



SCF14-50JFN
1/4" CELLFLEX® Superflexible Foam-Dielectric Coaxial Cable



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

Feature / 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/Exceeds:** IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24; EN45545-2; [EN50575](#)

Technical features

APPLICATIONS

Applications	Indoor	Wireless Communication	HF Defense	Microwave	Mobile Radio	Cable Solutions
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STRUCTURE

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

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, LS0H
Installation Temperature	-25°C to 60°C (-13°F to 140°F)
Storage Temperature	-70°C to 85°C (-94°F to 185°F)
Operation Temperature	-50°C to 85°C (-58°F to 185°F)



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ELECTRICAL SPECIFICATIONS

Impedance	50 +/- 1 Ω
Maximum Frequency	20.4 GHz
Velocity	81 %
Capacitance	82pF/m (25pF/ft)
Inductance	0.207 μ H/m (0.063 μ H/ft)
Peak Power Rating	5.5 kW
RF Peak Voltage	740 Volts
Jacket Spark	5000 Volt RMS
Inner Conductor dc Resistance	10.5ohm/1000 m (3.19ohm/1000 ft)
Outer Conductor dc Resistance	9ohm/1000 m (2.74ohm/1000 ft)
Passive Intermodulation PIM	-160 typ. dBc
Return Loss (VSWR) Performance	Standard (for 40-2700, 3300-4200, 4400-5925 MHz) or Premium
Phase Stabilized	Phase stabilized and phase matched cables and assemblies are available upon request.

MECHANICAL SPECIFICATIONS

Cable Weight	0.07kg/m (0.05lb/ft)
Minimum Bending Radius	25mm (1in)
Bending Moment	0.7 (0.5)
Tensile Strength	600N (135lb)
Recommended / Maximum Clamp Spacing	0.2 / 0.2 (0.67 / 0.67)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
100	5.82	1.77	1.14
200	8.33	2.54	0.794
450	12.7	3.88	0.519
800	17.3	5.27	0.382
900	18.4	5.61	0.359
1800	26.9	8.2	0.246
2000	28.5	8.69	0.232
2200	30.1	9.2	0.22
2400	31.6	9.6	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	14.6	0.138
6000	53.4	16.3	0.124
7000	58.6	17.8	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	24.8	0.081
14000	89	27.2	0.074
16000	97	29.6	0.068
18000	105	31.9	0.063
20000	112	34.2	0.059
20400	113	34.6	0.058

External Document Links

Notes

NOTES

Phase stabilized versions available upon request.