

# RF COAXIAL IDC: 6791-000



## General Information



The new 6791 Series Wire to Board Connectors for coaxial cable are designed to simplify the connection process by enabling easy termination with a single press. The IDC (Insulation Displacement Connector), which has been proven reliable in signal/power transmission, is now extended to high-frequency transmission fields up to 6 GHz. The IDC contact pierces the jacket and insulation of the cable while making direct contact with the wire's strands and conductor. Unlike direct soldering, the soldering quality is no longer dependent on the operator's skill, which is difficult to standardize and control. Hand soldering is no longer preferred or allowed in the automotive field. The new 6791 Series offers a cost-effective alternative to the costly, traditional 2-piece solution, which generally exceeds 10 mm. After the cap is pressed, the on-board height is less than 5 mm. Preparing coaxial cable with a two-piece connector is time-consuming and costly. With the introduction of the new 6791 series, however, the process is 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
- Application Notes: Refer to 201-01-214
- Specification Notes: Refer to 201-01-213

### 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: 125 VAC (RMS) or DC Equivalent

### ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +85°C

### MECHANICAL

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

### HOW TO ORDER

**00** Prefix  
**6791** Series  
**001** No. of Ways  
 001 = 1

**00X** Description  
 001 = 50Q: Outer Jacket 2.33mm-2.60mm  
 002 = 50Q: Outer Jacket 2.70mm-3.10mm  
 003 = 50Q: Outer Jacket 2.70mm-3.10mm  
 See comparison of cable dimensions in below chart

**005** Plating



**SALES DRAWINGS**  
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### IDC COAX CABLE SIZE

| Component    | Diameter (mm) |             |             |             |             |             |
|--------------|---------------|-------------|-------------|-------------|-------------|-------------|
|              | -001          |             | -002        |             | -003        |             |
|              | Lower Limit   | Upper Limit | Lower Limit | Upper Limit | Lower Limit | Upper Limit |
| Conductor    | 0.43          | 0.54        | 0.27        | 0.33        | 0.46        | 0.57        |
| Dielectric   | 1.44          | 1.68        | 1.45        | 1.70        | 1.45        | 1.70        |
| Braid Shield | 1.84          | 2.08        | 1.85        | 2.10        | 1.85        | 2.10        |
| Jacket       | 2.33          | 2.60        | 2.70        | 3.10        | 2.70        | 3.10        |