

## QWCA-10-1

### WR-10 to 1.0mm

Features:  
\* Low VSWR

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

#### Electrical

Frequency:	75~110GHz
VSWR:	1.4 max.
Insertion Loss:	1.3dB max.
Impedance:	50Ω

#### Mechanical

RF Connectors:	1.0mm
Interface:	WR-10
Flange:	UG-387/U
Material:	Gold plated brass
Outer Conductor:	Passivated stainless steel
Dielectric:	PE
Inner Conductor:	Gold plated beryllium copper

#### How To Order

##### QWCA-10-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

Connector naming rules:

1 - 1.0mm Male (Outline A)

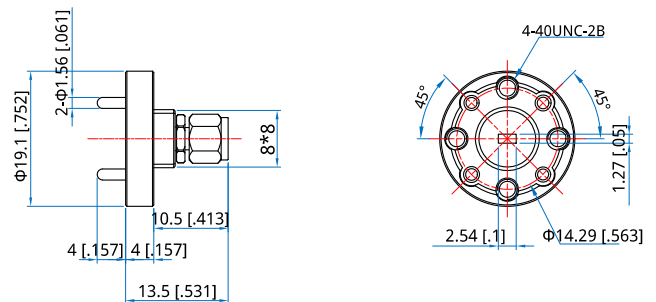
1F - 1.0mm Female (Outline B)

Examples:

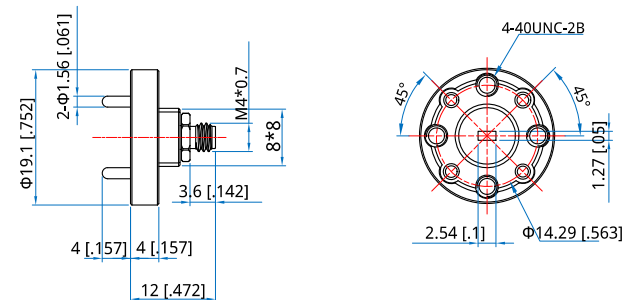
To order a waveguide to coax adapter, WR-10 to 1.0mm female, end launch, specify QWCA-10-1F-E.

Customization is available upon request.

#### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-12-1

### WR-12 to 1.0mm

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 60~90GHz  
VSWR: 1.35 max.  
Insertion Loss: 1.1dB max.  
Impedance: 50Ω

#### Mechanical

RF Connectors: 1.0mm  
Interface: WR-12  
Flange: UG-387/U  
Material: Gold plated brass  
Outer Conductor: Passivated stainless steel  
Dielectric: PE  
Inner Conductor: Gold plated beryllium copper

#### Environmental

Temperature: -55~+60°C

#### How To Order

QWCA-12-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

Connector naming rules:

1F - 1.0mm Female (Outline A)

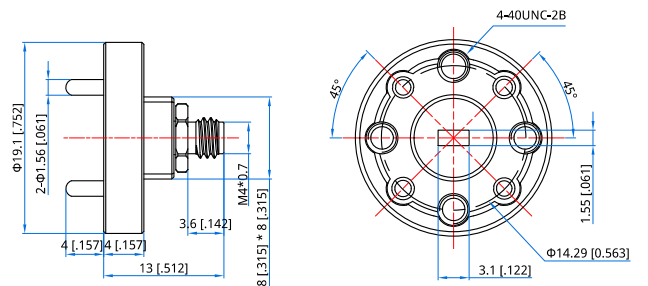
1 - 1.0mm Male (Outline B)

Examples:

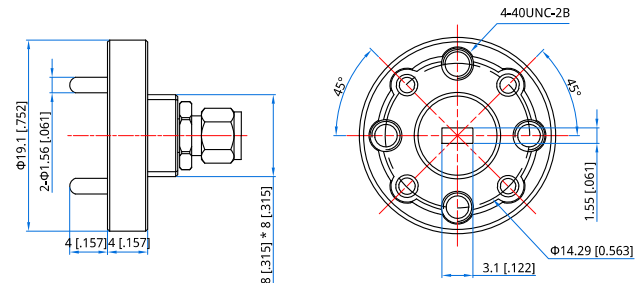
To order a waveguide to coax adapter, WR-12 to 1.0mm female, end launch, specify QWCA-12-1F-E.

Customization is available upon request.

#### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-15-1 WR-15 to 1.0mm

Features:  
\* Low VSWR

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

### Electrical

Frequency:	50~75GHz
VSWR:	1.35 max.
Insertion Loss:	0.8dB max.
Impedance:	50Ω

### Mechanical

RF Connectors:	1.0mm
Interface:	WR-15
Flange:	UG-385/U
Material:	Gold plated brass
Outer Conductor:	Passivated stainless steel
Dielectric:	CPS
Inner Conductor:	Gold plated beryllium copper

### How To Order

#### QWCA-15-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

Connector naming rules:

1F - 1.0mm Female (Outline A)

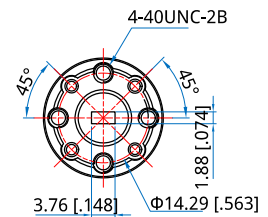
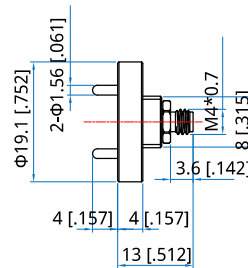
1 - 1.0mm Male (Outline B)

Examples:

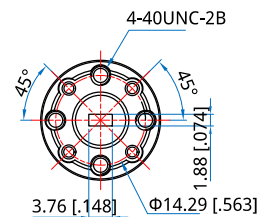
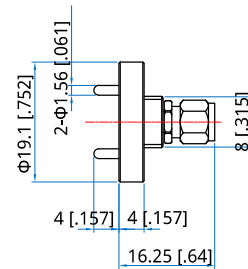
To order a waveguide to coax adapter, WR-15 to 1.0mm male, end launch, specify QWCA-15-1-E.

Customization is available upon request.

### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-15-V-R

### WR-15 to 1.85mm Male, Right Angle

Features:  
\* Low VSWR

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

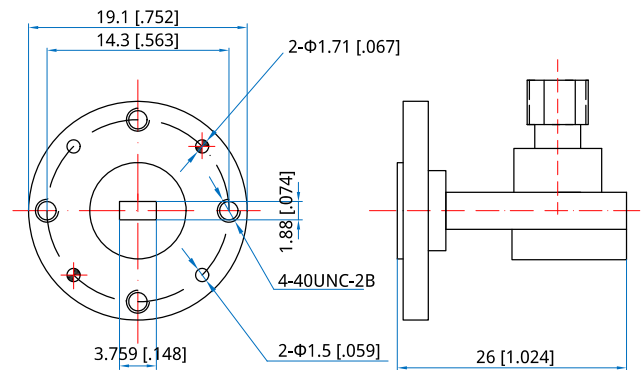
#### Electrical

Frequency: 50~75GHz  
VSWR: 1.8 max.  
Insertion Loss: 1dB max.

#### Mechanical

Length: 26mm  
1.024in  
RF Connectors: 1.85mm Male  
Interface: WR-15  
Flange: UG385/U

#### Outline Drawings



Unit: mm [in]  
Tolerance:  $\pm 0.2$ mm [ $\pm 0.008$ in]

#### How To Order

##### QWCA-15-V-R

Customization is available upon request.

## QWCA-15-VF-R

### WR-15 to 1.85mm Female, Right Angle

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 50~67GHz  
VSWR: 1.3 max.  
Impedance: 50Ω  
Insertion Loss: 0.6dB max.

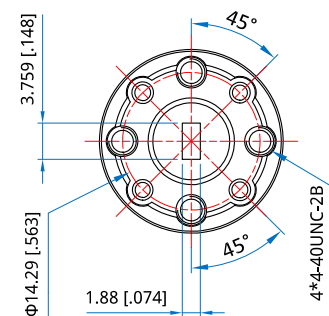
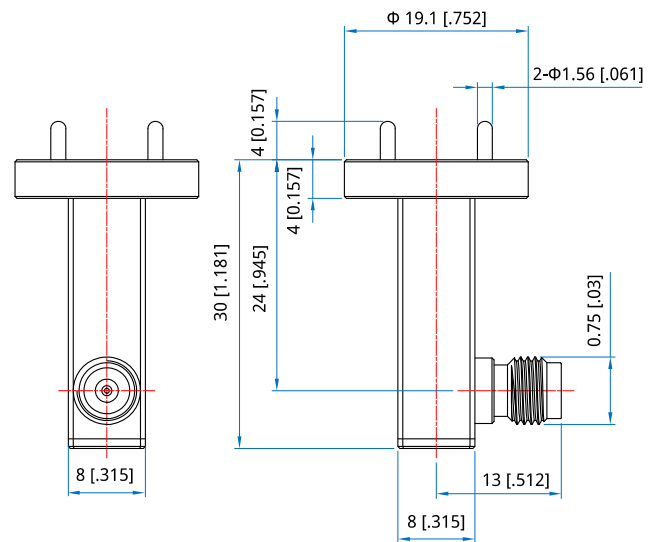
#### Mechanical

Length: 30mm  
1.181in  
RF Connectors: 1.85mm Female  
Interface: WR-15  
Material: Gold Plated Brass  
Outer Conductor: SUS303 Stainless Steel  
Dielectric: PE  
Inner Conductor: Gold Plated Beryllium Copper

#### Environmental

Temperature: -55~+125°C

#### Outline Drawings



Unit: mm [in]  
Tolerance:  $\pm 0.2$ mm [ $\pm 0.008$ in]

How To Order  
**QWCA-15-VF-R**

Customization is available upon request.

