

# Wideband Power Amplifier RFW2500H10-28

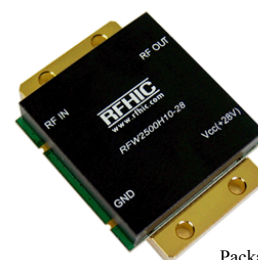


## Product Features

- GaN on SiC Broadband High Power Amplifier
- 20MHz to 2500MHz Operation Bandwidth
- Small Signal Gain 17dB typical .
- 4W typical. P3dB

## Application

- HF/VHF/UHF
- Broadband PA
- Broadcasting PA



Package : DP-34

## Description

The power amplifier module is designed for Broadcasting, Telecommunication, Medical and Other markets.

Operating frequency range is from 20MHz to 2500MHz

Gallium Nitride on SiC Technology is used and attached on an aluminum sub carrier.

Improved thermal handling by patented technology.

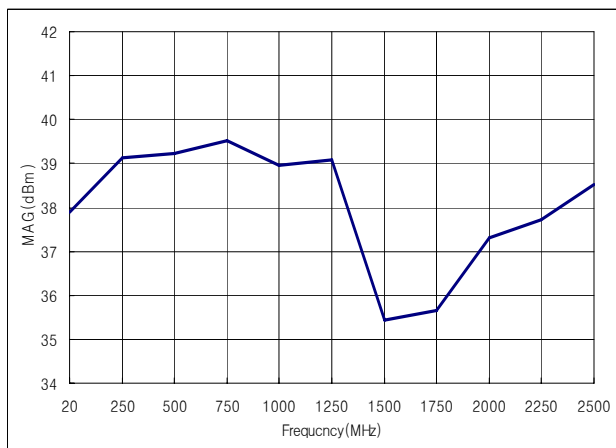
## Typical Specifications

Ref.	CHARACTERISTIC	CONDITIONS	Min.	Typ.	Max.	Units
1.	Bandwidth		20		2500	MHz
2.	Gain		14	17	19	dB
3.	Gain variation vs temperature	-20°C to 60°C		±1	±2	dB
4.	Gain variation vs frequency			±2	±3	dBpp
5.	P <sub>3dB</sub>	20MHz to 1200 MHz	36	38		dBm
		1200 MHz to 2000 MHz	34	36		
		2000 MHz to 2500 MHz	36	38		
6.	OIP3 2tone 1MHz @ +30dBm output power	20MHz to 500 MHz	45	48		dBm
		500 MHz to 1000 MHz	40	43		
		1000 MHz to 2500 MHz	38	41		
7.	Input Return Loss			-5	-2	dB
8.	Output Return Loss			-5	-2	dB
9.	2 <sup>nd</sup> Harmonic suppression (1 CW tone @ +30dBm)	20MHz to 1600 MHz		-35	-25	dBc
		1600MHz to 2500 MHz		-50	-40	
10.	Supply voltage			+28	+30	V
11.	Quiescent Current consumption		600	700	800	mA

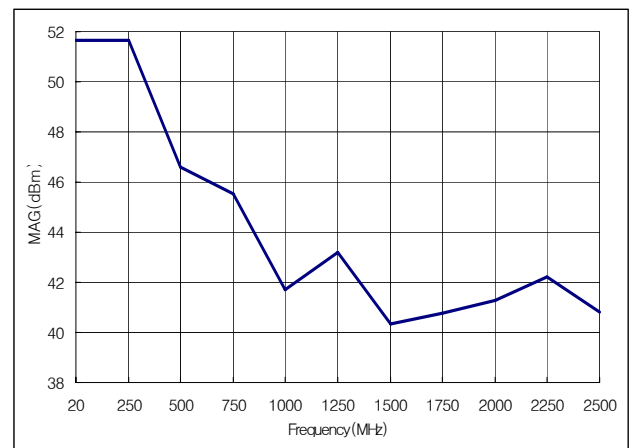
## RFW2500H10-28 Typical Performance @ 25°C

Frequency (MHz)	P1dB (dBm)	P3dB (dBm)	Current@P1dB (A)	Current@P3 (A)	2nd Harm@ 30dBm(dBc)	Gain (dB)	OIP3@1GHz(dBm) (30dBm/Tone)
20	37.84	37.88	0.76	0.67	-41.72	18.024	51.68
250	39.2	39.14	0.71	0.63	-35.97	17.539	51.65
500	37.75	39.23	0.8	0.97	-28.77	17.691	46.61
750	38.49	39.51	0.81	0.93	-30.5	18.209	45.54
1000	37.75	38.96	0.7	1.07	-34.67	18.699	41.69
1250	35.28	39.09	0.78	1.12	-36.49	18.715	43.2
1500	33.14	35.43	0.75	0.89	-34.94	18.062	40.33
1750	33.09	35.65	0.75	0.92	-46.57	16.715	40.76
2000	34.09	37.3	0.75	1.01	-55.09	15.198	41.28
2250	35.06	37.72	0.74	0.95	-55.82	15.261	42.21
2500	36.99	38.52	0.65	0.75	-49.46	15.446	40.82

