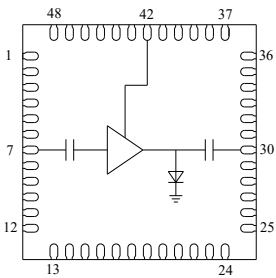




Features

- Input Frequency: 1GHz
- Input Power: (7 ± 2) dBm
- Output Frequency: 1GHz~20GHz
- Dimension: 6.0mm × 6.0mm × 1.7mm
- Weight: ≤0.3g

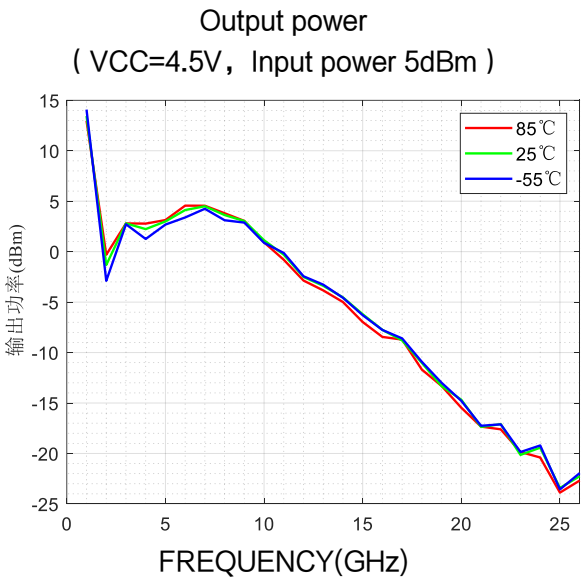
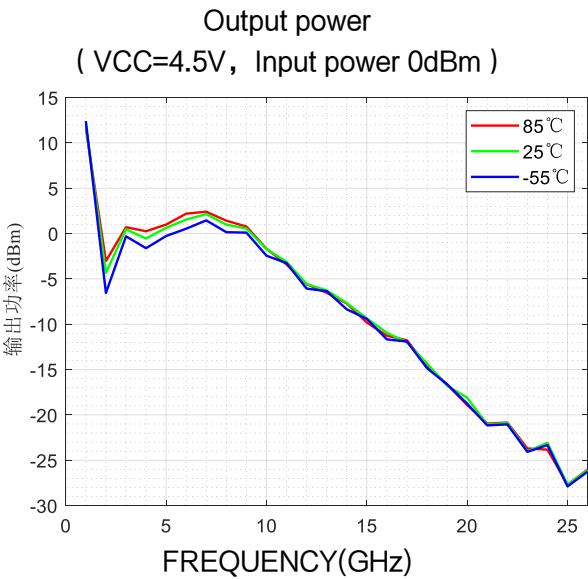
Function Block Diagram

