

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: PFS-1G20G IS A FREQUENCY SYNTHESIZER THAT OPERATES OVER THE 1.0 GHz TO 20.0 GHz FREQUENCY RANGE. THIS UNIT FEATURES HIGH SPEED, HIGH ACCURACY AND LOW PHASE NOISE.

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	9/25/2024	
	B1	ECN #24-0333	11/18/2024	
	C1	ECN # 25-0124	4/22/2025	

SPECIFICATIONS:

- FREQUENCY RANGE:..... 1.0 GHz TO 20.0 GHz
- FREQUENCY STEP SIZE, NOMINAL (LSB):..... 0.2 Hz
- FREQUENCY SWITCH TIME:..... 50 ms MAX.
- OUTPUT POWER:..... 10 dBm MIN.
- FREQUENCY ACCURACY:..... $\pm 2 \times 10^{-7}$ (OR SAME AS EXTERNAL REF)
- FREQUENCY STABILITY:..... $\pm 2 \times 10^{-7}$ (OR SAME AS EXTERNAL REF)
- SPURIOUS:..... -65 dBc TYP., -60 dBc MAX.
- HARMONICS:..... -5 dBc MAX.
- INPUT REF FREQUENCY:..... 10 MHz

● PHASE NOISE:.....

	1 GHz	5 GHz	10 GHz	20 GHz
dBc/Hz @ 100 Hz	≤ -105	≤ -91	≤ -85	≤ -79
dBc/Hz @ 1 kHz	≤ -129	≤ -113	≤ -107	≤ -101
dBc/Hz @ 10 kHz	≤ -135	≤ -122	≤ -116	≤ -110
dBc/Hz @ 100 kHz	≤ -135	≤ -122	≤ -116	≤ -110
dBc/Hz @ 1 MHz	≤ -138	≤ -125	≤ -119	≤ -113

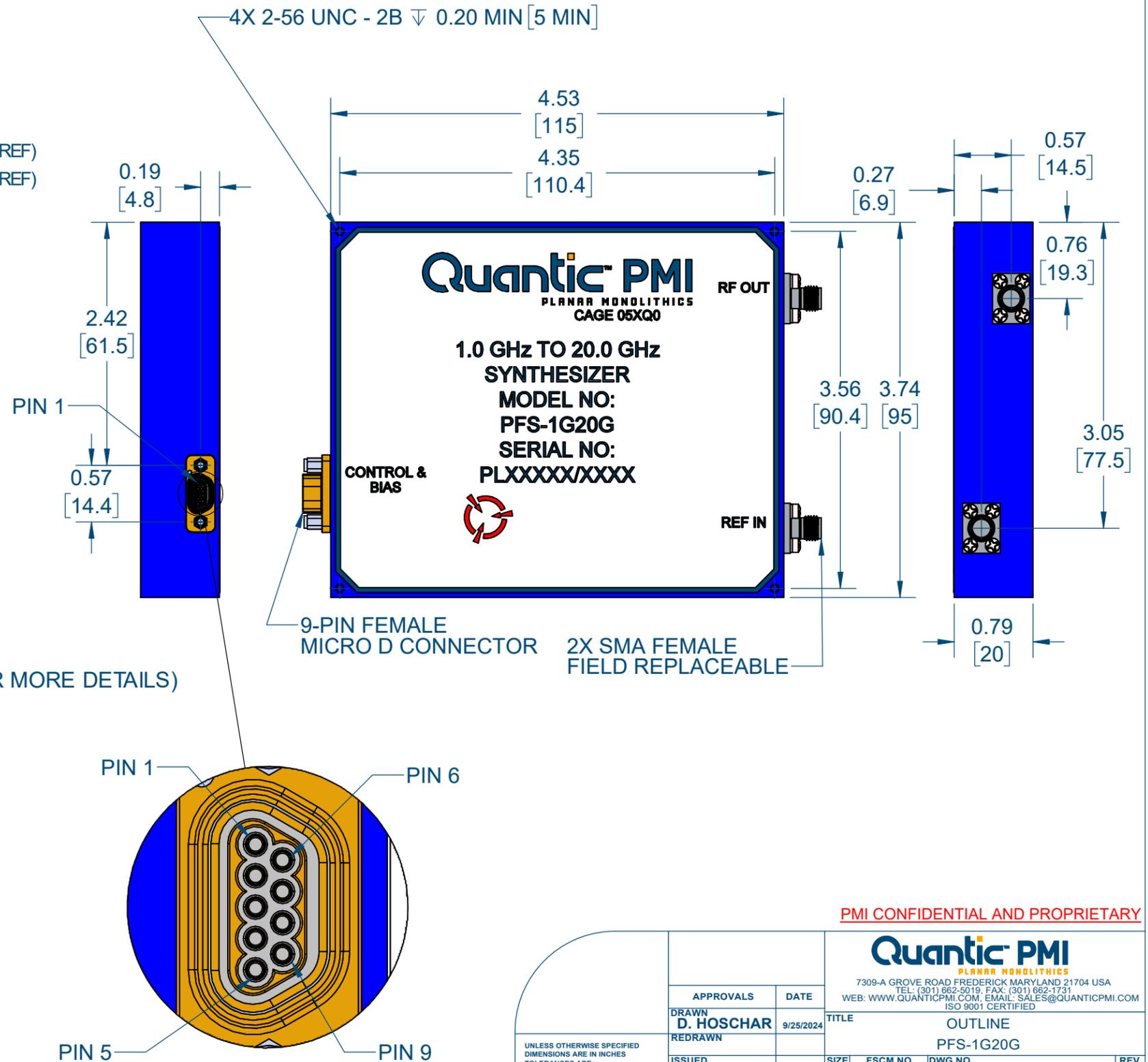
- REF INPUT POWER:..... 5 ± 3 dBm
- POWER SUPPLY (V/A):..... +12V @ 1.4A (WARM-UP)
+12V @ 1.2A (STABLE)
- SIZE:..... 4.53" X 3.74" X 0.79"
- CONTROL MODE:..... RS232
- WEIGHT:..... 33.5 oz MAX.
- FINISH:..... PAINTED BLUE
- RS232 MODE CONTROL & BIAS DEFINITION: (SEE OPERATING MANUAL FOR MORE DETAILS)

1	+12V
2	+12V
3	GND
4	GND
5	LD
6	NC
7	NC
8	RX
9	TX

ENVIRONMENTAL RATINGS:

- OPERATING TEMP:..... -40°C TO +70°C
- STORAGE TEMP:..... -55°C TO +85°C

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS DRAWN D. HOSCHAR REDRAWN ISSUED		DATE 9/25/2024	TITLE OUTLINE PFS-1G20G		REV. C1
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS .XX ± 0.02 ANGLES ± DECIMALS .XXX ± 0.01		SIZE B	FSCM NO. 05XQ0	DWG NO. 27049860	SCALE: 1:1.25 SHEET 1 OF 1

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