



# Interconnect Solutions Short Form Catalog

---

## How to Search this Catalog

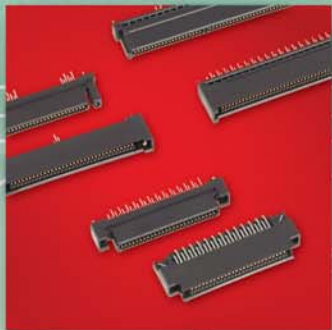
This digital catalog provides you with three quick ways to find the products and information you are looking for. Just point and click on the bookmarks to the left, the linked images on the next page or the labeled sections of the table of contents. You can also use the “search” function built into Adobe Acrobat to jump directly to any text reference in this document.

### **Acrobat “Search” function instructions:**

1. Press CONTROL + F
  2. When the dialog box appears, type in the word or words you are looking for and press ENTER.
  3. Depending on your version of Acrobat, it will either take you directly to the first instance found, or display a list of pages where the text can be found. In the latter, click on the link to the pages provided.
-



# Interconnect Solutions Short Form Catalog



# Complete Solutions for the Electronics Industry

3M Electronics offers a comprehensive range of Interconnect Solutions for the electronics industry with a product portfolio that includes connectors, cables, cable assemblies and assembly tooling for a wide variety of applications.

3M is dedicated to innovation, continually developing new products that become an important part of everyday life across many diverse markets. A number of 3M solution categories are based on custom-designed products for specialized applications. 3M Electronics can help you design, modify and customize your product as well as help you to seamlessly integrate our products into your manufacturing process on a global basis.

## **RoHS Compliant Statement**

“RoHS compliant” means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M’s knowledge and belief based on information provided by third party suppliers to 3M.

“RoHS compliant” does not imply high temperature. Please refer to the specifications to determine suitability for processing.

# Contents

- Backplane Connector Solutions .....1
- Boardmount Connector Solutions .....2
- Wiremount Connectors and Assembly Solutions .....5
- Device-to-Board Connector Solutions .....10
- Input/Output Connector Solutions .....12
- Cable Solutions .....21
- Cable Assembly Solutions - High Speed Assemblies ...26



# Search Tips for www.3M.com/interconnects

Enter keywords or phrases as they would appear. A search for “cable and assembly” will only return matches to that exact phrase. Try entering a partial keyword or part number. A search for “assembl” will return pages with “assembly” and “assemblies” in them. For searches by Tech Sheet number, enter up to four digits. If you do not find any results, try entering a partial part number. Less is best. Do not enter spaces. Search is not case sensitive.

# 3M™ BACKPLANE CONNECTOR SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>DIN Connectors</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• DIN 41612</li> <li>• C-Form Plug and Socket</li> <li>• C-Form Wiremount Plugs and Sockets</li> <li>• R-Form Plug and Socket</li> <li>• Q-Form Plug and Socket</li> <li>• B-Form Wiremount Plug and Socket</li> <li>• Pinless Shrouds</li> <li>• Solder Tails or Press-Fit</li> <li>• Inverse Versions</li> <li>• EMLB Contact Loading</li> <li>• PCB Retention Clips</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Engineering Thermoplastic <b>Plating</b> Underplating: 50 µ" [ 1.27 µm ] Min. Nickel Interface: 30 µ" [ 76 µm ] Gold or 3 µ" [ .08 µm ] Gold over 7 µ" [ .18 µm ] PdNi	<b>Current Rating:</b> 3.0 A @ 30°C T-rise above ambient <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +125°C
<b>MetPak™ 2-FB Connectors</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• Futurebus+®</li> <li>• Inverse Version Available</li> <li>• Vertical and Right Angle</li> <li>• Stacking Versions</li> <li>• Elevated Versions</li> <li>• Guiding Features</li> <li>• Pinless Shroud</li> <li>• Power Header and Socket</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temp LCP <b>Plating</b> Underplating: 50 µ" (1.27 µm) Nickel Interface: 10 µ" [ 25 µm ] or 30 µ" [ .76 µm ] Gold or 3 to 5 µ" [ .07 to 12 µm ] Gold over 7, 27 or 40 µ" [ .18, .69, 1.01 µm ] PdNi	<b>Current Rating:</b> Signal: 1.5 A All contacts simultaneously <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +125°C
<b>MetPak™ CP2 Connectors</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• Compact PCI®</li> <li>• Types A, B and C</li> <li>• Header and Socket</li> <li>• Grounding Options</li> <li>• EMLB Contact Loading</li> <li>• Coding Keys</li> <li>• Lower Shield Option</li> <li>• Pinless Shroud</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: Nickel Wiping Area: 30 µ" [ 0.79 µm ] Gold	<b>Current Rating:</b> 1A at +70°C <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +125°C
<b>MetPak™ HM Connectors</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• Hard Metric (HM)</li> <li>• 5- and 8-Row Versions</li> <li>• Socket and Header</li> <li>• Power Options</li> <li>• Protective Caps</li> <li>• Coding Keys</li> <li>• Shielding Options</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Thermoplastic <b>Plating</b> Underplating: 50 µ" [ 1.27 µm ] Nickel Interface: 30 µ" [ .76 µm ] Gold or 5 µ" [ .13 µm ] Gold over 40 µ" [ 1.01 µm ] PdNi	<b>Current Rating:</b> (Fully Loaded): 1 A at 70°C Signal, 8.25 A @ 70°C Power <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +125°C
<b>MetPak™ HSHM Connectors</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• High Speed Hard Metric (HSHM)</li> <li>• 5 Gigabits Per Second</li> <li>• Orthogonal Design Capable</li> <li>• Differential Pairs in Rows or Columns</li> <li>• Virtual Coax Capable</li> <li>• 5- and 8-Row Versions</li> <li>• Socket and Header</li> <li>• Power Options</li> <li>• Protective Caps for Headers</li> <li>• Coding Keys</li> <li>• Shielding Options</li> <li>• Guide Pin Options</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Thermoplastic <b>Plating</b> Underplating: 50 µ" [ 1.27 µm ] Nickel Interface: 30 µ" [ .76 µm ] Gold or 5 µ" [ .13 µm ] Gold over 40 µ" [ 1.01 µm ] PdNi	<b>Current Rating:</b> (Fully Loaded): 1 A at 70°C Signal, 8.25 A @ 70°C Power <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +125°C

# 3M™ BOARDMOUNT CONNECTOR SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Sockets and Pin Strip Headers, .100" x .100" Series 929</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 2-80 Positions</li> <li>• Single- and Dual-Row Options</li> <li>• Through-Hole and Through-Board Options</li> <li>• Customizable Stack Heights from .150" to 1.325"</li> <li>• High Temperature Insulator Option</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester (PBT) or PCT (RoHS Compliant) <b>Plating</b> Pinstrip Underplating: 50 μ" [ 1.27μm ] Nickel, Interface: 10 μ" [ .25 μm ] or 30 μ" [ .76 μm ] Gold Socket Underplating: 100 μ" [ 2.54 mm ] Nickel, Interface: 10 μ" [ .25 μm ] or 30 μ" [ .76 μm ] Gold Tin Plated Versions Available.	<b>Current Rating:</b> 1 A, 2 A or 2.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +105°C
<b>Polarized Boardmount Sockets, .100" x .100" Series 5100, 6800, 8500, 9100</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-64 Positions</li> <li>• Vertical and Right Angle Options</li> <li>• Center Bump Polarization</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 2 μm [ 79 μ" ] Nickel Wiping Area: 0.3 μm [ 12 μ" ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Sockets and Pin Strip Headers, 2 mm x 2 mm Series 15</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 4-60 Positions</li> <li>• Single and Dual-Row Options</li> <li>• Surfacemount, Through-Hole and Through-Board Options</li> <li>• Customizable Stack Heights from .101" to 1.418"</li> <li>• High Temperature Insulator</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled PCT <b>Plating</b> Underplating: 50-150 μ" [ 1.27-3.81 mm ] Nickel Wiping Area: 30 μ" [ 0.76 μm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Pak 50 Sockets and Headers Series P50</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 20-200 Positions</li> <li>• Reliable Ribbon Contacts</li> <li>• 7.0 - 30.0 mm Stack Heights</li> <li>• Parallel, Perpendicular and End-to-End Mating</li> <li>• Audible Tactile "Click" for Blind Mating</li> <li>• Optional Power/Ground Pins</li> <li>• Wiremount Options Available</li> </ul>	<b>Contact</b> Material: Phosphor Bronze <b>Insulation</b> Material: Glass Filled Nylon <b>Plating</b> Underplating: Nickel Wiping Area: 10 μ" [ 0.25 μm ] Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C

