

# Innovations in Gaming Computing

The Widest Range of Solutions for the Gaming Industry

- ✓ Casino Machines
- ✓ AWP
- ✓ VLTs / Class II
- ✓ Multiplayer Games
- ✓ Arcade
- ✓ Pachislot



**ADVANTECH INNOCORE**

*Innovations in Gaming Computing*

[www.advantech-innocode.com](http://www.advantech-innocode.com)

# About Advantech-Innocore

With the combined strength of the two companies, Advantech-Innocore is now 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.

## A Comprehensive Technical Knowledge of the Industry

- Expert engineering, project management and design capabilities for efficient project execution
- Multi-discipline teams: hardware, firmware, FPGA, BIOS, OS, manufacturing and QC engineers
- Software drivers and libraries available to support the majority of gaming peripherals (including bill acceptors, etc.)
- On-time design and build of custom hardware and software projects
- Comprehensive package: prototype validation, driver testing, manuals, drawings, design files, manufacturing test procedures, diagnostics
- Worldwide regulatory approvals for all products



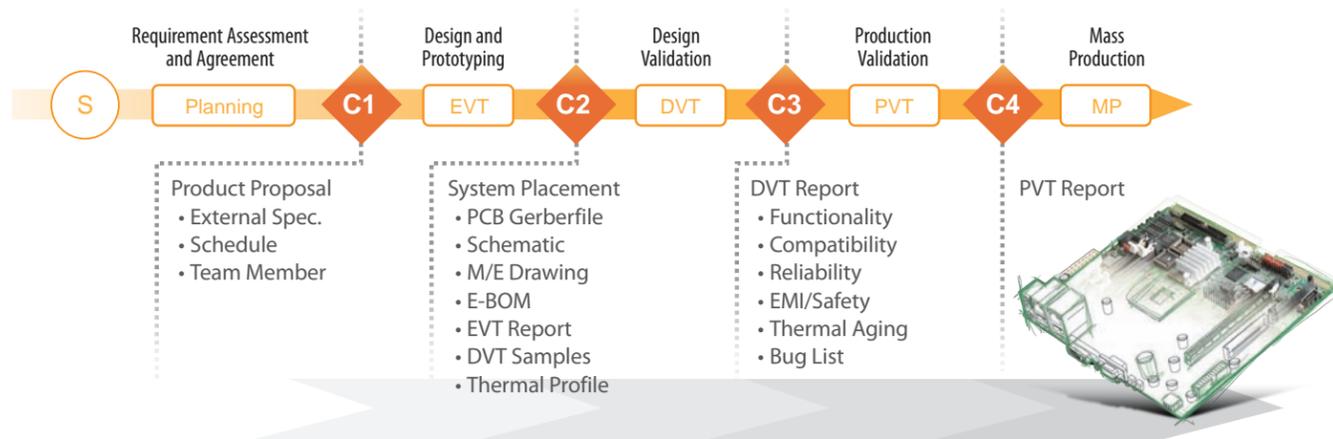
## International Quality Standards

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. From the board of directors down, each member takes pride in providing our customers with the highest level of quality in products and services. We also hold global certifications of ISO 13485, TL 9000, ISO 14001, OHSAS 18001 and IECQ QC 080000.

## Excellence in Design

Advantech-Innocore's products are designed and manufactured using high quality components, and 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

Our products are manufactured using state-of-the-art production equipment and methods to ensure the highest yield rates and best reliability. Techniques including BGA X-Ray inspection, automated test routines and elevated temperature burn-in are employed to ensure the products our customers receive are 100% functional and robust for long term operation.

The huge in-house manufacturing capacity makes Advantech-Innocore unique, as do the "AdvantechCare Services" that are now offered with extended warranty, guaranteed RMA turnaround, onsite support and stock supply options. Furthermore, our infrastructure now spans the world, with offices on five continents served by over 4,500 people on the staff, 900 of which are dedicated R&D engineers. As a focused business unit of Advantech Group, we have retained the dedicated personal service of Advantech-Innocore and added a global manufacturing infrastructure and supply chain.



