

**DESCRIPTION:**

QUANTIC PMI MODEL P8T-8G18G-60-T-SFF-PM-ROHS IS A 8 TO 18 GHz SINGLE POLE EIGHT THROW, PHASE MATCHED, ABSORPTIVE SWITCH MODULE DESIGNED FOR BROADBAND OPERATION.

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	PRELIMINARY	2/7/2025	
	3	UPDATE PHASE MATCHING	7/16/2025	
	4	UPDATE SWITCHING DEFINITION	7/17/2025	

**SPECIFICATIONS:**

- FREQUENCY RANGE:..... 8 GHz TO 18 GHz
- ISOLATION:..... 60 dB MIN.
- INSERTION LOSS:..... 6.5 dB MAX
- VSWR IN/OUT (ON):..... 1.4:1 MAX (15 dB MIN.)
- VSWR IN/OUT (OFF):..... 2.0:1 MAX (10 dB MIN.)

\*NOT INCLUDING COMMON ARM UNDER ALL OFF CONDITIONS

- P1dB:..... 30 dBm MIN.
- INPUT POWER:..... 23 dBm MAX (HOT SWITCHING)
- SURVIVAL POWER:..... 30 dBm CW MAX
- SWITCHING SPEED (ON):..... 50 ns MIN., 120 ns MAX

\*ON TIME SWITCHING IS DEFINED BETWEEN 50% OF CONTROL RISING EDGE AND 90% OF THE MAXIMUM STABILIZED SIGNAL AMPLITUDE AT OUTPUT RF ACCESS.

- SWITCHING SPEED (OFF):..... 50 ns MIN., 120 ns MAX

\*OFF SWITCHING SPEED IS DETERMINED BY 50% ON THE TTL SIGNAL TO A 30 dB POWER REDUCTION OF RF SIGNAL

- PHASE MATCHING:..... 24° MAX ARM TO ARM
- CONTROL SIGNAL:..... 3-BIT TTL
- DC POWER SUPPLY:..... +5 VDC (±5%) @ 700 mA MAX  
-15 VDC (±5%) @ 50 mA

- FINISH:..... PAINTED BLUE
- IMPEDANCE:..... 50 Ω
- INSERTION LOSS IMBALANCE:..... 1.5 dB MAX \*  
2.0 dB MAX \*\*  
0.8 dB MAX \*\*\*

