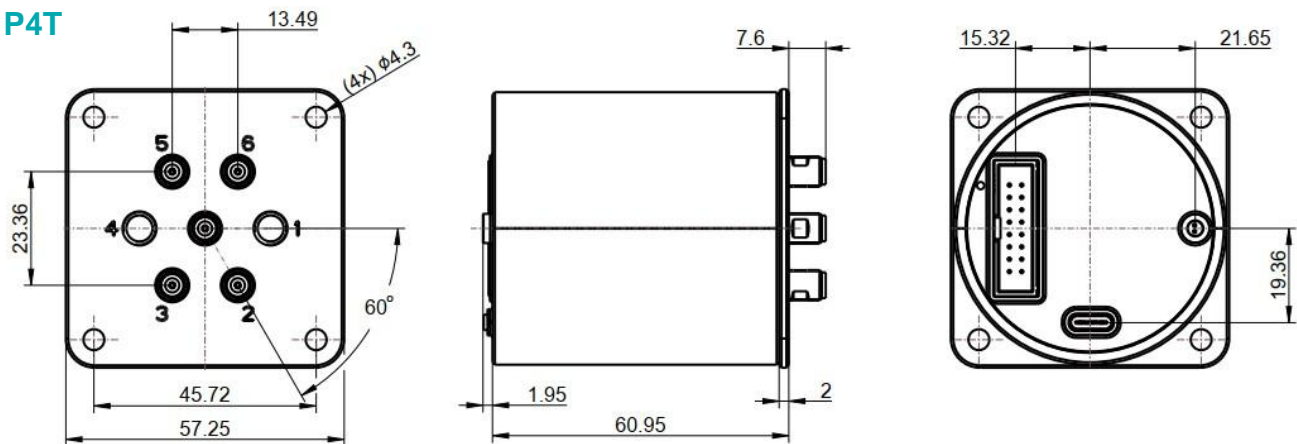


# Coaxial Switch Datasheet

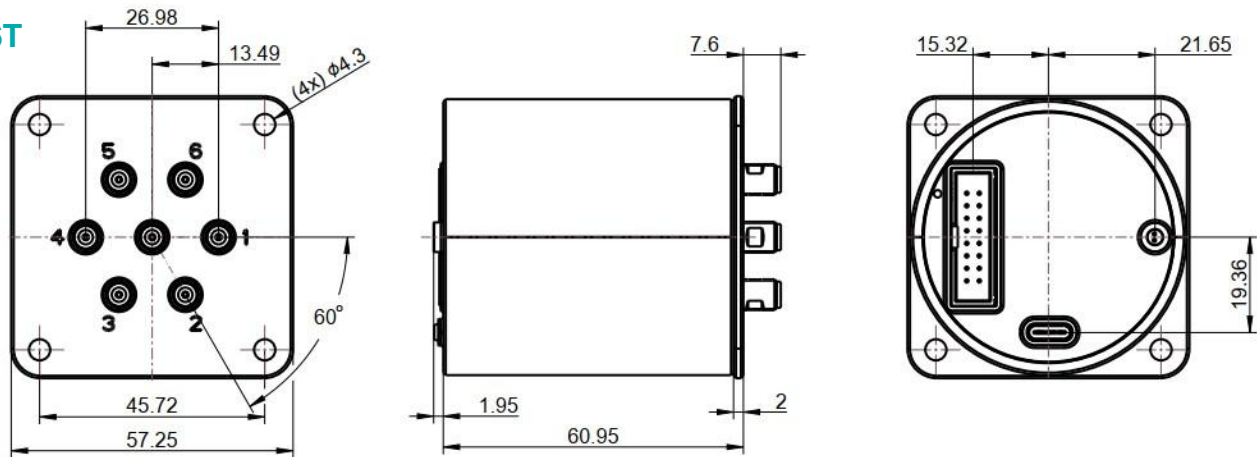


## SWH-1P4/6/T-18-xNT

### 1P4T



### 1P6T



Dimensions in mm  
Typical Tolerance  $\pm 0.5\text{mm}$

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### Configuration

Connector Type	SMA Female
Connector Outer Contact	Stainless steel (SUS303), Passivation
Connector Center Contact	Beryllium Copper, Gold
Switch Sequence	Break-Before-Make
Switching Speed	$\leq 15\text{ms}$
Control Interface	Type-C /JTAG 2*8P (2.54)

### Electrical Characteristics

Impedance	50 $\Omega$
Frequency Range	DC to 18GHz
Isolation	90dB Minimum DC-12GHz 80dB Minimum 12-15GHz 70dB Minimum 15-18GHz

