

MXPE-LN

The MXPE-LN series are a family of high performance intensity modulators that exhibit superior extinction ratio. Their specific design relies on Photline Proton Exchange, a diffusion process that creates polarizing waveguides in the lithium niobate substrate and leads to **Extinction Ratio higher than 40 dB**.

The MXPE-LN series intensity modulators are key devices in a variety of applications:

pulse shaping prior optical amplification, pulse generation, lidar based sensing systems and Brillouin scattering based fiber sensors are a few examples.

	EO Bandwidth	Max Input Optical	Extinction Power Ratio	V_{π} RF @50 kHz	IL
MXPE-LN-10	> 10 GHz	500 mW	30 – 50 dB	6 V	4** dB
MXPE-LN-20	> 20 GHz	500 mW	30 – 50 dB	6 V	4** dB

* Standard 36 dB, High ER 40 dB, Very High ER > 50 dB

** Very low insertion Loss < 3.6 dB on request.

Features:

- 1300nm, 1550nm
- DC up to 20 GHz

Applications:

- Sensing and Metrology
- Pulse generation
- Analogue transmission
- Characterization

NIR-MX-LN

The NIR-LN family of intensity and phase modulators family for 800nm, 1064 nm and the near infrared region offers modulation solutions to deal with new and emerging applications. These modulators offer performance and operating bandwidth greater than 10 GHz, comparable to their counterparts used in telecommunications. NIR-LN modulators' waveguides are manufactured using proton exchange, the sole technology at that wavelength that allows for the transmission of sufficient optical power while minimizing optical damage and generation of non-linear effects.

	Wavelength	EO Bandwidth	Extinction Ratio	V_{π} RF @50 kHz	IL
NIR-MX800_LN	780-850nm	5, 10 GHz	20 dB	3.5 V	< 5** dB
NIR-MX-LN-10	980-1150nm	> 10 GHz	30 – 40 dB	4 V	< 5** dB

* Standard 30 dB, High ER 36 dB, Very High ER > 40 dB

** Very low insertion Loss on request.

Features:

- 800 nm, 1060 nm
- Up to 20 GHz

Applications:

- Pulse generation
- Optic Quantic

