



AC6534 Series

10 Gbps Long Wavelength Multimode ROSA for LRM Applications



AC6534 with 6-pin
flex circuit

Features:

- Large area photodiode for excellent coupling from MM fibers
- TIA incorporates AGC for use with LRM applications requiring high linearity
- Low cost TO-46 package with differential output
- Wide operation temperature (-40°C to +85°C)
- Suitable for 10 Gbps applications needing receptacle style connectorization

Electrical/Optical Characteristics (T_c=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V _{cc}	3.135	3.3	3.465	V
Supply Current ⁽¹⁾	I _{cc}		48	52	mA
Photodetector Bias	V _{PD}		3.3		V
Bandwidth	BW	4.5	5.5		GHz
Low-Frequency Cut Off	LF		20		kHz
Group Delay Variation ⁽²⁾	GDV		±30		ps
Wavelength	λ	1250		1600	nm
Optical Overload ^(3,4)	P _{over}	+5	+5.5		dBm
Sensitivity ^(3,4)	P _{sens}		-17	-15	dBm
Conversion Gain ⁽⁵⁾		550	750		V/W
Max. Diff. Output Voltage ⁽⁶⁾	V _{diff}	240	300	360	mVpp
Max. Diff. Output Voltage ⁽⁷⁾	V _{diff}	140	180	220	mVpp

(1) No Loads

(2) 1 GHz to 6 GHz

(3) λ=1550 nm

(4) BER = 10⁻¹², PRBS 2³¹-1, ER =10 dB

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

(6) Specified maximum differential output voltage swing obtained in electrical test, with filtered input data. Filtering generated with a 2.25GHz 4th order Bessel-Thomson filter.

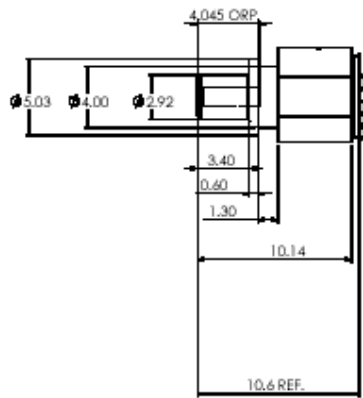
(7) Specified maximum differential output voltage swing obtained in a back to back optical to electrical measurement using a non-dispersed 9.953Gb/s, PRBS 2³¹-1 data train..

Absolute Maximum Ratings:

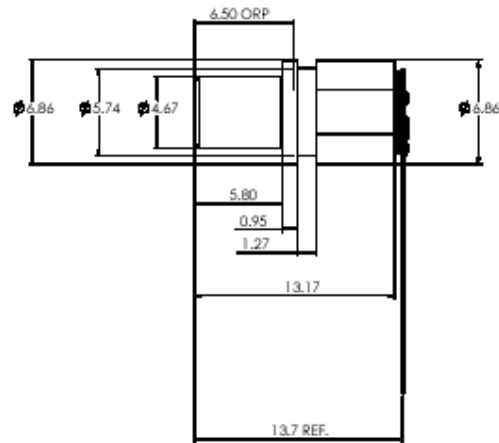
Parameter	Symbol	Min	Max	Unit
Case Temperature	T _C	-40	+85	°C
Storage Temperature	T _{sig}	-40	100	°C
Humidity Range	RH	5	95	%
Amplifier Bias Voltage	V _{ccmax}		3.65	V
Input Optical Power	P _{max}		+7	dBm
Load Solder Temp. and Time			260 °C, 10sec	



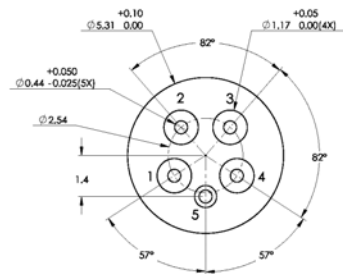
Outline Drawing



Plastic LC Flex Version



Plastic SC Flex Version



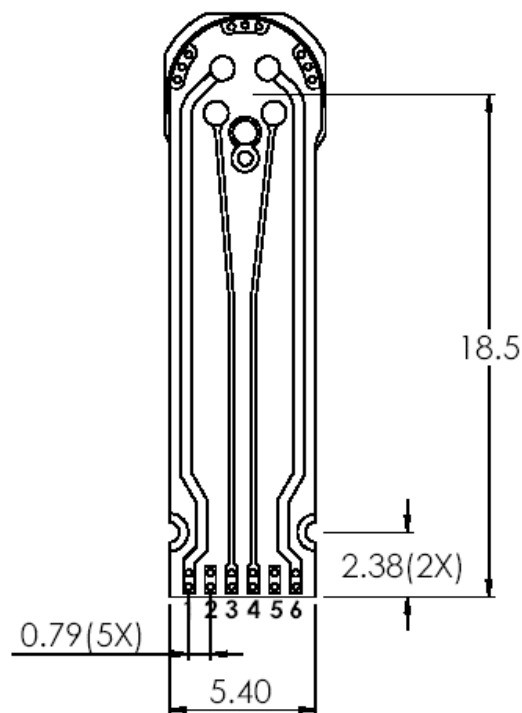
Bottom View

5-pin straight lead Pin-out Assignment

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



6-pin Flex Circuit (Trace View)



6-pin Flex Pin-out	
Pin #	FL2
1	Vcc
2	GND
3	Dout-P
4	Dout-N
5	GND
6	Vpd

Ordering information:

AC6534-B-YZ-FL2

B = Pin-out: "B" see 5-pin straight lead Pin-out Assignment table.

YZ = Receptacle type: "L6" for LC Plastic, "S6" for SC plastic

FL2 = Flex circuit option "FL2" for 6-pin flex

Example: **AC6534-B-L6-FL2** is an Archcom 5-pin, 10 Gbps ROSA for MM fiber with Type-B pin-out with low cost plastic LC receptacle and 6-pin flex circuit.

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