



Air dielectric coaxial cable, corrugated copper tube for outer conductor and helical copper tube for inner conductor, air dielectric with PE support, 3-1/8 in, LSZH jacket

## General Specifications

|                  |  |
|------------------|--|
| Flexibility      | Standard   |
| Jacket Color     | Black  |
| Performance Note | Attenuation guaranteed within the tolerance $\pm 10\%$ |
| Structure Note   | Dimension guaranteed within the tolerance $\pm 5\%$    |
| Nominal Size     | 3-1/8 in   |

## Material Specifications

|                             |                                |
|-----------------------------|--------------------------------|
| Inner Conductor             | Helical Copper Tube            |
| Dielectric                  | Air Dielectric with PE Support |
| Outer Conductor             | Corrugated Copper Tube         |
| Jacket                      | LSZH                           |
| Diameter of Inner Conductor | 34.70 mm                       |
| Diameter of Dielectric      | 75.20 mm                       |
| Diameter of Outer Conductor | 85.40 mm                       |
| Diameter of Jacket          | 91.00 mm                       |

## Electrical Specifications

|                             |                     |
|-----------------------------|---------------------|
| Impedance                   | 75 ohms $\pm 1$ ohm |
| Maximum Available Frequency | 1.55 GHz            |
| Cut-off Frequency           | 1.66 GHz            |
| Velocity Ratio              | 96%                 |
| Peak Power                  | 940 kW              |
| Insulation Resistance       | 3000 M $\Omega$ -km |
| DC Breakdown Voltage        | 9700 V              |
| Nominal Capacitance         | 70 pF/m             |
| Nominal Inductance          | 0.19 $\mu$ H/m      |

**Attenuations**

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|-----------------|------------------------|-------------------------|--------------------|
| 0.5             | 0.03                   | 0.01                    | 790.0              |
| 1               | 0.04                   | 0.01                    | 560.0              |
| 1.6             | 0.05                   | 0.02                    | 440.0              |
| 3               | 0.06                   | 0.02                    | 320.0              |
| 6               | 0.09                   | 0.03                    | 227.0              |
| 10              | 0.11                   | 0.03                    | 176.0              |
| 20              | 0.16                   | 0.05                    | 124.0              |
| 30              | 0.20                   | 0.06                    | 80.0               |
| 100             | 0.37                   | 0.11                    | 43.0               |
| 200             | 0.52                   | 0.16                    | 30.0               |
| 500             | 0.85                   | 0.26                    | 18.5               |
| 800             | 1.01                   | 0.31                    | 14.4               |
| 1000            | 1.26                   | 0.38                    | 12.7               |

## Return Loss / VSWR

| Frequency Band              | VSWR | Return Loss (dB) | Tolerance |
|-----------------------------|------|------------------|-----------|
| 550-1600 KHz                | 1.10 | 26.4             | 5%        |
| 87-108 MHz                  | 1.10 | 26.4             | 5%        |
| 1CH-12CH Specified Channel  | 1.15 | 23.1             | 5%        |
| 13CH-24CH Specified Channel | 1.15 | 23.1             | 5%        |
| 25CH-68CH Specified Channel | 1.15 | 23.1             | 5%        |

## Mechanical Specifications

|                             |          |
|-----------------------------|----------|
| Bending Radius (Single)     | ≥380 mm  |
| Bending Radius (Repeated)   | ≥1100 mm |
| Number of Bending (Typical) | ≤15      |
| Tensile Strength            | 4200N    |

## Environmental Specifications

|                          |                  |
|--------------------------|------------------|
| Installation Temperature | -20 °C to +55 °C |
| Operating Temperature    | -20 °C to +85 °C |
| Storage Temperature      | -25 °C to +85 °C |

## Regulatory Compliances

|               |           |
|---------------|-----------|
| ISO 9001:2015 | Compliant |
| ROHS          | Compliant |
| China RoHS    | Compliant |
| UK RoHS       | Compliant |
| REACH         | Compliant |
| EU/CE         | Compliant |

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