

DESCRIPTION:

PMI MODEL NUMBER: PLNA-30-10M20-292FF 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 2.92MM SURFACE MOUNT OR CONNECTORIZED COMPONENT.

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: @ any Operating Temp
±2.2 dB Max. (10 MHz to 18 GHz)
±3.0 dB Max. (10 MHz to 20 GHz)

Noise Figure: 3.0 dB Typ. (20 MHz to 0.5 GHz)
(See Note) 2.5 dB Typ. (0.5 to 18 GHz)
3.3 dB Typ. (18 to 20 GHz)

OP1dB: +14 dBm Typ. (10 MHz 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. (10 MHz to 18 GHz)
+23 dBm Typ. (18 to 20 GHz)

VSWR Input: 2.0:1 Max.(10 MHz to 18 GHz)
2.2:1 Typ. (18 to 20 GHz)

VSWR Output: 2.1:1 Max.(10 MHz 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:
(-30 dBm Input Power) 70 dBc Typ.
(At P1dB) 12 dBc Typ.
(+5 dBm Over P1dB) 12 dBc Typ.
(+10 dBm Over P1dB) 12 dBc Typ.
(+15 dBm Over P1dB) 12 dBc Typ.

Reverse Isolation: 36 dB Min. (10 MHz to 18 GHz)
35 dB Min. (18 to 20 GHz)
DC Supply: +5 VDC @ 140 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	
	C1	ECN # 25-0015	01/22/25	
	D1	ECN # 25-0244	08/18/25	

PMI CONFIDENTIAL AND PROPRIETARY

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

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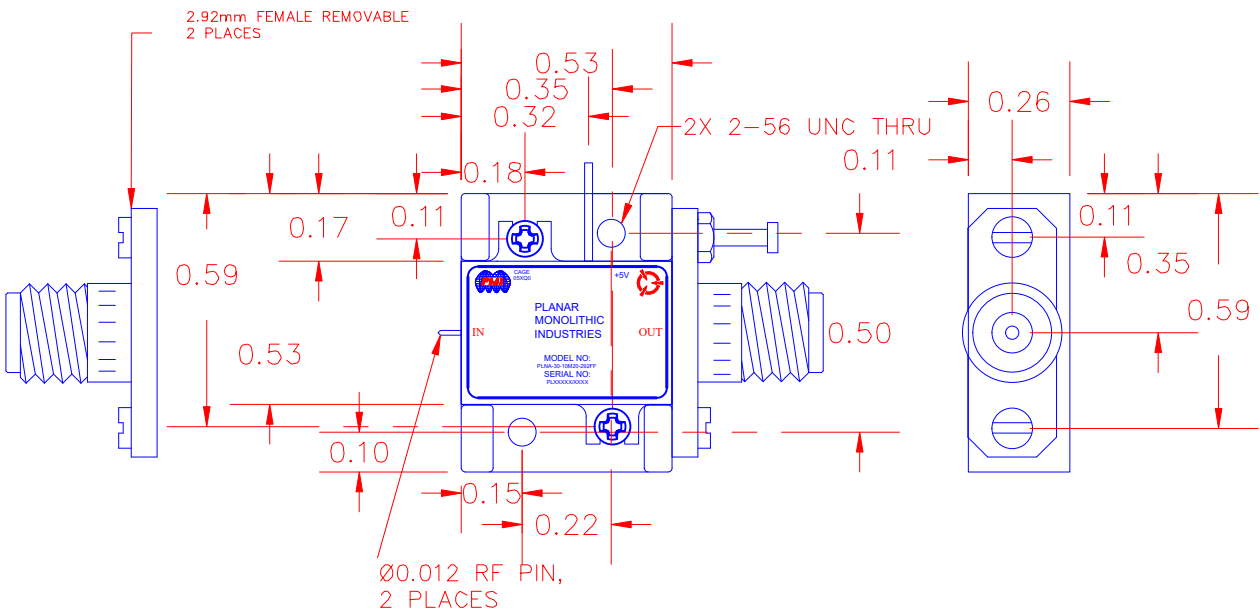
APPROVALS		DATE		TITLE	
DRAWN		01/12/2021		PRODUCT FEATURE	
REDRAWN		ALC		PLNA-30-10M20-292FF	
ISSUED					
SCALE		N:S		FSCM NO. DWG NO. 27041260	
				REV. D1	
				SHEET 1 OF 2	

DESCRIPTION:

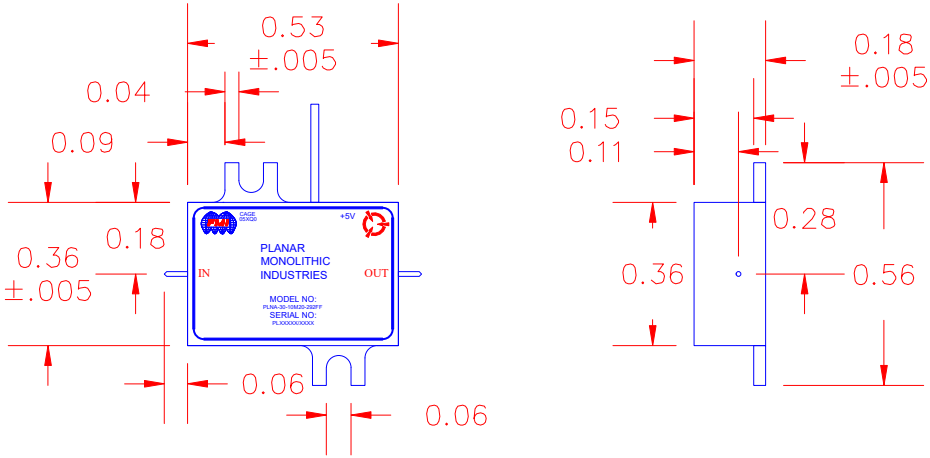
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MECHANICAL OUTLINE

HOUSING WITH CARRIER



HOUSING WITHOUT CARRIER (SURFACE MOUNT)



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		TITLE PRODUCT FEATURE PLNA-30-10M20-292FF				REV. D1
APPROVALS	DATE					
DRAWN	01/12/2021					
REDRAWN	ALC	SIZE A	FSCM NO.	DWG NO 27041260		
ISSUED		SCALE N:S		SHEET 2 OF 2		