# Coaxial Switch Datasheet



VSWR	1.3 Maximum DC-4GHz 1.35 Maximum 4-12.4GHz 1.5 Maximum 12.4-18GHz
Insertion Loss	0.3dB+0.015x f(GHz), DC-18GHz
Supply Voltage	24VDC
Supply Current	200mA
Supply Current (Quiescent)	50mA
Maximum power rating	Into internal termination 1W CW, 50W peak, 10μs max pulse width, not to exceed 1 W average Into thru path Hot switching 2W CW, 100W peak, 10 μs max pulse width, not to exceed 2 W average

## Mechanical Properties

Contacting Mating Cycle	500 times
Operating Life	2 million Cycles Measured In 25 °C

## Environment Data

Working Temperature	-25℃ ~ +75℃
Storage Temperature	-55℃ ~ +85℃

## Order Information

P/N	Description
SWH-1P4T-18-1NT	1P4T Coaxial Switch SMA Connector have Load TTL, DC-18GHz
SWH-1P4T-18-0NT	1P4T Coaxial Switch SMA Connector have Load Low level, DC-18GHz
SWH-1P6T-18-1NT	1P6T Coaxial Switch SMA Connector have Load TTL, DC-18GHz
SWH-1P6T-18-0NT	1P6T Coaxial Switch SMA Connector have Load Low level, DC-18GHz

## Standard drive 1P4/6T

1	9	1: +24Vdc	9: IND.Com
2	10	2: Drive P1	10: IND P1
3	11	3: Drive P2	11: IND P2
4	12	4: Drive P3	12: IND P3
5	13	5: Drive P4	13: IND P4
6	14	6: Drive P5	14: IND P5
7	15	7: Drive P6	15: IND P6
8	16	8: GND	16: RST

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### Notes:

- 1、Connect pin 1 to 24 VDC;
- 2、Connect pin 8 to GND;
- 3、Select (close) desired RF path by applying ground to the corresponding "drive" pin; for example, ground pin 2 to close RF Drive Port1.

# Coaxial Switch Datasheet

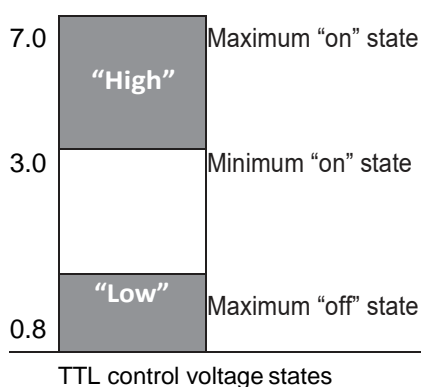


## TTL Standard drive 1P4/6T

1	9	1: +24Vdc	9: IND.Com
2	10	2: Drive P1	10: IND P1
3	11	3: Drive P2	11: IND P2
4	12	4: Drive P3	12: IND P3
5	13	5: Drive P4	13: IND P4
6	14	6: Drive P5	14: IND P5
7	15	7: Drive P6	15: IND P6
8	16	8: GND	16: RST

### Instructions TTL drive:

- 1、Connect pin 1 to supply +24 VDC
- 2、Connect pin 8 to ground (Notes1).
- 3、Select (ON) desired RF path by applying TTL "High" to the corresponding "drive" pin; for example apply TTL "High" to pin 3 to ON RF path 2.
- 4、To select another path, ensure that all unwanted RF path "drive" pins are at TTL "Low" (to prevent multiple RF path engagement). Apply TTL "High" to the "drive" pin which corresponds to the desired RF path (see Note 3).
- 5、To open all RF paths, ensure that all RF path "drive" pins are at TTL "Low." Then, apply TTL "High" to pin 16.



### Notes

1. Pin 8 must always be connected to ground to enable the electronic position-indicating circuitry and drive logic circuitry.  
CAUTION: IF PIN 8 IS NOT CONNECTED TO POWER SUPPLY GROUND, CATASTROPHIC FAILURE WILL OCCUR.
2. After the RF path is switched and latched, the drive current is interrupted by the electronic position-sensing circuitry. Pulsed control is not necessary, but if implemented, the pulse width must be 15 ms minimum to ensure that the switch is fully latched.
3. The default operation of the switch is break-before-make. Make-before-break switching can be accomplished by simultaneously selecting the old RF path "drive" pin and the new RF path "drive" pin. This will simultaneously close the old RF path and the new RF path. Once the new RF path is closed (15 ms), deselect the old RF path "drive" pin while leaving the new RF path "drive" pin selected. The switch circuitry will automatically open the old RF path while leaving the new RF path engaged.