Product Features

100-2000MHz

30W CW @28V

>40% Drain Efficiency@28V

>10dB power gain

50ohm in and out, 60*90mm, screw down

Linear or saturated use

Device used：NU4005H

Applications

HF/VHF/UHF Power amplifier

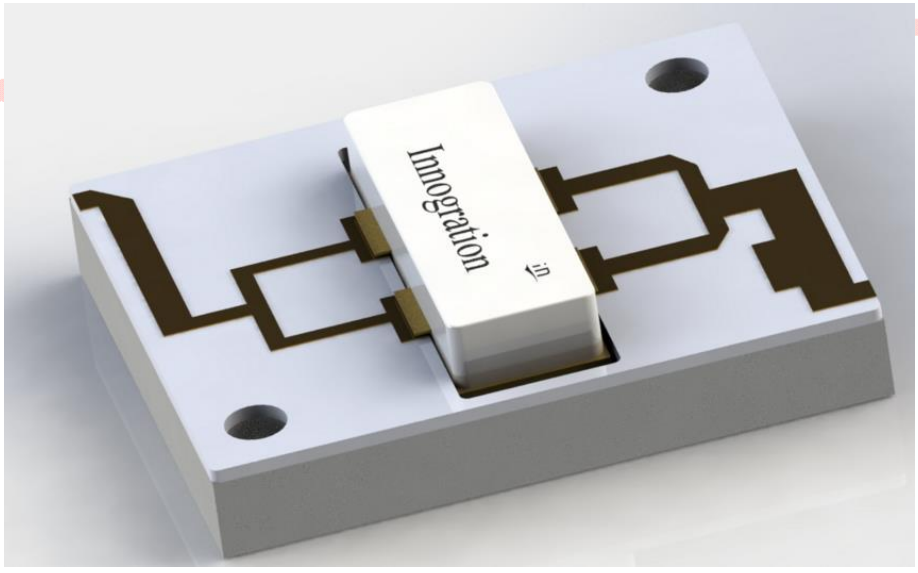
UAV Jammer

ISM

Land Mobile

Description

The GMPA0120-30H is designed for HF/VHF/UHF comm, test and measurement and other ISM applications at 100-2000MHz. This Amplifier pallet is suitable for use in linear and saturated applications,and 50ohm fully matched at input and output, drop-in placement by screwing it down and 100% RF test, it enables easier power combination to reach higher power with high production yield as part of customer's power amplifier system.



Electrical Specifications @Vds=28V, T=25℃, 50Ωsystem

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	100	-	2000	fo
Operating Bandwidth	MHz		1900	-	OBW
CW Output Power	W	30	40	-	Pout
Power Gain	dB	10		-	G_P
Gain Flatness	dB	-	±4	-	G_F
Input Return Loss	dB	-	-	-10	S_{11}
Operating Voltage	V	-	28	36	V_{DS}
Quiescent Current	mA	-	200	-	I_{DQ}
Efficiency@Psat	%	40		-	Eff

Environmental Characteristics

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Case Temperature	℃	-20	-	85	Ta
Storage Temperature	℃	-40		100	Tstg
Relative humidity w/o condensation	%	-	-	95	RH

