

Full W Band 75-110GHz, WR-10 SPDT Switch with TTL Control

2022-7-7



Description:

AT-SPDT-75110T1 is a SPDT (Single pole double throw) switch with TTL control covering 75-110GHz. This module offers a low insertion loss of -4.5 dB with typical isolation of -30dBc.

It also has good return loss from 75-110GHz band in both ON and OFF state. The input and output connectors are WR-10. Other connectors can be provided according to request.

More information, visit www.atmicrowave.com

Feature

- ✓ Frequency: 75-110GHz
- ✓ Low insertion Loss, -4.5 dB
- ✓ High isolation: 30dB
- ✓ Very fast speed

Application

- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System
- ✓ Telecom Communication

Electronical Specifications:

| Parameter | Min | Typical | Max |
|-------------------|-------|-----------|--------|
| Frequency | | 75-110GHz | |
| Insertion Loss | | -4.5dB | -6.5dB |
| Isolation | -25dB | -30 dB | |
| Return Loss RFC | | -7dB | |
| Return Loss RF1/2 | | -5dB | |
| Input P1dB | | +20dBm | |
| Switching Time | | 100ns | |
| Vdd | | +5V | |
| Current | | 100uA | |
| Control Voltage | | TTL=0/1 | |
| Spec Temp | | 25C | |





AT-SPDT-75110T1

75-110GHz SPDT Switch

Mechanical Information

| Item | Description |
|----------------|--|
| RF Input Port | WR-10 with UG-387/U-M anti-cocking Flange. |
| RF Output Port | WR-10 with UG-387/U-M anti-cocking Flange. |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight | 188g |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| Power Supply | +7V |
| RF Input Power | +22dBm |
| Operating Temperature | 0 to +50C |
| Storage Temperature | -65 to +150C |

Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

Truth Table

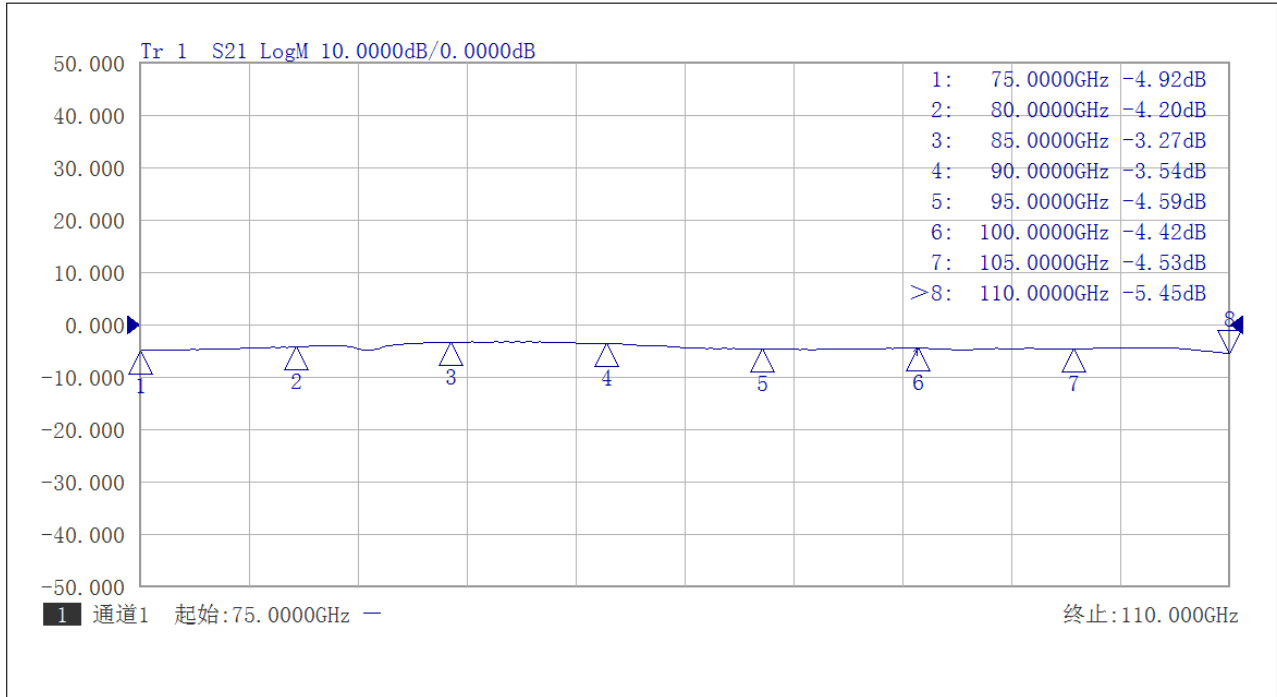
| TTL | RFC to RF1 | RFC to RF2 |
|-----|------------|------------|
| 0 | ON | OFF |
| 1 | OFF | ON |

