

E1B35(53)03-20D(I)

155Mb/s PECL SINGLE MODE BI-DIRECTIONAL SINGLE FIBERS OPTICAL TRANSCEIVER MODULE

PRODUCT FEATURES

- SC/FC/ST receptacle optical interface
- Standard 1×9 package , and the pin configuration is compatible with the Multisource Agreement
- +3.3V Power Supply
- Standard PECL data output with signal detect indication
- Transmitter section Selects 1310nm FP \1550nmFP LD

APPLICATIONS

- Applied to optical fiber transmission systems,such as SDH and digital video optical terminal devices with bit rate up to 155Mbps

Ordering Information

Part No.	Data Rate(optical)	Laser	Fiber Type	Distance	Temp
E1B3503-20D	155Mb/s	FP	SMF	20KM	0~70°C
E1B5303-20D	155Mb/s	FP	SMF	20KM	0~70°C
E1B3503-20DI	155Mb/s	FP	SMF	20KM	-40~85°C
E1B5303-20DI	155Mb/s	FP	SMF	20KM	-40~85°C

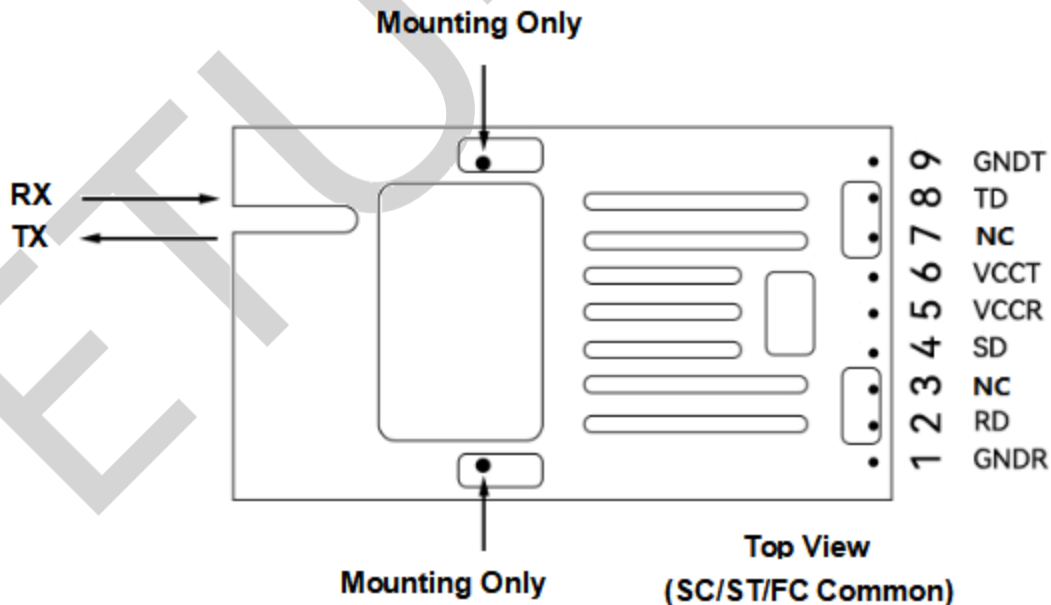
Specifications

Parameter	Condition	Min	Typical	Max	Unit
Wavelength	1310	1270	1310	1350	
	1550	1530	1550	1570	
Data Rate	A/B	-	155	-	Mb/s
Output Opt. Power		-7		-3	dBm

Signal Level	LVPECL	-	1.5~2.3	-	-
Rx Sensitivity				-34	dBm
Absolute Maximum Ratings :					
Storage Temperature	-	-40	-	+85	°C
Operating Temperature	Commercial	0	-	+70	°C
	Industrial	-40	-	+85	°C
Soldering Temperature	-	-	-	260	°C
Soldering Time	-	-	-	10	S

Parameter	Symbol	Min	Typical	Max	Unit
Power Supply	Vcc	3.135	3.3	3.465	V
Output Spectral Width	FP-LD,RMS	-	1.5~2.3	-	nm
	DFB-LD,-20dB	-	-	4	
Extinction Ratio	EX	-	-	1	dB
Current of transmitter section	Vcc=3.3V	-	-	150	mA
Current of receiver section	Vcc=3.3V	-	-	100	mA

