

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER PS-2G18G-360-12D-TS IS A 2 TO 18 GHz, 12-BIT, VECTOR PHASE SHIFTER MAKING IT IDEAL FOR FREQUENCY TRANSLATION WHERE CONTINUOUS MONOTONIC PHASE SHIFTING IS REQUIRED. THIS MODEL ALSO FEATURES HIGH SPEED SWITCHING, AND TYPICALLY LOWER THAN 60dB HARMONIC DISTORTION.

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	6/1/2018	
	A2	ECN # 24-0063	3/11/2024	
	B2	ECN # 25-0296	11/5/2025	

SPECIFICATIONS:

- FREQUENCY RANGE:..... 2.0 TO 18.0 GHz
- PHASE RANGE:..... 360°
- RF INPUT POWER:..... +20 dBm CW, 1.0 WATT MAXIMUM
- INSERTION LOSS:..... 18.0 dB MAXIMUM
- VSWR:..... 2.2:1 MAXIMUM (50 OHM SYSTEM)
- PHASE SHIFT ERROR:..... ±15.0° TYPICAL
- CONTROL LOGIC:..... 12 BIT TTL COMPATIBLE
- CONTROL SLOPES:..... LINEAR
- SWITCHING SPEED:..... 500 ns MAXIMUM
- POWER SUPPLY:..... ±12V TO ±15V @ ±100 mA MAXIMUM
- RF CONNECTORS:..... SMA FEMALE INPUT AND OUTPUT
- POWER/LOGIC CONNECTIONS:..... DB-37P, SUB-D MULTI-PIN
- TEMP SENSOR:..... 10 mV/°C, 3.0V @25 °C
- SIZE:..... 4.25 X 3.50 X 1.00
- FINISH:..... PAINTED BLUE

ENVIRONMENTAL RATINGS:

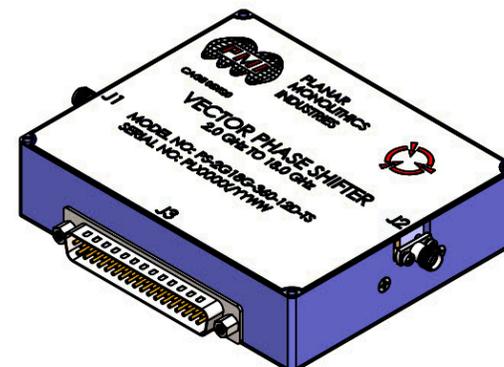
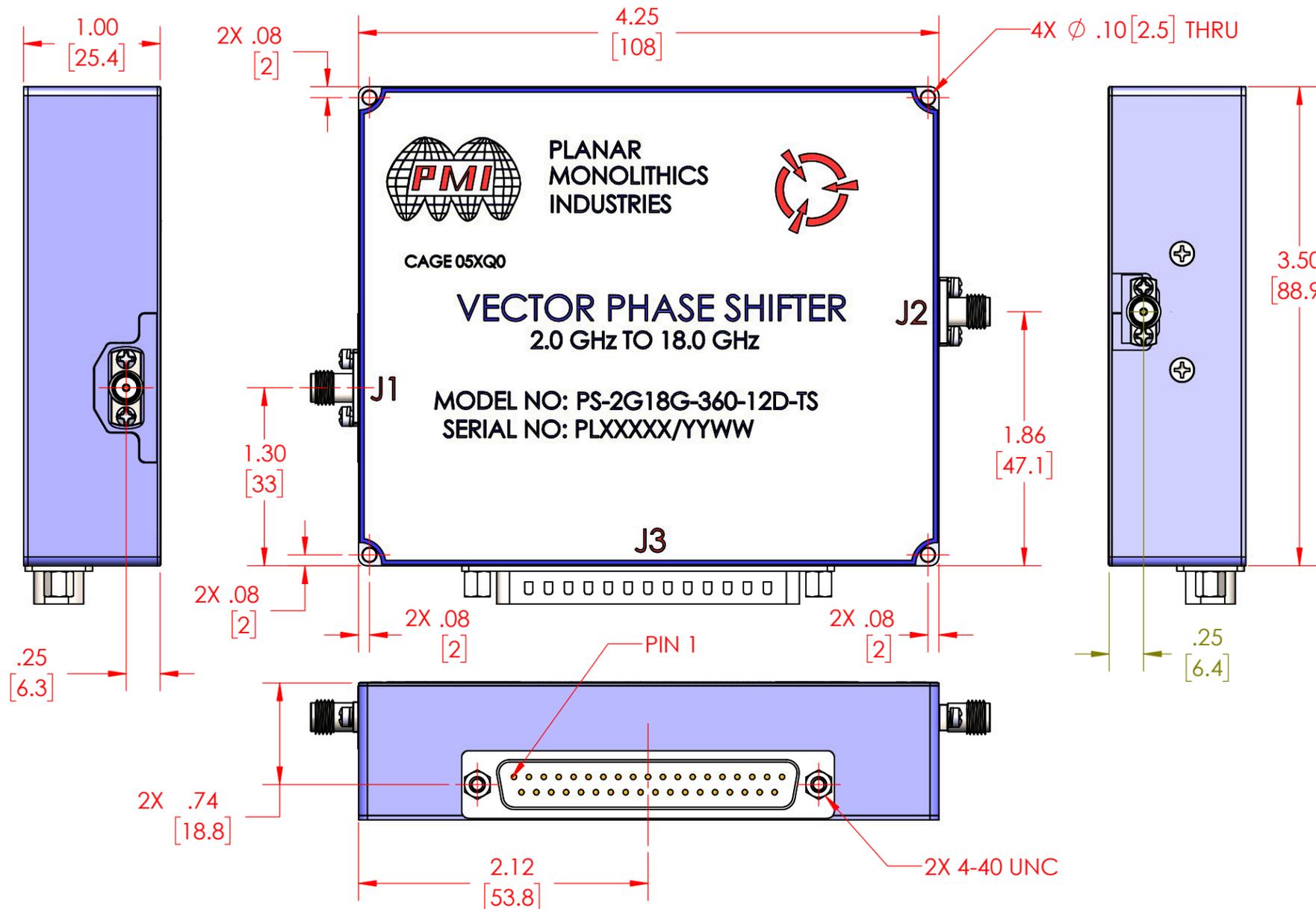
- TEMPERATURE:..... -55°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION:..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE:..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE:..... MIL-STD-202F, METHOD 107D COND. A

37-PIN CONNECTOR PIN-OUT					
PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	1.41°	14	N/C	27	N/C
2	2.81°	15	N/C	28	GND
3	11.25°	16	N/C	29	N/C
4	22.5°	17	N/C	30	TEMP SENSOR
5	45°	18	N/C	31	TEMP SENSOR RETURN
6	90°	19	N/C	32	N/C
7	N/C	20	0.7°	33	N/C
8	+12V TO +15V	21	5.63°	34	N/C
9	GND	22	0.35°	35	N/C
10	GND	23	0.18°	36	N/C
11	-12V TO -15V	24	0.09° (LSB)	37	N/C
12	N/C	25	180° (MSB)		
13	N/C	26	N/C		

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

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 ISO 9001 CERTIFIED

APPROVALS		DATE	TITLE		
DRAWN	AL	11/5/25	OUTLINE		
REDRAWN			PS-2G18G-360-12D-TS		
ISSUED			SIZE	FSCM NO.	DWG NO.
			B	05XQ0	27035120
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES [mm] TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± XXX ± 0.01			SCALE 1:1		REV. B2
					SHEET 1 OF 1