# **Innovations in Gaming Computing**

The Widest Range of Solutions for the Gaming Industry

- / Casino Machines
- / AWPs











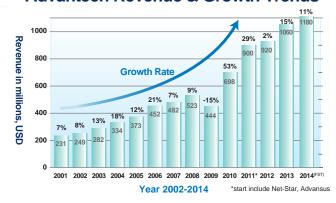
# **Global Strength**

Advantech-Innocore is the leading global gaming supplier. The company specializes in designing and manufacturing industrial grade hardware and dedicated software tailored to the exact needs of the gaming industry. As the gaming-focused business unit of the \$1Bn Advantech Group, Advantech-Innocore stands alone among hardware suppliers in its capabilities to support customers large and small in all regions of the world.

# Advantech

- Current Market Cap USD2,658M\*
- Revenue USD920M (2012)
- World's largest Industrial PC supplier with 26% WW share\*\*
- More than 6,000 employees
- Worldwide presence, 21 countries, 91 cities
- 1,100 engineers in R&D
- 100% owned manufacturing facilities in China and Taiwan (>130,000m²)
- \*August 2013
- \*\* Reference IMSresearch Jan2013

# **Advantech Revenue & Growth Trends**



# **Focused Gaming Team**

- Customer focus and expert support
- Dedicated Gaming Industry Sector team with >15 years experience
- · Local Presence (see map on rear cover) to support its customers
- Advantech Care after sales support packages
- Design and Manufacturing in-house
- DPX Gaming Products
- Broad line up of other vertical market solutions, peripherals and accessories

# **Specialized Gaming Products**

- High performance and scalable industrial PC platforms
- $\bullet \ \, \text{Intel Premier Partner, AMD Select Partner and Windows Embedded Gold Partner} \\$
- High level of integration and gaming specific feature sets ("one board does it all")
- Hardware features to meet international regulatory requirements
- Worldwide regulatory approvals
- Long product lifecycles
- · Strict configuration control, revision control and EOL (end of life) management
- Hardware roadmap provides backward compatibility and easy migration to new technology

# A Comprehensive Technical Knowledge of the Industry

- World wide product install base of many hundreds of thousands
- BIOS, Hardware and Software/Firmware teams
- Existing jurisdictional approvals means faster approvals for new customers and new products (lower risk, shorter time to market)
- Corporate strengths and capabilities of Advantech





# Excellence in Design

Advantech-Innocore's products are designed and manufactured using high quality components, the most up-to-date design and production methodologies. In contrast to mass produced commercial grade motherboards, we design for robust, reliable operation as well as longevity rather than solely focusing on cost. Careful attention is paid to signal termination, power supply design, EMC and signal integrity. Thermal management is also taken into account during the design and testing stages to ensure that product performance is optimized for varied environments including casinos, arcades, etc. where operation is 24 hours a day, 365 days a year.

Understanding the environment and regulatory constraints of a gaming machine allows our design engineers to add features that solve problems before they arise: simple things such as mechanical attachment of heatsinks, providing positive latching on connectors, retaining clips for compact flash cards, design for easy assembly and field maintenance and so forth.

# **Excellence in Manufacturing**

Advantech owns all its manufacturing facilities and this in-house capacity makes the company a unique vertically integrated designer-manufacturer.

- Wholly owned manufacturing facilities (>130,000m<sup>2</sup>)
- State-of-the-art production equipment
- · Highest yield rates
- Best quality
- BGA X-Ray inspection
- Automated test routines
- Elevated temperature burn-in



Advantech's New Manufacturing and Design Center in Linkou, Taiwan

# **Excellence in Service**

With a global footprint covering all the major regions, Advantech-Innocore's organization is unique in its ability to put technical support, configuration and repair services close to its customers.

- Dedicated gaming products supplier
- Quality Assurance, consistency and fulfillment (in house manufacturing)
- Knowledgeable technical support
- Local support, service and repair/RMA
- · Local inventory and fulfillment capabilities
- · AdvantechCare Service Packages: advanced replacements, extended warranty, guaranteed turnaround time

# International Quality Standards

The Group Quality system is audited and compliant with ISO 9001. The Quality system covers all aspects of product design, component selection, design verification, manufacturing, quality control and customer satisfaction. We also hold global certifications of ISO 13485, TL 9000, ISO 14001, OHSAS 18001 and IECQ QC 080000.





