



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.

• **Meets or Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C)**



1/4" CELLFLEX® Superflexible Foam Dielectric Coaxial Cable

**External Document Links**

**Notes**

Phase stabilized versions available upon request.

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**Technical features**

**APPLICATIONS**

Applications	Indoor	Wireless Communication	HF Defense	Microwave	Mobile Radio	Cable Solutions

**STRUCTURE**

Size		1/4
Jacket Option		Black
Inner Conductor Diameter	mm (in)	1.9 (0.075)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric Diameter	mm (in)	4.3 (0.17)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	6.5 (0.26)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	7.8 (0.31)
Jacket Material		Polyethylene, PE, Metalhydroxite Filling
Cable Type		Foam-Dielectric, Superflexible



**TESTING AND ENVIRONMENTAL**

<b>Fire Performance</b>		Flame Retardant, LSOH
<b>Flame Retardant Jacket Specifications</b>		Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1, -3.C; UL 1581; UL 1666; NEC type CATVR; EN45545-2(GER production)
<b>Installation Temperature</b>	°C(°F)	-25 to 60 (-13 to 140)
<b>Storage Temperature</b>	°C (°F)	-70 to 85 (-94 to 185)
<b>Operation Temperature</b>	°C(°F)	-50 to 85 (-58 to 185)

**ELECTRICAL SPECIFICATIONS**

<b>Impedance</b>	Ω	50 +/- 1
<b>Maximum Frequency</b>	GHz	20.4
<b>Velocity</b>	%	81
<b>Capacitance</b>	pF/m (pF/ft)	82 (25)
<b>Inductance</b>	uH/m (uH/ft)	0.207 (0.063)
<b>Peak Power Rating</b>	kW	5.5
<b>RF Peak Voltage</b>	Volts	740
<b>Jacket Spark</b>	Volt RMS	5000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	10.5 (3.19)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	9 (2.74)
<b>Return Loss (VSWR) Performance</b>		Standard (for 40-2700, 3300-4200, 4400-5925 MHz) or Premium
<b>Min. Return Loss (Max. VSWR)</b>	dB (VSWR)	Standard 20 (1.222), Premium 24 (1.135)/ 23 (1.152)
<b>Phase Stabilized</b>		Phase stabilized and phase matched cables and assemblies are available upon request.
<b>Temperature &amp; Power</b>		Standard

**MECHANICAL SPECIFICATIONS**

<b>Cable Weight, Nominal</b>	kg/m (lb/ft)	0.07 (0.05)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	25 (1)
<b>Bending Moment</b>	Nm (lb-ft)	0.7 (0.5)
<b>Tensile Strength</b>	N (lb)	600 (135)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.2 / 0.2 (0.67 / 0.67)



**ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)**

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.40	0.12	5.50
1	0.57	0.17	5.50
1.5	0.70	0.21	5.50
2	0.80	0.25	5.50
10	1.81	0.55	3.66
20	2.56	0.78	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	0.92
174	7.75	2.36	0.85
200	8.33	2.54	0.79
300	10.30	3.13	0.64
400	12	3.65	0.55
450	12.70	3.88	0.52
500	13.50	4.10	0.49
512	13.60	4.15	0.49
600	14.80	4.52	0.45
700	16.10	4.91	0.41
800	17.30	5.27	0.38
824	17.60	5.35	0.38
894	18.40	5.59	0.36
900	18.40	5.61	0.36
925	18.70	5.70	0.35
960	19.10	5.81	0.35
1000	19.50	5.94	0.34
1250	22	6.71	0.30
1500	24.30	7.41	0.27
1700	26.10	7.94	0.25
1800	26.90	8.20	0.25
2000	28.50	8.69	0.23
2100	29.30	8.93	0.23
2200	30.10	9.20	0.22
2400	31.60	9.60	0.21
3000	35.80	10.90	0.19
3500	39.10	11.90	0.17
4000	42.20	12.90	0.16
5000	48	14.60	0.14



**SCF14-50JFN**

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6000	53.40	16.30	0.12
7000	58.60	17.80	0.11
8000	63.40	19.30	0.10
9000	68.10	20.80	0.10
10000	72.60	22.10	0.09
12000	81	24.80	0.08
14000	89	27.20	0.07
16000	97	29.60	0.07
18000	105	31.90	0.06
20000	112	34.20	0.06
20400	113	34.60	0.06