Features

- Frequency: DC-15GHz
- Small Signal Gain: 18dB
- P1dB: 25.5dB
- Psat: 26.5dBm
- Power Supply: +8V/270mA
- Input/Output: 50Ω
- Die Size: 3.12 x 1.62 x 0.1 mm

Typical Applications

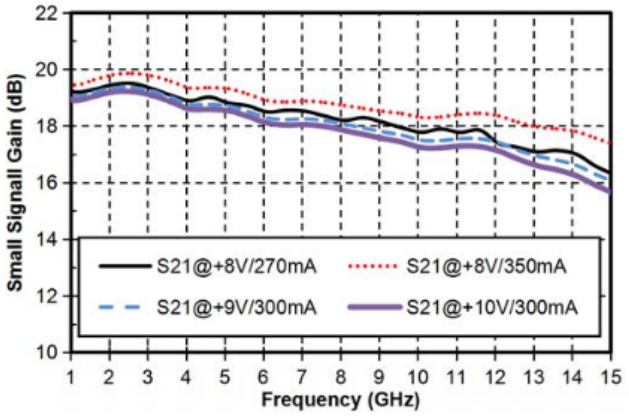
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

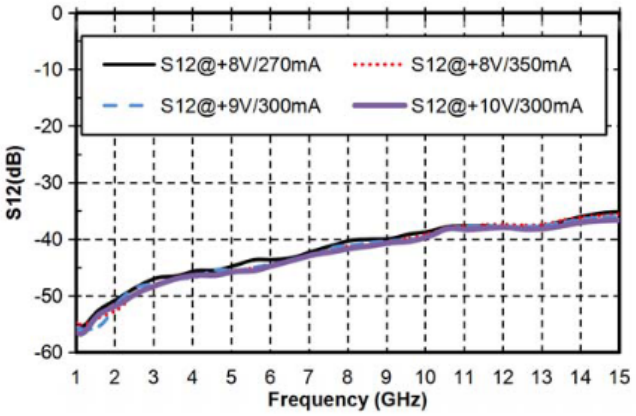
TA = +25ºC, Vd = +8V, Ids=270mA

Parameters	Min.	Typ.	Max.	Units
Frequency		**DC-15**		**GHz**
Small Signal Gain		**18**		**dB**
Gain Flatness		**±1.6**		**dB**
Output 1dB Compression (P1dB)		**25.5**		**dBm**
Saturated Output Power (Psat)		**26.5**		**dBm**
Input Return Loss		**19**		**dB**
Output Return Loss		**22**		**dB**
By tuning the Vg terminal voltage -2V~0V, the Vg terminal voltage is recommended to -0.65V.				