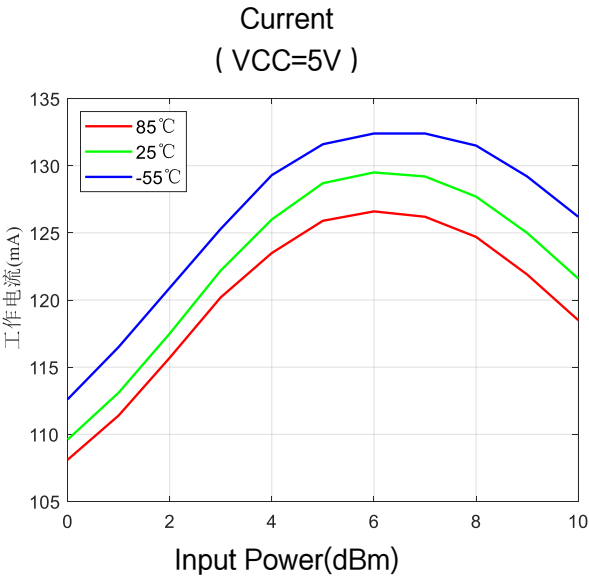
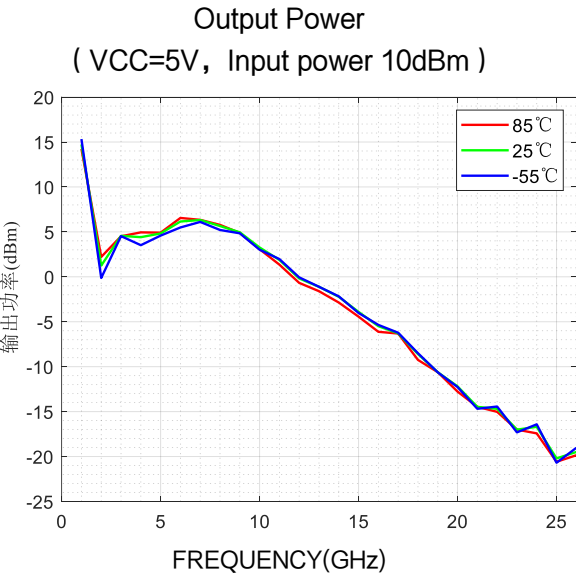
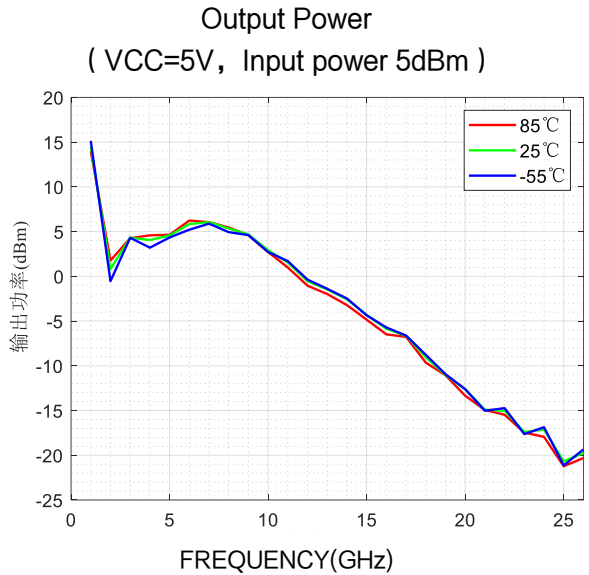
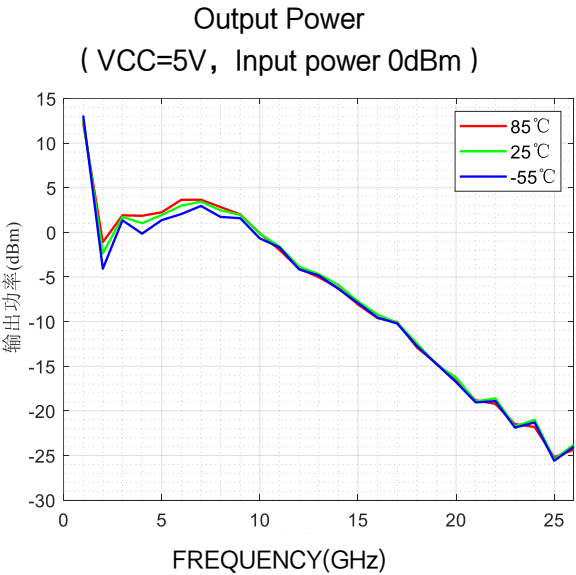
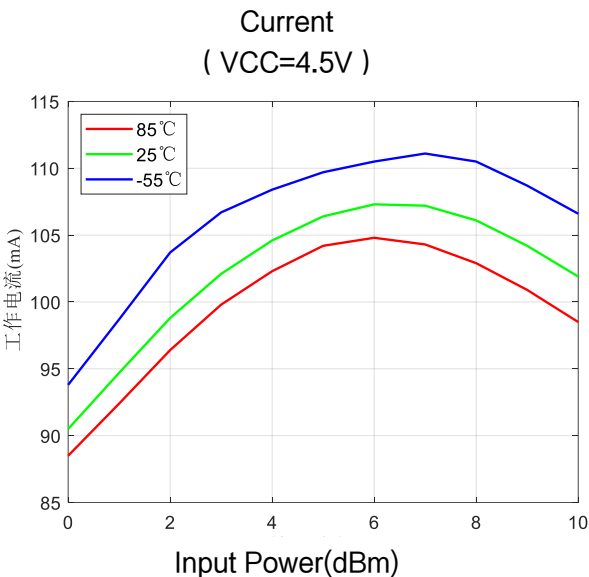
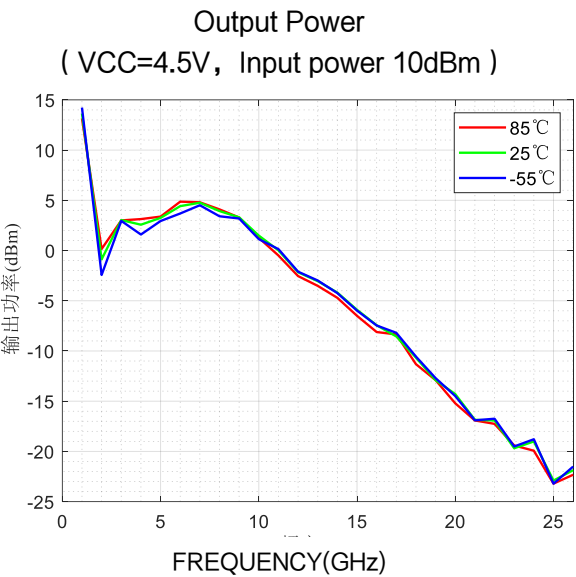