# 3M™ BOARDMOUNT CONNECTOR SOLUTIONS

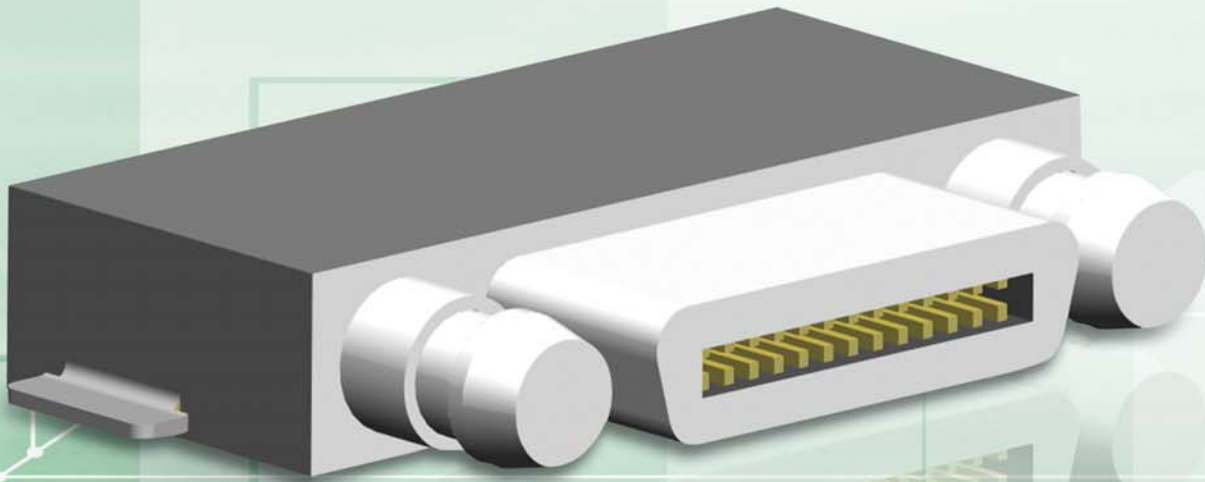
PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Pak 10 Plugs and Connectors Series PK10</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> <li>• 30-100 Positions</li> <li>• 1.0 mm Pitch</li> <li>• Parallel, Perpendicular and End-to-End Mating</li> <li>• 4 Mating Heights Available</li> </ul>	<b>Contact</b> Material: Phosphor Bronze <b>Insulation</b> Material: Glass Filled LCP <b>Plating</b> Underplating: Nickel Wiping Area: 2 μ" [ 0.05 μm ] or 4 μ" [ 0.1 μm ] min. Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C
<b>Pak 8 Plug Connectors Series P08</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> <li>• 20-100 Positions</li> <li>• .8 mm Pitch</li> <li>• 3.0 - 8.0 mm Stack Heights</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Plastic <b>Plating</b> Underplating: 50 μ" [1.25 μm] Nickel Wiping Area: 8 μ" [0.20 μm] Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C
<b>Pak 8 Hermaphroditic Connector Series P08</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> <li>• 30-100 Positions</li> <li>• .8 mm Pitch</li> <li>• 11.5 mm Mated Height</li> <li>• Mates to Itself, One Part on the Bill of Material</li> </ul>	<b>Contact</b> Material: Phosphor Bronze <b>Insulation</b> Material: High Temperature Plastic <b>Plating</b> Underplating: 50 μ" [1.27μm] Nickel Wiping Area: 8 μ" (0.2 μm) minimum Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C
<b>Pak 5 Connectors Series P05N</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> <li>• 20-100 Positions</li> <li>• .5 mm Pitch</li> <li>• 3.0 - 6.0 mm Stack Height</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Thermoplastic <b>Plating</b> Underplating: 50 μ" [1.27 μm] Nickel Wiping Area: 8 μ [0.2 μm] Gold	<b>Current Rating:</b> 0.5 A per contact <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C
<b>Pak 5 Plugs Series PK5</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> <li>• 40-160 Positions</li> <li>• .5 mm Pitch</li> <li>• 4.0 - 8.0 mm Stack Heights</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass filled LCP <b>Plating</b> Underplating: Nickel Wiping Area: 2 μ" [0.05μm] min. Gold over Nickel	<b>Current Rating:</b> 0.3 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C

# 3M™ BOARDMOUNT CONNECTOR SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>4-Wall Low Profile Headers, .100" x .100" Series 2500</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• 10-64 Positions</li> <li>• Straight and Right Angle Tails</li> <li>• Vertical Surfacemount</li> <li>• High Temperature Option</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel - Overall Wiping Area: 15 µ" [ 0.38 µm ] or 30 µ" [ 0.38 µm ] Gold	<b>Current Rating:</b> 2 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Low Profile Headers, .100" x .100" Series 303</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> <li>• 6-50 Positions</li> <li>• Straight and Right Angle Tails</li> <li>• Economy Series</li> </ul>	<b>Contact</b> Material: Brass <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 30 µ" [ 0.76 µm ] Nickel Wiping Area and Solder Tails: Gold Flash	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>4-Wall Latch/Eject Headers, .100" x .100" Series 3400</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• 10-64 Positions</li> <li>• Straight and Right Angle Tails</li> <li>• Vertical Compliant Pin Option</li> <li>• 3- or 4-Wall Options</li> <li>• Robust Roll Pin Latch System</li> <li>• High Temperature Option</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel - Overall Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>4-Wall Condo Headers, .100" x .100" Series 3400</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• 20-128 Positions</li> <li>• Right Angle Tails</li> <li>• 3- or 4-Wall Options</li> <li>• Robust Roll Pin Latch System</li> <li>• High Temperature Option</li> <li>• 3-Wall Fits in VME Board Stacking Criteria</li> <li>• "HDI" Alternative</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel - Overall Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Surfacemount Latch/Eject Headers, .100" x .100" Series N4600</b> 	<ul style="list-style-type: none"> <li>• RoHS Compliant Version Available</li> <li>• 10-60 Positions</li> <li>• Robust Roll Pin Latch System</li> <li>• High Temperature Body</li> <li>• Raised Body and Gull Wing Leads Allow for Easy Inspection</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°

# 3M™ WIREMOUNT CONNECTOR AND ASSEMBLY SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Wiremount Sockets, .100" x .100" Series 3000</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-60 Positions</li> <li>• Two-piece with Adhesive Cover for Daisy Chain or Round-to-Flat Cable Applications</li> <li>• Plastic or Metal Strain Relief Option</li> <li>• Positive Locking Metal Clip for High Cover Retention</li> <li>• Open or Closed-End Covers</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating and U-Slot: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Wiremount Sockets, .100" x .100" Series 891</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-60 Positions</li> <li>• Preassembled</li> <li>• Plastic Strain Relief Available</li> <li>• Open Cover for Daisy Chain</li> </ul>	<b>Contact</b> Material: Phosphor Bronze (C510) <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 15 µ" [ .38 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Molded Socket Assembly, .100" x .100" Series 871</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> When Used with Compliant Cable</li> <li>• 6-64 Positions</li> <li>• Supplied as Complete Assembly Only (1M Series)</li> <li>• Mates with Standard 0.25" Square Contacts on .100" x .100" Centers</li> <li>• One Piece, Molded-on Construction Provides Integral Strain Relief</li> <li>• High and Low Profile, Polarity and Pull Tab Options Available</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating and U-Slot: 50 - 150 µ" [ 1.27 - 3.81 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Polarized Wiremount Sockets, .100" and .100" x .100" Series CHG</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-64 Positions</li> <li>• Single- and Dual-Row Side-to-Side Stackable</li> <li>• Single-Row 2-36 Positions</li> <li>• Dual-Row 6-72 Positions</li> <li>• Dual-Row Polarized Version</li> <li>• IDC with 4-Wipe Mating Contact</li> <li>• 22-28 AWG Discrete or Flat Cable Wire</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Wipe Area: 30 µ" [ 0.76 µm ] Gold Underplating and U-Slot: 100 µ" [ 2.54 µm ] Nickel	<b>Current Rating:</b> 22-24 AWG: 2 A; 26-28 AWG: 1.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Wiremount Plugs, .100" x .100" Series 4600</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-64 Positions</li> <li>• Open- or Closed-End Covers</li> <li>• Optional Ejector Latches</li> <li>• Optional Mounting Flanges</li> <li>• Plastic Strain Relief Option</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating and U-Slot: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +120°C



## 3D CAD Models are Available on the 3M Website

3M Interconnects now offers 3D CAD models of selected products on our website, [www.3M.com/interconnects](http://www.3M.com/interconnects). On the website, these models can be found in the Product Search box by clicking on "3D Models" and can also be found throughout the website if you choose to search for a corresponding product first. Contact your local 3M sales representative for information on CAD models for other products.

To view or open a 3D model, you must have a CAD program and the WinZip® software. To download, right click on the desired file and choose the option to save it to your desktop.


