

GaAs monolithic integrated driver amplifier
6GHz~18GHz

key indicator

- Frequency range: 6GHz~18GHz
- Gain: 16dB
- Output P-1 dB: 16dBm
- Working power supply: +5V@52mA
- Chip size: 1.2mm×1.22mm×0.1mm

typical application

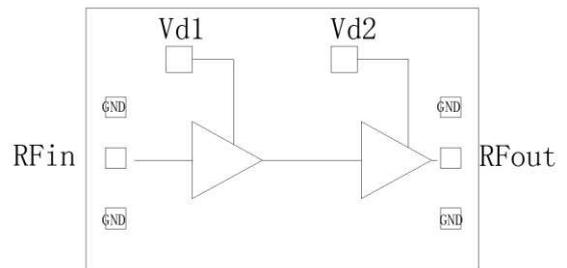
- Multipoint communication
- Satellite Communications
- Local multipoint distribution service
- Test measurement

Product Introduction

AY1590 drive amplifier working frequency is 6GHz~18GHz. Under the working voltage of +5V@52mA, the amplifier provides 16dB gain, 16dBm output P₋₁dB and 3.5dB noise figure.

AY1590 has full surface passivation protection to improve reliability.

Functional block diagram



Electrical performance (T_A=25℃, V_D=+ 5V, I_D=52mA, Z₀=50Ω)

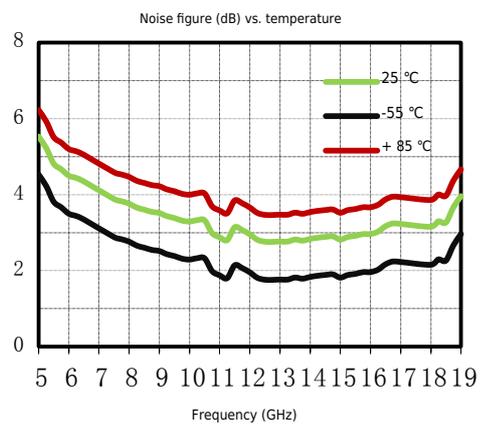
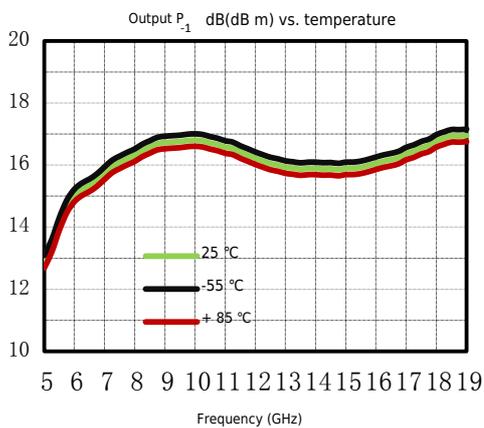
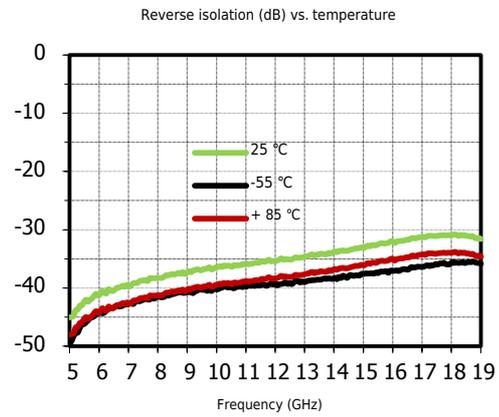
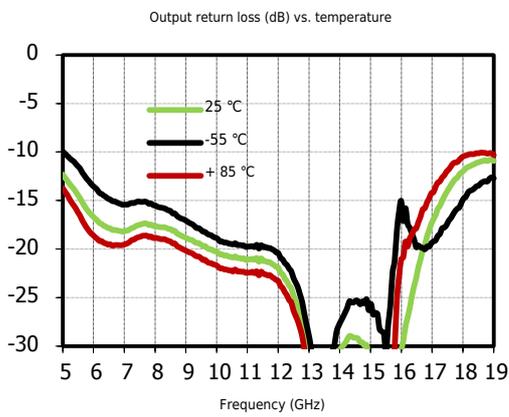
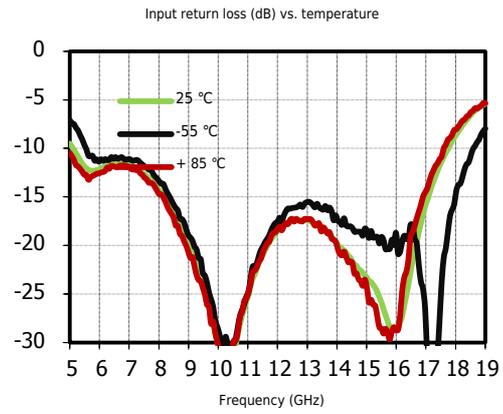
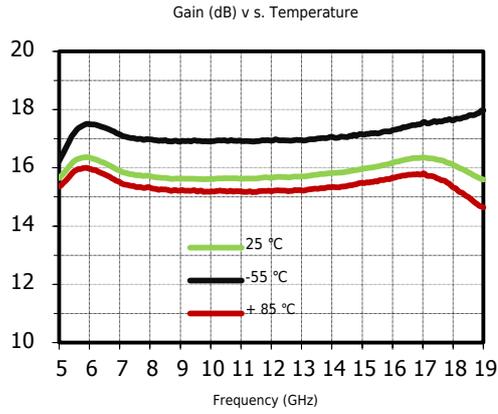
index	Minimum	Typical value	Max	unit
frequency	6 ~ 18			GHz
Small signal gain	-	16	-	dB
Reverse isolation	-	-35	-	dB
Input return loss	-	-15	-	dB
Output return loss	-	-15	-	dB
Output P ₋₁ dB	-	16	-	dBm
Noise Figure	-	3.5	-	dB
Working voltage (V _D)	-	5	-	V
Working current (I _D)	-	52	-	mA

