



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

Product Description

CELLFLEX® Lite 1/2" low loss flexible cable

Application: OEM jumpers, Main feed transitions to equipment, GPS lines



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

Technical Features

Structure

Inner conductor:	Copper-Clad Aluminum Wire	[mm (in)]	4.8 (0.19)
Dielectric:	Foam Polyethylene	[mm (in)]	11.3 (0.44)
Outer conductor:	Annularly Corrugated Aluminium	[mm (in)]	13.8 (0.54)
Jacket:	Polyethylene, PE	[mm (in)]	15.8 (0.62)

Mechanical Properties

Weight, approximately	[kg/m (lb/ft)]	0.17 (0.11)
Minimum bending radius, single bending	[mm (in)]	70 (3)
Minimum bending radius, repeated bending	[mm (in)]	125 (5)
Bending moment	[Nm (lb-ft)]	4.5 (3.32)
Max. tensile force	[N (lb)]	800 (180)
Recommended / maximum clamp spacing	[m (ft)]	0.6 / 1.0 (2.0 / 3.25)

Electrical Properties

Characteristic impedance	[Ω]	50 +/- 1
Relative propagation velocity	[%]	88
Capacitance	[pF/m (pF/ft)]	76.0 (23.2)
Inductance	[μH/m (μH/ft)]	0.190 (0.058)
Max. operating frequency	[GHz]	8.8
Jacket spark test RMS	[V]	8000
Peak power rating	[kW]	38
RF Peak voltage rating	[V]	1950
DC-resistance inner conductor	[Ω/km (Ω/1000ft)]	1.57 (0.48)
DC-resistance outer conductor	[Ω/km (Ω/1000ft)]	2.78 (0.85)

Recommended Temperature Range

Storage temperature	[°C (°F)]	-70 to +85 (-94 to +185)
Installation temperature	[°C (°F)]	-40 to +60 (-40 to +140)
Operation temperature	[°C (°F)]	-50 to +85 (-58 to +185)

Other Characteristics

Fire Performance: Halogene Free

VSWR Performance: Standard [dB (VSWR)]

Other Options: Phase stabilized and phase matched cables and assemblies are available upon request.

Contact RFS for your VSWR performance specification for your required frequency band.

Frequency [MHz]	Attenuation		Power [kW]
	[dB/100m]	[dB/100ft]	
0.5	0.164	0.0501	38.0
1.0	0.233	0.0709	38.0
1.5	0.285	0.0869	31.2
2.0	0.329	0.100	27.1
10	0.739	0.225	12.0
20	1.05	0.319	8.48
30	1.29	0.392	6.90
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	1.20
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	0.953
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	4.30	0.631
3500	15.4	4.69	0.578
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
9000	26.2	8.0	0.340
10000	27.9	8.50	0.319
11700	30.6	9.33	0.291

Attenuation at 20°C (68°F) cable temperature
Mean power rating at 40°C (104°F) ambient temperature

All information contained in the present datasheet is subject to confirmation at time of ordering