

## FBT4401NH

### TOSA for 100GBASE-LR4 transceiver



### Description

CIG's transmitter optical sub-assembly (TOSA) FBT4401NH is suitable for 100GBASE-LR4 and OTU4 applications. The four electro-absorption modulated lasers (EML) with LAN-WDM wavelengths, four monitor photodiodes, optical multiplexer to combine the outputs from four lasers, and thermal electric cooler are hermetically packaged, with optical isolator integrated LC receptacle.

### Features

- 4x28Gbps direct modulated laser (EML) with monitor PDs
- LAN-WDM wavelengths
- 0degC to 75degC operating case temperature range
- Up to 28Gbps operation (NRZ) for each channel
- Laser temperature controlled by TEC
- LC receptacle with optical isolator
- Power consumption up to 1.8W
- RoHS6 compliant

### Applications

- QSFP28 / CFP4 / CFP2 / CFP transceivers
- 100GBASE-LR4 (IEEE 802.3ba)
- OTU4 (ITU-T G.959.1)

## Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Remarks
Laser Forward Current	If	-	150	mA	CW
Storage Temperature	Tstg	-40	85	°C	-
Operational Case Temperature	Tc	0	75	°C	

## Optical and Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Peak Wavelength for L0	0	1294.53	1295.56	1296.59	nm	
Peak Wavelength for L1	1	1299.02	1300.05	1301.09	nm	
Peak Wavelength for L2	2	1303.54	1304.58	1305.63	nm	
Peak Wavelength for L3	3	1308.09	1309.14	1310.19	nm	
Output Average Power each lane	Pf	-2.5		2.9	dBm	28Gbps
Side-mode Suppression Ratio	SSR	35		-	dB	-
Modulator Amplitude	Vin	-		2.0	Vpp	
Modulator Offset Control Voltage	Veao	-2.0		0	V	-
Extinction Ratio	Rext	7.5		-	dB	28Gbps
Thermistor resistance	Rth	9.8	10	10.2	kΩ	25°C
Optical Isolation	-	23	-	-	dB	
Power consumption	Ptotal			1.8	W	

### For more information

Cambridge Industries Group (CIG)

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