

Innovations in Gaming Computing

The Widest Range of Solutions for the Gaming Industry

- / Lottery / Casino Machines
- / Sports Betting
- / AWP
- / VLTs / Class II
- / Multiplayer Games
- / Arcade
- / Pachislot



Intel® & AMD
Core Platforms



4k Monitors
Supported



GLI, NVGCB, etc
Regulatory compliance



PCI Express
Graphics

ADVANTECH **INNOCORE**

Innovations in Gaming Computing

AMD
EMBEDDED
SOLUTIONS

Partner Program
ELITE

Intel
partner
Titanium

www.advantech-innocore.com

About Advantech-Innocore

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 \$2Bn 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 is a premier member of Intel® Internet of Things (IoT) Solutions Alliance, bringing the first-to-the-market IoT solutions to the world. Advantech is also a member of AMD Elite Partner Program presenting a wide range of AMD-based high performance computing platforms. Advantech is also an Elite Partner of Nvidia for high performance and long lifecycle graphics solutions.



Gaming team with 15+ years experience

- Experienced management and sales network with over 150 years of combined gaming experience
- 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 standard from design to delivery

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

Global Company, Local Services



Excellence in Design, Manufacture and Service

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, Advantech carefully choose components.

Key drivers when designing a DPX® motherboard and sourcing components are:



- | | | | |
|-------------|------------------------------|-----------------------|--------------------------------------|
| ✓ Longevity | ✓ Robust, reliable operation | ✓ Power supply design | ✓ Quality (UL, CE, FCC, ISO) |
| ✓ Usability | ✓ Regulatory Constraints | ✓ Cabinet Integration | ✓ Thermal Management and Reliability |
| ✓ EMC | ✓ Signal termination | ✓ Signal integrity | ✓ 24/7 365 Operational requirements. |

Excellence in Manufacturing & 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.

- Wholly owned manufacturing facilities (>130,000m²)
- State-of-the-art production equipment
- Highest yield rates
- Best quality
- BGA X-Ray inspection
- Automated test routines
- Elevated temperature burn-in
- Local support, service and repair/RMA
- Local inventory and fulfillment capabilities
- Advantech Care Service Packages: advanced replacements, extended warranty, guaranteed turnaround time



Complete Portfolio of Gaming Solutions

Advantech-Innocore offers the widest range of industrial grade computer products designed specifically for the regulated 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's, VLTs, Multiplayer Games, Arcade Games, Pachislots, and Sports Betting.



Gaming Platforms & Systems

- Gaming I/O, Multiple COM
- Onboard NVRAM
- Security
- Worldwide regulatory approvals



Graphic Cards

- Long lifecycle
- Nvidia and AMD
- PCIe Express



Industrial Storage

- SSD, HDD, CF, CFast, M.2
- DDR1-DDR4 SODIMM
- Custom provisioning
- Lifecycle controlled
- Power fail protection
- Comprehensive security features



Gaming Monitors

- All sizes with touch 4-43" Curved touch with customizable radius
- C, J and other profiles available



Embedded Platforms & Digital Signage

- Mini-ITX, Single Board Computers, Computer on Modules, RISC computing platforms
- Full ranges of signage



Software

- Microsoft Embedded authorized distributor
- BSP for Windows, Linux and more
- Custom, lockable image development
- Custom BIOS



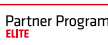
DPX[®]-S Series

- Regulated Gaming Machines
- Slot Machines
- VLTs
- GLI Compliant

The DPX[®]-S Series products provide highly integrated industrial single board computers and systems with an unrivaled performance range, scalability, long lifecycle and low power. Both AMD and Intel[®] platforms are offered and each one features a full set of I/O, COMs, and security, developed specifically to meet the requirements of the regulated gaming industry.

