



AC6510 Series

1.25 Gbps Receiver in 4-pin ROSA Package



Features:

- Wide dynamic range with differential output
- Low power +3.3 V operation
- Wide operation temperature (-40°C to +85°C)
- High reliability
- Suitable for 1.25 Gbps applications needing receptacle style connectorization

Applications: Telecom and Datacom

Electrical/Optical Characteristics (T_c=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V _{cc}	3.0	3.3	3.6	V
Supply Current ⁽¹⁾	I _{cc}		30	39	mA
Bandwidth	BW	0.8	1.0		GHz
Low-Frequency Cut Off	LF		50		kHz
Rise Time/Fall Time ^(2,3)	Tr/Tf			250	ps
Wavelength	λ	1100		1650	nm
Single Ended Output Impedance	R _o		50		Ohms
Saturation Power ^(3,4)	P _{sat}	+2	+3		dBm
Sensitivity ^(3,4)	P _{sens}		-26	-25	dBm
Conversion Gain ^(3,5)		10	13		kV/W
Differential Output Voltage	V _{diff}		240		mVpp

(1) No Loads

(2) 20% to 80% at -20 dBm input

(3) λ=1550 nm

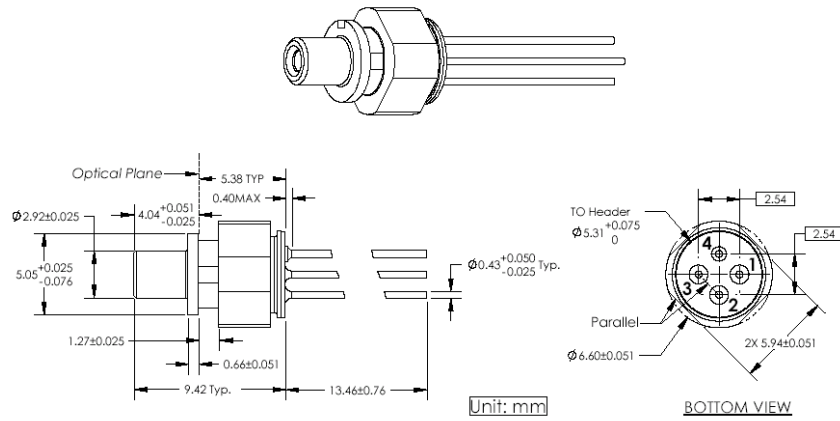
(4) BER = 10⁻¹⁰, PRBS 2³¹-1, ER =10 dB

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

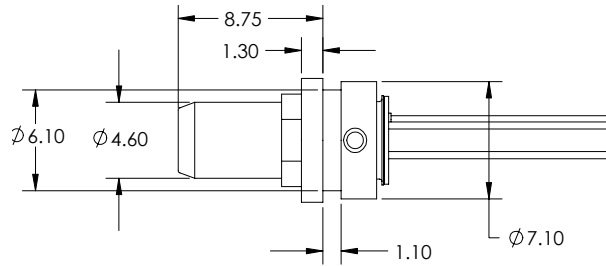
Absolute Maximum Ratings:

Parameter	Symbol	Min	Max	Unit
Case Temperature	T _C	-40	+85	°C
Storage Temperature	T _{stg}	-40	100	°C
Humidity Range	RH	5	95	%
Amplifier Bias Voltage	V _{ccmax}		3.6	V
Input Optical Power	P _{max}		+6	dBm
Load Solder Temp. and Time			260 °C, 10sec	

Outline Drawing (Customer special order is available):



Plastic LC 4-pin version



Plastic SC Receptacle

4-pin Pin-out Assignment		
Pin #	“A”	“B”
1	Vcc	Dout-P
2	Dout-N	Vcc
3	Dout-P	Dout-N
4	GND	GND

Ordering Information:

AC6510-W-YZ

W = Pin-out: “A” or “B” see table. (Custom pin-out available)

YZ = Receptacle type: “L1” for LC Plastic, “L2” for LC Metal, “S1” for SC plastic

Example: **AC6510-A-L1** is an Archcom 4-pin, 1.25 Gbps ROSA with Type-A pin-out with low cost plastic LC receptacle.

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