

ADIC206ST89

V0

性能特点

- 工作频段：0.045 - 1.2 GHz
- 增益：23.5 dB
- 噪声系数：1 dB
- OIP3: 35 dBm @ 500 MHz/5 dBm 2tone
- 封装：SOT89
- ESD Class 1C
- -60 dBc CSO 135 Channels @ +15 dBmV/ch
- -75 dBc CTB 135 Channels @ +15 dBmV/ch
- -80 dBc XMD 135 Channels @ +15 dBmV/ch

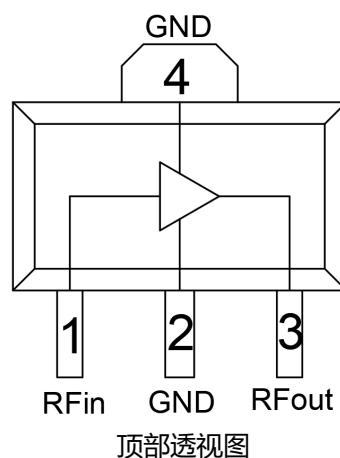
产品简介

ADIC206ST89是一款高线性度低噪声放大器，频率覆盖0.045 - 1.218 GHz，增益23.5 dB，OIP3 35 dBm。适合应用于FTTH和CATV等系统。

推荐参数

Vdd	+5V
工作环境温度	-55 °C~+85 °C
储存温度	-55 °C~+150 °C

引脚定义



引脚编号	符号	功能描述
1	RF IN	射频输入
2	GND	接地
3	RF OUT/BIAS	射频输出和偏置引脚



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

ADIC206ST89

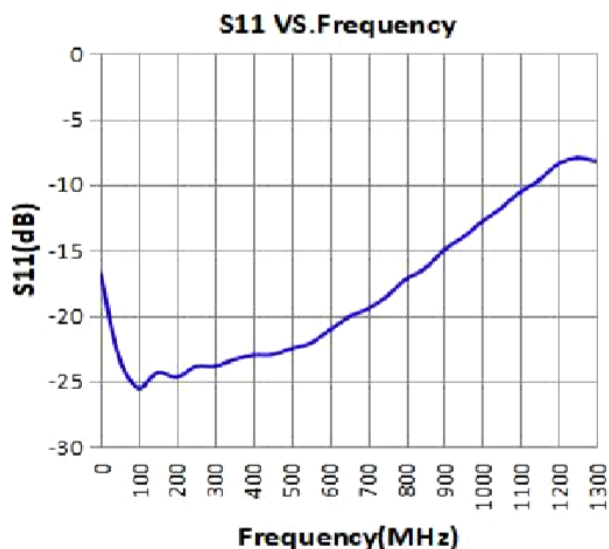
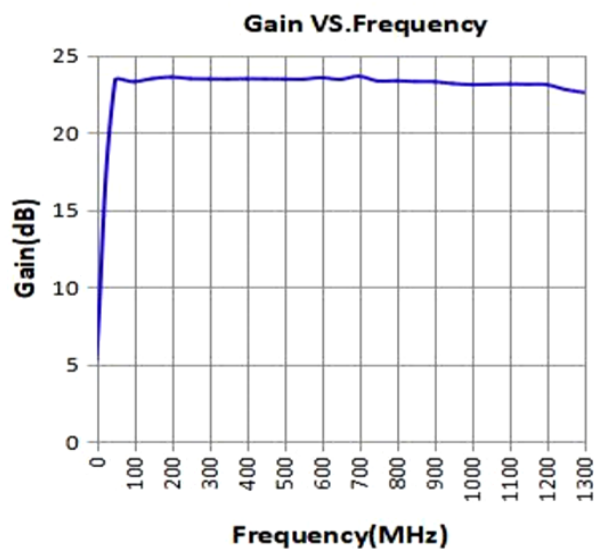
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电性能表 ($T = 25\text{ }^{\circ}\text{C}$, $V_{DD} = +5\text{ V}$)

