

CELLFLEX® Cable

SCF14-50 Series 1/4" Superflexible Foam Coax



APPLICATIONS

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

GENERAL INFORMATION

Cable Type Foam-Dielectric, Superflexible
Size 1/4"

STRUCTURE

Inner Conductor Material Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in) 1.9 (0.075)
Diameter Dielectric, mm (in) 4.3 (0.170)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 6.5 (0.26)
Diameter over Jacket Nominal, mm (in) 7.8 (0.31)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.07 (0.05)
Minimum Bending Radius, Repeated Bends, mm (in) 25 (1.0)
Bending Moment, N•m (lb-ft) 0.7 (0.5)
Flat Plate Crush Strength, N/mm (lb/in) 18.4 (100)
Tensile Strength, N (lb) 600 (135)
Recommended / Maximum Clamp Spacing, m (ft) 0.20 / 0.20 (0.67 / 0.67)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 82
Capacitance, pF/m (pF/ft) 82.0 (25.0)
Inductance, µH/m (µH/ft) 0.207 (0.063)
Maximum Frequency, GHz 20.4
Peak Power Rating, kW 5.5
RF Peak Voltage, Volts 740
Jacket Spark, Volt RMS 5000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 10.40 (3.17)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 6.60 (2.01)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
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Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

SCF14-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.401	0.122	5.50
1.0	0.568	0.173	5.50
1.5	0.696	0.212	5.50
2.0	0.804	0.245	5.50
10	1.81	0.550	3.66
20	2.56	0.781	2.58
30	3.15	0.960	2.10
50	4.08	1.24	1.62
88	5.45	1.66	1.21
100	5.82	1.77	1.14
108	6.06	1.85	1.09
150	7.17	2.19	0.922
174	7.75	2.36	0.854
200	8.33	2.54	0.794
300	10.3	3.13	0.643
400	12.0	3.65	0.553
450	12.7	3.88	0.519
500	13.5	4.10	0.491
512	13.6	4.15	0.485
600	14.8	4.52	0.446
700	16.1	4.91	0.411
800	17.3	5.27	0.382
824	17.6	5.35	0.376
894	18.4	5.59	0.360
900	18.4	5.61	0.359
925	18.7	5.70	0.354
960	19.1	5.81	0.347
1000	19.5	5.94	0.339
1250	22.0	6.71	0.300
1500	24.3	7.41	0.272
1700	26.1	7.94	0.254
1800	26.9	8.20	0.246
2000	28.5	8.69	0.232
2100	29.3	8.93	0.226
2200	30.1	9.2	0.220
2400	31.6	9.6	0.209
3000	35.8	10.9	0.185
3500	39.1	11.9	0.169
4000	42.2	12.9	0.157
5000	48.0	14.6	0.138
6000	53.4	16.3	0.124
7000	58.6	17.9	0.113
8000	63.4	19.3	0.104
9000	68.1	20.8	0.097
10000	72.6	22.1	0.091
12000	81	24.8	0.081
14000	89	27.2	0.074
16000	97	29.6	0.068
18000	105	31.9	0.063
20000	112	34.2	0.059
20400	113	34.6	0.058

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
SCF14-50J	Standard
SCF14-50JFN	Flame Retardant



CELLFLEX® Cable

SCF38-50 Series 3/8" Superflexible Foam Coax



APPLICATIONS

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

GENERAL INFORMATION

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

STRUCTURE

Inner Conductor Material Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in) 2.6 (0.1)
Diameter Dielectric, mm (in) 6.3 (0.25)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 9.1 (0.36)
Diameter over Jacket Nominal, mm (in) 10.2 (0.4)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.12 (0.08)
Minimum Bending Radius, Repeated Bends, mm (in) 25 (1.0)
Bending Moment, N•m (lb-ft) 1.4 (1.0)
Flat Plate Crush Strength, N/mm (lb/in) 18.4 (100)
Tensile Strength, N (lb) 600 (135)
Recommended / Maximum Clamp Spacing, m (ft) 0.25 / 0.25 (0.80 / 0.80)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 82
Capacitance, pF/m (pF/ft) 82.0 (25.0)
Inductance, µH/m (µH/ft) 0.207 (0.063)
Maximum Frequency, GHz 13.4
Peak Power Rating, kW 11.9
RF Peak Voltage, Volts 1090
Jacket Spark, Volt RMS 5000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 5.3 (1.62)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 5.6 (1.71)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

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Technical Appendix See pages 639-648

SCF38-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.291	0.0888	11.9
1.0	0.412	0.126	11.9
1.5	0.505	0.154	11.9
2.0	0.584	0.178	11.9
10	1.31	0.400	6.02
20	1.86	0.567	4.24
30	2.28	0.696	3.46
50	2.96	0.903	2.67
88	3.95	1.21	2.00
100	4.22	1.29	1.87
108	4.39	1.34	1.80
150	5.20	1.59	1.52
174	5.61	1.71	1.41
200	6.03	1.84	1.31
300	7.45	2.27	1.06
400	8.66	2.64	0.912
450	9.22	2.81	0.857
500	9.74	2.97	0.810
512	9.87	3.01	0.800
600	10.7	3.27	0.736
700	11.7	3.55	0.678
800	12.5	3.81	0.631
824	12.7	3.87	0.621
894	13.3	4.05	0.595
900	13.3	4.06	0.593
925	13.5	4.12	0.584
960	13.8	4.20	0.572
1000	14.1	4.30	0.560
1250	15.9	4.85	0.496
1500	17.6	5.36	0.449
1700	18.8	5.74	0.420
1800	19.4	5.92	0.407
2000	20.6	6.27	0.384
2100	21.1	6.45	0.373
2200	21.7	6.61	0.364
2400	22.8	6.94	0.347
3000	25.8	7.87	0.306
3500	28.2	8.59	0.280
4000	30.4	9.27	0.260
5000	34.6	10.5	0.228
6000	38.4	11.7	0.205
7000	42.1	12.8	0.188
8000	45.6	13.9	0.173
9000	48.9	14.9	0.161
10000	52.1	15.9	0.152
12000	58.2	17.7	0.136
13400	62.3	19.0	0.127

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
SCF38-50J	Standard
SCF38-50JFN	Flame Retardant
SCF38-50JGR	Standard, Gray