Factory



Reflow Soldering Machine

## 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. Furthermore, our focus on the gaming industry means that not only are our products tailored to exactly suit the needs of gaming, but our service and support are as well. Knowledgeable support means our customers can feel confident that we will support them whether it is a problem in software development, security, or with a regulatory compliance submission.

- Dedicated gaming board supplier that owns its own manufacturing facilities (97,000 m<sup>2</sup>), assuring quality and fulfillment
- 900 R&D engineers, nearly 5000 employees
- Local support, service and repair/RMA (34 Advantech-owned offices on 5 continents)
- Local inventory and fulfillment capabilities
- AdvantechCare Service Packages: advanced replacements, extended warranty, guaranteed turnaround time



Milpitas, USA Service Center



Eindhoven, Netherlands Service Center



# 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, AWP, VLTs, Multiplayer Games, Arcade Games, and Pachislots.

### Gaming Platforms

#### DPX Gaming Motherboard



##### Standalone (S Series)

The S Series products provides extremely highly integrated industrial single board computers that offer unrivalled performance range, scalability, long lifecycle and low power. The full feature set of I/O, COMs, and security features that is included on each product has been developed specifically to meet the requirements of the gaming industry.

- DPX®-S410
- DPX®-S415
- DPX®-S425
- DPX®-S430
- Efficiency Enclosures (EFS, EFT)
- 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. With a number of the versions providing fanless operation and all providing a full feature set of I/O and COMs designed specifically for gaming devices. The E Series products are ideal integrated platforms for many gaming, amusement, and kiosk applications. The gaming functions share the same API as the other DPX® Series boards, making it easy to port application code and leverage the different price and performance points across Advantech-Innocore's full range of products.

- DPX®-E105
- DPX®-E110-6a (Comma 6a compliant)
- DPX®-E120

#### Industrial Motherboards and COM modules

##### GMB, AIMB and COM Series

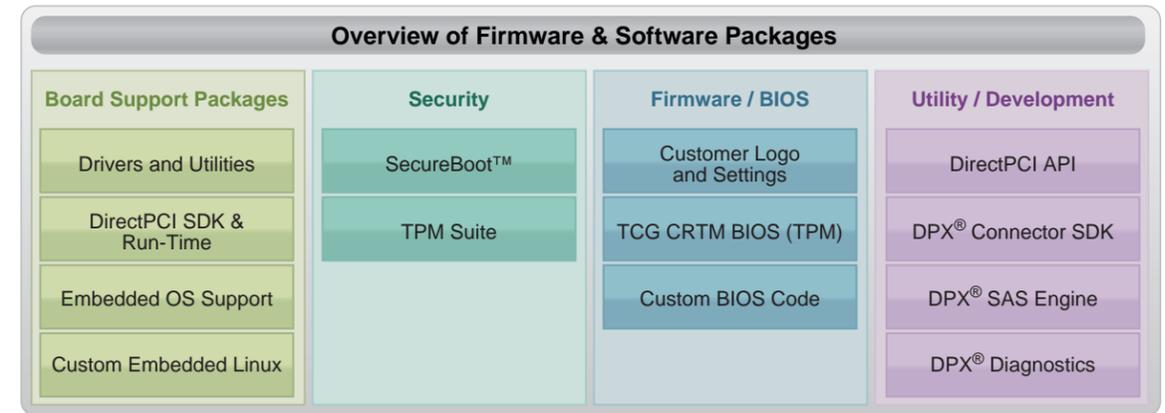


Advantech's large range of motherboards and COM modules is ideal for your gaming platform requirements where the I/O and dedicated gaming features are taken care of by 'another' board or not needed in the particular application. They offer the best in cost, performance and longevity. GMB and AIMB products 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.

- Gaming Motherboard Series
- Industrial Motherboard Series
- Computer-on-Modules Series

### 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 aimed at 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.

### 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 options including amplifier modules, graphic cards, iButton®, and add-on hardware that fulfill customer needs.

