RG 223 Coaxial Cable

RG 223 coaxial cable is a 50 ohm coaxial cable used in applications such as GPS, LAN/WAN or anywhere transmission of data signals is needed. This RG 223 cable offers better shielding and lower signal loss than RG58 and RG174.

RG 223 Coaxial Cable Construction

- **Inner Cond:** Solid Silver Covered Copper
- **Dielectric:** Solid Low Density Polyethylene
- **Outer Cond:** Silver-Covered Copper Braided Shield (x2)
- **Jacket:** PVC (Non-Contaminating) Type IIA per MIL-C-17

RG 223 Coaxial Cable Additional Specifications

- **Weight:** 40lb/ft
- **Operating Temperature:** -40°C to +90°C

RG 223 Coaxial Cable Electrical Specifications

- **Capacitance:** 32.2 pF/ft
- **Impedance:** 50 ohms
- **Maximum Operating Voltage:** 1,900 Volts
- **Velocity of Propagation:** 66%

RG 223 Loss Attenuation Specifications and Power Handling by Frequency

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Attenuation (db/100ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>4.8</td>
</tr>
<tr>
<td>400</td>
<td>12.0</td>
</tr>
<tr>
<td>1000</td>
<td>21.0</td>
</tr>
<tr>
<td>5000</td>
<td>55.0</td>
</tr>
<tr>
<td>12400</td>
<td>92.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SRL (db/100ft)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 GHz</td>
<td>25.0</td>
</tr>
<tr>
<td>2.0 GHz</td>
<td>21.5</td>
</tr>
<tr>
<td>5.0 GHz</td>
<td>21.0</td>
</tr>
<tr>
<td>12.4 GHz</td>
<td>19.0</td>
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</tbody>
</table>
### RG 223 Coaxial Cable Mechanical Specifications

**Inner Conductor:**
- **Material:** Silver Covered Copper
- **Strand Count:** 1
- **Strand Size:** 19
- **Diameter, in:** 0.035

**Dielectric:**
- **Material:** Low Density Polyethylene
- **Wall Thickness, in:** 0.041
- **Diameter, in:** 0.116

**Outer Conductor:**
- **Count:** 2
- **Material 1:** Silver-Covered Copper Braid
- **Coverage:** 95%
- **Diameter, in:** 0.138
- **Material 2:** Silver-Covered Copper Braid
- **Coverage:** 95%
- **Diameter, in:** 0.160

**Jacket:**
- **Material:** PVC (Non-Contaminating) Type IIA per MIL-C-17
- **Color:** Black

### RG 223 Coaxial Cable Use in the Military

The United States Military uses M17/84-RG223 as an alternative to the commercial grade RG 223 for applications such as Tactical Field Antenna Feeders and Wireless Base Station Interconnections. All mechanical and electrical requirements are clearly defined, follows strict adhesion requirements, and this cable is listed as QPL, so the military benefits from using this part number. Due to this, only qualified manufacturers can produce coaxial cables that are standard for the military, M17/84 has a M17/194-0001 LS/LT jacket instead of the regular PVC jacket used for its commercial counterpart, and the military version is also used for high signal transmission.
RG 223 Coaxial Cable CAD Drawing