



CELLFLEX® 1/2" low loss flexible cable; flame retardant/ halogen free jacket

**FEATURES / BENEFITS**

• **Low Attenuation**

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

• **Complete Shielding**

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

• **Low VSWR**

Special low VSWR versions of CELLFLEX® coaxial cables contribute to low system noise.

• **Outstanding Intermodulation Performance**

CELLFLEX® 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, CELLFLEX® 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.

• **Meets or Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C)**



1/2" CELLFLEX® Low-Loss Foam Dielectric Coaxial Cable

**Technical features**

**APPLICATIONS**

<b>Applications</b>	OEM jumpers, Main feed transitions to equipment, GPS lines, Riser-rated In-Building, CPR classified cable
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**STRUCTURE**

<b>Size</b>		1/2
<b>Jacket Option</b>		Black
<b>Inner Conductor Diameter</b>	mm (in)	4.8 (0.19)
<b>Inner Conductor Material</b>		Copper-Clad Aluminum Wire
<b>Dielectric Diameter</b>	mm (in)	11.3 (0.44)
<b>Dielectric Material</b>		Foam Polyethylene
<b>Outer Conductor Diameter</b>	mm (in)	13.8 (0.54)
<b>Outer Conductor Material</b>		Corrugated Copper
<b>Jacket Diameter</b>	mm (in)	15.8 (0.62)
<b>Jacket Material</b>		Polyethylene, PE, Metalhydroxite Filling
<b>Cable Type</b>		Foam-Dielectric, Corrugated



**TESTING AND ENVIRONMENTAL**

<b>Fire Performance</b>		Flame Retardant, LSOH
<b>Flame Retardant Jacket Specifications</b>		Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C); UL 1581; UL 1666; NFPA 130; NEC type CATVR; EN45545-2(GER production); CPR: <a href="https://products.rfsworld.com/userfiles/cpr/rfs-products-cpr-compliance.pdf">https://products.rfsworld.com/userfiles/cpr/rfs-products-cpr-compliance.pdf</a>
<b>Installation Temperature</b>	°C(°F)	-25 to 60 (-13 to 140)
<b>Storage Temperature</b>	°C (°F)	-70 to 85 (-94 to 185)
<b>Operation Temperature</b>	°C(°F)	-50 to 85 (-58 to 185)

**ELECTRICAL SPECIFICATIONS**

<b>Impedance</b>	Ω	50 +/- 1
<b>Maximum Frequency</b>	GHz	8.8
<b>Velocity</b>	%	87
<b>Capacitance</b>	pF/m (pF/ft)	76 (23.2)
<b>Inductance</b>	uH/m (uH/ft)	0.19 (0.058)
<b>Peak Power Rating</b>	kW	38
<b>RF Peak Voltage</b>	Volts	1950
<b>Jacket Spark</b>	Volt RMS	8000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	1.62 (0.5)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	3.55 (1.08)
<b>Return Loss (VSWR) Performance</b>		Standard or Premium
<b>Min. Return Loss (Max. VSWR)</b>	dB (VSWR)	Standard 20 (1.222), Premium 24 (1.135)/ 23 (1.152)
<b>Phase Stabilized</b>		Phase stabilized and phase matched cables and assemblies are available upon request.
<b>Temperature &amp; Power</b>		Standard

**MECHANICAL SPECIFICATIONS**

<b>Cable Weight, Nominal</b>	kg/m (lb/ft)	0.201 (0.135)
<b>Minimum Bending Radius, Single Bend</b>	mm (in)	70 (3)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	125 (5)
<b>Bending Moment</b>	Nm (lb-ft)	6.5 (4.79)
<b>Tensile Strength</b>	N (lb)	1050 (236)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.6 / 1 (2 / 3.25)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
1	0.21	0.07	35.30
1.5	0.26	0.08	28.80
2	0.30	0.09	25
10	0.68	0.21	11.10
20	0.96	0.29	7.83
30	1.18	0.36	6.37
50	1.53	0.47	4.91
88	2.04	0.62	3.68
100	2.18	0.66	3.45
108	2.27	0.69	3.31
150	2.69	0.82	2.80
174	2.90	0.88	2.59
200	3.12	0.95	2.41
300	3.85	1.17	1.95
400	4.48	1.37	1.68
450	4.77	1.45	1.57
500	5.04	1.54	1.49
512	5.11	1.56	1.47
600	5.56	1.69	1.35
700	6.03	1.84	1.24
750	6.26	1.91	1.20
800	6.48	1.98	1.16
824	6.58	2.01	1.14
894	6.88	2.10	1.09
900	6.91	2.10	1.09
925	7.01	2.14	1.07
960	7.15	2.18	1.05
1000	7.31	2.23	1.03
1250	8.25	2.52	0.91
1400	8.78	2.68	0.86
1500	9.12	2.78	0.82
1700	9.77	2.98	0.77
1800	10.10	3.07	0.75
2000	10.70	3.26	0.70
2100	11	3.35	0.68
2200	11.30	3.44	0.67
2400	11.80	3.61	0.63
2500	12.10	3.69	0.62
2600	12.40	3.78	0.61
2700	12.70	3.86	0.59



<b>3000</b>	13.40	4.09	0.56
<b>3500</b>	14.70	4.47	0.51
<b>4000</b>	15.80	4.83	0.47
<b>5000</b>	18	5.50	0.42
<b>6000</b>	20.70	6.30	0.37
<b>7000</b>	22	6.70	0.34
<b>8000</b>	23.80	7.26	0.32
<b>8800</b>	25.20	7.69	0.30

External Document Links

Notes

Phase stabilized versions available upon request.  
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