TTL Voltage

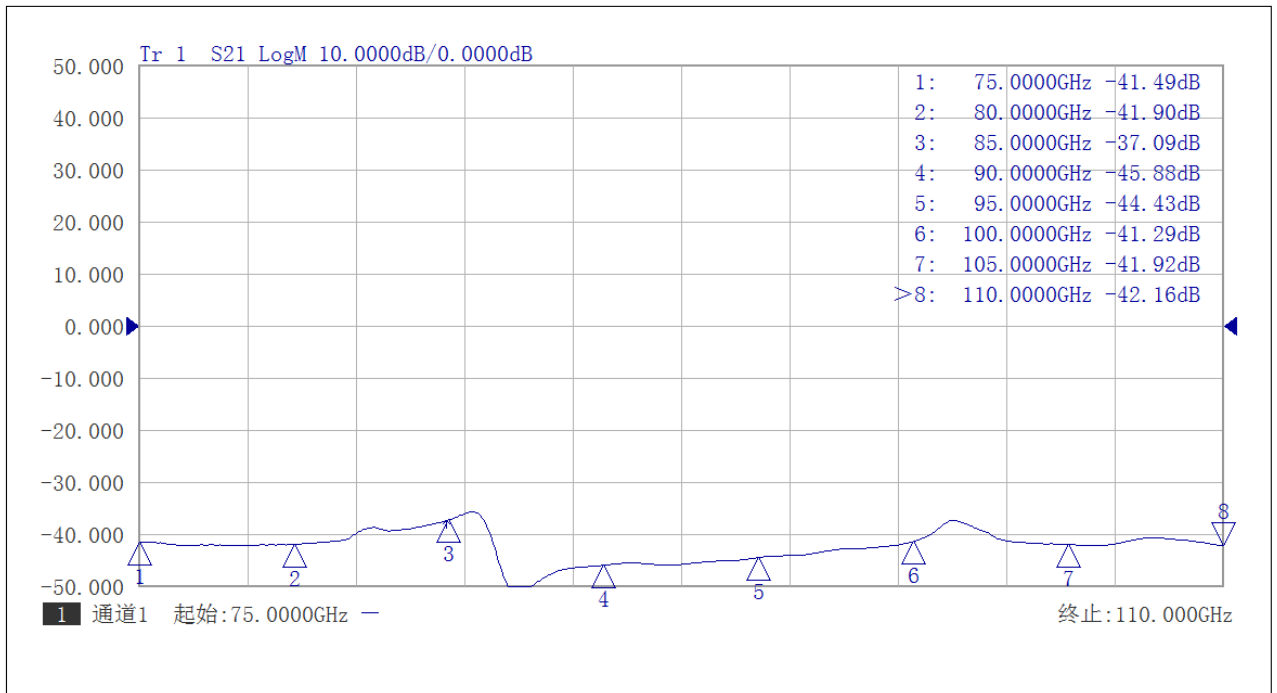
| TTL | Voltage |
|------|-------------|
| High | 2.0 to 5.5V |
| Low | 0 to 0.8V |



