



主要特点

该芯片是采用硅工艺制作的压控衰减器，单路正压控制，衰减量（dB）随输入电压线性近似变化。

工作电压：5V

频率范围：1MHz~6000 MHz

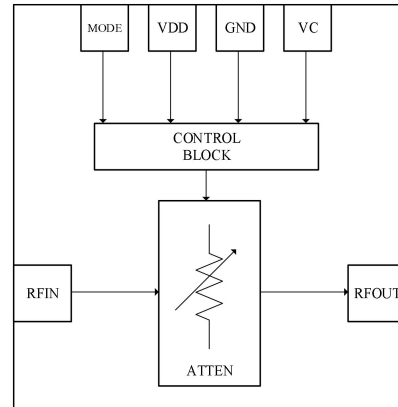
插入损耗：2.5 dB @ 100 M

输入/输出驻波：-10 dB

芯片尺寸：1.64x1.34x0.18mm³

可进行 rfsa2013 替换

功能框图

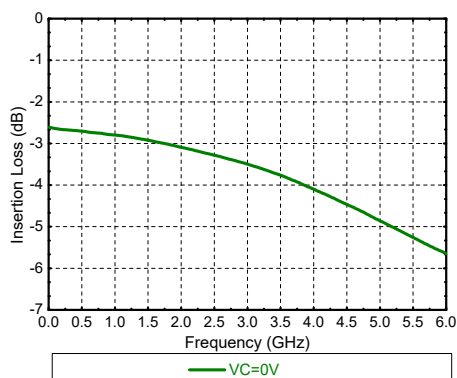


性能指标 ($T_A = +25^\circ\text{C}$, $V_{DD} = 5\text{ V}$)

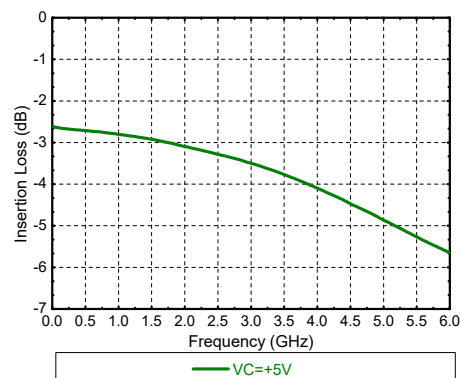
参数	最小	典型	最大	单位	说明
频率范围	1-6000			MHz	
供电电压		5		V	
供电电流		1.2	1.5	mA	
插入损耗*	1	2.5	5	dB	@100M
回波损耗		-10		dB	
输入功率 1dB 压缩点		18		dBm	
IIP3		40			
压控范围	0		5	V	
切换时间		20		us	
Vc 控制电流	0		50	uA	
MODE 控制电流		1		uA	
MODE 低电平范围	0		0.6	V	衰减类负斜率
MODE 高电平范围	1.5		5.0	V	衰减类正斜率

