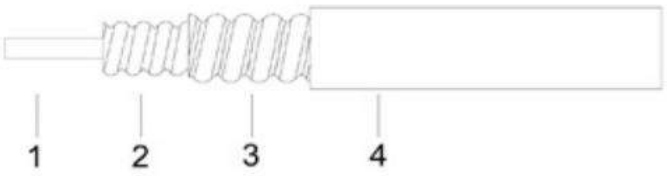
1/4" Super Flexible Helical Corrugated Coax Cable

HRCAY(Z)-50-5(1/4”S)

Overview

50 ohm RF cable with foam degree of about 80% of the ultra-high foam polyethylene, low attenuation, the temperature coefficient is small, the temperature changes have a good stability. It is mainly used as a low loss, low VSWR signal transmission line in wireless base stations such as mobile communication, antenna feeder, microwave transmission, broadcasting communication and other systems base stations, and the connection between receiver and antenna or other high frequency fields.

Construction



Item	Material	Diameter（mm）
1.Inner conductor	Copper Clad Aluminum	1.9±0.1
2.Dielectric	Physical Foam Polyethylene	5.0±0.1
3.Outer conductor	Helical Copper Tube	6.4±0.05
4.Jacket	Black PE	8.1±0.5

Electrical Characteristics

1.Capacitance（pF/m）	80
2.Impedance（Ω）	50
3.Velocity（%）	83
4.Peak Power Rating（kW）	6.4
5.RF Peak Voltage（kV）	0.8
6.Insulation Resistance（MΩ.km）	>5000
7.Cut-off Frequency（GHz）	20.4
8.Insulation Voltage（kVrms）	2.0
9.Jacket Spark（kVrms）	3.0
10.Sheilding Effectiveness（dB）	>120

Mechanical and Environmental Characteristics

Min. Single Bending Radius (mm)	12.5
Min. Repeated Bending Radius (mm)	25
No. of Bends	15
Mobile Apply (mm)	150
Bending Moment (N.m)	0.7
Tensile Strength (kg)	60
Storage Temp (℃)	-55 to +85
Installation Temp (℃)	-40 to +60
Operating Temp (℃)	-55 to +85
VSWR≤(Return loss≥dB)	
0.005-3GHz	1.15 (23)
0.8-1.0GHz	1.10 (26)
1.7-2.0GHz	1.10 (26)
2.0-2.4GHz	1.10 (26)

Attenuation (VSWR1.0, cable temp. 20℃) & Average Power (VSWR 1.0, ambient temp. 40℃)

Frequency（MHz）	Attenuation（dB/100m）	Average Power（kW）
100	5.60	1.23
200	8.00	0.86
450	12.20	0.57
800	16.70	0.42
900	17.50	0.39
1000	18.60	0.37
1500	23.40	0.30
1800	25.70	0.27
2000	26.90	0.26
2200	28.50	0.25
2400	30.00	0.24
2500	30.60	0.23
3000	33.50	0.21