

2.5 Gbps 1550 nm 5-Pin Low Optical Return Loss LC-ROSA

AK2M-9060-4X Series

TYPE NAME: AK2M-9060-4, AK2M-9060-4B

Product Description:

The LuxNet AK2M-9060-4X 5-pin Long Reach low optical return loss LC-ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high-performance data communication and telecommunication applications. This ROSA provides special digital diagnostic capability for transceivers with a wide dynamic range of input optical power. This device integrates our high-speed 1550 nm APD TO ball lens with cap window and LC port. The product is designed for OC-48 Long-haul optical communication systems, where low optical return loss is required. The LC-type optical port with fiber stub transmits light into the APD detector with high coupling efficiency and low return loss.

Product Specifications:

Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T _{op}	°C	-40	85	
Storage Temperature	T _{stg}	°C	-40	85	
Solder Reflow Temperature	T _{stg}	°C		260	10 seconds max.
Power Supply Voltage	V _P	V	3.0	5.5	
Optical Power	P_{in}	dBm		-6	

Warning: "Maximum" optical input power should be -6dBm

Electro-Optical Characteristics (T = 25°C, V_{cc}=3.3V, λ=1550nm unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
APD Break down voltage	V _{BR}	V	40	60	80	I _d =100uA
Supply Voltage	V _{cc}	V	3.0	3.3	5.5	
Supply Current	I _{cc}	mA		34	70	P _{in} = 0 μW, R _L = 50Ω
Responsivity	R	KV/ W		9.5		M=10, λ=1550nm AC Coupled, R _L = 50Ω
Upper -3dB Bandwidth	BW	GHz		2.0		R _L = 50Ω
Sensitivity	S	dBm		-32.5	-31.5	2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰
Wavelength	λ	nm		1550		
Rise/Fall Time	τ _r /τ _f	ps		150/150		P _{in} =63uW, (20%-80%)
Dark Current	I _d	nA			60	V _r =0.9VBR
Optical Return Loss	ORL	dB	-27	-40		

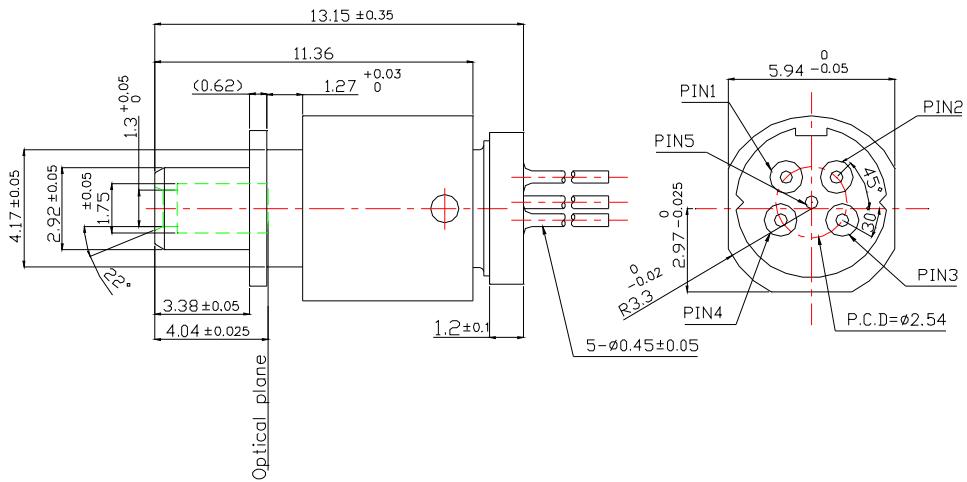
* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 2.1

Dimensions: (mm)
 All dimensions are nominal

AK2M-9060-4 (LC-ROSA)

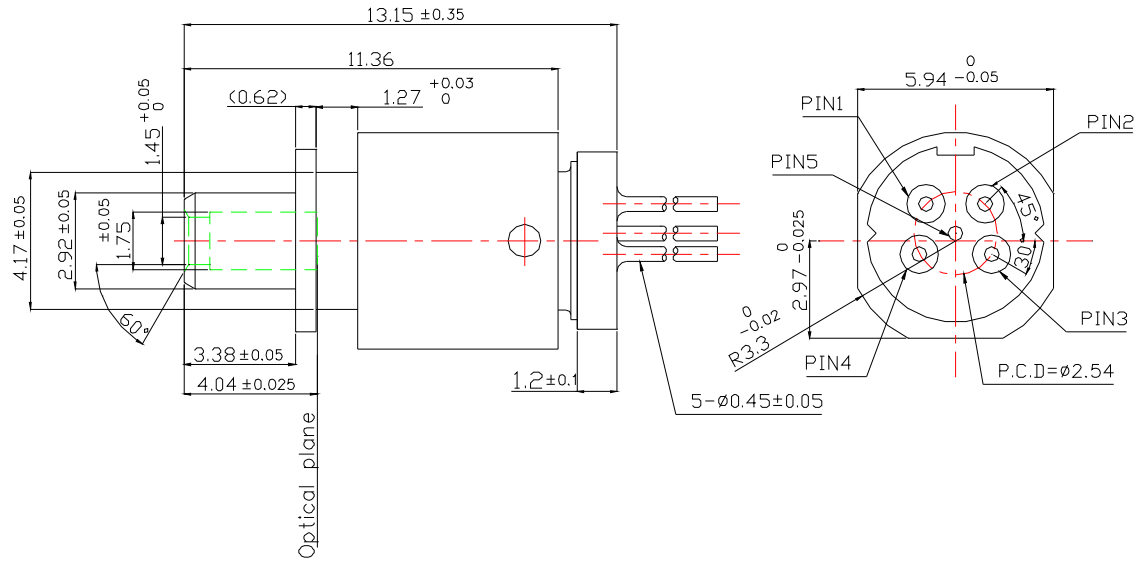


PINOUT

AK2M-9060-4	
Pin Number	Function
1	Vpd
2	Vcc
3	Inverted Output
4	Non-Inverted Output
5	Gnd

* Specifications are subject to change without notice.
 * Screening per customer-specified reject limits is available.

AK2M-9060-4B (LC-ROSA)



PINOUT

AK2M-9060-4B	
Pin Number	Function
1	Vpd
2	Vcc
3	Inverted Output
4	Non-Inverted Output
5	Gnd

* Specifications are subject to change without notice.
 * Screening per customer-specified reject limits is available.