

850nm 1.25G/2.125G/2.5/4Gbps VCSEL TOSA

WG4C-900x-x Series

**TYPE NAME: WG4C-9000-1N、WG4C-9000-2N、
WG4C-9001-1N、WG4C-9001-2N**

Product Description:

The LuxNet WG4C-900x-x TOSA (Transmitter Optical Subassembly) is designed for a high-speed, high-performance TOSA data communication and telecommunication applications. This device is integrated with an 850nm VCSEL, TO header, and plastic port. The product is designed for 1.25/2.125/2.5/4Gbps Fiber Channel, Gigabit Ethernet, transceiver modules and systems. The plastic port can be integrated with different types of ports that are engaged with a fiber connector to provide good coupling efficiency as light generated by the VCSEL is transmitted into multimode fiber.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T_{op}	°C	-40	85	
Storage Temperature	T_{stg}	°C	-40	85	
Solder Reflow Temperature	T_s			260	10 seconds max.
Forward Current (continuous)	I_{max}	mA		12	
Reverse Voltage	V_r	V		8	
Photodiode Forward Current	I_{pd}	mA		10	

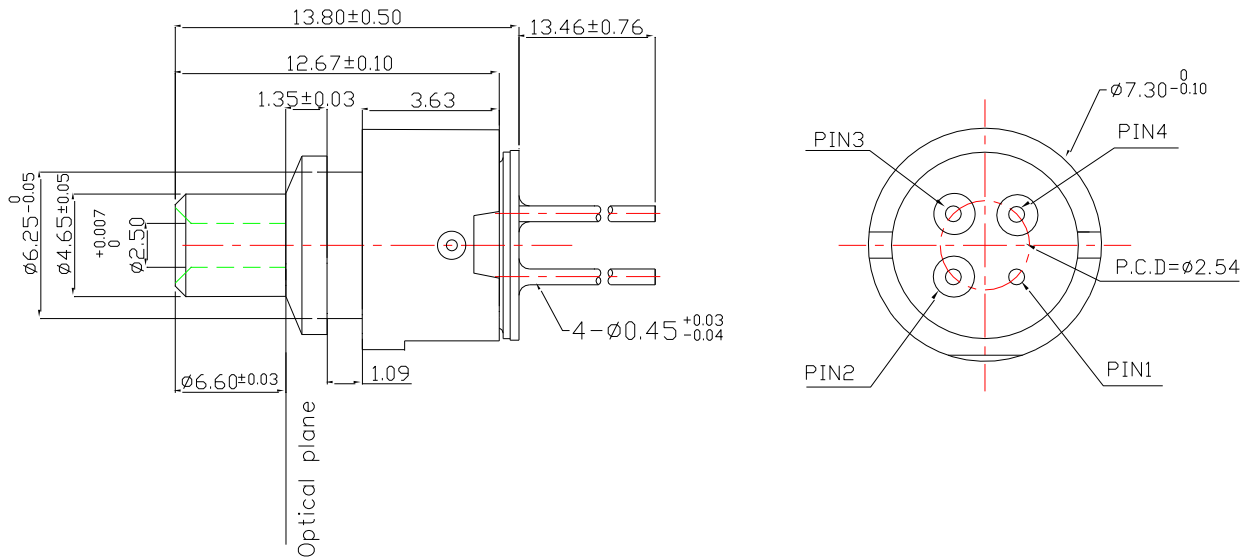
Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	I_{th}	mA	0.7	1.0	1.5	
I_{th} Temperature Variation	ΔI_{th}	mA			1.0	-15°C to 85°C
Forward Voltage	V_f	V	1.5	1.7	2.0	
Differential Series Resistance	R_s	Ω	30	50	65	$I_{op}=5$ mA
Fiber coupled Slope Efficiency	η	mW/mA	0.04	0.10	0.14	$I_{op}=5$ mA, 50/125 μ m fiber
Peak Wavelength	λ_p	nm	840	850	860	$I_{op}=5$ mA
Spectral Wavelength (RMS)	$\Delta\lambda$	nm		0.3	0.5	$I_{op}=5$ mA, 1 σ
λ_p Temp-Coeff.	$\Delta\lambda_p$	nm/K		0.07		$I_{op}=5$ mA
Rise Time	τ_r	ps		100	-	20-80% $I_{op}=5$ mA @4.25Gbps
Fall Time	τ_f	ps		125	-	20-80% $I_{op}=5$ mA @4.25Gbps
Peak Fiber Coupled Optical Power	P_{oc}	μ W	250	380		$I_{op}=5$ mA peak, 50/125 μ m fiber, NA=0.27

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

WG4C-9001-x (SC-TOSA)



PINOUT

WG4C-9001-1N		WG4C-9001-2N	
Number	Function	Number	Function
1	VCSEL Anode	1	VCSEL Cathode
2	VCSEL Cathode & Photodiode Anode	2	VCSEL Anode & Photodiode Cathode
3	Photodiode Cathode	3	Photodiode Anode

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Notice

Version	Date	Status	Description	Signature
1.0	2009/12/18	Initial	WG4C-900x-x datasheet Spec.	Cherry
1.1	2004/7/25	Initial	WG4C-900x-x datasheet Spec.	Cherry