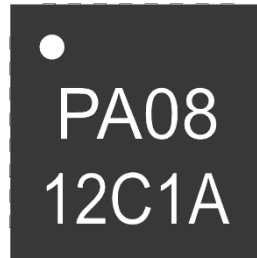
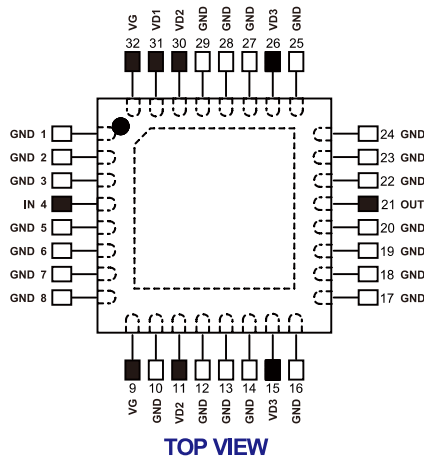
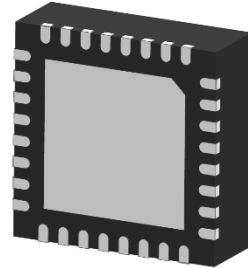


产品概述

PA0812C1A 是一款性能优良的 GaAs 功率放大器芯片, 频率范围覆盖 8~12GHz, 可在脉冲和连续波模式下工作。脉冲模式下, 小信号增益 23.5dB, 饱和输出功率 40.5dBm, 功率附加效率 45%。

主要特性

- 频率范围: 8-12GHz
- 小信号增益 (Pulse): 23.5dB
- 饱和输出功率 (Pulse): 40.5dBm
- 功率附加效率 (Pulse): 45%
- 输入回波损耗: -15dB
- 输出回波损耗: -16dB
- 静态工作电流 (Pulse): 2A@+8V
- 芯片尺寸: 5mm×5mm



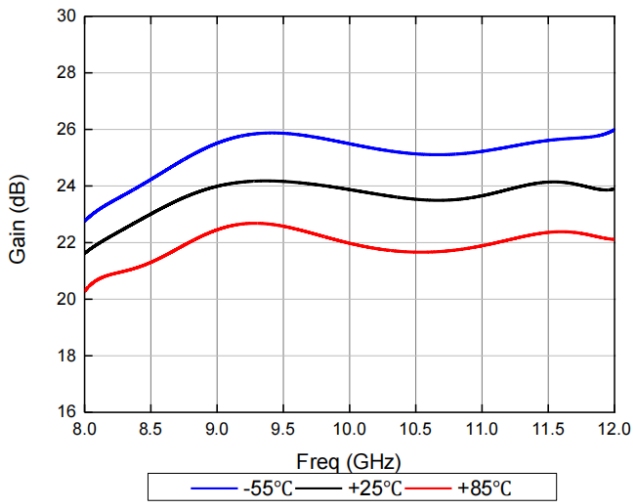
直流电参数 ($T_A=+25^{\circ}\text{C}$, $VD1=VD2=VD3=+8\text{V}$, $VG=-0.8\text{V}^*$, Pulse 模式)

参数名称	符号	最小值	典型值	最大值	单位
频率范围	Freq	8	—	12	GHz
小信号增益	Gain	22	23.5	24	dB
饱和输出功率	Psat	40	40.5	41	dBm
功率附加效率	PAE	40	45	47	%
输入回波损耗	RL_in	—	-15	-11	dB
输出回波损耗	RL_out	—	-16	-10	dB
动态电流	IDD	—	2.6	3.1	A
静态工作电流*	IDQ	—	2	—	A