Advantech-Innocore is dedicated to providing advanced gaming solutions for customers. We offer the widest range of industrial grade computer products designed specifically for the gaming industry. We provide our customers with excellent standard products, customized products and services, employing up-to-date technologies for gaming solutions to meet the requirements for Casino Machines, AWPs, VLTs, Multiplayer Games, Arcade Games, and Pachislots.







# **Gaming Platforms & Systems**

# Standalone (S Series)



The DPX-S Series products provide extremely integrated industrial single board computers and systems that offer unrivalled performance range, scalability, long lifecycle and low power.

- Full feature set of I/O, COMs, and security features
- Product are developed specifically to meet the requirements of the gaming industry

Gaming Platform: DPX-S425

DPX-430

DPX-S435 WEW

Gaming System: DPX-S1435 (NEW)

# Economy (E Series)



The DPX®-E Series products are complete industrial computer systems offering performance at a very cost-effective price point.

- Full feature set of I/Os and COMs
- Ideal integrated platforms for many gaming, amusement, and kiosk applications.
- Gaming functions share the same API as the other DPX®- series boards
- Easy to port application code and leverage the different price and performance points across Advantech-Innocore's full range of products.

DPX®- E120

DPX®- E130 WWW

# ConnectBus® (C Series)



The DPX®-C Series products are high performance gaming platforms with backplane architecture. All cable harnessing is attached to the backplane and the motherboard plugs into the backplane with one simple operation.

- The ultimate in easy installation and field service for applications where minimizing down-time is critical.
- Gaming functions share the same API as the other DPX®- series boards.
- Easy to port application code.
- Products are upgradeable with PCI-Express MXM discrete graphics modules, a range of CPUs, and many storage and I/O options.

Gaming Platform: DPX-C710 WEW Gaming System: DPX-SC710 WEW

# Industrial Motherboards, Computer-on-Modules and RISC Computing Platforms











Advantech's large range of Industrial Motherboards, COM Express Modules and RISC Products are ideal for gaming applications where the I/O and dedicated gaming features of the DPX Range are not needed. They offer the best in cost, performance and longevity. GMB and AIMB products can be used with Advantech standard chassis and power supplies to provide a complete system solution. Advantech's large range of COM modules provides flexibility to upgrade your CPU power and provide second source solutions for existing projects. Advantech's RISC based motherboards, COM modules and boxed systems are ideal for applications such as player tracking.

# **Industrial Gaming Monitors**

The Advantech Open Frame Touch Monitor series are specially designed monitors for gaming applications. They can be used in slot machines, lottery terminals and kiosks where there is a need for vivid large screen gaming monitors for direct user interaction. Advantech Open Frame Touch Monitor series is the ideal display solution for your next generation gaming machine designs.

- Screen sizes from 6 inches to 60 inches
- High resolution up to 4k
- High performance, wide view angle, and high brightness
- Touchscreens Capacitive, SAW, and Projective capacitive (PCAP)
- Options for bezels, housings, analog-digital controller card
- Unique technical features including remote management, antivandal, intelligent displays.



# Peripherals and Other Products

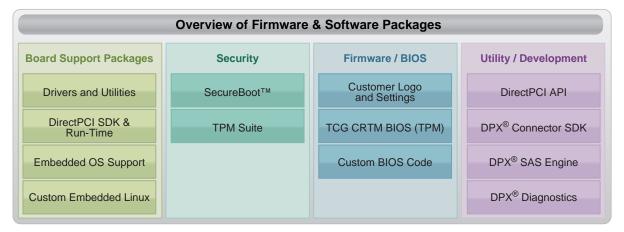
Advantech-Innocore gaming peripherals offer specialized, quality components with long lifecycle support for our gaming platforms. All peripherals are fully compatible with Advantech-Innocore gaming boards and systems. We provide many accessories and peripherals including:

- · Long lifecycle graphic cards
- Storage devices HDD, CF, C-Fast, SSD
- Embedded operating system licenses
- Backplanes and Connector Boards
- RAM and numerous CPU options
- Industrial monitors
- iButton®s
- Enclosures

More than 900 Advantech products: www.advantech.com

# **Gaming Software**

Advantech-Innocore supplies a wide range of software packages and support to accelerate the customer's development cycle. As well as board support packages with highly robust drivers and edge-to-edge coverage for the hardware platforms, we offer a variety of other software products including peripheral protocol libraries, security suites, and diagnostic and test software that help develop the best-balanced gaming solutions.



