

# NA810

## Ultra Low Loss & Phase Stable

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| <b>Features:</b><br>* Low Insertion Loss<br>* High Phase Stability<br>* High Power<br>* Low PIM | <b>Applications:</b><br>* Phased-array Radar<br>* Satellite Communication<br>* 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.

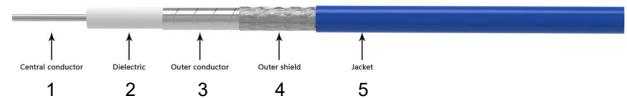
### Mechanical

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 \* √F (MHz) + 0.000389 \* F (MHz)

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

### How To Order

#### NA810-X-Y-Z

- X: Frequency in GHz  
 Y: Connector type  
 Z: Length in meters

#### Examples:

To order a NA810 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify NA810-18-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**

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**NCS-MG-A810-1**

SMA male, Stainless steel

**NCS-FG-A810-1**

SMA female, Stainless steel



**NCN-MG-A810-1**

N male, Stainless steel

**NCN-FG-A810-1**

N female, Stainless steel

