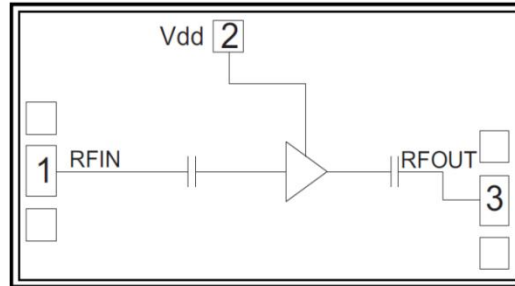


GaAs MMIC Low Noise Amplifier, 26-40GHz

Features:

- Freq. Range: 26-40GHz
- Gain: 21dB(Positive slope)
- NF: 2.0dB typ. / 2.1dB max.
- P-1dB: 3dBm
- Supply: +5V/12mA
- 50Ohm Input/Output
- 100% On Wafer Test
- Size: 1.6 x 0.8 x 0.09 mm

Functional Diagram:



Product Introduction:

ILA-2640A is a broadband Low Noise Amplifier, the frequency range covers 26GHz~40GHz, the gain is 21dB, and the in-band noise figure is 2.0dB. ILA-2640A uses a +5V single supply.

Absolute Maximum Ratings¹

Maximum Vdd	+7V
Maximum Input Power	+20dBm
Working Temperature	-55 ~ +85°C
Storage Temperature	-65 ~ +150°C
【1】 Exceeding any of the above maximum limits may cause permanent damage.	

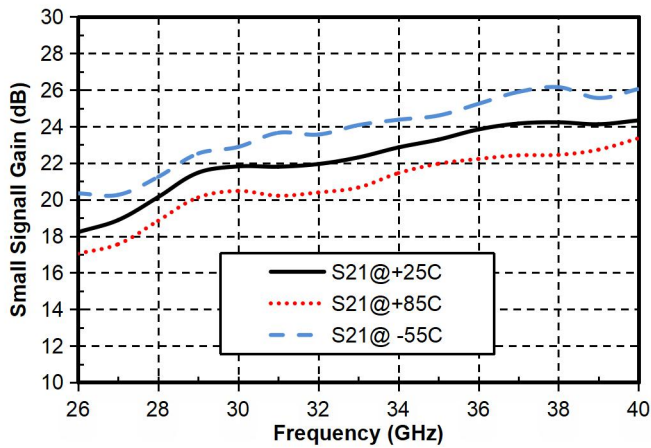
Electrical Specifications($T_A = +25^\circ\text{C}$, $V_d = +5\text{V}$)

Parameter	Min.	Typ.	Max.	Units
Freq. Range	26-40			GHz
Gain	17	21	24.5	dB
Gain Flatness	±4			dB
NF	1.7	2.0	2.1	dB
P-1dB	2	3	5	dBm
Psat	3.5	5	6.5	dBm
Input Return Loss	10	13	-	dB
Output Return Loss	10	14	-	dB
Current	12			mA

