



DESCRIPTION

The PLMW3 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, low cost light source for CDMA and WCDMA networks.

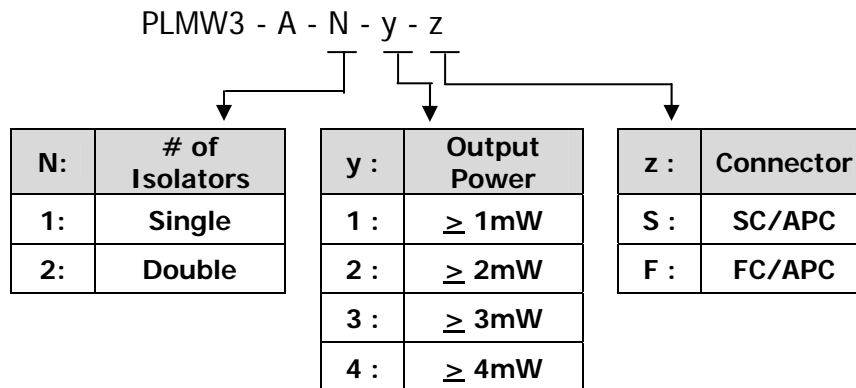
FEATURES

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

APPLICATIONS

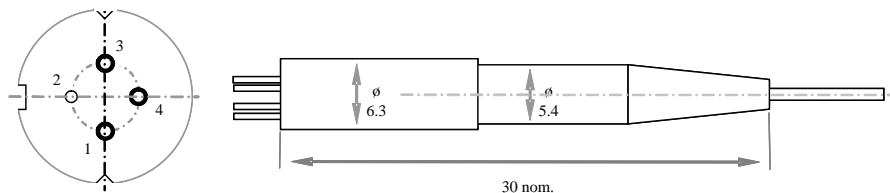
- Wireless CDMA
- RF over fiber

MODEL OPTIONS



MECHANICAL SPECIFICATIONS AND PINOUT CONFIGURATION

(in mm unless otherwise noted)



- SMF-28e optical fiber, flame retardant Hytel coating, 0.9 mm diameter
- Fiber Length: 1-meter minimum, with SC/APC or FC/APC connector termination
- Mounting bracket (add -C to model number. See last page)

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

ELECTRO-OPTICAL CHARACTERISTICS					
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Threshold Current	I_{th}	25°C	-	15	mA
		85°C		40	
Operating Temperature	T_{op}	-	-20	85	°C
Operating Current	I_{op}	25°C	-	90	mA
Operating Voltage	V_{op}	25°C	-	2.1	V
Operating Output Power	P_o	-	See Models		mW
Monitor PD Responsivity	r_{MPD}	-	10	400	μA/mW
Dark Current	I_D	$I_{OP} = 0mA$	-	0.2	μA
Operating Wavelength	λ_{OP}	$I_F = I_{OP}, T = T_{OP}$	1300	1320	nm
Side Mode Suppression	SMSR	$I_F = I_{OP}$	30	--	dB
Optical Isolation	ISO	Single, 25°C	30	--	dB
		Double, 25°C	43		
Tracking Error	E_R	-	-1	+1	dB
Bandwidth		-	3		GHz
2 nd Order Intermodulation	IMD2	Note ⁽¹⁾	-	-	dBc
3 rd Order Intermodulation	IMD3		-	-60	dBc
Relative Intensity Noise	RIN	-	-	-145	dB/Hz

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

MAXIMUM RATINGS – 25°C					
PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
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
Lead Soldering Temperature		10 seconds		260	°C

Clamp Configuration (-C option): for example, PLMW3-A-1-4-S-C

