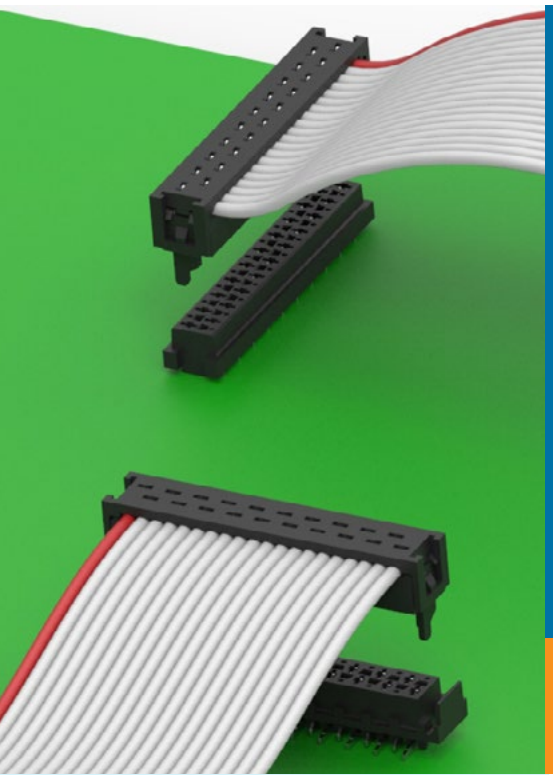




## .050 CENTERLINE MICRO-MATCH VALUE-LINE CONNECTOR FAMILY

### Quick Reference Guide

TE Connectivity's (TE) Micro-MaTch Value-line Connector Family product portfolio increases its design flexibility with the new Board-to-Board connectors, in addition to the existing Wire-To-Board portfolio. This product range offers cost effective tape & reel opportunities for automatic pick & place, which reduces assembly time. As extra customer service TE offers hand tooling, semi-automatic tooling plus the support of ready-to-go and customer specific cable assemblies.

The Micro-MaTch Value-line Connector Family product portfolio is built around the existing high quality Micro-MaTch connector system and has been developed to suit environments where a broad temperature range, many mating cycles and vibration resistance are less relevant. On a pitch of 1.27 mm, Micro-MaTch Value-line product portfolio offers a variety of interconnections for the Industrial, Consumer and Datacom industry.

