

**LCF158-50CPR**

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



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

Feature / Benefits

- **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 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/Exceeds:** IEC 60754-1, -2; IEC 60332-1-1; IEC 61034-1, -2; IEC 60332-3-24; [EN50575](#)

Technical features**APPLICATIONS**

Applications	Indoor	Wireless Communication	TV & Radio	HF Defense	Mobile Radio	Cable Solutions
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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 Copper
Jacket Diameter	50.2mm (1.98in)
Jacket Material	Polyethylene, PE, Metalhydroxite Filling

TESTING AND ENVIRONMENTAL

Fire Performance	Flame Retardant, LS0H
Installation Temperature	-15°C to 60°C (5°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	0.185 μ H/m (0.056 μ H/ft)
Peak Power Rating	310 kW
RF Peak Voltage	5600 Volts
Jacket Spark	10000 Volt RMS
Inner Conductor dc Resistance	1.3ohm/1000 m (0.4ohm/1000 ft)
Outer Conductor dc Resistance	0.47ohm/1000 m (0.14ohm/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	1.25kg/m (0.84lb/ft)
Minimum Bending Radius	200mm (8in)
Minimum Bending Radius	500mm (20in)
Bending Moment	42 (31)
Tensile Strength	2500N (562lb)
Recommended / Maximum Clamp Spacing	1.2 / 1.5 (4 / 5)

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

Frequency, MHz	dB per 100m	dB per 100ft	Power, kW
100	0.644	0.196	17.4
200	0.93	0.283	12.1
450	1.44	0.439	7.78
800	1.98	0.604	5.66
900	2.12	0.646	5.29
1800	3.16	0.963	3.55
2000	3.36	1.03	3.34
2200	3.56	1.08	3.15
2400	3.75	1.14	2.99
2700	4.02	1.23	2.79
2750	4.07	1.24	2.75

External Document Links

Notes