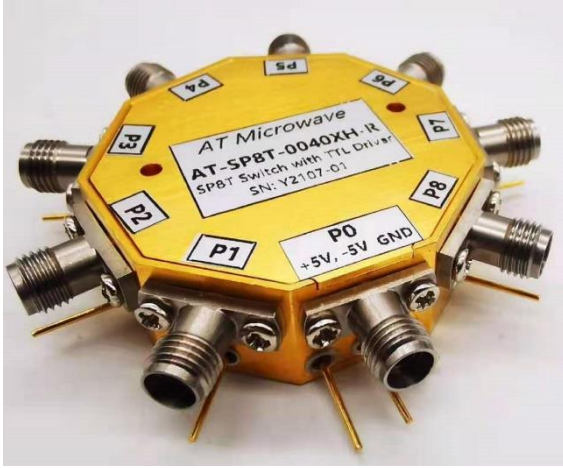




# AT-SP8T-0040XH-R

## 0.1-40GHz PIN Reflective SP8T Switch

### 0.1-40GHz PIN Reflective SP8T Switch, High Power



#### Description:

AT-SP8T-0040XH-R is high power, wide band PIN reflective SP8T switch from 0.1-40GHz. The GaAs Based Pin switch is controlled by TTL with +/-5V power supply. The switch is with good high isolation and good return loss performance.

The modules is with 2.92mm female connector, other connectors can be provided according to request.

More information, visit [www.atmicrowave.com](http://www.atmicrowave.com)

#### Feature

- ✓ Frequency: 0.1-40GHz
- ✓ Low insertion Loss, -6.5 dB
- ✓ High isolation: -40dBc
- ✓ Very fast speed

#### Application

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

### Electronical Specifications:

Parameter	Min	Typical	Max
Frequency		0.1-40GHz	
Insertion Loss		0.1-26.5GHz: -4dB 26.5-40GHz: -6dB	-8dB -12dB
Isolation J1/J8	-22dBc	-30 dBc	
Isolation J2 to J6	-25dBc	-40 dBc	
Return Loss		-15dB	
Switching Time		100ns	
P1dB		+28dBm	
Bias Voltage		+5V, 100mA, -5V, 100mA	
Control		TTL	
Spec Temp		25C	





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0.1-40GHz PIN Reflective SP8T Switch

## Mechanical Information

Item	Description
Input Port	2.92mm Female
Output Port	2.92mm Female
Bias/Control	Feed Through Pin
Case Material	Copper
Finish	Gold Plated
Weight	150g
Size:	See Dimension

## Absolute Maximum Ratings Table

Parameter	Value
Bias Voltage	+5V +/- 10%, -5V +/- 10%
RF Input Power	+30dBm
Operating Temperature	-40 to +85C
Storage Temperature	-65 to +150C

