

## DESCRIPTION

PMI MODEL P8T-100M50G-90-T-RD IS AN ABSORPTIVE, SINGLE POLE EIGHT THROW PIN DIODE SWITCH THAT OPERATES OVER THE 0.1 GHz TO 50 GHz FREQUENCY RANGE. IT FEATURES LOW INSERTION LOSS AND HIGH ISOLATION IN A SLIMLINE PACKAGE. THIS MODEL ALSO INCORPORATES A TTL COMPATIBLE DRIVER FOR EASE OF SYSTEM INTEGRATION.

## SPECIFICATIONS

- FREQUENCY:----- 0.1 TO 50 GHz
- INSERTION LOSS: ----- 6.0 dB TYP, 7.0 dB MAX (0.1 TO 18 GHz)  
9.0 dB TYP, 10.5 dB MAX (18 TO 40 GHz)  
16.0 dB TYP, 17.0 dB MAX (40 TO 50 GHz)
- INPUT & OUTPUT VSWR: ----- 2.2:1 TYP, 2.5:1 MAX (0.1 TO 18 GHz)  
2.5:1 TYP, 3.2:1 MAX (18 TO 40 GHz)  
3.5:1 TYP, 3.7:1 MAX (40 TO 50 GHz)
- ISOLATION: ----- 90 dB TYP, 70 dB MIN (0.1 TO 1 GHz)  
90 dB TYP, 60 dB MIN (1 TO 40 GHz)  
80 dB TYP, 50 dB MIN (40 TO 50 GHz)
- INPUT POWER: ----- 20 dBm CW MAX
- SWITCHING SPEED: ----- 50 ns MAX
- CONTROL SIGNAL: ----- SEE TTL LOGIC TABLE
- DC VOLTAGE: ----- +5 V @ 400 mA MAX, -5 V @ 300 mA MAX
- RF CONNECTORS: ----- 2.4 mm FEMALE
- SIZE: ----- 1.60" X 1.68" X 0.40"
- FINISH: ----- GOLD PLATED

## ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -55 °C TO +85 °C (OPERATING)  
-65 °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

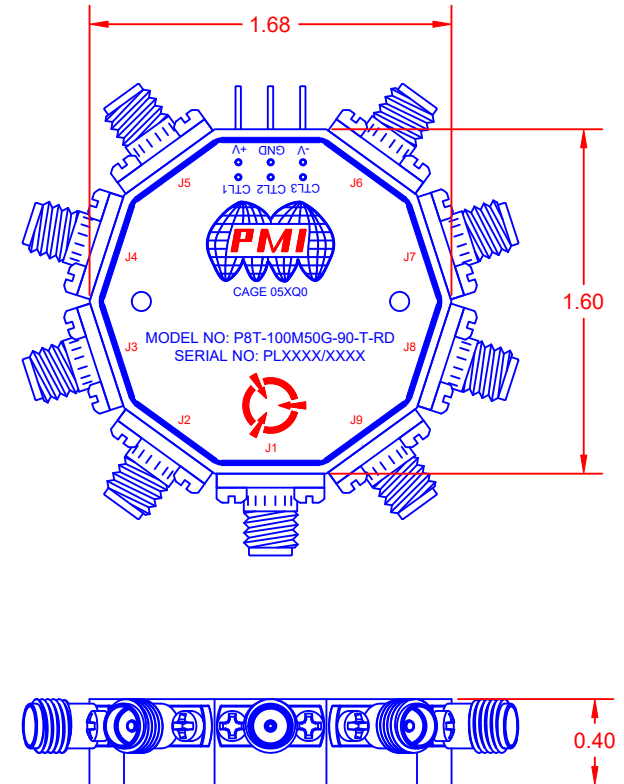
NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

**PMI CONFIDENTIAL AND PROPRIETARY**

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	9/24/2020	
	A2	ECN # 22-0108	8/25/2022	



