

DESCRIPTION

PMI MODEL PSAT-9G11G-360D-60DB-10D IS A PHASE AND AMPLITUDE CONTROL MODULE DESIGNED TO HELP SOLVE THE COMPLEX CALIBRATION NEEDED WHEN INTEGRATING A STANDARD ATTENUATOR AND PHASE SHIFTER. THIS MODEL OPERATES OVER THE 9 TO 11GHz FREQUENCY RANGE WITH 2 X 10 BIT PHASE AND AMPLITUDE CONTROLS. THE ATTENUATOR IS DESIGNED TO HAVE LESS THAN ±6 DEGREES PHASE ERROR, AND THE PHASE SHIFTER PROVIDES BETTER THAN ±1.0dB AMPLITUDE ERROR. THIS DEVICE IS OFFERED IN A SMALL HOUSING THAT MEASURES 4.0" X 2.5" X 0.75".

SPECIFICATIONS

- FREQUENCY RANGE: 9.0 TO 11.0 GHz
- DYNAMIC RANGE: 63.94dB & 360°
- INSERTION LOSS: 12.0 dB Typ.
- VSWR: 2.0 : 1 Max
- INPUT POWER: +23dBm SURVIVAL Max
+10dBm OPERATING Max
- CONTROL: 2 x 10 BIT TTL COMPATIBLE
- POWER SUPPLY: +12V to +15V @ 200 mA MAX
- SIZE: 4.0" X 2.5" X 0.75"
- FINISH: PAINTED BLUE

ATTENUATOR

- FLATNESS: ±0.50 dB @ 20dB Typ
±0.75 dB @ 40dB Typ
±1.25 dB @ 60dB Typ
- ACCURACY: ±0.50 dB 0 TO 20dB Typ
±1.00 dB 20 TO 60dB Typ
- PHASE INVARIANCE: ±3.0° @ 30dB Typ
±6.0° @ 60dB Typ
- SWITCHING TIME: 1us Max

PHASE SHIFTER

- PHASE ACCURACY: ±1° Typ
- PHASE FLATNESS VS FREQUENCY: ±3° Typ
- AMPLITUDE INVARIANCE: ±1.dB Typ
- SWITCHING TIME: 500ns Max

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 107D COND. A

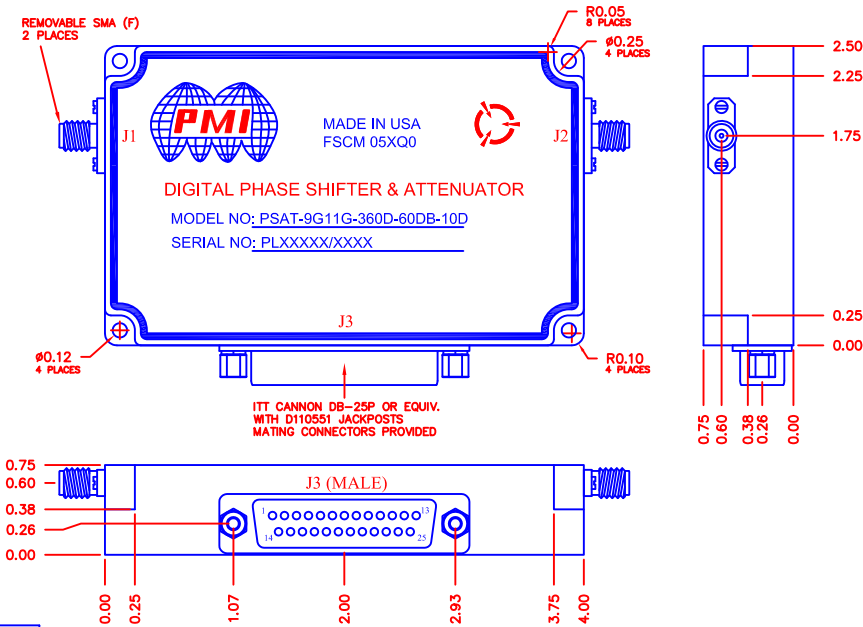
NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

CONFIDENTIAL AND PROPRIETARY

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	7/29/14	

MECHANICAL OUTLINE



J3 PIN FUNCTIONS			
PIN NUMBER	FUNCTION	PIN NUMBER	FUNCTION
1	0.35° (LSB)	16	0.06dB (LSB)
2	0.70°	17	0.13dB
3	1.41°	18	0.25dB
4	2.81°	19	0.50dB
5	5.63°	20	1.00dB
6	11.3°	21	2.00dB
7	22.5°	22	4.00dB
8	45.0°	23	8.00dB
9	90.0°	24	16.0dB
10	180° (MSB)	25	32.0dB (MSB)
11	GND		
12	GND		
13	GND		
14	+V		
15	+V		

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APPROVALS		DATE		TITLE	
DRAWN		7/29/14		PRODUCT FEATURE	
MODIFIED				PSAT-9G11G-360D-60DB-10D	
ISSUED				PRELIMINARY	
SIZE		FSCM NO.		DWG NO.	
A		05XQ0		PRELIMINARY	
SCALE		N:S		SHEET	
				1 OF 1	