

# HS-MX11G3GT

5MHz~1.3GHz 2W PA



HS-MX11G3GT V1.1(January 2026)

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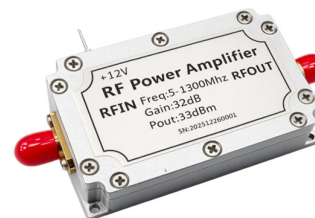
## Product Overview

The HS-MX11G3GT is a broadband 2W RF power amplifier operating across 5MHz to 1.3GHz frequency range, featuring wide bandwidth, high gain, low noise figure, and excellent in-band flatness. It is widely used in RF driver amplifier applications for scientific research, industrial communications, academic studies, and various other fields. Additionally, its ultra-wide bandwidth enables versatile applications in radio management, including full-band spectrum reconnaissance testing and EMC (Electromagnetic Compatibility) receiver testing.

This amplifier is fabricated from CNC-milled aerospace-grade aluminum alloy, featuring high precision and lightweight construction. Its exterior surface undergoes natural conductive oxidation treatment, delivering exceptional conductivity and electromagnetic shielding performance. It effectively blocks internal radiation while isolating external environmental interference. The power supply port utilizes an RF through-hole capacitor, which efficiently filters out power supply spikes and other noise components.

### 1. Main Features

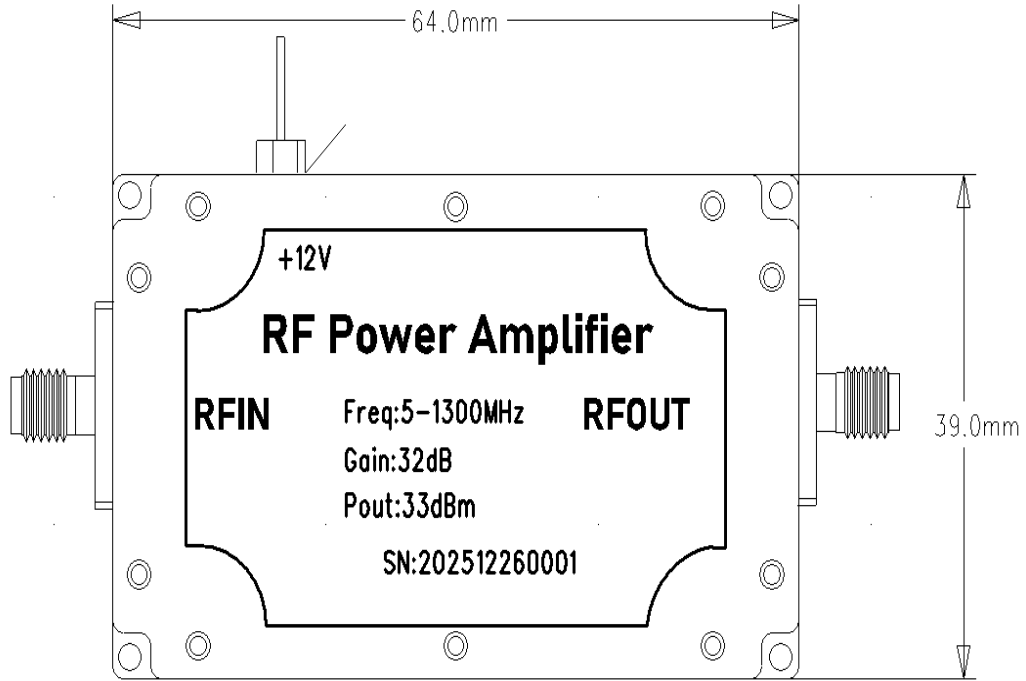
- Frequency Range: 5MHz~1.3GHz
- Small Signal Gain: 35dB(Type)
- High Signal Gain: 28dB(Type)
- P1dB: 33.5dBm
- Noise Figure: 4.0dB(Type)
- Power Supply Voltage: 10V~15V
- Operating current: 0.85A @12V(Type)
- RF Connector: SMA-F
- Power Supply Method: 3000pF Shunt Capacitor



