

性能特点

- 工作频率: 0.1 - 6 GHz
- 小信号增益: 13.5 dB
- 1dB压缩点输出功率: 30 dBm
- 输入/输出阻抗: 50 Ω
- 20-pin 4.0 mm x 4.0 mm x 0.75 mm
Quad-Flat-No-Lead (QFN)
- 无负压偏置

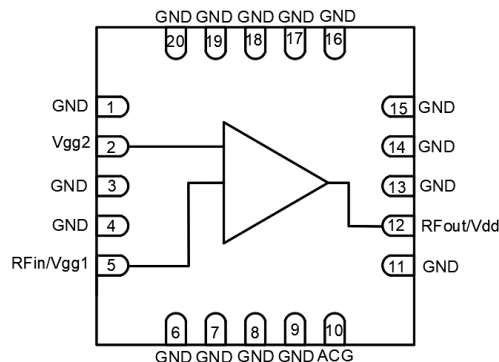
产品简介

ADIC009LP4是一款GaAs MMIC 分布式功率放大器芯片, 频率范围覆盖0.1 - 6 GHz, 功率增益13.5 dB, 1dB压缩点输出功率 30 dBm。可广泛应用于RF/微波电路、测试测量、仪表仪器、雷达和电子对抗等。

极限参数

漏极电压Vdd	+12 V
Vgg1	+1 V
Vgg2	+6 V
输入功率 (50 Ω 负载)	25 dBm
回流焊温度	265 $^{\circ}\text{C}$
工作环境温度	-45 $^{\circ}\text{C}$ ~+85 $^{\circ}\text{C}$
储存温度	-45 $^{\circ}\text{C}$ ~+150 $^{\circ}\text{C}$
静电防护等级 (ESD)	Class 1B (HBM)

引脚定义



俯视透视图

引脚编号	符号	功能描述
2	Vgg2	放大器共栅晶体管栅压
5	RFin/Vgg1	射频输入/放大器共源晶体管栅压
10	ACG	低频信号交流终端
12	RFout/Vdd	射频输出/漏极偏置电压
其它	GND	接地

推荐工作条件

漏极电压Vdd	+10 V
栅极电压Vgg1	+0.6 V
栅极电压Vgg2	+5.5 V
漏极电流Idq	420 mA



关注公众号

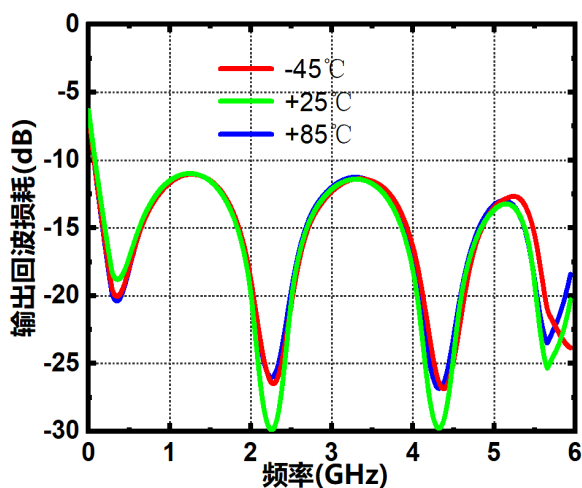
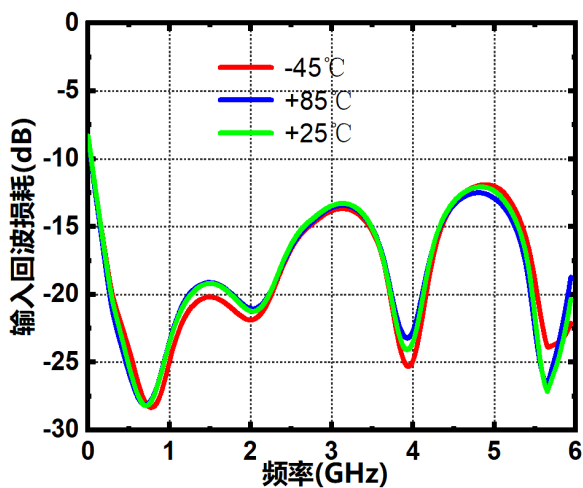
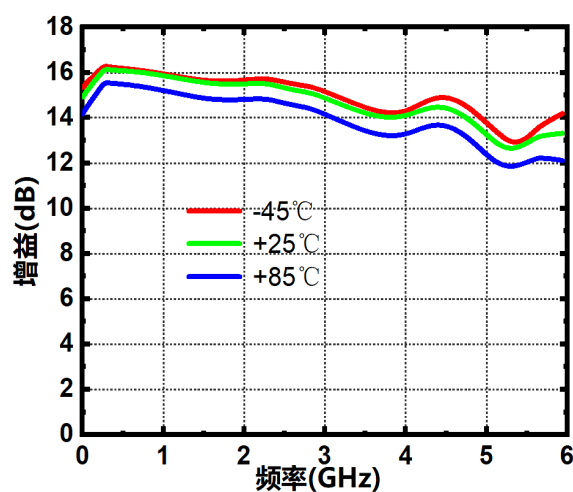
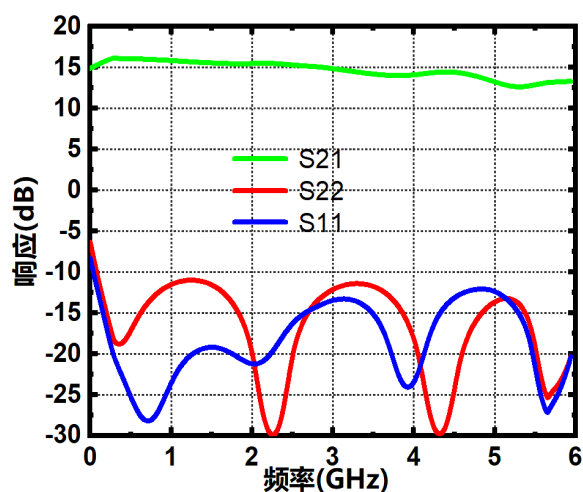


ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

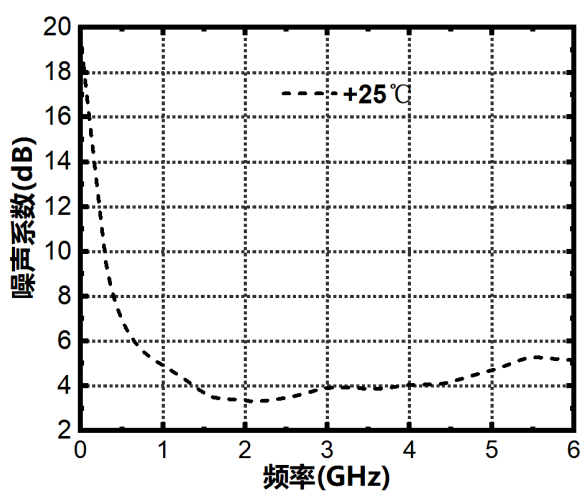
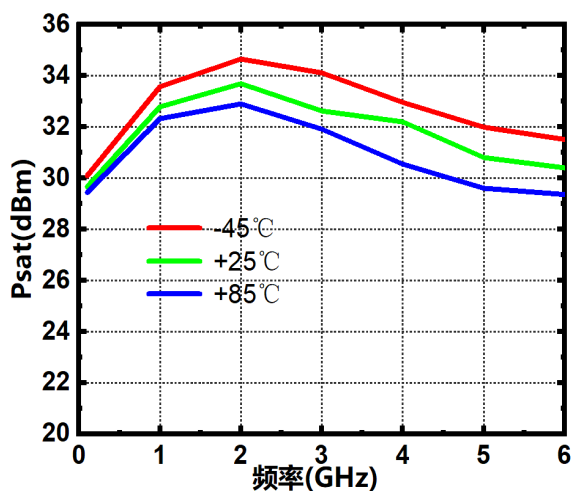
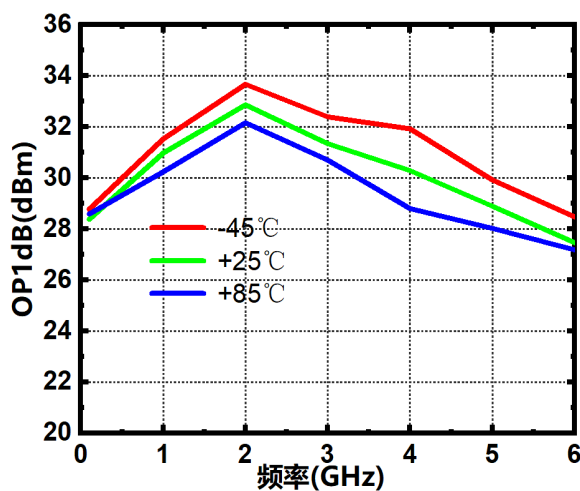
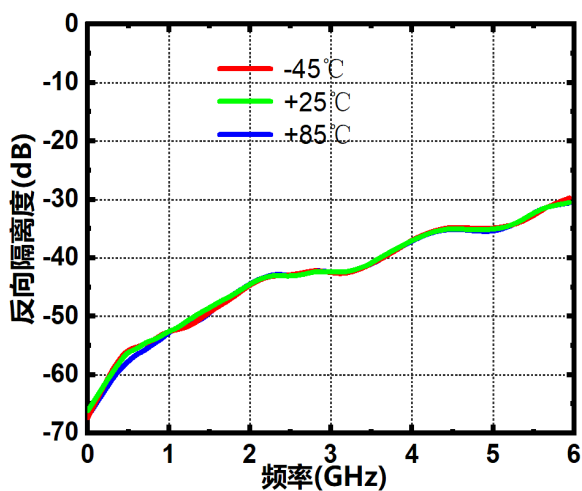
电性能表 ($T = 25^{\circ}\text{C}$, $V_{dd} = +10\text{ V}$, $V_{gg2} = 5.5\text{ V}$, $I_{dq} = 420\text{ mA}$, V_{gg1} 在0.5到0.8 V之间调节)

