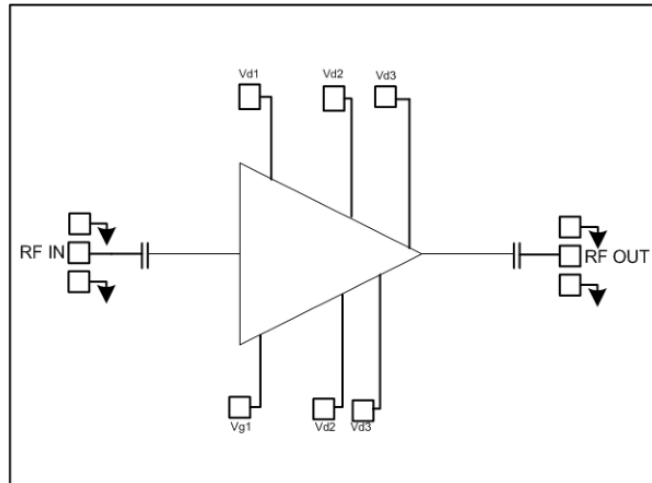


Features

- Frequency: 15-17GHz
- Small Signal Gain: 26dB
- Power Gain: 23dB
- P1dB: 34dBm
- Psat: 35dBm
- PAE: 36%-39%
- Power supply: +7V/600mA
- Input/Output: 50Ω
- Die Size: 2.75 x 1.6 x 0.1 mm

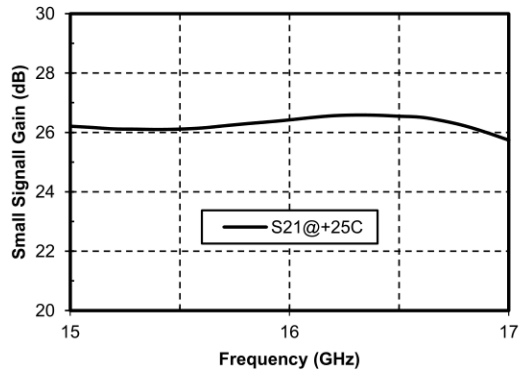
Typical Applications

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

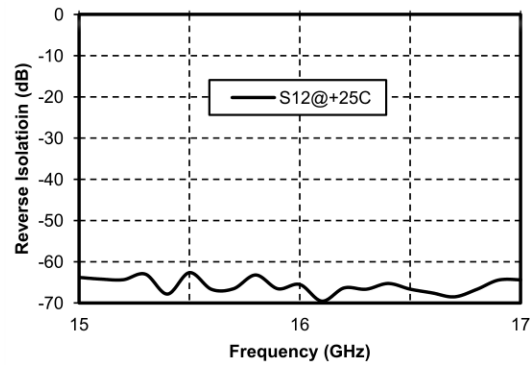
Functional Block Diagram

Electrical Specifications
TA = +25°C, Vd = +7V, Ids=660mA

Parameters	Min.	Typ.	Max.	Units
Frequency	15-17			GHz
Small Signal Gain	25.5	26	26.5	dB
Gain Flatness	±0.5			dB
Output 1dB Compression (P1dB)	34	34.5	34.7	dBm
Saturated Output Power (Psat)	34.5	35	35	dBm
Input Return Loss	-	14	-	dB
Output Return Loss	-	16	-	dB
* Adjust VG (-2V-0V) to obtain device current of 600mA. (Recommended gate voltage -0.9V).				

