



中科海高
HiGaAs Microwave

V1.1

HGC674

GaAs pHEMT MMIC
开关滤波器, 0.35 – 2 GHz

4

开关滤波多功能
—
裸芯片

主要特点

通道数目: 5

通带频率: 0.35 - 0.55 GHz

0.5 - 0.75 GHz

0.7 - 1.0 GHz

0.9 - 1.4 GHz

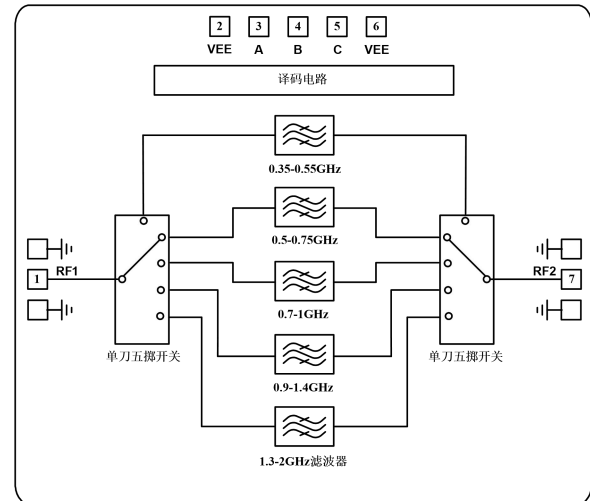
1.3 - 2.0 GHz

控制电压: 0 / +5 V

供电: -5 V @ 5 mA

芯片尺寸: 3.5 × 4.5 × 0.1 mm³

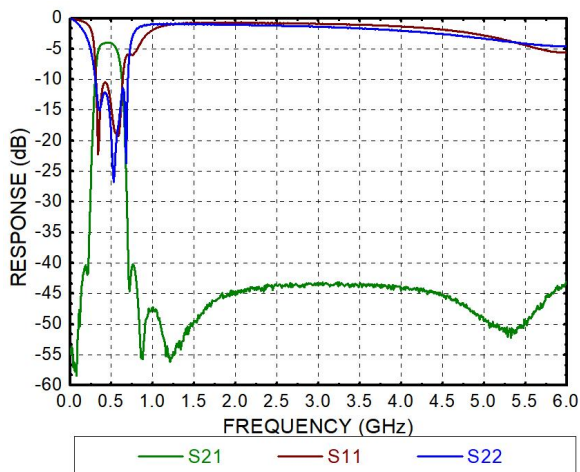
功能框图



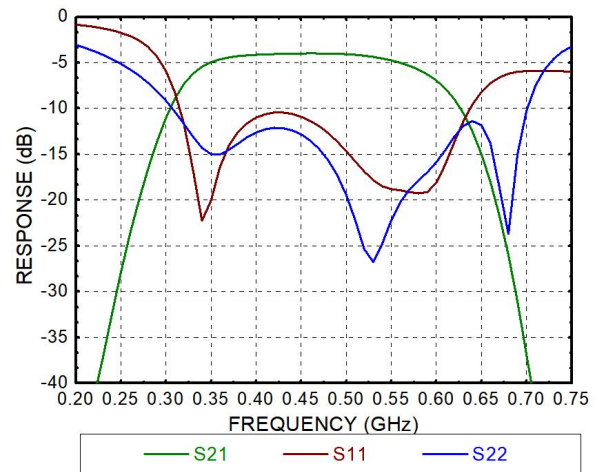
性能指标 ($T_A = +25^\circ\text{C}$, $VEE = -5\text{V}$)

参数	0.35 - 0.55 GHz	0.5 - 0.75 GHz	0.7 - 1.0 GHz	0.9 - 1.4 GHz	1.3 - 2.0 GHz	单位
插入损耗	4	4	4	4	4	dB
带内平坦度	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	dB
回波损耗	12	12	12	12	12	dB
带外抑制	35@0.23GHz 35@0.7GHz	35@0.36GHz 35@0.98GHz	30@0.5GHz 35@1.3GHz	30@0.7GHz 35@1.75GHz	35@1.0GHz 35@2.45GHz	dB

