

**LCFS114-50JFNL**

1-1/4" CELLFLEX® Lite Low-Loss Foam-Dielectric Coaxial Cable, Flame Retardant Jacket



CELLFLEX® Lite 1-1/4" low loss cable

Features / Benefits

- **Ultra Low Attenuation**
The reduced attenuation of CELLFLEX® coaxial cable results in extremely efficient signal transfer in your RF system, especially at high frequencies.
- **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.

Technical Features**STRUCTURE**

Cable Type	LCF
Size	1-1/4"
Jacket Option	Indoor
Inner Conductor Material	Copper Tube
Dielectric Material	Foam Polyethylene
Outer Conductor Material	Corrugated Aluminium
Jacket Material	Black Polyethylen, Metalhydroxite Filling



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MECHANICAL SPECIFICATION

Inner Conductor Diameter	13.1mm (0.52in)
Dielectric Diameter	31.2mm (1.23in)
Outer Conductor Diameter	35.9mm (1.41in)
Jacket Diameter	38.9mm (1.53in)
Cable Weight	0.75kg/m (0.504lb/ft)
Min. Bending Radius, Single Bend	200mm (8in)
Min. Bending Radius, Repeated Bends	380mm (15in)
Bending Moment	38Nm (28.044ft-lbf)
Tensile Strength	2,000N (450lb)
Max. Pulling Length per Hoisting Grip	60m (2,362.205in)
Recommended Clamp Spacing	1m (3.281ft)
Max. Clamp Spacing	1.2m (3.937ft)

ELECTRICAL SPECIFICATION

Impedance	50 ±1 Ω
Max. Operating Frequency	3.7 GHz
Velocity	89 %
Capacitance	75pF/m (22.9pF/ft)
Inductance	0.185µH/m (0.056µH/ft)
Peak Power Rating	176 kW
RF Peak Voltage	4.2 kV
Jacket Spark	10 kV
DC-Resistance Inner Conductor	0.83Ω/km (0.253Ω/kft)
DC-Resistance Outer Conductor	0.9Ω/km (0.274Ω/kft)
Return Loss (VSWR) Performance	Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies.

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TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, Halogen Free, Low Smoke
Compliance	RoHS 2011/65/EU China RoHS SJ/T 11364-2006 REACH (EC 1907/2006) IEC 60754-1/-2 Halogen Acid Gases IEC 60332-1 Single-Cable Flame Test IEC 61034-1, -2 Smoke Density Measurement
Installation Temperature, Minimum	-25°C (-13°F)
Installation Temperature, Maximum	60°C (140°F)
Storage Temperature, Minimum	-70°C (-94°F)
Storage Temperature, Maximum	85°C (185°F)
Operation Temperature, Minimum	-50°C (-58°F)
Operation Temperature, Maximum	85°C (185°F)

ATTENUATION AND POWER RATING

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
88	0.831	0.253	13.6
100	0.887	0.27	12.8
150	1.1	0.334	10.3
200	1.27	0.388	8.91
450	1.95	0.596	5.8
700	2.48	0.756	4.56
800	2.67	0.813	4.24
894	2.83	0.864	4
900	2.84	0.867	3.98
960	2.95	0.898	3.83
1800	4.18	1.27	2.71
2000	4.44	1.35	2.55
2200	4.69	1.43	2.41
2500	5.04	1.54	2.24
2600	5.16	1.57	2.19
2700	5.27	1.61	2.15
3000	5.6	1.71	2.02
3300	5.92	1.81	1.91
3600	6.23	1.9	1.82
Note	Standard Conditions: For attenuation: VSWR 1.0, cable temperature 20°C (68°F). For average power: VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F). No solar loading.		