DESCRIPTION

The PLMF3 series module incorporates a highly linear MQW DFB 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 (up to 40C) or externally cooled, low cost light source for analog CATV **forward** path, as well as intermediate and long reach applications.

FEATURES

- Low RIN noise
- Internal optical isolator
- Internal monitor photodiode
- RoHS compliant

APPLICATIONS

- CATV forward path
- RF over fiber

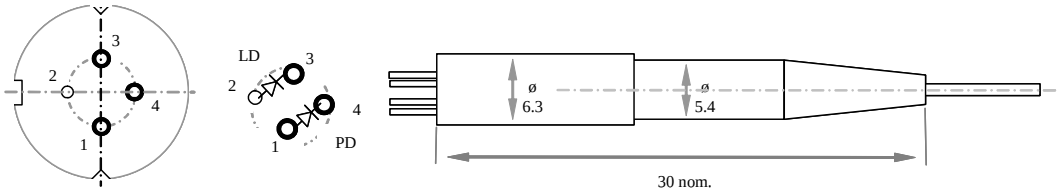
MODEL NUMBERS:

PLMF3-A-1-X-X-X

Power Level	A, B, C Distortion grades	S = SC/APC F = FC/APC N = no connector
04 = 4 mW 06 = 6 mW 08 = 8 mW 10 = 10 mW 12 = 12 mW 14 = 14 mW 16 = 16 mW 18 = 18 mW 20 = 20 mW 22 = 22 mW 24 = 24 mW		

MECHANICAL SPECIFICATIONS (mm) and PINOUTS

(in mm unless otherwise noted



- SMF-28 optical fiber, flame retardant Hytrel coating
- Fiber Length: 1-meter minimum
- Mounting bracket optional

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

ELECTRO-OPTICAL CHARACTERISTICS

(Over operating temperature range, unless otherwise specified)

PARAMETER	SYMBOL	CONDITIONS		MIN	MAX	UNIT
Operating Temperature	T_{OP}	$I_F = I_{OP}$		-20	85	°C
Threshold Current	I_{TH}	T_{case} = 25 °C T_{case} = 85 °C		--	15 40	mA
Operating Current	I_{OP}	T_{case} = 25 °C		-	90	mA
Operating Voltage	V_{OP}			--	2.1	V
Operating Output Power	P_o	T_{case} = 25 °C		See power grades		mW
Monitor PD Responsivity	r_{MPD}	--		50	2000	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	$I_F = I_{OP}$		32	--	dB
Optical Isolation	ISO			35	--	dB
Tracking Error	E_R			-1	+1	dB
Relative Intensity Noise	RIN			--	-145	dB/Hz
Bandwidth				2.7		GHz
Carrier to Noise (T_{case}=25 °C)	CNR	Note (1)		51		dB
Distortion (T_{case}=25 °C)	CSO	Note (1)	A	--	-53	dBc
			B		-57	
			C		-60	
	CTB	Note (1)		--	-65	dBc

Note (1) Test conditions: 79 channels unmodulated NTSC carriers, 0 dBm received power, T_{case}=25 °C

MAXIMUM RATINGS

PARAMETER	CONDITION	LIMIT
Storage Temperature	Continuous	-40 to +85 °C
Monitor Photodiode Reverse Voltage	60 seconds	15 V
	Continuous	10 V
Forward DC Laser Current	Continuous	120 mA
Reverse DC Laser Voltage	Continuous	1 V