

# QWCSD-51-S

DPDT, DC~22GHz, WR-51, SMA

- Features:**  
 \* Low VSWR  
 \* Low Insertion Loss  
 \* High Isolation

- Applications:**  
 \* Wireless  
 \* Transmitter  
 \* Laboratory Test  
 \* Radar

## Electrical

Frequency(Coaxial):	DC~18GHz
Frequency(Waveguide):	15~22GHz
Current:	1.2A@24V DC
Voltage:	24±2V DC
Impedance:	50Ω

## Coaxial Switch

Frequency range (GHz)	Insertion Loss (dB Max.)	Isolation (dB Min.)	VSWR (Max.)
DC-1	0.05	80	1.1
1-2	0.1	70	1.15
2-6.5	0.25	60	1.25
6.5-11	0.3	60	1.3
11-15	0.35	50	1.35
15-18	0.5	50	1.5

## Waveguide Switch

Frequency range (GHz)	Insertion Loss (dB Max.)	Isolation (dB min.)	VSWR (Max.)
15-22	0.1	60	1.1

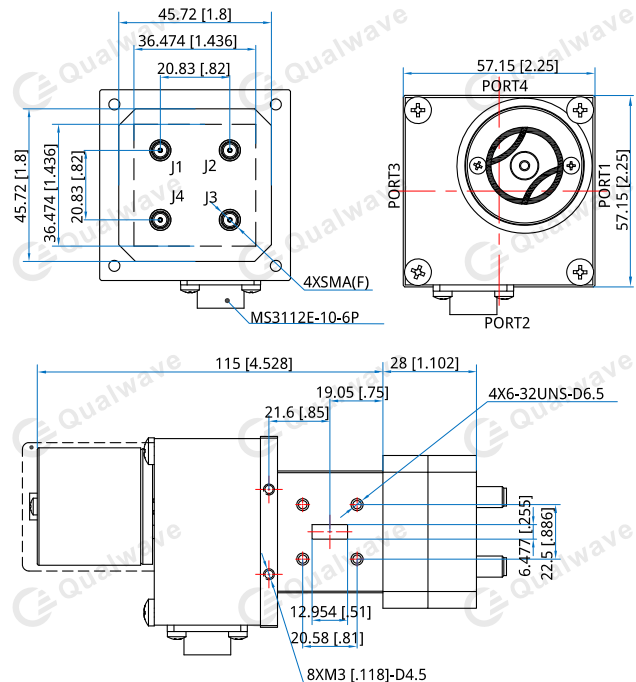
## Mechanical

Coaxial Switch Interface:	SMA
Waveguide Switch Interface:	WR-51
Switching Time:	80mS
Operation Life:	0.1M Cycles

## Environmental

Operating Temperature:	-40~+85°C
Extended Temperature:	-55~+85°C
Non-operating temperature:	-55~+105°C

## Outline Drawings



Unit: mm [in]  
 Tolerance: ±0.2mm [±0.008in]

## Additional Options

- TTL: T
- Indicators: I
- Extended Temperature: Z

## How To Order

### QWCSD-51-S-XYZ

- S: RF Connectors. SMA: S.
- X: Voltage. +15V: F, +24V: K.
- Y: Interface Circular connector:2.
- Z: Additional Options.

Examples:

To order a Waveguide Coaxial Switch, DPDT, WR51, SMA, +24V, TTL, Indicators, specify QWCSD-51-S-K2IT.

Customization is available upon request.

## Pin Numbering

Pin	Function	Pin	Function
A	VDC	D	Indicator1
B	GND	E	Indicator (COM)
C	VDC	F	Indicator2

## Control Logic

Position	A	B	C	RF Working Condition	Indicator status
POS 1	VDC	GND	NC	PORT1-PORT2 ON PORT3-PORT4 ON	J1-J2 ON J3-J4 ON D-E ON F-E OPEN
POS 2	NC	GND	VDC	PORT1-PORT4 ON PORT3-PORT2 ON	J1-J4 ON J3-J2 ON D-E OPEN F-E ON

## Driving Schematic Diagram