## TTL and Bias Voltage

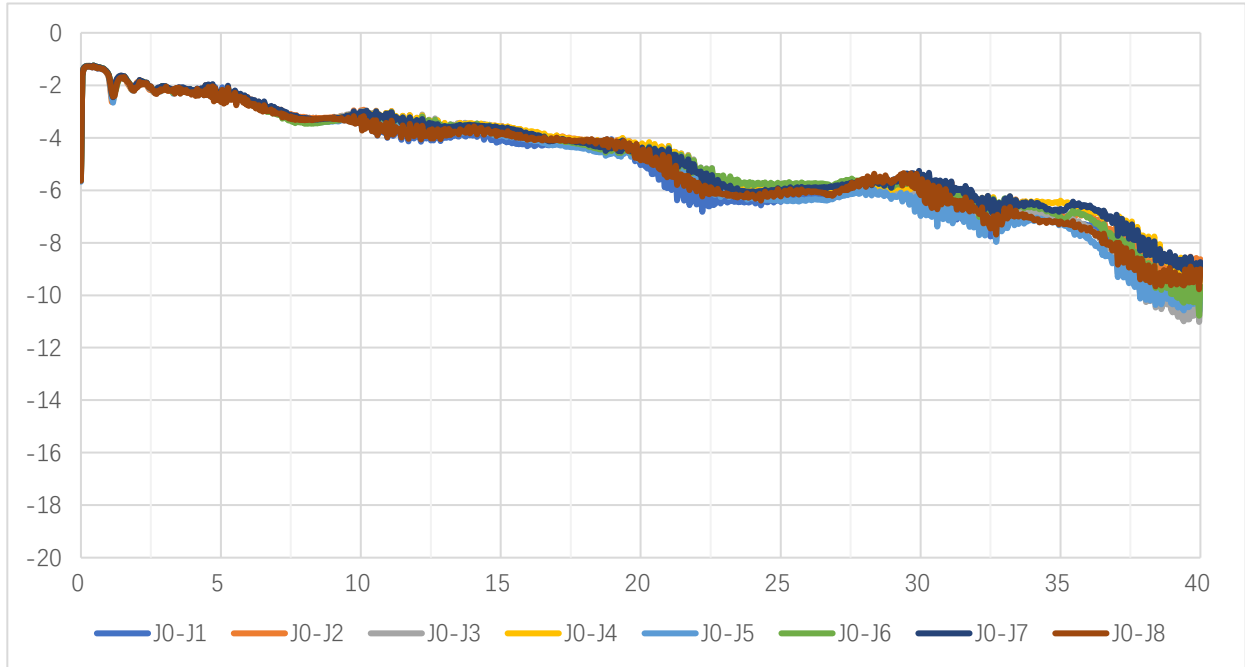
TTL	V2
High	2.0 to 5.5V
Low	0 to 0.8V
VDD	+5V ( +/-5%)
VEE	-5V ( +/-5%)

## Truth Table

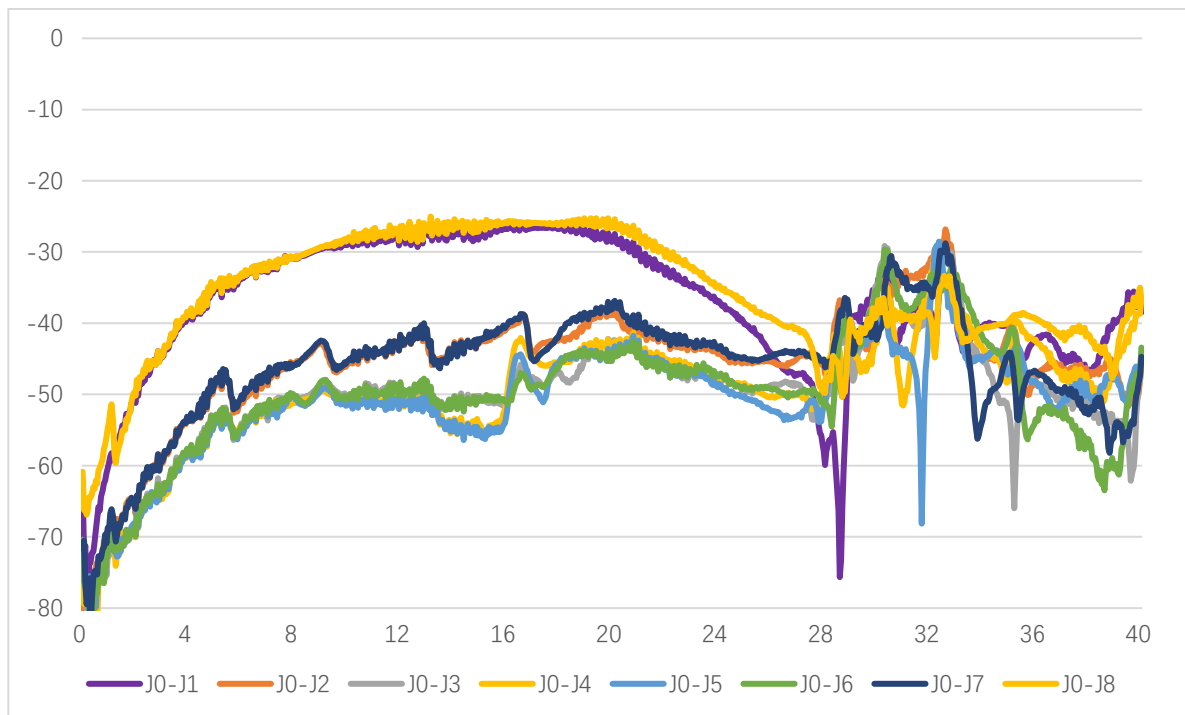
C1	C2	C3	C4	C5	C6	C7	C8	ON
1	0	0	0	0	0	0	0	J0-J1
0	1	0	0	0	0	0	0	J0-J2
0	0	1	0	0	0	0	0	J0-J3
0	0	0	1	0	0	0	0	J0-J4
0	0	0	0	1	0	0	0	J0-J5
0	0	0	0	0	1	0	0	J0-J6
0	0	0	0	0	0	1	0	J0-J7
0	0	0	0	0	0	0	1	J0-J8



