AURIX™ is Infineon’s brand new family of microcontrollers serving the needs of all safety critical automotive applications. It is based on a new generation TriCore™ cores, ranging from single core devices, up to microcontrollers with 3 independent CPUs.

Additional lockstep cores provide excellent fault detection and fast reaction times for ASIL-D safety systems.

The scalability in terms of performance, memory and packages within the AURIX™ family allows for a common safety case across the different devices, allowing single applications to be hosted on the smaller devices, but also allows multiple applications to be hosted in parallel on the larger devices without the need to modify software architecture or safety strategies.

**Features**

- Diverse lockstep architecture to reduce development effort for ASIL-D systems
- High integration for reduced complexity and significant cost savings
- Innovative single supply concept for best-in-class power consumption and cost savings in external supply
- Scalability in terms of performance, packages, memory and peripherals for flexibility across platform concepts
- Latest connectivity CAN FD (flexible data rate)
- Hardware security module to meet latest EVITA standard
- Scalable safety from QM to ASIL-D
- Hot package options for extended temperature range
TC23xL – AURIX™ family
Enabling safety applications

Block diagram

1) MultiCAN+ including data rate enhanced CAN FD

Product summary

<table>
<thead>
<tr>
<th>Type</th>
<th>eFlash [MB]</th>
<th>Data flash [KB]</th>
<th>Frequency [MHz]</th>
<th>SRAM [KB]</th>
<th>Package</th>
<th>Temp. range [°C]</th>
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<td>2</td>
<td>128</td>
<td>200</td>
<td>192</td>
<td>TQFP-144</td>
<td>-40 … +125</td>
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<td>200</td>
<td>192</td>
<td>LFBGA-292</td>
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</tbody>
</table>

1) EEPROM emulation (up to 125 k w/e cycles)
2) Hot package options with $T_a = 150°C$ are available on request

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