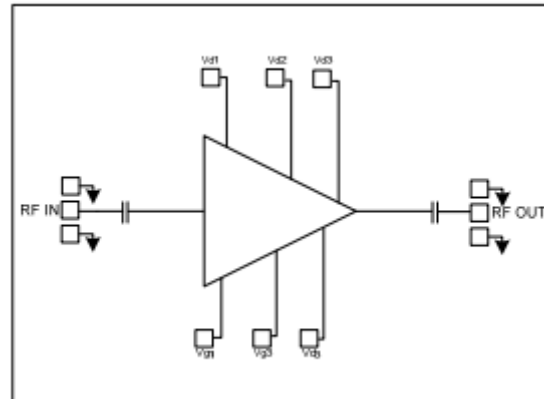


Features

- Frequency: 17-24GHz
- Small Signal Gain: 25dB
- Gain Flatness: ± 1.5 dB
- P1dB: 25dBm
- Psat: 25.5dBm
- Power Supply: +5V @220mA
- Input/Output: 50 Ω
- Die Size: 1.96 x 1.5 x 0.1 mm

Typical Applications

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

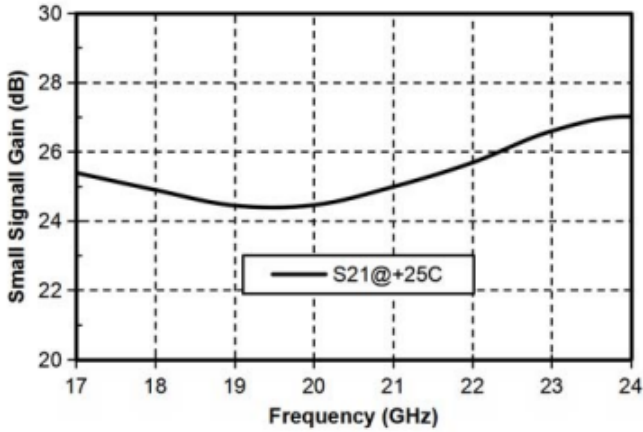
Functional Block Diagram

Electrical Specifications
TA = +25°C, Vd = +5V

Parameters	Min.	Typ.	Max.	Units
Frequency	17-24			GHz
Small Signal Gain	24	25	27	dB
Gain Flatness		± 1.5		dB
P1dB		25		dBm
Psat		25.5		dBm
Input Return Loss	10.5	15		dB
Output Return Loss	14	20		dB
Quiescent Current		220		mA
Operating Current		240	250	mA

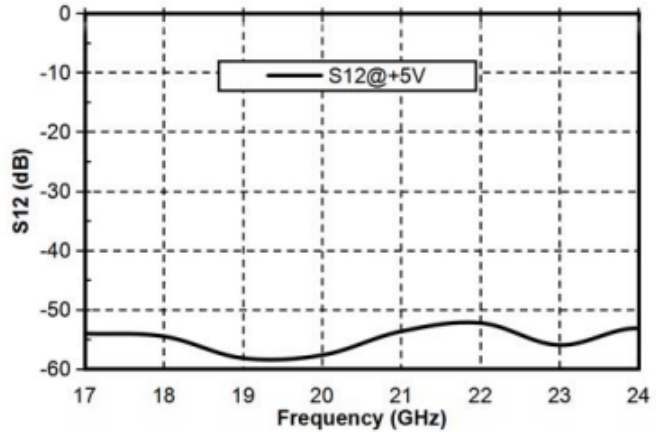
*Adjust Vg during -2V~0V, recommended Vg is around -0.85V.



