



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

Product Description

CELLFLEX® 1/4" 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.

Technical Features

Cable Type	Foam-Dielectric, Superflexible
Size	1/4"
Fire Performance	Halogene Free
Return Loss (VSWR) Performance	Standard
Jacket Option	Black
Temperature & Power	Standard
Inner Conductor Material	Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in)	1.9 (0.075)
Diameter Dielectric, mm (in)	4.3 (0.170)
Outer Conductor Material	Corrugated Copper
Diameter Outer Conductor, mm (in)	6.5 (0.26)
Jacket Material	Polyethylene, PE
Diameter over Jacket Nominal, mm (in)	7.8 (0.31)
Cable Weight, kg/m (lb/ft)	0.07 (0.05)
Minimum Bending Radius, Repeated Bends, mm (in)	25 (1.0)
Bending Moment, Nm (lb-ft)	0.7 (0.5)
Flat Plate Crush Strength, N/mm (lb/in)	18.4 (100)
Tensile Strength, N (lb)	600 (135)
Recommended / Maximum Clamp Spacing, m (ft)	0.20 / 0.20 (0.67 / 0.67)



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Impedance, Ohm	50 +/- 1
Maximum Frequency, GHz	20.4
Velocity, percent	82
Capacitance, pF/m (pF/ft)	82.0 (25.0)
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, ohm/1000 m (ohm/1000 ft)	10.40 (3.17)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	6.60 (2.01)
Maximum Return Loss, dB (VSWR)	Contact RFS for your VSWR performance specification for your required frequency band.
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)
Phase Stabilized	Phase stabilized and phase matched cables and assemblies are available upon request.
Applications	OEM jumpers, BTS inter-cabinet connections, GPS lines
Notes	
Phase stabilized versions available upon request.	



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SCF14-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft.	Average Power kW
0.5	0.401	0.122	5.50
1	0.568	0.173	5.50
1.5	0.696	0.212	5.50
2	0.804	0.245	5.50
10	1.81	0.550	3.66
20	2.56	0.781	2.58
30	3.15	0.960	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	10.3	3.13	0.643
400	12.0	3.65	0.553
450	12.7	3.88	0.519
500	13.5	4.10	0.491
512	13.6	4.15	0.485
600	14.8	4.52	0.446
700	16.1	4.91	0.411
800	17.3	5.27	0.382
824	17.6	5.35	0.376
894	18.4	5.60	0.360
900	18.4	5.62	0.359
925	18.7	5.70	0.354
960	19.1	5.81	0.347
1000	19.5	5.94	0.339
1250	22.0	6.71	0.300
1500	24.3	7.41	0.272
1700	26.1	7.94	0.254
1800	26.9	8.20	0.246
2000	28.5	8.69	0.232
2100	29.3	8.93	0.226
2200	30.1	9.17	0.220
2400	31.6	9.62	0.209
3000	35.8	10.9	0.185
3500	39.1	11.9	0.169
4000	42.2	12.9	0.157
5000	48.0	14.6	0.138
6000	53.4	16.3	0.124
7000	58.6	17.9	0.113
8000	63.4	19.3	0.104
9000	68.1	20.8	0.097
10000	72.6	22.1	0.091
12000	81.2	24.8	0.081
14000	89.4	27.2	0.074
16000	97.2	29.6	0.068
18000	104.7	31.9	0.063
20000	112	34.2	0.059
20400	113	34.6	0.058

Standard Conditions:

For attenuation: VSWR 1.0, cable temperature 20° C (68° F).

For average power: VSWR 1.0, ambient temperature 40° C (104° F),
inner conductor temperature 100° C (212° F). No solar loading.