CELLFLEX® Cable

SCF12-50 Series 1/2" Superflexible Foam Coax



APPLICATIONS

OEM jumpers, Main feed transitions to equipment, GPS lines, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type	Foam-Dielectric, Superflexible
Size	1/2"

STRUCTURE

Inner Conductor Material	Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in)	3.6 (0.14)
Diameter Dielectric, mm (in)	8.3 (0.33)
Outer Conductor Material	Corrugated Copper
Diameter Copper Outer Conductor, mm (in)	12.3 (0.48)
Diameter over Jacket Nominal, mm (in)	13.7 (0.54)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft)	0.21 (0.14)
Minimum Bending Radius, Repeated Bends, mm (in)	32 (1.25)
Bending Moment, N•m (lb-ft)	1.8 (1.3)
Flat Plate Crush Strength, N/mm (lb/in)	20.4 (110)
Tensile Strength, N (lb)	650 (146)
Recommended / Maximum Clamp Spacing, m (ft)	0.30 / 0.30 (1.00 / 1.00)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm	50 +/- 1
Velocity, percent	82
Capacitance, pF/m (pF/ft)	82.0 (25.0)
Inductance, µH/m (µH/ft)	0.207 (0.063)
Maximum Frequency, GHz	11.7
Peak Power Rating, kW	20.5
RF Peak Voltage, Volts	1430
Jacket Spark, Volt RMS	5000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft)	2.9 (0.88)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	3.4 (1.04)

See Installation, Operation and Storage Temperatures on page 28. For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

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Technical Appendix	See pages 639-648

SCF12-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.229	0.0697	20.5
1.0	0.324	0.0986	20.5
1.5	0.397	0.121	20.5
2.0	0.458	0.140	18.8
10	1.03	0.314	8.37
20	1.46	0.446	5.90
30	1.80	0.548	4.80
50	2.33	0.710	3.70
88	3.11	0.949	2.77
100	3.33	1.01	2.59
108	3.46	1.06	2.49
150	4.10	1.25	2.10
174	4.43	1.35	1.95
200	4.76	1.45	1.81
300	5.89	1.79	1.46
400	6.85	2.09	1.26
450	7.29	2.22	1.18
500	7.71	2.35	1.12
512	7.81	2.38	1.10
600	8.50	2.59	1.01
700	9.23	2.81	0.934
800	9.92	3.02	0.869
824	10.1	3.07	0.855
894	10.5	3.21	0.818
900	10.6	3.22	0.815
925	10.7	3.27	0.803
960	11.0	3.34	0.787
1000	11.2	3.41	0.770
1250	12.7	3.86	0.682
1500	14.0	4.26	0.616
1700	15.0	4.57	0.575
1800	15.5	4.72	0.557
2000	16.4	5.01	0.525
2100	16.9	5.15	0.511
2200	17.3	5.28	0.498
2400	18.2	5.55	0.474
3000	20.7	6.30	0.417
3500	22.6	6.88	0.382
4000	24.4	7.4	0.353
5000	27.8	8.5	0.310
6000	31.0	9.4	0.278
7000	34.0	10.4	0.254
8000	36.8	11.2	0.234
9000	39.6	12.1	0.218
10000	42.3	12.9	0.204
11700	46.6	14.2	0.185

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
SCF12-50J	Standard
SCF12-50JFN	Flame Retardant
SCF12-50JGR	Standard, Gray



CELLFLEX® Cable

UCF78-50A Series 7/8" Ultraflexible Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only), Jumper for attenuation sensitive application

GENERAL INFORMATION

Cable Type Foam-Dielectric, Ultraflexible
Size 7/8"

STRUCTURE

Inner Conductor Material Corrugated Copper Tube
Diameter Inner Conductor, mm 9.42 (0.371)
(in)
Diameter Dielectric, mm (in) 21.1 (0.83)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 24.89 (0.980)
Diameter over Jacket Nominal, mm (in) 27.48 (1.082)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.432 (0.290)
Minimum Bending Radius, Single Bend, mm (in) 90 (3.5)
Minimum Bending Radius, Repeated Bends, mm (in) 125 (5)
Bending Moment, N•m (lb-ft) 13.0 (9.6)
Flat Plate Crush Strength, N/mm (lb/in) 14.3 (80)
Recommended / Maximum Clamp Spacing, m (ft) 0.8 / 1.0 (2.75 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 88
Capacitance, pF/m (pF/ft) 76 (23.2)
Inductance, µH/m (µH/ft) 0.190 (0.058)
Maximum Frequency, GHz 4.9
Peak Power Rating, kW 83
RF Peak Voltage, Volts 2850
Jacket Spark, Volt RMS 8000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 2.82 (0.86)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 1.04 (0.32)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

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Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

UCF78-50JA/JFNA ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0841	0.0256	83.0
1.0	0.119	0.0363	83.0
1.5	0.146	0.0445	69.4
2.0	0.169	0.0514	60.0
10	0.379	0.116	26.7
20	0.539	0.164	18.8
30	0.66	0.202	15.3
50	0.86	0.262	11.8
88	1.15	0.351	8.80
100	1.23	0.375	8.24
108	1.28	0.390	7.91
150	1.52	0.462	6.67
174	1.64	0.500	6.17
200	1.76	0.537	5.74
300	2.18	0.665	4.64
400	2.54	0.775	3.98
450	2.71	0.826	3.74
500	2.87	0.874	3.53
512	2.90	0.885	3.49
600	3.16	0.964	3.20
700	3.44	1.05	2.94
800	3.70	1.13	2.74
824	3.76	1.15	2.69
894	3.93	1.20	2.57
900	3.94	1.20	2.57
925	4.00	1.22	2.53
960	4.09	1.25	2.48
1000	4.18	1.27	2.42
1250	4.73	1.44	2.14
1500	5.24	1.60	1.93
1700	5.62	1.71	1.80
1800	5.81	1.77	1.74
2000	6.16	1.88	1.64
2100	6.34	1.93	1.60
2200	6.51	1.98	1.56
2400	6.84	2.09	1.48
3000	7.79	2.37	1.30
3500	8.52	2.60	1.19
4000	9.22	2.81	1.10
4900	10.4	3.17	0.97

