



LCF158-50CPR

1-5/8" CELLFLEX® Low-Loss Foam-Dielectric Coaxial Cable, Flame Retardant Jacket



CELLFLEX® 1-5/8" 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	1-5/8"
Jacket Option	Indoor
Inner Conductor Material	Corrugated Copper Tube
Dielectric Material	Foam Polyethylen
Outer Conductor Material	Corrugated Copper
Jacket Material	Black Polyethylen, Metalhydroxite Filling

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MECHANICAL SPECIFICATION

Inner Conductor Diameter	17.6mm (0.693in)
Dielectric Diameter	40.9mm (1.61in)
Outer Conductor Diameter	46.4mm (1.827in)
Jacket Diameter	50.2mm (1.976in)
Cable Weight	1.25kg/m (0.84lb/ft)
Min. Bending Radius, Single Bend	200mm (7.874in)
Min. Bending Radius, Repeated Bends	500mm (19.685in)
Bending Moment	42Nm (30.996ft-lbf)
Tensile Strength	2,500N (562.022lb)
Max. Pulling Length per Hoisting Grip	60m (2,362.205in)
Recommended Clamp Spacing	1.2m (3.937ft)
Max. Clamp Spacing	1.5m (4.921ft)

ELECTRICAL SPECIFICATION

Impedance	50 $\pm$ 1 Ω
Max. Operating Frequency	2.75 GHz
Velocity	90 %
Capacitance	74pF/m (22.555pF/ft)
Peak Power Rating	310 kW
RF Peak Voltage	5.6 kV
Jacket Spark	5 kV
DC-Resistance Inner Conductor	1.3 Ω /km (0.396 Ω /kft)
DC-Resistance Outer Conductor	0.47 Ω /km (0.143 Ω /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 IEC 60754-1/-2 Halogen Acid Gases REACH (EC 1907/2006) IEC 60332-1 Single-Cable Flame Test IEC 61034-1, -2 Smoke Density Measurement EN 50575:2014 + A1:2016 Construction Products Regulation
Phase Stabilized	Phase stabilized and phase matched cables are available upon request.
Installation Temperature, Minimum	-15°C (5°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
75	0.55	0.17	20.22
100	0.64	0.20	17.40
150	0.80	0.24	14.06
200	0.93	0.28	12.06
450	1.44	0.44	7.78
700	1.84	0.56	6.1
800	1.98	0.6	5.66
870	2.08	0.63	5.4
900	2.12	0.65	5.29
960	2.2	0.67	5.1
1800	3.16	0.96	3.55
2000	3.36	1.02	3.34
2200	3.56	1.08	3.15
2400	3.74	1.14	2.99
2600	3.93	1.2	2.85
2700	4.02	1.22	2.79
2750	4.06	1.24	2.76
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.		

NOTES

LCFXX-50JTC: TC cables (temperature cycled) are cables that are aged in order to reduce hysteresis effects. Available upon request.