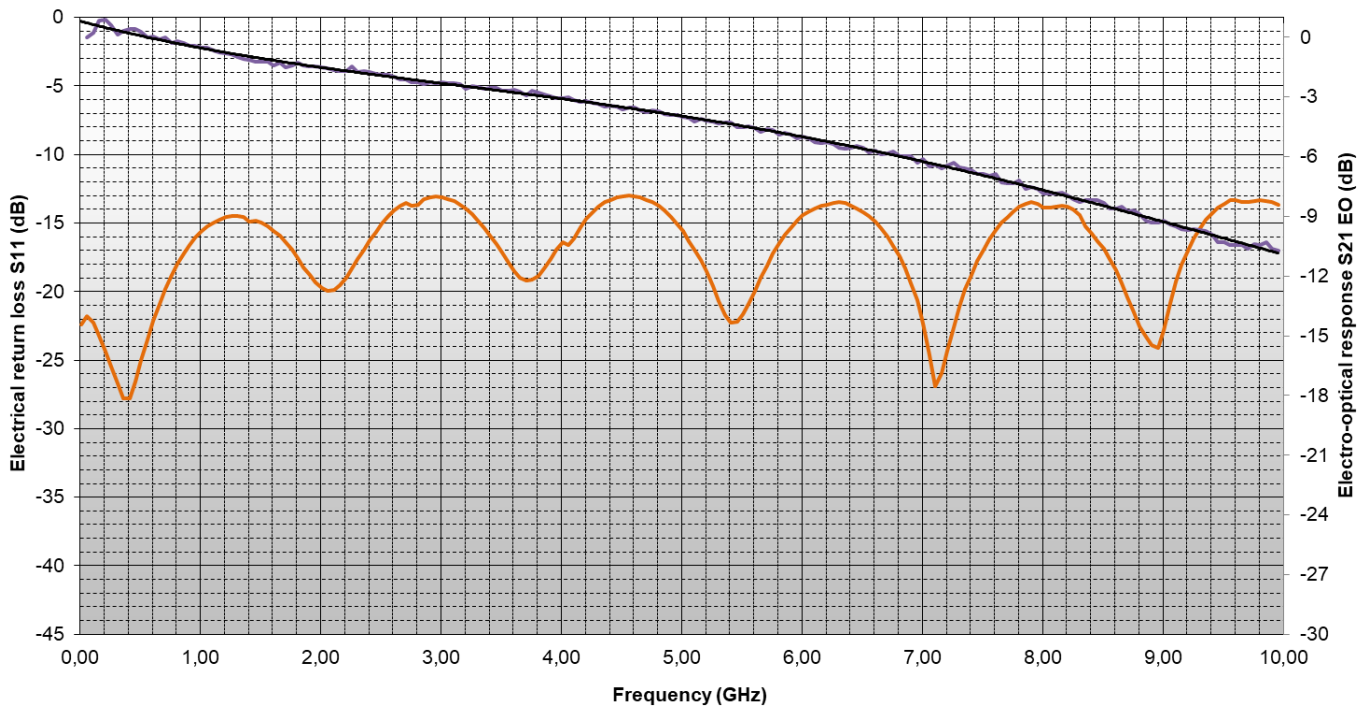


## MX-LN-05-PD-P-P-FA-FA

All specifications given at 25°C, 1550 nm, unless differently specified. From SP-0217-PR-01.

| ELECTRICAL  |   |      |      |      |
|---|---|------|------|------|
|   |   | Min  | Typ  | Max  |
| Modulation bandwidth  | GHz   | 3    | 4    | -    |
| Electrical return loss $S_{11}$ 0 – 5 GHz                                   | dB  | -    | -13  | -10  |
| $V_{\pi}$ RF electrodes @ 50kHz   | V   | -    | 3.5  | 4    |
| $V_{\pi}$ DC electrodes   | V   | -    | 6.5  | 7    |
| Ripple $S_{21}$   | dB  | -    | 0.5  | 1    |
| RF port impedance matching  | $\Omega$  | -    | 50   |      |
| DC port impedance matching  | M $\Omega$  | 1    | -    | -    |
| OPTICAL   |   |      |      |      |
| Crystal   | Lithium Niobate X-Cut Y-Prop  |      |      |      |
| Waveguide process   | Titanium in-diffusion   |      |      |      |
| Operating wavelength  | nm  | 1530 | 1550 | 1580 |
| Insertion loss (without connector)  | dB  | -    | 3.5  | 4.5  |
| DC Extinction ratio (measured with narrow source, linewidth $\leq$ 200 MHz) | dB  | 20   | 25   | -    |
| Optical return loss   | dB  | -40  | -45  | -    |
| Chirp   | -   | -0.1 | -    | +0.1 |
| INTERFACES  |   |      |      |      |
| Input fiber   | Polarization maintaining 1550 nm<br>Corning PM 15-U25D length: 1.5 meter,<br>buffer diameter: 900 $\mu$ m |      |      |      |
| Output fiber  | Polarization maintaining 1550 nm<br>Corning PM 15-U25D length: 1.5 meter,<br>buffer diameter: 900 $\mu$ m |      |      |      |
| Package size  | 85 x 15 x 9.65 mm <sup>3</sup>  |      |      |      |
| Input RF connector  | Female K  |      |      |      |
| DC electrodes and PD* connectors  | Pins  |      |      |      |
| Input optical connector   | FC/APC  |      |      |      |
| Input optical connector orientation   | Slow axis parallel to connector key   |      |      |      |
| ENVIRONMENTAL   |   |      |      |      |
| Operating temperature   | 0°C to +70°C  |      |      |      |
| Storage temperature   | -40°C to +85°C  |      |      |      |
| MAXIMUM RATINGS   |   |      |      |      |
| Maximum RF input power (CW mode)  | 28dBm   |      |      |      |
| Bias voltage range  | V   | -20  | -    | 20   |
| Maximum optical input power (CW mode)                                       | +20 dBm   |      |      |      |





MX-LN-05 [S] parameters