## QWCA-19-V

### WR-19 to 1.85mm

Features:  
\* Low VSWR

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

#### Electrical

Frequency:	40~60GHz
VSWR:	1.35 max.
Insertion Loss:	0.5dB max.
Impedance:	50Ω

#### Mechanical

RF Connectors:	1.85mm
Interface:	WR-19
Flange:	UG-383/U
Material:	Gold plated brass
Outer Conductor:	Passivated stainless steel
Dielectric:	PE
Inner Conductor:	Gold plated beryllium copper

#### How To Order

##### QWCA-19-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline A, Outline C)

R - Right angle (Outline B)

Connector naming rules:

V - 1.85mm Male (Outline A, Outline B)

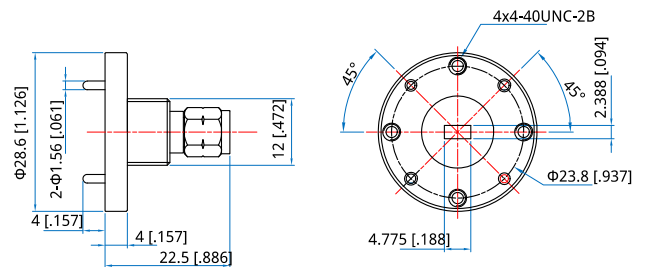
VF - 1.85 Female (Outline C)

Examples:

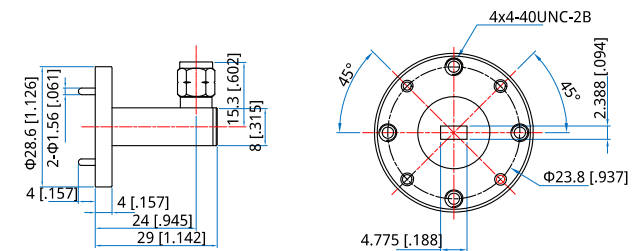
To order a waveguide to coax adapter, WR-19 to 1.85mm male, end launch, specify QWCA-19-V-E.

Customization is available upon request.

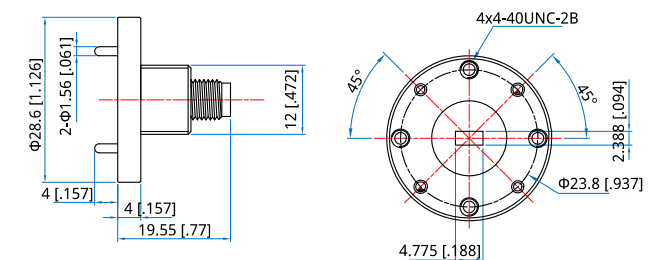
#### Outline Drawings



Outline A



Outline B



Outline C

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-19-2

### WR-19 to 2.4mm

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 40~50GHz  
VSWR: 1.35 max.  
Insertion Loss: 0.45dB max.  
Impedance: 50Ω

#### Mechanical

RF Connectors: 2.4mm  
Interface: WR-19  
Flange: UG-383/U  
Material: Gold plated brass  
Outer Conductor: Passivated stainless steel  
Dielectric: PE  
Inner Conductor: Gold plated beryllium copper

#### How To Order

##### QWCA-19-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline A)

R - Right angle (Outline B)

Connector naming rules:

2 - 2.4mm Male

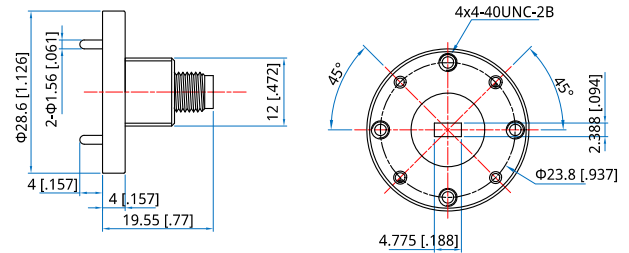
2F - 2.4 Female (Outline A, Outline B)

Examples:

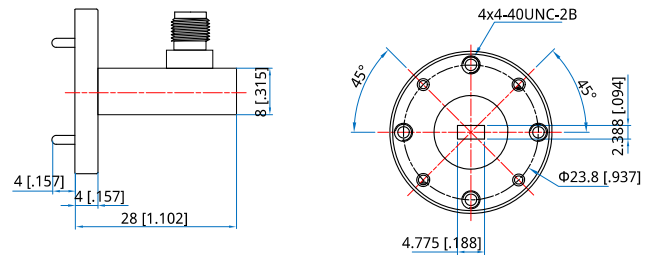
To order a waveguide to coax adapter, WR-19 to 2.4mm female, end launch, specify QWCA-19-2F-E.

Customization is available upon request.

#### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-22-2

### WR-22 to 2.4mm

Features:  
\* Low VSWR

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

#### Electrical

Frequency:	33~50GHz
VSWR:	1.25 max. 1.35 max.(End launch)
Insertion Loss:	0.45dB max.(End launch) 0.5dB max.
Impedance:	50Ω

#### Mechanical

RF Connectors:	2.4mm
Interface:	WR-22
Flange:	UG-383/U
Outer Conductor:	Passivated stainless steel & gold plated brass
Dielectric:	PEI
Inner Conductor:	Gold plated beryllium copper
Waveguide:	Gold plated brass(Right angle)
Connector:	Stainless steel polished&passivated (Right angle)

#### How To Order

##### QWCA-22-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E-End launch (Outline A)

R-Right angle (Outline B, Outline C)

Connector naming rules:

2F - 2.4mm Female (Outline A, Outline C)

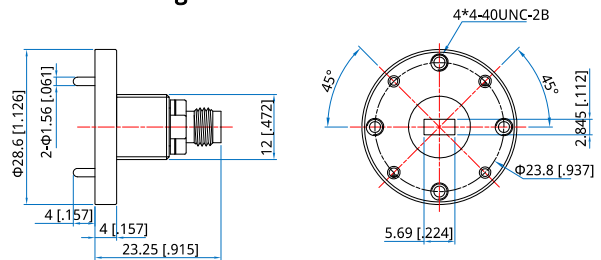
2 - 2.4mm Male (Outline B)

Examples:

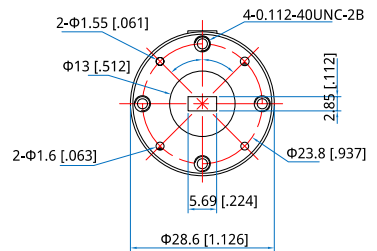
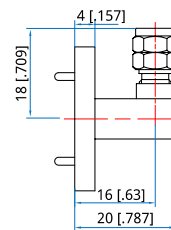
To order a waveguide to coax adapter, WR-22 to 2.4mm female, end launch, specify QWCA-22-2F-E.

Customization is available upon request.

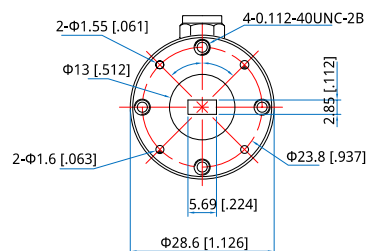
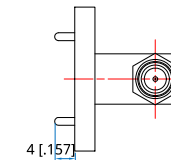
#### Outline Drawings



Outline A



Outline B



Outline C

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]



# QWCA-28-K

## WR-28 to 2.92mm

Features:  
\* Low VSWR

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

### Electrical

Frequency: 26.3-40GHz  
VSWR: 1.2 max.  
Impedance: 50Ω

### Mechanical

Coax Connectors: 2.92mm  
Waveguide Size: WR-28  
Flange: FBP320  
Material: Aluminium

### How To Order

#### QWCA-28-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

K - 2.92mm Male (Outline A)

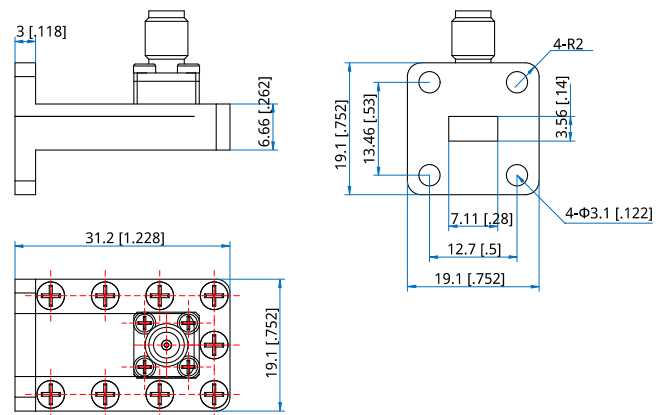
KF - 2.92mm Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-28 to 2.92mm female, right angle, specify QWCA-28-KF-R.

Customization is available upon request.

### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-34-K WR-34 to 2.92mm

Features:  
\* Low VSWR

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

### Electrical

Frequency:	22~33GHz
VSWR:	1.2 max.
Isolation:	0.25dB max.
Average Power:	20W CW

### Mechanical

RF Connectors:	2.92mm
Interface:	WR-34
Flange:	FBP260
Material:	Silver plated aluminium

### How To Order

#### QWCA-34-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline A)

R - Right angle (Outline B)

Connector naming rules:

K - 2.92mm Male (Outline A, Outline B)

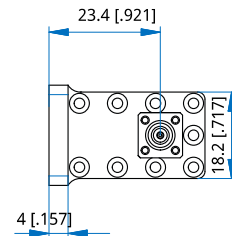
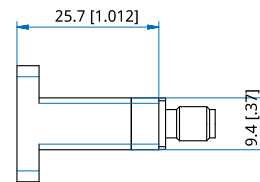
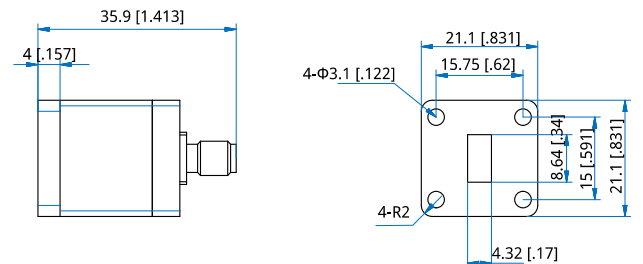
KF - 2.92mm Female (Outline A, Outline B)

Examples:

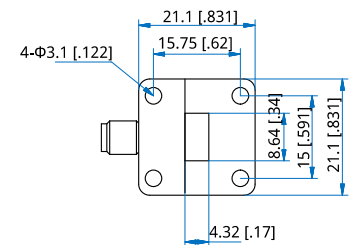
To order a waveguide to coax adapter, WR-34 to 2.92mm female, right angle, specify QWCA-34-KF-R.