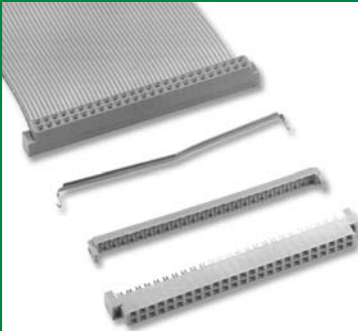

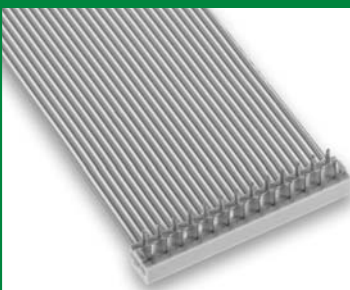
# 3M™ WIREMOUNT CONNECTOR AND ASSEMBLY SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>PCB 2-Row, .100" x .100" Series 78</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-64 Positions</li> <li>• Low Profile</li> <li>• 2.8 or 3.8 mm Tail Options</li> </ul>	<b>Contact</b> Material: Beryllium Copper <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100µ" [ 2.54µm ] Nickel U Slot and Solder Tails: Gold flash	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Molded PCB Assembly, .100" x .100" Series 878</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> When Used with Compliant Cable</li> <li>• 6 - 64 Positions</li> <li>• Supplied as Complete Assembly Only (1M Series)</li> <li>• Mates with Standard .100" x .100" Board Pattern</li> <li>• One Piece, Molded-on Construction Provides Integral Strain Relief</li> <li>• Straight and Retention Pin Options Available</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating and U-Slot: 50 - 150 µ" [ 1.27 - 3.81 µm ] Nickel Contact Tail: 300 - 400 µ" [ 7.62 - 10.16 µm ] Matte Tin	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>PCB 4-Row, .100" x .100" Series 3400</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 10-50 Positions</li> <li>• Low Profile Design</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel, Class 2 U-Slot and Solder Tails: 10 µ" [0.25 µm] Gold or 200 µ" [5.08 µm] Tin Lead	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +120°C
<b>Card Edge, .100" Series 3000</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-64 Positions</li> <li>• Bifurcated Contacts</li> <li>• Metal Cover Clips</li> <li>• Optional Strain Relief</li> <li>• Optional Mounting Flanges</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating and U-Slot: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Link Connectors, Boardmount and Wiremount, .100" Series 38</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 4 Position</li> <li>• Vertical or Right Angle</li> <li>• Boardmount</li> <li>• Hermaphroditic Wiremount</li> <li>• Designed Around CC-Link Standard</li> <li>• Field Terminable with Pliers</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Polyester Body, Nylon Cover <b>Plating</b> Underplating: 100 µ" [2.54 µm] Nickel Wiping Area: 8 µ" [0.2 µm] minimum Gold with lubricant IDC: Nickel	<b>Current Rating:</b> 5.0 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to 70°C



# 3M™ WIREMOUNT CONNECTOR SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Compact Wiremount Sockets,</b> <b>.100" x .075"</b> <b>Series 501</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 16-50 Positions</li> <li>• Uses Standard .050" Cable</li> <li>• Optional Metal Strain Relief</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 μ" [ 2.54 μm ] Nickel Wiping Area: 10 μ" [ 0.25 μm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +85°C
<b>Compact Headers,</b> <b>.100" x .075"</b> <b>Series 502</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 16-50 Positions</li> <li>• Right Angle</li> <li>• Uses Standard .100 x .100</li> <li>• Board Pattern</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating and U-Slot: 80 μ" [ 2.03 μm ] Nickel Wiping Area: 12 μ" [ 0.30 μm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +85°C
<b>Tripolarized Wiremount Sockets,</b> <b>.050" x .100"</b> <b>Series 82</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 20-100 Positions</li> <li>• Rugged Tri-Polarized Mating System</li> <li>• High Performance Hill-n-Dale IDC Interface</li> <li>• Metal Cover Latch</li> <li>• Optional Metal Strain Relief</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 μ" [ 2.54 μm ] Nickel U-Slot: Matte Tin (RoHS compliant) or Tin-Lead Wiping Area: 30 μ" [ 0.76 μm ] Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>4-Wall, Tripolarized Headers,</b> <b>.050" x .100"</b> <b>Series 81</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 20-100 Positions</li> <li>• Straight and Right Angle</li> <li>• Vertical SMT Option</li> <li>• High Temperature</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Plastic <b>Plating</b> Wiping Area: 30 μ" [ 0.76 μm ] Gold Underplating: 100 μ" [ 2.54 μm ] Nickel	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>Pak 50 Wiremount Sockets</b> <b>Series P25E, P50E</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 20-100 Positions</li> <li>• Accepts .025" and .050" Cable</li> <li>• Integrated Latch/Eject</li> <li>• Audible Tactile "Click" for Blind Mating</li> </ul>	<b>Contact</b> Material: Phosphor Bronze <b>Insulation</b> Material: Glass Filled Nylon <b>Plating</b> Underplating: Nickel Wiping Area: .025μm [ 10 μ" ] Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +85°C

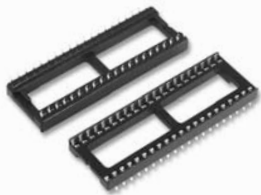
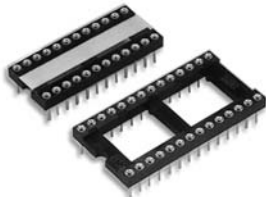
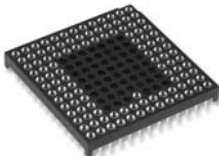

# 3M™ WIREMOUNT CONNECTOR AND ASSEMBLY SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Mini Clamp Sockets and Plugs Series 37</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 3- or 4- Positions</li> <li>• Latching</li> <li>• No Wire Prep Required</li> <li>• Field Terminable with Pliers</li> <li>• Vertical Boardmount</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass reinforced thermoplastic body and lower cover, transparent thermoplastic cover</p> <p><b>Plating</b> Underplating: 100 <math>\mu</math>" (2.54 <math>\mu</math>m) Nickel Wiping Area: 8 <math>\mu</math>" (0.2 <math>\mu</math>m) minimum Gold with Lubricant IDC: Nickel</p>	<p><b>Current Rating:</b> 3.0 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to 85°C</p>
<b>Wiremount Sockets, 2 mm x 2 mm Series 1522</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 10-50 Positions</li> <li>• Rugged Cover Retention</li> <li>• Open or Closed Cover Options</li> <li>• Metal Strain Relief Option</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass Filled Polyester</p> <p><b>Plating</b> Underplating and U-Slot: 50-150 <math>\mu</math>" [ 1.27-3.81 <math>\mu</math>m ] Nickel, Class 2 Wiping Area: 15 <math>\mu</math>" [ .38 <math>\mu</math>m ] or 30 <math>\mu</math>" [ .76 <math>\mu</math>m ] Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C</p>
<b>Molded Socket Assembly, 2 mm x 2 mm Series 870</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> When Used with Compliant Cable</li> <li>• 6-50 Positions</li> <li>• Supplied as Complete Assembly Only (2M Series)</li> <li>• Mates with Standard 2 mm x 2 mm Headers</li> <li>• One Piece, Molded-on Construction Provides Integral Strain Relief</li> <li>• Centerbump and Latching Ear Features Available</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass Filled Polyester</p> <p><b>Plating</b> Underplating and U-Slot: 50-150 <math>\mu</math>" [ 1.27-3.81 <math>\mu</math>m ] Nickel Wiping Area: 30 <math>\mu</math>" [ 0.76 <math>\mu</math>m ] Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C</p>
<b>Molded PCB Assembly, 2 mm x 2 mm Series 879</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> When Used with Compliant Cable</li> <li>• 6-50 Positions</li> <li>• Supplied as Complete Assembly Only (2M Series)</li> <li>• Mates with Standard 2 mm x 2 mm Board Pattern</li> <li>• One Piece, Molded-on Construction Provides Integral Strain Relief</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass Filled Polyester</p> <p><b>Plating</b> Underplating and U-Slot: 50-150 <math>\mu</math>" [ 1.27 - 3.81 <math>\mu</math>m ] Nickel, Class 2 [ 2.62 - 10.10<math>\mu</math>m ] Matte Tin Contact Tail: 300-400 <math>\mu</math>"</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C</p>

