



1-5/8" low loss air dielectric cable, UV resistant black PVC Jacket, applicable to both outdoor and indoor applications.

**FEATURES / BENEFITS**

• **Low Attenuation**

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

• **Complete Shielding**

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

• **Low VSWR**

Standard and low VSWR versions of this coaxial cables contribute to low system noise.

• **Outstanding Intermodulation Performance**

Coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also guaranteed by the state-of-the-art manufacturing process at the factory.

• **High Power Rating**

Low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials enable cable to provide long operating life at high transmit power levels.

• **Wide Range of Application**

Air cables are good choices for telecom, broadcasting, radar and HF defense applications.

• **Plenum Rated**

PVC jacket prevents fire from spreading, enables JPLB cables to meet and exceed all applicable plenum standards of flame travel and smoke.

• **Reinforced Jacket to Sustain Outdoor Applications**

Special additives in the jacketing compound improve the outdoor durability of the PVC jacket by minimizing the surface degradation caused by sunlight and other UV sources.



1-5/8" Air Dielectric Coaxia Cable

[External Document Links](#)

[Notes](#)

**Technical features**

**APPLICATIONS**

<b>Applications</b>		Wireless Communication	TV & Radio	HF Defense	Mobile Radio	Cable Solutions
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**STRUCTURE**

<b>Size</b>		1-5/8 inch
<b>Jacket Option</b>		Black
<b>Inner Conductor Diameter</b>	mm (in)	18.6 (0.73)
<b>Inner Conductor Material</b>		Corrugated Copper Tube
<b>Dielectric Diameter</b>	mm (in)	39.8 (1.56)
<b>Dielectric Material</b>		Helical Polyethylene Spacer
<b>Outer Conductor Diameter</b>	mm (in)	46.6 (1.83)
<b>Outer Conductor Material</b>		Corrugated Copper
<b>Jacket Diameter</b>	mm (in)	48.9 (1.925)
<b>Jacket Material</b>		UVR PVC (UltraViolet Resistant PolyVinylChloride)
<b>Cable Type</b>		Air-Dielectric, Corrugated

**TESTING AND ENVIRONMENTAL**

<b>Fire Performance</b>		Flame Retardant, Plenum Rated
<b>Flame Retardant Jacket Specifications</b>		Meets/Exceeds Steiner Tunnel Test Method UL 910, NEC 820-53 (a) CATVP, NFPA-262.
<b>Installation Temperature</b>	°C(°F)	-25 to 60 (-13 to 140)
<b>Storage Temperature</b>	°C (°F)	-60 to 85 (-76 to 185)
<b>Operation Temperature</b>	°C(°F)	-40 to 85 (-40 to 185)



**ELECTRICAL SPECIFICATIONS**

<b>Impedance</b>	Ω	50 +/- 0.5
<b>Maximum Frequency</b>	GHz	3
<b>Velocity</b>	%	95
<b>Capacitance</b>	pF/m (pF/ft)	70 (21.3)
<b>Inductance</b>	uH/m (uH/ft)	0.175 (0.053)
<b>Peak Power Rating</b>	kW	270
<b>RF Peak Voltage</b>	Volts	5200
<b>Jacket Spark</b>	Volt RMS	8000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	1.06 (0.33)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	0.34 (0.11)
<b>Return Loss (VSWR) Performance</b>		Standard
<b>Min. Return Loss (Max. VSWR)</b>	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.
<b>Phase Stabilized</b>		Phase stabilizing, phase matching, and connector assembly services are available upon request.
<b>Temperature &amp; Power</b>		Standard

**MECHANICAL SPECIFICATIONS**

<b>Cable Weight, Nominal</b>	kg/m (lb/ft)	1.33 (0.89)
<b>Minimum Bending Radius, Single Bend</b>	mm (in)	180 (7)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	550 (22)
<b>Bending Moment</b>	Nm (lb-ft)	42 (31)
<b>Tensile Strength</b>	N (lb)	1500 (337)
<b>Recommended / Maximum Clamp Spacing</b>	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	0.04	0.01	270
1	0.06	0.02	196
1.5	0.08	0.02	160
2	0.09	0.03	138
10	0.20	0.06	61.40
20	0.28	0.09	43.40
30	0.34	0.10	35.40
50	0.44	0.14	27.30
88	0.59	0.18	20.50
100	0.63	0.19	19.20
108	0.66	0.20	18.40
150	0.78	0.24	15.60
174	0.84	0.26	14.40
200	0.90	0.28	13.50
300	1.11	0.34	11
400	1.29	0.39	9.44
450	1.38	0.42	8.83
500	1.45	0.44	8.41
512	1.47	0.45	8.30
600	1.60	0.49	7.64
700	1.74	0.53	7.03
800	1.86	0.57	6.59
824	1.89	0.58	6.49
894	1.98	0.60	6.20
900	1.98	0.61	6.20
925	2.01	0.61	6.11
960	2.05	0.63	6
1000	2.10	0.64	5.86
1250	2.37	0.72	5.21
1500	2.61	0.80	4.75
1700	2.80	0.85	4.44
1800	2.89	0.88	4.31
2000	3.06	0.93	4.08
2200	3.22	0.98	3.89
2300	3.30	1.01	3.81
3000	3.83	1.17	3.32