

DESCRIPTION:

PMI MODEL NUMBER: PLNA-30-10M20-292FF IS A VERY LOW NOISE AMPLIFIER WITH WORKING FREQUENCY RANGE OF 10MHZ TO 20GHZ. THIS AMPLIFIER IS SUPPLIED IN A HOUSING THAT CAN BE USED AS A 2.92MM SURFACE MOUNT OR CONNECTORIZED COMPONENT.

SPECIFICATIONS:

Frequency Range: 10 MHz to 20 GHz

| | |
|-----------------------------|---|
| Gain: | +26 dB Min. (10MHz to 18 GHz) +28 dB Min. (18 to 20 GHz) |
| Gain Flatness: | @ any Operating Temp ±2.2 dB Max. (10MHz to 18 GHz) ±3.0 dB Max. (10MHz to 20 GHz) |
| Noise Figure: (See Note) | 3.0 dB Typ. (20MHz to 0.5 GHz) 2.5 dB Typ. (0.5 to 18 GHz) 3.3 dB Typ. (18 to 20 GHz) |
| OP1dB: | +14 dBm Typ. (10MHz to 18 GHz) +13 dBm Typ. (18 to 20 GHz) |
| PSat: | +15 dBm Typ. (10 MHz to 18 GHz) +14 dBm Typ. (18 to 20 GHz) |
| OIP3: | +25 dBm Typ. (10MHz to 18 GHz) +23 dBm Typ. (18 to 20 GHz) |
| VSWR Input: | 2.0:1 Max.(10MHz to 18 GHz) 2.2:1 Typ. (18 to 20 GHz) |
| VSWR Output: | 2.1:1 Max.(10MHz to 18 GHz) 2.4:1 Typ. (18 to 20 GHz) |

Note: Noise figure only valid above 20 MHz

ENVIRONMENTAL RATINGS:

| | |
|--------------------|--|
| Temperature: | -54°C to + 85°C (Operating) -57°C to +100°C (Storage) |
| Humidity: | MIL-STD-202F, METHOD 103B COND B. |
| Shock: | MIL-STD-202F, METHOD 213B COND B. |
| Altitude: | MIL-STD-202F, METHOD 105C COND B. |
| Temperature Cycle: | MIL-STD-202F, METHOD 107D COND A |

Note: The above specifications are subject to change or revision.
Specifications will vary over operating temperature.

SPECIFICATIONS:

| | |
|--|---|
| Second Harmonic: (-30dBm Input Power) (At P1dB) (+5dBm Over P1dB) (+10dBm Over P1dB) (+15dBm Over P1dB) | 70 dBc Typ. 12 dBc Typ. 12 dBc Typ. 12 dBc Typ. 12 dBc Typ. |
| Reverse Isolation: | 36 dB Min. (10 MHz to 18 GHz) 35 dB Min. (18 to 20 GHz) |
| DC Supply: | +5 VDC @ 120 mA Max. |
| Connectors In/Out: | 2.92mm Female |
| Finish: | Gold Plated |

FEATURES:

Internal Voltage Regulation
Unconditional Stability

AVAILABLE OPTIONS:

Various Package types
Various Connector types
Temperature Compensation
Gain and Phase Matching
MIL-STD-883 Screening Available

| REVISIONS | | | | |
|-----------|------|------------------|----------|----------|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
| | A1 | ORIGINAL RELEASE | 02/12/21 | |
| | B1 | ECN # 22-0003 | 01/20/22 | |
| | B2 | ECN # 23-0006 | 01/05/23 | |
| | | | | |

PMI CONFIDENTIAL AND PROPRIETARY

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

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ISO 9001 CERTIFIED



| | | | | | |
|-----------|--|------------|---|----------|--------------------|
| APPROVALS | | DATE | TITLE PRODUCT FEATURE PLNA-30-10M20-292FF | | |
| DRAWN | | 01/12/2021 | SIZE A | FSCM NO. | DWG NO 27041260 |
| REDRAWN | | ALC | SCALE N:S | | REV. B2 |
| ISSUED | | | | | SHEET 1 OF 2 |

