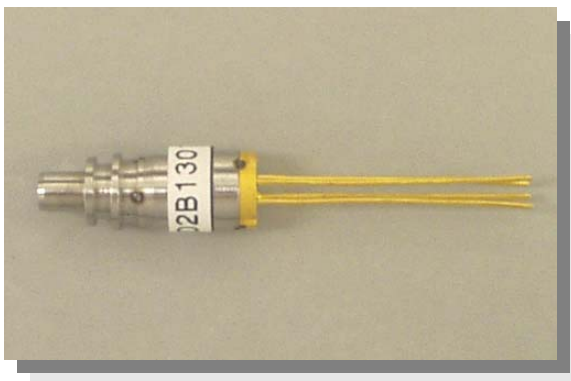




## AC3410 Series

### Uncooled 1.25 Gbps 1310 nm Fabry Perot Laser in TOSA Package



#### Description

The AC3410 series laser is an uncooled semiconductor InAlGaAs Fabry Perot laser working at 1310 nm wavelength. The device is delivered in a hermetic TOSA package with photodiode for optical power monitoring. This high

performance and high reliability laser is suitable for applications up to 1.25 Gbps in short haul links or local networks, including OC-3, OC-12, and OC-24 applications.

#### Features

- 1310 nm typical emission wavelength
- Wide operation temperature range (from  $-40$  to  $85^{\circ}\text{C}$ )
- High Reliability
- Multi-quantum Well (MQW) active layer

#### Applications

- Telecommunication
- Data Communication
- Storage area networks

#### Absolute Maximum Rating

Parameter	Symbol	Ratings	Unit
Forward Current (Laser Diode)	$I_{FL}$	100	mA
Reverse Voltage (Laser Diode)	$V_{RL}$	2	V
Reverse Voltage (Photodiode)	$V_{RD}$	20	V
Forward Current (Photodiode)	$I_{FD}$	2	mA
Case Temperature	$T_C$	$-40 \sim +85$	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	$-40 \sim +100$	$^{\circ}\text{C}$



### Electrical/Optical Characteristics ( $T_c=25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Threshold Current	$I_{th}$	CW		10	15	mA
		CW at 85°C		25	35	
Output Power	$P_o$	CW, $I_o = I_{th} + 20\text{mA}$	0.5			mW
Operating Voltage	$V_{op}$	CW, $T_c = -40^\circ\text{C} \sim +85^\circ\text{C}$		1.1	1.5	V
Center Wavelength	$\lambda_c$	CW	1280	1310	1340	nm
Spectral Width (RMS)	$\Delta\lambda$	CW, $T_c = -40^\circ\text{C} \sim +85^\circ\text{C}$		1.5	3	nm
Tracking Error	$\Delta P_o$	$P_o (I_o = I_{th} + 20\text{mA}, 25^\circ\text{C})$ $T_c = -40^\circ\text{C} \sim +85^\circ\text{C}$		-1.0		dB
Rise and fall Time	$T_r, T_f$	10~90%, ER=10 dB		200	240	ps
Monitor Current	$I_m$	CW, $V_{RD}=1\text{V}$	0.1			mA
Monitor Dark Current	$I_d$	$V_{RD}=10\text{V}$			0.1	$\mu\text{A}$
Capacitance	$C_t$	$V_{RD}=10\text{V}, f=1\text{MHz}$		10	20	pF

### Ordering Information:

AC3410-X-YZ

X=Pin-out  
= A: Type-A  
= B: Type-B

YZ= Receptacle Type  
= L2: Metal LC Receptacle

(See options next pages)

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### Outline Drawings

(Customer package designs are available)