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
UCF78-50JA-P*	Standard
UCF78-50JFNA-P*	Flame Retardant

CELLFLEX® Cable

UCF114-50A Series 1-1/4" Ultraflexible Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Ultraflexible
Size 1-1/4"

STRUCTURE

Inner Conductor Material Corrugated Copper Tube
Diameter Inner Conductor, mm 13.6 (0.54)
(in)
Diameter Dielectric, mm (in) 31.2 (1.23)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 36.0 (1.42)
Diameter over Jacket Nominal, mm (in) 39.0 (1.54)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.81 (0.55)
Minimum Bending Radius, Single Bend, mm (in) 150 (6.0)
Minimum Bending Radius, Repeated Bends, mm (in) 250 (10)
Bending Moment, N•m (lb-ft) 36.0 (25.6)
Flat Plate Crush Strength, N/mm (lb/in) 25.5 (140)
Tensile Strength, N (lb) 2900 (650)
Recommended / Maximum Clamp Spacing, m (ft) 1.0 / 1.2 (3.25 / 4.0)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 89
Capacitance, pF/m (pF/ft) 75 (22.9)
Inductance, µH/m (µH/ft) 0.184 (0.056)
Maximum Frequency, GHz 3.6
Peak Power Rating, kW 178
RF Peak Voltage, Volts 4200
Jacket Spark, Volt RMS 10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 2.20 (0.67)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 0.62 (0.19)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

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Technical Appendix See pages 639-648

UCF114-50JA/JFNA ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0597	0.0182	178
1.0	0.0846	0.0258	131
1.5	0.104	0.0316	107
2.0	0.120	0.0366	92.2
10	0.271	0.0825	40.8
20	0.386	0.118	28.7
30	0.475	0.145	23.3
50	0.619	0.189	17.9
88	0.831	0.253	13.3
100	0.889	0.271	12.4
108	0.926	0.282	11.9
150	1.10	0.336	10.0
174	1.19	0.364	9.26
200	1.29	0.392	8.60
300	1.60	0.488	6.90
400	1.87	0.571	5.90
450	2.00	0.610	5.53
500	2.12	0.646	5.21
512	2.15	0.655	5.14
600	2.35	0.716	4.71
700	2.56	0.781	4.32
800	2.76	0.842	4.00
824	2.81	0.857	3.93
894	2.94	0.897	3.75
900	2.96	0.901	3.74
925	3.00	0.915	3.68
960	3.07	0.935	3.60
1000	3.14	0.957	3.52
1250	3.57	1.09	3.09
1500	3.98	1.21	2.78
1700	4.28	1.31	2.58
1800	4.43	1.35	2.49
2000	4.72	1.44	2.34
2100	4.86	1.48	2.27
2200	5.00	1.52	2.21
2400	5.27	1.61	2.10
3000	6.05	1.84	1.83
3300	6.42	1.96	1.72

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
UCF114-50JA-P*	Standard
UCF114-50JFNA-P*	Flame Retardant



CELLFLEX® Cable

UCF114-50A Series 1-1/4" Premium Attenuation Ultraflexible Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type	Foam-Dielectric, Corrugated
Size	1-1/4"

STRUCTURE

Inner Conductor Material	Corrugated Copper Tube
Diameter Inner Conductor, mm (in)	13.8 (0.55)
Diameter Dielectric, mm (in)	31.0 (1.22)
Outer Conductor Material	Corrugated Copper
Diameter Copper Outer Conductor, mm (in)	36.0 (1.42)
Diameter over Jacket Nominal, mm (in)	39.0 (1.54)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft)	0.79 (0.53)
Minimum Bending Radius, Single Bend, mm (in)	150 (6.0)
Minimum Bending Radius, Repeated Bends, mm (in)	250 (10)
Bending Moment, N•m (lb-ft)	36.0 (25.6)
Flat Plate Crush Strength, N/mm (lb/in)	25.5 (140)
Tensile Strength, N (lb)	2900 (650)
Recommended / Maximum Clamp Spacing, m (ft)	1.0 / 1.2 (3.25 / 4.0)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm	50 +/- 1
Velocity, percent	89
Capacitance, pF/m (pF/ft)	75 (22.9)
Inductance, µH/m (µH/ft)	0.184 (0.056)
Maximum Frequency, GHz	3.3
Peak Power Rating, kW	178
RF Peak Voltage, Volts	4200
Jacket Spark, Volt RMS	10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft)	1.94 (0.59)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	0.55 (0.17)

See Installation, Operation and Storage Temperatures on page 28.
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UCF114-50JA/JFNA PREMIUM ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.059	0.018	178
1.0	0.084	0.026	128
1.5	0.103	0.032	104
2.0	0.119	0.036	90.1
10	0.269	0.082	40.0
20	0.382	0.120	28.1
30	0.470	0.143	22.9
50	0.611	0.186	17.6
88	0.819	0.250	13.1
100	0.875	0.267	12.3
108	0.911	0.278	11.8
150	1.08	0.330	9.93
174	1.17	0.357	9.19
200	1.26	0.384	8.54
300	1.56	0.476	6.88
400	1.82	0.556	5.89
450	1.95	0.593	5.53
500	2.06	0.628	5.22
512	2.09	0.636	5.15
600	2.28	0.694	4.72
700	2.48	0.755	4.34
800	2.67	0.813	4.03
824	2.71	0.827	3.96
894	2.84	0.865	3.79
900	2.85	0.868	3.77
925	2.89	0.882	3.72
960	2.95	0.900	3.64
1000	3.02	0.921	3.56
1250	3.43	1.05	3.14
1500	3.80	1.16	2.83
1800	4.22	1.29	2.54
2000	4.49	1.37	3.39
2200	4.75	1.45	2.26
2300	4.87	1.49	2.21
3000	5.71	1.74	1.88
3300	6.04	1.84	1.78

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
UCF114-50JA-A*	Standard
UCF114-50JFNA-A*	Flame Retardant

CELLFLEX® Cable

LCF14-50 Series 1/4" Low-Loss Foam Coax



APPLICATIONS

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

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 1/4"

