

YHG-26-24**SU1532V: 150-1000MHz****SU1532V Class AB 150-1000MHz****July 09, 2026****Introduction**

This amplifier is designed with Innogratiion 50V Gan transistor.

Demo and Transistor

Frequencyband	: 150-1000MHz
Application	: Multi Market
Configuration	: Class AB
Test Signal	: Pulse/CW
Transistor	: SU1532V
Date code	: 231111
PCB	: F4BTMS1000 ,r=10.2 ,30 mil

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 $V_{DS} = 50V$, $I_{dq} = 100mA$, all measurements unless otherwise noted.

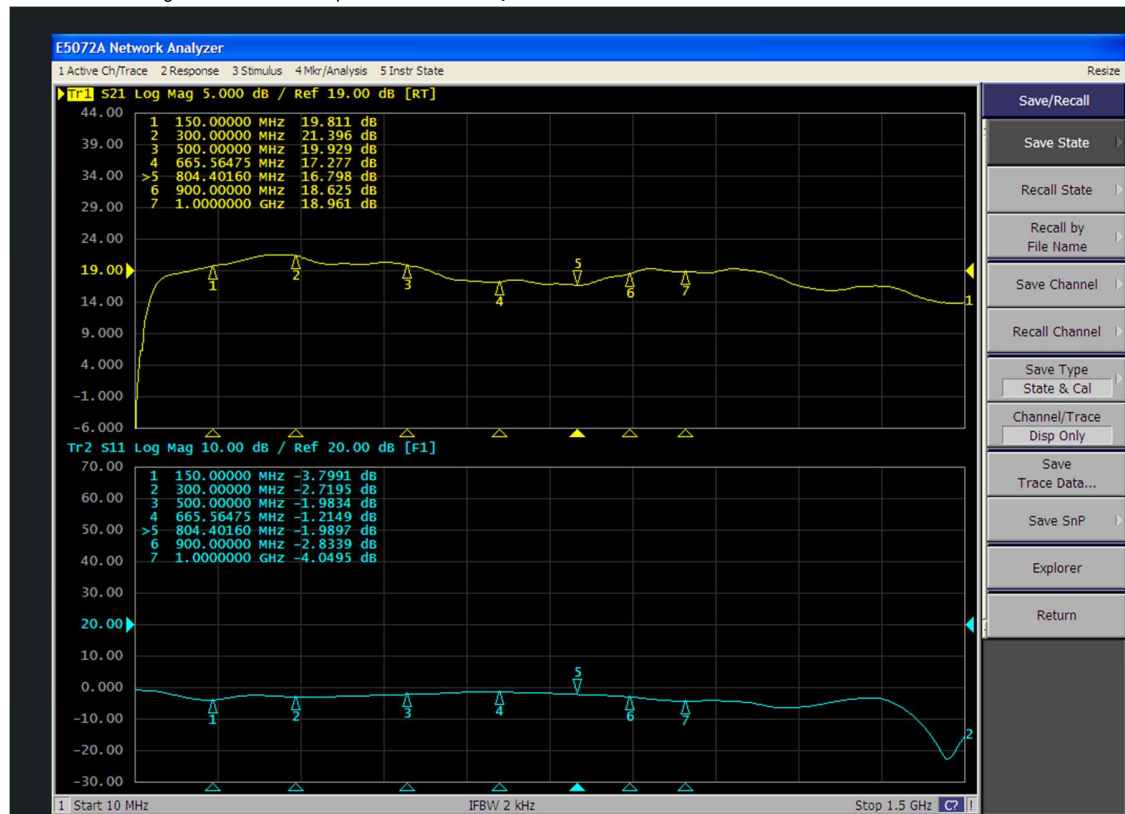
YHG-26-24

SU1532V: 150-1000MHz

1. Network Results

Test Condition

$V_{ds}=50V$, $V_{gs}=-3.13V$, $I_{dq}=200mA$, Input Power = 0dBm



YHG-26-24
SU1532V: 150-1000MHz

Test Results

2. Summary @ Bench 2(Chengdu)

(1) Test Condition

Signal mode : Pulse 10% 100us

Frequency : 150-1000MHz

$V_{gs} = -3.17V$, $V_{ds} = 50V$, $I_{dq} = 100mA$

Freq(MHz)	Pin(dBm)	Pout(dBm)	Pout(W)	IDS(A)	Gain(dB)	Eff(%)	2th	3rd
120	37	53.1	204.17	0.74	16.1	55.18	-7.2	-12.0
150	37	54.1	257.04	0.92	17.1	55.88	-9.9	-9.7
200	37.28	55.48	353.18	0.99	18.2	71.35	-19.7	-12.3
300	37.24	54.22	264.24	0.74	16.98	71.42	-13.5	-12.5
400	36.77	55.17	328.85	1.04	18.4	63.24	-15.2	-14.4
500	37.81	54.25	266.07	0.74	16.44	71.91	-33.3	-12.8
600	38.56	54.34	271.64	0.95	15.78	57.19	-17.5	-16.9
700	39.19	54.46	279.25	0.86	15.27	64.94	-19.7	-33.0
800	40.59	55.09	322.85	1.23	14.5	52.50	-17.9	-15.5
900	39.93	54.83	304.09	0.92	14.9	66.11	-16.5	-39.6
1000	37.59	54.81	302.69	0.81	17.22	74.74	-39.8	-35.6
1050	38.59	53.69	233.88	0.63	15.1	74.25	-29.0	-35.0

