



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



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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)]	11.2 (0.44)
Outer conductor:	Corrugated Aluminium	[mm (in)]	13.8 (0.54)
Jacket:	Polyethylene, PE	[mm (in)]	15.9 (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)]	6.5 (4.8)
Max. tensile force	[N (lb)]	800 (180)
Recommended / maximum clamp spacing	[m (ft)]	0.6 / 1 (2 / 3.25)

Electrical Properties

Characteristic impedance	[Ω]	50 +/- 1
Relative propagation velocity	[%]	88
Capacitance	[pF/m (pF/ft)]	76 (23.2)
Inductance	[μH/m (μH/ft)]	0.19 (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)]	2.4 (0.73)

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]	
01	0.00	000	38
1	0.00	000	38
2	0.00	000	31
2	0.00	0.00	27
10	0.01	0.00	12
20	1	0.00	08
30	1	0.00	07
50	2	0.01	05
88	2	0.01	04
100	2	0.01	04
108	2	0.01	04
150	3	0.01	03
174	3	0.01	03
200	3	1	03
300	4	1	02
400	5	1	02
450	5	2	02
500	5	2	02
512	5	2	02
600	6	2	01
700	6	2	01
750	7	2	01
800	7	2	01
824	7	2	01
894	7	2	01
900	7	2	01
925	7	2	01
960	8	2	01
1000	8	2	01
1250	9	3	01
1400	9	3	0.01
1500	10	3	0.01
1700	10	3	0.01
1800	11	3	0.01
2000	11	3	0.01
2100	12	4	0.01
2200	12	4	0.01
2400	13	4	0.01
2500	13	4	0.01
2600	13	4	0.01
2700	13	4	0.01
3000	14	4	0.01
3500	15	5	0.01
4000	17	5	0.01
5000	19	6	0.00
6000	21	6	0.00
7000	23	7	0.00
8000	25	7	0.00
9000	26	8	0.00
10000	28	9	0.00
10400	29	9	0.00

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