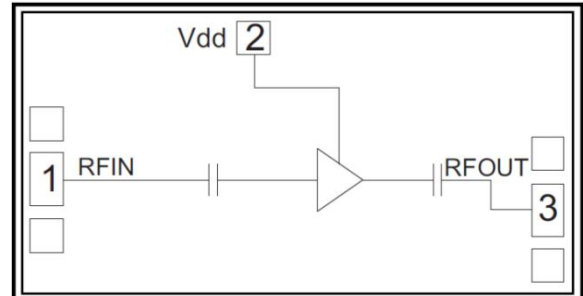


GaAs MMIC Low Noise Amplifier Chip, 18-26GHz

Performance characteristics

- Frequency range: 18-26GHz
- Small signal gain: 25.5dB
- Gain flatness: ± 0.6 dB
- Noise figure: 1.3dB typ.
- P-1dB: 14dBm
- Psat: 15dBm
- Power supply: +5V/55mA
- Input/Output: 50Ohm
- 100% on-chip testing
- Chip size: 1.92 x 0.95 x 0.09 mm

Functional Block Diagram



Product Introduction

GLA-1826D is a broadband low-noise amplifier chip, with a frequency range of 18GHz~26GHz, a small signal gain of 25.5dB, and an in band noise figure of 1.3dB. The GLA-1826D is powered by a +5V single power supply.

Use restriction parameters¹

Maximum leakage voltage	+7V
Maximum input power	+20dBm
Working temperature	-55 ~ +125°C
Storage temperature	-65 ~ +150°C

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

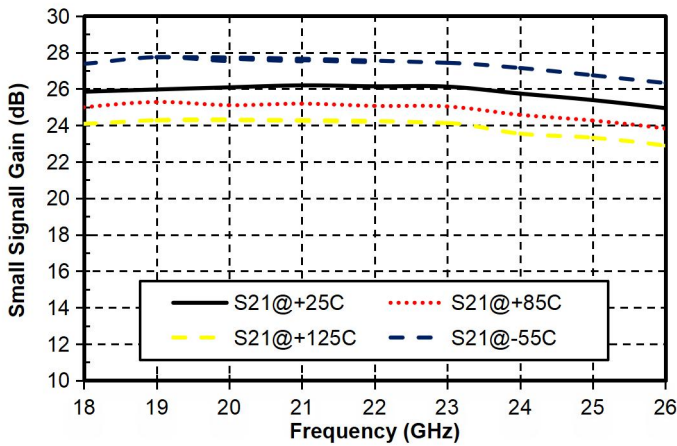
Electrical performance parameters($T_A = +25^\circ\text{C}$, $V_d = +5\text{V}$)

Index	Minimum value	Typical value	Maximum value	Unit
Frequency range	18-26			GHz
Small signal gain	-	25.5	-	dB
Gain flatness		± 0.6		dB
Noise figure	-	1.3	-	dB
P-1dB	-	14	-	dBm
Psat	-	15	-	dBm
Input return loss	-	14	-	dB
Output return Loss	-	17	-	dB
Static current		55		mA

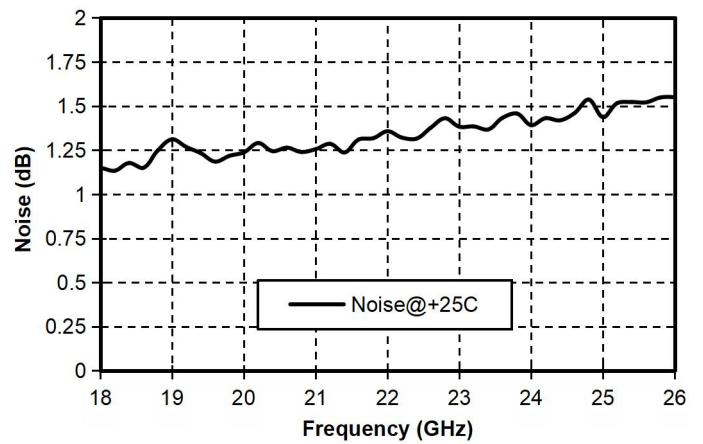
GaAs MMIC Low Noise Amplifier Chip, 18-26GHz

