



CELLFLEX® 1/4" low loss flexible 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.



1/4" CELLFLEX® Superflexible Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

Applications	OEM jumpers, BTS inter-cabinet connections, GPS lines, Microwave IF cabling, intended for outdoor usage
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STRUCTURE

Cable Type		Foam-Dielectric, Corrugated
Size		1/4
Jacket Option		Black
Inner Conductor	mm (in)	2.4 (0.09)
Dielectric	mm (in)	6 (0.24)
Outer Conductor	mm (in)	7.5 (0.3)
Jacket	mm (in)	10 (0.39)

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 +/- 1.5
Maximum Frequency	GHz	15.8
Velocity, percent	%	83
Capacitance	pF/m (pF/ft)	80 (24)
Inductance, uH/m (uH/ft)	μH/m (μH/ft)	0.205 (0.063)
Peak Power Rating	kW	10.9
RF Peak Voltage	Volts	1050
Jacket Spark	Volt RMS	5000
Inner Conductor dc Resistance, Ω/km (Ω/kft)	Ω/1000 m (Ω/1000 ft)	6.1 (1.86)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	Ω/1000 m (Ω/1000 ft)	4.4 (1.34)
Return Loss (VSWR) Performance		Standard for 40-2700, 3300-4200, 4400-5925 MHz, Premium according 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)	0.11 (0.074)
Minimum Bending Radius, Single Bend	mm (in)	40 (1.6)
Minimum Bending Radius, Repeated Bends	mm (in)	85 (3.3)
Bending Moment, Nm (lb-ft)	Nm (lb*ft)	1.9 (1.4)
Tensile Strength	N (lb)	890 (200)
Recommended / Maximum Clamp Spacing	m (ft)	0.5 / 1 (1.75 / 3.25)



ATTENUATION AND POWER RATING

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.29	0.09	10.90
1	0.41	0.13	10.90
1.5	0.51	0.15	10.90
2	0.58	0.18	10.90
10	1.31	0.40	5.56
20	1.86	0.57	3.92
30	2.28	0.70	3.20
50	2.95	0.90	2.47
88	3.94	1.20	1.85
100	4.20	1.28	1.73
108	4.37	1.33	1.67
150	5.17	1.58	1.41
174	5.58	1.70	1.30
200	6	1.83	1.21
300	7.40	2.25	0.99
400	8.59	2.62	0.85
450	9.13	2.78	0.80
500	9.65	2.94	0.76
512	9.77	2.98	0.75
600	10.60	3.24	0.69
700	11.50	3.51	0.63
800	12.40	3.77	0.59
824	12.60	3.83	0.58
894	13.10	4	0.56
900	13.20	4.01	0.55
925	13.40	4.07	0.55
960	13.60	4.15	0.54
1000	13.90	4.24	0.52
1250	15.70	4.78	0.46
1500	17.30	5.27	0.42
1700	18.50	5.64	0.39
1800	19.10	5.82	0.38
2000	20.20	6.16	0.36
2100	20.80	6.33	0.35
2200	21.30	6.49	0.34
2400	22.30	6.81	0.33
3000	25.30	7.70	0.29
3500	27.50	8.39	0.27
4000	29.70	9.05	0.25
5000	33.70	10.30	0.22



6000	37.40	11.40	0.20
7000	40.80	12.40	0.18
8000	44.10	13.50	0.17
9000	47.30	14.40	0.15
10000	50.30	15.30	0.15
12000	56.10	17.10	0.13
14000	61.50	18.80	0.12
15800	66.20	20.20	0.11

External Document Links

Notes

Phase stabilized versions available upon request.
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