RFLOGY
TOMORROW DISCOVERED

High Performance Test Cable Assemblies

NT50

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~50GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	500V DC
Phase Stability[*1]:	±7°
Amplitude Stability[*1]:	±0.05dB

[1] 50mm radius, 360° bending

Mechanical

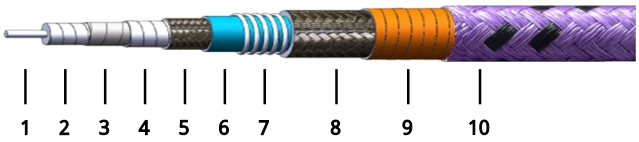
Unarmored Bend Radius (installation/repeated):	18mm/36mm min.
Armored Bend Radius (installation/repeated):	30mm/60mm min.
Bending Life Cycle:	100,000
Mating Life Cycle[*2]:	5,000

[2] For connectors 2.4mm, 2.92mm, 3.5mm, SMA, N only.

Environmental

Temperature: -55~+165℃

Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.72	Silver-plated copper
2	Dielectric	2.1	Low density PTFE
3	Inner Shield	2.25	Silver-plated copper tape
4	Interlayer	2.55	Low density PTFE
5	Outer Shield	3.01	Silver-plated copper braid
6	Jacket	3.60	FEP
7~9	Armor (optional)	5.50	Composite
10		6.00	PTFE

Tolerance: ±0.2mm [±0.008in]

Attenuation & Power Handling

Frequency (GHz)	1	2	3	6	8	10	12.4	18	26.5	40	50
Attenuation[*3] (dB/100m)	48.1	68.3	83.9	119.4	138.4	155.2	173.4	210.2	257.1	319.2	359.2
Average Power[*4] (W)	506	356	290	204	176	157	140	116	95	76	68

[3] VSWR:1.0; Ambient: +25°C (77°F); Raw cable
[4] VSWR:1.0; Ambient: +40°C (104°F); Sea level
Calcuate Cable Attenuation: Attenuation (dB/100m) = $1.507808 * \sqrt{F\ (MHz)} + 0.000440 * F\ (MHz)$
Calcuate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F\ (GHz)}$

How To Order

NT50W-X-Y-Z

W: Armor: P, without armor: blank
X: Frequency In GHz
Y: Connector type
Z: Length in meters

Examples:
To order a NT50 test cable assembly with armor, DC-50GHz, 2.4mm male to 2.4mm female, 0.5 meter, specify NT50P-50-22F-0.5.

Connector naming rules:
2 - 2.4mm (50GHz, VSWR 1.4)
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)

T50 Mating Connector

NC2-MRG-T50-1
2.4mm male, Right angle, Stainless steel

NC2-MG-T50-2
2.4mm male, Stainless steel

NC2-FG-T50-1
2.4mm female, Stainless steel

NC2-FRG-T50-1
2.4mm female, Right angle, Stainless steel

NCK-MG-T50-1
2.92mm male, Stainless steel

NCK-MRG-T50-1
2.92mm male, Right angle, Stainless steel

NCK-FG-T50-1
2.92mm female, Stainless steel

NCK-FRG-T50-1
2.92mm female, Right angle, Stainless steel

NC3-MG-T50-1
3.5mm male, Stainless steel

NC3-FG-T50-1
3.5mm female, Stainless steel

NCS-MG-T50-1
SMA male, Stainless steel

NCS-FG-T50-1
SMA female, Stainless steel

NCN-MG-T50-4
N male, Stainless steel

NCN-FG-T50-1
N female, Stainless steel

T50P Mating Connector

NC2-MRG-T50P-1
2.4mm male, Right angle, Stainless steel

NC2-MG-T50P-4
2.4mm male, Stainless steel

NC2-FG-T50P-4
2.4mm female, Stainless steel

NCN-MG-T50P-3
N male, Stainless steel

NC3-MG-T50P-1
3.5mm male, Stainless steel

NC3-FG-T50P-1
3.5mm female, Stainless steel

NCK-MG-T50P-4
2.92mm male, Stainless steel

NCK-MRG-T50P-1
2.92mm male, Right angle, Stainless steel

NCK-FG-T50P-3
2.92mm female, Stainless steel

NCK-FRG-T50P-1
2.92mm female, Right angle, Stainless steel

NCS-MG-T50P-3
SMA male, Stainless steel

NCS-FG-T50P-1
SMA female, Stainless stee

NCN-FG-T50P-1
N female, Stainless steel