**Key Features and Benefits**

- Feature-rich Arm Cortex-A8-based solution with performance up to 1 GHz to design robust, lower-power solutions
- Fully integrated solution including key peripherals such as CAN, 2-port Gigabit Ethernet switch, USB+PHY, acceleration and LPDDR1/DDR2/DDR3 reduces BOM costs
- Optional support for both EtherCAT® and PROFIBUS® industrial interfaces
- Programmable Real-time Unit (PRU) adapts to new application-specific standards with user configurable I/Os
- Flexible power management options to minimize active power while enabling standby power as low as 7 mW, prolonging battery life and enabling portable products
- System-on-a-chip with display subsystem including touch screen controller, 3D graphics accelerator and display controller
- Wireless connectivity support pre-integrated including Wi-Fi™, Bluetooth® and other technologies, including support for Wi-Fi Direct™
- Processor SDK eases design by providing out-of-box demos and benchmarks
- Broad software support for Linux, Android™ and Windows® Embedded Compact 7, in addition to a variety of third-party RTOS offerings, providing design flexibility

**Overview**

Texas Instruments (TI) continues to optimize and expand its portfolio of industry-leading Arm microprocessors (MPUs) with seven new AM335x devices that deliver new levels of integration at very low price points. The AM335x Arm MPUs offer the highest DMIPS per dollar while delivering optional 3D graphics acceleration and key peripherals. The combination of graphics and connectivity support makes this solution ideal for portable navigation systems, handheld gaming devices, education and home/building automation solutions. The AM335x Arm MPU includes support for a robust set of software solutions. Software development kits are available for free download on ti.com for Linux and TI RTOS. Leveraging these low-cost and flexible development tools, customers can easily migrate from a microcontroller (MCU)- or Arm9-based solution or cost optimize their current Arm Cortex-A8 design.

**Scalability**

With a broad Arm MPU portfolio of more than 120 product options available today, customers can migrate within TI’s Arm MPU product line from earlier software-compatible AM1x Arm9™-based devices to the Arm Cortex™-A8 line of devices. For software development, AM335x processors leverage the Processor SDK, a software development kit that allows for easier code reuse and migration among Sitara Arm processors. Customers can also take advantage of design similarities to migrate to software-compatible DSP+Arm devices or to video processors. This easy scalability, enabled by software compatibility within TI’s Arm MPU products and across other TI processor generations, can quickly expand market opportunities for new end products and reduce development time.
Get started today

Hardware, software and support to make development easy

- Evaluate the processor features on the included LCD touch screen within minutes of opening the EVM box
- Linux™ and TI RTOS support
- Processor SDK
- Responsive design support and active online TI E2E community: e2e.ti.com.

The AM335x Cortex-A8 Arm MPUs are sampling today, available at www.ti.com/am335x. Development is easy and can begin in minutes with TI’s all-inclusive development kit, which includes a 7” LCD touch screen and Wi-Fi™. Designers can begin development today with the $995 USD TMDXEVM3358 general-purpose Evaluation Module or the $206 USD TMDSSK3358 Starter Kit. BeagleBone, a low-cost community development board is also available at a price point of U.S. $89 to enable easy I/O expansion and provide fast development with a single USB cable. More information is available at beagleboard.org/bone.

Community support

TI’s online community at e2e.ti.com supports AM335x Arm Cortex-A8 MPUs. Ask questions, share knowledge, explore ideas, and help solve problems with fellow engineers. Developers utilizing the BeagleBone can get support from a large beagleboard.org open-source community.

<table>
<thead>
<tr>
<th>Pin-to-Pin Compatible</th>
<th>Graphics</th>
<th>CAN &amp; PRU-ICSS</th>
<th>Package</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM3359</td>
<td>800</td>
<td>CAN</td>
<td>15x15 / 0.8mm</td>
<td>In Production</td>
</tr>
<tr>
<td>AM3358</td>
<td>600/800/1000</td>
<td>CAN</td>
<td>Dual-Core PRU All Protocols</td>
<td>In Production</td>
</tr>
<tr>
<td>AM3357</td>
<td>300/600/800</td>
<td>3D graphics</td>
<td>Dual-Core PRU Standard Protocols</td>
<td>In Production</td>
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<tr>
<td>AM3356</td>
<td>300/600/800</td>
<td>3D graphics</td>
<td>Dual-Core PRU All Protocols</td>
<td>In Production</td>
</tr>
<tr>
<td>AM3354</td>
<td>600/800/1000</td>
<td>3D graphics</td>
<td>Dual-Core PRU Standard Protocols</td>
<td>In Production</td>
</tr>
<tr>
<td>AM3352</td>
<td>300/600/800/1000</td>
<td>3D graphics</td>
<td>CAN</td>
<td>In Production</td>
</tr>
<tr>
<td>AM3351</td>
<td>300/600</td>
<td>CAN</td>
<td>13x13 / 0.65mm*</td>
<td>In Production</td>
</tr>
</tbody>
</table>

✓ Standard protocols for AM335x include: Profibus, Profinet RT/RT, Ethernet/IP, SERCOS III, and more
✓ All protocols for AM335x include Standard protocols plus EtherCAT and POWERLINK

1 Top protocols supported are: EtherCAT®/PROFIBUS®, Ethernet/IP/POWERLINK/SERCOS-III/PROFINET

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