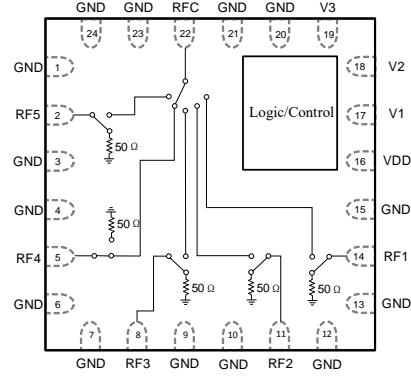




主要特点

- 工作频段: DC ~ 6GHz
- 插损: 1.0 dB
- 隔离度: 50 dB
- P-0.1: 35 dBm
- IIP3: 58 dBm
- 耐功率: +35 dBm (公共端)
+29 dBm (负载端)
- ESD: 2kV HBM
- 封装: 24 Lead, 4mmx4mm QFN

功能框图

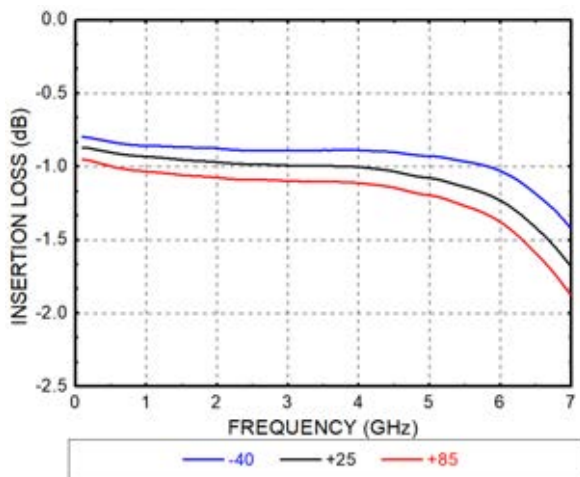


性能指标 ($T_A = +25^{\circ}\text{C}$, $V_{DD}=2.5\text{V}\sim 5\text{V}$, $V_{CTL}=0\text{V}/V_{DD}$, 50Ω)

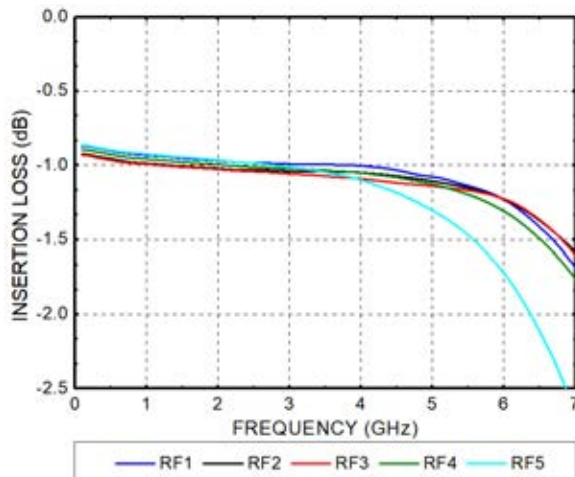
| 参数 | 条件 | | 最小 | 典型 | 最大 | 单位 |
|------------|-----------------|--------------------|-----|-----|-----|---------------|
| 插损 | 0.1GHz~2.0GHz | | | 1 | 1.4 | dB |
| | 2.0GHz~4.0GHz | | | 1 | 1.4 | dB |
| | 4.0GHz~6.0GHz | | | 1.2 | 1.6 | dB |
| 隔离度 | RFC~ RF1-RF5 | 0.1GHz~2.0GHz | 45 | 55 | | dB |
| | | 2.0GHz~4.0GHz | 40 | 50 | | dB |
| | | 4.0GHz~6.0GHz | 34 | 40 | | dB |
| 隔离 | RFX~RFX | 0.1GHz~2.0GHz | 42 | 50 | | dB |
| | | 2.0GHz~4.0GHz | 36 | 45 | | dB |
| | | 4.0GHz~6.0GHz | 34 | 40 | | dB |
| 回波损耗 | 开态 | 0.1GHz~2.0GHz | | 20 | | dB |
| | | 2.0GHz~4.0GHz | | 20 | | dB |
| | | 4.0GHz~6.0GHz | | 15 | | dB |
| | 关态 | 0.1GHz~2GHz | | 20 | | dB |
| | | 2.0GHz~4.0GHz | | 20 | | dB |
| | | 4.0GHz~6.0GHz | | 15 | | dB |
| 开关时间 | 导通 | 50% VCTL to 90% RF | | 270 | | ns |
| | 关断 | 50% VCTL to 10% RF | | 100 | | ns |
| 输入功率压缩点 | P-0.1 | VDD=5V | | 35 | | dBm |
| | P-1 | VDD=5V | | 35 | | dBm |
| IIP3 | POUT=12dBm/tone | | | 58 | | dBm |
| 工作电压 | VDD | | 2.5 | 3 | 5 | V |
| 控制电压范围 | V1, V2, V3 | | 0 | | VDD | V |
| 控制电压输入电平范围 | VDD=+5.0V | 低电平 (VIL) | 0 | | 0.6 | V |
| | | 高电平 (VIH) | 1.1 | | VDD | V |
| 功耗 | VDD=+5.0V | | | 60 | | μA |



