



Air dielectric coaxial cable, corrugated copper tube for outer conductor and smooth copper tube for inner conductor, air dielectric with PE support, 5/8 in, black PE 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     | 5/8 in                                                 |

## Material Specifications

|                             |                                |
|-----------------------------|--------------------------------|
| Inner Conductor             | Smooth Copper Tube             |
| Dielectric                  | Air Dielectric with PE Support |
| Outer Conductor             | Corrugated Copper Tube         |
| Jacket                      | Black PE                       |
| Diameter of Inner Conductor | 6.10 mm                        |
| Diameter of Dielectric      | 14.10 mm                       |
| Diameter of Outer Conductor | 16.50 mm                       |
| Diameter of Jacket          | 19.00 mm                       |

## Electrical Specifications

|                             |                     |
|-----------------------------|---------------------|
| Impedance                   | 50 ohms $\pm 1$ ohm |
| Maximum Available Frequency | 4.6 GHz             |
| Cut-off Frequency           | 8.5 GHz             |
| Velocity Ratio              | 93%                 |
| Peak Power                  | 38 kW               |
| Insulation Resistance       | 3000 M $\Omega$ -km |
| DC Breakdown Voltage        | 1900 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             | 0.13                   | 0.04                    | 45.23              |
| 1               | 0.18                   | 0.05                    | 32.67              |
| 1.6             | 0.23                   | 0.07                    | 25.57              |
| 3               | 0.31                   | 0.09                    | 18.97              |
| 6               | 0.44                   | 0.13                    | 13.36              |
| 10              | 0.57                   | 0.17                    | 10.32              |
| 20              | 0.80                   | 0.24                    | 7.35               |
| 30              | 0.98                   | 0.3                     | 6.00               |
| 100             | 1.80                   | 0.55                    | 3.30               |
| 200             | 2.61                   | 0.8                     | 2.70               |
| 500             | 4.23                   | 1.29                    | 1.59               |
| 800             | 5.43                   | 1.66                    | 1.10               |
| 1000            | 6.13                   | 1.87                    | 0.94               |
| 2000            | 10.63                  | 3.24                    | 0.65               |

## 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 | 1.10 | 26.4             | 5%        |

## Mechanical Specifications

|                             |         |
|-----------------------------|---------|
| Bending Radius (Single)     | ≥70 mm  |
| Bending Radius (Repeated)   | ≥200 mm |
| Number of Bending (Typical) | ≤15     |
| Tensile Strength            | 2800N   |

## Environmental Specifications

|                          |                  |
|--------------------------|------------------|
| Installation Temperature | -20 °C to +55 °C |
| Operating Temperature    | -40 °C to +85 °C |
| Storage Temperature      | -55 °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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