# **Board Support Packages**

A comprehensive, reliable set of drivers and APIs for Advantech-Innocore's DPX®-Series hardware. Board support packages provide edge-to-edge software support. For each DPX®-Series main-board, a full set of drivers is supplied for all standard PC functions as well as all the gaming specific hardware features. BSPs are provided for Microsoft® Windows® including embedded Windows® and for a range of Linux™ distributions.

# Security

Two significant security packages offer customizable protection for your software and hardware investment:

**SecureBoot™** is aimed at markets where boot-time verification must be provided over the software that runs.

**TPM Suite** is used for securing the game environment against copying and tampering, as well as providing platform authentication and access control solutions. Both products include BIOS-level updates that ensure continued effectiveness.

#### Firmware/BIOS

Advantech-Innocore provides gaming-specific firmware and software customization services that deliver the superior performance, compatibility and functionality that is expected by manufacturers of gaming platforms. Customized BIOS images are available for DPX®-Series main boards including logo, default settings, and custom BIOS ROM code.

# Utility/Development

Advantech-Innocore offers a range of software packages to meet a variety of communication needs when adding peripherals to a gaming system.

**DirectPCI SDK & Run-time** provides API libraries, demo code and utilities for handling peripherals that need or provide on/off control; DirectPCI also services all the onboard gaming facilities.

The OneWire/iButton® API allows access to all Dallas/Maxim iButton®s and OneWire protocol devices.

**DPX® Connector SDK** provides access to money handling peripherals and ticket-printers; protocols include ccTalk, ID003, EBDS, PSA66, and EPIC950.

**DPX**° **SAS Engine** provides a framework for game software to communicate with a SAS Host system as part of casino management.

**DPX**° **Diagnostics** provides a set of test software to establish confidence in the hardware platform and/or build into the game's self-diagnostic function; test source code and user interface are both included.

# **Gaming Platform Customization Services**



Advantech-Innocore's capability to provide customers with reliable computing solutions is not limited to our wide range of standard products. We welcome custom designs ranging from small modifications of one of our existing products up to completely new product design incorporating new motherboard, chassis, carrier boards, custom firmware and microcontroller design.

- Huge portfolio of reference designs
- 900+ R&D Engineers
- In house CAD design and simulation services
- In house design validation (EMC, signal integrity, thermal, vibration, HALT)
- Intel Premier Partner
- AMD Select Partner



Hardware Design Services	Firmware and OS design services	System Design Services
Custom CPU board designs	• Embedded OS support	Custom enclosures
• Intel®, AMD, and RISC platforms	OS image development	• Thermal simulation
GPU design and integration	• FPGA, microcontroller custom firmware	Peripheral integration
• Custom I/O	BIOS customization	System validation (thermal, vibration, EMC, HALT etc)
Various security solutions	BIOS Security extension code	Integration of customer's hardware



# Casino Machines

With the increasing popularity of gaming and gambling, there is a growing number of casinos worldwide. Casino machines, known variously as slots, video poker, fruit machines, etc., offer people a chance to participate in gaming entertainment, with its lure of possible payouts, for a very modest investment. To serve the huge market, Advantech-Innocore provides a wide range of high performance platforms for casino machine game developers and system integrators. Our platforms allow customers to concentrate on their game development, not complex hardware issues. We provide high performance hardware platforms, complete software and firmware solutions, and in-depth customer support/industry knowledge.



# **AWPs**

The largest segment of the gaming industry is the street machines, AWP - the one-armed bandits or fruit machines segment. Typically located in places of amusement, bars, convenience stores and arcades, these machines provide low jackpots for small stakes compared to machines in licensed casinos. Advantech-Innocore provides a range of platforms for the AWP segment where low cost as well as reliability and long production lifespan are important factors. Many of these platforms offer the same level of security and gaming-optimized I/O as our casino platforms but at lower cost points.

# VLTs/Class II

Although somewhat less strictly regulated than electronic gaming machines for the casino and Class III markets, gaming machines for Class II/VLT are increasingly employing similar levels of computer performance. Features such as two and threescreen cabinets as well as 3D graphics and attractive multimedia effects are becoming common in Class II and VLT machines. Advantech-Innocore's DPX® range of products is in use in many such machines around the world, providing the high level of multimedia performance required as well as all the I/Os and COMs on a single platform.





