

Test Report **STBV10600RBY2×2 902-928MHz**

2025-5-6

Introduction

This amplifier is designed with Innegration 50V STBV10600RBY2 GaN, 2 pcs combined

Demo and Transistor

Frequency band : 902-928MHz
 Application : RF energy
 Configuration : CLASS AB
 Test Signal : Pulsed CW
 Transistor : STBV10600RBY2
 Date code : 251512S-01/02
 PCB : **20 Mil RO4350B**

The amplifier has been characterized under the following conditions:

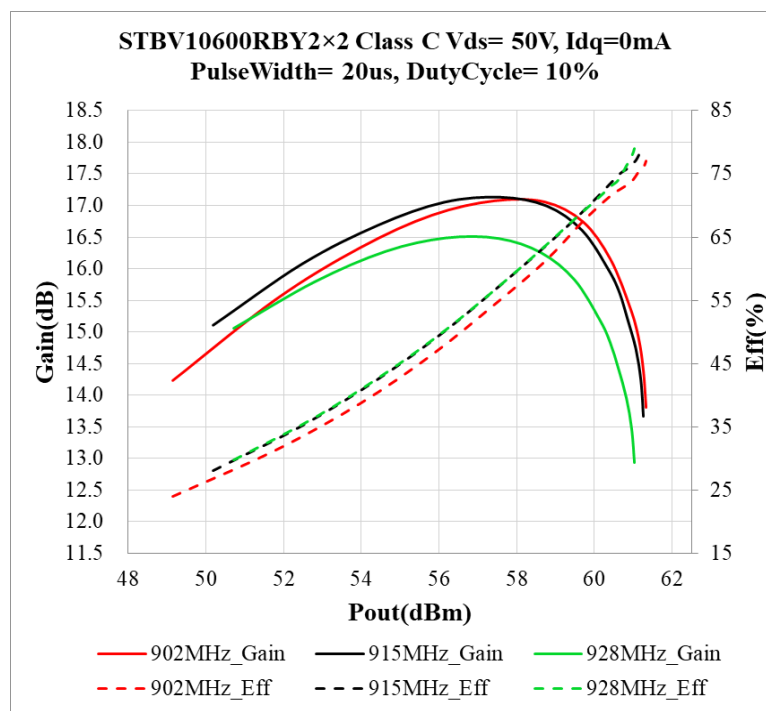
- Network Analyzer plots for gain and IRL.
- P1 dB /P3dB Peak power measurement using the pulse, 20uS width, 10% duty cycle.
- RF Test Bench 4

Note: The PA is tested with a supply voltage of $V_{DS}=50V/48V$, $I_{DQ}=0mA$ ($V_{GS}=-4.8V$), all measurements unless otherwise noted.

Test Results:

1. Summary

1) $V_{DS}=50V$



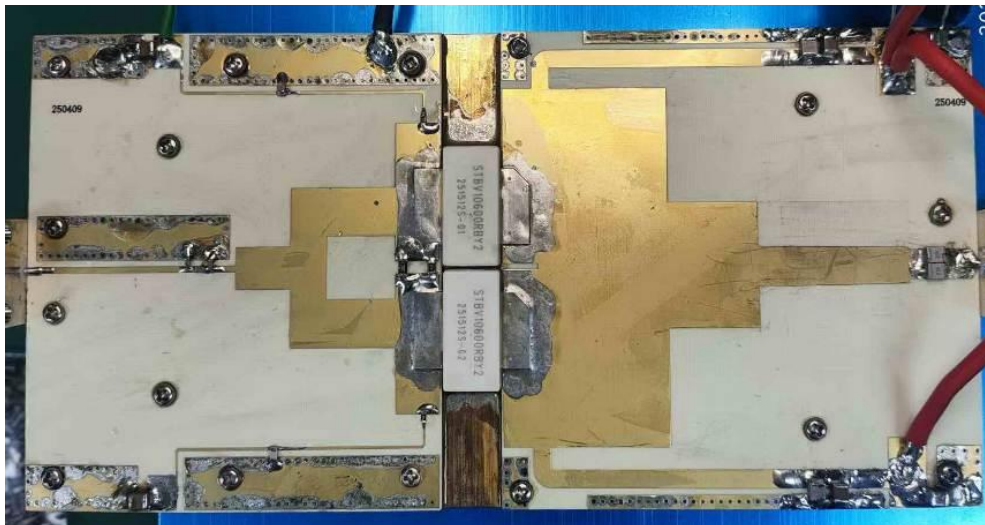
STBV10600RBY2 × 2
902-928MHz
CLASS AB

Freq (MHz)	P1dB (dBm)	P1dB (W)	P1dB Eff (%)	P1dB Gain (dB)	P3dB (dBm)	P3dB (W)	P3dB Eff (%)
902	60.46	1111.6	71.6	16.09	61.31	1351.0	76.5
915	60.18	1043.2	72.0	16.15	61.21	1321.7	78.8
928	59.81	957.0	69.7	15.51	60.94	1242.0	77.7

2. Network Analyzer Results

 $I_{DQ}=1000mA$ $V_{GS}=-3.35V$

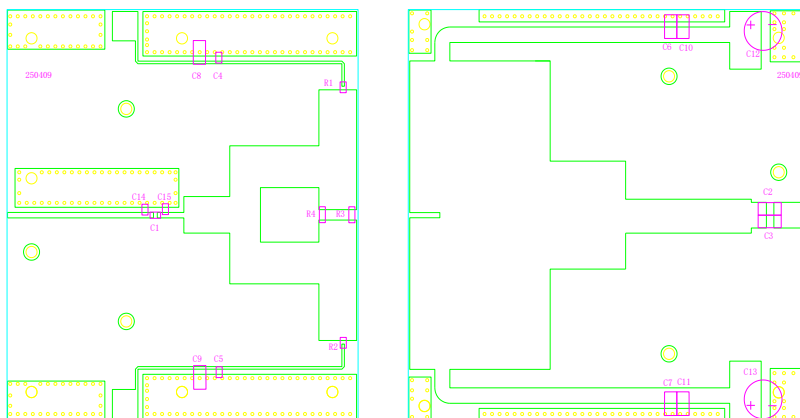

3. Demo PCB



STBV10600RBY2 × 2

902-928MHz

CLASS AB



BOM of Test Circuit (High Q capacitance)

Designator	Footprint	Comment	Quantity
C1, C14	0603/0805	6.8pF	2
C2, C3	1210	27pF	2
C4, C5	0603/0805	47pF	2
C6, C7	1210	47pF	2
C8, C9, C10, C11	1210	10 uF/100V	4
C12, C13		2200 uF/63V	2
C15	0603/0805	2.7 pF	1
R1, R2, R3, R4	0805	10 Ω	4