



4" low loss air dielectric cable; flame retardant/ halogen free jacket

FEATURES / BENEFITS

• Low Attenuation

The low attenuation of air dielectric coaxial cable results in highly efficient signal transfer in your RF system.

• Complete Shielding

The solid outer conductor of air dielectric coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.

• Low VSWR

Special low VSWR versions of air dielectric coaxial cables contribute to low system noise.

• Outstanding Intermodulation Performance

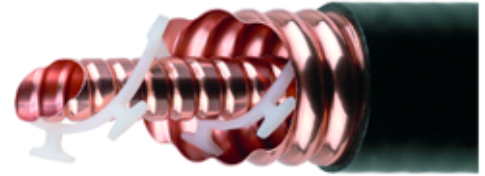
Air dielectric coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS Technologies factory.

• High Power Rating

Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, air dielectric coaxial 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.



4" Air Dielectric Coaxial Cable

Technical features

APPLICATIONS

Applications		TV & Radio	HF Defense	Cable Solutions
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STRUCTURE

Size			4
Jacket Option			Black
Inner Conductor Diameter	mm (in)		34.8 (1.37)
Inner Conductor Material			Corrugated Copper Tube
Dielectric Diameter	mm (in)		75.3 (2.96)
Dielectric Material			Helical Polyethylene Spacer
Outer Conductor Diameter	mm (in)		85.5 (3.36)
Outer Conductor Material			Corrugated Copper
Jacket Diameter	mm (in)		90.5 (3.56)
Jacket Material			Polyethylene, PE, Metalhydroxite Filling
Cable Type			Air-Dielectric, Corrugated



TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, LS0H
Installation Temperature	°C(°F)	-25 to 60 (-13 to 140)
Storage Temperature	°C (°F)	-70 to 85 (-94 to 185)
Operation Temperature	°C(°F)	-50 to 85 (-58 to 185)

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 0.5
Maximum Frequency	GHz	1.66
Velocity	%	96
Capacitance	pF/m (pF/ft)	70 (21.3)
Inductance	uH/m (uH/ft)	0.175 (0.053)
Peak Power Rating	kW	940
RF Peak Voltage	Volts	9700
Jacket Spark	Volt RMS	8000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.43 (0.13)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.13 (0.04)
Return Loss (VSWR) Performance		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.
Phase Stabilized		Phase stabilized and phase matched cables and assemblies are available upon request.
Temperature & Power		Standard

MECHANICAL SPECIFICATIONS

Cable Weight, Nominal	kg/m (lb/ft)	3.1 (2.1)
Minimum Bending Radius, Single Bend	mm (in)	380 (15)
Minimum Bending Radius, Repeated Bends	mm (in)	890 (35)
Bending Moment	Nm (lb-ft)	215 (159)
Tensile Strength	N (lb)	1800 (405)
Recommended / Maximum Clamp Spacing	m (ft)	0.8 / 1.2 (2.75 / 4)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.03	0.01	792
1	0.04	0.01	561
1.5	0.04	0.01	457
2	0.05	0.02	395
10	0.11	0.03	175
20	0.16	0.05	123
30	0.19	0.06	100
50	0.25	0.08	77.40
88	0.34	0.10	57.90
100	0.36	0.11	54.10
108	0.38	0.12	52
150	0.45	0.14	44
174	0.48	0.15	40.80
200	0.52	0.16	38
300	0.65	0.20	30.90
400	0.76	0.23	26.70
450	0.81	0.25	25.10
500	0.86	0.26	23.80
512	0.87	0.26	23.60
600	0.95	0.29	21.80
700	1.03	0.31	20.20
800	1.11	0.34	18.90
824	1.13	0.34	18.60
894	1.18	0.36	18
900	1.19	0.36	17.80
925	1.21	0.37	17.60
960	1.23	0.38	17.30
1000	1.26	0.38	17

External Document Links

Notes