



CELLFLEX® 1/2" superflexible cable

FEATURES / BENEFITS

• **Low Attenuation**

The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transfer in your RF system.

• **Complete Shielding**

The solid outer conductor of CELLFLEX® coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.

• **Low VSWR**

Special low VSWR versions of CELLFLEX® coaxial cables contribute to low system noise.

• **Outstanding Intermodulation Performance**

CELLFLEX® coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS factory.

• **High Power Rating**

Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, CELLFLEX® cable provides safe long term operating life at high transmit power levels.

• **Wide Range of Application**

Typical areas of application are: feedlines for broadcast and terrestrial microwave antennas, wireless cellular, PCS and ESMR base stations, cabling of antenna arrays, and radio equipment interconnects.



1/2" CELLFLEX® Superflexible 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

Size		1/2
Jacket Option		Black
Inner Conductor	mm (in)	3.56 (0.14)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric	mm (in)	9.3 (0.366)
Dielectric Material		Foam Polyethylene
Outer Conductor	mm (in)	12.3 (0.48)
Outer Conductor Material		Corrugated Copper
Jacket	mm (in)	13.75 (0.54)
Jacket Material		Polyethylene, PE
Cable Type		Foam-Dielectric, Superflexible

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, Ohm	Ω	50 +/- 1
Maximum Frequency	GHz	10.6
Velocity, percent	%	77
Capacitance	pF/m (pF/ft)	86 (26)
Inductance, uH/m (uH/ft)	μH/m (μH/ft)	0.215 (0.066)
Peak Power Rating	kW	24
RF Peak Voltage	Volts	1550
Jacket Spark	Volt RMS	5000
Inner Conductor dc Resistance, Ω/km (Ω/kft)	Ω/1000 m (Ω/1000 ft)	2.97 (0.9)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	Ω/1000 m (Ω/1000 ft)	6.5 (1.98)
Return Loss (VSWR) Performance		Standard for 40-2700, 3300-4200, 4400-5925 MHz; Premium acc to B-Class
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)	0.135 (0.09)
Minimum Bending Radius, Repeated Bends	mm (in)	32 (1.3)
Bending Moment, Nm (lb-ft)	Nm (lb*ft)	2.5 (1.84)
Tensile Strength	N (lb)	650 (146)
Recommended / Maximum Clamp Spacing	m (ft)	0.3 / 0.5 (1 / 1.64)



ATTENUATION AND POWER RATING

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.22	0.07	24
1	0.31	0.10	22.60
1.5	0.38	0.12	18.40
2	0.44	0.14	16
10	1.00	0.30	7.10
20	1.41	0.43	5.01
30	1.73	0.53	4.08
50	2.25	0.69	3.14
88	3.01	0.92	2.35
100	3.21	0.98	2.20
108	3.34	1.02	2.11
150	3.96	1.21	1.78
174	4.27	1.30	1.65
200	4.60	1.40	1.53
300	5.68	1.73	1.24
400	6.61	2.01	1.07
450	7.04	2.14	1
500	7.44	2.27	0.95
512	7.53	2.30	0.94
600	8.20	2.50	0.86
700	8.91	2.71	0.79
750	9.24	2.82	0.76
800	9.57	2.92	0.74
824	9.72	2.96	0.73
894	10.20	3.10	0.69
900	10.20	3.11	0.69
925	10.40	3.16	0.68
960	10.60	3.22	0.67
1000	10.80	3.29	0.65
1250	12.20	3.72	0.58
1400	13	3.96	0.54
1500	13.50	4.11	0.52
1700	14.50	4.41	0.49
1800	14.90	4.55	0.47
2000	15.80	4.82	0.45
2100	16.30	4.96	0.43
2200	16.70	5.09	0.42
2400	17.50	5.35	0.40
2500	17.90	5.47	0.39
2600	18.40	5.59	0.38



2700	18.80	5.72	0.38
3000	19.90	6.07	0.36
3500	21.80	6.63	0.32
4000	23.50	7.16	0.30
5000	26.80	8.16	0.26
6000	29.80	9.09	0.24
7000	32.70	9.97	0.22
8000	35.50	10.80	0.20
9000	38.10	11.60	0.19
10000	40.60	12.40	0.17

External Document Links

Notes

Phase stabilized versions available upon request.
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