Pin Diagram



Pin

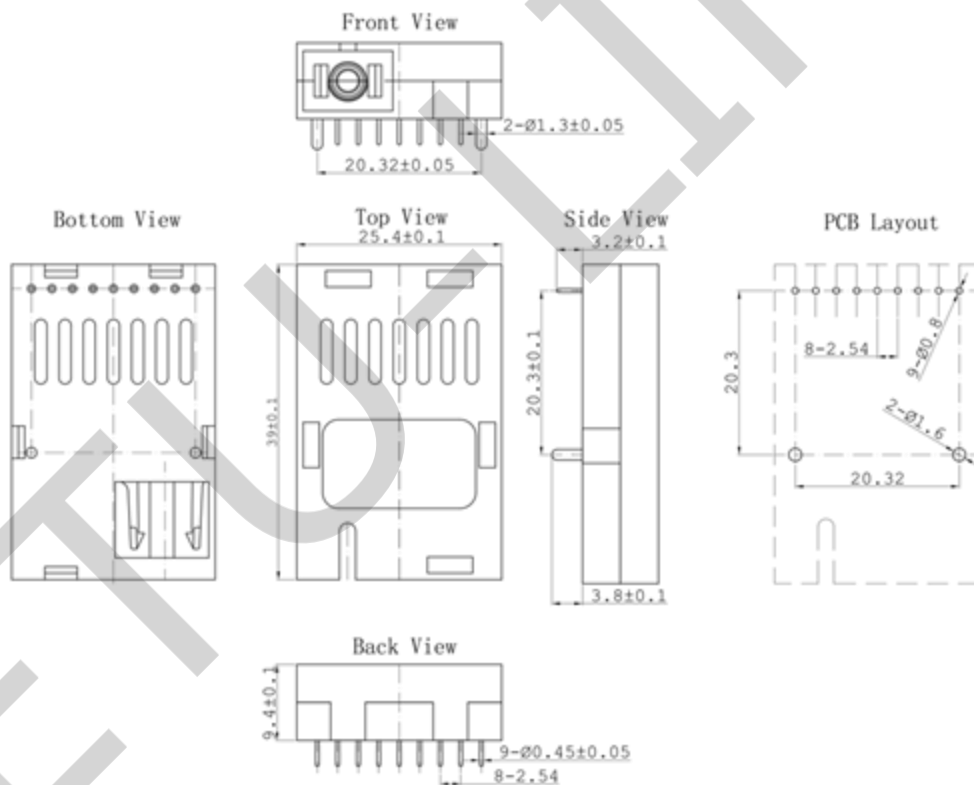
Definitions

Pin	Name	LogicLevel	Description
1	VEER		Signal ground for Receive

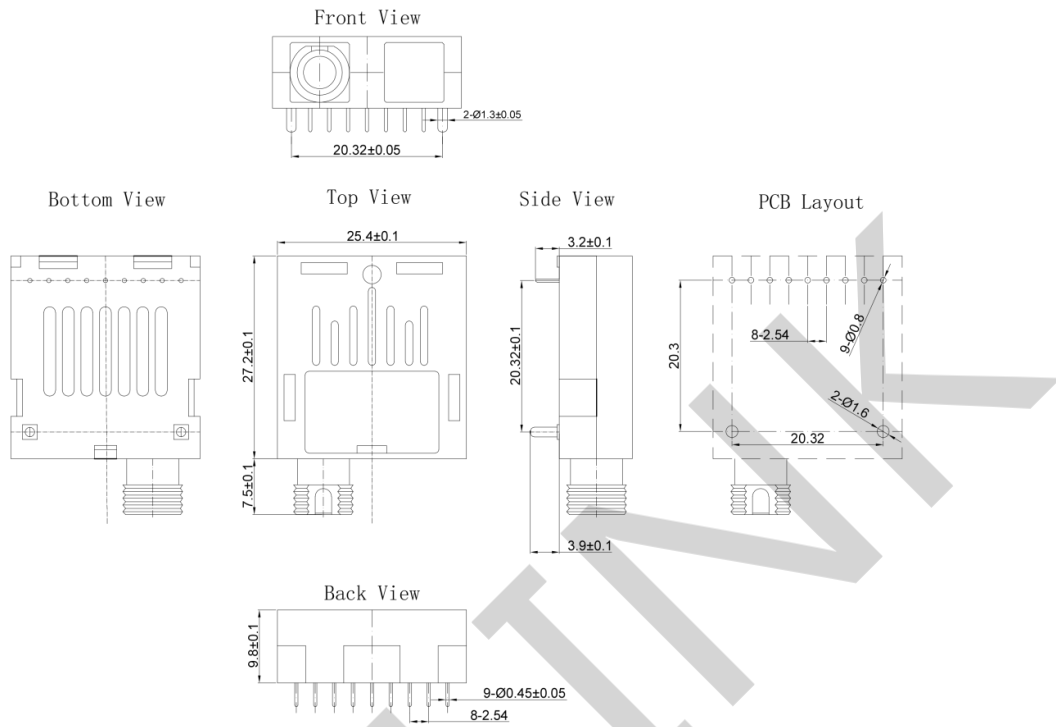
Pin	Name	LogicLevel	Description
2	RD+	LVPECL	RX Output Data
3	RD-	LVPECL	RX Output Invert Data
4	SD	LVPECL	Signal Detect is a PECL output .A high level indicates a received optical signal
5	VCCR		Power supply for receiver
6	VCCT		Power supply for transmitter
7	TD-	LVPECL	TX Invert Data Input
8	TD+	LVPECL	TX Data Input
9	VEET		Signal ground for Transmitter

