



CELLFLEX® Lite 1-5/8" low loss flexible cable

FEATURES / BENEFITS

- **It represents a light-weight transmission line solution**
The light weight of CELLFLEX® Lite coaxial cable results in reduced work-force and lifting gear.
- **It is easy to transport, handle and install**
CELLFLEX® Lite coaxial cables enable savings in shipping cost.
- **It exhibits a cost-efficient alternative to copper transmission line**
CELLFLEX® Lite coaxial cable helps to reduce CAPEX spending.
- **It offers a user-friendly compatibility with RFS's existing range of accessories**
CELLFLEX® Lite coaxial cable requires less inventory additions, thus reduced OPEX.
- **It enables trouble-free installation and operation**
CELLFLEX® Lite coaxial cable avoids downtime and reduces OPEX.
- **The attenuation is comparable to the industry standard in traditional cable**
CELLFLEX® Lite coaxial cable maintains uncompromised coverage.
- **Specially developed connectors exhibit low and stable intermodulation performance**
CELLFLEX® Lite coaxial cable exceeds present PIM standards ensuring no dropped calls.
- **It is available with UV-resistant polyethylene or flame-retardant jackets**
CELLFLEX® Lite coaxial cable can be used outside and in indoor applications where restrictions apply.
- **It exceeds industry standard for return loss performance**
CELLFLEX® Lite coaxial cable means zero risk in network planning.
- **Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1; IEC 61034-1, -2; IEC 60332-3-24**



Technical features

APPLICATIONS

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

STRUCTURE

Cable Type		Foam-Dielectric, Corrugated
Size		1-5/8
Jacket Option		Black
Inner Conductor Diameter	mm (in)	17.6 (0.69)
Inner Conductor Material		Corrugated Copper Tube
Dielectric Diameter	mm (in)	42.4 (1.67)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	46.4 (1.83)
Outer Conductor Material		Corrugated Aluminium
Jacket Diameter	mm (in)	50.2 (1.98)
Jacket Material		Polyethylene, PE, Metalhydroxite Filling

TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, LSOH
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	2.75
Velocity	%	90
Capacitance	pF/m (pF/ft)	74 (22.5)
Inductance	uH/m (uH/ft)	0.185 (0.056)
Peak Power Rating	kW	310
RF Peak Voltage	Volts	5600
Jacket Spark	Volt RMS	10000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	1.3 (0.396)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	0.61 (0.186)
Return Loss (VSWR) Performance		Standard (for 40-2700 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)	0.97 (0.65)
Minimum Bending Radius, Single Bend	mm (in)	200 (8)
Minimum Bending Radius, Repeated Bends	mm (in)	500 (20)
Bending Moment	Nm (lb-ft)	40.7 (30.7)
Tensile Strength	N (lb)	1800 (405)
Recommended / Maximum Clamp Spacing	m (ft)	1.2 / 1.5 (4 / 5)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
10	0.22	0.07	53.90
20	0.31	0.09	37.90
30	0.38	0.12	30.80
50	0.50	0.15	23.60
88	0.66	0.20	17.60
100	0.71	0.22	16.50
108	0.74	0.23	15.90
150	0.88	0.27	13.30
174	0.95	0.29	12.30
200	1.02	0.31	11.50
300	1.27	0.39	9.21
400	1.48	0.45	7.91
450	1.58	0.48	7.41
500	1.67	0.51	7.01
512	1.70	0.52	6.88
600	1.85	0.56	6.32
700	2.01	0.61	5.82
750	2.09	0.64	5.60
800	2.17	0.66	5.39
824	2.21	0.67	5.29
894	2.31	0.70	5.06
900	2.32	0.71	5.04
925	2.35	0.72	4.98
960	2.40	0.73	4.88
1000	2.46	0.75	4.76
1250	2.79	0.85	4.19
1400	2.98	0.91	3.93
1500	3.10	0.95	3.77
1700	3.33	1.02	3.51
1800	3.45	1.05	3.39
2000	3.67	1.12	3.19
2100	3.77	1.15	3.10
2200	3.88	1.18	3.02
2400	4.08	1.24	2.87
2500	4.18	1.28	2.80
2600	4.28	1.31	2.73
2700	4.38	1.34	2.67
2750	4.43	1.35	2.64

External Document Links



PRODUCT DATASHEET

LCF158-50JFNL

1-5/8" CELLFLEX[®] Lite Low-Loss Foam-Dielectric Coaxial Cable

Installation Instruction

Notes