

DESCRIPTION

PMI MODEL PLDRO-41R1G-14DBM-24F IS A PHASE LOCKED MICROWAVE OSCILLATOR THAT PROVIDES A 14 dBm MINIMUM OUTPUT AT 41.1 GHz AND IS PHASE LOCKED TO AN INTERNAL REFERENCE SIGNAL.

SPECIFICATIONS

- OUTPUT FREQUENCY (fo): 41.1 GHz
- FREQUENCY STABILITY: ± 2.5 PPM
- LOAD VSWR: 1.5:1 MAX
- OUTPUT POWER: +14 dBm
- POWER VARIATION OVER TEMPERATURE: ± 1.5 dB MAX
- WARMUP TIME: 2.5 MINUTES MAX @ 25°C
- SPURIOUS: -70 dBc MIN IN BAND
- PHASE NOISE (SSB):
 - 61 dBc/Hz MIN at 100 Hz
 - 92 dBc/Hz MIN at 1 kHz
 - 103 dBc/Hz MIN at 10 kHz
 - 106 dBc/Hz MIN at 100 kHz
 - 121 dBc/Hz MIN at 1000 kHz
- HARMONICS: -20 dBc
- SUB HARMONICS: -50 dBc
- DC POWER: +15V, 550 mA MAX
1.0 AMP MAX SURGE
- PHASE LOCK ALARM: LS-TTL LOGIC "1" OR "0"
LOCK = LOGIC "1"
UN-LOCK = LOGIC "0"
- SIZE: 2.25" X 2.25" X 0.62"
- WEIGHT: 8 OUNCES MAX
- RF CONNECTOR: 2.4 mm FEMALE
- POWER AND PHASE LOCK CONNECTOR: RFI SOLDER PINS
- FINISH: GOLD PLATED OVER NICKEL, YELLOW IRIDITE CHEMICAL FILM ON MOUNTING SURFACE
- TUNER: FLUSH PROFILE

ENVIRONMENTAL RATINGS

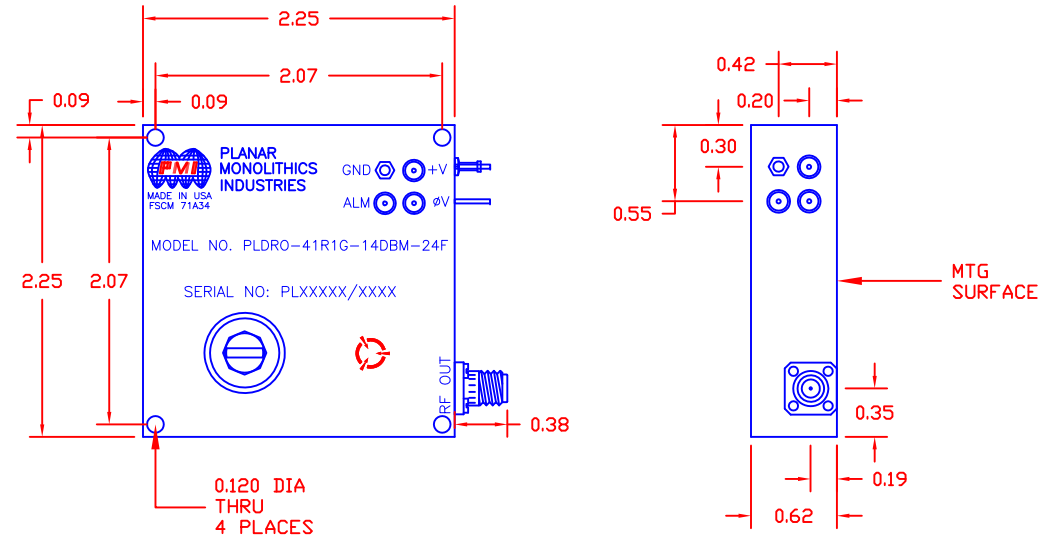
- **TEMPERATURE:** -45°C TO +85°C (OPERATING)
-55°C TO +85°C (STORAGE)
- **PRESSURE:** OPERATE IN DRY NITROGEN @ 100 kPA OR ATMOSPHERIC AIR
- **VIBRATION:** MIL-STD-167-1, MAST MOUNTED, FREQUENCIES TO 25 Hz
- **SHOCK (SURVIVAL):** MIL-S-901D, NO BREAKAGE
- **SHORT DURATION:** 360 g, 1.6 ms, FULL SINE
- **MEDIUM DURATION:** 150 g, 6 ms, HALF SINE
- **LONG DURATION:** 130 g, PEAK TO PEAK, 17 ms, FULL SINE
30 g, PEAK TO PEAK, 40 ms, FULL SINE

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ± 0.020
X.XXX ± 0.005

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	5/30/18	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

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APPROVALS		DATE	TITLE			
DRAWN <i>JS</i>		10/27/14	PRODUCT FEATURE PLDRO-41R1G-14DBM-24F			
REDRAWN <i>EW</i>		5/30/18	SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	71A34	PRELIMINARY	-
SCALE N:S			SHEET 1 OF 1			