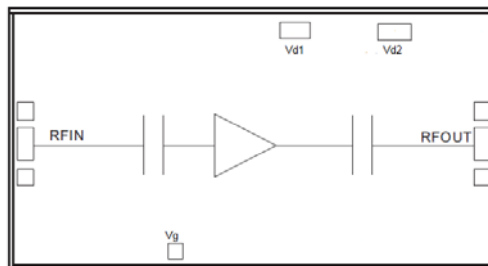


Features

- Frequency: 2-6GHz
- Small Signal Gain: 20dB
- P-1dB: 31.5dBm
- Psat: 32dBm
- Power Supply: +8V@365mA
- Input/Output: 50Ω
- Die Size: 2.53 x 1.84 x 0.1 mm

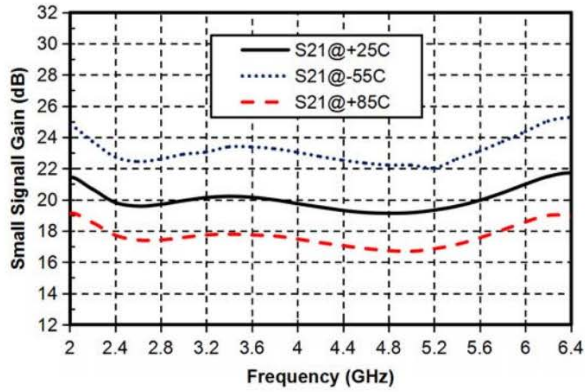
Functional Block Diagram

Typical Applications

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

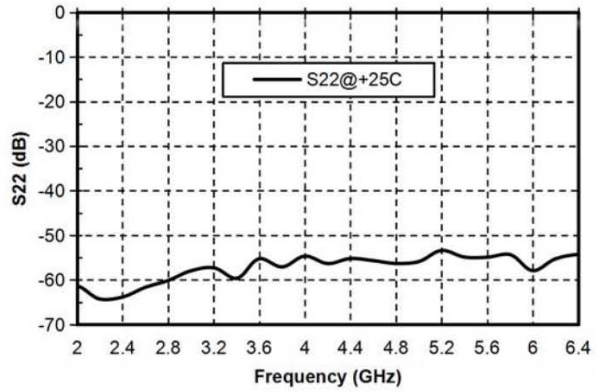
Electrical Specifications
TA = +25°C, Vd = +8V, Vg=-0.65V, Ids=365mA

Parameters	Min.	Typ.	Max.	Units
Frequency	2-6			GHz
Small Signal Gain	-	20	-	dB
Gain Flatness	±1.1			dB
P-1dB	-	31.5	-	dBm
Psat	-	32	-	dBm
PAE		40		%
Input Return Loss	-	22	-	dB
Output Return Loss	-	8.5	-	dB
* Adjust VG (-2V-0V), Recommended gate voltage -0.65V.				

