



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

CELLFLEX® 1/4" superflexible cable; flame retardant/ halogen free jacket

## 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.



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## Technical Features

### APPLICATIONS

Applications	OEM jumpers, BTS inter-cabinet connections, GPS lines, Riser-rated In-Building
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### 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, Metalhydroxite Filling

### ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	20.4
Velocity	%	82.0
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	740.0
Jacket Spark	Volt RMS	5000.0
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
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		Power kW
	dB/100m	dB/100ft	
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

<b>Fire Performance</b>	Flame Retardant, LS0H
<b>Flame Retardant Jacket Specifications</b>	Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1, -3.C; UL 1581; UL 1666; NEC type CATVR
<b>Installation Temperature</b>	-25 to 60 (-13 to 140) °C(°F)
<b>Storage Temperature</b>	-70 to 85 (-94 to 185) °C(°F)
<b>Operation Temperature</b>	-50 to 85 (-58 to 185) °C(°F)

### External Document Links

### Notes

Phase stabilized versions available upon request.