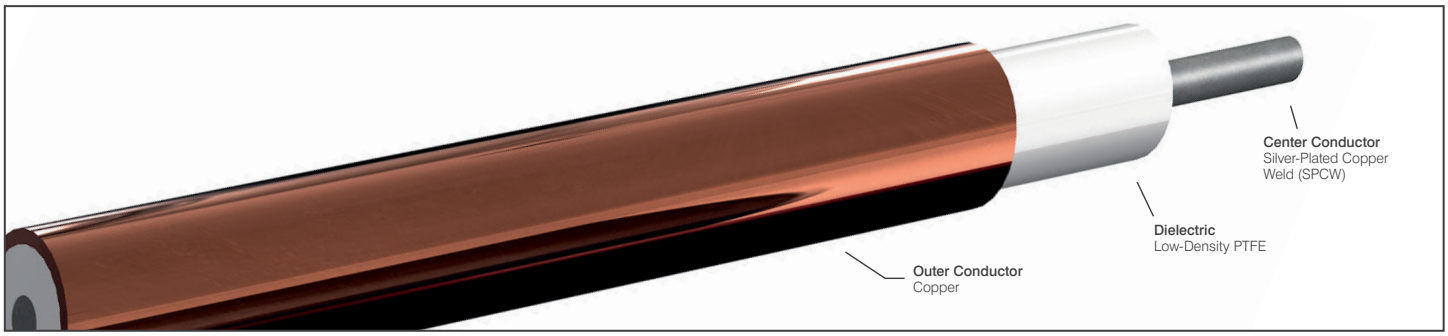
Low-Loss Semi-Rigid Coaxial Cables

P/N UT-031-LL | 50 Ω Copper Outer Conductor

INTRODUCTION



Low-loss semi-rigid cables provide lower attenuation, better phase stability with temperature, and a higher operating temperature compared to traditional solid PTFE semi-rigid cables.

Our low-loss semi-rigid cables are available with a copper, tin-plated copper, aluminum, or tin-plated aluminum outer conductor.

DIMENSIONS		
Outer Conductor Diameter	in	0.031 ± 0.001
	mm	0.787 ± 0.025
Center Conductor Diameter	in	0.0080
	mm	0.2032
Length (Maximum)	Feet	20
	Meter	6.10

MATERIALS	
Outer Conductor	Copper
Outer Conductor Plating	None
Dielectric	LD PTFE
Center Conductor	SPCW
RoHS Compliant	✓

MECHANICAL CHARACTERISTICS*		
Outer Conductor Integrity Temp.	°C	250
Operating Temperature (Max)	°C	250
Inside Bend Radius (Minimum)	in	0.063
	mm	1.600
Weight	lbs / 100ft	0.17
	kg / 100m	0.26

** Applicable at room temperature. Contact factory for performance over temperature range.*

ELECTRICAL CHARACTERISTICS*		
Characteristic Impedance	ohm	50
Capacitance	pF / ft	26.5
	pF / m	86.8
Corona Extinction Voltage	VRMS @ 60 Hz	600
Voltage Withstanding	VRMS @ 60 Hz	1800
Higher Order Mode Frequency	GHz	180.0
Attenuation (Db / 100 Ft Typical)	@ 0.5 GHz	33.6
	@ 1.0 GHz	47.6
	@ 5.0 GHz	107.1
	@ 10.0 GHz	152.2
	@ 18.0 GHz	205.4
	@ 26.5 GHz	250.3
	@ 40.0 GHz	309.3
	@ 50.0 GHz	347.1
	@ 65.0 GHz	397.7
	@ 90.0 GHz	471.3
Power (Watts Cw @ 20 °C, Maximum)	@ 0.5 GHz	60.2
	@ 1.0 GHz	42.5
	@ 5.0 GHz	18.9
	@ 10.0 GHz	13.3
	@ 18.0 GHz	9.9
	@ 26.5 GHz	8.1
	@ 40.0 GHz	6.6
	@ 50.0 GHz	5.9
	@ 65.0 GHz	5.1
	@ 90.0 GHz	4.3