

FEATURES

- SC/FC/ST TX Transceiver
- Industry Standard 1x9 Footprint
- Laser wavelength 1550DFB
- Single 3.3/5V Power Supply
- PECL Signal Output
- Wave Solderable and Aqueous Washable
- Uncooled Laser Diode with MQW structure
- Complies with Telcordia(Bellcore) GR-468-CORE
- ROHS Compliant



APPLICATIONS

- WDM 155M Links
- SONET/SDH Equipment Interconnect

Absolute Maximum Ratings					
Parameter	Symbol	Min.	Max.	Units	Note
Storage Temperature	Ts	-40	85	°C	
Power Supply Voltage	Vcc	0	4.5	V	F1x-10xC0-3xP
		0	6	V	F1x-10xC0-5xP
Soldering Temperature			260	°C	10 seconds on leads only
Input Voltage	Vin	GND	Vcc	V	
Output Current	Iout	0	30	mA	

Recommended Operating Conditions						
Parameter	Symbol	Min.	Typ.	Max.	Units	Note
Power Supply Voltage	Vcc	3.15	3.3	3.45	V	F1x-10xC0-3xP
		4.75	5	5.25	V	F1x-10xC0-5xP
Operating Temperature	Top	0		70	°C	F1x-10xC0-xCP
		-40		85	°C	F1x-10xC0-xTP
Data Rate			155		Mbps	

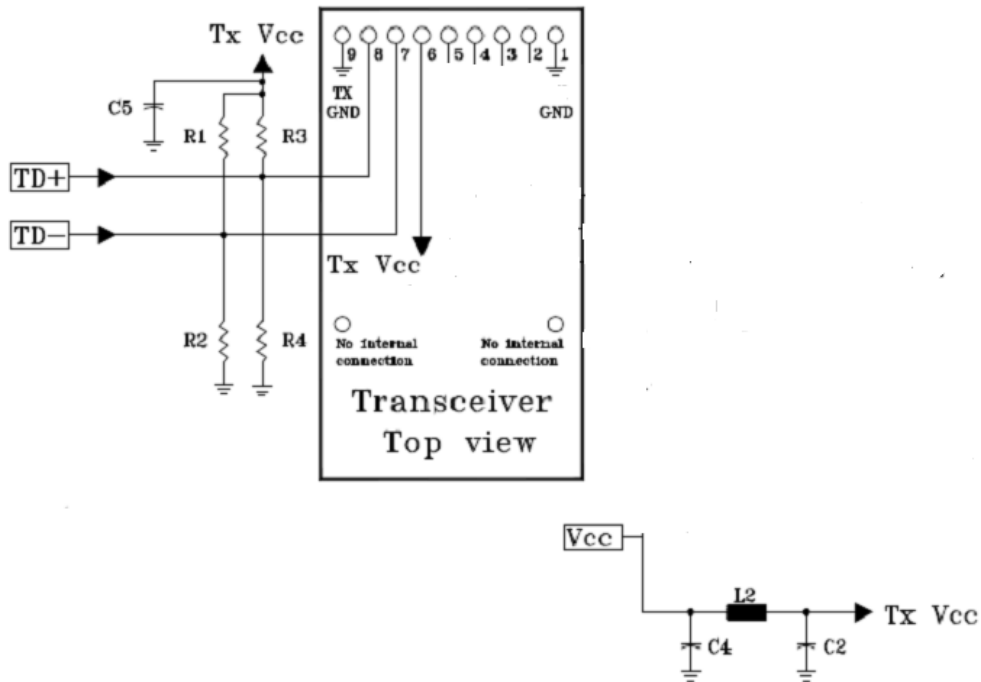
Power Supply Current	I _{cc}		150	250	mA	
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Transmitter Specifications						
Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Optical						
Optical Transmit Power(100Km)	P _o	-3		+2	dBm	F1x-10AC0-xxP
Optical Transmit Power(120Km)		0		+5		F1x-10CC0-xxP
Optical Center Wavelength	λ _C	1500	1550	1600	nm	
Output Spectrum Width	Δλ			1	nm	
Extinction Ratio	ER	10	-	-	dB	
Output Eye	Compliance with ITU-T G.957					
Optical Rise Time	t _r		1	2	ns	
Optical Fall Time	t _f		1	2	ns	
Relative Intensity Noise	RIN			-116	dB/Hz	
Electrical						
Data Input Current – Low		-350			uA	
Data Input Current – High				350	uA	
Differential Input Voltage	V _{IH} - V _{IL}	300		2400	mV	

PIN ASSIGNMENT

1 Receiver Signal Ground	
2 Receiver Data Out	O N.C.
3 Receiver Data Out Bar	
4 Signal Detect	
5 Receiver Power Supply	Top View
6 Transmitter Power Supply	
7 Transmitter Data In Bar	
8 Transmitter Data In	O N.C.
9 Transmitter Signal Ground	

RECOMMENDED CIRCUIT



Notes(3.3V)

R1=R3=130 Ω
R2=R4=82 Ω
C2=C5=0.1uF
C4=10uF L2=1uH

Notes(5V)

R1=R3=82 Ω
R2=R4=130 Ω
C2=C5=0.1uF
C4=10uF L2=1uH

Botone Optocom Co., Ltd.

