



CELLFLEX® Lite 1/2" low loss flexible cable

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® Lite Low-Loss Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

Applications		Indoor	Wireless Communication	HF Defense	Microwave	Mobile Radio	Cable Solutions
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STRUCTURE

Size		1/2
Jacket Option		Black
Inner Conductor	mm (in)	4.8 (0.19)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric	mm (in)	11.3 (0.44)
Dielectric Material		Foam Polyethylene
Outer Conductor	mm (in)	13.8 (0.54)
Outer Conductor Material		Corrugated Aluminum
Jacket	mm (in)	15.9 (0.62)
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**

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	8.8
Velocity	%	87
Capacitance	pF/m (pF/ft)	76 (23.2)
Inductance	uH/m (uH/ft)	0.19 (0.058)
Peak Power Rating	kW	38
RF Peak Voltage	Volts	1950
Jacket Spark	Volt RMS	8000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.6 (0.49)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	2.8 (0.85)
Return Loss (VSWR) Performance		Standard (for 40-2700, 3300-4200, 4400-5925 MHz) or Premium
Min. Return Loss (Max. VSWR)	dB (VSWR)	Standard 20 (1.222), Premium 24 (1.135)/ 23 (1.152)
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)	0.19 (0.12)
Minimum Bending Radius, Single Bend	mm (in)	70 (3)
Minimum Bending Radius, Repeated Bends	mm (in)	125 (5)
Bending Moment	Nm (lb-ft)	6.5 (4.8)
Tensile Strength	N (lb)	800 (180)
Recommended / Maximum Clamp Spacing	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	0.23	0.07	38
1.5	0.29	0.09	31.20
2	0.33	0.10	27.10
10	0.74	0.23	12
20	1.05	0.32	8.48
30	1.29	0.39	6.90
50	1.66	0.51	5.36
88	2.22	0.68	4.01
100	2.37	0.72	3.76
108	2.46	0.75	3.62
150	2.91	0.89	3.06
174	3.14	0.96	2.83
200	3.38	1.03	2.63
300	4.16	1.27	2.14
400	4.83	1.47	1.84
450	5.13	1.57	1.73
500	5.42	1.65	1.64
512	5.49	1.67	1.62
600	5.97	1.82	1.49
700	6.47	1.97	1.38
750	6.71	2.04	1.33
800	6.94	2.12	1.28
824	7.05	2.15	1.26
894	7.36	2.24	1.21
900	7.39	2.25	1.20
925	7.49	2.28	1.19
960	7.64	2.33	1.16
1000	7.81	2.38	1.14
1250	8.79	2.68	1.01
1400	9.34	2.85	0.95
1500	9.69	2.95	0.92
1700	10.40	3.16	0.86
1800	10.70	3.26	0.83
2000	11.30	3.45	0.79
2100	11.60	3.54	0.77
2200	11.90	3.63	0.75
2400	12.50	3.81	0.71
2500	12.80	3.89	0.70
2600	13.10	3.98	0.68
2700	13.30	4.06	0.67



LCF12-50JFNL

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3000	14.10	4.30	0.63
3500	15.40	4.69	0.58
4000	16.60	5.05	0.54
5000	18.80	5.72	0.47
6000	20.80	6.34	0.43
7000	22.70	6.92	0.39
8000	24.50	7.47	0.36
9000	26.20	8	0.34
10000	27.90	8.50	0.32
11700	30.60	9.33	0.29

External Document Links

Notes

Phase stabilized versions available upon request.
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