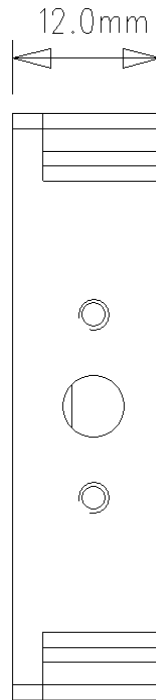
## 1. Electrical Specifications

Parameters	Min	Typ	Max	Units
Frequency Range	5		1300	MHz
Small Signal Gain	34	35	36	dB
Gain Flatness		±2		dB
Noise Figure	3.5	4.0	5.0	dB
P1dB	33	33.5	34.2	dBm
Input Standing Wave Ratio(VSWR)		< 2.5		2.5:1
Output Standing Wave Ratio(VSWR)		< 2.5		2.5:1
Characteristic Impedance		50		ohm
Input Power (CW)			10	dBm
Power Supply Voltage	10	12	15	V
Operating Current(12V)	0.7	0.85	0.9	A
Operating Temperature	-40	+25	+55	°C
Storage Temperature	-55	+25	+90	°C
Weight				g

## 2. Dimensions (mm)



Top View



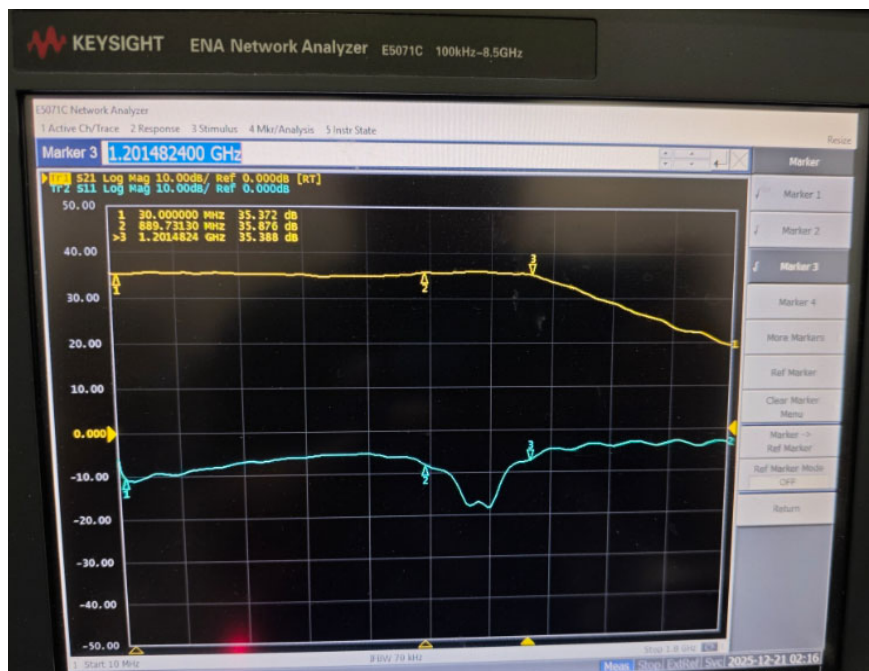
Side View

### 3. Test Report

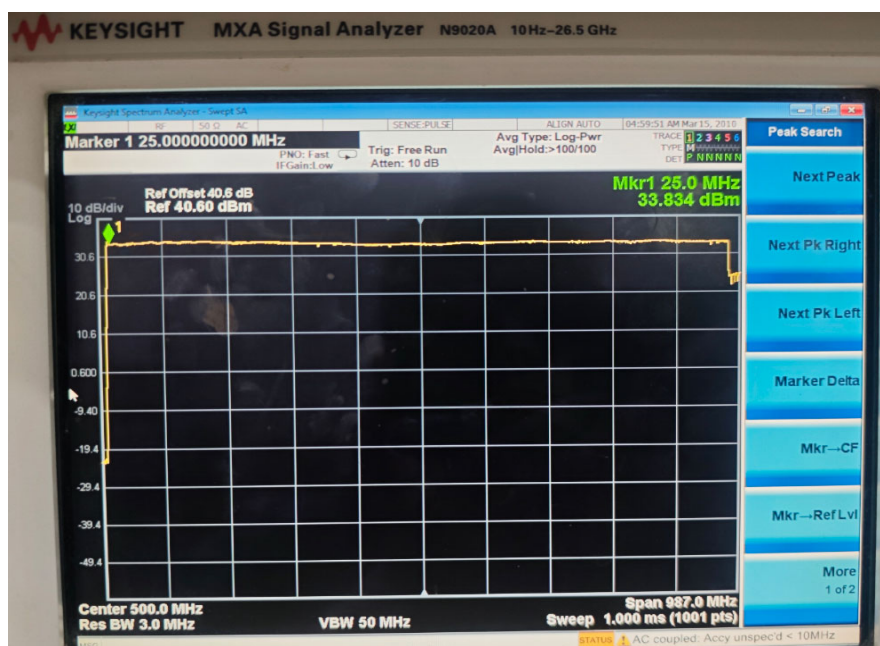
3.1 Test conditions: TA=+25°C, DC=12V, 850mA @12V