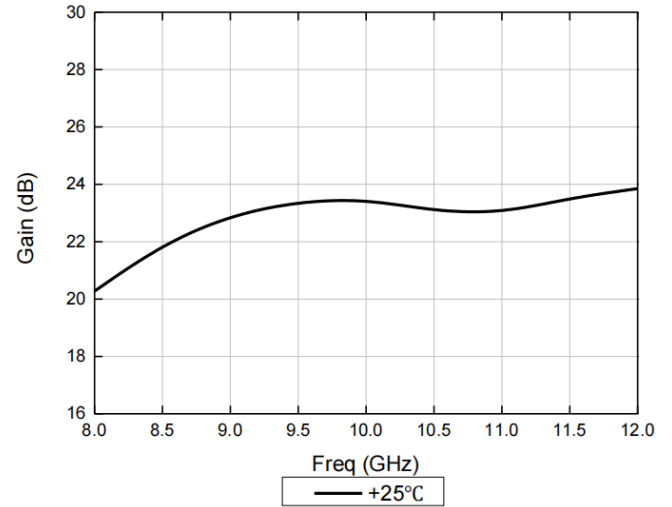
*VG 参考值: -0.8V for Pulse, -0.8V for CW。

测试曲线 (VG=-0.8V, VD1=VD2=VD3=+8V, 脉冲测试条件: 脉宽 1ms, 占空比 10%)

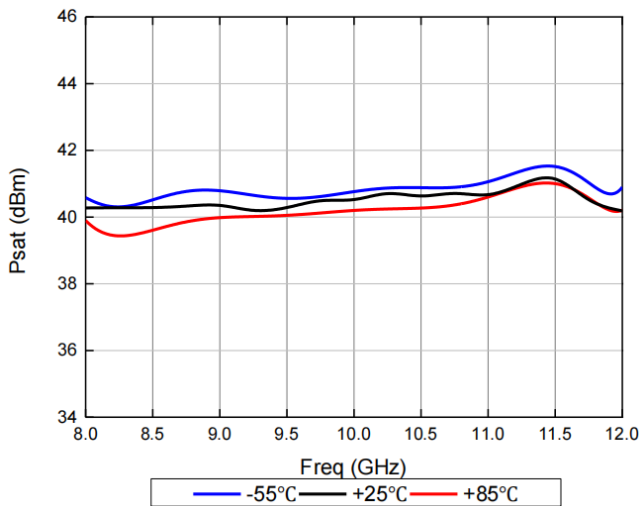
小信号增益 (Pulse)



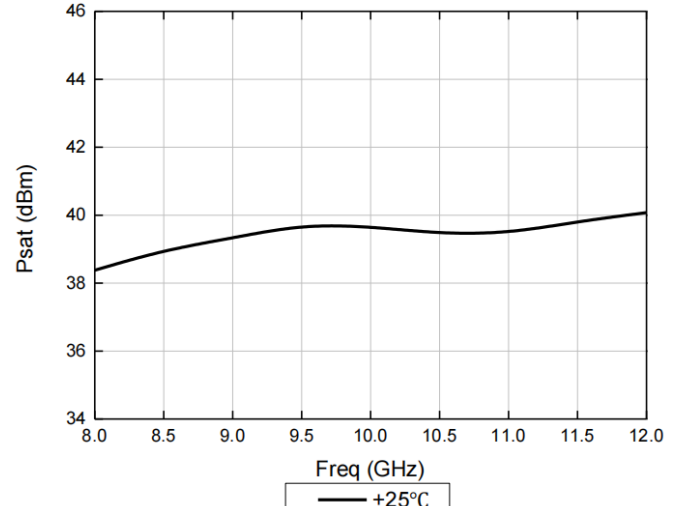
小信号增益 (CW)



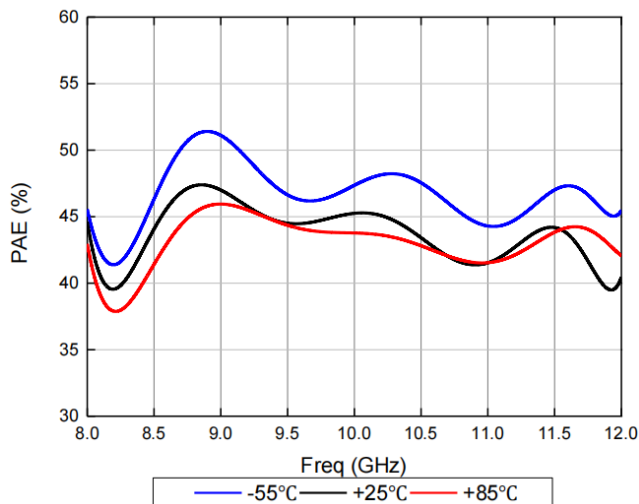
饱和输出功率 (Pulse)



