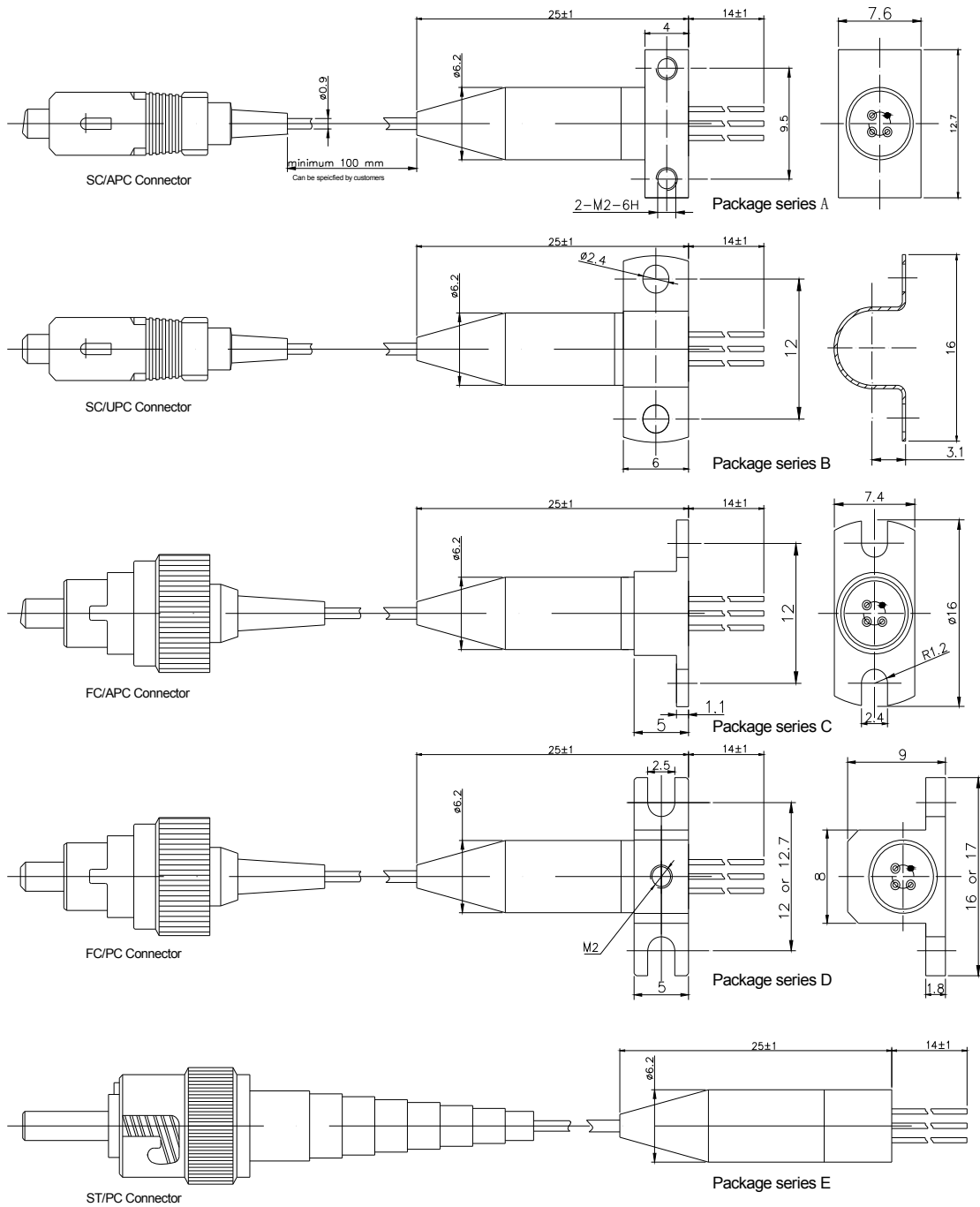
**Pin Assignment:** \*Note3

TYPE: E



Note3: Other Pin type can be customized.

