

DESCRIPTION

PMI MODEL NUMBER LCM-7R7G8R2G-CD-1 IS AN AMPLIFIED RF LASER CONTROL MODULE FOR USE OVER THE FREQUENCY RANGE OF 7.7GHz TO 8.2GHz WITH AN IF RANGE OF DC TO 10KHz. IT FEATURES A 20dB VOLTAGE PROGRAMMABLE ATTENUATOR, AND PHASE SHIFTER. THIS MODEL IS DESIGNED FOR LOW SPECTRAL NOISE AND HIGH REVERSE ISOLATION IN A SLIMLINE HOUSING.

SPECIFICATIONS

- FREQUENCY RANGE: 7.7 to 8.2GHz
- GAIN J1 TO J2: 16 dB, ± 2 dB MAX (ATTENUATION = 0dB)
- J2 OUTPUT 1dB COMPRESSION: 28dBm TYP
- CONVERSION GAIN: 0 dB, ± 3 dB MAX (J1 = 10dBm, J4 = -10dBm)
- TAP OUT INSERTION LOSS: 16 dB ± 2 dB TYP (J1 to J5)
- INPUT POWER J1: 20dBm MAX
- INPUT POWER J4: 14dBm MAX
- VSWR J1, J2, J3, J4, J5: 2.2:1 MAX
- POWER SUPPLY: +15V @ +1000mA MAX
-15V @ -200mA MAX
- SIZE: 2.50" X 1.75" X 0.40"
- FINISH: GOLD PLATED

LOW NOISE AMPLIFIER 1, 2, 3

- GAIN: 14dB TYP
- SATURATED OUTPUT POWER: 16dBm TYP
- NOISE FIGURE: 2.5dB TYP
- REVERSE ISOLATION: 40dB TYP

PHASE SHIFTER

- PHASE SHIFT RANGE: 0 TO 360 DEG MIN
- CONTROL RANGE: 0-10 Volts
- NON-LINEAR SLOPE RATIO: 4:1 TYP
- SWITCHING SPEED: 200 nsec MAX

ATTENUATOR

- ATTENUATION RANGE: 0 TO 20dB MIN
- CONTROL RANGE: 0-10 Volts
- NON-LINEAR SLOPE RATIO: 8:1 TYP
- SWITCHING SPEED: 1.0 usec MAX

FILTER 1, 2, 3, 4, 5

- PASS BAND: 7.7 TO 8.2GHz (2dB) TYP
- STOP BAND, LOWER: DC - 6.8GHz (20dB) TYP
- STOP BAND, UPPER: 10.3 - 18.0GHz (20dB) TYP

