

NWCSD-42-S

DPDT, DC~26.5GHz, WR-42, SMA

Features:

- * Low VSWR
- * Low Insertion Loss
- * High Isolation

Applications:

- * Wireless
- * Transmitter
- * Laboratory Test
- * Radar

Electrical

Frequency(Coaxial):	DC~18GHz
Frequency(Waveguide):	18~26.5GHz
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.)
18-26.5	0.1	60	1.1

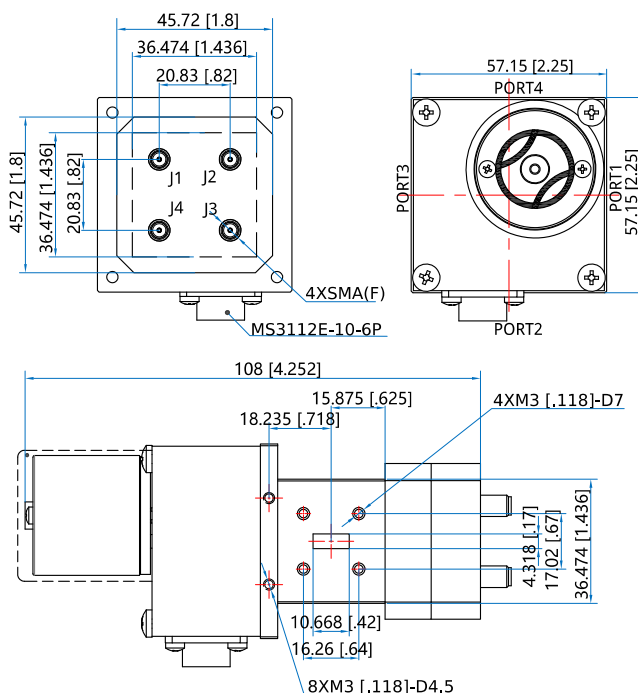
Mechanical

Coaxial Switch Interface:	SMA
Waveguide Switch Interface:	WR-42
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

NWCSD-42-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, WR42, SMA, +24V, TTL, Indicators, specify NWCSD-42-S-K2IT.

Customization is available upon request.

Waveguide Coaxial Switch

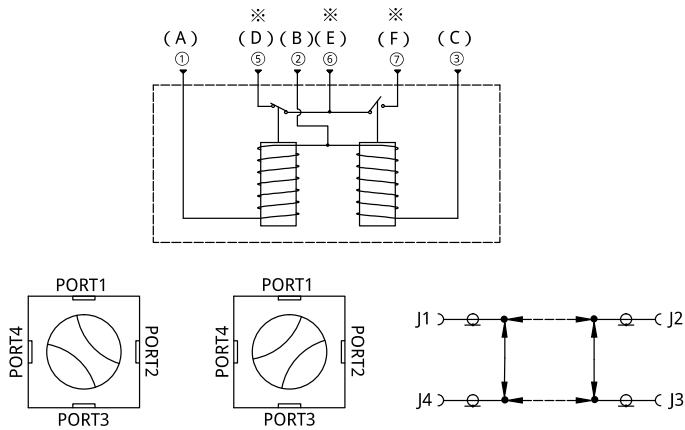
Pin Numbering

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



NWCSD-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

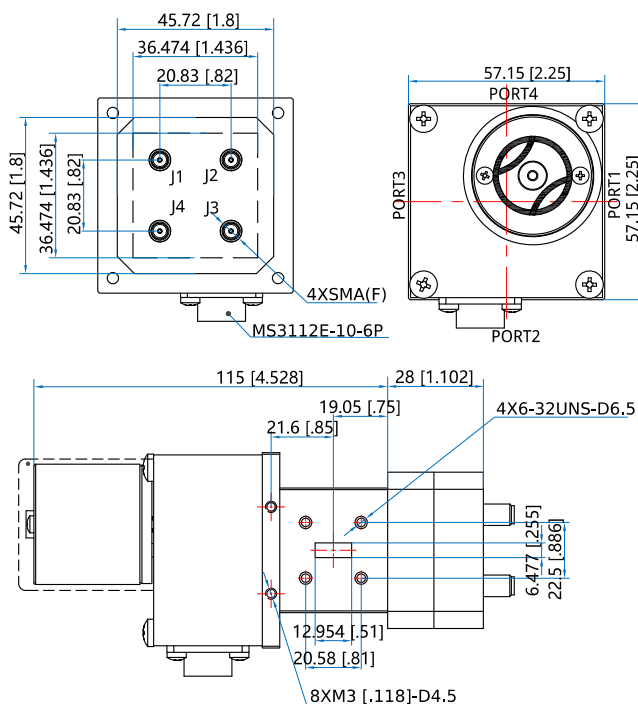
Mechanical

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

NWCSD-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 NWCSD-51-S-K2IT.

