DESCRIPTION

PMI MODEL P2T-100M44-50-T-292FF-PH IS AN ABSORPTIVE, SINGLE POLE, TWO THROW PIN DIODE SWITCH THAT OPERATES OVER THE 0.1 TO 44 GHz FREQUENCY RANGE. THIS MODEL OFFERS 54 dB TYPICAL ISOLATION , 100ns TYPICAL SWITCHING SPEED, AND IS OUTFITTED WITH REMOVABLE 2.92mm CONNECTORS.

SPECIFICATIONS

- FREQUENCY RANGE: ---------- 0.1 TO 44 GHz
- INSERTION LOSS (BETWEEN J1 & J2/J3): --- 2.5 dB Max. (0.1 TO 18 GHz)
  3.8 dB Max. (18 GHz TO 35 GHz)
  6.0 dB Max. (35 GHz TO 44 GHz)
- ISOLATION (BETWEEN J2 & J3): ---------- 54 dB Typ. (0.1 TO 18 GHz)
  50 dB Typ. (18 TO 35 GHz)
  46 dB Typ. (35 TO 44 GHz)
- VSWR:---------- 2.0:1 TYP / 2.5:1 Max.
- RISE AND FALL TIME: ---------- 10ns MAXIMUM (10% TO 90% OF RF OUTPUT)
- ON AND OFF TIME: ---------- 20ns MAXIMUM (50% Vctl TO 90% OF RF OUTPUT)
- RF SETTLING TIME: ---------- 60ns TYPICAL (50% Vctl TO 0.1 dB OF FINAL RF OUTPUT)
  70ns TYPICAL (50% Vctl TO 0.05 dB OF FINAL RF OUTPUT)
- P1dB: ---------- 27 dBm TYPICAL
- MAX INPUT POWER:---------- 27 dBm @ +85 Degrees C & 24 dBm HOT SWITCHING
- IP3: ---------- 53 dBm TYPICAL
- POWER SUPPLY: ---------- +V = +5VDC @ 1mA MAXIMUM
  -V = -5VDC @ 10mA MAXIMUM
  CTL1 = TTL
- CONNECTORS: ---------- RF: 2.92 mm FEMALE
  POWER AND CONTROL : MICRO-D (9 PINS)
- SIZE (EXCLUDING CONNECTORS): ---------- 1.00" x 1.00" x 0.70"
- FINISH: ---------- PAINTED BLUE

ENVIRONMENTAL RATINGS

- TEMPERATURE: ---------- -40 °C TO +85 °C (OPERATING)
  -55 °C TO +125 °C (STORAGE)
- 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

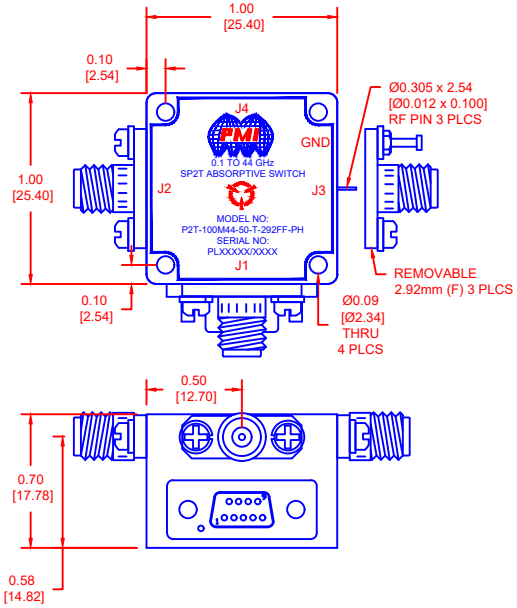
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

PMI CONFIDENTIAL AND PROPRIETARY

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	6/10/20	
	B1	ECN # 21-0109	7/6/21	

MECHANICAL OUTLINE



PLANAR MONOLITHICS INDUSTRIES, INC.
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ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN SPH	2/27/20
CHECKED SMH	6/10/20
ISSUED	

TITLE
PRODUCT FEATURE
P2T-100M44-50-T-292FF-PH
0.1 to 44.0 GHz SP2T Absorptive Pin Diode Switch

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27038660	B1

SCALE N:S SHEET 1 OF 2

DESCRIPTION

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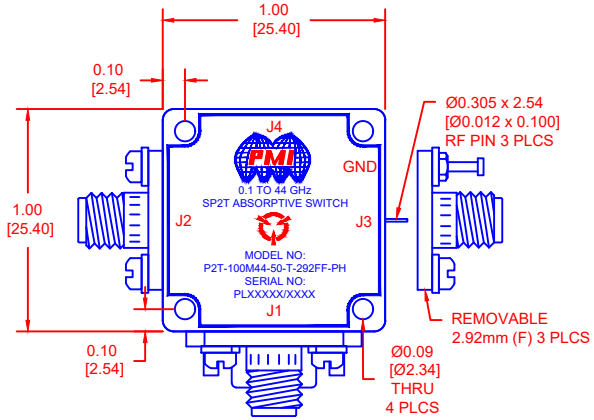

MECHANICAL OUTLINE

LOGIC TABLE		
ENABLE	CTL1	FUNCTION
0	0	J1 - J2
0	1	J1 - J3
1	0	ALL OFF
1	1	ALL OFF

J4	FUNCTION
1	+VDC
2	GND
3	-VDC
4	GND
5	GND
6	GND
7	GND
8	CTRL1
9	ENABLE

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ENVIRONMENTAL RATINGS

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SCALE N:S SHEET 2 OF 2