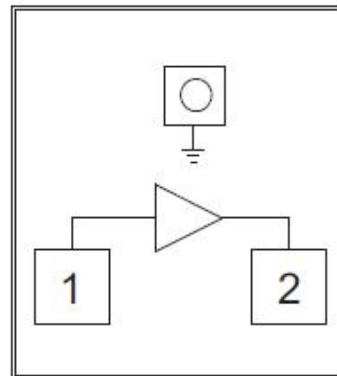


High Linearity, Medium Power Gain Block Chip, 0.05-3GHz

Performance characteristics

- Working frequency : 0.05 - 3GHz
- Noise figure: 4.4 dB
- Small signal gain: 15dB
- Gain flatness: ± 1.6 dB
- P-1dB: 25dBm
- OIP3: 38 dBm
- 50Ohm input and output
- + 9V / 175mA
- DIE: 0.92 x 0.99 x 0.1mm

Functional Block Diagram



Use restriction parameter ¹

Input power	+23dBm
Operating Current	330mA
Operating temperature	-55 ~ + 105 °C
Storage temperature	-65 ~ +150°C

【1】 Exceeding any of these maximum limits may cause permanent damage.

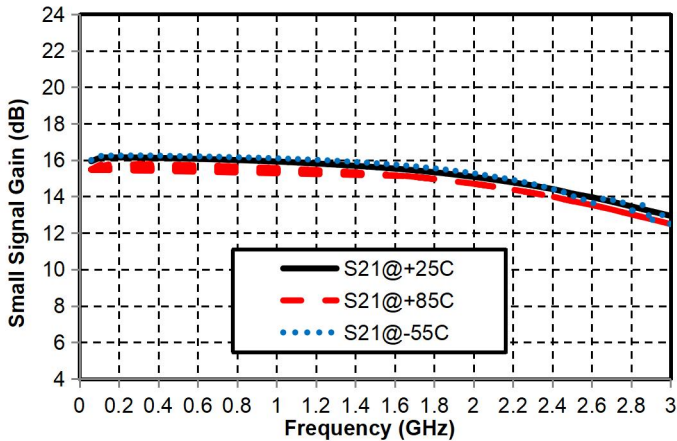
Electrical performance parameters (TA = +25°C , Vcc = +9V)

Index	Minimum	Typical Value	Maximum	Unit
Frequency Range	0.1-3			GHz
Small Signal Gain		15		dB
Gain Flatness		± 1.6		dB
Input return loss		9	-	dB
Output return loss		10	-	dB
Reverse Isolation	-	22	-	dB
P-1 dB	-	25	-	dBm
OIP3 @with Pout=0dBm		38		dBm
Noise Figure	-	4.4		dB
Quiescent Current	-	175	-	mA

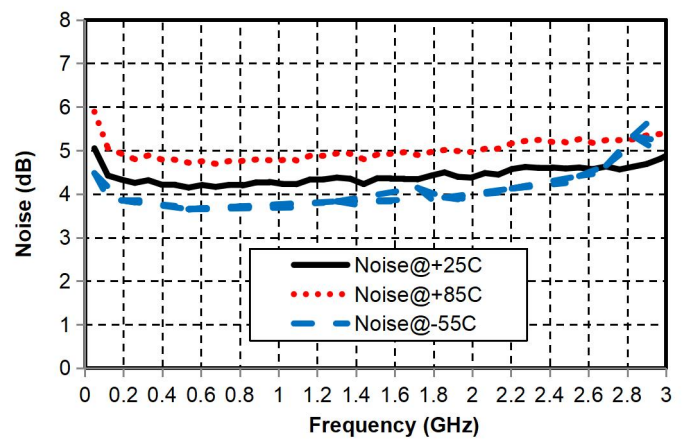
High Linearity, Medium Power Gain Block Chip, 0.05-3GHz

