MILLER MMIC

MMGP001

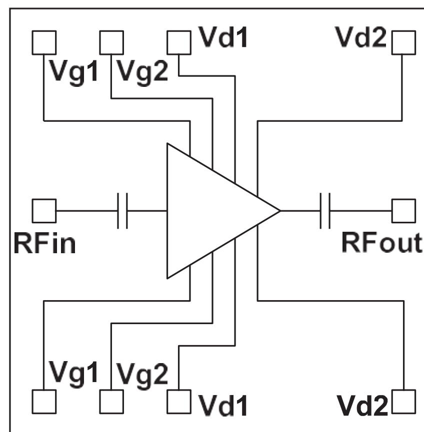
V1.0.0

GaN MMIC
Power Amplifier
2-6GHz

Features

- Frequency: 2-6GHz
- Gain: 25dB
- Psat: +44dBm@28V
- PAE: 35%V@Psat
- Power Supply: 28V@1A
- Die Size : 4.54 x 4.82 mm

Functional Block Diagram



Typical Applications

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

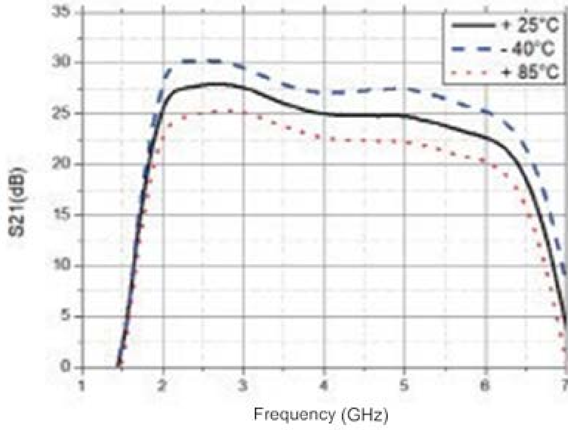
TA = +25ºC, Vd1 = Vd2 = +28V, Vg1 = Vg2 = -3.2V (On-wafer Measurement Results)

Parameters	Min.	Typ.	Max.	Units
Frequency		**2-6**		**GHz**
Gain		**25**		**dB**
Psat		**44**		**dBm**
PAE		**35**		**%**
Input Return Loss		**15**		**dB**
Output Return Loss		**7**		**dB**
Operating Current		**1**		**A**