Main indicator testing curve

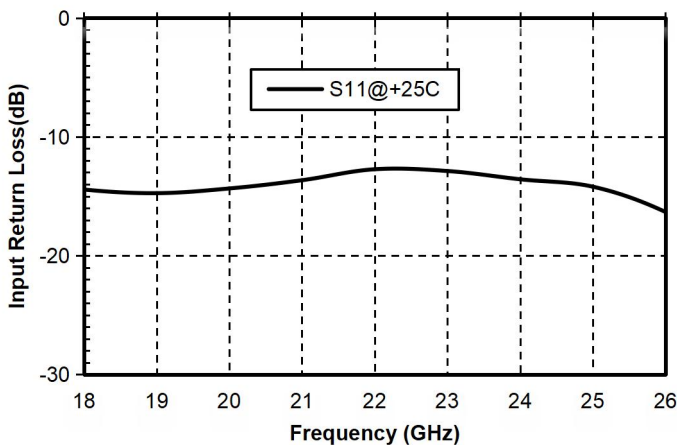
Gain vs. Temperature



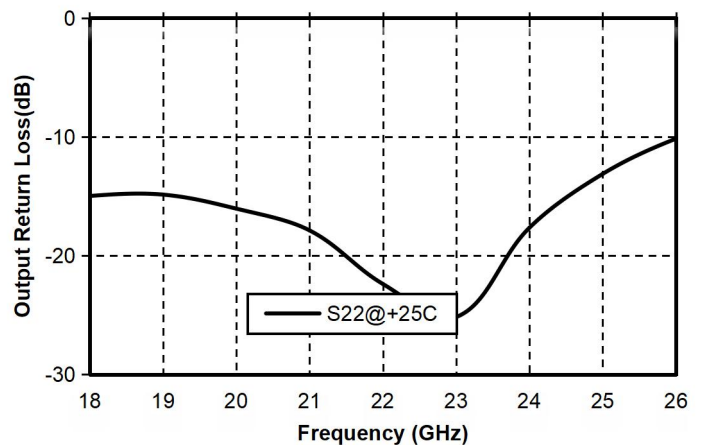
Noise Figure vs. Temperature



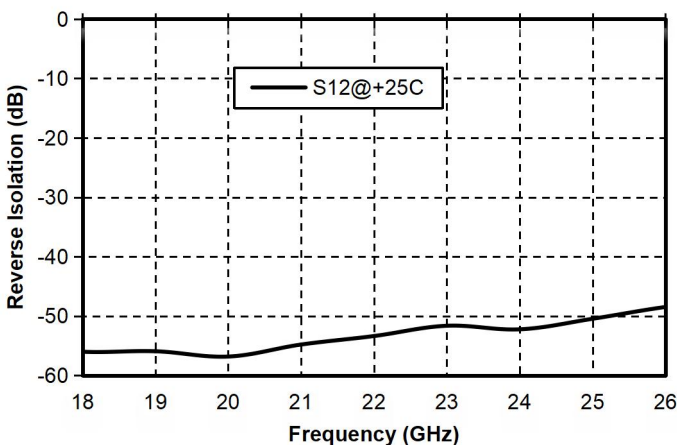
Input return loss vs. Temperature



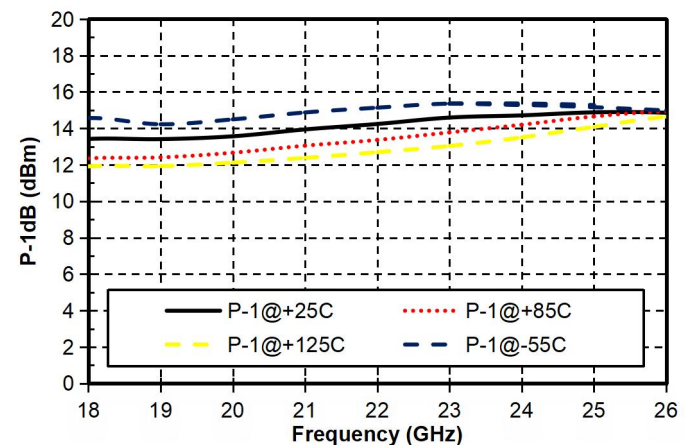
Output return Loss vs. Temperature



Reverse isolation vs. Temperature

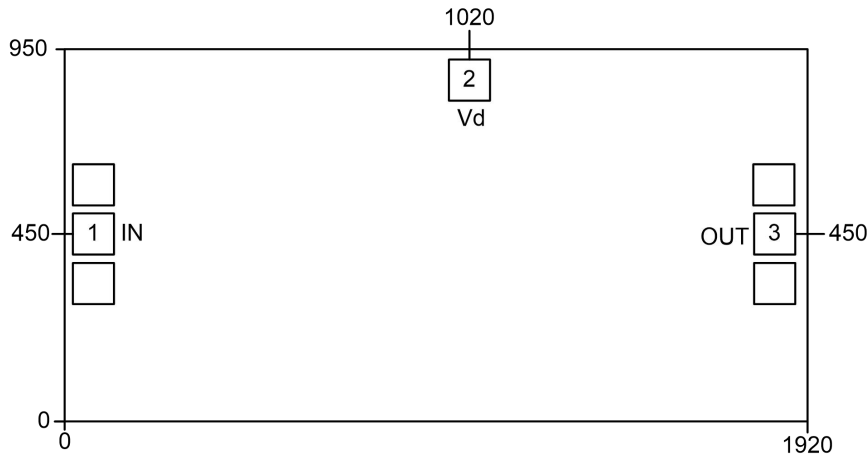


P-1dB vs. Temperature



GaAs MMIC Low Noise Amplifier Chip, 18-26GHz

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	VDD	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

