Preliminary

TTF-1F67-427

25Gbps LC Connectorized 850nm VCSEL plus Monitor PD with FPC

FEATURES:

- LC-type optical sub-module with flexible circuit attached.
- Support up to 25.78125Gbps data rate operation.
- Isolated pinout.

ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}			1.2	mA	T_A =25°C
Forward Voltage	V_F		2.2		V	I_F=6.5mA
Slope Efficiency	η		0.14		mW/mA	I_F=6.5mA
Series Resistance	Rs		100		Ω	I_F=6.5mA, T_A =25°C
Wavelength	λ_P	840	850	860	nm	I_F=6.5mA
Spectral width(RMS)	Δλ			0.6	nm	I_F=6.5mA, T_A =0~70°C
Relative Intensity Noise	RIN			-128	dB/Hz	I_F=6.5mA
Monitor Current	I_M	100		1000	μA	V_R=5V, I_F=6.5mA
PD Dark Current	I_d			50	nA	V_R=5V, T_A =25°C
PD Capacitance	C_M		12		pF	V_R=3V, f=1MHz

THERMAL CHARACTERISTICS:

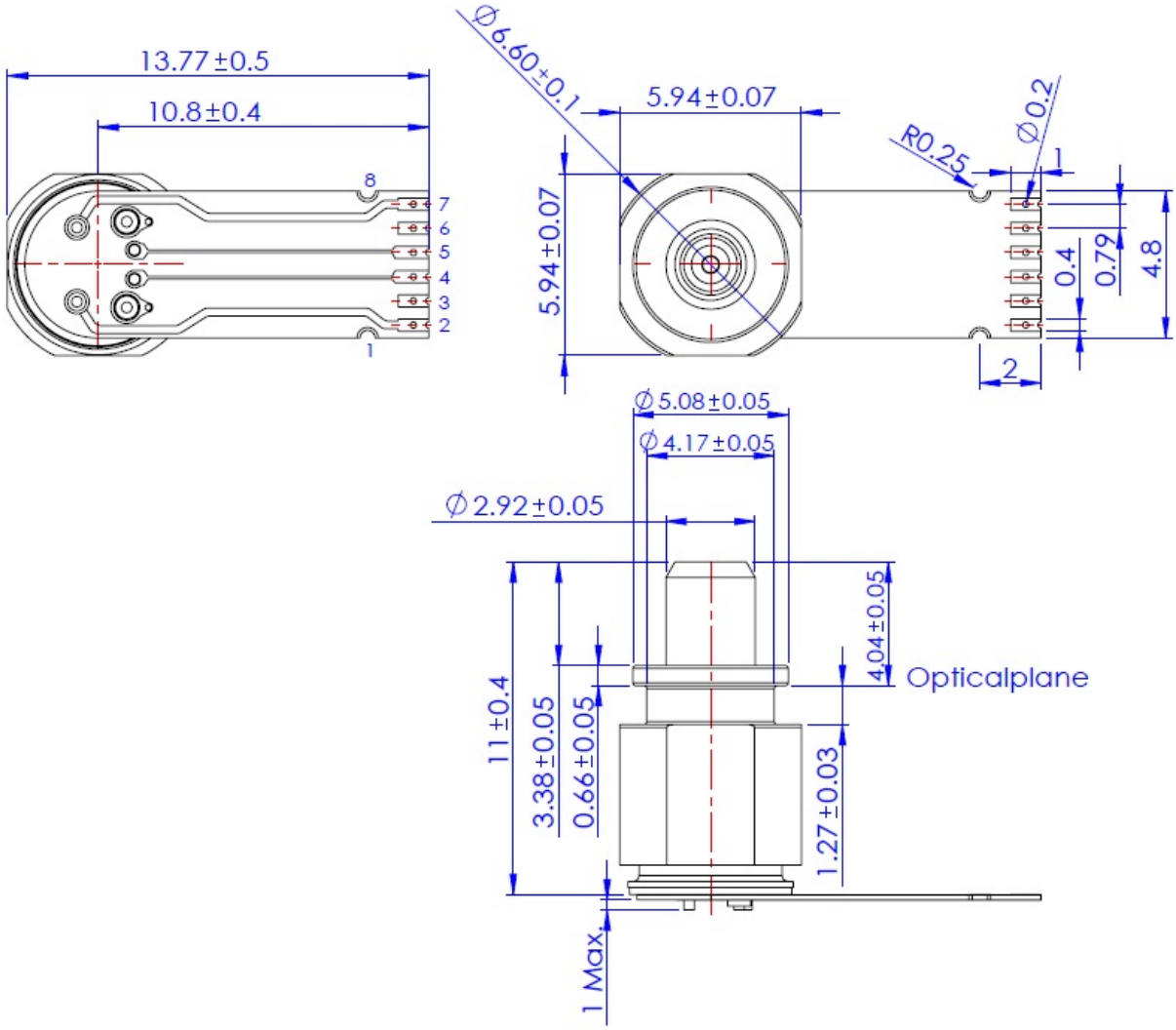
PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
η Temperature Coefficient	Δη/ΔT		-0.5		%/°C	T_A =0~70°C, I_F=6.5mA
λ_P Temperature Coefficient	Δp/ΔT		0.06		nm/°C	T_A =0~70°C, I_F=6.5mA
Tracking Error	TE	-1.5		1.5	dB	T_A =0~70°C

ABSOLUTE MAXIMUM RATINGS:

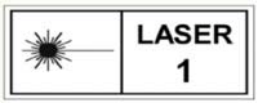
PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	85	°C	
Operating Temperature	0	70	°C	
Lead Solder Temperature		260	°C	10 seconds
Peak Continuous Forward Current		12	mA	
Laser Reverse Voltage		5	V	

OUTLINE DIMENSIONS:

• Unit: mm



Pinout:

Pin Number	Function
1	GND
2	MPD Cathode
3	Case/Gnd
4	VCSEL Cathode
5	VCSEL Anode
6	Case/Gnd
7	MPD Anode
8	GND

The VCSEL Laser is a class 1 laser in the safety standard IEC60825-1:2014.