Customization is available upon request.

Waveguide Coaxial Switch

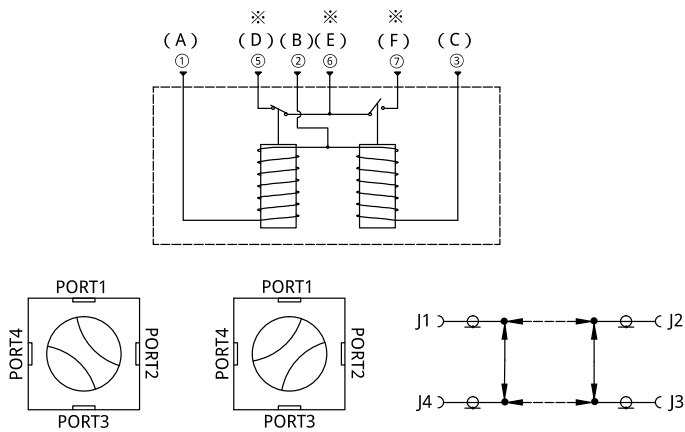
Pin Numbering

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



NWCSD-62-S

DPDT, DC~18GHz, WR-62, SMA

Features:

- * Low VSWR
- * Low Insertion Loss
- * High Isolation

Applications:

- * Wireless
- * Transmitter
- * Laboratory Test
- * Radar

Electrical

Frequency(Coaxial):	DC~18GHz
Frequency(Waveguide):	12.4~18GHz
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.)
12.4-18	0.1	60	1.1

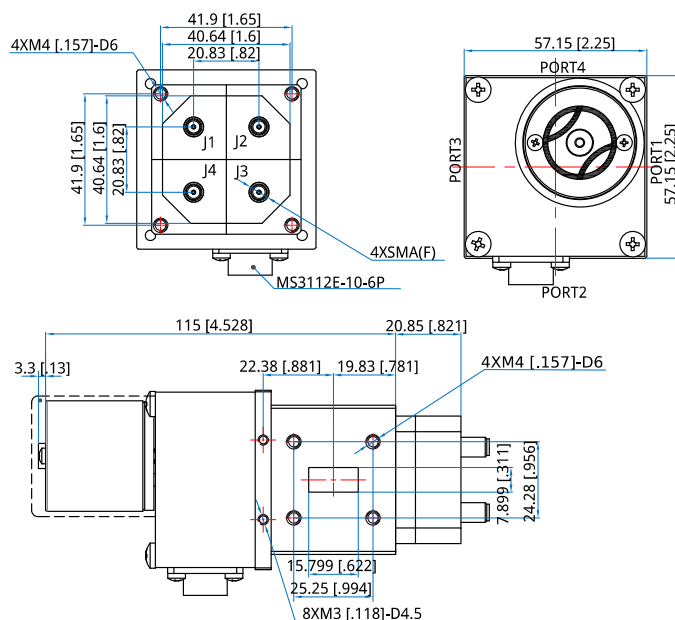
Mechanical

Coaxial Switch Interface:	SMA
Waveguide Switch Interface:	WR-62
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

NWCSD-62-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, WR62, SMA, +24V, TTL, Indicators, specify NWCSD-62-S-K2IT.

Customization is available upon request.

