

Product Features

- Operation across 20MHz to 1000MHz
- 42dBm minimum Psat through all band
- 35dB typical small signal gain
- GaN HFET

Application

- HF/VHF/UHF

Description

The RFW1G35H20-28 is designed for Wideband Power Amplifier application frequencies from 20 to 1000MHz. This module uses GaN HEMT technology which performs high breakdown voltage, high linearity, wide bandwidth and high efficiency.



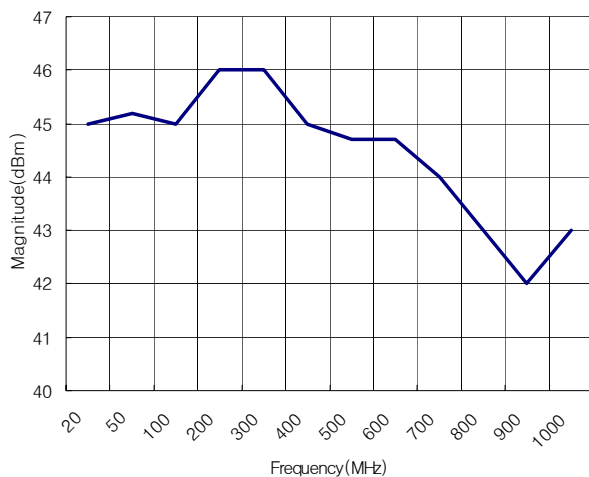
Typical Specifications

Ref.	CHARACTERISTIC	CONDITIONS	Min.	Typ.	Max.	Units
1.	Bandwidth		20		1000	MHz
2.	Gain		33	35	37	dB
3.	Gain variation vs temperature	-20°C to 60°C	-1.5		+1.5	dB
4.	Gain variation vs frequency			1	2	dBpp
5.	P _{3dB}	20MHz to 300 MHz		45		dBm
		300 MHz to 600 MHz		44		
		600 MHz to 1000 MHz		42		
6.	OIP3	20MHz to 300 MHz	53	55		dBm
		300 MHz to 700 MHz	50	52		
		700 MHz to 1000 MHz	47	49		
7.	Noise figure			5.5	8	dB
8.	Input Return Loss		-10	-12		dB
9.	Output Return Loss		-5	-8		dB
10.	Harmonic suppression	1 CW tone @ +30dBm	42	50		dBc
11.	Supply voltage			+28		V
12.	Quiescent Current consumption			1.8	2.0	A
13.	Worst Case Current at P1dB Pout			2.5	3.5	
14.	Shut down			5.0		V

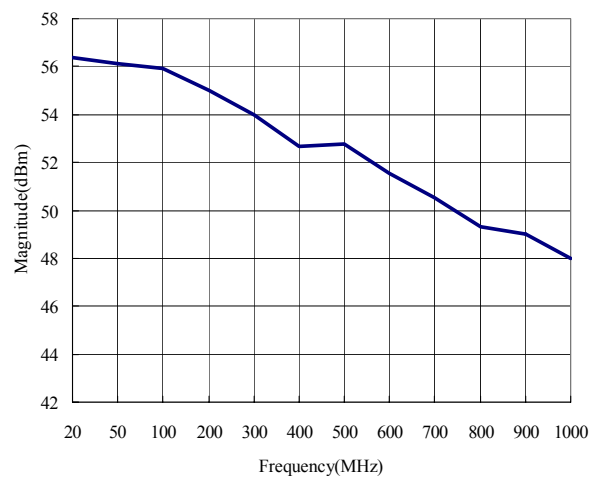
RFW1G35H20-28 Typical Performance @ 25°C

Frequency (MHz)	P1dB (dBm)	P3dB (dBm)	Current@P1dB (A)	Current@Psat (A)	2nd Harm@ P1dB(dBc)	Gain (dB)	OIP3 (dBm)	N.F (dB)
20	44.2	45	2.3	2.5	52.9	35.3	56.35	7.6
50	44.2	45.2	2.3	2.5	51.5	35.4	56.1	5.01
100	44.2	45	2.37	2.6	51.8	36.5	55.9	5.1
200	44.3	46	2.4	2.9	48.1	35.7	55	5.03
300	44	46	2.25	3.1	50.5	35.7	54	5.21
400	43.1	45	2.2	3.1	46.7	35.6	52.65	5.2
500	43.2	44.7	2.3	3.1	47.5	35.5	52.75	5.39
600	44	44.7	2.27	2.7	50.1	35.7	51.55	5.46
700	43	44	2.1	2.6	60	35.5	50.55	5.63
800	40	43	2.1	2.7	53	35.4	49.3	5.66
900	40	42	2.1	3.2	53.8	35.4	49	5.77
1000	40	43	2.1	3.5	50	35.5	48	6.07