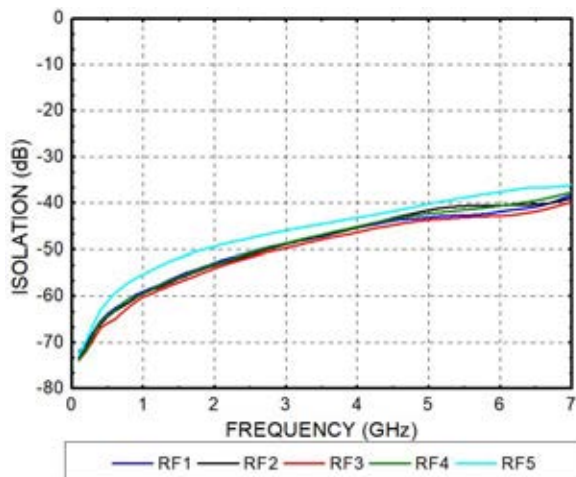
插损 vs. 温度



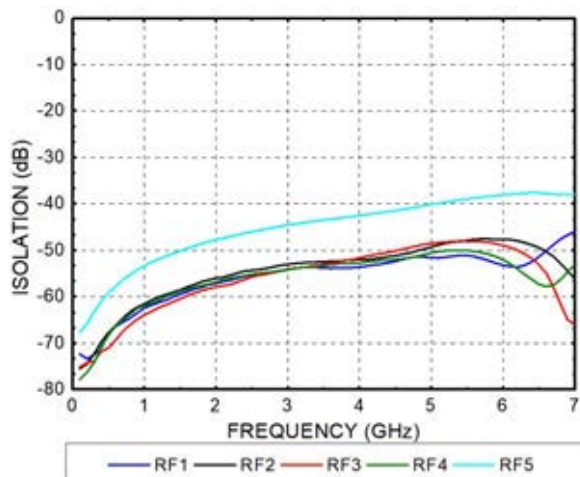
插入损耗



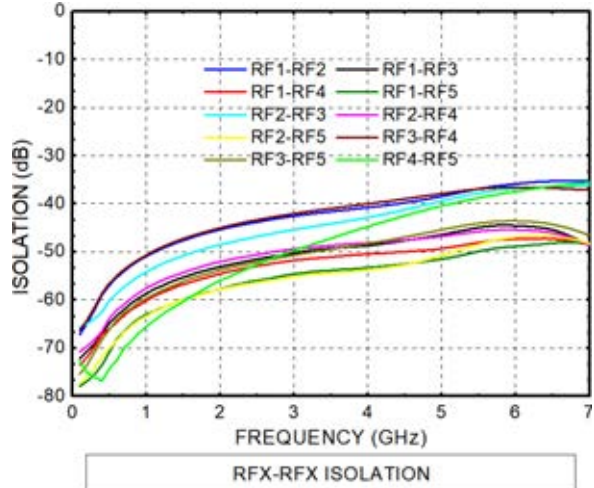
RFC-RFX隔离度 (相邻端口导通时)



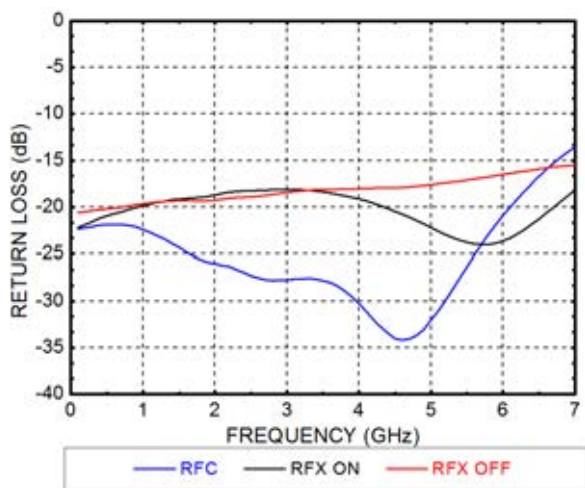
RFC-RFX隔离度 (非相邻端口导通时)



