Product Overview

Optical Transceiver for PDH

Features

- Duplex connector ,1×9 pin package and plastic package
- +5V/+3.3V Signal power supply, TTL interface logic level
- Operate data rates from 2Mb/s to 84 Mb/s (NRZ)
- Class I laser product compiles with IEC 60825-1
- Complies with Telcordia GR-468-CORE

Application

- PDH

Performance Specifications

Table1. Absolute Maximum Ratings

Parameter		Symbol	Min	Max	Unit
Storage Temperature		Tst	-40	+85	℃
Input Voltage		Vin	GND	Vcc	V
Power Supply Voltage	Vcc-Vee	SSTR3121-*5	0	+6	V
		SSTR3121-*3	0	+3.6	
Lead Soldering Temperature/Time		-	-	240/10	℃/S

Note: Stress in excess of maximum absolute ratings can cause permanent damage to the module

Tabel2. Operating Environment

Parameter		Symbol	Min	Max	Unit
Power Supply Voltage	Vcc	SSTR3121-*5	+4.75	+5.25	V
		SSTR3121-*3	+3.1	+3.5	V
Ambient Operating Temperature	Top	SSTR3121-**-1	0	+70	℃
		SSTR3121-**-2	-40	+85	℃

Tabel 3. Optical and Electrical Characteristics

(T=25℃，Vcc=+4.85~+5.25V，Input TTL single)

Parameter	Symbol		Min	Typ	Max	Unit	Note
Transmitter							
Center Wavelength	λ_p	SSTR3*21	1261	1310	1380	nm	
		SSTR5*21	1480	1550	1580		
Spectral Width	$\Delta\lambda$	SSTR*121	-	-	10	nm	
		SSTR*221	-	-	1		
Average Optical Output Power	Po	SSTR**21-1*	-15	-	-8	dBm	
		SSTR**21-2*	-5		0		
		SSTR**21-4*	0		5		
Extinction Ratio		Er	8.2	-	-	dB	
Optical Rise/Fall Time	Tr/Tf	SSTR*221	-	-	0.4	ns	
Power Supply Current		Icc	-	70	180	mA	1
Data InputS				TTL			
Receiver							
Parameter		Symbol	Min	Typ	Max	Unit	Note
Sensitivity		Pr	-	-41	-38	dBm	2
Maximum input power	Ps	SSTR**21-1*	-6	-	-	dBm	2
		SSTR**21-2*	-3	0	-		
		SSTR**21-4*	0	-	-		
Signal Detect Assert Level		Pa(SD L-H)	-50	-	-	dBm	Low-level: Alarm
Signal Detect Deassert Level		Pd(SD H-L)	-	-	-36	dBm	
Signal Detect Hysteresis		-	-	3	-	dB	
Operating Current	Icc	SSTR*121	-	80	100	mA	1
		SSTR*221			180		
Data Outputs				TTL			
Alarm Output				TTL			

TTL Input Pins SD, TD+ and TD-

Parameter	Symbol	Min	Typ	Max	Unit	Note
Input HIGH voltage	VIH	1200	-	VCC	mV	
Input LOW voltage	VIL	GND	-	800	mV	

TTL Output Pins SD, RD+ and RD-

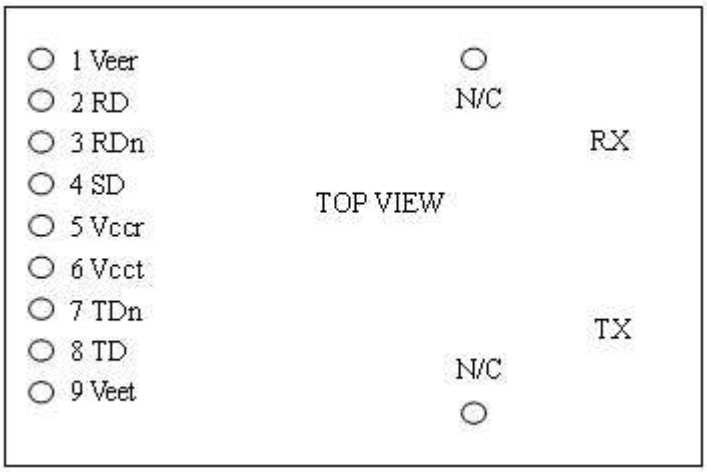
Parameter	Symbol	Min	Typ	Max	Unit	Note
LOW-level output voltage	VOL	GND	-	800	mV	
HIGH-level output voltage	VOH	1200	-	VCC	mV	

Note :

