

**LCF14-50JFN**

1/4" CELLFLEX® Low loss Flexible Cable; Flame Retardant/ Halogen Free Jacket



CELLFLEX® 1/4" 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 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; [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	1/4
Jacket Option	Black
Inner Conductor Diameter	2.4mm (0.09in)
Inner Conductor Material	Copper-Clad Aluminum Wire
Dielectric Diameter	6mm (0.24in)
Dielectric Material	Foam Polyethylene
Outer Conductor Diameter	7.5mm (0.3in)
Outer Conductor Material	Corrugated Copper
Jacket Diameter	10mm (0.39in)
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 +/- 1.5 Ω
Maximum Frequency	15.8 GHz
Velocity	83 %
Capacitance	80pF/m (24pF/ft)
Inductance	0.205μH/m (0.063μH/ft)
Peak Power Rating	10.9 kW
RF Peak Voltage	1050 Volts
Jacket Spark	5000 Volt RMS
Inner Conductor dc Resistance	6.1ohm/1000 m (1.86ohm/1000 ft)
Outer Conductor dc Resistance	4.4ohm/1000 m (1.34ohm/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	0.11kg/m (0.074lb/ft)
Minimum Bending Radius	40mm (1.6in)
Minimum Bending Radius	85mm (3.3in)
Bending Moment	1.9 (1.4)
Tensile Strength	890N (200lb)
Recommended / Maximum Clamp Spacing	0.5 / 1 (1.75 / 3.25)



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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
1	0.412	0.126	10.9
100	4.2	1.28	1.73
200	6	1.83	1.21
450	9.13	2.78	0.798
800	12.4	3.77	0.589
900	13.2	4.01	0.554
1800	19.1	5.82	0.381
2000	20.2	6.16	0.36
2100	20.8	6.33	0.351
2200	21.3	6.49	0.342
2400	22.3	6.81	0.326
3000	25.3	7.7	0.288
3500	27.5	8.39	0.265
4000	29.7	9.05	0.245
5000	33.7	10.3	0.216
6000	37.4	11.4	0.195
7000	40.8	12.4	0.178
8000	44.1	13.5	0.165
9000	47.3	14.4	0.154
10000	50.3	15.3	0.145
12000	56.1	17.1	0.13
14000	61.5	18.8	0.118
15800	66.2	20.2	0.11

External Document Links

Notes
Phase stabilized versions available upon request.

NOTES

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