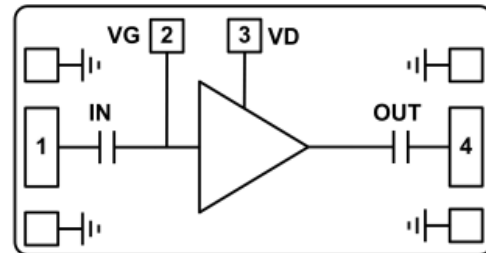


Features

- Operating Frequency:6-18GHz
- Gain: 25dB@60mA; 24dB@42mA
- P1dB: +17dBm@60mA; +15dB@42mA
- Noise figure:1.5 dB @ 60mA; 1.3 dB @ 42mA;
- Self-bias Power Supply:
+5 V @ 60mA VG not connected
+5 V @ 42 mA VG grounding
- Input/Output: 50Ω
- Die Size: 1.5x 0.8x 0.1 mm

Functional Block Diagram

Typical Applications

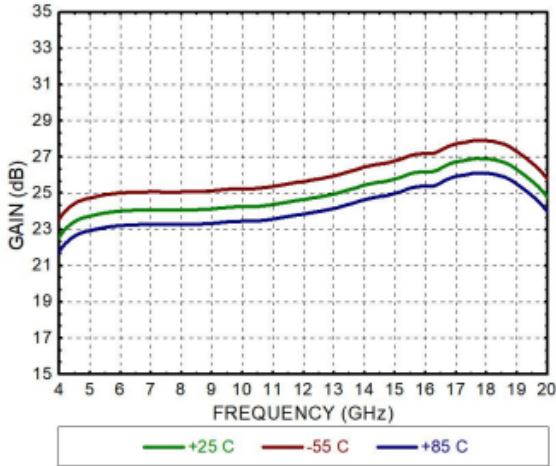
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

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

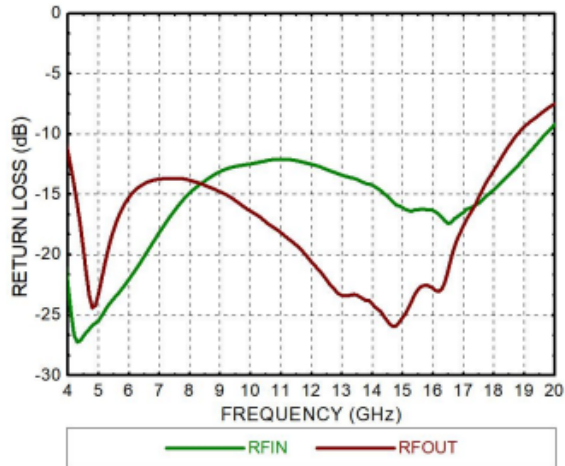
Parameters	VG not connected			VG grounding			Units
	Min	Typ.	Max	Min	Typ.	Max	
Frequency	6-18			6-18			GHz
Gain		25			24		dB
Gain Flatness		±1			±0.6		dB
Input Return Loss		15			15		dB
Output Return Loss		13			13		dB
P1dB		17			15		dBm
Psat		18			16.5		dBm
OIP3		27			24		dBm
NF		1.5			1.3		dB
Operating Current	45	60	75	30	42	66	mA



