

HJ-26-07**AA5186:2600-3600MHz****AA5186:2600-3600MHz**
August 7, 2026**Introduction**

This amplifier is designed with 5V GaAs.

Demo and Transistor

Frequency Band :2600-3600MHz
Application : Telecom
Configuration : Class AB
Test signal : CW
Transistor : AA5186
Date code : 20260807
PCB : 1.6mm Rogers 4350B

Note:

The amplifier has been characterized under the following conditions:

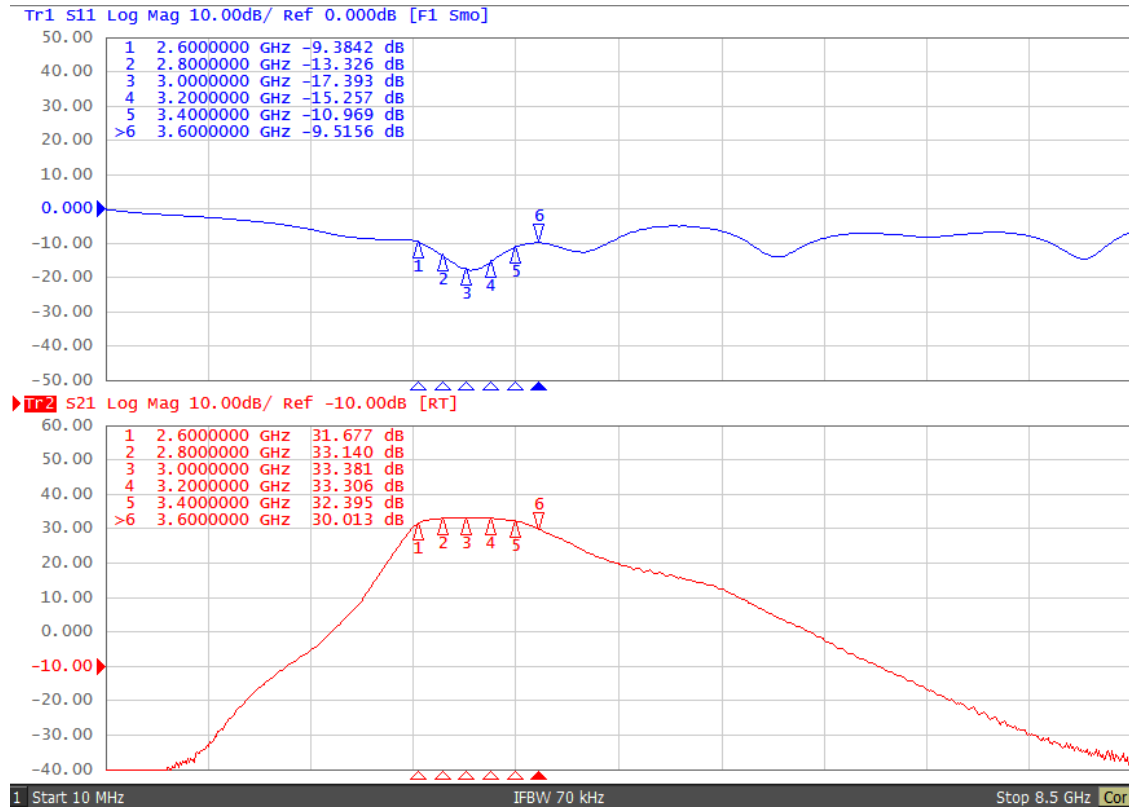
- Network Analyzer plots for gain and IRL.
- P1dB and P3dB Peak power measurement using the CW.
- RF Test Bench 2

Test Results:

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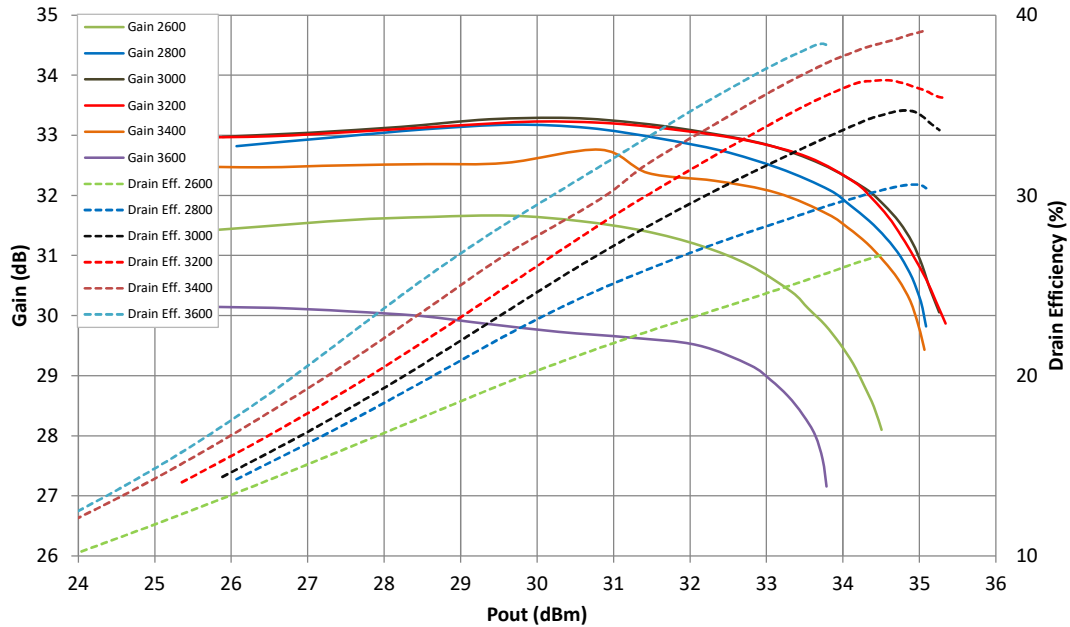
1. Network Analyzer Results (S11, S21)



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2. CW Test



$V_{bias}/V_{cc1}/V_{cc2}/V_{cc3}=5.0V, V_{EN}=3.0V, I_{dq}=300mA$					
CW					
Freq(MHz)	P-1(dBm)	P-1Gain(dB)	P-3(dBm)	P-3(W)	EFF (%)
2600	32.98	30.7	34.34	2.7	26.5
2700	33.27	32.0	34.76	3.0	28.8
2800	33.64	32.2	35.02	3.2	30.6
2900	33.85	32.3	35.17	3.3	32.5
3000	34.03	32.3	35.18	3.3	33.9
3100	34.06	32.3	35.14	3.3	34.6
3200	34.12	32.2	35.21	3.3	35.5
3300	33.01	32.7	35.06	3.2	37.4
3400	33.65	31.8	35.00	3.2	39.1
3500	33.07	30.9	34.50	2.8	39.6
3600	32.33	29.4	33.76	2.4	38.4

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3. Bill of Materials

Component	Value	Manufacturer	Footprint	Description
C10, C11	47 pF	Murata	0402	DC block capacitor
C5, C6, C9, C12	100 pF	Murata	0402	De-coupling capacitor
C13	10 nF	Murata	0402	De-coupling capacitor
C3, C4, C8, C14, C15	100 nF	Murata	0402	De-coupling capacitor
C1, C2, C7, C16	10 uF	Murata	0603	De-coupling capacitor
C17, C18, C19, C20	NC			
R1, R2	0 Ω		0402	
R3	50 Ω		0402	

EVB Layout