STRUCTURE

Inner Conductor Material Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in) 2.4 (0.09)
Diameter Dielectric, mm (in) 6.0 (0.24)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 7.5 (0.3)
Diameter over Jacket Nominal, mm (in) 10 (0.39)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.11 (0.074)
Minimum Bending Radius, Single Bend, mm (in) 40 (1.6)
Minimum Bending Radius, Repeated Bends, mm (in) 120 (5)
Bending Moment, N•m (lb-ft) 1.9 (1.4)
Flat Plate Crush Strength, N/mm (lb/in) 14 (80)
Tensile Strength, N (lb) 890 (200)
Recommended / Maximum Clamp Spacing, m (ft) 0.5 / 1.0 (1.75 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1.5
Velocity, percent 83
Capacitance, pF/m (pF/ft) 80 (24)
Inductance, µH/m (µH/ft) 0.205 (0.063)
Maximum Frequency, GHz 15.8
Peak Power Rating, kW 10.9
RF Peak Voltage, Volts 1050
Jacket Spark, Volt RMS 5000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 6.1 (1.86)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 3.5 (1.25)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF14-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.291	0.0887	10.9
1.0	0.412	0.126	10.9
1.5	0.505	0.154	10.9
2.0	0.583	0.178	10.9
10	1.31	0.399	5.56
20	1.86	0.566	3.92
30	2.28	0.695	3.20
50	2.95	0.900	2.47
88	3.94	1.20	1.85
100	4.20	1.28	1.73
108	4.37	1.33	1.67
150	5.17	1.58	1.41
174	5.58	1.70	1.30
200	6.00	1.83	1.21
300	7.40	2.25	0.985
400	8.59	2.62	0.848
450	9.13	2.78	0.798
500	9.65	2.94	0.755
512	9.77	2.98	0.745
600	10.6	3.24	0.686
700	11.5	3.51	0.632
800	12.4	3.77	0.589
824	12.6	3.83	0.580
894	13.1	4.00	0.556
900	13.2	4.01	0.554
925	13.4	4.07	0.546
960	13.6	4.15	0.535
1000	13.9	4.24	0.523
1250	15.7	4.78	0.464
1500	17.3	5.27	0.421
1700	18.5	5.64	0.393
1800	19.1	5.82	0.381
2000	20.2	6.16	0.360
2100	20.8	6.33	0.351
2200	21.3	6.49	0.342
2400	22.4	6.81	0.326
3000	25.3	7.70	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	0.130
14000	61.5	18.8	0.118
15800	66.2	20.2	0.110

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
LCF14-50J	Standard
LCF14-50JFN	Flame Retardant



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, only), Microwave IF cabling

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 28. For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors	See pages 70-77
Jumpers	See pages 82-87
Accessories	See pages 97-102
Coaxial Devices	See pages 106-108
Technical Appendix	See pages 639-648

LCF38-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.237	0.0724	15.4
1.0	0.336	0.102	15.4
1.5	0.412	0.125	15.4
2.0	0.476	0.145	15.2
10	1.07	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	3.25	0.679
900	10.7	3.27	0.677
925	10.9	3.31	0.667
960	11.1	3.38	0.654
1000	11.3	3.45	0.640
1250	12.8	3.89	0.568
1500	14.1	4.29	0.515
1700	15.1	4.59	0.481
1800	15.5	4.74	0.467
2000	16.5	5.01	0.441
2100	16.9	5.15	0.429
2200	17.3	5.28	0.418
2400	18.2	5.54	0.399
3000	20.6	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
6000	30.3	9.25	0.239
7000	33.2	10.1	0.219
8000	35.8	10.9	0.202
9000	38.4	11.7	0.189
10000	40.8	12.4	0.178
12000	45.5	13.9	0.159
13500	48.8	14.9	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

CELLFLEX® Cable

LCF12-50 Series 1/2" Low-Loss Foam Coax



APPLICATIONS

OEM jumpers, Main feed transitions to equipment, GPS lines, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type	Foam-Dielectric, Corrugated
Size	1/2"

STRUCTURE

Inner Conductor Material	Copper-Clad Aluminum Wire
Diameter Inner Conductor, mm (in)	4.8 (0.190)
Diameter Dielectric, mm (in)	11.3 (0.44)
Outer Conductor Material	Annularly Corrugated Copper
Diameter Copper Outer Conductor, mm (in)	13.8 (0.54)
Diameter over Jacket Nominal, mm (in)	16.2 (0.64)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft)	0.22 (0.15)
Minimum Bending Radius, Single Bend, mm (in)	70 (3)
Minimum Bending Radius, Repeated Bends, mm (in)	125 (5)
Bending Moment, N•m (lb-ft)	5.0 (3.7)
Flat Plate Crush Strength, N/mm (lb/in)	20.4 (110)
Tensile Strength, N (lb)	1100 (247)
Recommended / Maximum Clamp Spacing, m (ft)	0.6 / 1.0 (2.0 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm	50 +/- 1
Velocity, percent	88
Capacitance, pF/m (pF/ft)	76.0 (23.2)
Inductance, µH/m (µH/ft)	0.190 (0.058)
Maximum Frequency, GHz	8.8
Peak Power Rating, kW	38
RF Peak Voltage, Volts	1950
Jacket Spark, Volt RMS	8000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft)	1.57 (0.48)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	1.93 (0.59)

See Installation, Operation and Storage Temperatures on page 28. For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors	See pages 70-77
Jumpers	See pages 82-87
Accessories	See pages 97-102
Coaxial Devices	See pages 106-108
Technical Appendix	See pages 639-648

