

DESCRIPTION:

QUANTIC PMI MODEL PMC-33D5-6D8-SFF IS A MONOPULSE COMPARATOR OPERATING OVER THE 3 TO 3.5 GHz FREQUENCY RANGE. THIS MODEL OFFERS A TYPICAL 0.8 dB INSERTION LOSS WHILE MAINTAINING A MAXIMUM AMPLITUDE BALANCE OF ±0.4 dB, A MAXIMUM PHASE BALANCE OF ±5° AND A MAXIMUM VSWR OF 1.25:1. THE UNIT HAS SMA FEMALE CONNECTORS, AND THE HOUSING SIZE IS 3.23" x 3.23" x 0.43".

SPECIFICATIONS:

- FREQUENCY RANGE:..... 3 GHz TO 3.5 GHz
- INSERTION LOSS:..... 6.82 dB MAX
- INSERTION LOSS WITHOUT 6.02 dB NOMINAL SPLIT: 0.8 dB TYP.
- AMPLITUDE BALANCE:..... ±0.4 dB MAX
- PHASE BALANCE:..... ±5° MAX
- ISOLATION:..... 23 dB MIN.
- VSWR:..... 1.25:1 MAX
- POWER HANDLING*:..... AVERAGE: 10 W MAX
PEAK: 0.1 kW MAX
- IMPEDANCE:..... 50 Ω
- CONNECTORS:..... SMA FEMALE
- FINISH:..... PAINTED BLUE

