



E131(55)03-3(5)SCxx

155Mb/s DUPLEX SINGLE MODE PECL TRANSCEIVER

Features

- SC/FC receptacle or FC pigtailed single mode optical interface
- single +3.3V /+5V Power Supply
- Standard PECL data output with signal detect indication
- Standard 1 × 9-pin package, pin configuration compatible with Multisource protocol
- The transmitter can choose FP laser with 1310nm or DFB laser with 1550nm working wavelength
- Receiver has a planner InGaAsP PIN

Parameter

Parameter	Condition	Min	Typ	Max
Wavelength (nm)	1310	1260	1310	1360
	1550	1520	1550	1570
Power Supply (V)	Vcc	3.135	3.3	3.465
		4.75	5	5.25
Signal Level	PECL		3.2~4.0	
	LVPECL		1.5~2.3	
Output Spectral Width (nm)	FP-LD,RMS			4
	DFB-LD,-20 dB			1
Extinction Ratio (dB)	EX	10		
Overload (dBm)	BER= 1×10^{-10}	-3		
Current of transmitter section (mA)	Vcc=5V			100
	Vcc=3.3V			100
Current of receiver section (mA)	Vcc=5V			75
	Vcc=3.3V			70



Specifications

Rate, Power, Sensitivity and Transmission distance

Pin	LD	Wavelength (nm)	Average output optical power (dBm)	Sen (dBm)	Transmission distance (Km)
155Mb/s	FP	Single mode 1310	-13	≤-34	20km
155Mb/s	FP	Single mode 1310	-10	≤-35	40km
155M b/s	FP	Single mode 1310	-6	≤-36	60km
155M b/s	DFB	Single mode 1550	-3	≤-38	120km

Absolute Maximum Ratings

Operating temperature (°C)	-20 ~ 70	Leadsoldering temperature(°C)	<260
Storage temperature (°C)	-40 ~ 85	Soldering duration (Sec)	<10

Pin Connections

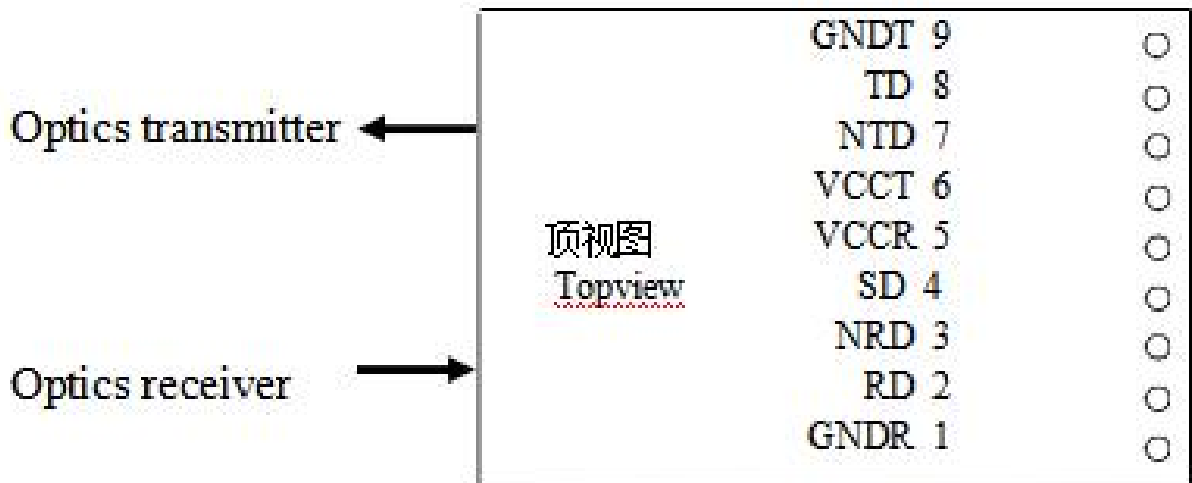
Pin	Name	Level	Descriptions
1	GNDR		Receiver section grounded
2	RD	PECL/LVPECL	Date output of receiver section
3	NRD	PECL/LVPECL	Reverse date output of receiver section
4	SD	PECL/LVPECL	Optical alarm of receiver section, low level when no light
5	Vcc		Positive power of receiver section, normally +5V or 3.3V
6	Vcc		Positive power of transmitter section, normally +5V or 3.3V
7	NTD	PECL/LVPECL	Reverse Date input of transmitter section
8	TD	PECL/LVPECL	Date input of transmitter section
9	GNDR		Transmitter section grounded