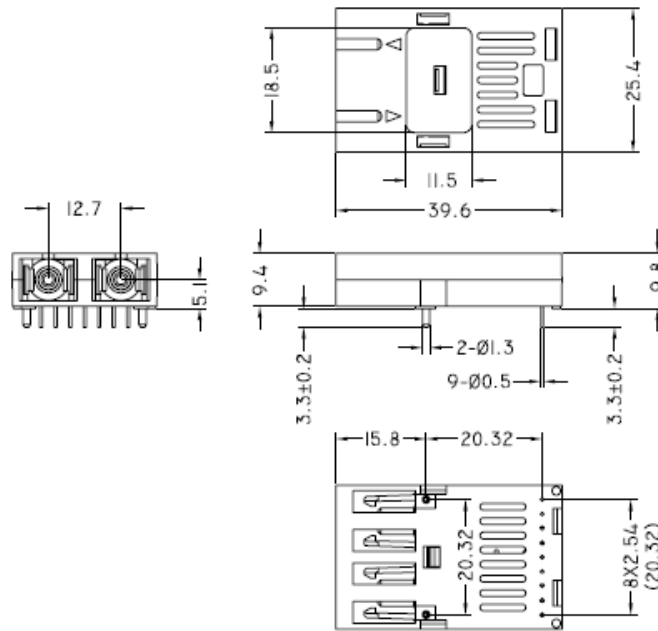
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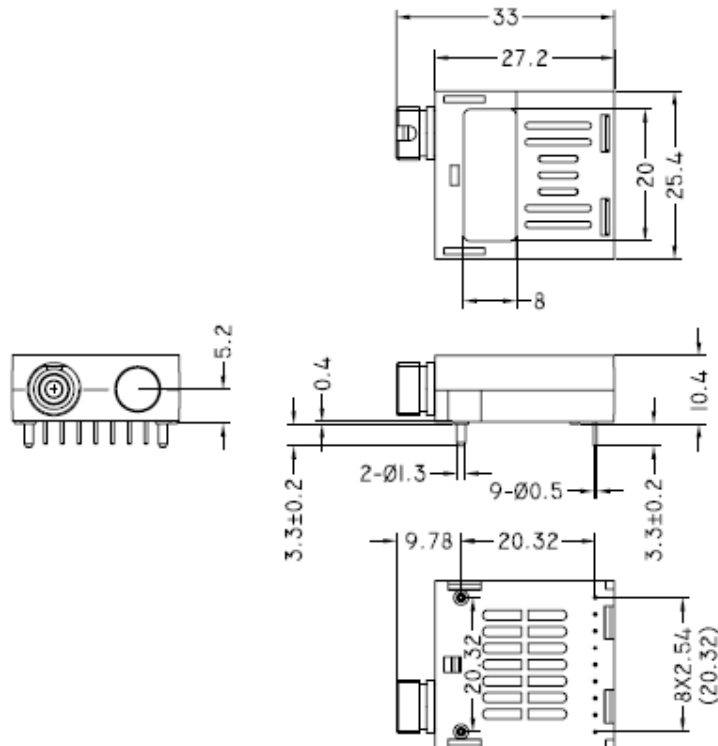
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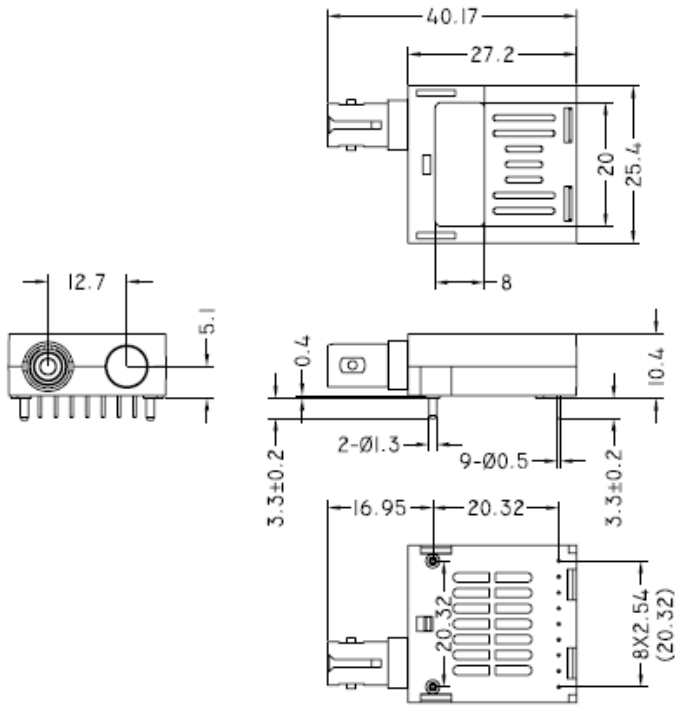
PACKAGE DIAGRAM (Units in mm)

1) SC Type (F1S-xxxxx-xxx)



2) FC Type (F1F-xxxxx-xxx)





ORDER INFORMATION

F1x-10xC0-xxP

- Operating Temperature: C=0~70°C, T=-40~85°C
- Power Supply Voltage: 3=3.3V, 5=5V
- Distance: A=100Km, C=120Km,
- Connector: S=SC, F=FC, T=ST