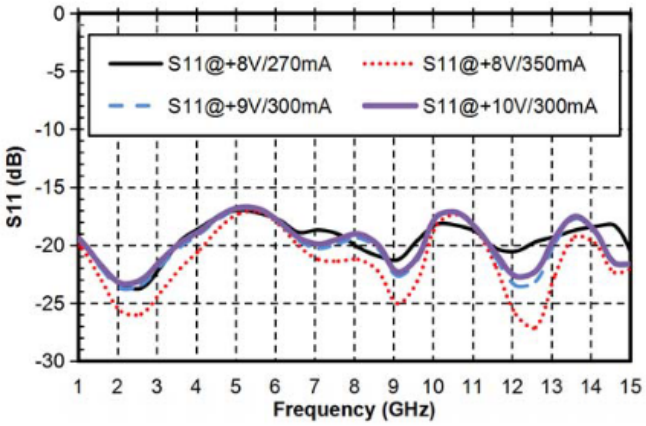
Gain vs. Frequency



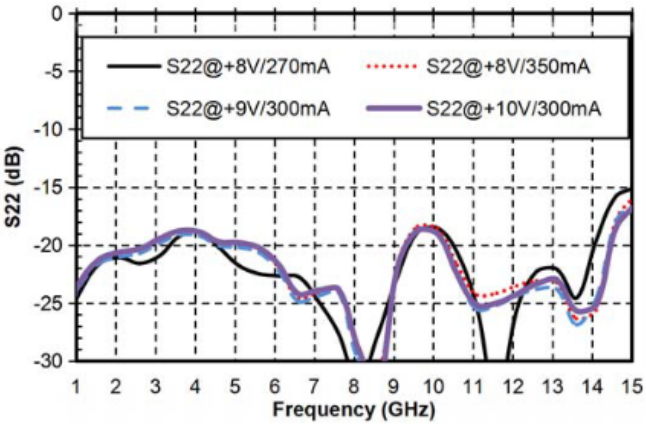
Reverse Isolation vs. Frequency



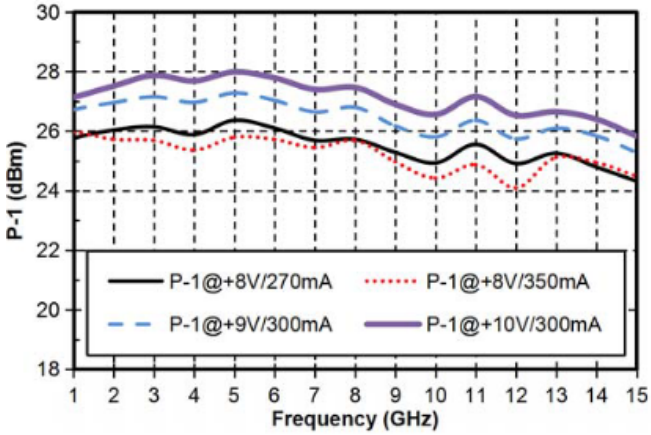
Input Return Loss vs. Frequency



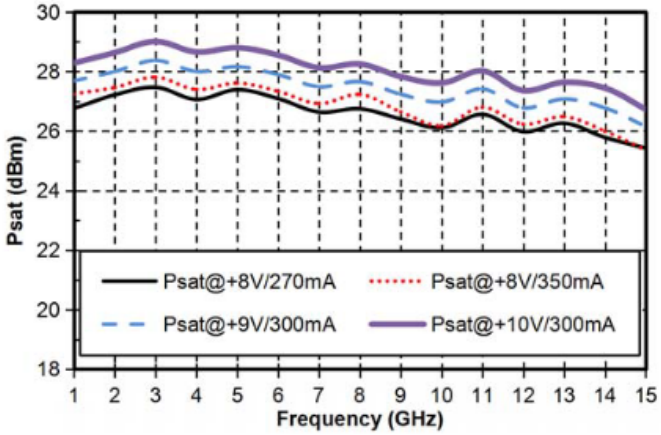
Output Return Loss vs. Frequency



P1 vs. Frequency

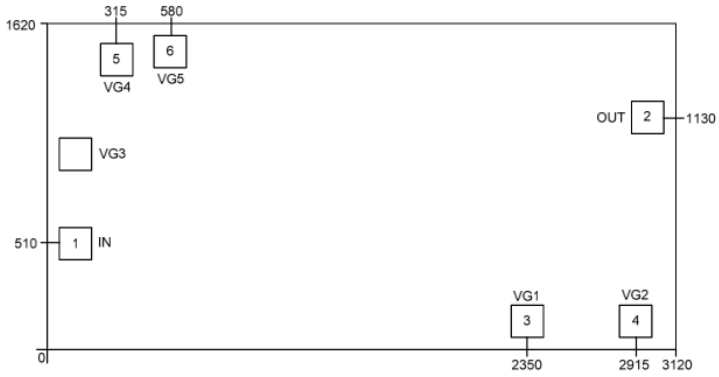


Psat vs. Frequency



Outline Drawing:

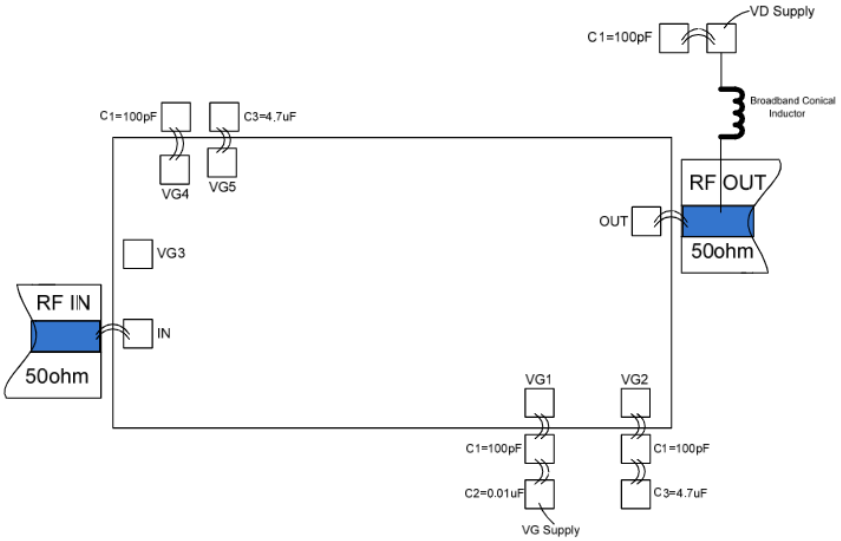
All Dimensions in μm



Pad Description

Pad	Function	Description
1	RF IN	Signal input terminal, connected to 50Ω circuit; no blocking capacitor required.
2	RF OUT,VD	Signal output terminal, connected to 50Ω circuit; blocking capacitor required. External DC bias network to provide drain current. Please refer to the following application circuits or contact the manufacturer
3	VG1	Amplifier drain bias, connected to external wide-band inductor and 100pF,0.1uF bypass capacitor
4,5,6	VG2, VG4 , VG5	Connect ground and connected to external wide-band inductor and 100pF 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 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: +7V
2. 3. Maximum input power: +20dBm
4. Operating temperature: -55℃ to +85℃
5. Storage temperature: -65℃ to +150℃