Order Information

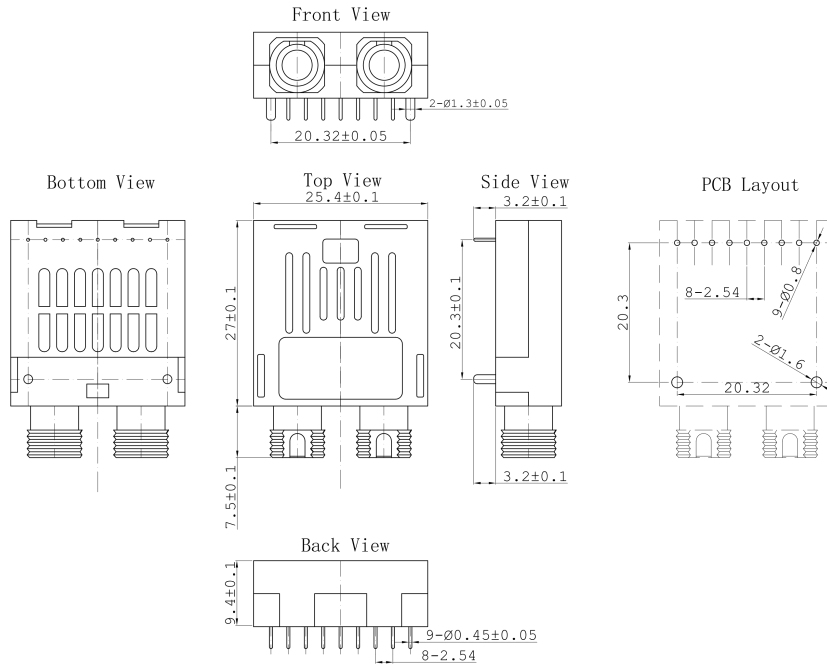
Model	Description
E13103-5SCxx	5V 155Mb/s PECL 1310nm SC/FC receptacle or FC pigtail single mode transceiver.
E13103-3SCxx	3.3V 155Mb/s LVPECL 1310nm SC/FC receptacle or FC pigtail single mode transceiver.
E15503-5SCxx	5V 155Mb/s PECL 1550nm SC/FC receptacle or FC pigtail single mode DFB transceiver.
E15503-3SCxx	3.3V 155Mb/s LVPECL 1550nm SC/FC receptacle or FC pigtail single mode DFB transceiver.

