



1/2" Hiflex Foam-Dielectric Coaxial Cable Corrugated Copper – 50 Ohm

ITEM NUMBER	DESCRIPTION
EC4-50-HF	Hiflex Cable, standard jacket
EC4-50-HF-HLFR	Hiflex Cable, fire retardant, halogen free jacket

CONSTRUCTION

- **Inner conductor**
 - Material copper clad aluminum
 - Diameter, in (mm) 0.140 (3.55)
- **Dielectric**
 - Material microcell gas-injected PE
 - Diameter, in (mm) 0.354 (9.0)
- **Outer conductor**
 - Material corrugated copper
 - Diameter, in (mm) 0.480 (12.2)
- **Outer sheath**
 - Material Durathene™
 - Thickness, in (mm) 0.028 (0.7)
 - Diameter, in (mm) 0.535 (13.6)

MECHANICAL CHARACTERISTICS

- **Minimum bending radius**
 - a) Single bending, in (cm) 1.2 (3)
 - b) 15 repeated bends, in (cm) 1.2 (3)
- **Maximum pulling strength, lb (kg) 155 (70)**
- **Recommended temperature range**
 - Storage -94 to +185°F (-70 to +85°C)
 - Installation -40 to +140°F (-40 to +60°C)
 - Operation -67 to +185°F (-55 to +85°C)
- **Maximum length per hoisting grip, ft (m) 230 (70)**
- **Maximum hanger spacing, ft (m) 1.5 (0.5)**
- **Flat plate crush resistance, lb/in (kg/mm) 115 (2.05)**
- **Bending moment, lb-ft (N•m) 1.6 (2.2)**
- **Weight, lb/ft (kg/m) 0.13 (0.20)**

ELECTRICAL CHARACTERISTICS

- **Characteristic impedance, 50 ± 1**
- **Nominal capacitance, pF/ft (pF/m) 25 (82)**
- **Relative propagation velocity, % 82**
- **Inductance, μH/ft (μH/m) 0.062 (0.20)**
- **DC-resistance at 68°F (20°C)**
 - Inner conductor, /1000 ft (/1000 m) 0.81 (2.65)
 - Outer conductor, /1000 ft (/1000 m) 0.91 (3.0)
- **RF peak voltage, kV 1.13**
- **RF peak power, kW 12.8**
- **Cut-off frequency, GHz 13.2**
- **Insulation resistance, M/km ≥5000**

ELECTRICAL CHARACTERISTICS

• Attenuation and power rating

Frequency (MHz)	Attenuation at 68°F (20°C)* (dB/100 ft)	Attenuation at 68°F (20°C)* (dB/100m)	Mean power rating** (kW)
10	0.293	0.963	9.90
20	0.417	1.37	6.96
30	0.513	1.68	5.66
50	0.667	2.19	4.35
88	0.894	2.93	3.25
100	0.955	3.13	3.04
108	0.995	3.26	2.92
150	1.18	3.88	2.46
174	1.28	4.19	2.27
200	1.37	4.51	2.11
300	1.71	5.60	1.70
400	1.99	6.53	1.46
450	2.12	6.96	1.37
500	2.25	7.38	1.29
512	2.28	7.47	1.28
600	2.48	8.15	1.17
700	2.70	8.87	1.07
800	2.91	9.55	1.00
824	2.96	9.71	0.98
894	3.10	10.2	0.94
960	3.22	10.6	0.90
1000	3.30	10.8	0.88
1250	3.74	12.3	0.78
1500	4.15	13.6	0.70
1700	4.46	14.6	0.65
1800	4.61	15.1	0.63
2000	4.90	16.1	0.59
2100	5.04	16.5	0.58
2200	5.18	17.0	0.56
2300	5.32	17.4	0.55
3000	6.22	20.4	0.47
3400	6.71	22.0	0.43
4000	7.40	24.3	0.39
5000	8.49	27.9	0.34
6000	9.51	31.2	0.31

* Nominal values

** Ambient temperature = 104°F (40°C); temperature of inner conductor = 212°F (100°C); VSWR = 1.0; no solar loading