Automotive Market Support:

- ISSI is the Leading Innovator in Automotive Memories
- Long-term support and high quality leads to lower total cost of ownership
- ISSI pioneered 115°C temperature DRAM support
- The most complete line of Automotive SRAM, DRAM and Flash of any supplier
- Proven Long-Term support for Automotive products
- Automotive temperature ranges: -40°C to +85°C, -40°C to +105°C, -40°C to +115°C, -40°C to +125°C
- Quality:
  - ISSI is ISO 9001:2000 certified
  - Subcons are ISO/TS16949 certified
  - Products satisfy AEC-Q100
- Cost-effective and highest quality products possible
- Leading memory supplier for over 25 years

DDR3 SDRAM Automotive with ECC:

- Supports features for ISO26262
- Internal Error Correcting Code prevents bit errors
- Bidirectional differential data strobe
- Programmable burst length
- Programmable CAS Latency
- Auto-Refresh and Self-Refresh Modes
- OCD (Driver Adjustment)
- ODT (On Die Termination) supported
- Write Leveling
- Packages: 96-ball BGA for x16, 78-ball BGA for x8
- Long-term support

Applications:

- Car Infotainment
- Automotive Telematics
- Cluster/Driver Information Systems
- Navigation Systems
- Satellite Radio
- Night Vision Systems
- Engine Control
- Transmission Control
- ADAS/Camera, Radar, & Lidar Safety Systems
- e-Call
- And many more!

Memory with ECC

Enhanced Data Reliability

- DRAM
- FLASH
- SRAM

A Leader in ECC Memory Solutions
### Automotive Temperature Grade Choices

<table>
<thead>
<tr>
<th></th>
<th>A1 (-40C to 85C/95C)</th>
<th>A2 (-40C to 105C)</th>
<th>A25 (-40C to 115C)</th>
<th>A3 (-40C to 125C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRAM</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DRAM</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Flash</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>

### Popular Memory Choices

<table>
<thead>
<tr>
<th>Component</th>
<th>Async SRAM</th>
<th>Sync SRAM</th>
<th>DRAM</th>
<th>Serial NOR FLASH [SPI]</th>
<th>eMMC FLASH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telematics</td>
<td>1Mb-4Mb</td>
<td></td>
<td>64Mb-256Mb SDR, 256Mb DDR, 256Mb-1Gb DDR2, 2Gb-4Gb DDR3</td>
<td>8Mb-256Mb</td>
<td>4GB/8GB/16GB/32GB</td>
</tr>
<tr>
<td>Infotainment</td>
<td>1Mb-4Mb</td>
<td></td>
<td>16Mb-256Mb SDR, 16Mb-256Mb DDR, 512Mb-1Gb DDR2, 1Gb-8Gb DDR3</td>
<td>16Mb-512Mb</td>
<td>4GB/8GB/16GB/32GB</td>
</tr>
<tr>
<td>Satellite Radio</td>
<td>4Mb</td>
<td></td>
<td>128Mb-256Mb SDR, 512Mb mDDR, 512Mb-1Gb DDR2, 1Gb-2Gb DDR3</td>
<td>32Mb-64Mb</td>
<td></td>
</tr>
<tr>
<td>Engine Control</td>
<td>256Kb-4Mb</td>
<td>4Mb-8Mb</td>
<td>64Mb-256Mb SDR, 256Mb DDR, 512Mb-2Gb DDR2, 1Gb-2Gb DDR3</td>
<td>32Mb-512Mb</td>
<td>4GB/8GB</td>
</tr>
<tr>
<td>Cluster/Center Stack Displays</td>
<td>1Mb</td>
<td>4Mb</td>
<td>64Mb-256Mb SDR, 256Mb-1Gb DDR2</td>
<td>32Mb-512Mb</td>
<td>4GB/8GB</td>
</tr>
<tr>
<td>Body Electronics</td>
<td>1Mb</td>
<td>4Mb</td>
<td>64Mb-256Mb SDR, 256Mb-1Gb DDR2</td>
<td>2Mb-16Mb</td>
<td>4GB</td>
</tr>
<tr>
<td>Safety Systems (ADAS)</td>
<td>1Mb</td>
<td></td>
<td>16Mb-256Mb SDR, 256Mb-512Mb mDDR, 256Mb-1Gb DDR2, 256Mb-2Gb LPDDR2, 1Gb-4Gb DDR3</td>
<td>32Mb-512Mb</td>
<td></td>
</tr>
</tbody>
</table>

### Popular Analog Choices

<table>
<thead>
<tr>
<th>Component</th>
<th>Interior</th>
<th>Exterior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting</td>
<td>IS32LT3120, IS32LT3172, IS32LT3173, IS32LT3174, IS32LT3175</td>
<td>IS32LT3172, IS32LT3173, IS32LT3181</td>
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</tbody>
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