Customization is available upon request.

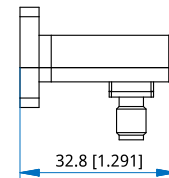
### Outline Drawings



Outline A



Outline B



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

# QWCA-42-K

## WR-42 to 2.92mm

Features:  
\* Low VSWR

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

### Electrical

Frequency: 17.6~26.7GHz  
VSWR: 1.2 max.

### Mechanical

RF Connectors: 2.92mm  
Interface: WR-42  
Flange: FBP220  
Material: Copper

### How To Order

#### QWCA-42-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

K - 2.92mm Male (Outline A)

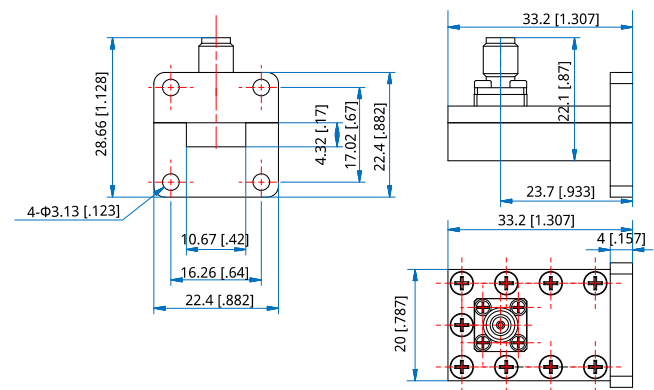
KF - 2.92mm Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-42 to 2.92mm female, right angle, specify QWCA-42-KF-R.

Customization is available upon request.

### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-42-S WR-42 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency: 17.6-26.7GHz  
VSWR: 1.2 max.

### Mechanical

RF Connectors: SMA  
Interface: WR-42  
Flange: FBP220  
Material: Copper  
Aluminium(end launch)

### How To Order

#### QWCA-42-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline B)

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A, Outline B)

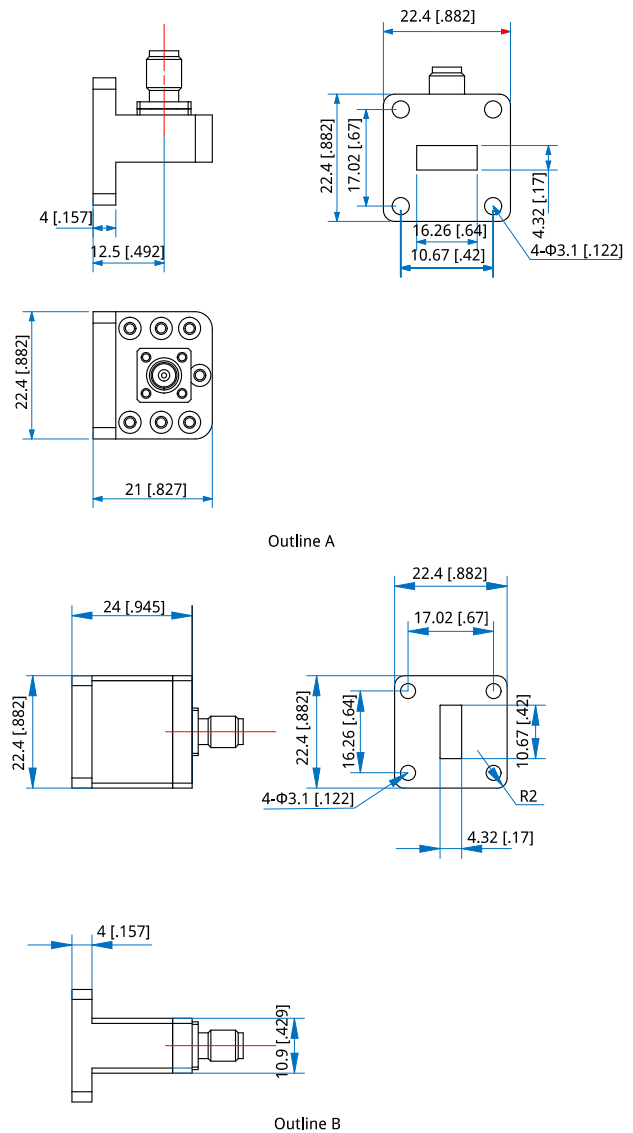
SF - S Female (Outline A, Outline B)

Examples:

To order a waveguide to coax adapter, WR-42 to SMA female, right angle, specify QWCA-42-SF-R.

Customization is available upon request.

### Outline Drawings



Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-51-S

### WR-51 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 14.5~22GHz  
VSWR: 1.2 max.

#### Mechanical

Coax Connectors: SMA  
Waveguide Size: WR-51  
Flange: FBP180  
Material: Aluminium

#### How To Order

##### QWCA-51-X-Y

X: Connector type.  
Y: End launch: E, Right angle: R.  
E - End launch  
R - Right angle (Outline A)

Connector naming rules:

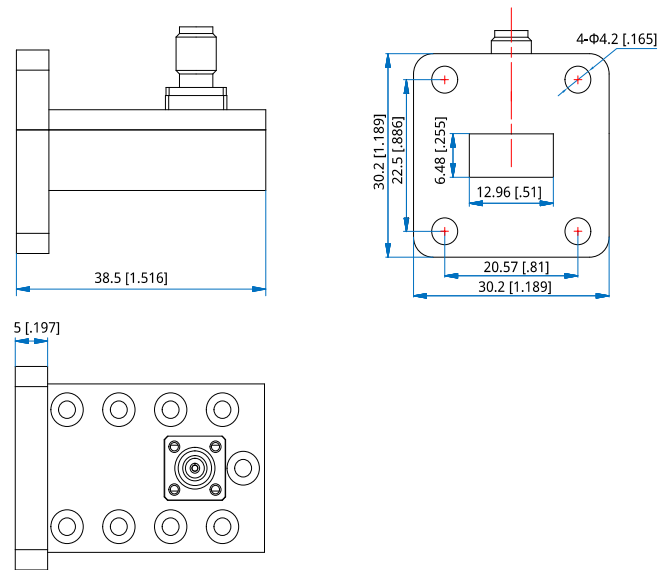
S - S Male (Outline A)  
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-51 to SMA female, right angle, specify QWCA-51-SF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-62-N

### WR-62 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 11.9~18GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-62  
Flange: FBP140  
Material: Aluminium

#### How To Order

##### QWCA-62-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

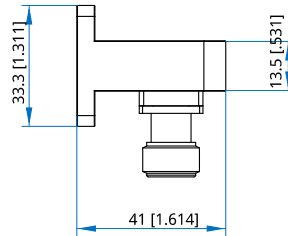
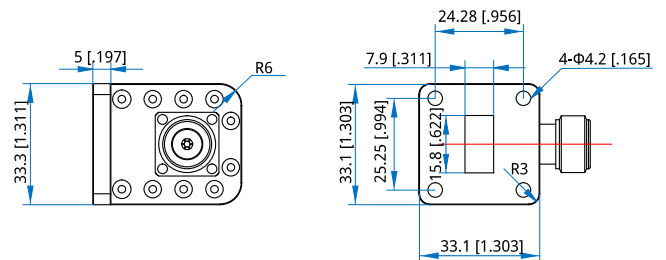
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-62 to N female, right angle, specify QWCA-62-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-62-S

### WR-62 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 11.9~18GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: SMA  
Interface: WR-62  
Flange: FBP140  
Material: Aluminium

#### How To Order

##### QWCA-62-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline B)

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A, Outline B)

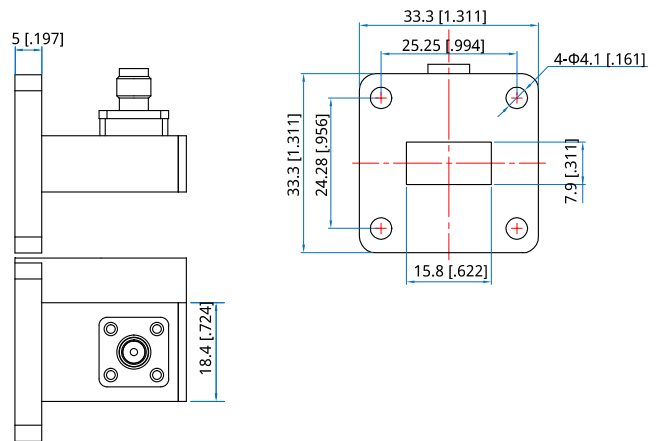
SF - S Female (Outline A, Outline B)

Examples:

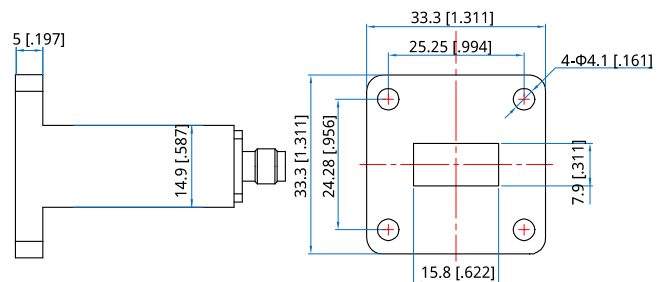
To order a waveguide to coax adapter, WR-62 to SMA female, right angle, specify QWCA-62-SF-R.

