



### Reflective Coaxial SP2T Switch 52-72GHz



#### Features

- Wide Band Operation 52-72GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation

#### Typical Applications

- Wireless Infrastructure
- Test and Measurement

Electrical Specifications,  $T_A = +25\text{ }^\circ\text{C}$ ,  $V_{dd} = +5\text{V} / -5\text{V}$ ,  $TTL = 0 / +5\text{V}$

Description	PN: RFSP2TR52G72G						
	SP2T Reflective Switch						
	Low Power Cold Switching						
Parameter	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	52		69	69		72	GHz
Insertion Loss		3.5	5.0		5.3	6.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/°C
Isolation	30	37		30	37		dB
Input VSWR		2.2	3		2.2	3	:1
Output VSWR		2.2	3		2.2	3	:1
RF Input Power (CW)			20			20	dBm
DC Power Dissipation		0.3			0.3		W
0.1dB Compression Point (Po.1dB)			20			20	dBm
IIP3		50			50		dBm
Switching Speed			100			100	ns
Weight	0.71						ounces
Impedance	50						$\Omega$
Bias Current (+5V / -5V)	50/20						mA
Input / Output Connectors	1.85mm-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						

Reflective Coaxial Single Pole Double Throw Switch 52 - 72GHz



**Absolute Maximum Ratings**

Biassing Voltage	+5V±10% / -5V±10%
TTL Control Voltage	0~ 0.8V / 2.8~ 5V

Note: TTL pins cannot be connected to the negative voltage otherwise the internal driver will be damaged.

**Ordering Information**

Part No.	ECCN	Description
RFSP2TR52G72G	EAR99	SP2T 52-72GHz PIN Diode Switch

**Environmental Specifications and Test Standards**

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C (Case Temperature)
Storage Temperature		-50°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude		Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)



