

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

CELLFLEX® 3/8" superflexible cable support CBRS, C-Band and LAA up to 6GHz; 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 Technologies 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)

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Technical features**APPLICATIONS**

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

Size		3/8
Jacket Option		Black
Inner Conductor Diameter	mm (in)	2.6 (0.1)
Inner Conductor Material		Copper-Clad Aluminum Wire
Dielectric Diameter	mm (in)	6.3 (0.25)
Dielectric Material		Foam Polyethylene
Outer Conductor Diameter	mm (in)	9.1 (0.36)
Outer Conductor Material		Corrugated Copper
Jacket Diameter	mm (in)	10.2 (0.4)
Jacket Material		Polyethylene, PE, Metalhydroxite Filling
Cable Type		Foam-Dielectric, Superflexible



TESTING AND ENVIRONMENTAL

Fire Performance		Flame Retardant, LS0H
Flame Retardant Jacket Specifications		Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1, -3.C; UL 1581; UL 1666; NEC type CATVR; CPR: https://products.rfsworld.com/userfiles/cpr/rfs-products-cpr-compliance.pdf
Installation Temperature	°C(°F)	-25 to 60 (-13 to 140)
Storage Temperature	°C (°F)	-70 to 85 (-94 to 185)
Operation Temperature	°C(°F)	-50 to 85 (-58 to 185)

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50 +/- 1
Maximum Frequency	GHz	13.4
Velocity	%	81
Capacitance	pF/m (pF/ft)	82 (25)
Inductance	uH/m (uH/ft)	0.207 (0.063)
Peak Power Rating	kW	11.9
RF Peak Voltage	Volts	1090
Jacket Spark	Volt RMS	5000
Inner Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	5.3 (1.68)
Outer Conductor dc Resistance	Ω/1000 m (Ω/1000 ft)	5.6 (2.23)
Return Loss (VSWR) Performance		20 (1.22) @ 450-617 MHz 24 (1.13) @ 617-960 MHz 24 (1.13) @ 1695-2200 MHz 20 (1.22) @ 2300-2700 MHz 18 (1.28) @ 3500-4200 MHz 16 (1.37) @ 5150-6000 MHz
Phase Stabilized		Phase stabilized and phase matched cables and assemblies are available upon request.
Temperature & Power		Standard

MECHANICAL SPECIFICATIONS

Cable Weight, Nominal	kg/m (lb/ft)	0.12 (0.06)
Minimum Bending Radius, Repeated Bends	mm (in)	25 (1)
Bending Moment	Nm (lb-ft)	1.4 (1)
Tensile Strength	N (lb)	600 (135)
Recommended / Maximum Clamp Spacing	m (ft)	0.25 / 0.25 (0.8 / 0.8)



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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.29	0.09	11.90
1	0.41	0.12	11.90
1.5	0.50	0.15	11.90
2	0.58	0.18	11.90
10	1.30	0.40	6.10
20	1.84	0.56	4.29
30	2.27	0.69	3.49
50	2.94	0.90	2.68
88	3.94	1.20	2.01
100	4.21	1.28	1.88
108	4.38	1.34	1.80
150	5.20	1.58	1.52
174	5.62	1.71	1.41
200	6.04	1.84	1.31
300	7.49	2.28	1.05
400	8.74	2.66	0.90
450	9.31	2.84	0.85
500	9.85	3	0.80
512	9.98	3.04	0.79
600	10.87	3.31	0.73
700	11.83	3.61	0.67
800	12.73	3.88	0.62
824	12.94	3.94	0.61
894	13.53	4.12	0.58
900	13.58	4.14	0.58
925	13.79	4.20	0.57
960	14.08	4.29	0.56
1000	14.40	4.39	0.55
1250	16.31	4.97	0.48
1500	18.08	5.51	0.44
1700	19.41	5.92	0.41
1800	20.05	6.11	0.39
2000	21.30	6.49	0.37
2100	21.90	6.68	0.36
2200	22.50	6.86	0.35
2400	23.70	7.21	0.33



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3000	27	8.22	0.30
3500	29.50	8.22	0.29
4000	32	9.75	0.25
5000	36.60	11.16	0.22
6000	41	12.48	0.19
7000	45.10	13.74	0.18
8000	49	14.94	0.16
9000	52.80	16.09	0.15
10000	56.50	17.21	0.14
12000	63.50	19.37	0.12
13400	68.30	20.82	0.12

External Document Links

Notes

Phase stabilized versions available upon request.
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