#### FEATURES AND BENEFITS

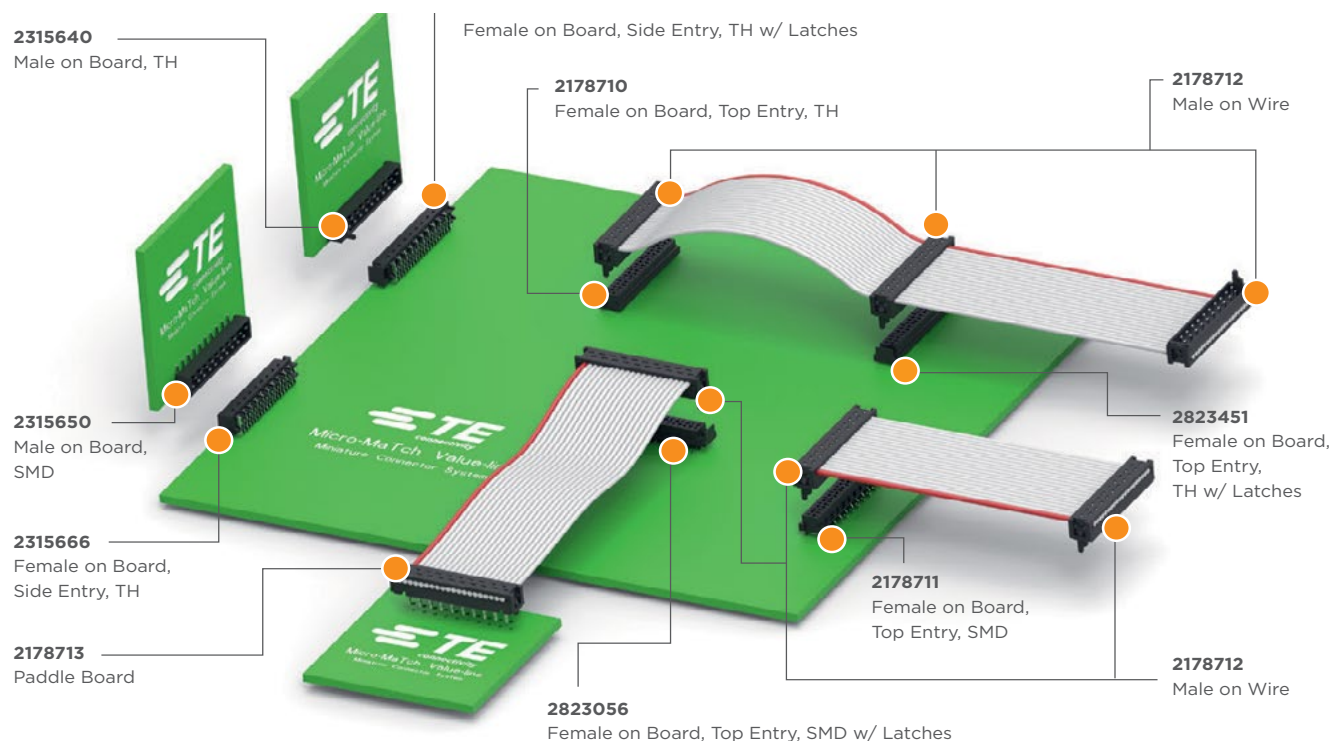
- Cost effective Wire-to-Board and Board-to-Board system with tin plated contact design
- Miniature connector system to save space on the printed circuit board
- All connectors supplied on tape & reel and suitable for automatic placing and termination
- Highly reliable gas tight and corrosion free connections between wire and insulation displacement contacts
- Full range of application tooling from hand tool to fully automated equipment
- Cable connectors accepting all standard ribbon cable

## .050 Centerline Micro Match Value Line Connector Family

### PRODUCT APPLICATIONS

- Home automation and alarm equipment
- Mobile GPS devices
- Lighting
- Air- and climate control units
- CCTV
- Building surface control
- Set top boxes, audio- & video equipment
- Electronic voting machines
- Pay terminals

### PRODUCT/APPLICATION SPECIFICATION



### APPLICATION TOOLING

#### Hand Tools

|          |             |          |             |          |                         |
|----------|-------------|----------|-------------|----------|-------------------------|
| 734155-1 | Pistol grip | 734024-1 | Adapter set | 654061-1 | Flat cable cutting tool |
|----------|-------------|----------|-------------|----------|-------------------------|

#### Bench Tools

|          |                     |          |                          |            |                                   |
|----------|---------------------|----------|--------------------------|------------|-----------------------------------|
| 733280-3 | Termination die set | 733278-2 | Sub-assy toolset (4-20p) | 1-547008-7 | Lever press incl. toolset (4-24p) |
|----------|---------------------|----------|--------------------------|------------|-----------------------------------|

#### Semi-Automatic Tools

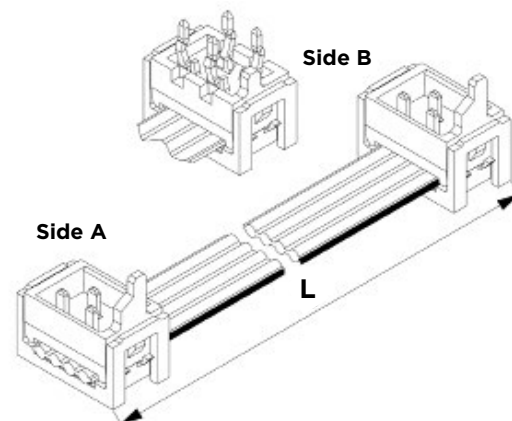
|          |                           |          |                     |          |                     |
|----------|---------------------------|----------|---------------------|----------|---------------------|
| 677412-7 | Semi automatic base press | 519708-1 | Toolset for 2178712 | 438685-1 | Toolset for 2178713 |
|----------|---------------------------|----------|---------------------|----------|---------------------|