*POWER HANDLING GUARANTEED WHEN LOAD'S VSWR WITHIN 1.50:1

TABLE 1: PHASE OFFSET FOR EACH PORT IN REFERENCE TO NORMALIZED A TO ΣAZ

	ΣAZ	ΔAZ	ΔQ	ΔEL
INPUT A	0°	-90°	0°	-90°
INPUT B	0°	-90°	180°	90°
INPUT C	0°	90°	180°	-90°
INPUT D	0°	90°	0°	90°

TABLE 2: OUTPUT MAGNITUDE WITH 4 IDENTICAL SIGNALS AT A, B, C AND D

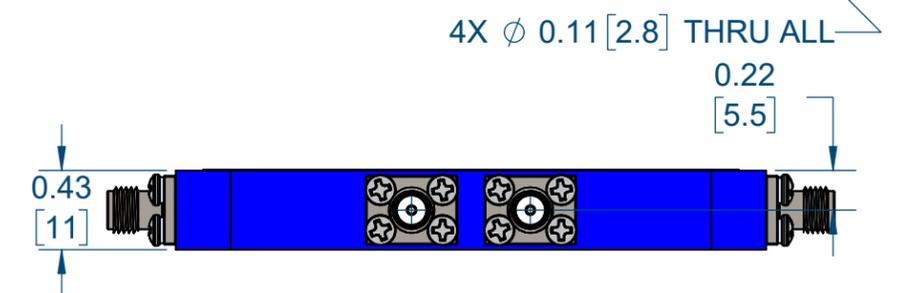
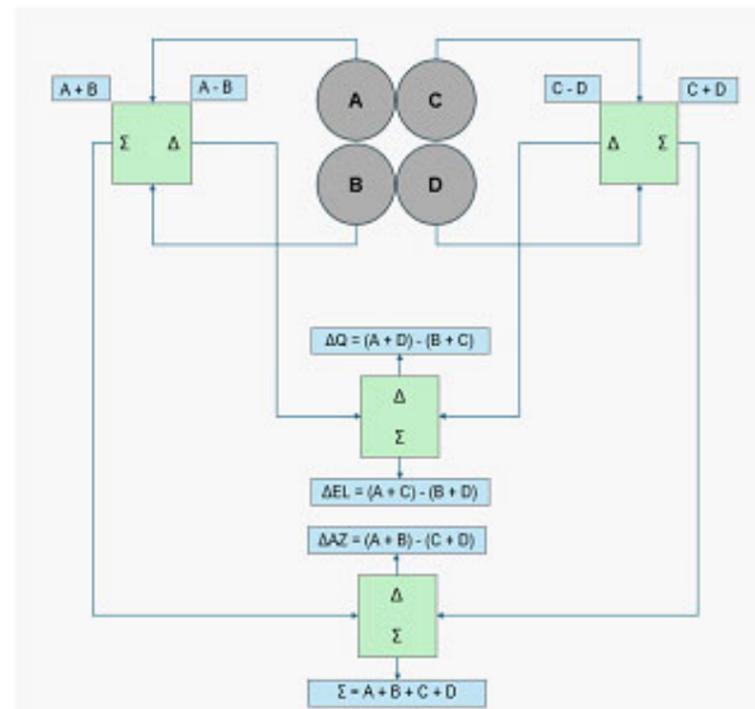
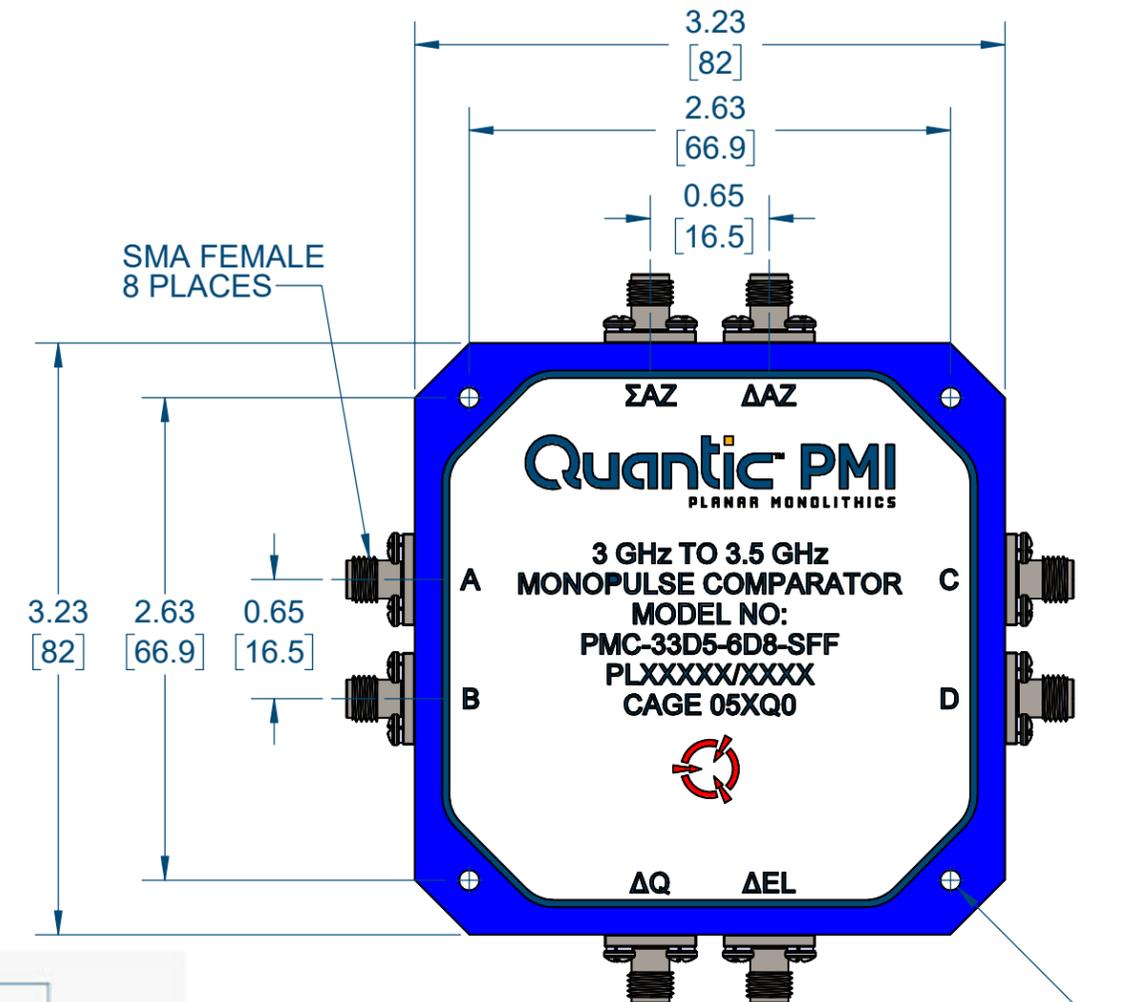
OUTPUT	VALUE	DESCRIPTION
ΣAZ	≤ 3 dB	A+B+C+D
ΔAZ	≥ 20 dB	(A+B) - (C+D)
ΔEL	≥ 20 dB	(A+C) - (B+D)
ΔQ	≥ 20 dB	(A+D) - (B+C)

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -55°C TO +85°C (OPERATING)
- OPERATING HUMIDITY:..... UP TO 95%, NON-CONDENSING
- 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
	A1	ORIGINAL RELEASE	8/26/2025	



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS		DATE	TITLE			
DRAWN	D. HOSCHAR	8/26/2025	OUTLINE			
REDRAWN			PMC-33D5-6D8-SFF			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			B	05XQ0	27052920	A1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:			SCALE	SHEET 1 OF 1		
FRACTIONS	DECIMALS	ANGLES	1:1			
±	.XX ± 0.02	±				
	.XXX ± 0.01					

Quantic PMI
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