

CELLFLEX® 1/2" low loss flexible cable

Feature / Benefits

Ultra Low Attenuation

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

Complete ShieldingThe 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 RatingDue 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

Technical features

APPLICATIONS

| Applications | OEM jumpers, Main feed transitions to equipment, GPS lines, intended for outdoor usage | |
|--------------|--|--|
| | | |

STRUCTURE

| Cable Type | Foam-Dielectric, Corrugated | | | |
|--------------------------|-----------------------------|--|--|--|
| Size | 1/2 | | | |
| Jacket Option | Black | | | |
| Inner Conductor Diameter | 4.8mm (0.189in) | | | |
| Inner Conductor Material | Copper-Clad Aluminum Wire | | | |
| Dielectric Diameter | 11.3mm (0.445in) | | | |
| Dielectric Material | Foam Polyethylene | | | |
| Outer Conductor Diameter | 13.8mm (0.543in) | | | |
| Outer Conductor Material | Corrugated Copper | | | |
| Jacket Diameter | 15.8mm (0.622in) | | | |
| Jacket Material | Black Polyethylene | | | |

TESTING AND ENVIRONMENTAL

| Fire Performance | Halogen free, outdoor-rated | | | |
|--------------------------|--|--|--|--|
| Installation Temperature | -40°C to 60°C (-40°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) | | | |
| Compliance | DIN EN ISO 9001:2015 | | | |
| | ISO 14001:2015 | | | |
| | RoHS 2011/65/EU - China RoHS SJ/T 11364-2006 | | | |
| | REACH (EC 1907/2006) | | | |

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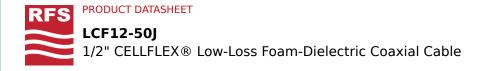
ELECTRICAL SPECIFICATIONS

| Impedance | 50 +/- 1 Ω | | | |
|--------------------------------|---|--|--|--|
| Maximum Frequency | 8.8 GHz | | | |
| Velocity | 87 % | | | |
| Capacitance | 76pF/m (23.2pF/ft) | | | |
| Inductance | 0.19μH/m (0.058μH/ft) | | | |
| Peak Power Rating | 38 kW | | | |
| RF Peak Voltage | 1950 Volts | | | |
| Jacket Spark | 8000 Volt RMS | | | |
| Inner Conductor dc Resistance | 1.62ohm/1000 m (0.5ohm/1000 ft) | | | |
| Outer Conductor dc Resistance | 3.55ohm/1000 m (1.08ohm/1000 ft) | | | |
| Passive Intermodulation PIM | -160 typ. dBc | | | |
| Return Loss (VSWR) Performance | Standard 20dB (1.222) / Premium 23/24dB (1.152/1.135) on specified frequencies | | | |
| Phase Stabilized | Phase stabilized and phase matched cables and accessories are available upon request. | | | |

MECHANICAL SPECIFICATIONS

| Cable Weight | 0.18kg/m (0.125lb/ft) |
|--|-----------------------|
| Minimum Bending Radius | 70mm (2.756in) |
| Minimum Bending Radius | 125mm (4.921in) |
| Bending Moment | 6.5 (4.79) |
| Tensile Strength | 1050N (236lb) |
| Recommended / Maximum Clamp Spacing | 0.6 / 1 (2 / 3.25) |

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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 |
|----------------|-------------|--------------|-----------|
| Frequency, MHz | dB per 100m | dB per 100ft | Power, kW |
| 100 | 2.18 | 0.66 | 3.45 |
| 200 | 3.12 | 0.95 | 2.41 |
| 450 | 4.77 | 1.45 | 1.57 |
| 700 | 6.03 | 1.83 | 1.24 |
| 800 | 6.48 | 1.97 | 1.16 |
| 900 | 6.91 | 2.1 | 1.09 |
| 1800 | 10.09 | 3.07 | 0.74 |
| 2000 | 10.7 | 3.26 | 0.7 |
| 2200 | 11.28 | 3.44 | 0.67 |
| 2400 | 11.84 | 3.61 | 0.63 |
| 2700 | 12.66 | 3.86 | 0.59 |
| 3000 | 13.43 | 4.01 | 0.56 |
| 3500 | 14.67 | 4.47 | 0.51 |
| 4000 | 15.84 | 4.83 | 0.47 |
| 5000 | 18.03 | 5.51 | 0.42 |
| 6000 | 20.07 | 6.14 | 0.37 |
| 7000 | 22 | 6.73 | 0.34 |
| 8800 | 25,24 | 7.73 | 0.3 |

External Document Links
CELLFLEX Drum Selection Guide

Notes

NOTES

• Notes LCF12-50JTC: TC cables (temperature cycled) are cables that are aged in order to reduce hysteresis effects. Available upon request.

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