Product: 1151A

CATV Video, RG59, 20 AWG BCCS, Quad Shield (Foil + 55% Braid + Foil + 50% Braid), CMP

Product Description
Series 59, 20 AWG solid .032" bare copper-covered steel conductor, plenum, foam FEP insulation, Duofoil® (100% coverage); TC braid shield (55% and 50% coverage), FEP jacket.

Technical Specifications

Product Overview

<table>
<thead>
<tr>
<th>Suitable Applications</th>
<th>CATV, Broadband</th>
</tr>
</thead>
</table>

Physical Characteristics (Overall)

Conductor

<table>
<thead>
<tr>
<th>AWG</th>
<th>Stranding</th>
<th>Material</th>
<th>Nominal Diameter</th>
<th>No. of Coax</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Solid</td>
<td>BCCS - Bare Copper Covered Steel</td>
<td>0.032 in</td>
<td>1</td>
</tr>
</tbody>
</table>

Conductor Count: 1

Insulation

<table>
<thead>
<tr>
<th>Material</th>
<th>Material Trade Name</th>
<th>Nominal Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEP - Fluorinated Ethylene Propylene (Foam)</td>
<td>Teflon®</td>
<td>0.14 in</td>
</tr>
</tbody>
</table>

Outer Shield Material

<table>
<thead>
<tr>
<th>Type</th>
<th>Layer</th>
<th>Material</th>
<th>Material Trade Name</th>
<th>Coverage [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape</td>
<td>1</td>
<td>Tri-Laminate (Alum+Poly+Alum)</td>
<td>Duofoil®</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Tinned Copper (TC)</td>
<td></td>
<td>55%</td>
</tr>
<tr>
<td>Tape</td>
<td>3</td>
<td>Tri-Laminate (Alum+Poly+Alum)</td>
<td>Duofoil®</td>
<td>55%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Tinned Copper (TC)</td>
<td></td>
<td>50%</td>
</tr>
</tbody>
</table>

Outer Jacket Material

<table>
<thead>
<tr>
<th>Material</th>
<th>Material Trade Name</th>
<th>Nominal Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEP - Fluorinated Ethylene Propylene</td>
<td>Teflon®</td>
<td>0.236 in</td>
</tr>
</tbody>
</table>

Electrical Characteristics

Conductor DCR

<table>
<thead>
<tr>
<th>Nominal Conductor DCR</th>
<th>Nominal Outer Shield DCR</th>
<th>Outer Conductor DCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 Ohms/1000ft</td>
<td>2.3 Ohms/1000ft</td>
<td>2.3 Ohms/1000ft</td>
</tr>
</tbody>
</table>

Capacitance

Nom. Capacitance Conductor to Shield
16.5 pF/ft

Inductance

Nominal Inductance
0.093 µH/ft

Impedance

Nominal Characteristic Impedance
## Return Loss (RL)

<table>
<thead>
<tr>
<th>Frequency [MHz]</th>
<th>Min. Structural Return Loss (SRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 MHz</td>
<td>20 dB</td>
</tr>
<tr>
<td>400 MHz</td>
<td>20 dB</td>
</tr>
</tbody>
</table>

## High Frequency (Nominal/Typical)

<table>
<thead>
<tr>
<th>Frequency [MHz]</th>
<th>Nom. Insertion Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MHz</td>
<td>0.4 dB/100ft</td>
</tr>
<tr>
<td>10 MHz</td>
<td>0.8 dB/100ft</td>
</tr>
<tr>
<td>50 MHz</td>
<td>1.8 dB/100ft</td>
</tr>
<tr>
<td>100 MHz</td>
<td>2.6 dB/100ft</td>
</tr>
<tr>
<td>200 MHz</td>
<td>3.8 dB/100ft</td>
</tr>
<tr>
<td>400 MHz</td>
<td>5.6 dB/100ft</td>
</tr>
<tr>
<td>700 MHz</td>
<td>7.6 dB/100ft</td>
</tr>
<tr>
<td>900 MHz</td>
<td>8.8 dB/100ft</td>
</tr>
<tr>
<td>1000 MHz</td>
<td>9.4 dB/100ft</td>
</tr>
</tbody>
</table>

## Delay

<table>
<thead>
<tr>
<th>Nominal Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.21 ns/ft</td>
</tr>
</tbody>
</table>

## High Freq

<table>
<thead>
<tr>
<th>Min. SRL (Structural Return Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 dB</td>
</tr>
</tbody>
</table>

## Voltage

<table>
<thead>
<tr>
<th>UL Voltage Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 V RMS</td>
</tr>
</tbody>
</table>

## Temperature Range

<table>
<thead>
<tr>
<th>Non-UL Temp Rating:</th>
<th>200°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temp Range:</td>
<td>-70°C To +200°C</td>
</tr>
</tbody>
</table>

## Mechanical Characteristics

<table>
<thead>
<tr>
<th>Bulk Cable Weight:</th>
<th>37 lbs/1000ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Pull Tension:</td>
<td>84 lbs</td>
</tr>
<tr>
<td>Min Bend Radius/Minor Axis:</td>
<td>2.5 in</td>
</tr>
</tbody>
</table>

## Standards

<table>
<thead>
<tr>
<th>NEC(UL) Compliance:</th>
<th>CMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEEC(UL) Compliance:</td>
<td>CMP</td>
</tr>
<tr>
<td>RG Type:</td>
<td>59/U Type</td>
</tr>
<tr>
<td>Series Type:</td>
<td>59</td>
</tr>
</tbody>
</table>

## Applicable Environmental and Other Programs

<table>
<thead>
<tr>
<th>Environmental Space:</th>
<th>Indoor - Plenum</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Directive 2003/96/EC (BFR):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive 2011/65/EU (ROHS II):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU Directive 2012/19/EU (WEEE):</td>
<td>Yes</td>
</tr>
<tr>
<td>EU CE Mark:</td>
<td>No</td>
</tr>
<tr>
<td>EU RoHS Compliance Date (yyyy-mm-dd):</td>
<td>2005-04-01</td>
</tr>
<tr>
<td>Mill Order #39 (China RoHS):</td>
<td>Yes</td>
</tr>
</tbody>
</table>

## Suitability

<table>
<thead>
<tr>
<th>Suitability - Aerial:</th>
<th>Yes - When supported by messenger wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitability - Burial:</td>
<td>Yes</td>
</tr>
<tr>
<td>Suitability - Hazardous Locations:</td>
<td>No</td>
</tr>
</tbody>
</table>
Suitability - Indoor: Yes
Suitability - Outdoor: Yes
Suitability - Sunlight Resistance: No

Flammability, LS0H, Toxicity Testing
CSA Flammability: FT6
UL voltage rating: 300 V RMS

Plenum/Non-Plenum
Plenum (Y/N): Yes

Part Number

<table>
<thead>
<tr>
<th>Item #</th>
<th>Color</th>
<th>Putup Type</th>
<th>Length</th>
<th>UPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1151A88R1000</td>
<td>Beige, Snow</td>
<td>Reel</td>
<td>1,000 ft</td>
<td>612825107477</td>
</tr>
</tbody>
</table>

Footnote: C - CRATE REEL PUT-UP.

Product Notes
Notes: Sweep tested 5 MHz to 400 MHz. Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

History
Update and Revision: Revision Number: 0.307 Revision Date: 08-25-2020

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