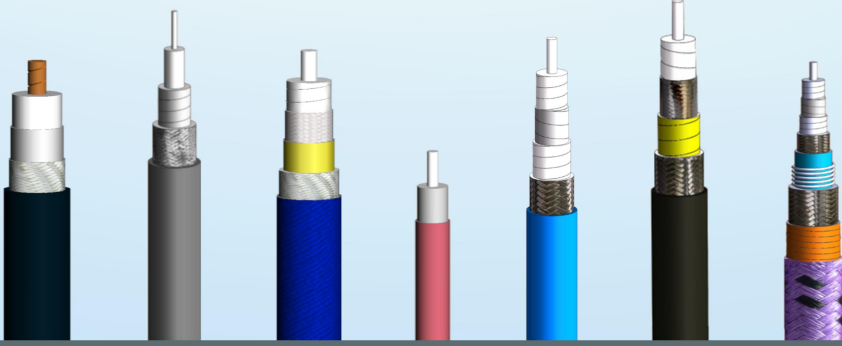


# RF Cables & Assemblies



2019

## About Qualwave Inc.

Qualwave Inc. is the top designer and manufacturer of microwave and millimeter wave products. We supply both active and passive components in a wide frequency range from DC to 110GHz all over the world. We provide a series of standard products to meet the needs of most customers. Mean while we customize products according to special requirements.

Like the name, quality is one of the key success factors. Our products are designed and manufactured with the latest tools and the best quality materials. Our engineers are keeping quality in mind through designing, manufacturing and testing. We are proud that many clients rated five stars in their feedback for product quality.

Our team comprised of professional microwave and millimeter wave engineers and specialized support staff. We take customer's needs as the first priority, as the success of our customers is also our success. We optimized design and manufacture processes by adding more flexibility, which helps to decrease lead time. Our management and service are customer oriented, ensuring to response to customer as soon as possible.

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# QT67

## Phase & Loss Stable, Long Flex Life

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* High Durability

**Applications:**

- \* Laboratory Test
- \* Avionics
- \* Phased-array Radar
- \* Satellite Communication

**Electrical**

Frequency:	DC-67GHz
Impedance:	50Ω
Velocity of Propagation:	81%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
Phase Stability*1:	±7°
Amplitude Stability*1:	±0.08dB

[1] 50mm radius, 360° bending

**Mechanical**

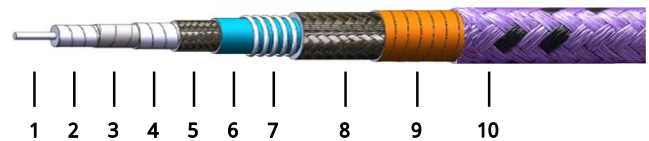
Unarmored Bend Radius (installation/repeated):	12mm/24mm min.
Armored Bend Radius (installation/repeated):	30mm/60mm min.
Bending Life Cycle:	100,000
Mating Life Cycle*2:	5,000

[2] For connectors 1.85mm, 2.4mm, 2.92mm, 3.5mm, SMA only.

**Environmental**

Temperature: -55~+125°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	0.50	Silver-plated copper
2	Dielectric	1.38	Low density PTFE
3	Inner Shield	1.54	Silver-plated copper tape
4	Interlayer	1.82	Low density PTFE
5	Outer Shield	2.17	Silver-plated copper braid
6	Jacket	2.40	FEP
7-9	Armor (optional)	5.50	Composite
10		6.00	PTFE

Tolerance: ±0.2mm [±0.008in]

**Attenuation & Power Handling**

Frequency (GHz)	1	2	4	6	8	10	12	18	26.5	33	40	50	67
Attenuation*3 (dB/100m)	64	91	130	161	187	210	232	288	355	400	445	503	594
Average Power*4 (W)	97	68	47	38	33	29	27	21	17	15	14	12	10

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable

[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QT67W-X-Y-Z**

W: Armor: A, without armor: U

X: Frequency In GHz

Y: Connector type

Z: Length in meters

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPPO & SSMP, 65GHz, VSWR 1.8)

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

**Examples:**

To order a QT67 test cable assembly with armor, DC-60GHz, 1.85mm male to 1.85mm female, 0.5 meter, specify QT67A-60-VVF-0.5.

# QT50

## Phase & Loss Stable, Long Flex Life

- |                        |                           |
|------------------------|---------------------------|
| <b>Features:</b>       | <b>Applications:</b>      |
| * Low Insertion Loss   | * Laboratory Test         |
| * High Phase Stability | * Avionics                |
| * High Power           | * Phased-array Radar      |
| * High Durability      | * Satellite Communication |

### Electrical

Frequency:	DC-50GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
Phase Stability*1:	±7°
Amplitude Stability*1:	±0.05dB

[1] 50mm radius, 360° bending

### Mechanical

Unarmored Bend Radius (installation/repeated):	18mm/36mm min.
Armored Bend Radius (installation/repeated):	30mm/60mm min.
Bending Life Cycle:	100,000
Mating Life Cycle*2:	5,000

[2] For connectors 2.4mm, 2.92mm, 3.5mm, SMA, N only.

### Environmental

Temperature: -55~+125°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.72	Silver-plated copper
2	Dielectric	2.21	Low density PTFE
3	Inner Shield	2.38	Silver-plated copper tape
4	Interlayer	2.68	Low density PTFE
5	Outer Shield	3.14	Silver-plated copper braid
6	Jacket	3.60	FEP
7-9	Armor (optional)	5.45	Composite
10		6.10	PTFE

Tolerance: ±0.2mm [±0.008in]

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5	40	50
Attenuation*3 (dB/100m)	24	31	44	77	109	142	159	192	235	292	329
Average Power*4 (W)	924	715	506	288	204	157	140	116	94	76	67

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable

[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QT50W-X-Y-Z

W: Armor: A, without armor: U  
 X: Frequency In GHz  
 Y: Connector type  
 Z: Length in meters

Connector naming rules:

- 2 - 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)

- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)
- Female Connector - Add 'F' after connector name
- Right Angle - Add 'R' after connector name(VSWR increase 0.1)

Examples:

To order a QT50 test cable assembly with armor, DC-50GHz, 2.4mm male to 2.4mm female, 0.5 meter, specify QT50A-50-22F-0.5.

# QT40

## Phase & Loss Stable, Long Flex Life

- |   |  |
|---|--|
| <b>Features:</b><br>* Low Insertion Loss<br>* High Phase Stability<br>* High Power<br>* High Durability | <b>Applications:</b><br>* Laboratory Test<br>* Avionics<br>* Phased-array Radar<br>* Satellite Communication |
|---|--|

### Electrical

Frequency:	DC-40GHz
Impedance:	50Ω
Velocity of Propagation:	81%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
Phase Stability*1:	±7°
Amplitude Stability*1:	±0.05dB

[1] 50mm radius, 360° bending

### Mechanical

Unarmored Bend Radius (installation/repeated):	21mm/42mm min.
Armored Bend Radius (installation/repeated):	40mm/70mm min.
Bending Life Cycle:	100,000
Mating Life Cycle*2:	5,000

[2] For connectors 2.4mm, 2.92mm, 3.5mm, SMA, N only.

### Environmental

Temperature: -55~+125°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silver-plated copper
2	Dielectric	2.70	Low density PTFE
3	Inner Shield	2.95	Silver-plated copper tape
4	Interlayer	3.20	Low density PTFE
5	Outer Shield	3.62	Silver-plated copper braid
6	Jacket	4.20	FEP
7-9	Armor (optional)	6.40	Composite
10		7.00	PTFE

Tolerance: ±0.2mm [±0.008in]

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5	40
Attenuation*3 (dB/100m)	22	28	40	69	99	128	143	174	213	265
Average Power*4 (W)	1040	904	567	324	228	175	157	129	105	85

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable

[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QT40W-X-Y-Z

- W: Armor: A, without armor: U
- X: Frequency In GHz
- Y: Connector type
- Z: Length in meters

#### Examples:

To order a QT40 test cable assembly with armor, DC-40GHz, 2.92mm male to 2.92mm female, 0.5 meter, specify QT40A-40-KKF-0.5.

#### Connector naming rules:

- 2 - 2.4mm (40GHz, VSWR 1.3)
- K - 2.92mm (40GHz, VSWR 1.3)
- M - MCX (6GHz, VSWR 1.2)
- X - MMCX (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.3)
- S - SMA (26.5GHz, VSWR 1.25)
- N - N (18GHz, VSWR 1.25)
- Female Connector - Add 'F' after connector name
- Right Angle - Add 'R' after connector name(VSWR increase 0.1)

# QT26

## Phase & Loss Stable, Long Flex Life

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* High Durability

**Applications:**

- \* Laboratory Test
- \* Avionics
- \* Phased-array Radar
- \* Satellite Communication

**Electrical**

Frequency:	DC~26.5GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000V DC
Phase Stability*1:	±5°
Amplitude Stability*1:	±0.05dB

[1] 50mm radius, 360° bending

**Mechanical**

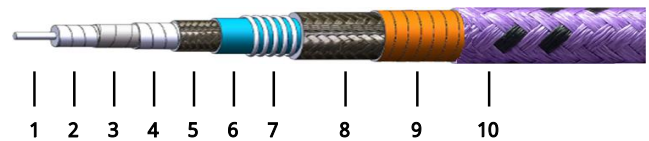
Unarmored Bend Radius (installation/repeated):	25mm/50mm min.
Armored Bend Radius (installation/repeated):	50mm/80mm min.
Bending Life Cycle:	600,000
Mating Life Cycle*2:	5,000

[2] For connectors 3.5mm, SMA, N, TNC only.

**Environmental**

Temperature: -55~+125°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.44	Silver-plated copper
2	Dielectric	3.80	Low density PTFE
3	Inner Shield	4.00	Silver-plated copper tape
4	Interlayer	4.32	Low density PTFE
5	Outer Shield	4.63	Silver-plated copper braid
6	Jacket	5.05	PFA
7-9	Armor (optional)	7.00	Composite
10		7.55	PTFE

Tolerance: ±0.2mm [±0.008in]

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5
Attenuation*3 (dB/100m)	15	19	28	49	70	92	104	128	159
Average Power*4 (W)	1521	1172	821	462	319	242	215	174	140

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable

[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QT26W-X-Y-Z**

- W: Armor: A, without armor: U
- X: Frequency In GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QT26 test cable assembly with armor, DC-26.5GHz, SMA male to SMA female, 0.5 meter, specify QT26A-26.5-SSF-0.5.

**Connector naming rules:**

- 3 - 3.5mm (26.5GHz, VSWR 1.25)
- S - SMA (26.5GHz, VSWR 1.25)
- X - MMCX (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name(VSWR increase 0.1)

# QT18

## Phase & Loss Stable, Long Flex Life

- |                        |                           |
|------------------------|---------------------------|
| <b>Features:</b>       | <b>Applications:</b>      |
| * Low Insertion Loss   | * Laboratory Test         |
| * High Phase Stability | * Avionics                |
| * High Power           | * Phased-array Radar      |
| * High Durability      | * Satellite Communication |

### Electrical

Frequency:	DC~18GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC
Phase Stability*1:	±5°
Amplitude Stability*1:	±0.05dB

[1] 50mm radius, 360° bending

### Mechanical

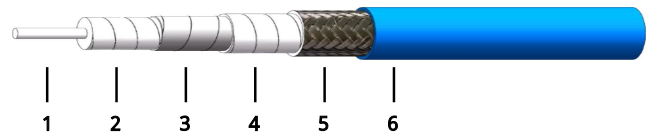
Bend Radius(installation):	24mm min.
Bend Radius(repeated):	48mm min.
Bending Life Cycle:	5,000
Mating Life Cycle*2:	5,000

[2] For connectors 3.5mm, SMA, N, TNC only.

### Environmental

Temperature: -55~+125°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.91	Silver-plated copper
2	Dielectric	3.05	Low density PTFE
3	Inner Shield	3.34	Silver-plated copper tape
4	Interlayer	3.50	Aluminum Tape
5	Outer Shield	4.00	Silver-plated copper braid
6	Jacket	4.80	FEP

Tolerance: ±0.2mm [±0.008in]

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18
Attenuation*3 (dB/100m)	21.4	28.0	40.4	73.5	108.8	146.9	167.1	209.9
Average Power*4 (W)	423	324	224	123	83	62	54	43

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable

[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QT18-X-Y-Z

X: Frequency In GHz

Y: Connector type

Z: Length in meters

Examples:

To order a QT18 test cable assembly, DC-16GHz, N male to N female, 0.5 meter, specify QT18-16-NNF-0.5.

