TFlex®
Flexible Alternative to Semirigid Coax

Features & Benefits
- Meets all MIL-C-17 Requirements
- Excellent Shielding Effectiveness
- Low Passive Intermod (PIM)
- Stable Loss, Phase, & VSWR vs Flexing
- Uses Standard Solder-on Semirigid Connectors

TFlex employs a thin helical wrap of silver plated copper tape and overall braid sized such that standard solder-on connectors can be used.

TFlex was developed 10 years ago and have been widely adopted by the commercial and military OEM’s.

Some of the key characteristics of TFlex are:
- Passive Intermod – typically > -150dBc (2x 20 watt carriers)
- Shielding Effectiveness – comparable to standard semirigid and like semirigid is beyond measurable limits.
- Small/Lightweight – same size but lighter weight than standard CL semirigid coax.
- Phase Stable – the helical tape outer conductor minimizes electrical length change with temperature to yield substantial improvement over equivalent size flexible cables.

Low Loss – can achieve loss comparable to standard CL semirigid coax.

Attenuation Stability – silver plated outer conductor prevents oxidation of the conductors thereby minimizing attenuation change vs time.

Power Handling – comparable to standard CL semirigid.

Corrosion Resistance – jacketing of the cable with FEP provides excellent protection when cable is deployed in a corrosive environment.

Formability – the flexible nature of TFlex eliminates the need for hand or precision machine bending. TFlex is preterminated in it’s approximate desired length and just ‘plugged in’ using the most convenient/desirable routing.

Connectors (solder-on) – are available from a variety of sources to fit standard semirigid coax and TFlex.

TFlex Flexible Alternative to Semirigid Coaxial Cables

<table>
<thead>
<tr>
<th>TMS Number</th>
<th>Conductor Diameter (in.)</th>
<th>Dielectric Thickness (mm)</th>
<th>Jacket Thickness (mm)</th>
<th>Weight (lb/ft)</th>
<th>Impedance (50Ω)</th>
<th>Capacitance (pF/ft)</th>
<th>DC Resistance (at 60°C) (Ω)</th>
<th>Shield (bias)</th>
<th>Oper. Voltage (kV)</th>
<th>Temp. Range (°F)</th>
<th>Stand. Bay to Bay Test (in.)</th>
<th>Test (in.)</th>
<th>Frequency (MHz)</th>
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<tbody>
<tr>
<td>TFlex-405</td>
<td>SCSC</td>
<td>0.015</td>
<td>64.5</td>
<td>10.7</td>
<td>1.75</td>
<td>-85 to 267</td>
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Power Handling vs. Frequency (Maximum)

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<th>Frequency (MHz)</th>
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<th>8,000</th>
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</table>

*Watts; Sea Level; Ambient +40°C; VSWR 1:1

All Semirigid Coax Applications

- Low Loss Microwave Interconnect
- Wireless Base Station Interconnect
- Low Passive Intermod
- Phase Stable