LCF12-50J/JFN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.149	0.0454	38.0
1.0	0.211	0.0643	38.0
1.5	0.258	0.0788	32.9
2.0	0.298	0.0910	28.5
10	0.67	0.204	12.7
20	0.95	0.290	8.93
30	1.17	0.356	7.27
50	1.51	0.462	5.61
88	2.02	0.616	4.20
100	2.16	0.658	3.94
108	2.25	0.684	3.78
150	2.66	0.810	3.20
174	2.87	0.875	2.96
200	3.08	0.940	2.75
300	3.81	1.16	2.23
400	4.43	1.35	1.92
450	4.71	1.44	1.80
500	4.98	1.52	1.71
512	5.04	1.54	1.69
600	5.48	1.67	1.55
700	5.95	1.81	1.43
800	6.39	1.95	1.33
824	6.49	1.98	1.31
894	6.78	2.07	1.25
900	6.80	2.07	1.25
925	6.90	2.10	1.23
960	7.04	2.15	1.21
1000	7.20	2.20	1.18
1250	8.12	2.48	1.05
1500	8.97	2.73	0.947
1700	9.6	2.93	0.884
1800	9.9	3.02	0.857
2000	10.5	3.20	0.809
2100	10.8	3.29	0.787
2200	11.1	3.38	0.767
2400	11.6	3.54	0.731
3000	13.2	4.01	0.645
3500	14.4	4.38	0.591
4000	15.5	4.72	0.548
5000	17.6	5.37	0.482
6000	19.6	5.97	0.434
7000	21.4	6.54	0.396
8000	23.2	7.07	0.366
8800	24.6	7.49	0.346

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
LCF12-50J	Standard
LCF12-50JFN	Flame Retardant
LCF12-50JGR	Standard, Gray



CELLFLEX® Cable

LCF58-50 Series 5/8" Low-Loss Foam Coax



APPLICATIONS

OEM jumpers, Microwave Hop feeds, GPS lines, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 5/8"

STRUCTURE

Inner Conductor Material Copper Tube
Diameter Inner Conductor, mm (in) 6.6 (0.26)
Diameter Dielectric, mm (in) 15.5 (0.61)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 18.5 (0.73)
Diameter over Jacket Nominal, mm (in) 21.4 (0.84)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.37 (0.25)
Minimum Bending Radius, Single Bend, mm (in) 90 (4)
Minimum Bending Radius, Repeated Bends, mm (in) 190 (7)
Bending Moment, N•m (lb-ft) 10.0 (7.4)
Flat Plate Crush Strength, N/mm (lb/in) 13.3 (70)
Tensile Strength, N (lb) 1150 (259)
Recommended / Maximum Clamp Spacing, m (ft) 0.7 / 1.0 (2.25 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 88
Capacitance, pF/m (pF/ft) 76.0 (23.2)
Inductance, µH/m (µH/ft) 0.190 (0.058)
Maximum Frequency, GHz 6.2
Peak Power Rating, kW 45
RF Peak Voltage, Volts 2110
Jacket Spark, Volt RMS 8000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 1.32 (0.40)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 1.43 (0.44)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF58-50J/FN ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.112	0.0340	45.0
1.0	0.158	0.0482	45.0
1.5	0.194	0.0591	45.0
2.0	0.224	0.0683	41.7
10	0.504	0.154	18.5
20	0.716	0.218	13.0
30	0.881	0.268	10.6
50	1.14	0.349	8.16
88	1.53	0.467	6.10
100	1.64	0.499	5.71
108	1.70	0.519	5.48
150	2.02	0.616	4.62
174	2.18	0.666	4.28
200	2.35	0.716	3.97
300	2.91	0.887	3.21
400	3.39	1.03	2.75
450	3.62	1.10	2.58
500	3.83	1.17	2.44
512	3.88	1.18	2.41
600	4.22	1.29	2.21
700	4.59	1.40	2.03
800	4.94	1.51	1.89
824	5.02	1.53	1.86
894	5.25	1.60	1.78
900	5.27	1.61	1.77
925	5.35	1.63	1.74
960	5.46	1.67	1.71
1000	5.59	1.70	1.67
1250	6.33	1.93	1.48
1500	7.01	2.14	1.33
1700	7.53	2.30	1.24
1800	7.78	2.37	1.20
2000	8.26	2.52	1.13
2100	8.50	2.59	1.10
2200	8.7	2.66	1.07
2400	9.2	2.80	1.02
3000	10.5	3.19	0.893
3500	11.5	3.49	0.815
4000	12.4	3.78	0.753
5000	14.2	4.32	0.658
6000	15.9	4.83	0.589
6200	16.2	4.93	0.577

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
LCF58-50J	Standard
LCF58-50JFN	Flame Retardant

CELLFLEX® Cable

LCF78-50A Series 7/8" Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 7/8"

STRUCTURE

Inner Conductor Material Copper Tube
Diameter Inner Conductor, mm (in) 9.3 (0.37)
Diameter Dielectric, mm (in) 21.5 (0.85)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 25.2 (0.99)
Diameter over Jacket Nominal, mm (in) 27.8 (1.09)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.51 (0.34)
Minimum Bending Radius, Single Bend, mm (in) 120 (5)
Minimum Bending Radius, Repeated Bends, mm (in) 250 (10)
Bending Moment, N•m (lb-ft) 13.0 (9.6)
Flat Plate Crush Strength, N/mm (lb/in) 14 (80)
Tensile Strength, N (lb) 1440 (324)
Recommended / Maximum Clamp Spacing, m (ft) 0.8 / 1.0 (2.75 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 90
Capacitance, pF/m (pF/ft) 74.0 (22.5)
Inductance, µH/m (µH/ft) 0.185 (0.056)
Maximum Frequency, GHz 5
Peak Power Rating, kW 85
RF Peak Voltage, Volts 2910
Jacket Spark, Volt RMS 8000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 1.27 (0.39)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 1.05 (0.32)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF78-50JA/JFNA ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0780	0.0238	85.0
1.0	0.110	0.0337	85.0
1.5	0.135	0.0413	77.1
2.0	0.157	0.0477	66.8
10	0.353	0.107	29.7
20	0.501	0.153	20.9
30	0.616	0.188	17.0
50	0.801	0.244	13.1
88	1.07	0.327	9.75
100	1.15	0.349	9.12
108	1.19	0.363	8.76
150	1.42	0.431	7.38
174	1.53	0.466	6.83
200	1.65	0.502	6.35
300	2.04	0.622	5.12
400	2.38	0.726	4.39
450	2.54	0.773	4.12
500	2.69	0.819	3.89
512	2.72	0.829	3.84
600	2.97	0.904	3.52
700	3.23	0.983	3.24
800	3.47	1.06	3.01
824	3.53	1.08	2.96
894	3.69	1.13	2.83
900	3.71	1.13	2.82
925	3.76	1.15	2.78
960	3.84	1.17	2.72
1000	3.93	1.20	2.66
1250	4.45	1.36	2.35
1500	4.94	1.50	2.12
1700	5.30	1.62	1.97
1800	5.48	1.67	1.91
2000	5.82	1.77	1.80
2100	5.99	1.83	1.75
2200	6.15	1.88	1.70
2400	6.47	1.97	1.62
3000	7.38	2.25	1.42
3500	8.09	2.46	1.29
4000	8.76	2.67	1.19
4900	9.91	3.02	1.06
5000	10.0	3.06	1.04