Connector naming rules:

3 - 3.5mm (18GHz, VSWR 1.2)

S - SMA (18GHz, VSWR 1.2)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

X - MMCX (18GHz, VSWR 1.3)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name(VSWR increase 0.1)

# QTV

## Phase & Loss Stable, Long Flex Life

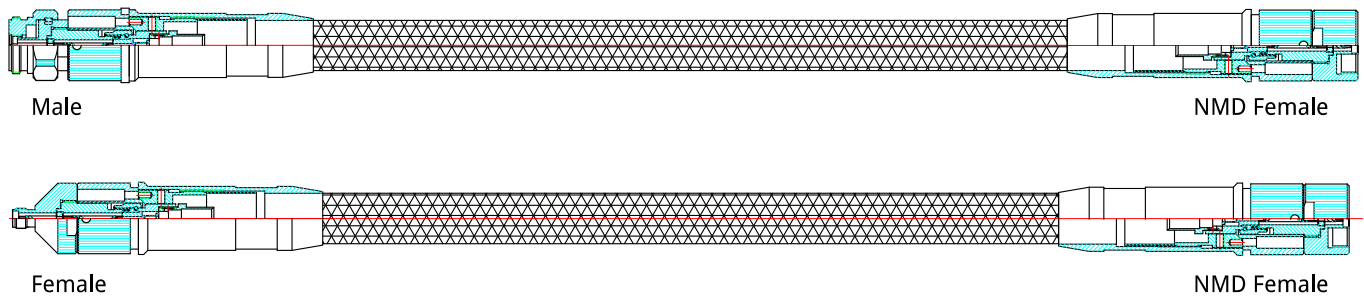
**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Durability

**Applications:**

- \* Laboratory Test

### Outline Drawings



### Electrical & Mechanical

Part Number	Frequency (GHz)	VSWR (max.)	Phase Stability(±°)	Amplitude Stability(±dB)	Bend Radius (mm)	Connectors
QTV-V	DC~67	1.5	6	0.08	50	1.85mm
QTV-2	DC~50	1.42	6	0.05	50	2.4mm
QTV-K	DC~40	1.35	6	0.05	50	2.92mm
QTV-3	DC~26.5	1.3	4	0.05	50	3.5mm
QTV-N	DC~18	1.3	4	0.05	50	N

### Loss vs Length

	QTV-V			QTV-2			QTV-K			QTV-3			QTV-N		
Length (m)	0.6	0.8	1	0.6	0.8	1	0.6	0.8	1	0.6	0.8	1	0.6	0.8	1
Loss (dB, max.)	4.91	6.11	7.31	3.17	3.85	4.53	2.78	3.37	3.96	2.23	2.70	3.17	1.58	1.88	2.18

### How To Order

#### QTV-X-Y

X: Connector type

Y: Length in meters

Connector naming rules:

- V - 1.85mm
- 2 - 2.4mm
- K - 2.92mm
- 3 - 3.5mm
- N - N

Female Connector - Add 'F' after connector name

Examples:

To order a pair of VNA test cable assemblies, DC-50GHz, 0.6 meter, specify QTV-2-0.6 and QTV-2F-0.6

## QA220

### Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

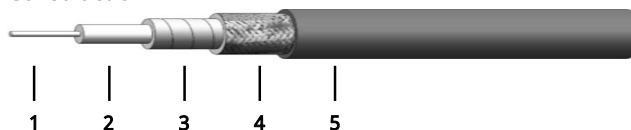
Frequency:	DC-50GHz
Cut-off Frequency:	83GHz
Impedance:	50Ω
Velocity of Propagation:	81%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	400V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

**Mechanical**

Bend Radius (installation):	8.8mm
Bend Radius (repeated):	22.0mm
Weight:	16g/m

**Environmental**

Temperature: -55~+125°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.50	Silver-plated copper
2	Dielectric	1.38	Low density PTFE
3	Inner Shield	1.54	Silver-plated copper tape
4	Outer Shield	1.95	Silver-plated copper braid
5	Jacket	2.20	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	2	6	10	12.4	18	26.5	35	40	50
Attenuation*1 (dB/100m)	34.6	44.8	63.7	90.8	160.4	209.8	235.2	287.1	354	412.4	444	502.8
Average Power*2 (W)	178	137	97	68	38	29	26	21	17	15	14	12

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QA220-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA220 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QA220-18-SSF-0.5.

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPPO &amp; SSMP, 65GHz, VSWR 1.8)

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA300

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC-50GHz
Cut-off Frequency:	60GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

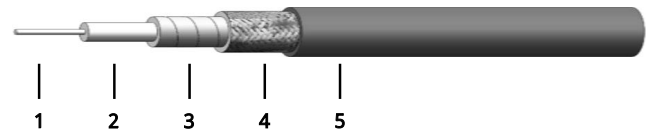
**Mechanical**

Bend Radius (installation):	15.0mm
Bend Radius (repeated):	31.0mm
Weight:	29g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	0.70	Silver-plated copper
2	Dielectric	1.93	Low density PTFE
3	Inner Shield	2.09	Silver-plated copper tape
4	Outer Shield	2.66	Silver-plated copper braid
5	Jacket	3.10	PFA

**Attenuation & Power Handling**

Frequency (GHz)	1	2	4	6	8	10	12.4	18	26.5	40	50
Attenuation*1 (dB/100m)	46.8	66.6	95	117.1	135.9	152.6	170.8	207.9	255.4	318.9	360.1
Average Power*2 (W)	407	286	201	163	140	125	111	92	75	60	53

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA300-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA300 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA300-18-SFN-0.5.

**Connector naming rules:**

2- 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA360

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC-40GHz
Cut-off Frequency:	48GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

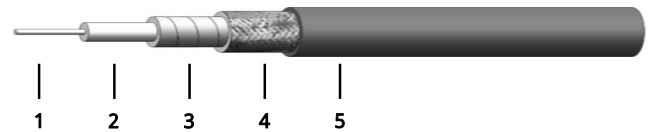
**Mechanical**

Bend Radius (installation):	18.0mm
Bend Radius (repeated):	36.0mm
Weight:	33g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	0.91	Silver-plated copper
2	Dielectric	2.50	Low density PTFE
3	Inner Shield	2.66	Silver-plated copper tape
4	Outer Shield	3.11	Silver-plated copper braid
5	Jacket	3.60	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18	26.5	40
Attenuation*1 (dB/100m)	11.8	20.4	26.4	37.5	53.4	76.1	93.9	109.0	134.6	166.7	204.8	255.7
Average Power*2 (W)	1626	936	723	509	358	251	203	175	142	115	93	75

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA360-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA360 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA360-18-SFN-0.5.

**Connector naming rules:**

2- 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QA400

### Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

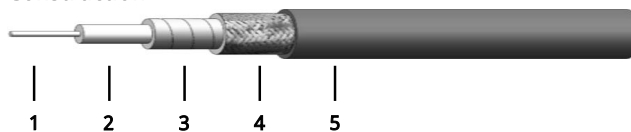
Frequency:	DC-40GHz
Cut-off Frequency:	41GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

**Mechanical**

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	40.0mm
Weight:	40g/m

**Environmental**

Temperature: -55~+165°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.05	Silver-plated copper
2	Dielectric	2.85	Low density PTFE
3	Inner Shield	3.05	Silver-plated copper tape
4	Outer Shield	3.40	Silver-plated copper braid
5	Jacket	4.00	PFA

**Attenuation & Power Handling**

Frequency (GHz)	1	2	4	6	8	10	12.4	18	26.5	40
Attenuation*1 (dB/100m)	36.2	51.3	72.7	89.3	103.3	115.7	129	156	190.2	235
Average Power*2 (W)	634	447	315	257	222	198	178	147	121	98

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QA400-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA400 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA400-18-SFN-0.5.

**Connector naming rules:**

X - MMCX (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QA480

### Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

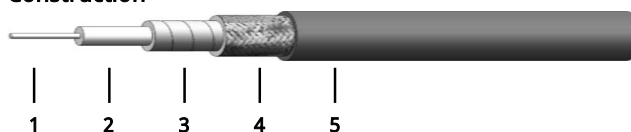
Frequency:	DC~26.5GHz
Cut-off Frequency:	31GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

**Mechanical**

Bend Radius (installation):	24.0mm
Bend Radius (repeated):	48.0mm
Weight:	58g/m

**Environmental**

Temperature: -55~+165°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.40	Silver-plated copper
2	Dielectric	3.80	Low density PTFE
3	Inner Shield	3.95	Silver-plated copper tape
4	Outer Shield	4.35	Silver-plated copper braid
5	Jacket	4.80	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	3	6	10	12.4	18	26.5
Attenuation*1 (dB/100m)	7.5	13.1	16.9	24.1	42.1	60.1	78.3	87.6	106.6	130.8
Average Power*2 (W)	2934	1689	1305	919	525	368	282	252	207	169

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QA480-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA480 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA480-18-SFN-0.5.

**Connector naming rules:**

X - MMCX (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QA500

### Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

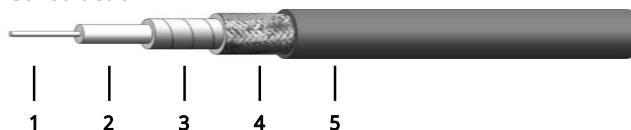
Frequency:	DC~26.5GHz
Cut-off Frequency:	29GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

**Mechanical**

Bend Radius (installation):	26.0mm
Bend Radius (repeated):	52.0mm
Weight:	67g/m

**Environmental**

Temperature: -55~+165°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.45	Silver-plated copper
2	Dielectric	3.99	Low density PTFE
3	Inner Shield	4.19	Silver-plated copper tape
4	Outer Shield	4.60	Silver-plated copper braid
5	Jacket	5.20	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18	26.5
Attenuation*1 (dB/100m)	7.4	12.8	16.5	23.5	33.3	47.5	58.6	68.0	83.9	103.9	127.6
Average Power*2 (W)	2934	1688	1305	919	646	453	368	317	256	207	169

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QA500-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA500 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA500-18-SFN-0.5.

**Connector naming rules:**

X - MMCX (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA550

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	27GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

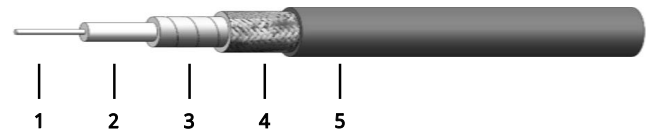
**Mechanical**

Bend Radius (installation):	28.0mm
Bend Radius (repeated):	56.0mm
Weight:	93g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.60	Silver-plated copper
2	Dielectric	4.30	Low density PTFE
3	Inner Shield	4.50	Silver-plated copper tape
4	Outer Shield	5.10	Silver-plated copper braid
5	Jacket	5.60	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	3	6	10	12.4	18
Attenuation*1 (dB/100m)	7.0	12.2	15.7	22.3	38.8	55.0	71.2	79.5	96.1
Average Power*2 (W)	3248	1873	1450	1024	589	415	320	287	237

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA550-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA550 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA550-18-SFN-0.5.

**Connector naming rules:**

X - MMCX (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA750

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	20GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500VC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

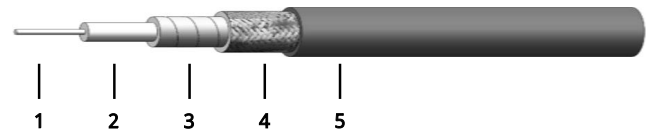
**Mechanical**

Bend Radius (installation):	37.0mm
Bend Radius (repeated):	74.0mm
Weight:	125g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	2.10	Silver-plated copper
2	Dielectric	5.70	Low density PTFE
3	Inner Shield	5.95	Silver-plated copper tape
4	Outer Shield	6.60	Silver-plated copper braid
5	Jacket	7.40	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	3	6	10	12.4	18
Attenuation*1 (dB/100m)	5.0	8.6	11.2	15.8	27.5	39.1	50.7	56.6	68.5
Average Power*2 (W)	5526	3186	2465	1740	1000	704	542	486	401

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA750-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA750 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA750-18-SFN-0.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QA760

### Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

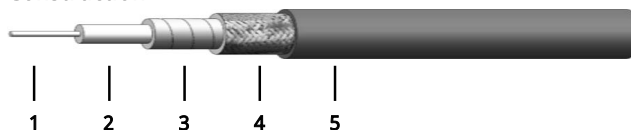
Frequency:	DC~18GHz
Cut-off Frequency:	19GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC
Phase Stability:	750PPM@-55°C~+85°C max.