# 3M™ DEVICE-TO-BOARD CONNECTOR SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>PC Card Headers, PCMCIA Series MCH</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• Single and Dual Slot</li> <li>• ESD and Board Retention Options Available</li> <li>• With and Without Integrated Ejectors</li> <li>• Low Profile Version</li> <li>• Alternate Board Pattern Available for Competitive Cross</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: LCP <b>Plating</b> Underplating: 50 µ" [ 1.27 µm ] Nickel Wiping Area: Gold flash over 27 µ" [ .68 µm ] Palladium Nickel	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +60°C, 95% RH Non-condensing
<b>CF Card Headers, CompactFlash™ Series N7E50</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• Headers for Both Type I and II Cards</li> <li>• Wide Array of Connector Size Options to Balance Between Footprint Size and Functionality</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Thermoplastic <b>Plating</b> Underplating: 2.03 µm [ 80 µ" ] Nickel Wiping Area: 0.38 µm [ 15 µ" ] or 0.76 µm [ 30 µ" ] Gold	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +85°C
<b>CF Card Ejectors, CompactFlash™ Series 7E50</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Mates to Selected N7E50 Series CF Headers to Provide Added Ejection Functionality</li> <li>• Multiple Button Styles and Orientations Allow Design Flexibility</li> </ul>	<b>Button</b> Material: Glass-Filled High Temperature Thermoplastic <b>Frame</b> Material: Stainless Steel	<b>Flammability:</b> UL 94V-0 <b>Process Rating:</b> 260°C (per J-STD-020C)
<b>Serial Attached SCSI (SAS) Connectors Series SBR and SBH</b>  <div>NEW</div>	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 3.0 Gbps Input/Output Connector for Backplane Applications</li> <li>• Two Contact Mating Levels for Early-Mate and Late-Break Allows "Blind Mating" or "Hot Swap" Applications</li> <li>• Capable of Accepting HDD Fitted with SAS or Serial Advanced Technology Attachment (SATA) Header</li> <li>• Meets SFF-8482 Specification</li> <li>• Meets SAS Specification SAS-1.1</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Elevated Receptacle Version for Additional Backplane Stand-off</li> <li>• Plated Through-Hole or Press Fit</li> <li>• Right Angle Version Available</li> <li>• SMT Vertical Option</li> <li>• Press-fit Contacts</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Thermoplastic <b>Plating</b> Underplating: 50 - 80 µ" [1.27 - 2.03 µm] Nickel Wiping Area: 30 - 40 µ" [0.76 - 1.02 µm] Gold	<b>Current Rating:</b> Power Pin: 1.5A Signal Pin: 500 mA <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +85°C
<b>Serial Advanced Technology Attachment (SATA) Connectors</b>  <div>NEW</div>	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 1.5 Gbps I/O Connector for HDD Applications</li> <li>• EMLB Contacts for Hot Swap</li> <li>• Blind Mate Polarization</li> <li>• Meets SATA 1.0 Specifications</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Press-Fit Contacts</li> <li>• Extended Height Receptacles for Additional Backplane Standoff</li> <li>• Right Angle Surfacemount Receptacle</li> <li>• 7-Pin Signal Plug</li> <li>• 7-Position Signal Assemblies</li> <li>• 15 x 2 Y-Type Power Assembly</li> <li>• 22p Device Plugs for Drive Interface</li> </ul>	<b>Contact</b> Material: Copper Alloy <b>Insulation</b> Material: High Temperature Thermoplastic <b>Plating</b> Underplating: 50 - 80 µ" [ 1.27 - 2.03 µm ] Nickel Wiping Area: 30 - 40 µ" [ 0.76 - 1.02 µm ] Gold Solder Tails: 100 - 200 µ" [ 2.54 - 5.08 µm ] Tin	<b>Current Rating:</b> Power Pin: 1.5A Signal Pin: 500 mA <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> Operating Temperature: 0°C to +55°C Non-Operating Temperature: -40°C to +85°C

# 3M™ DEVICE-TO-BOARD CONNECTOR AND ASSEMBLY SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>DIP Sockets, Dual Wipe Series 4800</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• .100" Lead Spacing</li> <li>• 8-48 Leads</li> <li>• Lower Cost Stamped and Formed Contact</li> <li>• Kink Tail Option for Additional Board Retention</li> <li>• Straight Tail Option Aids Automated Insertion</li> </ul>	<b>Contact</b> Material: Phosphor Bronze <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 35 µ" [ 0.89 µm ] min. Nickel Overall Surface Plating: 135 µ" [ 3.43 µm ] min. Matte Tin Overall	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -25°C to +85°C
<b>DIP and SIP Sockets, Screw Machine Series 100, 300-500</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 6-64 Leads</li> <li>• .100" Lead Spacing</li> <li>• Screw Machine Contact for Reliable Package Retention</li> <li>• Standard and Low Profile Options</li> </ul>	<b>Contact</b> Sleeve: Brass Inner Contact: Beryllium Copper <b>Insulation</b> Material: Glass Filled PPS <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] min. Nickel Wiping Area: 8 µ" [ 0.20 µm ] min. Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -65°C to +125°C
<b>PGA Sockets, Screw Machine Series 200</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• .100" Lead Spacing</li> <li>• Screw Machine Contact for Reliable Package Retention</li> <li>• Up to 17x17 Array</li> </ul>	<b>Contact</b> Sleeve: Brass Inner Contact: Beryllium Copper <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] min. Nickel Wiping Area: 8 µ" [ 0.20 µm ] min. Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -65°C to +125°C
<b>Chip Carrier Sockets, PLCC Series 8400</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 20-84 Leads</li> <li>• Accepts Common JEDEC Standard Packages</li> <li>• Surfacemount and Through-Hole</li> <li>• High Temp - Reflow Capable</li> </ul>	<b>Contact</b> Material: Beryllium Copper <b>Insulation</b> Material: Glass Filled Polyphenylene Sulfide <b>Plating</b> Underplating: 50 µ" [ 1.27 µm ] Nickel - Overall Wiping Area: 160 µ" [ 4.06 µm ] Matte Tin	<b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +105°C





# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS

## MINI DELTA RIBBON (MDR)

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>MDR Wiremount Plugs - IDC</b> <b>Series 101XX-6000, 101XX-8000</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-100 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Digital LCD Interface as a 20 or 26 Contact Connector</li> <li>• IEEE 1284C Interface as a 36 Contact Connector</li> <li>• Accepts a Wide Variety of Cable Constructions Including Split, Flat, Round, Twisted Pair and Twinax Cables</li> <li>• Accepts a Wide Variety of Shielded Junction Shells</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Plastic-Non Shielded Version</li> <li>• Termination Tools</li> <li>• Junction Shells</li> </ul>	<b>Contact</b> Material: Beryllium Copper (C172) <b>Insulation</b> Material: Glass Filled Polyester <b>Plating</b> Underplating: 80 μ" [ 2.0 μm ] Nickel Wiping Area: 30 μ" [ 0.76 μm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C
<b>MDR Wiremount Plugs - Solder</b> <b>Series 101XX-3000</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> <b>Version Available</b></li> <li>• 14-50 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Solder Cup Termination Requires No Special Tooling</li> <li>• Accepts a Wide Variety of Discrete Wire (24 to 30 AWG) Cable Construction</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Junction Shells</li> </ul>	<b>Contact</b> Copper Alloy <b>Insulation</b> Glass Reinforced Polyester <b>Plating</b> Underplating: 80 μ" [ 2.0 μm ] Nickel Wiping Area: Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>MDR Panelmount Receptacles - IDC</b> <b>Series 102XX-0210</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 20-68 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• IEEE 1284C Interface as a 36 Contact Connector</li> <li>• Interface Latch Design for Connection Stability</li> <li>• Accepts a Wide Variety of Cable Constructions Including Flat, Shielded Flat and Twisted Pair Cables</li> <li>• Replaces Boardmount Receptacle when a Wire Transition is Needed</li> </ul> <b>OPTION</b> <ul style="list-style-type: none"> <li>• Wire Termination Tools</li> </ul>	<b>Contact</b> Material: Beryllium Copper (C172) <b>Insulation</b> Glass Reinforced Polyester <b>Plating</b> Underplating: 80 μ" [ 2.0 μm ] Nickel Wiping Area: 30 μ" [ 0.76 μm ] Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C
<b>MDR Junction Shells, Round Cable Exit, Plastic</b> <b>Series 103XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-80 Positions</li> <li>• Durable One-Piece Plastic Over Two-Piece Metal Junction Shell for Straight Round Cable (Compatible with 101XX-6000 EC Plug)</li> <li>• Quick Release Latching</li> <li>• MDR Digital LCD Interface as a 20 or 26 Contact Connector</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• 80 Position</li> <li>• Jackscrew Latching for Connection Stability</li> </ul>	<b>Outer Shell</b> Material: ABS <b>Inner Shell</b> Material: Steel, .020" [ 0.5 mm ] Thick <b>Plating</b> Nickel	<b>Flammability:</b> UL 94V-0

# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS

## MINI DELTA RIBBON (MDR)

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<p><b>MDR Junction Shells, Round Cable Exit, Metal Series 103XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-100 Positions</li> <li>• Metal Junction Shell for Round Cable</li> <li>• Rugged Two-Piece Die Cast Metal Shell with Round Straight Exit (Compatible with 101XX-6000 EC Plug)</li> <li>• Reliable Metal Strain Relief</li> <li>• Clamp Provides Grounding for Cable Shield</li> <li>• Excellent EMI/ESD Protection</li> <li>• Quick Release Latching Mechanism</li> </ul> <p><b>OPTION</b> 60 Degree Cable Relief Option</p>	<p><b>Shell</b> Aluminum, .050" [ 1.27 mm ] Thick</p> <p><b>Plating</b> Nickel</p>	
<p><b>MDR Junction Shells, Flat Cable Exit, Metal Series 103XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Metal Junction Shell for Flat Cable</li> <li>• 20-40 Positions</li> <li>• Rugged Two-Piece Metal Shells for High Performance Pleated Foil Cable Assemblies (Compatible with 101XX-6000 EC Plug)</li> <li>• Kit Includes Conductive Gasket for Superior Cable Shield to Shell Continuity</li> <li>• Accepts 3M 50 Ohm PFC Cables</li> </ul>	<p><b>Shell</b> Material: Zinc, .020" [ 0.5mm ] Thick</p> <p><b>Gasket</b> Material: Elastomer with Conductive Fibers</p> <p><b>Plating</b> Nickel</p>	
<p><b>MDR Junction Shells, Flat Cable Exit, Metal Series 103XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Rugged Two-Piece Metal Junction Shell for Straight Flat Cable (Compatible with 101XX-6000 EC Plug)</li> <li>• 68-100 Positions</li> <li>• Jackscrew Latching for Connection Stability</li> <li>• Contacts: 68, 80 and 100</li> </ul>	<p><b>Shell</b> Zinc, .030" [ 0.8 mm ] Thick</p> <p><b>Gasket</b> Material: Elastomer with Conductive Fibers</p> <p><b>Plating</b> Nickel</p>	
<p><b>MDR Junction Shells, Round Cable, Solder Cup Series 103XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-50 Positions</li> <li>• Design Features Durable Two-Piece Glass Reinforced Polyester Backshell with Ground Strap (Compatible with 101XX-3000 Plug)</li> <li>• Round Straight Exit</li> <li>• Reliable Metal Strain Relief Clamp Provides Grounding for Cable Shield</li> <li>• Quick Release Metal Latching Mechanism</li> </ul>	<p><b>Outer Shell</b> Glass Reinforced Polyester</p> <p><b>Cable Clamp and Ground Plate</b> Material: Stainless Steel</p>	<p><b>Flammability:</b> UL 94V-0</p> <p><b>Temperature Rating:</b> -20°C to +85°C</p>

# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS

## MINI DELTA RIBBON (MDR)

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>MDR Boardmount Receptacles, SMT Vertical Series 102XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 20-36 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• SMT Compatible PCT Insulator Material</li> <li>• Screw Lock-Down for Reliable PCB Retention</li> <li>• Interface Latch Design for Connection Stability</li> <li>• IEEE 1284C Interface as a 36 Contact Connector</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Dust Covers</li> <li>• Board Lock and Panel Mount Hardware</li> </ul>	<b>Contact</b> Copper Alloy (C521) <b>Insulation</b> Glass Reinforced Polyester <b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>MDR Boardmount Receptacles, SMT Right Angle Series 102XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 14-50 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Ultra-Low Signal Skew for High Data Rate Transmission</li> <li>• Interface Latch Design for Connection Stability</li> <li>• Digital LCD Interface as a 20 or 26 Contact Connector</li> <li>• Contacts: 14, 20, 26, 40 and 50</li> </ul>	<b>Contact</b> Copper Alloy (C521) <b>Insulation</b> Glass Reinforced Polyester <b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 20 µ" [ 0.50 µm ] Min Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C
<b>MDR Boardmount Receptacles, PTH Vertical Series 102XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 14-100 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Rugged Die Cast Metal Case Construction</li> <li>• Screw Lockdown for Reliable PCB Retention</li> <li>• Interface Latch Design for Connection Stability</li> <li>• IEEE 1284C Interface as a 36 Contact Connector</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Dust Covers</li> <li>• Board Lock and Panel Mount Hardware</li> </ul>	<b>Contact</b> Copper Alloy (C521) <b>Insulation</b> Glass Reinforced Polyester <b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold	<b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C

# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS

## MINI DELTA RIBBON (MDR)

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<p><b>MDR Boardmount Receptacles, Compliant Pin Vertical Series 102XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-100 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Rugged Die Cast Metal Case Construction</li> </ul> <p><b>OPTIONS</b></p> <ul style="list-style-type: none"> <li>• Dust Covers</li> <li>• Board Lock and Panel Mount Hardware</li> </ul>	<p><b>Contact</b> Copper Alloy (C521)</p> <p><b>Insulation</b> Glass Reinforced Polyester</p> <p><b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C</p>
<p><b>MDR Boardmount Receptacles, PTH Right Angle Series 102XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-100 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Rugged Die Cast Metal Case Construction</li> <li>• SMT Compatible PCT Insulator Material</li> <li>• Screw or Ground Lock for Reliable PCB Retention</li> <li>• Interface Latch Design for Connection Stability</li> <li>• IEEE 1284C Interface as a 36 Contact Connector</li> </ul> <p><b>OPTIONS</b></p> <ul style="list-style-type: none"> <li>• Stamped Metal Face and Die Cast Versions</li> <li>• Dust Covers</li> <li>• Board Lock and Panel Mount Hardware</li> </ul>	<p><b>Contact</b> Copper Alloy (C521)</p> <p><b>Insulation</b> Glass Reinforced Polyester (PCT)</p> <p><b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C</p>
<p><b>MDR Boardmount Receptacles, PTH Right Angle Condo Series 102XX</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• Positions 40 (2 x 20), 100 (2 x 50) and 136 (2 x 68)</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Rugged Die Cast Metal Case Construction</li> <li>• Screw Lockdown for Reliable PCB Retention</li> <li>• Interface Latch Design for Connection Stability</li> <li>• Stacked Receptacles Save Board Space</li> </ul> <p><b>OPTIONS</b></p> <ul style="list-style-type: none"> <li>• Dust Covers</li> <li>• Board Lock and Panel Mount Hardware</li> </ul>	<p><b>Contact</b> Copper Alloy (C521)</p> <p><b>Insulation</b> Glass Reinforced Polyester</p> <p><b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 20 µ" [ 0.50 µm ] Min Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C</p>



# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS

## MINI DELTA RIBBON (MDR)



PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>MDR Boardmount Plugs, PTH Vertical Series 101XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Contacts: 100</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass Reinforced Polyester - Body Glass Reinforced Polyester - Insert Mold</p> <p><b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 8 µ" [ 0.20 µm ] Min Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C</p>
<b>MDR Boardmount Plugs, PTH Right Angle Series 101XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 20-50 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Rugged Die Cast Metal Case Construction</li> <li>• Screw or Ground Lock PCB Retention</li> <li>• Normal and Reverse "D" Interface Options for Board-to-Board Flexibility</li> <li>• IEEE 1284C Interface as a 36 Contact Connector</li> </ul> <p><b>OPTIONS</b></p> <ul style="list-style-type: none"> <li>• Normal and Reverse "D" Interface Options</li> <li>• Panel and Board Locking Hardware</li> </ul>	<p><b>Contact</b> Copper Alloy (C521)</p> <p><b>Insulation</b> Glass Reinforced Polyester-Body Glass Reinforced Polyester-Alignment Plate</p> <p><b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C</p>
<b>MDR Boardmount Plugs, Straddle Mount Series 101XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant Version Available</b></li> <li>• 50-100 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Plugging</li> <li>• Solder Tails Require No Special Tooling</li> </ul>	<p><b>Contact</b> Copper Alloy (C521)</p> <p><b>Insulation</b> Glass Reinforced Polyester-Body Glass Reinforced Polyester-Insert Mold</p> <p><b>Plating</b> Underplating: 80 µ" [ 2.00 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -20°C to +85°C</p>

# 3M™ INPUT/OUTPUT CONNECTOR AND CABLE ASSEMBLY SOLUTIONS



## MINI DELTA RIBBON (MDR)

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<p><b>MDR Cable Assemblies, Round Cable, Input/Output Series 14XXX, 4926, 4120</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> Pending on Some Versions</li> <li>• 14-100 Positions</li> <li>• .050" Pitch Ribbon Style Contact Provides Reliable Mating and is Industry Preferred</li> <li>• Compatible for a Variety of LVDS, IEEE 1284, Camera Link®, PanelLink™/ TMDS, Flat Link™, and Channel Link™, OpenLDI and QuadLDI Applications</li> <li>• Mates with Standard 3M MDR Boardmount Products</li> <li>• Unshielded or Shielded Twisted Pair or Twinax Cable Options</li> <li>• Contact 3M for Custom Configurations</li> </ul>	<p>Materials vary for connectors, cables, shells and jackscrews. See website for specifics.</p>	<p><b>Current Rating:</b> 1 A  <b>Flammability:</b> AWM VW-1  <b>Temperature Rating:</b> -20°C to +75°C</p>
<p><b>MDR Pleated Foil Input/Output Cable Assemblies Series OM, LS</b></p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Offers Superior Combination of High-Density, Electrical Performance, Shielding and Durability</li> <li>• Allows Digital Data Rates of up to 200 Megabits Per Second Per Conductor</li> <li>• Mates with Standard 3M MDR Boardmount Connectors</li> <li>• Pleated Copper Foil Provides 360 Degree Shield and Enables Coax-Like Performance</li> <li>• Overmolded and Metal with Latching and Thumbscrew Shells Available</li> <li>• Position Sizes from 20-100</li> </ul>	<p>Materials vary for connectors, cables, shells and jackscrews. See website for specifics.</p>	<p><b>Temperature Rating:</b> 75°C maximum</p>