\* @ 1 GHz SLIDING FREQUENCY BAND, BETWEEN TWO ARBITRARY PATHS ON THE SAME UNIT

\*\* OVER FREQUENCY BAND BETWEEN TWO ARBITRARY PATHS FROM UNIT TO UNIT, PER LOT

\*\*\* @ 1 GHz SLIDING FREQUENCY BAND

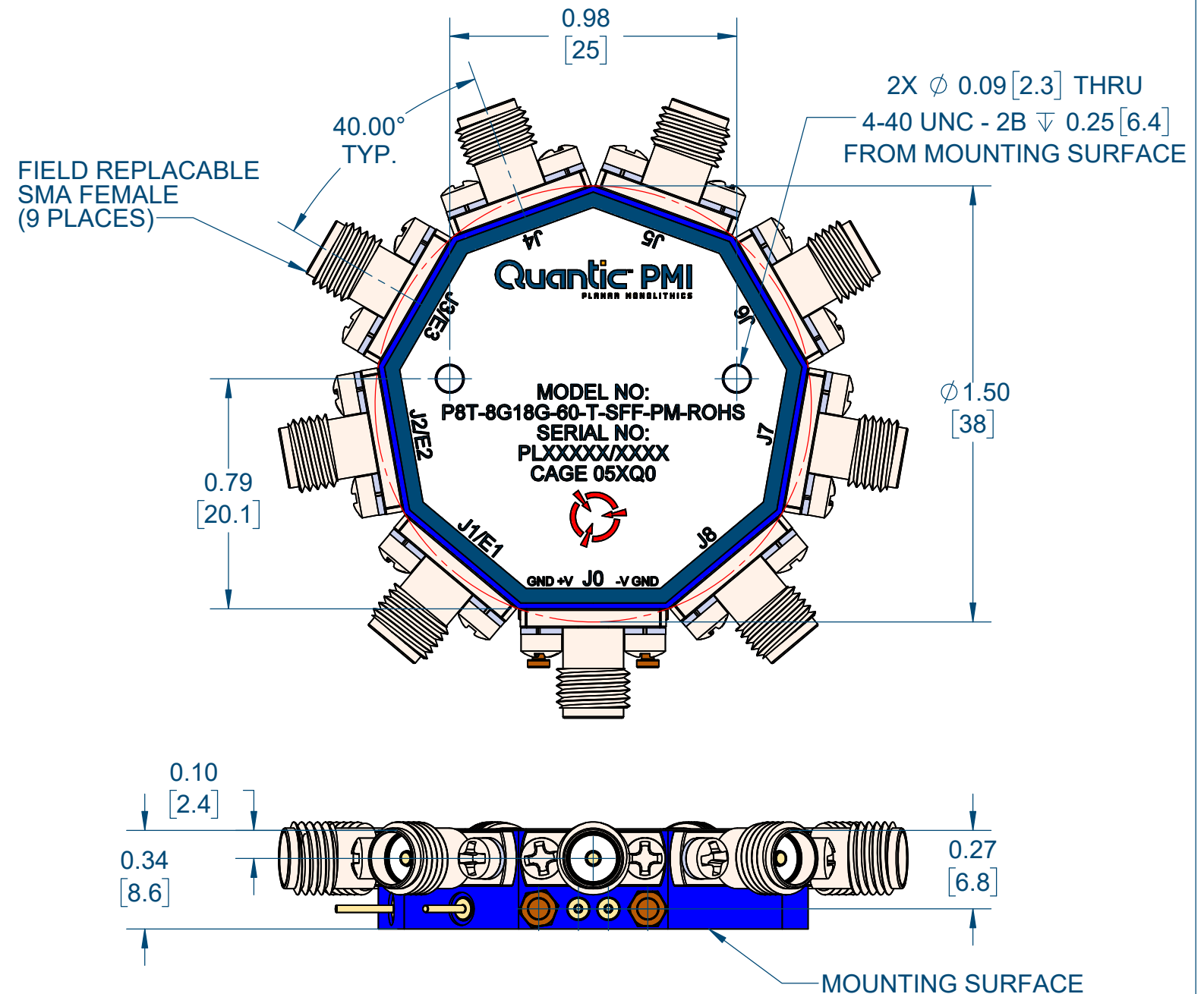
**LOGIC TABLE**

E1	E2	E3	INSERTION LOSS
0	0	0	J0-J1
1	0	0	J0-J2
0	1	0	J0-J3
1	1	0	J0-J4
0	0	1	J0-J5
1	0	1	J0-J6
0	1	1	J0-J7
1	1	1	J0-J8

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -54°C TO +95°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 TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



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APPROVALS DRAWN <b>D. HOSCHAR</b> REDRAWN ISSUED		DATE 2/7/2025	<b>Quantic PMI</b> PLANNED MONOLITHICS 7309-A GROVE ROAD FREDERICK MARYLAND 21704 USA TEL: (301) 662-5019, FAX: (301) 662-1731 WEB: WWW.QUANTICPMI.COM, EMAIL: SALES@QUANTICPMI.COM ISO 9001 CERTIFIED	
TITLE PRELIMINARY OUTLINE P8T-8G18G-60-T-SFF-PM-ROHS			SIZE B	FSCM NO. 05XQ0
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± .XXX ± 0.01			DWG NO. PRELIMINARY	REV. 4
SCALE 2:1			SHEET 1 OF 1	