**Mechanical**

Bend Radius (installation):	38.0mm
Bend Radius (repeated):	76.0mm
Weight:	137g/m

**Environmental**

Temperature: -55~+165°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	2.39	Stranded silver-plated copper
2	Dielectric	6.25	Low density PTFE
3	Inner Shield	6.49	Silver-plated copper tape
4	Outer Shield	7.06	Silver-plated copper braid
5	Jacket	7.65	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	10	12.4	18
Attenuation* <sup>1</sup> (dB/100m)	5.6	9.8	12.7	18	25.7	36.7	45.3	59.2	66.3	80.9
Average Power* <sup>2</sup> (W)	5134	2952	2280	1604	1126	788	638	488	436	357

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QA760-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA760S cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA760-18-SFN-0.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA800

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	19GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

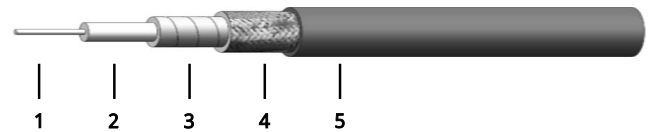
**Mechanical**

Bend Radius (installation):	39.0mm
Bend Radius (repeated):	79.0mm
Weight:	130g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	2.30	Silver-plated copper
2	Dielectric	6.20	Low density PTFE
3	Inner Shield	6.44	Silver-plated copper tape
4	Outer Shield	7.05	Silver-plated copper braid
5	Jacket	7.90	FEP

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18
Attenuation*1 (dB/100m)	4.6	8.0	10.4	14.8	21.1	30.2	37.3	43.4	53.9	67.0
Average Power*2 (W)	5817	3341	2579	1812	1270	887	717	616	497	399

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA800-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QA800 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA800-18-SFN-0.5.

**Connector naming rules:**

- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA810

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	18GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

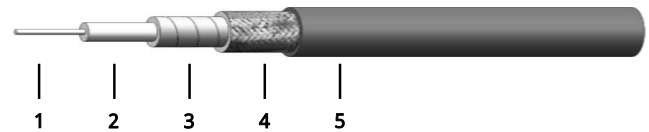
**Mechanical**

Bend Radius (installation):	40.0mm
Bend Radius (repeated):	81.0mm
Weight:	140g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	2.40	Silver-plated copper
2	Dielectric	6.36	Low density PTFE
3	Inner Shield	6.60	Silver-plated copper tape
4	Outer Shield	7.10	Silver-plated copper braid
5	Jacket	8.10	PFA

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	3	6	10	12.4	18
Attenuation*1 (dB/100m)	4.2	7.4	9.6	13.7	24.1	34.8	45.8	51.5	63.3
Average Power*2 (W)	6108	3503	2701	1894	1071	742	564	502	409

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA810-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA810 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA810-18-SFN-0.5

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QA830

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	18GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

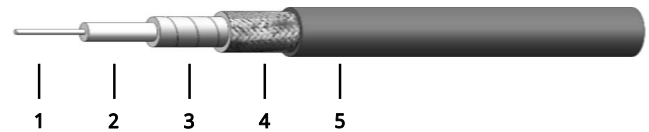
**Mechanical**

Bend Radius (installation):	41.0mm
Bend Radius (repeated):	83.0mm
Weight:	162g/m

**Environmental**

Temperature: -55~+165°C

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	2.44	Silver-plated copper
2	Dielectric	6.50	Low density PTFE
3	Inner Shield	6.90	Silver-plated copper tape
4	Outer Shield	7.65	Silver-plated copper braid
5	Jacket	8.30	PFA

**Attenuation & Power Handling**

Frequency (GHz)	1	2	4	6	8	10	12.4	16	18
Attenuation*1 (dB/100m)	13.3	18.9	27.1	33.6	39.1	44.1	49.5	56.9	60.6
Average Power*2 (W)	1894	1326	925	747	641	569	507	442	414

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QA830-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QA830 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QA830-18-SFN-0.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QB230

### Stable Loss, VSWR, Phase vs Flexing

**Features:**

- \* Low Insertion Loss
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics
- \* Telecom

**Electrical**

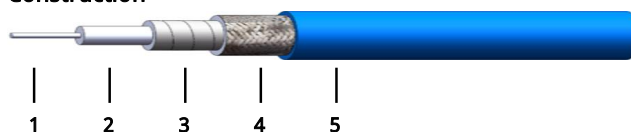
Frequency:	DC-40GHz
Cut-off Frequency:	71GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	400V DC
PIM:	-155dBc

**Mechanical**

Bend Radius (installation):	11.0mm
Bend Radius (repeated):	23.0mm
Weight:	16g/m

**Environmental**

Temperature: -55~+165°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.51	Silver-plated copper
2	Dielectric	1.52	Low density PTFE
3	Inner Shield	1.70	Silver-plated copper tape
4	Outer Shield	2.04	Silver-plated copper braid
5	Jacket	2.33	FEP

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	2	6	10	12.4	18	26.5	35	40
Attenuation*1 (dB/100m)	38.1	49.3	70.1	99.8	176.0	229.9	257.6	314.1	386.8	450.1	484.3
Average Power*2 (W)	178	137	97	68	38	29	26	21	17	15	14

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QB230-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QB230 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QB230-18-SSF-0.5.

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPP0 &amp; SSMP, 65GHz, VSWR 1.8)

- 2 - 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QB460

## Stable Loss, VSWR, Phase vs Flexing

- |   |  |
|---|--|
| <b>Features:</b><br>* Low Insertion Loss<br>* High Power<br>* Low PIM | <b>Applications:</b><br>* Phased-array Radar<br>* Satellite Communication<br>* Avionics<br>* Telecom |
|---|--|

### Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	35GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC
PIM:	-155dBc

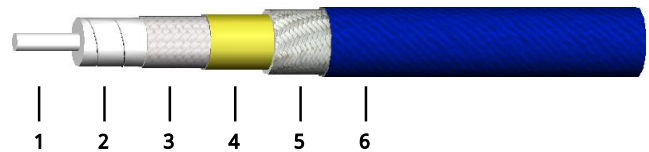
### Mechanical

Bend Radius (installation):	23.0mm
Bend Radius (repeated):	46.0mm
Weight:	52g/m

### Environmental

Temperature: -55~+200°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silver-plated copper
2	Dielectric	3.07	Low density PTFE
3	Inner Shield	3.27	Silver-plated copper tape
4	Interlayer	3.43	Aluminum tape
5	Outer Shield	3.94	Silver-plated copper braid
6	Jacket	4.60	FEP

### Attenuation & Power Handling

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18
Attenuation*1 (dB/100m)	11.1	19.3	24.9	35.4	50.4	72.0	88.8	103.2	127.7	158.4
Average Power*2 (W)	1821	1047	809	569	400	280	227	195	158	127

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QB460-X-Y-Z

X: Frequency in GHz  
 Y: Connector type  
 Z: Length in meters

#### Examples:

To order a QB460 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QB460-18-SFN-0.5.

- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name  
 Right Angle - Add 'R' after connector name (VSWR increase 0.1)

#### Connector naming rules:

- X - MMCX (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)

# QB520

## Stable Loss, VSWR, Phase vs Flexing

- |   |  |
|---|--|
| <b>Features:</b><br>* Low Insertion Loss<br>* High Power<br>* Low PIM | <b>Applications:</b><br>* Phased-array Radar<br>* Satellite Communication<br>* Avionics<br>* Telecom |
|---|--|

### Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	28GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC
PIM:	-155dBc

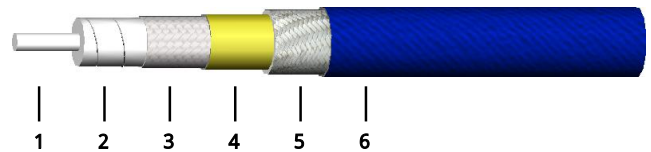
### Mechanical

Bend Radius (installation):	26.0mm
Bend Radius (repeated):	52.0mm
Weight:	68g/m

### Environmental

Temperature: -55~+200°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.29	Silver-plated copper
2	Dielectric	3.91	Low density PTFE
3	Inner Shield	4.15	Silver-plated copper tape
4	Interlayer	4.28	Aluminum tape
5	Outer Shield	4.79	Silver-plated copper braid
6	Jacket	5.20	FEP

### Attenuation & Power Handling

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18
Attenuation* <sup>1</sup> (dB/100m)	8.7	15.1	19.5	27.7	39.5	56.6	69.9	81.4	100.9	125.5
Average Power* <sup>2</sup> (W)	2407	1383	1068	750	526	367	297	255	206	165

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QB520-X-Y-Z

X: Frequency in GHz  
 Y: Connector type  
 Z: Length in meters

#### Examples:

To order a QB520 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QB520-18-SFN-0.5.

#### Connector naming rules:

X - MMCX (40GHz, VSWR 1.35)  
 3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)  
 N - N (18GHz, VSWR 1.25)  
 T - TNC (18GHz, VSWR 1.2)  
 M - MCX (6GHz, VSWR 1.2)  
 B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name  
 Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QB635

### Stable Loss, VSWR, Phase vs Flexing

**Features:**

- \* Low Insertion Loss
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics
- \* Telecom

**Electrical**

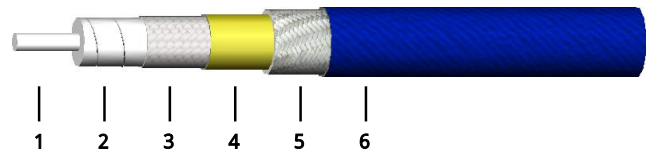
Frequency:	DC~18GHz
Cut-off Frequency:	27GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000V DC
PIM:	-155dBc

**Mechanical**

Bend Radius (installation):	31.0mm
Bend Radius (repeated):	63.0mm
Weight:	92g/m

**Environmental**

Temperature: -55~+200°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.57	Silver-plated copper
2	Dielectric	4.72	Low density PTFE
3	Inner Shield	4.96	Silver-plated copper tape
4	Interlayer	5.10	Aluminum tape
5	Outer Shield	5.66	Silver-plated copper braid
6	Jacket	6.35	FEP

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18
Attenuation*1 (dB/100m)	6.9	12.0	15.6	22.2	31.8	45.6	56.5	65.8	81.9	102.3
Average Power*2 (W)	2055	1885	1454	1020	713	497	401	344	276	221

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QB635-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QB635 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QB635-18-SFN-0.5.

**Connector naming rules:**

X - MMCX (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QB800

### Stable Loss, VSWR, Phase vs Flexing

- |   |  |
|---|--|
| <b>Features:</b><br>* Low Insertion Loss<br>* High Power<br>* Low PIM | <b>Applications:</b><br>* Phased-array Radar<br>* Satellite Communication<br>* Avionics<br>* Telecom |
|---|--|

#### Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	19GHz
Impedance:	50Ω
Velocity of Propagation:	78%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000V DC
PIM:	-155dBc

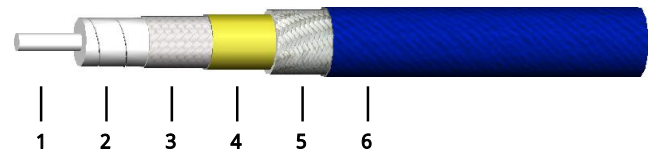
#### Mechanical

Bend Radius (installation):	38.0mm
Bend Radius (repeated):	76.0mm
Weight:	140g/m

#### Environmental

Temperature: -55~+200°C

#### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	2.06	Silver-plated copper
2	Dielectric	5.89	Low density PTFE
3	Inner Shield	6.05	Silver-plated copper tape
4	Interlayer	6.17	Aluminum tape
5	Outer Shield	6.81	Silver-plated copper braid
6	Jacket	7.62	FEP

#### Attenuation & Power Handling

Frequency (GHz)	1	2	4	6	8	10	12.4	16	18
Attenuation*1 (dB/100m)	17.6	25.2	36.3	45.1	52.7	59.5	67.1	77.3	82.6
Average Power*2 (W)	1530	1098	762	613	524	464	412	358	335

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

#### How To Order

##### QB800-X-Y-Z

X: Frequency in GHz  
 Y: Connector type  
 Z: Length in meters

##### Examples:

To order a QB800 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify QB800-18-SFN-0.5.

