

FSJ1-75



FSJ1-75, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black PE jacket

OBSOLETE

This product was discontinued on: December 1, 2011

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX® SureFlex®
Product Series	FSJ1-75

General Specifications

Flexibility	Superflexible
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Dielectric	4.826 mm 0.19 in
Diameter Over Jacket	7.366 mm 0.29 in
Inner Conductor OD	1.067 mm 0.042 in
Outer Conductor OD	6.35 mm 0.25 in
Nominal Size	1/4 in

Electrical Specifications

Cable Impedance	75 ohm \pm 3 ohm
Capacitance	57.1 pF/m 17.404 pF/ft
dc Resistance, Inner Conductor	49.213 ohms/km 15 ohms/kft
dc Resistance, Outer Conductor	5.906 ohms/km 1.8 ohms/kft

FSJ1-75

dc Test Voltage	2000 V
Inductance	0.322 μ H/m 0.098 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 1000 MHz
Peak Power	6.7 kW
Velocity	78 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.585	0.178	6.7
1.5	0.718	0.219	6.7
2.0	0.83	0.253	6.7
10.0	1.871	0.57	3
20.0	2.664	0.812	2.11
30.0	3.278	0.999	1.71
50.0	4.266	1.3	1.32
85.0	5.62	1.713	1
88.0	5.722	1.744	0.98
100.0	6.118	1.865	0.92
108.0	6.37	1.942	0.88
150.0	7.574	2.309	0.74
174.0	8.194	2.497	0.68
200.0	8.825	2.69	0.64
204.0	8.918	2.718	0.63
300.0	10.97	3.343	0.51
400.0	12.824	3.909	0.44
450.0	13.678	4.169	0.41
460.0	13.843	4.219	0.41
500.0	14.493	4.417	0.39
512.0	14.683	4.475	0.38
600.0	16.03	4.886	0.35
700.0	17.466	5.323	0.32
800.0	18.824	5.737	0.3
824.0	19.14	5.834	0.29

FSJ1-75

894.0	20.041	6.108	0.28
960.0	20.866	6.36	0.27
1000.0	21.356	6.509	0.26

Material Specifications

Dielectric Material	Foam PE
Jacket Material	PE
Inner Conductor Material	Copper-clad steel wire
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	31.75 mm 1.25 in
Number of Bends, minimum	20
Number of Bends, typical	50
Tensile Strength	64 kg 141.096 lb
Bending Moment	2.7 N-m 23.897 in lb
Flat Plate Crush Strength	1.9 kg/mm 106.395 lb/in

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)
Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	212 °F 100 °C

Packaging and Weights

Cable weight	0.22 kg/m 0.148 lb/ft
---------------------	-------------------------