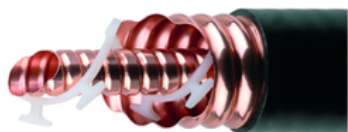


**HCA495-50JFN****5" HELIFLEX® Air-Dielectric Coaxial Cable, flame retardant/ halogen free jacket**

HELIFLEX® 5" low loss air dielectric cable; flame retardant/ halogen free jacket

Feature / Benefits

- **Low Attenuation**
The low attenuation of HELIFLEX® coaxial cable results in highly efficient signal transfer in your RF system.
- **Complete Shielding**
The solid outer conductor of HELIFLEX® coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.
- **Low VSWR**
Special low VSWR versions of HELIFLEX® coaxial cables contribute to low system noise.
- **Outstanding Intermodulation Performance**
HELIFLEX® coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS factory.
- **High Power Rating**
Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, HELIFLEX® cable provides safe long term operating life at high transmit power levels.
- **Wide Range of Application**
Typical areas of application are: feedlines for broadcast and terrestrial microwave antennas, wireless cellular, PCS and ESMR base stations, cabling of antenna arrays, and radio equipment interconnects.

Technical features**APPLICATIONS**

Applications	TV & Radio	HF Defense	Cable Solutions
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STRUCTURE

Cable Type	Air-Dielectric, Corrugated
Size	5
Jacket Option	Black
Inner Conductor Diameter	45mm (1.77in)
Inner Conductor Material	Corrugated Copper Tube
Dielectric Diameter	98.1mm (3.86in)
Dielectric Material	Helical Polyethylene Spacer
Outer Conductor Diameter	109.3mm (4.3in)
Outer Conductor Material	Corrugated Copper
Jacket Diameter	115.1mm (4.53in)
Jacket Material	Polyethylene, PE, Metalhydroxite Filling

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, LS0H
Flame Retardant Jacket Specifications	The jacketing meets the testing requirements of Underwriters Laboratories UL 1666, and qualifies for the NEC CATVR type rating code (NEC Section 820-51(b) Type CATVR- NEC 1996)as well as IEC 60332-1
Installation Temperature	-25°C to 60°C (-13°F to 140°F)
Storage Temperature	-70°C to 85°C (-94°F to 185°F)
Operation Temperature	-50°C to 85°C (-58°F to 185°F)



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ELECTRICAL SPECIFICATIONS

Impedance	50 +/- 0.5 Ω
Maximum Frequency	1 GHz
Velocity	97 %
Capacitance	68pF/m (20.7pF/ft)
Inductance	0.17µH/m (0.052µH/ft)
Peak Power Rating	1560 kW
RF Peak Voltage	12500 Volts
Jacket Spark	8000 Volt RMS
Inner Conductor dc Resistance	0.31ohm/1000 m (0.095ohm/1000 ft)
Outer Conductor dc Resistance	0.094ohm/1000 m (0.029ohm/1000 ft)
Return Loss (VSWR) Performance	Standard
Phase Stabilized	Phase matched cables and assemblies are available upon request.

MECHANICAL SPECIFICATIONS

Cable Weight	4.5kg/m (3lb/ft)
Minimum Bending Radius	500mm (20in)
Minimum Bending Radius	1200mm (47in)
Bending Moment	335 (247)
Tensile Strength	3000N (674lb)
Recommended / Maximum Clamp Spacing	1 / 2 (3.3 / 6.6)



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ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.02	0.006	1200
1	0.028	0.008	848
1.5	0.034	0.01	692
2	0.039	0.012	599
10	0.088	0.027	266
20	0.125	0.038	187
30	0.153	0.047	153
50	0.199	0.061	118
88	0.266	0.081	88.3
100	0.284	0.087	82.7
108	0.295	0.09	79.7
150	0.35	0.107	67.3
174	0.378	0.115	62.4
200	0.406	0.124	58.1
300	0.503	0.153	47.1
400	0.585	0.178	40.7
450	0.623	0.19	38.3
500	0.659	0.201	36.3
512	0.667	0.203	35.9
600	0.726	0.221	33.1
700	0.789	0.24	30.5
800	0.848	0.258	28.5
824	0.861	0.263	28.1
894	0.9	0.274	27
900	0.904	0.275	26.9
925	0.917	0.28	26.5
960	0.936	0.285	26
1000	0.957	0.292	25.5

External Document Links

Notes