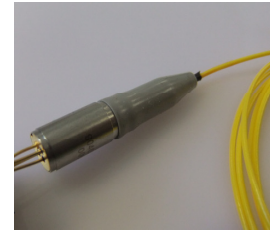


## DESCRIPTION

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

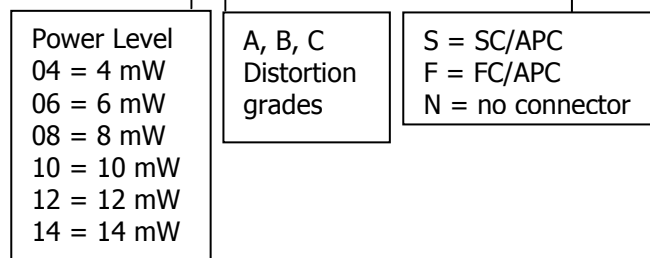
- Low RIN noise
- Internal optical isolator
- Internal monitor photodiode
- RoHS compliant

## APPLICATIONS

- CATV forward path
- RF over fiber

## MODEL NUMBERS:

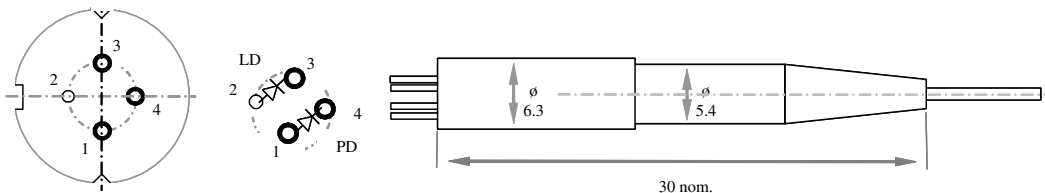
### PLMF3-A-1-X-X-X



Please contact AGx Technologies if you need other power levels or custom specifications

## 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	$I_{TH}$	$T_{case} = 25\text{ °C}$ $T_{case} = 85\text{ °C}$	--	15 40	mA	
Operating Current	$I_{OP}$	$T_{case} = 25\text{ °C}$	-	90	mA	
Operating Voltage	$V_{OP}$		--	2.1	V	
Operating Output Power	$P_o$	$T_{case} = 25\text{ °C}$	See power grades		mW	
Monitor PD Responsivity	$r_{MPD}$	--	50	2000	μA	
Monitor PD Dark Current	$I_D$	$I_{OP} = 0\text{ mA}$	--	0.2	μA	
Operating Wavelength	$\lambda_{OP}$	$I_F = I_{OP}, T = T_{OP}$	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 ( $T_{case}=25\text{ °C}$ )	CNR	Note (1)	51		dB	
Distortion ( $T_{case}=25\text{ °C}$ )	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,  $T_{case}=25\text{ °C}$ 
**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