

SUPER FLEXIBLE RF CABLE

HRCAY-50-9 (1/2")



CONSTRUCTION MATERIALS

Inner Conductor	Copper-Clad Aluminum Wire
Dielectric	Physical Foam Polyethylene
Outer Conductor	Helical Copper Tube
Jacket	Black PE

PHYSICAL DIMENSIONS

Inner Conductor Diameter	3.60 mm
Dielectric Diameter	9.10 mm
Outer Conductor Diameter	12.00 mm
Diameter Over Jacket	13.30 mm

MECHANICAL SPECIFICATIONS

Minimum Bending Radius	
Single Bending	15 mm
Repeated Bending	30 mm
Minimum Number of Bends	15
Tensile Strength	650 N

ELECTRICAL SPECIFICATION

Capacitance	80.0 pF/m	
Impedance	50±1 Ω	
Velocity	82%	
RF Peak Voltage	1.13 kV	
Peak Power Rating	19 kW	
Cut-off Frequency	12.5 GHz	
Shielding Effectiveness >10MHz	>120 dB	
Insulation Resistance	5000 MΩ·km	
	VSWR	Return loss(dB)
680~800 MHz	≤1.13	24.3
800~960 MHz	≤1.13	24.3
1700~2200 MHz	≤1.15	23.1
2300~2700 MHz	≤1.15	23.1
2700~4000 MHz	≤1.20	20.8

ENVIRONMENTAL SPECIFICATION

Storage Temperature	-55 °C ~ +85 °C
Installation Temperature	-40 °C ~ +60 °C
Operating Temperature	-55 °C ~ +85 °C

PERFORMANCE

Frequency MHz	Attenuation		Average Power Rating (kW)
	dB/100 m	dB/100 ft	
100	3.22	0.98	3.03
150	4.05	1.23	2.39
200	4.65	1.42	2.11
280	5.65	1.72	1.69
450	7.20	2.19	1.37
700	9.17	2.80	1.08
800	9.86	3.01	1.00
900	10.56	3.22	0.94
1000	11.15	3.40	0.88
1500	13.80	4.21	0.70
1800	15.55	4.74	0.63
2000	16.40	5.00	0.59
2100	16.89	5.15	0.57
2200	17.35	5.29	0.56
2300	17.78	5.42	0.55
2400	18.10	5.52	0.53
2500	18.50	5.64	0.52
2600	18.96	5.78	0.51
3000	20.90	6.37	0.48
3400	22.56	6.88	0.44
3500	22.94	6.99	0.44
3700	23.69	7.22	0.42
4000	24.79	7.56	0.40
5000	28.27	8.62	0.35
6000	31.52	9.61	0.32
8000	37.52	11.44	0.27
8800	39.78	12.12	0.25
10000	43.05	13.12	0.23

Standard Conditions :

For attenuation : VSWR 1.0 , cable temperature 20 °C (68 °F)

For average power : VSWR 1.0 , ambient temperature 40 °C (104 °F) ,

Inner conductor temperature 100 °C (212 °F) , No solar loading ,

Maximum attenuation value shall be 105% off the nominal attenuation value.