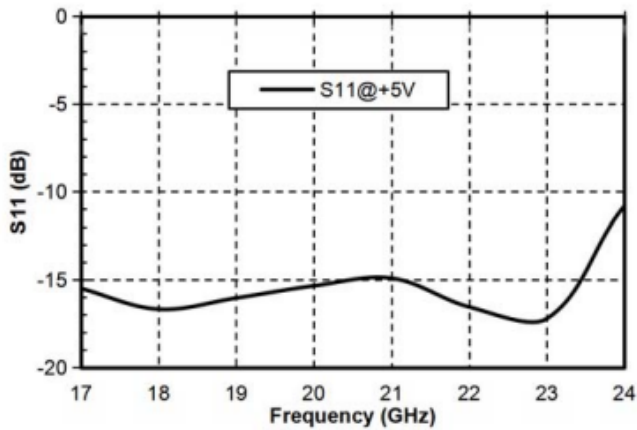
Gain vs. Frequency



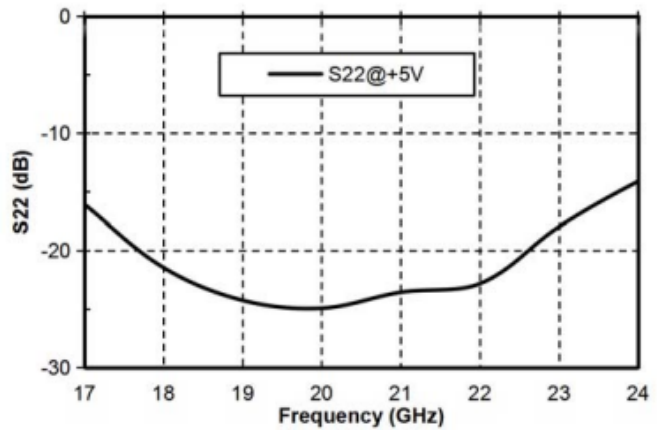
Reverse Isolation vs. Frequency



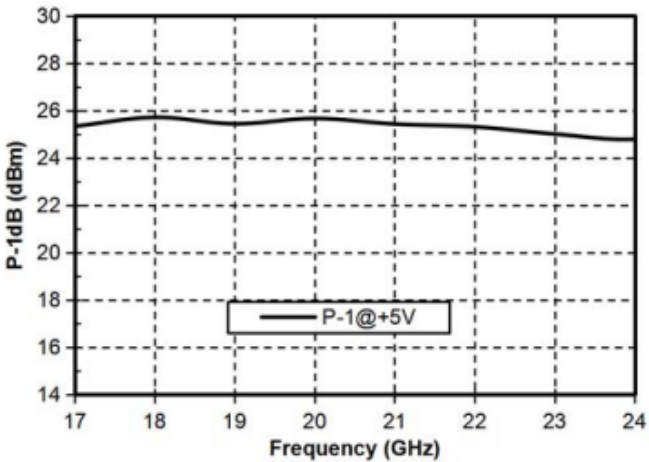
Input Return Loss vs. Frequency



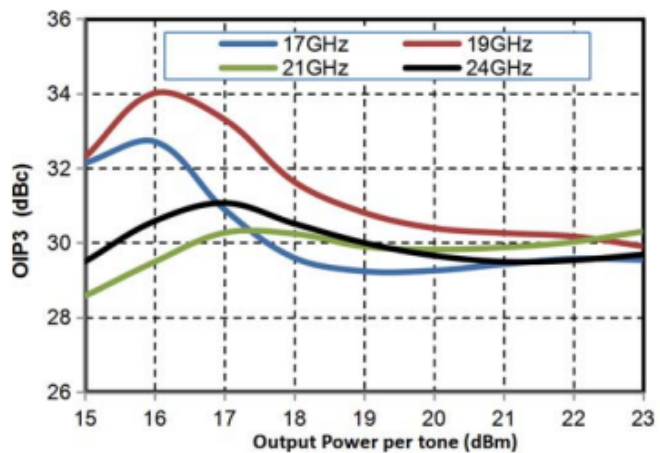
Output Return Loss vs. Frequency



P-1dB vs. Frequency

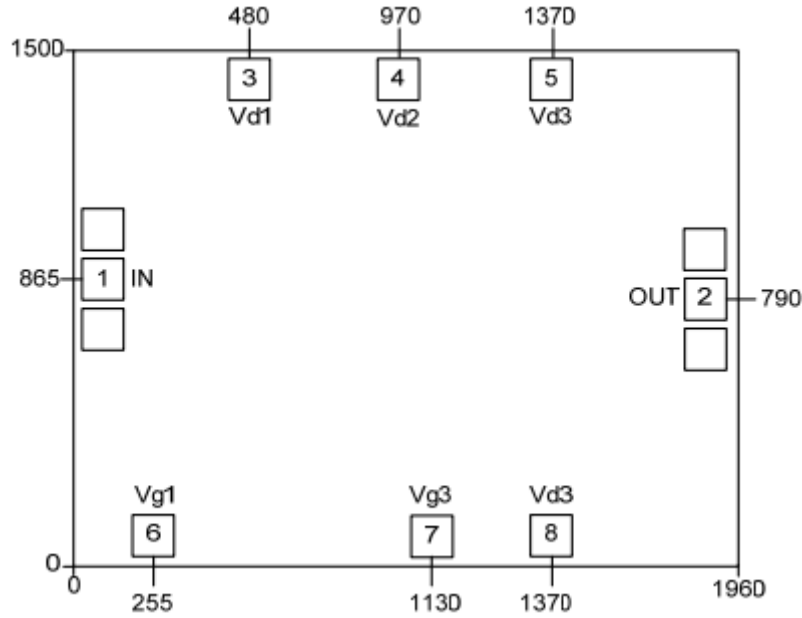


OIP3 vs. Frequency





Outline Drawing:
All Dimensions in μm

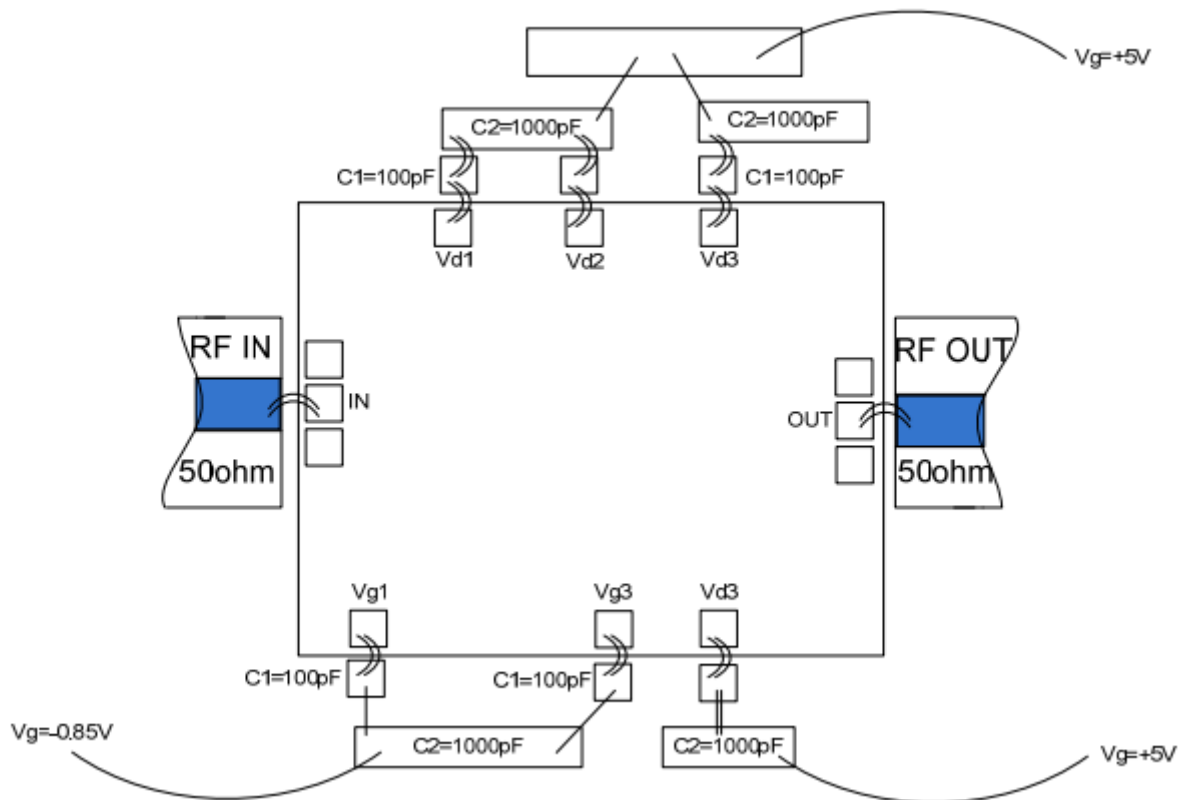


Pad Description

PAD	Function	Description
1	RF IN	RF signal input terminal, no blocking capacitor required
2	RF OUT	RF signal output terminal, no blocking capacitor required
3,4,5,8	Vd1~Vd3	Amplifier drain bias, connected to external 100pF, 1000pF bypass capacitor
6,7	Vg1~Vg3	Amplifier gate bias, connected to external 100pF, 1000pF 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 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: +8V
2. Maximum input power: +20dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C