PM40

40G PM-QPSK

Description

The PM40 modulator supports the generally accepted Dual Polarization-QPSK modulation scheme; each of four parallel MZI's running at speeds of 10 Gbaud (plus FEC). The driver electronics for each MZI is “simply” 10G, giving a cost advantage over other 40G formats.

The very advanced, spectrally highly efficient QPSK modulation format, combined with the polarization multiplexing scheme, guarantees compatibility with 50GHz optical channel spacing, thus allowing 40G transmission over existing 10G network infrastructure – without specific modifications. Like the PM100, the PM40 uses very advanced chip and packaging technologies that have evolved from Oclaro's extremely reliable and high-performing standard MZI modulators. A meticulous chip design features low insertion loss (with very small polarization dependent loss) as well as an extended bandwidth and a quasi-linear electro-optic roll-off. In addition, the PM40 form factor is designed according to the widely accepted OIF 100G Tx Implementation Agreement.

Applications

- Low cost 40G transmission (using 10G electronics)
- Metro to ULH transmission
- DWDM over existing 10G Networks

- 40G Transponders and Linecards

Features

- 40 Gb/s generated from four 10 Gbaud signals (polarization multiplexed 2*20G QPSK, plus FEC)
- Single ended
- Low insertion loss
- Fully integrated with polarization combiner
- Low PDL
- Same Footprint as 100G (OIF compatible)
- Excellent transmission performance
- Low drive voltage
- Very low skew

Qualified to GR-468