### Test Data

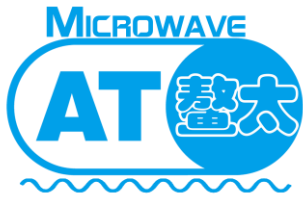


Insertion Loss vs Frequency



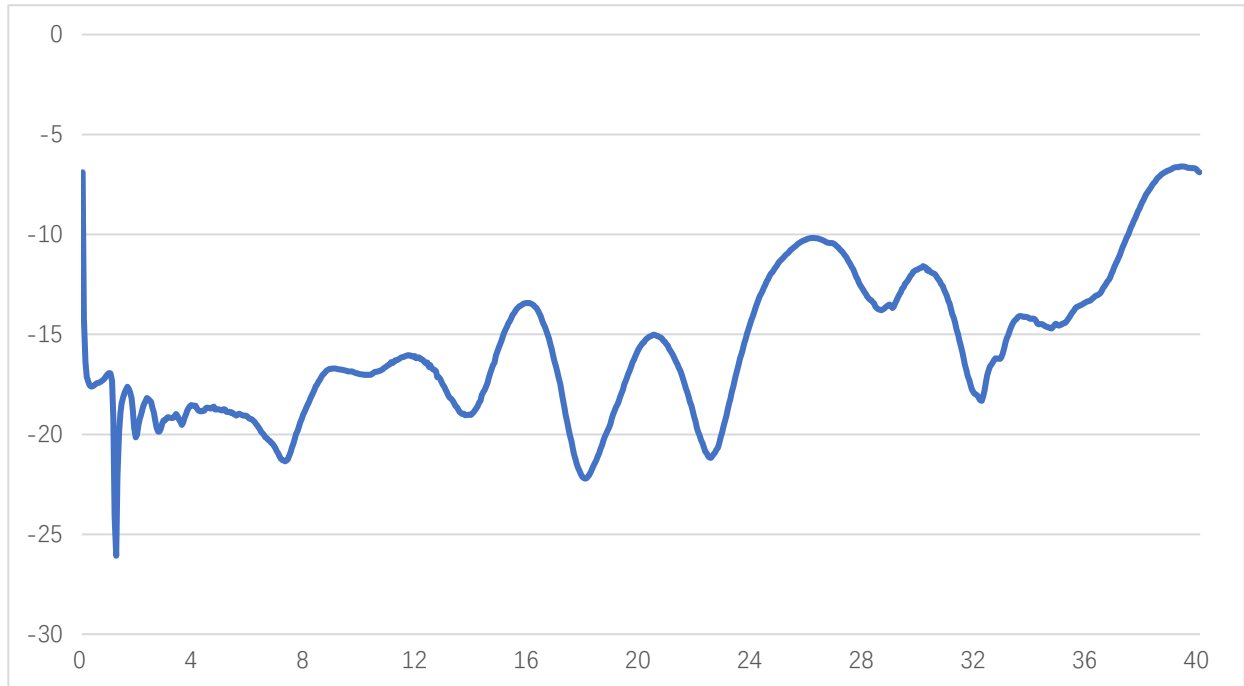
Isolation vs Frequency



