


**DESCRIPTION**

The PLMW5 series module incorporates a highly linear MQW DFB laser emitting at 1550 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 CDMA and WCDMA networks.

**FEATURES**

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

**APPLICATIONS**

- Wireless CDMA
- RF over fiber

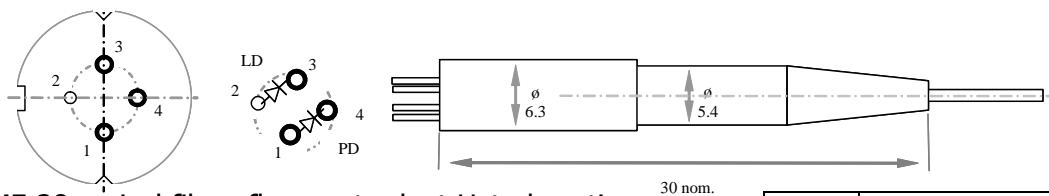
**MODEL OPTIONS**
**PLMW5 – A – 1 – y – z**

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

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

**MECHANICAL SPECIFICATIONS AND PINOUT CONFIGURATION**

(in mm unless otherwise noted)



- SMF-28 optical fiber, flame retardant Hytrel coating, 0.9 mm diameter
- Fiber Length: 1-meter minimum, with SC/APC or FC/APC connector termination
- Mounting bracket optional

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

<b>ELECTRO-OPTICAL CHARACTERISTICS</b>					
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNIT</b>
Threshold Current	$I_{th}$	25°C	-	15	mA
		85°C		50	
Operating Temperature	$T_{op}$	-	-20	85	°C
Operating Current	$I_{op}$	T = Top	-	90	mA
Operating Voltage	$V_{op}$		-	2.1	V
Operating Output Power	$P_o$	See model #s			mW
Monitor PD Responsivity	$r_{MPD}$	-	10	200	μA/mW
Dark Current	$I_D$	$I_{OP} = 0mA$	-	0.2	μA
Operating Wavelength	$\lambda_{OP}$	$I_F = I_{OP}, T = T_{OP}$	1529	1563	nm
Side Mode Suppression	SMSR	$I_F = I_{OP}$	30	--	dB
Optical Isolation	ISO	-	30	--	dB
Tracking Error	$E_R$	-	-1	+1	dB
Bandwidth		-	3		GHz
2 <sup>nd</sup> Order Intermodulation	IMD2	Note <sup>(1)</sup>	-	-40	dBc
3 <sup>rd</sup> Order Intermodulation	IMD3		-	-58	dBc
Relative Intensity Noise	RIN	-	-	-145	dB/Hz

<sup>(1)</sup>Note: Test conditions:  $P_o$  at rated power, 25 °C, OMI = 10%, 2-tone, 936 MHz and 958 MHz

<b>MAXIMUM</b>					
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNIT</b>
Storage Temperature	-	Continuous	-40	85	°C
Photodiode reverse voltage	-	60 seconds	-	15	V
	-	Continuous	-	10	
Forward DC laser current	-	Continuous	-	100	mA
Reverse DC laser voltage	-	Continuous	-	1	V