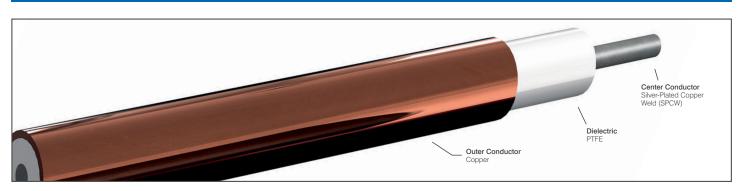
AmphenolCIT Cable & Interconnect Technologies Wire & Cable

## **Semi-Rigid Coaxial Cables**

P/N UT-047-M17 | 50 Ω Copper Outer Conductor

## INTRODUCTION



All of our 50  $\Omega$  copper semi-rigid cables feature low attenuation and VSWR covering the entire microwave spectrum. With numerous connector options available off-the-shelf, this family of cables is one of the most versatile available today. They meet the demands of package density and provide total shielding for elimination of signal loss and noise.

| DIMENSIONS                |       |               |
|---------------------------|-------|---------------|
| Outer Conductor Diameter  | in    | 0.047 ± 0.001 |
|                           | mm    | 1.194 ± 0.025 |
| Center Conductor Diameter | in    | 0.0113        |
|                           | mm    | 0.2870        |
| Length (Maximum)          | Feet  | 20            |
|                           | Meter | 6.10          |

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

| MECHANICAL CHARACTERISTICS*     |             |       |  |  |
|---------------------------------|-------------|-------|--|--|
| Outer Conductor Integrity Temp. | °C          | 175   |  |  |
| Operating Temperature (Max)     | °C          | 150   |  |  |
| Inside Bend Radius (Minimum)    | in          | 0.050 |  |  |
|                                 | mm          | 1.270 |  |  |
| Weight                          | lbs / 100ft | 0.40  |  |  |
|                                 | kg / 100m   | 0.60  |  |  |

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



| ELECTRICAL CHARACTERISTICS*          |              |       |  |  |
|--------------------------------------|--------------|-------|--|--|
| Characteristic Impedance             | ohm          | 50    |  |  |
| Capacitance                          | pF / ft      | 29.0  |  |  |
|                                      | pF/m         | 95.2  |  |  |
| Corona Extinction Voltage            | VRMS @ 60 Hz | 1000  |  |  |
| Voltage Withstanding                 | VRMS @ 60 Hz | 3000  |  |  |
| Higher Order Mode<br>Frequency       | GHz          | 109.0 |  |  |
|                                      | @ 0.5 GHz    | 24    |  |  |
|                                      | @ 1.0 GHz    | 34.2  |  |  |
|                                      | @ 5.0 GHz    | 78.8  |  |  |
|                                      | @ 10.0 GHz   | 113.8 |  |  |
| Attenuation                          | @ 18.0 GHz   | 156.5 |  |  |
| (Db / 100 Ft Typical)                | @ 26.5 GHz   | 193.8 |  |  |
|                                      | @ 40.0 GHz   | 244.2 |  |  |
|                                      | @ 50.0 GHz   | 277.5 |  |  |
|                                      | @ 65.0 GHz   | 323   |  |  |
|                                      | @ 90.0 GHz   | 391.3 |  |  |
| Power (Watts Cw<br>@ 20 °C, Maximum) | @ 0.5 GHz    | 80.5  |  |  |
|                                      | @ 1.0 GHz    | 56.6  |  |  |
|                                      | @ 5.0 GHz    | 24.7  |  |  |
|                                      | @ 10.0 GHz   | 17.2  |  |  |
|                                      | @ 18.0 GHz   | 12.6  |  |  |
|                                      | @ 26.5 GHz   | 10.2  |  |  |
|                                      | @ 40.0 GHz   | 8.1   |  |  |
|                                      | @ 50.0 GHz   | 7.2   |  |  |
|                                      | @ 65.0 GHz   | 6.2   |  |  |
|                                      | @ 90.0 GHz   | 5.1   |  |  |

Learn More: Amphenol-CIT.com

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