Feature Highlights

- Chassis options available
- Scalability of CPU and graphics
- Full feature set of I/Os COMs, security
- Intel[®] & AMD CPU based



DPX[®]-S450

AMD Ryzen™ Embedded V1000/R1000 Gaming Platform

- Very high performance AMD Embedded V1000/R1000 SOC APUs
- Quad and dual core APUs up to 3.35 (3.8) GHz
- Radeon™ VEGA GPU with up to 11 compute units
- Four independent 4k monitors supported
- Comprehensive gaming features
- 12V DC single input or ATX power
- Full featured driver API for I/O and security



SCAN ME for more information!



Features

	Digital I/O 32/32		Expansion I ² C, PCIe x 16 and Golden Fingers		DPX [®] Security suite: Secureboot, TPM support, DPX [®] security features, BIOS customization
	Battery Backed SRAM 8MB		8 x USB 2.0 3 x USB 3.0		DPX [®] -Software: Embedded OS , DPX [®] Diagnostics, DPX [®] -Connector DPX [®] -SAS
	Displays 4 x DP++ 1.2 (4 simultaneous)		10 x COMs: ccTalk, RS232, ID003,RS485, TTL		Enclosure S2000
	Graphics Cards PCIe x 16 Format		M.2, SATA DOM, HDD, SSD, CFast, USB		On-board Micro Controller PuC

DPX[®]-S445

6/7th Generation Intel® Core™ Gaming Platform

- Very high performance Intel® platform
- Dual and Quad Core CPUs from Celeron to Core i7
- Comprehensive gaming features
- High performance integrated or PCI-Express graphics
- Easy integration for gaming applications
- Full featured Driver API for I/O and security



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Features

	Digital I/O 32/32		Expansion I ² C, PCIe x 16 and Golden Fingers		DPX [®] Security suite: Secureboot, TPM support, DPX [®] security features, BIOS customization
	Battery Backed SRAM 8MB		8 x USB 2.0 3 x USB 3.0		DPX [®] -Software: Embedded OS , DPX [®] Diagnostics, DPX [®] -Connector DPX [®] -SAS
	3 x DP++ 1.2		10 x Coms: ccTalk, RS232, ID003,RS485, TTL		Enclosure S2000
	Graphics Cards PCIe x 16 Format		SATA DOM, HDD, SSD, USB		On-board Micro Controller PuC