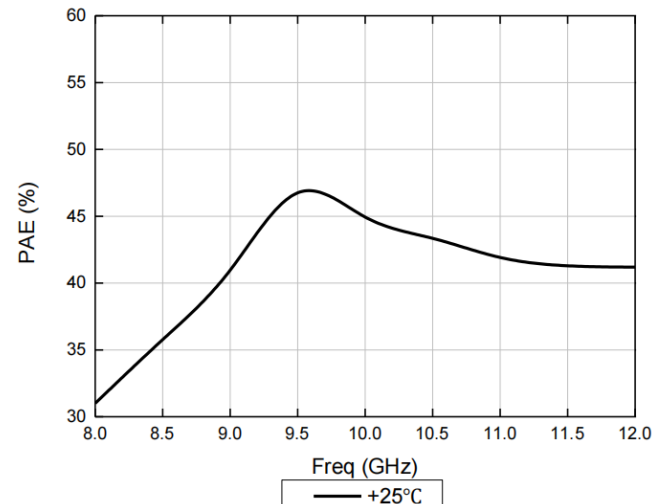
饱和输出功率 (CW)



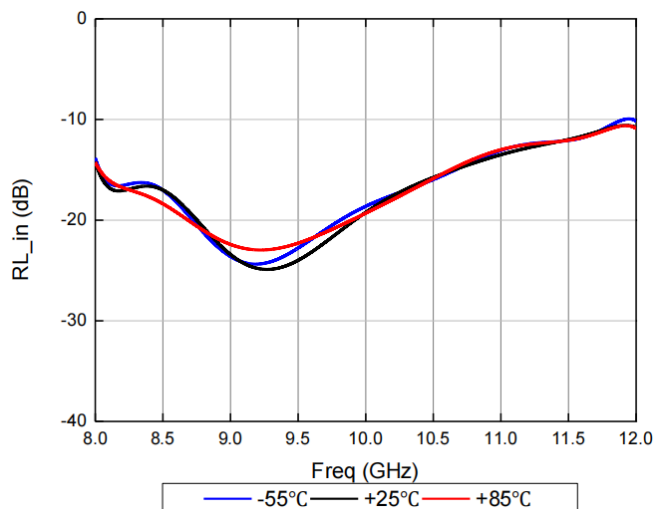
功率附加效率 (Pulse)



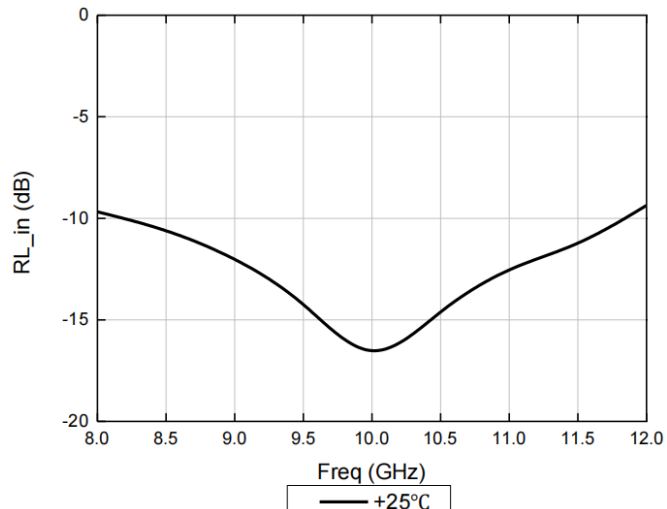
功率附加效率 (CW)



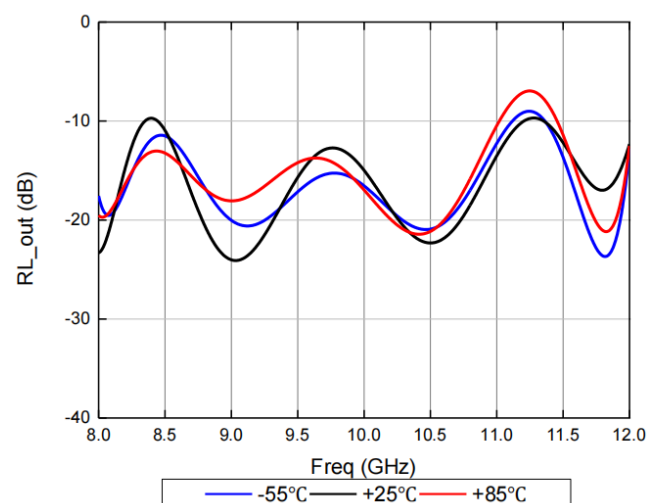
输入回波损耗 (Pulse)



