1.53 ÷ 1.57 µm	CW output power > 0.8 mW	**LFO-18-ip**

Description:

LFO-18-ip – is a series of optical modules based on Mitsubishi 1550nm MQW InGaAsP/InP Fabry-Perot laser diode and coupled with singlemode optical fiber. Hermetically sealed modules are performed in standard coaxial package with built-in InGaAs monitor photodiode and collimating ball lens. The modules operate in wide temperature range, have stable output power and more than $5*10^5$ hours of lifetime.

LFO-18-ip – are the best light sources for digital (up to 622Mb/s) fiber-optic communication lines, optical testers, systems of optical synchronization and other applications.



Absolute maximum ratings:

Laser diode	
Max. output power (mW)	1.2
Reverse voltage (V)	2.0
Monitor photodiode	
Reverse voltage (V)	10
Forward current (mA)	2.0

Environment	
Operating temperature range (^oC)	-40..+55
Storage temperature range (^oC)	-40..+70
Assembly	
Pin soldering temperature (^oC)	200
Pin soldering time (sec)	3.0

Optical and electrical characteristics (T=25^{o}C):

Characteristics	Symbol	Test condition	Min	Typ.	Max	Units
Laser diode						
Output power from fiber end	P_{OP}	I_{OP}		0.8		mW
Wavelength	λ_{OP}	P_{OP}	1530	1550	1570	nm
Spectral width (FWHM)	$\Delta\lambda$	P_{OP}		1.0	2.5	nm
Threshold current	I_{TH}	CW	5.0	10	15	mA
Forward current	I_F	P_{OP}	25	35	45	mA
Forward voltage	U_{OP}	P_{OP}		1.1	1.5	V
Rise time/fall time	τ_R/τ_F	P_{OP}		0.3	0.7	ns
Monitor photodiode						
Monitor current	I_{PD}	U_{REV}=5.0 V, P_{OP}	100	500		µA
Dark current	I_D	U_{REV}=5.0 V		0.01	0.1	µA
Capacitance	C_{PD}	U_{REV}=5.0 V, f=1 MHz		10	20	pF
Optical fiber						
Fiber core/cladding diameter	D_C/D_{CL}			9/125		µm
Fiber length	L			400..1500		mm
Optical connector type				«FC»		

ROITHNER LASERTECHNIK

A-1040 VIENNA, SCHOENBRUNNER STRASSE 7, AUSTRIA

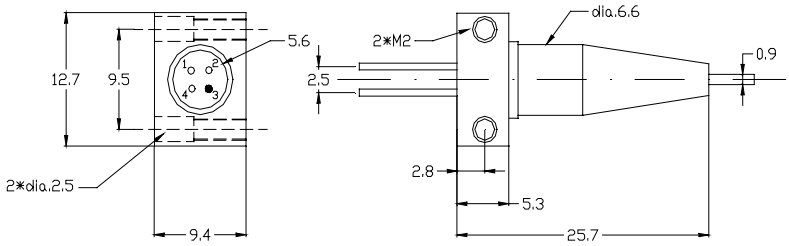
TEL: +43 -1- 586 52 43-0 FAX: +43 -1- 586 52 43-44

e-mail: office@roithner-laser.com http://www.roithner-laser.com

LFO-18-ip

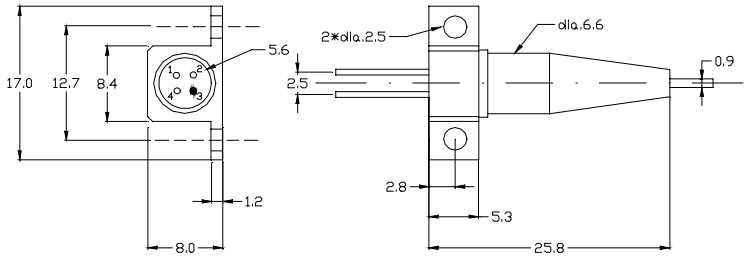
Package specifications (type «A»):

Pin	Function
1	PD cathode (+)
2	PD anode (-)
3	LD anode (+), case
4	LD cathode (-)



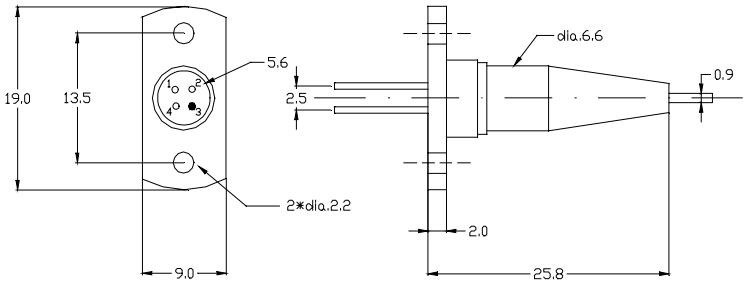
Package specifications (type «B»):

Pin	Function
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2	PD anode (-)
3	LD anode (+), case
4	LD cathode (-)

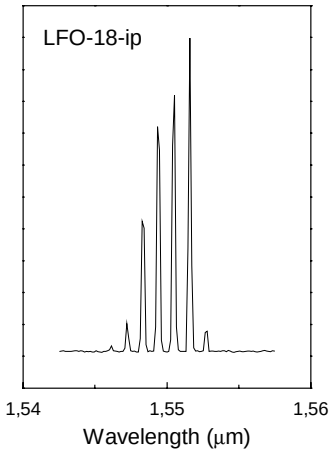


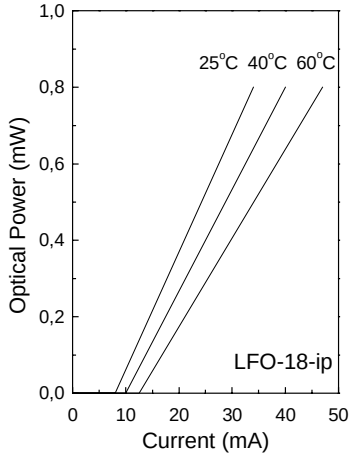
Package specifications (type «C»):

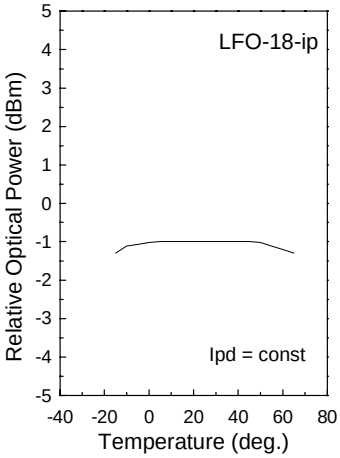
Pin	Function
1	PD cathode (+)
2	PD anode (-)
3	LD anode (+), case
4	LD cathode (-)



Typical optical and electrical characteristics (T=25°C):







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