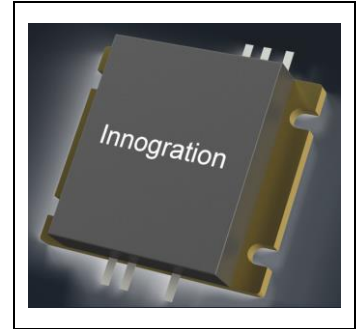




1.4-1.7GHz, 100W, 2 stages GaN Fully matched PA

**Description**

The G2MAH1417-100H3P is a 100-watt Psat capable, 2 stage integrated IMFET, designed for broad band applications, with frequencies from 1.4 to 1.7GHz. The module is 50 Ω input/output matched and requires minimal external components, with DC block capacitor integrated inside. The module implements multiple GaN active dice and its matching network within highly compact 30.8\*27.4mm metal RF package with excellent capability for heat dissipation.



VDS= 28V, Vgs1= -2.76V, Idq1=200mA, Vgs2=-2.57V, Idq2=20mA CW							
Freq (MHz)	P1dB (dBm)	P1dB (W)	P1dB Eff (%)	P1dB Gain (dB)	P3dB (dBm)	P3dB (W)	P3dB Eff (%)
1400	49.89	97.6	49.8	30.04	50.96	124.7	54.3
1450	49.36	86.2	45.4	29.76	51.01	126.3	53.4
1500	48.69	73.9	41.4	29.76	50.92	123.7	52.0
1550	49.04	80.2	44.8	29.87	51.03	126.9	54.3
1600	49.22	83.6	46.8	29.88	51.02	126.6	55.1
1650	49.72	93.8	51.5	30.33	51.04	127.1	57.7
1700	49.43	87.6	51.6	30.03	50.75	118.8	58.4

**Applications**

- L band power amplifier
- GPS/Beidou power amplifier

**Table 1. Maximum Ratings**

Rating	Symbol	Value	Unit
Drain--Source Voltage	V <sub>DSS</sub>	150	Vdc
Gate--Source Voltage	V <sub>GS</sub>	-10 to +2	Vdc
Operating Voltage	V <sub>DD</sub>	+36	Vdc
Storage Temperature Range	T <sub>stg</sub>	-65 to +150	°C
Case Operating Temperature	T <sub>c</sub>	+150	°C
Operating Junction Temperature	T <sub>j</sub>	+225	°C



### TYPICAL CHARACTERISTICS

Figure 1. Network analyzer output S11/S21 (Pin=0dBm, Idq=220mA)