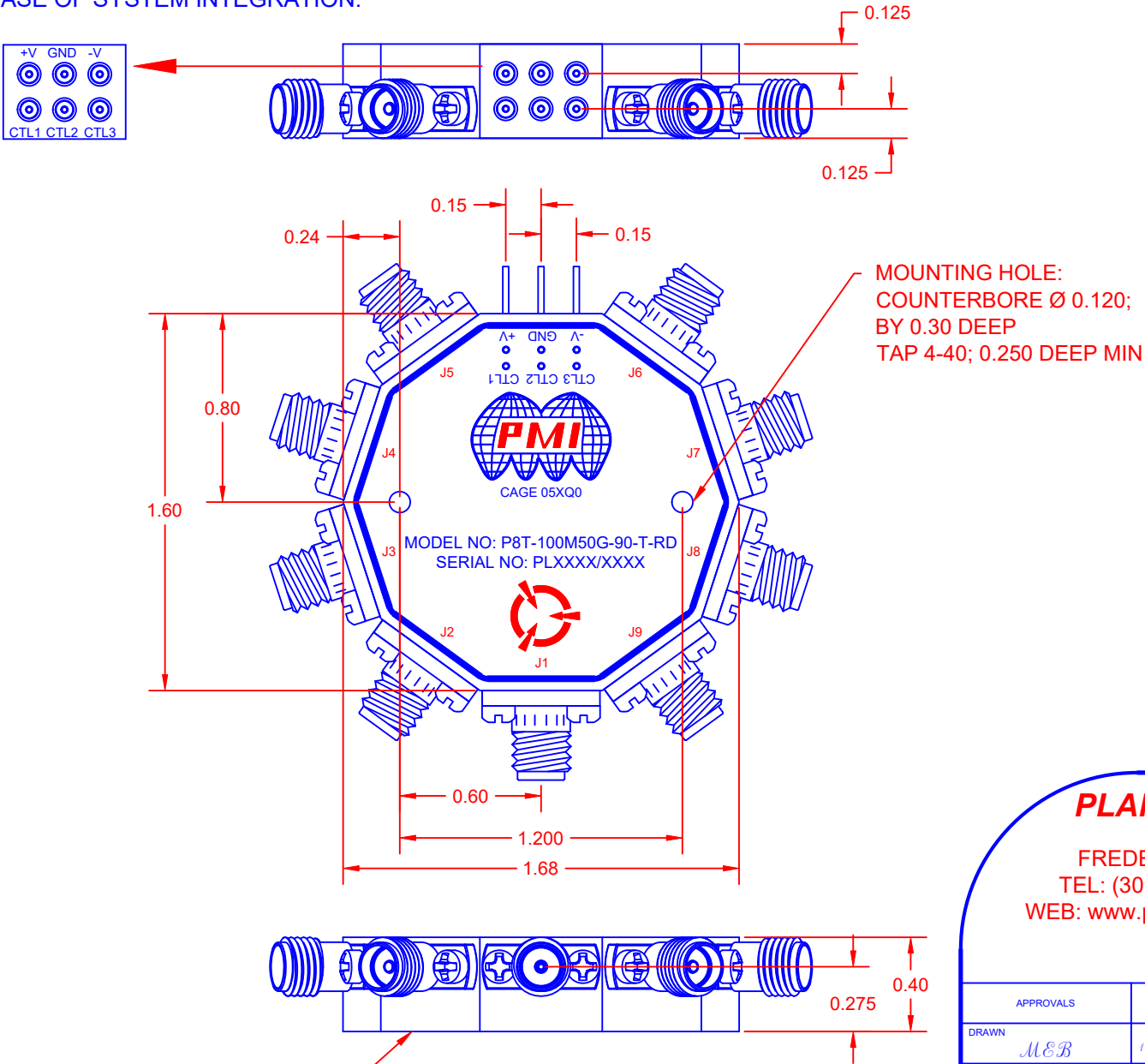
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ISO 9001 CERTIFIED



APPROVALS		DATE		TITLE	
DRAWN <i>MEB</i>		12/23/15		PRODUCT FEATURE P8T-100M50G-90-T-RD	
CHECKED				SIZE A	REV. A2
ISSUED				FSCM NO. 05XQ0	
				DWG NO. 27034420	
				SCALE N:S	SHEET 1 OF 2

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MECHANICAL OUTLINE

TTL LOGIC CONTROL TABLE

CTL 3	CTL 2	CTL 1	FUNCTION
0	0	0	J1 TO J2
0	0	1	J1 TO J3
0	1	0	J1 TO J4
0	1	1	J1 TO J5
1	0	0	J1 TO J6
1	0	1	J1 TO J7
1	1	0	J1 TO J8
1	1	1	J1 TO J9

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

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MOUNTING SURFACE

APPROVALS		DATE		TITLE			
DRAWN		CHECKED		PRODUCT FEATURE P8T-100M50G-90-T-RD			
ISSUED		SCALE		SIZE		REV.	
		N:S		A		A2	
				FSCM NO.		DWG NO.	
				05XQ0		27034420	
						SHEET	
						2 OF 2	