



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.



Technical features

APPLICATIONS

Applications		Main feed line, intended for outdoor usage
--------------	--	--

STRUCTURE

Size		7/8
Inner Conductor Diameter	mm (in)	9.05 (0.356)
Inner Conductor Material		Copper Tube
Dielectric Diameter	mm (in)	21.5 (0.846)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	25.2 (0.992)
Outer Conductor Material		Corrugated Aluminium Tube
Jacket Diameter	mm (in)	27.8 (1.094)
Jacket Material		Black Polyethylene

TESTING AND ENVIRONMENTAL

Fire Performance		Halogene Free
Installation Temperature	°C (°F)	-40 to 60 (-40 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	5
Velocity	%	90
Capacitance	pF/m (pF/ft)	75 (22.9)
Inductance	μ H/m (μ H/ft)	0.188 (0.057)
Peak Power Rating	kW	85
RF Peak Voltage	Volts	2920
Jacket Spark	Volt RMS	8000
Inner Conductor dc Resistance	Ω /1000 m (Ω /1000 ft)	2.04 (0.62)
Outer Conductor dc Resistance	Ω /1000 m (Ω /1000 ft)	1.42 (0.43)
Return Loss (VSWR) Performance		Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies
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)	0.32 (0.215)
Minimum Bending Radius, Single Bend	mm (in)	120 (5)
Minimum Bending Radius, Repeated Bends	mm (in)	250 (10)
Bending Moment	Nm (lb-ft)	13 (10)
Tensile Strength	N (lb)	1440 (324)
Recommended / Maximum Clamp Spacing	m (ft)	0.8 / 1 (2.75 / 3.25)



LCF78-50JL

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

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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
1	0.12	0.04	89.87
100	1.22	0.37	8.66
200	1.75	0.53	6.02
450	2.71	0.83	3.90
700	3.45	1.05	3.06
800	3.71	1.13	2.85
900	3.96	1.21	2.67
1800	5.86	1.79	1.80
2000	6.23	1.90	1.69
2200	6.59	2.01	1.60
2400	6.93	2.11	1.52
2700	7.43	2.26	1.42
3000	7.91	2.41	1.34
3500	8.67	2.64	1.22
4000	9.40	2.86	1.12
5000	10.77	3.28	0.98

External Document Links

[CELLFLEX Drum Selection Guide](#)

Notes