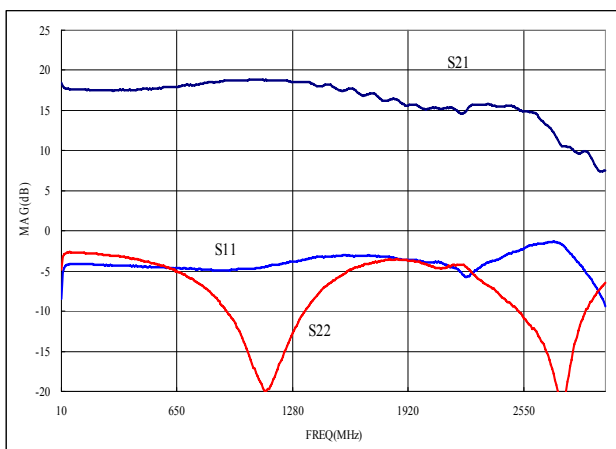
**P3dB**



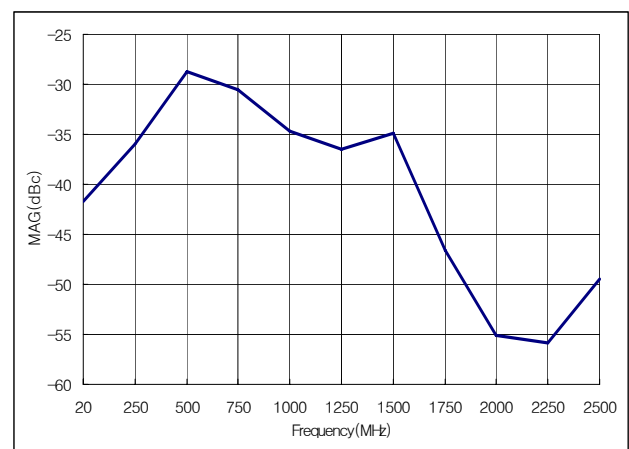
**OIP3**



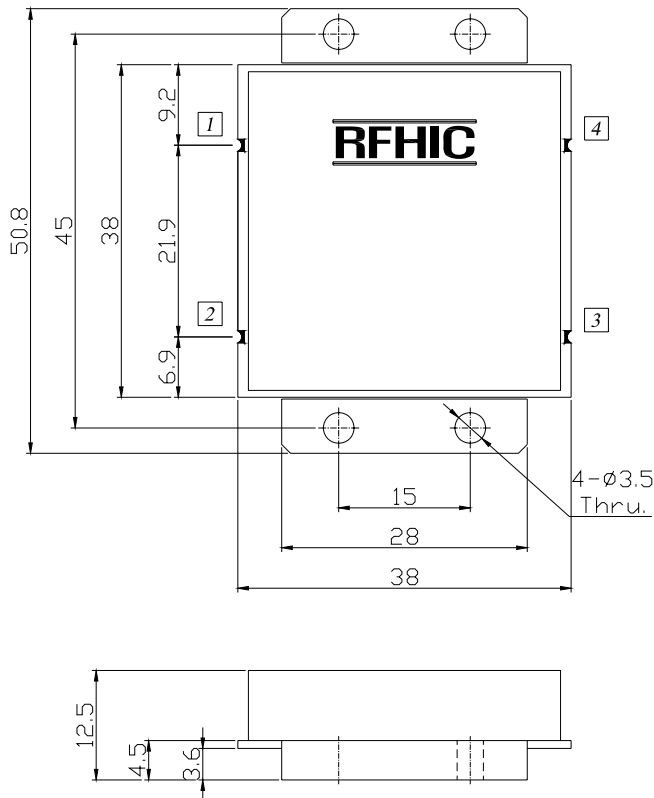
**Gain**



**2<sup>nd</sup> Harmonics**

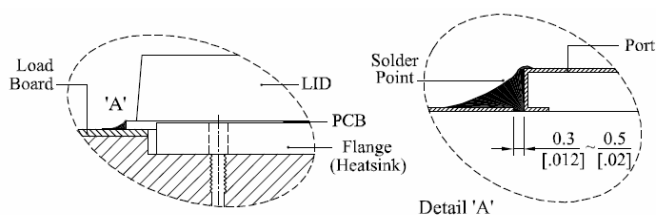


Dimensions in mm (Type: DP-34)



Port	Function
1	RF INPUT
2	GND
3	Vcc
4	RF OUTPUT

## Footprint for easy maintenance



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