



CELLFLEX®7/8" premium attenuation low loss flexible cable support CBRS, C-Band up to 4.2GHz; flame retardant/ halogen free jacket

FEATURES / BENEFITS

• BAA Compliant

RFS Technologies is proud to announce that the product of LCF78-50JFNA-BAA manufactured by RFS Technologies Meriden Factory in CT, U.S. is BAA compliant with Federal Transit Administration's requirements.

• Ultra Low Attenuation

The further reduced attenuation of CELLFLEX® premium attenuation coaxial cable results in extremely efficient signal transfer in your RF system, especially at high frequencies.

• Complete Shielding

The solid outer conductor of CELLFLEX® coaxial cable creates a continuous RFI/EMI shield that minimizes system interference.

• Low VSWR

Special low VSWR versions of CELLFLEX® coaxial cables contribute to low system noise.

• Outstanding Intermodulation Performance

CELLFLEX® coaxial cable's solid inner and outer conductors virtually eliminate intermods. Intermodulation performance is also confirmed with state-of-the-art equipment at the RFS Technologies factory.

• High Power Rating

Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, CELLFLEX® cable provides safe long term operating life at high transmit power levels.

• Wide Range of Application

Typical areas of application are: feedlines for broadcast and terrestrial microwave antennas, wireless cellular, PCS and ESMR base stations, cabling of antenna arrays, and radio equipment interconnects.

• Meets or Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C)



7/8" CELLFLEX® Low-Loss Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

Applications		Indoor	Wireless Communication	TV & Radio	HF Defense	Microwave	Mobile Radio	Cable Solutions
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**STRUCTURE**

<b>Size</b>		7/8
<b>Jacket Option</b>		Black
<b>Inner Conductor Diameter</b>	mm (in)	9.1 (0.358)
<b>Inner Conductor Material</b>		Copper Tube
<b>Dielectric Diameter</b>	mm (in)	21.5 (0.846)
<b>Dielectric Material</b>		Foam Polyethylene
<b>Outer Conductor Diameter</b>	mm (in)	25.2 (0.992)
<b>Outer Conductor Material</b>		Corrugated Copper
<b>Jacket Diameter</b>	mm (in)	27.8 (1.094)
<b>Jacket Material</b>		Polyethylene, PE, Metalhydroxite Filling
<b>Cable Type</b>		Foam-Dielectric, Corrugated

**TESTING AND ENVIRONMENTAL**

<b>Fire Performance</b>		Flame Retardant, LS0H
<b>Flame Retardant Jacket Specifications</b>		Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C); UL 1581; UL 1666;NFPA130 (ed. 2014) Ch.12 (NFPA70 ) via UL-1685/FT4/IEEE1202; NEC type CATVR; CPR: <a href="https://products.rfsworld.com/userfiles/cpr/rfs-products-cpr-compliance.pdf">https://products.rfsworld.com/userfiles/cpr/rfs-products-cpr-compliance.pdf</a>
<b>Installation Temperature</b>	°C(°F)	-25 to 60 (-13 to 140)
<b>Storage Temperature</b>	°C (°F)	-70 to 85 (-94 to 185)
<b>Operation Temperature</b>	°C(°F)	-50 to 85 (-58 to 185)



**ELECTRICAL SPECIFICATIONS**

<b>Impedance</b>	Ω	50 +/- 1
<b>Maximum Frequency</b>	GHz	5
<b>Velocity</b>	%	90
<b>Capacitance</b>	pF/m (pF/ft)	74 (22.5)
<b>Inductance</b>	uH/m (uH/ft)	0.185 (0.056)
<b>Peak Power Rating</b>	kW	85
<b>RF Peak Voltage</b>	Volts	2920
<b>Jacket Spark</b>	Volt RMS	8000
<b>Inner Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	2.04 (0.62)
<b>Outer Conductor dc Resistance</b>	Ω/1000 m (Ω/1000 ft)	2 (0.61)
<b>Return Loss (VSWR) Performance</b>		20 (1.22) @ 450-617 MHz 24 (1.13) @ 617-960 MHz 24 (1.13) @ 1695-2200 MHz 20 (1.22) @ 2300-2700 MHz 18 (1.28) @ 3500-4200 MHz
<b>Phase Stabilized</b>		Phase stabilized and phase matched cables and assemblies are available upon request.
<b>Temperature &amp; Power</b>		Standard

**MECHANICAL SPECIFICATIONS**

<b>Cable Weight, Nominal</b>	kg/m (lb/ft)	0.46 (0.31)
<b>Minimum Bending Radius, Single Bend</b>	mm (in)	120 (5)
<b>Minimum Bending Radius, Repeated Bends</b>	mm (in)	250 (10)
<b>Bending Moment</b>	Nm (lb-ft)	13 (10)
<b>Tensile Strength</b>	N (lb)	1440 (324)
<b>Recommended / Maximum Clamp Spacing</b>	m (ft)	0.8 / 1 (2.75 / 3.25)



ATTENUATION @ 20°C (68°F) AND POWER RATING @ 40°C (104°F)

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
0.5	0.08	0.02	91
1	0.11	0.03	74.20
1.5	0.14	0.04	60.70
2	0.16	0.05	52.40
10	0.36	0.11	23.30
20	0.51	0.16	16.40
30	0.63	0.19	13.40
50	0.81	0.25	10.30
88	1.09	0.33	7.69
100	1.16	0.35	7.22
108	1.21	0.37	6.93
150	1.43	0.44	5.86
174	1.55	0.47	5.41
200	1.66	0.51	5.05
300	2.06	0.63	4.07
400	2.40	0.73	3.49
450	2.55	0.78	3.29
500	2.70	0.82	3.10
512	2.73	0.83	3.07
600	2.98	0.91	2.81
700	3.23	0.99	2.59
750	3.36	1.02	2.49
800	3.48	1.06	2.41
824	3.53	1.08	2.37
894	3.69	1.13	2.27
900	3.71	1.13	2.26
925	3.76	1.15	2.23
960	3.84	1.17	2.18
1000	3.93	1.20	2.13
1250	4.44	1.35	1.89
1400	4.73	1.44	1.77
1500	4.91	1.50	1.71
1700	5.27	1.61	1.59
1800	5.44	1.66	1.54
2000	5.77	1.76	1.45
2100	5.93	1.81	1.41



2200	6.09	1.86	1.38
2400	6.40	1.95	1.31
2500	6.55	2	1.28
2600	6.70	2.04	1.25
2700	6.84	2.09	1.23
3000	7.27	2.22	1.15
3500	7.95	2.42	1.05
4000	8.60	2.62	0.97
4900	9.69	2.95	0.87
5000	9.81	2.99	0.85

External Document Links

Notes