

**Model: TLSPDT0.1G18GA**
**Absorption, Broadband GaAs MMIC Switch  
 0.1-18 GHz, SPDT, SMA**
**Feature:**

- Ultra Wide Band: 0.1-18 GHz
- Low Insertion Loss: 2.5 dB Typ
- Power Handling : 27 dBm
- High Isolation
- Switch Type: Absorption

**电气特性 Electrical Specifications:**

| 参数 Parameter           | Min                         | Typ | Max | 单位 Units |
|------------------------|-----------------------------|-----|-----|----------|
| 频率范围 Frequency range   | 0.1-18                      |     |     | GHz      |
| 插损 Insertion Loss      |                             | 2.5 | 4.5 | dB       |
| 隔离 Isolation           |                             | 70  |     | dB       |
| 切换速度 Switch Speed      |                             | 50  | 100 | ns       |
| 输入驻波 Input VSWR        |                             | 1.5 |     | :1       |
| 输出驻波 Output VSWR       |                             | 1.5 |     | :1       |
| 最大输入功率 Input RF Power  |                             |     | 27  | dBm      |
| 直流电压 DC Voltage        |                             | +5  |     | V DC     |
| 直流电流 DC Supply Current |                             | 20  |     | mA       |
| 控制电平 Control Logic TTL | "0"=Low(0V) ; "1"=High(+5V) |     |     | V        |
| 阻抗 Impedance           | 50                          |     |     | Ohms     |

**机械特性 Mechanical Specifications:**

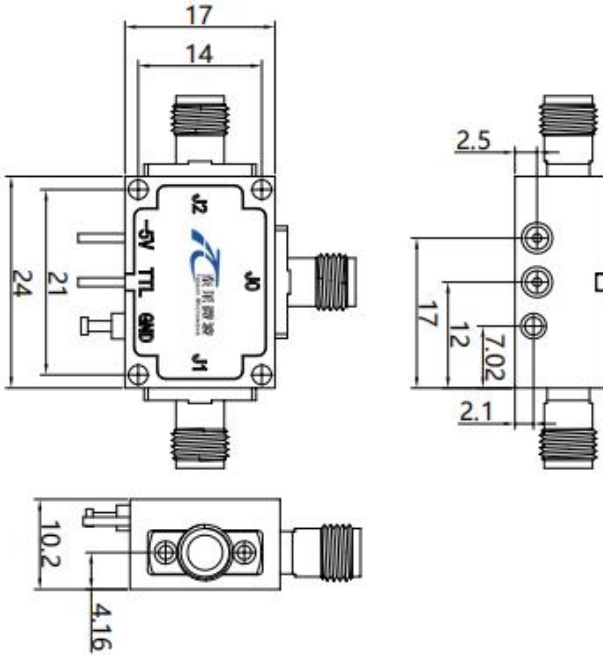
| 参数 Parameter                   | 指标 Value   | 单位 Units |
|--------------------------------|------------|----------|
| 输入输出接口 Input /Output Connector | SMA Female |          |
| 直流控制接口 Control Bias            | Solder Pin |          |
| 重量 Weight                      | ≤200       | g        |

**绝对最大值 Absolute Maximum Ratings:**

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +5V±5%               |
| 输入功率 RF Input Power          | 27 dBm               |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

外形尺寸 Outline Drawing:

Unit: mm



| 真值表 Truth Table   |                   |
|-------------------|-------------------|
| TTL Control Input | Signal Path State |
| 0                 | J0-J1             |
| 1                 | J0-J2             |



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

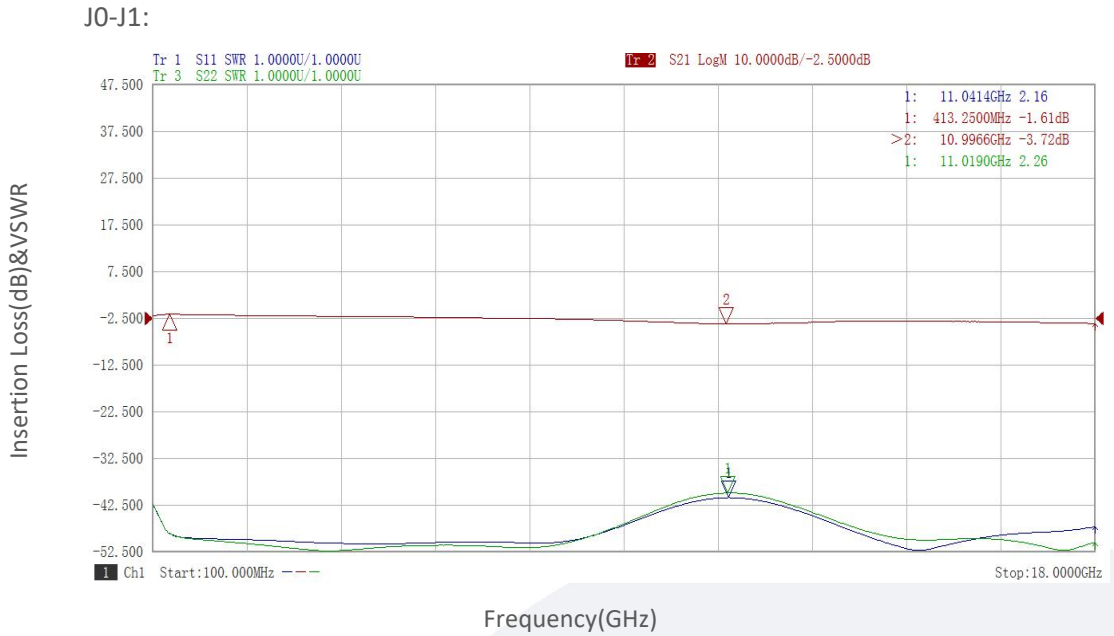
| 参数 Parameter                       | Min                                                 | Typ | Max  | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|------|----------|
| 操作温度 Operating Temperature         | -25                                                 |     | +85  | °C       |
| 存储温度 Non-operating Temperature     | -55                                                 |     | +125 | °C       |
| 相对湿度 Relative humidity             |                                                     | 95  |      | %        |
| 海拔 Altitude                        | 50,000                                              |     |      | feet     |
| 震动 Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |      |          |
| 冲击 Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions  |     |      |          |

