



LCF38-50JFN  
3/8" CELLFLEX® Low-Loss Foam-Dielectric Coaxial Cable



CELLFLEX® 3/8" low loss flexible 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, Corrugated
Size	3/8
Inner Conductor Diameter	3.1mm (0.12in)
Inner Conductor Material	Copper-Clad Aluminum Wire
Dielectric Diameter	7.2mm (0.28in)
Dielectric Material	Foam Polyethylene
Outer Conductor Diameter	9.5mm (0.37in)
Outer Conductor Material	Corrugated Copper
Jacket Diameter	11.2mm (0.44in)
Jacket Material	Black Polyethylene, 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 +/- 1.5 $\Omega$
Maximum Frequency	13.5 GHz
Velocity	88 %
Capacitance	76pF/m (23.2pF/ft)
Inductance	0.19 $\mu$ H/m (0.058 $\mu$ H/ft)
Peak Power Rating	15.4 kW
RF Peak Voltage	1240 Volts
Jacket Spark	5000 Volt RMS
Inner Conductor dc Resistance	3.8ohm/1000 m (1.16ohm/1000 ft)
Outer Conductor dc Resistance	2.9ohm/1000 m (0.88ohm/1000 ft)
Return Loss (VSWR) Performance	Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies
Phase Stabilized	Phase stabilized and phase matched cables and assemblies are available upon request.

**MECHANICAL SPECIFICATIONS**

Cable Weight	0.12kg/m (0.08lb/ft)
Minimum Bending Radius	50mm (2in)
Minimum Bending Radius	95mm (4in)
Bending Moment	1.9 (1.4)
Tensile Strength	530N (119lb)
Recommended / Maximum Clamp Spacing	0.5 / 1 (1.75 / 3.25)

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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
100	3.43	1.04	2.12
200	4.89	1.49	1.48
450	7.44	2.27	0.975
700	9.38	2.86	0.773
800	10.1	3.07	0.72
900	10.7	3.27	0.677
1800	15.5	4.74	0.467
2000	16.5	5.01	0.441
2200	17.3	5.28	0.418
2400	18.2	5.54	0.399
3000	20.5	6.26	0.353
3500	22.4	6.82	0.324
4000	24.1	7.35	0.301
5000	27.4	8.34	0.265
13500	48.8	14.9	0.149

External Document Links

Notes