

# Coppersol<sup>®</sup> CLL

## Low Loss Semirigid Coax

- Low Loss Microwave Interconnect
- Wireless Base Station Interconnect

### Features & Benefits

- Lower Loss than Standard Semi-rigid
- Excellent Shielding Effectiveness
- Low Passive Intermod (PIM)
- Stable Loss, Phase and VSWR



**Coppersol-CLL** employs a thin tubular copper outer conductor and low-density PTFE dielectric which provide the lowest loss and highest shielding giving it significant performance advantages over semirigid coax of similar size.

**Coppersol-CLL** was developed 25 years ago and have been widely adopted by the military OEM's.

### Some of the key characteristics of Coppersol-CLL are:

**Shielding Effectiveness** – the highest achievable for any cable and is estimated at > 165 dB, well below measurable limits.

**Small/Lightweight** – same size but lighter weight than standard CL semirigid coax.

**Phase Stable** – the solid outer conductor and low density PTFE minimizes electrical length change with temperature to yield 100 % improvement over stan-

dard CL semirigid coax.

**Low Loss** – can achieve up to 30 % less loss than standard CL semirigid coax.

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

**Power Handling** – higher operating temperature provides 200% increase in power handling vs standard CL semirigid.

**Corrosion Resistance** – jacketing of the bare copper tube or plating with tin or silver is recommended when cable is deployed in a corrosive environment.

**Formability** – the solid copper tube enables the cable to be bent to any 3 dimensional configuration and have it retain its shape.

**Connectors** – are available from a variety of sources to fit Coppersol-CLL.

TMS Number	TMS Spec Sheet	Conductor inches (mm)	Dielectric inches (mm)	Shield inches (mm)	Weight lbs/foot (kg/m)	Impedance ohms Vp (%)	Capacitance pF/foot (pF/m)	Max. Op. Voltage. vrms	Temperature Range F (C)	Cutoff Frequency (GHz)	Minimum Bend Radius inches (mm)
CLL-50375	AA-8921	SC	LD PTFE	BC Tube	0.187	50 +/- 1	26.8	3,000	-65 +250	12	2.00
		0.1120 (2.84)	0.335 (8.51)	0.375 (9.53)	(0.279)	76	(87.9)		(-85 +482)		(50.8)
CLL-50250	AA-5199	SC	LD PTFE	BC Tube	0.091	50 +/- 1	26.8	2,200	-65 +250	20	1.25
		0.0700 (1.78)	0.210 (5.33)	0.250 (6.35)	(0.136)	76	(87.9)		(-85 +482)		(31.8)
CLL-50141	AA-5187	SC	LD PTFE	BC Tube	0.0290	50 +/- 1	26.8	1,300	-65 +250	36	.250
		0.039 (0.99)	0.1180 (3.00)	0.141 (3.58)	(0.043)	76	(87.9)		(-85 +482)		(6.4)
CLL-50086	AA-5186	SCCS	LD PTFE	BC Tube	0.0130	50 +/- 1	26.8	600	-65 +250	64	.125
		0.022 (0.56)	0.066 (1.68)	0.0860 (2.18)	(0.019)	76	(87.9)		(-85 +482)		(3.2)

- Low Passive Intermod
- High Temperature

- High Power

