Introducing
TE Connectivity (TE) Generation 50 Portfolio

The TE Generation 50 portfolio is designed to satisfy the proposed USCAR-2 environmental and mechanical requirements for a 0.50 mm terminal/connector system.

The product offers weight and packaging advantages over existing 0.64 mm systems and supports Temperature Class T2, Vibration Class V1 and Sealing Class S1.
**APPLICATIONS**

- Door locks
- Steering wheel switches
- Column harness’s
- Cameras
- Sensors
- Unsealed control units

**MECHANICAL**

- Mechanical performance per PRD
- Temperature class T2
  (-40°C to +100°C) per USCAR-2
- Vibration class V1 per USCAR-2
- Sealing class S1 per USCAR-2
- Shall accept wire range from 7 strand 0.13 sqmm ultra-thin wall up to seven strand 0.35 sqmm thin wall (ISO 6722)
- Terminal insertion force equal to or less than 15N
- Primary latch retention of 15N
- Primary and secondary latch retention of 35N after temp/humidity and 40N after moisture conditioning.
- 1.8 mm centerline spacing

**ELECTRICAL**

- Satisfy EWCAP (USCAR-2 proposed) promoted voltage drop and dry circuit requirements of 25 milliohms max.
- IR > 100 MΩ at 500 VDC
- 0.13 sqmm – 2 amps single terminal free-air
- 0.35 sqmm – 5 amps single terminal free-air

**MATERIALS**

- Female terminal: Tin plated CuNiSi (same base metal used with Generation Y and GET)
- Plug housings: 15% glass-filled nylon
- Header housings: PCT
- Header blades: Tin plated brass
- Header solder clips: Tin plated brass

**STANDARDS AND SPECIFICATIONS**

- USCAR-21
- USCAR-2

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**PRODUCT OFFERING**

- Single row 6 circuit right angle surface mount PCB header
  – 4 polarization options
- Single row 6 circuit plug
  – 4 polarization options
- Dual row 16 circuit plug
  – 4 polarization options
- Dual row 28 circuit right angle surface mount PCB header
  – 4 polarization options
- Dual row 28 circuit plug
  – 4 polarization options
- Female terminal 2098583-1, -2, and -4

**PRODUCT DIMENSIONS**

<table>
<thead>
<tr>
<th>6 position plug</th>
<th>2203130-1 thru -4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>16.8 wide x 10.0 high x 15.2 deep</td>
</tr>
<tr>
<td>Position</td>
<td>16 position plug</td>
</tr>
<tr>
<td>Width</td>
<td>28.6 wide x 10.5 high x 15.4 deep</td>
</tr>
<tr>
<td>Position</td>
<td>28 position plug</td>
</tr>
<tr>
<td>Width</td>
<td>39.4 wide x 10.5 high x 15.2 deep</td>
</tr>
<tr>
<td>Position</td>
<td>6 position header</td>
</tr>
<tr>
<td>Width</td>
<td>25.2 wide x 10.9 high x 20.7 deep</td>
</tr>
<tr>
<td>Position</td>
<td>16 position header</td>
</tr>
<tr>
<td>Width</td>
<td>32.4 wide x 12.4 high x 20.7 deep</td>
</tr>
<tr>
<td>Position</td>
<td>28 position header</td>
</tr>
<tr>
<td>Width</td>
<td>43.2 wide x 12.4 high x 20.7 deep</td>
</tr>
</tbody>
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**BENEFITS**

- Meets tight packaging requirements
- Package more circuits in the same space
- Weight reduction
- Damage resistant SMT design

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