FAKRA Automated Coax Connector System

Enabling RF performance up to 6 GHz for the automotive industry
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TE Connectivity’s (TE’s) next generation FAKRA Automated RF connectors are designed for harsh environments and can transmit RF signals up to 6 GHz. This new interconnection system is an automotive-grade design offering reliability plus affordability with the manufacturing process advantage of full automation.

FAKRA Automated offers safe and reliable processes for high-speed data, leveraging our decades of experience with FAKRA components, terminals and cable assemblies. These robust connectors are designed for tomorrow’s RF requirements, supporting a variety of automobile applications such as in-vehicle networks, infotainment and safety domains.

**Benefits**
- Optimized for automated manufacturing
- Full product family with 14 key codes, sealed, unsealed, 180° and 90°
- CPA capable
- Reduced cost and price
- RF performance up to 6 GHz
- Primary and secondary locks
- Tulip contact / anti-stubbing
- Housing inner ring / anti-scooping
- Global manufacturing

**Applications**
- On-board diagnostics (V2X)
- 360 degree surround view camera
- Advanced Driver Assistance Systems (ADAS)
- In-vehicle networks
- 5G
- Dual Band Wi-Fi

**Market Compatibility\***
- Serializer/Deserializer (SerDes)
- GMSL 2/3
- FPD-Link IV
- APIX3

*) Protocols supported with appropriate cable

FAKRA Automated was designed to meet or exceed ISO 20860-1 (50 Ohms Impedance RF Connection System Interface), SAE/USCAR-17, SAE/USCAR-18, and SAE/USCAR-2 (Performance specifications for Automotive RF Connector Systems).
# FAKRA Automated Header Portfolio

<table>
<thead>
<tr>
<th>Description</th>
<th>TE PN</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| 1 pos 180 deg | X-2203452-X | Product Specification: 108-18079  
Application Specification: 114-32108 |
| 1 pos 90 deg | X-2291392-X | Product Specification: 108-132071  
Application Specification: 114-101020 |
| 1 pos 90 deg with shield | X-2209201-X | |
| 1 pos 90 deg edge mount | X-2287906-X | |
| 2 pos 180 deg | X-2272788-X | |
| 2 pos 180 deg edge mount | X-2287923-X | |

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**Female Connector Portfolio**

<table>
<thead>
<tr>
<th>Description</th>
<th>TE PN</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 deg dual</td>
<td>X-2289731-X*</td>
<td>Application Specification: 114-32145</td>
</tr>
</tbody>
</table>
| 90 deg single | X-2291859-X* | Product Specification: 108-94089  
Application Specification: 114-32217 |
| 180 deg single | X-2307206-X* | Product Specification: 108-94631  
Application Specification: 114-32145 |

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**Male Connector Portfolio**

<table>
<thead>
<tr>
<th>Description</th>
<th>TE PN</th>
<th>Specifications</th>
</tr>
</thead>
</table>
Application Specification: 114-32145 |
| 180 deg dual | X-2203575-X* | |
| 90 deg single | X-2298733-X* | Product Specification: 108-162005  
Application Specification: 114-162005 |

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* CPA variant; part number is housing only.  
* Non-CPA variant; part number is housing only.  
Refer FAKRA catalog (PN 1308073-3) on clip slot variants, center contacts, sub-assemblies, and ferrules.  
Next Generation of Coax: Miniaturized Terminals

TE Connectivity’s MATE-AX miniaturized coax terminal provides the industry with 9 GHz RF performance and more in much smaller, lighter layouts. A 4-terminal MATE-AX connector is 75% smaller and 34% lighter than a 4-terminal FAKRA connector.

TE’s MATE-AX terminals are designed to be compatible with existing coax cables, and by using a fully automated crimping process the same cable type can be terminated with FAKRA on one end and MATE-AX on the other.

For further information on MATE-AX, please contact our TE experts below.

MATE-AX Cable Assembly: Examples

4x FAKRA Jack - 4 pos. Plug

4x FAKRA Plug - 4 pos. Plug

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