RFX-RFX隔离度

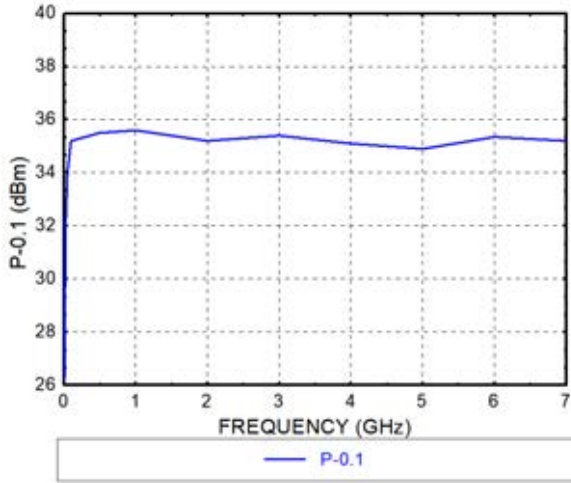


回波损耗

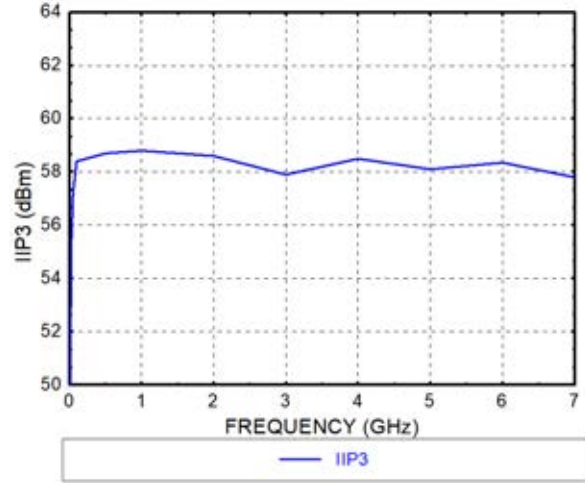




输入 $P_{-0.1}$ (10MHz~7GHz)

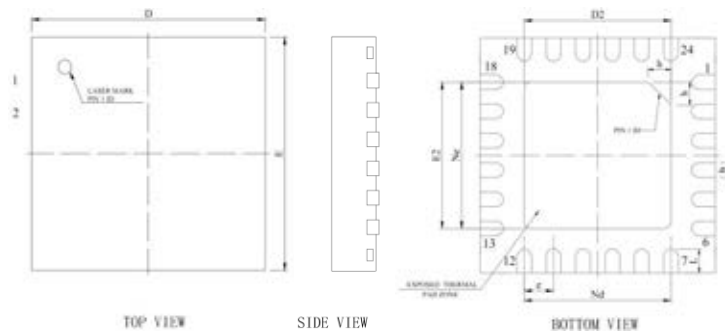


IIP3 (10MHz~7GHz)



封装框架

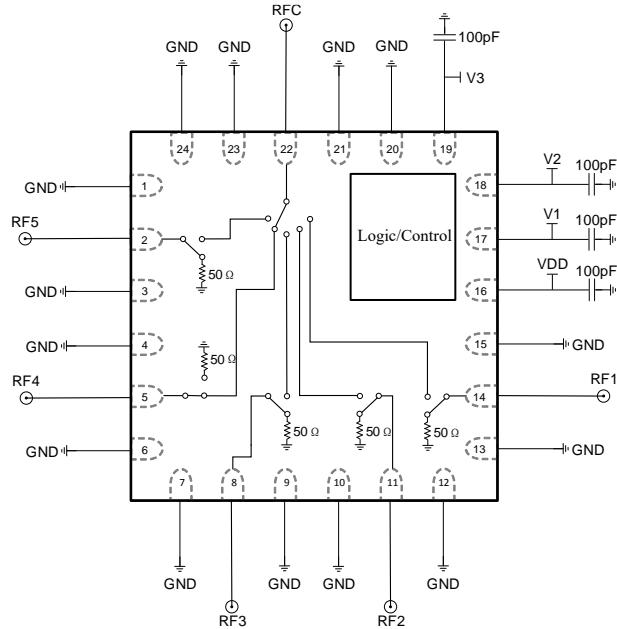
单位: mm



| SYMBOL | MILLIMETER | | |
|--------|------------|------|------|
| | MIN | NOM | MAX |
| A | 0.65 | 0.75 | 0.85 |
| A1 | — | 0.02 | 0.05 |
| b | 0.20 | 0.25 | 0.30 |
| c | 0.18 | 0.20 | 0.25 |
| D | 3.90 | 4.00 | 4.10 |
| D2 | 2.40 | 2.50 | 2.60 |
| e | 0.50BSC | | |
| Ne | 2.50BSC | | |
| Nd | 2.50BSC | | |
| E | 3.90 | 4.00 | 4.10 |
| E2 | 2.40 | 2.50 | 2.60 |
| L | 0.35 | 0.40 | 0.45 |
| h | 0.35 | 0.40 | 0.45 |



应用框图



控制关系

| 状态 | V1 | V2 | V3 |
|------------|----|----|----|
| ALL OFF | 0 | 0 | 0 |
| RFC-RF1 ON | 1 | 0 | 0 |
| RFC-RF2 ON | 0 | 1 | 0 |
| RFC-RF3 ON | 1 | 1 | 0 |
| RFC-RF4 ON | 0 | 0 | 1 |
| RFC-RF5 ON | 1 | 0 | 1 |
| ALL OFF | 0 | 1 | 1 |
| ALL OFF | 1 | 1 | 1 |

极限参数

| 参数 | 备注 | 数值 | 单位 |
|--------|------------|---------|------|
| 工作电压 | VDD | 5.5 | V |
| 控制电压 | V1, V2, V3 | 5.5 | V |
| 射频输入功率 | 直通 | 35 | dBm |
| | 负载 | 29 | dBm |
| 存储温度 | - | -65~150 | °C |
| 热阻 | 直通 | 110 | °C/W |
| | 负载 | 100 | °C/W |
| ESD | HBM | 2 | kV |