

# NA800

## Ultra Low Loss & Phase Stable

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

### Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	19GHz
Impedance:	50Ω
Velocity of Propagation:	83%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

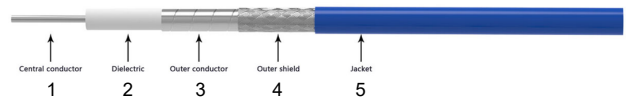
### Mechanical

Bend Radius (installation):	39.0mm
Bend Radius (repeated):	79.0mm
Weight:	130g/m

### Environmental

Temperature: -55~+165°C

### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	2.30	Silver-plated copper
2	Dielectric	6.20	Low density PTFE
3	Inner Shield	6.44	Silver-plated copper tape
4	Outer Shield	7.05	Silver-plated copper braid
5	Jacket	7.90	FEP

### Attenuation & Power Handling

Frequency (GHz)	0.1	0.3	0.5	1	2	4	6	8	12	18
Attenuation*1 (dB/100m)	4.6	8.0	10.4	14.8	21.1	30.2	37.3	43.4	53.9	67.0
Average Power*2 (W)	5817	3341	2579	1812	1270	887	717	616	497	399

[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) = 0.456300 \* √F (MHz) + 0.000320 \* F (MHz)

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

### How To Order

#### NA800-X-Y-Z

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

#### Examples:

To order a NA800 cable assembly, DC-18GHz, N male to SMA female, 0.5 meter, specify NA800-18-SFN-0.5.

#### Connector naming rules:

- S - SMA (18GHz, VSWR 1.25)
- N - N (18GHz, VSWR 1.25)
- T - TNC (18GHz, VSWR 1.25)
- E - SC (6GHz, VSWR 1.25)
- 7 - 7/16 (6GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

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

**NCS-MG-A800-2**

SMA male, Stainless steel



**NCS-MRG-A800-1**

SMA male right angle,  
Stainless steel



**NCS-FG-A800-2**

SMA female, Stainless steel



**NCN-MG-A800-2**

N male, Stainless steel



**NCN-MRG-A800-1**

N male, Right angle,  
Stainless steel



**NCN-FG-A800-1**

N female, Stainless steel

**NCT-MG-A800-1**

TNC male, Stainless steel

**NCE-MG-A800-1**

SC male, Stainless steel



**NC7-MB-A800-1**

7/16 male, Nickel plated  
brass

