

## 1/2" Foamed PE Dielectric UV Resistant Coax

## CS-F12UAK

UV Rated 1/2" Coax, Black Jacket, 100ft, 250ft and 500ft



## Electrical Specifications

| Product Model                      | CS-F12UAK100 | CS-F12UAK250               | CS-F12UAK500 |
|------------------------------------|--------------|----------------------------|--------------|
| Spool size                         | 100 ft       | 250 ft                     | 500 ft       |
| Frequency (MHz)                    |              | DC-6000                    |              |
| Impedance (ohm)                    |              | 50.0 ± 2.0                 |              |
| Capacitance                        |              | 76 (pF/m), 23.2 (pF/ft)    |              |
| Inductance                         |              | 0.19 (µH/m), 0.058 (µH/ft) |              |
| Propagation Velocity (%)           |              | 87                         |              |
| DC Breakdown Voltage (kV)          |              | 1950                       |              |
| Insulation Resistance (MΩ at 20°C) |              | > 10,000                   |              |
| Peak Power Rating (kW)             |              | 40                         |              |
| Cut-off Frequency (GHz)            |              | 6                          |              |
| VSWR, typical                      | 100-800MHz   | 1.25                       |              |
|                                    | 800-2700MHz  | 1.20                       |              |
|                                    | 3000-4200MHz | 1.25                       |              |
|                                    | 4800-5000MHz | 1.30                       |              |
|                                    | 5150-5825MHz | 1.35                       |              |

## Mechanical Specifications

|                                         |                                                                                                                                |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Diameter Over Inner Conductor (in/mm)   | 0.189±0.002 / 4.80±0.05                                                                                                        |
| Diameter Over Insulation (in/mm)        | 0.480±0.008 / 12.20±0.20                                                                                                       |
| Diameter Over Outer Conductor (in/mm)   | 0.547±0.010 / 13.90±0.25                                                                                                       |
| Diameter Over Jacket (in/mm)            | 0.618±0.012/ 15.70±0.30                                                                                                        |
| Minimum Bending Radius-Single (in/mm)   | 2.76 / 70                                                                                                                      |
| Minimum Bending Radius-Multiple (in/mm) | 4.92 / 125                                                                                                                     |
| Maximum Tensile Force (N/ lbf)          | 800 / 180                                                                                                                      |
| Cable Weight, lb./ft (kg/m)             | 0.12 / 0.18                                                                                                                    |
| Shipping Dimension (in/mm)              | 100ft Spool 18.1x18.1x5.1 / 460x460x130<br>250ft Spool 21.7x21.7x5.1 / 550x550x130<br>500ft Spool 21.7x21.7x16.8 / 550x550x426 |
| Shipping Weight(lb./kg)                 | 100ft Spool 15.4 / 7.0<br>250ft Spool 35.5 / 16.1<br>500ft Spool 76.5 /34.7                                                    |

## Environment

|                          |                  |
|--------------------------|------------------|
| Application              | Indoor / Outdoor |
| Storage Temperature      | -55°C to +85°C   |
| Operating Temperature    | -40°C to +85°C   |
| Installation Temperature | -25°C to +60°C   |

## Material

|                          |                                                                                                                     |
|--------------------------|---------------------------------------------------------------------------------------------------------------------|
| Inner Conductor          | Copper Clad Aluminum Wire                                                                                           |
| Insulation               | Foam PE                                                                                                             |
| Outer Conductor          | Ring Corrugated Copper                                                                                              |
| Jacket                   | PE, Black UV Resistant                                                                                              |
| Hanger Block             | HB-F12D (dual, supports 3/8" or M10 threaded rod)<br>HB-F12S (single, supports 3/8" or M10 threaded rod)            |
| Prep Tool                | AP-F12 (Prep-tool), FL-F12(Flaring tool), BL-F12 (Blades)<br>TL-F12(Tool kit included AP-F12, FL-F12 and hard case) |
| Associated Connectors    | CN-NM-F12: N-Male / CN-NF-F12: N-Female<br>CN-4M-F12: 4.3-10-Male / CN-4F-F12: 4.3-10-Female                        |
| Associated Mounting Clip | CCL-F12S                                                                                                            |

## Compliance &amp; Certification

|               |           |
|---------------|-----------|
| Certification | UV Rated  |
| RoHS          | Compliant |

## Attenuation

| Frequency (MHz) | Attenuation (dB/100m) | Attenuation (dB/100ft) | Frequency (MHz) | Attenuation (dB/100m) | Attenuation (dB/100ft) |
|-----------------|-----------------------|------------------------|-----------------|-----------------------|------------------------|
| 50              | 1.33                  | 0.40                   | 2100            | 11.92                 | 3.63                   |
| 100             | 1.86                  | 0.57                   | 2200            | 12.27                 | 3.74                   |
| 150             | 2.40                  | 0.73                   | 2300            | 12.61                 | 3.84                   |
| 174             | 3.09                  | 0.94                   | 2400            | 12.94                 | 3.94                   |
| 300             | 3.82                  | 1.17                   | 2500            | 13.26                 | 4.04                   |
| 340             | 4.05                  | 1.23                   | 2600            | 13.58                 | 4.14                   |
| 400             | 4.39                  | 1.34                   | 2700            | 13.89                 | 4.23                   |
| 450             | 4.67                  | 1.42                   | 2800            | 14.19                 | 4.33                   |
| 500             | 4.94                  | 1.51                   | 2900            | 14.49                 | 4.42                   |
| 600             | 5.47                  | 1.67                   | 3000            | 14.79                 | 4.51                   |
| 617             | 5.56                  | 1.70                   | 3100            | 15.08                 | 4.60                   |
| 698             | 5.98                  | 1.82                   | 3200            | 15.37                 | 4.68                   |
| 800             | 6.5                   | 1.98                   | 3300            | 15.65                 | 4.77                   |
| 894             | 6.96                  | 2.12                   | 3550            | 16.35                 | 4.98                   |
| 960             | 7.27                  | 2.22                   | 3600            | 16.49                 | 5.03                   |
| 1000            | 7.46                  | 2.27                   | 3700            | 16.77                 | 5.11                   |
| 1200            | 8.38                  | 2.55                   | 3800            | 17.04                 | 5.19                   |
| 1400            | 9.24                  | 2.82                   | 3900            | 17.32                 | 5.28                   |
| 1500            | 9.65                  | 2.94                   | 4000            | 17.59                 | 5.36                   |
| 1698            | 10.44                 | 3.18                   | 4100            | 17.86                 | 5.44                   |
| 1700            | 10.45                 | 3.18                   | 4200            | 18.14                 | 5.53                   |
| 1800            | 10.83                 | 3.30                   | 5000            | 20.42                 | 6.22                   |
| 1900            | 11.20                 | 3.41                   | 5500            | 21.99                 | 6.70                   |
| 2000            | 11.57                 | 3.53                   | 6000            | 23.74                 | 7.23                   |

Note: Typical attenuation at an ambient temperature +20°C (68°F)