##### Connector naming rules:

X - MMCX (40GHz, VSWR 1.35)  
 3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)  
 N - N (18GHz, VSWR 1.25)  
 T - TNC (18GHz, VSWR 1.2)  
 M - MCX (6GHz, VSWR 1.2)  
 B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name  
 Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QB1000

### Stable Loss, VSWR, Phase vs Flexing

**Features:**

- \* Low Insertion Loss
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics
- \* Telecom

**Electrical**

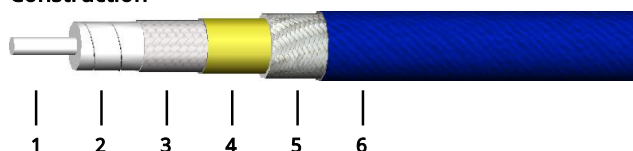
Frequency:	DC~10GHz
Cut-off Frequency:	15GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC
PIM:	-155dBc

**Mechanical**

Bend Radius (installation):	51.0mm
Bend Radius (repeated):	100.0mm
Weight:	200g/m

**Environmental**

Temperature: -55~+200°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	2.44	Silver-plated copper
2	Dielectric	7.24	Low density PTFE
3	Inner Shield	7.48	Silver-plated copper tape
4	Interlayer	7.61	Aluminum tape
5	Outer Shield	8.19	Silver-plated copper braid
6	Jacket	9.30	FEP

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	10
Attenuation* <sup>1</sup> (dB/100m)	4.6	8.0	10.3	14.8	21.2	30.7	38.2	44.7	50.7
Average Power* <sup>2</sup> (W)	5990	3420	2632	1841	1280	885	710	606	530

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QB1000-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QB1000 cable assembly, DC-8GHz, N male to N female, 0.5 meter, specify QB1000-8-NNF-0.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QB1200

### Stable Loss, VSWR, Phase vs Flexing

**Features:**

- \* Low Insertion Loss
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics
- \* Telecom

**Electrical**

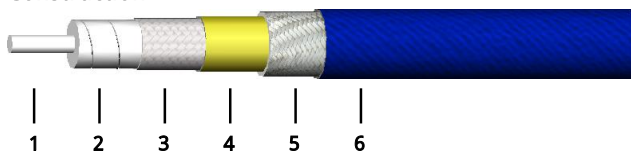
Frequency:	DC-8GHz
Cut-off Frequency:	11GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	3000V DC
PIM:	-155dBc

**Mechanical**

Bend Radius (installation):	60.0mm
Bend Radius (repeated):	120.0mm
Weight:	310g/m

**Environmental**

Temperature: -55~+200°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	3.50	Stranded silver-plated copper
2	Dielectric	9.90	Low density PTFE
3	Inner Shield	10.17	Silver-plated copper tape
4	Interlayer	10.30	Aluminum tape
5	Outer Shield	11.02	Silver-plated copper braid
6	Jacket	12.00	FEP

**Attenuation & Power Handling**

	0.1	0.3	0.5	1	3	4	6	8
Frequency (GHz)								
Attenuation* <sup>1</sup> (dB/100m)	4.0	7.0	9.1	13.0	23.3	27.2	33.9	39.8
Average Power* <sup>2</sup> (W)	8450	4830	3713	2590	1447	1238	991	844

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QB1200-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QB1200 cable assembly, DC-8GHz, N male to N female, 0.5 meter, specify QB1200-8-NNF-0.5.

**Connector naming rules:**

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QB1500

### Stable Loss, VSWR, Phase vs Flexing

**Features:**

- \* Low Insertion Loss
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics
- \* Telecom

**Electrical**

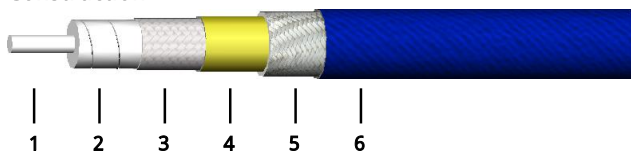
Frequency:	DC-6GHz
Cut-off Frequency:	10GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	4000V DC
PIM:	-155dBc

**Mechanical**

Bend Radius (installation):	76.0mm
Bend Radius (repeated):	150.0mm
Weight:	400g/m

**Environmental**

Temperature: -55~+200°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	4.40	Stranded silver-plated copper
2	Dielectric	12.50	Low density PTFE
3	Inner Shield	12.82	Silver-plated copper tape
4	Interlayer	12.95	Aluminum tape
5	Outer Shield	13.67	Silver-plated copper braid
6	Jacket	14.70	FEP

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	2	3	4	5	6
Attenuation* <sup>1</sup> (dB/100m)	3.1	5.5	7.1	10.3	14.8	18.5	21.6	24.5	27.2
Average Power* <sup>2</sup> (W)	13440	7650	5870	4080	2818	2260	1928	1703	1537

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QB1500-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QB1500 cable assembly, DC-6GHz, 7/16 male to 7/16 female, 0.5 meter, specify QB1500-6-77F-0.5.

**Connector naming rules:**

7 - 7/16 DIN (L29)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QZ360

## Ultra-Flexible

**Features:**

- \* Ultra-Flexible
- \* Corrosion Resistance

**Applications:**

- \* Phased-array Radar
- \* Laboratory Test
- \* Small & Complicated Interconnection Occasion

**Electrical**

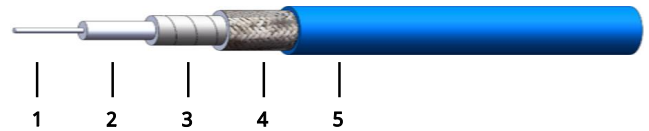
Frequency:	DC-40GHz
Cut-off Frequency:	51GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC

**Mechanical**

Bend Radius (installation):	18.0mm
Bend Radius (repeated):	36.0mm
Weight:	30g/m

**Environmental**

Temperature:	-55~85°C
--------------	----------

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.72	Stranded Silver-plated copper
2	Dielectric	2.05	Low density PTFE
3	Inner Shield	2.22	Silver-plated copper tape
4	Outer Shield	2.66	Silver-plated copper braid
5	Jacket	3.60	PUR

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5	40
Attenuation*1 (dB/100m)	28	36.3	51.9	92.1	133.4	176.4	198.7	244.9	305.5	388.8
Average Power*2 (W)	220	169	119	67	46	35	31	25	20	16

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QZ360-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QZ360 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QZ360-18-SSF-0.5.

**Connector naming rules:**

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QZ500

### Ultra-Flexible

**Features:**

- \* Ultra-Flexible
- \* Corrosion Resistance

**Applications:**

- \* Phased-array Radar
- \* Laboratory Test
- \* Small & Complicated Interconnection Occasion

**Electrical**

Frequency:	DC~26.5GHz
Cut-off Frequency:	35GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC

**Mechanical**

Bend Radius (installation):	25.0mm
Bend Radius (repeated):	50.0mm
Weight:	50g/m

**Environmental**

Temperature:	-55~+85°C
--------------	-----------

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.02	Stranded Silver-plated copper
2	Dielectric	3.00	Low density PTFE
3	Inner Shield	3.20	Silver-plated copper tape
4	Outer Shield	3.78	Silver-plated copper braid
5	Jacket	5.00	PUR

**Attenuation & Power Handling**

	0.3	0.5	1	3	6	10	12.4	18	26.5
Frequency (GHz)									
Attenuation* <sup>1</sup> (dB/100m)	20.4	26.7	38.5	69.8	103.2	139.0	157.9	198.0	252.1
Average Power* <sup>2</sup> (W)	280	215	149	82	55	41	36	29	23

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QZ500-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QZ500 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QZ500-18-SSF-0.5.

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QZ600

### Ultra-Flexible

**Features:**

- \* Ultra-Flexible
- \* Corrosion Resistance

**Applications:**

- \* Phased-array Radar
- \* Laboratory Test
- \* Small & Complicated Interconnection Occasion

**Electrical**

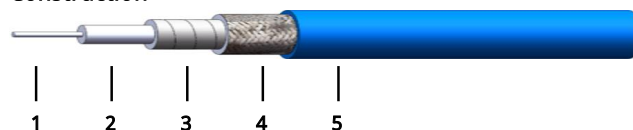
Frequency:	DC~26.5GHz
Cut-off Frequency:	29.5GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1700V DC

**Mechanical**

Bend Radius (installation):	30.0mm
Bend Radius (repeated):	60.0mm
Weight:	82g/m

**Environmental**

Temperature:	-55~+85°C
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**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.44	Stranded Silver-plated copper
2	Dielectric	4.25	Low density PTFE
3	Inner Shield	4.45	Silver-plated copper tape
4	Outer Shield	4.90	Silver-plated copper braid
5	Jacket	5.90	PUR

**Attenuation & Power Handling**

Frequency (GHz)	1	2	4	6	8	10	12.4	18	26.5
Attenuation* <sup>1</sup> (dB/100m)	28.7	41.2	59.3	73.6	86.0	97.1	109.2	134.3	167.2
Average Power* <sup>2</sup> (W)	175	122	85	68	59	52	46	37	30

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QZ600-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QZ600 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QZ600-18-SSF-0.5.

**Connector naming rules:**

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QZ800

## Ultra-Flexible

**Features:**

- \* Ultra-Flexible
- \* Corrosion Resistance

**Applications:**

- \* Phased-array Radar
- \* Laboratory Test
- \* Small & Complicated Interconnection Occasion

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	20GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1700V DC

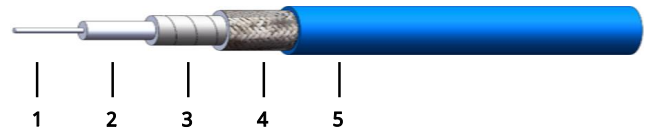
**Mechanical**

Bend Radius (installation):	40.0mm
Bend Radius (repeated):	80.0mm
Weight:	130g/m

**Environmental**

Temperature:	-55~+85°C
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**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.88	Stranded Silver-plated copper
2	Dielectric	5.50	Low density PTFE
3	Inner Shield	5.74	Silver-plated copper tape
4	Outer Shield	6.31	Silver-plated copper braid
5	Jacket	8.00	PUR

**Attenuation & Power Handling**

	0.3	0.5	1	3	6	8	10	12.4	18
Frequency (GHz)									
Attenuation*1 (dB/100m)	9.5	12.5	18.2	33.8	50.9	60.7	69.8	80.0	101.9
Average Power*2 (W)	626	477	327	176	117	98	85	74	58

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QZ800-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QZ800 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QZ800-18-SSF-0.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QG360

### Low Loss

**Features:**

- \* Low Insertion Loss
- \* Low VSWR

**Applications:**

- \* Telecom
- \* Interconnection between equipment

**Electrical**

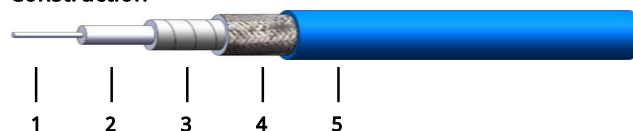
Frequency:	DC~18GHz
Cut-off Frequency:	40GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	70dB min.
Voltage Withstand:	1000V DC

**Mechanical**

Bend Radius (installation):	18.0mm
Bend Radius (repeated):	36.0mm
Weight:	28g/m

**Environmental**

Temperature:	-55~+125°C
--------------	------------

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.91	Silver-plated copper
2	Dielectric	2.65	Low density PTFE
3	Inner Shield	2.78	Self-adhesive aluminum foil
4	Outer Shield	3.25	Silver-plated copper braid
5	Jacket	3.60	FEP

**Attenuation & Power Handling**

	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)								
Attenuation*1 (dB/100m)	21.0	27.2	38.7	67.7	96.9	126.4	141.5	172.3
Average Power*2 (W)	850	657	462	264	185	141	126	104

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QG360-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QG360 cable assembly, DC-18GHz, N male to N female, 0.5 meter, specify QG360-18-NNF-0.5.

