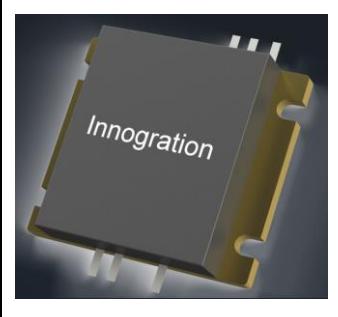




1.1-1.4GHz, 100W, 2 stages GaN Fully matched PA

Description

The G2MAH1113-100H3P is a 100-watt Psat capable, 2 stage integrated IMFET, designed for broad band applications, with frequencies from 1.1 to 1.4GHz. 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.



$V_{DS} = 28V$, $V_{gs1} = -2.76V$, $I_{dq1} = 200mA$, $V_{gs2} = -2.57V$, $I_{dq2} = 20mA$

Freq (MHz)	P1dB (dBm)	P1dB (W)	P1dB Eff (%)	P1dB Gain (dB)	P3dB (dBm)	P3dB (W)	P3dB Eff (%)
1150	50. 14	103. 3	57. 0	31. 55	50. 84	121. 2	60. 2
1200	49. 73	93. 9	51. 6	30. 58	50. 62	115. 5	56. 3
1250	49. 7	93. 2	52. 3	30. 62	50. 71	117. 7	57. 4
1300	50	100. 1	56. 8	31. 09	51. 08	128. 4	63. 0
1350	49. 79	95. 3	58. 6	31. 39	50. 82	120. 9	64. 3

Applications

- L band power amplifier
- GPS/Beidou power amplifier

Table 1. Maximum Ratings

Rating	Symbol	Value	Unit
Drain--Source Voltage	V_{DSS}	150	Vdc
Gate--Source Voltage	V_{GS}	-10 to +2	Vdc
Operating Voltage	V_{DD}	+36	Vdc
Storage Temperature Range	T_{STG}	-65 to +150	°C
Case Operating Temperature	T_c	+150	°C
Operating Junction Temperature	T_j	+225	°C

