Diamond Introduces Elton Carrier Board for NVIDIA® Jetson™ Computer Modules

Sunnyvale, California — February 26, 2019 — Diamond Systems, a leading global provider for rugged, I/O-rich embedded computing solutions, has introduced Elton™, a carrier board solution built to deliver AI-at-the-edge high performance computing based on NVIDIA® Jetson™ AGX Xavier™ modules. Elton targets a range of industrial and military applications, with a focus on harsh environments such as vehicles and other outdoor applications.

Elton is particularly noteworthy as it has a full-fledged PCI/104-Express expansion socket present on the carrier board. Unique in the NVIDIA ecosystem, Elton bridges the emerging world of AI/ML technology with the long-life, highly successful, rugged industrial embedded computing ecosystem of PC/104. Elton provides support for PCI-104, PCIe/104 type 2 (x8 lane), and PCIe/104 OneBank expansion modules (4 x1 lanes), enabling rapid creation of truly rugged, custom-configured, high performance, PCIe-based solutions using off-the-shelf I/O modules from a large number of manufacturers worldwide.

Elton utilizes a 50% thicker PCB, latching connectors, and the rugged PCI/104-Express expansion bus to create a rugged platform ideal for the most demanding compute-intensive harsh-environment applications. Elton’s larger size of 102x152mm includes standard PC I/O and additional expansion capabilities like data acquisition, M.2 and PCIe MiniCard sockets, and an LTE modem socket.

Elton comes with a compact and cost-effective yet full-featured data acquisition circuit with analog input, analog output, and digital I/O to interface to the "real world" of analog and digital sensors and controls. A programming library provides support for rapid development of custom applications, while a ready-to-run application with graphical user interface provides convenient real-time control of the data acquisition I/O as well as data logging.

Diamond’s Family of Embedded Computing Solutions for NVIDIA Jetson Computer Modules

In addition to Elton, Diamond Systems has introduced a family of solutions for delivering AI-at-the-edge high performance computing solutions based on NVIDIA Jetson TX2, TX2i and AGX Xavier™ modules. The family includes four carrier boards as well as a finished system housed in an ultra-compact enclosure. These solutions target a range of industrial and military applications, with a focus on harsh environments such as vehicles and other outdoor applications.

Product Family Roundup

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>NVidia Module</th>
<th>Notable Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ziggy</td>
<td>50 x 87mm</td>
<td>TX2 and TX2i</td>
<td>Compact, low-cost, data acquisition</td>
</tr>
<tr>
<td>Jethro</td>
<td>76 x 107mm</td>
<td>TX2 and TX2i</td>
<td>Expandable, data acquisition</td>
</tr>
<tr>
<td>Stevie</td>
<td>100 x 87mm</td>
<td>Jetson AGX Xavier</td>
<td>High performance, feature-rich</td>
</tr>
<tr>
<td>Elton</td>
<td>102 x 152mm</td>
<td>Jetson AGX Xavier</td>
<td>Highest performance, PCI/104-Express expansion, data acquisition</td>
</tr>
<tr>
<td>ZiggyBox</td>
<td>63 x 67 x 96mm</td>
<td>TX2 and TX2i</td>
<td>Compact, I/O-rich, ideal for industrial control</td>
</tr>
</tbody>
</table>
Media Resources

Ziggy:  http://www.diamondsystems.com/products/ziggy
Jethro:  http://www.diamondsystems.com/products/jethro
Elton:  http://www.diamondsystems.com/products/elton
ZiggyBox:  http://www.diamondsystems.com/products/ziggybox
Stevie:  http://www.diamondsystems.com/products/stevie

Availability

Elton will be available in early Q2 2019.

For more information, please contact the Diamond’s sales team: sales@diamondsystems.com.

About Diamond Systems

Celebrating its 30th year, Diamond Systems Corporation is an innovator of compact, rugged, board and system-level real world embedded computing solutions to companies in a broad range of markets worldwide.

In addition to complete system-level solutions, Diamond’s extensive product line of compact, highly integrated solutions include Nvidia Jetson and Xavier carrier boards; single-board computers (SBCs); an extensive line of expansion modules for analog and digital I/O, wired and wireless communications, GPS, solid-state disk, and power supply functions. In support of performance-critical embedded application requirements, these products are engineered to operate reliably over wide operating temperature ranges, such as –40°C to +85°C, and at high levels of shock and vibration. Additionally, the company offers a comprehensive hardware, software, and system integration and customization services. For further information, please visit www.diamondsystems.com.

Diamond Systems will have the NVidia Jetson platform carrier solutions on display at the Embedded World Show (February 26-28) on display in Hall 2, Booth 2-350. The company will offer daily presentations and giveaways featuring its Jetson products.

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