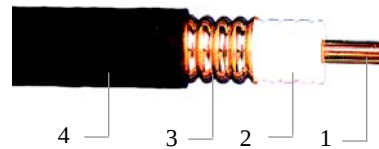


## 1/2" low loss physical foamed insulation coaxial cable

### RF 50 1/2"

| Description                    |              | TYPE No.                  |
|--------------------------------|--------------|---------------------------|
| Standard cable                 |              | RF5012                    |
| Fire retardant cable           |              | RF5012 Z                  |
| Construction                   |              |                           |
| Inner Conductor                | Material     | Copper clad aluminum wire |
|                                | Diameter, mm | 4.80±0.05                 |
| Insulation                     | Material     | Physically foamed PE      |
|                                | Diameter, mm | 12.20±0.30                |
| Outer conductor                | Material     | Ring corrugated copper    |
|                                | Diameter, mm | 13.80±0.20                |
| Jacket                         | Material     | PE or fire retardant PE   |
|                                | Diameter, mm | 15.80±0.20                |
| Mechanical properties          |              |                           |
| Bending radius, mm             | Single       | 70                        |
|                                | Repeated     | 125                       |
|                                | Moving       | 350                       |
| Pulling strength, N            |              | 1130                      |
| Crush resistance, kg/mm        |              | 2.0                       |
| Recommended temperature, °C    | Store        | -70~+85                   |
|                                | Installation | -40~+60                   |
|                                | Operation    | -55~+85                   |
| Electrical properties          |              |                           |
| Impedance, Ω                   |              | 50±1                      |
| Capacitance, PF/m              |              | 75.8                      |
| Inductance, μH/m               |              | 0.19                      |
| Propagation velocity, %        |              | 88                        |
| DC breakdown voltage, kV       |              | 4.0                       |
| Insulation resistance, M Ω •km |              | >5×10 <sup>3</sup>        |
| Peak power, kW                 |              | 40                        |
| Screening attenuation, dB      |              | >>120                     |
| Cut-off frequency, GHz         |              | 8.8                       |



- 1: Inner Conductor      2: Insulation  
3: Outer conductor      4: Jacket

Figure 6: RF50 1/2" coaxial cable

| Attenuation and average power                                                                                              |                                 |                      |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------|
| Frequency MHz                                                                                                              | Nom. attenuation @20°C, dB/100m | Power rate @20°C, kW |
| 10                                                                                                                         | 0.67                            | 11.30                |
| 100                                                                                                                        | 2.17                            | 3.49                 |
| 200                                                                                                                        | 3.10                            | 2.44                 |
| 450                                                                                                                        | 4.75                            | 1.59                 |
| 800                                                                                                                        | 6.46                            | 1.17                 |
| 900                                                                                                                        | 6.85                            | 1.10                 |
| 1000                                                                                                                       | 7.28                            | 1.04                 |
| 1500                                                                                                                       | 9.09                            | 0.833                |
| 1800                                                                                                                       | 10.10                           | 0.753                |
| 2000                                                                                                                       | 10.70                           | 0.710                |
| 2300                                                                                                                       | 11.50                           | 0.627                |
| 3000                                                                                                                       | 13.40                           | 0.565                |
| <ul style="list-style-type: none"> <li>Maximum attenuation value shall be 105% of the nominal attenuation value</li> </ul> |                                 |                      |
| VSWR                                                                                                                       |                                 |                      |
| 800~1000MHz                                                                                                                |                                 | ≤1.15                |
| 1700~2400MHz                                                                                                               |                                 | ≤1.15                |

#### Note:

- For fire retardant jacket, recommended temperatures are:

Store temperature      -30~+80°C

Installation temperature      -25~+60°C

Operation temperature      -30~+80°C

- This cable is RoHS compliant. As a statement of RoHS compliant, you can find the label below on our product package.

RoHS