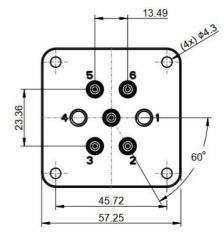
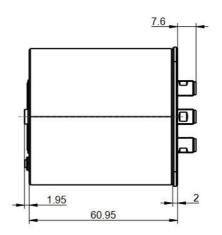
Coaxial Switch Datasheet

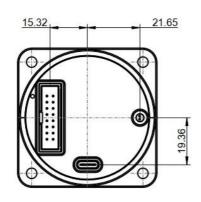


SWH-1P4/6/8T-26-xNT

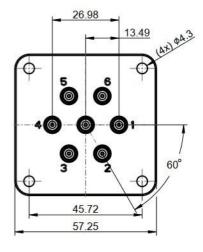
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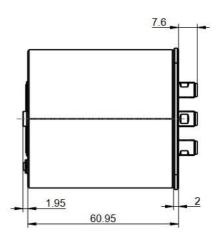






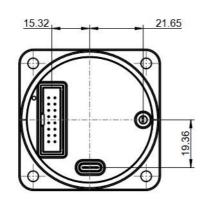
1P6T



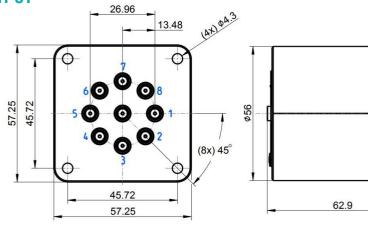


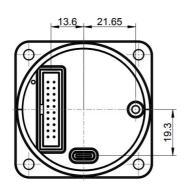
7.65

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Draft

Rev A

Coaxial Switch Datasheet



Draft

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	≤15ms
Control Interface	Type-C /JTAG 2*8P (2.54)

Electrical Characteristics

Impedance	50Ω
Frequency Range	DC to 26.5GHz
	100dB Minimum DC-12GHz
Isolation	80dB Minimum 12-15GHz
	70dB Minimum 15-20GHz
	65dB Minimum 20-26.5GHz
	1.3 Maximum DC-4GHz
VSWR	1.35 Maximum 4-12.4GHz
	1.5 Maximum 12.4-18GHz
	1.7 Maximum 18-26.5GHz
Insertion Loss	0.3dB+0.015x f(GHz), DC-26.5GHz
Insertion Loss	
Supply Voltage	24VDC
Supply Current	200mA
Supply Current (Quiescent)	50mA

Mechanical Properties

Contactor Mating Cycle	500 times
Operating Life	1P4/6T 5 million Cycles
	1P8T 2 million Cycles (Measured In 25 °C)

Environment Data

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

2/4 Rev A

Coaxial Switch Datasheet



Standard drive 1P4/6T

1	9	
2	10	
3	11	
4	12	
5	13	
6	14	
7	15	
8	16	

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

16: RST

8: GND

Draft

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.

Standard drive 1P8T

1	11
2	12
3	13
4	14
5	15
6	16
7	17
8	18
9	19
10	20

1: +24Vdc	11: IND.Com
2: Drive P1	12: IND P1
3: Drive P2	13: IND P2
4: Drive P3	14: IND P3
5: Drive P4	15: IND P4
6: Drive P5	16: IND P5
7: Drive P6	17: IND P6
8: Drive P7	18: IND P7
9: Drive P8	19: IND P8
10: GND	20: RST

Notes:

- 1. Connect pin 1 to 24 VDC;
- 2. Connect pin 10 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.

TTL Standard drive 1P4/6T

1	9
2	10
3	11
4	12
5	13
6	14
7	15
8	16

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

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Coaxial Switch Datasheet

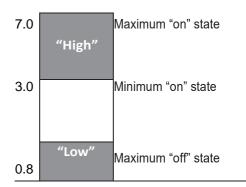


TTL Standard drive 1P8T

1	11	1: +24Vdc	11: IND.Com
2	12	2: Drive P1	12: IND P1
3	13	3: Drive P2	13: IND P2
4	14	4: Drive P3	14: IND P3
5	15	5: Drive P4	15: IND P4
6	16	6: Drive P5	16: IND P5
7	17	7: Drive P6	17: IND P6
8	18	8: Drive P7	18: IND P7
9	19	9: Drive P8	19: IND P8
10	20	10: GND	20: RST

Instructions TTL drive:

- 1. Connect pin 1 to supply +24 VDC
- Draft
- 2. Connect pin 10 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 Drive P2.
- 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 20.



TTL control voltage states

Notes

 $1. \quad \hbox{Pin 8 must always be connected to ground to enable the electronic position-indicating circuitry and drive} \\$

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.

Order Information

P/N	Description
SWH-1P4T-26-1NT	1P4T Coaxial Switch SMA Connector have Load TTL, DC-26.5GHz
SWH-1P4T-26-0NT	1P4T Coaxial Switch SMA Connector have Load Low level, DC-26.5GHz
SWH-1P6T-26-1NT	1P6T Coaxial Switch SMA Connector have Load TTL, DC-26.5GHz
SWH-1P6T-26-0NT	1P6T Coaxial Switch SMA Connector have Load Low level, DC-26.5GHz
SWH-1P8T-26-1NT	1P8T Coaxial Switch SMA Connector have Load TTL, DC-26.5GHz
SWH-1P8T-26-0NT	1P8T Coaxial Switch SMA Connector have Load Low level, DC-26.5GHz

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