General Description

MWG210 is a power amplifier designed and manufactured by GaAs pHEMT process. This amplifier can cover 35-43 GHz operating frequency, using +6V voltage Vd power supply, normal operating current 400mA, providing 20 dB small signal gain, output P1dB power up to 27 dBm.

Features

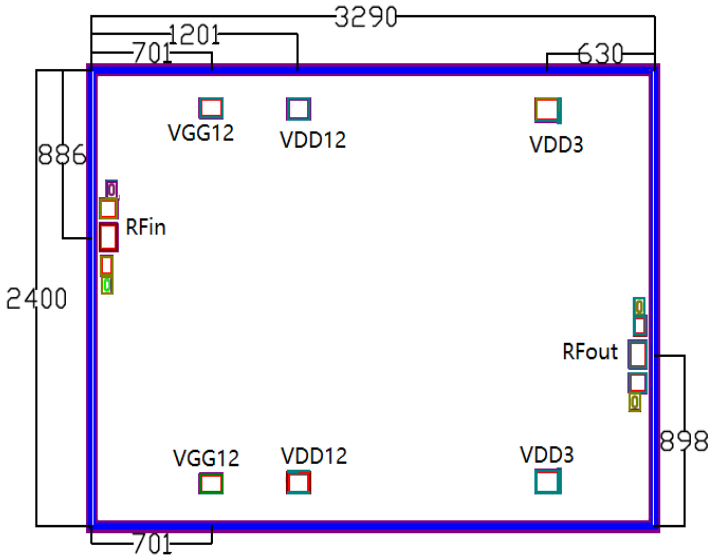
Gain：20 dB

Output P1dB：+27dBm

Supply Current：+6.0V@ 400mA

VSWR ＜ 2

Functional Diagram:



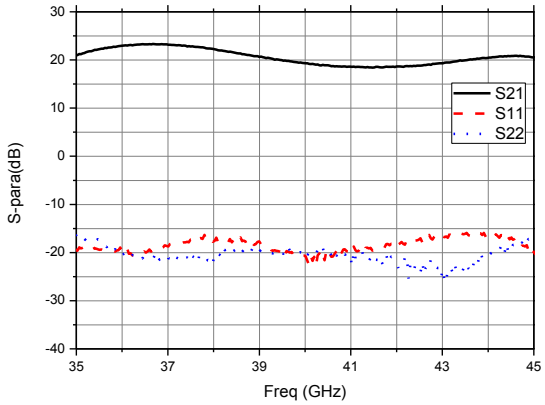
(Die Thickness: 100 um)

Electrical Specifications ， $T_A = +25℃$，Vdd = +6V，Vgg = −0.74V

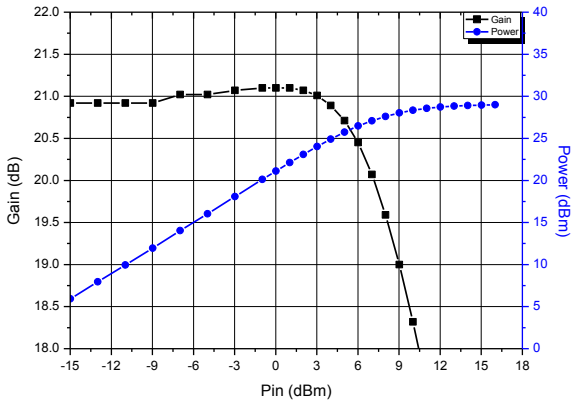
Parameter	Min	Typ	Max	Units
Bandwidth	35		43	GHz
Gain		20		dB
Input Return Loss		20		dB
Output Return Loss		20		dB
Output Power for 1dB Compression		27		dBm
Supply Current （@Vdd=+6.0V）		400		mA

