



## FEATURES:

- 0.1 GHz ~ 6.0 GHz;
- 14.0 dB Gain;
- 1.1 dB Noise Figure;
- 15.0 P1dB;
- 27.0 dBm IP3;
- RoHS Compliant;
- Designed to meet MIL-STD-202g;
- Made In USA.

## APPLICATIONS:

- Cellular;
- GPS; PCS; 3G;
- WiMAX;
- C-Band;
- Test & Measurement.



# LNA01006000A – 0.1 GHz ~ 6.0 GHz WIDE BAND AMPLIFIER

## ELECTRICAL SPECIFICATIONS @ 21 °C

Symbol	Parameters/Conditions	Unit	Min	Typical	Max
F	Operating Frequency	GHz	0.1		6.0
G	Gain	dB		14	
OIP3	Output 3 <sup>rd</sup> Order Intercept	dBm		27	
NF	Noise Figure	dB		1.1	1.5
P <sub>1dB</sub>	Output 1dB Gain Compression	dBm		15	
S <sub>12</sub>	Reverse Isolation	dB		20	
V <sub>dd</sub>	DC Power Supply Voltage	V	4.5	5.0	6.0
I <sub>dd</sub>	Device Current (V <sub>dd</sub> =+5V)	mA		30	
VSWR <sub>1</sub>	VSWR – Input	Ratio		1.25:1	
VSWR <sub>2</sub>	VSWR – Output	Ratio		1.5:1	
Z <sub>0</sub>	Impedance	Ohm		50	

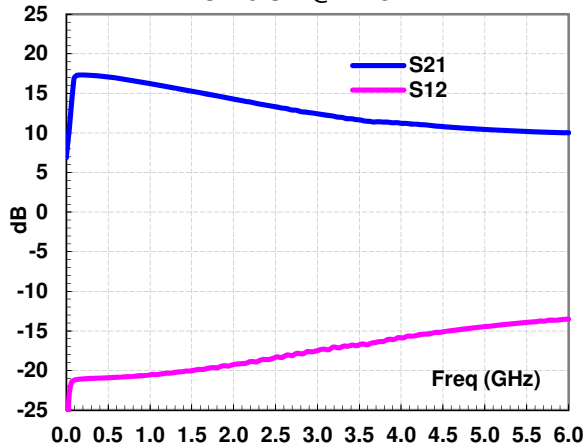
## ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

Parameters/Conditions	Unit	Maximum
Junction Temperature	°C	+150
Drain Current	mA	70
RF Input Power	dBm	+10
RF Output Supply Voltage	V	8
Thermal Resistance	°C/W	230
Operating Temperature	°C	-54 ~ +85
Storage Temperature	°C	-65 ~ +150

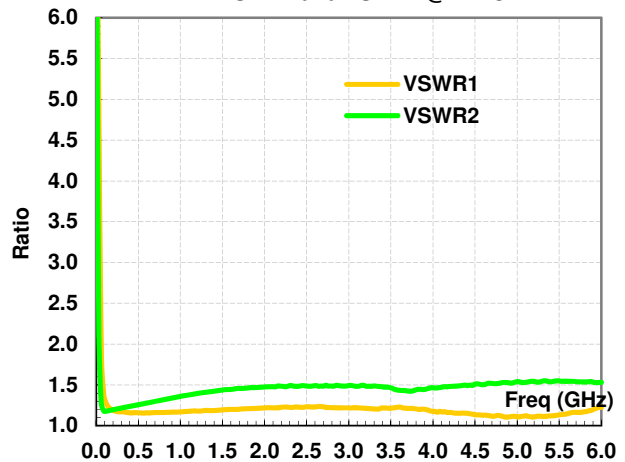
[1] Operation beyond these limits may cause permanent damage.

