



## AC6561 Series 4.25Gbps Long Wavelength Single Mode ROSA



ROSA with LC Plastic Receptacle

### Features:

- Wide dynamic range with differential output
- Low power +3.3V operation
- Wide operation temperature (-40°C~ +85°C)
- High reliability
- Suitable for 4.25Gbps applications needing receptacle connectorization

**Applications:** Telecom and Datacom

### Electrical/Optical Characteristics (T<sub>c</sub>=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V <sub>cc</sub>	3.0	3.3	3.6	V
Supply Current <sup>(1)</sup>	I <sub>cc</sub>		24	35	mA
Photodetector Bias	V <sub>PD</sub>		3.3		V
Bandwidth	BW	2.0	2.4		GHz
Low-Frequency Cut Off	LF		30	35	kHz
Group Delay Variation <sup>(2)</sup>	GDV		±35		ps
Wavelength	λ	1250		1600	nm
Optical Overload <sup>(3,4)</sup>	P <sub>ovld</sub>	+4	+6		dBm
Sensitivity <sup>(3,4)</sup>	P <sub>sens</sub>		-22	-20	dBm
Conversion Gain <sup>(5)</sup>	CG	1600	2000		V/W
Max. Diff. Output Voltage	V <sub>diff</sub>	160	200	240	mVpp

(1) No Loads

(2) 1 GHz to 4 GHz

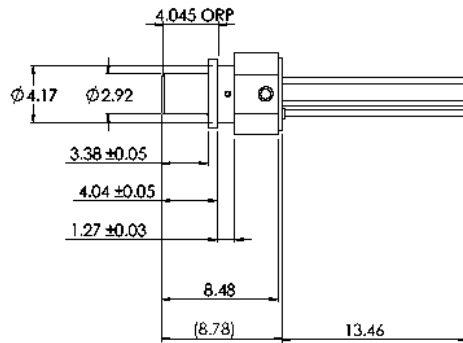
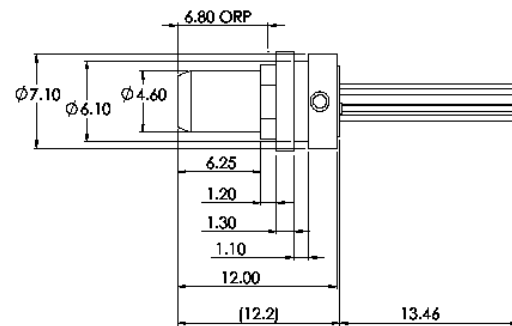
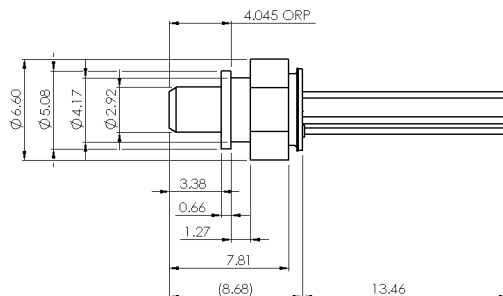
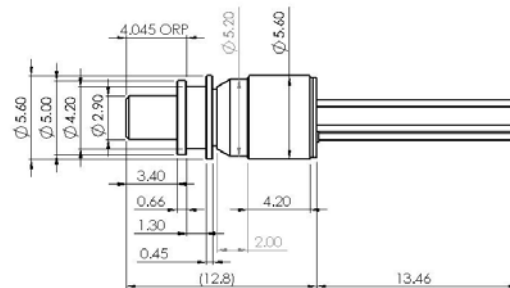
(3) λ=1550nm

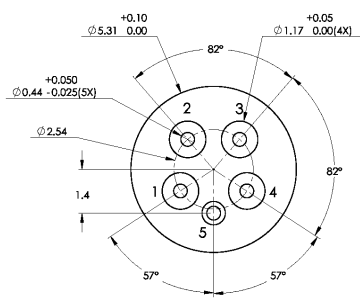
(4) BER = 10<sup>-12</sup>, PRBS 2<sup>31</sup>-1, ER =10dB

(5) Single ended output voltage (peak to peak) to optical power swing (OMA)

**Absolute Maximum Ratings:**

Parameter	Symbol	Min	Max	Unit
Case Temperature	$T_C$	-40	+85	$^{\circ}\text{C}$
Storage Temperature	$T_{\text{stg}}$	-40	+100	$^{\circ}\text{C}$
Humidity Range	RH	5	95	%
Amplifier Bias Voltage	$V_{\text{ccmax}}$		5	V
Input Optical Power	$P_{\text{max}}$		+6	dBm
Load Solder Temp. and Time			260 $^{\circ}\text{C}$ , 10sec	

**Outline Drawings:****Plastic LC receptacle, Option L1****Plastic SC receptacle, Option S1****Metal LC receptacle, Option L2****Metal LC receptacle with -27dB ORL, Options L3 and L4**

**Bottom View**

Pin #	“B”
1	Dout-P
2	Vcc
3	Vpd
4	Dout-N
5	GND

**Ordering Information:****AC6561-W-YZ**

**W** = Pin-out: “B” see table.

**YZ** = Receptacle type: “L1” for LC Plastic, “L2” for LC Metal, “L3” for LC metal (-27dB ORL), “L4” for LC metal (-27dB ORL) electrically isolated from header, “S1” for SC plastic.

Example: **AC6561-B-L1** is an Archcom 5-pin, 4.25 Gbps ROSA with type-B pin-out with low cost plastic LC receptacle.