



Features

- Air-Dielectric design
- Cable Sizes ½” through 1-5/8” Diameters, Aluminum Outer Conductor, Jacketed to Meet Customers’ Low Smoke, Non-Halogenated Fire-Retardant Wireless Applications, Gray Jacket

Performance Standards

- NFPA-70, Article 810, Communication Systems, UL 1666, UL-444, CMR
- IEC 60332-1, IEC 60332-3C
- TL9000 H-V - All Cables designed and manufactured under this quality management system
- RoHS 2011/65/EU Compliant

Scope

Trilogy® Transline Cable represents a significant advancement in transmission line cable technology.

The cable’s innovative design provides exceptional RF performance, low attenuation, and superior durability, which are critical for modern telecommunications systems. Its air dielectric design prevents water migration and enhances signal quality, ensuring reliable service in various environments.

Furthermore, adherence to the TL9000 H-V quality management system standards signifies that the cable has undergone rigorous testing and manufacturing processes, ensuring that it meets the highest industry benchmarks for reliability and performance.

| Physical Dimensions | |
|--|----------------------------|
| Center Diameter, in (mm) | 0.188 (4.78) |
| Diameter Over Dielectric, in (mm) | 0.480 (12.19) |
| Diameter Over Outer Conductor, in (mm) | 0.512 (13.00) |
| Maximum Diameter Over Jacket, in (mm) | 0.592 (15.04) |
| Center Conductor | Copper-Clad Aluminum |
| Outer Conductor | Solid Aluminum |
| Jacket Color | Gray |
| Mechanical Characteristics | |
| Minimum Bend Radius, in (mm) - Single | 2 (50.8) |
| Cable Weight, lb/ft (kg/m) | 0.15 (0.22) |
| Tensile Strength, lb (kg) | 465 (211) |
| Flat Plate Crush, lb/in (kg/mm) | 62 (1.11) |
| Recommended Install Temp., °F (°C) | -10° to 170° (-23° to 77°) |
| Recommended Storage Temp., °F (°C) | -40° to 170° (-40° to 77°) |
| Recommended Operating Temp., °F (°C) | -40° to 170° (-40° to 77°) |



| Electrical Characteristics | |
|--|---------------|
| Maximum Frequency, GHz | 11 |
| Peak Power Rating, KW | 32 |
| Capacitance, pF/ft (m) | 23 (73.16) |
| Inductance, μ H/ft (m) | 0.056 (0.184) |
| VSWR min. (dB) | 1.25 (19.0) |
| VSWR in-band, (db) | 1.13 (24.3) |
| Impedance, Ohms | 50 ± 2 |
| Velocity of Propagation | 91% |
| Standard Conditions | |
| For Attenuation: VSWR 1.0, Ambient Temperature 20°C (68°F) | |
| For Average Power: VSWR 1.0, Ambient Temperature 40°C (104°F), Inner Conductor Temperature 100°C (212°F), No Solar Loading | |

| Attenuation and Average Power | | | |
|-------------------------------|-------------|----------|------------------|
| Frequency MHz | Attenuation | | Average Power kW |
| | dB/100 ft | dB/100 m | |
| 100 | 0.68 | 2.23 | 2.24 |
| 108 | 0.69 | 2.26 | 2.16 |
| 150 | 0.84 | 2.76 | 1.83 |
| 174 | 0.88 | 2.88 | 1.70 |
| 200 | 0.98 | 3.22 | 1.58 |
| 300 | 1.21 | 3.97 | 1.29 |
| 400 | 1.41 | 4.63 | 1.11 |
| 450 | 1.49 | 4.89 | 1.05 |
| 500 | 1.57 | 5.15 | 1.00 |
| 512 | 1.59 | 5.22 | 0.98 |
| 600 | 1.73 | 5.68 | 0.91 |
| 700 | 1.88 | 6.17 | 0.84 |
| 800 | 2.03 | 6.66 | 0.78 |
| 824 | 2.05 | 6.73 | 0.77 |
| 894 | 2.15 | 7.05 | 0.74 |
| 960 | 2.25 | 7.38 | 0.71 |
| 1000 | 2.29 | 7.51 | 0.70 |
| 1250 | 2.57 | 8.43 | 0.62 |
| 1500 | 2.85 | 9.35 | 0.57 |
| 1800 | 3.16 | 10.37 | 0.52 |
| 1900 | 3.27 | 10.73 | 0.50 |
| 2000 | 3.38 | 11.09 | 0.49 |
| 2300 | 3.61 | 11.80 | 0.46 |
| 3000 | 4.29 | 14.07 | 0.40 |
| 3500 | 4.79 | 15.72 | 0.32 |
| 3700 | 5.01 | 16.44 | 0.31 |
| 3900 | 5.34 | 17.52 | 0.29 |