**Connector naming rules:**

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QG500

### Low Loss

**Features:**

- \* Low Insertion Loss
- \* Low VSWR

**Applications:**

- \* Telecom
- \* Interconnection between equipment

**Electrical**

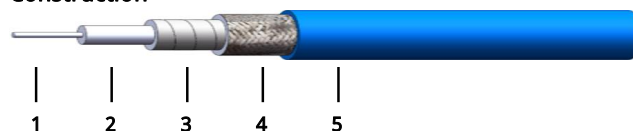
Frequency:	DC~18GHz
Cut-off Frequency:	28GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	70dB min.
Voltage Withstand:	1500V DC

**Mechanical**

Bend Radius (installation):	25.0mm
Bend Radius (repeated):	51.0mm
Weight:	60g/m

**Environmental**

Temperature:	-55~+125°C
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**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.45	Silver-plated copper
2	Dielectric	4.20	Low density PTFE
3	Inner Shield	4.32	Self-adhesive aluminum foil
4	Outer Shield	4.65	Silver-plated copper braid
5	Jacket	5.10	FEP

**Attenuation & Power Handling**

	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)								
Attenuation* <sup>1</sup> (dB/100m)	12.8	16.6	23.8	42.6	62.1	82.7	93.4	115.9
Average Power* <sup>2</sup> (W)	1428	1098	766	428	293	220	195	157

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QG500-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QG500 cable assembly, DC-18GHz, N male to N female, 0.5 meter, specify QG500-18-NNF-0.5.

**Connector naming rules:**

X - MMCX (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QG800

### Low Loss

**Features:**

- \* Low Insertion Loss
- \* Low VSWR

**Applications:**

- \* Telecom
- \* Interconnection between equipment

**Electrical**

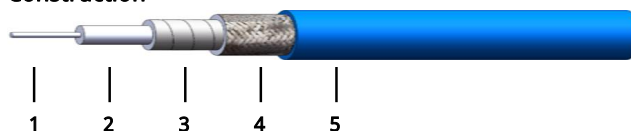
Frequency:	DC~18GHz
Cut-off Frequency:	19GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000V DC

**Mechanical**

Bend Radius (installation):	40.0mm
Bend Radius (repeated):	81.0mm
Weight:	120g/m

**Environmental**

Temperature:	-55~+125°C
--------------	------------

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	2.30	Silver-plated copper
2	Dielectric	6.80	Low density PTFE
3	Inner Shield	6.95	Self-adhesive aluminum foil
4	Outer Shield	7.50	Silver-plated copper braid
5	Jacket	8.10	FEP

**Attenuation & Power Handling**

	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)								
Attenuation* <sup>1</sup> (dB/100m)	8.0	10.5	15.1	27.3	40.1	53.8	61.0	76.3
Average Power* <sup>2</sup> (W)	3141	2409	1674	926	629	469	413	331

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QG800-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QG800 cable assembly, DC-18GHz, N male to N female, 0.5 meter, specify QG800-18-NNF-0.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QY460

### High Weatherability, Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Base Station
- \* Satellite Communication
- \* Maritime Communication
- \* Outdoor Interconnection

**Electrical**

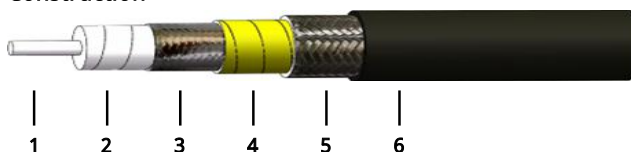
Frequency:	DC~18GHz
Cut-off Frequency:	35GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	70dB min.
Voltage Withstand:	1000V DC

**Mechanical**

Bend Radius (installation):	25.0mm
Bend Radius (repeated):	50.0mm
Weight:	56g/m

**Environmental**

Temperature:	-55~+85°C
Outdoor Life:	20 years

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silver-plated copper
2	Dielectric	3.07	Low density PTFE
3	Inner Shield	3.27	Silver-plated copper tape
4	Interlayer	3.43	Aluminum tape
5	Outer Shield	3.94	Silver-plated copper braid
6	Jacket	5.00	PUR

**Attenuation & Power Handling**

	0.1	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)									
Attenuation*1 (dB/100m)	11.1	19.2	24.9	35.4	62.0	88.8	116.0	129.9	158.3
Average Power*2 (W)	636	366	283	199	113	79	61	54	44

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QY460-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QY460 cable assembly, DC-18GHz, N male to SMA female, 1.5 meter, specify QY460-18-SFN-1.5.

**Connector naming rules:**

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QY520

## High Weatherability, Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Base Station
- \* Satellite Communication
- \* Maritime Communication
- \* Outdoor Interconnection

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	35GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	70dB min.
Voltage Withstand:	1000V DC

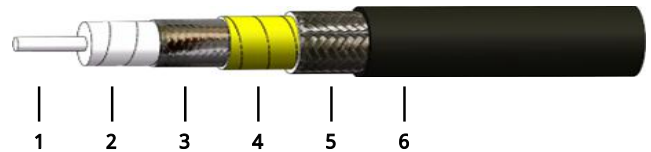
**Mechanical**

Bend Radius (installation):	30.0mm
Bend Radius (repeated):	60.0mm
Weight:	70g/m

**Environmental**

Temperature:	-55~+85°C
Outdoor Life:	20 years

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.29	Silver-plated copper
2	Dielectric	3.91	Low density PTFE
3	Inner Shield	4.15	Silver-plated copper tape
4	Interlayer	4.28	Aluminum tape
5	Outer Shield	4.79	Silver-plated copper braid
6	Jacket	6.00	PUR

**Attenuation & Power Handling**

	0.1	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)									
Attenuation*1 (dB/100m)	8.6	15.0	19.4	27.7	48.7	69.9	91.5	102.7	125.5
Average Power*2 (W)	843	484	374	263	149	104	79	71	58

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QY520-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QY520 cable assembly, DC-18GHz, N male to SMA female, 1.5 meter, specify QY520-18-SFN-1.5.

**Connector naming rules:**

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QY635

## High Weatherability, Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Base Station
- \* Satellite Communication
- \* Maritime Communication
- \* Outdoor Interconnection

**Electrical**

Frequency:	DC~18GHz
Cut-off Frequency:	27GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	70dB min.
Voltage Withstand:	2000V DC

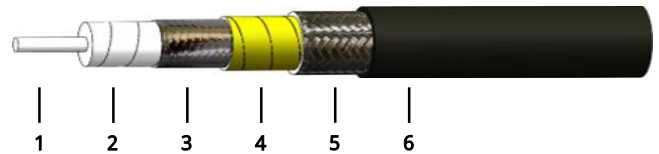
**Mechanical**

Bend Radius (installation):	36.0mm
Bend Radius (repeated):	72.0mm
Weight:	89g/m

**Environmental**

Temperature:	-55~+85°C
Outdoor Life:	20 years

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.57	Silver-plated copper
2	Dielectric	4.72	Low density PTFE
3	Inner Shield	4.96	Silver-plated copper tape
4	Interlayer	5.10	Aluminum tape
5	Outer Shield	5.66	Silver-plated copper braid
6	Jacket	7.20	PUR

**Attenuation & Power Handling**

	0.1	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)									
Attenuation*1 (dB/100m)	6.9	12.0	15.6	22.2	39.2	56.4	74.2	83.4	102.2
Average Power*2 (W)	1150	660	509	357	202	140	107	95	77

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QY635-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QY635 cable assembly, DC-18GHz, N male to SMA female, 1.5 meter, specify QY635-18-SFN-1.5.

**Connector naming rules:**

- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QY1000

## High Weatherability, Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Base Station
- \* Satellite Communication
- \* Maritime Communication
- \* Outdoor Interconnection

**Electrical**

Frequency:	DC~10GHz
Cut-off Frequency:	15GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	70dB min.
Voltage Withstand:	3000V DC

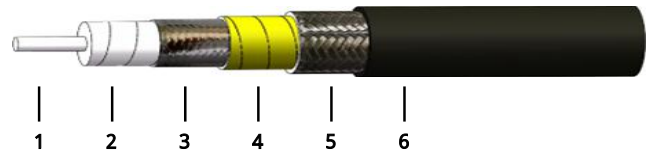
**Mechanical**

Bend Radius (installation):	50.0mm
Bend Radius (repeated):	100.0mm
Weight:	190g/m

**Environmental**

Temperature:	-55~+85°C
Outdoor Life:	20 years

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	2.44	Silver-plated copper
2	Dielectric	7.24	Low density PTFE
3	Inner Shield	7.48	Silver-plated copper tape
4	Interlayer	7.61	Aluminum tape
5	Outer Shield	8.19	Silver-plated copper braid
6	Jacket	10.15	PUR

**Attenuation & Power Handling**

Frequency (GHz)	0.1	0.3	0.5	1	3	5	6	8	10
Attenuation*1 (dB/100m)	4.5	7.9	10.3	14.7	26.2	34.5	38.2	44.7	50.6
Average Power*2 (W)	3590	2053	1580	1104	619	470	425	363	321

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QY1000-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QY1000 cable assembly, DC-18GHz, N male to N female, 1.5 meter, specify QY1000-18-NNF-1.5.

**Connector naming rules:**

- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QR280 Low Loss

### Features:

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

### Applications:

- \* Wireless Communication
- \* Microwave Interconnect

### Electrical

Frequency:	DC~5.8GHz
Cut-off Frequency:	63GHz
Impedance:	50Ω
Velocity of Propagation:	66%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC

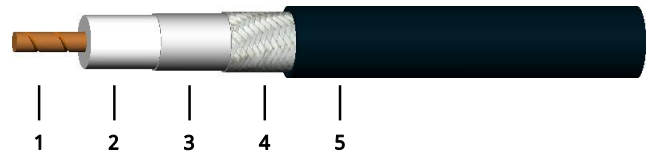
### Mechanical

Bend Radius (installation):	6.4mm
Bend Radius (repeated):	28.0mm
Weight:	10g/m

### Environmental

Temperature:	-40~+85°C
Outdoor Life:	20 years

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.46	Copper-clad steel
2	Dielectric	1.52	PE
3	Outer Conductor	1.65	Double-edged aluminum foil
4	Outer Shield	2.11	Tin-plated copper braid
5	Jacket	2.80	PE

### Attenuation & Power Handling

	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Frequency (GHz)											
Attenuation*1 (dB/100m)	12.9	16.7	29.4	35.8	52.0	75.1	99.0	109.3	115.8	131.1	211.4
Average Power*2 (W)	230	180	100	83	57	39	29	27	25	22	13

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QR280-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

#### Examples:

To order a QR280 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR280-5.8-SSF-1.5.

#### Connector naming rules:

- 2- 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR500

## Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	41GHz
Impedance:	50Ω
Velocity of Propagation:	80%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC

**Mechanical**

Bend Radius (installation):	12.0mm
Bend Radius (repeated):	50.0mm
Weight:	30g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation*1 (dB/100m)	6.5	8.4	14.7	17.8	25.7	36.7	47.9	52.8	55.8	62.8	98.6
Average Power*2 (W)	890	680	390	320	220	160	120	110	100	90	60

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

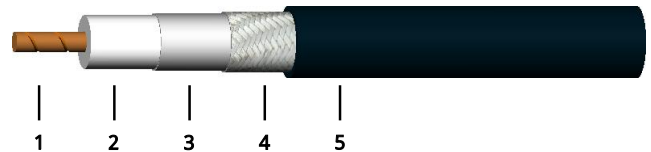
**QR500-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QR500 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR500-5.8-SSF-1.5.

