

1.29 ÷ 1.33
μm

CW output power
> 2.0 mW

LFO-14/2-ip

Description:

LFO-14/2-ip – is a series of optical modules based on Mitsubishi 1310nm 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 gradient lens. The modules operate in wide temperature range, have stable output power and more than $5 \cdot 10^5$ hours of lifetime.

LFO-14/2-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)	3.0
Reverse voltage (V)	2.0

Monitor photodiode

Reverse voltage (V)	10
Forward current (mA)	1.5

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
Laser diode						
Output power from fiber end	P _{OP}	I _{OP}		2.0		mW
Wavelength	λ _{OP}	P _{OP}	1290	1310	1330	nm
Spectral width (FWHM)	Δλ	P _{OP}		1.0	2.5	nm
Threshold current	I _{TH}	CW		5.0	15	mA
Forward current	I _F	P _{OP}		20	35	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

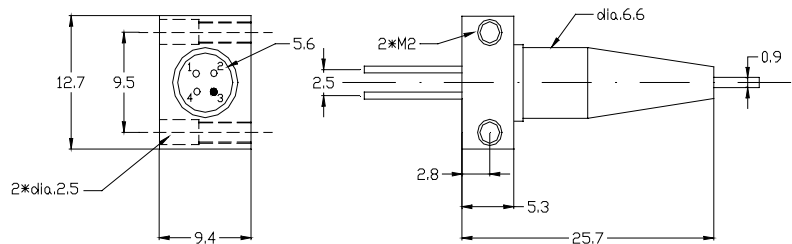
TEL: +43 -1- 586 52 43-0 FAX: +43 -1- 586 52 43-44

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

LFO-14/2-ip

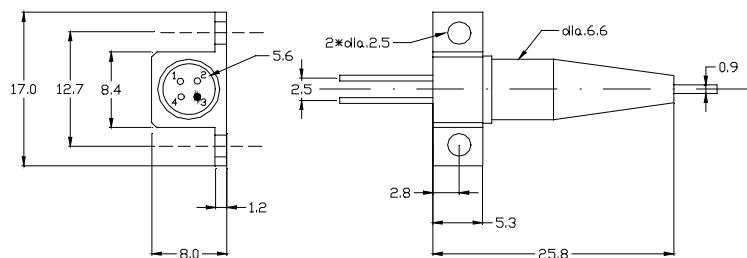
Package specifications (type «A»):

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



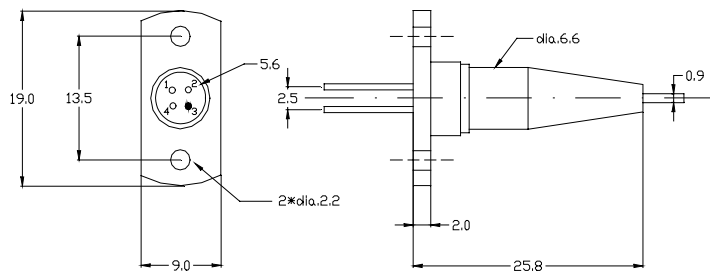
Package specifications (type «B»):

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

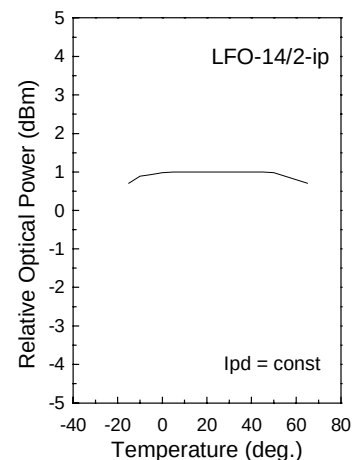
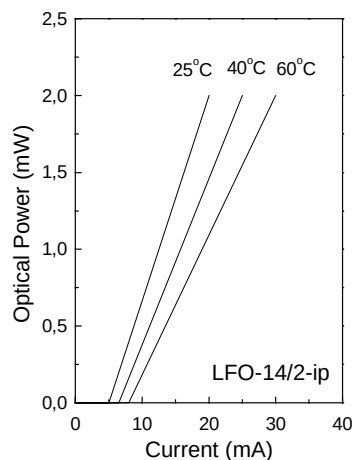
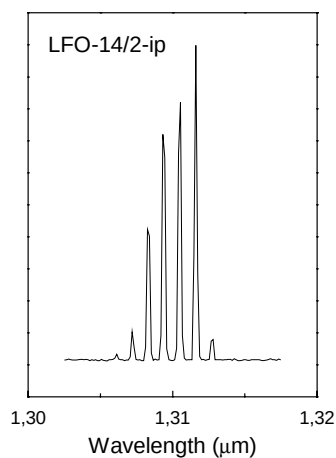


Package specifications (type «C»):

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



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



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>