AmphenolCIT Cable & Interconnect Technologies Wire & Cable

## Low-Loss Semi-Rigid Coaxial Cables P/N UT-120C-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    | 0.120 + 0.001 |  |  |
|                           | mm    | 3.048 ± 0.025 |  |  |
| Center Conductor Diameter | in    | 0.0359        |  |  |
|                           | mm    | 0.9119        |  |  |
| Length (Maximum)          | Feet  | 20            |  |  |
|                           | Meter | 6.10          |  |  |

| MATERIALS               |         |  |
|-------------------------|---------|--|
| Outer Conductor         | Copper  |  |
| Outer Conductor Plating | None    |  |
| Dielectric              | LD PTFE |  |
| Center Conductor        | SPC     |  |
| RoHS Compliant          | ✓       |  |

| MECHANICAL CHARACTERISTICS*     |             |       |  |  |
|---------------------------------|-------------|-------|--|--|
| Outer Conductor Integrity Temp. | °C          | 250   |  |  |
| Operating Temperature (Max)     | °C          | 250   |  |  |
| Inside Bend Radius (Minimum)    | in          | 0.188 |  |  |
|                                 | mm          | 4.775 |  |  |
| Weight                          | lbs / 100ft | 2.01  |  |  |
|                                 | kg / 100m   | 3.02  |  |  |

\* 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 | 2600  |  |  |
| Voltage Withstanding                 | VRMS @ 60 Hz | 7800  |  |  |
| Higher Order Mode<br>Frequency       | GHz          | 41.0  |  |  |
|                                      | @ 0.5 GHz    | 7.7   |  |  |
| Attenuation<br>(Db / 100 Ft Typical) | @ 1.0 GHz    | 11    |  |  |
|                                      | @ 5.0 GHz    | 25.3  |  |  |
|                                      | @ 10.0 GHz   | 36.4  |  |  |
|                                      | @ 18.0 GHz   | 50    |  |  |
|                                      | @ 26.5 GHz   | 61.8  |  |  |
|                                      | @ 40.0 GHz   | 77.7  |  |  |
|                                      | @ 50.0 GHz   | N/A   |  |  |
|                                      | @ 65.0 GHz   | N/A   |  |  |
|                                      | @ 90.0 GHz   | N/A   |  |  |
|                                      | @ 0.5 GHz    | 683.1 |  |  |
|                                      | @ 1.0 GHz    | 480.8 |  |  |
|                                      | @ 5.0 GHz    | 210.8 |  |  |
|                                      | @ 10.0 GHz   | 146.9 |  |  |
| Power (Watts Cw<br>@ 20 °C, Maximum) | @ 18.0 GHz   | 107.6 |  |  |
|                                      | @ 26.5 GHz   | 87.5  |  |  |
|                                      | @ 40.0 GHz   | 70    |  |  |
|                                      | @ 50.0 GHz   | N/A   |  |  |
|                                      | @ 65.0 GHz   | N/A   |  |  |
|                                      | @ 90.0 GHz   | N/A   |  |  |

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+1 (800) 458-9960