



CELLFLEX® Lite 7/8" low loss flexible cable

**FEATURES / BENEFITS**

• **Ultra Low Attenuation**

The further reduced attenuation of CELLFLEX® premium attenuation coaxial cable results in extremely efficient signal transfer in your RF system, especially at high frequencies.

• **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)**



7/8" CELLFLEX® Lite Low-Loss Foam Dielectric Coaxial Cable

**Technical features**

**APPLICATIONS**

Applications	Indoor	Wireless Communication	TV & Radio	HF Defense	Microwave	Mobile Radio	Cable Solutions

**STRUCTURE**

Size		7/8
Jacket Option		Black
Inner Conductor	mm (in)	9.1 (0.358)
Inner Conductor Material		Copper Tube
Dielectric	mm (in)	21.5 (0.846)
Dielectric Material		Foam Polyethylene
Outer Conductor	mm (in)	25.2 (0.992)
Outer Conductor Material		Corrugated Aluminium
Jacket	mm (in)	27.8 (1.094)
Jacket Material		Polyethylene, PE, Metalhydroxite Filling
Cable Type		Foam-Dielectric, Corrugated

**TESTING AND ENVIRONMENTAL**

Fire Performance		Flame Retardant, LSOH
Flame Retardant Jacket Specifications		Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1, -3.C; UL 1581; UL 1666; NEC type CATVR
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**

<b>Impedance</b>	Ω	50 +/- 1
<b>Maximum Frequency</b>	GHz	5
<b>Velocity</b>	%	88
<b>Capacitance</b>	pF/m (pF/ft)	75 (22.9)
<b>Inductance</b>	uH/m (uH/ft)	0.188 (0.057)
<b>Peak Power Rating</b>	kW	85
<b>RF Peak Voltage</b>	Volts	2920
<b>Jacket Spark</b>	Volt RMS	8000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	2.05 (0.62)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	1.6 (0.48)
<b>Return Loss (VSWR) Performance</b>		Standard (for 40-2700, 3300-4200, 4400-5000 MHz) 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)	0.35 (0.23)
<b>Minimum Bending Radius, Single Bend</b>	mm (in)	120 (5)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	250 (10)
<b>Bending Moment</b>	Nm (lb-ft)	13 (10)
<b>Tensile Strength</b>	N (lb)	1440 (324)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.8 / 1 (2.75 / 3.25)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.09	0.03	85
1	0.12	0.04	85
1.5	0.15	0.05	70.20
2	0.18	0.05	60.60
10	0.39	0.12	27
20	0.56	0.17	19.10
30	0.68	0.21	15.50
50	0.89	0.27	12
88	1.18	0.36	8.98
100	1.26	0.38	8.41
108	1.31	0.40	8.09
150	1.55	0.47	6.84
174	1.67	0.51	6.35
200	1.80	0.55	5.89
300	2.22	0.68	4.77
400	2.58	0.79	4.11
450	2.74	0.84	3.87
500	2.90	0.88	3.66
512	2.94	0.90	3.61
600	3.19	0.97	3.32
700	3.46	1.06	3.06
750	3.59	1.10	2.95
800	3.72	1.13	2.85
824	3.78	1.15	2.80
894	3.95	1.20	2.68
900	3.96	1.21	2.68
925	4.02	1.22	2.64
960	4.10	1.25	2.59
1000	4.19	1.28	2.53
1250	4.72	1.44	2.25
1400	5.02	1.53	2.11
1500	5.21	1.59	2.03
1700	5.58	1.70	1.90
1800	5.76	1.76	1.84
2000	6.10	1.86	1.74
2100	6.27	1.91	1.69
2200	6.43	1.96	1.65
2400	6.75	2.06	1.57
2500	6.90	2.10	1.54
2600	7.05	2.15	1.50



2700	7.20	2.20	1.47
3000	7.64	2.33	1.39
3500	8.33	2.54	1.27
4000	8.98	2.74	1.18
4900	10.10	3.07	1.05
5000	10.20	3.11	1.04

External Document Links

[Installation Instruction](#)

Notes