

# High Dynamic Range IF Amplifier



## Features

- Ultra High Linearity
- 1.5W Typical @ P1dB
- Flat Gain Response
- Exceptional Unit-to-Unit Amplitude & Phase Repeatability
- Unconditionally Stable

## Technical Specifications

Parameter	Typical $T_c = +25\text{ }^\circ\text{C}$	Min / Max $T_c = 0^\circ\text{C to } +50^\circ\text{C}$
Frequency	0.5 – 35 MHz	0.5 - 35 MHz
Gain (dB)	21.9 ( $\pm 0.7$ )	---
Gain vs. Temperature (dB)	---	+0.2 / -0.5
Gain Flatness (dB)	0.2	0.8 Max.
$P_{OUT}$ @ 1dB Compression (dBm)	+32	+31 Min.
3 <sup>rd</sup> Order Output Intercept Point (dBm)	+53	---
2 <sup>nd</sup> Order Output Intercept Point (dBm)	+105	---
Reverse Isolation (dB)	32	31
VSWR		
In	1.3:1	1.5:1 Max.
Out	1.2:1	1.5:1 Max.
Noise Figure (dB)	3.2	4.5 Max.
Power		
Vdc	+24	+24
mA	405	420 Max.

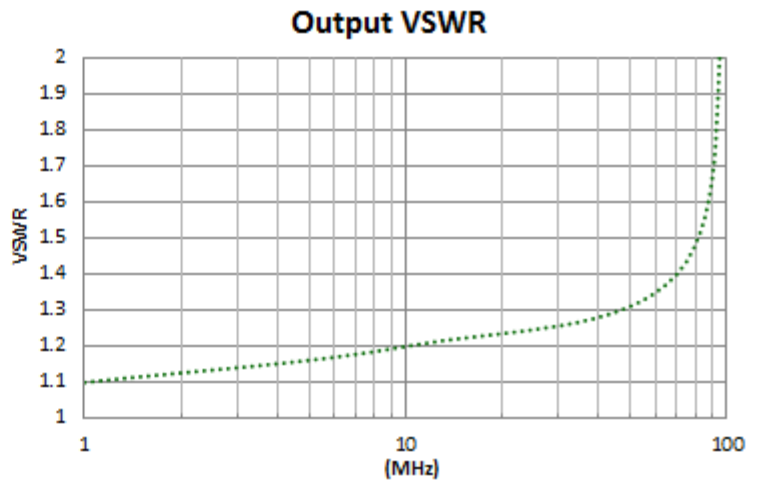
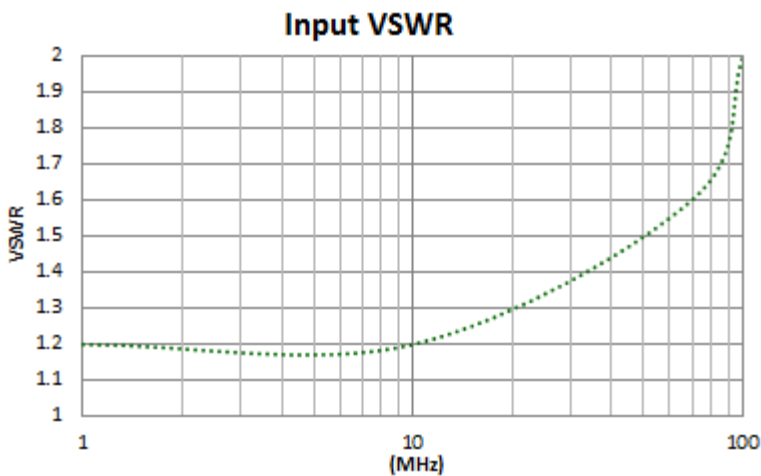
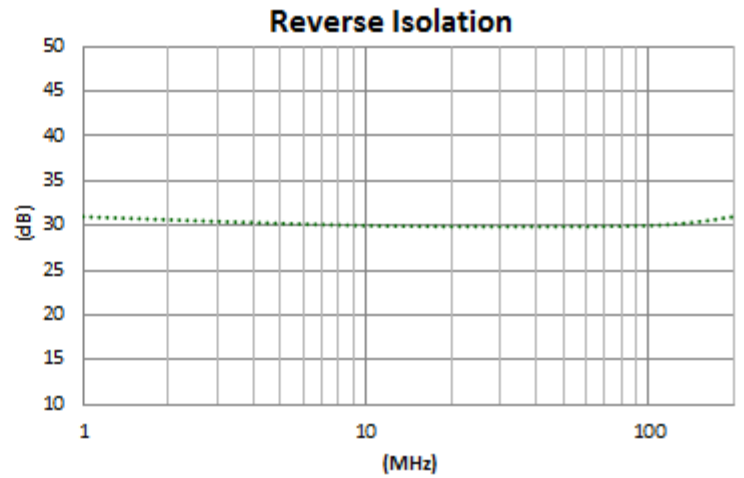
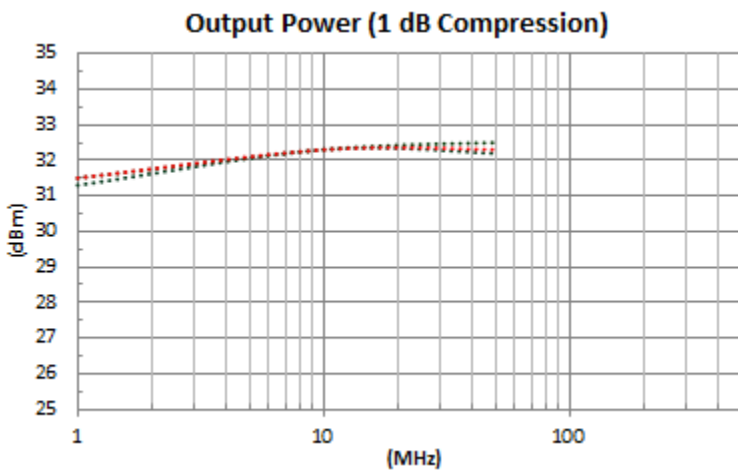
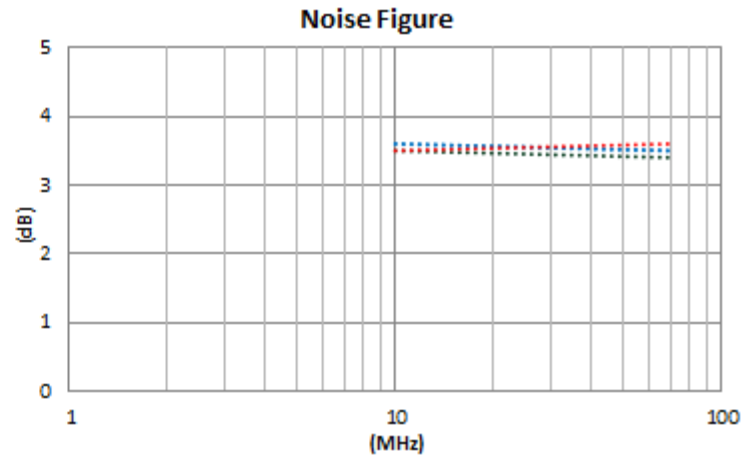