指标	最小值	典型值	最大值	单位
频率范围	0.1	-	6	GHz
小信号增益	12	13.5	-	dB
输入回波损耗	-	-15	-	dB
输出回波损耗	-	-11	-	dB
1dB压缩点输出功率	-	30	-	dBm

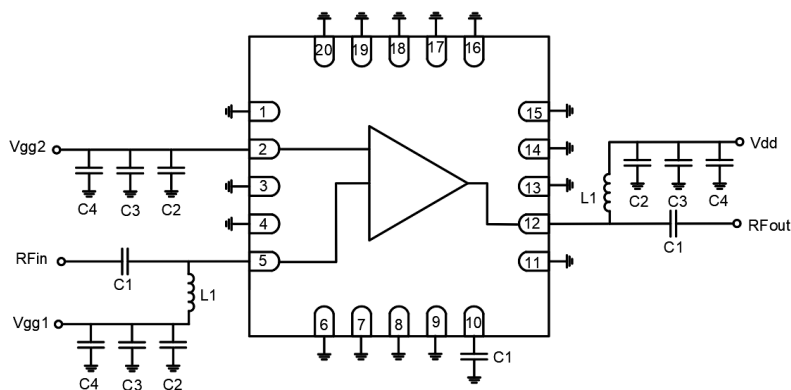
典型测试曲线 ($T = 25^{\circ}\text{C}$, $V_{dd} = +10\text{ V}$, $V_{gg2} = 5.5\text{ V}$, $I_{dq} = 420\text{ mA}$, V_{gg1} 在0.5 到0.8 V之间调节, 评估板测试曲线)



典型测试曲线 (T = 25 °C, Vdd = +10 V, Vgg2 = 5.5 V, Idq = 420 mA, Vgg1在0.5 到0.8 V之间调节, 评估板测试曲线)



应用电路

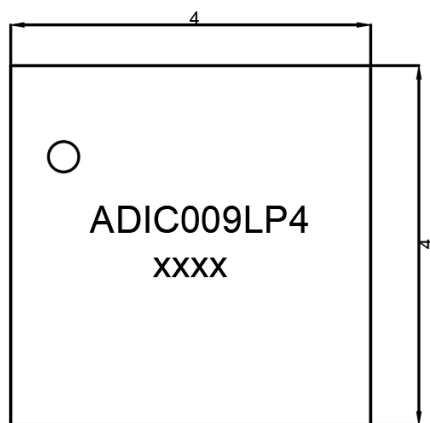


元件名称	元件值	尺寸
L1	43 nH	0805
C1	51 pF	0402
C2	100 pF	0402
C3	1000 pF	0402
C4	4.7 μ F	0402

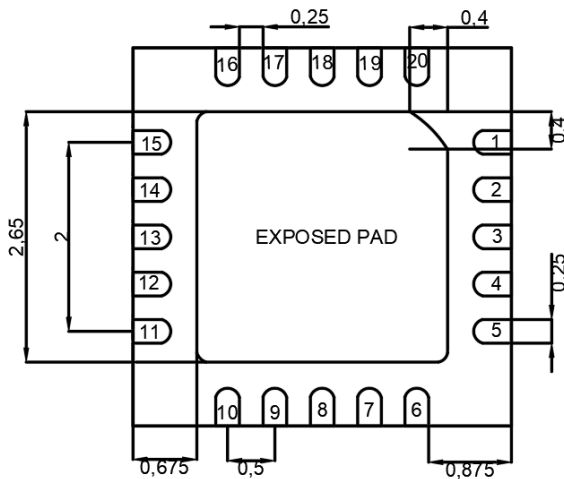
ADIC009LP4

V0

外形尺寸

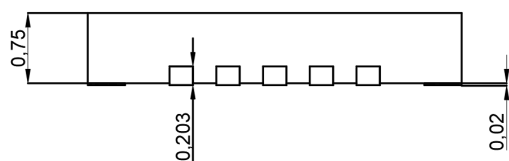


顶部视图



底部视图

单位: mm



侧部视图

建议引脚PCB