Topview

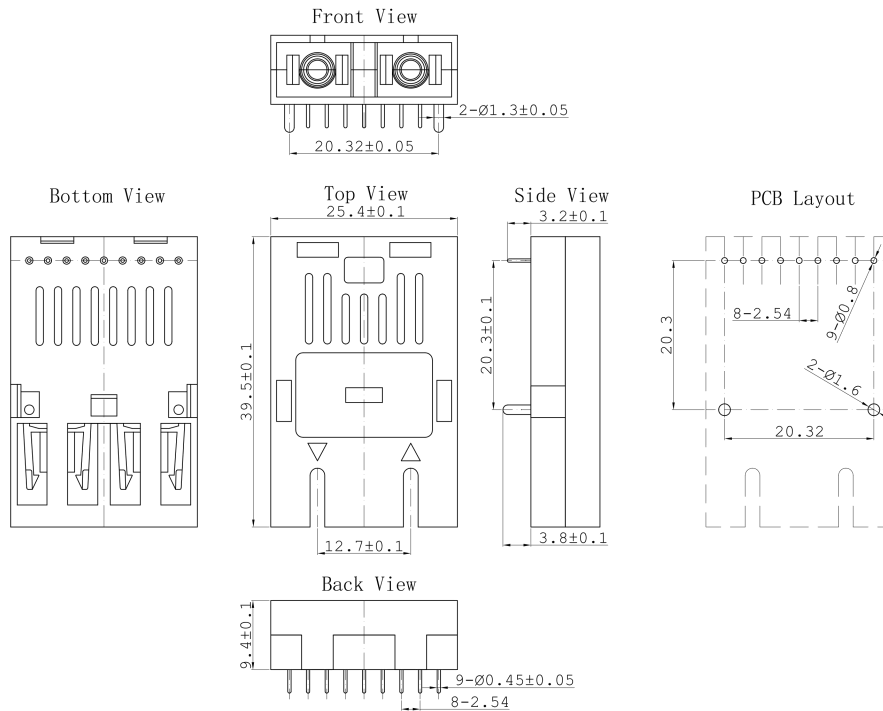


MECHANICAL DIMENSIONS

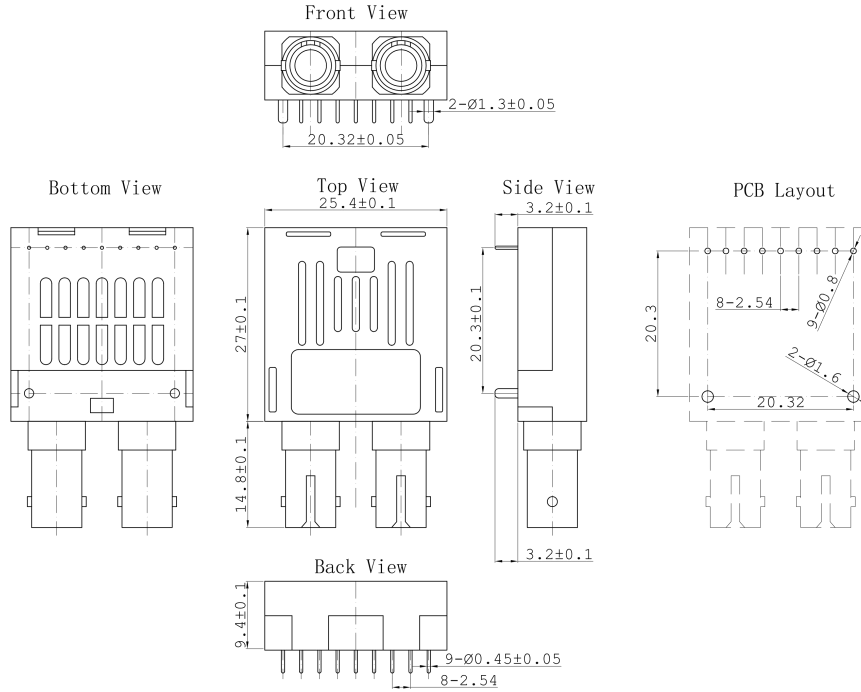
FC Type



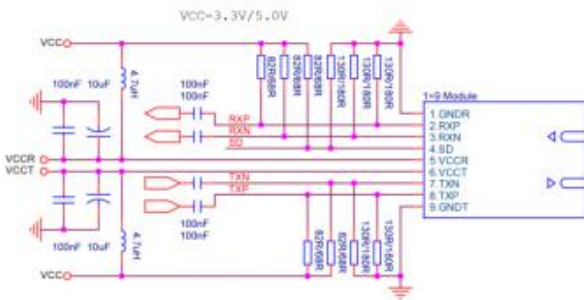
SC Type



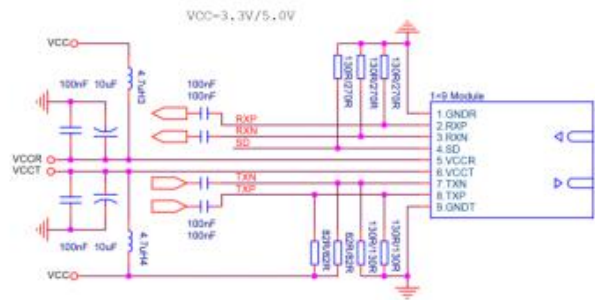
ST Type



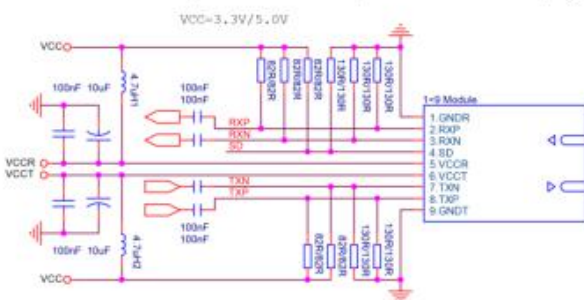
Standard interface parameters of 1x9 optical module in AC coupling



Simple interface parameters of 1x9 optical module in AC coupling



Non standard interface parameters of 1x9 optical module in AC coupling



Interface parameters of 1x9 optical module in AC coupling

