

## DESCRIPTION

PMI MODEL: PEC-42-500M40G-20-12-292FF-BG IS A 500 MHz TO 40 GHz LOW NOISE AMPLIFIER THAT HAS A TYPICAL GAIN OF 42 dB WHILE MAINTAINING A  $\pm 2.5$  dB FLATNESS. THIS SMALL 1.37" x 1.00" x 0.60" PACKAGE IS OUTFITTED WITH 2.92 mm FEMALE CONNECTORS.

## SPECIFICATIONS

- FREQUENCY RANGE: ----- 500 MHz TO 40.0 GHz
- GAIN: ----- 40 dB TYP
- MINIMUM GAIN: ----- 36 dB MIN
- GAIN FLATNESS: -----  $\pm 2.5$  dB TYP
- NOISE FIGURE: ----- 5.5 dB TYP (UP TO 26.5 GHz)
- OP1dB: ----- +19 dBm TYP (1.0 TO 18.0 GHz)  
+17 dBm TYP (18.0 TO 40.0 GHz)
- PSAT: ----- +23 dBm TYP (1.0 TO 18.0 GHz)  
+20 dBm TYP (18.0 TO 40.0 GHz)
- INPUT POWER HANDLING: ----- +17 dBm CW MAX
- VSWR (IN/OUT): ----- 2.0:1 / 2.5:1 MAX
- DC SUPPLY: ----- +12 TO +15 VDC @ 450 mA NOM
- CONNECTORS: ----- 2.92 mm FEMALE
- FINISH: ----- GOLD PLATED

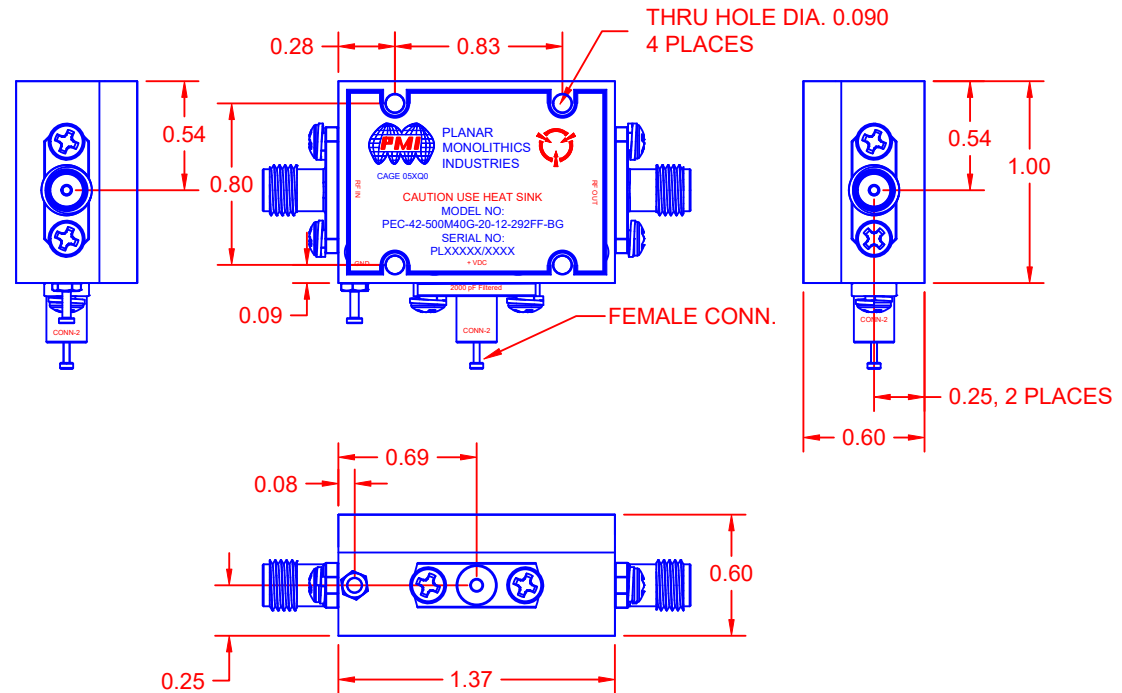
## ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -55 °C TO +85 °C (OPERATING)  
-65 °C TO +117 °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**



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	11/27/18	
	B1	ECN # 20-0017	1/22/20	

## MECHANICAL OUTLINE

## PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN SPH		4/16/18	PRODUCT FEATURE PEC-42-500M40G-20-12-292FF-BG			
REDRAWN SPU		11/27/18	SIZE A	FSCM NO. 05XQ0	DWG NO. 27036000	REV. B1
ISSUED			SCALE N:S		SHEET 1 OF 1	

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