

exail

Acceptance test report

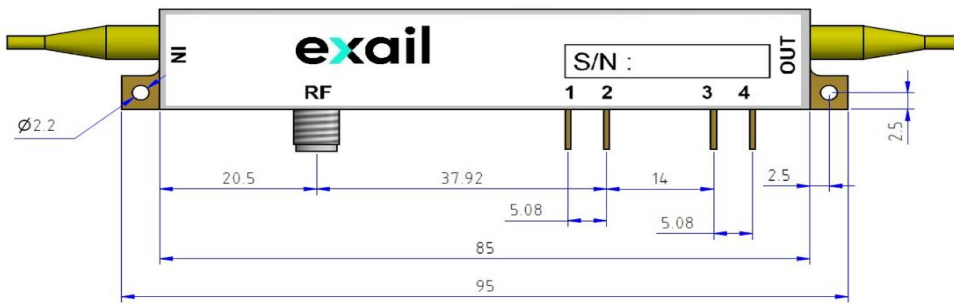
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| | |
|---------------|-------------------------------------|
| Component | MXER-LN-20-PD-P-P-00-00-35dB |
| Serial number | 15192-27 |

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

| Packaging-interfaces | |
|----------------------|--------------------------------------|
| Input fiber | Polarization maintaining, Panda type |
| Output fiber | Polarization maintaining, Panda type |
| Jacket type | 900µm outside diameter |
| Input fiber length | 1.5 meter |
| Output fiber length | 1.5 meter |
| Input RF port | 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 | | dB | 3,9 ≤5 |
| DC extinction ratio | | dB | >35 >35 |
| Internal photodiode responsivity | Reference : input power | A/W | 0,016 |
| Vp RF Port | @50kHz | V | 5,6 ≤6.5 |
| Vp DC Port | @100Hz | V | 5,9 ≤7 |
| Electrical return loss S11 | between 0 – 20GHz | dB | -11,3 ≤-10 |
| Electro-optic bandwidth S21 | @ -3dB, from 2GHz | GHz | >18 >18 |

| Position | Name/Visa | Date |
|---------------|-----------|------------|
| Test engineer | A.BAUD | 2024-02-12 |

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

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.exail.com/event_category/photonics.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)



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