LOW PASS ACTIVE FILTER

- PASS BAND: DC - 10KHz MIN
- STOP BAND: 10KHz (ROLL OFF 6dB PER OCTAVE) TYP

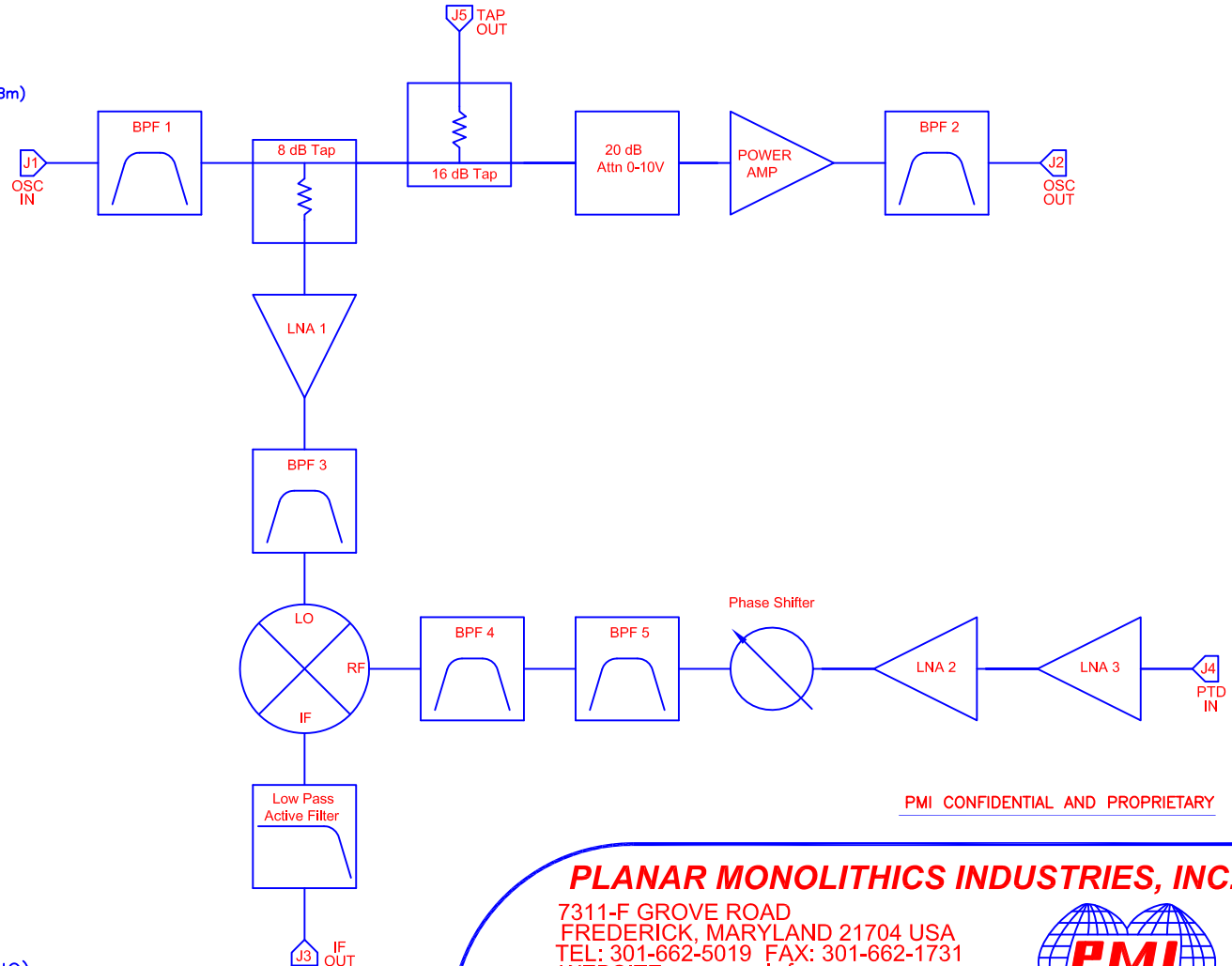
ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°C TO +85°C (OPERATING)
-54°C TO +100°C (STORAGE)
- HUMIDITY: 95% MAX
- SHOCK: MIL-STD-202G, METHOD 213B COND. B
- VIBRATION: MIL-STD-202G, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202G, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202G, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ± 0.020
X.XXX ± 0.010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	PRELIMINARY RELEASE	1-2-14	
	2	UPDATED LAYOUT	1-23-14	



