

## QE086

### Low PIM

Features:  
\* 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:	70%
Shielding Effectiveness:	165dB min.
Voltage Withstand:	400V DC

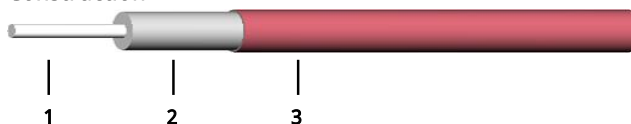
#### Mechanical

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

#### Environmental

Temperature: -55~+125°C

#### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.53	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)	35.0	45.5	64.9	115.2	166.6	219.9	247.6	304.9	379.9	482.7
Average Power*2 (W)	475	366	256	144	100	76	67	55	44	34

[1] VSWR:1.0; Ambient: +25°C (77°F)

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

Calculate Cable Attenuation: Attenuation (dB/100m) =  $1.985320 * \sqrt{F} \text{ (MHz)} + 0.002140 * F \text{ (MHz)}$

Calculate Connector Attenuation: Attenuation (dB) =  $0.03 * \sqrt{F} \text{ (GHz)}$

#### How To Order

##### QE086-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a QE086 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QE086-18-SSF-0.5.

Connector naming rules:

2 - 2.4mm (40GHz, VSWR 1.35)

K - 2.92mm (40GHz, VSWR 1.35)

P - SMP (26.5GHz, VSWR 1.3)

A - SSMA (26.5GHz, VSWR 1.3)

S - SMA (26.5GHz, VSWR 1.3)

G - Mini-SMP (mateable with GPPO & SSMP, 18GHz, VSWR 1.3)

N - N (12GHz, VSWR 1.2)

X - MMCX (6GHz, VSWR 1.3)

M - MCX (6GHz, VSWR 1.3)

B - BNC (4GHz, VSWR 1.4)

D - SMB (4GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

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

## Mating Connector

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**QCG-FB-086-1**

SSMP female, Beryllium copper


**QCG-FRB-086-2**

SSMP female, Right angle, Beryllium copper


**QCK-MG-086-3**

2.92mm male, Stainless steel


**QCK-FB-086-1**

2.92mm female, Brass


**QCK-FL2G-A220-1**

2.92mm female, 2-hole flange mount, Stainless steel

**QCK-FL4G-A220-1**

2.92mm female, 4-hole flange mount, Stainless steel

**QCP-FB-086-3**

SMP female, Beryllium copper

**QCP-FRB-086-1**

SMP female right angle, Beryllium copper


**QCP-FRB-086-2**

SMP female right angle, Beryllium copper


**QCA-MG-086-2**

SSMA male, Stainless steel

**QCA-FHB-086-1**

SSMA female bulk head, Brass

**QCS-FL2B-086-1**

SMA female, 2-hole flange mount, Brass

**QCS-FL4B-086-1**

SMA female, 4-hole flange mount, Gold plated beryllium copper

**QCS-FHB-086-2**

SMA female bulk head, Gold plated brass


**QCN-MB-086-1**

N male, Nickel plated brass


**QCN-FB-086-1**

N female, Nickel plated brass


**QCX-MB-086-1**

MMCX male, Gold plated brass


**QCX-MRB-086-1**

MMCX male right angle, Gold plated brass


**QCX-FB-086-1**

MMCX female, Gold plated brass

**QCM-MB-086-1**

MCX male, Gold plated brass


**QCM-MRB-086-2**

MCX male right angle, Gold plated brass/beryllium copper


**QCM-FB-086-1**

MCX female, Gold plated brass

## Semirigid RF Cables & Assemblies

**QCS-MB-086-4**

SMA male, Gold plated  
brass

**QCS-MG-086-3**

SMA male, Stainless steel

**QCS-MRG-086-1**

SMA male right angle,  
Stainless steel

**QCS-MRB-086-1**

SMA male right angle, Gold  
plated brass

**QCS-FB-086-2**

SMA female, Gold plated  
brass

**QCB-MB-086-1**

BNC male, Ternary alloy  
plated brass

**QCD-MB-086-1**

SMB male, Gold plated  
brass

**QCD-MRB-086-1**

SMB male right angle, Gold  
plated brass

**QCD-FB-086-1**

SMB female, Gold plated  
brass

**QCD-FRB-086-1**

SMB female right angle,  
Gold plated brass