Mechanical Specifications

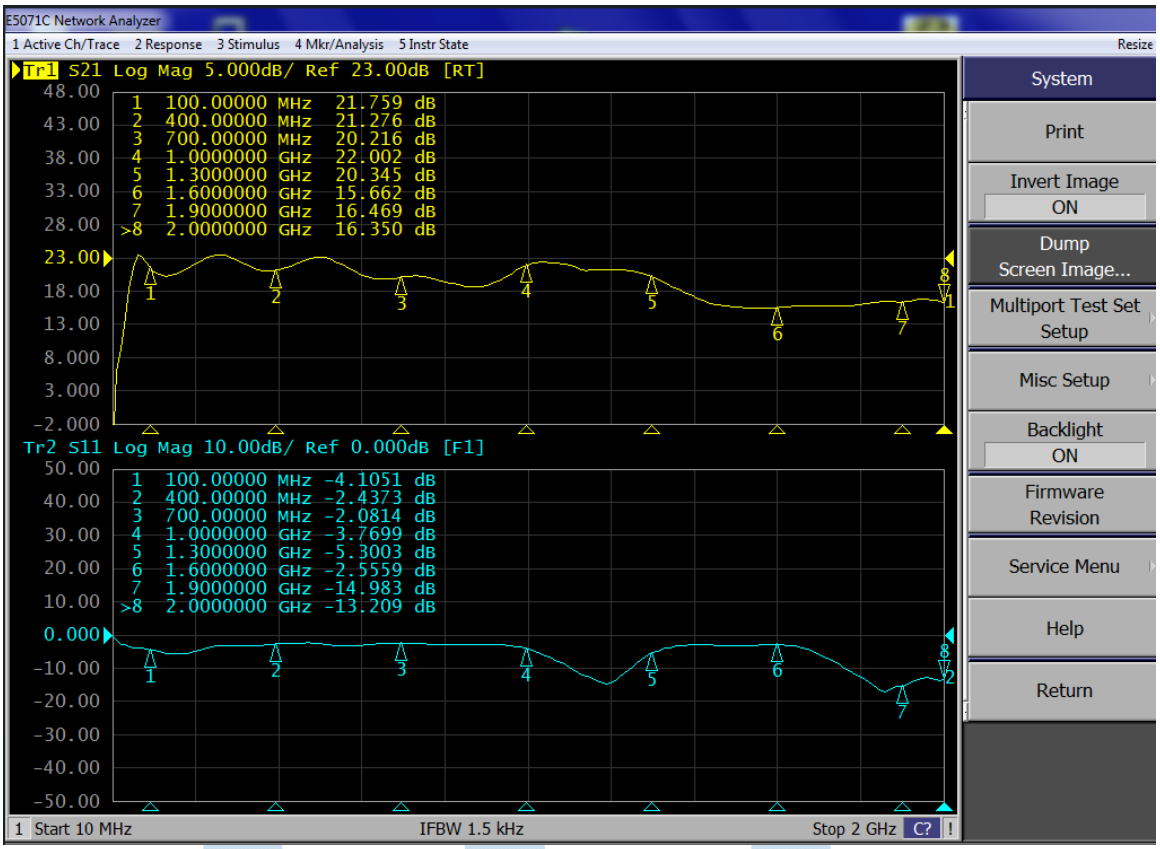
PARAMETER	UNIT	VALUE
Dimensions(L × W)	mm	90*60
Weight	g	TBD
RF Input Connector	-	N/A
RF Output Connector	-	N/A
Cooling	-	External Heat-sink

Typical performance

- CW performance: Vds=+28V, IDQ=200mA, T=25℃

Freq(MHz)	Pin(dBm)	Pout(dBm)	Pout(W)	IDS(A)	Gain(dB)	Eff(%)	2nd	3rd
100	31.27	45.34	34.20	1.65	14.07	74.02	-10.50	-10.80
120	30.17	46.67	46.45	2.61	16.5	63.56	-8.50	-14.30
150	30.17	47.37	54.58	3.5	17.2	55.69	-9.20	-12.10
200	29.11	48.21	66.22	3.77	19.1	62.73	-12.80	-14.60
300	27.98	46.98	49.89	2.65	19	67.24	-19.60	-15.60
400	29.52	47.02	50.35	3.37	17.5	53.36	-9.80	-18.30
500	29.54	46.24	42.07	2.2	16.7	68.30	-11.50	-14.30
600	29	48.6	72.44	4.16	19.6	62.19	-30.60	-13.60
700	32.6	47.9	61.66	3.84	15.3	57.35	-19.60	-12.50
800	31.46	46.52	44.87	3.2	15.06	50.08	-12.00	-16.00
900	29.92	46.42	43.85	3.99	16.5	40.25	-10.00	-15.90
1000	31.2	46.9	48.98	2.83	15.7	61.81	-8.90	-16.30
1100	29.89	46.89	48.87	2.89	17	60.39	-14.00	-15.00
1200	29.95	47.85	60.95	3.35	17.9	64.98	-16.00	-19.00
1300	31.08	45.98	39.63	1.98	14.9	71.48	-13.80	-21.90
1400	34.4	45.15	32.73	1.62	10.75	72.17	-17.00	-27.00
1500	33.82	46.22	41.88	2.59	12.4	57.75	-32.00	-37.00
1600	34.97	45.57	36.06	1.94	10.6	66.38	-16.70	-30.00
1700	34.69	45.39	34.59	2.53	10.7	48.83	-21.00	-40.00
1800	32.53	47.03	50.47	3.67	14.5	49.11	-18.00	-40.00
1900	33.95	45.55	35.89	2.23	11.6	57.48	-17.00	-40.00
2000	33.75	45.15	32.73	1.87	11.4	62.52	-20.00	-40.00

- **S21/S11 from network analyzer VDS=28V IDQ=200mA**



Pallet outline

Revision History

Document revision history

Date	Revision	Datasheet Status
2026/5/19	Rev 1.0	Preliminary Datasheet

Application data based on YHG-26-15

Disclaimers

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