# 3M™ INPUT/OUTPUT CONNECTOR AND CABLE ASSEMBLY SOLUTIONS

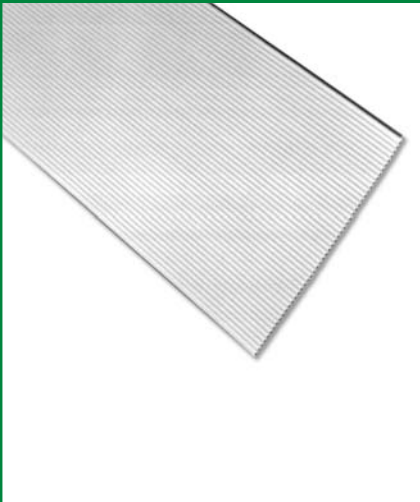
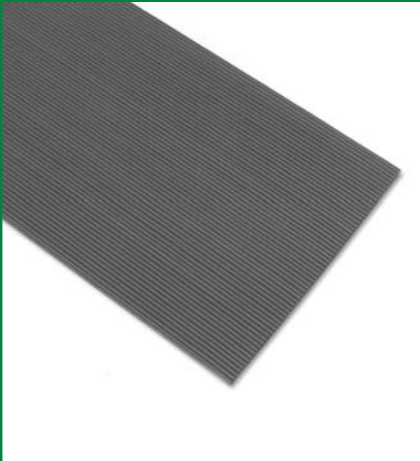
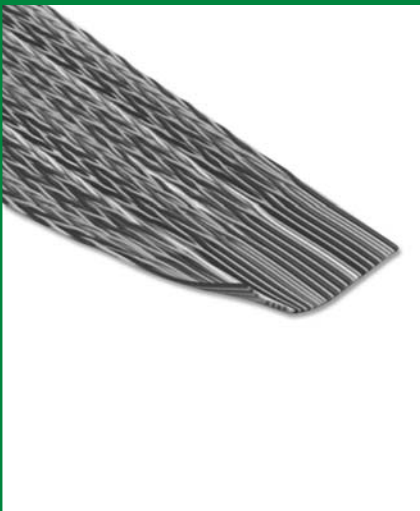
PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Shrunk Delta Ribbon (SDR) Boardmount Receptacles Series 122XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 14-50 Positions</li> <li>• Wiper-on-Wiper Contact for Reliable Repetitive Mating</li> <li>• Ground Lock for Reliable PCB Retention</li> <li>• Full Metal Face for Better EMI Shielding Effectiveness</li> <li>• On-board Jacksockets Maintains a Secure Connection</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Surfacemount and Through-Hole</li> <li>• Right Angle and Vertical</li> <li>• Panel and Board Lock Hardware</li> </ul>	<b>Contact</b> Phosphor Bronze <b>Insulation</b> PA9T <b>Plating</b> Underplating: 80µ" [ 2.00 µm ] Nickel Wiping Area: 30µ" [ 0.76µm ] Au	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -40°C to +70°C
<b>Shrunk Delta Ribbon (SDR) Cable Assemblies, .80 mm, Input/Output Series 1MG, 1MF, 1SF</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Supplied as a Complete Assembly Only</li> <li>• Supports New AIA Industrial Camera Link® Standard for Mini C/L Camera to C/L Frame Grabber Applications</li> <li>• 11 Shielded Twisted Twinax Pairs with Four Drain Wires</li> <li>• Double Overall Shield with Foil and Outer Braid EMI Shielded Cable Assembly</li> <li>• Straight and Right Angle Configurations Available</li> <li>• SDR-to-SDR and MDR-to-SDR Options Available</li> <li>• Mates with 3M SDR and MDR Boardmount Products</li> </ul>	<b>Insulation</b> Material: Polyvinyl Chloride <b>Plating</b> Underplating: 100 µ" [ 2.55 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold  Material varies for connectors, cables, shells and jackscrews. See website for specifics.	<b>Current Rating:</b> 0.5 A <b>Flammability:</b> AWM VUS-1 <b>Temperature Rating:</b> 0°C to 70°C

# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS


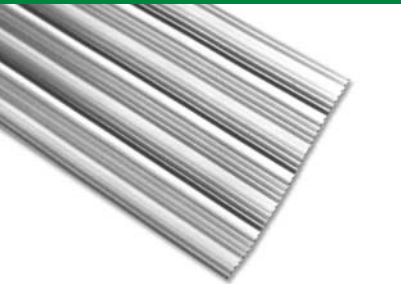

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<p><b>D Sub Plugs</b> IDC Mass Terminated Series 8200</p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 9-50 Positions</li> <li>• Available in Either Open or Closed-End Cover</li> <li>• Shell Dimples to Aid in EMI/ESD Protection</li> <li>• Metal Strain Relief Hooks Directly to Metal Shell</li> <li>• Low Profile</li> <li>• Open or Threaded (SAE or Metric) Mounting Holes</li> </ul> <p><b>OPTIONS</b></p> <ul style="list-style-type: none"> <li>• Mounting Hardware</li> <li>• Open and Closed-End Covers</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass Filled Polyester</p> <p><b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C</p>
<p><b>D Sub Receptacles</b> IDC Mass Terminated Series 8300</p> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 9-50 Positions</li> <li>• Available in Either Open or Closed-End Cover</li> <li>• Metal Strain Relief - Hooks Directly to Metal Shell</li> <li>• Low Profile</li> <li>• Open or Threaded (SAE or Metric) Mounting Holes</li> </ul> <p><b>OPTIONS</b></p> <ul style="list-style-type: none"> <li>• Mounting Hardware</li> <li>• Open and Closed-End Covers</li> </ul>	<p><b>Contact</b> Material: Copper Alloy</p> <p><b>Insulation</b> Material: Glass Filled Polyester</p> <p><b>Plating</b> Underplating: 100 µ" [ 2.54 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Gold</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C</p>


# 3M™ INPUT/OUTPUT CONNECTOR SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>D Sub - Junction Shell Round Cable, Metal Series 3357</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Provides EMI/ESD Protection Similar to Aluminium Die Cast</li> <li>• Easy Assembly Reduces Time and Labor to Ensure Low Applied Cost</li> <li>• Optional Thumbscrew Kit</li> <li>• Provides Option in Grounding for Discrete Wire Applications</li> <li>• Light Weight, Compact Design</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Thumbscrew Kit</li> <li>• Retainer Rings</li> </ul>	<b>Cover Nut</b> Material: Glass Filled Polyester <b>Shell and Hardware</b> Material: Steel <b>Plating</b> Nickel	<b>Flammability:</b> UL 94V-0
<b>D Sub - Junction Shell Round Cable, Plastic Series 3357</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Protection from EMI/ESD</li> <li>• Easy Assembly Reduces Time and Labor for Low Cost</li> <li>• Light Weight and a Compact Design</li> <li>• Strain Relief Compensates for Multiple Cable Diameters</li> <li>• Jack Screws Provide Positive Retention</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• 60 Degree Relief Cable Exits</li> </ul>	<b>Shell and Hardware</b> Shell Material: ABS <b>Insulation</b> Material: Thermo Plastic Elastomer <b>Plating</b> Bright Zinc	<b>Flammability:</b> UL 94V0 <b>Temperature Rating:</b> 0°C to +75°C
<b>D Sub - Junction Shell Flat Cable Series 3485</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Uses Standard Hardware</li> <li>• Light Weight, Compact Size</li> <li>• Full Family of Sizes</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• EMI Versions Available</li> </ul>	<b>Shell</b> Material: Glass Filled Polyester	<b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> -55°C to +105°C

