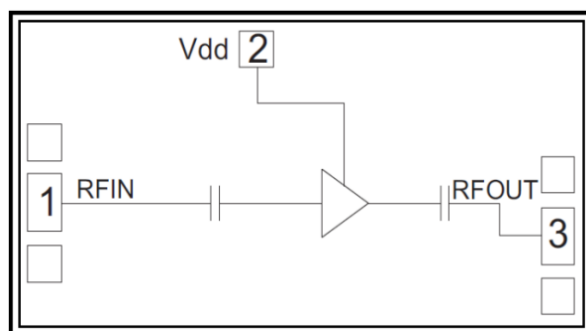


Features

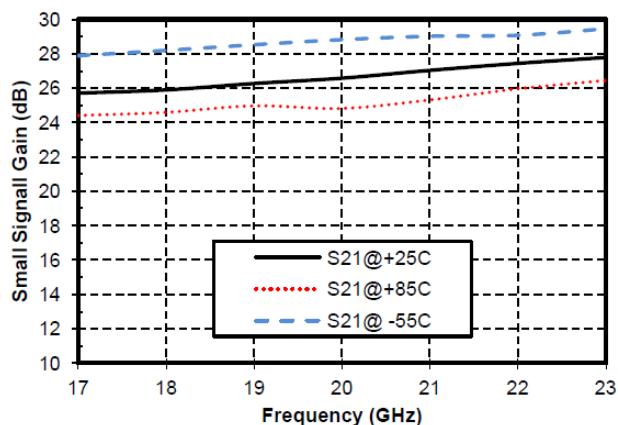
- Single Biasing Voltage (Self Biased)
- Frequency: 17-23GHz
- Small Signal Gain: 26.5dB
- Noise Figure: 1.3dB
- P1dB: 4dBm
- Power supply: +5V/12mA
- Input/Output: 50Ω
- Die Size: 1.85 x 1.25 x 0.1 mm

Functional Block Diagram**Electrical Specifications**

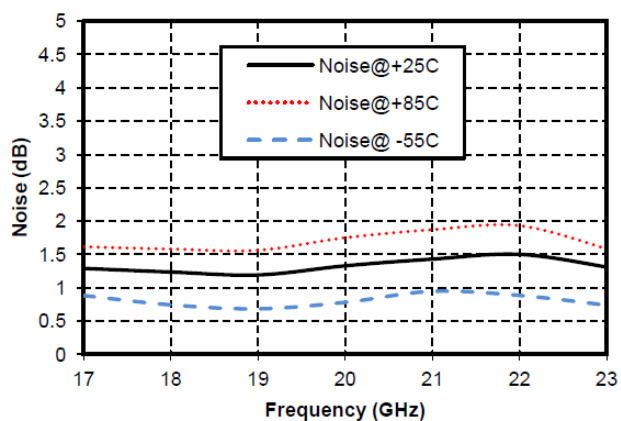
TA = +25°C, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency	17-23			GHz
Small Signal Gain	25.5	26.5	27.5	dB
Gain Flatness		±1.0		dB
Noise Figure	-	1.3	1.5	dB
Output 1dB Compression (P1dB)	3.5	4	4.5	dBm
Saturated Output Power (Psat)	4.5	5	6	dBm
Input Return Loss	14	20	-	dB
Output Return Loss	11	16	-	dB
Static current		12		mA

