

DESCRIPTION

PMI MODEL: PDT-8G12G-40-515-SFF IS A 2-WAY HIGH POWER SWITCH THAT OPERATES OVER THE 8.0 TO 12.0 GHz FREQUENCY RANGE. THIS SWITCH HAS A MAXIMUM INSERTION LOSS OF 2 dB, A TYPICAL VSWR OF 1.8:1, AND A MINIMUM ISOLATION OF 40 dB. THIS UNIT HAS AN OPERATING POWER OF +40 dBm CW AVERAGE OR +57 dBm AT A 1 μ s PULSE WIDTH AND A 1% DUTY CYCLE.

SPECIFICATIONS

- FREQUENCY: ----- 8.0 TO 12.0 GHz
- INSERTION LOSS: ----- 2.0 dB MAXIMUM - 8.0 TO 10.0 GHz
2.3 dB MAXIMUM - 10.0 TO 12.0 GHz
- ISOLATION: ----- 40 dB MINIMUM
- OPERATING POWER: ----- +40 dBm CW AVERAGE
+57 dBm @ 1 μ s PULSE WIDTH, 1% DUTY CYCLE
- VSWR: ----- 1.8:1 TYPICAL
- SWITCHING SPEED: ----- 200 ns MAXIMUM
- SUPPLY: ----- +5 V @ 100 mA
-15 V @ 60 mA
- 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. MOUNTING SURFACE FREE OF PAINT

LOGIC CONTROL TTL

TTL	J0-J1	J0-J2
HIGH	INSERTION LOSS	ISOLATION
LOW	ISOLATION	INSERTION LOSS

ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -54 °C TO +95 °C (OPERATING)
-65 °C TO +125 °C (STORAGE)
- HUMIDITY: ----- MIL-STD-202, METHOD 103B COND. B MAINTAIN RH 95 \pm 4% @ 63 °C (ALLOWED RF 85% WHEN TEMPERATURE-DOWN TRANSITION TIME.)
THE RATE OF TEMPERATURE CHANGE: ABOVE 8 °C/HOURS
- SHOCK: ----- MIL-STD-202, METHOD 213, COND J
20G (DURING OPERATION) & 125g, 6 ms SAW TOOTH TYPE, 3-AXIS (NO OPERATION)
- VIBRATION: ----- MIL-STD-202, METHOD 214, COND A
12G 30 MIN X, Y, Z-AXIS (DURING OPERATION) & 20G 30 MIN X, Y, Z-AXIS (DURING OPERATION)
- ALTITUDE: ----- MIL-STD-202, METHOD 105C, COND B
200Km (8.47e-7 hPa or 6.353e-7 torr/DURING OPERATION)
- TEMPERATURE CYCLE: ----- MIL-STD-202, METHOD 107D COND. A

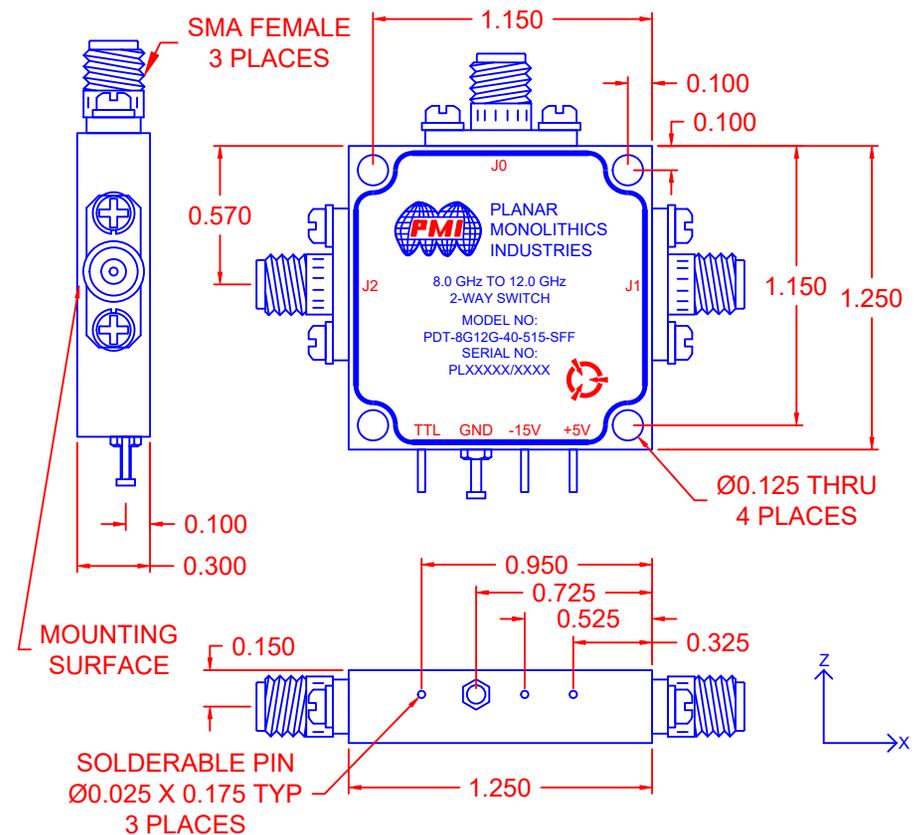
NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

PMI CONFIDENTIAL AND PROPRIETARY

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	10/14/16	
	B1	INSERTION LOSS UPDATE	5/2/18	
	B2	ECN # 25-0049	2/24/25	

MECHANICAL OUTLINE



PLANAR MONOLITHICS INDUSTRIES, INC.