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	0.94	Copper
2	Dielectric	2.79	Foam PE
3	Outer Conductor	2.95	Double-edged aluminum foil
4	Outer Shield	3.53	Tin-plated copper braid
5	Jacket	5.00	PE

**Connector naming rules:**

- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)
- X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR500U

## Low Loss, Ultra Flexible

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant
- \* Ultra Flexible

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	41GHz
Impedance:	50Ω
Velocity of Propagation:	80%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC

**Mechanical**

Bend Radius (installation):	12.0mm
Bend Radius (repeated):	50.0mm
Weight:	30g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation*1 (dB/100m)	7.7	10.0	17.4	21.1	30.4	43.5	56.8	62.5	66.1	74.4	117.0
Average Power*2 (W)	780	610	350	280	200	140	100	90	90	80	50

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

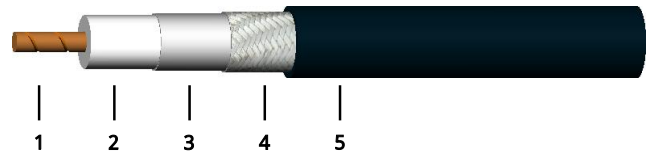
**QR500U-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QR500U cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR500U-5.8-SSF-1.5.

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	0.97	Stranded Copper
2	Dielectric	2.79	Foam PE
3	Outer Conductor	2.95	Double-edged aluminum foil
4	Outer Shield	3.53	Tin-plated copper braid
5	Jacket	5.00	TPE

**Connector naming rules:**

- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)
- X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QR600

### Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	30GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC

**Mechanical**

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	65.0mm
Weight:	50g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation* <sup>1</sup> (dB/100m)	4.4	5.7	10.0	12.2	17.5	25.1	32.8	36.1	38.1	42.9	67.5
Average Power* <sup>2</sup> (W)	1490	1150	660	540	380	260	200	180	170	150	100

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QR600-X-Y-Z**

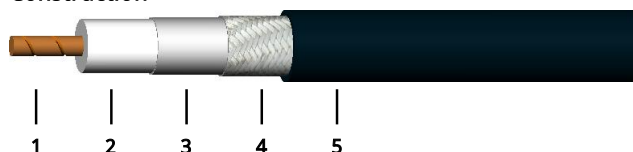
X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QR600 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR600-5.8-SSF-1.5.

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.42	Copper
2	Dielectric	3.81	Foam PE
3	Outer Conductor	3.94	Double-edged aluminum foil
4	Outer Shield	4.52	Tin-plated copper braid
5	Jacket	6.00	PE

**Connector naming rules:**

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR600U

## Low Loss, Ultra Flexible

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant
- \* Ultra Flexible

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	31GHz
Impedance:	50Ω
Velocity of Propagation:	84%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC

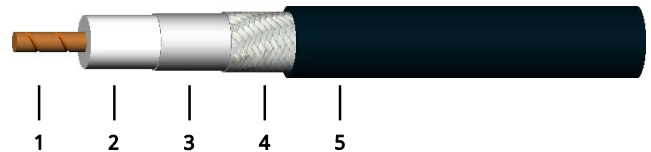
**Mechanical**

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	65.0mm
Weight:	50g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.42	Stranded Copper
2	Dielectric	3.81	Foam PE
3	Outer Conductor	3.94	Double-edged aluminum foil
4	Outer Shield	4.52	Tin-plated copper braid
5	Jacket	6.00	TPE

**Attenuation & Power Handling**

	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Frequency (GHz)											
Attenuation*1 (dB/100m)	5.3	6.9	12.1	14.6	21.1	30.2	39.5	43.4	45.9	51.7	81.3
Average Power*2 (W)	1240	960	550	450	310	220	170	150	140	130	80

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QR600U-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QR600U cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR600U-5.8-SSF-1.5.

**Connector naming rules:**

- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)
- X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR700

## Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	24.5GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000V DC

**Mechanical**

Bend Radius (installation):	25.0mm
Bend Radius (repeated):	76.0mm
Weight:	80g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation*1 (dB/100m)	3.5	4.6	8.0	9.7	14.1	20.2	26.4	29.1	30.8	34.7	55.0
Average Power*2 (W)	2090	1620	920	760	520	360	280	250	240	210	130

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

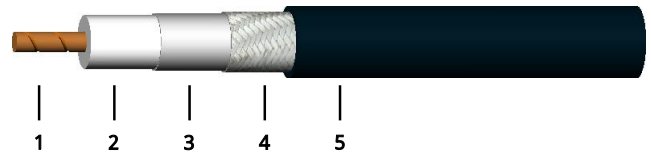
**QR700-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QR700 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR700-5.8-SSF-1.5.

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	1.78	Copper
2	Dielectric	4.83	Foam PE
3	Outer Conductor	4.98	Double-edged aluminum foil
4	Outer Shield	5.72	Tin-plated copper braid
5	Jacket	7.60	PE

**Connector naming rules:**

- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QR1000

### Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

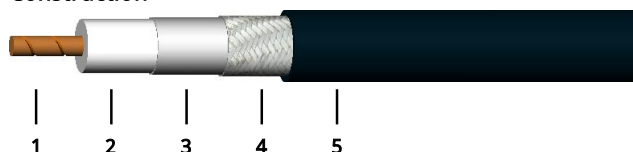
Frequency:	DC~5.8GHz
Cut-off Frequency:	16.2GHz
Impedance:	50Ω
Velocity of Propagation:	84%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC

**Mechanical**

Bend Radius (installation):	25.0mm
Bend Radius (repeated):	100.0mm
Weight:	100g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	2.74	Copper-clad aluminum
2	Dielectric	7.24	Foam PE
3	Outer Conductor	7.39	Double-edged aluminum foil
4	Outer Shield	8.13	Tin-plated copper braid
5	Jacket	10.00	PE

**Attenuation & Power Handling**

	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Frequency (GHz)											
Attenuation* <sup>1</sup> (dB/100m)	2.2	2.9	5.1	6.2	8.9	12.8	16.9	18.6	19.7	22.3	35.6
Average Power* <sup>2</sup> (W)	3330	2570	1470	1200	830	580	440	400	370	330	210

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QR1000-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QR1000 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR1000-5.8-SSF-1.5.

**Connector naming rules:**

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR1000U

## Low Loss, Ultra Flexible

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant
- \* Ultra Flexible

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	16.2GHz
Impedance:	50Ω
Velocity of Propagation:	85%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC

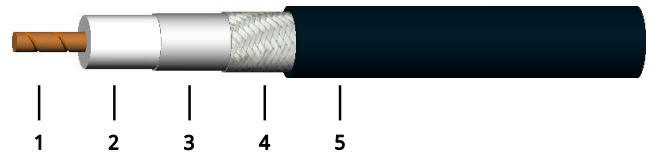
**Mechanical**

Bend Radius (installation):	25.0mm
Bend Radius (repeated):	100.0mm
Weight:	130g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	2.74	Stranded Copper
2	Dielectric	7.24	Foam PE
3	Outer Conductor	7.39	Double-edged aluminum foil
4	Outer Shield	8.13	Tin-plated copper braid
5	Jacket	10.30	TPE

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation*1 (dB/100m)	2.7	3.5	6.1	7.4	10.7	15.4	20.3	22.4	23.7	26.7	42.8
Average Power*2 (W)	2770	2140	1220	1000	690	480	360	330	310	280	170

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

**QR1000U-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QR1000U cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR1000U-5.8-SSF-1.5.

**Connector naming rules:**

- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR1500

## Low Loss

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	10.3GHz
Impedance:	50Ω
Velocity of Propagation:	87%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	4000V DC

**Mechanical**

Bend Radius (installation):	38.0mm
Bend Radius (repeated):	152.0mm
Weight:	200g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Attenuation & Power Handling**

Frequency (GHz)	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Attenuation*1 (dB/100m)	1.4	1.8	3.2	3.9	5.7	8.4	11.1	12.3	13.0	14.8	24.2
Average Power*2 (W)	5510	4240	2410	1970	1350	930	700	630	590	520	320

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**

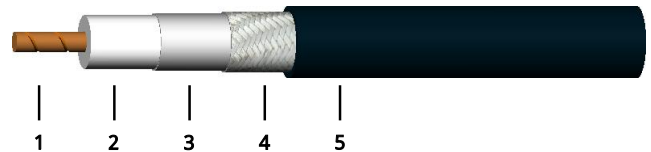
**QR1500-X-Y-Z**

- X: Frequency in GHz
- Y: Connector type
- Z: Length in meters

**Examples:**

To order a QR1500 cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR1500-5.8-SSF-1.5.

**Construction**



No.	Name	Size (mm)	Material
1	Inner Conductor	4.47	Copper-clad aluminum
2	Dielectric	11.56	Foam PE
3	Outer Conductor	11.72	Double-edged aluminum foil
4	Outer Shield	12.45	Tin-plated copper braid
5	Jacket	15.00	PE

**Connector naming rules:**

7 - 7/16 DIN (L29)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QR1500U

## Low Loss, Ultra Flexible

**Features:**

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant
- \* Ultra Flexible

**Applications:**

- \* Wireless Communication
- \* Microwave Interconnect

**Electrical**

Frequency:	DC~5.8GHz
Cut-off Frequency:	10GHz
Impedance:	50Ω
Velocity of Propagation:	87%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	4000V DC

**Mechanical**

Bend Radius (installation):	40.0mm
Bend Radius (repeated):	80.0mm
Weight:	250g/m

**Environmental**

Temperature:	-40~+85°C
Outdoor Life:	20 years

**Attenuation & Power Handling**

	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Frequency (GHz)											
Attenuation* <sup>1</sup> (dB/100m)	1.7	2.2	3.8	4.6	6.8	9.8	13.1	14.5	15.4	17.4	28.6
Average Power* <sup>2</sup> (W)	4590	3540	2010	1640	1130	770	580	530	500	440	270

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QR1500U-X-Y-Z**

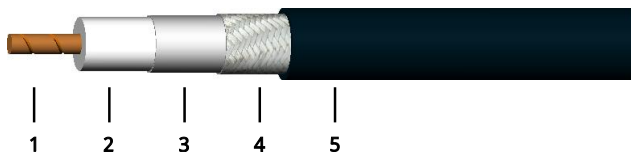
X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QR1500U cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meter, specify QR1500U-5.8-SSF-1.5.

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	4.47	Stranded Copper
2	Dielectric	11.56	Foam PE
3	Outer Conductor	11.71	Double-edged aluminum foil
4	Outer Shield	12.45	Tin-plated copper braid
5	Jacket	15.00	TPE

**Connector naming rules:**

7-7/16DIN(L29)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QH160

## Flexible, Alternate to semi-rigid cable

**Features:**

- \* Phase Stability
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Interconnection in and between equipment

**Electrical**

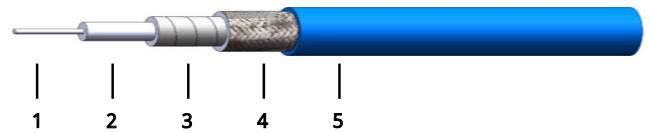
Frequency:	DC~18GHz
Cut-off Frequency:	110GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	300V DC

**Mechanical**

Bend Radius (installation):	6.0mm
Bend Radius (repeated):	16.0mm
Weight:	5g/m

**Environmental**

Temperature: -55~+125°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.30	Silver-plated copper
2	Dielectric	0.95	PTFE
3	Inner Shield	1.10	Silver-plated copper tape
4	Outer Shield	1.35	Silver-plated copper braid
5	Jacket	1.60	PFA

**Attenuation & Power Handling**

	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)								
Attenuation*1 (dB/100m)	73.8	95.4	135.2	235.1	334.0	433.0	483.2	584.7
Average Power*2 (W)	150	116	82	47	33	26	23	19

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QH160-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QH160 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QH160-18-SSF-0.5.

