FIBER OPTIC TRANSMITTING MODULE

■ FEATURES

1) Conform to EIAJ standard CP-1201 (For Digital audio interfaces including fiber optic inter-connections).
2) TTL interface.
3) LED is driven by differential circuit.
4) +2.7V ~ +5.5V single power supply.
5) High speed signal transmission (12.5M NRZ signal).
6) ESD tolerance IC > 8KV.

■ APPLICATIONS

1) Digital audio equipment.
2) Navigation system.

■ MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Units
Supply Voltage	Vcc	-0.5 to 7	V
Input Voltage	V_{IN}	-0.5 to Vcc+0.5	V
Operating Temperature	Topr	-20 to 70	°C
Storage Temperature	Tstg	-30 to 80	°C

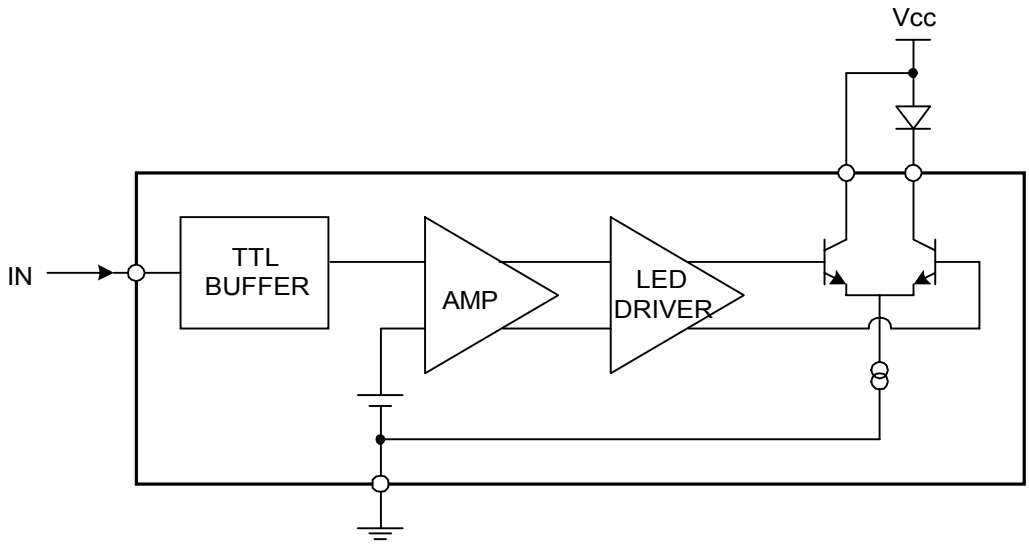
■ RECOMMENDED OPERATING CONDITIONS AND ELECTRICAL CHARACTERISTICS (Ta=25℃, Vcc=5V)

Characteristic	Symbol	Condition	Min	Typ	Max	Units
Operating Voltage	Vcc		2.7	3	5.5	V
Operating Current	Iop		-	8	13	mA
Transmitter Wavelength	λp		-	660	-	nm
Transmitter Light Power	Pf	*1	-21	-	-15	dBm
Data Rate	T	NRZ Code *2	DC	-	12.5	Mb/s
Pulse Width Distortion	△tw	Pulse width 80ns Pulse cycle 160ns, CL=10pF Using APRX179	-25	-	25	ns
Jitter	△tj		-	4	25	ns
Low to High Delay Time	tPLH		-	100	180	ns
High to Low Delay Time	tPHL		-	100	180	ns
High Level Input Voltage	VIH		2.0	-	-	V
Low Level Input Voltage	VIL		-	-	0.8	V
High Level Input Current	IIH		-	-	20	μA
Low Level Input Current	IIL		-	-	-0.4	mA

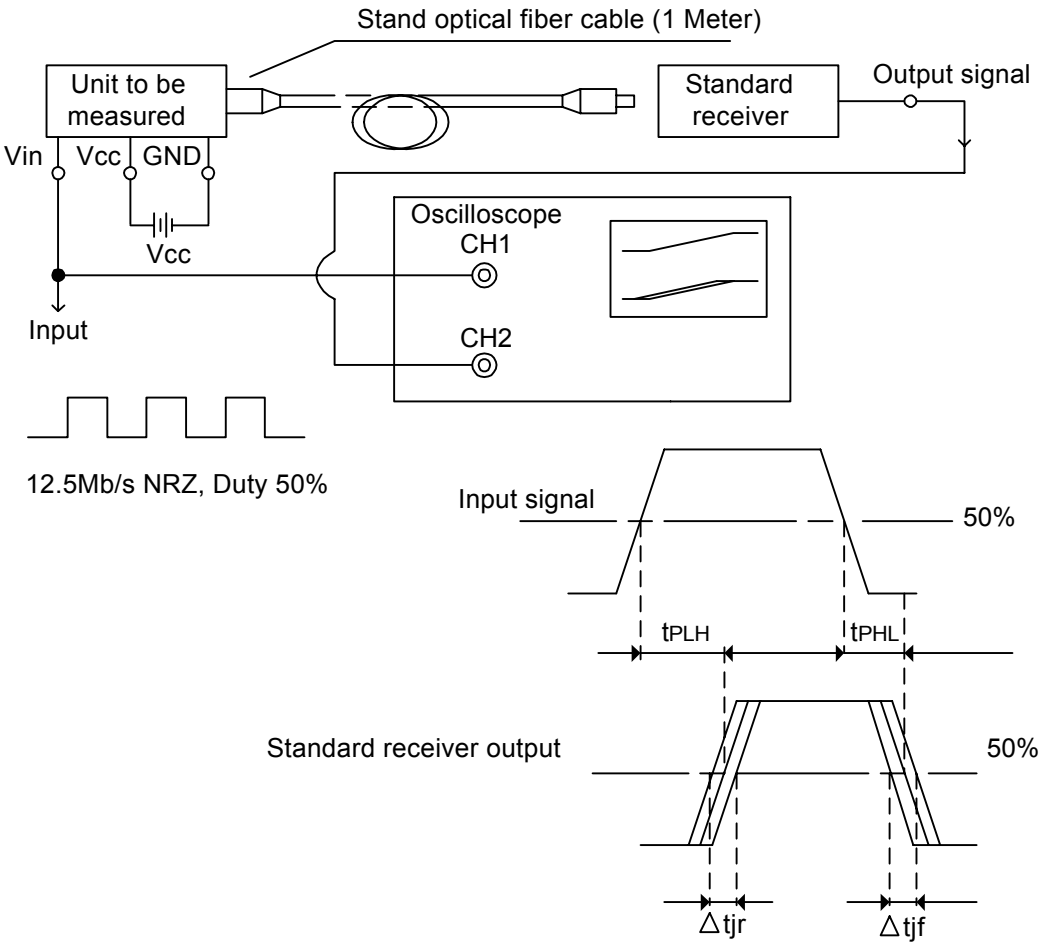
*1: Fiber insertion measure peak value.

