

DESCRIPTION:

PMI MODEL NUMBER: PEC-30-10M20-SFF IS A VERY LOW NOISE AMPLIFIER WITH WORKING FREQUENCY RANGE OF 10 MHz TO 20 GHz. THIS AMPLIFIER IS SUPPLIED IN A HOUSING THAT CAN BE USED AS A SURFACE MOUNT OR A CONNECTED COMPONENT.

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	8/16/2022	
	A5	ECN # 24-0203	7/26/2024	
	B1	ECN # 25-0141	5/9/2025	

SPECIFICATIONS:

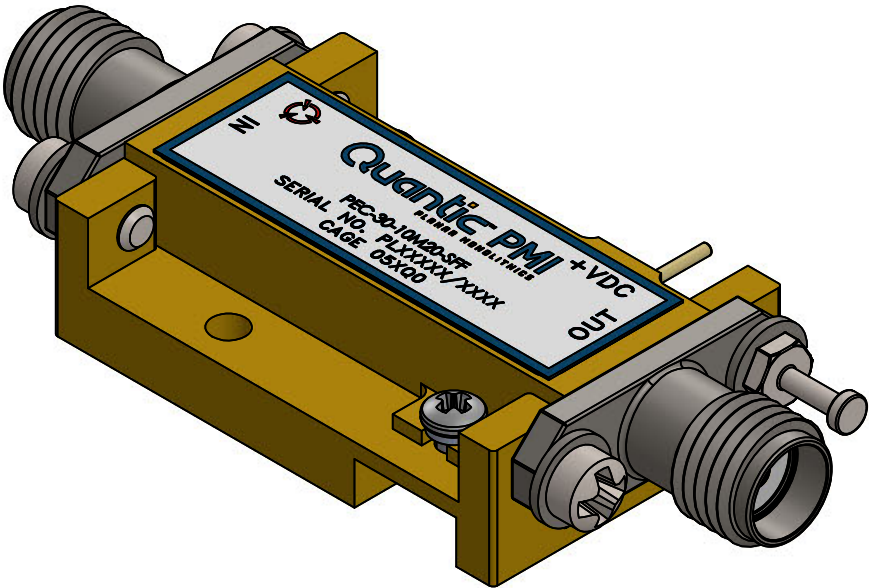
- FREQUENCY RANGE:..... 10 MHz TO 20 GHz
- GAIN:..... +26 dB MIN. (10 MHz to 18 GHz)
+28 dB MIN. (18 to 20 GHz)
- GAIN FLATNESS:..... AT ANY OPERATING TEMPERATURE
± 2.0 dB MAX (10 MHz to 18 GHz)
± 2.5 dB TYP., ± 2.75 dB MAX (18 GHz to 20 GHz)
- NOISE FIGURE:..... 13 dB MAX, (10 MHz to 20 MHz)
7 dB MAX, (20 MHz to 50 MHz)
4.5 dB MAX, (50 MHz to 0.5 GHz)
3.5 dB MAX, (0.5 GHz to 18 GHz)
4.0 dB MAX, (18 GHz to 20 GHz)
- OP1dB:..... +13.5 dBm MIN. (10 MHz to 18 GHz)
+12 dBm MIN. (18 GHz to 20 GHz)
- Psat:..... +15 dBm MIN. (10 MHz to 18 GHz)
+13 dBm MIN. (18 GHz to 20 GHz)
- OIP3:..... +20 dBm MIN. (10 MHz to 20 GHz) @ 25°C
+14 dBm MIN. @ TEMP EXTREMES
- VSWR INPUT:..... 2.0:1 MAX (10 MHz to 18 GHz)
2.2:1 MAX (18 GHz to 20 GHz)
- VSWR OUTPUT:..... 2.1:1 MAX (10 MHz to 18 GHz)
2.4:1 MAX (18 GHz to 20 GHz)

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)
-57°C TO +100°C (STORAGE)
- HUMIDITY:..... MIL-STD-202, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202, METHOD 213B COND. B
- ALTITUDE:..... MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE:..... MIL-STD-202, METHOD 107D COND. A

SPECIFICATIONS:

