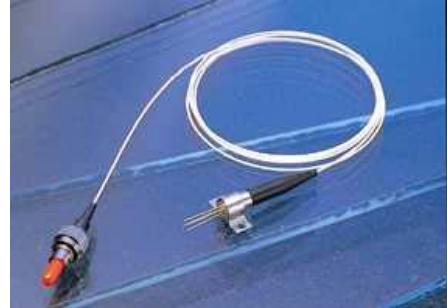




## Description:

**LFO-18/2-ip** – is the optical module on the base of uncooled 1,55µm MQW InGaAsP/InP Fabry-Perot Mitsubishi laser diode, coupled with singlemode optical fiber. Hermetically sealed modules are performed in standard packages with built-in InGaAs monitor photodiode and collimating gradient microlens. The modules operate in wide temperature range, have stable output power and lifetime more than  $5 \cdot 10^5$  hours.

**LFO-18/2-ip** – is the best source for 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

Output power (mW)	3.0
Reverse voltage (V)	2.0

### Monitor photodiode

Reverse voltage (V)	10
Forward current (mA)	2.0

### Environment

Operating temperature range (°C)	-40..+55
Storage temperature range (°C)	-40..+70

### Assembly

Pin soldering temperature (°C)	200
Pin soldering time (sec)	3.0

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

Characteristics	Symbol	Test condition	Min	Typ	Max	Units
<b>Laser diode</b>						
Output power	$P_{OP}$	$I_{OP}$		2.0		mW
Wavelength	$\lambda_{OP}$	$P_{OP}$	1520	1550	1580	nm
Spectral width FWHM	$\Delta\lambda$	$P_{OP}$		1.5	3.0	nm
Threshold current	$I_{TH}$	CW	5.0	10	20	mA
Forward current	$I_F$	$P_{OP}$	20	30	45	mA
Forward voltage	$U_{OP}$	$P_{OP}$		1.1	1.5	V
Rise time/fall time	$\tau_R/\tau_F$	$P_{OP}$		0.3	0.7	ns
<b>Monitor photodiode</b>						
Monitor current	$I_{PD}$	$U_{REV}=5.0\text{ V}, P_{OP}$	100	500		µA
Dark current	$I_D$	$U_{REV}=5.0\text{ V}$		0.01	0.1	µA
Capacitance	$C_{PD}$	$U_{REV}=5.0\text{ V}, f=1\text{ MHz}$		10	20	pF
<b>Optical fiber</b>						
Fiber core/cladding diameter	$D_C/D_{CL}$			9/125		µm
Fiber length	L			400..1500		mm
Optical connector type				«FC»		