TYPICAL CHARACTERISTICS

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

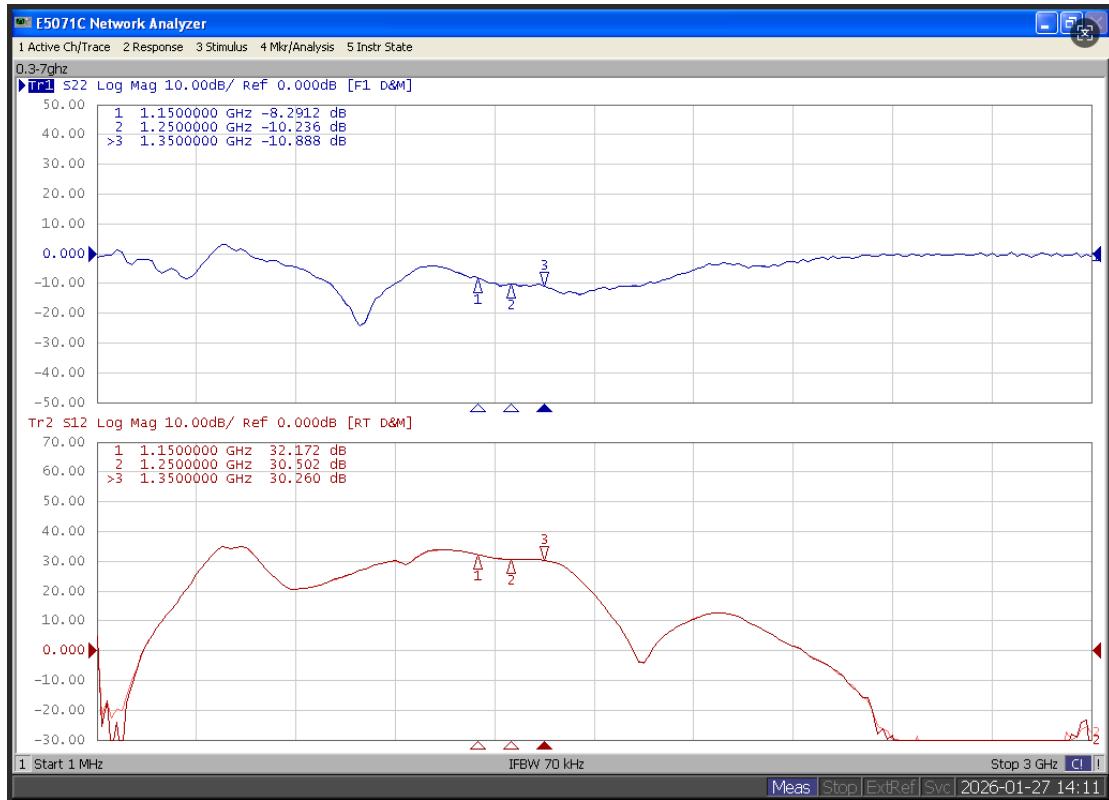
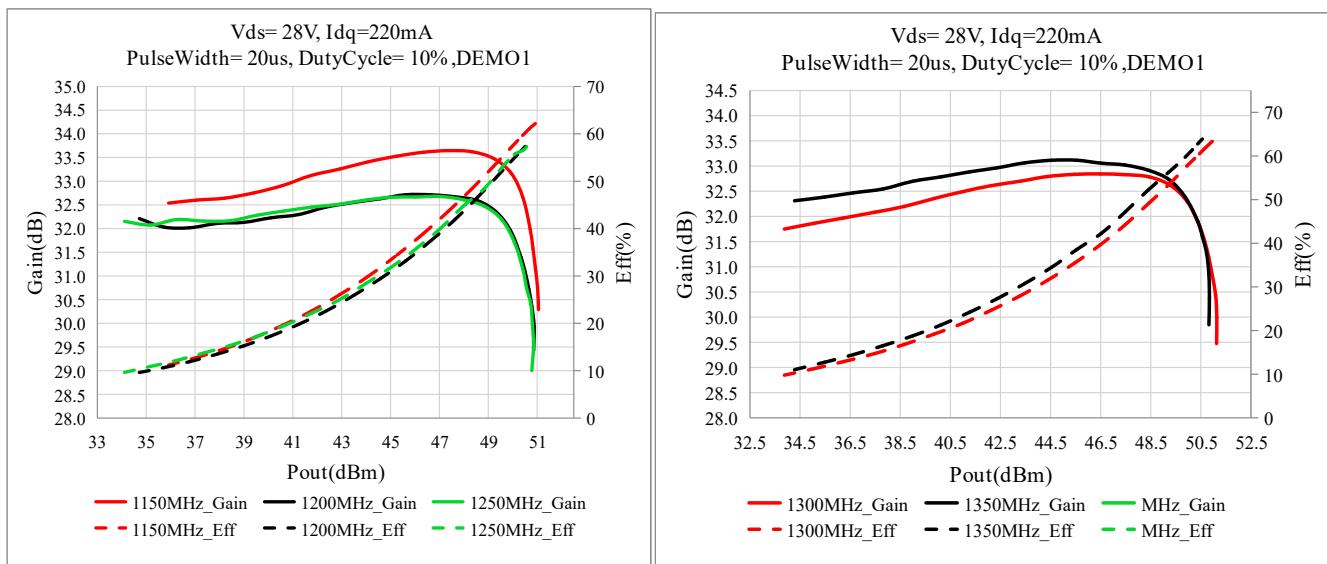
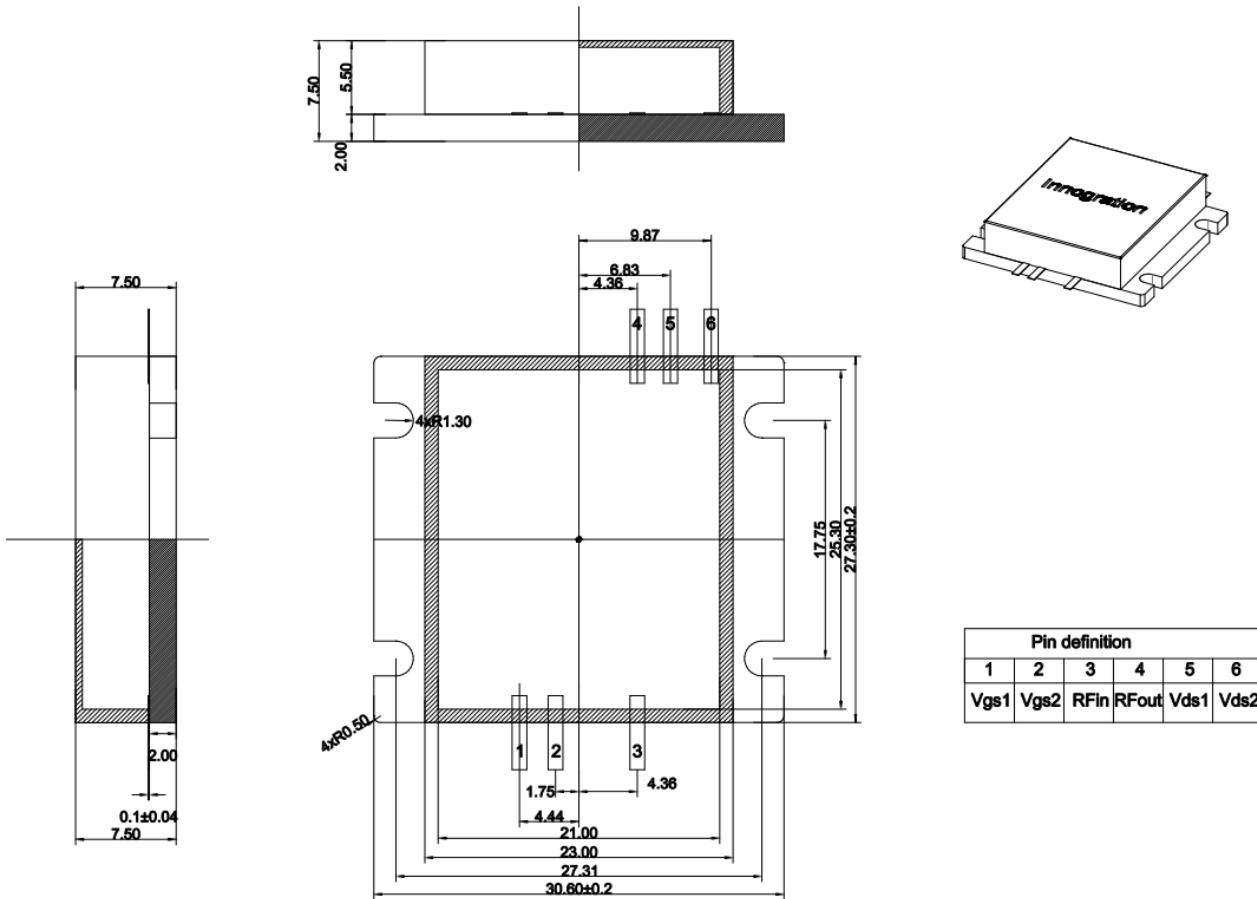


Figure 3. Pout, Eff, Gain, drain current Vs Frequency @28V under pulsed CW condition 10%,100us



Package Dimensions (Unit:mm)



Revision history

Table 6. Document revision history

Date	Revision	Datasheet Status
2026/1/27	Rev 1.0	Advanced Datasheet (XTAH80010PD+NU3013HS)

Application data based on LBG-26-04

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