PRODUCT DATASHEET

LCF158-50JFNL

1-5/8" CELLFLEX® Lite Low-Loss Foam-Dielectric Coaxial Cable

CELLFLEX® Lite 1-5/8" low loss flexible cable

Feature / Benefits

- **It represents a light-weight transmission line solution**
  The light weight of CELLFLEX® Lite coaxial cable results in reduced work-force and lifting gear.
- **It is easy to transport, handle and install**
  CELLFLEX® Lite coaxial cables enable savings in shipping cost.
- **It exhibits a cost-efficient alternative to copper transmission line**
  CELLFLEX® Lite coaxial cable helps to reduce CAPEX spending.
- **It offers a user-friendly compatibility with RFS's existing range of accessories**
  CELLFLEX® Lite coaxial cable requires less inventory additions, thus reduced OPEX.
- **It enables trouble-free installation and operation**
  CELLFLEX® Lite coaxial cable avoids downtime and reduces OPEX.
- **The attenuation is comparable to the industry standard in traditional cable**
  CELLFLEX® Lite coaxial cable maintains uncompromised coverage.
- **Specially developed connectors exhibit low and stable intermodulation performance**
  CELLFLEX® Lite coaxial cable exceeds present PIM standards ensuring no dropped calls.
- **It is available with UV-resistant polyethylene or flame-retardant jackets**
  CELLFLEX® Lite coaxial cable can be used outside and in indoor applications where restrictions apply.
- **It exceeds industry standard for return loss performance**
  CELLFLEX® Lite coaxial cable means zero risk in network planning.
- **Meets/Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24**

Technical features

APPLICATIONS

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

STRUCTURE

Cable Type	Foam-Dielectric, Corrugated
Size	1-5/8
Jacket Option	Black
Inner Conductor Diameter	17.6mm (0.69in)
Inner Conductor Material	Corrugated Copper Tube
Dielectric Diameter	42.4mm (1.67in)
Dielectric Material	Foam Polyethylene
Outer Conductor Diameter	46.4mm (1.83in)
Outer Conductor Material	Corrugated Aluminium
Jacket Diameter	50.2mm (1.98in)
Jacket Material	Polyethylene, PE, Metalhydroxite Filling

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, LS0H
Installation Temperature	-25°C to 60°C (-13°F to 140°F)
Storage Temperature	-70°C to 85°C (-94°F to 185°F)
Operation Temperature	-50°C to 85°C (-58°F to 185°F)

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ELECTRICAL SPECIFICATIONS

Impedance	50 +/- 1 Ω
Maximum Frequency	2.75 GHz
Velocity	90 %
Capacitance	74pF/m (22.5pF/ft)
Inductance	0.185µH/m (0.056µH/ft)
Peak Power Rating	310 kW
RF Peak Voltage	5600 Volts
Jacket Spark	10000 Volt RMS
Inner Conductor dc Resistance	1.3ohm/1000 m (0.396ohm/1000 ft)
Outer Conductor dc Resistance	0.61ohm/1000 m (0.186ohm/1000 ft)
Return Loss (VSWR) Performance	Standard (for 40-2700 MHz) or Premium
Phase Stabilized	Phase stabilized and phase matched cables and assemblies are available upon request.

MECHANICAL SPECIFICATIONS

Cable Weight	0.97kg/m (0.65lb/ft)
Minimum Bending Radius	200mm (8in)
Minimum Bending Radius	500mm (20in)
Bending Moment	40.7 (30.7)
Tensile Strength	1800N (405lb)
Recommended / Maximum Clamp Spacing	1.2 / 1.5 (4 / 5)

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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
10	0.217	0.066	53.9
20	0.309	0.094	37.9
30	0.38	0.116	30.8
50	0.495	0.151	23.6
88	0.663	0.202	17.6
100	0.709	0.216	16.5
108	0.738	0.225	15.9
150	0.877	0.267	13.3
174	0.948	0.289	12.3
200	1.02	0.311	11.5
300	1.27	0.387	9.21
400	1.48	0.452	7.91
450	1.58	0.481	7.41
500	1.67	0.51	7.01
512	1.7	0.517	6.88
600	1.85	0.564	6.32
700	2.01	0.614	5.82
750	2.09	0.638	5.6
800	2.17	0.661	5.39
824	2.21	0.672	5.29
894	2.31	0.704	5.06
900	2.32	0.707	5.04
925	2.35	0.718	4.98
960	2.4	0.733	4.88
1000	2.46	0.75	4.76
1250	2.79	0.851	4.19
1400	2.98	0.908	3.93
1500	3.1	0.945	3.77
1700	3.33	1.02	3.51
1800	3.45	1.05	3.39
2000	3.67	1.12	3.19
2100	3.77	1.15	3.1
2200	3.88	1.18	3.02
2400	4.08	1.24	2.87
2500	4.18	1.28	2.8
2600	4.28	1.31	2.73
2700	4.38	1.34	2.67
2750	4.43	1.35	2.64

External Document Links

Notes