

GMPA2735-400H:2700-3500MHz**July 17, 2026****Introduction**

This amplifier is designed with 28V GaN.

Demo and Transistor

Frequency band: 2700-3500 MHz,

Application: Telecom

Configuration: ClassAB

Test Signal: Pulse

Transistor: GMPA2735-400H(GMAH2735-200H2C^{V0*2})

Date code: 262808S

Package: H2C*2

PCB: 30 Mil Rogers 4350 (44*40MM)

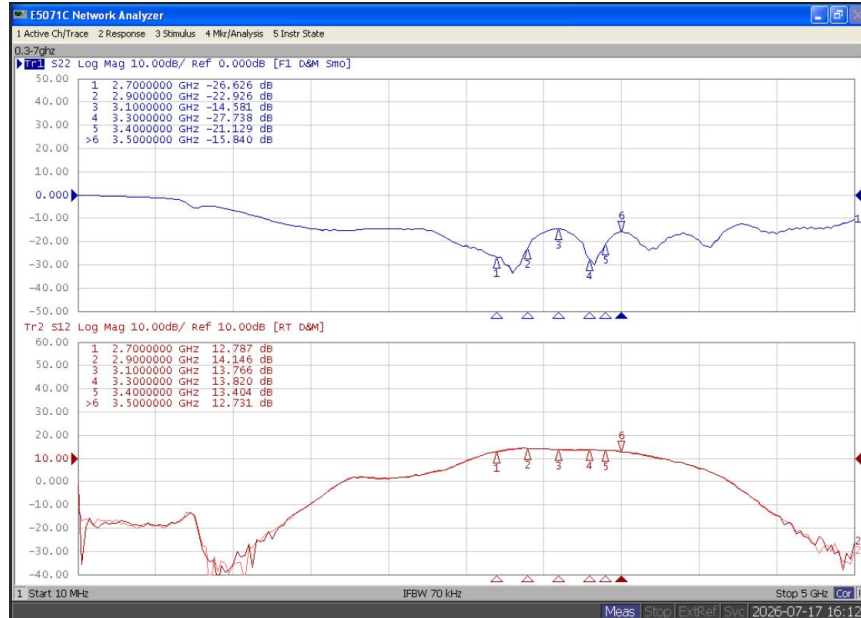
The amplifier has been characterized under the following conditions:

- Network Analyzer plots for gain and IRL.
- P3dB and P4dB Peak power measurement using the Pulse, 20 us width, 10% duty cycle.
- RF Test Bench1

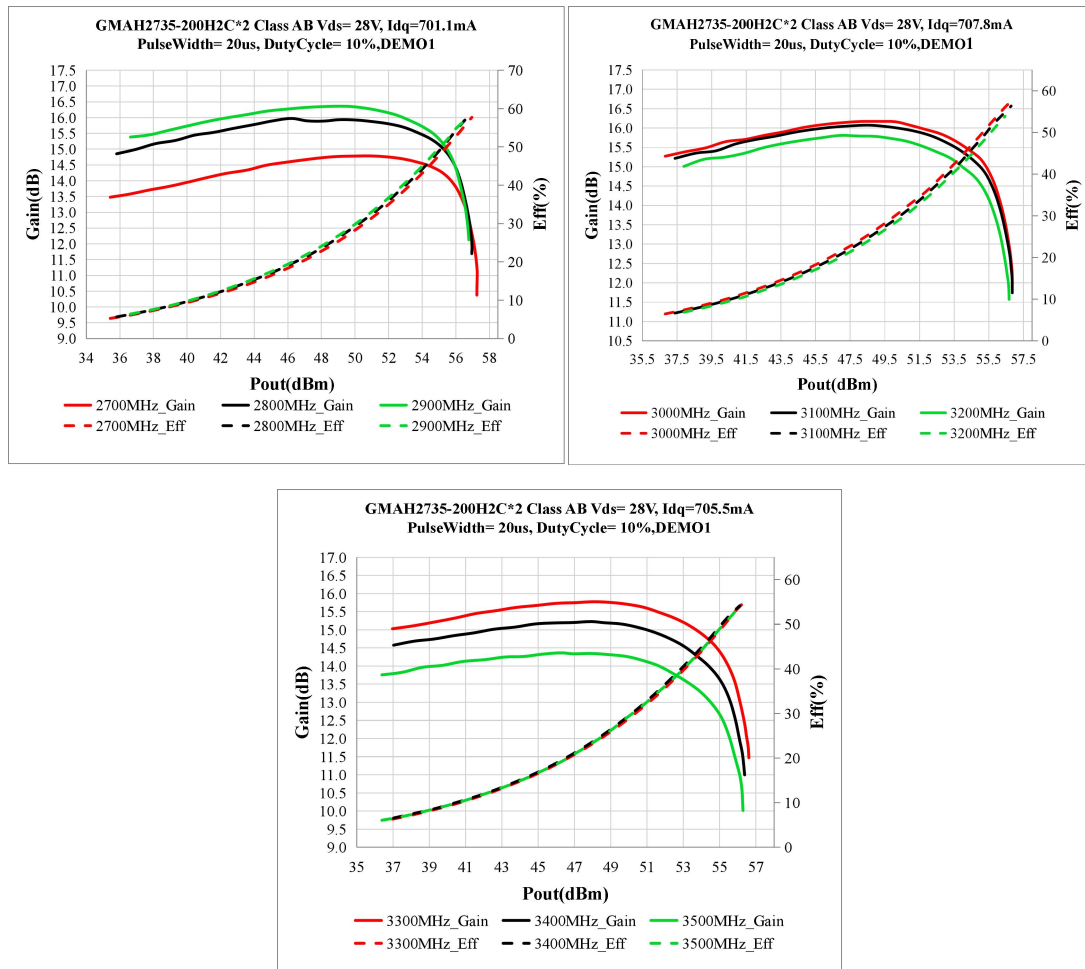
Note: all measurements unless otherwise noted.