Main index test curve

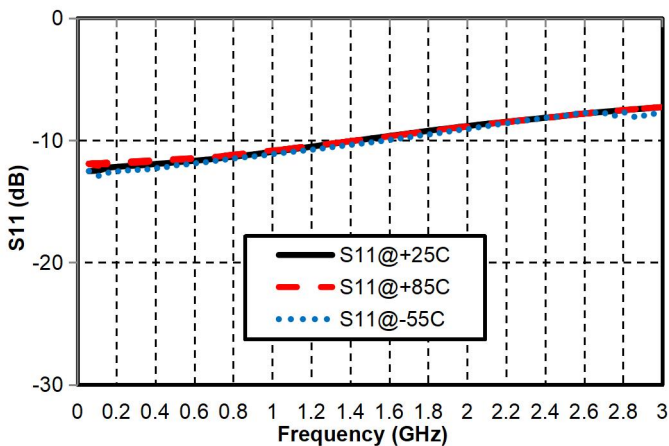
Gain vs. Frequency



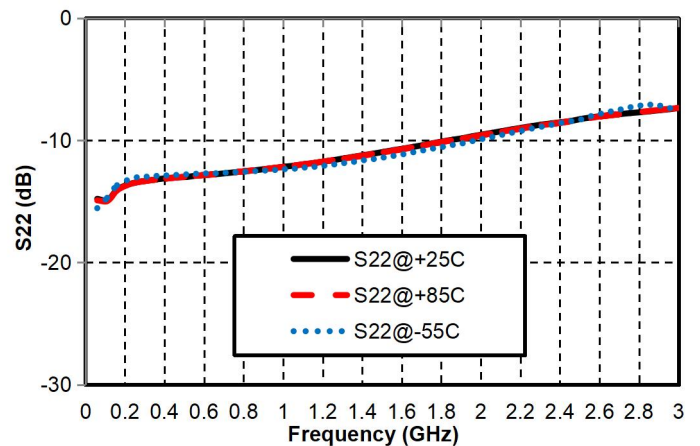
Noise Figure vs. Frequency



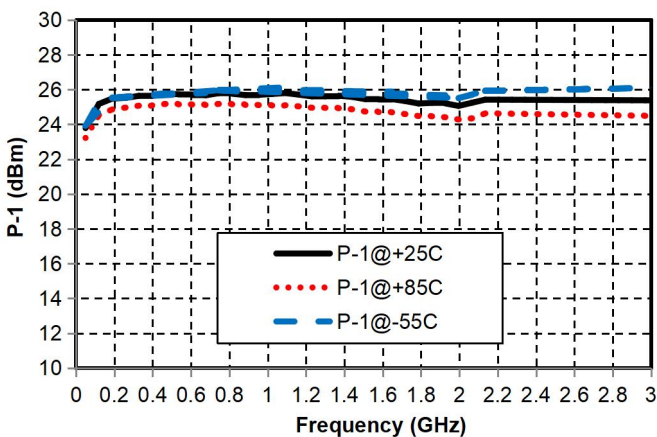
Input Return Loss vs. Frequency



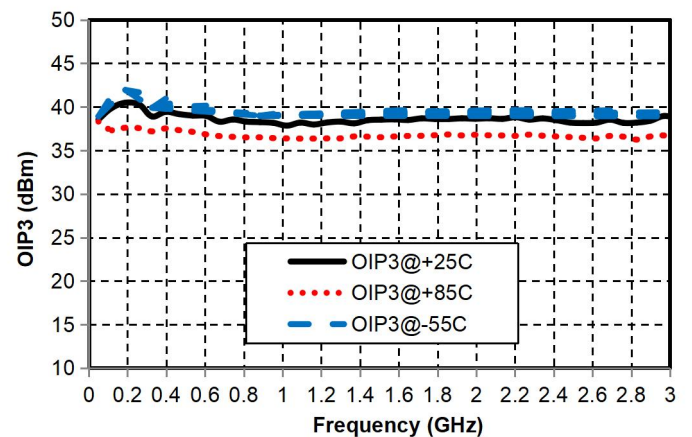
Output Return Loss vs. Frequency



P-1dB vs. Frequency

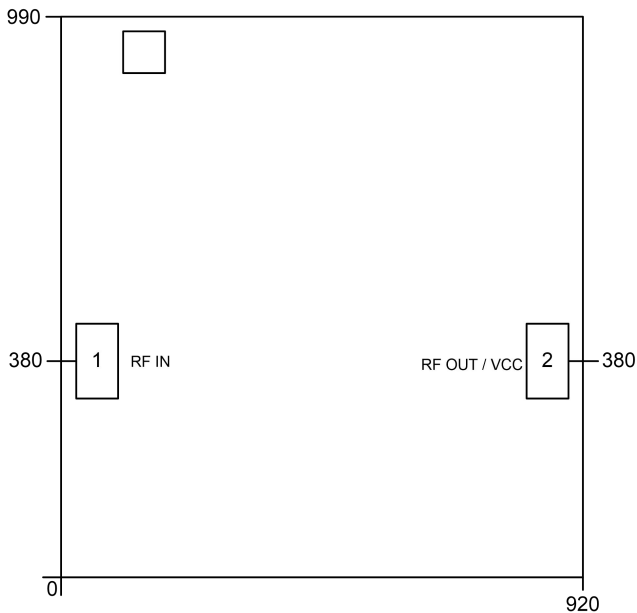


OIP3 vs. Frequency (Pout=0dBm)



High Linearity, Medium Power Gain Block Chip, 0.05-3GHz

Appearance structure



Bonding point number	Function Symbol	Functional Description
1	RFIN	RF input, external DC blocking capacitor is required
2	RFOUT	RF output and chip DC bias, bias the circuit at the output end through an external choke inductor, and require an external DC blocking capacitor
Chip bottom	GND	The bottom of the chip needs to be well grounded to RF and DC

Recommended circuit diagram

