



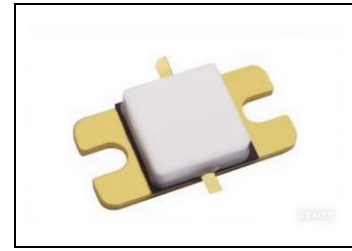
3.5-7GHz, 30W, GaN Fully matched PA Module

Description

The XMAH3570-31A2T is a 30-watt, single stage integrated Power Amplifier Module, designed Full band application from 3.5 to 7GHz.

The module is 50 Ω input/output matched and requires minimal external components.

Vgs=-2.45V Idq=210mA, Vds=28V Signal: CW



Freq(MHz)	Pin(dBm)	Pout(dBm)	Pout(W)	IDS(A)	Gain(dB)	Eff(%)	2 nd Harmonic	3 rd Harmonic
3100	38.40	45.67	36.9	2.63	7.27	50.1	-8.2	-20.8
3500	38.19	46.45	44.2	3.06	8.26	51.5	-12.7	-29.5
4000	38.70	46.97	49.8	3.93	8.27	45.2	-18.0	-29.7
4500	38.15	46.22	41.9	2.83	8.07	52.9	-18.4	-53.3
5000	37.70	45.20	33.1	2.19	7.50	54.0	-22.1	-48.3
5500	36.75	45.61	36.4	2.52	8.86	51.6		
6000	37.75	45.06	32.1	2.60	7.31	44.0		
6500	37.25	45.17	32.9	2.61	7.92	45.0		
7000	38.00	45.00	31.6	2.63	7.00	42.9		

Recommended driver: **GMAH2080-10C9**

Applications

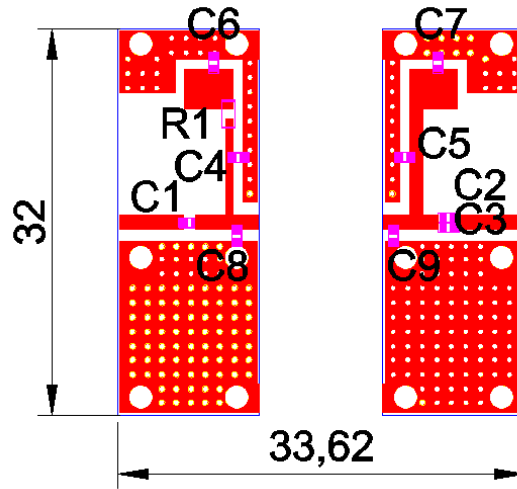
- Power Amplifiers within S and C band
- Test Instrumentation
- EMC Amplifier Drivers
- 2-way Radios

Table 1. Maximum Ratings

Rating	Symbol	Value	Unit
Drain--Source Voltage	V _{DSS}	150	Vdc
Gate--Source Voltage	V _{GS}	-10 to +2	Vdc
Operating Voltage	V _{DD}	+32	Vdc
Storage Temperature Range	T _{stg}	-65 to +150	°C
Case Operating Temperature	T _c	+150	°C
Operating Junction Temperature	T _j	+225	°C