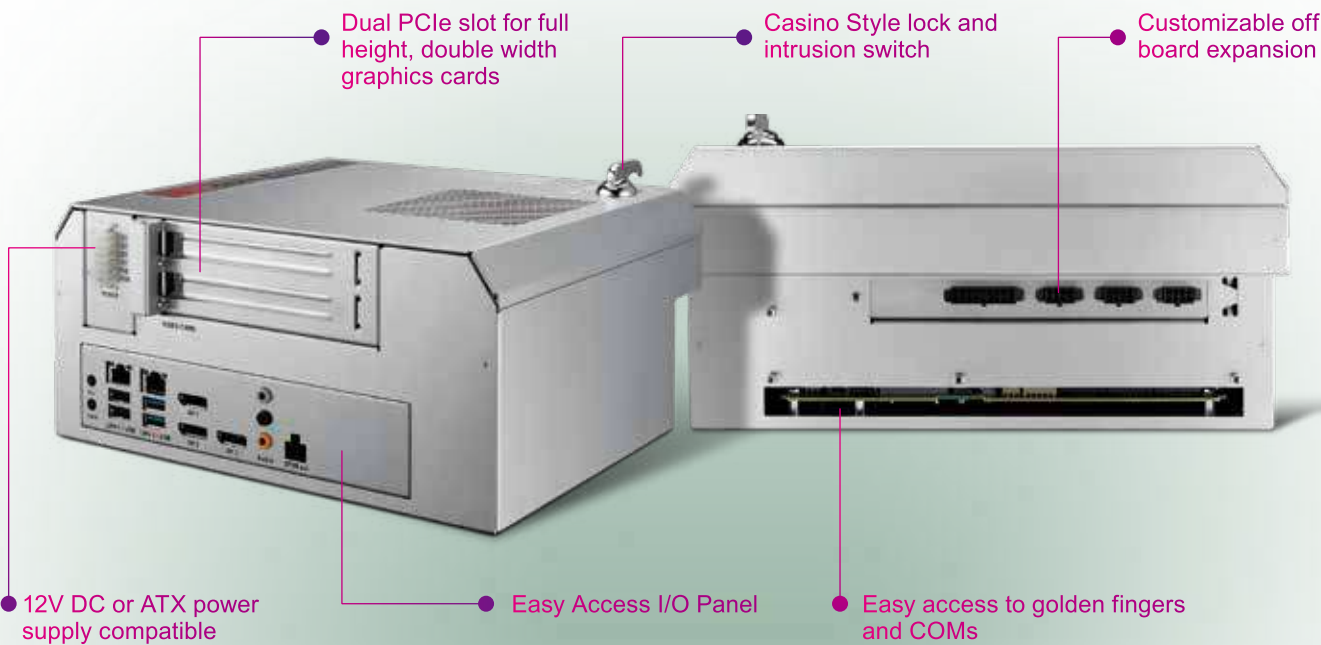
DPX[®]-S2000

The DPX[®]-S2000 series products are gaming system logic boxes designed to accommodate any of Advantech's DPX[®]-S series motherboards in style and with excellent access to the interior behind a casino grade key-locked lid. The system has a card slot bay for a PCIe graphics card that is wide enough for today's high powered double- width graphics cards.

- Full height, double width graphics card
- Compact design
- Tool free SSD/HDD access
- System fan
- Complete solution

Dimensions of Chassis

	Length	Width	Height
DPX [®] -S2450	214mm	260mm	124mm
DPX [®] -S2445	214mm	260mm	124mm