Customization is available upon request.

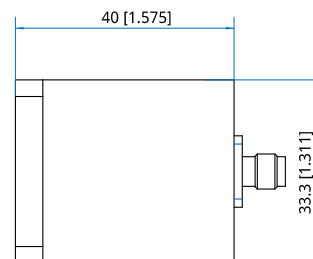
#### Outline Drawings



Outline A



Outline B



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

## QWCA-75-N

### WR-75 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 9.84~15GHz  
VSWR: 1.2 max.

#### Mechanical

Coax Connectors: N  
Waveguide Size: WR-75  
Flange: FBP120  
Material: Aluminium

#### How To Order

##### QWCA-75-X-Y

X: Connector type.  
Y: End launch: E, Right angle: R.  
E - End launch (Outline B)  
R - Right angle (Outline A)

Connector naming rules:

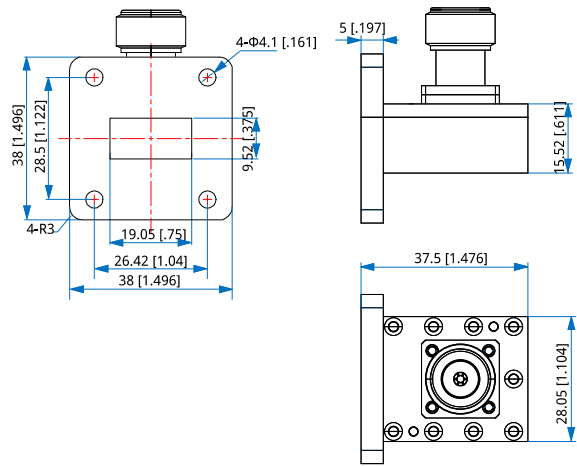
N - N Male (Outline A, Outline B)  
NF - N Female (Outline A, Outline B)

Examples:

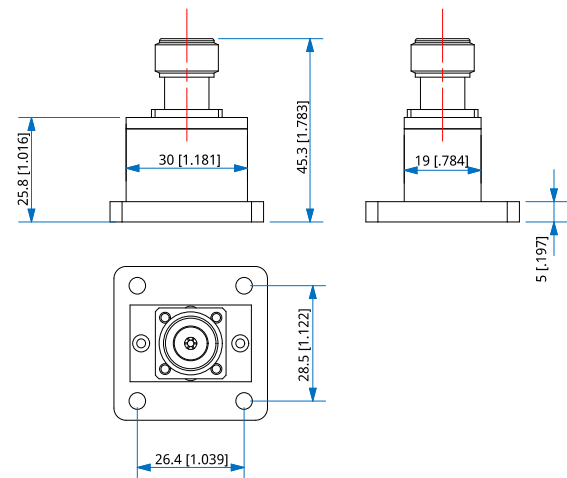
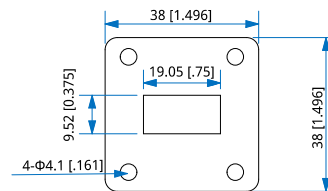
To order a waveguide to coax adapter, WR-75 to N female, right angle, specify QWCA-75-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A



Outline B

Unit: mm [in]  
Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]



## QWCA-75-S

### WR-75 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 9.84~15GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: SMA  
Interface: WR-75  
Flange: FBP120  
Material: Aluminium

#### How To Order

##### QWCA-75-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

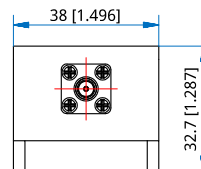
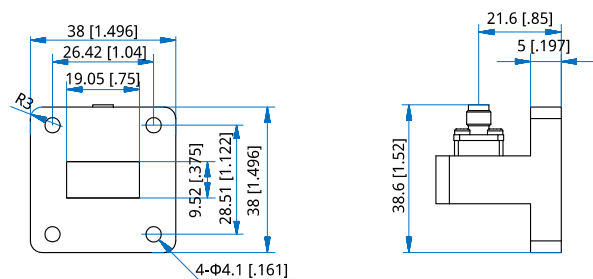
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-75 to SMA female, right angle, specify QWCA-75-SF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-90-N

### WR-90 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 8.2~12.5GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-90  
Flange: FDM100  
Material: Aluminium

#### How To Order

##### QWCA-90-X-Y

X: Connector type.  
Y: End launch: E, Right angle: R.  
E - End launch  
R - Right angle (Outline A)

Connector naming rules:

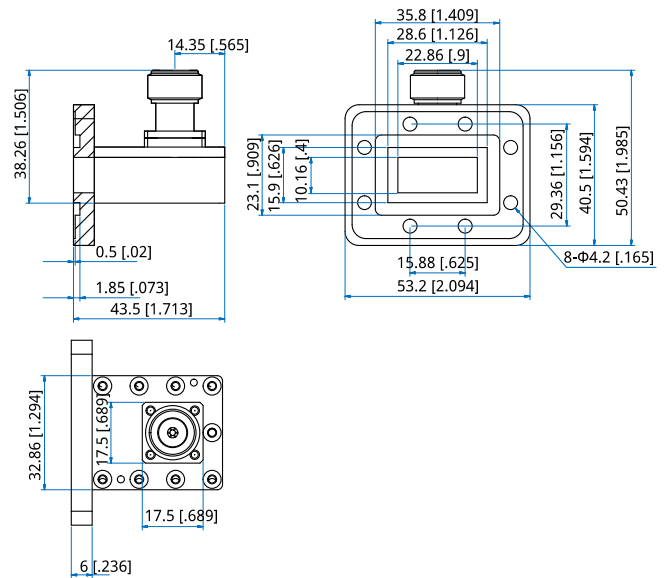
N - N Male (Outline A)  
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-90 to N female, right angle, specify QWCA-90-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-90-S WR-90 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency:	8.2~12.5GHz
VSWR:	1.15 max. 1.2 max.(end launch)
Insertion Loss:	0.2dB max.

### Mechanical

Coax Connectors:	SMA
Waveguide Size:	WR-90
Flange:	FBP100
Material:	Aluminium Copper(end launch)

### How To Order

#### QWCA-90-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline B)

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A, Outline B)

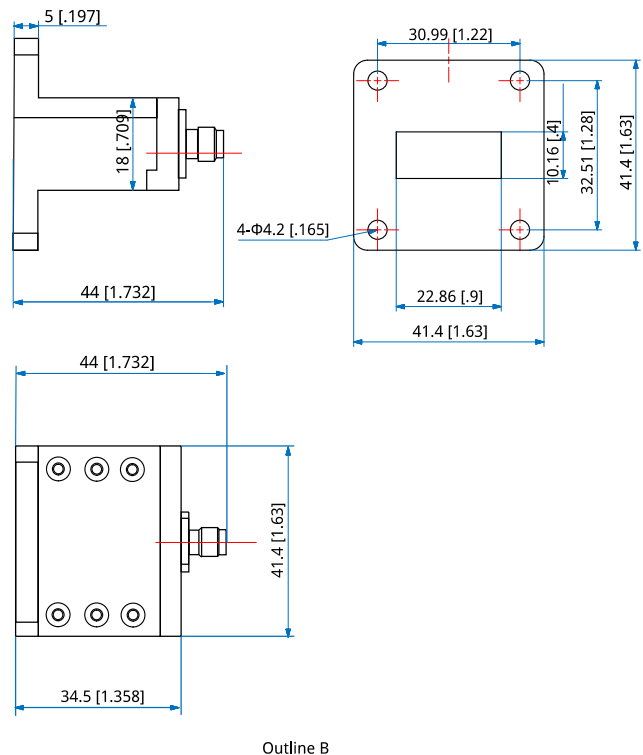
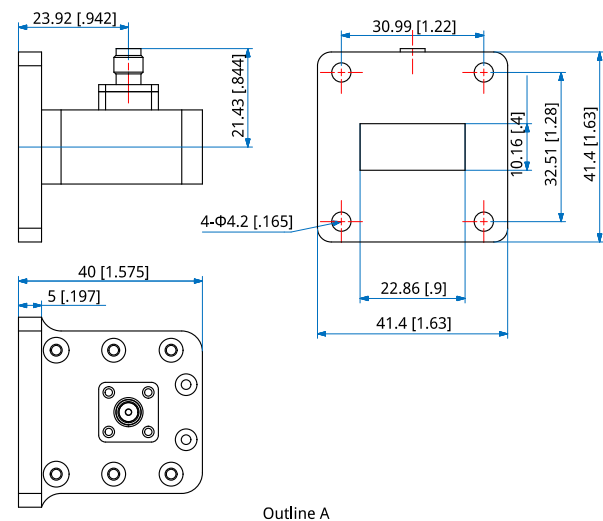
SF - S Female (Outline A, Outline B)

Examples:

To order a waveguide to coax adapter, WR-90 to SMA female, right angle, specify QWCA-90-SF-R.

Customization is available upon request.

### Outline Drawings



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

# QWCA-112-N

## WR-112 to N

Features:  
\* Low VSWR

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

### Electrical

Frequency: 6.57-9.9GHz  
VSWR: 1.2 max.