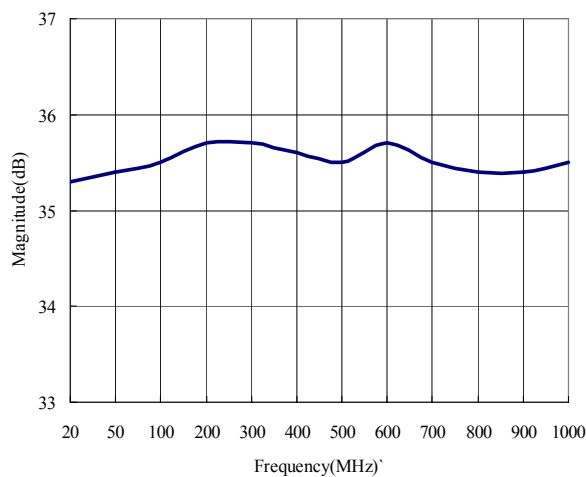
P3dB



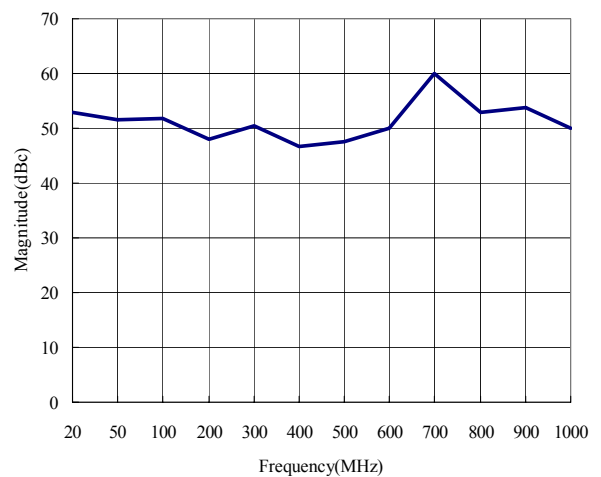
OIP3



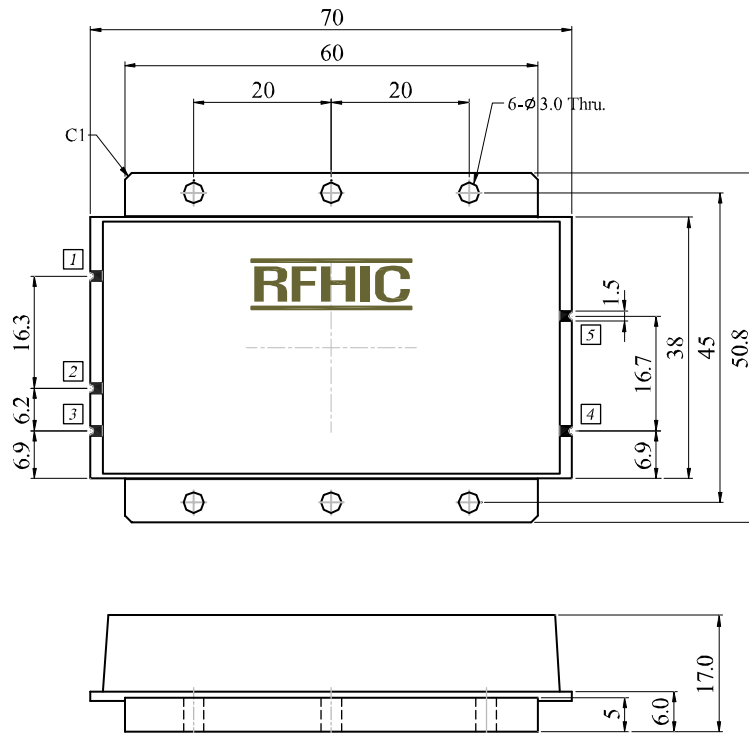
Gain



2nd Harmonics



Dimensions in mm



Footprint for easy maintenance

