RADIO FREQUENCY SYSTEMS
The Clear Choice®

1/4" CELLFLEX® Superflexible Foam-Dielectric Coaxial Cable

CELLFLEX® 1/4" superflexible cable

FEATURES / BENEFITS

Low Attenuation
The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transferin 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
STRUCTURE		
Cable Type		Foam-Dielectric, Superflexible
Size		1/4"
Jacket Option		Black
Inner Conductor	mm (in)	1.9 (0.075) Copper-Clad Aluminum Wire
Dielectric	mm (in)	4.3 (0.17) Foam Polyethylene
Outer Conductor	mm (in)	6.5 (0.26) Corrugated Copper
Jacket	mm (in)	7.8 (0.31) Polyethylene, PE
ELECTRICAL SPECIFICATIONS		
Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	20.4
Velocity	%	82
Capacitance	pF/m (pF/ft)	82 (25)
Inductance	µH/m (µH/ft)	0.207 (0.063)
Peak Power Rating	kW	5.5
RF Peak Voltage	Volts	740
Jacket Spark	Volt RMS	5000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	10.4 (3.17)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	6.6 (2.01)
Return Loss (VSWR) Performance		Standard
Maximum Return Loss	dB (VSWR)	Contact RFS for your VSWR performance specification for your required frequency band.
Phase Stabilized		Phase stabilized and phase matched cables and assemblies are available upon request.
Temperature & Power		Standard
MECHANICAL SPECIFICATIONS		
Cable Weight	kg/m (lb/ft)	0.07 (0.05)
Minimum Bending Radius, Repeated Bends	mm (in)	25 (1)
Bending Moment	Nm (lb*ft)	0.7 (0.5)
Tensile Strength	N (lb)	600 (135)
Recommended / Maximum Clamp Spacing	m (ft)	0.2 / 0.2 (0.67 / 0.67)

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ATTENUATION AND POWER RATING

Frequency MHz	Attenuation dB/100m	Attenuation dB/100ft	Power kW
0.5	0.40	0.122	5.50
1	0.57	0.173	5.50
1.5	0.70	0.212	5.50
2	0.80	0.245	5.50
10	1.81	0.55	3.66
20	2.56	0.781	2.58
30	3.15	0.96	2.10
50	4.08	1.24	1.62
88	5.45	1.66	1.21
100	5.82	1.77	1.14
108	6.06	1.85	1.09
150	7.17	2.19	0.922
174	7.75	2.36	0.854
200	8.33	2.54	0.794
300	10.30	3.13	0.643
400	12.00	3.65	0.553
450	12.70	3.88	0.519
500	13.50	4.10	0.491
512	13.60	4.15	0.485
600	14.80	4.52	0.446
700	16.10	4.91	0.411
800	17.30	5.27	0.382
824	17.60	5.35	0.376
894	18.40	5.59	0.36
900	18.40	5.61	0.359
925	18.70	5.70	0.354
960	19.10	5.81	0.347
1000	19.50	5.94	0.339
1250	22.00	6.71	0.30
1500	24.30	7.41	0.272
1700	26.10	7.94	0.254
1800	26.90	8.20	0.246
2000	28.50	8.69	0.232
2100	29.30	8.93	0.226
2200	30.10	9.20	0.22
2400	31.60	9.60	0.209
3000	35.80	10.90	0.185
3500	39.10	11.90	0.169
4000	42.20	12.90	0.157
5000	48.00	14.60	0.138
6000	53.40	16.30	0.124
7000	58.60	17.80	0.113
8000	63.40	19.30	0.104
9000	68.10	20.80	0.097
10000	72.60	22.10	0.091
12000	81.00	24.80	0.081
14000	89.00	27.20	0.074
16000	97.00	29.60	0.068
18000	105.00	31.90	0.063
20000	112.00	34.20	0.059
20400	113.00	34.60	0.058

Attenuation at 20°C (68°F) cable temperature; tolerance +/- 5% max.; Mean power rating at 40°C (104°F) ambient temperature

TESTING AND ENVIRONMENTAL

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

External Document Links

Notes

Phase stabilized versions available upon request.