

## NR500U

### Low Loss, Ultra Flexible

#### Features:

- \* Low Insertion Loss
- \* High Weatherability
- \* UV Resistant
- \* Ultra Flexible

#### Applications:

- \* Wireless Communication
- \* Microwave Interconnect

#### Electrical

Frequency:	DC~5.8GHz
Cut-off Frequency:	41GHz
Impedance:	50Ω
Velocity of Propagation:	80%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1000V DC

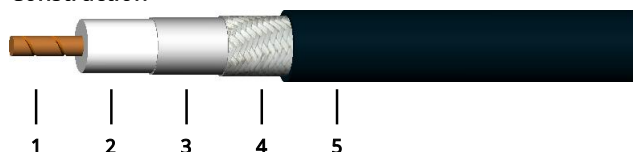
#### Mechanical

Bend Radius (installation):	12.0mm
Bend Radius (repeated):	50.0mm
Weight:	30g/m

#### Environmental

Temperature:	-40~+85°C
Outdoor Life:	20 years

#### Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.97	Stranded Copper
2	Dielectric	2.79	Foam PE
3	Outer Conductor	2.95	Double-edged aluminum foil
4	Outer Shield	3.53	Tin-plated copper braid
5	Jacket	5.00	TPE

#### Attenuation & Power Handling

	0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8
Frequency (GHz)											
Attenuation*1 (dB/100m)	7.7	10.0	17.4	21.1	30.4	43.5	56.8	62.5	66.1	74.4	117.0
Average Power*2 (W)	780	610	350	280	200	140	100	90	90	80	50

[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) = 1.3943570 \* √F (MHz) + 0.0018701 \* F (MHz)

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

#### How To Order

##### NR500U-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

#### Examples:

To order a NR500U cable assembly, DC-5.8GHz, SMA male to SMA female, 1.5 meters, specify NR500U-5.8-SSF-1.5.

#### Connector naming rules:

S - SMA (6GHz, VSWR 1.35)

N - N (6GHz, VSWR 1.35)

X - MMCX (6GHz, VSWR 1.35)

M - MCX (6GHz, VSWR 1.35)

B - BNC (4Hz, VSWR 1.4)

D - SMB (4GHz, VSWR 1.35)

Female Connector - Add 'F' after connector name

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