

NT40

Phase & Loss Stable, Long Flex Life

Features:

- * Low Insertion Loss
- * High Phase Stability
- * High Power
- * High Durability

Applications:

- * Laboratory Test
- * Avionics
- * Phased-array Radar
- * Satellite Communication

Electrical

Frequency:	DC~40GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	2000VDC
Phase Stability*1:	±7°
Amplitude Stability*1:	±0.05dB

[1] 50mm radius, 360° bending

Mechanical

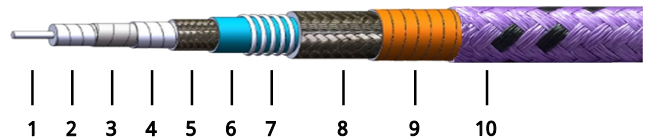
Unarmored Bend Radius (installation/repeated):	18mm/36mm min.
Armored Bend Radius (installation/repeated):	50mm/80mm min.
Bending Life Cycle:	100,000
Mating Life Cycle*2:	5,000

[2] For connectors 2.92mm, 3.5mm, SMA, N only.

Environmental

Temperature: -55~+165°C

Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silver-plated copper
2	Dielectric	2.80	Low density PTFE
3	Inner Shield	2.95	Silver-plated copper tape
4	Interlayer	3.20	Low density PTFE
5	Outer Shield	3.62	Silver-plated copper braid
6	Jacket	4.20	FEP
7-9	Armor (optional)	6.50	Composite
10		6.70	PTFE

Tolerance: ±0.2mm [±0.008in]

Attenuation & Power Handling

Frequency (MHz)	300	1000	3000	6000	8500	12000	16000	18000	26500	30000	40000
Attenuation*1 (dB/100m)	21	39	69	98	117	140	163	173	212	227	264
Average Power*2 (W)	1040	567	326	228	190	157	138	129	105	100	85

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable

[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m) = $1.232579 \times \sqrt{F \text{ (MHz)}} + 0.00044 \times F \text{ (MHz)}$

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

How To Order

NT40W-X-Y-Z

W: Armor: P, without armor: blank

X: Frequency In GHz

Y: Connector type

Z: Length in meters

Examples:

To order a NT40 test cable assembly with armor, DC-40GHz, 2.92mm male to 2.92mm female, 0.5 meter, specify NT40P-40-KKF-0.5.

Connector naming rules:

K - 2.92mm (40GHz, VSWR 1.25)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.25)

N - N (18GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

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