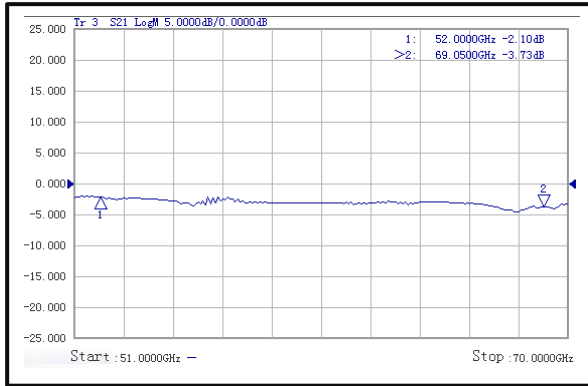
# RF-LAMBDA

## LEADER OF RF BROADBAND SOLUTIONS

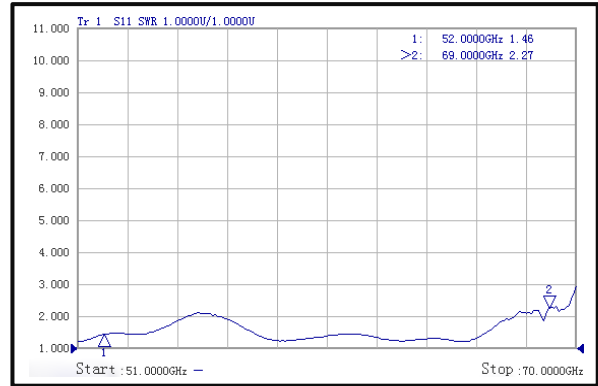
# RFSP2TR52G72G

### Typical Performance Plots

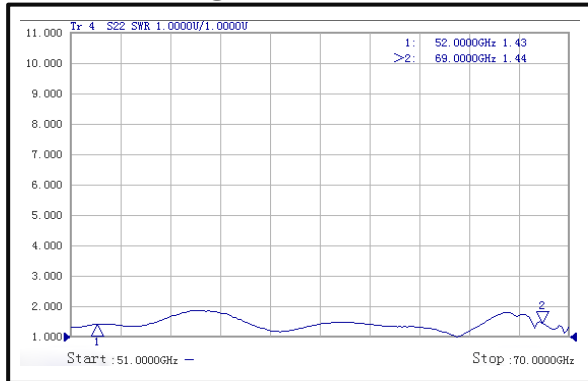
#### Insertion Loss@+25°C



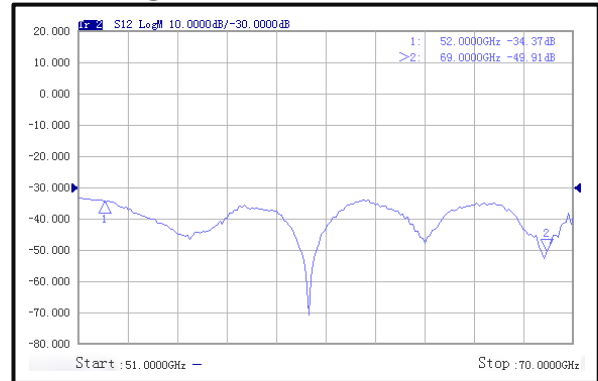
#### Input VSWR@+25°C



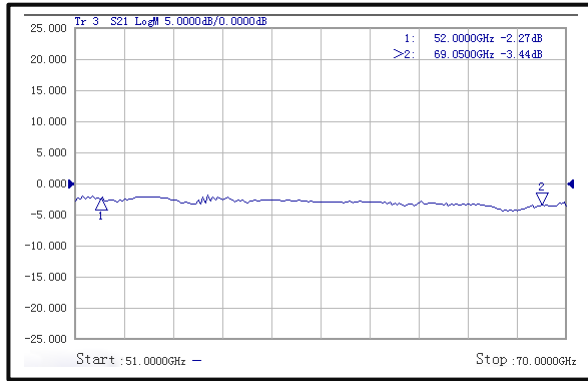
#### Output VSWR@+25°C



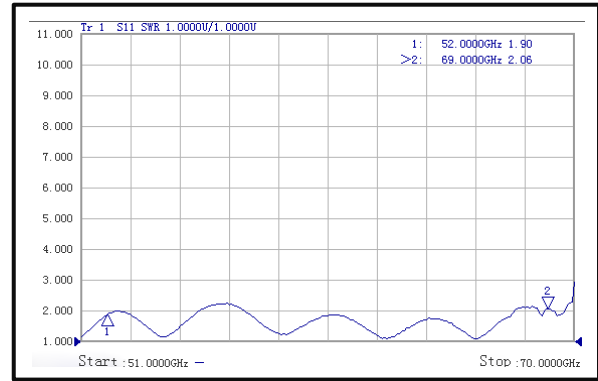
