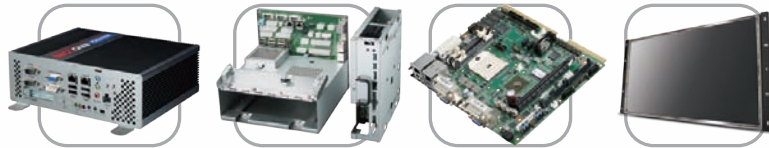# Innovations in Gaming Computing

The Widest Range of Solutions for the Gaming Industry

/ **Casino Machines**

/ **AWPs**

/ **VLTs / Class II**

/ **Multiplayer Games**

/ **Arcade**

/ **Pachislot**

Gaming I/O

Multiple COMS

On-Board NVRAM

Security

Multi-Display Support

ADVANTECH INNOCORE

Innovations in Gaming Computing

www.advantech-innocore.com

About Advantech-Innocore

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.
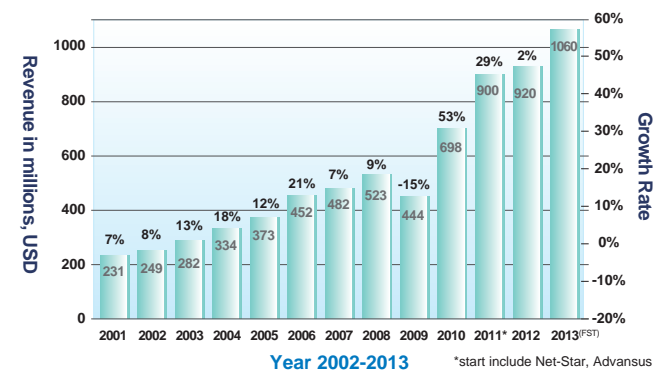
Advantech

- 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 (>130,000m^2)
  *August 2013
  ** Reference IMSresearch Jan2013

Advantech Revenue & Growth Trends

Revenue in millions, USD

| Year 2002-2013	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*	2012	2013(FIST)
Revenue	231	249	282	334	373	452	482	523	444	698	900	920	1060
Growth	7%	8%	13%	18%	12%	21%	7%	9%	-15%	53%	29%	2%	

*start include Net-Star, Advansus

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
- 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

DPX-S Series
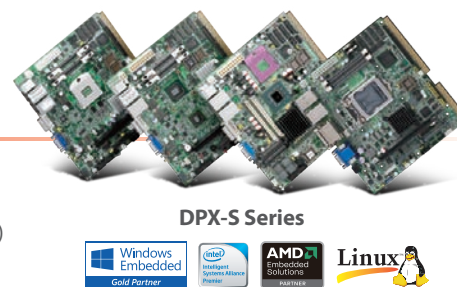
A Comprehensive Technical Knowledge of the Industry

- 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^2)
- State-of-the-art production equipment
- Highest yield rates
- Best quality
- BGA X-Ray inspection
- Automated test routines
- Elevated temperature burn-in

One of Advantech's factories

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.

Innovations in Gaming Computing
## The Widest Range of Standard Gaming Products

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

DPX Gaming Motherboard

Standalone (S Series)
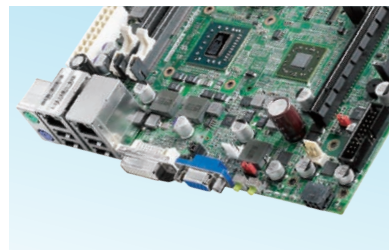
The DPX-S Series products provide extremely integrated industrial single board computers that offer unrivalled performance range, scalability, long lifecycle and low power.
- Full feature set of I/O, COMs, and security features
- Product are developed specifically to meet the requirements of the gaming industry

DPX®- S410   DPX®- S415   DPX®- S425   DPX®- S430
DPX®- S435 (New)   DPX®- S Series Enclosures

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 *NEW*

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.

