

CELLFLEX® Cable

LCF38-50 Series 3/8" Low-Loss Foam Coax



APPLICATIONS

OEM jumpers, BTS inter-cabinet connections, GPS lines, Riser-rated In-Building (JFN types)

GENERAL INFORMATION

Cable Type	Foam-Dielectric, Corrugated
Size	3/8"

STRUCTURE

Inner Conductor Material	Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in)	3.1 (0.12)
Diameter Dielectric, mm (in)	7.2 (0.28)
Outer Conductor Material	Corrugated Copper
Diameter Copper Outer Conductor, mm (in)	9.5 (0.37)
Diameter over Jacket Nominal, mm (in)	11.2 (0.44)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft)	0.12 (0.08)
Minimum Bending Radius, Single Bend, mm (in)	50 (2)
Minimum Bending Radius, Repeated Bends, mm (in)	95 (4)
Bending Moment, N•m (lb-ft)	1.9 (1.4)
Flat Plate Crush Strength, N/mm (lb/in)	20.4 (110)
Tensile Strength, N (lb)	530 (119)
Recommended / Maximum Clamp Spacing, m (ft)	0.5 / 1.0 (1.75 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, ohm	50 +/- 1.5
Velocity, percent	88
Capacitance, pF/m (pF/ft)	76.0 (23.2)
Inductance, µH/m (µH/ft)	0.190 (0.058)
Maximum Frequency, GHz	13.5
Peak Power Rating, kW	15.4
RF Peak Voltage, volts	1240
Jacket Spark, volt RMS	5000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft)	3.8 (1.16)
Outer Conductor dc Resistance, ohm/1000 m (ohm/1000 ft)	2.9 (0.88)

See Installation, Operation and Storage Temperatures on page 16.

CONNECTORS AND ACCESSORIES

Connectors	See pages 53-55
Jumpers	See pages 60-65
Accessories	See pages 75-80
Coaxial Devices	See pages 84-85
Technical Appendix	See pages 831-840

LCF38-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft.	Average Power kW
0.5	0.237	0.072	15.4
1	0.336	0.102	15.4
1.5	0.412	0.125	15.4
2	0.476	0.145	15.2
10	1.0673	0.325	6.79
20	1.51	0.461	4.79
30	1.86	0.566	3.90
50	2.41	0.734	3.01
88	3.21	0.978	2.26
100	3.43	1.04	2.12
108	3.56	1.09	2.04
150	4.21	1.29	1.72
174	4.55	1.39	1.59
200	4.89	1.49	1.48
300	6.02	1.84	1.20
400	7.00	2.13	1.04
450	7.44	2.27	0.975
500	7.86	2.40	0.923
512	7.96	2.43	0.911
600	8.65	2.64	0.838
700	9.38	2.86	0.773
800	10.1	3.07	0.720
824	10.2	3.12	0.709
894	10.7	3.26	0.679
900	10.7	3.27	0.677
925	10.9	3.32	0.667
960	11.1	3.38	0.654
1000	11.3	3.46	0.640
1250	12.8	3.89	0.568
1500	14.1	4.29	0.515
1700	15.1	4.60	0.481
1800	15.5	4.74	0.467
2000	16.5	5.02	0.441
2100	16.9	5.15	0.429
2200	17.3	5.29	0.418
2400	18.2	5.55	0.399
3000	20.5	6.27	0.353
3500	22.4	6.83	0.324
4000	24.1	7.36	0.301
4900	27.0	8.25	0.268
6000	30.3	9.26	0.239
7000	33.2	10.12	0.219
8000	35.8	10.94	0.202
9000	38.4	11.72	0.189
10000	40.8	12.47	0.178
12000	45.5	13.89	0.159
13500	48.8	14.91	0.149

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.

ORDERING INFORMATION

Model Number	Jacket
LCF38-50J	Standard
LCF38-50JFN	Flame Retardant

Phase stabilized versions available upon request.