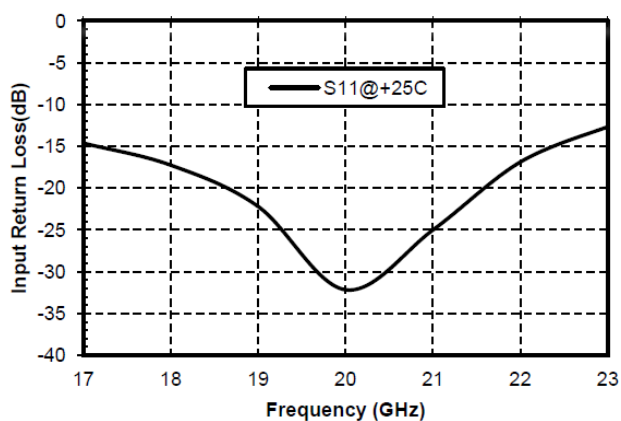
Gain vs. Frequency



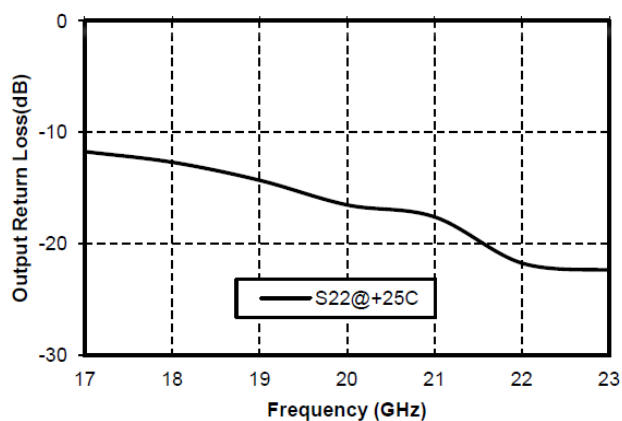
Noise Figure vs. Frequency



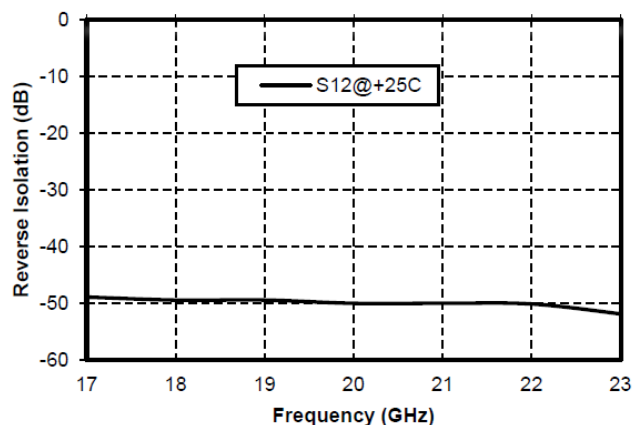
Input Return Loss vs. Frequency



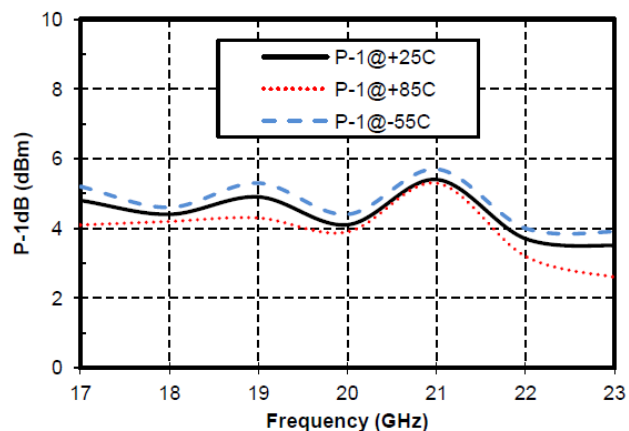
Output Return Loss vs. Frequency

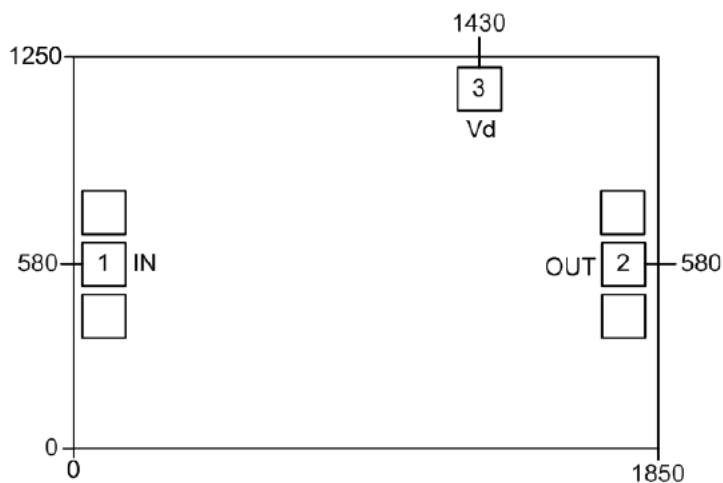


Reverse Isolation vs. Frequency

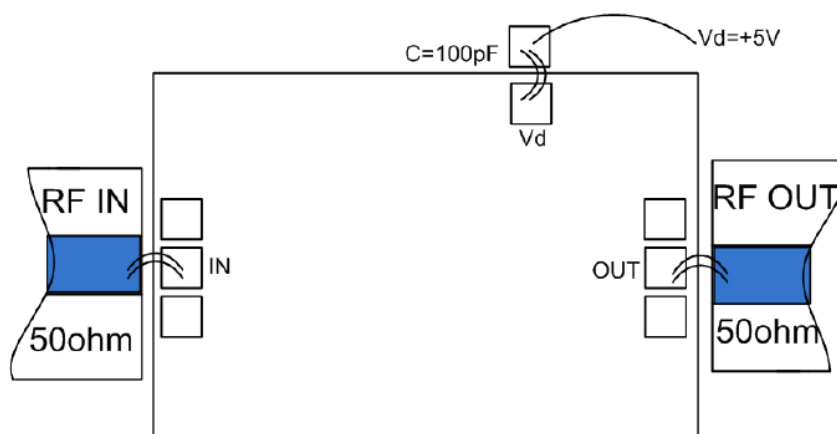


P1dB vs. Frequency



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: +7V
2. Maximum input power: +20dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C