Absolute maximum rating

Maximum input power	+20dBm	Operating temperature	-55℃ ~ + 85℃
Channel temperature	+ 150℃	Storage temperature	-65℃ ~ + 150℃

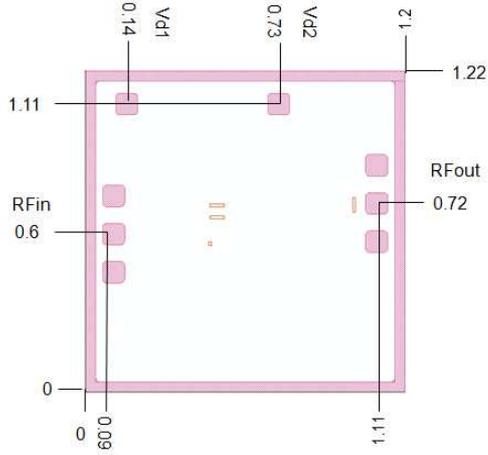
6GHz~18GHz

Typical test curve

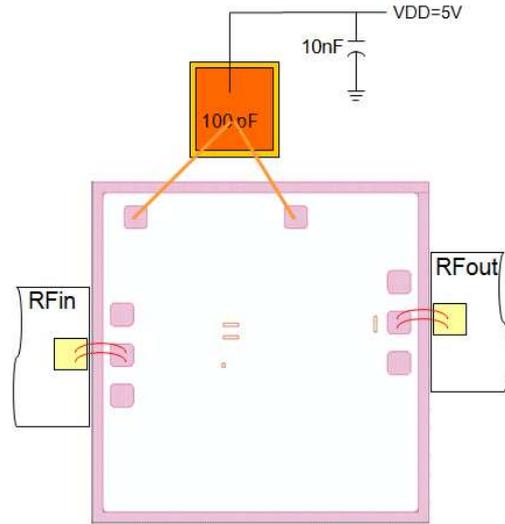


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Shape and port size (mm)



Recommended assembly drawing



Precautions

Gallium arsenide MMIC devices are susceptible to damage from electrostatic discharge. Precautions should be taken during transportation, assembly and testing.