

YHG-26-19**XTAH30080G2: 200-2000MHz**

XTAH30080G2 Class AB 200-2000MHz

June 17 , 2026

Introduction

This amplifier is designed with Innogrations 28V Gan transistor.

Demo and Transistor

Frequencyband	: 200-2000MHz
Application	: Multi Market
Configuration	: Class AB
Test Signal	: CW
Transistor	: XTAH30080G2
Date code	: 261516
PCB	: FSD1020T , Dk=10.2 , 20mil

The amplifier has been characterized under the following conditions:

- Network Analyzer plots for gain and IRL.
- The output power measurement using CW .

Note: The PA is tested with a supply voltage of $V_{DS} = 28V$, $I_{dq} = 200mA$, all measurements unless otherwise noted.

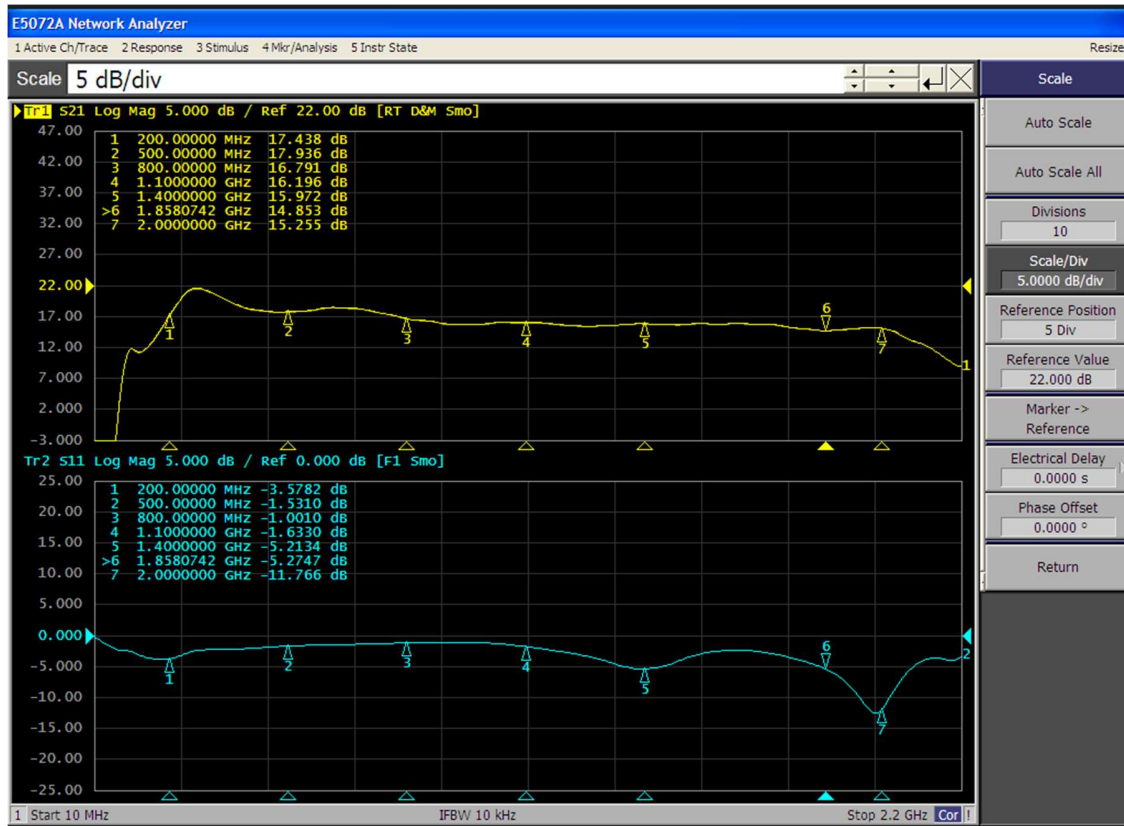
YHG-26-19

XTAH30080G2: 200-2000MHz

1. Network Results

Test Condition

$V_{ds}=28V$, $V_{gs}=-2.32V$, $I_{dq}=200mA$, Input Power = 0dBm



YHG-26-19

XTAH30080G2: 200-2000MHz

Test Results

2. Summary @ Bench 2(Chengdu)

(1) Test Condition

Signal mode : CW

Frequency : 200-2000MHz

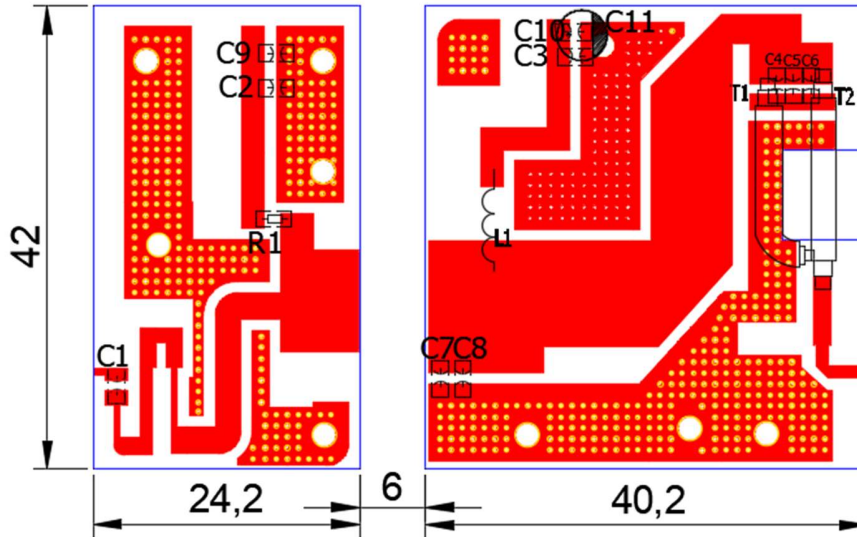
$V_{gs} = -2.32V$, $V_{ds} = 28V$, $I_{dq} = 200mA$

Freq(MHz)	Pin(dBm)	Pout(dBm)	Pout(W)	IDS(A)	Gain(dB)	Eff(%)	2th	3rd
200	33.3	49.78	95.06	6.84	16.48	49.63	-12.40	-12.10
300	32.24	48.24	66.68	3.25	16	73.28	-16.40	-10.80
400	33.67	49.22	83.56	5.05	15.55	59.09	-12.10	-12.80
500	32.91	49.32	85.51	6.1	16.41	50.06	-11.40	-13.50
600	32.76	49.6	91.20	6	16.84	54.29	-12.80	-14.70