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Round Conductor Flat Cable</b> <b>Series 3365, 3355, 2010, 3601</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 28 AWG Wire on .050 Inch Centers Permits Mass Termination to a Broad Line of IDC Connectors</li> <li>• Stranded Wire Provides Flexibility and Extended Product Life</li> <li>• Zippable for Branching or Discrete Termination</li> <li>• Available in Gray or Black</li> <li>• 2010 is Halogen Free</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• .025", .033", .050", 1 mm, .100" and .156" Center Line</li> <li>• 18, 22, 24, 26, 28 and 30 AWG Conductors</li> <li>• Solid and Stranded Conductors</li> <li>• Multiple Roll Lengths</li> <li>• UL/CSA Marking Line</li> <li>• PVC Jacket Options</li> <li>• For Other Variations, See Website</li> <li>• Split Sections</li> </ul>	<b>Insulation</b> Material: Polyvinyl Chloride TPE, FEP, PO Insulators	<b>Flammability:</b> USA: VW-1 Canada: FT-1 <b>Temperature Rating:</b> -20°C to +105°C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V
<b>Extended Flex Life - Flat Cable</b> <b>Series 3319, 3539</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Flex Life of 100 Million Cycles at 1 3/4 Inch Diameter</li> <li>• High Strength Copper Alloy Provide the Longest Flex Life Available for Dynamic Applications</li> <li>• 28 AWG Wire on .050 Inch Wire Spacing Permits Mass Termination to a Broad Line of IDC Connectors</li> <li>• Zippable for Branching or Discrete Termination</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• High Flex</li> <li>• Medium Flex</li> </ul>	<b>Insulation</b> Material: Polyvinyl Chloride	<b>Flammability:</b> USA: VW-1, Canada FT-1 <b>Temperature Rating:</b> -20°C to +105°C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V
<b>Twisted Pair Flat Cable</b> <b>Series 1700, 2100</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Wires are Color-Coded for Easy Identification</li> <li>• Twist and Flat Repeat has Variable Length Option</li> <li>• Can be Mass Terminated to a Broad Line of IDC Connectors</li> <li>• Provides Reduced Crosstalk in Balanced Drive Applications</li> <li>• 28 AWG Stranded Wire Provides Flexibility and Extended Product Life</li> <li>• 10-Color Repeat</li> <li>• 2100 is Halogen Free</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• Color Coded</li> <li>• Variable Twist and Flat Repeat Lengths</li> </ul>	<b>Insulation</b> Material: Polyvinyl Chloride or PO Insulators	<b>Flammability:</b> USA: VW-1 Canada: FT-1 <b>Temperature Rating:</b> USA: -20° C to +105° C Canada: -20° C to +80° C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V

# 3M™ CABLE SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Round Jacketed Flat Cable</b> <b>Series 3659, 3759, 3758, 3896</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Round Construction Permits Easier Routing</li> <li>• 28 AWG Wire on .050 Inch Pitch Permits Mass Termination to Broad Line of IDC Connectors</li> <li>• Continuous Split/Bond Repeat Allows for Mass Termination On 2.4 Inch Centers (Approximate)</li> <li>• Primary Cable is Zippable for Branching or Discrete Terminations</li> <li>• Meets External Wiring Requirements of National Electrical Code, Article 725 (CL2)</li> <li>• UL listed for USA and Canadian Markets</li> <li>• Dual Shielding Provides 35 db Average Shielding Effectiveness</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• .025", .050" Centerline</li> <li>• 26, 28 and 30 AWG Conductors</li> <li>• Solid and Stranded Conductors</li> <li>• Shielded and Non-Shielded Versions</li> </ul>	<b>Jacket</b> Material: Polyvinyl Chloride or PO Insulators	<b>Flammability:</b> USA: N.E.C. 725, CL2 Canada: FT-1 <b>Temperature Rating:</b> USA: CL2; 75°C Max or AWM; -20°C to +80°C, Canada: 80°C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V
<b>Color Coded Flat Cable</b> <b>Series 3302, 3811</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 28 AWG Wire on .050 Inch Centers Permits Mass Termination to a Broad Line of IDC Connectors</li> <li>• Stranded Wire Provides Flexibility and Extended Product Life</li> <li>• Zippable for Branching or Discrete Termination Color Coded for Wire Identification</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• 22, 26 and 28 AWG Conductors</li> <li>• 100", .156" Centerline</li> </ul>	<b>Insulation</b> Material: Polyvinyl Chloride	<b>Flammability:</b> USA: VW-1 Canada: FT-1 <b>Temperature Rating:</b> USA: -20°C to +105°C Canada: -20°C to + 80°C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V
<b>Round Jacketed Discrete Twisted Pair Cable</b> <b>Series 3600, 3644</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Meets External Wiring Requirements of National Electrical Code, Article 725 (CL2)</li> <li>• 28 AWG Stranded Wire Provides Flexibility</li> <li>• Twisted Pairs Reduce Crosstalk for Balanced Drive Applications</li> <li>• Dual Shielding with Aluminum Film Foil and Copper Braid Provides Excellent EMI/ESD Protection</li> <li>• Wires are Color-Coded for Easy Identification</li> <li>• 35 db Average Shielding Effectiveness</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• 26 and 28 AWG Conductors</li> </ul>	<b>Jacket</b> Material: Polyvinyl Chloride and PO Insulators and Jacket	<b>Flammability:</b> USA: N.E.C. 725, CL2 Canada: FT-1 <b>Temperature Rating:</b> USA: CL2 75°C Max, Canada: 80°C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V

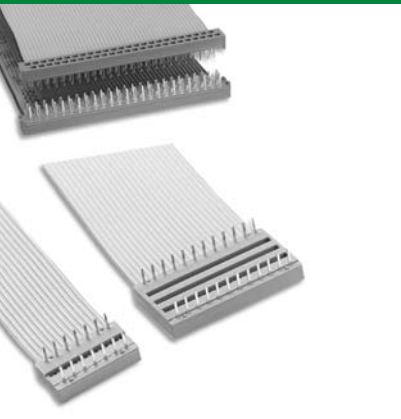


PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Pleated Foil Flat Cable</b> <b>Series 901XX, 902XX, 931XX</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Compatible with IDC Mass Termination Connectors</li> <li>• Functions with Applications Requiring Standard Impedance of 100Ω Balanced (Differential)</li> <li>• Extremely Low Crosstalk, Used in the All-Signal Mode to Quadruple Signal Density as Compared to Standard .050 Inch Flat Ribbon Cable</li> <li>• Solid Pleated Copper Foil Provides Flexibility and 35 db Average Shielding Effectiveness</li> <li>• CL2 Rated, Rugged Design and High Reliability for Peripheral Applications</li> </ul> <b>OPTIONS</b> <ul style="list-style-type: none"> <li>• .025 " and .050" Centerline</li> <li>• 28 and 30 AWG Conductors</li> <li>• Solid and Stranded Conductors</li> <li>• Thick and Thin Jacket Options</li> <li>• Low Skew Versions</li> </ul>	<b>Jacket</b> Material: TPE with PVC and TPE Jacketing Materials	<b>Flammability:</b> USA: N.E.C. 725, CL2, Canada: FT-1 <b>Temperature Rating:</b> USA: CL2: 75°C; Canada: 80°C <b>Voltage:</b> USA 300V, Canada: 150V, EU: <50V

## Looking for a Test and Burn-in Solution?




3M has a broad range of sockets for your test and burn-in applications. Check out the 3M™ Textool™ Test and Burn-in Socket Solutions product catalog and Open-Top BGA brochure on CD. Contact your local 3M sales representative to obtain a copy.



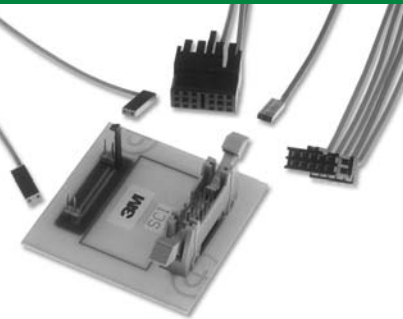


# 3M™ CABLE ASSEMBLY SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Molded Flat Ribbon Assemblies Series 1M, 2M</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> When Used with Compliant Cable</li> <li>• 6-64 Positions</li> <li>• .100" x .100" - Sockets, PCBs and DIPs</li> <li>• 2 mm x 2 mm - Sockets and PCBs</li> <li>• One Piece, Molded-on Construction Provides Integral Strain Relief</li> <li>• Mates with Standard .100" x .100" and 2 mm x 2 mm Headers and Plugs</li> <li>• 26 and 28 AWG Cable Available</li> </ul>	<p>Material varies for connectors and cables. See website for specifics.</p>	<p><b>Temperature Rating:</b> -20°C to +105°C</p>
<b>Mini Delta Ribbon (MDR) Cable Assemblies, Round Cable, Input/Output Series 14XXX, 4926, 4120</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b> Pending on Some Versions</li> <li>• 14-100 Positions</li> <li>• .050" Pitch Ribbon Style Contact Provides Reliable Mating and is Industry Preferred</li> <li>• Compatible for a Variety of LVDS, IEEE 1284, Camera Link®, Panellink™/ TMDS, Flat Link™, and Channel Link™, OpenLDI and QuadLDI Applications</li> <li>• Mates with Standard 3M MDR Boardmount Products</li> <li>• Unshielded or Shielded Twisted Pair or Twinax Cable Options</li> <li>• Contact 3M for Custom Configurations</li> </ul>	<p>Materials vary for connectors, cables, shells and jackscrews. See website for specifics.</p>	<p><b>Current Rating:</b> 1 A <b>Flammability:</b> AWM VW-1 <b>Temperature Rating:</b> -20°C to +75°C</p>
<b>Mini Delta Ribbon (MDR), Pleated Foil Input/Output Cable Assemblies Series OM, LS, MS</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Offers Superior Combination of High-Density, Electrical Performance, Shielding and Durability</li> <li>• Allows Digital Data Rates of up to 200 Megabits Per Second Per Conductor</li> <li>• Mates with Standard 3M MDR Boardmount Connectors</li> <li>• Pleated Copper Foil Provides 360 Degree Shield and Enables Coax-Like Performance</li> <li>• Overmolded and Metal with Latching and Thumbscrew Shells Available</li> <li>• Position Sizes from 20-100</li> </ul>	<p>Materials vary for connectors, cables, shells and jackscrews. See website for specifics.</p>	<p><b>Temperature Rating:</b> 75°C maximum</p>