Dimension and optical interface

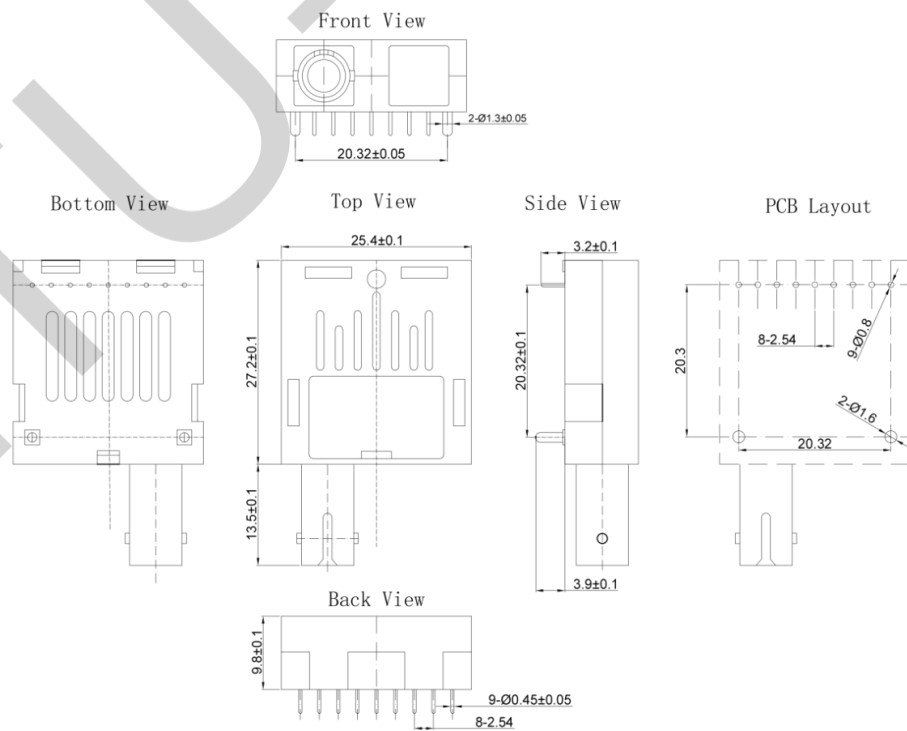
BIDI SC optical interface



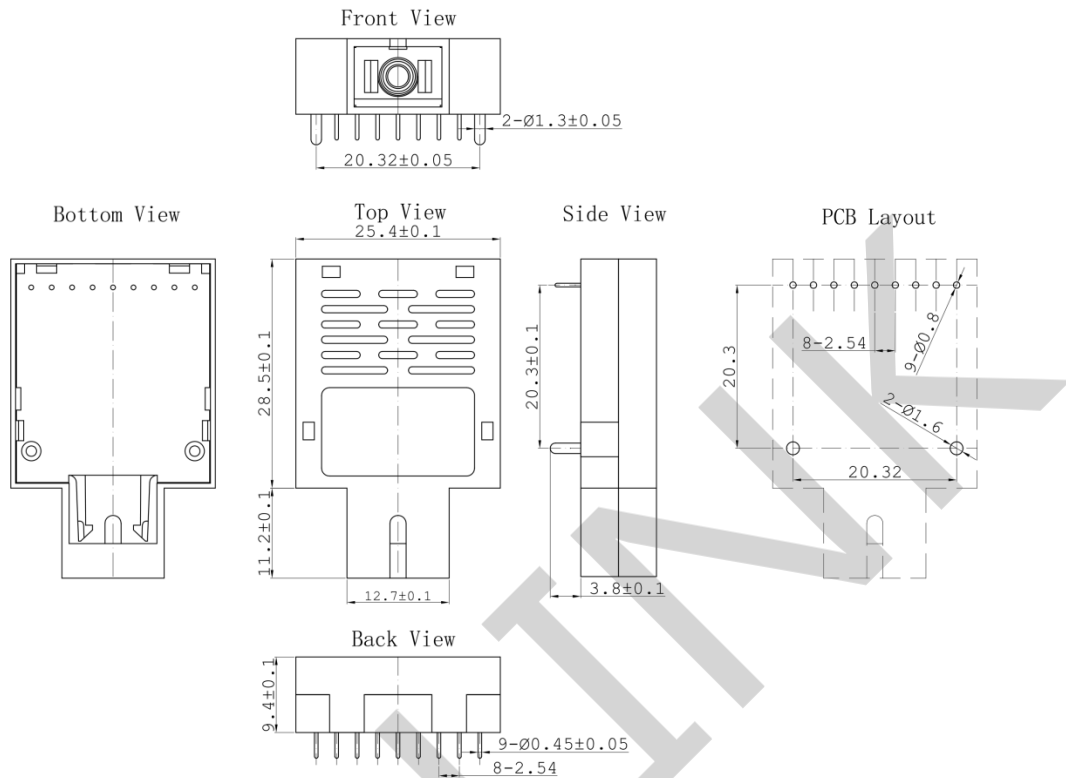
BIDI FC optical interface



BIDI ST optical interface



BIDI SC optical interface in the middle



Revision History

Version No.	Date	Description
1.0	May 18, 2016	Preliminary datasheet
2.0	September 28, 2024	Product upgrades
2.1	Apr 07, 2026	Update product model

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