

## DESCRIPTION

PMI MODEL: PS-380M430M-360-A-SFF-TYPEB IS AN ANALOG PHASE SHIFTER OPERATING OVER THE 380 TO 430 MHz FREQUENCY RANGE. THIS MODEL OFFERS A 360° PHASE SHIFT RANGE WHILE MAINTAINING A PHASE SWITCHING SPEED OF 100 ns TYPICAL AND AN AMPLITUDE VARIATION OF 0.5 dBm MAXIMUM.

## SPECIFICATIONS

- FREQUENCY RANGE: ----- 380 MHz TO 430 MHz
- RF INPUT POWER: ----- 0 dBm
- RF OUTPUT POWER: ----- 20 dBm
- PHASE RANGE: ----- 360°
- CONTROL VOLTAGE: ----- ±10 VDC
- CONTROL BANDWIDTH: ----- DC TO 50 kHz
- PHASE SWITCHING SPEED: ----- 100 ns TYPICAL
- AMPLITUDE VARIATION: ----- 0.5 dBm MAXIMUM
- PHASE VARIATION FROM SET POINT: - ±0.1° MAXIMUM
- VSWR: ----- 1.2:1 MAXIMUM
- DC SUPPLY: ----- +15 V @ 150 mA TYPICAL  
-15 V @ 25 mA TYPICAL
- CONNECTORS: ----- SMA FEMALE
- SIZE: ----- 127 mm x 76.20 mm x 57.15 mm  
5.00" x 3.00" x 2.25"  
EXCLUDING MOUNTING PLATE
- FINISH: ----- BLUE EPOXY POLIMIDE COATING  
IAW MIL-C-22750, TYPE I OVER  
EPOXY POLIMIDE PRIMER IAW  
MIL-P-23377, TYPE I, CLASS 1 OR 3.

## ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- 0 °C TO +70 °C (OPERATING)
- 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

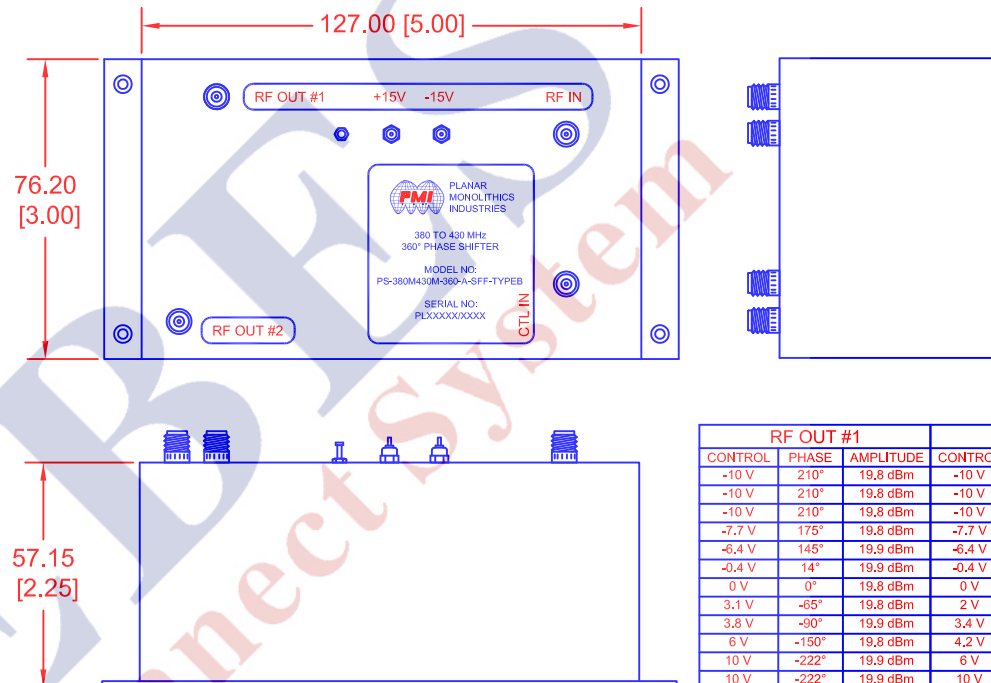
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

**PMI CONFIDENTIAL AND PROPRIETARY**

ALL DIMENSIONS  
ARE IN mm [INCH]  
TOLERANCES:  
X.XX ± 0.508 [0.020]  
X.XXX ± 0.254 [0.010]

| REVISIONS |      |             |          |          |
|-----------|------|-------------|----------|----------|
| ZONE      | REV. | DESCRIPTION | DATE     | APPROVED |
|           | -    | PRELIMINARY | 08/09/16 |          |
|           |      |             |          |          |
|           |      |             |          |          |

## MECHANICAL OUTLINE



| RF OUT #1 |       |           | RF OUT #2 |       |           |
|-----------|-------|-----------|-----------|-------|-----------|
| CONTROL   | PHASE | AMPLITUDE | CONTROL   | PHASE | AMPLITUDE |
| -10 V     | 210°  | 19.8 dBm  | -10 V     | 210°  | 20.1 dBm  |
| -10 V     | 210°  | 19.8 dBm  | -10 V     | 210°  | 20.1 dBm  |
| -10 V     | 210°  | 19.8 dBm  | -10 V     | 210°  | 20.1 dBm  |
| -7.7 V    | 175°  | 19.8 dBm  | -7.7 V    | 175°  | 20.1 dBm  |
| -6.4 V    | 145°  | 19.8 dBm  | -6.4 V    | 145°  | 20.2 dBm  |
| -0.4 V    | 14°   | 19.9 dBm  | -0.4 V    | 11°   | 20.2 dBm  |
| 0 V       | 0°    | 19.8 dBm  | 0 V       | 0°    | 20.1 dBm  |
| 3.1 V     | -65°  | 19.8 dBm  | 2 V       | -45°  | 20 dBm    |
| 3.8 V     | -90°  | 19.9 dBm  | 3.4 V     | -80°  | 20.1 dBm  |
| 6 V       | -150° | 19.8 dBm  | 4.2 V     | -110° | 20.1 dBm  |
| 10 V      | -222° | 19.9 dBm  | 6 V       | -150° | 20.2 dBm  |
| 10 V      | -222° | 19.9 dBm  | 10 V      | -222° | 20.2 dBm  |
| 10 V      | -222° | 19.9 dBm  | 10 V      | -222° | 20.2 dBm  |

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ISO 9001 CERTIFIED



|                          |                 |                                                                                                     |                   |                        |           |
|--------------------------|-----------------|-----------------------------------------------------------------------------------------------------|-------------------|------------------------|-----------|
|                          |                 | TITLE<br>PRODUCT FEATURE<br>PS-380M430M-360-A-SFF-TYPEB<br>380 to 430 MHz 360° Analog Phase Shifter |                   |                        |           |
| APPROVALS                | DATE            |                                                                                                     |                   |                        |           |
| DRAWN<br><i>M. Berry</i> | <i>08/09/16</i> |                                                                                                     |                   |                        |           |
| CHECKED                  |                 | SIZE<br>A                                                                                           | FSCM NO.<br>05XQ0 | DWG NO.<br>PRELIMINARY | REV.<br>- |
| ISSUED                   |                 | SCALE<br>N:S                                                                                        |                   | SHEET<br>1 OF 1        |           |