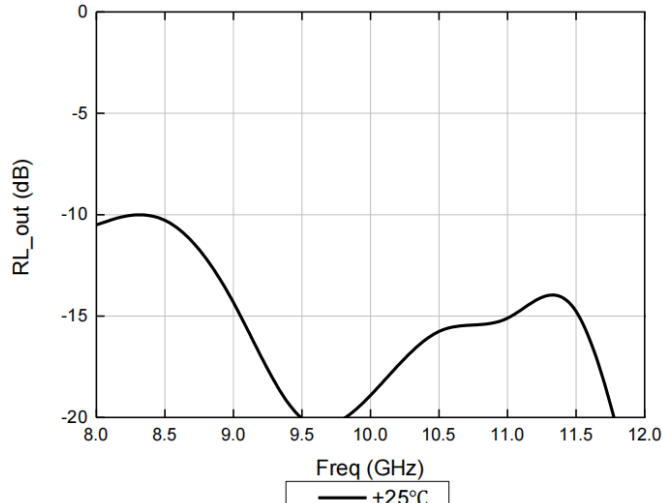
输入回波损耗 (CW)



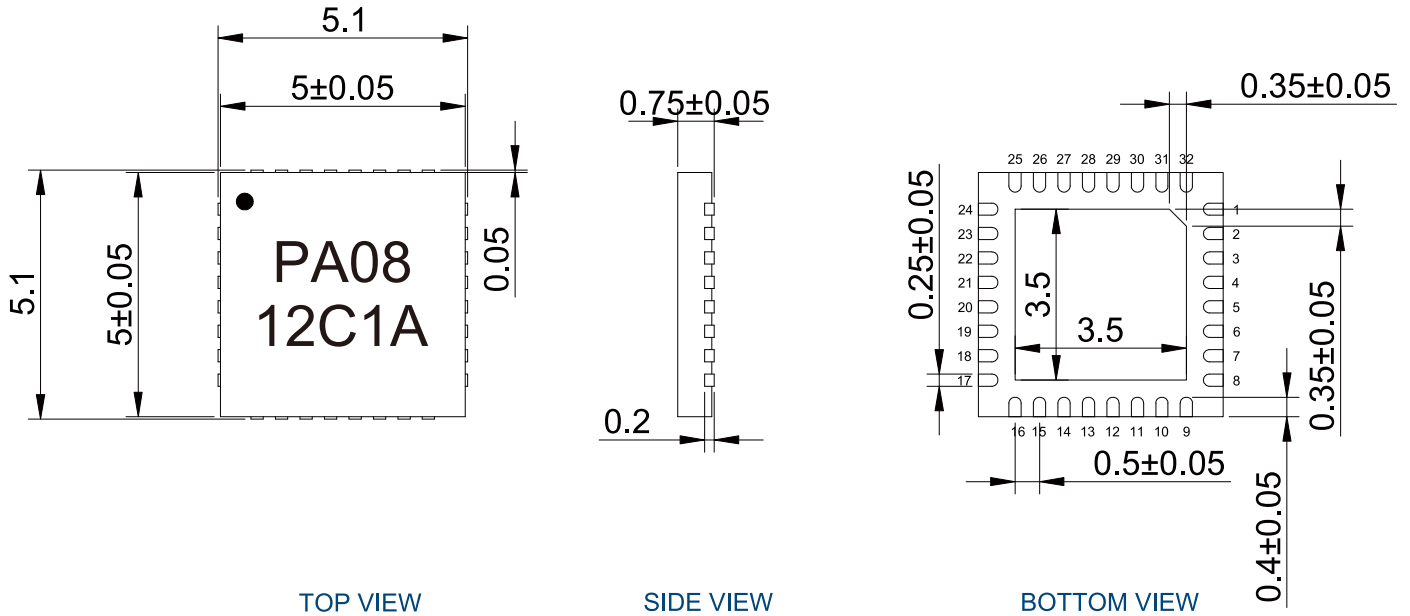
输出回波损耗 (Pulse)



