



3/8" Superflexible Foam Dielectric, FSJ Series – 50-ohm



FSJ2-50

Description	Type No.
Cable Ordering Information	
Standard Superflexible Cable	
3/8" Standard Cable, Standard Jacket	FSJ2-50
Fire Retardant Cables	
3/8" Fire Retardant Jacket (CATVX)	FSJ2RN-50
3/8" Fire Retardant Jacket (CATVR)	FSJ2RN-50
Low VSWR and Specialized Cables	
3/8" Low VSWR, specify operating band	FSJ2P-50-(**)
Phase Stabilized and Phase Measured Cable	See page 590
Jumper Cable Assemblies – See page 584	
** Insert suffix number from "Low VSWR Specifications" table, page 481	
Characteristics	
Electrical	
Impedance, ohms	50 ± 1
Maximum Frequency, GHz	13.4
Velocity, percent	83
Peak Power Rating, kW	13.2
dc Resistance, ohms/1000 ft (1000 m)	
Inner	1.29 (4.23)
Outer	1.52 (4.99)
dc Breakdown, volts	2300
Jacket Spark, volts RMS	5000
Capacitance, pF/ft (m)	24.3 (79.7)
Inductance, µH/ft (m)	0.061 (0.200)
Mechanical	
Outer Conductor	Copper
Inner Conductor	Copper-Clad Aluminum
Diameter over Jacket, standard jacket, in (mm)	0.415 (10.5)
Diameter over Jacket, fire-retardant jacket, in (mm)	0.425 (10.8)
Diameter over Copper Outer Conductor, in (mm)	0.375 (9.5)
Diameter Inner Conductor, in (mm)	0.110 (2.8)
Minimum Bending Radius, in (mm)	1 (25)
Number of Bends, minimum (typical)	20 (50)
Bending Moment, lb-ft (N•m)	1.7 (2.3)
Cable Weight, lb/ft. (kg/m)	0.078 (0.12)
Tensile Strength, lb (kg)	210 (95)
Flat Plate Crush Strength, lb/in (kg/mm)	100 (1.8)

Attenuation and Average Power Ratings

Frequency MHz	Attenuation dB/100 ft	Attenuation dB/100 m	Average Power, kW
0.5	0.082	0.270	13.2
1	0.117	0.383	13.2
1.5	0.143	0.469	13.2
2	0.165	0.542	13.2
10	0.372	1.22	6.92
20	0.528	1.73	4.87
30	0.649	2.13	3.97
50	0.842	2.76	3.06
88	1.13	3.69	2.29
100	1.20	3.94	2.14
108	1.25	4.10	2.06
150	1.48	4.86	1.74
174	1.60	5.25	1.61
200	1.72	5.65	1.49
300	2.13	6.99	1.21
400	2.48	8.14	1.04
450	2.64	8.66	0.975
500	2.79	9.17	0.921
512	2.83	9.28	0.910
600	3.08	10.1	0.836
700	3.35	11.0	0.769
800	3.60	11.8	0.715
824	3.66	12.0	0.704
894	3.82	12.5	0.673
960	3.97	13.0	0.648
1000	4.06	13.3	0.634
1250	4.59	15.1	0.580
1500	5.08	16.7	0.507
1700	5.45	17.9	0.472
1800	5.63	18.5	0.457
2000	5.97	19.6	0.431
2100	6.14	20.1	0.419
2200	6.30	20.7	0.409
2300	6.47	21.2	0.398
3000	7.53	24.7	0.342
3400	8.09	26.6	0.318
4000	8.90	29.2	0.289
5000	10.2	33.3	0.254
6000	11.3	37.2	0.228
8000	13.5	44.3	0.191
10000	15.5	50.8	0.166
12000	17.4	57.0	0.148
13400	18.6	61.1	0.138

Standard Conditions:

For attenuation, VSWR 1.0, ambient 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.