DPX®-SC710   DPX®-C710

Industrial Motherboards and COM modules

GMB, AIMB, COM and RISC Series
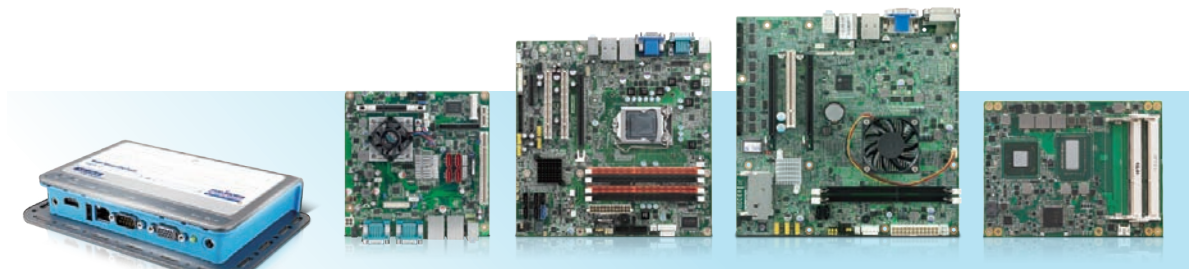
Advantech's large range of Industrial Motherboards, COM Express Modules and RISC Products are ideal for gaming applications where the I/O and dedicated gaming features are taken care of by 'another' board or not needed in the particular application. They offer the best in cost, performance and longevity. 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 Motherboard Series
- Computer-on-Modules Series
- RISC Computing Platforms

Industrial Gaming Monitors

Advantech-Innocore gaming monitors are available in a variety of screen sizes rich in features including:

- FHD (full high definition) resolution
- Cut down/panoramic monitors suitable for Topper and Button deck applications
- IPS 178/178° viewing angle technology offering no color inversion
- Low power LED backlights (20% power saving aiding environmental concern)
- LED high bright backlit daylight readable monitors
- 3M™ Surface Capacitive and PCT touch (other touch technologies and brands also available)
- Multiple interfaces available including VGA, DVI & DisplayPort
- 12v or Mains operation
- CE/UL approved

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

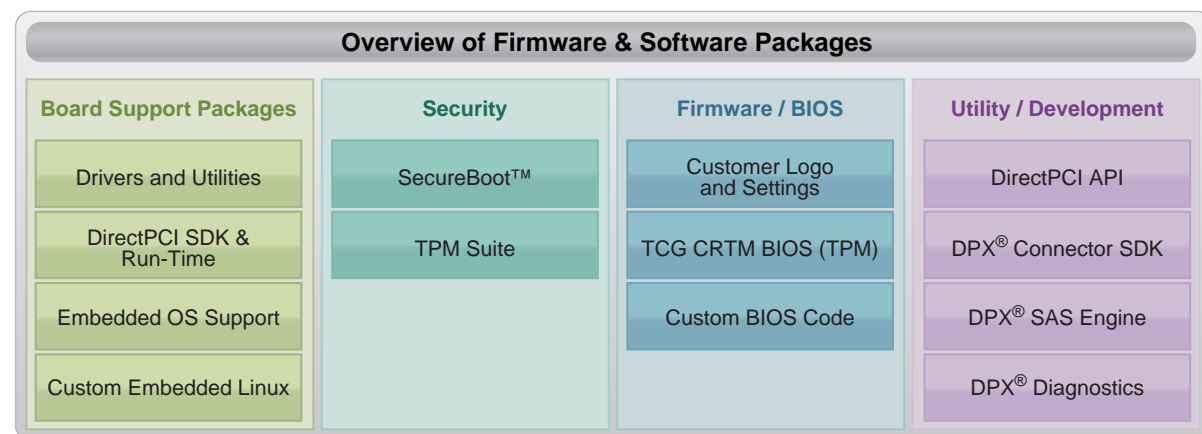More than 900 Advantech products : **www.advantech.com**

Innovations in Gaming Computing
The Widest Range of Standard Gaming Products

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.

