



CELLFLEX® Lite 1/2" 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.



1/2" CELLFLEX® Lite Low-Loss Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

Applications	OEM jumpers, Main feed transitions to equipment, GPS lines, intended for outdoor usage
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STRUCTURE

Cable Type		Foam-Dielectric, Corrugated
Size		1/2
Jacket Option		Black
Inner Conductor Diameter	mm (in)	4.8 (0.19)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric Diameter	mm (in)	11.2 (0.44)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	13.8 (0.54)
Outer Conductor Material		Corrugated Aluminum
Jacket Diameter	mm (in)	15.9 (0.62)
Jacket Material		Polyethylene, PE

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	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)	0.165 (0.107)
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
0.5	0.16	0.05	38
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



LCF12-50JL

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2700	13.30	4.06	0.67
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
8800	25.90	7.90	0.34

External Document Links

Notes

Phase stabilized versions available upon request.
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