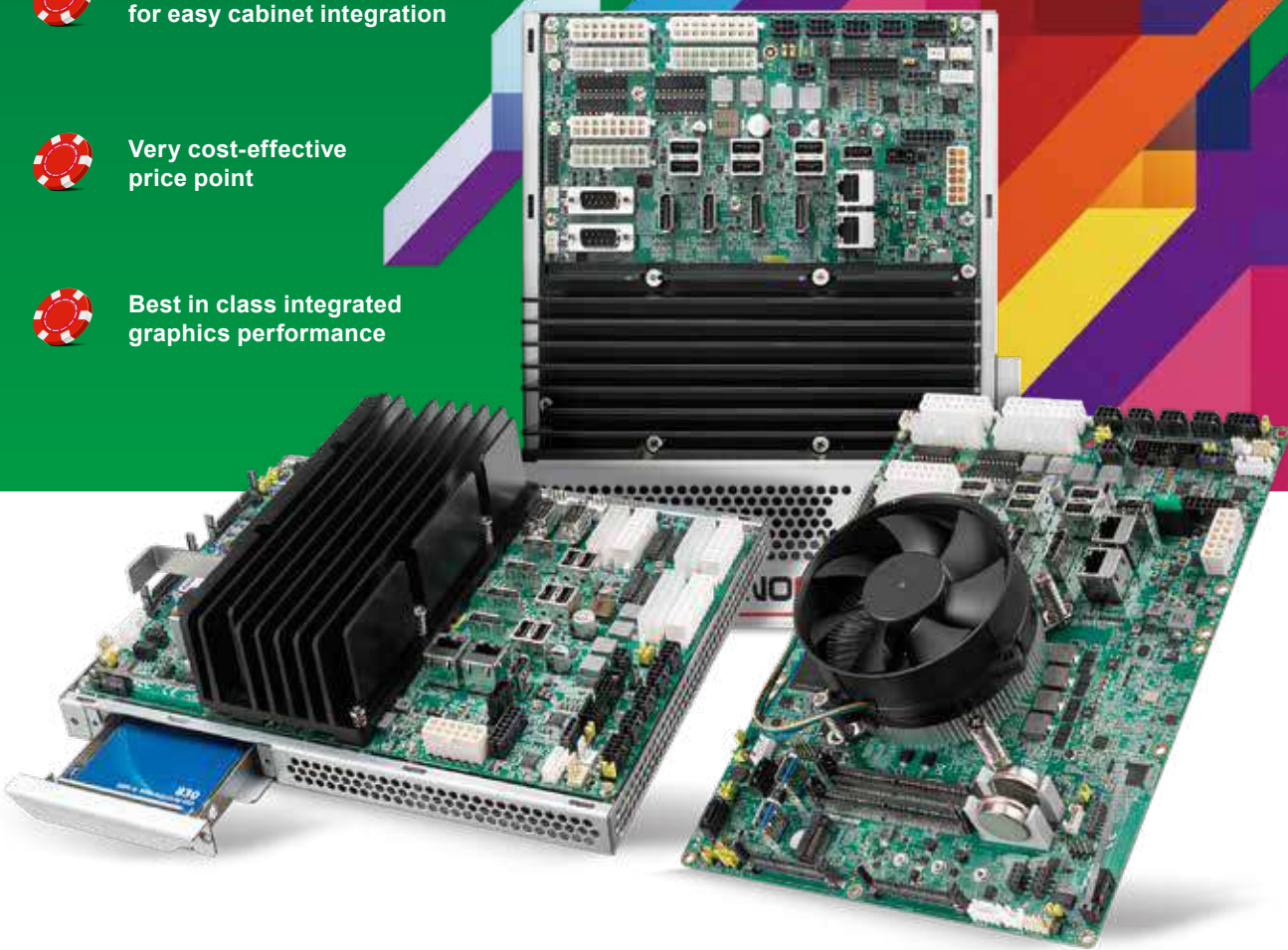
DPX[®]-E Series

- Regulated Gaming
- Slot Machines
- VLT
- GLI Compliant

- 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-Innocode's full range of products

Feature Highlights

- Full feature set of I/Os and COMs
- Industry standard connectors for easy cabinet integration
- Very cost-effective price point
- Best in class integrated graphics performance



DPX®-E145

Intel 11th Generation Gaming Platform






- 11th Generation Intel® Core™ SOC CPUs
- CPUs up to Dual 3.0 (3.9) GHz, Quad core 2.8GHz (4.4) GHz
- Intel® Iris Xe integrated graphics
- Four 4k monitor support
- Comprehensive gaming features
- Passive cooled system up to 28W



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Features

	Digital I/O 32/32		7 x USB 2.0 2 x USB 3.0		DPX®-Software: Embedded OS , DPX® Diagnostics, DPX®-Connector DPX®-SAS
	Battery Backed SRAM 8MB		9 x COMs: ccTalk, RS232, ID003,RS485, TTL		Enclosure Metalwork Optional
	4 x DP++ 1.2		M.2, SATA DOM, HDD, SSD, CFast, USB		On-board Micro Controller PuC
	Expansion I²C		DPX® Security suite: Secureboot, TPM support, DPX® security features, BIOS customization		

DPX®-E140

AMD Embedded Gaming System with V1000 Platform











- AMD Ryzen™ Embedded V1000 Processors
- High performance Radeon™ VEGA series graphics
- Four 4k monitor support
- Comprehensive gaming features
- Passive cooled system up to 25W, 54W with fan cooler
- 12V DC single input or ATX power
- AMD Ryzen™ Embedded V1000 Processors



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Features




	Digital I/O 32/32		7 x USB 2.0 2 x USB 3.0		DPX®-Software: Embedded OS , DPX® Diagnostics, DPX®-Connector DPX®-SAS
	Battery Backed SRAM 8MB		9 x COMs: ccTalk, RS232, ID003,RS485, TTL		Enclosure Metalwork Optional
	4 x DP++ 1.2		M.2, SATA DOM, HDD, SSD, CFast, USB		On-board Micro Controller PuC
	Expansion I²C		DPX® Security suite: Secureboot, TPM support, DPX® security features, BIOS customization		

