

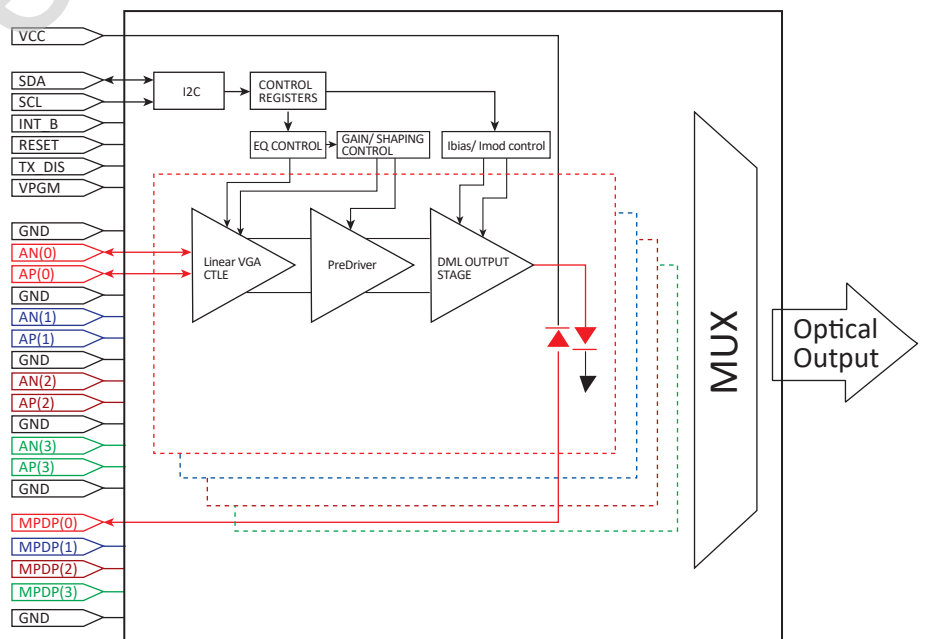
Key Features

- Up to 26.56 Gb/s (PAM4)
- Direct Modulation Laser (DML) Base Quad TOSA for 200G FR4
- Integrated LDD
- 2 Wire Communication (Up to 400 kHz)
- CWDM Optical MUX Integrated
- Pigtail with LC Connector

Applications

- 200G FR4 SMF Transceiver
- On Board Optics

Modular Block Diagram



Transceiver

200G FR4 TOSA

Optical and Electrical Characteristics

T_c = 0°C to 80°C, (unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Units
General / Environment					
Operating Ambient Temperature	T _a	0	25	80	degC
Data Rate		25.78	26.56	28.08	GBd/s
Input Voltage Supply	V _{cc}	3.15	3.3	3.465	V

Transmitter Performance

Lane wavelength range		1264.5		1277.5	nm
		1284.5		1297.5	
		1304.5		1317.5	
		1324.5		1337.5	
Average launch power, each lane			0.5		
Optical Modulation Amplitude (OMA), Each lane(*1)		-1.2	-0.7	4.5	dBm
Extinction ratio(*2)		3.5	4.5		dBm
Difference in launch power between any two lanes				4	dB
Transmitter and dispersion eye closure (TDECQ) for PAM4, each lane			2.5		dB
Transmitter reflectance				-26	dB
Optical return loss tolerance				16.5	dB

Differential Data Inputs

Differential Input Voltage	V _{IN_DE}	600	800	1000	mVpp
Differential Input Impedance	Z _{IN_DE}		100		Ohm

CMOS JEDEC JESD8-C and Serial Bus Interface

CMOS Input Voltage (Low)	V _{CMOSIL}	V _{EE} -0.3		0.8	V
CMOS Input Voltage (High)	V _{CMOSIH}	2		V _{CC} +0.3	V
CMOS Output Low Voltage	V _{CMOSOL}	V _{EE}		0.4	V
CMOS Output High Voltage	V _{CMOSOH}	2.4		V _{CC}	V

