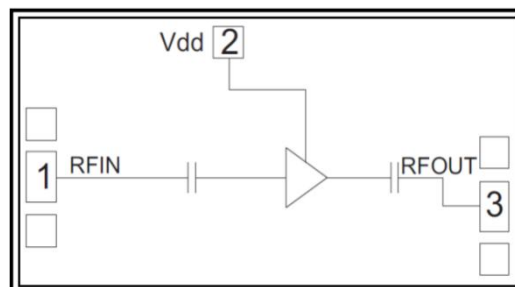


GaAs MMIC Low Noise Amplifier Chip, 2-6GHz

Performance characteristics

- Frequency range: 2-6GHz
- Small signal gain: 26.5dB
- Gain flatness: ± 0.3 dB
- Noise figure: 0.9dB typ.
- P-1dB: 17dBm
- Power supply: +5V/80mA
- Input/Output: 50Ohm
- 100% on-chip testing
- Chip size: 1.86 x 1.25 x 0.1 mm

Functional Block Diagram



Product Introduction

GLA-0206C is a broadband low-noise amplifier chip, with a frequency range of 2GHz~6GHz, a small signal gain of 26.5dB, an in band noise figure of 0.9dB, and a P-1 power of 17dBm. GLA-0206C is powered by a +5V single power supply.

Use restriction parameters¹

Maximum leakage voltage	+7V
Maximum input power	+20dBm
Working temperature	-55 ~ +85°C
Storage temperature	-65 ~ +150°C

【1】 Exceeding any of the above maximum limits may result in permanent damage.

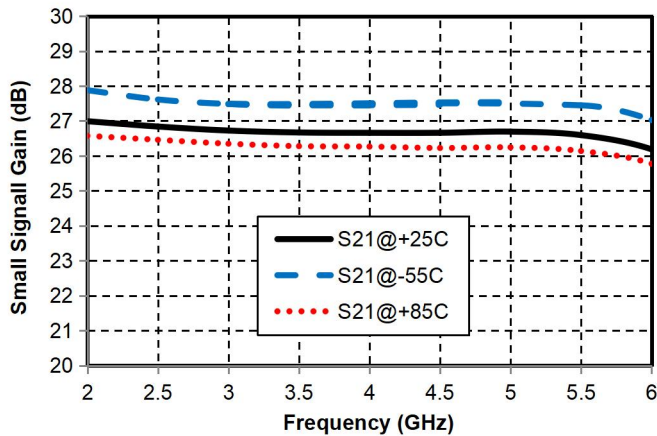
Electrical performance parameters($T_A = +25^\circ\text{C}$, $V_d = +5\text{V}$)

Index	Minimum value	Typical value	Maximum value	Unit
Frequency range	2-6			GHz
Small signal gain	-	26.5	-	dB
Gain flatness		± 0.3		dB
Noise coefficient (vector network test)	-	0.9	-	dB
Noise coefficient (noise meter test)		1.0		dB
P-1dB	-	17	-	dBm
Psat	-	18	-	dBm
Input return loss	-	17	-	dB
Output return Loss	-	22	-	dB
Static current	-	80	-	mA

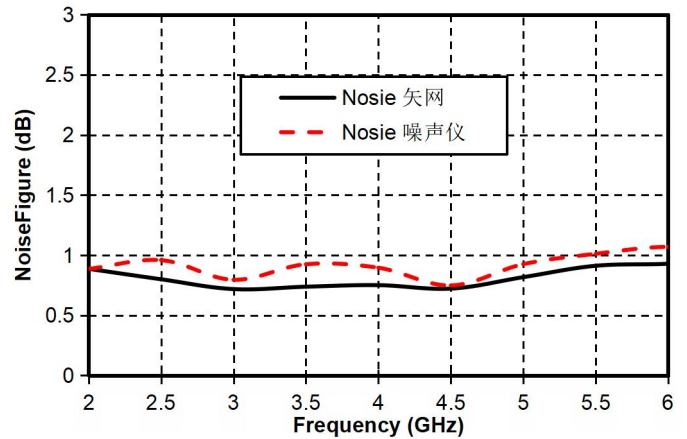
GaAs MMIC Low Noise Amplifier Chip, 2-6GHz

