

# DESCRIPTION

PMI MODEL: A-4D-4G12G-30G-1R5N-10P is a wide bandwidth 50-ohm matched low noise amplifier in a compact housing with 4 mounting holes to improve contact for heat transfer between chassis and heat sink.

### Features:

- Unconditionally stable under all terminations, open to short
- Unconditionally stable over temperature
- Integrated input/output blocking capacitors
- Single positive power supply
- Internal DC regulated voltage
- Internal reverse polarity protection
- Field replaceable SMA connectors

### SPECIFICATIONS FROM -20 +50° C UNLESS OTHERWISE SPECIFIED

- Frequency Range: ----- 4.0 GHz to 12.0 GHz
- Gain: ----- 30 dB Min., 34 dB Max.
- Gain Flatness: ----- ±1.5 dB Typ., ±2.0 dB Max..
- Gain Variation vs Temperature : ----- ±0.75 dB Max.
- Noise Figure: ----- 1.5 dB Max..
- VSWR Input: ----- 2.5 : 1 Max.
- VSWR Output: ----- 2.0 : 1 Max.
- P1dB Out: ----- 10 dBm Min.
- IP3 Out: ----- 20 dBm Typ.
- IP2 Out: ----- 30 dBm Typ.
- Allowable Maximum Input Power: ----- 14 dBm Max.
- DC Power Supply: ----- +15V @ 100 mA Nom.
- Gain Flatness Matching: ----- ±0.75 dB Max.
- Phase Matching: ----- ± 20° Max.
- Connectors (In/Out): ----- SMA Female
- Finish: ----- Gold Plated

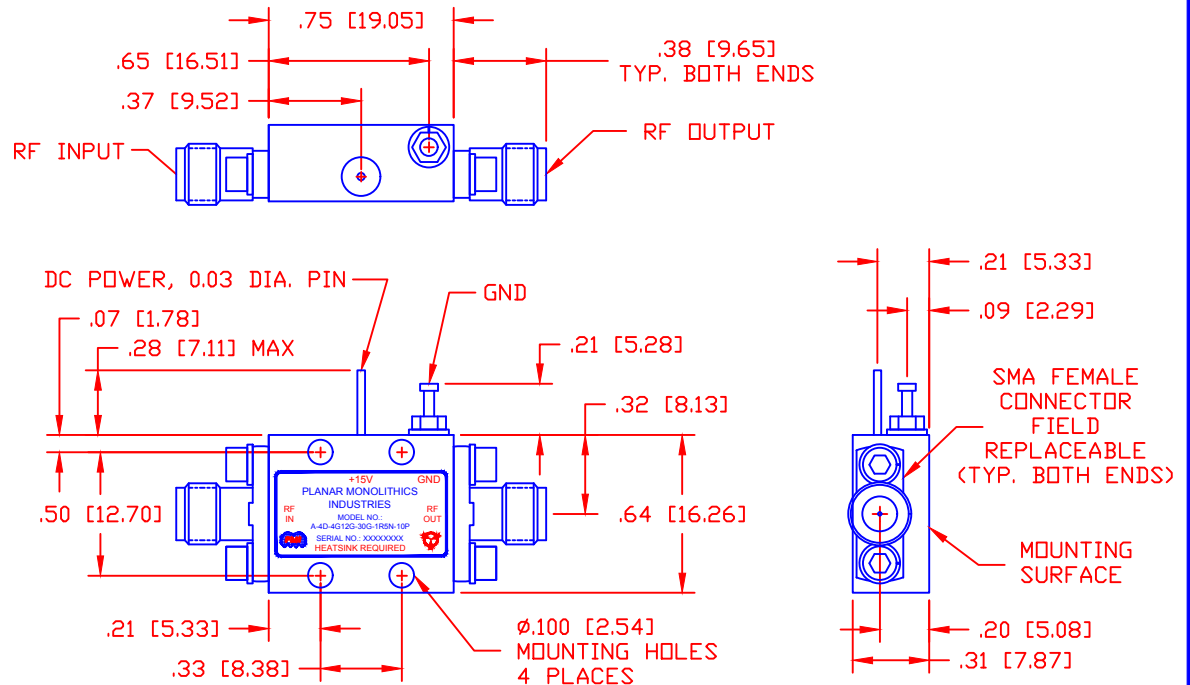
### ENVIRONMENTAL RATINGS

- Temperature: ----- -20 °C to +50 °C (Operating)  
-40 °C to +55 °C (Non-Operating)
- HUMIDITY: ----- RH 45 to 85% Max.

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	—	PRELIMINARY	7/19/2017	HAI SAY

## MECHANICAL OUTLINE



ALL DIMENSIONS  
ARE IN INCHES (mm)  
TOLERANCES (INCHES):  
X.XX ±0.010  
X.XXX ±0.005

**PMI CONFIDENTIAL AND PROPRIETARY**

**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



APPROVALS					DATE		TITLE		
DRAWN					07/19/17		PRODUCT FEATURE		
CHECKED					07/19/17		LOW NOISE AMPLIFIER: 4.0 TO 12.0 GHz		
ISSUED							A-4D-4G12G-30G-1R5N-10P		
SIZE	FSCM NO.	DWG NO.	REV.						
A	05XQ0	PRELIMINARY	-						
SCALE	N:S	SHEET			1 OF 1				