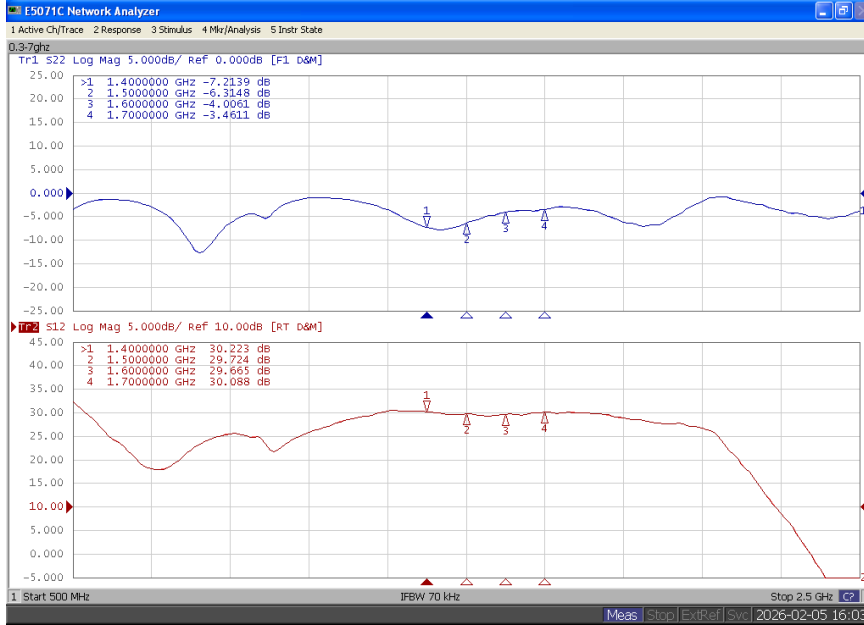
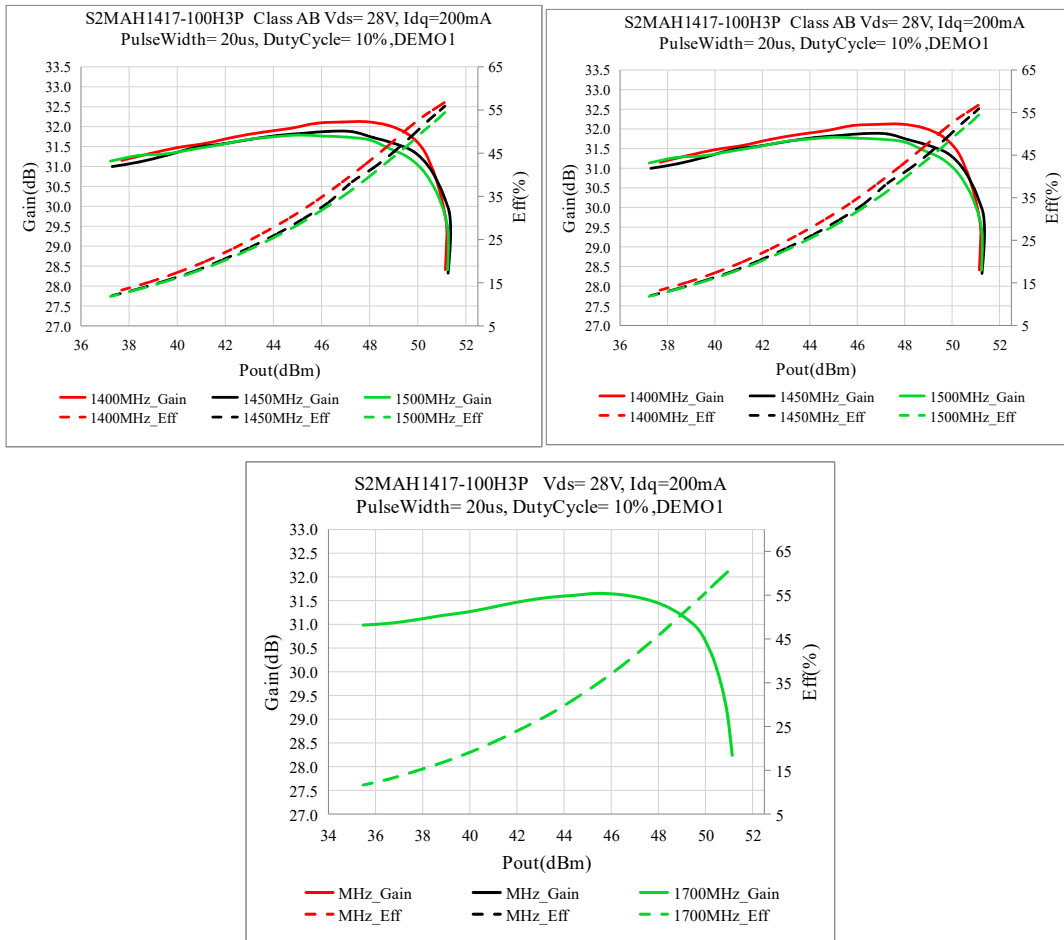
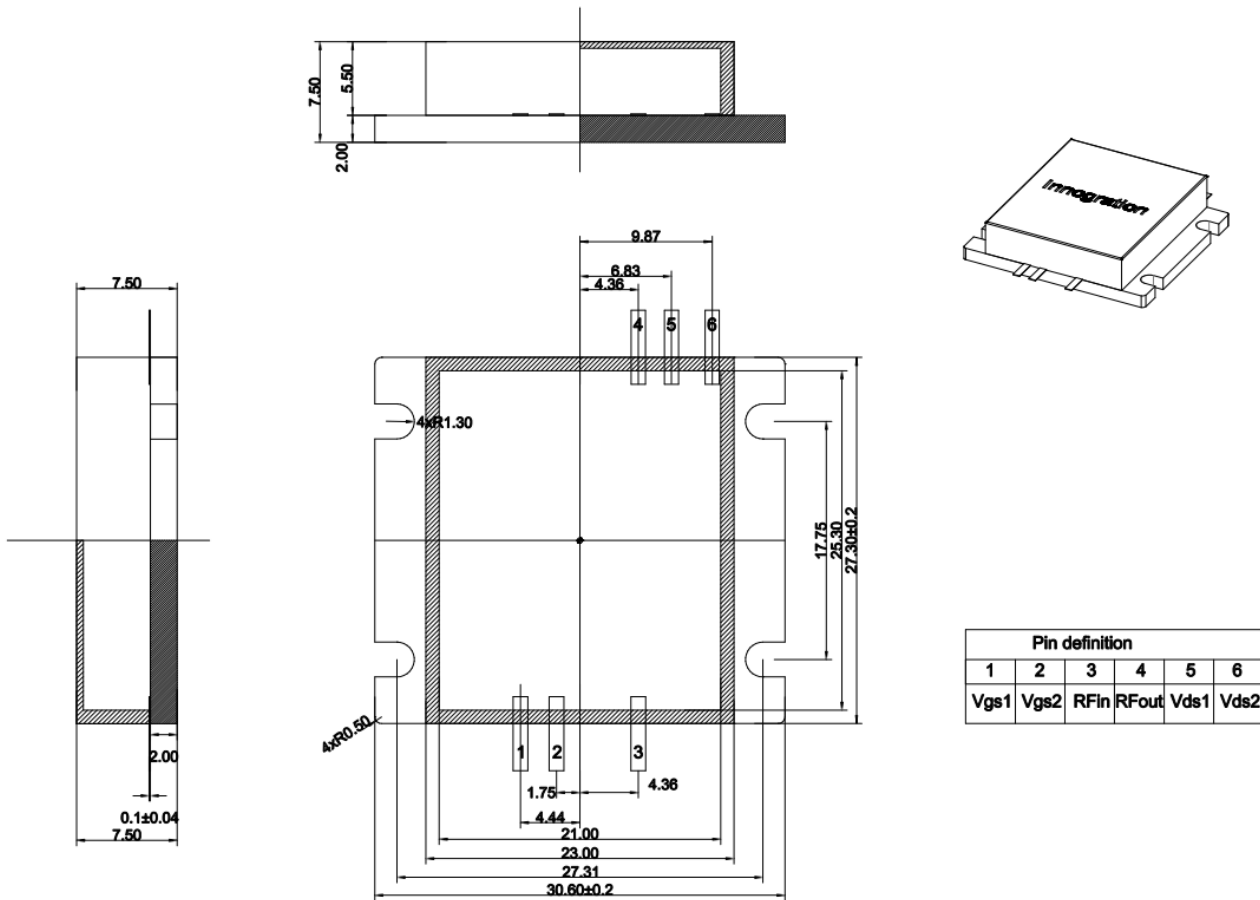


Figure 3. Pout, Eff, Gain, drain current Vs Frequency @28V under pulsed CW condition 10%,100us





Package Dimensions (Unit:mm)



Pin definition					
1	2	3	4	5	6
Vgs1	Vgs2	RFin	RFout	Vds1	Vds2

Revision history

Table 6. Document revision history

Date	Revision	Datasheet Status
2026/2/5	Rev 1.0	Advanced Datasheet (XTAH80010PD+NU3013HS)

Application data based on LBG-26-05

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