



DESCRIPTION

The FPMR3 series module incorporates a linear multi-quantum well (MQW) Fabry-Perot (FP) laser emitting at 1310 nm, hermetically sealed in an industry standard coaxial package with a single mode fiber pigtail. This laser is especially suited as an uncooled, low cost light source for analog CATV return path.

FEATURES

- High reliability linear MQW laser
- Internal monitor photodiode
- Wide operating temperature range
- RoHS compliant

APPLICATIONS

- CATV return path
- RF over fiber

MODEL OPTIONS

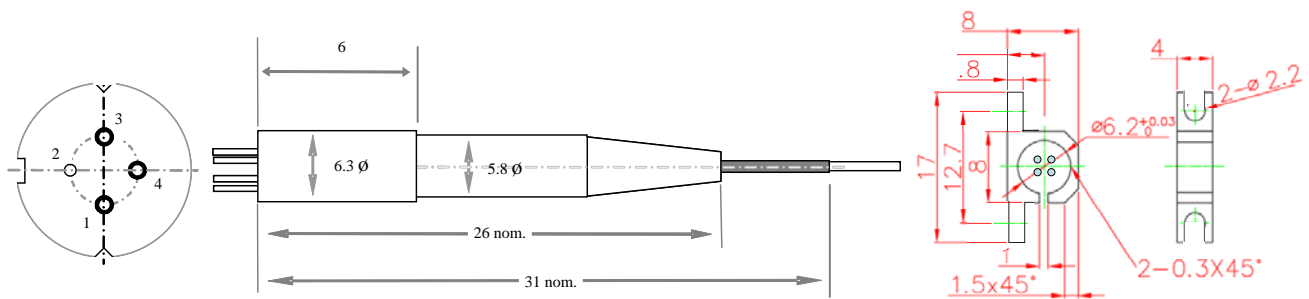
FPMR3 - A - 1 - y - z

y :	Output Power
1 :	≥ 1mW
2 :	≥ 2mW

z :	Connector
S :	SC/APC
F :	FC/APC

MECHANICAL SPECIFICATIONS AND PINOUT CONFIGURATION

(in mm unless otherwise noted)



- SMF-28e optical fiber, flame retardant Hytrel coating, 0.9 mm diameter
- Fiber Length: 1-meter minimum with connector termination
- Mounting bracket optional.

PIN	Type A
1	PD Anode
2	LD Anode (Case Ground)
3	LD Cathode
4	PD Cathode

ELECTRO-OPTICAL CHARACTERISTICS					
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Operating Temperature	T_{OP}	$I_F = I_{OP}$	-40	85	°C
Threshold Current	I_{TH}	$T = 25\text{ °C}$ $T = 85\text{ °C}$	--	15 50	mA
Operating Voltage	V_{OP}		--	2.1	V
Operating Output Power	P_o	See Model #	--	--	mW
Monitor PD Responsivity	r_{MPD}	--	100	2000	μA
Monitor PD Dark Current	I_D	$I_{OP} = 0\text{ mA}$	--	0.2	μA
Operating Wavelength	λ_{OP}	$I_F = I_{OP}, T = 25\text{ °C}$	1270	1340	nm
Spectral Width	$\Delta\lambda$	$I_F = I_{OP}$		3	nm
Tracking Error	E_R		-1	+1	dB
Optical Isolation	ISO	$T = 25\text{ °C}$	30		dB
Bandwidth			2		GHz
2 nd Order Intermodulation	IMD2	See Note (1) Below	--	-50	dBc
3 rd Order Intermodulation	IMD3		--	-55	dBc
Relative Intensity Noise	RIN	$I_F = I_{OP}$	--	-130	dB

⁽¹⁾ Test conditions: at rated power, 25 °C, OMI = 10%, 10 dB link loss, 2-tone, 13 MHz and 19 MHz

MAXIMUM RATINGS					
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Storage Temperature	-	Continuous	-40	85	°C
Monitor Photodiode Reverse Voltage	-	60 seconds	-	15	V
		Continuous	-	10	V
Forward DC Laser Current	-	Continuous	-	100	mA
Reverse DC Laser Voltage	-	Continuous	-	1	V
Soldering Temperature		10 seconds		260	°C