

**DESCRIPTION**

PMI MODEL NUMBER: PSDM-2G18G-360-10B-AMP IS A 10 BIT DIGITALLY CONTROLLED PHASE SHIFTER WITH AN INTERNAL AMPLIFIER, OPERATING OVER THE 2 TO 18 GHz FREQUENCY RANGE. THIS MODEL FEATURES AN LSB OF 0.35° AND 360° OF PHASE CONTROL, ALL IN A SLIM LINE PACKAGE MEASURING ONLY (L) 2.0" X (W) 1.8" (H) 0.4".

**SPECIFICATIONS**

- FREQUENCY RANGE: . . . . . 2 TO 18 GHz
- INSERTION LOSS: . . . . . 2 dB MAX @ 0dBm INPUT POWER
- NOISE FIGURE: . . . . . 8 dB TYP
- VSWR: . . . . . 2.2:1 MAX @ 0dBm INPUT POWER
- PHASE CONTROL RANGE: . . . . . 360 DEGREES
- PHASE LSB STEP: . . . . . 0.35 DEGREES
- PHASE FLATNESS: . . . . . ±25 DEGREES TYP @ 0dBm INPUT POWER
- AMPLITUDE VARIATION VS. POWER: . . . . . ±4 dB TYP (-10 dBm TO +5dBm INPUT POWER)
- AMPLITUDE VARIATION VS. TEMPERATURE ±6 dB TYP (-40°C TO +85°C) @ 0dBm INPUT POWER
- PHASE VARIATION VS. POWER: . . . . . ±15 DEGREES TYP (-10 dBm TO +5dBm INPUT POWER)
- PHASE VARIATION VS. TEMPERATURE: . . . . . ±25 DEGREES TYP (-40°C TO +85°C) @ 0dBm INPUT POWER
- SWITCHING SPEED: . . . . . 200ns MAX
- INPUT POWER: . . . . . +10dBm MAX
- DC SUPPLY: . . . . . +12 to +15VDC @ 100mA
- SIZE: . . . . . (L) 2.0" X (W) 1.8" (H) 0.4"
- PWR/CTL CONNECTORS: . . . . . 15 PIN MICRO-D-FEMALE (MATING CONNECTOR SUPPLIED)
- FINISH: . . . . . BLUE PAINT

PIN NO:	J3 PIN FUNCTIONS
1	11.25°
2	5.625°
3	2.813°
4	1.406°
5	GND
6	0.703°
7	0.351° (LSB)
8	GND
9	Not Used
10	Not Used
11	+12V to +15V
12	180° (MSB)
13	90°
14	45°
15	22.5°

**ENVIRONMENTAL RATINGS:**

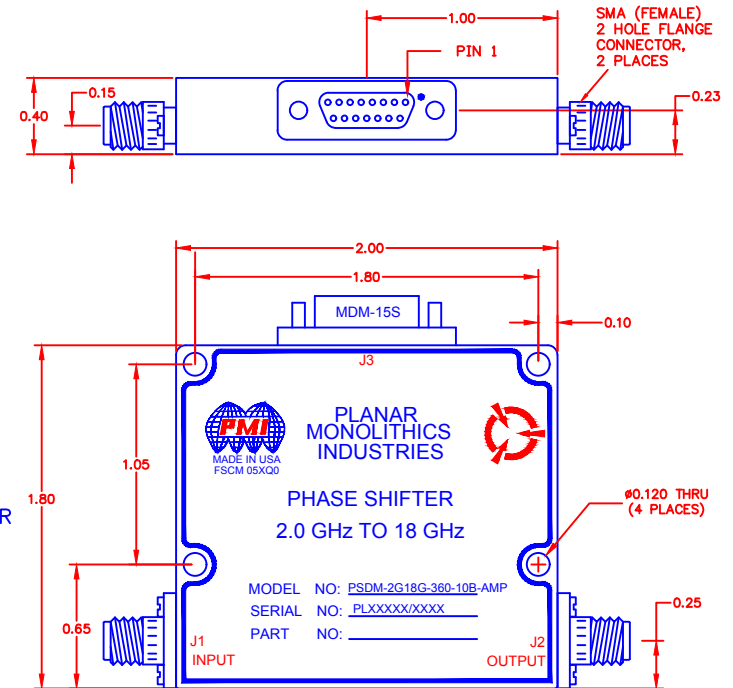
- TEMPERATURE: . . . . . -40°C TO +85°C (OPERATING)  
-65°C TO +125°C (STORAGE)
- HUMIDITY: . . . . . MIL-STD-202F, METHOD 103B COND. B
- SHOCK: . . . . . MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: . . . . . MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: . . . . . MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: . . . . . MIL-STD-202F, METHOD 107 COND.A

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
	-	PRELIMINARY RELEASE	8/10/16	

**MECHANICAL OUTLINE**



PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN <i>PJK</i>		8/10/16	PRODUCT FEATURE PSDM-2G18G-360-10B-AMP		
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 270XXXXX
ISSUED			SCALE N: S		SHEET 1 OF 1