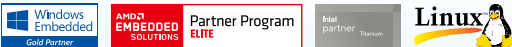
DPX®-M Series

- Sports betting
- Kiosk
- Arcade
- Gaming

- Based on Intel® 8th and 9th generation Core i processors and AMD Ryzen V1000 series
- These products provide a high performance multi-media engine to the needs of gaming OEMs
- The modular expansion bus allows modules to be added such as I/O, COMs, security, and specialized interfaces

Feature Highlights

-  AMD and Intel® CPUs available, Mini ITX mounting holes, up to 4 x 4K screens and development kits.
-  M1000 (half height) and M2000 chassis options available, M-Series PSU units are available.
-  Modular Side expansion bus, Advantech has a range of standard “add-on cards” for Sports Betting or Gaming Sub System.



DPX®-M270

Intel® 8th & 9th Generation Core™i7/i5/i3 Embedded Multi-media Gaming Board











- Intel® 8th/9th Generation Core™i7/i5/i3 CPUs 8,6,4,2 core
- Two 260-pin SO-DIMM up to 32GB DDR4 2666 MHz SDRAM
- Supports 3 display outputs (2x DP++, HDMI)
- PCIe x16 Gen 3.0 graphics card slot
- Storage 2 x SATA with 1 x M.2
- Secureboot support
- RS232, ccTalk, TTL, ID003, I2C, intrusion and Digital Inputs
- Modular Expansion Port - Edge connector



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Features

 Displays 2 x DP++ v1.2 1 x HDMI 1.4b (3 simultaneous for Q370, 2 simultaneous for H310)	 Onboard: 8 x USB 2.0 4 x USB 3.1 Via Golden Fingers: 2 x USB 2.0	 DPX® Security suite: Secureboot, TPM support, DPX® security features, BIOS customization
 Graphics Cards PCIe x 16 Format	 6 x COMs: ccTalk, RS232, ID003, TTL	 DPX®-Software: Embedded OS , DPX® Diagnostics, DPX®-Connector DPX®-SAS
 Expansion I²C, PCIe x 16 and Sidebus modular expansion	 M.2, SATA DOM, HDD, SSD, USB	 Enclosure M1000/M2000  On-board Micro Controller PucLite

DPX®-E265

AMD Ryzen™ Embedded V1000 mITX with Four DP++, ECC, PCIe expansion

- Supports 4 x DP++ 1.2
- Supports PCIe x8 (PCIe x16 connector, Gen 3.0)
- Two 260-pin SO-DIMM up to 32 GB DDR4 3200 MHz ECC/Non-ECC SDRAM
- Removable gaming BIOS module for field verification

- Side expansion port for application specific expansion modules
- Supports 2 x SATA / 2 x CFast / 1 x M.2
- AMD Ryzen™ Embedded V1000 processors
- Secureboot support



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Features

Digital I/O
2 x DI

Onboard:
4 x USB 2.0
3 x USB 3.1

DPX® Security suite: Secureboot, TPM support, DPX® security features, BIOS customization

Displays
4x DP++ v1.2
(4 simultaneous)

