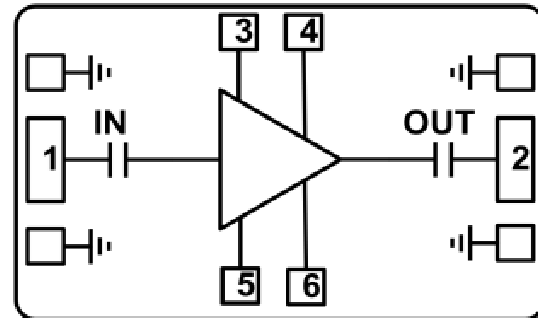
GaAs MMIC
Driver Amplifier
6-18GHz

Features

- Frequency: 6-18GHz
- Gain: 24dB
- P1dB: 27dBm
- Psat: 27.5dBm
- PAE@Psat: 27%
- Quiescent Current: 470mA
- Input/Output: 50Ω
- Die Size: 2.5×1.0×0.1 mm

Functional Block Diagram



Typical Applications

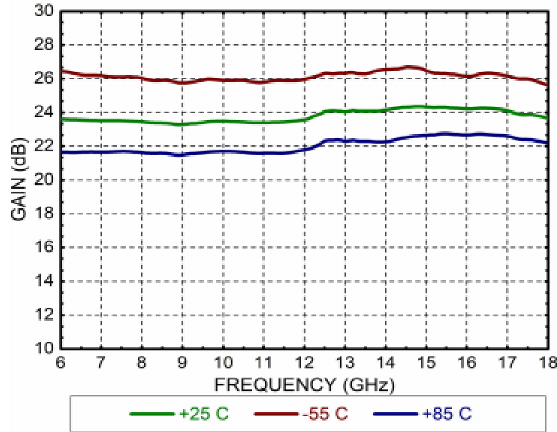
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

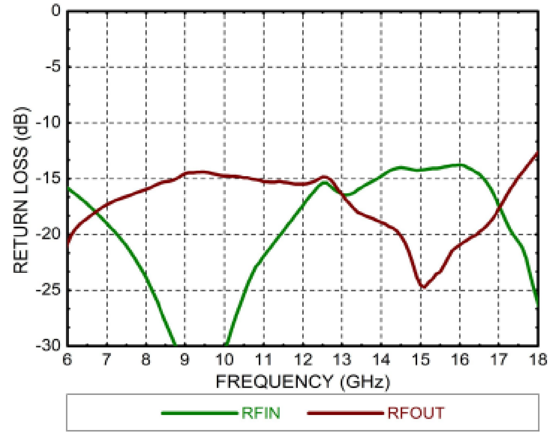
TA = +25ºC, VDD = +5V, IDD = 470mA*

Parameters	Min.	Typ.	Max.	Units
Frequency		6-18		GHz
Gain		24		dB
Noise figure		3.7		dB
P1dB		27		dBm
Psat		27.5		dBm
PAE		27		%
Input Return Loss		15		dB
Output Return Loss		15		dB
Operating Current		480		mA
The quiescent operating current can be controlled by adjusting VG, and VG=-0.3V is recommended.				