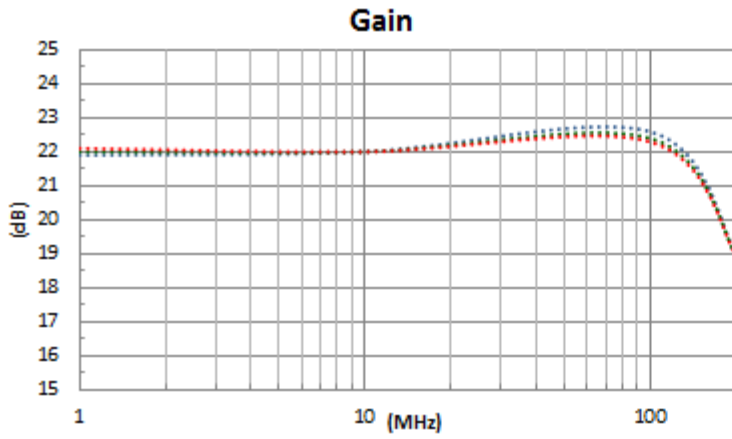
## Absolute Maximum Ratings

Parameter	Specification
Operating Case Temperature ( $T_c$ )	-20°C to +71°C
Storage Case Temperature ( $T_c$ )	-55°C to +125°C
DC Voltage @ 25°C	+26 Volts
Continuous RF Input Power	+13 dBm
Short Term RF Input Power	200 Milliwatts (1 Minute Max.)
Maximum Peak Power	0.5 Watt (3 $\mu$ sec Max.)

## General Notes

Cooling	Adequate heat sink required to ensure the mounting surface does not exceed the maximum operating temperature. Standard and custom options available upon request.
Typical Values	Data and graphs provided are an illustration of performance and not guaranteed.
Min./Max. Values	Specifications are guaranteed when tested in a 50 $\Omega$ (ohm) system with a DC supply voltage tolerance of $\pm 2\%$ .
Revisions	API reserves the right to make revisions to both the product and/or the information contained within their datasheets without advanced notice.

## Typical Performance Graphs



..... 0°C     
 ..... +25°C     
 ..... +50°C