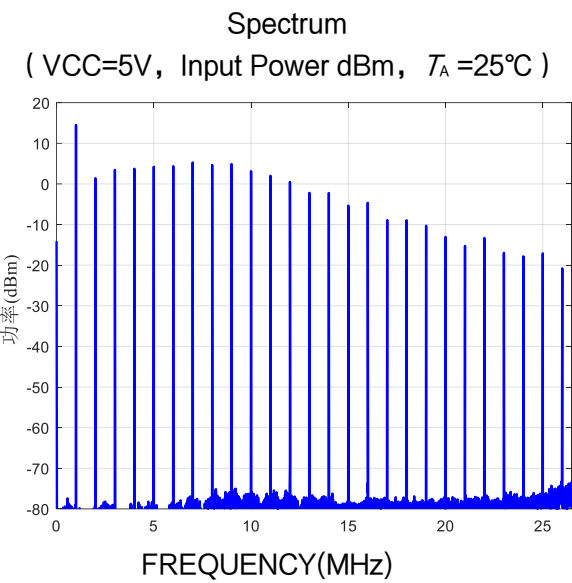
Specifications($T_A=25^{\circ}\text{C}$, $V_{CC}=5\text{V}$, Input Frequency: 1GHz, Input Power: 7dBm, Input Phase Noise: $-140\text{dBc}/\text{Hz}@1\text{kHz}$)

Parameter		Min	Typ	Max	Unit
Output Frequency		1	–	20	GHz
Output Power	@1GHz~10GHz	–5	–	–	dBm
	@11GHz~20GHz	–20	–	–	dBm
10GHz Phase Noise Decrease@1kHz		–	3	5	dB
Spurs		–	–	–70	dBc
Current		–	130	150	mA

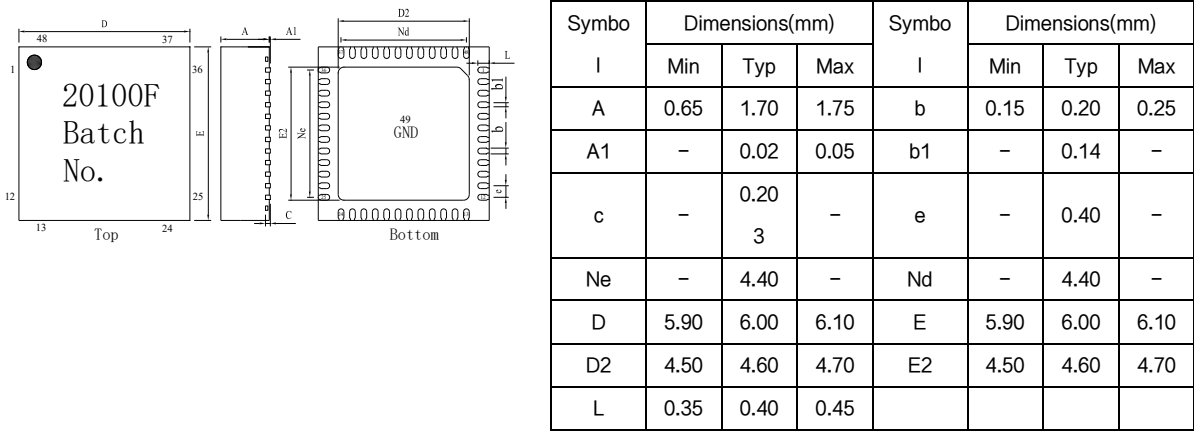
TYPICAL PERFORMANCE CHARACTERISTICS







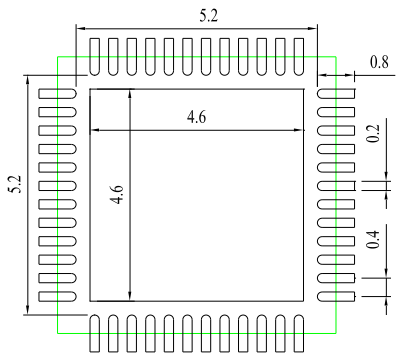
Outline



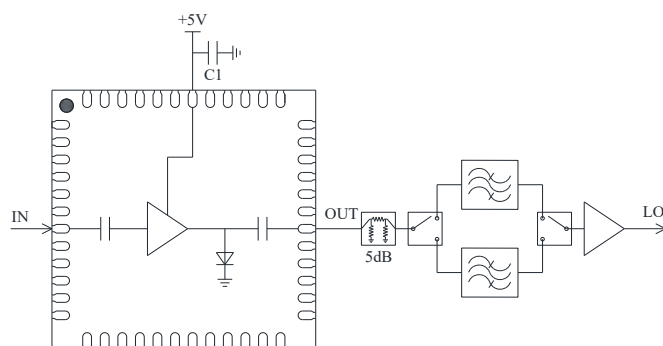
Pin Function

Pin No.	Function	Symbol
7	Input	IN
30	Output	OUT
42	Power	VCC
6、8、29、31、49	Ground	GND
O.W.	NC	NC

Recommended Footprint



Application Note



The circuit requires a +5V power supply routed through a low-noise LDO; otherwise, the phase noise of the output signal may degrade. Place a 10 μ F decoupling capacitor close to the power input to suppress supply noise.

An external 5dB attenuator must be connected at the output to improve VSWR. Without this, the output power and phase noise may be adversely affected.

Absolute Maximum Ratings

VCC	+5.5V
Input power	+13dBm
Reflow Soldering Peak Temperature	255°C/30Sec