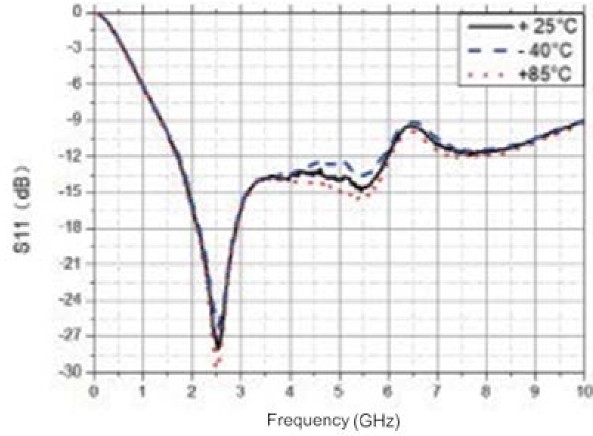
MMGP001

Power Amplifier- MMIC 2-6GHz

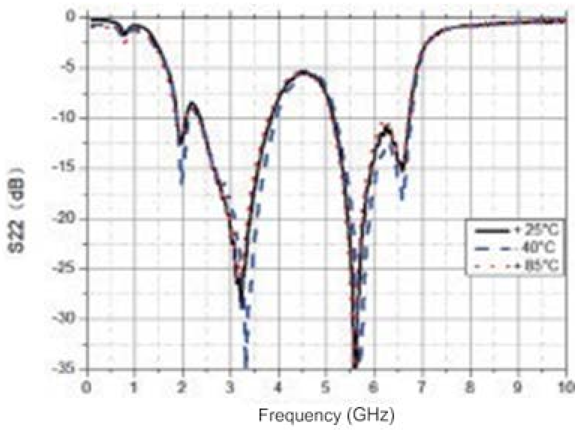
Gain vs. Frequency



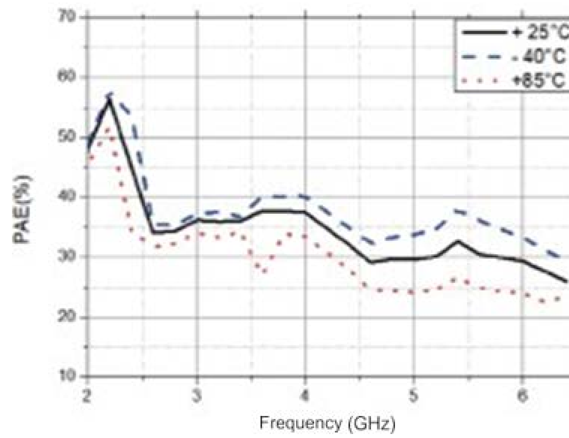
Input Return Loss vs. Frequeny



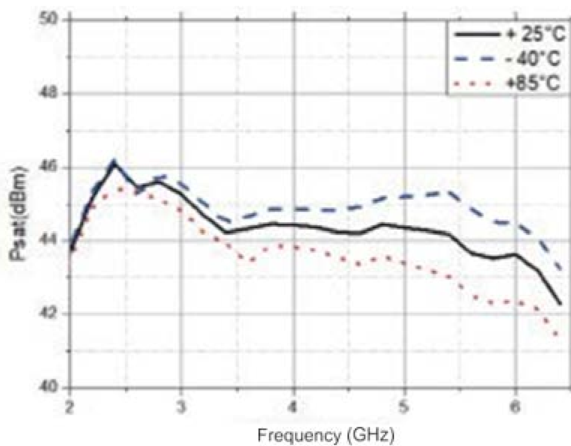
Output Return Loss vs. Frequeny



PAE vs. Frequeny



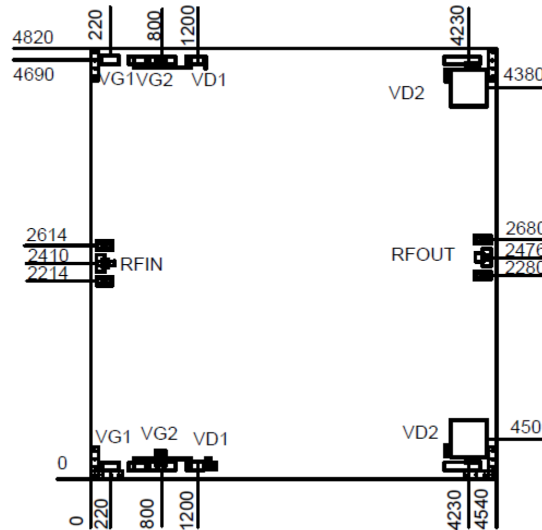
Psat vs. Frequency



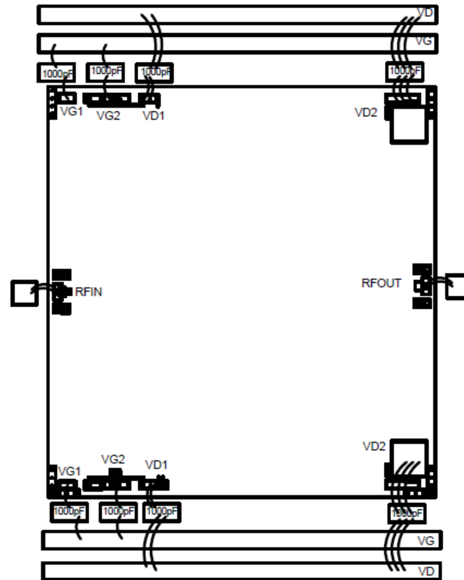
MILLER MMIC

Outline Drawing:

All Dimensions in μm



Assembly Drawing (Bond testing)



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm²
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. Supply voltage: +30V
2. RF Input power: +27dBm
3. Operating temperature: -55℃ to +85℃
4. Storage temperature: -65℃ to +150℃