Overview of Firmware & Software Packages

Board Support Packages	Security	Firmware / BIOS	Utility / Development
Drivers and Utilities	SecureBoot™	Customer Logo and Settings	DirectPCI API
DirectPCI SDK & Run-Time	TPM Suite	TCG CRTM BIOS (TPM)	DPX® Connector SDK
Embedded OS Support		Custom BIOS Code	DPX® SAS Engine
Custom Embedded Linux			DPX® Diagnostics

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

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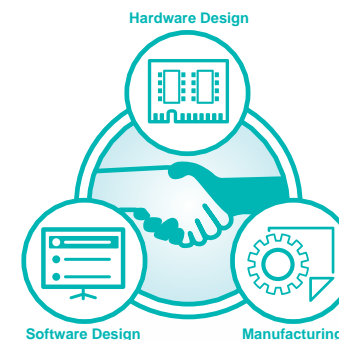
Advantech-Innocore's capability to provide customers with reliable computing solutions is not limited to our wide range of standard products. We welcome custom designs ranging from small modifications of one of our existing products up to completely new product design incorporating new motherboard, chassis,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

• Latest Chipset Solutions
• Vertical Domain Know-how
• Value Added Integration

Leading Technology

Seamless Teamwork

• Embedded Expertise
• Streamlined Design Process
• Customer Oriented Services

Trusted Quality

QUALITY GUARANTEE

ADVANTECH INNOCORE
Innovations in Gaming Computing

• Proven Modular Designs
• Admirable Product Reliability
• Solid Quality Assurance

Dedicated Services

• Global Reach, Local Touch
• Dedicated Manufacturing Facility
• One-stop Service

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

Applications

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 three-screen 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.

Multiplayer Games

Multi-player electronic gaming machines are popular in some markets where players may prefer electronic games over table games with live dealers. These games are typically regulated to the same level as other casino games, and as such Advantech-Innocore's range of products is well suited for use in multiplayer games. In particular the "E Series" products offer the same level of security and gaming optimized I/O as our casino platforms but at a lower cost point, with lower power requirements, and some models are also fanless.

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 in-house, 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.

Product Selection Guide
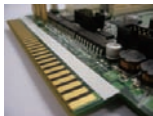
● = Standard Feature   ○ = Option

NEW (DPX-E130) · NEW (DPX-S435) · NEW (DPX-C710/SC710)

