

**0.8 to 20GHz SP3T Reflective PIN Diode Switch**

**SP3TR-008200S\_A**

**1, Configuration**

20 GHz,SMA-Female SP3T PIN Diode Switch ;  
 Reflective ;  
 Low Insertion Loss 3.2dB ;  
 Operating Temperature: -45 to +85°C

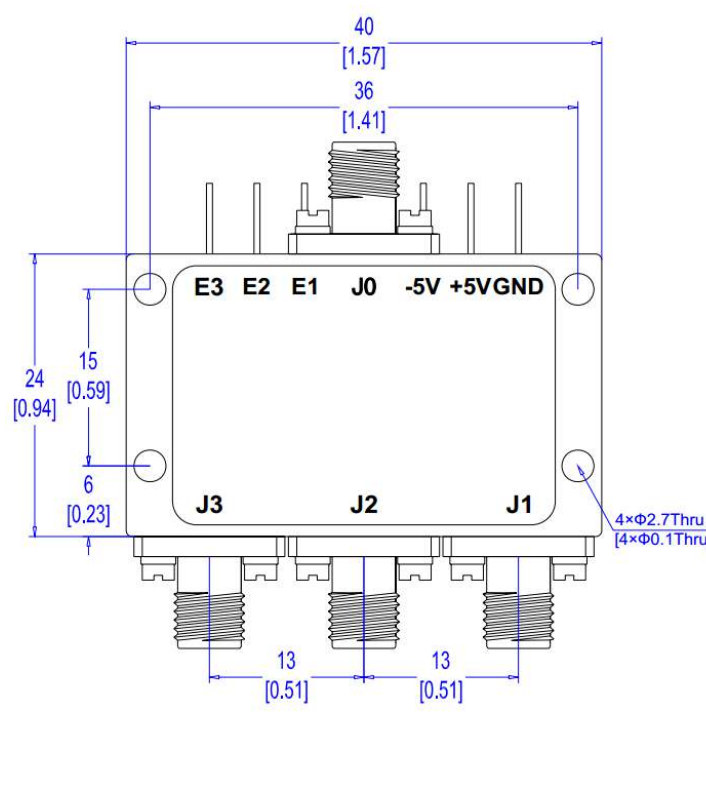
**2, Specifications**

( Electronic Specification Note : Input Power :-5 to 0dBm , Values at 25deg , sea level. Test indicators will deteriorate at high and low temperature )

Parameter	Unit	Specification	Parameter	Unit	Specification
Freq. Range	GHz /	0.8 - 20	Operating Temp.	°C	-45 to +85
Impedance	Ω /	50	ROHS Compliant	/	Yes
Input Power	W Max.	1	Input Connectors	/	SMA-Female
Insertion Loss	dB Max.	3.2	Output Connectors	/	SMA-Female
VSWR	/ Max.	2	Dimension L*W*H	mm	40*24*10.20
Isolation	dB Min.	60	Weight Max.	g	TBD
Speed	nsec Max.	100	Surface	/	Gold plated
Power Supply	V/mA Type	5 / 150 -5 / 50	Switching speed is defined as 50% TTL to 90% RF ( T - on ) and 50% TTL to 10% RF ( T - off ) .		

**Special Request :**

**3, CAD Drawing**



Unit : MM / [Inch] , Unless otherwise specified, Outline drawing ±0.2MM ; Hole±0.1MM  
 Stainless Steel Input and Output Connectors

# RF PIN SWITCH Truth Table

TTL Control Voltage : +5V / 0V

**SPDT** : TTL +5V / 0V ( 0 : J0-J1 ; 1 : J0-J2)

**SPDT** : E2 , E1

Control Input TTL		Signal Path State
E2	E1	
1	0	J0-J1
0	1	J0-J2

**SP3T** : E3 , E2 , E1

Control Input TTL			Signal Path State
E3	E2	E1	
1	1	0	J0-J1
1	0	1	J0-J2
0	1	1	J0-J3

**SP4T** : E4 , E3 , E2 , E1

Control Input TTL				Signal Path State
E4	E3	E2	E1	
1	1	1	0	J0-J1
1	1	0	1	J0-J2
1	0	1	1	J0-J3
0	1	1	1	J0-J4

**SP5T** : E5 , E4 , E3 , E2 , E1

Control Input TTL					Signal Path State
E5	E4	E3	E2	E1	
1	1	1	1	0	J0-J1
1	1	1	0	1	J0-J2
1	1	0	1	1	J0-J3
1	0	1	1	1	J0-J4
0	1	1	1	1	J0-J5

**SP6T** : E6 , E5 , E4 , E3 , E2 , E1

Control Input TTL						Signal Path State
E6	E5	E4	E3	E2	E1	
1	1	1	1	1	0	J0-J1
1	1	1	1	0	1	J0-J2
1	1	1	0	1	1	J0-J3
1	1	0	1	1	1	J0-J4
1	0	1	1	1	1	J0-J5
0	1	1	1	1	1	J0-J6

**SP16T** : E4 , E3 , E2 , E1

Control Input TTL				Signal Path State
E4	E3	E2	E1	
0	0	0	0	J0-J1
0	0	0	1	J0-J2
0	0	1	0	J0-J3
0	0	1	1	J0-J4
0	1	0	0	J0-J5
0	1	0	1	J0-J6
0	1	1	0	J0-J7
0	1	1	1	J0-J8
1	0	0	0	J0-J9
1	0	0	1	J0-J10
1	0	1	0	J0-J11
1	0	1	1	J0-J12
1	1	0	0	J0-J13
1	1	0	1	J0-J14
1	1	1	0	J0-J15
1	1	1	1	J0-J16

**SP7T** : E7 , E6 , E5 , E4 , E3 , E2 , E1

Control Input TTL							Signal Path State
E7	E6	E5	E4	E3	E2	E1	
1	1	1	1	1	1	0	J0-J1
1	1	1	1	1	0	1	J0-J2
1	1	1	1	0	1	1	J0-J3
1	1	1	0	1	1	1	J0-J4
1	1	0	1	1	1	1	J0-J5
1	0	1	1	1	1	1	J0-J6
0	1	1	1	1	1	1	J0-J7

**SP8T** : E8 , E7 , E6 , E5 , E4 , E3 , E2 , E1

Control Input TTL								Signal Path State
E8	E7	E6	E5	E4	E3	E2	E1	
1	1	1	1	1	1	1	0	J0-J1
1	1	1	1	1	1	0	1	J0-J2
1	1	1	1	1	0	1	1	J0-J3
1	1	1	1	0	1	1	1	J0-J4
1	1	1	0	1	1	1	1	J0-J5
1	1	0	1	1	1	1	1	J0-J6
1	0	1	1	1	1	1	1	J0-J7
0	1	1	1	1	1	1	1	J0-J8