- Long Lifecycle Graphic Cards
- Amplifier Modules
- iButton®
- Backplanes and Connector Boards
- More than 900 Advantech products : [www.advantech.com](http://www.advantech.com)
- RAM and numerous CPU options
- HDD, CF, C-Fast, SSD
- Industrial LCD monitors



# Gaming Platform Customization and Design Services

## Gaming Platform Customization Services

Advantech-Innocore is dedicated to helping customers develop reliable gaming machines. We have decades of industrial ePlatform design know-how, gaming domain know-how and experience with comprehensive software packages. We offer hardware platforms, peripherals, and software solutions specifically designed for the gaming market segment, and value-added customization services for casino, Class II, "Amusement With Prizes" machines (AWP), arcade, and pachislot applications requiring sophisticated graphics, audio performance, multi-I/O controls, and chassis design. We are proud that our complete services reach gaming customer needs worldwide.



### Hardware Design Services

- Custom CPU board designs: x86-based Intel® and AMD platforms for the gaming industry
- GPU design-in services (on-board or modular GPUs solutions)
- Memory onboard design
- Discrete high performance GPU on board (S3 Graphics, AMD, other)
- Flexible form factor design
- Fanless solution (thermal simulation with custom chassis)
- Custom I/O connections
- Various security solutions
- Longevity support

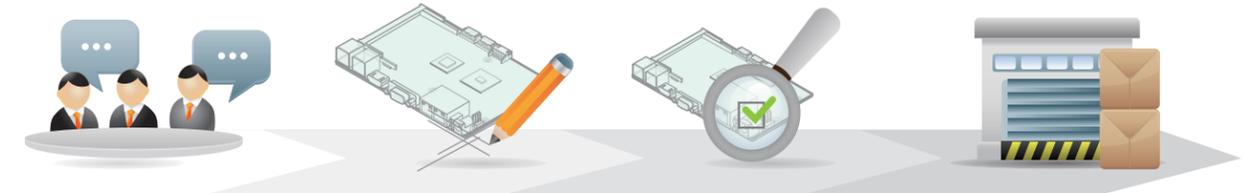
### Firmware & OS Design Services

- FPGA security design ((iButton®, nVSRMS, etc.)
- FPGA flexible custom design (PCI/LPC/UART/I2C interface)
- BIOS customized
- ATA security command support
- H/W monitor API customer (voltage, fan speed, temp, etc.)
- SRAM/FRAM access API support
- PCI FPGA driver support
- Embedded OS support (Microsoft® Embedded OS, QNX, VxWorks, Linux, RTX, ETS OS)
- OS image development & customization

### System Design Services

- Gaming application oriented system design
- Custom enclosures and chassis design
- Peripheral integration
- System validation (thermal simulation & testing, vibration testing, drop testing, safety & EMC pre-scan, etc.)
- System integration & certification
- Safety & EMC pre-scan with custom chassis

## Hardware Customization Services



Consulting services search for possible gaming solutions (considering technical trends, specs, & schedule)

- Approved final design
- Technical product documentation
- Prototype test results
- Production launch costs & schedule
- Tooling & production testing specifications

- Schematic & M/E drawing
- Board/System level thermal profile check
- HW/SW compatibility test
- Vibration/Temperature & humidity test

- Assembly & test process capabilities study
- Final process & support/testing documentation
- Approved supplier list
- First product units

## Advantech Global Services

Advantech can help you get the most out of your technology investments through customized design, manufacturing, quality assurance, logistics, and after-sales support. With our highly trained experts and comprehensive global network, Advantech Global Services supports customers around the world to maximize business success. Advantech Global Services offer:

- Flexibility – Total solution approach backed by global network
- Reliability – Solid infrastructure and quality assurance
- Capability – Design and local customization
- Efficiency – One-stop shopping solutions



## AdvantechCare Service Packages\*

We understand how much you care about your hardware investment. Whether it's an issue with efficiency, budget control, or after sales support, AdvantechCare Service is here to help!

- Extended Warranty Service
- Advantech's Onsite Service
- Pick Up Service
- Fast Repair Service
- Advanced Replacement Service
- Upgrade Service
- Technology Update Service

\*Not available in every location



## 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.



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