

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 $T_c = +25^\circ\text{C}$	Min / Max $T_c = 0^\circ\text{C to } +50^\circ\text{C}$
Frequency	2 – 70 MHz	2 - 70 MHz
Gain (dB)	21.9 (± 0.7)	---
Gain vs. Temperature (dB)	---	+0.2 / -0.5
Gain Flatness (dB)	0.5	0.8 Max.
P_{OUT} @ 1dB Compression (dBm)	+32	+31 Min.
3 rd Order Output Intercept Point (dBm)	+54	+50
2 nd Order Output Intercept Point (dBm)	+105	+100
Reverse Isolation (dB)	32	31
VSWR In	1.5:1	1.5:1 Max.
Out	1.5:1	1.5:1 Max.
Noise Figure (dB)	4.0	4.5 Max.
Power Vdc	+24	+24
mA	420	420 Max.

Absolute (No Damage) Max 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	+20 dBm
Short Term RF Input Power	200 Milliwatts (1 Minute Max.)
Max. Peak Input Power	0.5 Watt (3 μsec Max.)

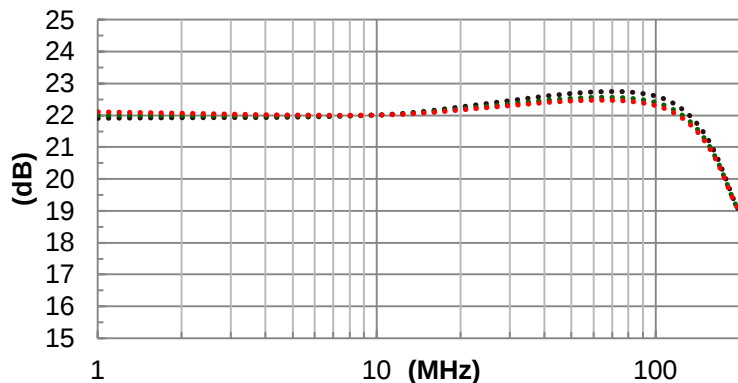
Rev Date: 01/20/2022

General Notes

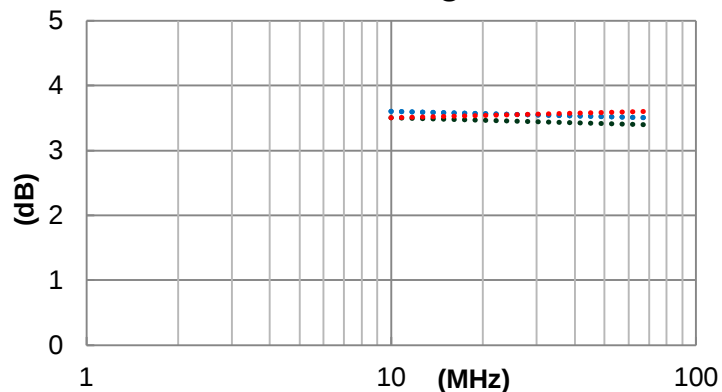
Cooling	Adequate heat sink required to ensure the mounting surface does not exceed the maximum operating temperature. Standard and custom options available upon request.
Typical Values	Data and graphs provided are an illustration of performance and not guaranteed.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (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

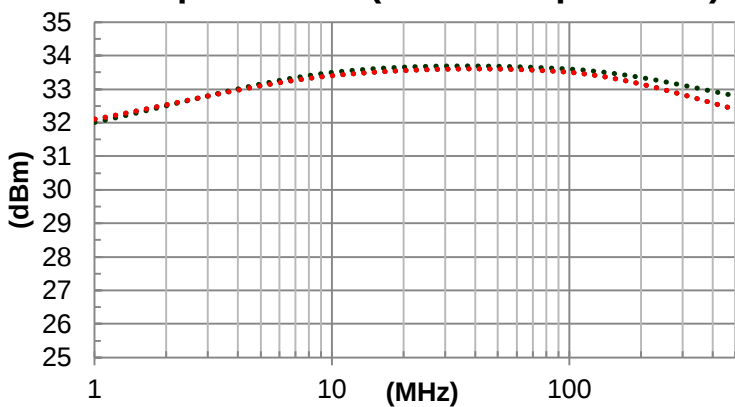
Gain



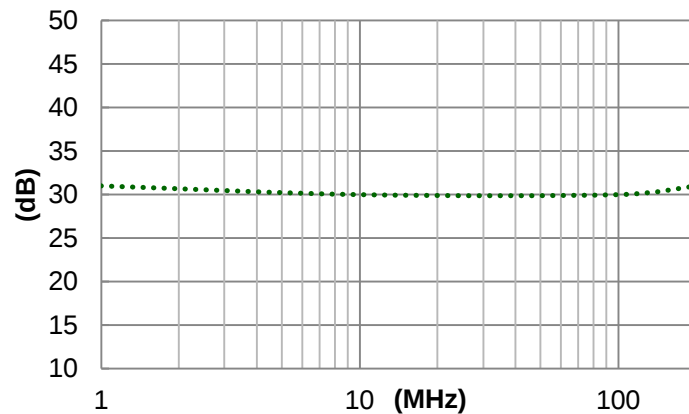
Noise Figure



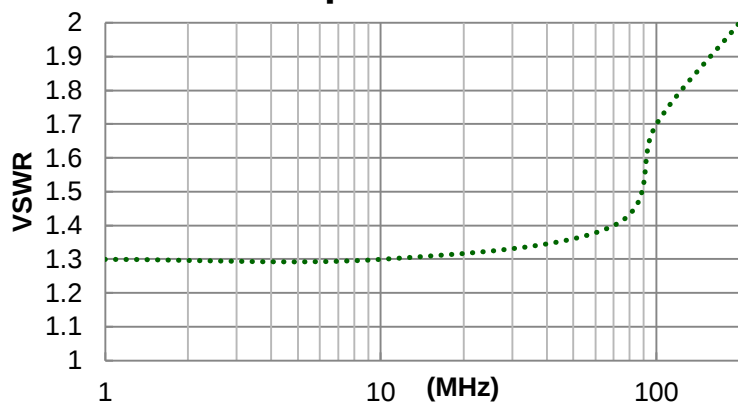
Output Power (1 dB Compression)



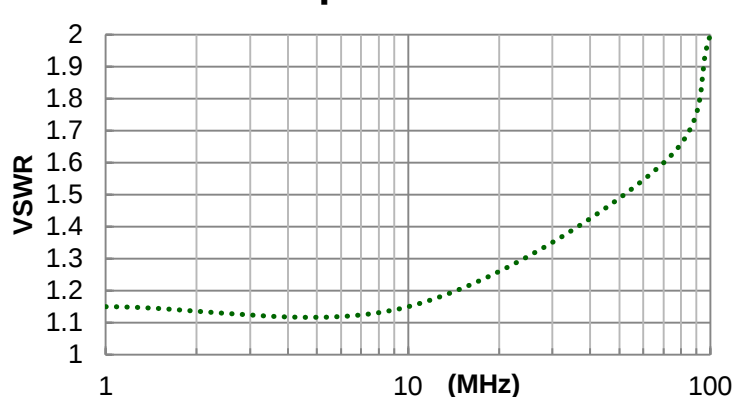
Reverse Isolation



Input VSWR



Output VSWR



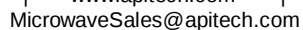
..... 0°C

..... +25°C

..... +50°C

Outline Drawing

(For Reference Only)



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