- SECOND HARMONIC:
(-30 dBm INPUT POWER)..... 40 dBc TYP, 30 dBc MIN.
(AT P1dB)..... 12 dBc TYP, 10 dBc MIN.
(+5dBm OVER P1dB)..... 12 dBc TYP, 9 dBc MIN.
(+10dBm OVER P1dB)..... 12 dBc TYP, 9 dBc MIN.
(+15dBm OVER P1dB)..... 12 dBc TYP, 9 dBc MIN.
- REVERSE ISOLATION:..... 36 dB MIN. (10 MHz to 18 GHz)
35 dB MIN. (18 to 20 GHz)
- DC SUPPLY:..... +12 TO +15 VDC @ 170 mA MAX
 - CONNECTORS:..... SMA FEMALE (X2)
 - FINISH:..... GOLD PLATED



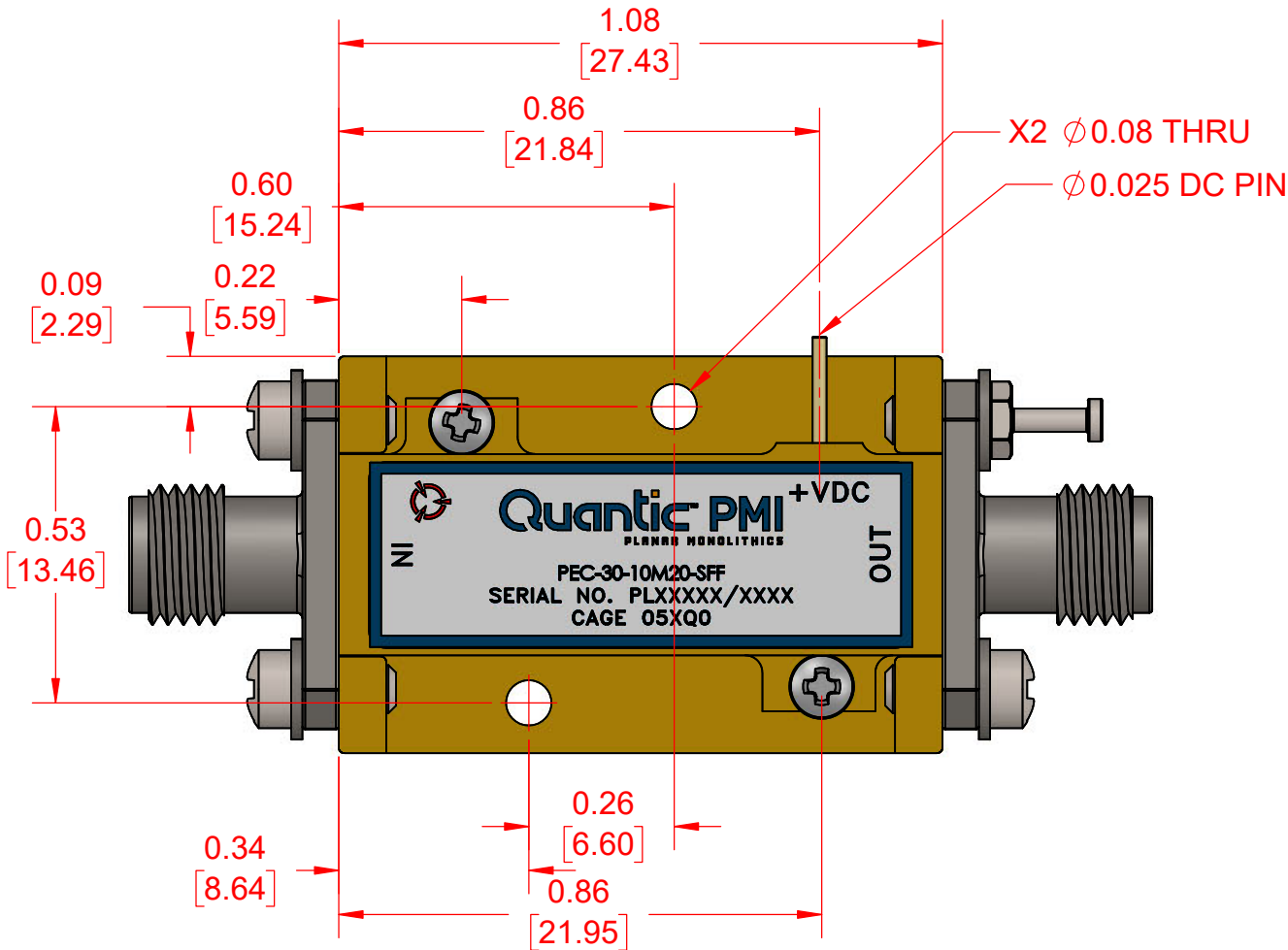
PMI CONFIDENTIAL AND PROPRIETARY

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

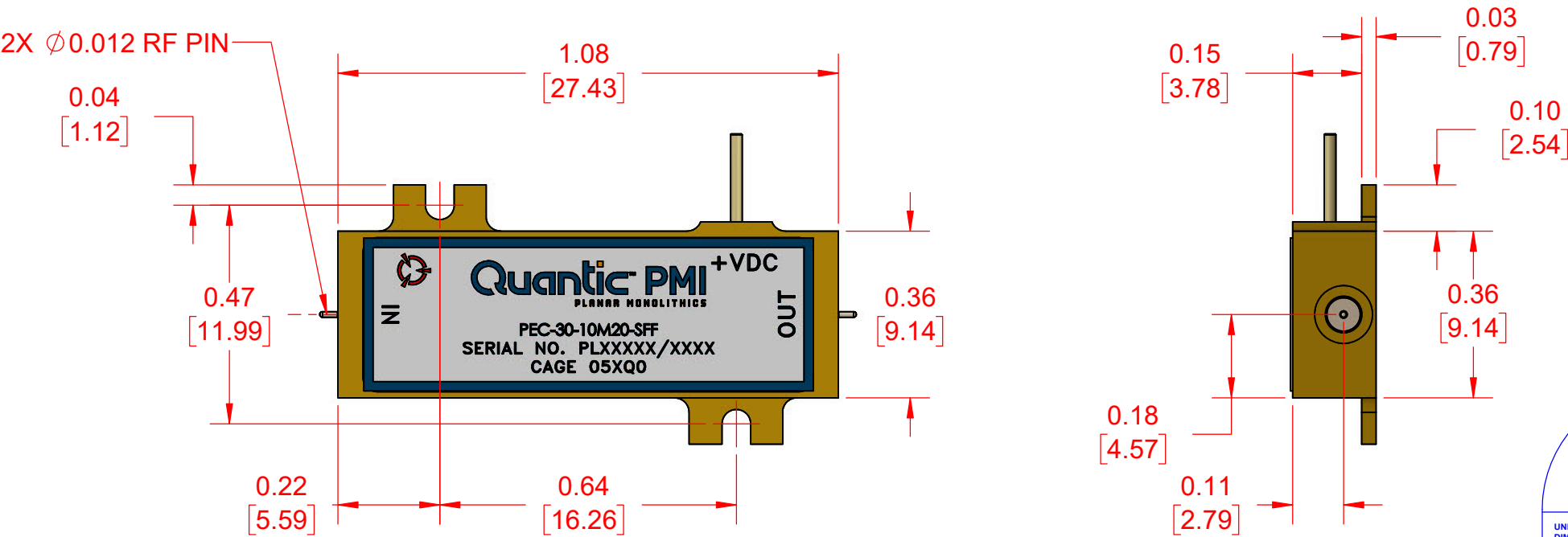
			PLANAR MONOLITHICS INDUSTRIES, INC.							
						7311-F GROVE ROAD FREDERICK, MARYLAND 21704 USA TEL: (301)-662-5019, FAX: (301)-662-1731 WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com ISO 9001 CERTIFIED				
						TITLE				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± .XXX ± 0.01			APPROVALS		DATE		8/16/2022			
			DRAWN M. LAULIS				OUTLINE			
			REDRAWN				PEC-30-10M20-SFF			
			ISSUED				SIZE	FSCM NO.	DWG NO.	REV.
							B	05XQ0	27044480	B1
							SCALE 2:1			SHEET 1 OF 2

MECHANICAL OUTLINE

PEC HOUSING WITH CARRIER



PEC HOUSING WITHOUT CARRIER (SURFACE MOUNT)



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TITLE: OUTLINE
PEC-30-10M20-SFF

SIZE	FSCM NO.	DWG NO.	REV.
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SCALE 2:1

SHEET 2 OF 2

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DIMENSIONS ARE IN INCHES
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 $\pm$.XX $\pm$ 0.02 $\pm$
 $\pm$.XXX $\pm$ 0.01