



CELLFLEX® 1/4" superflexible cable support CBRS, C-Band and LAA up to 6GHz; Plenum-Rated, CMP

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 Technologies factory.

• High Power Rating

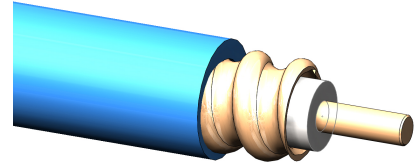
Due to their low attenuation, outstanding heat transfer properties and temperature stabilized dielectric materials, CELLFLEX® cable provides safe long term operating life at high transmit power levels.

• 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 or Exceeds: IEC 60754-1, -2; IEC 60332-1-1, -2; IEC 61034-1, -2; IEC 60332-3-24 (formerly IEC 60332-3-C)

ETL Certified and Listed to UL444, NEC 820-53 (a) CMP, NFPA-262, Canadian CSA C.22.2/FT6



1/4" CELLFLEX® Superflexible Plenum-Rated Foam Dielectric Coaxial Cable

Technical features

APPLICATIONS

| Applications | Indoor | Wireless Communication | HF Defense | Microwave | Mobile Radio | Cable Solutions |
|--------------|--------|------------------------|------------|-----------|--------------|-----------------|
|              |        |                        |            |           |              |                 |

STRUCTURE

|                          |         |  |
|--------------------------|---------|--|
| Size                     |         | 1/4  |
| Jacket Option            |         | Blue   |
| Inner Conductor Diameter | mm (in) | 1.9 (0.075)                                    |
| Inner Conductor Material |         | Copper-Clad Aluminum Wire                      |
| Dielectric Diameter      | mm (in) | 4.3 (0.17)                                     |
| Dielectric Material      |         | Foam Polyethylene                              |
| Outer Conductor Diameter | mm (in) | 6.5 (0.26)                                     |
| Outer Conductor Material |         | Corrugated Copper                              |
| Jacket Diameter          | mm (in) | 7.8 (0.31)                                     |
| Jacket Material          |         | PVC, Plenum Rated / Color Blue Water-resistant |
| Cable Type               |         | Plenum-Rated, Foam-Dielectric, Superflexible   |



**TESTING AND ENVIRONMENTAL**

|  |         |  |
|--|---------|--|
| <b>Fire Performance</b>                      |         | Flame Retardant, Plenum Rated  |
| <b>Flame Retardant Jacket Specifications</b> |         | ETL Listed to UL444, NEC 820-53 (a) CMP, NFPA-262, Canadian CSA C.22.2/FT6, UL 910 |
| <b>Installation Temperature</b>              | °C(°F)  | -25 to 60 (-13 to 140)   |
| <b>Storage Temperature</b>                   | °C (°F) | -70 to 85 (-94 to 185)   |
| <b>Operation Temperature</b>                 | °C(°F)  | -50 to 85 (-58 to 185)   |

**ELECTRICAL SPECIFICATIONS**

|                                       |                      |  |
|---------------------------------------|----------------------|--|
| <b>Impedance</b>                      | Ω                    | 50 +/- 1   |
| <b>Maximum Frequency</b>              | GHz                  | 20.4   |
| <b>Velocity</b>                       | %                    | 81   |
| <b>Capacitance</b>                    | pF/m (pF/ft)         | 82 (25)  |
| <b>Inductance</b>                     | uH/m (uH/ft)         | 0.207 (0.063)  |
| <b>Peak Power Rating</b>              | kW                   | 5.5  |
| <b>RF Peak Voltage</b>                | Volts                | 740  |
| <b>Jacket Spark</b>                   | Volt RMS             | 5000   |
| <b>Inner Conductor dc Resistance</b>  | Ω/1000 m (Ω/1000 ft) | 10.5 (3.19)  |
| <b>Outer Conductor dc Resistance</b>  | Ω/1000 m (Ω/1000 ft) | 9 (2.74)   |
| <b>Return Loss (VSWR) Performance</b> |                      | 20 (1.22) @ 450-617 MHz<br>24 (1.13) @ 617-960 MHz<br>24 (1.13) @ 1695-2200 MHz<br>20 (1.22) @ 2300-2700 MHz<br>18 (1.28) @ 3500-4200 MHz<br>16 (1.37) @ 5150-6000 MHz |
| <b>Phase Stabilized</b>               |                      | Phase stabilized and phase matched cables and assemblies are available upon request.   |
| <b>Temperature &amp; Power</b>        |                      | Standard   |