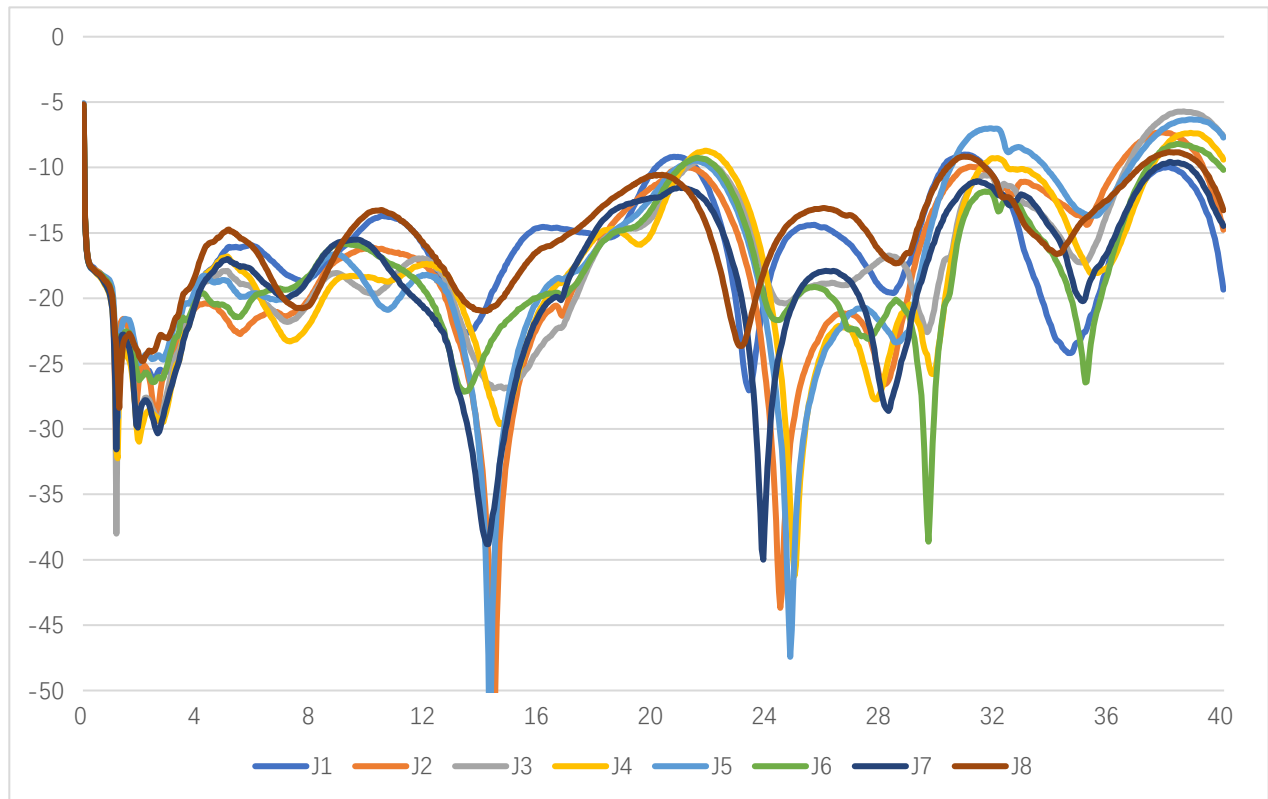


# AT-SP8T-0040XH-R

0.1-40GHz PIN Reflective SP8T Switch



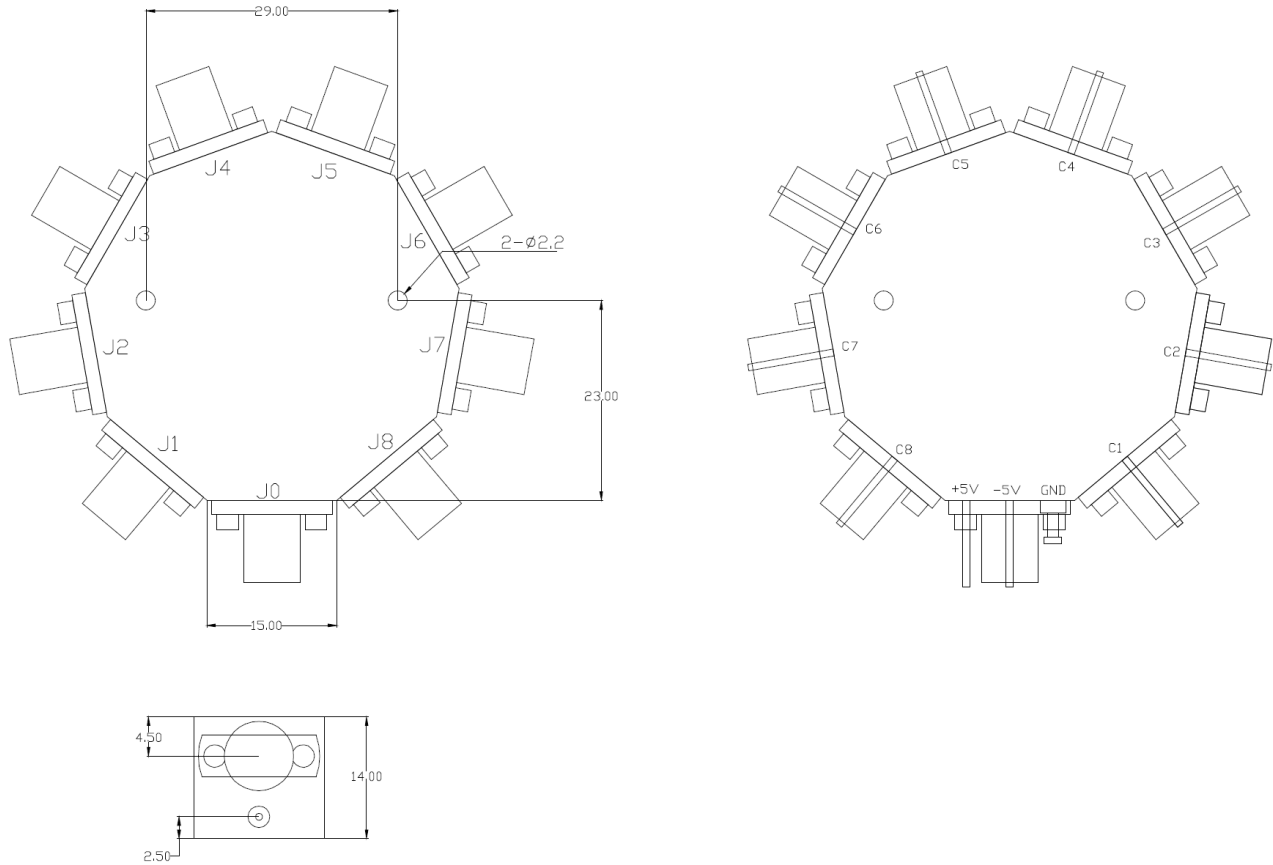
Input Return Loss vs Frequency



Output Return Loss vs Frequency



## Dimension (mm)



SP8T

## 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.