#### Isolation@+25°C



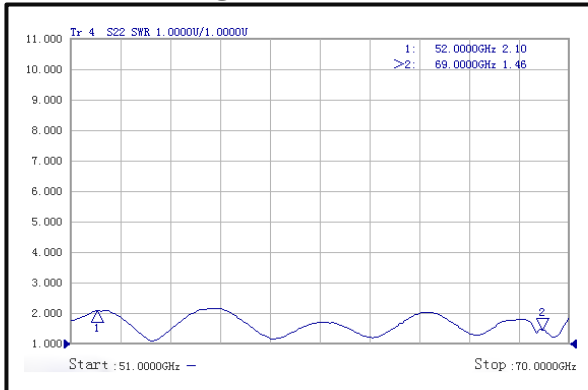
#### Insertion Loss@-45°C



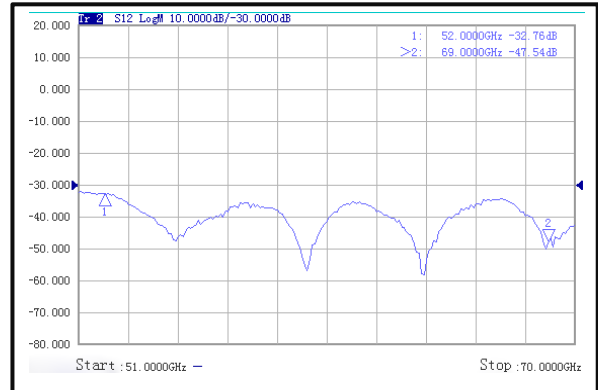
#### Input VSWR @-45°C



#### Output VSWR @-45°C



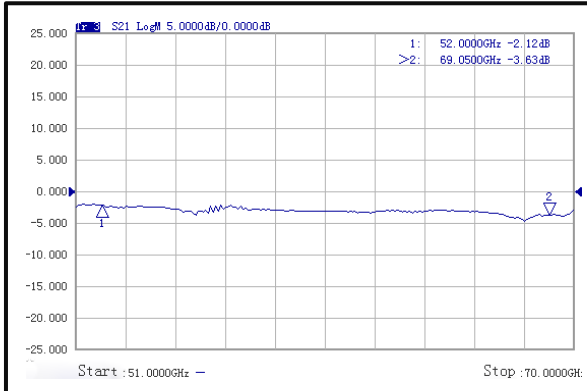
#### Isolation @-45°C



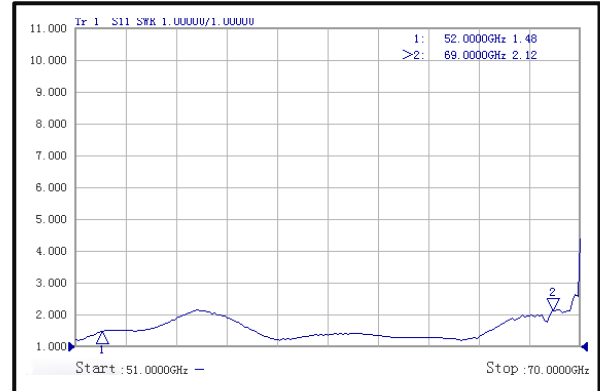
Reflective Coaxial Single Pole Double Throw Switch 52 - 72GHz



