

RG6 Coaxial Cable

P/N: AT1RG6-1S



RG6 is a high-bandwidth, **75-ohm** coaxial cable engineered for the demands of modern digital, satellite, and cable television signals. It features a larger **solid copper-clad steel** center conductor and a thicker dielectric than RG59, allowing it to carry high-frequency signals over much longer distances with significantly lower attenuation. Most RG6 cables incorporate an **aluminum foil** shield paired with a braid to ensure 100% coverage against high-frequency interference. Encased in a durable **PVC or PE jacket**, it is the industry standard for **CATV, satellite dish installations, and internet cable modems** where signal integrity across the gigahertz spectrum is essential.

Construction Specifications

| Description | Material & Plating | Diameter (mm) |
|---------------------------------|-----------------------|---------------|
| Centre Conductor | Copper clad Aluminium | 1.02 |
| Dielectric | Foamed PE | 4.57 |
| 1 st Outer Conductor | APA Tape | 4.75 |
| 2 nd Outer Conductor | Tinned Copper Braid | (60%) |
| Jacket | PE | 6.91 |

Electrical Specifications

| Parameter | Value | Unit |
|----------------------------------|-------|-------|
| Frequency Range | DC-3 | GHz |
| Impedance | 75±3 | Ω |
| Propagation Velocity | 85 | % |
| Capacitance | 54 | pF/m |
| Screening Effectiveness | 40 | dB |
| Insulation Resistance | 5000 | MΩ-Km |
| Inner Conductor Resistance | 21.5 | Ω/km |
| Outer Conductor Resistance | 34.4 | Ω/km |
| Operating Voltage (at sea level) | ≤ 3.0 | kVrms |
| Peak Power Rating | 5 | KW |



Technical Data Sheet

Mechanical Specifications

| Parameter | Value | Unit |
|-------------------------|-----------|-------|
| Weight | 45 | Kg/km |
| Single Bending Radius | ≥ 35 | mm |
| Repeated Bending Radius | ≥ 70 | mm |

Environmental Specifications

| Parameter | Value | Unit |
|--------------------------|----------|------|
| Operation Temperature | -20 ~ 80 | °C |
| Installation Temperature | -5 ~ 50 | °C |

Attenuation

| Frequency (GHz) | dB/100m |
|-----------------|---------|
| 0.05 | 5.2 |
| 0.15 | 8.3 |
| 0.45 | 14.4 |
| 1.0 | 20.4 |
| 1.5 | 21.5 |
| 1.8 | 28.9 |
| 2.2 | 31.75 |
| 2.8 | 35.76 |
| 3.0 | 37.01 |

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