Wire \& Cable

## Semi-Rigid Coaxial Cables

## P/N UT-047-M17 | $50 \Omega$ 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 |  |  | ELECTRICAL CHARACTERISTICS* |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Characteristic Impedance | ohm | 50 |
| Outer Conductor Diameter | in | $0.047 \pm 0.001$ | Capacitance | pF / ft | 29.0 |
|  | mm | $1.194 \pm 0.025$ |  | pF/m | 95.2 |
| Center Conductor Diameter | in | 0.0113 | Corona Extinction Voltage | VRMS @ 60 Hz | 1000 |
|  | mm | 0.2870 | Voltage Withstanding | VRMS @ 60 Hz | 3000 |
| Length (Maximum) | Feet | 20 | Higher Order Mode Frequency | GHz | 109.0 |
|  | Meter | 6.10 |  | GHz | 109.0 |
|  |  |  | Attenuation <br> (Db / 100 Ft Typical) | @ 0.5 GHz | 24 |
| MATERIALS |  |  |  | @ 1.0 GHz | 34.2 |
|  |  |  | @ 5.0 GHz | 78.8 |
| Outer Conductor | Copper |  |  | @ 10.0 GHz | 113.8 |
| Outer Conductor Plating | None |  |  | @ 18.0 GHz | 156.5 |
| Dielectric | PTFE |  |  | @ 26.5 GHz | 193.8 |
| Center Conductor | SPCW |  |  | @ 40.0 GHz | 244.2 |
| RoHS Compliant | $\checkmark$ |  |  | @ 50.0 GHz | 277.5 |
|  |  |  |  | @ 65.0 GHz | 323 |
| MECHANICAL CHARACTERISTICS* |  |  |  | @ 90.0 GHz | 391.3 |
| Outer Conductor Integrity Temp. | ${ }^{\circ} \mathrm{C}$ | 175 |  | Power (Watts Cw @ $20^{\circ} \mathrm{C}$, Maximum) | @ 0.5 GHz | 80.5 |
| Operating Temperature (Max) | ${ }^{\circ} \mathrm{C}$ | 150 | @ 1.0 GHz |  | 56.6 |
| Inside Bend Radius (Minimum) | in | 0.050 | @ 5.0 GHz |  | 24.7 |
|  | mm | 1.270 | @ 10.0 GHz |  | 17.2 |
| Weight | lbs / 100ft | 0.40 | @ 18.0 GHz |  | 12.6 |
|  | kg / 100m | 0.60 | @ 26.5 GHz |  | 10.2 |
| * Applicable at room temperature. Contact factory for performance over temperature range. |  |  | @ 40.0 GHz |  | 8.1 |
|  |  |  | @ 50.0 GHz |  | 7.2 |
|  |  |  | @ 65.0 GHz |  | 6.2 |
|  |  |  | @ 90.0 GHz |  | 5.1 |

See our complete line of Semi-Rigid Coaxial Cables at:
CarlisleIT.com/products/wire-cable/semi-rigid-coaxial-cables
+1 (800) 458-9960
Sales@CarlisleIT.com