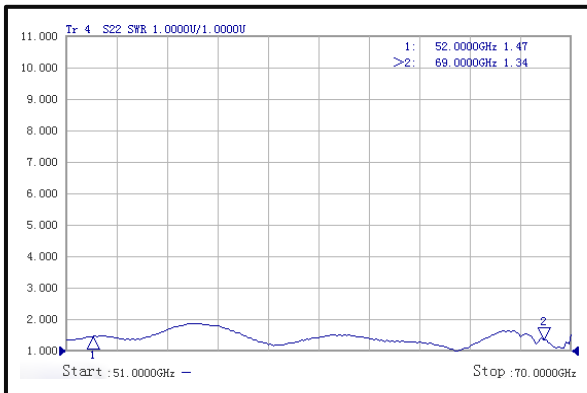
### Insertion Loss@+85°C



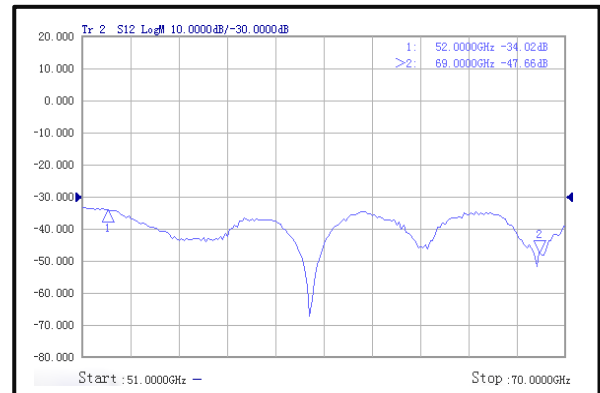
### Input VSWR@+85°C



### Output VSWR@+85°C



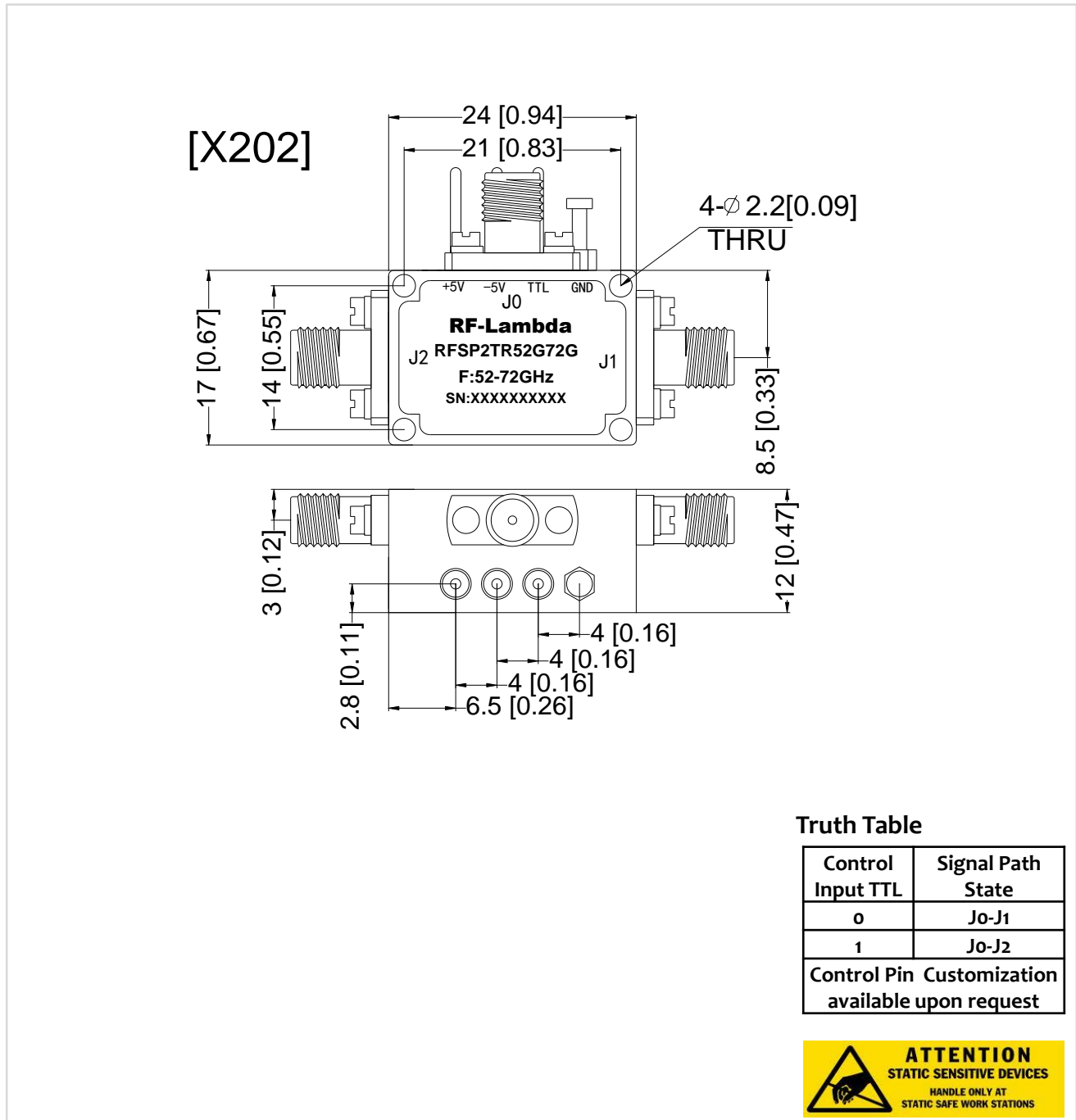
### Isolation@+85°C





### Outline Drawing:

All Dimensions in mm [inches]



Reflective Coaxial Single Pole Double Throw Switch 52 - 72GHz

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