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPPO &amp; SSMP, 65GHz, VSWR 1.8)

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QH280

## Flexible, Alternate to semi-rigid cable

Features:  
 \* Phase Stability  
 \* Low PIM

Applications:  
 \* Phased-array Radar  
 \* Interconnection in and between equipment

### Electrical

Frequency:	DC~26.5GHz
Cut-off Frequency:	62GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC

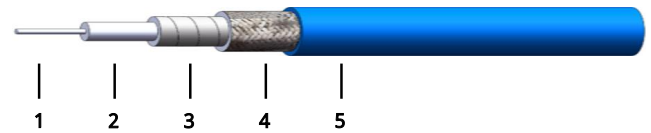
### Mechanical

Bend Radius (installation):	13.0mm
Bend Radius (repeated):	26.0mm
Weight:	22g/m

### Environmental

Temperature: -55~+125°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.53	Silver-plated copper
2	Dielectric	1.63	PTFE
3	Inner Shield	1.83	Silver-plated copper tape
4	Outer Shield	2.18	Silver-plated copper braid
5	Jacket	2.65	FEP

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	2.4	3	6	8	10	12.4	18	26.5
Attenuation*1 (dB/100m)	37.0	48.2	69.3	110.7	125.0	183.7	216.4	246.1	279.0	348.2	440.8
Average Power*2 (W)	187	171	119	74	66	45	38	33	30	24	19

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QH280-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a QH280 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QH280-18-SSF-0.5.

Connector naming rules:

- 2 - 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QH400

### Flexible, Alternate to semi-rigid cable

**Features:**

- \* Phase Stability
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Interconnection in and between equipment

**Electrical**

Frequency:	DC~26.5GHz
Cut-off Frequency:	34GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC

**Mechanical**

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	40.0mm
Weight:	49g/m

**Environmental**

Temperature: -55~+125°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.94	Silver-plated copper
2	Dielectric	3.00	PTFE
3	Inner Shield	3.20	Silver-plated copper tape
4	Outer Shield	3.55	Silver-plated copper braid
5	Jacket	4.00	FEP

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	2.4	3	6	8	10	12.4	18	26.5
Attenuation* <sup>1</sup> (dB/100m)	19.9	26.2	38.2	62.5	71.1	107.5	128.3	147.6	169.4	216.1	280.6
Average Power* <sup>2</sup> (W)	512	423	290	177	156	103	86	75	65	51	39

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QH400-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QH400 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QH400-18-SSF-0.5.

**Connector naming rules:**

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

X - MMCX (40GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QH700

## Flexible, Alternate to semi-rigid cable

Features:  
 \* Phase Stability  
 \* Low PIM

Applications:  
 \* Phased-array Radar  
 \* Interconnection in and between equipment

### Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	19GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	3000V DC

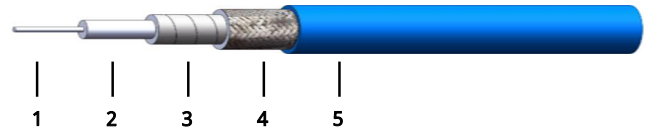
### Mechanical

Bend Radius (installation):	35.0mm
Bend Radius (repeated):	70.0mm
Weight:	142g/m

### Environmental

Temperature: -55~+125°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.63	Silver-plated copper
2	Dielectric	5.28	PTFE
3	Inner Shield	5.60	Silver-plated copper tape
4	Outer Shield	6.17	Silver-plated copper braid
5	Jacket	7.00	FEP

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	2.4	3	6	8	10	12.4	18
Attenuation*1 (dB/100m)	13.1	17.4	25.7	43.2	49.5	77.0	93.1	108.3	125.5	163.3
Average Power*2 (W)	1100	830	561	334	291	187	155	133	115	88

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

### How To Order

#### QH700-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

#### Examples:

To order a QH700 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QH700-18-SSF-0.5.

#### Connector naming rules:

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

T - TNC (18GHz, VSWR 1.2)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

# QK086

## Stable Phase, Loss and VSWR

**Features:**

- \* Stable Phase
- \* Low Insertion Loss
- \* Low VSWR
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Instrument
- \* Interconnection in and between equipment

**Electrical**

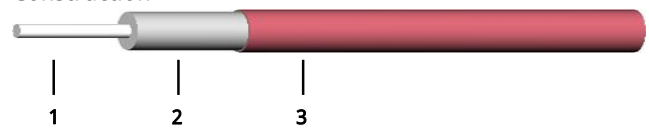
Frequency:	DC~40GHz
Cut-off Frequency:	64GHz
Impedance:	50Ω
Velocity of Propagation:	81%
Shielding Effectiveness:	165dB min.
Voltage Withstand:	500V DC
Phase Stability vs Temperature:	750ppm@-45~+85°C max.

**Mechanical**

Bend Radius (installation):	7mm
Weight:	19g/m

**Environmental**

Temperature: -55~+250°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	0.59	Silver-plated copper
2	Dielectric	1.68	PTFE
3	Outer Conductor	2.18	Ternary alloy plated seamless copper tube

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5	40
Attenuation*1 (dB/100m)	29.7	38.4	54.5	95.1	135.5	176.2	196.9	238.9	292.4	363.4
Average Power*2 (W)	475	367	259	148	104	80	72	59	48	39

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QK086-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QK086 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QK086-18-SSF-0.5.

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPPO &amp; SSMP, 65GHz, VSWR 1.8)

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QK141

### Stable Phase, Loss and VSWR

**Features:**

- \* Stable Phase
- \* Low Insertion Loss
- \* Low VSWR
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Instrument
- \* Interconnection in and between equipment

#### Electrical

Frequency:	DC~26.5GHz
Cut-off Frequency:	34GHz
Impedance:	50Ω
Velocity of Propagation:	81%
Shielding Effectiveness:	165dB min.
Voltage Withstand:	1000V DC
Phase Stability vs Temperature:	750ppm@-45~+85°C max.

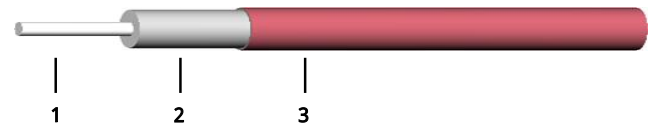
#### Mechanical

Bend Radius (installation):	13.5mm
Weight:	45g/m

#### Environmental

Temperature: -55~+250°C

#### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.05	Silver-plated copper
2	Dielectric	3.00	PTFE
3	Outer Conductor	3.58	Ternary alloy plated seamless copper tube

#### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5
Attenuation*1 (dB/100m)	16.8	21.7	30.8	54.0	77.1	100.5	112.5	136.9	168.1
Average Power*2 (W)	1073	829	584	334	234	179	160	132	107

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

#### How To Order

##### QK141-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QK141 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QK141-18-SSF-0.5.

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPPO & SSMP, 65GHz, VSWR 1.8)

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

X - MMCX (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

M - MCX (6GHz, VSWR 1.2)

B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QF086

### Low Loss, VSWR and PIM

#### Features:

- \* Low Insertion Loss
- \* Low VSWR
- \* Low PIM

#### Applications:

- \* Phased-array Radar
- \* Instrument
- \* Interconnection in and between equipment

#### Electrical

Frequency:	DC-40GHz
Cut-off Frequency:	64GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	165dB min.
Voltage Withstand:	500V DC

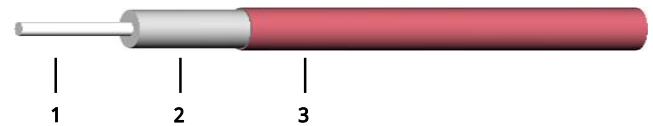
#### Mechanical

Bend Radius (installation):	7mm
Weight:	19g/m

#### Environmental

Temperature: -55~+250°C

#### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.56	Silver-plated copper
2	Dielectric	1.68	PTFE
3	Outer Conductor	2.18	Ternary alloy plated seamless copper tube

#### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5	40
Attenuation*1 (dB/100m)	31.8	41.1	58.3	101.7	144.9	188.4	210.6	255.5	312.8	388.7
Average Power*2 (W)	475	367	259	148	104	80	72	59	48	39

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

#### How To Order

##### QF086-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

#### Examples:

To order a QF086 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QF086-18-SSF-0.5.

#### Connector naming rules:

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPP0 & SSMP, 65GHz, VSWR 1.8)

- 2 - 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QF141

### Low Loss, VSWR and PIM

**Features:**

- \* Low Insertion Loss
- \* Low VSWR
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Instrument
- \* Interconnection in and between equipment

#### Electrical

Frequency:	DC~26.5GHz
Cut-off Frequency:	34GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	165dB min.
Voltage Withstand:	1000V DC

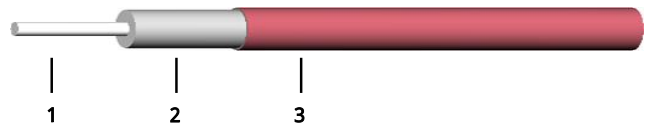
#### Mechanical

Bend Radius (installation):	10mm
Weight:	45g/m

#### Environmental

Temperature: -55~+250°C

#### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.99	Silver-plated copper
2	Dielectric	3.00	PTFE
3	Outer Conductor	3.58	Ternary alloy plated seamless copper tube

#### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18	26.5
Attenuation*1 (dB/100m)	17.1	22.2	31.7	56.4	81.7	108.1	121.8	150.3	187.7
Average Power*2 (W)	1020	785	550	309	213	161	143	116	93

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

#### How To Order

##### QF141-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

##### Examples:

To order a QF141 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QF141-18-SSF-0.5.

##### Connector naming rules:

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPP0 & SSMP, 65GHz, VSWR 1.8)

- 2 - 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QF250

### Low Loss, VSWR and PIM

**Features:**

- \* Low Insertion Loss
- \* Low VSWR
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Instrument
- \* Interconnection in and between equipment

**Electrical**

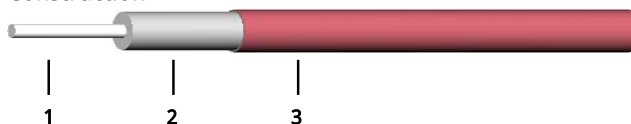
Frequency:	DC~18GHz
Cut-off Frequency:	24GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	165dB min.
Voltage Withstand:	2200V DC

**Mechanical**

Bend Radius (installation):	32mm
Weight:	136g/m

**Environmental**

Temperature: -55~+250°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.78	Silver-plated copper
2	Dielectric	5.33	PTFE
3	Outer Conductor	6.35	Ternary alloy plated seamless copper tube

**Attenuation & Power Handling**

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18
Attenuation*1 (dB/100m)	9.8	12.8	18.3	32.4	47.0	62.1	69.9	86.1
Average Power*2 (W)	1530	1179	825	465	321	243	216	175

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

**How To Order**
**QF250-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a QF250 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QF250-18-SSF-0.5.

**Connector naming rules:**

V - 1.85mm (67GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPPO &amp; SSMP, 65GHz, VSWR 1.8)

- 2 - 2.4mm (50GHz, VSWR 1.4)
- K - 2.92mm (40GHz, VSWR 1.35)
- X - MMCX (40GHz, VSWR 1.35)
- P - SMP (40GHz, VSWR 1.35)
- 3 - 3.5mm (33GHz, VSWR 1.35)
- S - SMA (26.5GHz, VSWR 1.3)
- N - N (18GHz, VSWR 1.25)
- M - MCX (6GHz, VSWR 1.2)
- B - BNC (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

## QAM0-40-U

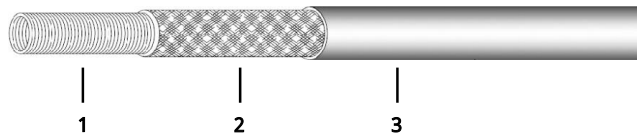
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	5.0±0.1	Stainless Steel Wire
2	Outer Conductor	5.6±0.1	Tin Plated Braid
3	Jacket	7.0±0.15	PUR

**Environmental**

Temperature:	-40~+80°C
Water Proof:	Yes
Oil Proof:	Yes

**Mechanical**

Bend Radius (installation):	30mm
Bend Radius (repeated):	80mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	0.5mm
Spring Wire Diameter:	0.5±0.05mm
Spring Inner Diameter:	4.0±0.1mm
Outer Conductor Coverage	90% min.
Rate:	
Jacket Color:	Blue

**How To Order**
**QAM0-40-U-X**

X: Length in meters

**Examples:**

To order a QAM0-40-U RF cable armor, 0.5 meter, specify QAM0-40-U-0.5female, 0.5 meter, specify QE086-18-SSF-0.5.