YHG-26-24
SU1532V: 150-1000MHz
(2) Test Condition

Signal mode : CW

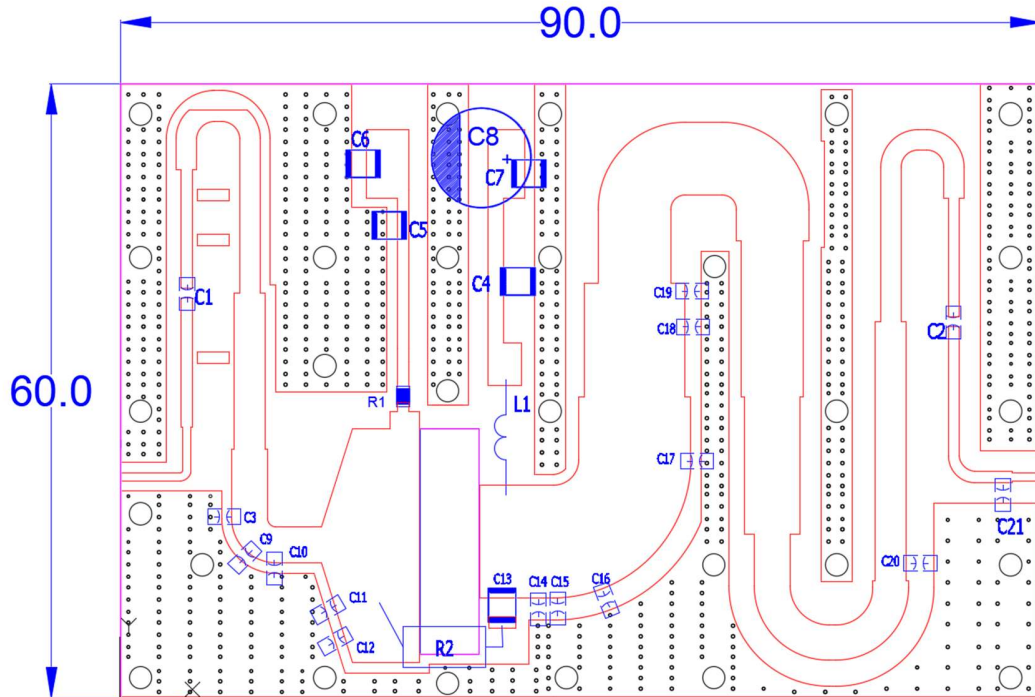
Frequency : 150-1000MHz

$V_{gs} = -3.17V$, $V_{ds} = 28V$, $I_{dq} = 100mA$

Freq(MHz)	Pin(dBm)	Pout(dBm)	Pout(W)	IDS(A)	Gain(dB)	Eff(%)
120	35.2	48.97	78.89	4.56	13.77	61.78
150	35.1	50.4	109.65	6.21	15.3	63.06
200	35.38	51.28	134.28	6.4	15.9	74.93
300	36.34	49.94	98.63	4.75	13.6	74.16
400	34.77	51.37	137.09	7.19	16.6	68.09
500	36.91	50.11	102.57	4.75	13.2	77.12
600	36.76	50.66	116.41	6.38	13.9	65.17
700	38.29	50.25	105.93	5.65	11.96	66.96
800	38.69	51.79	151.01	8.8	13.1	61.29
900	38.03	50.21	104.95	5.25	12.18	71.40
1000	37.69	50.15	103.51	4.96	12.46	74.54
1050	37.69	48.89	77.45	3.85	11.2	71.84

YHG-26-24
SU1532V: 150-1000MHz

BOM of Test Circuit



Component	Description	Suggested Manufacturer
C1,C2	100pF/MQ300805	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD.
C8	470uF	
C6,C7	10uF	
C4, C5	10nF	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD.
C13	1000pF/ MQ301111	
C3, C9, C10, C16,	2pF/ MQ300805	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD
C11, C12,	3pF/ MQ300805	BEIJING YUANLU HONGYUAN ELECTRONIC TECHNOLOGY CO., LTD
C15, C18, C19, C20,	1.8pF/ MQ300805	
C14,	3.9pF/ MQ300805	
C17,	5.6pF/ MQ300805	
C21,	0.5pF/ MQ300805	
L1	1mm, 6 turns, diameter :5mm	DIY air core inductance
R2	330ohm	---
R1	10ohm/1206	Chip Resistor
PCB	F4BTMS1000 ,r=10.2 ,30 mil	