



DIAMOND SYSTEMS CORPORATION

For Immediate Release

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Compact, Ruggedized, Fanless System Expands Flexibly *Low-power, high-performance system features integrated data acquisition functions*

Nov. 16, 2009; Mountain View, Calif. -- Diamond Systems Corp., a leading supplier of ruggedized single-board computers (SBCs) and I/O expansion modules targeting real-world applications, today launched a series of compact, rugged, reliable, low-power systems aimed at high-reliability data acquisition and control applications. The Octavio-HLV and Octavio-ATHM “embedded application servers” are based on Diamond’s field-proven, PC/104-expandable [Helios](#) and [Athena II](#) single board computers, respectively. Thanks to Diamond’s unique 2-in-1 small form-factor SBCs, complete Octavio systems with built-in data acquisition stand just 1.7-inches tall.

The ready-to-deploy Octavio systems can be ordered with a range of standard configuration options, including processor type/speed, case height, integrated DC/DC power supply, DIN-rail attachment bracket, and integrated data-acquisition subsystem.

Octavio is highly shock and vibration tolerant, and operate fanless over an extended temperature range of -40°C to +85°C. Its rugged enclosure was designed to eliminate most internal cables, resulting in enhanced ruggedness and reliability in both fixed and mobile environments.

Key Octavio system features are summarized in the table below:



	Octavio-HLV	Octavio-ATHM
Processor	800MHz Vortex86DX	500MHz VIA Mark CoreFusion
Memory	256MB soldered DRAM	256MB soldered DRAM
Display Type	VGA monitor	VGA monitor
CRT Resolution	1280 x 1024 maximum	1600 x 1200 maximum
USB Ports	4x USB 2.0	4x USB 1.1
Serial Ports	2x RS-232; 2x RS-232/422/485	2x RS-232; 2x RS-232/485
Networking	10/100Base-T Ethernet	10/100Base-T Ethernet
Mass Storage	128MB or 1GB IDE flashdisk	512MB or 4GB IDE flashdisk
Keyboard / Mouse	PS/2	PS/2
Input Power	5VDC ±5% @ 5W maximum	5VDC ±5% @ 10W maximum
Operating Temp	-40°C to +85°C	-40°C to +85°C
System Footprint	5.5 x 5.75 in. (138 x 145 mm)	5.5 x 5.75 in. (138 x 145 mm)
System Height	1.7, 3, 5, or 7 in.	1.7, 3, 5, or 7 in.
Weight	28.6 oz / 810.8g	30.4 oz / 861.8g
RoHS	Compliant	Compliant
OS Support	Linux 2.6 or Windows CE 6.0	Linux 2.6 or QNX

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Octavio's optional built-in data acquisition subsystem provides 16 16-bit A/D channels with up to 100KHz data conversion rate, 512- or 2048-sample fifo (depending on model), and autocalibration for maximum accuracy. Additionally, the DAQ subsystem provides: 4 12-bit analog outputs; 16, 24, or 40 digital I/O lines (depending on model); and counter/timer functions for sample rate control or general purpose timing.

All standard I/O interfaces are accessible via industry standard connectors on the system's front panel. The front panel also supports I/O from selected members of Diamond's field-proven PC/104 add-on module line.

All Octavio systems come pre-loaded with a small-footprint Linux 2.6 -based operating system, enabling first time use within minutes. Application development based on the system's optional data acquisition subsystem is greatly simplified thanks to the inclusion of Diamond's exclusive Universal Driver software, utilities, and demo sources. Support for Windows CE 6 is optionally available with Octavio-HLV models and support for QNX is optionally available with Octavio-ATHM models.

Pricing and Availability

Octavio's pricing – which in volume starts below \$550 and varies according to SBC choice, flash disk size, case height, and other options -- starts at \$605 for the Octavio-HLV (800MHz VortexDX CPU) and \$940 for the Octavio-ATHM (500MHz VIA Mark CoreFusion CPU), at quantity 1. Contact Diamond for OEM pricing.

About Diamond

Founded in 1989, Diamond Systems Corporation was an early adopter of PC/104 technology and today is one of the leading worldwide suppliers of PC/104 I/O modules and highly integrated single board computers combining CPU and data acquisition on a single board. Diamond's extensive product line includes A/D, D/A, digital I/O, serial communications, multifunction networking, and power supply modules as well as single-board computers and enclosures. Diamond also offers a full range of system solutions, including the capability to customize boards or systems to meet the needs of a particular application. The privately held company is based in Mountain View, California, in the heart of Silicon Valley.

For more information, visit www.diamondsystems.com or call 1-800-36-PC104.

Media Resources

High resolution images of Octavio may be downloaded by clicking on these links:

- [Octavio-HLV 1.7-inch height](#)
- [Octavio-ATHM 1.7-inch height](#)
- [Octavio-ATHM 3-inch height](#)
- [Octavio-ATHM 5-inch height](#)

Datasheets for the two currently-available Octavio versions are available here:

- [Octavio-HLV Data Sheet](#)
- [Octavio-ATHM Data Sheet](#)

For further information, visit Octavio's web page:

- [Octavio Web Page](#)