

QA810

Ultra Low Loss & Phase Stable

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|---|---|
| Features:
* Low Insertion Loss
* High Phase Stability
* High Power
* Low PIM | Applications:
* Phased-array Radar
* Satellite Communication
* Avionics |
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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.

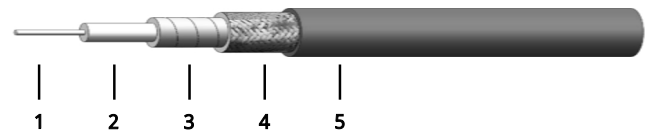
Mechanical

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

	0.1	0.3	0.5	1	3	6	10	12.4	18
Frequency (GHz)									
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

Calculate Cable Attenuation: Attenuation (dB/100m) = $0.419490 * \sqrt{F \text{ (MHz)}} + 0.000389 * F \text{ (MHz)}$

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

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

Female Connector - Add 'F' after connector name

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

Mating Connector

QCS-MG-A810-1

SMA male, Stainless steel

QCS-FG-A810-1

SMA female, Stainless steel

**QCN-MG-A810-1**

N male, Stainless steel

QCN-FG-A810-1

N female, Stainless steel

