

GT10 - TX

The GT10-TX convenient features and compact size make it simple to design into cutting edge optical networks, resulting in time and cost savings for the user.

Key Features

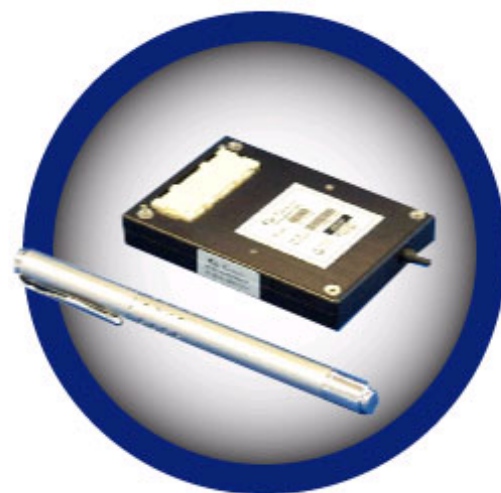
- Small form factor
- Fully compliant with GR-253-CORE SR-1/IR-1
- IEEE 802.3ae 10Gb Ethernet ready
- OIF99.102.8 compliant SERDES timing
- 622 Mbit/s, LVDS electrical interface
- On-board 16:1 data muxing
- Laser output power clamping capability
- Phase nulling for system (transmit data) clock
- Forward and counter clocking schemes available
- MSA compatible
- 1310nm, 1550nm single frequency and DWDM versions available

Applications

Designed for very short reach (VSR) to intermediate reach (IR) deployments including

- Point-to-point high speed optical data communication
- Metro and access optical network equipment

**For more information, call
1-805-499-2033 x207**



The GT10-TX is an integrated high speed data transmitter module optimized for OC-192/STM-64 applications.

The GT10-X is manufactured in a compact 2.5"x 3.5"x 0.53" assembly with an integrated heatsink. All sensitive active components are hermetically sealed.

Feature Options

Option	Description	Standard Configuration
100,1,2,3	FC/PC,SPC,UPC,APC optical connector	SC/PC optical connector
105	SC/APC optical connector	
106	LC optical connector	
402/403	SONET IR-2 (-1 to +2dBm P _o) /SONET LR-2a/c (-2 to +2dBm P _o)	SONET short reach (-5dBm to -1dBm output power)
506	Forward clocking (with transmit data clock phase nulling)	Counter clocking (no phase nulling)
001,002	SERDES option A, B	Not specific

Specifications - GT10-TX

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Operating Temperature (case)	T_c	0	+65	C
Storage Temperature	T_{stg}	-40	+85	C
Electrical Input Voltage	V_{in}	0	+3	V
Supply Voltages	V_{cc} V_{dd} V_{ee}	0 -0.5 0.5	6 3.6 -7	V V V

Transmitter

Parameter	Symbol	Min	Typ	Max	Unit
Electrical					
Diff. Data Input Amplitude (622 Mb/s) ¹	D_{IN}	200		2600	mV _{p-p}
Diff. Clock Input Amplitude (622 MHz) ¹	MUXICLKD	200		2600	mV _{p-p}
Diff. Clock Output Amplitude (622 MHz)	MUXOCLK	500	740	1100	mV _{p-p}
Optical					
Center Wavelength	λ	1530		1565	nm
Average Power Output	P_o	-4		0	dBm
Extinction Ratio	r_e	8.2			dB
Jitter Generation Peak-to-Peak RMS	t_{p-p} t_{RMS}		Per SONET GR-253		UI UI

Alarm Signals

- ❖ Laser optical alarm
- ❖ Laser temperature alarm

Status & Monitoring Signals

- ❖ MUX PLL Lock detect
- ❖ Transmit optical power
- ❖ Laser DC bias monitor
- ❖ Laser temperature monitor

General

Parameter	Symbol	Min	Typ ²	Max ²	Typ ³	Max ³	Unit
Supply Voltage	V_{cc} V_{dd} V_{ee}	+4.5 +3.1 -4.7	+5.0 +3.3 -5.2	+5.25 +3.5 -5.5	+5.0 +3.3 -5.2	+5.25 +3.5 -5.5	V
Supply Current	I_{cc} , +5V I_{dd} , +3.3 I_{ee} , -5.2		580 750 ⁴ 520	620 1600 550			mA
Electrical Connector	300 pos. MegArray						
Optical Connector	FC, SC, LC						

1. LVDS compatible
2. SERDES option A
3. SERDES option B

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