### Mechanical

RF Connectors: N  
Interface: WR-112  
Flange: FBP84  
Material: Aluminium

### How To Order

#### QWCA-112-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline A)

R - Right angle (Outline B)

Connector naming rules:

N - N Male (Outline A, Outline B)

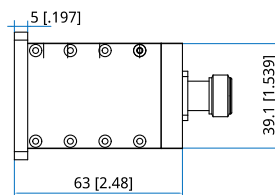
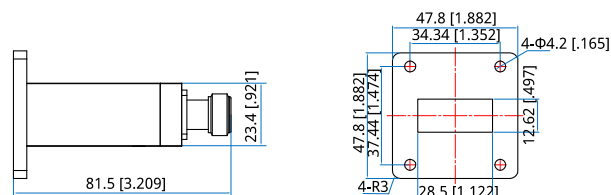
NF - N Female (Outline A, Outline B)

Examples:

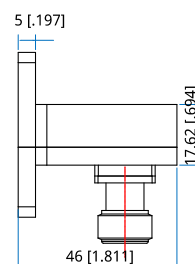
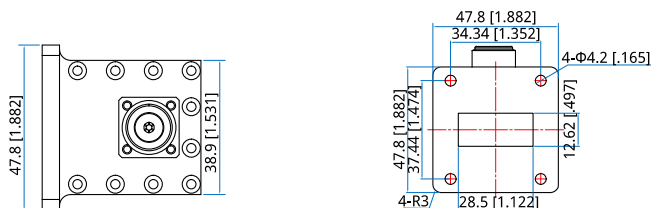
To order a waveguide to coax adapter, WR-112 to N female, right angle, specify QWCA-112-NF-R.

Customization is available upon request.

### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance:  $\pm 0.2$ mm [ $\pm 0.008$ in]

## QWCA-112-S WR-112 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency: 6.57-9.9GHz  
VSWR: 1.2 max.

### Mechanical

RF Connectors: SMA  
Interface: WR-112  
Flange: FDM84  
Material: Aluminium

### How To Order

#### QWCA-112-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline B)

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A, Outline B)

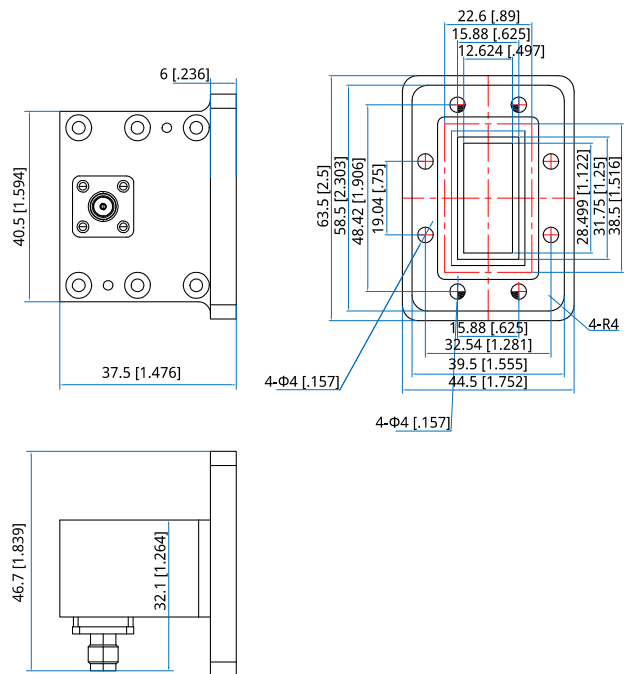
SF - S Female (Outline A, Outline B)

Examples:

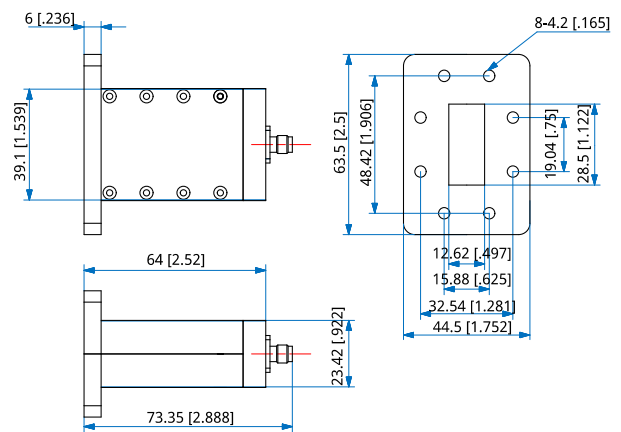
To order a waveguide to coax adapter, WR-112 to SMA female, right angle, specify QWCA-112-SF-R.

Customization is available upon request.

### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-137-N

### WR-137 to N

Features:  
\* Low VSWR

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

### Electrical

Frequency:	5.38-8.17GHz
VSWR:	1.25 max. 1.2 max.(right angle)
Insertion Loss:	0.3dB max.(end launch)

### Mechanical

RF Connectors:	N
Interface:	WR-137
Flange:	FDP70
Material:	Aluminium

### How To Order

#### QWCA-137-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline B)

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A, Outline B)

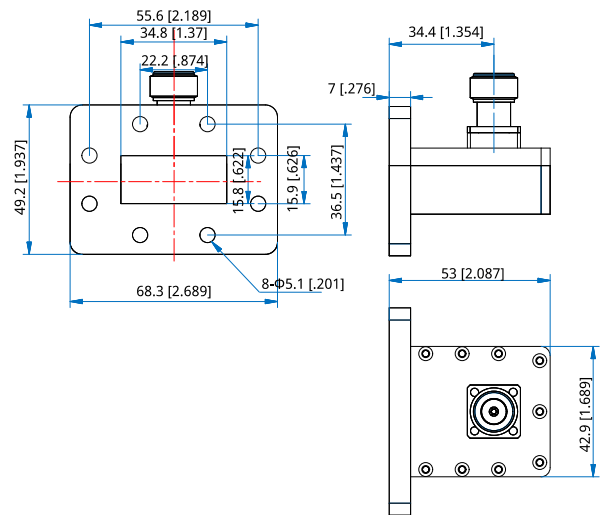
NF - N Female (Outline A, Outline B)

Examples:

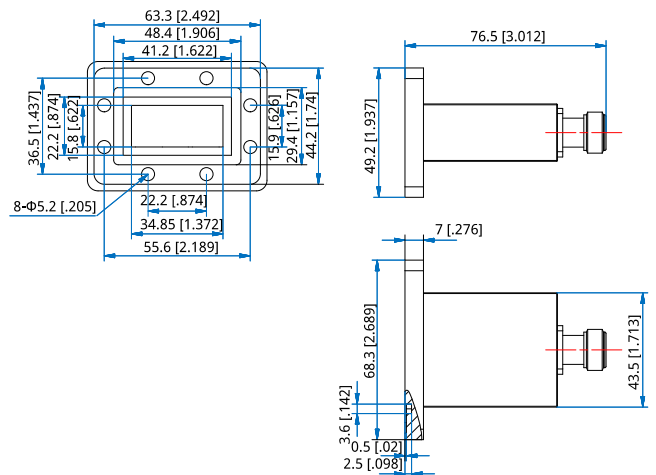
To order a waveguide to coax adapter, WR-137 to N female, right angle, specify QWCA-137-NF-R.

Customization is available upon request.

### Outline Drawings



Outline A



Outline B

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

# QWCA-137-S

## WR-137 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency: 5.38-8.17GHz  
VSWR: 1.2 max.

### Mechanical

RF Connectors: SMA  
Interface: WR-137  
Flange: FDM70  
Material: Aluminium

### How To Order

#### QWCA-137-X-Y

X: Connector type.  
Y: End launch: E, Right angle: R.  
E - End launch  
R - Right angle (Outline A)

Connector naming rules:

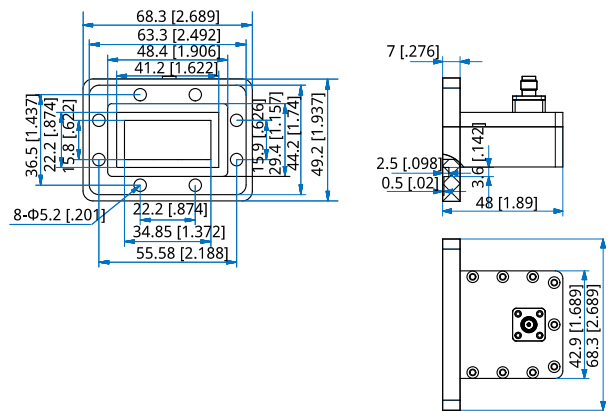
S - S Male (Outline A)  
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-137 to SMA female, right angle, specify QWCA-137-SF-R.

Customization is available upon request.

### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-159-N

### WR-159 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 4.64~7.05GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-159  
Flange: FDP58  
Material: Aluminium

#### How To Order

##### QWCA-159-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

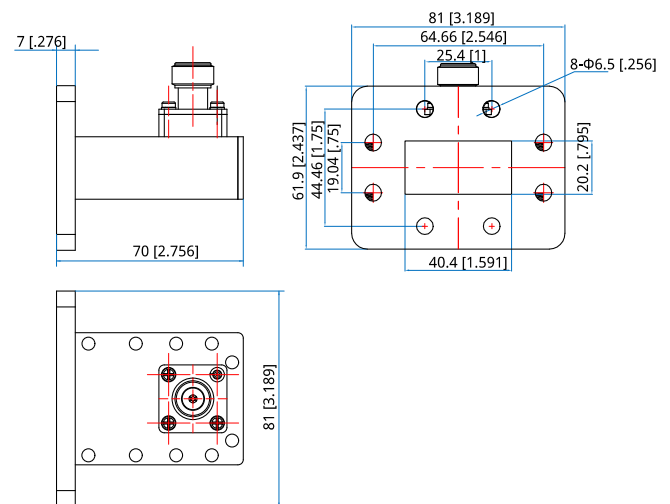
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-159 to N female, right angle, specify QWCA-159-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2$ mm [ $\pm 0.008$ in]



## QWCA-159-S

### WR-159 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 4.64~7.05GHz  
VSWR: 1.2 max.@3.94~5.2GHz  
1.05 max.@5.2~5.99GHz

