## LCF78-50JL

## 7/8" CELLFLEX<sup>®</sup> Lite Low-Loss Foam-Dielectric Coaxial Cable



Product Desci	ription				П		
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CELLFLEX <sup>®</sup> Lite	7/8" low loss flexible cable					1	
Application: Main feed line							
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					EX® Lite Lo	- ow-Loss Foa	m Dielectr
						I Cable	
Features/Bene	ofito						
reatures/bene	ents						
<ul> <li>It represents a l</li> </ul>	light-weight transmission line so	olution		Frequency			
The light weight of CELLFLEX® Lite coaxial cable results in reduced work-force and lifting gear.					Attenu		Power [ kW ]
	nsport, handle and install		00	[ MHz ]		[ dB/100ft ]	[ KVV ]
	e coaxial cables enable savings in	shipping cost.		0.5	0.0871	0.0266	85.0
It exhibits a cost-efficient alternative to copper transmission line				1.0	0.123	0.0376	85.0
CELLFLEX® Lite coaxial cable helps to reduce CAPEX spending.				1.5	0.151	0.0461	70.2
• It offers a user-friendly compatibility with RFS's existing range of accessories				2.0	0.175	0.0532	60.6
CELLFLEX® Lite coaxial cable requires less inventory additions, thus reduced OPEX.				10	0.392	0.119	27.0
• It enables trouble-free installation and operation				20	0.556	0.170	19.1
CELLFLEX® Lite coaxial cable avoids downtime and reduces OPEX.				<u>30</u> 50	0.683	0.208	<u>15.5</u> 12.0
The attenuation is comparable to the industry standard in traditional cable				88	1.18	0.270	8.98
CELLFLEX® Lite coaxial cable maintains uncompromised coverage.				100	1.26	0.384	8.41
Specially developed connectors exhibit low and stable intermodulation performance				108	1.31	0.400	8.09
CELLFLEX® Lite coaxial cable exceeds present PIM standards ensuring no dropped calls.				150	1.55	0.473	6.84
• It is available with UV-resistant polyethylene or flame-retardant jackets				174	1.67	0.510	6.35
CELLFLEX® Lite coaxial cable can be used outside and in indoor applications where restrictions apply.				200	1.80	0.549	5.89
• It exceeds industry standard for return loss performance				300	2.22	0.677	4.77
CELLFLEX® Lite coaxial cable means zero risk in network planning.				400	2.58	0.786	4.11
		network planning.		450 500	2.74 2.90	0.837	<u>3.87</u> 3.66
Technical Fea	tures			512	2.94	0.895	3.61
Structure				600	3.19	0.973	3.32
Inner conductor:	Copper Tube	[mm (in)]	9.3 (0.37)	700	3.46	1.06	3.06
Dielectric:	Foam Polyethylene	[mm (in)] [mm (in)]	21.5 (0.85)	750	3.59	1.10	2.95
Outer conductor:	Corrugated Aluminium				3.72	1.13	2.85
		[mm (in)]	25.2 (0.99)	824	3.78	1.15	2.80
Jacket:	Polyethylene, PE	[mm (in)]	27.8 (1.09)	- <u>894</u> 900	3.95 3.96	1.20 1.21	2.68
Mechanical Prop				925	4.02	1.21	2.64
Weight, approximate		[kg/m (lb/ft)]	0.36 (0.24)	960	4.10	1.25	2.59
Minimum bending ra		[mm (in)]	120 (5)	1000	4.19	1.28	2.53
	dius, repeated bending	[mm (in)]	250 (10)	1250	4.72	1.44	2.25
Bending moment		[Nm (lb-ft)]	13.0 (9.6)	1400	5.02	1.53	2.11
Max. tensile force		[N (lb)]	1440 (324)	1500	5.21	1.59	2.03
Recommended / max	ximum clamp spacing	[m (ft)]	0.8 / 1.0 (2.75 / 3.25)	- <u>1700</u> - 1800	5.58 5.76	1.70 1.76	<u>1.90</u> 1.84
Electrical Proper	ties			2000	6.10	1.86	1.04
Characteristic imped		[Ω]	50 +/- 1	2100	6.27	1.91	1.69
		[\2]	90	- 2200	6.43	1.96	1.65
Relative propagation				- 2400	6.75	2.06	1.57
Capacitance		[pF/m (pF/ft)]	75.0 (22.9)	2500	6.90	2.10	1.54
Inductance		[µH/m (µH/ft)]	0.1875 (0.057)		7.05	2.15	1.50
Max. operating frequency		[GHz]	5	2700	7.20	2.20	1.47
Jacket spark test RMS		[V]	8000	3000	7.64	2.33	1.39
Peak power rating		[kW]	85	<u>3500</u> 4000	8.33	2.54	1.27
RF Peak voltage rating		[V]	2920	- 4000	8.98 10.1	2.74 3.07	<u>1.18</u> 1.05
DC-resistance inner		[Ω/km (Ω/1000ft)]	1.54 (0.469)	- 5000	10.1	3.11	1.03
DC-resistance outer	conductor	[Ω/km (Ω/1000ft)]	1.42 (0.43)	Attenuation a	t 20°C (68°F) c	able temperatur 104°F) ambient	
Recommended T	emperature Range			Mean power	rating at 40°C (	104°F) ambient	temperature
Storage temperature		[°C (°F)]	-70 to +85 (-94 to +185)				
Installation temperature		[°C (°F)]	-40 to +60 (-40 to +140)	_			
Operation temperature		[°C (°F)]	-50 to +85 (-58 to +185)	_			
operation temperatu		[0(F)]	-30 10 +03 (-30 10 + 103)	_			

## **Other Characteristics**

Fire Performance: Halogene Free

VSWR Performance: Standard

Other Options: Phase stabilized and phase matched cables and assemblies are available upon request.

All information contained in the present datasheet is subject to confirmation at time of ordering

[dB (VSWR)]

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