订货信息 Ordering Information:

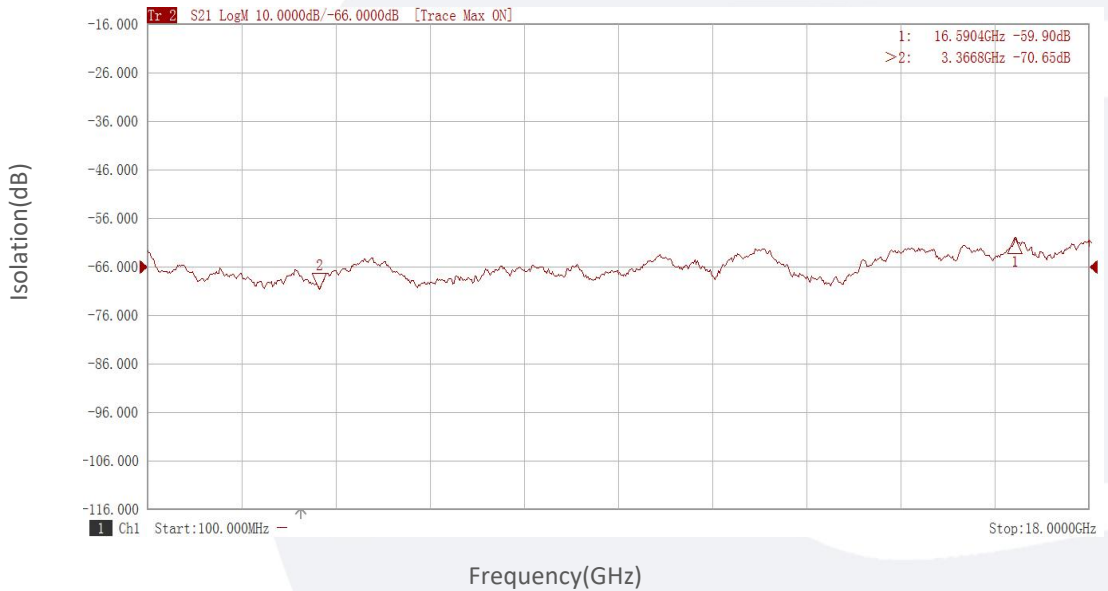
| 标准型号 Part Number | 描述 Description                                                  | 版本号 Revision |
|------------------|-----------------------------------------------------------------|--------------|
| TLSPDT0.1G18GA   | Absorption, Broadband GaAs MMIC Switch<br>0.1-18 GHz, SPDT, SMA | Rev.1.1      |

典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency

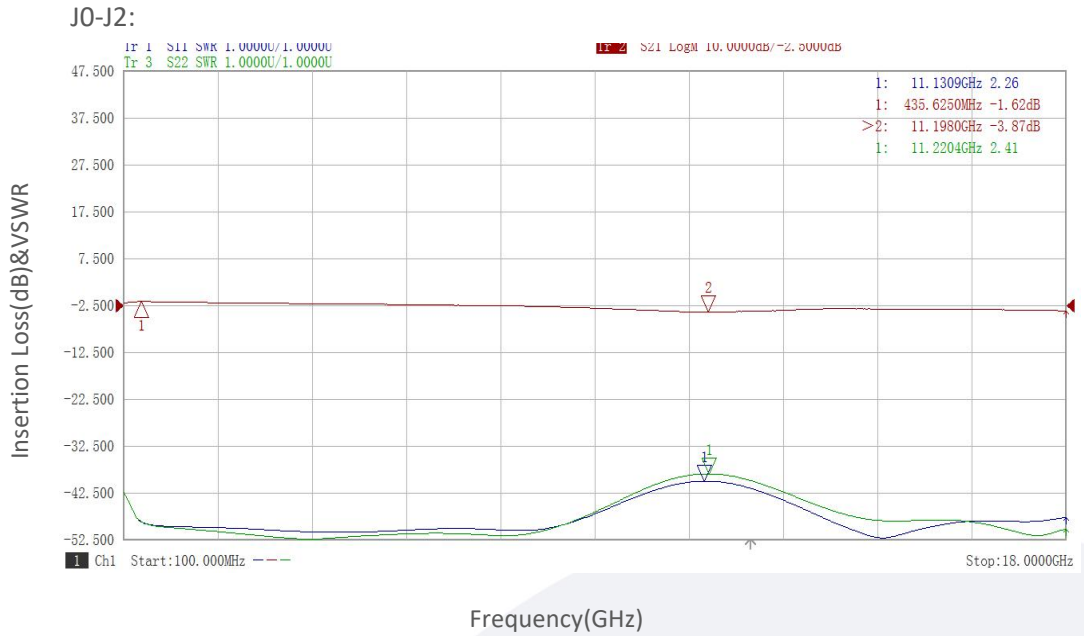


Isolation vs Frequency



典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency



Isolation vs Frequency

