

# PRODUCT SPECIFICATION

## 50 Ohm Coaxial Feeder Cable

### RF50 1/4"

#### 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 2.60mm |
| Insulation      | Physically foamed PE   | Φ 6.35mm |
| Outer conductor | Ring corrugated copper | Φ 7.75mm |
| Jacket          | Black PE               | Φ 8.80mm |

#### MECHANICAL PROPERTIES

|                                   |    |     |
|-----------------------------------|----|-----|
| Min. single bending radius        | mm | 30  |
| Min. repeated bending radius      | mm | 76  |
| Max. tensile force                | N  | 910 |
| Recommended maximum clamp spacing | m  | 1   |

#### ELECTRICAL PROPERTIES

|                       |             |       |
|-----------------------|-------------|-------|
| Impedance             | Ω           | 50±1  |
| Nominal capacitance   | pF/m        | 76.8  |
| Nominal inductance    | μH/m        | 0.19  |
| Propagation velocity  | %           | 84    |
| DC breakdown voltage  | kV          | 2.2   |
| Insulation resistance | MΩ•km       | >5000 |
| Peak power rating     | kW          | 12.1  |
| Cut-off frequency     | GHz         | 15.8  |
| Screening attenuation | dB          | >120  |
| PIM                   | dBc@(2×20W) | ≤-160 |

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#### TRANSMISSION PROPERTIES

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| Frequency | Attenuation              | Power     |
|-----------|--------------------------|-----------|
| MHz       | @20°C, dB/100m(dB/100ft) | @20°C, kW |
| 100       | 4.05(1.23)               | 1.79      |
| 450       | 8.88(2.17)               | 0.82      |
| 690       | 11.17(3.41)              | 0.69      |
| 800       | 12.10(3.69)              | 0.60      |
| 900       | 12.80(3.90)              | 0.57      |
| 1000      | 13.60(4.15)              | 0.53      |
| 1800      | 18.90(5.76)              | 0.38      |
| 2000      | 20.00(6.10)              | 0.36      |
| 2200      | 21.08(6.43)              | 0.34      |
| 2400      | 22.14(6.75)              | 0.33      |
| 2500      | 22.66(6.91)              | 0.32      |
| 2600      | 23.19(7.07)              | 0.31      |
| 2700      | 23.70(7.23)              | 0.30      |
| 3000      | 25.17(7.67)              | 0.29      |

Attenuation values may be with a tolerance of 5%.

#### VSWR

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

#### ENVIRONMENTAL PROPERTIES

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