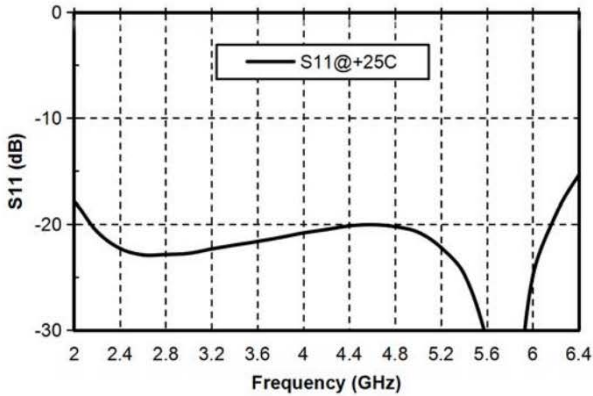
Gain vs. Frequency



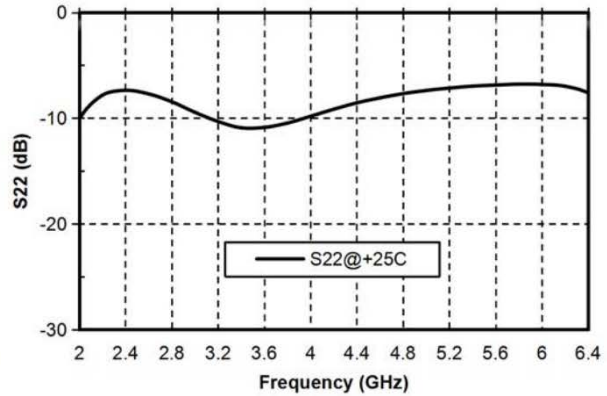
Isolation vs. Frequency



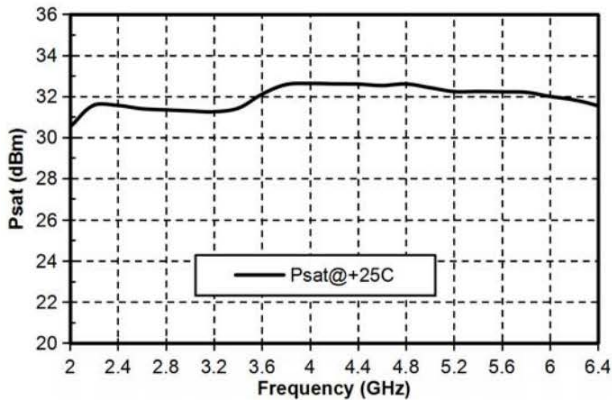
Input Return Loss vs. Frequency



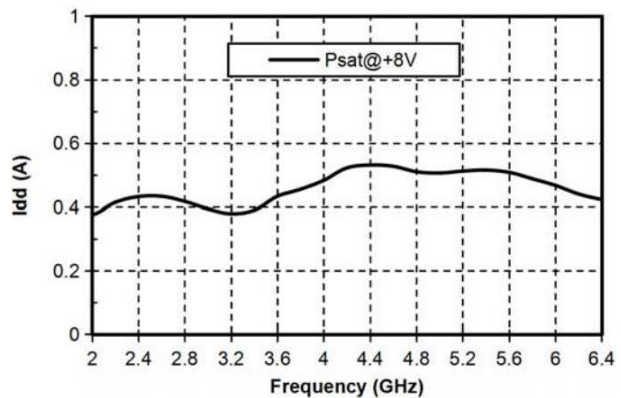
Output Return Loss vs. Frequency



Psat vs. Frequency

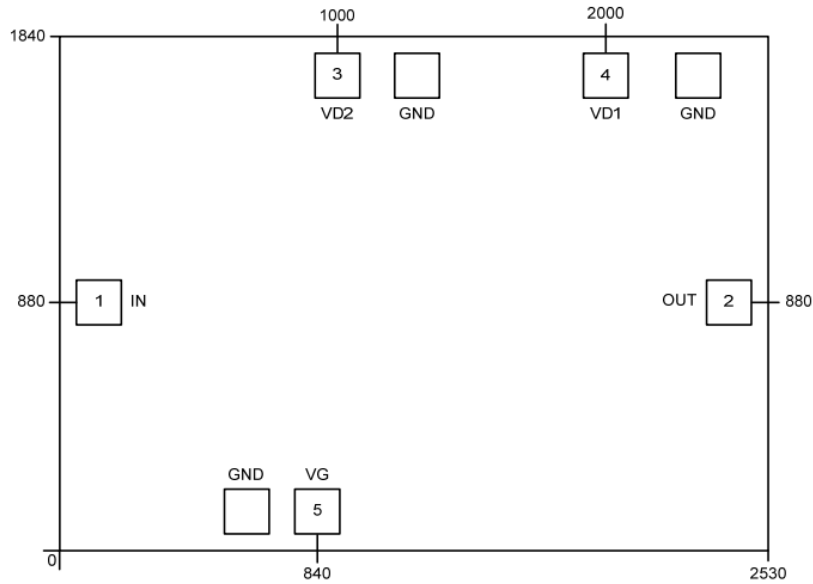


Idd vs. Frequency





Outline Drawing: All Dimensions in μm

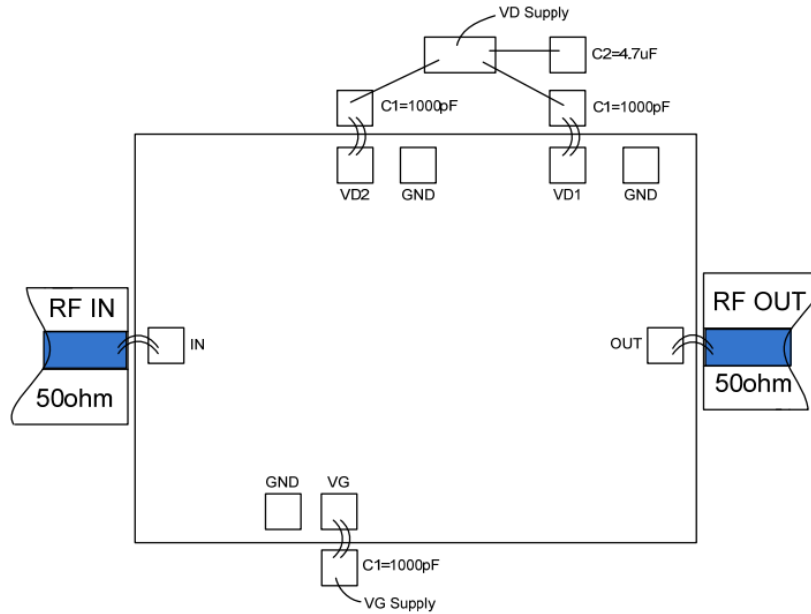


Pad Description

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	VD1-2	Amplifier drain bias; external 1000pF, 4.7uF bypass capacitor required.
5	VG	Amplifier gate bias; external 1000pF bypass capacitor required.
Die bottom	GND	Die bottom must be connected to RF/DC ground.



Assembly Drawing



Note:

- C1 1000pF
- C2 4.7uF

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: +10V
2. Maximum gate bias: -3V
3. Maximum input power: +25dBm
4. Operating temperature: -55°C to +85°C
5. Storage temperature: -65°C to +150°C