指标	最小值	典型值	最大值	单位	范围
频率范围	0.045	-	1218	GHz	
增益	-	23.5	-	dB	45 MHz - 1218 MHz
	-	24	-	dB	30 MHz - 1000 MHz
增益平坦度	-	0.8	-	dB	30 MHz - 1218 MHz
P1dB	-	21	-	dBm	500 MHz
OIP3	-	35	-	dBm	500 MHz/5dBm
输入回波损耗	-	-16	-	dB	45 MHz - 550 MHz
	-	-12	-	dB	550 MHz - 1218 MHz
输出回波损耗	-	-16	-	dB	45 MHz - 550 MHz
	-	-14	-	dB	550 MHz - 1218 MHz
噪声系数	-	1	1.2	dB	45 MHz - 1218 MHz
CSO	-	60	-	dBc	135 Channel, +15 dBmV/ch
CTB	-	70	-	dBc	135 Channel, +15 dBmV/ch
XMOD	-	80	-	dBc	135 Channel, +15 dBmV/ch
VDD	-	5.0	-	V	
IDD	-	75	-	mA	

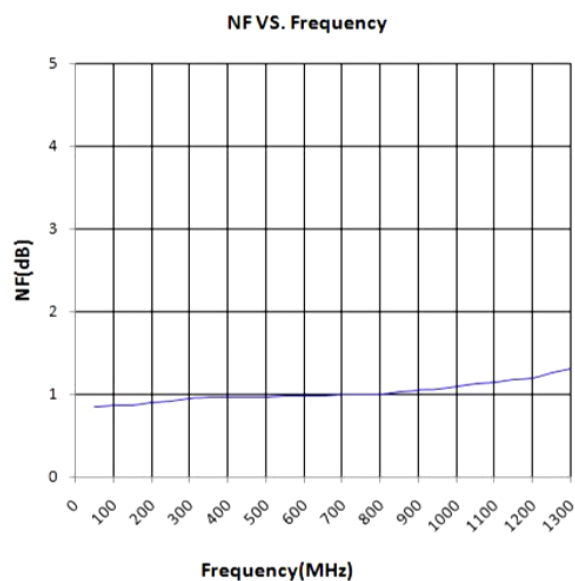
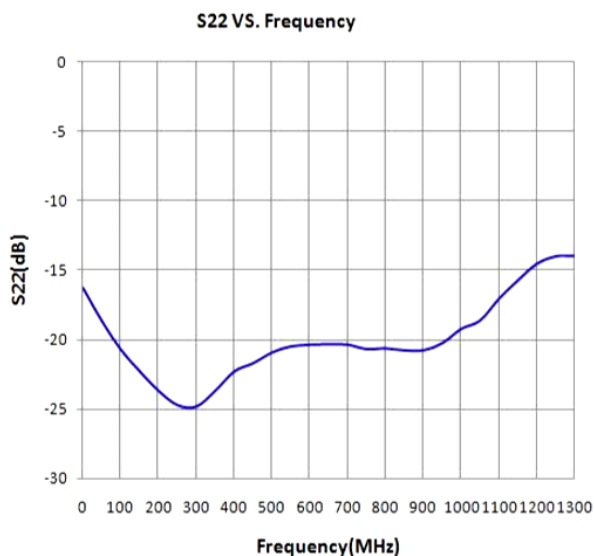
OIP3 Tone Spacing = 500 MHz, Pout per ton = +5 dBm

典型测试曲线 ($T = 25\text{ }^{\circ}\text{C}$, $V_{DD} = +5\text{ V}$, $I_{DS} = 75\text{ mA}$, 75 ohm System)