0.35 - 0.55 GHz反射系数



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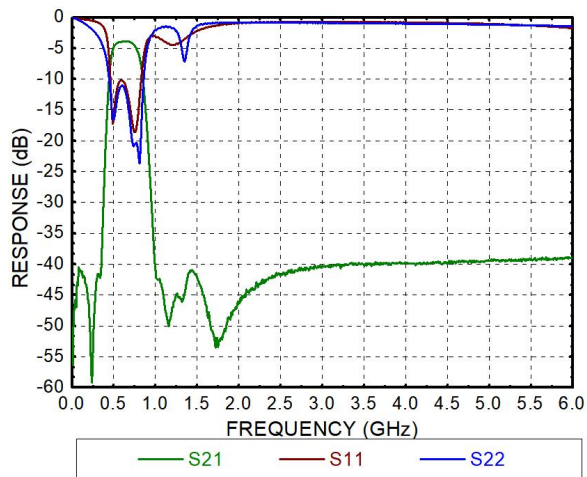
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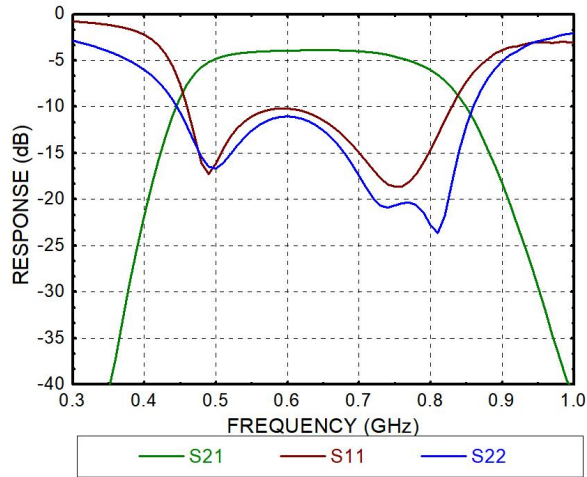
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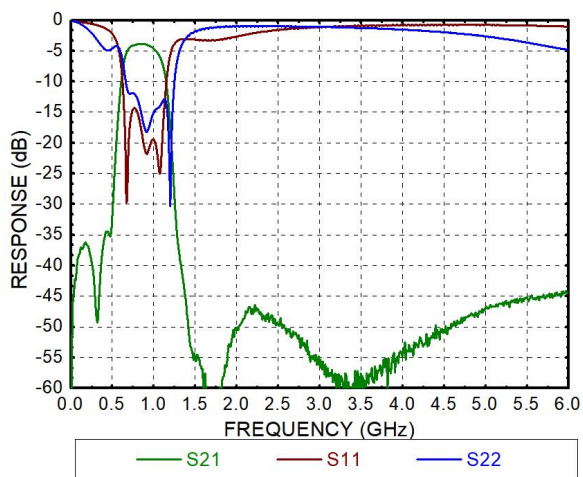
0.5–0.75GHz反射系数