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
LCF78-50JA-P*	Standard
LCF78-50JFNA-P*	Flame Retardant
LCF78-50JAGR	Standard, Gray



CELLFLEX® Cable

LCF78-50A Series 7/8" Premium Attenuation Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 7/8"

STRUCTURE

Inner Conductor Material Copper Tube
Diameter Inner Conductor, mm 9.3 (0.37)
(in)
Diameter Dielectric, mm (in) 21.5 (0.85)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 25.2 (0.99)
Diameter over Jacket Nominal, mm (in) 27.8 (1.09)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.51 (0.34)
Minimum Bending Radius, Single Bend, mm (in) 120 (5)
Minimum Bending Radius, Repeated Bends, mm (in) 250 (10)
Bending Moment, N•m (lb-ft) 13.0 (9.6)
Flat Plate Crush Strength, N/mm (lb/in) 14 (80)
Tensile Strength, N (lb) 1440 (324)
Recommended / Maximum Clamp Spacing, m (ft) 0.8 / 1.0 (2.75 / 3.25)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 90
Capacitance, pF/m (pF/ft) 74.0 (22.5)
Inductance, µH/m (µH/ft) 0.185 (0.056)
Maximum Frequency, GHz 5
Peak Power Rating, kW 85
RF Peak Voltage, Volts 2920
Jacket Spark, Volt RMS 8000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 1.27 (0.39)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 1.05 (0.32)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF78-50JA/JFNA PREMIUM ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0780	0.0238	85.0
1.0	0.110	0.0336	85.0
1.5	0.135	0.0412	73.5
2.0	0.156	0.0476	63.6
10	0.351	0.107	28.3
20	0.498	0.152	20.0
30	0.612	0.186	16.3
50	0.793	0.242	12.5
88	1.06	0.323	9.39
100	1.13	0.345	8.79
108	1.18	0.359	8.45
150	1.39	0.425	7.13
174	1.50	0.459	6.61
200	1.62	0.493	6.15
300	2.00	0.609	4.98
400	2.32	0.708	4.28
450	2.47	0.753	4.02
500	2.61	0.796	3.81
512	2.65	0.806	3.76
600	2.88	0.877	3.46
700	3.12	0.952	3.18
800	3.36	1.02	2.96
824	3.41	1.04	2.92
894	3.56	1.09	2.79
900	3.57	1.09	2.78
925	3.63	1.11	2.74
960	3.70	1.13	2.69
1000	3.78	1.15	2.63
1250	4.27	1.30	2.33
1500	4.72	1.44	2.11
1700	5.05	1.54	1.97
1800	5.21	1.59	1.91
2000	5.53	1.68	1.80
2100	5.68	1.73	1.75
2200	5.83	1.78	1.71
2400	6.12	1.86	1.63
3000	6.94	2.11	1.43
3500	7.57	2.31	1.31
4000	8.17	2.49	1.22
4900	9.19	2.80	1.08
5000	9.30	2.83	1.07

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
LCF78-50JA-A*	Standard
LCF78-50JFNA-A*	Flame Retardant

CELLFLEX® Cable

LCFS114-50A Series 1-1/4" Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 1-1/4"

STRUCTURE

Inner Conductor Material Copper Tube
Diameter Inner Conductor, mm 13.1 (0.52)
(in)
Diameter Dielectric, mm (in) 31.2 (1.23)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 36.0 (1.42)
Diameter over Jacket Nominal, mm (in) 39.0 (1.54)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 0.86 (0.58)
Minimum Bending Radius, Single Bend, mm (in) 200 (8)
Minimum Bending Radius, Repeated Bends, mm (in) 380 (15)
Bending Moment, N•m (lb-ft) 35.0 (26.0)
Flat Plate Crush Strength, N/mm (lb/in) 24 (137)
Tensile Strength, N (lb) 2490 (560)
Recommended / Maximum Clamp Spacing, m (ft) 1.0 / 1.2 (3.25 / 4.0)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 90
Capacitance, pF/m (pF/ft) 74.0 (22.5)
Inductance, µH/m (µH/ft) 0.185 (0.056)
Maximum Frequency, GHz 3.6
Peak Power Rating, kW 176
RF Peak Voltage, Volts 4200
Jacket Spark, Volt RMS 10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 0.78 (0.24)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 0.67 (0.20)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCFS114-50JA/JFNA ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.056	0.017	181
1	0.079	0.024	139.5
1.5	0.097	0.03	113.8
2	0.112	0.034	98.4
10	0.253	0.077	43.57
20	0.361	0.11	30.59
30	0.444	0.135	24.83
50	0.579	0.176	19.07
88	0.777	0.237	14.19
100	0.831	0.253	13.27
108	0.866	0.264	12.74
150	1.03	0.314	10.7
174	1.12	0.34	9.89
200	1.2	0.366	9.17
300	1.5	0.456	7.365
400	1.75	0.534	6.29
450	1.87	0.57	5.894
500	1.98	0.605	5.558
512	2.01	0.613	5.485
600	2.2	0.67	5.019
700	2.4	0.731	4.602
800	2.59	0.788	4.265
824	2.63	0.802	4.194
894	2.76	0.84	4.003
900	2.77	0.843	3.988
925	2.81	0.856	3.925
960	2.87	0.875	3.842
1000	2.94	0.896	3.753
1250	3.35	1.02	3.297
1500	4.01	1.22	2.75
1900	4.29	1.31	2.573
2000	4.42	1.35	2.494
2200	4.68	1.43	2.355
2500	5.06	1.54	2.178
3000	5.66	1.73	1.947
3300	6.01	1.83	1.835
3600	6.35	1.93	1.738

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
LCFS114-50JA-P*	Standard
LCFS114-50JFNA-P*	Flame Retardant
LCFS114-50JAGR	Standard, Gray