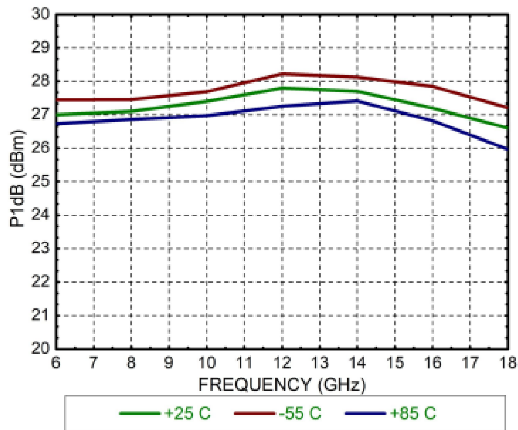
Gain



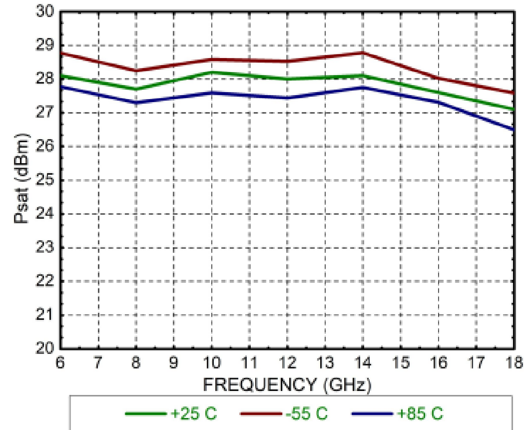
Return Loss



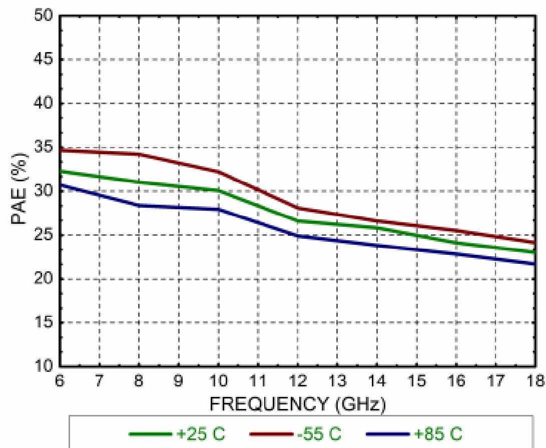
P1dB



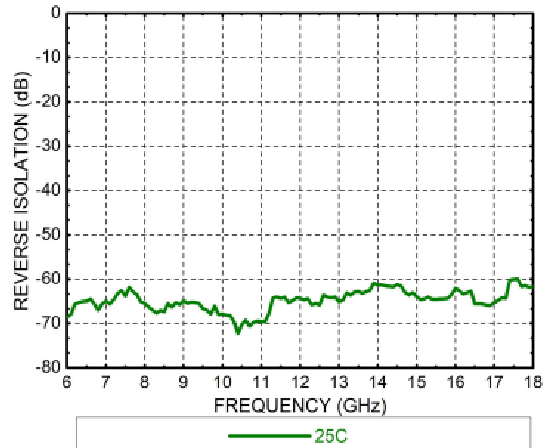
Psat



PAE@Psat

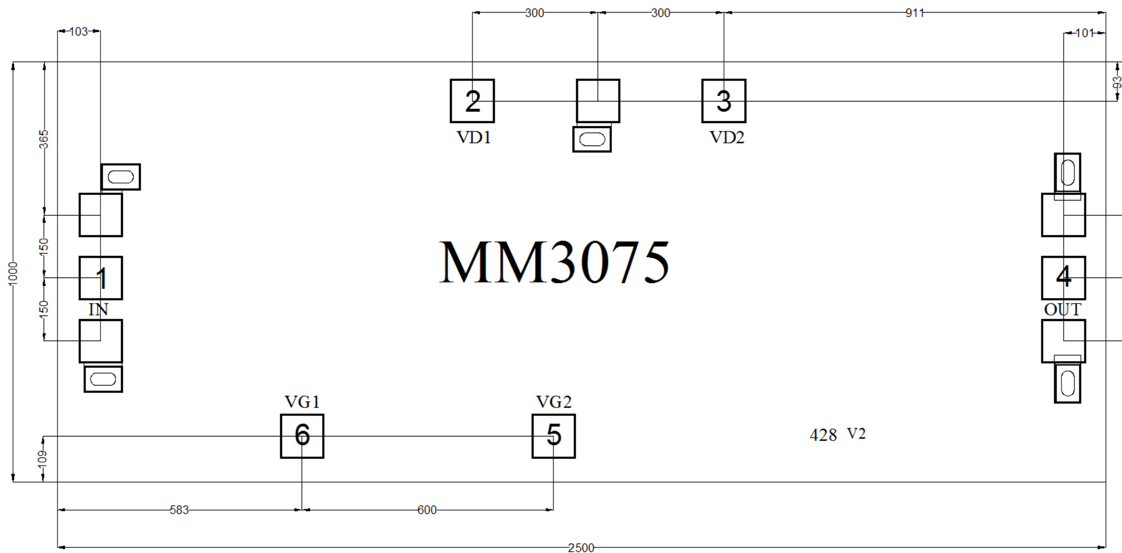


Reverse Isolation



Outline Drawing:

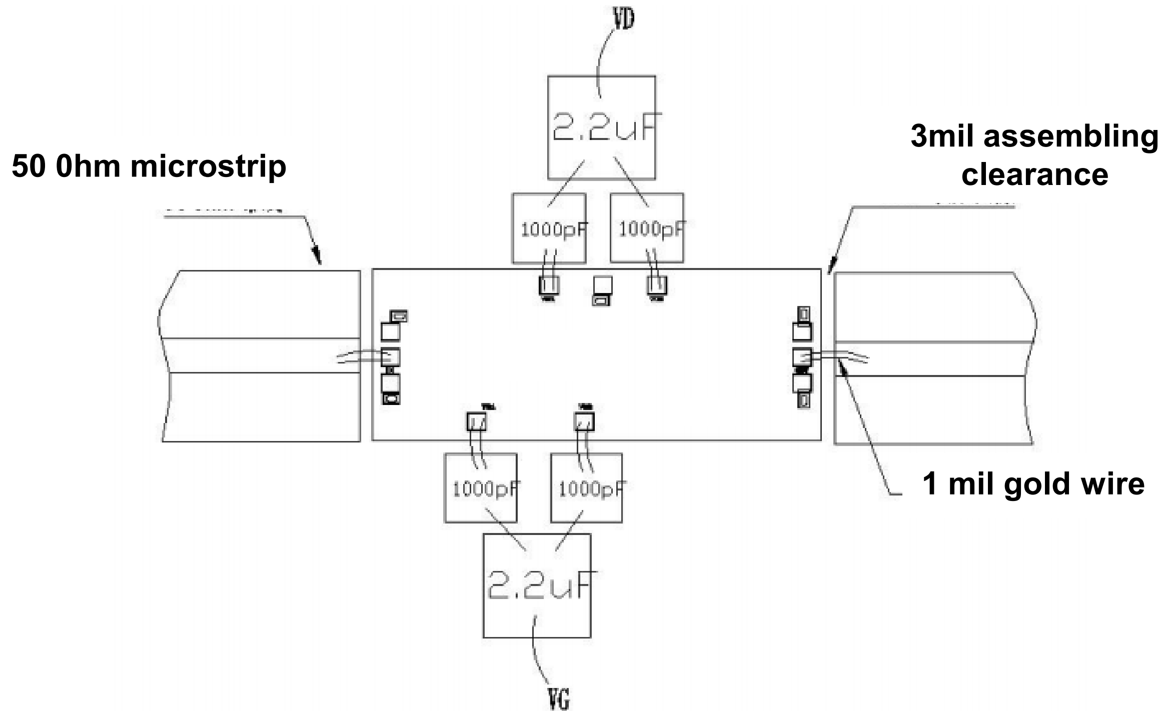
All Dimensions in mm



Pad Description

PAD	Function	Description
1	IN	The pad is AC coupling with an on-chip DC blocking capacitor matched to 50 Ohm
2	OUT	The pad is AC coupling with an on-chip DC blocking capacitor matched to 50 Ohm
3/4	VDD	Positive supply voltage
5/6	VG	Negative supply voltage, -0.3V recommended
Die Bottom	GND	Die bottom must be connected to RF/DC ground

Assembly Drawing



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm^2
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. RF input power: +20dBm
2. Positive supply voltage: +6V
3. Negative supply voltage: -2V
4. Operating temperature: -55℃ to +125℃
5. Storage temperature: -65℃ to +150℃