

**DESCRIPTION:**

PMI MODEL NUMBER PLNA-30-10M20-SFF-DCSMA IS A VERY LOW NOISE AMPLIFIER WITH A WORKING FREQUENCY RANGE OF 10MHz TO 20 GHz.

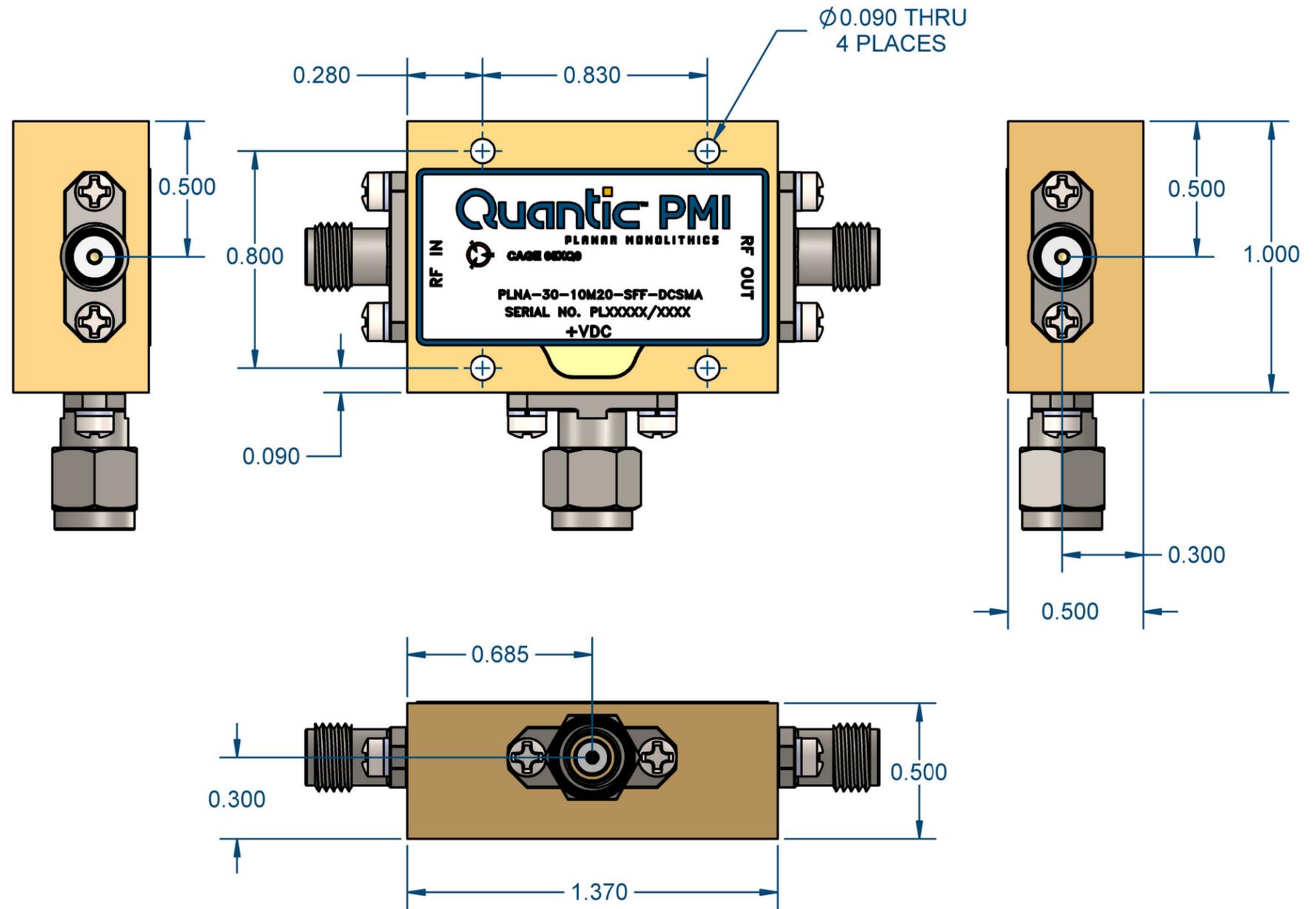
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	1/24/2023	
	B1	ECN # 23-0232	5/16/2023	

**SPECIFICATIONS:**

- FREQUENCY RANGE:..... 10 MHz TO 20.0 GHz
- GAIN:..... +26 dB MIN (10MHz to 18GHz)  
+28 dB MIN (18GHz to 20GHz)
- GAIN FLATNESS:..... ± 2.0 dB MAX (10MHz to 20GHz)
- NOISE FIGURE:..... 3.5 dB MAX (0.1GHz to 0.5GHz)  
3.5 dB MAX (0.5GHz to 18GHz)  
4.0 dB MAX (18GHz to 20GHz)
- OP1dB:..... +14 dBm MIN (10MHz to 18GHz)  
+13 dBm MIN (18GHz to 20GHz)
- Psat:..... +15 dBm MIN (10MHz to 18GHz)  
+14 dBm MIN (18GHz to 20GHz)
- OIP3:..... +20 dBm MIN (10MHz to 20GHz)
- VSWR INPUT:..... 2.0 : 1 MAX (10MHz to 18GHz)  
2.2 : 1 MAX (18GHz to 20GHz)
- VSWR OUTPUT:..... 2.1 : 1 MAX (10MHz to 18GHz)  
2.4 : 1 MAX (18GHz to 20GHz)
- SECOND HARMONICS:  
(-30dBm Input Power)..... 40 dBc TYP, 30 dBc MIN  
(at P1dB to P1dB + 10dBm)..... 12 dBc MIN  
(+15dBm Over P1dB)..... 10 dBc MIN
- REVERSE ISOLATION:..... 36 dB MIN (10MHz to 18GHz)  
35 dB MIN (18GHz to 20GHz)
- DC SUPPLY:..... SMA Connector (Male)  
+5 VDC @ 150 mA MAX
- CONNECTOR IN/OUT:..... SMA Connector (Female)
- FINISH:..... Gold Plated

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)  
-55°C TO +85°C (AVAILABLE)  
-65°C TO +125°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



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 ANGLES  
± .XX ± 0.02 ±  
± .XXX ± 0.01

APPROVALS	DATE
DRAWN <b>M.LAULIS</b>	1/24/2023
REDRAWN	
ISSUED	

**Quantic PMI**  
PLANAR MONOLITHICS

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ISO 9001 CERTIFIED

TITLE  
**OUTLINE**  
PLNA-30-10M20-SFF-DCSMA

SIZE B	FSCM NO. 05XQ0	DWG NO. 27045100	REV. B1
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SCALE 1:1 SHEET 1 OF 1