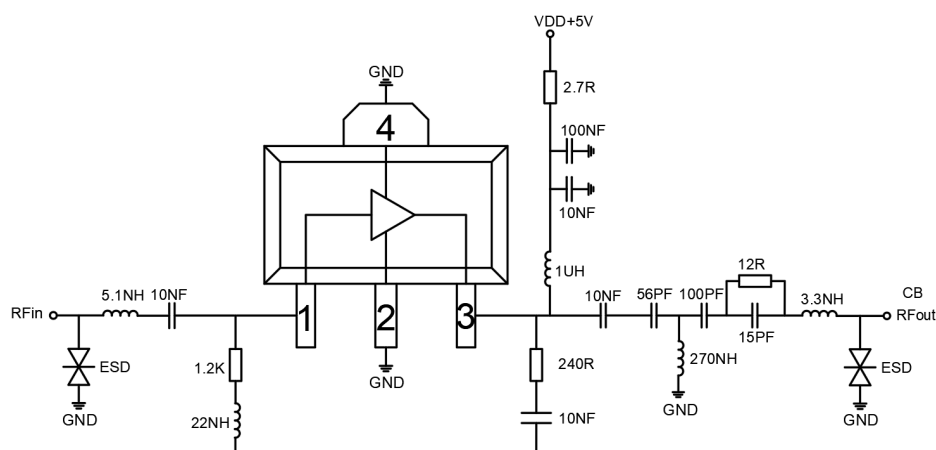
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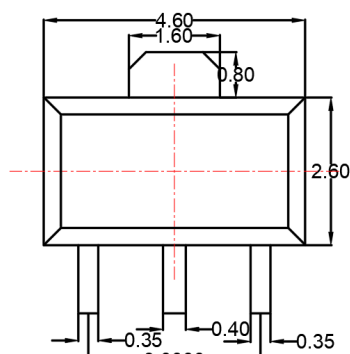
注：OIP3 测试条件：OIP3 Tone Spacing = 500 MHz, Pout per tone = +5 dBm.

应用电路 (45 MHz - 1218 MHz , 75 ohm System)

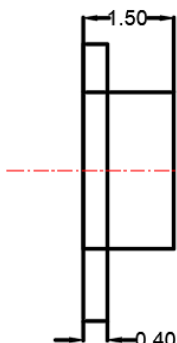


注：测试条件：Test Freq = 500MHz, T=25°C, Vdd=5V, 75Ω system

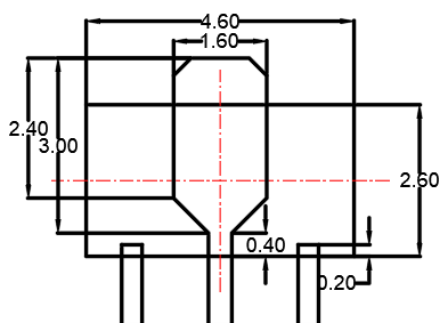
外形尺寸



俯视图



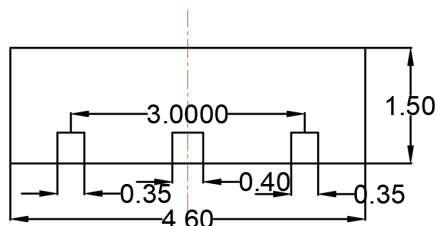
侧视图



侧视图

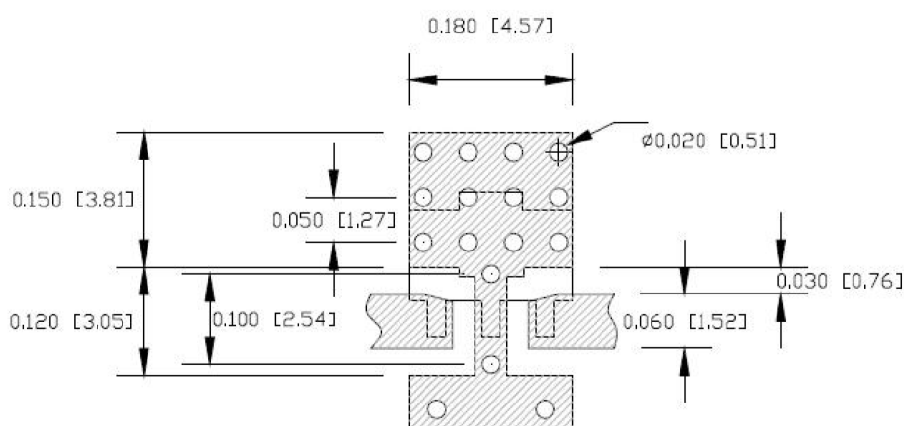
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侧视图

建议引脚PCB



NOTES:

1. Dimensions are in inch [millimeter].
2. Use 1 oz. copper minimum for top and bottom layer metal.
3. Vias are required under GND(2,4) pin for proper RF/DC grounding and thermal dissipation. Via holes could reduce lead inductance as close to ground as possible.
4. Ensure good package backside paddle solder attach for reliable operation and best electrical performance.