

Wideband RF amplifier specifications©

September 2021

Maximum ratings:

Parameter	Maximum rating	Units
Supply voltage	5.5	Volts
Supply current	100	mA
RF input power	10	dBm (50 ohm Ref)
Dissipated power	1.6	W
Operating temperature range	-40 to 85	Deg C
Storage temperature	-65 to 160	Deg C
MSL	1	

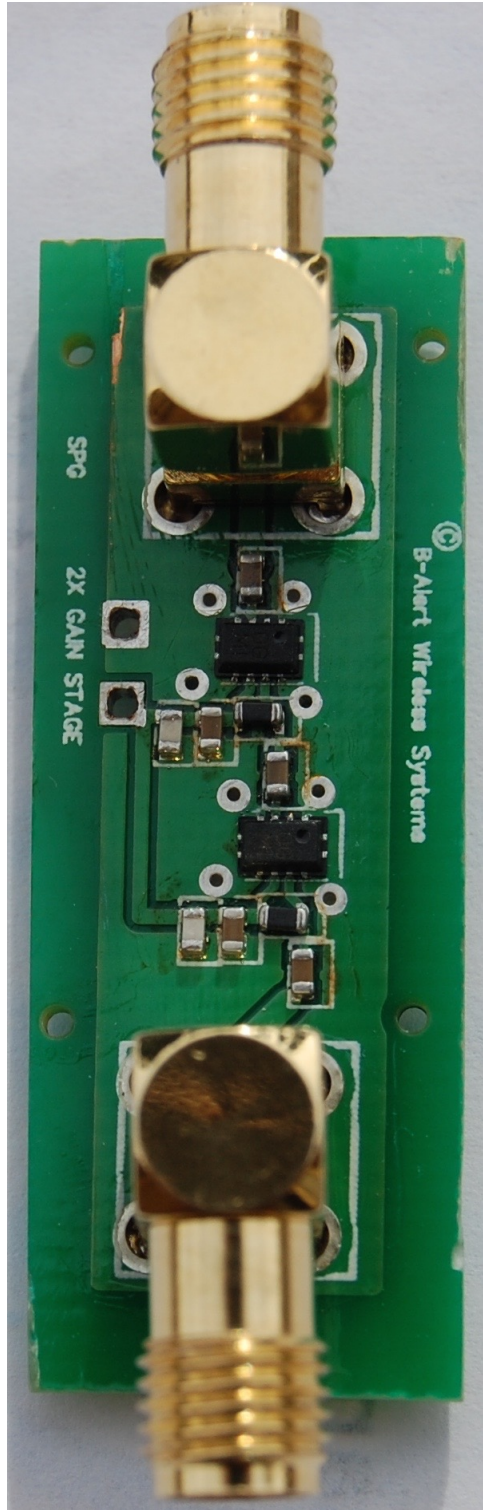
Operating parameters:

Parameter	Conditions	Min	Typ	Max	Units
Supply voltage	DC operating voltage	3.0		5.0	Volts
Supply current	VCC=5.0V, TA=25 Deg C		68		mA
	VCC = 3.0V, TA=25 Deg C		62		mA
Noise Figure	VCC=5.0V, TA=25 Deg C, 50 Ohm I/O impedance, 900 Mhz, 1900 Mhz, 2.5 Ghz		4.5 4.8 5.6		dB

Small signal gain	See measured data below				
Input return loss	VCC=5.0V, 100 Mhz, 900 Mhz, 2.5 Ghz TA=25 Deg C VCC=3.3V, 100 Mhz, 900 Mhz, 2.5 Ghz TA=25 Deg C		12.0 14.8 15.8 10.0 13.7 13.8		dB
Output return loss	VCC = 5.0V, 900 Mhz, 2.5 Ghz, TA=25 Deg C VCC = 3.3V, 900 Mhz, 2.5 Ghz, TA=25 Deg C		19.7 15.9 23.0 13.7		dB
P1dB	VCC=5.0V, 900 Mhz 2.5 Ghz, TA=2.5 Deg C VCC=3.3V, 900 Mhz, 2.5 Ghz, TA=25 Deg C		4.8 3.6 4.1 2.1		dBm

Output return loss	VCC=5.0, 100 Mhz, 900 Mhz, 2.5 Ghz TA=25 Deg C		21.0 19.0 15.4		dB
	VCC=3.3V, 100 Mhz, 900 Mhz, 2.5 Ghz TA=25 Deg C		20.0, 27.4 21.7		
MSL			1		
Length			35.0		mm
Width			15.0		
Height			10.00		mm
Weight			< 1		oz
RF connectors			SMA right angle launch, female		

Image: Top view.



Frequency response

Input power -55 dBm, $Z_{in}/Z_{out}=50$ Ohms, $T_a=27$ Deg C, $V_{cc}=3.3V$

freq (Mhz)	gain
20	26.92307692
40	33.53846154
60	36.41025641
80	37.48717949
100	38.35897436
200	39.02564103
300	38.71794872
400	38.15384615
500	37.64102564
600	36.35897436
700	35.38461538
800	34.71794872
900	33.64102564
1000	32.87179487
1500	28.61538462
2500	22.15384615

