Product: 84142

Mil-Spec Coax, 50 Ohm, RG-142, 19 AWG Solid SCCS, Double 95% SC Braid, FEP Jkt, CMP, Commercial Non-QPL

Product Description
Mil-Spec Coax, 50 Ohm, RG-142, 19 AWG Solid Silvered Copper Covered Steel Conductor, PTFE Insulation, Double 95% Silvered Copper Braid Shield, FEP Jacket, CMP, Commercial, non-QPL

Technical Specifications

Product Overview

| Suitable Applications | Aerospace wireless communication |

Construction Details

| RG Type | 142 |

Conductor

<table>
<thead>
<tr>
<th>AWG</th>
<th>Stranding</th>
<th>Nom. Diameter</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Solid</td>
<td>0.037 in</td>
<td>SCCS - Silvered Copper Covered Steel</td>
</tr>
</tbody>
</table>

Insulation

<table>
<thead>
<tr>
<th>Material</th>
<th>Nom. Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTFE - Polytetrafluoroethylene</td>
<td>0.116 in</td>
</tr>
</tbody>
</table>

Outer Shield Material

<table>
<thead>
<tr>
<th>Layer</th>
<th>Outer Shield Type</th>
<th>Material</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Braid</td>
<td>Silvered Copper (SC)</td>
<td>95%</td>
</tr>
<tr>
<td>2</td>
<td>Braid</td>
<td>Silvered Copper (SC)</td>
<td>95%</td>
</tr>
</tbody>
</table>

Outer Jacket Material

<table>
<thead>
<tr>
<th>Material</th>
<th>Nom. Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEP - Fluorinated Ethylene Propylene</td>
<td>0.195 in</td>
</tr>
</tbody>
</table>

Electrical Characteristics

VS WR

<table>
<thead>
<tr>
<th>Frequency [MHz]</th>
<th>Max. VSWR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MHz - 12.4 GHz</td>
<td>per M17/60-RG142</td>
</tr>
</tbody>
</table>

Attenuation

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Nom. Attenuation [dB/100ft]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MHz</td>
<td>0.3 dB/100ft</td>
</tr>
<tr>
<td>10 MHz</td>
<td>1.1 dB/100ft</td>
</tr>
<tr>
<td>50 MHz</td>
<td>2.7 dB/100ft</td>
</tr>
<tr>
<td>100 MHz</td>
<td>3.9 dB/100ft</td>
</tr>
<tr>
<td>200 MHz</td>
<td>5.6 dB/100ft</td>
</tr>
<tr>
<td>400 MHz</td>
<td>6.9 dB/100ft</td>
</tr>
<tr>
<td>700 MHz</td>
<td>11.0 dB/100ft</td>
</tr>
<tr>
<td>900 MHz</td>
<td>12.5 dB/100ft</td>
</tr>
<tr>
<td>1000 MHz</td>
<td>13.5 dB/100ft</td>
</tr>
</tbody>
</table>
### Power Rating

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 MHz</td>
<td>19.3 dB/100ft</td>
</tr>
<tr>
<td>3000 MHz</td>
<td>24.3 dB/100ft</td>
</tr>
<tr>
<td>5000 MHz</td>
<td>32.6 dB/100ft</td>
</tr>
<tr>
<td>8000 MHz</td>
<td>43.2 dB/100ft</td>
</tr>
<tr>
<td>3000 MHz</td>
<td>24.3 dB/100ft</td>
</tr>
<tr>
<td>8000 MHz</td>
<td>43.2 dB/100ft</td>
</tr>
<tr>
<td>50 MHz</td>
<td>3.500 W</td>
</tr>
<tr>
<td>100 MHz</td>
<td>2.400 W</td>
</tr>
<tr>
<td>400 MHz</td>
<td>1.100 W</td>
</tr>
<tr>
<td>1,000 MHz</td>
<td>650 W</td>
</tr>
<tr>
<td>3,000 MHz</td>
<td>330 W</td>
</tr>
<tr>
<td>8,000 MHz</td>
<td>180 W</td>
</tr>
</tbody>
</table>

### Electricals

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19.0 Ohm/1000ft</td>
<td>2.3 Ohm/1000ft</td>
<td>29 pF/ft</td>
<td>50 Ohm</td>
<td>70%</td>
</tr>
</tbody>
</table>

### Voltage

<table>
<thead>
<tr>
<th>UL Voltage Rating</th>
<th>Non-UL Voltage Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 V (CMP)</td>
<td>1400 V (Mil-Spec)</td>
</tr>
</tbody>
</table>

### Mechanical Characteristics

#### Temperature

<table>
<thead>
<tr>
<th>UL Rating</th>
<th>Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>200°C</td>
<td>-70°C to +200°C</td>
</tr>
</tbody>
</table>

#### Bend Radius

<table>
<thead>
<tr>
<th>Installation Min:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 in</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bulk Cable Weight:</th>
<th>Max. Pull Tension:</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 lbs/1000ft</td>
<td>104 lbs</td>
</tr>
</tbody>
</table>

### Standards and Compliance

- **Environmental Suitability:** Indoor - Plenum, Indoor, Outdoor, Sunlight Resistance
- **Sustainability:** CA Prop 65
- **Flammability / Fire Resistance:** NFPA 262
- **NEC / UL Compliance:** CMP
- **CEC / C(UL) Compliance:** CMP
- **Military Compliance:** Commercial, non-QPL product (M17/60-RG142)
- **APAC Compliance:** China RoHS II (GB/T 26572-2011)

### History

| Update and Revision: | Revision Number: 0.333 Revision Date: 09-30-2020 |

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