Waveguide Coaxial Switch

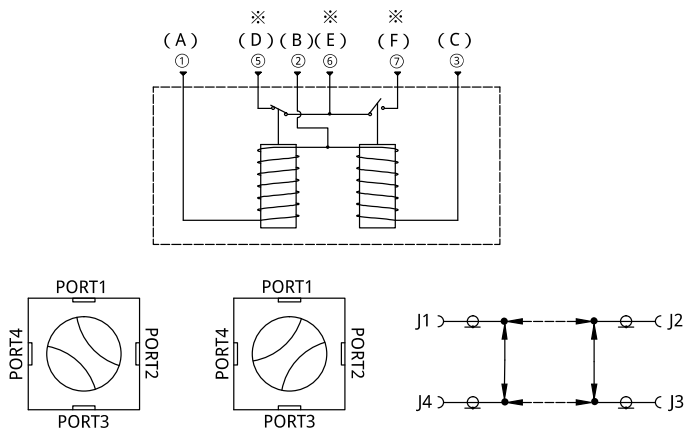
Pin Numbering

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



NWCSD-75-S

DPDT, DC~18GHz, WR-75, SMA

Features:

- * Low VSWR
- * Low Insertion Loss
- * High Isolation

Applications:

- * Wireless
- * Transmitter
- * Laboratory Test
- * Radar

Electrical

Frequency(Coaxial):	DC~18GHz
Frequency(Waveguide):	10~15GHz
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.)
10-15	0.05	60	1.08

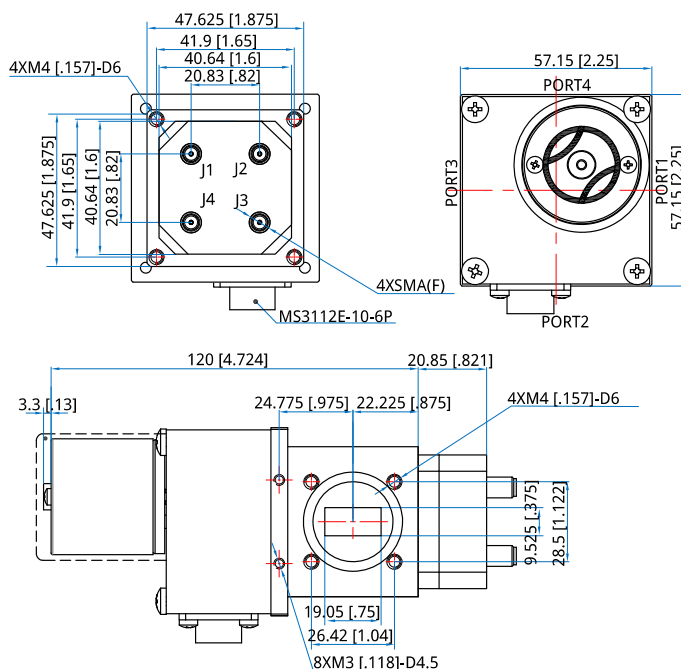
Mechanical

Coaxial Switch Interface:	SMA
Waveguide Switch Interface:	WR-75
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: $\pm 0.2\text{mm}$ [$\pm 0.008\text{in}$]

Additional Options

TTL: T

Indicators: I

Extended Temperature: Z

How To Order

NWCSD-75-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, WR75, SMA, +24V, TTL, Indicators, specify NWCSD-75-S-K2IT.

Customization is available upon request.

Waveguide Coaxial Switch

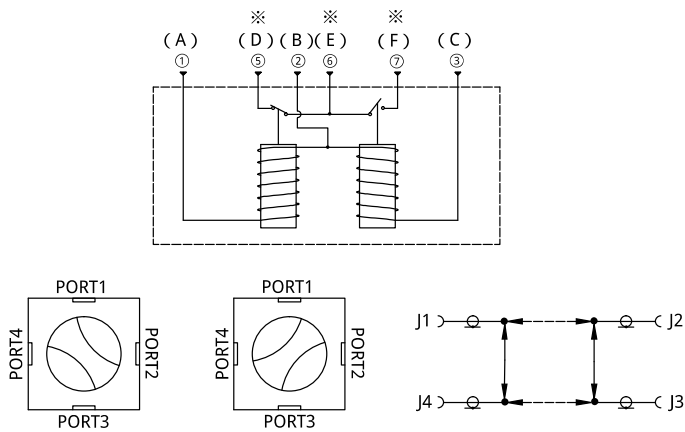
Pin Numbering

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



NWCSD-90-S

DPDT, DC~18GHz, WR-90, SMA

Features:

- * Low VSWR
- * Low Insertion Loss
- * High Isolation

Applications:

- * Wireless
- * Transmitter
- * Laboratory Test
- * Radar

Electrical

Frequency(Coaxial):	DC~18GHz
Frequency(Waveguide):	8.2~12.4GHz
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.)
8.2~12.4	0.05	60	1.05

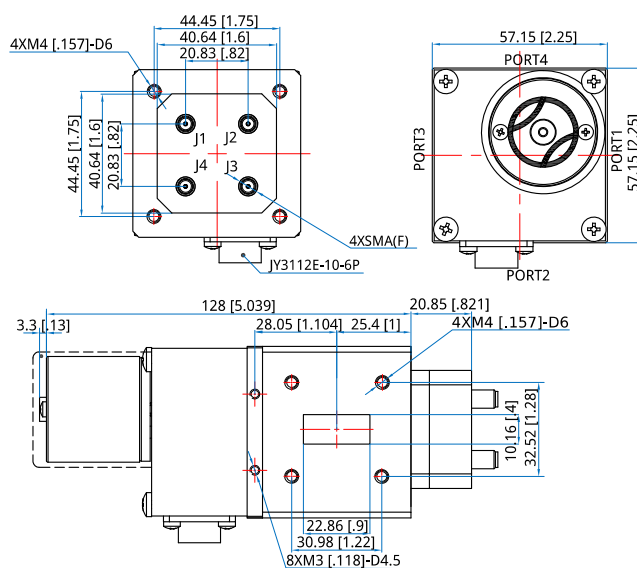
Mechanical

Coaxial Switch Interface:	SMA
Waveguide Switch Interface:	WR-90
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

NWCSD-90-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, WR90, SMA, +24V, TTL, Indicators, specify NWCSD-90-S-K2IT.

Customization is available upon request.

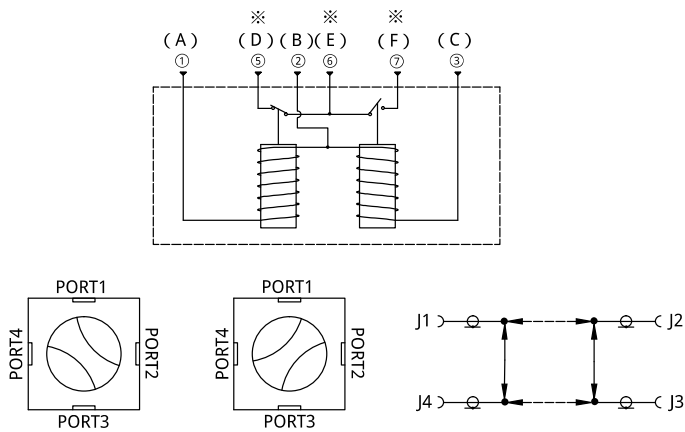
Pin Numbering

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



NWCSD-112-N

DPDT, DC~10GHz, WR-112, N

Features:

- * Low VSWR
- * Low Insertion Loss
- * High Isolation

Applications:

- * Wireless
- * Transmitter
- * Laboratory Test
- * Radar

Electrical

Frequency(Coaxial):	DC~8.5GHz
Frequency(Waveguide):	7.05~10GHz
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
6.5-8.5	0.3	60	1.3

Waveguide Switch

Frequency range (GHz)	Insertion Loss (dB Max.)	Isolation (dB min.)	VSWR (Max.)
7.05~10	0.05	60	1.08