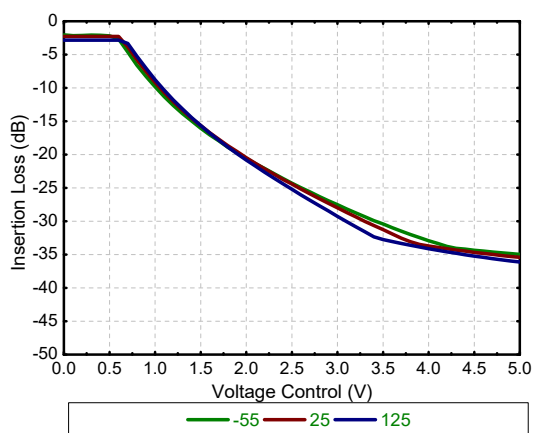
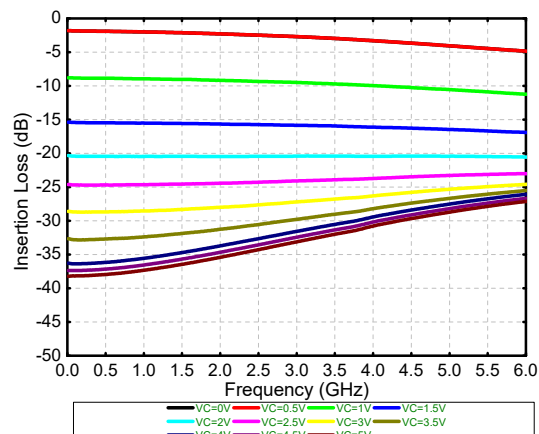
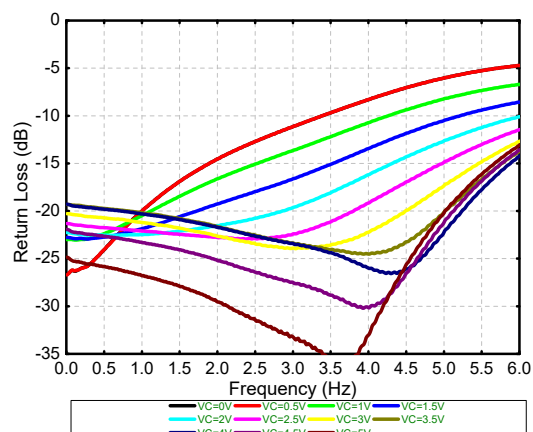
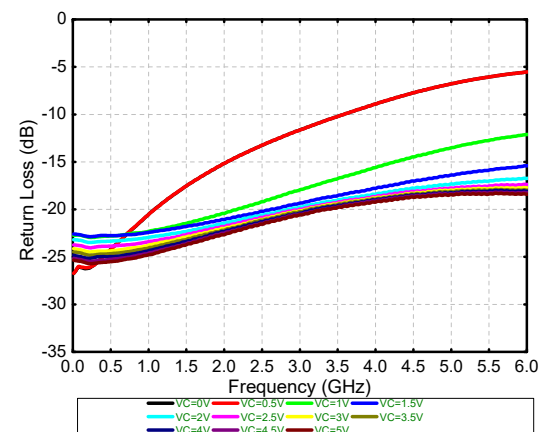
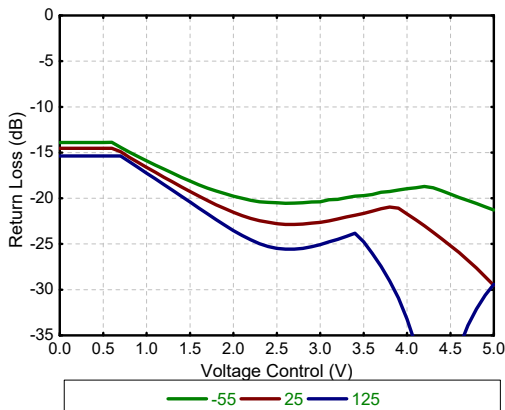
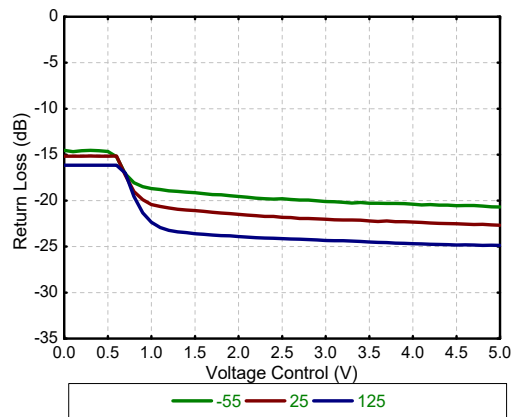
注：芯片间插损一致性存在波动，波动幅度约 4dB。

