

Small Form Factor 12.5+ Gb/s Modulators



A very low loss, extended bandwidth intensity modulator for OC-192 data rates and higher using Forward Error Correction (FEC) for high output power ultra-long-reach (80+ km) MSA transponder modules

Key Specifications (Preliminary)

Insertion Loss	< 3 dB
3 dB Bandwidth	>12.5 GHz
Modulation Port V _{pi} (@ 1 GHz)	< 5.0 volts
V _{pi} PRBS @ 12.55 Gb/s	~5.5 volts
DC Bias Port V _{pi}	< 10 volts
S ₁₁ (0.13 to 12.5 GHz)	< -10 dB
RF Extinction Ratio	> 12 dB
Optical Null Depth (@ DC)	> 20 dB
Optical Return Loss	> 45 dB
Alpha Chirp Factor	-0.7 ± 0.1 (z-cut)
Package Dimensions (w/GPO)	2.56" x 0.35" x 0.20" (65 x 8.9 x 5 mm ³)
RF Connector	GPO/SMP (K available)
Operating Wavelength	1.55 micron (C- and L-Band)
Input Fiber	PM
Output Fiber	SM or PM
Optical Connectors	FC/PC standard (FC/APC & others available)
Options	Ultra-low insertion loss Integrated monitor photodiode Integrated attenuator (VOA) Integrated phase modulator Dual complementary outputs Custom alpha chirp factors 1.06 & 1.3 micron operating wavelength