

General Description

MWG103 is a broadband power driver amplifier designed and manufactured by GaAs pHEMT technology. The amplifier can achieve a small signal gain of 26 dB in the operating frequency band of 6-18 GHz. The output 1 dB compression point is + 21 dBm and the noise coefficient is 4 dB. Vdd adopts 5V self-bias power supply. Because of its excellent performance, this product can be widely used in point-to-point mobile communications, VSAT and other fields.

Features

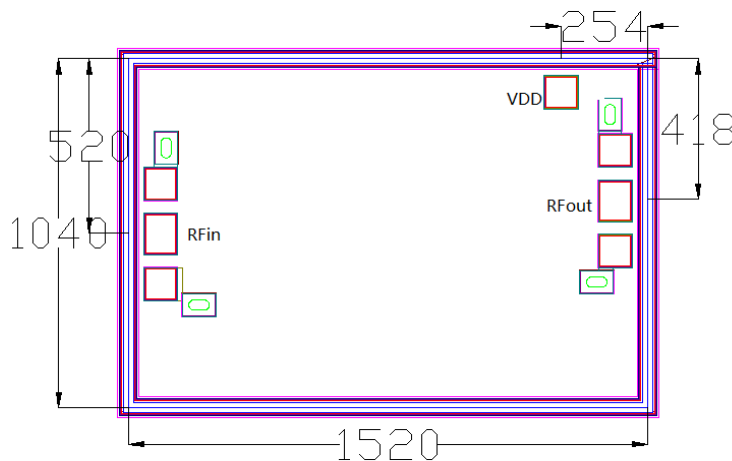
NF: 4 dB

Gain: 26 dB;

Output P1dB: +21dBm

Supply Current: +5.0V @ 110 mA

Functional Diagram(Typical bond: 100x100, unit: um)



(Die Thickness: 100 um)

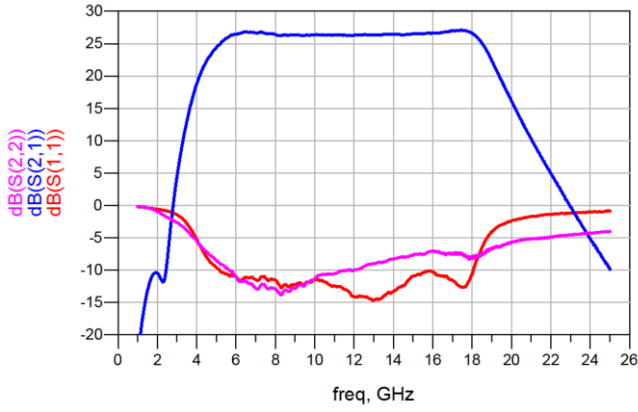
Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{dd} = +5.0\text{V}$

Parameter	Min	Typ	Max	Units
Bandwidth	6		18	GHz
Gain	26	26	27	dB
Noise Figure	3	4	5	dB
Input Return Loss	10	12		dB
Output Return Loss	8	10		dB
Output Power for 1dB Compression	20	21		dBm
Supply Current (@Vdd=5V) Supply Current		110		mA

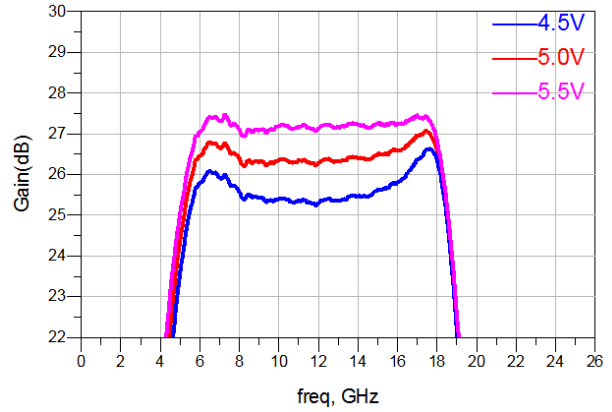


Test Results

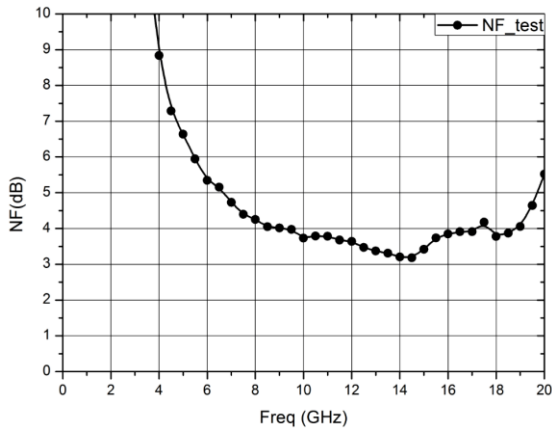
S_Parameter



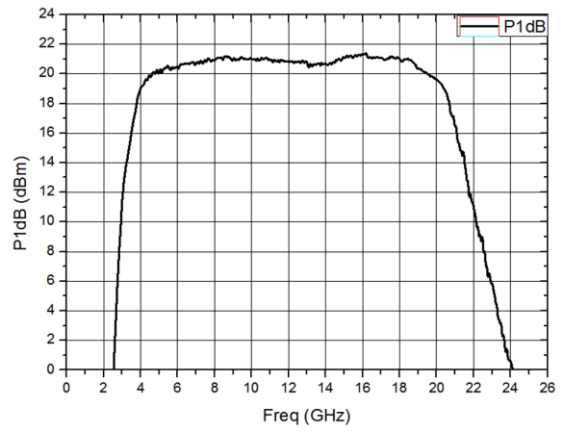
Gain



Noise Figure



Output P1dB



Assembly Diagram

