

DESCRIPTION

PMI MODEL: TCDRO-12G-CD-1 IS A TEMPERATURE COMPENSATED DIELECTRIC RESONATOR OSCILLATOR WITH A CENTER FREQUENCY OF 12.0 GHz. THIS MODEL PROVIDES A MINIMUM OUTPUT POWER OF +18 dBm WITH ALL SPURS HELD TO -85 dBc AND HARMONICS HELD TO -25 dBc. THE MECHANICAL TUNING FREQUENCY IS ± 10 MHz AND THE UNIT HAS A PHASE NOISE OF -95 dBc/Hz. THE UNIT REQUIRES +15 VDC AND 200 mA AND MEASURES 1.80" x 1.00" x 0.50".

SPECIFICATIONS

- FREQUENCY RANGE: ----- 12.0 GHz
- TUNING RANGE: ----- ± 10 MHz MINIMUM
- OUTPUT POWER: ----- 18 dBm MINIMUM
- OUTPUT POWER VARIATION OVER TEMPERATURE RANGE: ----- ± 1.0 dB MAXIMUM
- FREQUENCY ACCURACY: ----- 0.1% MAXIMUM
- FREQUENCY PUSHING: ----- 15 kHz/V MAXIMUM
- FREQUENCY PULLING (1.5:1 VSWR): -- 0.5 MHz PK-PK MAXIMUM
- FREQUENCY DRIFT TEMPERATURE COEFFICIENT: ----- 0.8 ppm/ $^{\circ}$ C
- HARMONICS: ----- -25 dBc MAXIMUM
- SPURIOUS: ----- -85 dBc MINIMUM
- PHASE NOISE: ----- 10 kHz OFFSET = -90 dBc/Hz
100 kHz OFFSET = -95 dBc/Hz
- INPUT POWER: ----- +15 \pm 0.5 VDC @ 200 mA MAXIMUM
- CONNECTORS: ----- SMA FEMALE
- WEIGHT: ----- 3 oz MAXIMUM
- SIZE: ----- 1.80" x 1.00" x 0.50"
- FINISH: ----- NICKEL PLATED

ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -50 $^{\circ}$ C TO +85 $^{\circ}$ C (OPERATING)
-55 $^{\circ}$ C TO +125 $^{\circ}$ C (STORAGE)
- HUMIDITY: ----- MIL-STD-202, METHOD 103B COND. B
- SHOCK: ----- MIL-STD-202, METHOD 213B COND. B
- VIBRATION: ----- MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: ----- MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: ----- MIL-STD-202, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

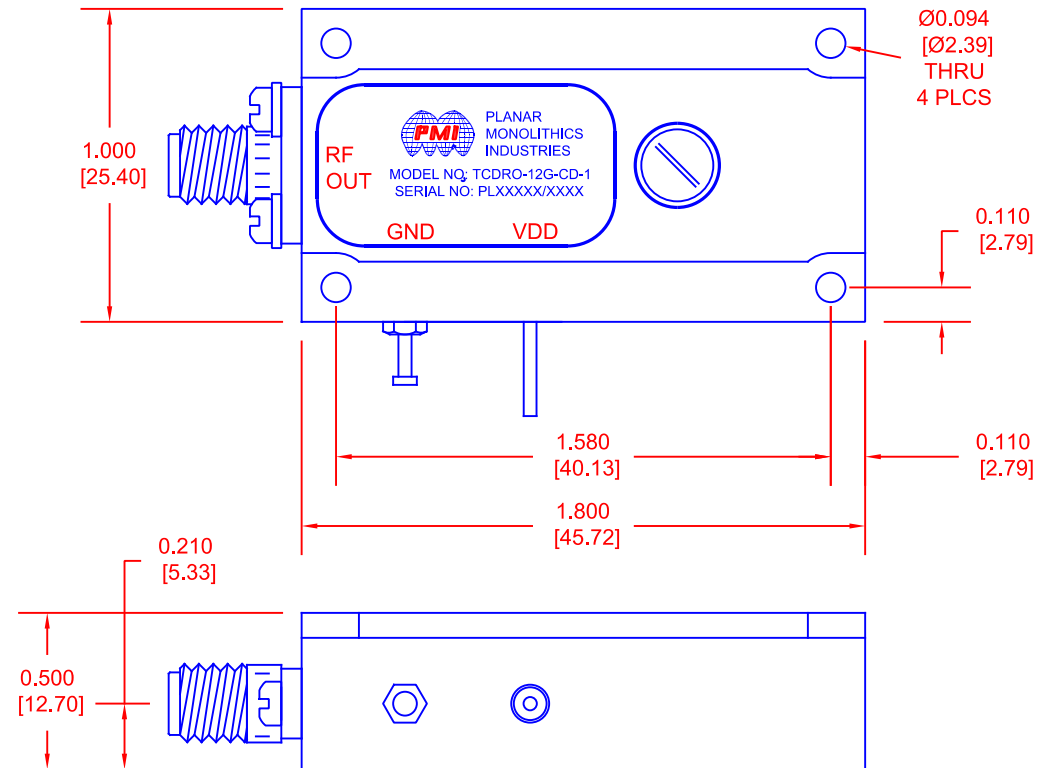
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

PMI CONFIDENTIAL AND PROPRIETARY

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	04/10/18	
	A2	ECN # 24-0011	01/18/2024	

MECHANICAL OUTLINE



PLANAR MONOLITHICS INDUSTRIES, INC.
7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: (301)-662-5019, FAX: (301)-662-1731
WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			REV.
DRAWN M. Berry		04/10/18	PRODUCT FEATURE TCDRO-12G-CD-1			A2
CHECKED			12 GHz Output Temperature Compensated Dielectric Resonator Oscillator			
ISSUED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27034760	
			SCALE N:S	SHEET 1 OF 1		