PMI CONFIDENTIAL AND PROPRIETARY

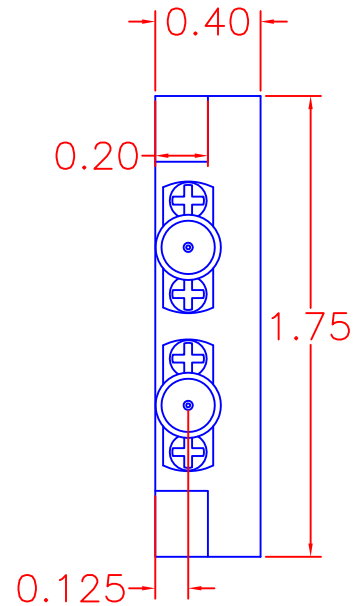
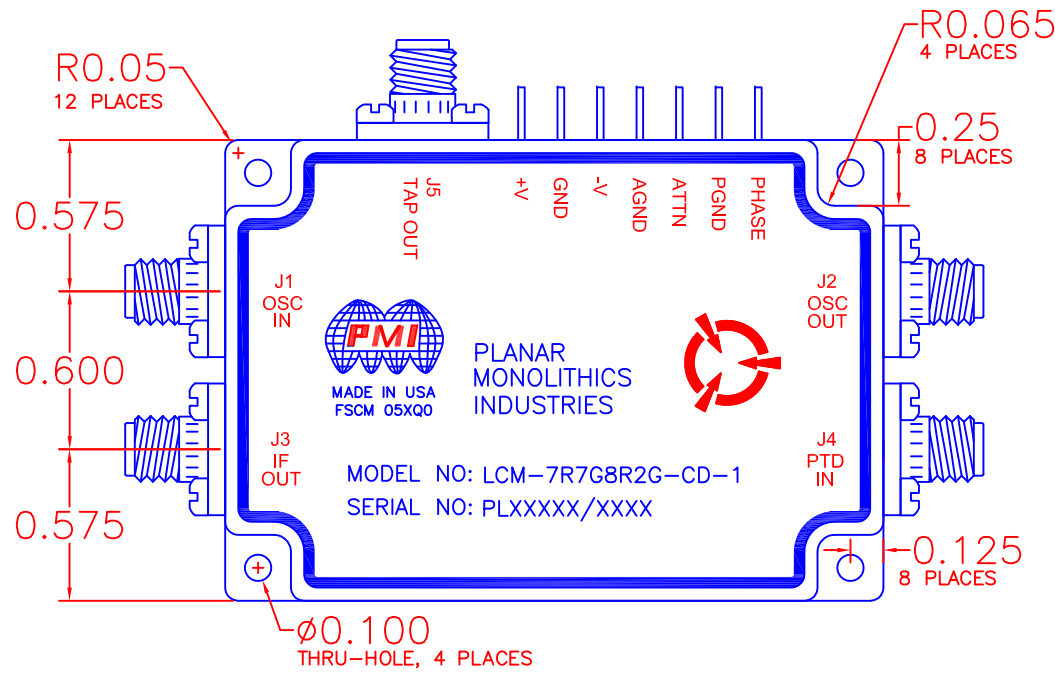
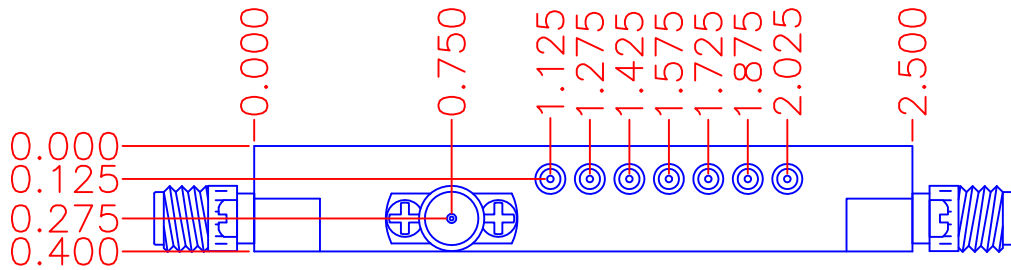
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ISO 9001 CERTIFIED

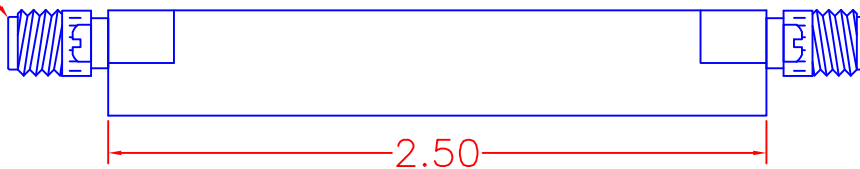


APPROVALS		DATE	TITLE		
DRAWN PJK		1-23-14	PRODUCT FEATURE		
MODIFIED			27022725		
ISSUED			LCM-7R7G8R2G-CD-1		
SIZE	FSCM NO.	DWG NO.	REV.		
A	05XQ0	27022725	2		
SCALE N:S		SHEET		1 OF 2	

REVISIONS				
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SMA (FEMALE)
2 HOLE FLANGE
CONNECTOR,
4 PLACES



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APPROVALS		DATE	TITLE		
DRAWN PJK		1-23-14	PRODUCT FEATURE 27022725 LCM-7R7G8R2G-CD-1		
MODIFIED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27022725
ISSUED			SCALE N:S		SHEET 2 OF 2
					REV. 2

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010