## .050 Centerline Micro Match Value Line Connector Family

### STANDARD CABLE ASSEMBLIES

| POS | Part number* |                                                | Part number* |                                          |
|-----|--------------|------------------------------------------------|--------------|------------------------------------------|
| 4   | 2205103      | <b>Side A and B</b><br>Male on Wire<br>2178712 | 2205112      | <b>Side A</b><br>Male on Wire<br>2178712 |
| 6   | 2205104      |                                                | 2205113      |                                          |
| 8   | 2205105      |                                                | 2205114      |                                          |
| 10  | 2205106      |                                                | 2205115      |                                          |
| 12  | 2205107      |                                                | 2205116      | <b>Side B</b><br>Paddle Board<br>2178713 |
| 14  | 2205108      |                                                | 2205117      |                                          |
| 16  | 2205109      |                                                | 2205118      |                                          |
| 18  | 2205110      |                                                | 2205119      |                                          |
| 20  | 2205111      |                                                | 2205120      |                                          |

\* -1 L=75 mm; -2 L=150 mm; -3 L=200 mm



### MICRO-MATCH VALUE-LINE PRODUCT PORTFOLIO

|                                                          |                                               |                                                |                                                            |
|----------------------------------------------------------|-----------------------------------------------|------------------------------------------------|------------------------------------------------------------|
|                                                          |                                               |                                                |                                                            |
| 2178710<br>Female on Board,<br>Top Entry, TH             | 2178711<br>Female on Board,<br>Top Entry, SMD | 2178713<br>Paddle Board                        | 2178712<br>Male on Wire                                    |
|                                                          |                                               |                                                |                                                            |
| 2823451<br>Female on Board,<br>Top Entry, TH, w/ Latches | 2823056<br>Female on Board,<br>Top Entry, SMD | 2315666*<br>Female on Board,<br>Side Entry, TH | 2315677*<br>Female on Board,<br>Side Entry, TH, w/ Latches |
|                                                          |                                               |                                                |                                                            |
| 2315640*<br>Male on Board, TH                            | 2315650*<br>Male on Board, TH                 |                                                |                                                            |

\* New part introduction 2019

## .050 Centerline Micro Match Value Line Connector Family

|                            | P&P Tape | Number of Positions |             |             |             |             |
|----------------------------|----------|---------------------|-------------|-------------|-------------|-------------|
|                            |          | 4                   | 6           | 8           | 10          | 12          |
| Female on Board Connectors | -        | 2315666-4           | 2315666-6   | 2315666-8   | 1-2315666-0 | 1-2315666-2 |
|                            | -        | 2315677-4           | 2315677-6   | 2315677-8   | 1-2315677-0 | 1-2315677-2 |
|                            | -        | 2178710-4           | 2178710-6   | 2178710-8   | 1-2178710-0 | 1-2178710-2 |
|                            | -        | 2823451-4           | 2823451-6   | 2823451-8   | 1-2823451-0 | 1-2823451-2 |
|                            | N        | 2178711-4           | 2178711-6   | 2178711-8   | 1-2178711-0 | 1-2178711-2 |
|                            | Y        | 7-2178711-4         | 7-2178711-6 | 7-2178711-8 | 8-2178711-0 | 8-2178711-2 |
|                            | N        | 2823056-4           | 2823056-6   | 2823056-8   | 1-2823056-0 | 1-2823056-2 |
|                            | Y        | 7-2823056-4         | 7-2823056-6 | 7-2823056-8 | 8-2823056-0 | 8-2823056-2 |
| Cable Connectors           | -        | 2178713-4           | 2178713-6   | 2178713-8   | 1-2178713-0 | 1-2178713-2 |
|                            | -        | 2178712-4           | 2178712-6   | 2178712-8   | 1-2178712-0 | 1-2178712-2 |
| Male on Board Connectors   | -        | 2315640-4           | 2315640-6   | 2315640-8   | 1-2315640-0 | 1-2315640-2 |
|                            | N        | 2315650-4           | 2315650-6   | 2315650-8   | 1-2315650-0 | 1-2315650-2 |
|                            | Y        | 7-2315650-4         | 7-2315650-6 | 7-2315650-8 | 8-2315650-0 | 8-2315650-2 |