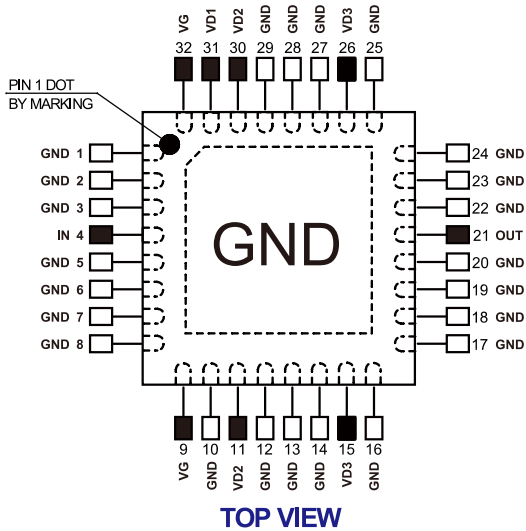
输出回波损耗 (CW)



产品尺寸图

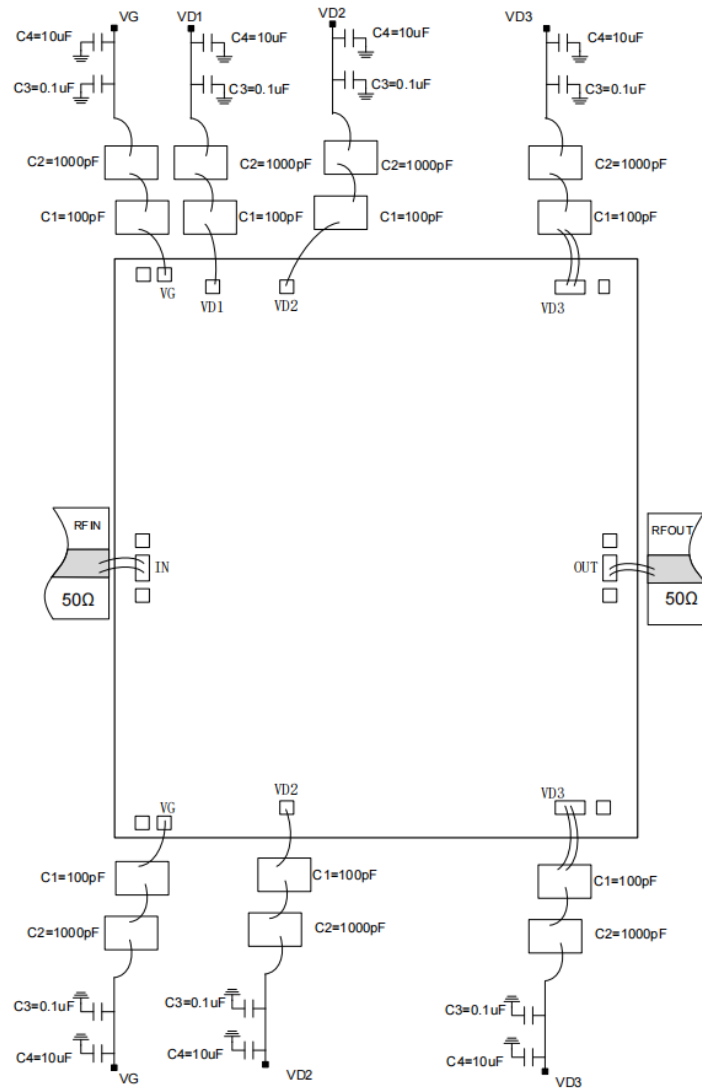


端口定义



引脚编号	功能符号	功能描述	信号或电压
4	RFIN	射频信号输入端	RF
21	RFOUT	射频信号输出端	RF
9/32	VG	栅极电压, 建议外加 100pF 电容	-0.8V
31	VD1	第一漏极电压, 建议外加 100pF 电容	+8V
11/30	VD2	第二漏极电压, 建议外加 100pF 电容	+8V
15/26	VD3	第三漏极电压, 建议外加 100pF 电容	+8V
1/2/3/5/6/7/8/10/12/13/14/16/17/18/19/20/22/23/24/25/27/28/29/Paddle	GND	接地	/

建议装配图



使用参数极限

最大漏极工作电压	+9V
最大栅极工作电压	-0.5V
最大输入功率	+25dBm
贮存温度	-65°C~+150°C
工作温度	-55°C~+125°C