

1310nm 155Mbps 5-Pin APD LC-ROSA

AK6B-903M-x Series

TYPE NAME: AK6B-903M-4K

Product Description:

The LuxNet AK6B-903M-x 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 1310nm APD TO ball lens with cap window and LC port. The product is designed for 155M 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 _s	°C		260	10 seconds max.
Power Supply Voltage	V _p	V	-0.5	6.0	
Optical Power	P _{in}	dBm		-6	

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

Electro-Optical Characteristics (T = 25°C ,unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
APD Break down voltage	V _{BR}	V	32		46	I _d =10uA
Supply Voltage	V _{cc}	V	2.97	3.3	5.5	
Supply Current	I _{cc(3.3V)}	mA	22	28	36	
Responsivity	R	KV/W		9.5		λ=1310nm ,P=7.5uW, AC Coupled, R _L = 50Ω
Sensitivity	S	dBm		-44	-43	λ=1310nm ,2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ ,ER= 9~10dB
High Frequency Bandwidth (-3dB)	BW	MHz		165		R _L = 50Ω
Low Frequency Bandwidth	BW1	kHz		6.3	25	R _L = 50Ω
Wavelength	λ	nm	1260	1310	1620	
Rise/Fall Time	τ _r /τ _f	ns		2.0/2.0		(10%-90%)
Dark Current	I _d	nA		50	150	V _r =0.9VBR
Optical Return Loss	ORL	dB		-40	-27	
Overload Power	P _{load}	dBm	-10			PRBS=2 ²³ -1, BER=10 ⁻¹⁰

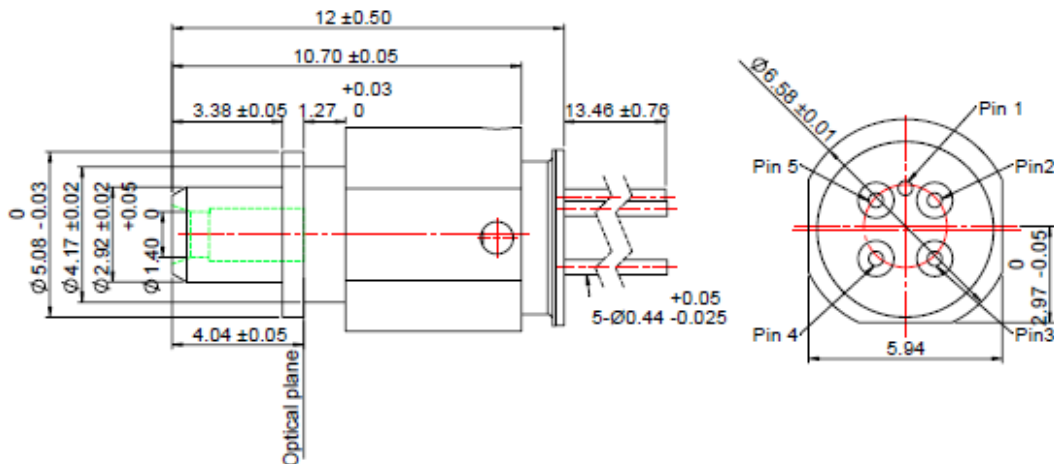
* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.1

AK6B-903M-4K (5pin APD-ROSA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

AK6B-903M-4K	
Pin Number	Function
1	Gnd
2	Non-Inverted Output (D+)
3	Vcc
4	Vapd
5	Inverted Output (D*)

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* Screening per customer-specified reject limits is available.