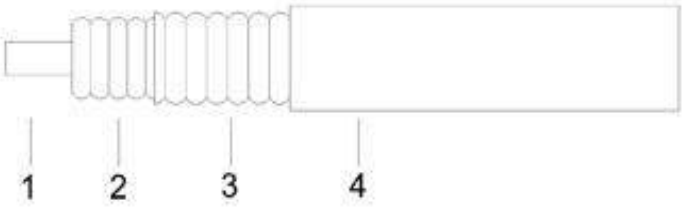
1/2" Flexible Annular Corrugated Coax Cable

HCAAY(Z)-50-12(1/2")

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	4.8±0.02
2.Dielectric	Physical Foam Polyethylene	12.3±0.2
3.Outer conductor	Annular Copper Tube	13.9±0.2
4.Jacket	Black PE	16±0.2

Electrical Characteristics

1.Capacitance（pF/m）	76
2.Impedance（Ω）	50
3.Velocity（%）	88
4.Peak Power Rating（kW）	40
5.RF Peak Voltage（kV）	1.6
6.Insulation Resistance（MΩ.km）	>5000
7.Cut-off Frequency（GHz）	8.8
8.Insulation Voltage（kVrms）	6
9.Jacket Spark（kVrms）	8
10.Sheilding Effectiveness（dB）	>120

Mechanical and Environmental Characteristics

Min. Single Bending Radius (mm)	50
Min. Repeated Bending Radius (mm)	125
No. of Bends	15
Mobile Apply (mm)	350
Bending Moment (N.m)	5.0
Tensile Strength (kg)	110
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	2.15	3.98
200	3.08	2.78
450	4.7	1.82
800	6.35	1.34
900	6.75	1.26
1000	7.2	1.19
1500	9.05	0.96
1800	9.9	0.87
2000	10.5	0.82
2200	11.1	0.77
2400	11.6	0.74
2500	11.95	0.72
3000	13.2	0.65
4000	15.91	0.55
5000	18.18	0.48