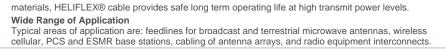


7/8" HELIFLEX[®] Air-Dielectric Coaxial Cable

HELIFLEX® 7/8" low loss air dielectric cable; Plenum-rated

FEATURES / 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.	7/8" HELIFLEX® Air Dielectric Coaxial Cable
∂	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	



Technical Features

APPLICATIONS

Applications		Plenum In-Building only
STRUCTURE		
Cable Type		Air-Dielectric, Corrugated
Size		7/8"
Jacket Option		Blue
Inner Conductor	mm (in)	9 (0.35) Copper Tube
Dielectric	mm (in)	20.2 (0.79) Helical Polyethylene Spacer
Outer Conductor	mm (in)	25.5 (1) Corrugated Copper
Jacket	mm (in)	28 (1.103) Polyvinylidene Fluoride, PVDF
ELECTRICAL SPECIFICATIONS		
Impedance	Ω	50 +/- 0.5
Maximum Frequency	GHz	3.0
Velocity	%	93.0
Capacitance	pF/m (pF/ft)	71 (21.6)
Inductance	μH/m (μH/ft)	0.178 (0.054)
Peak Power Rating	kW	73.0
RF Peak Voltage	Volts	2700.0
Jacket Spark	Volt RMS	8000.0
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.1 (0.34)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.88 (0.27)
Return Loss (VSWR) Performance		Standard
Maximum Return Loss	dB (VSWR)	Typical 20.8dB (1.2 VSWR) or better within the operation bands of most global frequency ranges. Premium also available. Contact factory for options in your specific frequency band.
Temperature & Power		Standard
MECHANICAL SPECIFICATIONS		
Cable Weight, Nominal	kg/m (lb/ft)	0.68 (0.46)
Minimum Bending Radius, Single Bend	mm (in)	100 (4)
Minimum Bending Radius, Repeated Bends	mm (in)	250 (10)
Bending Moment	Nm (lb*ft)	27
Tensile Strength	N (lb)	1600 (360)
Recommended / Maximum Clamp Spacing	m (ft)	0.5 / 0.9 (1.8 / 3)



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ATTENUATION AND POWER RATING						
Frequency MHz	Attenu dB/100m	Power kW				
0.5	0.08	0.025	73.00			
1	0.12	0.035	73.00			
1.5	0.14	0.043	70.90			
2	0.16	0.05	61.40			
10	0.37	0.112	27.30			
20	0.52	0.158	19.20			
30	0.64	0.194	15.70			
50	0.83	0.252	12.10			
88	1.10	0.337	9.11			
100	1.18	0.359	8.49			
108	1.23	0.374	8.15			
150	1.45	0.443	6.92			
174	1.57	0.478	6.39			
200	1.69	0.514	5.94			
300	2.08	0.634	4.84			
400	2.42	0.738	4.17			
450	2.57	0.785	3.93			
500	2.72	0.83	3.71			
512	2.76	0.84	3.66			
600	3.00	0.914	3.37			
700	3.25	0.992	3.12			
800	3.49	1.07	2.91			
824	3.55	1.08	2.86			
894	3.71	1.13	2.74			
900	3.72	1.13	2.74			
925	3.78	1.15	2.69			
960	3.85	1.17	2.65			
1000	3.94	1.20	2.59			
1250	4.45	1.36	2.30			
1500	4.91	1.50	2.10			
1700	5.26	1.60	1.97			
1800	5.43	1.65	1.91			
2000	5.75	1.75	1.81			
2200	6.07	1.85	1.72			
2300	6.22	1.90	1.68			
3000	7.22	2.20	1.47			

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, Plenum Rated
Flame Retardant Jacket Specifications	Meets/Exceeds Steiner Tunnel Test Method UL 910, NEC 820- 53 (a) CATVP, NFPA-262.
Installation Temperature	-40 to 60 (-40 to 140) °C(°F)
Storage Temperature	-40 to 85 (-40 to 185) °C(°F)
Operation Temperature	-50 to 85 (-58 to 185) °C(°F)

Attenuation at 20°C (68°F) cable temperature; tolerance +/- 5% max.; Mean power rating at 40°C (104°F) ambient temperature

External Document Links	Notes
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HCA78-50JPL