



Construction Specifications

Inner Conductor	Helical Copper Tube
Dielectric	Physical Foam Polyethylene
Outer Conductor	Corrugated Copper Tube
Jacket	Black PE or Low Smoke Halogen-free Fire-retardant

Physical Dimensions

Inner Conductor Diameter, mm(in)	9.4(0.37)
Dielectric Diameter, mm(in)	23.0(0.91)
Outer Conductor Diameter, mm(in)	24.9(0.98)
Diameter Over Jacket, mm(in)	27.5(1.08)

Attenuation and Average Power

Frequency MHz	Attenuation		Average Power(KW)
	dB/100 m	dB/100 ft	
100	1.30	0.40	6.62
200	1.87	0.57	4.60
450	2.85	0.87	2.99
800	3.90	1.19	2.19
900	4.15	1.26	2.06
1000	4.42	1.35	1.93
1500	5.53	1.69	1.54
1800	6.12	1.87	1.39
2000	6.52	1.99	1.31
2200	6.90	2.10	1.24
2400	7.35	2.24	1.19
2500	7.65	2.33	1.16
3000	8.25	2.51	1.04

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.

Electrical Specifications

Capacitance, pF/m(ft)	76(23.2)
Impedance, ohms	50 ± 1
Velocity, Percent	88
Peak Power Rating, kW	90
RF Peak Voltage, KV	3.1
Insulation Resistance, MΩ · km	> 5000
Cut-off Frequency, (GHz)	4.9
Insulation Voltage, KV	6
Inner Conductor DC Resistance, Ω /km	2.90
Outer Conductor DC Resistance, Ω /km	1.20
Jacket Spark, KV	8.0
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)	80(3.15)
Repeated Bends, mm(in)	125(5)
Number of Bends	15
Mobile Apply, mm(in)	400(16)
Bending Moment, N · m(lb-ft)	13(9.6)
Tensile Strength, kg(lb)	102(225)
Storage Temperature, °C(°F)	-55to+85(-67to+185)
Installation Temperature, °C(°F)	-40to+60(-40to+140)
Operating Temperature, °C(°F)	-55to+85(-67to+185)
Cable Weight, kg/m (lb/ft)	
HRCTY-50-21(flexible 7/8")	0.46(0.31)
HRCTYZ-50-21(flexible 7/8")	0.53(0.36)

ORDER CODE

ZCG7850 In cut lengths per metre

ZCG7850-500 Full 500 metre roll