插入损耗 vs 频率 @ $V_c=0\text{V}$ ，负斜率



插入损耗 vs 频率 @ $V_c=+5\text{V}$ ，正斜率

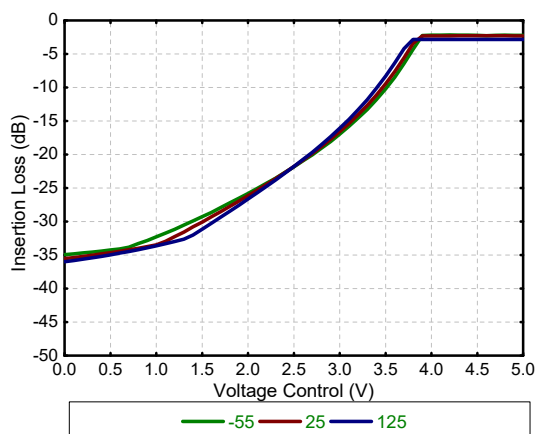


Mode=0 负斜率模式
插入损耗 vs Vc电压 @ RF 2GHz, V_{DD}=5V

插入损耗 vs 频率 @ V_{DD}=5V, Temp=25°C

输入回波损耗 vs 频率
@ VDD=5V, Temp=25°C

输出回波损耗 vs 频率
@ V_{DD}=5V, Temp=25°C

输入回波损耗 vs Vc
@ RF 2GHz V_{DD}=5V

输出回波损耗 vs Vc
@ RF 2GHz V_{DD}=5V


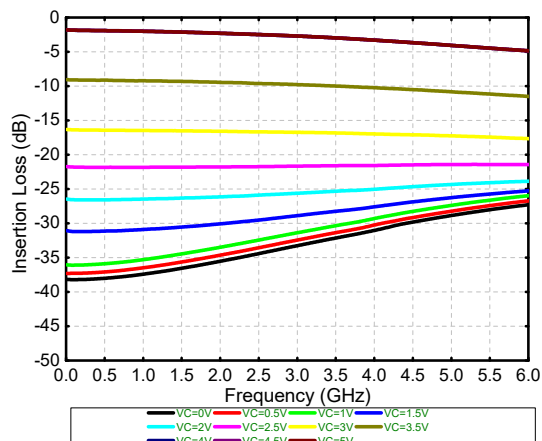


Mode=1正斜率模式

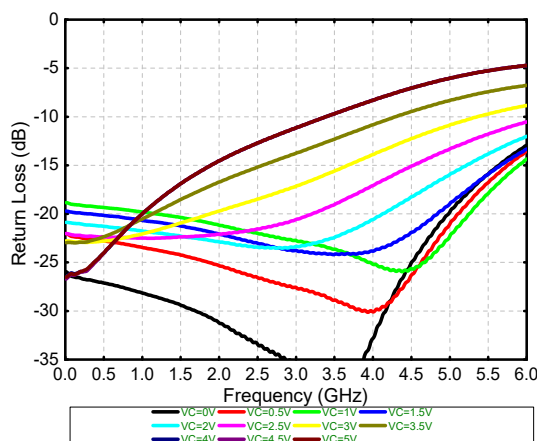
插入损耗 vs Vc电压 @ RF 2GHz, V_{DD}=5V



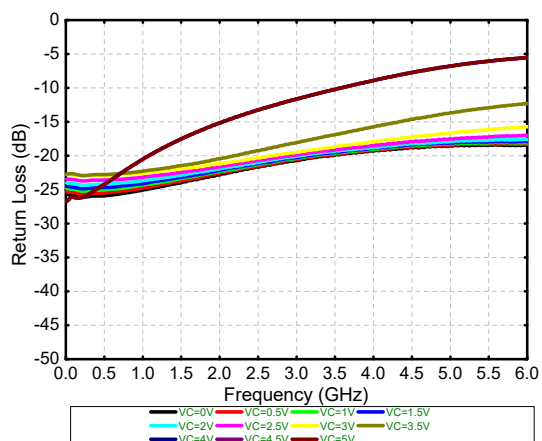
插入损耗 vs 频率 @ V_{DD}=5V, Temp=25°C



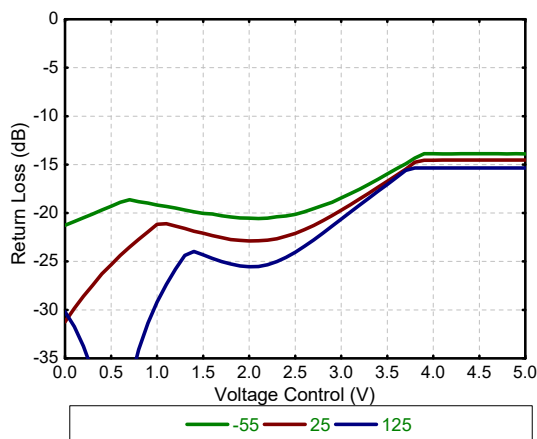
输入回波损耗 vs 频率
@ V_{DD}=5V, Temp=25°C



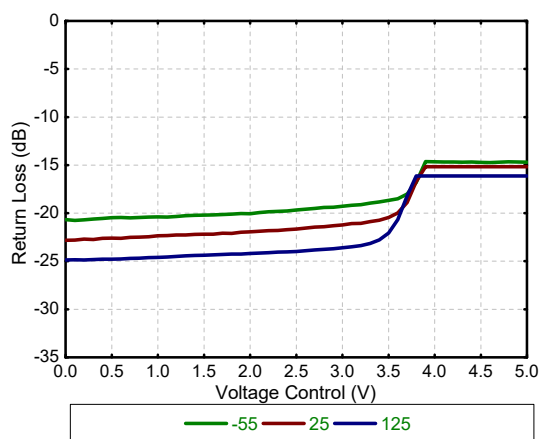
输出回波损耗 vs 频率
