



## Description:

**LFO-14-ip** - optical module on the base of uncooled 1310 nm MQW InGaAsP/InP Fabry-Perot laser diode, coupled with singlemode optical fiber. Hermetically sealed modules are performed in standard package with built-in monitor photodiode and collimator microlens. Modules operate in wide temperature range, have stable output power and lifetime more than  $5 \cdot 10^6$  hours.

**LFO-14-ip** - the best source for analog and digital (up to 622 Mb/s) telecommunication lines, optical testers and other metrology devices, local optical networks and many other applications.



## Absolute maximum ratings:

### Laser diode

Max. output power (mW)	1.5
Reverse voltage (V)	2.0

### Monitor photodiode

Reverse voltage (V)	10
Forward current (mA)	1.0

### Environment

Operating temperature range (°C)	-30..+60
Storage temperature range (°C)	-40..+75

### Assembly

Pin soldering temperature (°C)	200
Pin soldering time (sec)	5.0

## Optical and electrical characteristics (T=25°C):

Characteristics	Symbol	Test condition	Rating	Units
<b>Laser diode</b>				
Output power from fiber end	$P_{OP}$	$I_{OP}$	1.0	mW
Wavelength	$\lambda_{OP}$	$P_{OP}$	1.280..1.340	$\mu\text{m}$
Spectral width FWHM	$\Delta\lambda$	$P_{OP}$	<5.0	nm
Threshold current	$I_{TH}$	CW	<15	mA
Forward current	$I_F$	$P_{OP}$	<40	mA
Forward voltage	$U_{OP}$	$P_{OP}$	<1.6	V
Rise time/fall time	$\tau_R/\tau_F$	$P_{OP}$	<0.5	ns
<b>Monitor photodiode</b>				
Monitor current	$I_{PD}$	$U_{REV}=5.0\text{ V}, P_{OP}$	>100	$\mu\text{A}$
Dark current	$I_D$	$U_{REV}=5.0\text{ V}$	<0.1	$\mu\text{A}$
Capacitance	$C_{PD}$	$U_{REV}=5.0\text{ V}, f=1\text{ MHz}$	<15	pF
<b>Optical fiber</b>				
Fiber core/cladding diameter	$D_C/D_{CL}$		9/125	$\mu\text{m}$
Fiber length	L		400..1500	mm
Optical connector type			«FC» or «ST»	