*2: For data rate > 12Mb/s(NRZ), the duty factor must be such as kept 25 to 75%.

■ BLOCK DIAGRAM



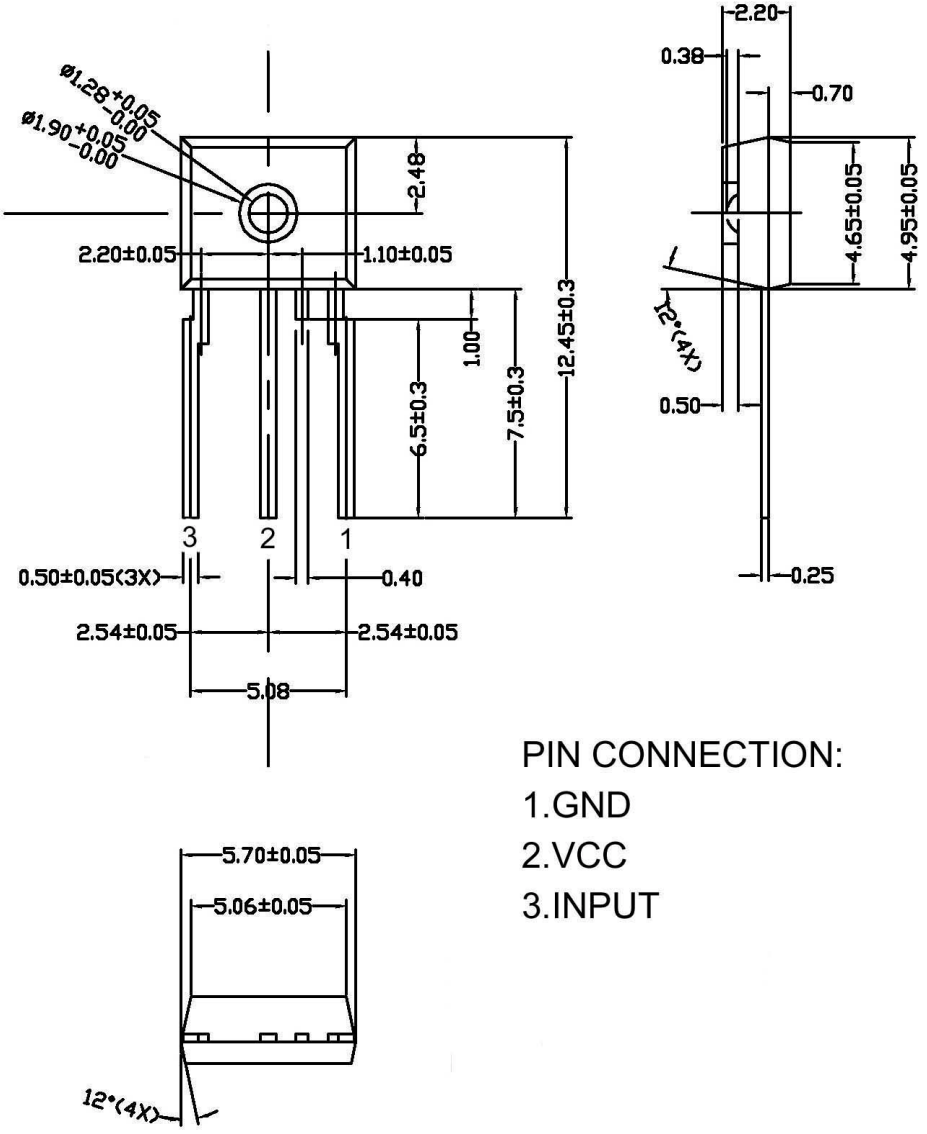
■ TEST CIRCUIT



■ COMMENTS

No.	Test Item	Symbol
1	Low to High Pulse Delay Time	t_{PLH}
2	High to Low Pulse Delay Time	t_{PHL}
3	Pulse Width Distortion $\Delta tw = t_{PHL} - t_{PLH}$	Δtw
4	High Level Output Voltage	V_{OH}
5	Low Level Output Voltage	V_{OL}

■ APTX179M OUTLINE DIMENSION Unit: mm



PIN CONNECTION:
1.GND
2.VCC
3.INPUT