Test Data

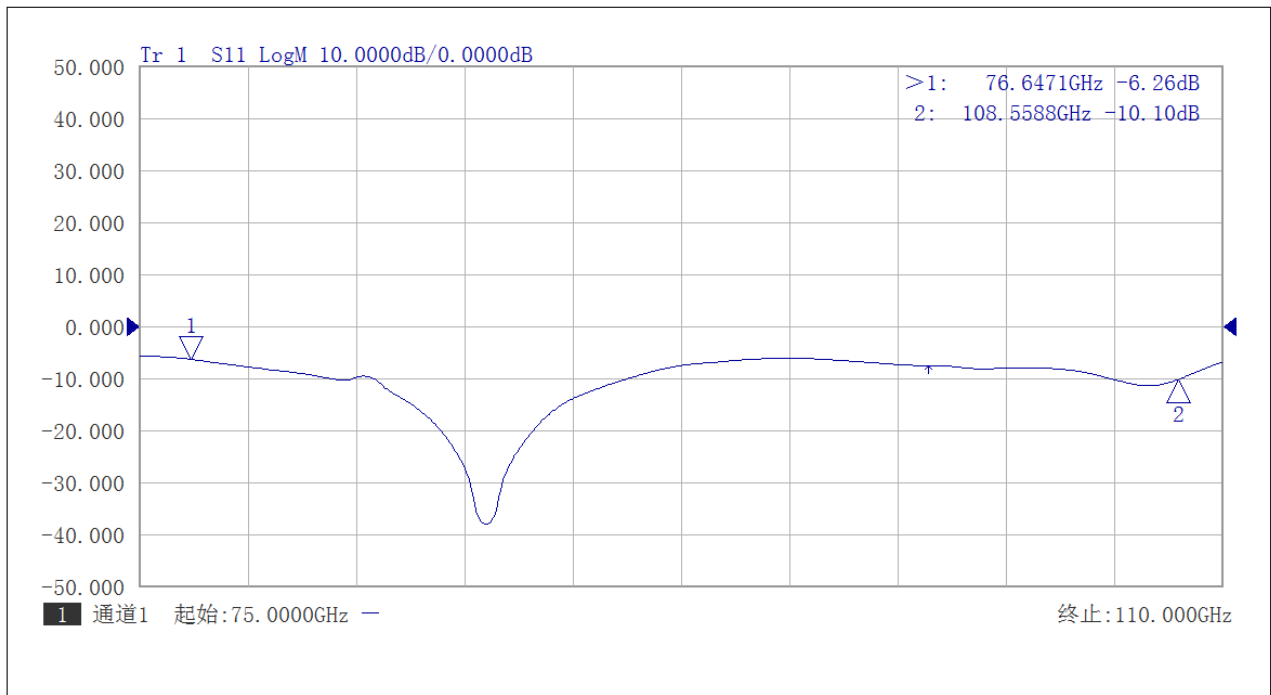


Insertion loss vs Frequency, RF ON

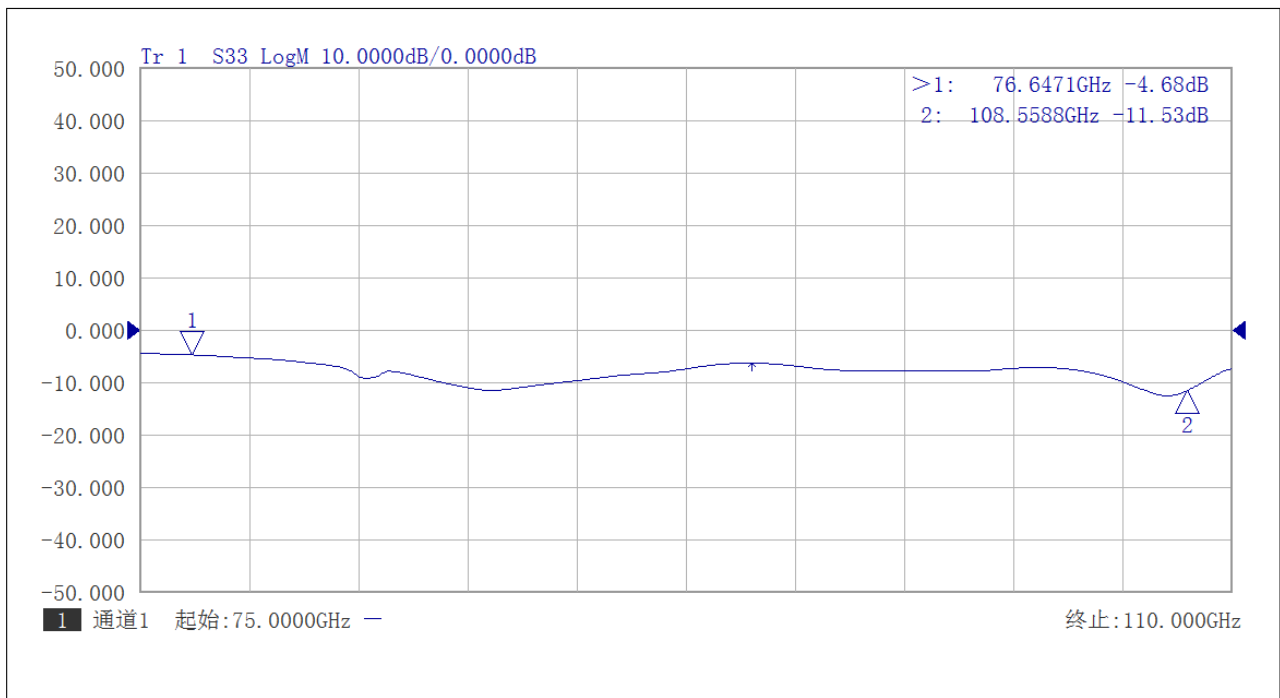


Isolation vs Frequency, RF OFF





RFC Return Loss vs Frequency



RFout Return Loss vs Frequency



Dimension(mm)

