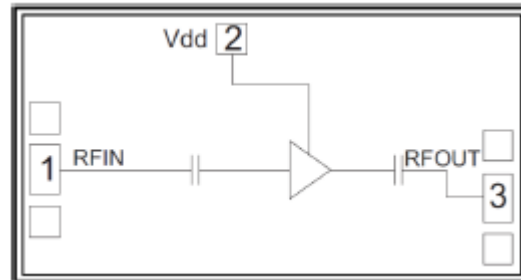


Features

- Frequency: 4-14GHz
- Small Signal Gain: 22dB
- P1dB: 21dBm
- Psat: 21.5dBm
- Power Supply: +5V/130mA
- Input/Output: 50Ω
- Die Size: 1.7 x 1.05 x 0.1 mm

Functional Block Diagram

Typical Applications

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

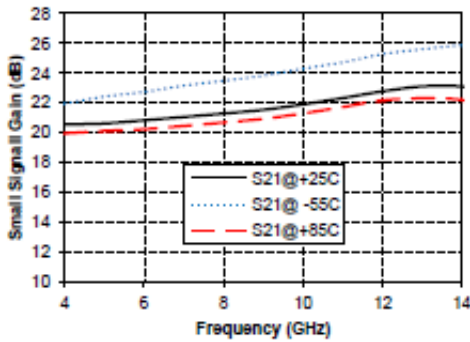
Electrical Specifications

TA = +25°C, Vd = +5V

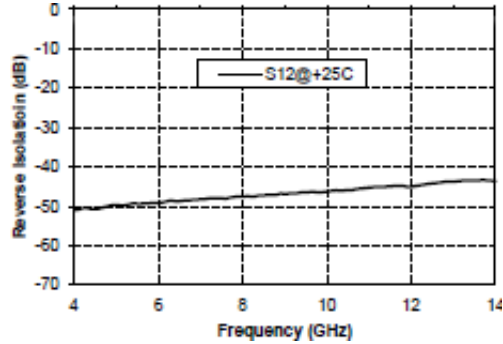
Parameters	Min.	Typ.	Max.	Units
Frequency	4-14			GHz
Small Signal Gain	20.5	22	23	dB
Gain Flatness		±1.25		dB
Output 1dB Compression (P1dB)	20.5	21	21.5	dBm
Saturated Output Power (Psat)	-	21.5	22	dBm
Input Return Loss	8	10	-	dB
Output Return Loss	14	20	-	dB
Static Current	-	130	-	mA



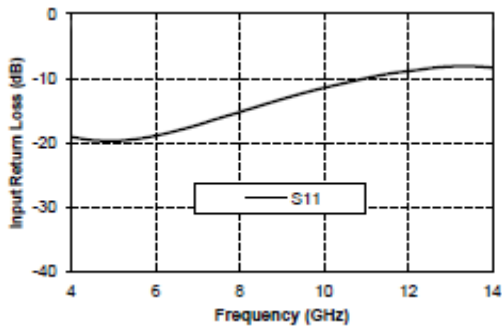
Gain vs. Frequency



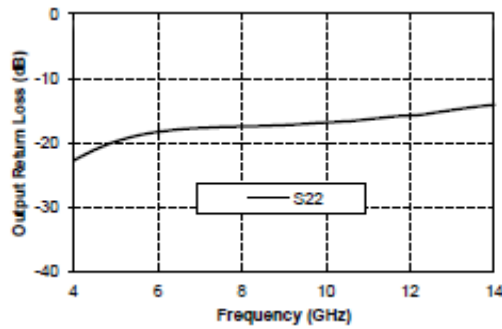
Reverse Isolation vs. Frequency



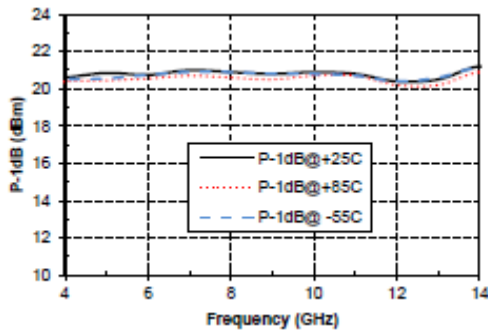
Input Return Loss vs. Frequency



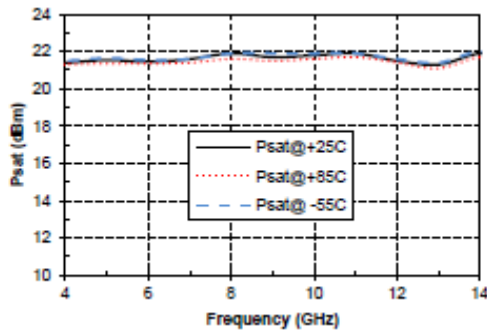
Output Return Loss vs. Frequency



P1dB vs. Frequency



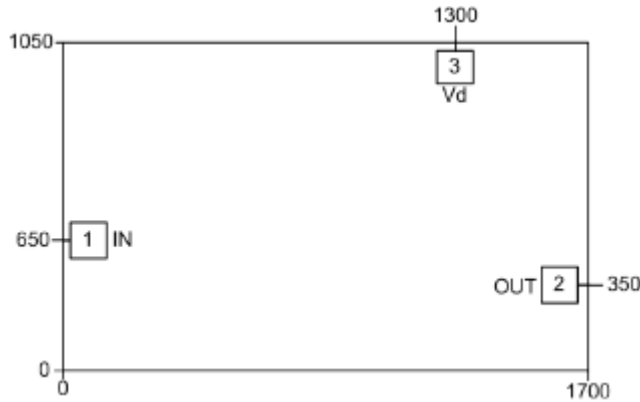
Psat vs. Frequency





Outline Drawing:

All Dimensions in μm

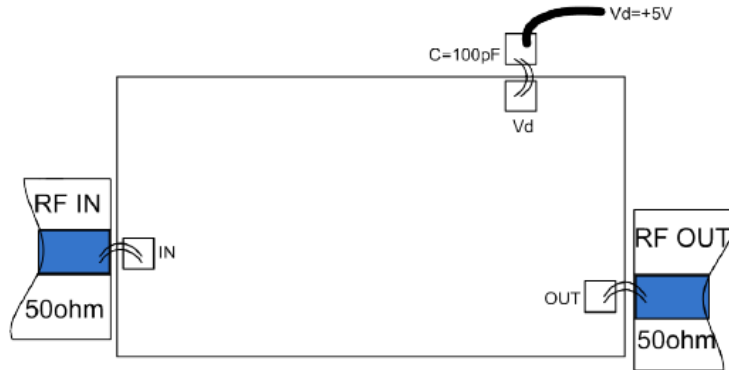


Pad Description

Pad	Function	Description	Equivalent Circuit
1	RF IN	RF signal input terminal; no blocking capacitor required.	
2	RF OUT	RF signal output terminal; no blocking capacitor required.	
3	Vd	Amplifier drain bias; external 100pF 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 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: +6V
2. Maximum input power: +10dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C