**MECHANICAL SPECIFICATIONS**

|   |              |                         |
|---|--------------|-------------------------|
| <b>Cable Weight, Nominal</b>                  | kg/m (lb/ft) | 0.07 (0.05)             |
| <b>Minimum Bending Radius, Repeated Bends</b> | mm (in)      | 25 (1)                  |
| <b>Bending Moment</b>                         | Nm (lb-ft)   | 0.7 (0.5)               |
| <b>Tensile Strength</b>                       | N (lb)       | 600 (135)               |
| <b>Recommended / Maximum Clamp Spacing</b>    | m (ft)       | 0.2 / 0.2 (0.67 / 0.67) |



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

| Frequency, MHz | dB per 100m | dB per 100ft | Power, kW |
|----------------|-------------|--------------|-----------|
| 0.5            | 0.40        | 0.12         | 5.50      |
| 1              | 0.57        | 0.17         | 5.50      |
| 1.5            | 0.70        | 0.21         | 5.50      |
| 2              | 0.80        | 0.25         | 5.50      |
| 10             | 1.81        | 0.55         | 3.66      |
| 20             | 2.56        | 0.78         | 2.58      |
| 30             | 3.15        | 0.96         | 2.10      |
| 50             | 4.08        | 1.24         | 1.62      |
| 88             | 5.45        | 1.66         | 1.21      |
| 100            | 5.82        | 1.77         | 1.14      |
| 108            | 6.06        | 1.85         | 1.09      |
| 150            | 7.17        | 2.19         | 0.92      |
| 174            | 7.75        | 2.36         | 0.85      |
| 200            | 8.33        | 2.54         | 0.79      |
| 300            | 10.30       | 3.13         | 0.64      |
| 400            | 12          | 3.65         | 0.55      |
| 450            | 12.70       | 3.88         | 0.52      |
| 500            | 13.50       | 4.10         | 0.49      |
| 512            | 13.60       | 4.15         | 0.49      |
| 600            | 14.80       | 4.52         | 0.45      |
| 700            | 16.10       | 4.91         | 0.41      |
| 800            | 17.30       | 5.27         | 0.38      |
| 824            | 17.60       | 5.35         | 0.38      |
| 894            | 18.40       | 5.59         | 0.36      |
| 900            | 18.40       | 5.61         | 0.36      |
| 925            | 18.70       | 5.70         | 0.35      |
| 960            | 19.10       | 5.81         | 0.35      |
| 1000           | 19.50       | 5.94         | 0.34      |
| 1250           | 22          | 6.71         | 0.30      |
| 1500           | 24.30       | 7.41         | 0.27      |
| 1700           | 26.10       | 7.94         | 0.25      |
| 1800           | 26.90       | 8.20         | 0.25      |
| 2000           | 28.50       | 8.69         | 0.23      |
| 2100           | 29.30       | 8.93         | 0.23      |
| 2200           | 30.10       | 9.20         | 0.22      |
| 2400           | 31.60       | 9.60         | 0.21      |



|              |       |       |      |
|--------------|-------|-------|------|
| <b>3000</b>  | 35.80 | 10.90 | 0.19 |
| <b>3500</b>  | 39.10 | 11.90 | 0.17 |
| <b>4000</b>  | 42.20 | 12.90 | 0.16 |
| <b>5000</b>  | 48    | 14.60 | 0.14 |
| <b>6000</b>  | 53.40 | 16.30 | 0.12 |
| <b>7000</b>  | 58.60 | 17.80 | 0.11 |
| <b>8000</b>  | 63.40 | 19.30 | 0.10 |
| <b>9000</b>  | 68.10 | 20.80 | 0.10 |
| <b>10000</b> | 72.60 | 22.10 | 0.09 |
| <b>12000</b> | 81    | 24.80 | 0.08 |
| <b>14000</b> | 89    | 27.20 | 0.07 |
| <b>16000</b> | 97    | 29.60 | 0.07 |
| <b>18000</b> | 105   | 31.90 | 0.06 |
| <b>20000</b> | 112   | 34.20 | 0.06 |
| <b>20400</b> | 113   | 34.60 | 0.06 |

[External Document Links](#)

[Notes](#)

Phase stabilized versions available upon request.