Absolute Maximum Ratings

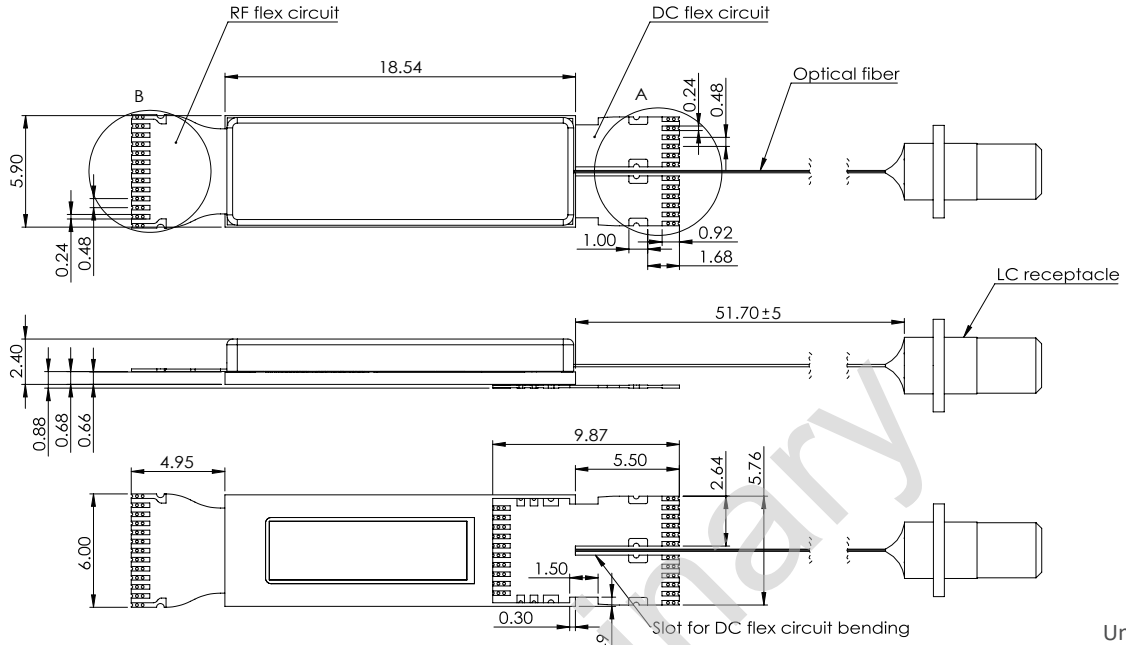
T_c = 25°C, (unless otherwise specified)

Parameter	Symbol	Condition	Min.	Max.
Supply Voltage	VD		-0.5 V	4 V
Data Input Amplitude	IN0~3	AC coupled		V _{CC} +0.5V
Monitor Photodiode Forward Current	Impd_f			10 mA
Monitor Photodiode Reverse Voltage			20 V	
Storage Temperature	T _{stg}		-40 degC	85 degC
Electrical Discharge Voltage(HBM)	VESD,HBM			TBD

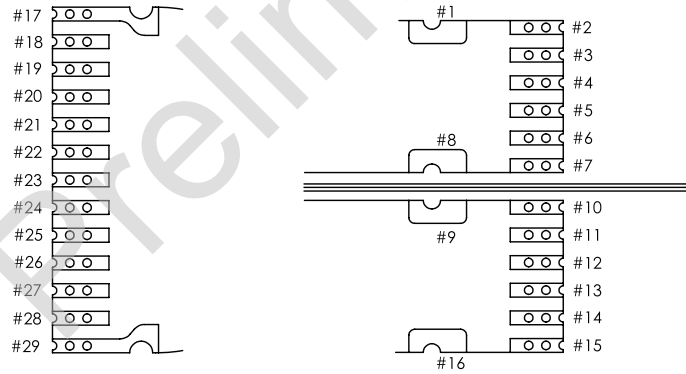
Transceiver

200G FR4 TOSA

Dimensions



Unit: mm



Pin Configuration

Pin#	Symbol	Pin#	Symbol	Pin#	Symbol	Pin#	Symbol
1	VCC	9	GND	17	GND	25	AP(2)
2	SCL	10	INT_B	18	AN(0)	26	GND
3	SDA	11	RESET	19	AP(0)	27	AN(1)
4	MPDP0	12	VPGM	20	GND	28	AP(1)
5	MPDP1	13	TX_DIS	21	AN(1)	29	GND
6	MPDP2	14	NC	22	AP(1)		
7	MPDP3	15	NC	23	GND		
8	GND	16	VCC	24	AN(2)		