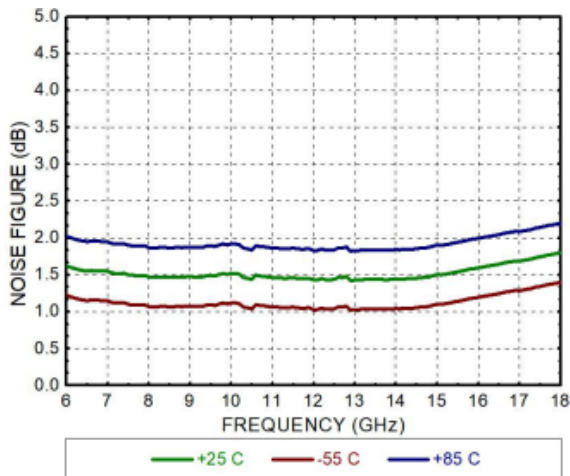
Gain@VG not connected



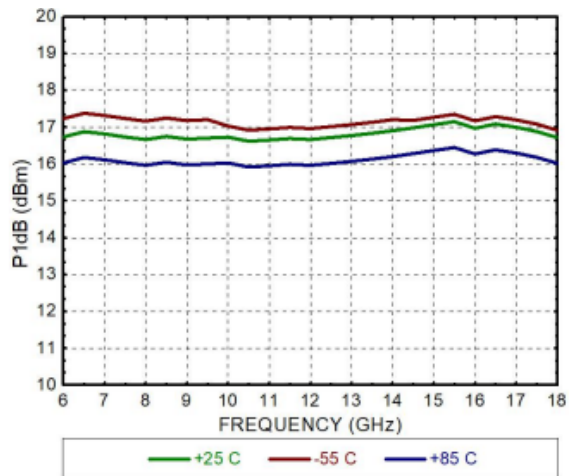
Return Loss@ VG not connected



NF@ VG not connected

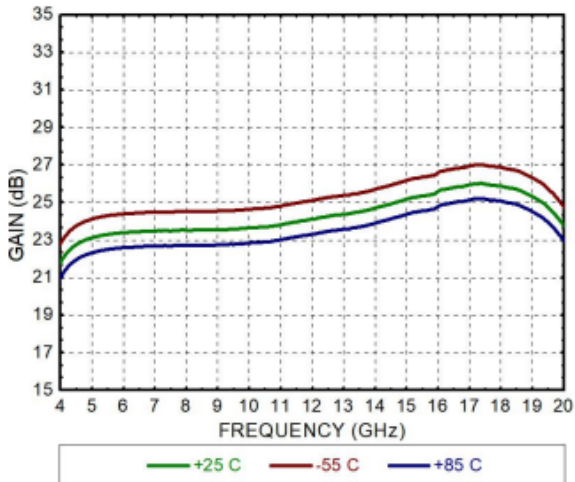


Output Power P-1 @ VG not connected

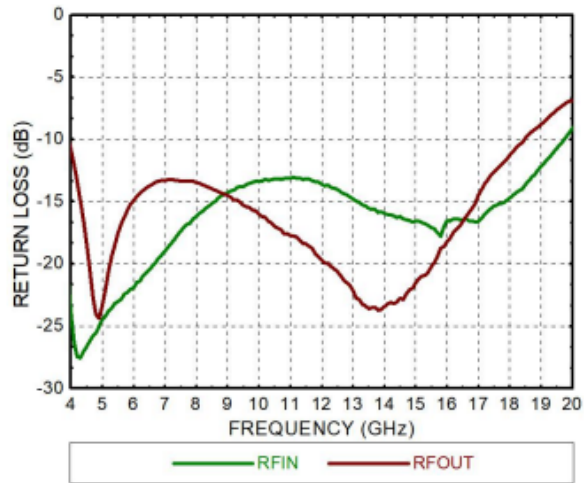




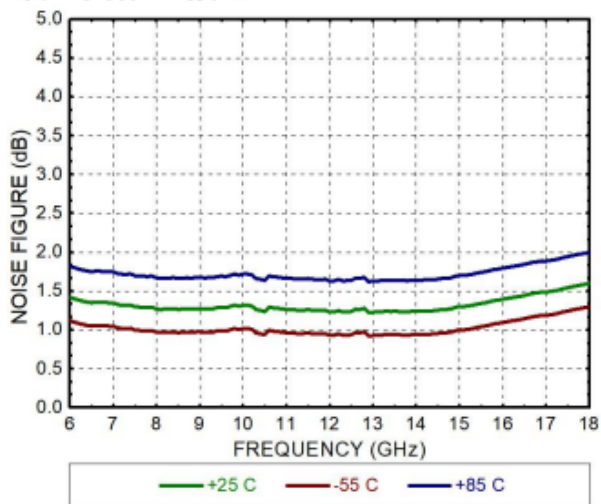
Gain@ VG grounding



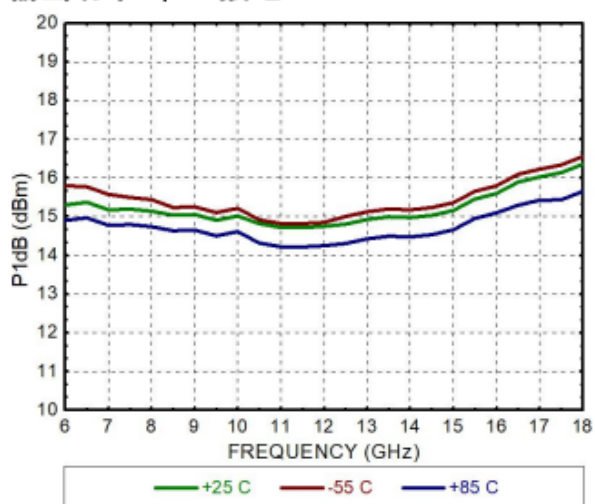
Return Loss@ VG grounding



NF@ VG grounding