## ELECTRICAL PERFORMANCE/MECHANICAL OUTLINE

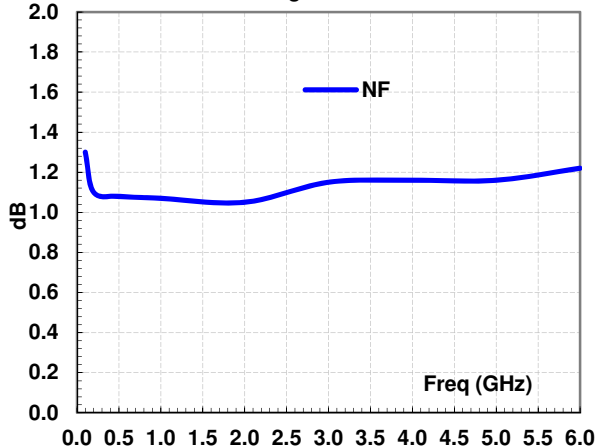
S21 & S12 @ 21 °C



VSWR1 and VSWR2 @ 21 °C



NF Figure @ 21 °C



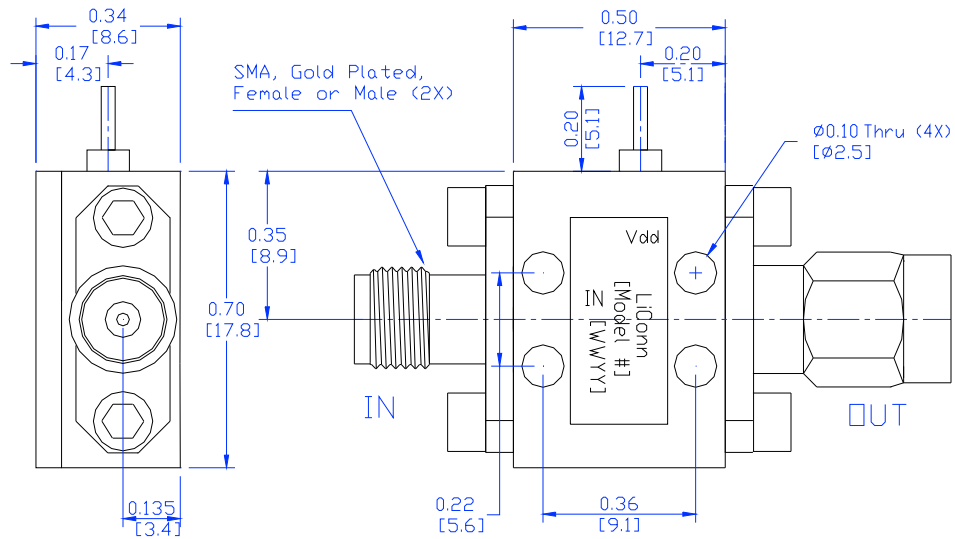
## ORDERING INFORMATION

Model Number	Input	Output
LNA01006000A-1	SMA Female	SMA Female
LNA01006000A-2	SMA Female	SMA Male
LNA01006000A-3	SMA Male	SMA Male
LNA01006000A-4	SMA Male	SMA Female
LNA01006000AG-1	SMA Female	SMA Female
LNA01006000AG-2	SMA Female	SMA Male
LNA01006000AG-3	SMA Male	SMA Male
LNA01006000AG-4	SMA Male	SMA Female

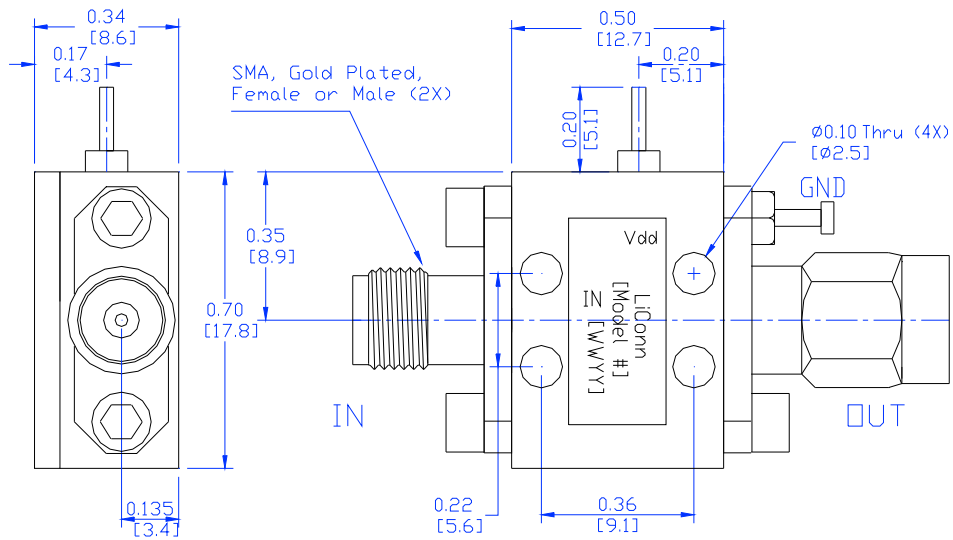
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## MECHANICAL OUTLINE

### LNA01006000A-:



### LNA01006000AG- (with Ground Turret on Output SMA):



Unit: INCH Base Material: Brass  
[mm] Finish: Gold Plating  
Tolerance: X.XX ±0.01"  
X.XXX ±0.005"