

## FEATURES:

- 1.0 – 12.0 GHz;
- 13.0 dB Gain;
- 3.1 dB Noise Figure;
- 17.0 dBm P<sub>1dB</sub>;
- 27.0 dBm IP<sub>3</sub>;
- Unconditional Stable;
- RoHS Compliant

## APPLICATIONS:

- Radar;
- Receivers;
- ECM System;
- WBA Systems;
- Point to Point;
- Test & Measurement;
- Wide Band PA Driver



# LNA100012000A – 1.0 ~ 12.0 GHz WIDE BAND AMPLIFIER

## ELECTRICAL SPECIFICATIONS @ 25 °C

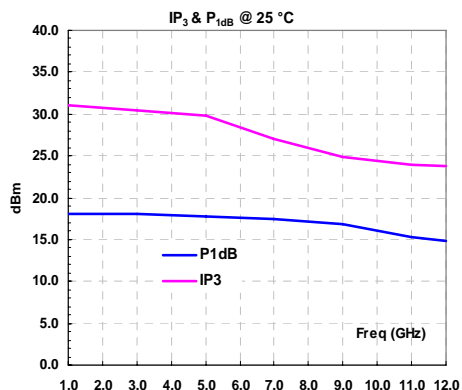
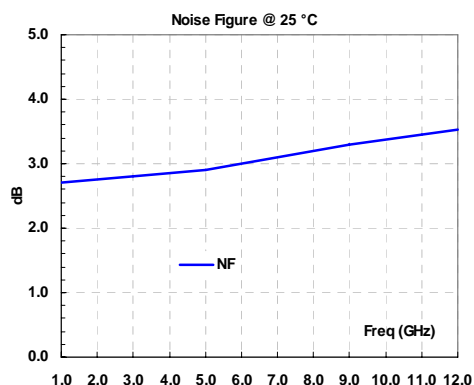
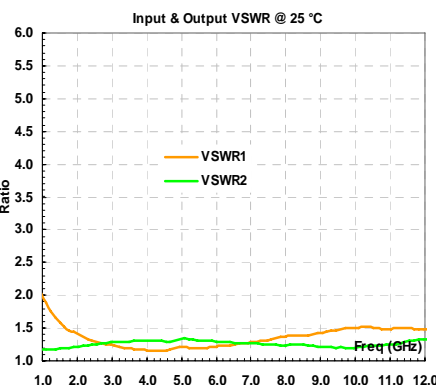
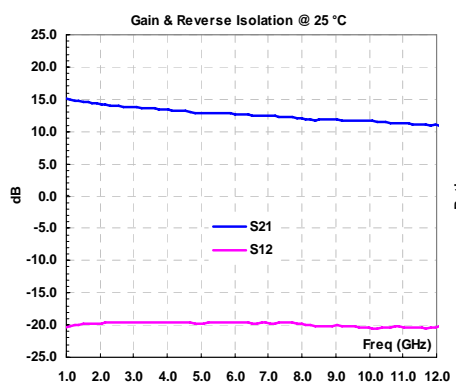
Symbol	Parameters/Conditions	Unit	Min	Typical	Max
I <sub>d</sub>	Device Current	mA		65	88
G	Gain	dB	11	13	
ΔG	Gain Flatness	dB		±2.0	
Z <sub>0</sub>	Impedance	Ohm		50	
OIP3	Output 3 <sup>rd</sup> Order Intercept	dBm		27	
NF	Noise Figure	dB		3.3	4.0
P <sub>1dB</sub>	Output 1dB Gain Compression	dBm		17	
S <sub>12</sub>	Reverse Isolation	dB		20	
V <sub>dd</sub>	DC Power Supply Voltage	V	4.5	5.0	6.0
VSWR <sub>1</sub>	VSWR – Input	Ratio		1.35	2.00
VSWR <sub>2</sub>	VSWR – Output	Ratio		1.25	1.35

## ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

Parameters/Conditions	Unit	Maximum
Channel Temperature	°C	+150
Drain Current	mA	100
Operating Temperature	°C	-54 ~ +85
RF Input Power	dBm	+20
RF Output Supply Voltage	V	8
Storage Temperature	°C	-65 ~ +150
Thermal Resistance	°C/W	140
Total Power Dissipation	mW	350

[1] Operation beyond these limits may cause permanent damage.

## ELECTRICAL PERFORMANCE/MECHANICAL OUTLINE



## ORDERING INFORMATION

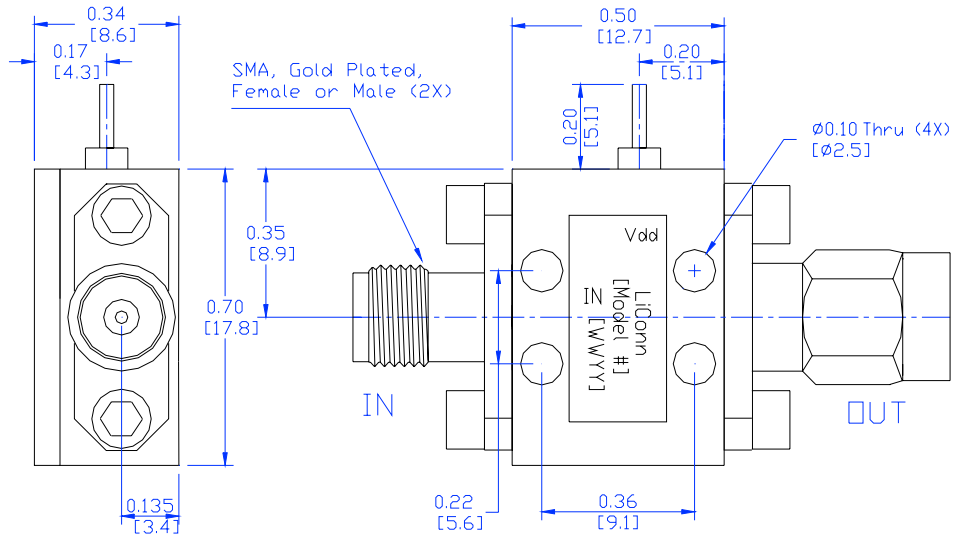
Model Number	Input	Output
LNA100012000A-1	SMA Female	SMA Female
LNA100012000A-2	SMA Female	SMA Male
LNA100012000A-3	SMA Male	SMA Male
LNA100012000A-4	SMA Male	SMA Female
LNA100012000AG-1	SMA Female	SMA Female
LNA100012000AG-2	SMA Female	SMA Male
LNA100012000AG-3	SMA Male	SMA Male
LNA100012000AG-4	SMA Male	SMA Female

## Mechanical Outline

Unit: Inch/mm

Material: Brass  
Finish: Gold Plating  
Tolerance is Non-Accumulative

### LNA100012000A-:



### LNA100012000AG- (with Ground Turret on Output SMA):

