General Description

MWL203 is a low noise amplifier designed and manufactured using the GaAs pHEMT process. This amplifier operates over 75-90 GHz and is powered by +2V Vdd. The normal operating current is 85 mA, providing 18 dB of small signal gain, output power is 10 dBm, and the noise figure is 4.5 dB.

Features

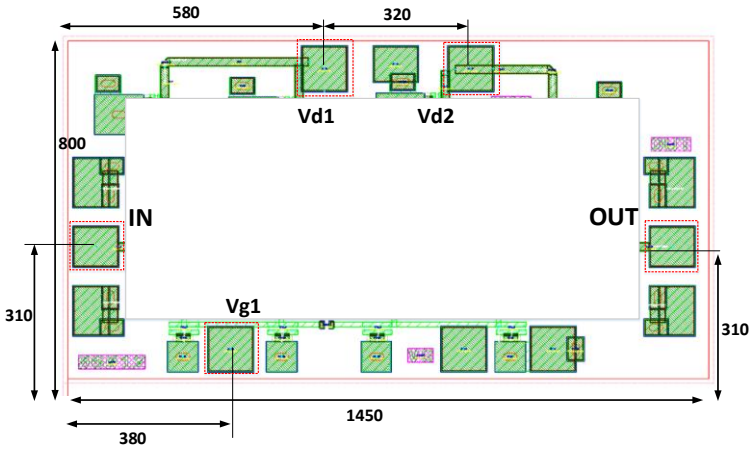
Noise Figure：4.5 dB

Gain：18 dB；

Output P1dB：+10dBm

Supply Current：+2V@85 mA

Functional Diagram(Typical bond：100x100um)



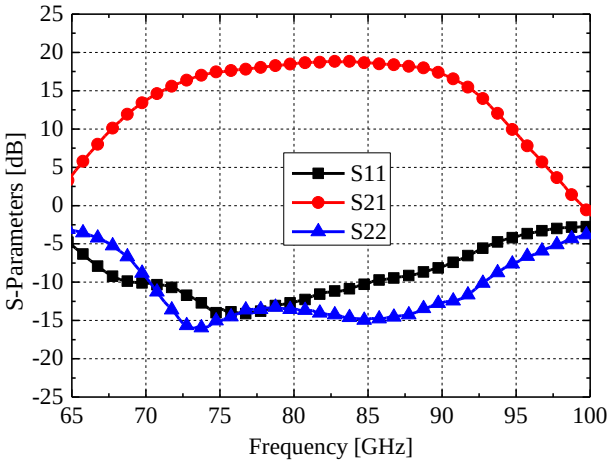
(Die Thickness: 50 um)

Electrical Specifications， $T_A = +25℃$，$Vd1 = Vd2 = +2V$，$Vg = -0.4V$

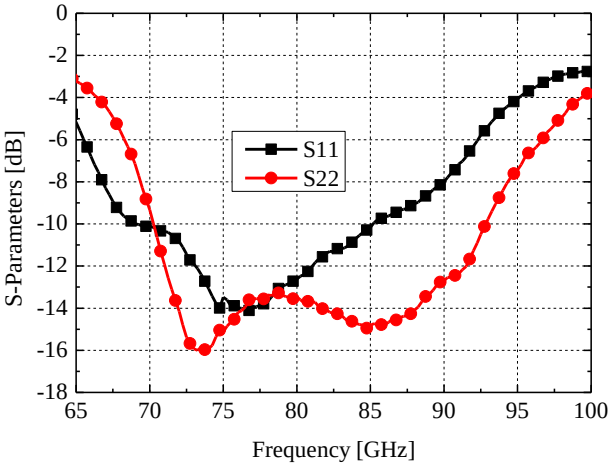
Parameter	Min	Typ	Max	Units
Bandwidth	75		90	GHz
Gain		18		dB
Noise Figure		4.5		dB
Input Return Loss		10		dB
Output Return Loss		13		dB
Output Power For 1dB Compression		10		dBm
Supply Current（@Vd=2V）		85		mA

