

# QH280

## Flexible, Alternate to semi-rigid cable

Features:  
 \* Phase Stability  
 \* Low PIM

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

### Electrical

Frequency:	DC~40GHz
Cut-off Frequency:	62GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC

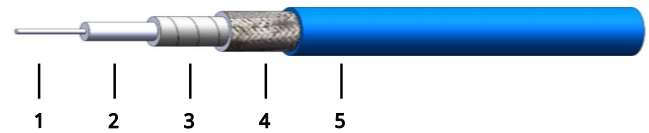
### Mechanical

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	40
Attenuation* <sup>1</sup> (dB/100m)	37.0	48.2	69.3	110.7	125.0	183.7	216.4	246.1	279.0	348.2	440.8	570.9
Average Power* <sup>2</sup> (W)	187	171	119	74	66	45	38	33	30	24	19	14

[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) = 2.066929 \* √F (MHz) + 0.003937 \* F (MHz)

Calculate Connector Attenuation: Attenuation (dB) = 0.03 \* √F (GHz)

### 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 (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 (18GHz, VSWR 1.25)

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

**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

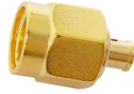

**QCM-FB-086-1**

MCX female, Gold plated brass

## Flexible 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


**QC-8-MA-086-1**

8-channel connector male, Black anodizing of aluminum


**QC-8-FA-086-1**

8-channel connector female, Black anodizing of aluminum


**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

**QC-8-MK-086-2**

8-channel connector male, Chemical Nickel


**QC-8-FB-086-1**

8-channel connector female, Gold plated brass