Category	Feature	DPX-E120	DPX-E130	DPX-S415	DPX-S430	DPX-S410	DPX-S425	DPX-S435	DPX-C710/SC710
Launch Date		Q2 2012	Q1 2014	Q2 2011	Q2 2012	Q3 2008	Q2 2011	Q1 2014	Q3 2013
Family	Standalone			●	●	●	●	●	
	Economy	●	●						
	ConnectBus®								●
Market		All	Italy	All	All	All	All	All	All
Enclosure/System		●	●	○ S-Series	○ S-Series	○ S-Series	○ S-Series	○ S-Series	○ C-Series (SC710)
Segment	Entry	●	●						
	Scalable		●	●	●	●	●	●	●
	Performance			●	●	●	●	●	●
Chipset/CPU	Chipset Manufacturer	AMD	AMD	AMD	AMD	Intel	Intel	Intel	AMD
	Intel® GME965/Core™2 Duo Celeron® M					●			
	AMD 785E/Athlon X2, Turion Neo X2			●					
	Intel® HM55/Core™ i7, Core™ i5, Celeron®						●		
	AMD G-Series APU	●	●		●				
	AMD R-Series APU								
	Intel Q87 4th Gen. Core i7, i5, i3, Celeron							●	
IGP Graphics	GPU Brand Name	Radeon HD6130	Radeon HD6130	Radeon HD4270	Radeon 7660	X3100	GMA HD	Intel HD4600	Radeon 7660
	Dual Independent Screen	●	●	●	●		●		
	Quad Independent Screen				● (W/MST)			● (3 from IGP)	● (W/MST)
Performance GPU	Quad Screen Support with Select PCIe Video Cards			●	● (up to 10)			●(up to 6)	● (up to 10)
	PCIe x16 slot			●	● (Gen. 3)	●	●	● (Gen. 3)	● (Gen. 3, MXM)
Max. RAM (GB)	DDR2					4			
	DDR3	8	8	8	16	8	16	16	16
Ethernet	LAN 1	GbE	GbE	GbE	GbE	GbE	GbE	GbE	GbE
	LAN 2	○ (GbE)		GbE	GbE	GbE	GbE	GbE	GbE
Storage	SATA	2	1, O(1x mSATA)	2	3	3	2	3 (3.0)	2 (3.0)
	Compact Flash	2	1	2	2	2	2	0	0
	CFast	0	1	2	2	0	2	2 (v1.0, v2.0)	2 (v1.0, v2.0)
Ports	USB 2.0	6	4	12	8	10	12	8	11
	USB 3.0	0	0	0	4	0	0	4	3
	RS232	3 ○ (5)	2, O(3)	5	5		5	5	3
	RS232/TTL	2		2	2	2	2	2	2
	RS232/422/485	○ (1)		1	1	4	1	1	1
	CCTALK/RS232/TTL	1 ○ (2)	1 CCTALK	2	2	2	2	2	2
I/O	32/32 on board	●	JAMMA	●	●	●	●	●	●
Audio Amplification on board		●	●	●	●	●	●	●	●
SRAM	1 MB (2 x 512 KB)	●	●						
	2 MB (2 x 1024 KB)			●			●		
	4 MB (2 x 2048 KB)	○	○	○	●	○	●		●
	8 MB (2 x 4096 KB)							●	
ROM Sockets	PLCC 32 (8Mbit each)	1 ○ (2)		1	1	2	1	1	1
TPM		● (v1.2)		● (v1.2)	● (v1.2)	● (v1.2)	● (v1.2)	● (v1.2)	● (v1.2)
Serial EEPROM	32 KB	●		●	●	●	●	●	●
Smart card socket	on-board (ISO:7810, 7816)		●						
Intrusion Inputs	Battery backed	6	5	6	6	6	6	8	8
iButton®/GPIO		○		○	○	○	○	○	○
DPCI Expansion	Serial Bus (DPCI+)			●	●	●	●	●	●
Size	170 x 200mm (6.7 x 7.9")			●	●	●	●	●	
	229 x 180 x 77mm (9.0 x 7.1 x 3.0")	●	●						
	225 x 218 (8.9 x 8.6")								
	270 x 150 (10.6 x 5.9")		● (TBC)						●
Software	DPCI Advanced Gaming API & Runtime	●	●	●	●	●	●	●	●
	DPX®-Connector Peripherals Libraries	●	●	●	●	●	●	●	●
	Embedded OS Support	●	●	●	●	●	●	●	●
	BIOS Customization	●	●	●	●	●	●	●	●
	TPM Suite (Requires TPM hardware option if not standard)	○		○	○	○	○	○	○
	DPX®-SAS Connector (SAS 6.01 Driver and Libraries)	○		○	○	○	○	○	○
	SecureBoot™ (Media validation toolkit)	○	○	○	○	○	○	○	○

Milpitas C L R
Irvine D
Mexico R
Cincinnati D
San Diego
Sao Paulo C L R

Eindhoven C L
Reading
Paris
Munich
Milan
Roosendaal
Warsaw R
Düsseldorf
Russia R
Amberg D
Seoul C L R
Beijing D C L R
Tokyo C L R
Kunsha D M C L R
India C R
Chengdu
Shanghai
Osaka
Bangalore
Bangkok
Penang
Kuala Lumpur
Hong Kong
Shenzhen
Taipei D M C L R
Singapore C L R
Sydney
Melbourne C L R

Advantech-Innocore Worldwide Sales Offices

Other Advantech Offices: www.advantech.com/contact

Greater China

Taiwan

Advantech Headquarters

Toll Free: 0800-777-111
Phone: +886-2-2792-7818
Email: sales@advantech-innocore.com
Address: No. 1, Alley 20, Lane 26,
Rueiguang Rd., Neihu Dist.,
Taipei 114, Taiwan, R. O. C.