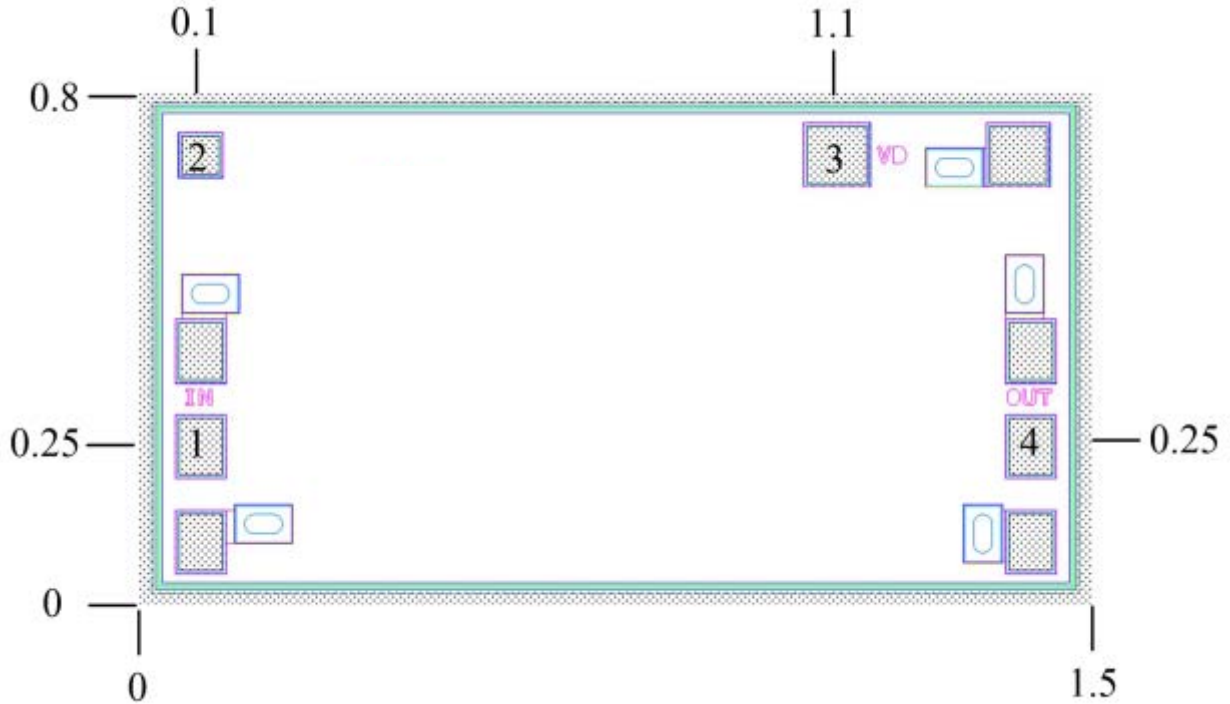


Output Power@ VG grounding





Outline Drawing: All Dimensions in mm

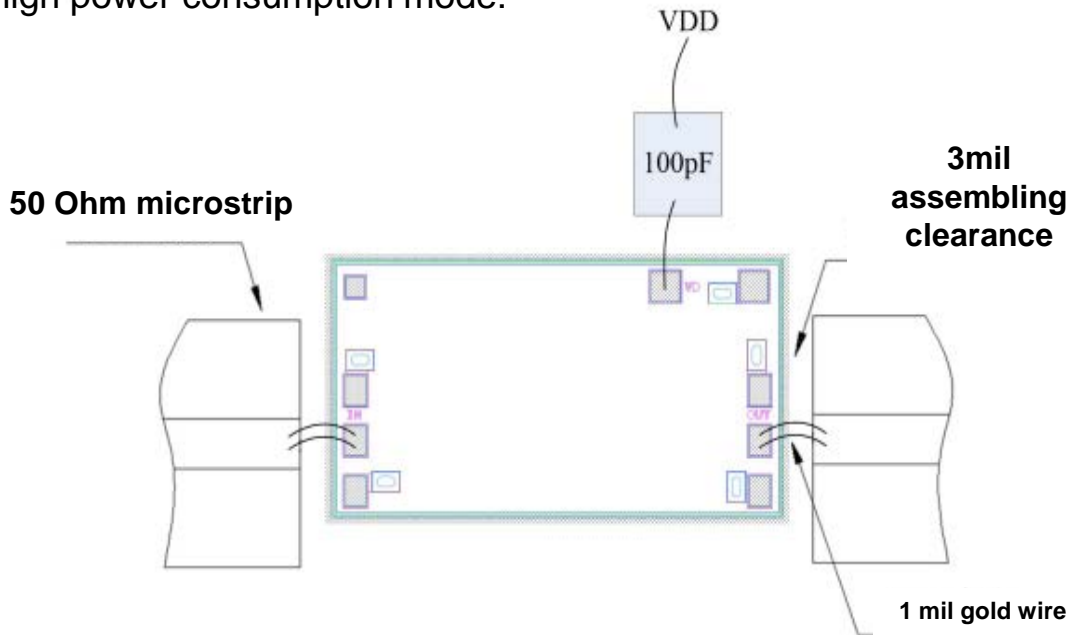


PAD	Function	Description
1	IN	AC coupling, matched to 50Ω
2	VG	The pad can adjust the amplifier working state, suspension amplifier in high power mode, connected to RF/DC ground amplifier in low power mode
3	VD	Supply voltage to amplifier, connected to external 100pF bypass capacitor