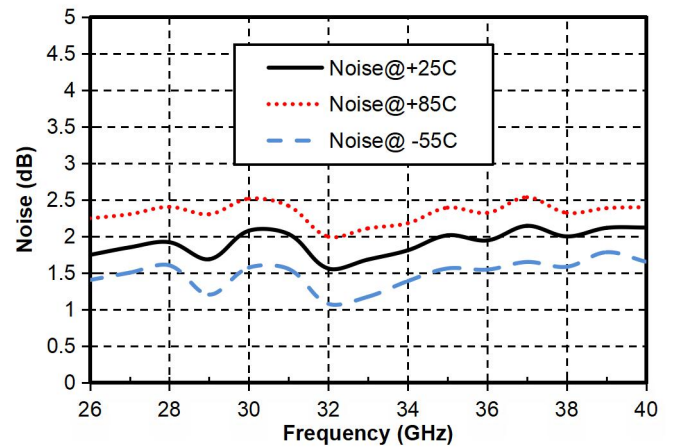
GaAs MMIC Low Noise Amplifier, 26-40GHz

Test Curve

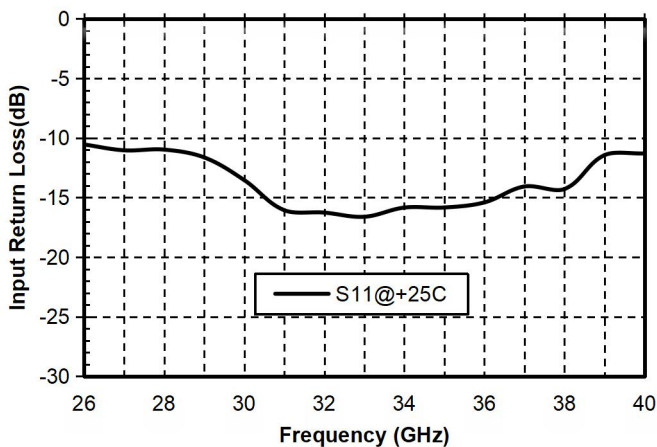
Gain vs. Temperature



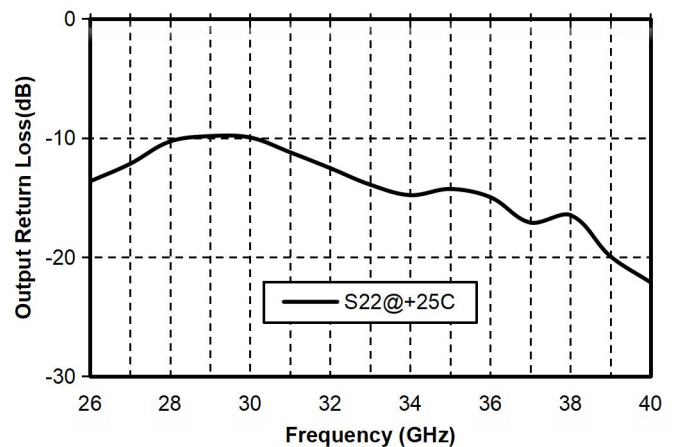
NF vs. Temperature



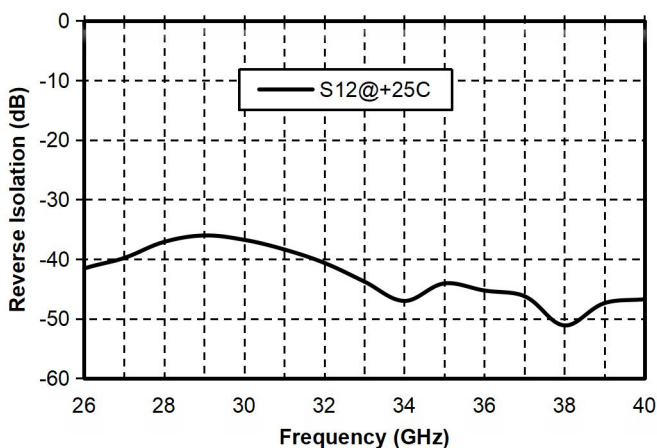
Input Return Loss vs. Freq.



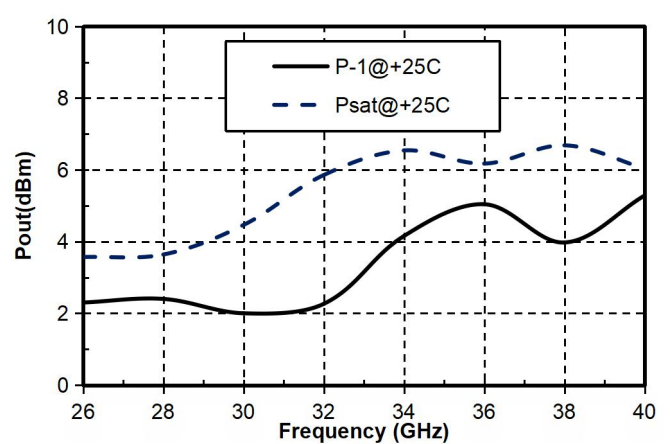
Output Return Loss vs. Freq.



Reverse Isolation vs. Freq.

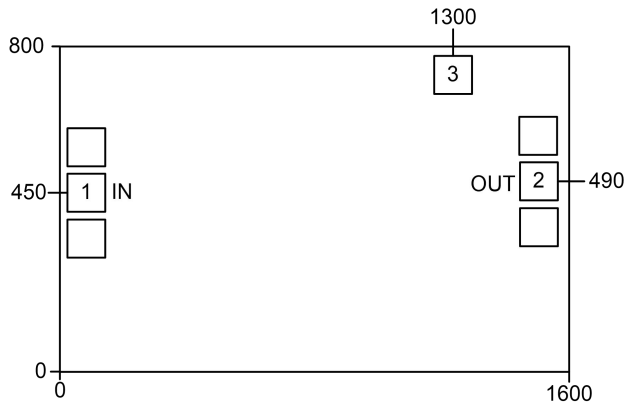


P-1dB、Psat vs. Freq.


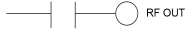
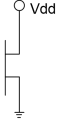



GaAs MMIC Low Noise Amplifier, 26-40GHz

Outline Drawing²



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

Pad Descriptions			
Pad Number	Function Symbol	Description	Equivalent Circuit
1	RFIN	RF signal input terminal, no DC blocking capacitor required	
2	RFOUT	RF signal Output terminal, no DC blocking capacitor required	
3	Vd	Amplifier drain bias, an external 100pF bypass capacitor is required.	
Bottom of the chip	GND	Bottom of the chip needs to be well grounded with RF and DC	

GaAs MMIC Low Noise Amplifier, 26-40GHz

Recommended assembly drawing

