PRODUCT DATASHEET

SCF38-50JFN

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

CELLFLEX® 3/8" superflexible cable; flame retardant/ halogen free jacket

FEATURES / BENEFITS

- **Low Attenuation**
  The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transferin 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)**

3/8" CELLFLEX® Superflexible Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

Applications		Indoor	Wireless Communication	HF Defense	Microwave	Mobile Radio	Cable Solutions

STRUCTURE

Cable Type		Foam-Dielectric, Superflexible
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

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://www.rfsworld.com/searchengine/construction-products-regulation-cpr
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		Standard (for 40-2700, 3300-4200, 4400-5925 MHz) or Premium
Min. Return Loss (Max. VSWR)	dB (VSWR)	Standard 20 (1.222), Premium 24 (1.135)/ 23 (1.152)
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
1	0.41	0.12	11.90
100	4.21	1.28	1.88
200	6.04	1.84	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	0.39
2000	21.30	6.49	0.37
2200	22.50	6.86	0.35
2400	23.70	7.21	0.33
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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