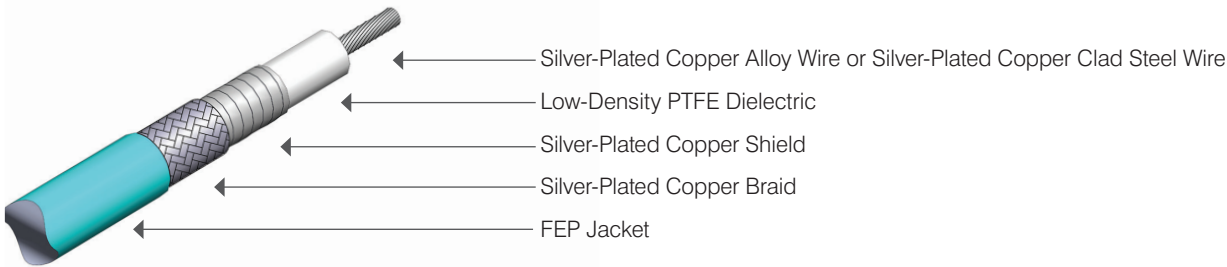


UTiFLEX® Low-Loss Cable Assemblies

UTiFLEX® Low-Loss Cable Assemblies provide you with the complete high-performance microwave cable. They have outstanding mechanical integrity without sacrificing insertion loss, phase stability, or SWR. UTiFLEX® Low-Loss Cable Assemblies are extremely versatile and moderately priced, and fit a large variety of applications.

| Mechanical Characteristics              |                         | UFC092D                                       | UFA125A          | UFA147A          | UFA147B          | UFA210A          | UFA210B          |
|-----------------------------------------|-------------------------|-----------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Outer Diameter <i>in (mm)</i>           |                         | 0.092 (2.34)                                  | 0.125 (3.18)     | 0.147 (3.73)     | 0.147 (3.73)     | 0.210 (5.33)     | 0.210 (5.33)     |
| Center Conductor Type                   |                         | Solid                                         | Solid            | Solid            | Stranded         | Solid            | Stranded         |
| Max. Weight <i>g/ft (g/m)</i>           |                         | 5 (16.4)                                      | 8.8 (28.9)       | 12.1 (39.7)      | 12.1 (39.7)      | 22 (72.2)        | 22 (72.2)        |
| Min. Bend Radius <i>in (mm)</i>         |                         | 0.13 (3.30)                                   | 0.20 (5.08)      | 0.25 (6.35)      | 0.25 (6.35)      | 0.38 (9.65)      | 0.38 (9.65)      |
| Cable Flex Life                         |                         | -                                             | 3,000 *          | 10,000 *         | 100,000 *        | 100,000 *        | 250,000 *        |
| Electrical Characteristics              |                         | UFC092D                                       | UFA125A          | UFA147A          | UFA147B          | UFA210A          | UFA210B          |
| Impedance                               |                         | 50 Ω                                          | 50 Ω             | 50 Ω             | 50 Ω             | 50 Ω             | 50 Ω             |
| Frequency Range                         |                         | DC to 65 GHz                                  | DC to 50 GHz     | DC to 40 GHz     | DC to 40 GHz     | DC to 26.5 GHz   | DC to 26.5 GHz   |
| Velocity of Propagation                 |                         | 78%                                           | 77%              | 77%              | 77%              | 77%              | 77%              |
| Capacitance <i>pF/ft (pF/m)</i>         |                         | 26.2 (87.9)                                   | 26.2 (86)        | 26.2 (86)        | 26.2 (86)        | 26.2 (86)        | 26.2 (86)        |
| Max. Insertion Loss <i>db/ft (dB/M)</i> | Shielding Effectiveness | @ 1 GHz > 100 dB                              | > 100 dB         | > 100 dB         | > 100 dB         | > 100 dB         | > 100 dB         |
|                                         | @ 1 GHz                 | 0.20 (0.66)                                   | 0.14 (0.46)      | 0.11 (0.36)      | 0.16 (0.52)      | 0.08 (0.25)      | 0.09 (0.30)      |
|                                         | @ 10 GHz                | 0.67 (2.20)                                   | 0.48 (1.57)      | 0.39 (1.28)      | 0.52 (1.71)      | 0.27 (0.89)      | 0.30 (0.98)      |
|                                         | @ 18 GHz                | 0.92 (3.02)                                   | 0.66 (2.17)      | 0.54 (1.77)      | 0.72 (2.36)      | 0.38 (1.25)      | 0.42 (1.38)      |
|                                         | @ 26.5 GHz              | 1.13 (3.71)                                   | 0.82 (2.64)      | 0.67 (2.20)      | 0.89 (2.92)      | 0.48 (1.57)      | 0.53 (1.74)      |
|                                         | @ 40 GHz                | 1.42 (4.66)                                   | 1.04 (3.41)      | 0.85 (2.79)      | 1.12 (3.67)      | 1.12 (3.67)      | -                |
|                                         | @ 50 GHz                | 1.61 (5.28)                                   | 1.19 (3.90)      | -                | -                | -                | -                |
|                                         | @ 65 GHz                | 1.86 (6.10)                                   | -                | -                | -                | -                | -                |
| Phase Stability vs. Flexure             |                         | @ 10 GHz <0.5°                                | 3° †             | 2° †             | 1° †             | 2° †             | 2° †             |
|                                         |                         | @ 18 GHz <0.5°                                | 5° †             | 4° †             | 2° †             | 4° †             | 3° †             |
| Phase Stability vs. Temp.               |                         | See figure on next page                       |                  |                  |                  |                  |                  |
| Power Handling                          |                         | See figure on next page                       |                  |                  |                  |                  |                  |
| VSWR                                    |                         | See connector selection guide                 |                  |                  |                  |                  |                  |
| Environmental Characteristics           |                         | UFC092D                                       | UFA125A          | UFA147A          | UFA147B          | UFA210A          | UFA210B          |
| Temperature Range                       |                         | -65 °C to 165 °C                              | -65 °C to 165 °C | -65 °C to 165 °C | -65 °C to 165 °C | -65 °C to 165 °C | -65 °C to 165 °C |
|                                         |                         | See Page 22 for applicable environmental test |                  |                  |                  |                  |                  |

\* Cable shall withstand specified number of unrestrained flexures (snake test)  
† Cable wrapped once around a 3 in diameter mandrel



We are constantly improving products. Please contact us for the latest detailed specification sheet for any individual cable.

Performance