# 3M™ CABLE ASSEMBLY SOLUTIONS

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<b>Shrunk Delta Ribbon (SDR) Cable Assemblies, .80 mm, Input/Output Series 1MG, 1MF, 1SF</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Supplied as a Complete Assembly Only</li> <li>• Supports New AIA Industrial Camera Link® Standard for Mini C/L Camera to C/L Frame Grabber Applications</li> <li>• 11 Shielded Twisted Twinax Pairs with Four Drain Wires</li> <li>• Double Overall Shield with Foil and Outer Braid EMI Shielded Cable Assembly</li> <li>• Straight and Right Angle Configurations Available</li> <li>• SDR-to-SDR and MDR-to-SDR Options Available</li> <li>• Mates with 3M SDR and MDR Boardmount Products</li> </ul>	<p><b>Insulation</b> Material: Polyvinyl Chloride</p> <p><b>Plating</b> Underplating: 100 µ" [ 2.55 µm ] Nickel Wiping Area: 30 µ" [ 0.76 µm ] Min Gold</p> <p>Material varies for connectors, cables, shells and jackscrews. See website for specifics.</p>	<p><b>Current Rating:</b> 0.5 A <b>Flammability:</b> AWM VUS-1 <b>Temperature Rating:</b> 0°C to 70°C</p>
<b>Serial Advanced Technology Attachment (SATA) Power Cable Series 5601</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 15-position Power Cable</li> <li>• Rugged Over-molded Construction Provided in Standard Lengths</li> <li>• "Y" Type Supports Multiple Devices</li> </ul>	<p><b>Insulation</b> Material: High Temperature Thermoplastic</p> <p><b>Plating</b> Wiping Area: 30 µ" [ 0.76 µm ] Gold Solder Tails: 100 µ" [ 2.54 µm ] Tin Underplating: 50 µ" [ 1.27 µm ] Nickel</p>	<p><b>Current Rating:</b> 4.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> Operational: 0°C to +55°C Non-Operational: -40°C to +85°C</p>
<b>Serial Advanced Technology Attachment (SATA) Signal Cable Series 5601</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• 7-position Serial Signal Assembly</li> <li>• Multiple Variations in Length and Interface Attachments</li> <li>• Point-to-point Signaling</li> <li>• Polarized Interface Insures Proper Alignment</li> <li>• 26 AWG Stranded Differential Pairs</li> </ul>	<p><b>Insulation</b> Material: High Temperature Thermoplastic</p> <p><b>Plating</b> Wiping Area: 30 µ" [ 0.76 µm ] Gold Solder Tails: 100 µ" [ 2.54 µm ] Tin Underplating: 50 µ" [ 1.27 µm ] Nickel</p>	<p><b>Current Rating:</b> 1.5 A <b>Flammability:</b> UL 94V-0 <b>Temperature Rating:</b> Operational: 0°C to +55°C Non-Operational: -40°C to +85°C</p>

# 3M™ CABLE ASSEMBLY SOLUTIONS HIGH SPEED ASSEMBLIES

PRODUCT	FEATURES	MATERIALS	PERFORMANCE	
<b>Shielded Controlled Impedance (SCI) Assemblies</b> <b>High Speed Series 98</b> 	<ul style="list-style-type: none"> <li>• <b>RoHS Compliant</b></li> <li>• Robust Metal Grounded Connectors Provide EMI Shielding and Controlled Impedance for Industry Leading Signal Integrity and Performance</li> </ul>			
<b>SCI Cable Assembly, .100"</b> 	<ul style="list-style-type: none"> <li>• .100" (2.54 mm) Center Spacing</li> <li>• Available in Stand-Alone and Carrier Versions</li> </ul> <p><b>Stand-Alone Version</b></p> <ul style="list-style-type: none"> <li>• Available in Right Angle and Straight Configurations</li> <li>• Mates with 3M Two-pin Headers</li> </ul> <p><b>Carrier Version</b></p> <ul style="list-style-type: none"> <li>• Available in Straight Configuration Designed for use with the 3M SCI Carrier System</li> <li>• Mates with .100" x .100" Headers</li> <li>• Carriers may be Purchased Separately</li> </ul>	<p><b>Contact</b> Material: Beryllium Copper</p> <p><b>Insulation</b> Material: Thermoplastic</p>	<p><b>Current Rating:</b> 1A  <b>Flammability:</b> UL 94V-0  <b>Temperature Rating:</b> -55° to +105°C</p>	
<b>SCI Cable Assembly, 2 mm</b> 	<ul style="list-style-type: none"> <li>• High Density 2.0 mm Center Spacing</li> <li>• Available in Stand-alone and Carrier Versions</li> <li>• Mates with CompactPCI®, HSHM, Futurebus® and 3M™ Pin Strip Headers, 1512 Series, 20-Pin</li> <li>• Provides over 12 Gbps Performance</li> <li>• Available with High Performance Coaxial or Twinaxial Cables</li> <li>• Available with or without External Ground Clips</li> </ul>	<p><b>Contact</b> Material: Beryllium Copper</p> <p><b>Insulation</b> Material: Thermoplastic</p>	<p><b>Bandwidth:</b> Rated for Applications Requiring up to 12 Gbps Performance</p> <p><b>Current Rating:</b> 1A  <b>Flammability:</b> UL 94V-0  <b>Temperature Rating:</b> -40° to +105°C</p>	

# 3M™ CABLE ASSEMBLY SOLUTIONS HIGH SPEED ASSEMBLIES

PRODUCT	FEATURES	MATERIALS	PERFORMANCE
<p data-bbox="277 223 437 277"><b>Custom Harness Assemblies</b></p> 	<ul style="list-style-type: none"> <li>• Available with 0.100" and 2 mm SCI</li> <li>• Double-ended SCI with Carrier or Optional Spring Probe Termination</li> <li>• Controlled Impedance Through the Interface to Provide Minimal Reflections</li> <li>• Low-loss, Low Cross-talk and Low Skew to Provide the Industry Leading Eye Openings and Performance</li> <li>• Available in Differential or Coaxial Cable Configurations</li> <li>• Contact 3M for Custom Configurations</li> </ul> <p><b>0.100" Harness Assemblies</b></p> <ul style="list-style-type: none"> <li>• Compatible with Standard .100" x .100" Headers</li> <li>• Standard Carriers Available</li> </ul> <p><b>2 mm Harness Assemblies</b></p> <ul style="list-style-type: none"> <li>• Compatible with CompactPCI®, HSHM, Futurebus® and 3M™ Pin Strip Headers, 1512 Series, 20-Pin</li> <li>• Industry Leading Signal Density of up to 101 Signals per Linear Inch</li> <li>• Surfacemount 3-wall Header Available</li> </ul>		

Camera Link is a certification mark of Automated Imaging Association.  
Channel Link is a trademark of National Semiconductor.  
CompactFlash is a trademark of SanDisk Corporation.  
CompactPCI is a trademark of PICMG-PCI Industrial Computer Manufacturers Group, Inc.  
FlatLink is a trademark of Texas Instruments.  
Futurebus and Futurebus+ are trademarks of the Institute of Electrical and Electronic Engineers, Inc. (IEEE)  
Panellink is a trademark of Silicon Image, Inc.  
Winzip is a trademark of Winzip Computing, Inc.

3M, MetPak and Textool are trademarks of 3M Company.

#### Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

#### Warranty; Limited Remedy; Limited Liability.

3M's product warranty is stated in its Product Literature available upon request. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



#### 3M Electronics

6801 River Place Blvd.  
Austin, TX 78726-9000  
[www.3M.com/interconnects](http://www.3M.com/interconnects)  
1-800-225-5373

*Please Recycle*

Printed in U.S.A.  
80-4000-1947-9 (120640.) K/CSI-1  
© 3M 2006 All Rights Reserved.