China

Shenzhen

Toll Free: 800-810-0345
Phone: +86-755-8212-4222
Email: sales@advantech-innocore.com
Address: B1811#-1812#, Tian An Cyber Park
High-tech Tower, Futian District,
518040 Shenzhen, China

Asia Pacific

Japan

Tokyo

Toll Free: 0800-500-1055
Phone: +81-3-6802-1021
Email: sales@advantech-innocore.com
Address: Asakusa, 6-16-3,Taito-Ku,
Tokyo 111-0032, Japan

Osaka

Toll Free: 0800-500-1055
Phone: +81-6-6267-1887
Email: sales@advantech-innocore.com
Address: 6F, Minami-Senba M21 Bldg.,
1-10-20 Minami-Senba, Chuo-Ku,
Osaka City, Japan

Korea

Toll Free: 080-363-9494/ 9495
Phone: +82-2-3663-9494
Email: sales@advantech-innocore.com
Address: #1202, Ace Techno Tower 684-1,
Deungchon-Dong, Kangseo-Ku,
Seoul 157-030, Korea

Singapore

Phone: +65-6442-1000
Email: sales@advantech-innocore.com
Address: 6 Serangoon North Avenue 5, #03-08
East Lobby, Singapore 554910

Australia

Melbourne

Toll Free: 1300-308-531
Phone: +61-3-9797-0100
Email: sales@advantech-innocore.com
Address: Unit 1, 3 Southpark Close,
Keysborough VIC 3173, Australia

Sydney

Toll Free: 1300-308-531
Phone: +61-2-9477-2521
Email: sales@advantech-innocore.com
Address: Unit 1, 14 Leighton Place,
Hornsby NSW 2077, Australia

Europe

United Kingdom

Newcastle

Phone: +44 (0) 191-262-4844
Email: sales@advantech-innocore.com
Address: Kingfisher Way, Silverlink Business
Park, North Shields, NE28 9NX

Reading

Phone: +44-(0)118-929-4540
Email: sales@advantech-innocore.com
Address: Unit 13 Suttons Business Park
Suttons Park Avenue, Reading
Berkshire RG6 1AZ

Netherlands

Phone: +31-40-267-7000
Email: sales@advantech-innocore.com
Address: Ekkersrijt 5708 Science Park,
Eindhoven 5692 ER Son, The
Netherlands

Italy & Spain

Phone: +39-02-9544-961
Email: sales@advantech-innocore.com
Address: Via Roma, 74, 20060 Cassina
de' Pecchi, Milano, Italy

Germany

Munich

Phone: +49-89-12599-0
Email: sales@advantech-innocore.com
Address: Industriestraße 15, 82110
Germering, München, Germany

Americas

North America

Irvine

Toll Free: 1-800-866-6008
Phone: +1-949-420-2500
Email: sales@advantech-innocore.com
Address: 13 Whatney, Irvine, CA 92618,
USA

Las Vegas - James Industries

Toll Free: 1-702-307-9100
Email: sales@advantech-innocore.com
Address: 9748 Gilespie Suite C330 Las
Vegas, NV 89183, USA

Chicago - James Industries

Toll Free: 1-630-654-3927
Email: sales@advantech-innocore.com
Address: 240 E. Ogden Ave, Suite 103
Hinsdale, IL 60521, USA

Latin and South America

Brazil

Toll Free: 0800-770-5355
Phone: 55-11-5592-5355
Email: sales@advantech-innocore.com
Address: RUA FIAÇÃO DA SAÚDE, 145
12º A conj. 123/128 – SAÚDE,
SÃO PAULO – SP – BRAZIL –
CEP 04144-020

Mexico

Toll Free: 1-800-467-2415
Phone: +52-55-6275-2777
Email: sales@advantech-innocore.com
Address: Ave. Baja California # 245, Int.
704 Col. Hipódromo Condesa
Delegación Cuauhtémoc 06100,
México D.F.

ADVANTECH **INNOCORE**
Innovations in Gaming Computing

www.advantech-innocore.com

8600000048