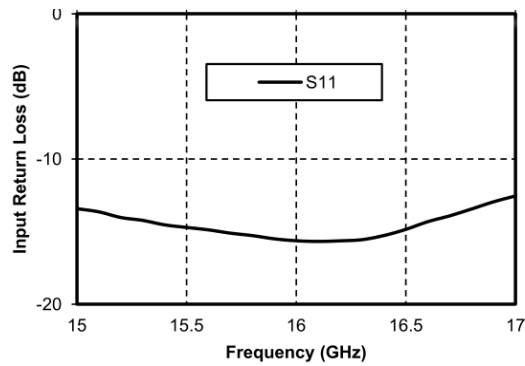
Gain vs. Frequency



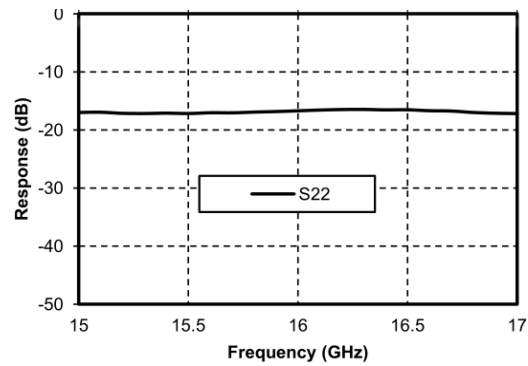
Reverse Isolation vs. Frequency



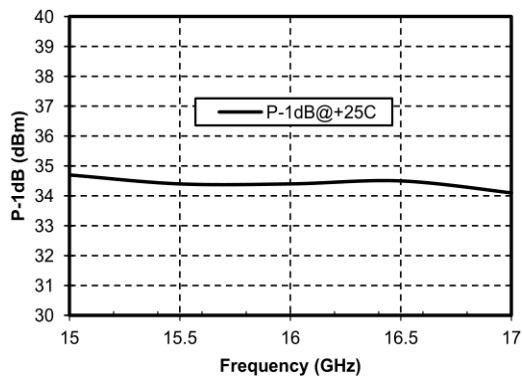
Input Return Loss vs. Frequency



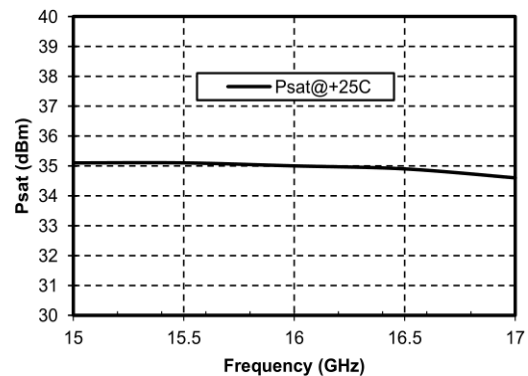
Output Return Loss vs. Frequency



P1dB vs. Frequency

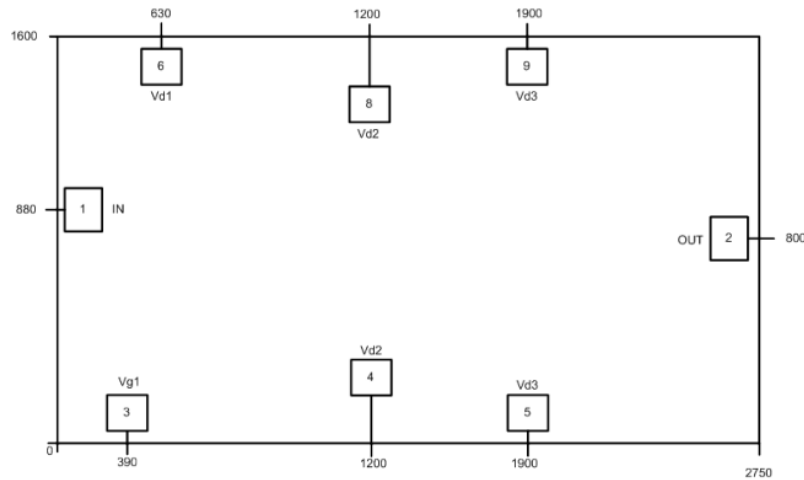


Psat vs. Frequency





Outline Drawing: All Dimensions in μm

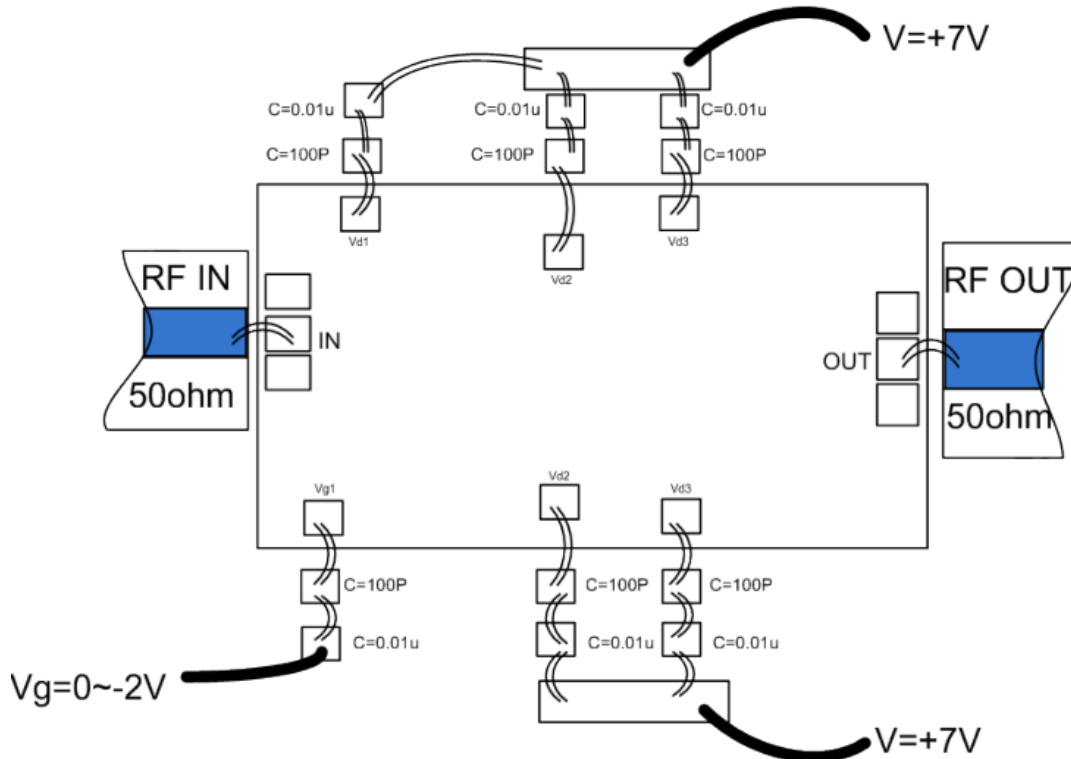


Pad Description

Pad	Function	Description	Equivalent Circuit
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.	
4, 5, 6, 8, 9	Vd1-4	Amplifier drain bias; external 1000pF bypass capacitor required.	
3	Vg1	Amplifier gate bias; external 1000pF 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 $100 \times 100 \mu m^2$
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: +8V
2. Maximum gate bias: -3V
3. Maximum input power: +17dBm
4. Operating temperature: -55°C to +85°C
5. Storage temperature: -65°C to +150°C