700	33.29	50.23	105.44	5.88	16.94	64.04	-17.50	-15.20
800	33.69	49.29	84.92	5.05	15.6	60.06	-13.20	-22.00
900	36.03	49.33	85.70	4.79	13.3	63.90	-11.50	-16.60
1000	37.79	48.99	79.25	4.33	11.2	65.37	-20.40	-15.30
1100	36.82	49.07	80.72	4.49	12.25	64.21	-18.00	-18.60
1200	36.65	49.19	82.99	5.37	12.54	55.19	-29.00	-18.80
1300	35.46	48.52	71.12	6.57	13.06	38.66	-23.00	-9.70
1400	34.69	48.8	75.86	7.79	14.11	34.78	-14.30	-21.80
1500	34.75	48.38	68.87	7.12	13.63	34.54	-15.70	-20.00
1600	35.78	49.13	81.85	5.3	13.35	55.15	-11.80	-23.00
1700	37.78	48.58	72.11	3.75	10.8	68.68	-19.60	-29.00
1800	36.3	48.5	70.79	4.44	12.2	56.95	-28.00	-35.00
1900	36.48	49.71	93.54	7.46	13.23	44.78	-22.00	-35.00
2000	35.37	48.53	71.29	6.96	13.16	36.58	-12.30	-20.00

YHG-26-19

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BOM of Test Circuit



Component	Description	Suggested Manufacturer
C1	56pF/MQ300805	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD.
C11	470uF	
C9,C10	10uF	
C2, C3	10nF	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD.
C4, C5, C6	20Pf/ MQ300805	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD.
C7,C8	2pF/ MQ300805	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD
L1	1mm, 2 turns, diameter :5mm	DIY air core inductance
R1	10ohm/1206	Chip Resistor
T1	25ohm, 15mm	RFSFBU-086-25
T2	25ohm, 15mm	RFSFBU-086-25
PCB	FSD1020T , Dk=10.2 , 20mil	