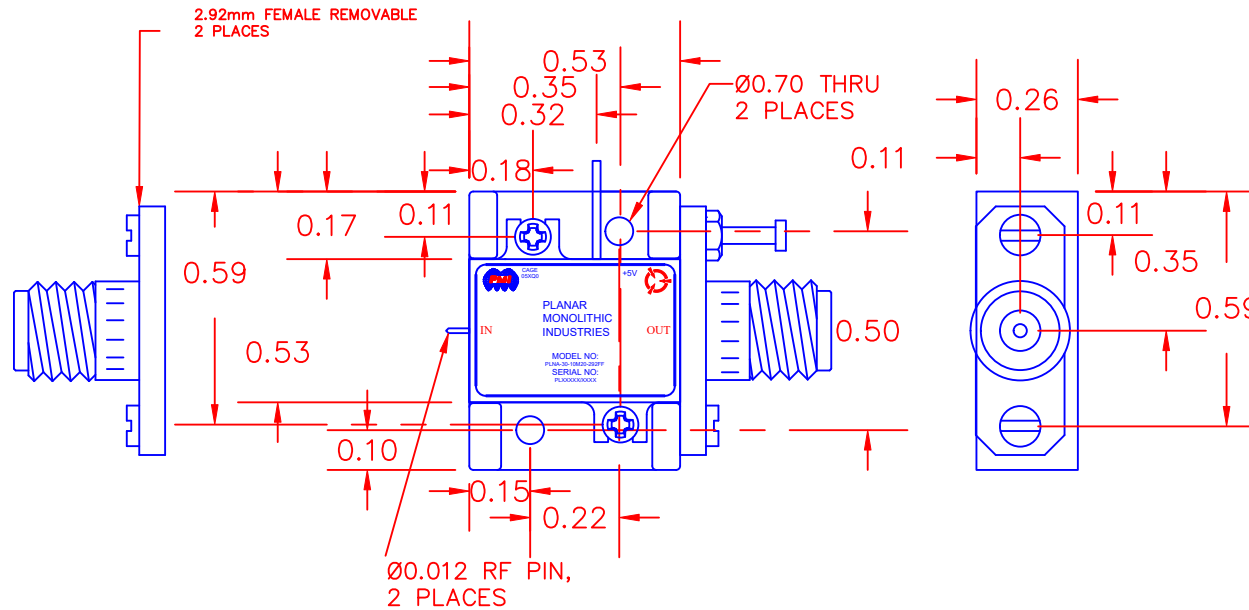
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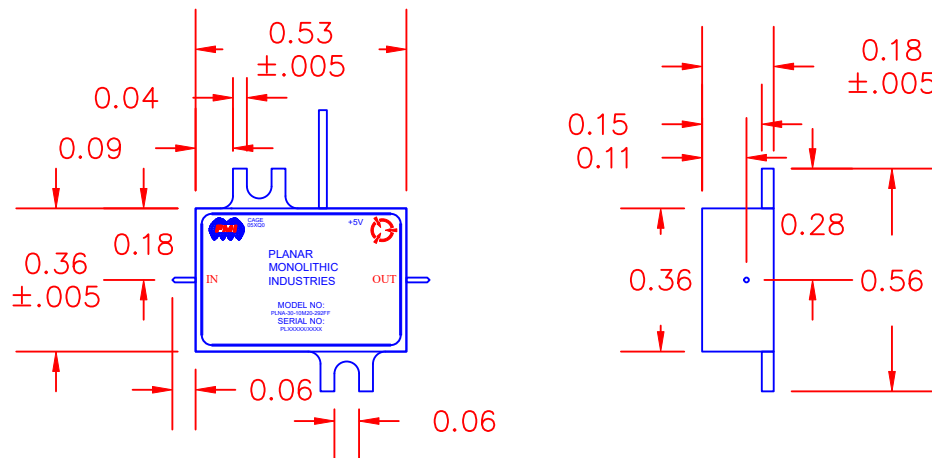
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MECHANICAL OUTLINE

HOUSING WITH CARRIER



HOUSING WITHOUT CARRIER (SURFACE MOUNT)



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| APPROVALS | | DATE | TITLE | | | REV. |
|-----------|--|------------|---------------------|----------|----------|--------------|
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| ISSUED | | | SIZE | FSCM NO. | DWG NO | |
| | | | A | | 27041260 | |
| | | | SCALE | N:S | | SHEET 2 OF 2 |