Arcade

Arcade games have always had their core youth following, but as technology and creativity continue to increase, older generations are also becoming attracted to the challenge that newer and updated games offer. In the past, arcade game providers typically handled development and production inhouse, but as times and the global economy have changed, more have begun to outsource total solutions, rather than just a few select components. In addition, systems that were formerly based on RISC technology are now switching to the more widely used x86 platform.





# **Pachislot**

As times and technologies have changed, pachinko/pachislot too have evolved to a higher level. Open-frame LCD panel solutions are widely applied in pachinko/pachislot machines for integrating with gaming graphic display controllers and MPEG2/4 video decoders. We offer a wide range of sizes in cost-effective, open-frame LCD displays and compact sized low cost motherboards to reduce project budgets. Advantech-Innocore also provides API tools for shortening application development cycles, and we even offer an I/O card for controlling the ball sensor and push buttons.



**Standalone Series** 

NEW









Model N	lame	DPX® -S1435	DPX®-S435	DPX®-S430	DPX®-S425
Form Factor		DPX® Gaming System	DPX® Gaming Platform	DPX® Gaming Platform	DPX® Gaming Platform
	CPU	Intel® 4th Generation Core™ i	Intel® 4th Generation Core™ i	AMD R-Series APU	Intel® Core™ Duo
	Socket	LGA1155	LGA1155	FS1r2	Socket G1 / rPGA988A
Processor	max. speed	2.77GHz	2.77GHz	3.2GHz	2.33GHz
System	TDP	45W	45W	35W	35W
	Chipset	Q87	Q87	A75	HM55
	BIOS	AMI UEFI 32Mb	AMI UEFI 32Mb	AMI UEFI 32Mb	AMI PCI/PnP/ACPI BIOS
	PCI	-		-	-
	MINI PCIe	_	_		_
Expansion Slot	PCle	PCIe x 16	PCIe x 16	PCle x 16	PCIe x 16
	MXM	-	-	-	
	Technology	Dual Channel DDR3 1600MHz	Dual Channel DDR3 1600MHz	Dual Channel DDR3 1600MHz	Dual Channel DDR3 1033MHz
Memory	Max. Capacity	16GB	16GB	16GB	8GB
	Socket	2x SODIMM	2x SODIMM	2x SODIMM	2x SODIMM
	Controller	In CPU (HD4600)	In CPU (HD4600)	In APU (Radeon 7000 series)	In CPU (Intel GMA HD)
	VGA	1	1	1	1
Graphics	DVI	2	2	1	1
	DP	1	1	1	-
	HDMI	-	-	-	-
	LAN1	GbE	GbE	GbE	GbE
Ethernet	LAN2	GbE	GbE	GbE	GbE
	SATA	3	3	3	2
Storage	CompactFlash	-	-	-	2
	Cfast	2	2	2	2
	VGA/DVI/HDMI/DP	1/2/0/1	1/2/0/1	1/1/0/1	1/1/0/0
	Ethernet	2	2	2	2
	USB 2.0	8	8	8	12
Rear I/O	USB 3.0	4	4	4	0
	Audio	1 (ch5.1)	1 (ch5.1)	1 (ch5.1)	1 (ch5.1)
	Serial Ports (RS232,CCtalk,TTL,485)	10	10	10	10
Gaming	SRAM	8MB	8MB	4MB	4MB
	ROM Sockets	PLCC	PLCC	PLCC	PLCC
	TPM	TPM1.2	TPM1.2	TPM1.2	TPM1.2
	Audio Amplifier	13W+13W+13W (FL,FR, LF)	13W+13W+13W (FL,FR, LF)	13W+13W+13W (FL,FR, LF)	13W+13W+13W (FL,FR, LI
	Digital Inputs	32 (ESD protected)	32 (ESD protected)	32 (ESD protected)	32 (ESD protected)
Hardware	Digital Outputs	32 (OC 500mA 50V)	32 (OC 500mA 50V)	32 (OC 500mA 50V)	32 (OC 500mA 50V)
	Intrusion Inputs	8	8	6	6
	iButton® / GPIO	1	1	1	1
	DPCI Expansion	1	1	1	1
	Watchdog Timer Write Protect Gaming BIOS	1 Yes	1 Yes	1 Yes	1 Yes
Gaming Software	DPCI Advanced Gaming API & Runtime	Standard	Standard	Standard	Standard
	DPX Connector Peripherals Libraries	Standard	Standard	Standard	Standard
	Embedded OS Support	Standard	Standard	Standard	Standard
	BIOS Customization	Optional	Optional	Optional	Optional
	TPM Suite	Optional	Optional	Optional	Optional
	DPX SAS Connector	Optional	Optional	Optional	Optional
	SecureBoot	Optional	Optional	Optional	Optional

