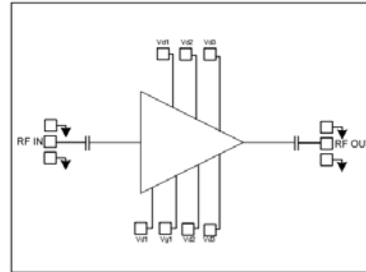
Features

- Frequency: 13-15GHz
- Small Signal Gain: 26dB
- P-1dB: 37dBm
- Psat: 37.5dBm
- OIP3: 42dBm@14GHz
- Power Supply: +7V/1300mA
- Input/Output: 50Ω
- Die Size: 3.24 x 3.12 x 0.1 mm

Functional Block Diagram



Typical Applications

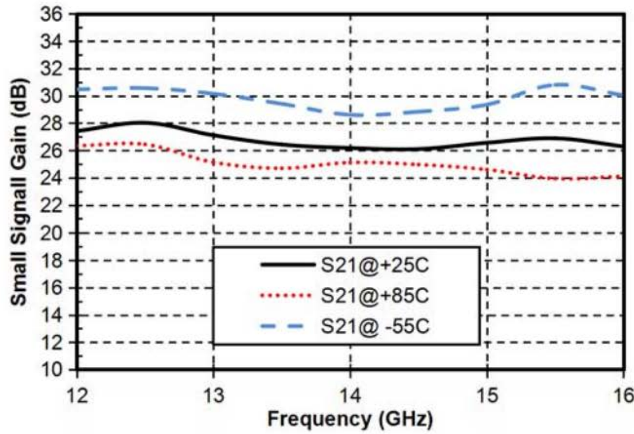
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

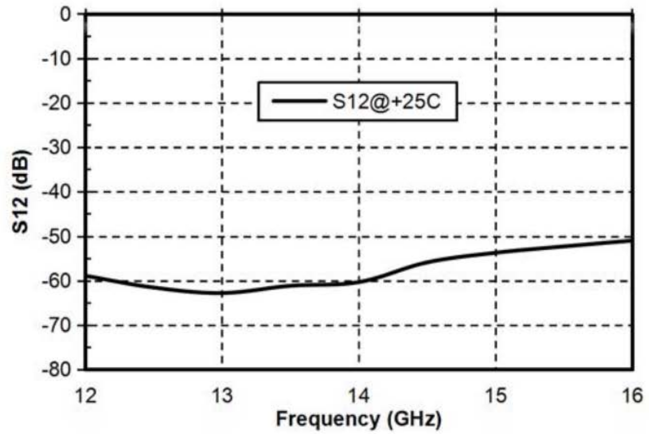
TA = +25°C, Vd = +7V, Ids=1300mA

Parameters	Min.	Typ.	Max.	Units
Frequency		13-15		GHz
Small Signal Gain	26	26	27	dB
Gain Flatness		±0.5		dB
P-1dB	-	37	-	dBm
Psat	37	37.5	-	dBm
Input Return Loss	-	25	-	dB
Output Return Loss	-	25	-	dB
* Adjust VG (-2V-0V), Ids 1300mA; Recommended gate voltage -1.0V.				

