ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	1/10/2024	
	B1	ECN # 25-0098	3/31/2025	

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NO: PMC-600M3G500M-SFF IS A MONOPULSE COMPARATOR OPERATING OVER THE 0.6 GHz TO 3.5 GHz FREQUENCY RANGE. THIS MODEL OFFERS A MAXIMUM INSERTION LOSS OF 6.5 dB WHILE MAINTAINING A MAXIMUM AMPLITUDE BALANCE OF ±3.2 dB AND A MAXIMUM PHASE BALANCE OF ±15°.

SPECIFICATIONS:

- FREQUENCY RANGE:.....0.6 GHz TO 3.5 GHz
- NOMINAL SPLIT:.....6.02 dB
- INSERTION LOSS:..... 6.5 dB MAX.
- AMPLITUDE BALANCE:.....±3.2 dB MAX.
- PHASE BALANCE:.....±15° MAX.
- ISOLATION:.....18 dB MIN.
- VSWR:..... 1.70:1 MAX.
- POWER HANDLING*:.....AVERAGE: 30 W MAX.
  PEAK: 1 kW MAX.
- IMPEDANCE:..... 50 Ω
- CONNECTORS:..... SMA FEMALE
- FINISH:.....BLUE PAINTED

*POWER HANDLING IS GUARANTEED WHEN LOADS VSWR WITHIN 1.50:1

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

	ΣAZ	ΔAZ	ΔEL	ΔQ
PHASE OFFSET FOR INPUT A	0	0	180	180
PHASE OFFSET FOR INPUT B	0	0	0	0
PHASE OFFSET FOR INPUT C	0	180	0	180
PHASE OFFSET FOR INPUT D	0	180	180	0

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

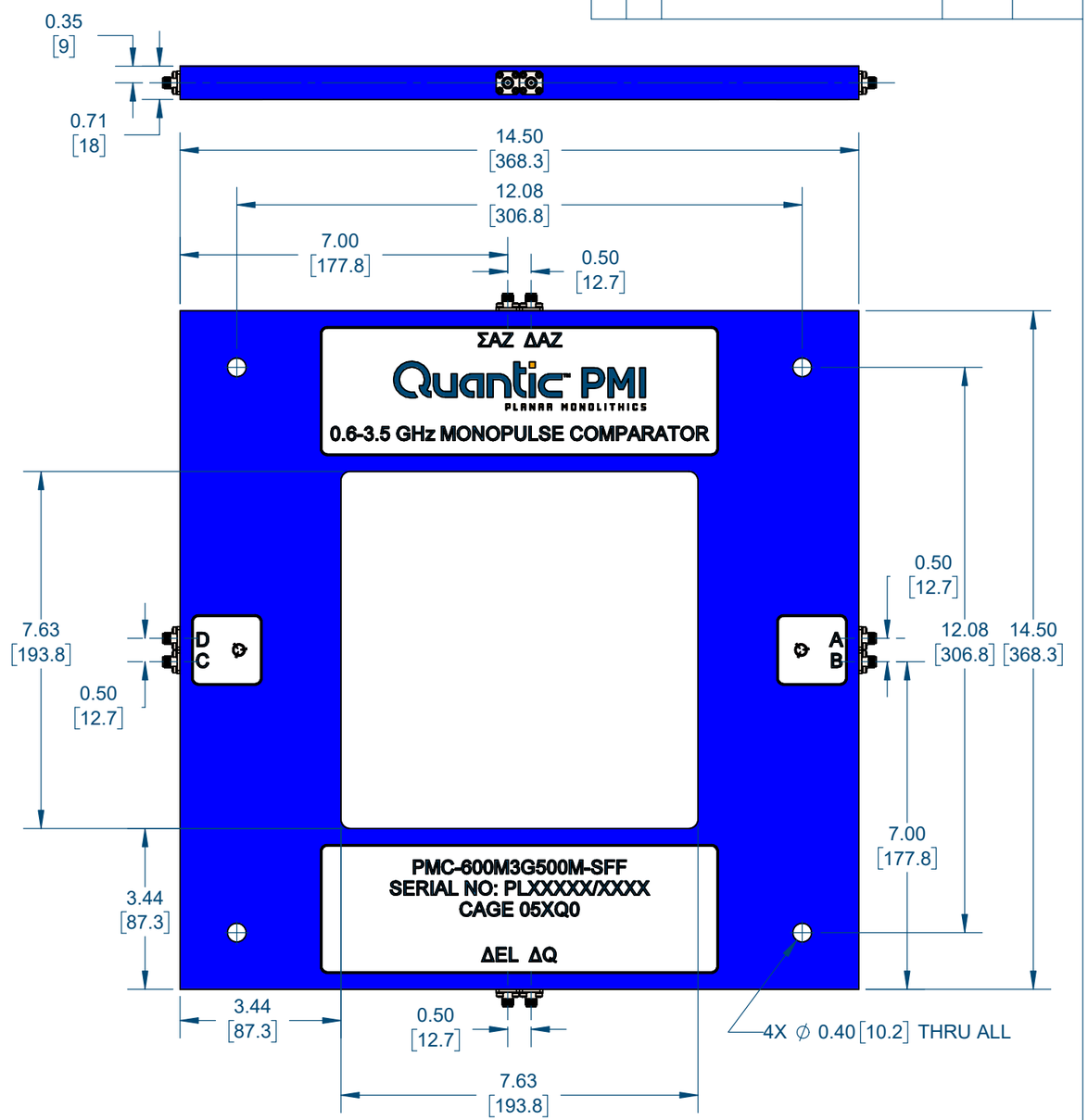
OUTPUT	VALUE (dB)	DESCRIPTION
ΣAZ	≥-6.5	A+B+C+D
ΔAZ	<-18	(A+B) - (C+D)
ΔEL	<-18	(A+D) - (B+C)
ΔQ	<-18	(A+C) - (B+D)

ENVIRONMENTAL RATINGS:

- TEMPERATURE:.....-20°C TO +85°C (OPERATING)
- HUMIDITY:..... 95%, NON-CONDENSING (OPERATING)
- SHOCK:..... MIL-STD-202, METHOD 103B COND. B
- VIBRATION:.....MIL-STD-202, METHOD 204D COND. B
- ALTITUDE:..... MIL-STD-202, METHOD 213B 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



PMI CONFIDENTIAL AND PROPRIETARY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS ± DECIMALS .XX ± 0.02 .XXX ± 0.01 ANGLES ±

APPROVALS	DATE
DRAWN D. HOSCHAR	1/10/2024
REDRAWN	
ISSUED	

Quantic PMI
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TITLE OUTLINE PMC-600M3G500M-SFF

SIZE	FSCM NO.	DWG NO.	REV.
B	05XQ0	27050440	B1

SCALE 1:3 SHEET 1 OF 1