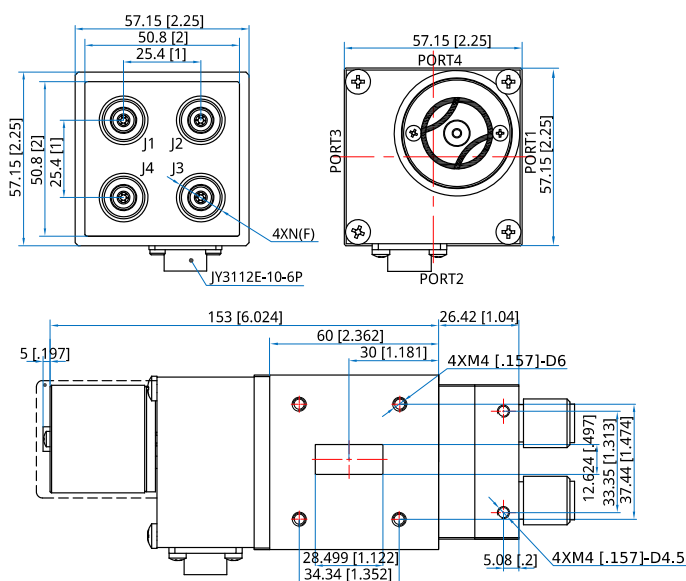
Mechanical

Coaxial Switch Interface:	N
Waveguide Switch Interface:	WR-112
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

NWCSD-112-N-XYZ

S: RF Connectors. N: N.

X: Voltage. +15V: F, +24V: K.

Y: Interface Circular connector:2.

Z: Additional Options.

Examples:

To order a Waveguide Coaxial Switch, DPDT, WR112, N, +24V, TTL, Indicators, specify NWCSD-112-N-K2IT.

Customization is available upon request.

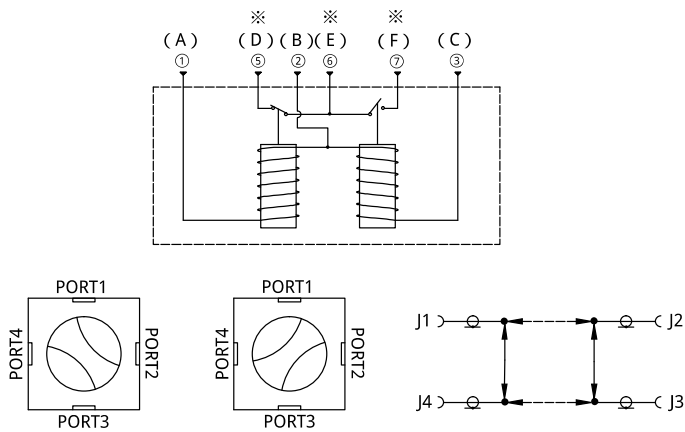
Pin Numbering

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



NWCSD-137-N

DPDT, DC~8.5GHz, WR-137, N

Features:

- * Low VSWR
- * Low Insertion Loss
- * High Isolation

Applications:

- * Wireless
- * Transmitter
- * Laboratory Test
- * Radar

Electrical

Frequency(Coaxial):	DC~8.5GHz
Frequency(Waveguide):	5.85~8.2GHz
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
6.5-8.5	0.3	60	1.3

Waveguide Switch

Frequency range (GHz)	Insertion Loss (dB Max.)	Isolation (dB min.)	VSWR (Max.)
5.85~8.2	0.02	60	1.05

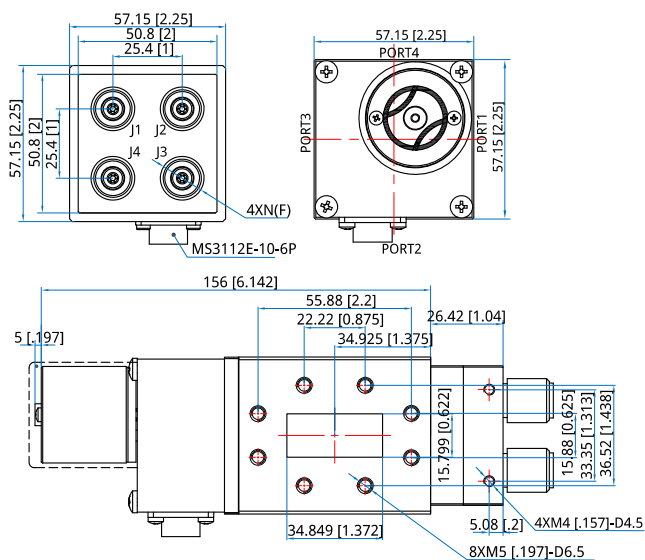
Mechanical

Coaxial Switch Interface:	N
Waveguide Switch Interface:	WR-137
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

NWCSD-137-N-XYZ

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

Examples:

To order a Waveguide Coaxial Switch, DPDT, WR137, N, +24V, TTL, Indicators, specify NWCSD-137-N-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