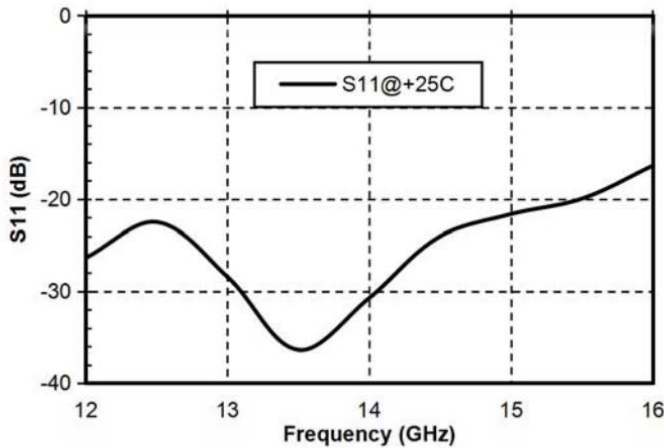
Gain vs. Frequency



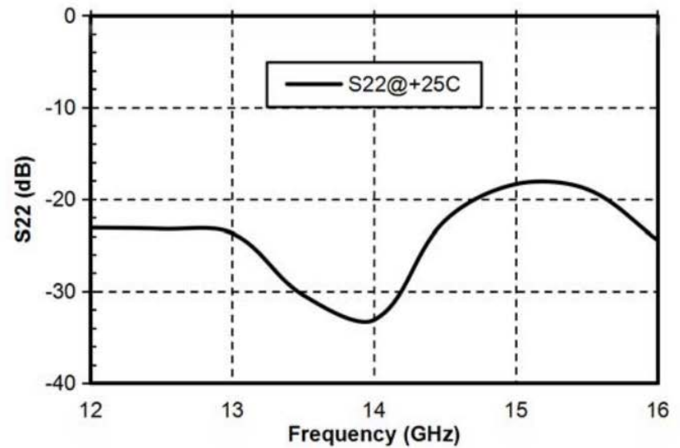
Isolation vs. Frequency



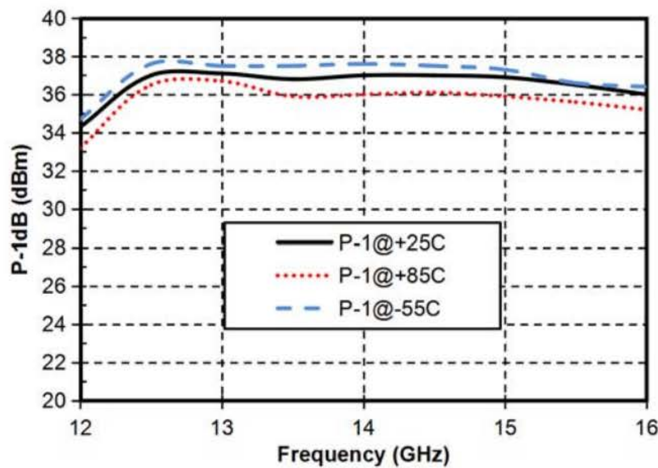
Input Return Loss vs. Frequency



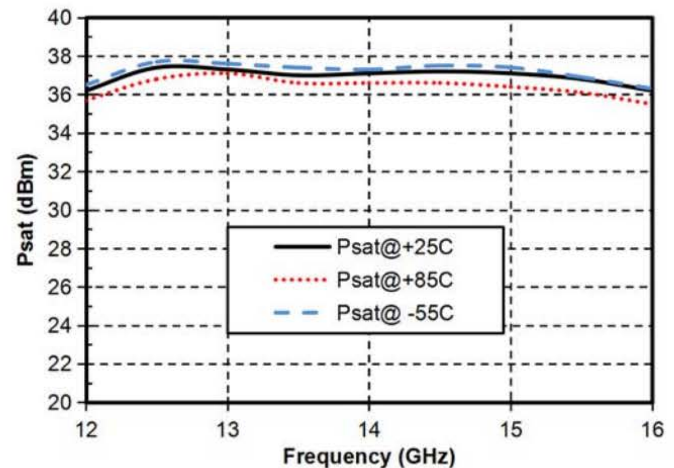
Output Return Loss vs. Frequency



P-1dB vs. Frequency

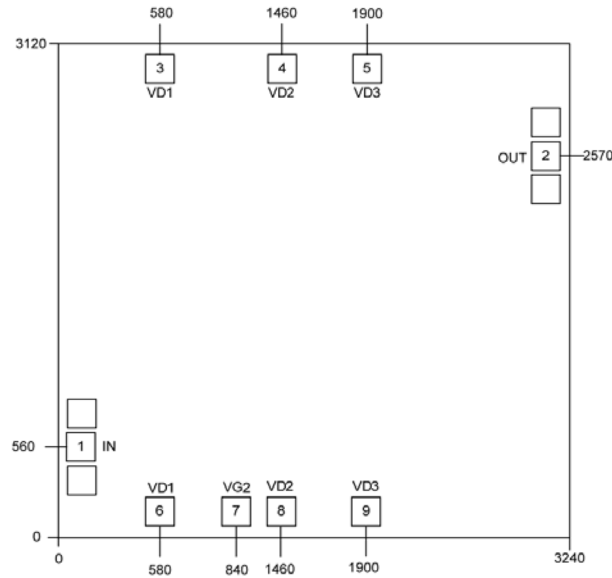


Psat vs. Frequency



Outline Drawing:

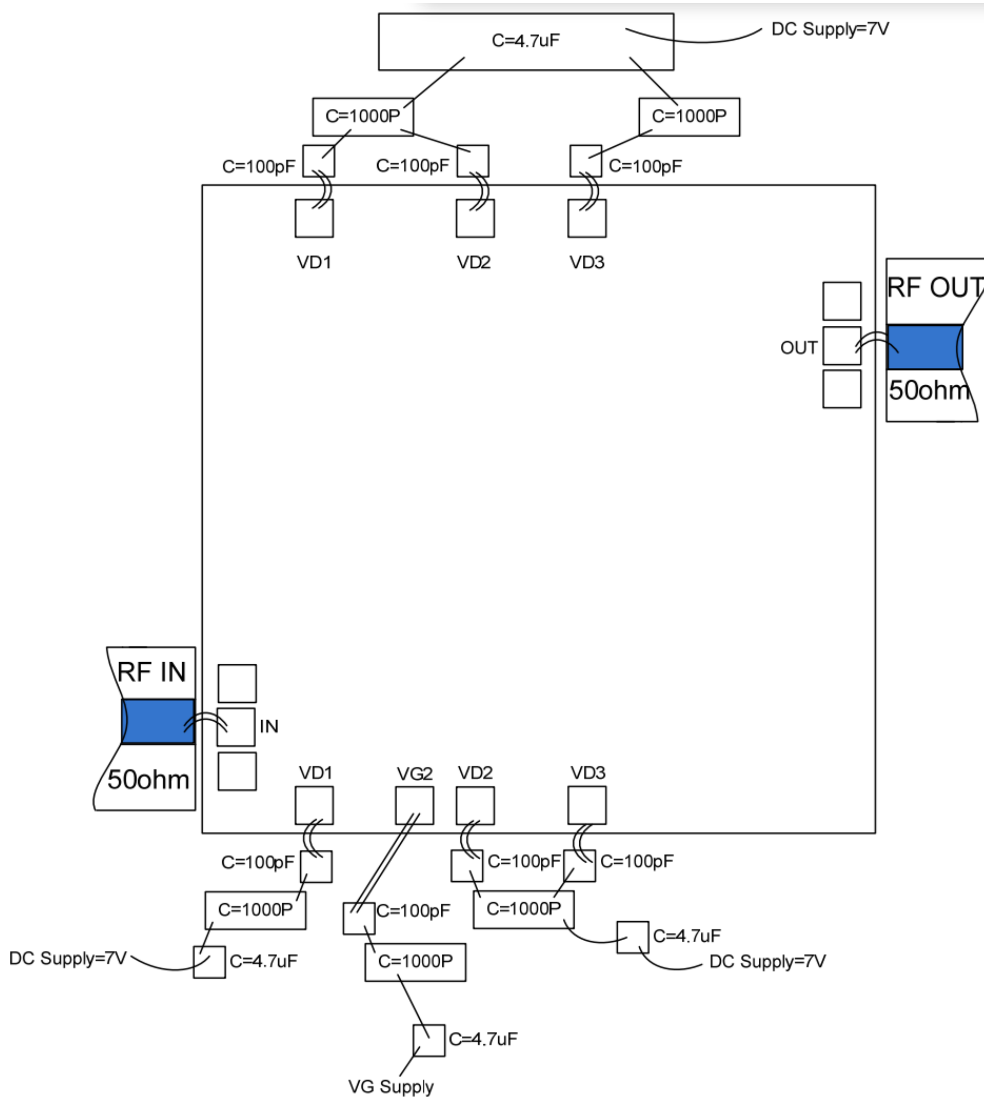
All Dimensions in µm



Pad Description

Pad	Function	Description
1	RF IN	Signal input terminal, connected to 50Ω circuit ; no blocking capacitor required.
2	RF OUT	Signal output terminal, connected to 50Ω circuit ; no blocking capacitor required.
3, 4, 5, 6, 8, 9	Vd1~3	Amplifier drain bias; external 100pF, 1000pF, 4.7uF bypass capacitor required.
7	Vg	Amplifier gate bias; external 100pF, 1000pF, 4.7uF bypass capacitor required.
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 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. **Maximum drain voltage: +8V**
2. **Maximum gate bias: -3V**
3. **Maximum input power: +18dBm**
4. **Operating temperature: -55℃ to +85℃**
5. **Storage temperature: -65℃ to +150℃**