Test Results

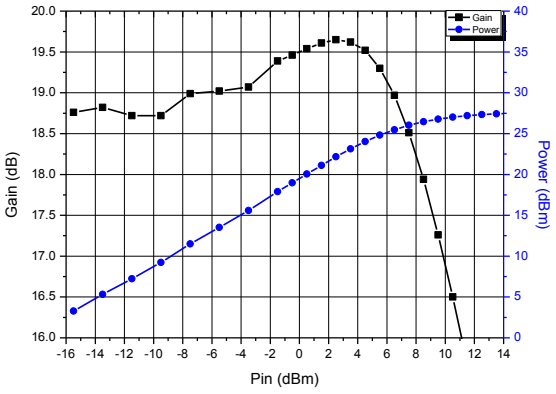
S_Parameter



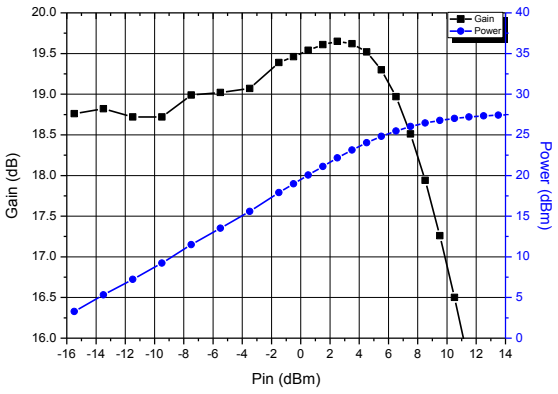
Gain @35GHz



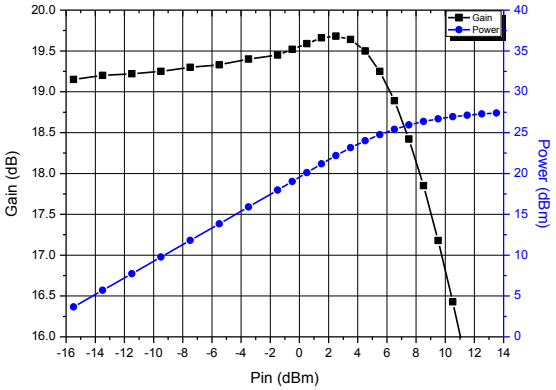
Gain @40GHz



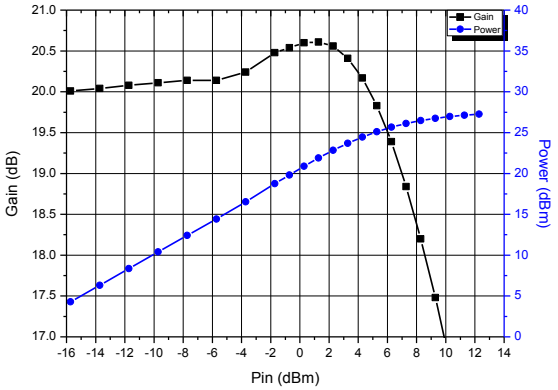
Gain @41GHz



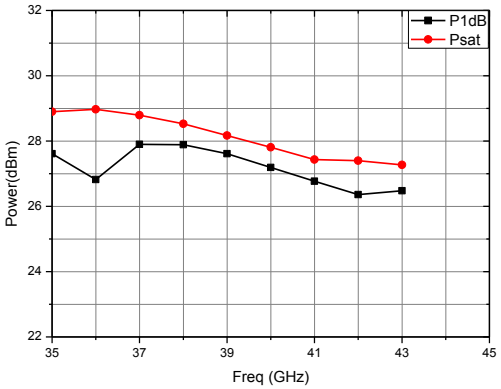
Gain @42GHz



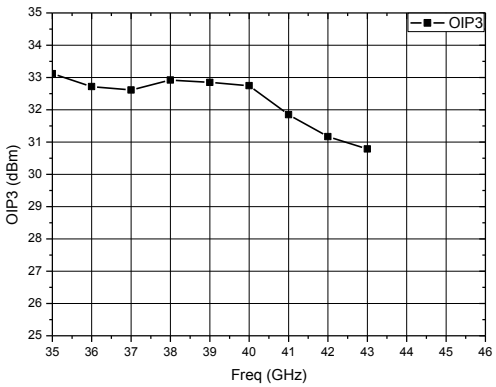
Gain @43GHz



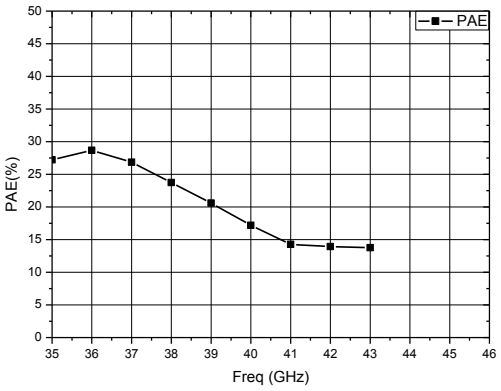
P1dB & Psat



OIP3



PAE



Assembly Diagram