#### Mechanical

RF Connectors: SMA  
Interface: WR-159  
Flange: FDP58/FDM58  
Material: Aluminium

#### How To Order

##### QWCA-159-X-Y-Z

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch (Outline A)

R - Right angle (Outline B, Outline C)

Z - Flange type if applicable

FDP - FDP58 (Outline A, Outline B)

FDM - FDM58 (Outline C)

Connector naming rules:

S - S Male (Outline A, Outline B, Outline C)

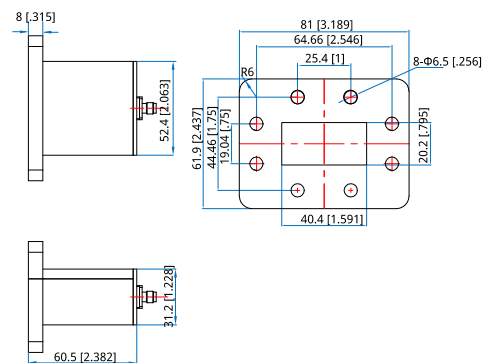
SF - S Female (Outline A, Outline B, Outline C)

Examples:

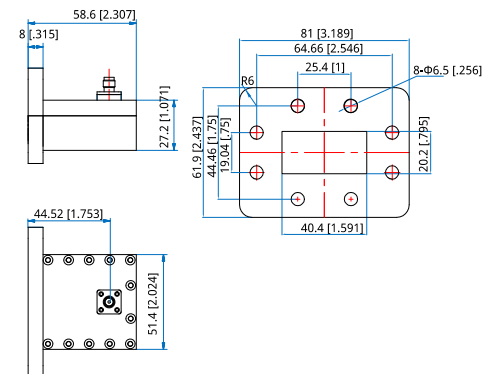
To order a waveguide to coax adapter, WR-159 to SMA female, right angle, specify QWCA-159-SF-R.

Customization is available upon request.

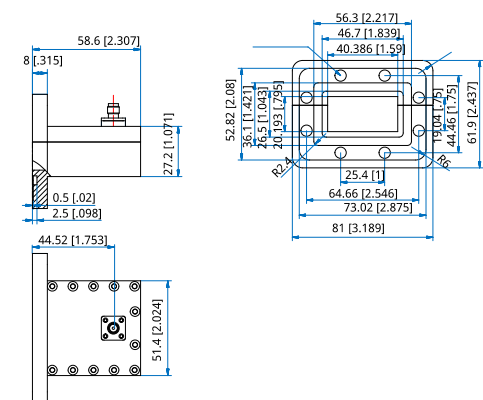
#### Outline Drawings



Outline A



Outline B



Outline C

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

## QWCA-187-N

### WR-187 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 3.94–5.99GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-187  
Flange: FDP48  
Material: Aluminium

#### How To Order

##### QWCA-187-X-Y

X: Connector type.  
Y: End launch: E, Right angle: R.  
E - End launch  
R - Right angle (Outline A)

Connector naming rules:

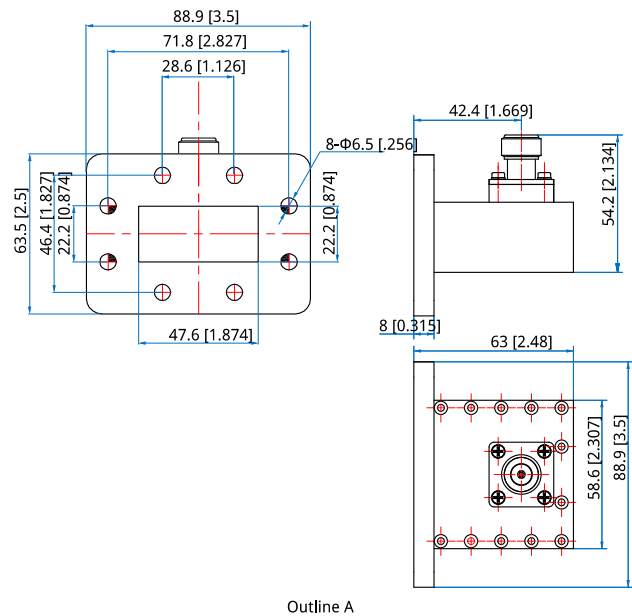
N - N Male (Outline A)  
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-187 to N female, right angle, specify QWCA-187-NF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

# QWCA-187-S

## WR-187 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency:	3.94~5.99GHz
VSWR:	1.15 max.@3.94~5.2GHz 1.05 max.@5.2~5.99GHz

### Mechanical

Coax Connectors:	SMA
Waveguide Size:	WR-187
Flange:	FDP48
Material:	Aluminium

### How To Order

#### QWCA-187-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

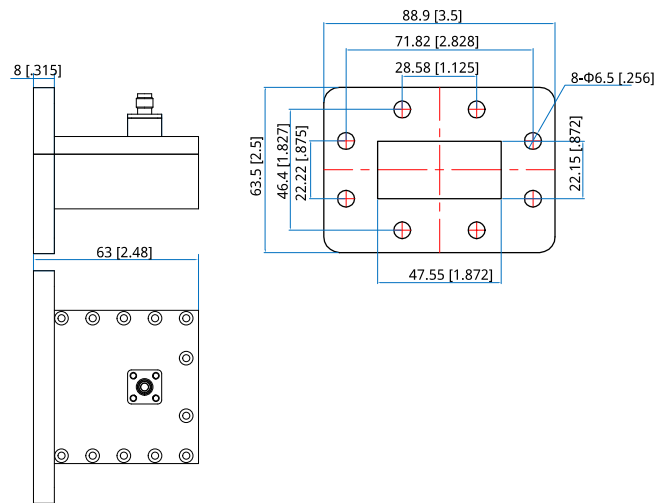
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-187 to SMA female, right angle, specify QWCA-187-SF-R.

Customization is available upon request.

### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-229-N

### WR-229 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 3.22~4.9GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-229  
Flange: FDP40  
Material: Aluminium

#### How To Order

##### QWCA-229-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

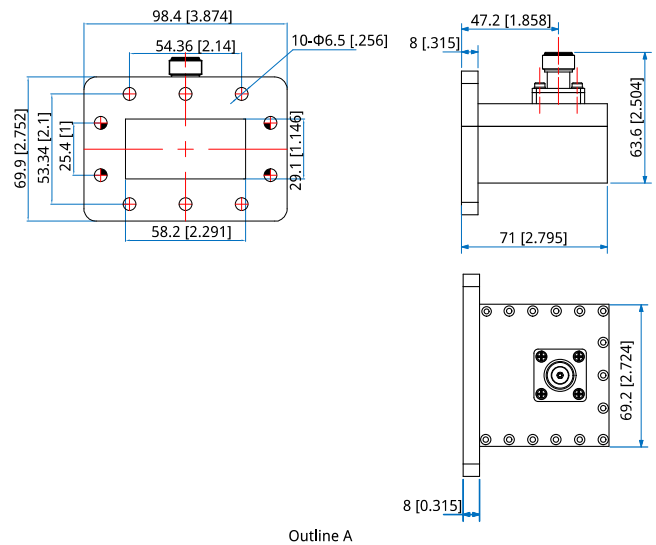
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-229 to N female, right angle, specify QWCA-229-NF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-284-N

### WR-284 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 2.6~3.95GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-284  
Flange: FDP32  
Material: Aluminium

#### How To Order

##### QWCA-284-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

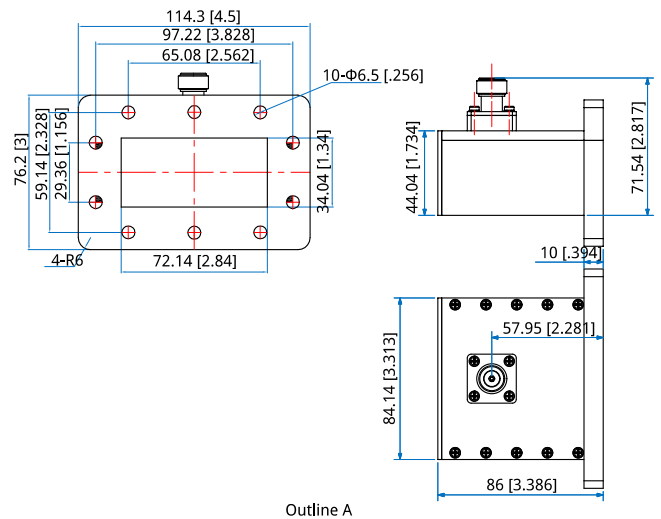
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-284 to N female, right angle, specify QWCA-284-NF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-284-S

### WR-284 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 2.6~3.95GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: SMA  
Interface: WR-284  
Flange: FDP32  
Material: Aluminium

#### How To Order

##### QWCA-284-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

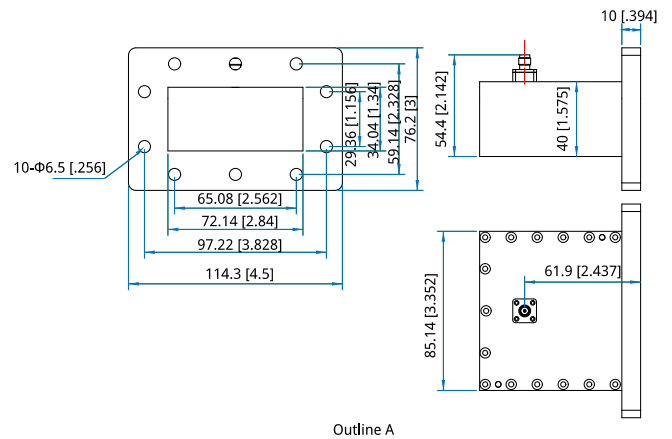
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-284 to SMA female, right angle, specify QWCA-284-SF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-340-N