3.2 Test instruments: E5071C, Agilent 346A, N5182A, N9020A

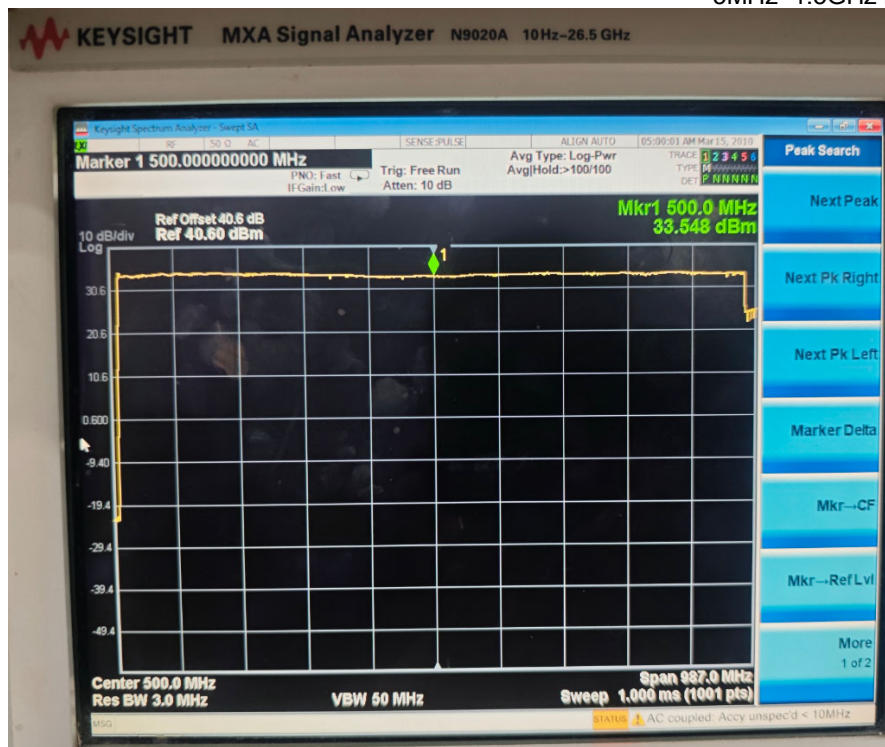
3.3 Test results: Gain: 35dB, Noise Figure: 4.2dB @5MHz~1.3GHz



