



## Features:

- Fabricated in standard high-volume “Logic” CMOS process.
- Lower current consumption .
- 3.3 V supply voltage.

- High temperature operation (<math><70^{\circ}\text{C}</math>).
- No external components required within FOT.
- 650 nm wavelength range
- Optimized for 155 Mbps.
- Available for 1.5mm and 2,2mm.

## Applications:

- Data Link Communication
- IEEE 1394.b
- Home Networking
- Sensors
- Fast Ethernet

## Description:

POFLink’s Ethernet Plastic Optic Fiber (POF) connect module includes a pair of fiber optic components and a set of fiber connect plastic kits, this transmitter and receiver module offers a convenient solution for customers in fields of communication and Ethernet networks.

It’s very easy for customer to set up network by POFLink’s POF modules. After fiber being cut, customer can inset it to module directly.

The typical wavelength of POFLink transmitter’s RCLED is 650nm, which can offer fast communication link.

## Absolute Maximum Ratings

These are the absolute maximum ratings at or beyond which the IC can be expected to fail or be damaged. Reliable operation at these extremes for any length of time is not Implied.

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Symbol	Parameter	Rating	Units
Vcc	Power supply (Vcc-GND)	3.3V	V
V <sub>PIN</sub>	Voltage on any pin	V <sub>ss</sub> -0.5, V <sub>cc</sub> +0.5	V
T <sub>STG</sub>	Storage temperature-500 hours	+150	°C
T <sub>J</sub>	Operating temperature	-20 to +70	°C
T <sub>s</sub>	Storage temperature	-25 to +95	°C
V <sub>HBM</sub>	HBM ESD tolerance	-2 to +2	kV
V <sub>CDM</sub>	CDM ESD tolerance	-250 to +250	V

### Transmitter Optical Characteristics

Parameters	Symbol	Specified			Unit	Test Condition
		Min.	Typ.	Max.		
Total Radiant Flux	$\Phi_o$		1	1.5	mW	If=20mA*
Radiant Intensity	Po	0.2	0.3		mW/sr	If=20mA**
Peak Wavelength	$\lambda_P$	640	650	660	nm	If=20mA**
Spectral Width	$\Delta\lambda$		7		nm	Ta=0to70 ° C 20mA***
Beam Divergence	$\theta$		90		Deg.	If=20mA,FWHM
Forward Voltage	Vf		2.0	2.2	V	If=20mA
Rise Time /Fall time	tR/tF		3/3		ns	If=20mA(10%-90%)
Data Rate	TData		155		Mbps	If=20mA

Test Data were measured in TO header of wire bonded chip

- Measured in integration sphere
- Measured in axial direction (0.01sr)
- Value is referenced to the vender's measurement system (correlation to customer product is required).

Transmitter PIN description:

PIN	Name	Symbol
1	Data Input (Negative)	Tx-
2	Data Input (Positive)	Tx+
3	Ground Pin	GND
4	Input DC Power Pin	Vcc
5	Input	Rex(GND)

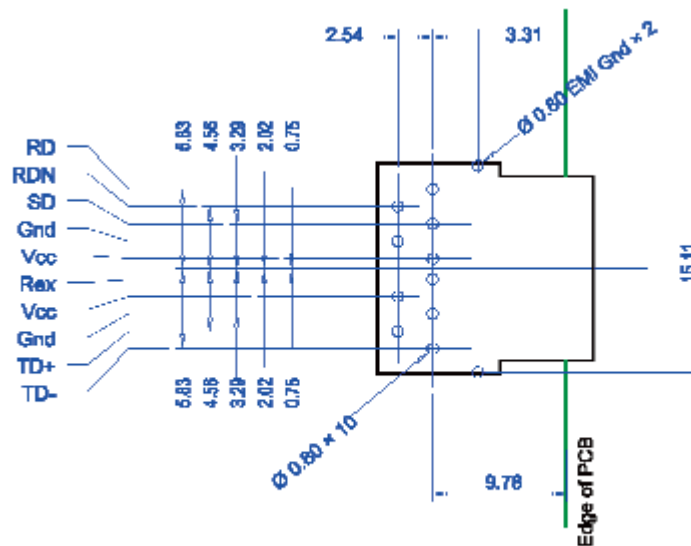
Receiver Characteristics:

Parameter	Symbol	Minimum	Typical	Maximum	Unit
DC Supply Voltage	Vcc	3.0	3.3	3.6	V
Current Consumption	Icc			45	mA
Output Impedence Between D and D/			100		Ohm
Offset Common Mode Voltage	Vocm		1.2		V
Output Differential Voltage Swing		500		600	mV
SD(Signal Detect) Assert/Deassert		0.5	5	100	µs
Receivable Optical Power		-24	-26	-28	dBm
Maximum Allowed Optical Power				-2	dBm
Rise/Fall Time (10%-90%)				2	ns

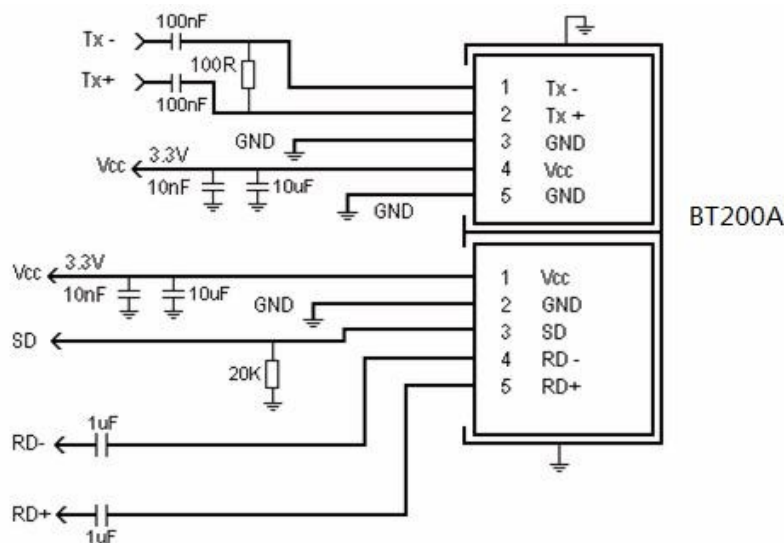
Receiver PIN description:

Pin	Name	Symbol
1	Input DC Power Pin	Vcc
2	Ground Pin	GND
3	Output signal detect	SD
4	Data input (Negative)	RD-
5	Data Input (Positive)	RD+

Pin Instruction:



PCB Layout



## Operation Guide

Pull out tighten kit first.



Put fiber in kit around 22mm and to the end.



And then press down tighten kit to tighten the fiber

