

# exail

## Acceptance test report

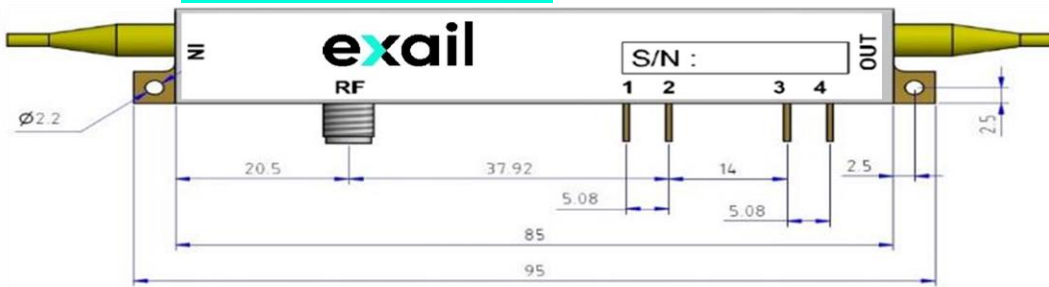
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Component	MX-LN-05-PD-P-S-FA-FA
Serial number	14405-05

**WARNING :** the short-circuit spring on the DC pins must be removed before use

Packaging-interfaces		
Input fiber	Polarization maintaining, Panda type	
Output fiber	Single mode type, SMF 28	
Jacket type	900µm outside diameter	
Input optical connector (orientation)	FC/APC	Key // slow axis
Output optical connector (orientation)	FC/APC	
Input fiber length	1.5 meter	
Output fiber length	1.5 meter	
Input RF connector	50Ω female K	

### Product dimension and pin-out



RF	RF INPUT
1	GROUND
2	BIAS INPUT
3	PHOTODIODE CATHODE
4	PHOTODIODE ANODE

Thickness : 9.6mm  
Material : KOVAR

Package dimensions in mm

Measured with : Emcore laser module  $\lambda = 1550 \text{ nm}$

Parameters	Conditions	Measurements	Specifications
Insertion Loss	with input connection	dB	3,4 ≤4.75
DC extinction ratio		dB	>20 >20
Internal photodiode responsivity	Reference : input power	A/W	0,003
Vp RF Port	@50kHz	V	3,4 ≤4
Vp DC Port	@100Hz	V	6,7 ≤7
Electrical return loss S11	between 0 – 5GHz	dB	-12,3 ≤-10
Electro-optic bandwidth S21	@ -3dB, from 2GHz	GHz	>3 >3

Position	Name/Visa	Date
Test engineer	A.POTHIER	2023-02-27

### Precautions of use :

For bias control and modulation signal, please refer to the Application Note "**LiNbO3 Intensity Modulators Bias Control and Modulation Driving**". This application note aims to give intensity modulators users the basics to select and apply the proper RF and bias voltages to their device and can be downloaded from our company website [www.photonics.ixblue.com](http://www.photonics.ixblue.com)

In order to avoid any damage to the modulator and to keep its performance at maximum, please pay a special attention to the following :

- When handling the modulator, do not apply any excessive tensile strength neither bend on the fiber pigtails.
- Always keep the optical connectors end face protected and clean the optical connector end face with appropriate tissue before
- Clean RF connector with dry air before mating and use a torque wrench for tightening.
- Respect maximum ratings mentioned in accordance with specifications ([www.photonics.ixblue.com](http://www.photonics.ixblue.com))
- At the maximum optical power, fusion splices are expressly recommended to avoid permanent damage on optical connectors.
- In the case of optical instabilities, when operating at high optical power or shorter wavelength, it might be necessary to heat up the modulator (max 50°C)

The logo for EXAIL, featuring the word "exail" in a bold, lowercase sans-serif font. The letter 'x' is a light teal color, while the other letters are black.

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