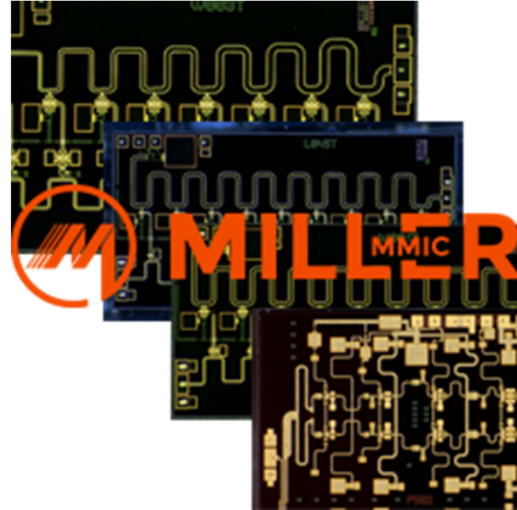


**Features**

- Frequency: 15-50GHz
- Small Signal Gain: 19dB
- P1dB: 18.5dBm
- Psat: 19.5dBm
- Noise Figure: 7dB
- Power Supply: +5V/200mA
- Input/Output: 50Ω
- Die Size: 1.96 x 1.25 x 0.1 mm


**Typical Applications**

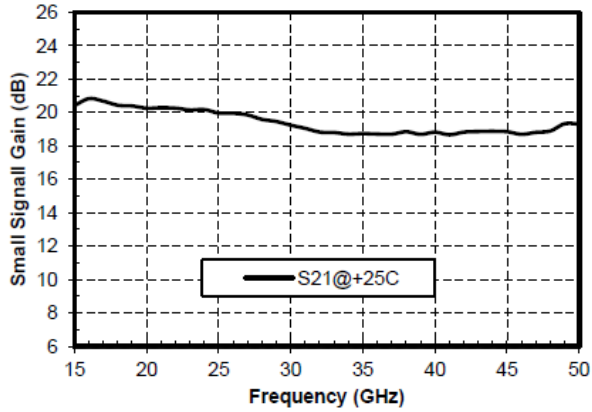
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

**Electrical Specifications**

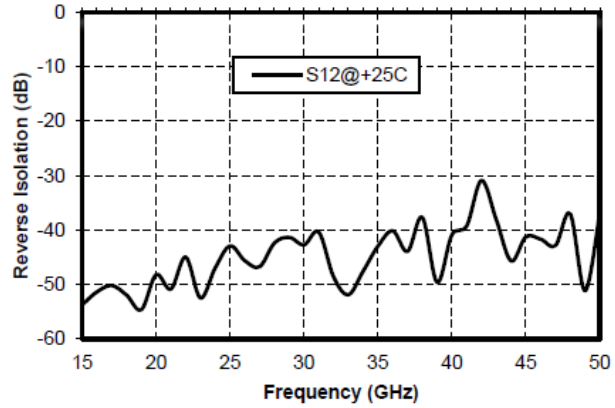
TA = +25°C, Vd = +5V, Ids=200mA

Parameters	Min.	Typ.	Max.	Units
Frequency		15-50		GHz
Small Signal Gain		19		dB
Gain Flatness		±1.1		dB
Noise Figure		7		dB
Output 1dB Compression (P1dB)		18.5		dBm
Saturated Output Power (Psat)		19.5		dBm
Input Return Loss		14		dB
Output Return Loss		13		dB

