Product Data Sheet

1/2" CELLFLEX® Premium Attenuation Low-Loss Foam-Dielectric Coaxial Cable

Product Description

CELLFLEX® 1/2" low loss flexible cable
Application: OEM jumpers, Main feed transitions to equipment, GPS lines

Features/Benefits

- **Low Attenuation**
  The low attenuation of CELLFLEX® coaxial cable results in highly efficient signal transfer in your RF system.
- **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.

Technical Features

**Structure**
- Inner conductor: Copper-Clad Aluminum Wire [mm (in)] 4.8 (0.19)
- Dielectric: Foam Polyethylene [mm (in)] 11.8 (0.47)
- Outer conductor: Annularly Corrugated Copper [mm (in)] 13.8 (0.54)
- Jacket: Polyethylene, PE [mm (in)] 15.6 (0.62)

**Mechanical Properties**
- Weight, approximately: [kg/lb] 0.20 (0.14)
- Minimum bending radius, single bending: [mm (in)] 70 (3)
- Minimum bending radius, repeated bending: [mm (in)] 125 (5)
- Bending moment: [N·mm (lb·ft)] 6.5 (4.79)
- Max. tensile force: [N (lb)] 1100 (247)
- Recommended / maximum clamp spacing: [m (ft)] 0.6 / 1.0 (2.0 / 3.25)

**Electrical Properties**
- Characteristic impedance: [Ω] 50 +/- 1
- Relative propagation velocity: [%] 98
- Capacitance: [pF/m (pF/ft)] 7.60 (23.2)
- Inductance: [μH/m (μH/ft)] 0.190 (0.058)
- Max. operating frequency: [GHz] 8.8
- Jacket spark test RMS: [V] 8000
- Peak power rating: [kW] 38
- RF Peak voltage rating: [V] 1950
- DC-resistance inner conductor: [Ω/km (Ω/100ft)] 1.57 (0.48)
- DC-resistance outer conductor: [Ω/km (Ω/100ft)] 2.70 (0.82)

**Recommended Temperature Range**
- Storage temperature: [°C (°F)] -70 to +85 (-94 to +185)
- Installation temperature: [°C (°F)] -40 to +66 (-40 to +140)
- Operation temperature: [°C (°F)] -50 to +85 (-58 to +185)

**Other Characteristics**
- Fire Performance: Halogen Free
- VSWR Performance: Standard
- Contact RFS for your VSWR performance specification for your required frequency

All information contained in this product datasheet is subject to confirmation at time of ordering.

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Radio Frequency Systems

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