

## PRODUCT SPECIFICATIONS

**FLEXIBLE RF COAXIAL CABLE 1/2"**

**MODEL JRT-CAB-COA-50-12-1/2**



Main Features:

- Wide Frequency Range
- Low Attenuation
- High Power Rating
- High Reliability

| CONSTRUCTION MATERIALS |                                  |
|------------------------|----------------------------------|
| Inner Conductor        | Copper-Clad Aluminum Wire        |
| Dielectric             | Foamed polyethylene (PE)         |
| Outer Conductor        | Annularly corrugated copper tube |
| Jacket                 | PE, Black, UV resistant          |

\* UV Resistance - GB/T 2423.24-1995; EN 50289-4-17, Method A

| PHYSICAL DIMENSIONS |           |
|---------------------|-----------|
| Inner Conductor     | Ø 4.8mm   |
| Dielectric          | Ø 12.2mm  |
| Outer Conductor     | Ø 13.8mm  |
| Jacket              | Ø 15.9 mm |

| MECHANICAL SPECIFICATIONS          |             |
|------------------------------------|-------------|
| Minimum Bending Radius             |             |
| Single Bending                     | 50 mm       |
| Repeated Bending                   | 125 mm      |
| Number of Bends, Minimum (Typical) | 15 (50)     |
| Bending Moment                     | 5 Nm        |
| Tensile Strength                   | 1050 N      |
| Cable Weight                       | ≈ 205 kg/km |
| Recommended Hanger Spacing         | 0.8 m       |

| ELECTRICAL SPECIFICATIONS      |                       |
|--------------------------------|-----------------------|
| Capacitance                    | 76.0 pF/m(23.2 pF/ft) |
| Impedance                      | 50±1 Ω                |
| Inductance                     | 0.190 µH/m            |
| Velocity                       | 87%                   |
| DC Breakdown Voltage           | 6000V                 |
| Peak Power Rating              | 40 kW                 |
| Maximum Operation Frequency    | 8.8 GHz               |
| Cut-off Frequency              | 10.0 GHz              |
| Shielding Effectiveness >10MHz | >120 dB               |
| Insulation Resistance          | ≥ 10 GΩ x km          |
| Inner Conductor Resistance     | ≤ 1.6 Ω/km            |
| Outer Conductor Resistance     | ≤ 2.0 Ω/km            |

| ENVIRONMENTAL SPECIFICATION |                |
|-----------------------------|----------------|
| Storage Temperature         | -70°C to +85°C |
| Installation Temperature    | -40°C to +60°C |
| Operation Temperature       | -55°C to +85°C |
| RoHS                        | Compliant      |

| RETURN LOSS          |                        |
|----------------------|------------------------|
| Return Loss (Band A) | ≤-26dB 800 to 1000MHz  |
| Return Loss (Band B) | ≤-24dB 1700 to 1900MHz |
| Return Loss (Band C) | ≤-24dB 1900 to 2200MHz |
| Return Loss (Band D) | ≤-24dB 2200 to 2500MHz |
| Return Loss (Band E) | ≤-24dB 2500 to 3000MHz |

| PERFORMANCE |             |                   |
|-------------|-------------|-------------------|
| FREQUENCY   | ATTENUATION | AVERAGE           |
| MHz         | dB/100m     | Power Rating (kW) |
| 100         | 2.15        | 3.94              |
| 200         | 3.08        | 2.75              |
| 300         | 3.81        | 1.99              |
| 400         | 4.46        | 1.80              |
| 450         | 4.70        | 1.75              |
| 800         | 6.35        | 1.33              |
| 900         | 6.75        | 1.25              |
| 1000        | 7.20        | 1.18              |
| 1800        | 9.90        | 0.86              |
| 2000        | 10.50       | 0.81              |
| 2200        | 11.10       | 0.77              |
| 2500        | 11.95       | 0.73              |
| 2700        | 12.47       | 0.69              |
| 3000        | 13.20       | 0.65              |
| 3500        | 14.65       | 0.54              |
| 4000        | 15.81       | 0.49              |
| 4500        | 16.95       | 0.47              |
| 5000        | 18.06       | 0.43              |
| 6000        | 19.82       | 0.41              |

#### Standard Conditions

For attenuation: Ambient temperature 20°C (68°F)

For average power: ambient temperature 40°C (104°F), Inner conductor temperature 100°C (212°F)