

**LCF12-50JL****1/2" CELLFLEX® Lite Low-Loss Foam-Dielectric Coaxial Cable**

CELLFLEX® Lite 1/2" low loss flexible cable

**Feature / 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.

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	4.8mm (0.19in)
Inner Conductor Material	Copper-Clad Aluminum Wire
Dielectric Diameter	11.2mm (0.44in)
Dielectric Material	Foam Polyethylene
Outer Conductor Diameter	13.8mm (0.54in)
Outer Conductor Material	Corrugated Aluminum
Jacket Diameter	15.9mm (0.62in)
Jacket Material	Polyethylene, PE

TESTING AND ENVIRONMENTAL

Fire Performance	Halogene Free
Installation Temperature	-40°C to 60°C (-40°F to 140°F)
Storage Temperature	-70°C to 85°C (-94°F to 185°F)
Operation Temperature	-50°C to 85°C (-58°F to 185°F)



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ELECTRICAL SPECIFICATIONS

Impedance	50 +/- 1 Ω
Maximum Frequency	8.8 GHz
Velocity	87 %
Capacitance	76pF/m (23.2pF/ft)
Inductance	0.19μH/m (0.058μH/ft)
Peak Power Rating	38 kW
RF Peak Voltage	1950 Volts
Jacket Spark	8000 Volt RMS
Inner Conductor dc Resistance	1.6ohm/1000 m (0.49ohm/1000 ft)
Outer Conductor dc Resistance	2.8ohm/1000 m (0.85ohm/1000 ft)
Return Loss (VSWR) Performance	Standard (for 40-2700, 3300-4200, 4400-5925 MHz) or Premium
Phase Stabilized	Phase stabilized and phase matched cables and assemblies are available upon request.

MECHANICAL SPECIFICATIONS

Cable Weight	0.165kg/m (0.107lb/ft)
Minimum Bending Radius	70mm (3in)
Minimum Bending Radius	125mm (5in)
Bending Moment	6.5 (4.8)
Tensile Strength	800N (180lb)
Recommended / Maximum Clamp Spacing	0.6 / 1 (2 / 3.25)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.164	0.05	38
1	0.233	0.071	38
1.5	0.285	0.087	31.2
2	0.329	0.1	27.1
10	0.739	0.225	12
20	1.05	0.319	8.48
30	1.29	0.392	6.9
50	1.66	0.507	5.36
88	2.22	0.676	4.01
100	2.37	0.722	3.76
108	2.46	0.751	3.62
150	2.91	0.888	3.06
174	3.14	0.958	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	1.2
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	0.953
1500	9.69	2.95	0.918
1700	10.4	3.16	0.856
1800	10.7	3.26	0.832
2000	11.3	3.45	0.788
2100	11.6	3.54	0.767
2200	11.9	3.63	0.748
2400	12.5	3.81	0.712
2500	12.8	3.89	0.695
2600	13.1	3.98	0.679
2700	13.3	4.06	0.669
3000	14.1	4.3	0.631
3500	15.4	4.69	0.578



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4000	16.6	5.05	0.536
5000	18.8	5.72	0.473
6000	20.8	6.34	0.428
7000	22.7	6.92	0.392
8000	24.5	7.47	0.363
8800	25.9	7.9	0.344

External Document Links

Notes
Phase stabilized versions available upon request.

NOTES
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