

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

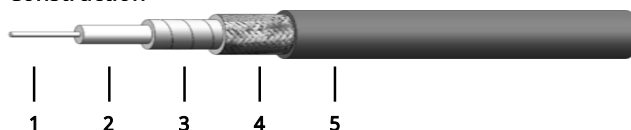
Frequency:	DC-50GHz
Cut-off Frequency:	60GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

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

 Calculate Cable Attenuation: Attenuation (dB/100m) = $1.458470 * \sqrt{F} \text{ (MHz)} + 0.000680 * F \text{ (MHz)}$

 Calculate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F} \text{ (GHz)}$
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-26.5GHz, 2.92mm male to SMA female, 0.8 meter, specify QA300-26.5-KSF-0.8.

Connector naming rules:

- 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)
- N - N (18GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

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

Mating Connector

QC2-MG-T50-2

2.4mm male, Stainless
steel

QCK-MG-T50-1

2.92mm male, Stainless
steel

QC2-FG-T50-1

2.4mm female, Stainless
steel

QCK-FG-T50-1

2.92mm female, Stainless
steel
