



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

FEATURES / BENEFITS

- Ultra Low Attenuation**
 The reduced attenuation of CELLFLEX® 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 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



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[Notes](#)

[CELLFLEX Drum Selection Guide](#)

Technical features

INFORMATION

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

STRUCTURE

| | | |
|--------------------------|---------|---------------------------|
| Size | | 1/4 |
| Inner Conductor Diameter | mm (in) | 1.9 (0.075) |
| Inner Conductor Material | | Copper-Clad Aluminum Wire |
| Dielectric Diameter | mm (in) | 4.3 (0.169) |
| Dielectric Material | | Foam Polyethylene |
| Outer Conductor Diameter | mm (in) | 6.5 (0.256) |
| Outer Conductor Material | | Corrugated Copper |
| Jacket Diameter | mm (in) | 7.8 (0.307) |
| Jacket Material | | Black Polyethylene |



TESTING AND ENVIRONMENTAL

| | | |
|---------------------------------|---------|---|
| Phase Stabilized | | Phase stabilized and phase matched cables and accessories are available upon request. |
| Compliance | | DIN EN ISO 9001:2015 ISO 14001:2015 RoHS 2011/65/EU - China RoHS SJ/T 11364-2006 REACH (EC 1907/2006) UL1581 - UV Resistance Jacket IEC 60754-1/-2 |
| Installation Temperature | °C(°F) | -40 to 60 (-40 to 140) |
| Storage Temperature | °C (°F) | -70 to 85 (-94 to 185) |
| Operation Temperature | °C(°F) | -50 to 85 (-58 to 185) |

ELECTRICAL SPECIFICATIONS

| | | |
|---------------------------------------|-------------------------|--|
| Impedance | Ω | 50 +/- 1 |
| Maximum Frequency | GHz | 20.4 |
| Velocity | % | 81 |
| Capacitance | pF/m (pF/ft) | 82 (25) |
| Inductance | uH/m (uH/ft) | 0.207 (0.063) |
| Peak Power Rating | kW | 5.5 |
| RF Peak Voltage | Volts | 740 |
| Jacket Spark | Volt RMS | 5000 |
| Inner Conductor dc Resistance | Ω/1000 m (Ω/1000 ft) | 10.5 (3.2) |
| Outer Conductor dc Resistance | Ω/1000 m (Ω/1000 ft) | 9 (2.75) |
| Passive Intermodulation PIM | min. dBc | -160 |
| Return Loss (VSWR) Performance | | 20 (1.22) @ 450-617 MHz 24 (1.13) @ 617-960 MHz 24 (1.13) @ 1695-2200 MHz 20 (1.22) @ 2300-2700 MHz 18 (1.28) @ 3500-4200 MHz 16 (1.37) @ 5150-6000 MHz |

MECHANICAL SPECIFICATIONS

| | | |
|---|--------------|-------------------------|
| Cable Weight, Nominal | kg/m (lb/ft) | 0.06 (0.04) |
| Minimum Bending Radius, Repeated Bends | mm (in) | 25 (0.984) |
| Bending Moment | Nm (lb-ft) | 0.7 (0.5) |
| Tensile Strength | N (lb) | 600 (135) |
| Recommended / Maximum Clamp Spacing | 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 |
|----------------|-------------|--------------|-----------|
| 1 | 0.57 | 0.17 | 11.65 |
| 100 | 5.82 | 1.77 | 1.14 |
| 200 | 8.33 | 2.54 | 0.79 |
| 450 | 12.73 | 3.88 | 0.52 |
| 700 | 16.10 | 4.91 | 0.41 |
| 800 | 17.29 | 5.27 | 0.38 |
| 900 | 18.42 | 5.62 | 0.36 |
| 1800 | 26.90 | 8.2 | 0.25 |
| 2000 | 28.51 | 8.69 | 0.23 |
| 2200 | 30.07 | 9.17 | 0.22 |
| 2400 | 31.57 | 9.62 | 0.21 |
| 2700 | 33.73 | 10.28 | 0.20 |
| 3000 | 35.80 | 10.91 | 0.18 |
| 3500 | 39.09 | 11.92 | 0.17 |
| 4000 | 42.2 | 12.86 | 0.16 |
| 5000 | 48.03 | 14.64 | 0.14 |
| 20400 | 113.49 | 34.60 | 0.06 |