

**PRODUCTS****EZ Form Copper-Jacketed Semi-Rigid Cable**

● EZ 141-SP - 810042

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**SCOPE**

This specification covers the requirement for EZ141-SP, semi-rigid coaxial cable: .141 inch diameter 50 ohm with silver-coated copper-clad steel center conductor, solid PTFE dielectric and silver plated seamless copper outer conductor.

**MECHANICAL**

**INNER CONDUCTOR:** .0362  $\pm$  0.0007 inch diameter silver-coated copper-clad steel wire, per ASTM B-501 (AWG #19)

**DIELECTRIC:** .1175  $\pm$  .001 inch diameter solid PTFE in accordance with MIL-C-17

**OUTER CONDUCTOR:** .141  $\pm$  .002-.001 inch diameter seamless copper tubing in accordance with MIL-C-17, silver plated .0003 inch min per QQ-S-365

**BEND RADIUS:** .250 inch minimum for a 360 degree excursion

**WEIGHT:** 3.5 lbs. per 100 feet

**OPERATING TEMP:** -40° C to 125° C

**ELECTRICAL**

**CHARACTERISTIC IMPEDANCE:** 50  $\pm$  1.0 ohms

**VELOCITY OF PROPAGATION:** 69.5% nominal

**DIELECTRIC CONSTANT:** 2.07 nominal

**VOLTAGE WITHSTANDING:** 5000 vrms @ 60 hz

**CORONA EXTINCTION VOLTAGE:** 1900 vrms @ 60 hz

**MAXIMUM OPERATING FREQUENCY:** 33 GHz

**TYPICAL ATTENUATION:**

| Frequency(GHz) | db/100ft | Power(CW Watts) |
|----------------|----------|-----------------|
| 0.5            | 8.0      | 600             |
| 1.0            | 12.0     | 450             |
| 5.0            | 28.5     | 180             |
| 10.0           | 44.0     | 120             |
| 20.0           | 67.0     | 70              |