1 Network Analyzer Results:

Vds=28V Vg1=- 2.75V ,Vg2=-2.75V Idq=800mA



2 Pulse Test(Vds=28V)



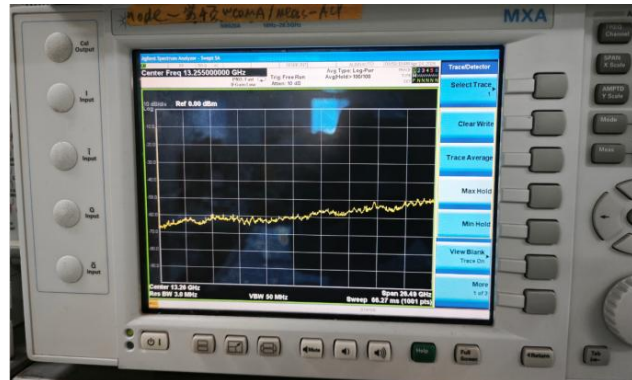
Gain&Eff vs. Output Power

VDS=28V, Vgs1= -2.76V, Idq1=350mA, Vgs2=-2.76V, Idq2=350mA							
Freq (MHz)	P3dB (dBm)	P3dB (W)	P3dB Eff (%)	P3dB Gain (dB)	P4dB (dBm)	P4dB (W)	P4dB Eff (%)
2700	57.14	517.9	58.7	11.79	57.27	533.0	60.2
2800	56.71	469.1	57.9	12.98	56.95	496.0	59.3
2900	56.47	443.3	56.8	13.38	56.74	472.2	58.0
3000	56.59	455.8	56.7	13.18	56.85	483.7	58.1
3100	56.56	452.5	55.5	13.09	56.85	483.9	56.9
3200	56.33	429.8	53.4	12.83	56.65	462.4	55.1
3300	56.21	418.1	54.5	12.79	56.57	453.6	56.1
3400	55.98	396.2	53.7	12.24	56.33	429.5	55.2
3500	55.9	388.6	53.1	11.39	56.25	421.8	55.2

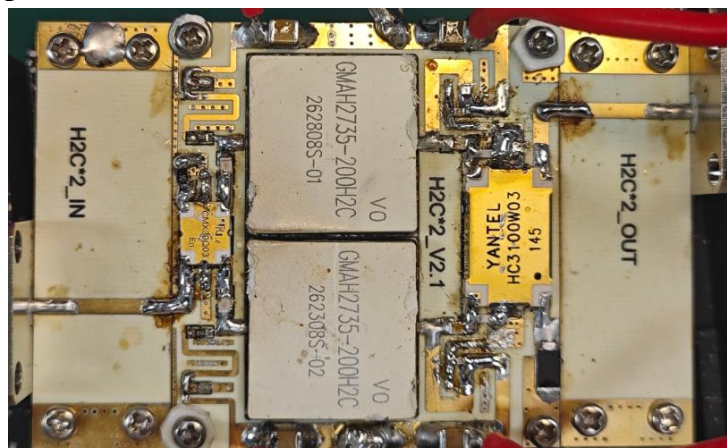
3 Spectrum Analyzer To Show No Oscillation Or Instability Issue

Note:

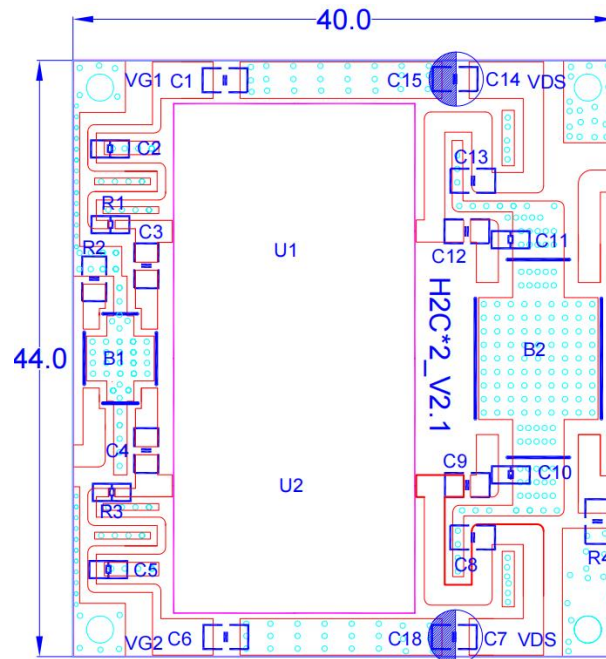
- The GMPA2735-400H is tested with a supply voltage of $V_{ds}=28V$, $I_{dq}=2.1A$



4 Demo Appearance



5 BOM



Component	Value	Footprint
C1, C6, C7, C14	10UF/100V	1210
C2, C5, C8, C13	12PF/250V	0603
C3, C4, C9, C12	12PF/250V	0805
C10, C11	0. 2PF/250V	0603
C15, C18	4700UF/63V	
R1, R3	10 Ω	0603
R2	50 Ω	0805
R4	RFR50N-20CT0410B	YuLongTong
B1	CMX30Q03	Rn2
B2	HC3100W03	Yantel
U1, U2	GMAH2735-200H2C	INS