

Applications

- SONET/SDH Systems
- CATV and 10G-Ethernet
- Transmitter / Receiver components Testing
- Optical Network System Bit Error

Key Features

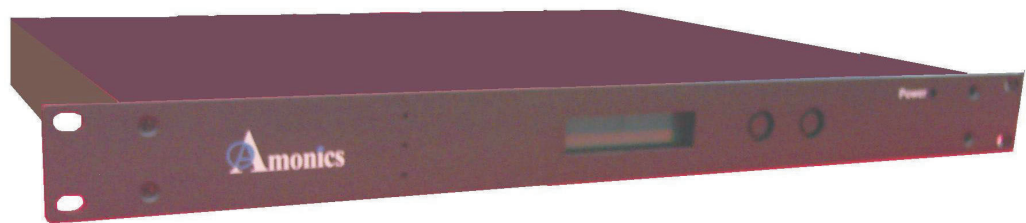
- Variable Driver Gain Control
- Automatic and Manual Bias Control
- Built in Tunable Laser
- Good performance cost ratio

Description

The Tunable Lightwave Transmitter is a high performance digital lightwave transmitter designed for optical communications up to 12.5 Gb/s. It integrates a tunable C-band 20mW DFB laser, a 15GHz Lithium Niobate (LN) external modulator, and an ultra-broadband RF driver.

It is compliant with standards such as OC-192, STM-64, and 10G Ethernet. Optical links can be established quickly with this product.

Options include an automatic bias control board, a booster EDFA, and a variable optical attenuator (VOA).



Technical Specification

General Specifications

Data Rate	50kb/s to 12.5Gb/s
Operating wavelength Range	C-Band
Transmitter Output Power	6.0 mW typical

Electro-Optic Specifications

Modulator Type	Lithium Niobate ((LiNbO ₃), X-cut, Y-propagation
Chirp Value	0.0 +/- 0.2
Extinction Ratio	>13dB @10Gb/s >23dB @500Mb/s
Modulator Bandwidth	15 GHz typical
RF Impedance	50 ohm
RF Drive Voltage Control	2.0 ! 7.5 Vp-p
Input RF voltage	0.5 ! 1.5 Vp-p
Modulator Voltage Vpi	7.0 Vp-p @ 12.5 Gb/s
Extinction Ratio	>20dB, 50Mhz or under >13dB at 10GHz
Optical Input Power Handling	< 500mW
Fall/Rise Time	40 ps
Modulator Bias Adjustment	+/- 15 V DC

General Enviromantal Parameters

Parameter	Unit	Rackmount	Benchtop
Operation Temperature Range	°C	0 to 40	0 to +60
Storage Temperature Range	°C	-10 to 70	-10 to +70
Power Supply	V	80 ! 240 VAC, 43-63Hz	80 ! 240 VAC, 43-63Hz
Dimensions	mm	423.5 (L) x 350 (W) x 88 (H) mm	350(W) x 300(L) x 100(H) mm
Electrical Connector	-	SMA	SMA
Control	-	Rocker Switch, Laser Wavelength, Laser Output Power, Drive Voltage, Automatic Bias Control DFB laser output power, variable gain, DC bias	
Computer Interface	-	RS232	RS232
Optical Connector	-	FC/APC, FC/UPC, SC/APC, SC/UPC	
Optical Fiber	-	Single mode fiber	

Option:

Automatic bias control board
 Booster EDFA
 Variable optical attenuator (VOA)



Ordering Information

Product Code	LR-12.5G-a-bb	a: R for Rackmount, B for Benchtop bb: FA for FC/APC, FC for FC/UPC SA for SC/APC, SC for SC/UPC
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