

PowerBit™ XS10-0

10 - 12.5 Gb/s Intensity Modulator for 3" MSA Transponders

Features:

- Ultra Small Form Factor for 3" MSA Transponders
- Zero Chirp
- Reliable X-cut LiNbO₃ with Titanium indiffused Waveguides
- C- and L-band Operation (single P/N)
- Integrated Polarizer
- Low Insertion Loss
- Mechanically and electrically fully compatible with chirped XS10-Z
- Integrated Photodiode for Bias- and Powermonitoring
- Suitable for Pluggable TRx Solutions
- Large Bandwidth allows for sFEC

Applications:

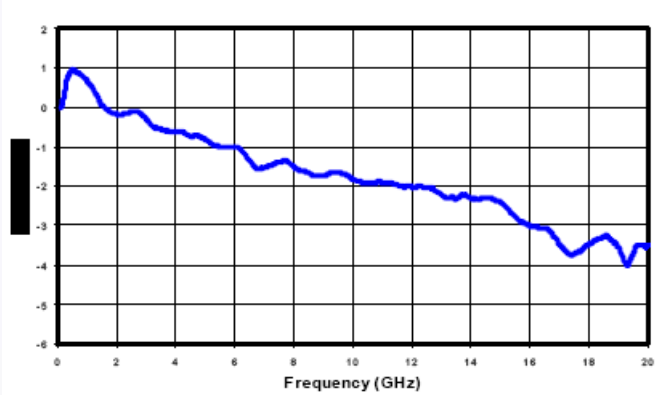
- 3"-MSA STM-64/OC-196 Transponder for Long and Ultra Long Haul Application
- DWDM
- Ideal with Tunable Lasers
- Pluggables



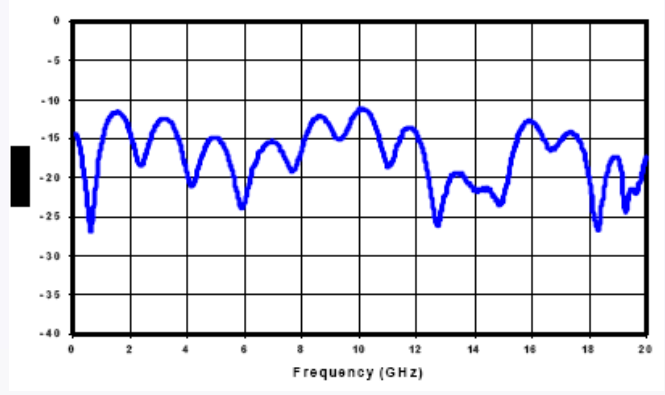
Oclaro has introduced this innovative modulator for 3"-MSA transponders. It combines the outstanding performance and reliability of the Oclaro "F10" standard Lithium Niobate 10 Gb/s modulators with an Ultra Small Form Factor, that is suitable also for pluggable solutions.

Performance Characteristics

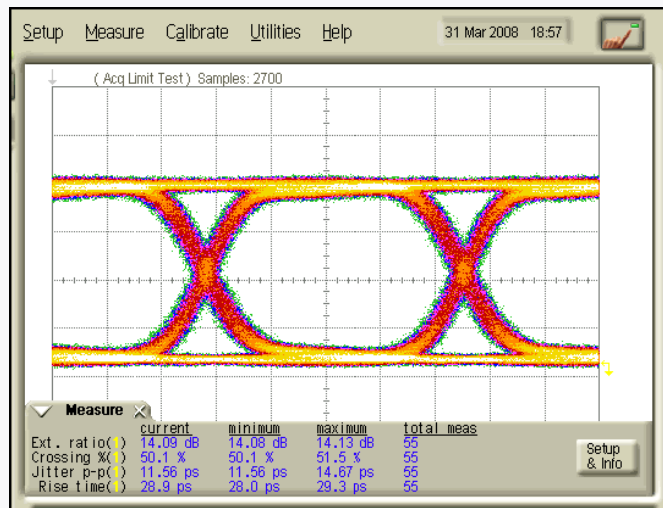
Electro Optical Response



Electrical Return Loss



Eye Pattern



Absolute Maximum Ratings

Parameter	Conditions	Min	Max	Unit
Maximum Input Power (Electrical)	RF Port		25	dBm
Maximum Input Power (Optical)			100	mW
Maximum Operating Temperature Variation Rate	CW		1	°C/min
Storage Temperature Range		-40	+85	°C
Operating Temperature Range		0	+70	°C

Specifications

Parameters		Units
Optical		
Operating Wavelengths Range	C- and L-Band	
Insertion Loss	4	dB
Extinction Ratio (DC), 0-chirp version	≥ 20	dB
Optical Return Loss (without connectors)	≥ 45	dB
Electrical		
S ₂₁ Electro Optic Bandwidth (-3 dBe)	12.5	GHz
S ₁₁ Electrical Return Loss	≤ -10	dB
Bias V _π Voltage (@1 kHz)	2.0	V
Dynamic Extinction Ratio (0-chirp version)	13	dB
10.7 Gb/s PRBS Electrical Drive Voltage (V _{amp})	5.0	V

Note 1: Where not specified, parameters are measured at 25°C.

