



CELLFLEX® 1/2" superflexible 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® Superflexible 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</b>	mm (in)	3.56 (0.14)
<b>Inner Conductor Material</b>		Copper-Clad Aluminum Wire
<b>Dielectric</b>	mm (in)	9.3 (0.366)
<b>Dielectric Material</b>		Foam Polyethylene
<b>Outer Conductor</b>	mm (in)	12.3 (0.48)
<b>Outer Conductor Material</b>		Corrugated Copper
<b>Jacket</b>	mm (in)	13.75 (0.54)
<b>Jacket Material</b>		Polyethylene, PE, Metallhydroxite Filling
<b>Cable Type</b>		Foam-Dielectric, Superflexible



**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; NFPA130; 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, Ohm</b>	Ω	50 +/- 1
<b>Maximum Frequency</b>	GHz	10.6
<b>Velocity, percent</b>	%	77
<b>Capacitance</b>	pF/m (pF/ft)	86 (26)
<b>Inductance, uH/m (uH/ft)</b>	μH/m (μH/ft)	0.215 (0.066)
<b>Peak Power Rating</b>	kW	24
<b>RF Peak Voltage</b>	Volts	1550
<b>Jacket Spark</b>	Volt RMS	5000
<b>Inner Conductor dc Resistance, Ω/km (Ω/kft)</b>	Ω/1000 m (Ω/1000 ft)	2.97 (0.9)
<b>Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)</b>	Ω/1000 m (Ω/1000 ft)	6.5 (1.88)
<b>Return Loss (VSWR) Performance</b>		Standard for 40-2700, 3300-4200, 4400-5925 MHz, Premium according to B-Class
<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)	0.15 (0.1)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	32 (1.3)
<b>Bending Moment, Nm (lb-ft)</b>	Nm (lb*ft)	2.5 (1.84)
<b>Tensile Strength</b>	N (lb)	650 (146)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.3 / 0.5 (1 / 1.64)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.22	0.07	24
1	0.31	0.10	22.60
1.5	0.38	0.12	18.40
2	0.44	0.14	16
10	1.00	0.30	7.10
20	1.41	0.43	5.01
30	1.73	0.53	4.08
50	2.25	0.69	3.14
88	3.01	0.92	2.35
100	3.21	0.98	2.20
108	3.34	1.02	2.11
150	3.96	1.21	1.78
174	4.27	1.30	1.65
200	4.60	1.40	1.53
300	5.68	1.73	1.24
400	6.61	2.01	1.07
450	7.04	2.14	1
500	7.44	2.27	0.95
512	7.53	2.30	0.94
600	8.20	2.50	0.86
700	8.91	2.71	0.79
750	9.24	2.82	0.76
800	9.57	2.92	0.74
824	9.72	2.96	0.73
894	10.20	3.10	0.69
900	10.20	3.11	0.69
925	10.40	3.16	0.68
960	10.60	3.22	0.67
1000	10.80	3.29	0.65
1250	12.20	3.72	0.58
1400	13	3.96	0.54
1500	13.50	4.11	0.52
1700	14.50	4.41	0.49
1800	14.90	4.55	0.47
2000	15.80	4.82	0.45
2100	16.30	4.96	0.43
2200	16.70	5.09	0.42
2400	17.50	5.35	0.40
2500	17.90	5.47	0.39
2600	18.40	5.59	0.38



<b>2700</b>	18.80	5.72	0.38
<b>3000</b>	19.90	6.07	0.36
<b>3500</b>	21.80	6.63	0.32
<b>4000</b>	23.50	7.16	0.30
<b>5000</b>	26.80	8.16	0.26
<b>6000</b>	29.80	9.09	0.24
<b>7000</b>	32.70	9.97	0.22
<b>8000</b>	35.50	10.80	0.20
<b>9000</b>	38.10	11.60	0.19
<b>10000</b>	40.60	12.40	0.17

**External Document Links**

**Notes**

Phase stabilized versions available upon request.  
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