

# PRODUCT SPECIFICATION

## 50 Ohm Coaxial Feeder Cable

### RF50 1/4" S

#### PRODUCT DESCRIPTION



- The high-performance of attenuation allows coaxial cable to be used in different RF systems, such as 3G, 4G mobile communication.
- Wide range of applications, such as indoor distribution, broadcast, various base stations, wireless cellular, and others.
- Lower VSWR, perfect shielding effectiveness, and extraordinary inter-modulation performance lead to fewer energy loss and outer interference.

#### CONSTRUCTION

|                 |                           |          |
|-----------------|---------------------------|----------|
| Inner conductor | Copper Clad Aluminum      | Φ 1.90mm |
| Insulation      | Physically foamed PE      | Φ 4.70mm |
| Outer conductor | Helical corrugated copper | Φ 6.40mm |
| Jacket          | Black PE                  | Φ 7.40mm |

#### MECHANICAL PROPERTIES

|                                   |    |     |
|-----------------------------------|----|-----|
| Min. single bending radius        | mm | 25  |
| Min. repeated bending radius      | mm | 30  |
| Max. tensile force                | N  | 680 |
| Recommended maximum clamp spacing | m  | 1   |

#### ELECTRICAL PROPERTIES

|                       |             |       |
|-----------------------|-------------|-------|
| Impedance             | Ω           | 50±1  |
| Nominal capacitance   | pF/m        | 79.4  |
| Nominal inductance    | μH/m        | 0.20  |
| Propagation velocity  | %           | 82    |
| DC breakdown voltage  | kV          | 1.6   |
| Insulation resistance | MΩ•km       | >5000 |
| Peak power rating     | kW          | 6     |
| Cut-off frequency     | GHz         | 20    |
| Screening attenuation | dB          | >120  |
| PIM                   | dBc@(2×20W) | ≤-160 |

# PRODUCT SPECIFICATION

## 50 Ohm Coaxial Feeder Cable

### RF50 1/4" S

#### TRANSMISSION PROPERTIES

---

| Frequency | Attenuation              | Power     |
|-----------|--------------------------|-----------|
| MHz       | @20°C, dB/100m(dB/100ft) | @20°C, kW |
| 100       | 5.89(1.80)               | 1.23      |
| 450       | 12.80(3.90)              | 0.57      |
| 690       | 16.07(4.90)              | 0.48      |
| 800       | 17.40(5.30)              | 0.42      |
| 900       | 18.40(5.61)              | 0.40      |
| 1000      | 19.60(5.98)              | 0.37      |
| 1800      | 26.90(8.20)              | 0.27      |
| 2000      | 28.50(8.69)              | 0.26      |
| 2200      | 29.98(9.14)              | 0.24      |
| 2400      | 31.43(9.58)              | 0.23      |
| 2500      | 32.15(9.80)              | 0.22      |
| 2600      | 32.86(10.02)             | 0.22      |
| 2700      | 33.56(10.23)             | 0.21      |
| 3000      | 35.60(10.85)             | 0.20      |

Attenuation values may be with a tolerance of 5%.

#### VSWR

---

|              |   |      |
|--------------|---|------|
| 690-960MHz   | ≤ | 1.12 |
| 1700-2200MHz | ≤ | 1.12 |
| 2300-2400MHz | ≤ | 1.12 |
| 2500-2690MHz | ≤ | 1.15 |

#### ENVIRONMENTAL PROPERTIES

---

|                  |           |
|------------------|-----------|
| Storage, °C      | -55~+80   |
| Installation, °C | -40~+60   |
| Operation, °C    | -55~+80   |
| 2011/65EU(ROHS)  | compliant |