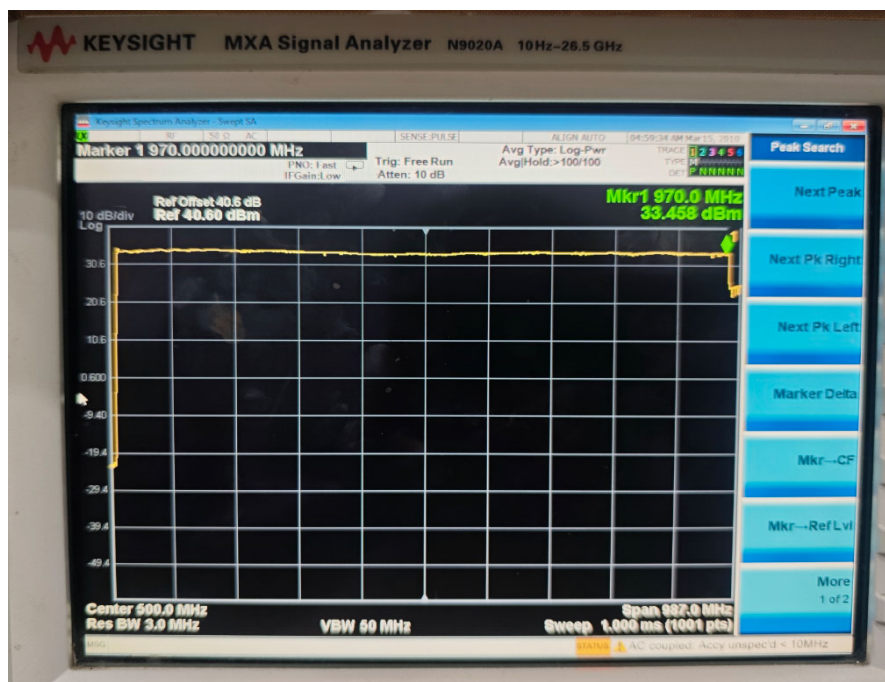
Gain Curve @30MHz-1.2GHz



Gain Curve @25MHz



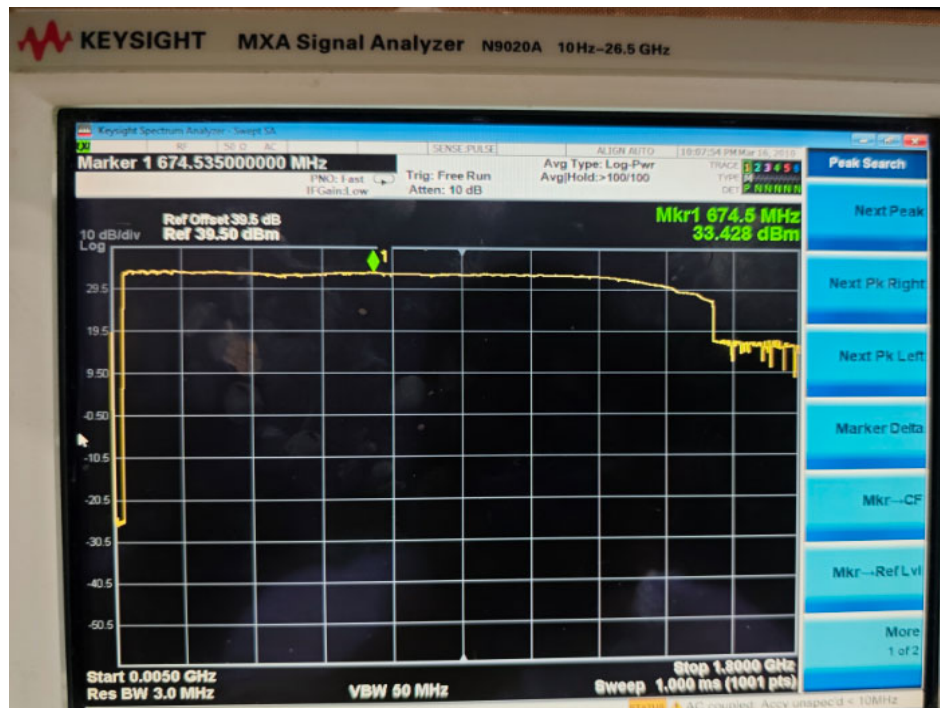
Output Power Curve @500MHz



Output Power Curve @970MHz



Output Power Curve @1320MHz



Output Power Curve @675MHz

**Conditions: TA=25°, VCC=12V, Input Power Small Signal-30dBm, 5dBm**

Freq(MHz)	Small Signal Gain (dB)	Large Signal Gain(dB)	Pout (dBm)
5MHz	35.8	28.8	34.2
100MHz	35.3	29	33.5
200MHz	35.8	28.9	33.5
300MHz	35.7	29.1	33.6
400MHz	35.4	29.1	33.7
500MHz	34.9	29.1	33.4
600MHz	34.9	29.2	33.2
700MHz	34.9	28.8	33.2
800MHz	35.3	28.8	33.3
900MHz	35.3	28.8	33.5
1000MHz	35.5	28.8	33.5
1100MHz	35.3	28.8	33.5
1200MHz	35.3	28.8	33.4
1300MHz	33.2	26.8	33.2

#### 4. RoHS Compliance

The products manufactured by our company do not contain cadmium (Cd), lead (Pb), mercury (Hg), hexavalent chromium, polybrominated biphenyls (PBB), or polybrominated diphenyl ethers (PBDE), and are therefore considered compliant with the RoHS standards.

#### 5. Electrostatic Protection

Although this product is designed to be as robust as possible, static electricity may cause damage to it; therefore, caution should be exercised during operation.

## **6. Disclaimer**

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