Typical application circuit



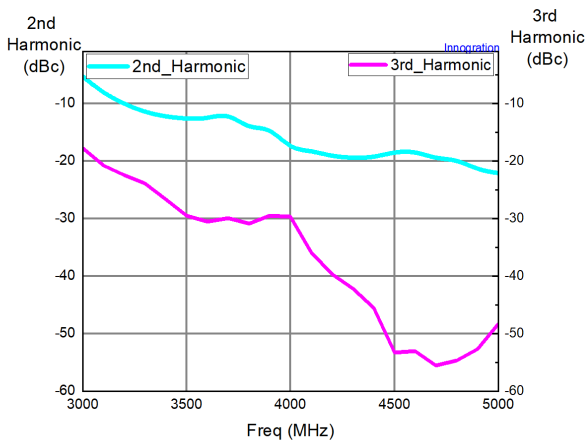
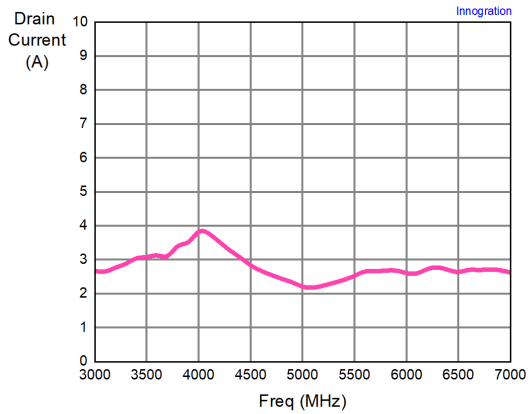
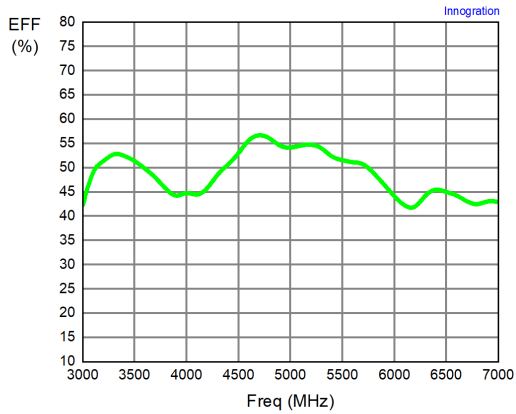
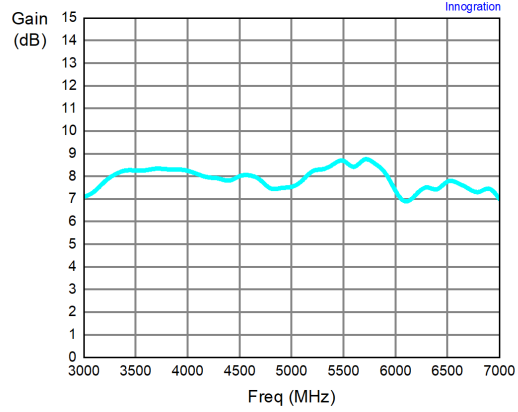
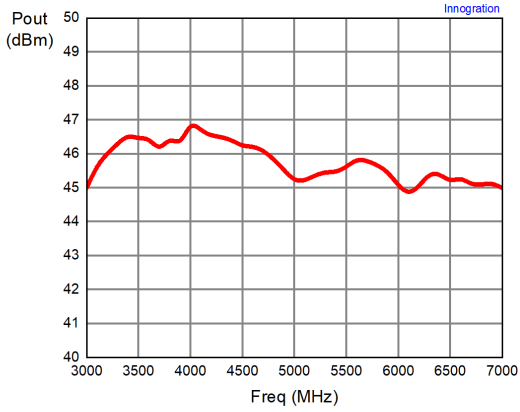
Component	Description	Suggested Manufacturer / Series Number
C1	2.2 pF	
C2 C3	2 pF	ATC600S
C4	56 pF	
C5	100 pF	
6 C7	10 uF	TDK
C8	0.2 pF	
C9	0.1 pF	
R1	10 Ohm	Open suppliers. 1206 SMD Resistor
PCB	20Mil Rogers 4350	Rogers

Typical RF Performance



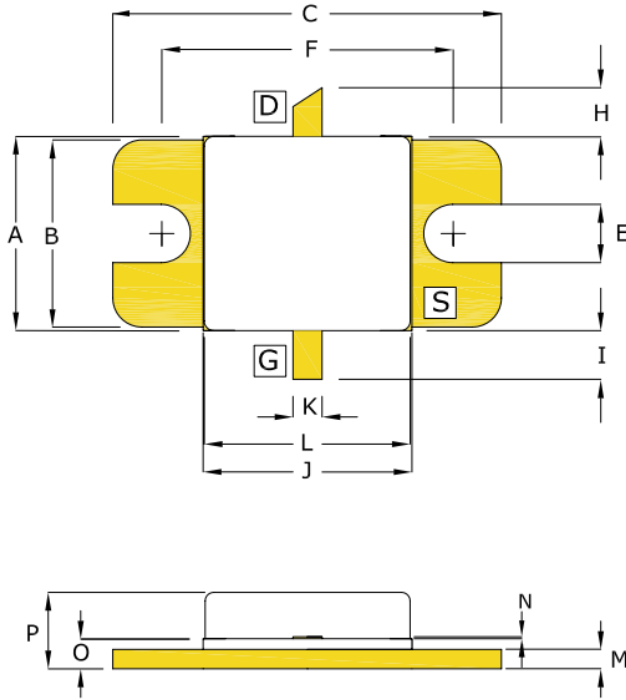


XMAH3575-31A2T CW Test
Vgs=-2.27V Vds=28V Idq=210mA





Package Dimensions



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.395	0.405	10.03	10.29
B	0.380	0.390	9.65	9.91
C	0.795	0.805	20.19	20.45
E	0.115	0.125	2.92	3.18
F	0.595	0.605	15.11	15.37
H	0.090	0.110	2.29	2.79
I	0.090	0.110	2.29	2.79
J	0.425	0.435	10.80	11.05
K	0.055	0.065	1.40	1.65
L	0.420	0.428	10.67	10.87
M	0.035	0.045	0.89	1.14
N	0.004	0.007	0.10	0.18
O	0.053	0.067	1.35	1.70
P	0.143	0.179	3.63	4.55

PIN SCHEDULE	
D	DRAIN
S	SOURCE
G	GATE

Revision history

Table 6. Document revision history

Date	Revision	Datasheet Status
2026/1/29	Rev 1.0	Preliminary Datasheet

Application data based on JF-26-05

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