## QAM0-54-N

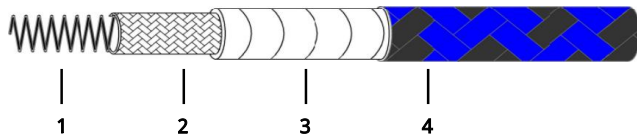
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	6.40±0.1	Stainless Steel Wire
2	Outer Conductor	6.90±0.1	Tin Plated Braid
3	Inner Jacket	7.15±0.1	PTFE
4	Jacket	7.95±0.15	Nylon

**Environmental**

Temperature:	-40~+105°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	30mm
Bend Radius (repeated):	80mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	1.0~1.2mm
Spring Wire Diameter:	0.5±0.05mm
Spring Inner Diameter:	5.40±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Blue and Black

**How To Order**
**QAM0-54-N-X**

X: Length in meters

**Examples:**

To order a QAM0-54-N RF cable armor, 0.5 meter, specify QAM0-54-N-0.5.

## QAM0-54-P

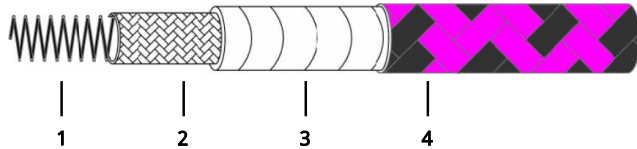
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	6.40±0.1	Stainless Steel Wire
2	Outer Conductor	6.90±0.1	Tin Plated Braid
3	Inner Jacket	7.15±0.1	PTFE
4	Jacket	7.55±0.15	PTFE

**Environmental**

Temperature:	-40~+165°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	30mm
Bend Radius (repeated):	80mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	0.7mm
Spring Wire Diameter:	0.5±0.05mm
Spring Inner Diameter:	5.4±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Purple and Black

**How To Order**
**QAM0-54-P-X**

X: Length in meters

**Examples:**

To order a QAM0-54-P RF cable armor, 0.5 meter, specify QAM0-54-P-0.5.

## QAM0-54-U

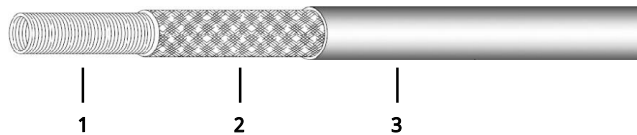
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	6.4±0.1	Stainless Steel Wire
2	Outer Conductor	6.90±0.1	Tin Plated Braid
3	Jacket	8.30±0.15	PUR

**Environmental**

Temperature:	-40~+80°C
Water Proof:	Yes
Oil Proof:	Yes

**Mechanical**

Bend Radius (installation):	30mm
Bend Radius (repeated):	80mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	1.0~1.2mm
Spring Wire Diameter:	0.5±0.05mm
Spring Inner Diameter:	5.4±0.1mm
Outer Conductor Coverage	90% min.
Rate:	
Jacket Color:	Blue

**How To Order**
**QAM0-54-U-X**

X: Length in meters

**Examples:**

To order a QAM0-54-U RF cable armor, 0.5 meter, specify QAM0-54-U-0.5

## QAM0-62-N

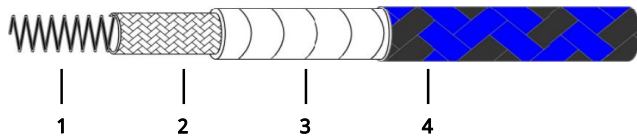
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	7.70±0.1	Stainless Steel Wire
2	Outer Conductor	8.30±0.1	Tin Plated Braid
3	Inner Jacket	8.80±0.1	PTFE
4	Jacket	9.60±0.15	Nylon

**Environmental**

Temperature:	-40~+105°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	50mm
Bend Radius (repeated):	100mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	1.2~1.5mm
Spring Wire Diameter:	0.70±0.1mm
Spring Inner Diameter:	6.20±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Blue and Black

**How To Order**
**QAM0-62-N-X**

X: Length in meters

**Examples:**

To order a QAM0-62-N RF cable armor, 0.5 meter, specify QAM0-62-N-0.5.

## QAM0-62-P

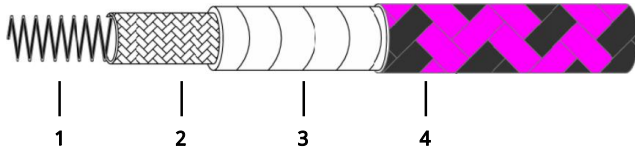
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	7.70±0.1	Stainless Steel Wire
2	Outer Conductor	8.30±0.1	Tin Plated Braid
3	Inner Jacket	8.75±0.1	PTFE
4	Jacket	9.15±0.15	PTFE

**Environmental**

Temperature:	-40~+165°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	50mm
Bend Radius (repeated):	100mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	1.0mm
Spring Wire Diameter:	0.7±0.05mm
Spring Inner Diameter:	6.20±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Purple and Black

**How To Order**
**QAM0-62-P-X**

X: Length in meters

**Examples:**

To order a QAM0-62-P RF cable armor, 0.5 meter, specify QAM0-62-P-0.5

## QAM0-62-U

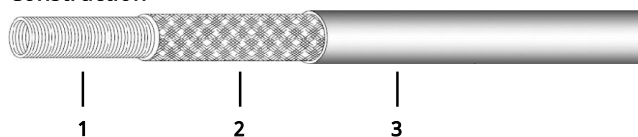
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	7.7±0.1	Stainless Steel Wire
2	Outer Conductor	8.3±0.1	Tin Plated Braid
3	Jacket	10.1±0.15	PUR

**Environmental**

Temperature:	-40~+80°C
Water Proof:	Yes
Oil Proof:	Yes

**Mechanical**

Bend Radius (installation):	50mm
Bend Radius (repeated):	100mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	1.0~1.2mm
Spring Wire Diameter:	0.7±0.05mm
Spring Inner Diameter:	6.2±0.1mm
Outer Conductor Coverage	90% min.
Rate:	
Jacket Color:	Blue

**How To Order**
**QAM0-62-U-X**

X: Length in meters

**Examples:**

To order a QAM0-62-U RF cable armor, 0.5 meter, specify QAM0-62-U-0.5..

## QAM0-80-N

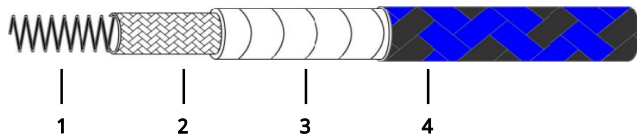
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	10.5±0.1	Stainless Steel Wire
2	Outer Conductor	11.1±0.1	Tin Plated Braid
3	Inner Jacket	11.35±0.1	PTFE
4	Jacket	12.2±0.15	Nylon

**Environmental**

Temperature:	-40~+105°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	60mm
Bend Radius (repeated):	120mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	1.5~2.0mm
Spring Wire Diameter:	1.20±0.1mm
Spring Inner Diameter:	8.00±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Blue and Black

**How To Order**
**QAM0-80-N-X**

X: Length in meters

**Examples:**

To order a QAM0-80-N RF cable armor, 0.5 meter, specify QAM0-80-N-0.5.

## QAM0-85-P

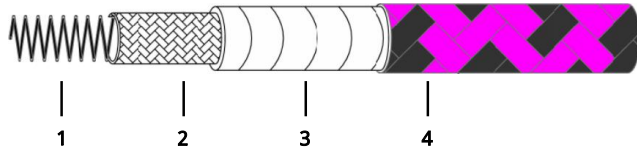
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	10.90±0.1	Stainless Steel Wire
2	Outer Conductor	11.50±0.1	Tin Plated Braid
3	Inner Jacket	12.0±0.1	PTFE
4	Jacket	12.5±0.15	PTFE

**Environmental**

Temperature:	-40~+165°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	60mm
Bend Radius (repeated):	120mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	2.0mm
Spring Wire Diameter:	1.2±0.05mm
Spring Inner Diameter:	8.5±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Purple and Black

**How To Order**
**QAM0-85-P-X**

X: Length in meters

**Examples:**

To order a QAM0-85-P RF cable armor, 0.5 meter, specify QAM0-85-P-0.5.

## QAM0-85-U

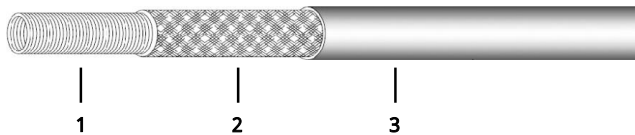
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	10.9±0.1	Stainless Steel Wire
2	Outer Conductor	11.5±0.1	Tin Plated Braid
3	Jacket	14.2±0.15	PUR

**Environmental**

Temperature:	-40~+80°C
Water Proof:	Yes
Oil Proof:	Yes

**Mechanical**

Bend Radius (installation):	60mm
Bend Radius (repeated):	150mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	2.0mm
Spring Wire Diameter:	1.2±0.1mm
Spring Inner Diameter:	8.5±0.1mm
Outer Conductor Coverage	90% min.
Rate:	
Inner Jacket Color:	Black

**How To Order**
**QAM0-85-U-X**

X: Length in meters

**Examples:**

To order a QAM0-85-U RF cable armor, 0.5 meter, specify QAM0-85-U-0.5.

## QAM1-40-P

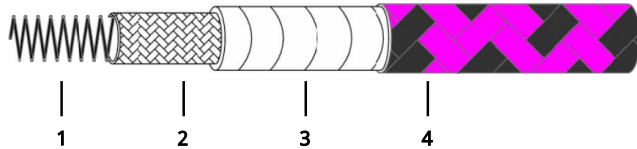
### Long Flex Life

**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**


No.	Name	Size (mm)	Material
1	Spring	4.95±0.1	Stainless Steel Strap
2	Outer Conductor	5.20±0.1	Tin Plated Braid
3	Inner Jacket	5.50±0.1	PTFE
4	Jacket	6.0±0.15	PTFE

**Environmental**

Temperature:	-40~+165°C
Water Proof:	No
Oil Proof:	No

**Mechanical**

Bend Radius (installation):	30mm
Bend Radius (repeated):	60mm
Spring Spiral Direction:	Right
Spring Zero Load Pitch:	0.5mm
Spring Wire Diameter:	1.5*0.40mm
Spring Inner Diameter:	4.00±0.1mm
Outer Conductor Coverage Rate:	90% min.
Inner Jacket Color:	White
Jacket Color:	Purple and Black

**How To Order**
**QAM1-40-P-X**

X: Length in meters

**Examples:**

To order a QAM1-40-P RF cable armor, 0.5 meter, specify QAM1-40-P-0.5.

# QAM1-62-P

## Long Flex Life

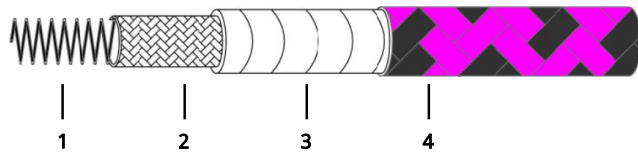
**Features:**

- \* Long Flex Life
- \* High Durable

**Applications:**

- \* Laboratory Test
- \* Satellite Communication

**Construction**



No.	Name	Size (mm)	Material
1	Spring	6.9±0.1	Stainless Steel Strap
2	Outer Conductor	7.5±0.1	Tin Plated Braid
3	Inner Jacket	7.75±0.1	PTFE
4	Jacket	8.25±0.15	PTFE

**Environmental**

- Temperature: -40~+165°C
- Water Proof: No
- Oil Proof: No

**Mechanical**

- Bend Radius (installation): 30mm
- Bend Radius (repeated): 80mm
- Spring Spiral Direction: Right
- Spring Zero Load Pitch: 0.75~1.0mm
- Spring Wire Diameter: 2.0\*0.4mm
- Spring Inner Diameter: 6.20±0.1mm
- Outer Conductor Coverage Rate: 90% min.
- Inner Jacket Color: White
- Jacket Color: Purple and Black

**How To Order**

**QAM1-62-P-X**

X: Length in meters

**Examples:**

To order a QAM1-62-P RF cable armor, 0.5 meter, specify QAM1-62-P-0.5.

# Broad Band & High Power

## Microwave & Millimeter Wave Components



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