CELLFLEX® Cable

LCFS114-50A Series 1-1/4" Premium Attenuation Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type	Foam-Dielectric, Corrugated
Size	1-1/4"

STRUCTURE

Inner Conductor Material	Copper Tube
Diameter Inner Conductor, mm (in)	13.1 (0.52)
Diameter Dielectric, mm (in)	31.2 (1.23)
Outer Conductor Material	Corrugated Copper
Diameter Copper Outer Conductor, mm (in)	36.0 (1.42)
Diameter over Jacket Nominal, mm (in)	39.0 (1.54)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft)	0.86 (0.58)
Minimum Bending Radius, Single Bend, mm (in)	200 (8)
Minimum Bending Radius, Repeated Bends, mm (in)	380 (15)
Bending Moment, N•m (lb-ft)	35.0 (26.0)
Flat Plate Crush Strength, N/mm (lb/in)	24 (137)
Tensile Strength, N (lb)	2490 (560)
Recommended / Maximum Clamp Spacing, m (ft)	1.0 / 1.2 (3.25 / 4.0)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm	50 +/- 1
Velocity, percent	90
Capacitance, pF/m (pF/ft)	74.0 (22.5)
Inductance, µH/m (µH/ft)	0.185 (0.056)
Maximum Frequency, GHz	3.6
Peak Power Rating, kW	181
RF Peak Voltage, Volts	4200
Jacket Spark, Volt RMS	10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft)	0.78 (0.24)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft)	0.67 (0.20)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors	See pages 70-77
Jumpers	See pages 82-87
Accessories	See pages 97-102
Coaxial Devices	See pages 106-108
Technical Appendix	See pages 639-648

LCFS114-50JA/JFNA PREMIUM ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.056	0.017	176
1.0	0.079	0.024	134
1.5	0.097	0.029	109
2.0	0.112	0.034	94.7
10	0.252	0.077	42.1
20	0.358	0.109	29.6
30	0.440	0.134	24.1
50	0.571	0.174	18.5
88	0.764	0.233	13.9
100	0.816	0.249	13.0
108	0.850	0.259	12.5
150	1.01	0.307	10.5
174	1.09	0.332	9.71
200	1.17	0.357	9.03
300	1.45	0.443	7.29
400	1.69	0.516	6.25
450	1.80	0.550	5.87
500	1.91	0.582	5.54
512	1.93	0.589	5.47
600	2.11	0.642	5.02
700	2.29	0.699	4.62
800	2.47	0.752	4.29
824	2.51	0.764	4.22
894	2.62	0.799	4.04
900	2.63	0.802	4.02
925	2.67	0.814	3.96
960	2.73	0.831	3.88
1000	2.79	0.850	3.79
1250	3.16	0.963	3.35
1500	3.50	1.07	3.02
1900	4.00	1.22	2.64
2000	4.12	1.26	2.57
2200	4.35	1.33	2.43
2500	4.69	1.43	2.26
3000	5.21	1.59	2.03
3300	5.52	1.68	1.92
3600	5.81	1.77	1.82

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
LCFS114-50JA-A*	Standard
LCFS114-50JFNA-A*	Flame Retardant
LCFS114-50JAGR-A*	Standard, Gray

CELLFLEX® Cable

LCF158-50A Series 1-5/8" Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 1-5/8"

STRUCTURE

Inner Conductor Material Corrugated Copper Tube
Diameter Inner Conductor, mm (in) 17.6 (0.69)
Diameter Dielectric, mm (in) 40.9 (1.61)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 46.5 (1.83)
Diameter over Jacket Nominal, mm (in) 50.3 (1.98)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 1.19 (0.80)
Minimum Bending Radius, Single Bend, mm (in) 200 (8)
Minimum Bending Radius, Repeated Bends, mm (in) 500 (20)
Bending Moment, N•m (lb-ft) 46.0 (34.0)
Flat Plate Crush Strength, N/mm (lb/in) 25 (143)
Tensile Strength, N (lb) 2500 (562)
Recommended / Maximum Clamp Spacing, m (ft) 1.2 / 1.5 (4.0 / 5.0)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 90
Capacitance, pF/m (pF/ft) 74.0 (22.5)
Inductance, µH/m (µH/ft) 0.190 (0.058)
Maximum Frequency, GHz 2.75
Peak Power Rating, kW 310
RF Peak Voltage, Volts 5600
Jacket Spark, Volt RMS 10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 1.26 (0.38)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 0.47 (0.14)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF158-50JA/JFNA ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0436	0.0133	266
1.0	0.0618	0.0188	188
1.5	0.0758	0.0231	153
2.0	0.0877	0.0267	133
10	0.199	0.0605	58.5
20	0.283	0.0864	41.0
30	0.350	0.107	33.2
50	0.456	0.139	25.5
88	0.615	0.187	18.9
100	0.658	0.201	17.6
108	0.686	0.209	16.9
150	0.819	0.250	14.2
174	0.888	0.271	13.1
200	0.958	0.292	12.1
300	1.20	0.365	9.70
400	1.41	0.429	8.26
450	1.50	0.458	7.72
500	1.60	0.487	7.27
512	1.62	0.493	7.18
600	1.77	0.540	6.55
700	1.94	0.591	5.99
800	2.10	0.639	5.54
824	2.13	0.650	5.45
894	2.24	0.682	5.19
900	2.25	0.684	5.17
925	2.28	0.696	5.09
960	2.33	0.711	4.98
1000	2.39	0.728	4.86
1250	2.73	0.833	4.25
1500	3.05	0.93	3.81
1700	3.29	1.00	3.53
1800	3.41	1.04	3.40
2000	3.64	1.11	3.19
2100	3.76	1.14	3.09
2200	3.87	1.18	3.00
2400	4.09	1.25	2.84
2750	4.45	1.36	2.61

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
LCF158-50JA-P*	Standard
LCF158-50JFNA-P*	Flame Retardant



CELLFLEX® Cable

LCF158-50A Series 1-5/8" Premium Attenuation Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 1-5/8"