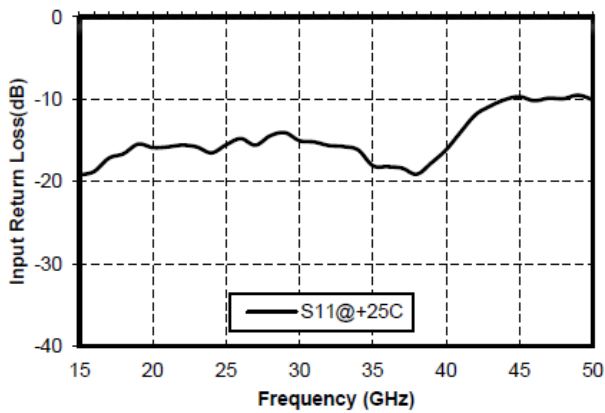
### Gain vs. Frequency



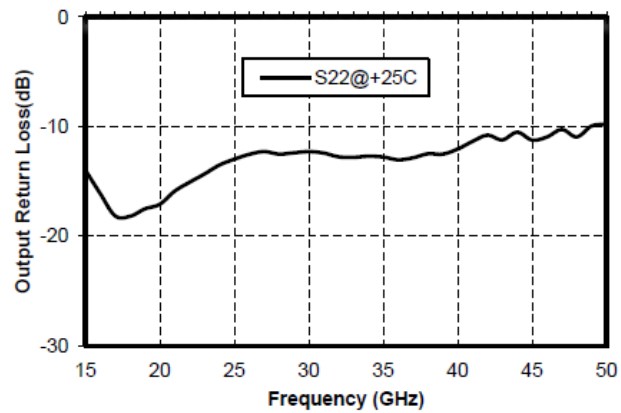
### Reverse Isolation vs. Frequency



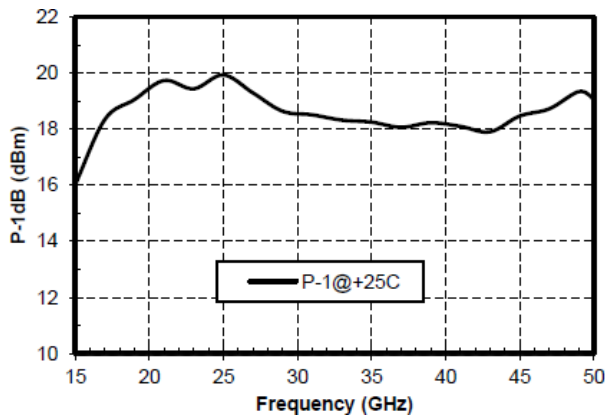
### Input Return Loss vs. Frequency



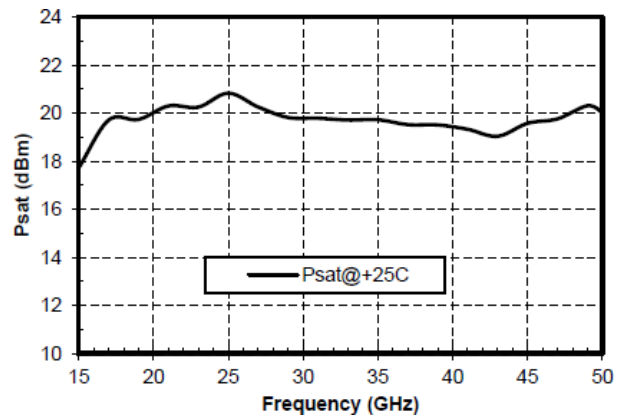
### Output Return Loss vs. Frequency



### P-1dB vs. Frequency

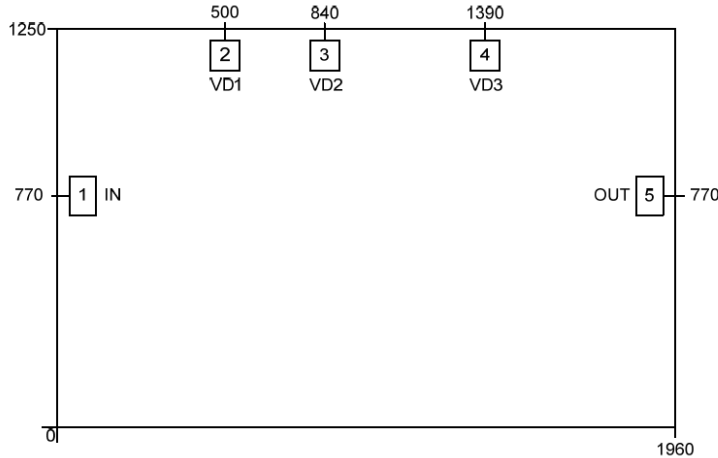


### Psat vs. Frequency





### Outline Drawing: All Dimensions in um

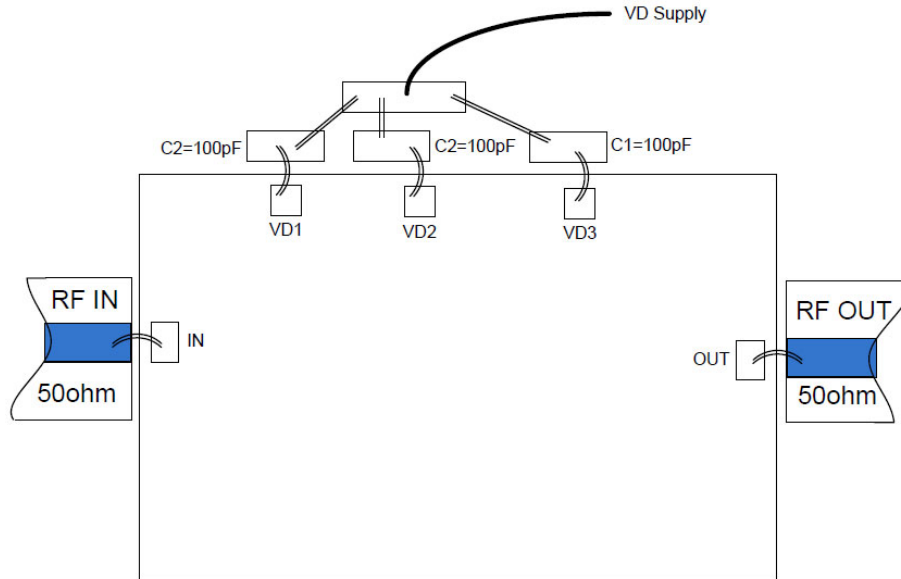


### Pad Description

PAD	Function	Description
1	RF IN	RF signal input terminal, connect to 50Ω, DC blocking capacitor not required
5	RF OUT	RF signal output terminal, connect to 50Ω, DC blocking capacitor not required
2,3,4	VD1, VD2, VD3	Amplifier drain bias, connected to external 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  $\mu\text{m}^2$
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: +7V
2. Maximum input power: +20dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C