

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

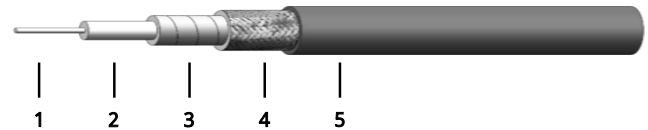
Frequency:	DC~50GHz
Cut-off Frequency:	83GHz
Impedance:	50Ω
Velocity of Propagation:	81%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	400V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

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

 Calculate Cable Attenuation: Attenuation (dB/100m) = $1.975832 * \sqrt{F \text{ (MHz)}} + 0.001221 * F \text{ (MHz)}$

 Calculate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F \text{ (GHz)}}$
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-50GHz, 2.4mm male to 2.4mm female, 0.8 meter, specify QA220-50-22F-0.8.

Connector naming rules:

V - 1.85mm (50GHz, VSWR 1.5)

G - Mini-SMP (mateable with GPP0 & SSMP, 50GHz, VSWR 1.6)

2 - 2.4mm (50GHz, VSWR 1.4)

K - 2.92mm (40GHz, VSWR 1.35)

A - SSMA (40GHz, VSWR 1.35)

P - SMP (40GHz, VSWR 1.4)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

Female Connector - Add 'F' after connector name

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

Mating Connector

QCV-MG-A220-2

1.85mm male, Stainless steel


QCV-FG-A220-1

1.85mm female, Stainless steel


QC2-MG-A220-5

2.4mm male, Stainless steel


QC2-MRG-A220-1

2.4mm male, Right angle, Stainless steel

QC2-FG-A220-1

2.4mm female, Stainless steel

QC2-FL4G-A220-1

2.4mm female, 4-hole flange mount, Stainless steel

QCG-FB-A220-1

SSMP female, Beryllium copper

QCG-FRB-086-2

SSMP female, Right angle, Beryllium copper


QCK-MG-A220-4

2.92mm male, Stainless steel


QCK-MRG-A220-1

2.92mm male, Right angle, Stainless steel

QCK-FHG-A220-1

2.92mm female, bulk head, Stainless steel

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-MB-086-1

SMP male, Gold plated Phosphor copper


QCP-FB-086-3

SMP female, Beryllium copper


QCA-MG-086-2

SSMA male, Stainless steel


QC3-MG-A220-1

3.5mm male, Stainless steel

QC3-FG-A220-1

3.5mm female, Stainless steel

QCS-MG-A220-1

SMA male, Stainless steel

QCS-MRG-086-1

SMA male, Right angle, Stainless steel

Flexible RF Cables & Assemblies

QCK-FB-A220-1

2.92mm female, Brass

**QCS-FB-086-4**

SMA female, Brass

QCN-MB-086-1

SMA female, Nickel plated brass

QCS-FL4B-086-1

SMA female, 4-hole flange mount, Brass

QC-8-MA-086-1

8-channel connector male, Black anodizing of aluminum

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

8-channel connector male, Chemical Nickel

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

8-channel connector female, Black anodizing of aluminum

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

8-channel connector female, Gold plated brass

