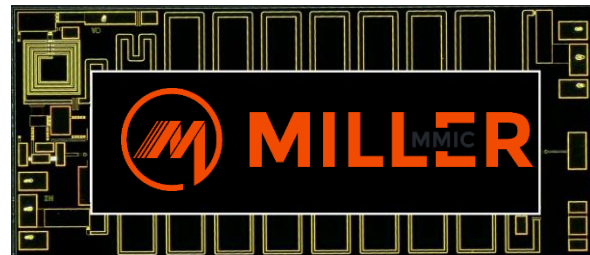


Features

- Frequency: 15-45GHz
- Small Signal Gain: 15.5dB
- Gain Flatness: ± 1.8 dB
- P1dB: 24dBm
- Psat: 24.5dBm
- OIP3: 24dBm(+10dBm Output)
- Power Supply: +5V/300mA
- Input/Output: 50 Ω
- Die Size: 2.4 x 1.79 x 0.1mm

Typical Applications

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


Electrical Specifications

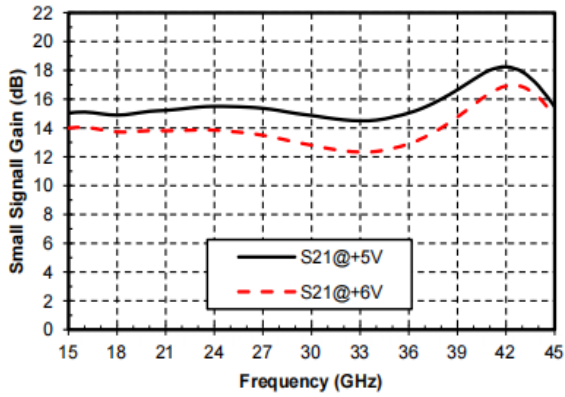
TA = +25°C, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency		15-45		GHz
Small Signal Gain	-	15.5	-	dB
Gain Flatness		± 1.8		dB
P1dB	-	24	-	dBm
Psat	-	24.5	-	dBm
Input Return Loss	-	18	-	dB
Output Return Loss	-	22	-	dB
Quiescent Current		300		mA

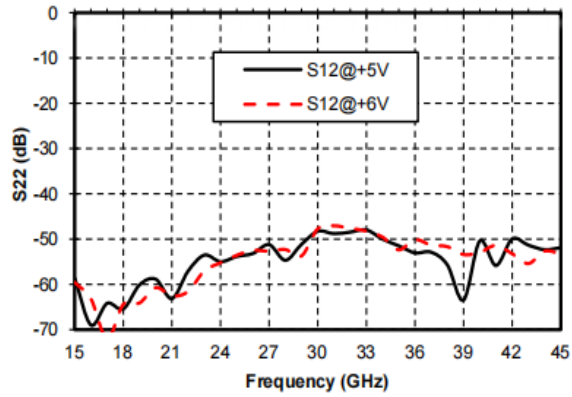
*By tuning the Vg terminal voltage -2V~0V, it reaches 300mA, and the Vg terminal voltage is expected to be -0.6V.