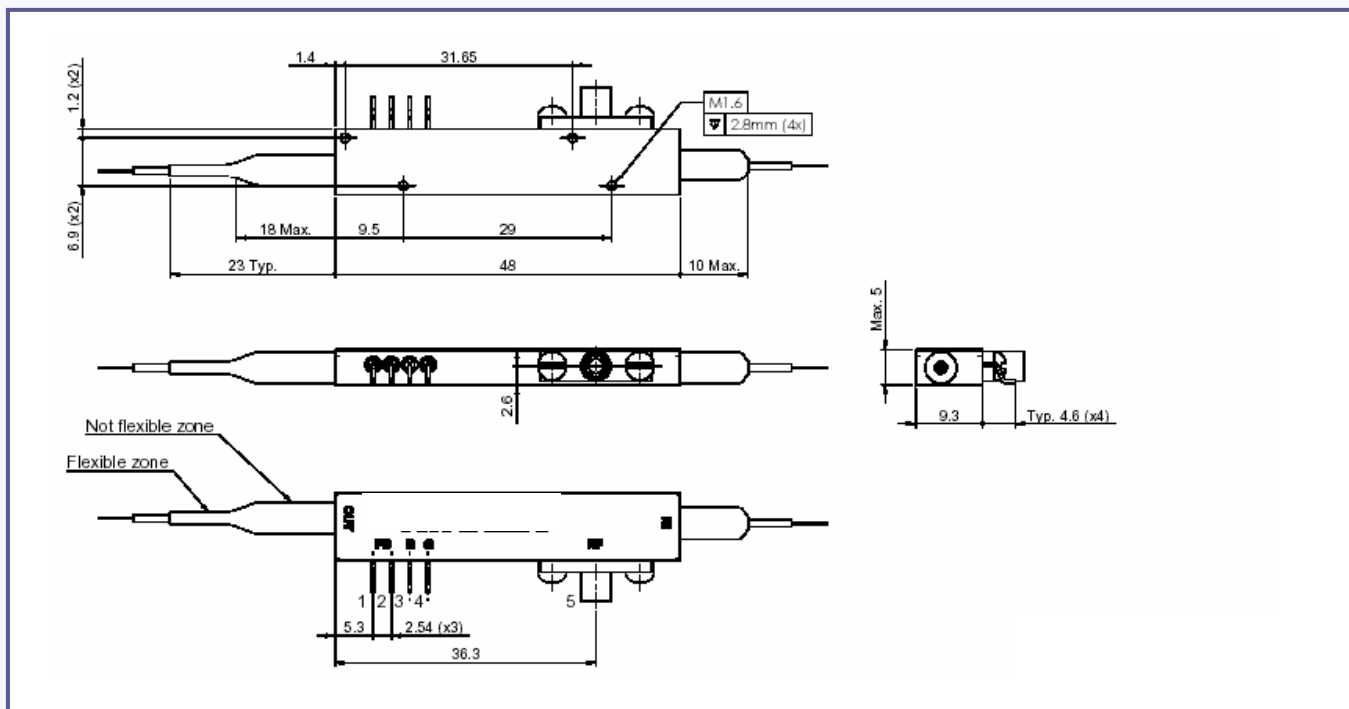
Note 2: Values presented are typical unless otherwise indicated.

Connector and Fiber Specifications

RF Input Port	GPO
Bias Connector	Solder pins
Input Fiber	Corning/Fujikura SM15P UV/UV400
Output Fiber	Corning SMF-28 [™] or single mode ITU-TG.652 ¹

Other output fibers available on request.

Package Footprint (standard "F"-type)



Pin-Out

Pin #	Sym	Description
1	PD	Photodiode Cathode
2	PD	Photodiode Anode
3	B	Bias
4	G	Ground
5	RF	RF Input (GPO Male)



Ordering Information

Part Number	
0-chirp	XS10-0-13P-PS-yyzz-01

yy; zz	Input; Output Connectors		Ask for available Connector Ttypes
--------	--------------------------	--	------------------------------------

Contact Information

Worldwide Headquarters

2584 Junction Avenue
 San Jose
 CA 95134
 USA

Tel: +1 408 919 1500
 Fax: +1 408 919 1501

www.oclaro.com
sales@oclaro.com

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Oclaro before they become applicable to any particular order or contract. In accordance with the Oclaro policy of continuous improvement specifications may change without notice. The publication of information in this data sheet does not imply freedom from patent or other protective rights of Oclaro or others. Further details are available from any Oclaro sales representative.

D2801 PowerBit XS10-0 Version 1.1 September 2009

©Oclaro 2009. Oclaro the Oclaro, Inc. logo, and all other Oclaro, Inc product names and slogans are trademarks or registered trademarks of Oclaro, Inc. in the U.S.A. or other countries. Products described in this datasheet may be covered by one or more patents in the U.S.A. and abroad. Information in this datasheet is subject to change without notice.