@ V_{DD}=5V, Temp=25°C



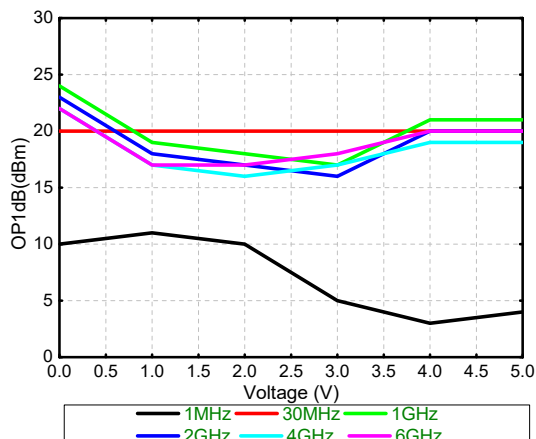
输入回波损耗 vs Vc
@ RF 2GHz V_{DD}=5V



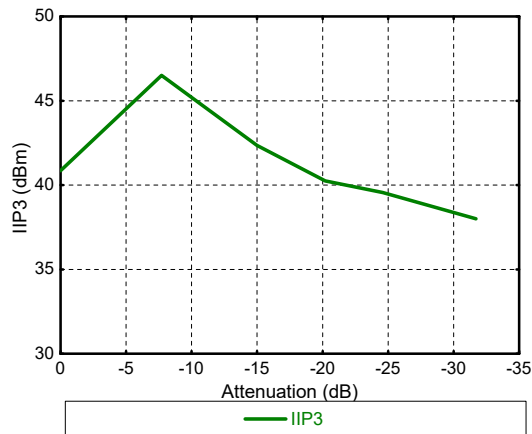
输出回波损耗 vs Vc
@ RF 2GHz V_{DD}=5V



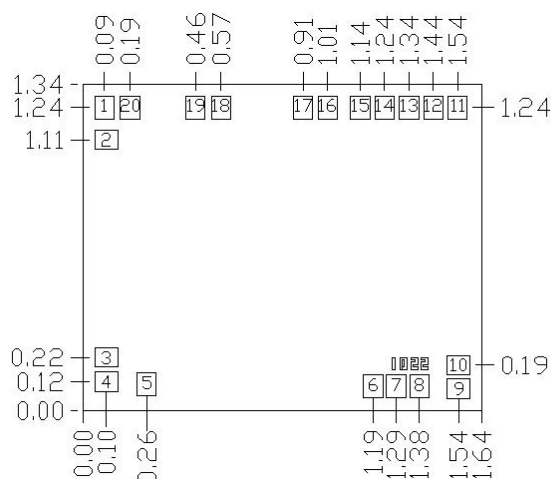
输入1dB压缩点 Mode=0



IIP3 2GHz 10dBm/ton



物理参数

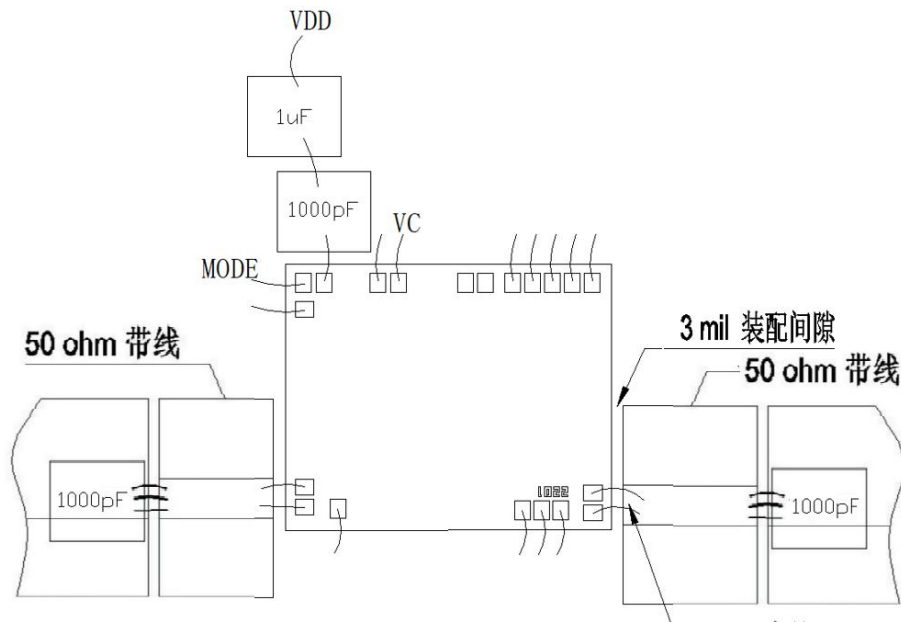


焊盘描述

焊盘序号	焊盘名称	焊盘描述
1	MODE	正负压控斜率模式选择
2	GND	接地
3-4	RFIN	射频输入, DC 耦合并匹配至 50 Ohm。如果 RF 电位不是 0V, 需要外部加入隔直电容
5-8	GND	接地
9-10	RFOUT	射频输出, DC 耦合并匹配至 50 Ohm。如果 RF 电位不是 0V, 需要外部加入隔直电容
11-15	GND	接地
16-17	NC	悬空
18	Vc	压控输入
19	GND	接地
20	VDD	电源, 需外接 1000pF 和 1uF 去耦电容



推荐应用电路



注意事项

1. 典型键合焊盘尺寸为：85x100um。

极限参数

1. 电源电压：5.5V
2. 储存温度：-65 ~ +150 °C
3. 工作温度：-55 ~ +125 °C