

F2NM

Type N Male for 3/8 in FSJ2-50 cable

OBSOLETE

This product was discontinued on: October 30, 2016

Replaced By:

F2SM-DCM	Type S Male Positive Lock for 3/8 in FSJ2-50 cable
F2TNM-PL	Type N Male Positive Lock for 3/8 in FSJ2-50 cable

Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX®

General Specifications

Body Style	Straight
Cable Family	FSJ2-50
Inner Contact Attachment Method	Solder
Inner Contact Plating	Silver
Interface	N Male
Mounting Angle	Straight
Outer Contact Attachment Method	Self-flare
Outer Contact Plating	Copper alloy treatment
Pressurizable	No

Dimensions

Height	20.57 mm 0.81 in
Width	20.57 mm 0.81 in
Length	52.32 mm 2.06 in
Nominal Size	3/8 in

Electrical Specifications

3rd Order IMD at Frequency	-112 dBm @ 910 MHz
3rd Order IMD Test Method	Two +43 dBm carriers

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Average Power at Frequency	0.7 kW @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	2300 V
Inner Contact Resistance, maximum	1 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	0.25 mOhm
Peak Power, maximum	0.68 kW
RF Operating Voltage, maximum (vrms)	707 V
Shielding Effectiveness	-110 dB

Mechanical Specifications

Connector Retention Tensile Force	671.68 N 151 lbf
Connector Retention Torque	2.7 N-m 23.897 in lb
Coupling Nut Proof Torque	1.7 N-m 15.046 in lb
Coupling Nut Proof Torque Method	IEC 61169-16:9.3.11
Coupling Nut Retention Force	445 N 100.04 lbf
Coupling Nut Retention Force Method	IEC 61169-16:9.3.11
Insertion Force	124.55 N 28 lbf
Insertion Force Method	IEC 61169-16:9.3.5
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:17
Mechanical Shock Test Method	IEC 60068-2-27

Environmental Specifications

Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	100 °C 212 °F
Corrosion Test Method	IEC 60068-2-11
Immersion Depth	1 m

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Immersion Test Mating	Mated
Immersion Test Method	IEC 60529:2001, IP68
Moisture Resistance Test Method	IEC 60068-2-3
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6

Packaging and Weights

Weight, net	146.81 g 0.324 lb
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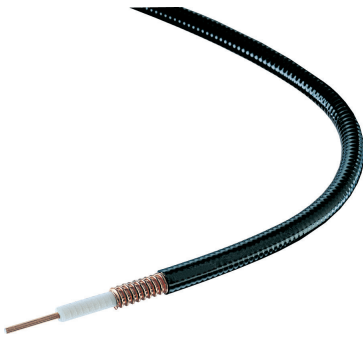
Included Products

FSJ2-50	–	FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket
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* Footnotes

Immersion Depth	Immersion at specified depth for 24 hours
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FSJ2-50



FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX® SureFlex®
Product Series	FSJ2-50

General Specifications

Product Number	887019902/00 SZ887019902/00
Flexibility	Superflexible
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Dielectric	7.112 mm 0.28 in
Diameter Over Jacket	10.541 mm 0.415 in
Inner Conductor OD	2.794 mm 0.11 in
Outer Conductor OD	9.652 mm 0.38 in
Nominal Size	3/8 in

Electrical Specifications

Cable Impedance	50 ohm \pm 1 ohm
Capacitance	79.7 pF/m 24.293 pF/ft
dc Resistance, Inner Conductor	4.232 ohms/km 1.29 ohms/kft
dc Resistance, Outer Conductor	4.987 ohms/km 1.52 ohms/kft
dc Test Voltage	2300 V
Inductance	0.2 μ H/m 0.061 μ H/ft
Insulation Resistance	100000 MOhms-km

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Jacket Spark Test Voltage (rms)	4000 V
Operating Frequency Band	1 – 13400 MHz
Peak Power	13.2 kW
Velocity	83 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
2.5–2.7 GHz	1.106	25.96
680–800 MHz	1.106	25.96
800–960 MHz	1.106	25.96
1700–2200 MHz	1.101	26.36

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.383	0.117	13.2
1.5	0.469	0.143	13.2
2.0	0.542	0.165	13.2
10.0	1.219	0.372	6.97
20.0	1.732	0.528	4.91
30.0	2.128	0.649	3.99
50.0	2.762	0.842	3.08
85.0	3.626	1.105	2.34
88.0	3.691	1.125	2.3
100.0	3.943	1.202	2.16
108.0	4.103	1.25	2.07
150.0	4.864	1.482	1.75
174.0	5.254	1.601	1.62
200.0	5.65	1.722	1.5
204.0	5.709	1.74	1.49
300.0	6.99	2.13	1.22
400.0	8.139	2.481	1.04
450.0	8.665	2.641	0.98
460.0	8.767	2.672	0.97
500.0	9.166	2.794	0.93
512.0	9.283	2.829	0.92

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600.0	10.107	3.081	0.84
700.0	10.983	3.347	0.77
800.0	11.807	3.599	0.72
824.0	11.998	3.657	0.71
894.0	12.542	3.823	0.68
960.0	13.04	3.974	0.65
1000.0	13.334	4.064	0.64
1218.0	14.861	4.529	0.57
1250.0	15.075	4.595	0.56
1500.0	16.68	5.084	0.51
1700.0	17.887	5.452	0.48
1794.0	18.436	5.619	0.46
1800.0	18.47	5.629	0.46
2000.0	19.599	5.974	0.43
2100.0	20.147	6.141	0.42
2200.0	20.685	6.305	0.41
2300.0	21.214	6.466	0.4
2500.0	22.247	6.781	0.38
2700.0	23.249	7.086	0.37
3000.0	24.701	7.529	0.34
3400.0	26.558	8.094	0.32
3600.0	27.456	8.368	0.31
3700.0	27.899	8.503	0.3
3800.0	28.337	8.637	0.3
3900.0	28.771	8.769	0.3
4000.0	29.201	8.9	0.29
4100.0	29.628	9.03	0.29
4200.0	30.051	9.159	0.28
4300.0	30.47	9.287	0.28
4400.0	30.886	9.414	0.28
4500.0	31.298	9.539	0.27
4600.0	31.708	9.664	0.27
4700.0	32.114	9.788	0.26
4800.0	32.518	9.911	0.26
4900.0	32.919	10.033	0.26

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5000.0	33.316	10.154	0.26
6000.0	37.158	11.325	0.23
8000.0	44.264	13.491	0.19
8800.0	46.943	14.308	0.18
10000.0	50.826	15.491	0.17
12000.0	57.001	17.373	0.15

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, multiple Bends	25.4 mm 1 in
Minimum Bend Radius, single Bend	25.4 mm 1 in
Number of Bends, minimum	20
Number of Bends, typical	50
Tensile Strength	95 kg 209.439 lb
Bending Moment	2.3 N-m 20.357 in lb
Flat Plate Crush Strength	1.8 kg/mm 100.795 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	0.12 kg/m 0.081 lb/ft
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Regulatory Compliance/Certifications

FSJ2-50

Agency

CHINA-ROHS

ISO 9001:2015

ROHS

UK-ROHS



Classification

Below maximum concentration value

Designed, manufactured and/or distributed under this quality management system

Compliant

Compliant