STRUCTURE

Inner Conductor Material Corrugated Copper Tube
Diameter Inner Conductor, mm 17.6 (0.69)
(in)
Diameter Dielectric, mm (in) 40.9 (1.61)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 46.5 (1.83)
Diameter over Jacket Nominal, mm (in) 50.3 (1.98)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 1.19 (0.80)
Minimum Bending Radius, Single Bend, mm (in) 200 (8)
Minimum Bending Radius, Repeated Bends, mm (in) 500 (20)
Bending Moment, N•m (lb-ft) 46.0 (34.0)
Flat Plate Crush Strength, N/mm (lb/in) 25 (143)
Tensile Strength, N (lb) 2500 (562)
Recommended / Maximum Clamp Spacing, m (ft) 1.2 / 1.5 (4.0 / 5.0)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 90
Capacitance, pF/m (pF/ft) 74.0 (22.5)
Inductance, µH/m (µH/ft) 0.185 (0.056)
Maximum Frequency, GHz 2.75
Peak Power Rating, kW 310
RF Peak Voltage, Volts 5600
Jacket Spark, Volt RMS 10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 1.26 (0.38)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 0.47 (0.14)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF158-50JA/JFNA PREMIUM ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0435	0.0133	258
1.0	0.0617	0.0188	182
1.5	0.0756	0.0230	148
2.0	0.0874	0.0266	128
10	0.197	0.0601	56.9
20	0.281	0.0855	40.0
30	0.345	0.105	32.5
50	0.449	0.137	25.0
88	0.603	0.184	18.6
100	0.644	0.196	17.4
108	0.671	0.204	16.7
150	0.798	0.243	14.1
174	0.863	0.263	13.0
200	0.929	0.283	12.1
300	1.15	0.352	9.71
400	1.35	0.412	8.30
450	1.44	0.439	7.79
500	1.53	0.465	7.35
512	1.55	0.471	7.25
600	1.69	0.514	6.64
700	1.84	0.560	6.10
800	1.98	0.604	5.66
824	2.01	0.614	5.56
894	2.11	0.643	5.31
900	2.12	0.645	5.29
925	2.15	0.656	5.21
960	2.20	0.669	5.10
1000	2.25	0.685	4.99
1250	2.55	0.778	4.39
1500	2.84	0.865	3.95
1700	3.05	0.931	3.67
1800	3.16	0.96	3.55
2000	3.36	1.02	3.34
2100	3.46	1.05	3.24
2200	3.56	1.08	3.15
2400	3.74	1.14	2.99
2750	4.06	1.24	2.76

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
LCF158-50JA-A*	Standard
LCF158-50JFNA-A*	Flame Retardant

CELLFLEX® Cable

LCF214-50A Series 2-1/4" Low-Loss Foam Coax



APPLICATIONS

Main feed line, Riser-rated In-Building (JFN types, only)

GENERAL INFORMATION

Cable Type Foam-Dielectric, Corrugated
Size 2-1/4"

STRUCTURE

Inner Conductor Material Corrugated Copper Tube
Diameter Inner Conductor, mm 20.8 (0.82)
(in)
Diameter Dielectric, mm (in) 49.0 (1.93)
Outer Conductor Material Corrugated Copper
Diameter Copper Outer Conductor, mm (in) 56.1 (2.21)
Diameter over Jacket Nominal, mm (in) 59.9 (2.36)

MECHANICAL SPECIFICATIONS

Cable Weight, kg/m (lb/ft) 1.70 (1.14)
Minimum Bending Radius, Single Bend, mm (in) 280 (11)
Minimum Bending Radius, Repeated Bends, mm (in) 560 (22)
Bending Moment, N•m (lb-ft) 81.0 (60.0)
Flat Plate Crush Strength, N/mm (lb/in) 27.6 (150)
Tensile Strength, N (lb) 2610 (587)
Recommended / Maximum Clamp Spacing, m (ft) 1.5 / 2.0 (5.0 / 6.6)

ELECTRICAL SPECIFICATIONS

Impedance, Ohm 50 +/- 1
Velocity, percent 88
Capacitance, pF/m (pF/ft) 75.0 (22.9)
Inductance, µH/m (µH/ft) 0.190 (0.058)
Maximum Frequency, GHz 2.2
Peak Power Rating, kW 425
RF Peak Voltage, Volts 6520
Jacket Spark, Volt RMS 10000
Inner Conductor dc Resistance, ohm/1000 m (ohm/1000 ft) 0.92 (0.28)
Outer Conductor dc Resistance, ohm/1000 m (Ohm/1000 ft) 0.31 (0.09)

See Installation, Operation and Storage Temperatures on page 28.
For premium return loss codes see page 29.

CONNECTORS AND ACCESSORIES

Connectors See pages 70-77
Jumpers See pages 82-87
Accessories See pages 97-102
Coaxial Devices See pages 106-108
Technical Appendix See pages 639-648

LCF214-50JA/JFNA ATTENUATION AND AVERAGE POWER

Frequency MHz	Attenuation dB/100 m	Attenuation dB/100 ft	Average Power kW
0.5	0.0369	0.0112	321
1.0	0.0523	0.0160	226
1.5	0.0642	0.0196	184
2.0	0.0743	0.0226	159
10	0.169	0.0514	70.2
20	0.241	0.0736	49.1
30	0.298	0.0909	39.7
50	0.390	0.119	30.3
88	0.528	0.161	22.4
100	0.566	0.172	20.9
108	0.590	0.180	20.1
150	0.706	0.215	16.8
174	0.766	0.233	15.5
200	0.827	0.252	14.3
300	1.04	0.317	11.4
400	1.23	0.373	9.66
450	1.31	0.400	9.03
500	1.39	0.425	8.49
512	1.41	0.431	8.37
600	1.55	0.473	7.63
700	1.70	0.519	6.96
800	1.84	0.562	6.42
824	1.88	0.572	6.31
894	1.97	0.601	6.01
900	1.98	0.603	5.98
925	2.01	0.613	5.88
960	2.06	0.627	5.75
1000	2.11	0.643	5.61
1250	2.42	0.738	4.89
1500	2.71	0.827	4.36
1700	2.94	0.895	4.03
1800	3.05	0.929	3.89
2000	3.26	0.99	3.63
2100	3.36	1.03	3.52
2200	3.47	1.06	3.42

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
LCF214-50JA-P*	Standard
LCF214-50JFNA-P*	Flame Retardant