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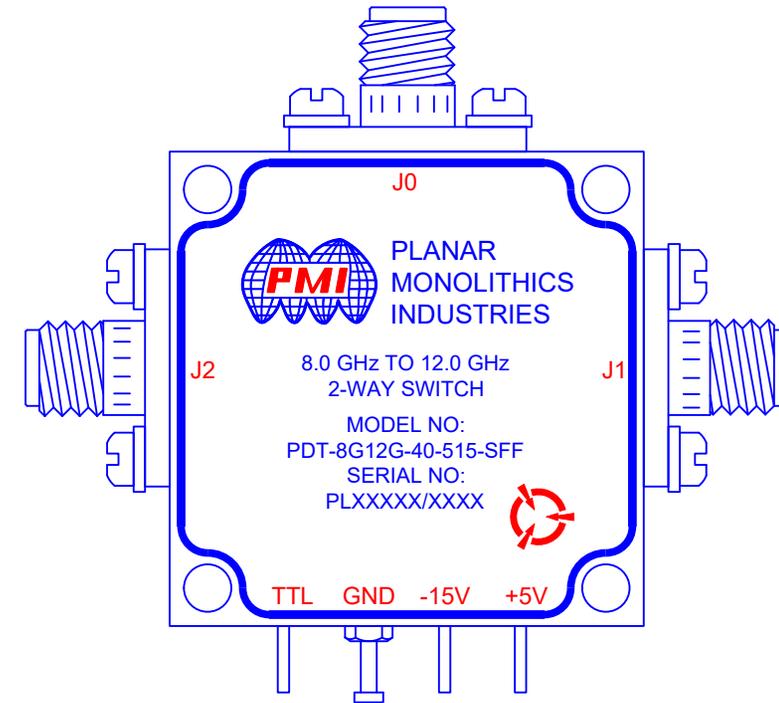
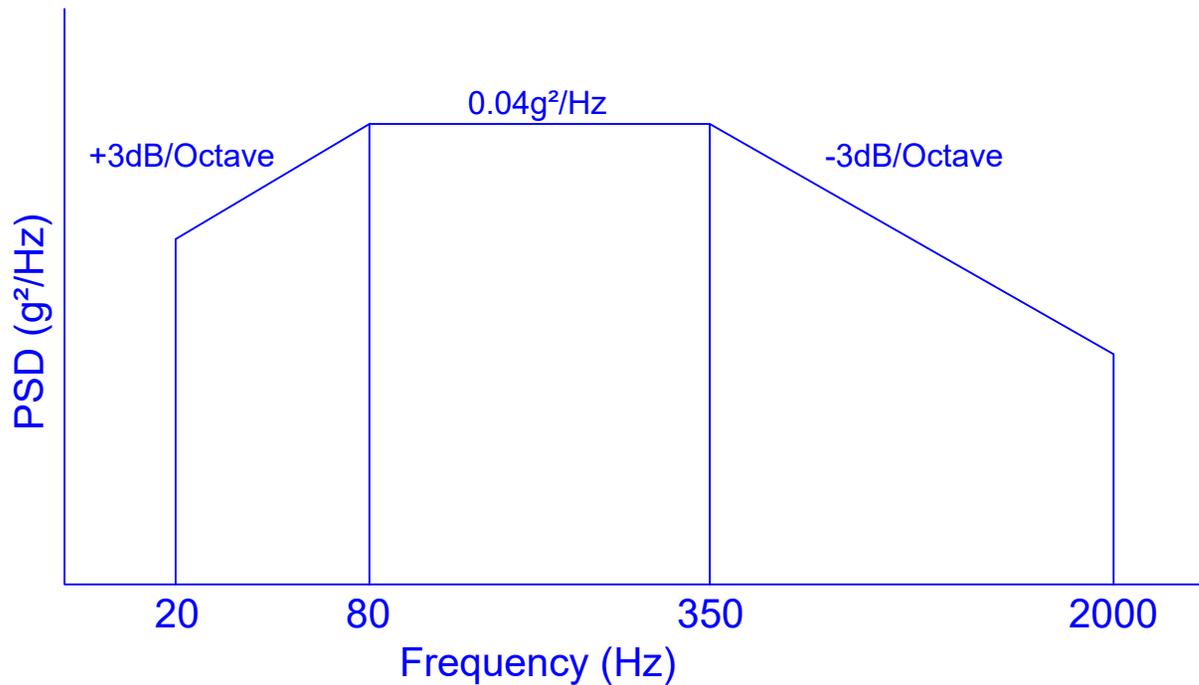
ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			REV.
DRAWN M. Berry		10/14/16	PRODUCT FEATURE PDT-8G12G-40-515-SFF 8.0 GHz to 12.0 GHz 2-Way Switch			B2
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27030580	
ISSUED			SCALE N:S		SHEET 1 OF 2	

VIBRATION TESTING PROFILE:

1. VIBRATION DIRECTION IS Z-AXIS
2. VIBRATION FREQUENCY IS RANDOM VIBRATION 20-2000 Hz AND EXCLUDES RESONANCE FREQUENCY OF A TEST ZIG
3. VIBRATION MAGNITUDE IS 6grms, $0.04g^2/Hz \pm 3$ dB OCTAVE FOR 10 MINUTES



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

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CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27030580	REV. B2
ISSUED			SCALE N:S		SHEET 2 OF 2	