

# SP4T & SP6T 67 GHz COAXIAL SWITCH

V-Band Preferred Switch



## APPLICATIONS

- 5G Telecom
- High Frequency Test & Measurement

To meet the growing demands for V-Band applications, Radiall has completed its range of coaxial switches with SP4T and SP6T, which operate up to 67 GHz. Fitted with 1.85 mm connectors, these switches are compatible with Radiall's SPDT switch.

## PART NUMBER SELECTION

**R57**

### SERIES PREFIX

**MODEL**  
3: Without 50 Ω termination

**RF CONNECTORS**  
V: 1.85 mm up to 67 GHz

**TYPE**  
0: Normally open  
1: Normally open I. + C.  
2: Latching  
3: Latching + I.C.  
4: Latching + S.C.O. <sup>[1]</sup>  
5: Latching + S.C.O. + I.C. <sup>[1]</sup>  
8: Latching + S.C.O. + A.R. <sup>[1]</sup>  
9: Latching + S.C.O. + I.C. + A.R. <sup>[1]</sup>

### ACTUATOR TERMINALS

0: Solder pins  
5: D-Sub connector

### OPTIONS

0: Without option  
1: Positive common <sup>[3]</sup>  
2: Compatible TTL driver <sup>[1 & 4]</sup>  
3: With suppression diodes  
4: With suppression diodes and positive common <sup>[6]</sup>  
8: BCD TTL driver compatible <sup>[1, 2, 4 & 5]</sup>

### NUMBER OF POSITIONS

4: 4 positions  
6: 6 positions

### ACTUATOR VOLTAGE

2: 12 Vdc  
3: 28 Vdc

## Notes

I.C.: Indicator contact / S.C.O. : Self Cut-Off / A.R. : Auto Reset

1. These models are already equipped with suppression diodes
2. Latching BCD driver enables also a global reset through driver code 0000 (see BCD logic coding page 1-11)
3. This option is only available for type 0, 1, 2, 3 and for type 8 and 9 combined with 28 Vdc
- 4: Option available only with type 0, 1, 8 and 9
5. Polarity is not relevant to application for switches with TTL driver
6. Option available only with type 0, 1, 2 and 3



All of SP4T and SP6T's RF paths have the same electrical length and insertion loss, enabling excellent RF performance up to 67 GHz.

Operating Frequency (GHz)	DC - 6	6 - 12.4	12.4 - 18	18 - 26.5	26.5 - 40	40 - 50	50 - 65	65 - 67
V.S.W.R Max	1.3	1.4	1.5	1.7	1.9	2.2	2.2	2.2
Insertion Loss Max (dB)	0.3	0.4	0.5	0.7	0.9	1.2	1.2	1.7
Isolation Min (dB)	70	60	60	55	50	50	50	50
Average Power (W) Nominal Voltage at 25 °C	40	30	25	15	5	3	1	1

#### FEATURES & BENEFITS

- Frequency: DC - 67 GHz
- Excellent RF performance
- Life span: 2 million cycles
- Various options available
- Same electrical length and insertion loss for all RF paths