## Pigtail Package Dimension: \*Note4、 5、 6



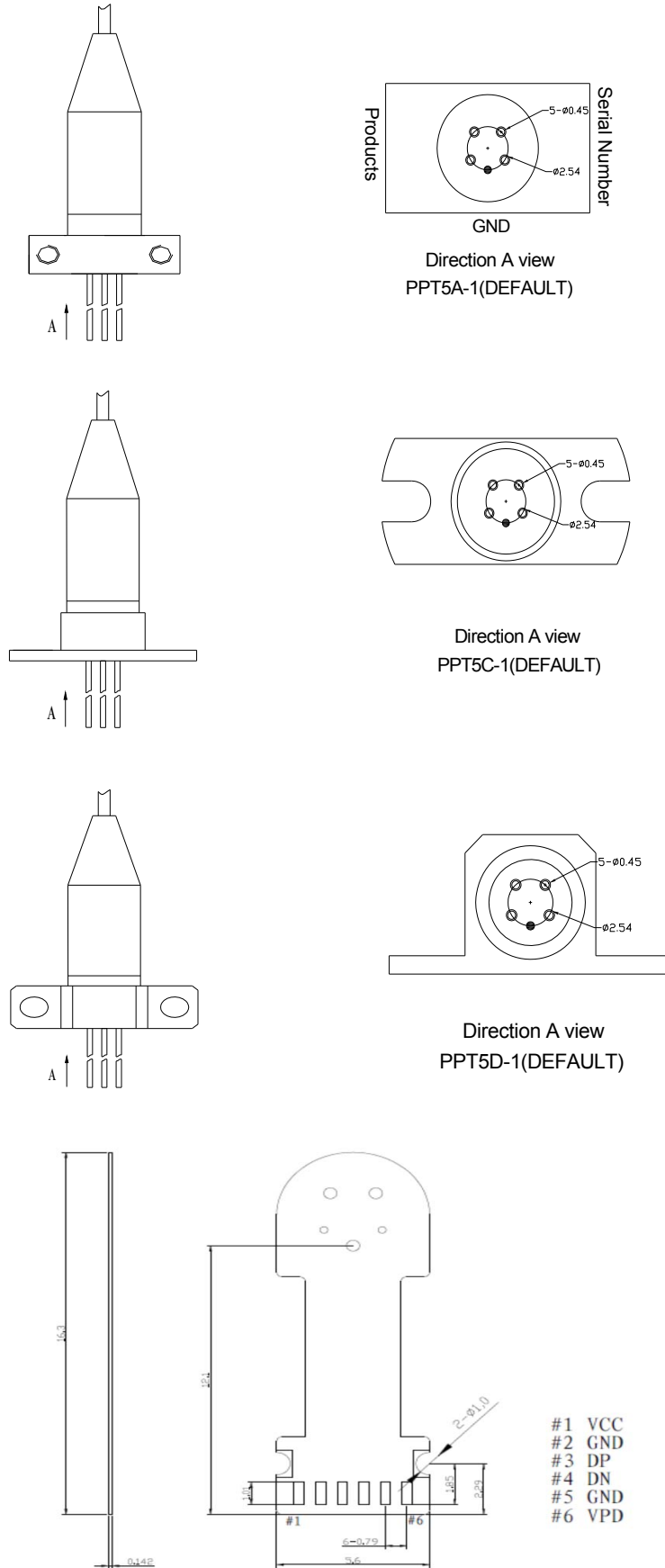
\*Note4: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

\*Note5: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

Fixed card type	A(mm)	B(mm)
D	16	12
D-S	17	12.7

\*Note6: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of A, C, D package series, please refers the following graphs.

The Direction of Fix Card:



**Nomenclature:**

HEPTP—        
           A    B    C    D    E    F    G

<b>A</b>	<b>Data Rate</b>	C=10G					
<b>B</b>	<b>Wavelength</b>	1=1100~1650nm					
<b>C</b>	<b>Voltage</b>	3=3.3V					
<b>D</b>	<b>Pin Type</b>	E= pin-E					
<b>E</b>	<b>Package Series</b>	A	B	C	D	E	
<b>F</b>	<b>Connector</b>	F=FC/PC		S=SC/PC		T=ST/PC	SA=SC/APC
		FA=FC/APC		L=LC/PC		Blank=None	
<b>G</b>	<b>Fiber Type</b>	Blank=SM			M=MM		

**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.

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