PLMR3 – 1310nm DFB Coaxial Return Path

DESCRIPTION

The PLMR3 series of modules incorporate highly linear MQW DFB lasers emitting at 1310 nm, hermetically sealed in industry standard coaxial packages with one single mode fiber pigtail in each. These lasers are especially suited as uncooled, low cost light sources for analog CATV return path, as well as intermediate and long reach applications.

FEATURES

- High linearity distributed feedback (DFB) laser
- Low RIN noise
- Internal optical isolator
- Internal monitor photodiode
- Wide operating temperature range
- RoHS compliant

APPLICATIONS

- CATV return path
- RF over fiber

MODEL OPTIONS

PLMR3 - X - N - y - z

X:	Pin Out
A:	Type A
C:	Type C

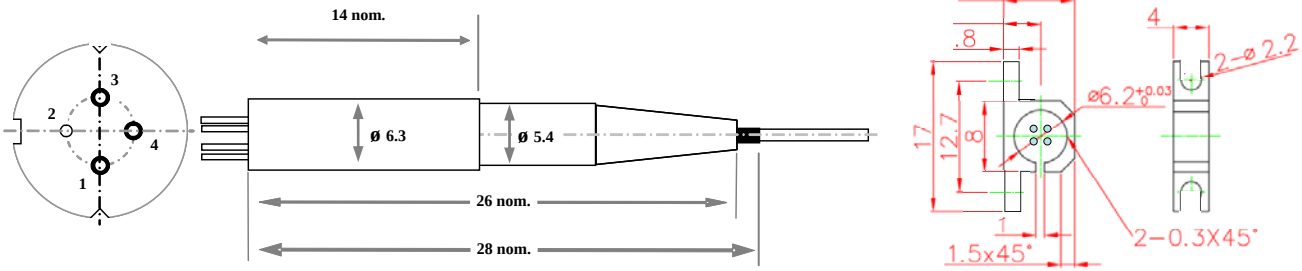
N:	# of Isolators
1:	Single
2:	Double

y :	Output Power
1 :	≥ 1mW
2 :	≥ 2mW
3 :	≥ 3mW
4 :	≥ 4mW
5:	≥ 5mW

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
- Custom pin configurations available. Mounting bracket optional.

PIN	Type A	Type C
1	PD+	PD- / LD+
2/GND	LD+	NC
3	LD-	LD-
4	PD-	PD+

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ELECTRO-OPTICAL CHARACTERISTICS					
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Operating Temperature	T_{OP}	$I_F = I_{OP}$	-20	85	°C
Threshold Current	I_{TH}	T = 25 °C T = 85 °C	--	15 40	mA
Operating Current	I_{OP}	$T = T_{OP}$	-	90	mA
Operating Voltage	V_{OP}		--	2.1	V
Operating Output Power	P_o	See model #			mW
Monitor PD Responsivity	r_{MPD}	--	50	1500	μA
Monitor PD Dark Current	I_D	I_{OP} = 0 mA	--	0.2	μA
Operating Wavelength	λ_{OP}	$I_F = I_{OP}$, $T = T_{OP}$	1290	1330	nm
Side Mode Suppression	SMSR	$I_F = I_{OP}$	30	--	dB
Optical Isolation	ISO	Single	30	--	dB
		Double	50		
Tracking Error	E_R		-1	+1	dB
Bandwidth			3		GHz
2nd Order Intermodulation	IMD2	See Note (1)	--	-50	dBc
3rd Order Intermodulation	IMD3		--	-57	dBc
Relative Intensity Noise	RIN	f = 5 ~ 300 MHz	--	-145	dB/Hz

(1)Test conditions: P_0 at rated power, 25 °C, OMI = 20%, 2-tone, 13 MHz and 19 MHz, received power = -4 dBm

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