Designed to simplify the connection process, the new 6791 series wire to board connectors for coaxial cables enable simple termination with one press. Expanded the proven-reliable IDC (Insulation displacement connector) from signal/power transmission to high frequency transmission field up to 6GHz, the IDC contact pierces the jacket and insulation of the cable and makes direct contact with the strands and conductor of the wire at the same time. Comparing with direct soldering the soldering quality is no more depending on operator’s skill which is hard to be unified and controlled. Hand soldering is now not preferred/allows in automotive field. Comparing with costly traditional 2-piece solution which is generally taller than 10mm, the new 6791 Series offers a cost-effective solution and the on board height in less than 5mm after the cap is pressed. Process to prepare coaxial cable with a 2-piece connector is time consuming and costly, with the launch of the new 6791 series the process is now simplified and the cost is reduced.

**APPLICATIONS**
- The connector comes in multiple types for different coaxial cables.
- Small package size and mechanical strength allows usage in automotive and industrial antenna applications
- Reference Application Notes 201-01-214

**FEATURES AND BENEFITS**
- Can replace costly traditional RF connector systems.
- Good RF performance up to 6GHz.
- Mechanically strong with peel off force up to 70N
- Easy assembly process with ability to automate.

**ELECTRICAL**
- Current Rating: 0.5 Amps (Current limit is cable dependent)
- Voltage Rating: 125Vac

**ENVIRONMENTAL**
- Operating Temperature: -40ºC to +105ºC

**MECHANICAL**
- Insulator Material: Glass-Filled Nylon 46; UL94V-0
- Contact Material: Copper Alloy
- Plating: Lead-Free Tin Over Nickel

**HOW TO ORDER**

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Series</th>
<th>No. of Ways</th>
<th>Cable Size*</th>
<th>Plating</th>
</tr>
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<tbody>
<tr>
<td>00</td>
<td>6791</td>
<td>001</td>
<td>001 = 1</td>
<td>005</td>
</tr>
</tbody>
</table>

001 = 50Ω: Outer Jacket 2.33mm-2.60mm
003 = 50Ω: Outer Jacket 2.70mm-3.10mm

See comparison of cable dimensions in below chart

<table>
<thead>
<tr>
<th>Component</th>
<th>Diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-001</td>
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<tr>
<td></td>
<td>Lower Limit</td>
</tr>
<tr>
<td>Conductor</td>
<td>0.43</td>
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<tr>
<td>Dielectric</td>
<td>1.44</td>
</tr>
<tr>
<td>Braid Shield</td>
<td>1.84</td>
</tr>
<tr>
<td>Jacket</td>
<td>2.33</td>
</tr>
</tbody>
</table>
RF Coaxial IDC
00-6791

00 6791 001 001 005

NOTES:
1. VOLTAGE RATING: 125V
2. OPERATING TEMPERATURE: -40°C TO +85°C
3. FOR REFLOW SOLDERING LEAD-FREE PROCESS
4. SOLID STATE HEAT RESISTANCE: REFLOW SOLDERING 260°C
5. RECOMMENDED PRESSING STOP HEIGHT AS 3.3±0.2mm.
6. ALLOW CABLE INSERT TOLERANCE: 0.3mm MAX
7. CRITICAL DIMENSION ▼
8. GENERAL TOLERANCE ±0.20mm.

RECOMMENDED PCB LAYOUT
NOTE: TOLERANCE FOR PCB LAYOUT IS ±0.05mm

OUTLINE OF THE CONNECTOR

CABLE INSERTION DIRECTION

SOLDERING COPPLANARITY 0.1 mm MAX (FROM SITTING PLANE)
RF Coaxial IDC
00-6791

00 6791 001 001 005

CONSTRUCTION

NOTE: JACKET STRIP OD DEFORMED MUST BE THINNER THAN LESS 2.75mm AFTER CUT OFF.

APPLICABLE COAXIAL CABLE DIMENSIONS:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>DIAMETER (mm)</th>
<th>LOWER LIMIT</th>
<th>UPPER LIMIT</th>
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<tr>
<td>(1) CONDUCTOR</td>
<td>Ø0.43</td>
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<td>(2) DIELECTRIC</td>
<td>Ø1.44</td>
<td>Ø1.68</td>
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<tr>
<td>(3) BRAID SHIELD</td>
<td>Ø1.84</td>
<td>Ø2.08</td>
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</tr>
<tr>
<td>(4) JACKET</td>
<td>Ø2.33</td>
<td>Ø2.60</td>
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</tbody>
</table>

Wired Connector
RF Coaxial IDC

00-6791

00 6791 001 001 005

NOTICE:
END SECTION 160 mm MIN.
COMPONENTS SUPPLIER 100 mm MIN.
LEADING SECTION 80 mm MIN.
TOP COVER TAPE ONLY

TAPE & REEL
LABEL
330mm

UNWINDING DIRECTION
24mm

NOTE:
1. MATERIAL:
   REEL: BLUE PS
   CARRIER: BLACK PS
   COVER TAPE: TRANSPARENT PE
2. DIMENSION:
   REEL SIZE:
   DIA=330mm, W=24mm
3. QUANTITY:
   850PCS/REEL
4. HUMIDITY REQUIREMENTS FOLLOW
   MSL LEVEL 3

REEL LABEL
AVX INTERCONNECT
PART NUMBER: 00 6791 001 001 005
QUANTITY: 850 PCS
DATE CODE: XXXX

SECTION A-A

DETAIL 'B'

MICRO STRIP BOARD

REEL LABEL

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<thead>
<tr>
<th>MICRO STRIP BOARD</th>
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<tr>
<td>07-CAUTION LABEL</td>
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<td>08-HUMIDITY INDICATOR CARD</td>
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<tr>
<td>09-DESIgn</td>
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<td>10-REEL BAG</td>
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<td>11-REEL CARRIER TAPE</td>
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<td>12-REEL COVER TAPE</td>
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</tr>
</tbody>
</table>
RF Coaxial IDC

00-6791

**CONSTRUCTION**

STRIPPED CABLE LENGTH: 2.20 ± 0.2

BRAID AND OUTER JACKET ONLY

JACKET

**NOTE:** JACKET STRIP OD DEFORMED MUST BE THIN LESS THAN 0.30mm AFTER CUT OFF.

**APPLICABLE COAXIAL CABLE DIMENSIONS:**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>DIAMETER (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOWER LIMIT</td>
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<tr>
<td>(1) CONDUCTOR</td>
<td>0.46</td>
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<td>(2) DIELECTRIC</td>
<td>1.45</td>
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<tr>
<td>(3) BRAID SHIELD</td>
<td>1.85</td>
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<tr>
<td>(4) JACKET</td>
<td>2.70</td>
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</tbody>
</table>

**WIRED CONNECTOR**
RF Coaxial IDC

00-6791

00 6791 001 003 005

TAPE & REEL

UNWINDING DIRECTION

NOTE:
1. MATERIAL:
   - REEL: BLUE PS
   - CARRIER: BLACK PS
   - COVER TAPE: TRANSPARENT PE
2. DIMENSION:
   - REEL SIZE:
     - DIAMETER: 130mm, W=24mm
3. QUANTITY:
   - 700PCS/REEL
4. HUMIDITY REQUIREMENTS FOLLOW MSL LEVEL 3

SECTION A-A

REEL LABEL

PART NUMBER: 00 6791 001 003 005
QUANTITY: 700 PCS
BAR CODE: XXXX

ITEM DESCRIPTIONS MATERIAL FINISH QTY NOTE COLOR