Test Results

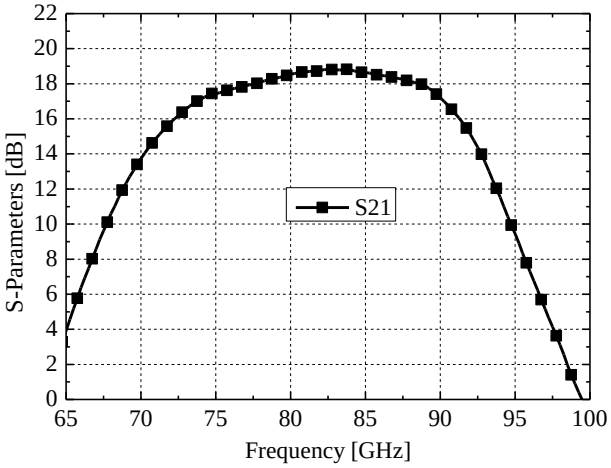
S_Parameter



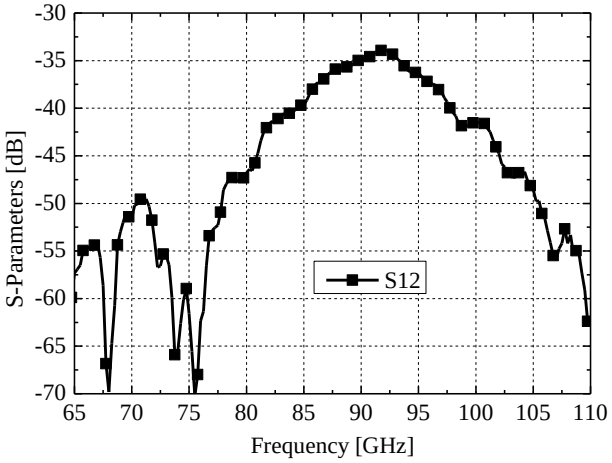
Input/Output Return Loss



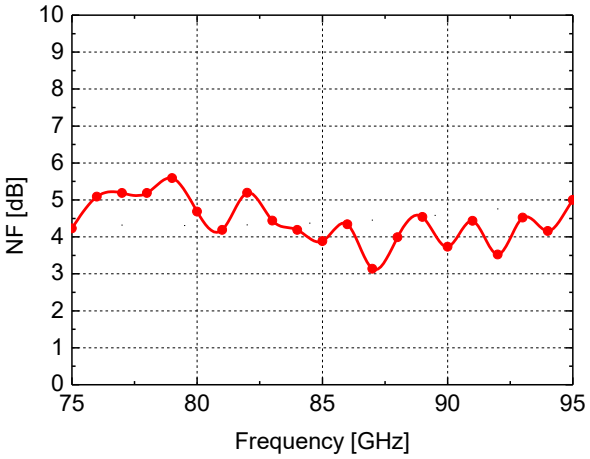
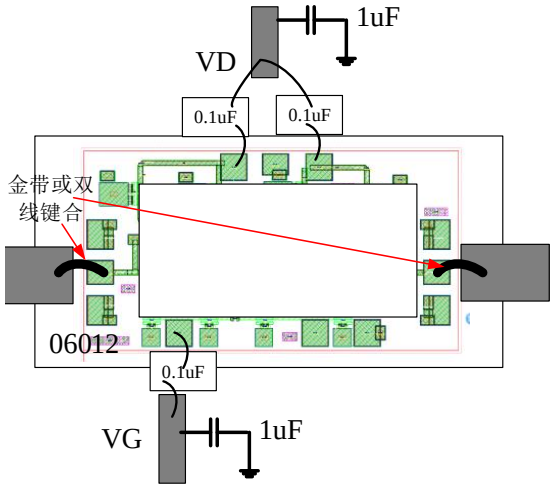
Gain



Isolation(S12)



Noise Figure



Assembly Diagram