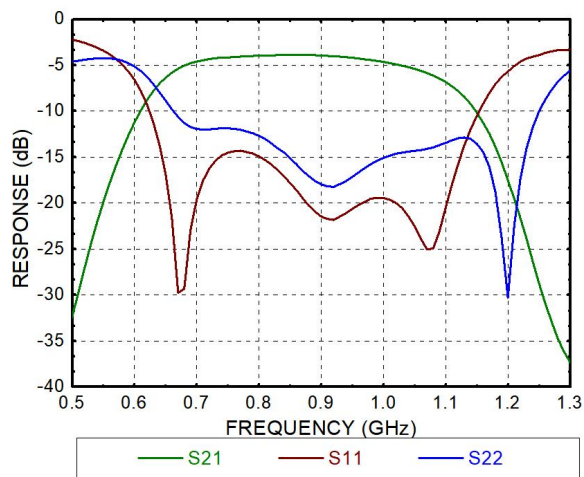
0.5–0.75GHz反射系数



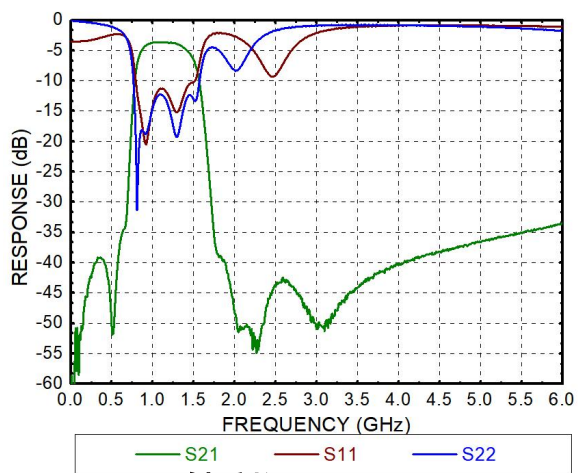
0.7–1.0GHz反射系数



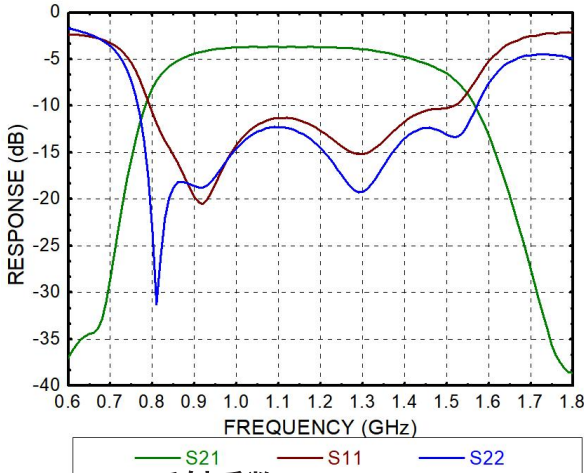
0.7–1.0GHz反射系数



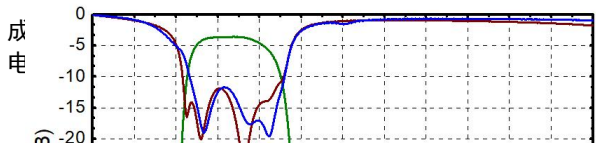
0.9–1.4GHz反射系数



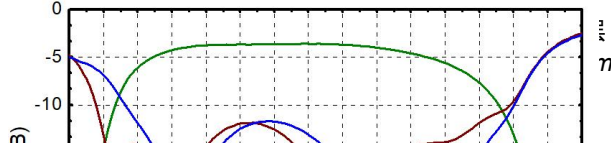
0.9–1.4GHz反射系数



1.3–2.0GHz反射系数



1.3–2.0GHz反射系数



4.28

成电

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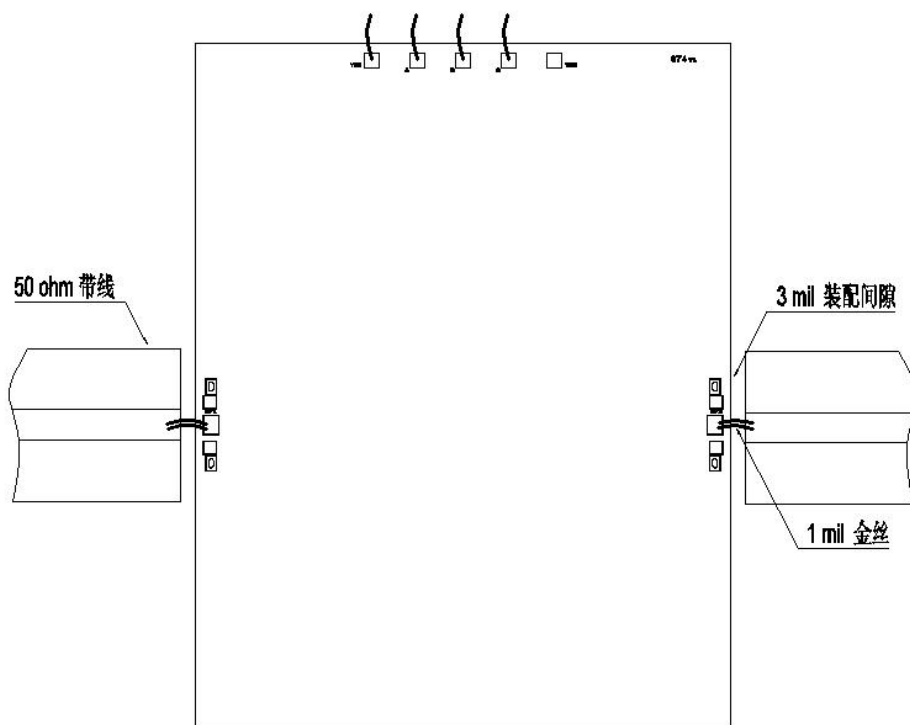
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控制关系

	A	B	C
0.35-0.55GHz	0	0	0
0.5-0.75GHz	1	0	0
0.7-1.0GHz	0	1	0
0.9-1.4GHz	1	1	0
1.3-2.0GHz	0	0	1
“0” 电平范围: 0~0.5V; “1” 电平范围: 3~5V			

装配图



注意事项

1. 芯片厚度为 100 μm
2. 典型键合焊盘尺寸为 $100 \times 100 \mu\text{m}^2$
3. 键合焊盘金属化: 金
4. 芯片背面镀金
5. 芯片背面接地
6. 未标注的键合焊盘不需要连接

极限参数

1. 电源电压: -6 V
2. 射频输入功率: +25 dBm
3. 储存温度: -65 ~ +175 $^{\circ}\text{C}$
4. 工作温度: -55 ~ +85 $^{\circ}\text{C}$