

HR(CA)Y(Z)-50-9(flexible 1/2") RF CABLE

Constuction Specifications	Material
Inner Conductor	Copper-Clad Aluminum Wire or Copper
Dielectric	Physical Foam Polyethylene
Outer Conductor	Helical Copper Tube
Jacket	Black PE or Low Smoke Halogen-free Fire-retardant

Physical Dimensions	
Inner Conductor Diameter , mm(in)	3.55 (0.14)
Dielectric Diameter , mm(in)	8.7 (0.34)
Outer Conductor Diameter , mm(in)	12.0 (0.47)
Over Jacket Diameter , mm(in)	13.4 (0.53)

Electrical Specifications	
Capacitance , pF/m(ft)	80 (24.4)
Impedance , ohms	50±2
Velocity , Percent	83
Peak Power Rating , kW	19
RF Peak Voltage , KV	1.13
Insulation Resistance , MΩ·km	> 5000
Cut-off Frequency , (GHz)	12.5
Insulation Voltage , KV	2.5
Inner Conductor DC Resistance , Ω/km	2.85
Outer Conductor DC Resistance , Ω/km	3.50
Jacket Spark , KV	5.0
Shielding Effectiveness , dB	> 120
VSWR(Return Loss)	
0.005~3GHz	≤1.15(≥ 23dB)
0.8~1.0GHz	≤1.10(≥ 26dB)
1.7~2.0GHz	≤1.10(≥ 26dB)
2.0~2.4GHz	≤1.10(≥ 26dB)

Mechanical and Environmental Specifications	
Minimum Bending Radius	
Single Bend , mm(in)	15(0.6)
Repeated Bends , mm(in)	30(1.2)
Number of Bends	15
Mobile Apply , mm(in)	200(8)
Bending Moment , N·m(lb·ft)	1.8(1.3)
Tensile Strength , kg(lb)	65(146)



Attenuation and Average Power		
Frequency	Attenuation	
MHz	dB/100 m	dB/100 ft
100	3.22	0.98
200	4.65	1.42
450	7.20	2.19
800	9.86	3.01
900	10.56	3.22
1000	11.15	3.40
1500	13.80	4.21
1800	15.55	4.74
2000	16.40	5.00
2200	17.35	5.29
2400	18.10	5.52
2500	18.50	5.64
3000	20.90	6.37

Standard Conditions:

For attenuation: VSWR 1.0, cable temperature 20℃(68℉)

For average power: VSWR 1.0, ambient temperature 40℃
inner conductor temperature 100℃(212℉). No solar loading

Connector			
Type Number	Description	Length	
		mm	in
NM-1/2HAR	N Male	60	2.4

ETL-Model specifications are subject to change depending on branding; however, the major construction will remain unchanged