



SCF38-50JFN  
3/8" CELLFLEX® Superflexible Foam-Dielectric Coaxial Cable



CELLFLEX® 3/8" 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 cables 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; [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	3/8
Jacket Option	Black
Inner Conductor Diameter	2.6mm (0.1in)
Inner Conductor Material	Copper-Clad Aluminum Wire
Dielectric Diameter	6.3mm (0.25in)
Dielectric Material	Foam Polyethylene
Outer Conductor Diameter	9.1mm (0.36in)
Outer Conductor Material	Corrugated Copper
Jacket Diameter	10.2mm (0.4in)
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 $\Omega$
Maximum Frequency	13.4 GHz
Velocity	81 %
Capacitance	82pF/m (25pF/ft)
Inductance	0.207 $\mu$ H/m (0.063 $\mu$ H/ft)
Peak Power Rating	11.9 kW
RF Peak Voltage	1090 Volts
Jacket Spark	5000 Volt RMS
Inner Conductor dc Resistance	5.3ohm/1000 m (1.68ohm/1000 ft)
Outer Conductor dc Resistance	5.6ohm/1000 m (2.23ohm/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	0.12kg/m (0.06lb/ft)
Minimum Bending Radius	25mm (1in)
Bending Moment	1.4 (1)
Tensile Strength	600N (135lb)
Recommended / Maximum Clamp Spacing	0.25 / 0.25 (0.8 / 0.8)



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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	4.21	1.283	1.88
200	6.04	1.842	1.31
450	9.31	2.84	0.85
800	12.73	3.88	0.62
900	13.58	4.14	0.58
1800	20.05	6.11	0.394
2000	21.3	6.49	0.371
2200	22.5	6.86	0.351
2400	23.7	7.21	0.334
3000	27	8.22	0.296
3500	29.5	8.22	0.293
4000	32	9.75	0.247
5000	36.6	11.16	0.216
6000	41	12.48	0.193
7000	45.1	13.74	0.175
8000	49	14.94	0.161
9000	52.8	16.09	0.15
10000	56.5	17.21	0.14
12000	63.5	19.37	0.124
13400	68.3	20.82	0.116

External Document Links

Notes

**NOTES**  
Phase stabilized versions available upon request.