1. The current excludes the output load current.

2. Minimum Sensitivity and saturation levels for a $2^{n}-1$ PRBS with 72 ones and 72 zeros inserte

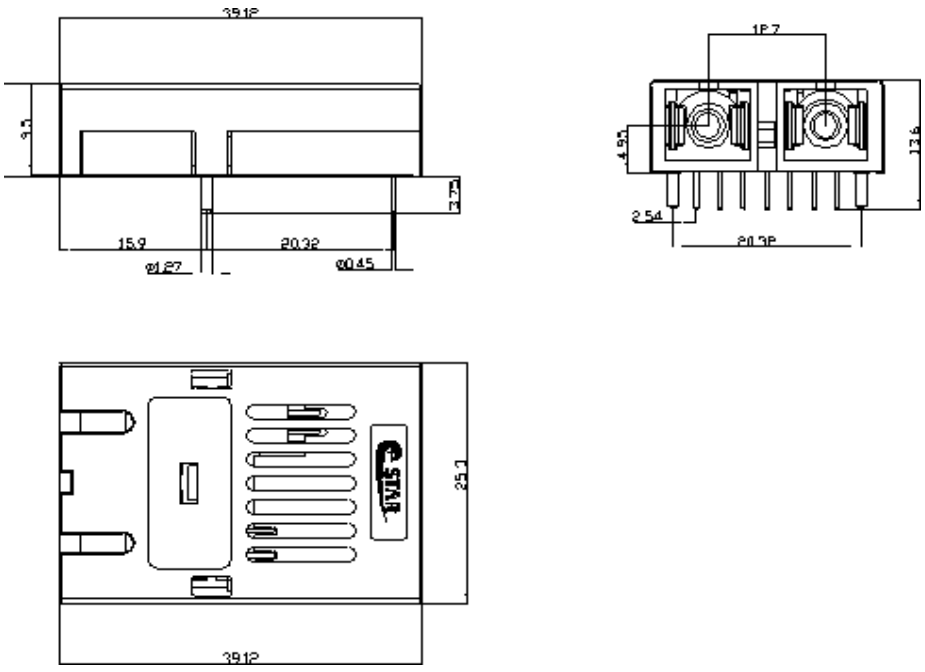
Pin Definitions
Pin Diagram



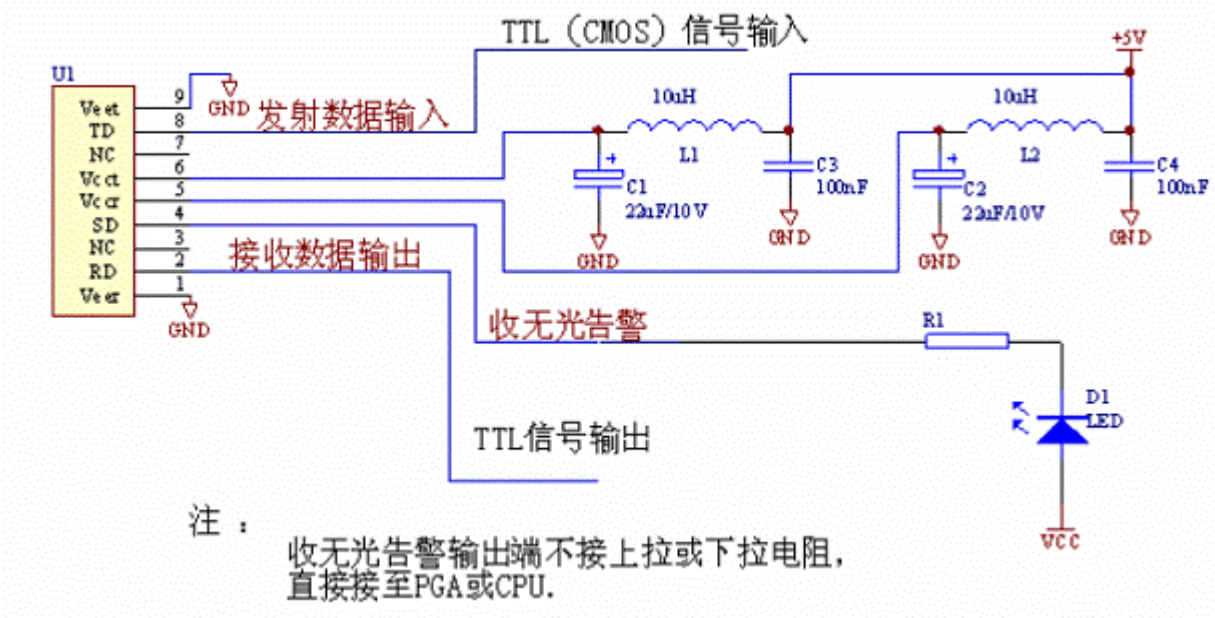
Pin Description

Pin#	Pin Name		Logic Level	Description
N/C	Mounting Studs		-	The two pins are not connected to the transceiver internal circuit.
1	VEER	RX Ground	N/C	Directly connect this pin to receiver signal ground plane.
2	RD	RX Output Data	TTL	
3	N/C			
4	SD	RX Signal Detect	TTL	Normal Operation: Logic "1" output, represents that optical is present at receiver input. Fault Condition: Logic "0" output
5	VCCR	RX Power Supply	N/C	Provide +5V/+3.3V DC through the recommended power supply filter circuit. Place the filter circuit as close as possible to the VCCR pin.
6	VCCT	TX Power Supply	N/C	Provide +5V/+3.3V DC through the recommended power supply filter circuit. Place the filter circuit as close as possible to the VCCT pin
7	N/C			-
8	TD	TX Data Input	TTL	-
9	VEET	TX Ground	N/C	Directly connect this pin to transmitter signal ground plane.

Package Information



Recommended Circuit



Ordering Information

SSTR□ □ 2 1 -□ □ - □ 3 □ P

Wavelength (nm)	LD Type	Data Rate (Mb/s)	Package Type	Output power	Operation Voltage	Operation Temperature	Data/ Alarm Interface	Connector	Pigtail
3:	1:	2:	1:	See figure3	3:	1:	3:	1:	P:
1310	FP	52M	1*9		3.3V	0~70℃	Data/TTL Alarm /TTL	FC/PC	pigtail
4:	2:				5:	2:		2:	

1490	DFB	5V	-45~+85℃	FC/APC
5:				3：
1550				SC/PC
				4：
				SC/APC
				6：
				ST

Figure 3

Code / Power range / Specification	1	2	3	4	Unit
SSTR**2*	-15~-8	-5~0	-	0~+5	dBm

Products: Go

TOP

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