

DESCRIPTION

PMI MODEL NUMBER PS-500M2G-10B-SFF-MIL-SM IS A 0.5 TO 2GHz DIGITALLY CONTROLLED ANALOG PHASE SHIFTER WITH CAPABILITY FOR PHASE SHIFTING FROM 0° TO 360°. THE UNIT CONSISTS OF AN ANALOG PHASE SHIFTER AND A DIGITAL-TO-ANALOG CONVERTER (EXTERNAL LATCH/STRB) WITH TEN LOGIC INPUT LINES ALLOW 1024 DISCRETE VALUES OF PHASE.

SPECIFICATIONS

- FREQUENCY RANGE: _____ 0.5 TO 2 GHz
- CONTROL _____ 10 BIT TTL**
- INSERTION LOSS _____ 13dB MAX
- PHASE SHIFT _____ 360° TYP
- AMPLITUDE ERROR _____ ±1.0 dB MAX.
- PHASE SHIFT ERROR _____ ±5° MAX.
- SWITCHING SPEED _____ 500 ns MAX.
- SPURIOUS _____ -60dBc MAX.
- POWER SUPPLY
 - +V: _____ +15V @ 250 mA TYP.
 - V: _____ -15V @ 20 mA TYP.
- SIZE: _____ 3.25" X 3.25" X 0.84"
- WEIGHT: _____ 10 oz MAX.
- CONNECTORS(RF) _____ SMA FEMALE
- CONNECTOR (CONTROL) _____ 15 PIN SUBMINIATURE D (MALE) – MATE SUPPLIED
- 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.



** Device uses external latch/strb. Latch is triggered on the rising edge and reset on the falling edge before able to process next digital word.

ENVIRONMENTAL RATINGS

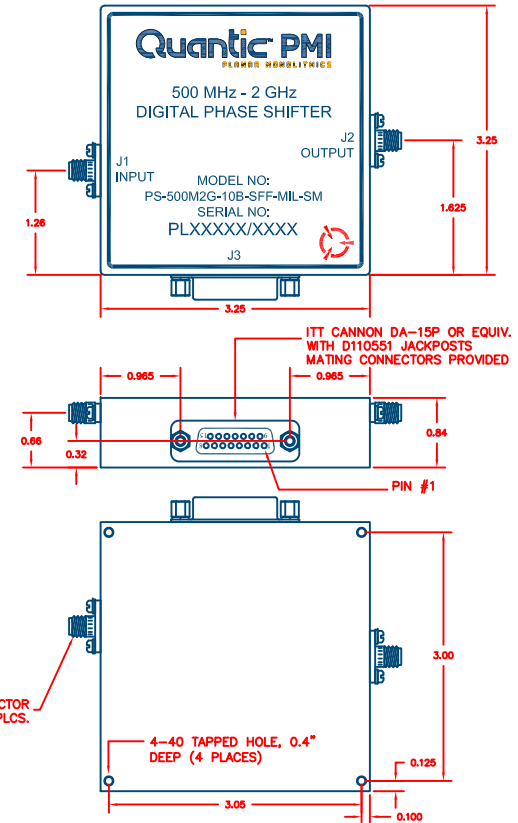
- **TEMPERATURE:** _____ -20°C TO +85°C (OPERATING)
 _____ -40°C TO +85°C (STORAGE)
- **HUMIDITY:** _____ MIL-HDBK-5400 4.6.2.4 NOTE: Operating Relative Humidity: 90% max. with non-condensation. **Condensation control is implemented by the system.
- **SHOCK:** _____ MIL-HDBK-5400 4.6.2.6
 Only, Sawtooth wave 20G, 11ms (MIL-STD-810 method 516.5 procedure I)
 Altitude : MIL-HDBK-5400 CLASS1 Note: Upper limit of Altitude shall be 10,500ft.
- **VIBRATION:** _____ MIL-HDBK-5400 4.6.2.5 Only, JET AIRCRAFT
 Functional test: W1=0.04G²/Hz, W2=0.03G²/Hz,
 Overall=6.86Grms: 0.5Hr x 2times x 3directions
 Endurance test: W1=0.04G²/Hz, W2=0.166G²/Hz,
 Overall=15.07Grms: 3Hr x 3directions."

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

ELECTRICAL CONNECTOR PIN ASSIGNMENTS	
PIN	FUNCTION
1	-VDC
2	+VDC
3	LATCH/STRB
4	1.4"
5	5.6"
6	45°
7	180.0° (MSB)
8	90°
9	GND
10	N/C
11	22.5°
12	2.8°
13	11.3°
14	0.7°
15	0.35° (LSB)

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	01/26/23	



7311-A GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: (301)-662-5019, FAX: (301)-662-1731
 WEB: www.quanticipmi.com
 EMAIL: sales@quanticipmi.com
 ISO 9001 CERTIFIED

Quantic PMI
PLXRRR HONOLULIKICS

APPROVALS		DATE	TITLE		
DRAWN <i>R. JPRK</i>		01/26/23	PRODUCT FEATURE PS-500M2G-10B-SFF-MIL-SM		
REDRAWN			SIZE A	FSCM NO. 05XQ0	DWG NO. 27045660
ISSUED			SCALE N:S		REV. A1
					SHEET 1 OF 1