

25Gbps CWDM Laser TOSA

L-AT-ICXX-03 Series

TYPE NAME: L-AT-ICXX-03

Product Description

The 25Gb/s CWDM Laser TOSA (Transmitter Optical Sub-Assembly) is designed for 100G BASE QSFP28 CWDM4. This device integrates a high performance Distributed Feedback laser diode with a Monitor PD as laser power monitor inside TOSA. It features very low threshold current with an adequate output power over a wide range of operating temperatures.

Product Specifications

Absolute Maximum Ratings

Parameter	Symbol	Units	Min	Max.	Notes
Operating Temperature (case)	T _c	°C	-5	+80	Case temperature
Storage Temperature	T _{stg}	°C	-40	+85	
Solder Reflow Temperature	STEM	°C	-	260	5 seconds max.
Laser Reverse Voltage	V _{RL}	V	-	2	
Laser Forward Current	I _{FL}	mA	-	100	
Photodiode Reverse Voltage	V _{RD}	V	-	2	
Photodiode Forward Current	I _{pd}	mA	-	10	

Electro-Optical Characteristics (T = 25°C, unless noted otherwise)

Parameter	Symbol	Units	Min.	Typ.	Max.	Test condition	
Threshold Current	I _{th}	mA	-	8	-	CW, T _a = 25°C	
			-	-	30	CW, T _a = 80°C	
Forward Voltage	V _f	V	-	-	2	CW, T _a = 25°C, I _{op} = 35 mA	
Optical Output Power	SMF	P _{FR}	uW	-	2500	-	CW, T _a = 25°C, I _{op} = 35 mA
Peak Wavelength	L-AT-IC27-03	λ	nm	1264.5	-	1277.5	T _c = -5 ~ 80°C
	L-AT-IC29-03			1284.5	-	1297.5	
	L-AT-IC31-03			1304.5	-	1317.5	
	L-AT-IC33-03			1324.5	-	1337.5	
Spectral Wavelength	Δλ	nm	-	-	1	(RMS 20dB), I _{op} = 35mA K _r = 1, T _a = 25°C	
Side Mode Suppression Ratio	SMSR	dB	30	-	-	T _c = -5 ~ 80°C, I _{op} = 35mA Scan Resolution 0.2nm	
Rise/Fall Time	t _r , t _f	ps	-	20/20	-	T _c = -5 ~ 80°C 20% to 80%	
RIN OMA	RIN ₁₂ OMA	dB/Hz	-	-	-128	ORL=12dB	
Optical Return Loss	ORL	dB	-	-	-20		

* Specifications are subject to change without notice.

Version 1.0

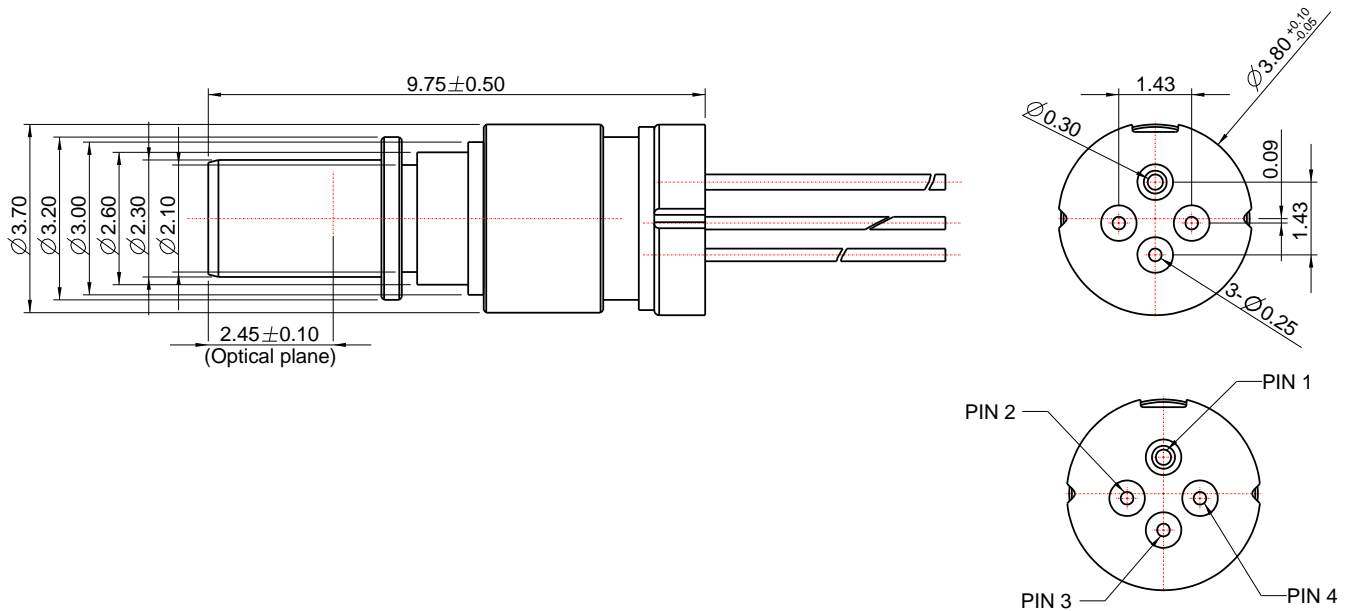
Tracking Error	TE	dB	-1.5	-	1.5	$I_m @ I_{op} = 35\text{mA}$ at $T_a = 25^\circ\text{C}$, ΔPf ($T_a = 25^\circ\text{C}/T_c = 80^\circ\text{C}$) and ΔPf ($T_a = 25^\circ\text{C}/T_c = -5^\circ\text{C}$) @ the same I_m
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Photodiode Characteristics (T = 25°C, unless noted otherwise)

Parameter	Symbol	Units	Min.	Typ.	Max.	Test condition
PD Monitor Current	I_{pd}	mA	0.1		-	CW, $I_{op}=35\text{mA}$
PD Dark Current	I_d	nA	-	-	100	$V_R = 1.7\text{V}$
PD Capacitance	C	pF	-	10	20	$V_R = 5\text{V}$, $f = 1\text{MHz}$

L-AT-ICXX-03 :
Dimensions: (mm)

All dimensions are nominal


Pin Defined

L-AT-ICXX-03	
Number	Function
Pin1	GND/PD+
Pin2	LD+
Pin3	PD -
Pin4	LD -