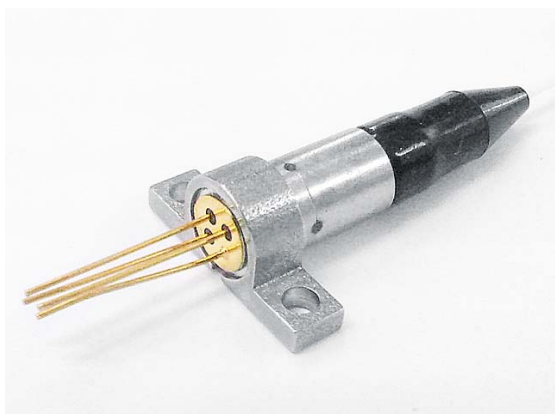




## SDTV/HDTV 3Gbps PIN/TIA Receiver

### PTCM965-404-C10/C30



PTCM965-404 series

#### Features

- Data rates up to 3.125Gb/s
- Pass Pathological Data test
- High performance InGaAs PIN Photodiode with Transimpedance Amplifier (TIA)
- Operating wavelength range: 1250~1620nm
- Single +3.3V power supply
- Wide dynamic range
- SC/LC pigtail package
- Meet RoHS and WEEE requirements

#### Applications

- SMPTE 292M Video 1485Mb/s
- SMPTE 259M Video 270 Mb/s
- SMPTE 305M Video 270 Mb/s
- SMPTE 310M Video 19.39 Mb/s
- Other applications

#### Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	$T_s$	°C	-40	85
Relative Humidity	RH	%	5	85
Power Supply Voltage	$V_{cc}$	V	-0.4	5
Lead Solder Temperature	-	°C	-	260
Lead Solder Duration	-	S	-	10
Input Optical Power	$P_{in}$	dBm	-	5

#### Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	$T_c$	°C	-40	25	85
Power Supply Voltage	$V_{cc}$	V	3	3.3	3.6
Relative Humidity	RH	%	5	-	85

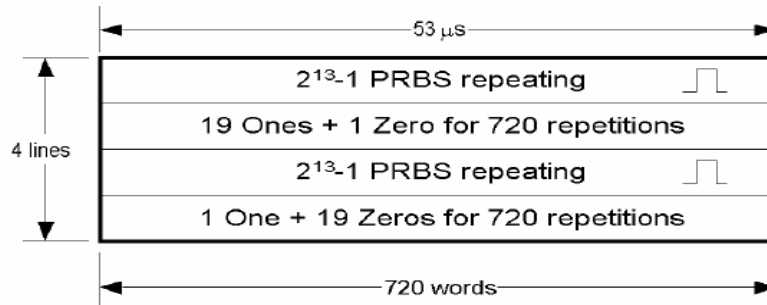


**Specifications** (T=25 °C, unless otherwise noted)

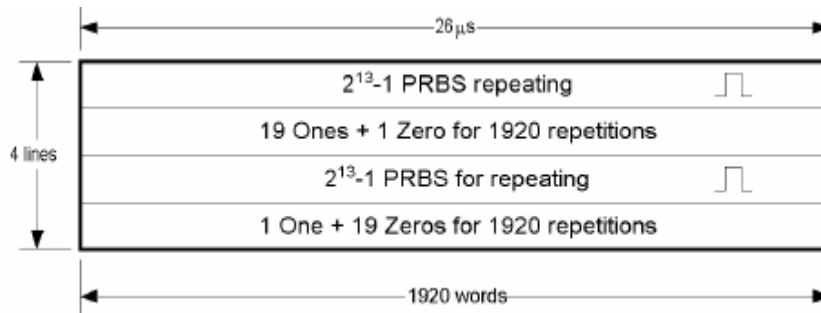
Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Operating Current	I <sub>cc</sub>	mA	-	20	34	No loads
Output Impedance	R <sub>o</sub>	Ω	-	50	-	Single ended
-3dB Bandwidth	BW	GHz	-	2	-	
Low Frequency Cutoff	LFC	kHz	-	1	-	
Differential Output Voltage	V <sub>out</sub>	mV <sub>p-p</sub>	-	260	375	Pin=2mW
Optical Characteristics						
Wavelength Range	λ	nm	1250	-	1620	
Optical return loss	ORL	dB	27	-	-	
Sensitivity	S	dBm	-	-	-21	BER <1E-10 with the 3 test patterns
Overload	P <sub>in-max</sub>	dBm	2	-	-	

**Note: Test Patterns**

**a) 270Mb/s test pattern**



**b) 1.485Gb/s test pattern**



**c) 3.125Gb/s PRBS 2<sup>23</sup>-1 test pattern**

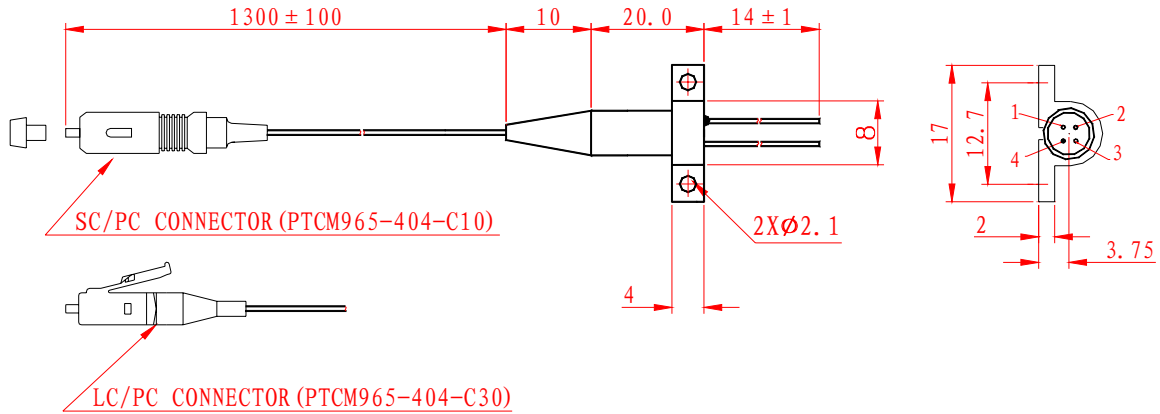


**Pin Description**

Pin	Description	Bottom View
1	Vcc	
2	OUT-	
3	OUT+	
4	GND	

**Package Outline**

9/125um single mode fiber and 900um tight buffer and loose fixture between receiver body and the Omega flange.



**Regulatory Compliance**

Feature	Test method	Performance
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883E Method 3015.7	>1000 V

**Ordering Information**

Part No	Specification							
	Package	Datarate	Laser	Optical Power	Detector	Sensitivity	Temp	Others
PTCM965-404-C10	4pin SC pigtail	3.125G	-	-	PIN+TIA	-21dBm	-40~85	+3.3V
PTCM965-404-C30	4pin LC pigtail	3.125G	-	-	PIN+TIA	-21dBm	-40~85	+3.3V



## Consultation

### Product Purchasing

**China: Domestic Sales Dept.**

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Fax: (86)27-8780 3010

E-mail:sales-domestic@wtd.com.cn

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