



- Low Loss Microwave Interconnect
- Wireless Base Station Interconnect

**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 Coppersol CL and TFlex.

TMS Number	Conductor inches (mm)	Dielectric inches (mm)	Shields inches (mm)	Jacket inches (mm)	Weight lbs/foot (kg/m)	Impedance ohms Vp(%)	Capacitance pF/foot (pF/m)	Max Oper. Voltage vrms	Temperature Range F (C)	Shielding Effectiveness (dB)	Minimum Bend Rad. (in)	Frequency Range Attenuation
TFlex-405	SCCS 0.0201 (0.51)	PTFE 0.064 (1.63)	SC tape+braid 0.085 (2.16)	Blue FEP 0.104 (2.64)	0.015	50 +/- 1	29.3	1,500	-85 +257	>100	0.125	.05 to 18 GHz 106 dB/100' @ 18 Ghz
	(0.022)				69.5	(96.1)	(-65 +125)					
TFlex-402	SC 0.036 (0.91)	PTFE 0.118 (3.00)	SC tape+braid 0.141 (3.58)	Blue FEP 0.160 (4.06)	0.033	50 +/- 1	29.3	1,900	-85 +257	>100	0.200	.05 to 18 GHz 66 dB/100' @ 18 Ghz
	(0.049)				69.5	(96.1)	(-65 +125)					
TFlex-401	SC 0.0641 (1.63)	PTFE 0.208 (5.28)	SC tape+braid 0.249 (6.32)	Blue FEP 0.270 (6.9)	0.095	50 +/- 1	29.3	3,000	-85 +257	>100	1.250	.05 to 18 GHz 50 dB/100' @ 18 Ghz
	(0.142)				69.5	(96.1)	(-65 +125)					



- Low Passive Intermod
- Phase Stable
- All Semirigid Coax Applications

