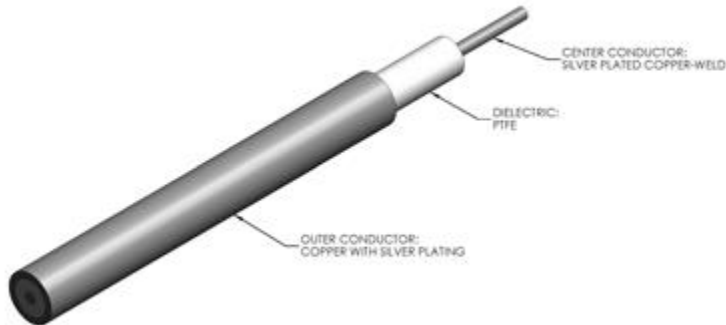


## UT-085-SP

Standard copper 50 ohm semi-rigid cables feature low attenuation and VSWR covering the entire microwave spectrum. With numerous connector options available off-the-shelf, this family of cables is one of the most versatile available today. They meet the demands of package density and provide total shielding for elimination of signal loss and noise.



### DIMENSIONS UNITS UT-085-SP

|                           | UNITS | UT-085-SP              |
|---------------------------|-------|------------------------|
| Outer Conductor Diameter  | In    | 0.0865 +0.002/-0.0010  |
|                           | mm    | 2.1971 +0.0508/-0.0254 |
| Dielectric Diameter       | In    | 0.066 ± 0.001          |
|                           | mm    | 1.676 ± 0.025          |
| Center Conductor Diameter | In    | 0.0201                 |
|                           | mm    | 0.5105                 |
| length (maximum)          | Feet  | 20                     |
|                           | Meter | 6.10                   |

### MATERIALS

|                         |        |
|-------------------------|--------|
| Outer Conductor         | Copper |
| Outer Conductor Plating | Silver |
| Dielectric              | PTFE   |
| Center Conductor        | SPCW   |
| Rohs Compliant          | YES    |

### MECHANICAL CHARACTERISTICS

|                                 |             |       |
|---------------------------------|-------------|-------|
| Outer Conductor Integrity Temp. | °C          | 175   |
| Operating Temperature (Max)     | °C          | 125   |
| Inside Bend Radius (Minimum)    | In          | 0.050 |
|                                 | mm          | 1.270 |
| Weight                          | lbs / 100ft | 1.42  |
|                                 | kg / 100m   | 2.13  |

### ELECTRICAL CHARACTERISTICS

|                                      |              |       |
|--------------------------------------|--------------|-------|
| Characteristic Impedance             | ohm          | 50    |
| Capacitance                          | pF/ ft       | 29.0  |
|                                      | pF/ m        | 95.2  |
| Corona Extinction Voltage            | VRMS @ 60 Hz | 1500  |
| Voltage Withstanding                 | VRMS @ 60 Hz | 5400  |
| Higher Order Mode Frequency          | GHz          | 61.0  |
| Attenuation<br>(Db / 100 Ft Typical) | 0.5 GHz      | 13.6  |
|                                      | 1.0 GHz      | 19.5  |
|                                      | 5.0 GHz      | 46    |
|                                      | 10.0 GHz     | 67.4  |
|                                      | 18.0 GHz     | 94.3  |
|                                      | 26.5 GHz     | 118.3 |
|                                      | 40.0 GHz     | 151.5 |
|                                      | 50.0 GHz     | 173.8 |
|                                      | 65.0 GHz     | N/A   |
|                                      | 90.0 GHz     | N/A   |
| Power (Watts Cw<br>@ 20 °C, Maximum) | 0.5 GHz      | 173.5 |
|                                      | 1.0 GHz      | 121.5 |
|                                      | 5.0 GHz      | 52.2  |
|                                      | 10.0 GHz     | 35.8  |
|                                      | 18.0 GHz     | 25.8  |
|                                      | 26.5 GHz     | 20.7  |
|                                      | 40.0 GHz     | 16.3  |
|                                      | 50.0 GHz     | 14.3  |
|                                      | 65.0 GHz     | N/A   |
|                                      | 90.0 GHz     | N/A   |