4	OUT	AC coupling, matched to 50Ω
Back	GND	Die bottom must be connected to RF/DC ground

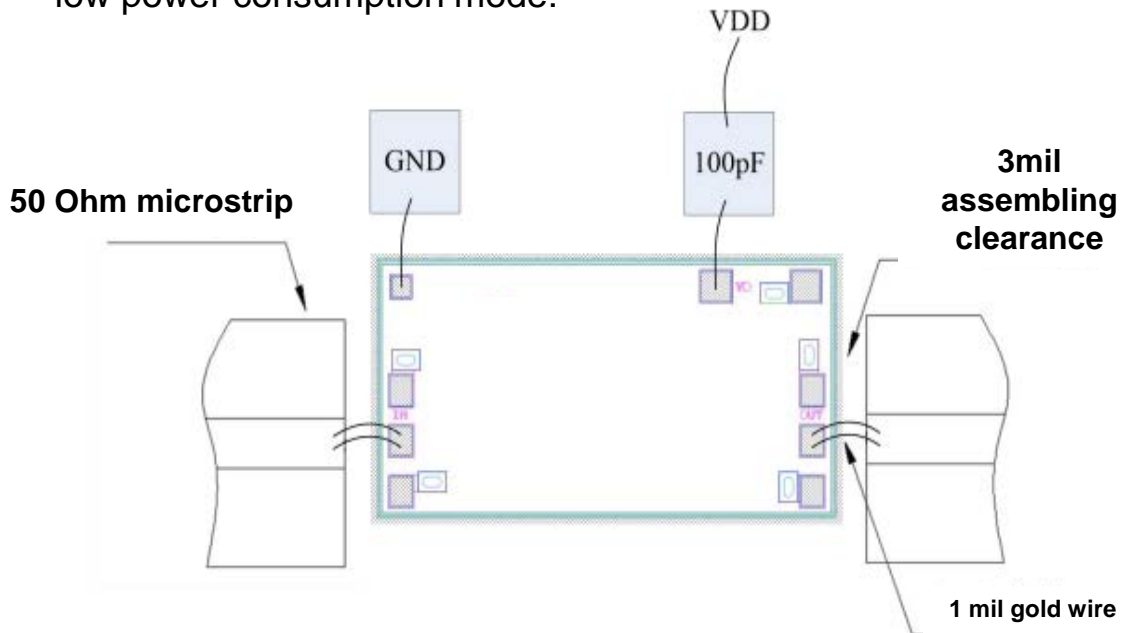


Assembly Drawing

high power consumption mode:



low power consumption mode:





Assembly Drawing

Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*80 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. RF input power: +15dBm
2. Power supply voltage: +6V
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C