

NBR140

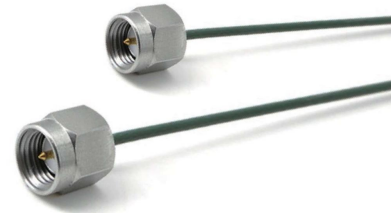
Narrow Bend Multi-Shielded Flexible Cable

Features:

- * Low Insertion Loss
- * High Phase Stability
- * High Power
- * High Durability
- * Bend from connector end
- * Eliminating the use of right angle connectors
- * Robust with multi-interlayer

Applications:

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



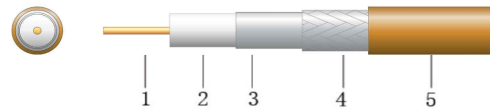
Electrical

Frequency:	DC~90 GHz
Impedance:	50Ω
Velocity of Propagation:	76%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	800V
DCPhase Stability ^{*1} :	±8°
Amplitude Stability ^{*1} :	±0.08dB

Environmental

Temperature: -55 - 125 °C

Construction



Mechanical

Unarmored Bend Radius	
Static / Repeated:	4mm / 10mm min.
Weight:	7g/m
Bending Life Cycle:	100,000
Mating Life Cycle ^{*2} :	5,000
Mechanical Phase Stability:	<±6° @ 40GHz
Amplitude Stability vs Shaking:	<±0.2dB

[2] For connectors 1,85mm, 2.4mm, 2.92mm, SSMP, SMA

No.	Name	Size (mm)	Material
1	Inner Conductor	0.32	Silver-plated copper
2	Dielectric	0.91	Low density PTFE
3	Inner Shield	1.05	Silver-plated copper tape
4	Outer Shield	1.17	Stainless steel wire
5	Jacket	1.42	FEP

Tolerance: ±0.2mm [±0.008in]

Attenuation & Power Handling

Frequency (MHz)	1000	6000	8000	12000	14000	16000	18000	26500	30000	36000	40000	45000	50000	55000	67000	90000
Attenuation*1 (dB/100m)	113,7	282,9	328,0	404,4	438,1	469,6	499,3	611,5	652,9	719,0	760,4	809,7	856,6	901,5	1002,7	1177,2
Average Power*2 (W)	25,2	10,6	9,1	7,1	6,5	6,2	6,0	5,1	4,3	4,1	4,0	3,5	3,1	3,0	3,0	2,0

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

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

Calculate Cable Attenuation: Attenuation (dB/100m) = $\sqrt{3,55784} * F \text{ (MHz)} + 0,00122 * F \text{ (MHz)}$

Available Connectors

How To Order

NBR140-X-Y-Z

X: Frequency In GHz

Y: Connector type

Z: Length in meters

Connectors	Type	Orientation	Max Freq.(GHz)	VSWR Max
SMA(M)	S	Straight	26.5	1.35
SSMP(M)	G	Straight	26.5	1.35
2.92mm(M)	K	Straight	40.0	1.40
2.40mm(M)	2	Straight	50.0	1.40
1.85 (M)	V	Straight	67.0	1.45
1.00 (M)	1	Straight	90.0	1.55

Examples:

To order a NBR140 test cable assembly, DC-40GHz,
2.92mm male to 2.92mm male, 0.5 meter,specify
NBR140-40-KK-0.5.