### WR-340 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 2.17~3.3GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-340  
Flange: FDP26  
Material: Aluminium

#### How To Order

##### QWCA-340-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

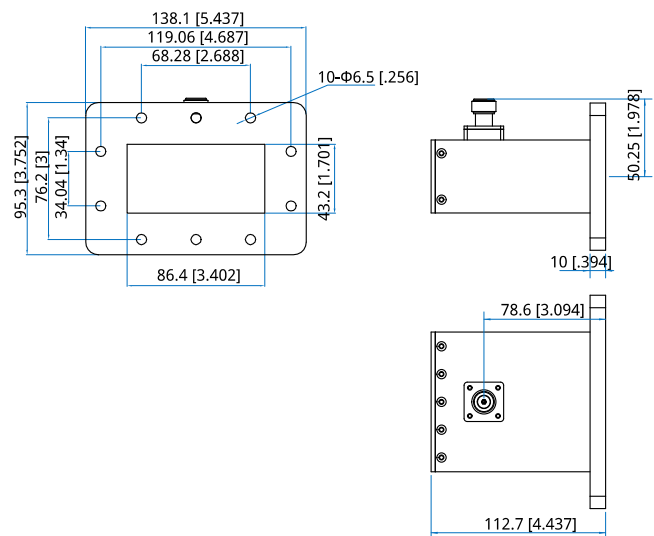
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-340 to N female, right angle, specify QWCA-340-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-340-S

### WR-340 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 2.17~3.3GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: SMA  
Interface: WR-340  
Flange: FDP26  
Material: Aluminium

#### How To Order

##### QWCA-340-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

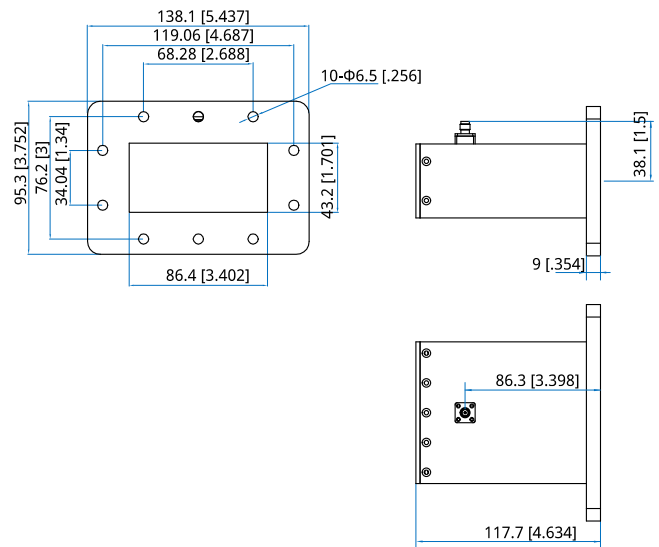
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-340 to SMA female, right angle, specify QWCA-340-SF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]



## QWCA-430-N

### WR-430 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 1.72~2.61GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-430  
Flange: FDP22  
Material: Aluminium

#### How To Order

##### QWCA-430-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

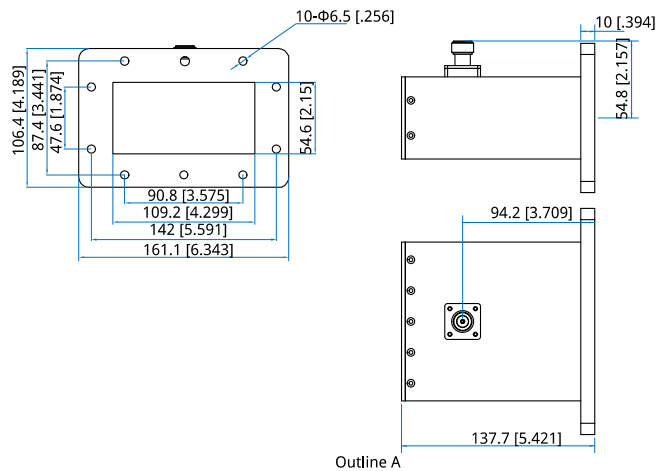
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-430 to N female, right angle, specify QWCA-430-NF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

# QWCA-430-S

## WR-430 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency: 1.72~2.61GHz  
VSWR: 1.2 max.

### Mechanical

RF Connectors: SMA  
Interface: WR-430  
Flange: FDP22  
Material: Aluminium

### How To Order

#### QWCA-430-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

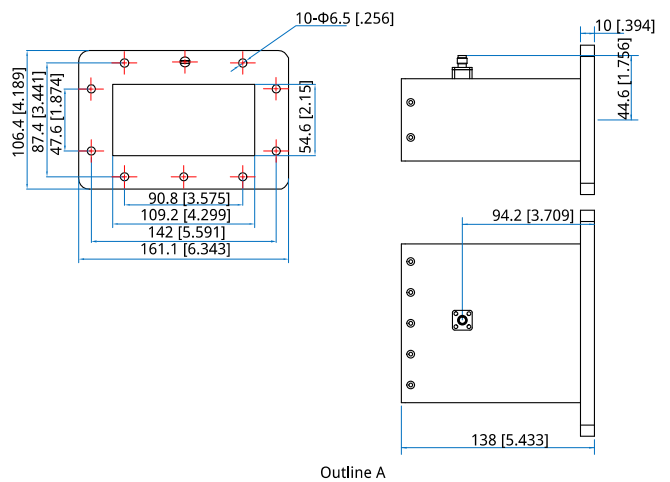
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-430 to SMA female, right angle, specify QWCA-430-SF-R.

Customization is available upon request.

### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-510-N

### WR-510 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 1.45~2.2GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-510  
Flange: FDP18  
Material: Aluminium

#### How To Order

##### QWCA-510-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A )

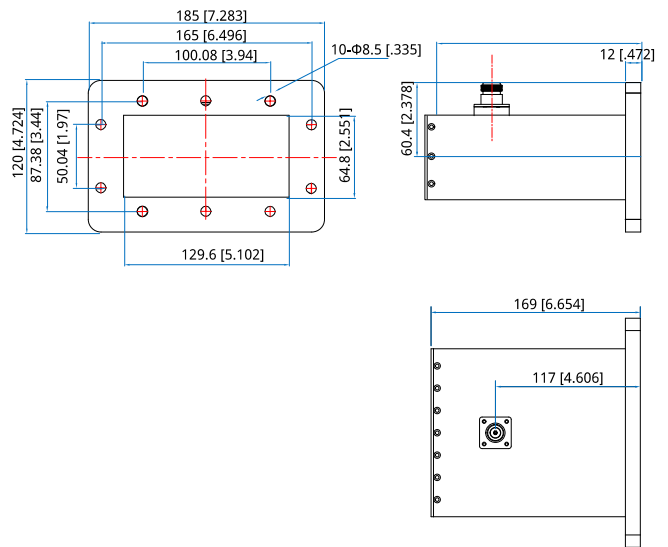
NF - N Female (Outline A )

Examples:

To order a waveguide to coax adapter, WR-510 to N female, right angle, specify QWCA-510-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-510-S

### WR-510 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 1.45~2.2GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: SMA  
Interface: WR-510  
Flange: FDP18  
Material: Aluminium

#### How To Order

##### QWCA-510-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

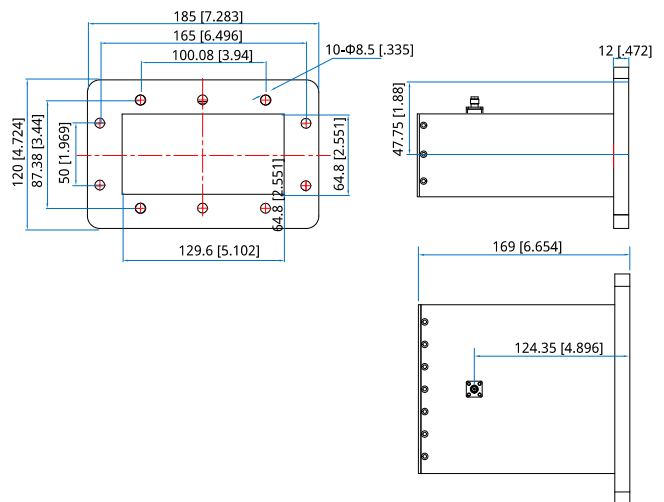
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-510 to SMA female, right angle, specify QWCA-510-SF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

# QWCA-650-N

## WR-650 to N

Features:  
\* Low VSWR

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

### Electrical

Frequency: 1.13~1.73GHz  
VSWR: 1.2 max.

### Mechanical

Coax Connectors: N  
Waveguide Size: WR-650  
Flange: FDP14  
Material: Aluminium

### How To Order

**QWCA-650-X-Y-Z**

X : Connector type.

Y : Configuration type.

Z : Flange type if applicable.

Connector naming rules:

N - N Male (Outline A)

NF - N Female (Outline A)

Configuration naming rules:

E - End launch

R - Right angle (Outline A)

Flange naming rules:

1 - FBP

2 - FDP (Outline A)

3 - FBM

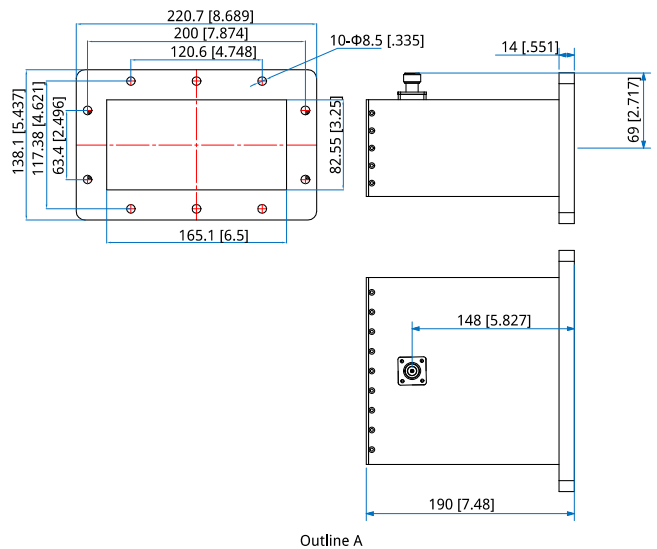
4 - FDM

Examples:

To order a waveguide to coax adapter, WR-650 to N female, right angle, FDP, specify QWCA-650-NF-R-2.