Main indicator testing curve

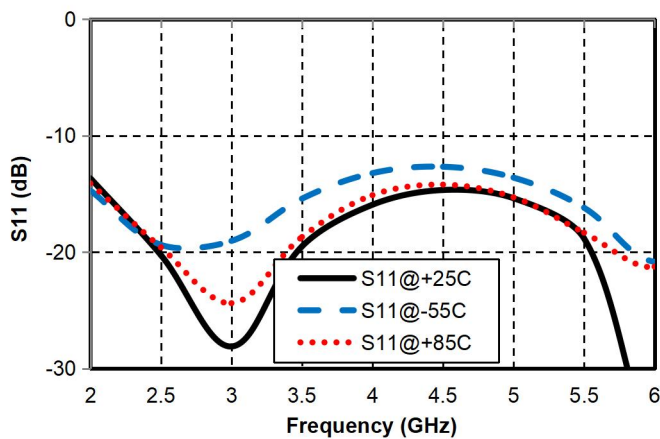
Gain vs. Frequency range



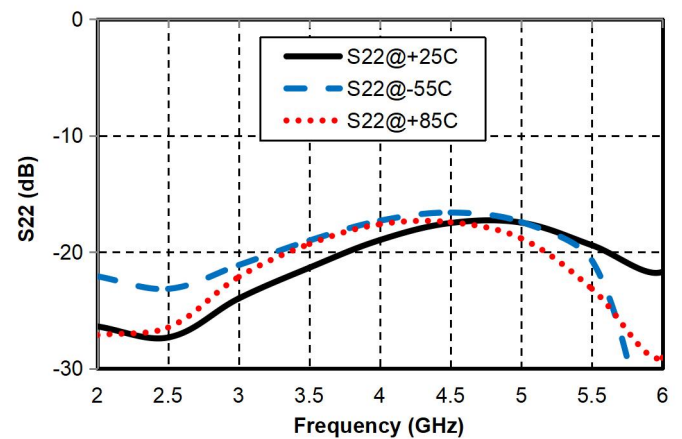
Noise Figure vs. Frequency



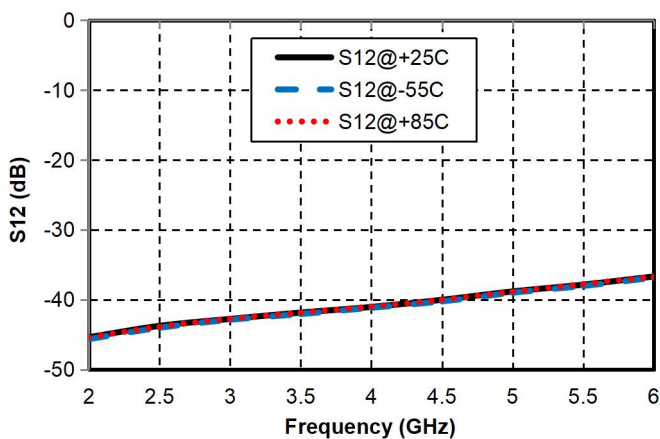
Input return loss vs. Frequency



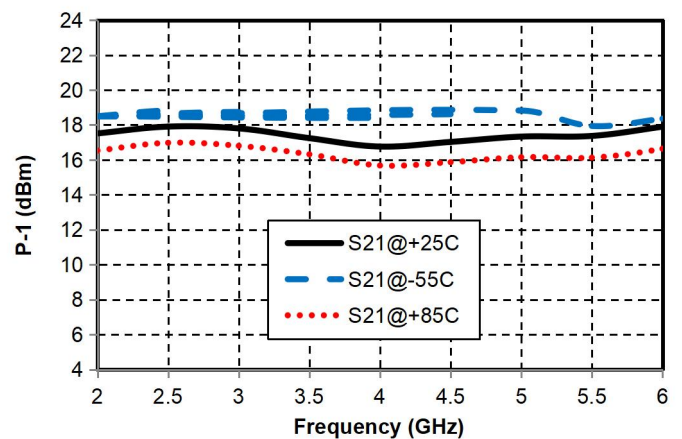
Output return Loss vs. Frequency



Reverse isolation vs. Frequency

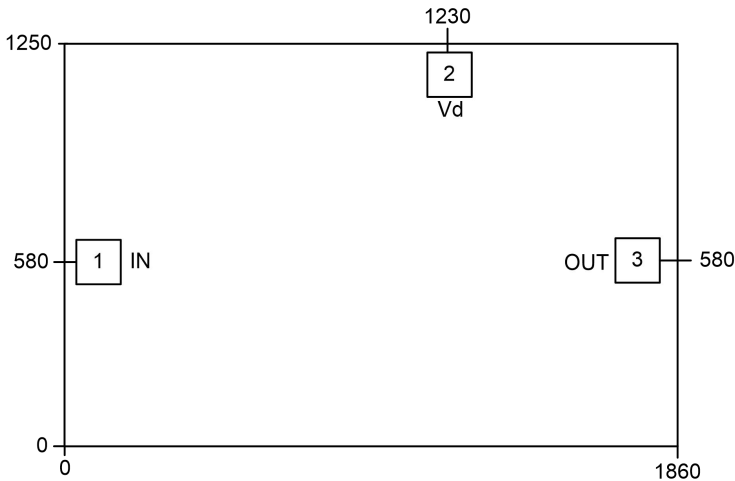


P-1dB vs. Temperature



GaAs MMIC Low Noise Amplifier Chip, 2-6GHz

External structure²



【2】 The units in the figure are all millimeters.

Definition of bonding pressure point

Bond point number	Functional symbols	Function Description
1	RFIN	RF signal input terminal, no need for DC capacitors.
3	RFOUT	RF signal output terminal, no need for DC isolation capacitor.
2	Vd	Amplifier drain bias, requires an external 100pF bypass capacitor.
Chip bottom	GND	The bottom of the chip needs to be well grounded with RF and DC.

Recommended assembly diagram

