



Phase Modulators

MPX-LN, MPZ-LN and NIR-MPX-LN

series make up the most comprehensive range of electro-optic phase modulators available on the market from 800 nm up to 1600 nm. From low frequencies up to 10 GHz, MPX-LN series offers the unparalleled stability of x-cut devices as well as a low control voltage. For higher bandwidth applications, the z-cut MPZ-LN series allows to operate at frequencies up to 30 GHz. Designed using state-of-the-art with proven lithium niobate and Proton Exchange technologies, MPX-LN / MPZ-LN and NIR-MPX phase modulators are easy to operate and to integrate. They offer excellent performance for a wide choice of applications including interferometric sensing equipments, spectrum broadening, frequency shifting, quantum key distribution and high data rate optical telecommunications

	Wavelength	EO Bandwidth	IL
NIR-MPX800-LN	780-850 nm	150 MHz, 5, 10 GHz	< 2.5* dB
NIR-MPX-	980-1150 nm	150 MHz, 5, 10 GHz	< 2.5* dB
MPX-LN	1520-1620 nm	150 MHz, 5, 10 GHz	< 2.5* dB
MPZ-LN	1520-1620 nm	10, 20, > 30 GHz	< 2.5* dB

* Very low insertion Loss on request (< 2 dB)

Features:

- 800 nm, 1060 nm, 1300 nm, 1550 nm
- Bandwidth > 32 GHz

Applications:

- Telecommunication
- Sensing and Metrology
- Optic Quantic

QPSK Modulators

The QPSK-LN-20/40 is a modulator specially designed for QPSK 20 Gbps / 40 Gb/s optical transmission. It is based on a dual high bandwidth and low V Mach-Zehnder architecture, implemented on a proven and high stability x-cut substrate.

The low V and extended bandwidth of each single Mach-Zehnder stage allow for efficient 2 x 10 Gb/s and 2 x 20 Gb/s modulation with up to 2 x V peak-to-peak amplitude.

	Wavelength	EO Bandwidth	V _{πRF1} & RF ₂ @50 kHz / √π DC ₃	IL
QPSK-LN-20	1520-1620 nm	> 10 GHz	5.7 V / 17 V	< 6 dB
QPSK-LN-40	1520-1620 nm	> 18 GHz	5.7 V / 17 V	< 6 dB

Features:

- 1550 nm, 20 Gbps and 40 Gbps
- x-cut for high stability and low chirp
- Low insertion loss

Applications:

- Telecommunication