

DESCRIPTION:

QUANTIC PMI MODEL P12T-8G18G-60-T-SFF-PM-ROHS IS A PHASE MATCHED, HIGH SPEED, SINGLE POLE, TWELVE THROW, ABSORPTIVE SWITCH CAPABLE OF SWITCHING WITHIN 50 TO 120 ns. THE FREQUENCY RANGE IS 8 TO 18 GHz AND HAS OVER 60 dB OF ISOLATION.

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:..... 4-BIT DECODED TTL
- DC POWER SUPPLY:..... +5 VDC (±5%) @ 700 mA MAX
-15 VDC (±5%) @ 50 mA

- FINISH:..... PAINTED BLUE
- INSERTION LOSS IMBALANCE:..... 1.5 dB MAX *
2.0 dB MAX **
1.0 dB MAX ***

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

** @ 1 GHz SLIDING FREQUENCY BAND BETWEEN TWO ARBITRARY PATHS FROM UNIT TO UNIT, PER LOT

*** @ 1 GHz SLIDING FREQUENCY BAND

LOGIC TABLE

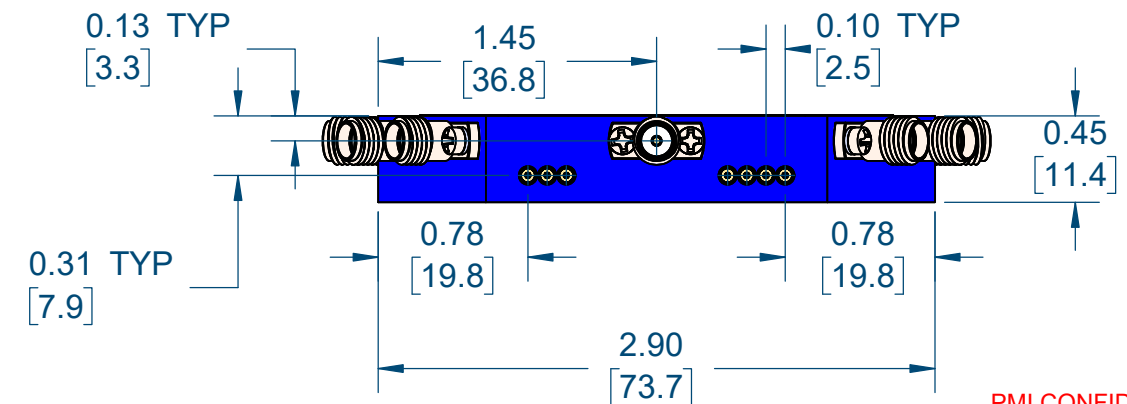
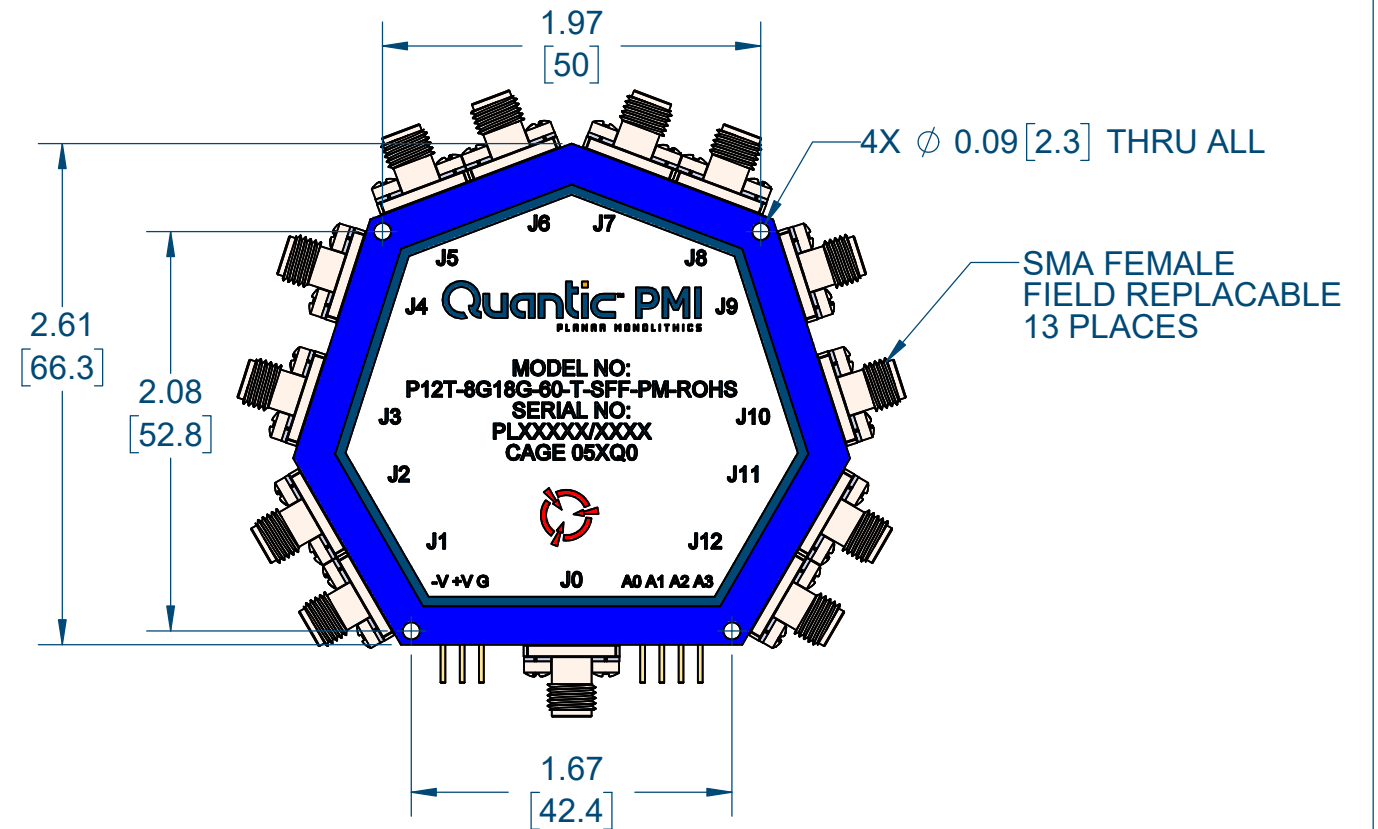
A0	A1	A2	A3	INSERTION LOSS
0	0	0	0	J0-J1
1	0	0	0	J0-J2
0	1	0	0	J0-J3
1	1	0	0	J0-J4
0	0	1	0	J0-J5
1	0	1	0	J0-J6
0	1	1	0	J0-J7
1	1	1	0	J0-J8
0	0	0	1	J0-J9
1	0	0	1	J0-J10
0	1	0	1	J0-J11
1	1	0	1	J0-J12

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

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



PMI CONFIDENTIAL AND PROPRIETARY

<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± ± .XXX ± 0.01</p>		<p>APPROVALS</p> <p>DATE</p> <p>2/7/2025</p>	<p>Quantic PMI PLANAR 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</p>
<p>DRAWN D. HOSCHAR REDRAWN</p>	<p>ISSUED</p>	<p>TITLE PRELIMINARY OUTLINE P12T-8G18G-60-T-SFF-PM-ROHS</p>	<p>SIZE B</p> <p>FSCM NO. 05XQ0</p> <p>DWG NO. PRELIMINARY</p> <p>REV. 4</p>
<p>SCALE 1:1</p>		<p>SHEET 1 OF 1</p>	