Customization is available upon request.

### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-770-N

### WR-770 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 0.96~1.46GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: N  
Interface: WR-770  
Flange: FDP12  
Material: Aluminium

#### How To Order

##### QWCA-770-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

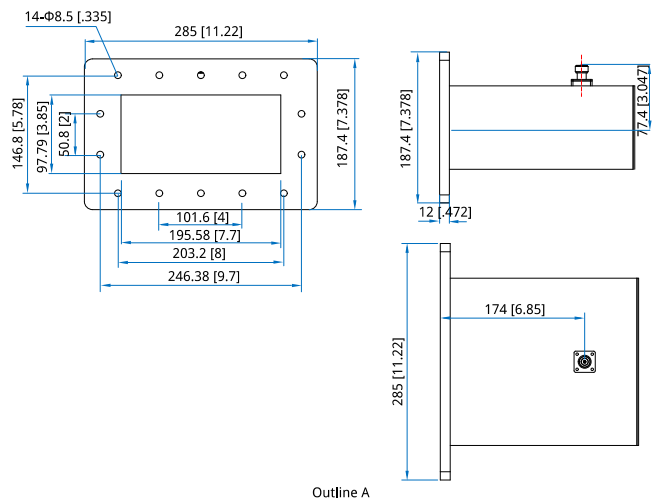
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-770 to N female, right angle, specify QWCA-770-NF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-770-S

### WR-770 to SMA

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 0.96~1.46GHz  
VSWR: 1.2 max.

#### Mechanical

RF Connectors: SMA  
Interface: WR-770  
Flange: FDP12  
Material: Aluminium

#### How To Order

##### QWCA-770-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

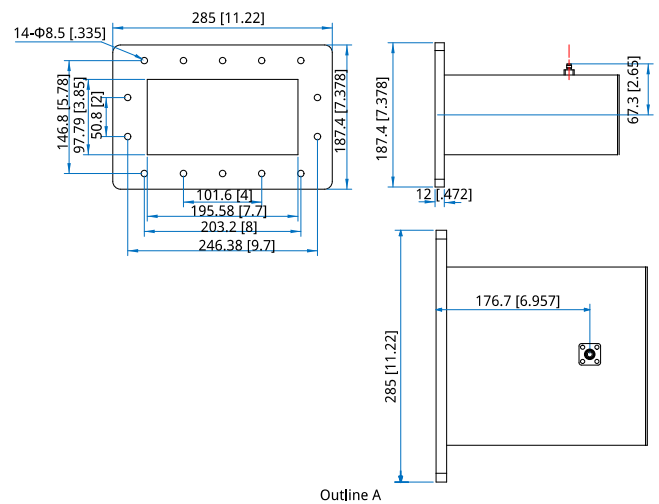
SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-770 to SMA female, right angle, specify QWCA-770-SF-R.

Customization is available upon request.

#### Outline Drawings



Unit: mm [in]

Tolerance:  $\pm 0.2\text{mm}$  [ $\pm 0.008\text{in}$ ]

## QWCA-975-7

### WR-975 to L29

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 0.76~1.15GHz  
VSWR: 1.25 max.  
Power: 2000W min.

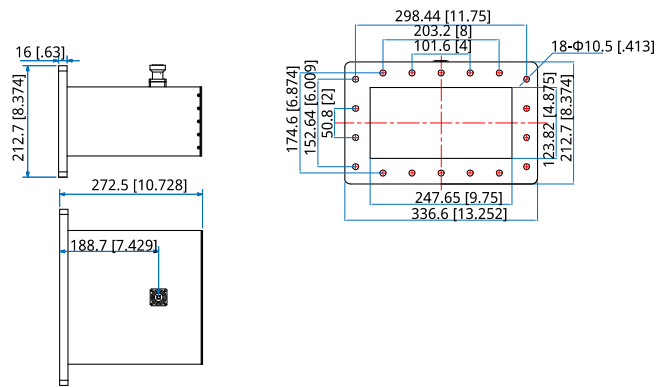
#### Mechanical

RF Connectors: L29  
Interface: WR-975  
Flange: FDP9  
Material: Aluminium

#### Environmental

Temperature: -55~+125°C

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

#### How To Order

**QWCA-975-7-Y**

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

7 - L29 Male (Outline A)

7F - L29 Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-975 to L29, right angle, specify QWCA-975-7-R.

Customization is available upon request.



## QWCA-975-N

### WR-975 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 0.76~1.15GHz  
VSWR: 1.2 max.  
Impedance: 50Ω

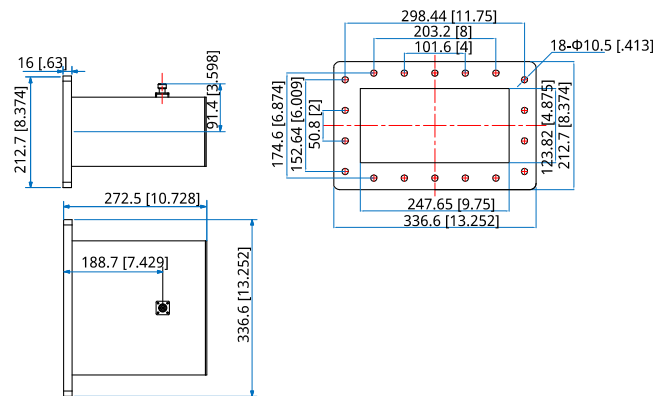
#### Mechanical

RF Connectors: N  
Interface: WR-975  
Flange: FDP9  
Material: Aluminium

#### Environmental

Temperature: -55~+125°C

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

#### How To Order

##### QWCA-975-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-975 to N female, right angle, specify QWCA-975-NF-R.

Customization is available upon request.

# QWCA-975-S

## WR-975 to SMA

Features:  
\* Low VSWR

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

### Electrical

Frequency: 0.76~1.15GHz  
VSWR: 1.2 max.  
Impedance: 50Ω

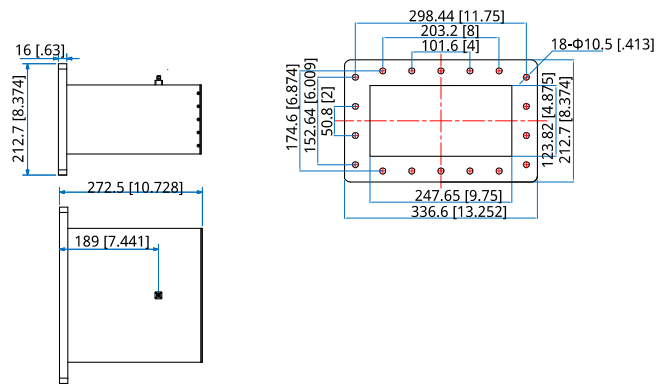
### Mechanical

RF Connectors: SMA  
Interface: WR-975  
Flange: FDP9  
Material: Aluminium

### Environmental

Temperature: -55~+125°C

### Outline Drawings



Outline A

Unit: mm [in]

Tolerance: ±0.2mm [±0.008in]

### How To Order

**QWCA-975-X-Y**

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

S - S Male (Outline A)

SF - S Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-975 to SMA female, right angle, specify QWCA-975-SF-R.

Customization is available upon request.

## QWCA-1150-N

### WR-1150 to N

Features:  
\* Low VSWR

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

#### Electrical

Frequency: 0.64–0.98GHz  
VSWR: 1.3 max.

#### Mechanical

RF Connectors: N  
Interface: WR-1150  
Flange: FDP9  
Material: Aluminium

#### How To Order

##### QWCA-1150-X-Y

X: Connector type.

Y: End launch: E, Right angle: R.

E - End launch

R - Right angle (Outline A)

Connector naming rules:

N - N Male (Outline A)

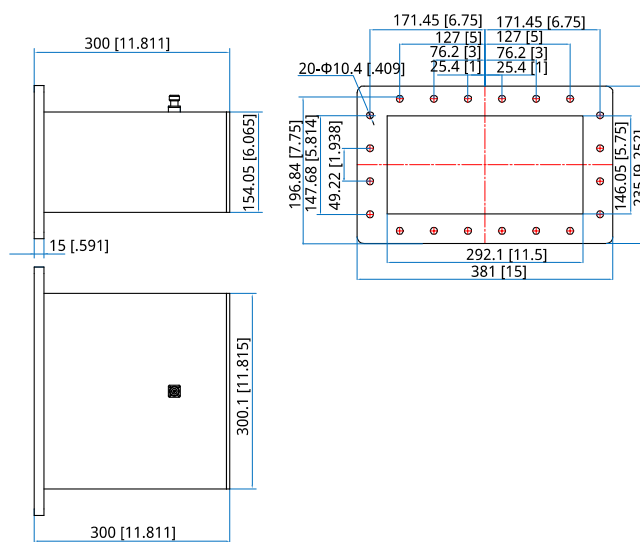
NF - N Female (Outline A)

Examples:

To order a waveguide to coax adapter, WR-1150 to N female, right angle, specify QWCA-1150-NF-R.

Customization is available upon request.

#### Outline Drawings



Outline A

Unit: mm [in]

Tolerance:  $\pm 0.2$ mm [ $\pm 0.008$ in]



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