|                            | P&P Tape | Number of Positions |             |             |             |
|----------------------------|----------|---------------------|-------------|-------------|-------------|
|                            |          | 14                  | 16          | 18          | 20          |
| Female on Board Connectors | -        | 1-2315666-4         | 1-2315666-6 | 1-2315666-8 | 2-2315666-0 |
|                            | -        | 1-2315677-4         | 1-2315677-6 | 1-2315677-8 | 2-2315677-0 |
|                            | -        | 1-2178710-4         | 1-2178710-6 | 1-2178710-8 | 2-2178710-0 |
|                            | -        | 1-2823451-4         | 1-2823451-6 | 1-2823451-8 | 2-2823451-0 |
|                            | N        | 1-2178711-4         | 1-2178711-6 | 1-2178711-8 | 2-2178711-0 |
|                            | Y        | 8-2178711-4         | 8-2178711-6 | 8-2178711-8 | 9-2178711-0 |
|                            | N        | 1-2823056-4         | 1-2823056-6 | 1-2823056-8 | 2-2823056-0 |
|                            | Y        | 8-2823056-4         | 8-2823056-6 | 8-2823056-8 | 9-2823056-0 |
| Cable Connectors           | -        | 1-2178713-4         | 1-2178713-6 | 1-2178713-8 | 2-2178713-0 |
|                            | -        | 1-2178712-4         | 1-2178712-6 | 1-2178712-8 | 2-2178712-0 |
| Male on Board Connectors   | -        | 1-2315640-4         | 1-2315640-6 | 1-2315640-8 | 2-2315640-0 |
|                            | N        | 1-2315650-4         | 1-2315650-6 | 1-2315650-8 | 2-2315650-0 |
|                            | Y        | 8-2315650-4         | 8-2315650-6 | 8-2315650-8 | 9-2315650-0 |

### FREQUENTLY ASKED QUESTIONS

#### **Can we make Micro-MaTch Value-line Connector Family connectors with contacts in Gold plating?**

No. The Micro-MaTch contact system is designed to deliver a high normal-force as required for tinplated contact interconnections. This pressure is too high for gold plated interconnections, where much lower normal-forces are required.

#### **We have noticed that the kinks of the Micro-MaTch Value-line Connector Family thru-hole solder contacts on Top Entry Connectors, start with random direction. Is this technically OK?**

Yes, this is OK and does not affect contact retention. For those connectors the kink direction in each row can start random, but sequential contacts within each row have kinks pointing in opposite directions.

#### **Which flat ribbon cable is suitable for Micro-MaTch Value-line Connector Family Male on Wire and Paddle Board connectors and why?**

The new design of the cable connectors within TE's Micro-MaTch Value-line Connector Family will perfectly accept most flat ribbon cable with 'oval' conductor design. The cable insulation's oval shape at each position and the flat transition between the positions, both exactly match with corresponding shape in the cover. This enables accurate pre-positioning of the conductors regarding to the IDC-slots during the termination process. It is also important that the conductor's pitch is within tolerance and that they are symmetrically positioned in the insulation shape.

#### **Are Micro-MaTch Value-line Connector Family Male on Wire and Paddle Board connectors also suitable for discrete wire termination?**

For discrete wires, Micro-MaTch connectors offer the Crimp-On Snap-In (COSI) connectors in 2 wire ranges. For more information please contact your local TE Connectivity Sales representative.

#### **Is there retention force performance available for the female connector version with locking latches?**

No. The plastic latches were not designed to retain the connectors but to produce an audible click when the connectors are fully mated.

#### **What exactly are the main differences between the Value-line and the actual (Industrial) Micro-MaTch version?**

The actual Micro-MaTch version has a higher operating temperature, more mating cycles, and more vibration resistance. The Value-line is perfect for applications that are not exposed to heavy vibration, operate within a standard temperature range between -30 °C and +85°C and are less prone to frequent mating cycles. For more information please contact your local TE Connectivity Sales representative.

### LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit [www.te.com](http://www.te.com) to chat with a Product Information Specialist.

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