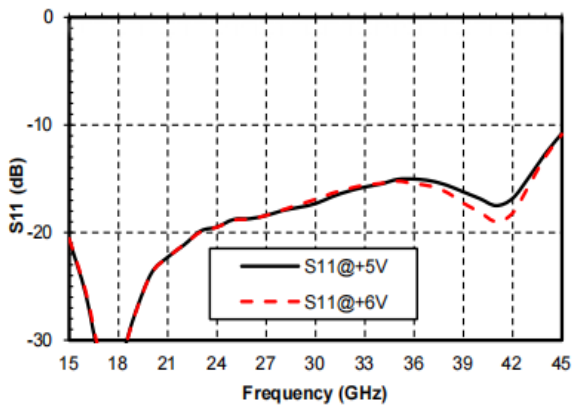
Gain vs. Frequency



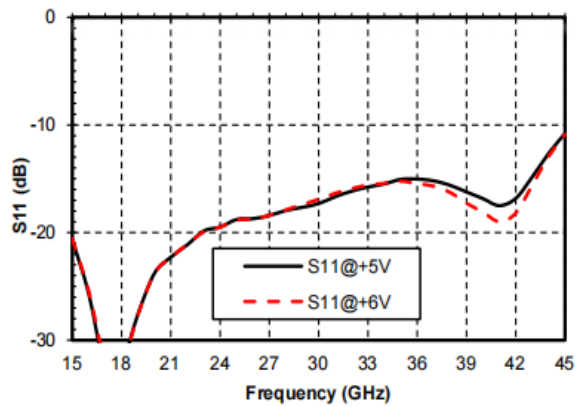
Reverse Isolation vs. Frequency



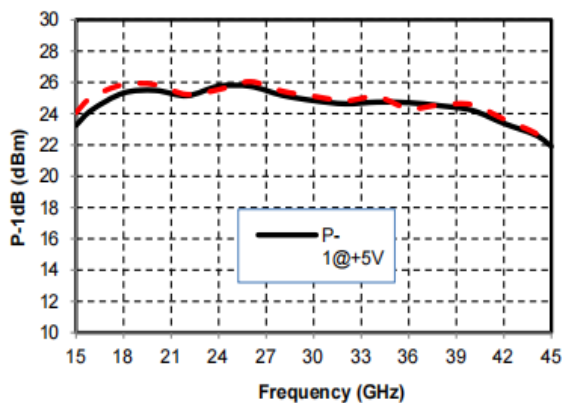
Input Return Loss vs. Frequency



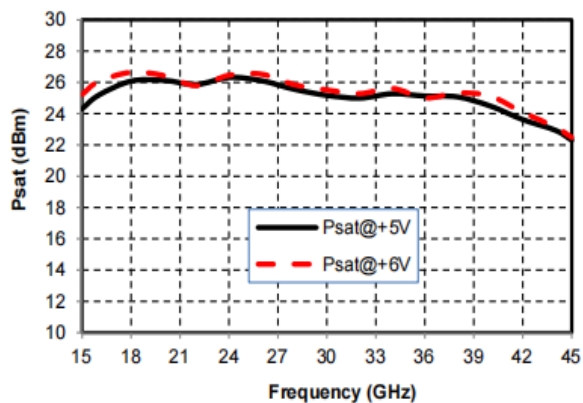
Output Return Loss vs. Frequency



P-1dB vs. Frequency

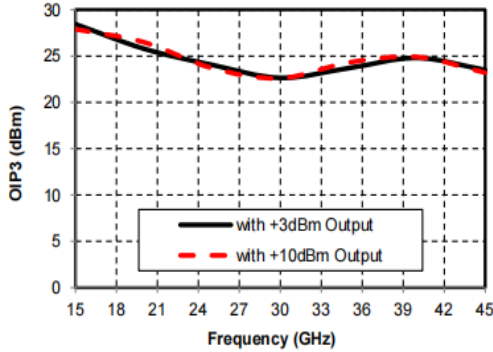


Psat vs. Frequency

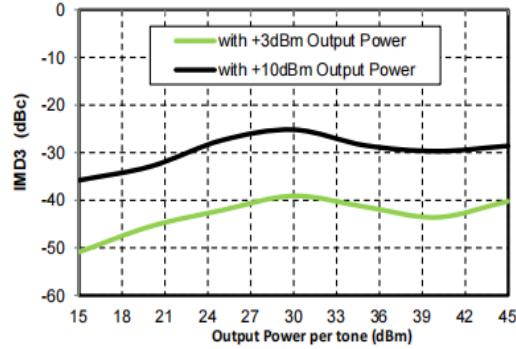




OIP3 vs. Frequency

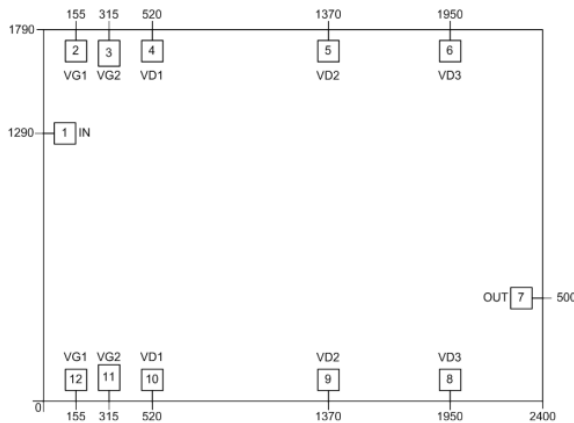


IMD3 vs. Frequency



Outline Drawing:

All Dimensions in um

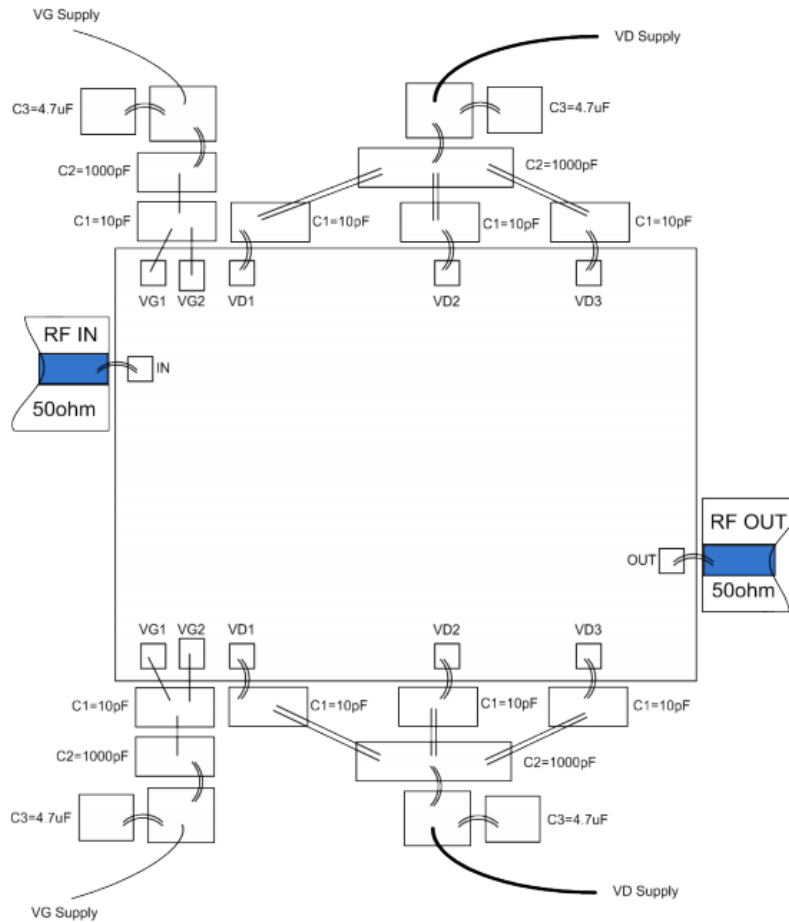


Pad Description

PAD	Function	Description
1	RF IN	RF signal input terminal, no blocking capacitor required
7	RF OUT	RF signal output terminal, no blocking capacitor required
2,3,11,12	VG1, VG2	Amplifier drain bias, connected to external 10pF ,1000pF, 4.7uF bypass capacitor.
4,5,6,8,9,10	VD1~VD3	Amplifier gate bias, connected to external 10pF ,1000pF, 4.7uF bypass capacitor.
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. Maximum drain voltage: +7V
2. Maximum gate voltage: -3V
3. Maximum input power: +15dBm
4. Operating temperature: -55°C to +85°C
5. Storage temperature: -65°C to +150°C