# NEW









Model N	lame	DPX®-E130	DPX®-E120	DPX®-SC710	DPX®-C710
Form Factor		DPX® Gaming System	DPX® Gaming System	DPX® Gaming System	DPX® Gaming Platform
FUIIII FACIUI	CPU	AMD Embedded G-Series APU		AMD Embedded R-Series APU	AMD Embedded R-Series APU
	GPU	AIVID ETTIDEGGEG G-Series APO	AIVID ETTIDEGGEG G-Series APO		
	Socket	-	-	FS1r2	FS1r2
Processor	max. speed	1.6 GHz	1.6 GHz	2.3GHz(3.2GHz Turbo)	2.3GHz(3.2GHz Turbo)
System	TDP	18W	18W	35W	35W
	Chipset	A55E	A55E	A75	A75
	BIOS	AMI UEFI 32Mb	AMI PCI/PnP/ACPI BIOS	AMI UEFI 32Mb	AMI UEFI 32Mb
	PCI	-	-	-	-
Expansion Slot	MINI PCIe	1	-	-	-
	PCle	-	-	-	-
	MXM	-	-	MXM 3.0 Type A	MXM 3.0 Type A
	Technology	Dual Channel DDR3 1600MHz	Dual Channel DDR3 1600MHz	Dual Channel DDR3 1600MHz	Dual Channel DDR3 1600MHz
Memory	Max. Capacity	8GB	8GB	16GB	16GB
	Socket	2x SODIMM	2x SODIMM	2x SODIMM	2x SODIMM
	Controller	In APU (AMD Radeon HD 6320/6310/6250)	In APU (AMD Radeon HD 6320/6310/6250)	In APU (AMD Radeon HD 7420G/7660G)	In APU (AMD Radeon HD 7420G/7660G)
Graphics	VGA	2	1	-	-
	DVI	-	1	2 (APU) + 2 (MXM)	2 (APU) + 2 (MXM)
	DP	-	-	1 (APU) + 2 (MXM)	1 (APU) + 2 (MXM)
	HDMI	-	-	-	-
Ethernet	LAN1	GbE	GbE	GbE	GbE
LUIGITIGE	LAN2	-	GbE	GbE	GbE
	SATA	1	-	2 SATA + 1 eSATA	2 SATA + 1 eSATA
Storage	CompactFlash	1	2	-	-
	Cfast	1	1/1/0/0	2	2
	VGA/DVI/HDMI/DP	2/0/0/0	1/1/0/0	0/4/0/3	0/4/0/3
	Ethernet USB 2.0	2	6	11	11
Rear I/0	USB 3.0		-	3	3
	Audio	1 (ch2.1)	1 (ch2.1)	1 (ch7.1)	1 (ch7.1)
	Serial Ports		, ,	, ,	, ,
	(RS232,CCtalk,TTL,485)	3	5	8	8
	SRAM	4MB	4MB	8MB	8MB
	ROM Sockets	-	-	PLCC	PLCC
	TPM	-	-	TPM 1.2	TPM 1.2
Gaming	Audio Amplifier	3W+3W	13W+13W	-	-
	Digital Inputs	-	32 (ESD protected)	32 (ESD protected)	32 (ESD protected)
Hardware	Digital Outputs	-	32 (OC 500mA 50V)	32 (OC 500mA 50V)	32 (OC 500mA 50V)
	Intrusion Inputs	5	6	8	8
	iButton® / GPIO	-	1	1	1
	DPCI Expansion	-	-	1	1
	Watchdog Timer Write Protect Gaming BIOS	Yes	Yes	1 Yes	1 Yes
Gaming Software	DPCI Advanced Gaming API & Runtime	Standard	Standard	Standard	Standard
	DPX Connector Peripherals Libraries	Standard	Standard	Standard	Standard
	Embedded OS Support	Standard	Standard	Standard	Standard
	BIOS Customization	Optional	Optional	Optional	Optional
	TPM Suite	Optional	Optional	Optional	Optional
	DPX SAS Connector	Optional	Optional	Optional	Optional
	SecureBoot	Optional	Optional	Optional	Optional



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Please verify specifications before ordering. This guide is intended for reference purposes only. All product specifications are subject to change without notice.

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