

# Wide Band Low Noise Amplifier

**6-18GHz**

- Noise Figure: 2.0dB Typ.
- Gain: 35dB Typ.
- P1dB Output Power: +15dBm Typ.



RF Parameters										
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Unit
Frequency Range	6		8	8		12	12		18	GHz
Gain	35	39		35	38		35	38		dB
Gain Flatness		±0.5	±0.8		±1.5	±2.0		±1.5	±2.0	dB
Gain Variation Over Temperature (-45C~+85C)		±1.0			±1.0			±1.5		dB
Noise Figure		2.8	3.0		2.2	2.5		2.4	3.0	dB
Input Return Loss	10	12		10	12		9	11		dB
Output Return Loss	6	8		10	15		12	18		dB
Output Power for 1 dB Compression (P1dB)	13	15		14	16		14	16		dBm
Saturated Output Power (P <sub>sat</sub> )		16			17			17		dBm
Output Third Order Intercept (IP3)		24			26			26		dBm
Isolation S <sub>12</sub>		-60			-60			-55		dB
Supply Current (I <sub>dd</sub> ) (V <sub>cc</sub> =+12V)		180	220		180	220		180	220	mA
Input Max Power (no damage)		-12			-12			-12		dBm

Physical Specifications			
Weight	0.35 ounces (10g)	Impedance	50 ohms
Input / Output Connectors	SMA Female	Material	Aluminium
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness	Package Sealing	Epoxy Sealing



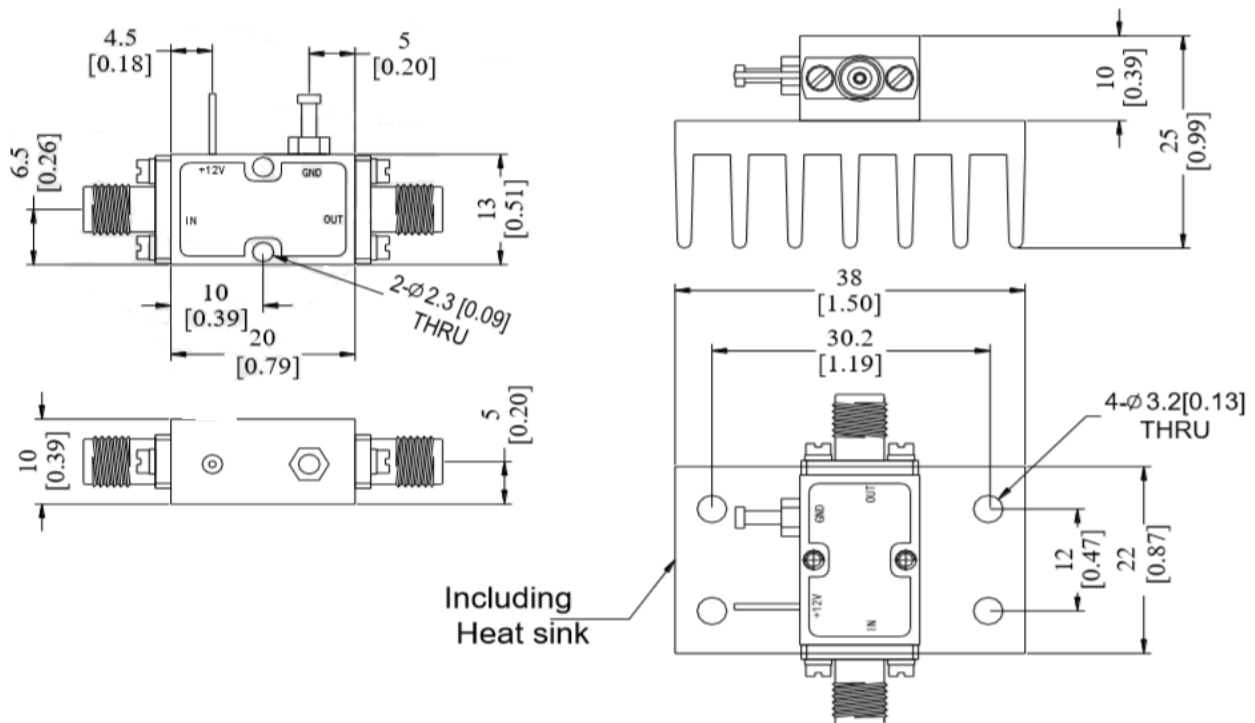
Absolute Maximum Ratings	
Operating Voltage	+12V±10%
RF Input Power (Vcc= +12V)	-10dBm

Biasing Up Procedure	
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing

Power Off Procedure	
Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

Environmental	
Operating Temperature	-45°C to +85°C
Storage Temperature	-55°C to +125°C
Altitude	30,000 ft. max
Vibration	25g RMS (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95% RH at 40°C max.
Shock	20g for 11msec half sine wave, 3 axis both directions

All Dimensions in mm [inches]  
Heat Sink required during operation (Sold separately)



Note 1: The specification provided is at nominal bias voltage and at 25°C unless otherwise specified  
 Note 2: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.  
 Note 3: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