Via Golden Fingers:
2 x USB 2.0

DPX®-Software: Embedded OS , DPX® Diagnostics, DPX®-Connector DPX®-SAS

Graphics Cards
PCIe x 16 Format

6 x COMs:
ccTalk, RS232, ID003,RS485, TTL

Enclosure
M1000/M2000

Expansion I²C, PCIe x 16 and Sidebus modular expansion

M.2, SATA DOM, HDD, SSD, CFast, USB

On-board Micro Controller
PucLite

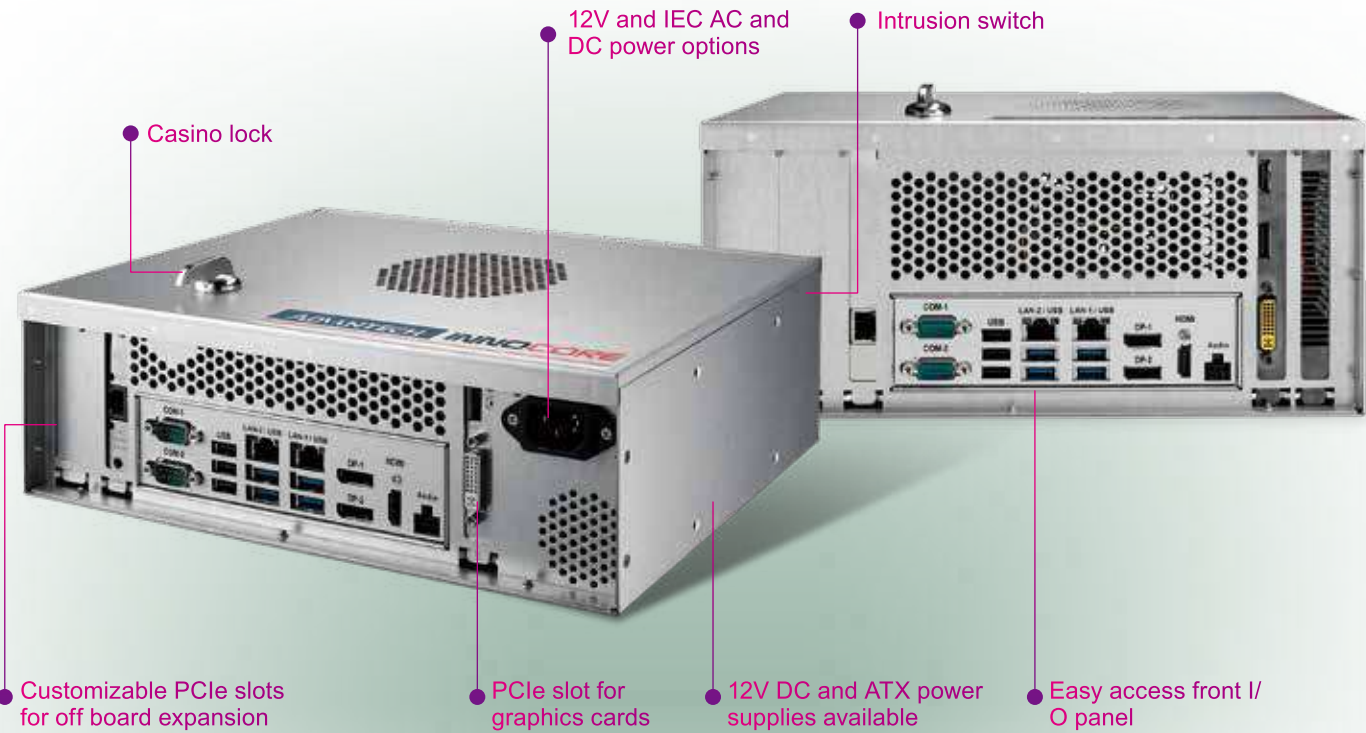
DPX®-M1000 & DPX®-M2000

The DPX®-M Series of chassis are available in half height and full height options, to accommodate both standard height graphics cards and other 3rd party PCIe expansion cards.

- Up to 200W power supply
- Compact design
- Tool Free SSD/HDD access
- System fan
- Complete solution

Dimensions of Chassis

	Length	Width	Height
DPX®-M1000	232mm	295mm	104mm
DPX®-M2000	242mm	295mm	134mm



DPX®-J Series

- Regulated Gaming
- Street Gaming
- Amusements
- Kiosks

The DPX®-J100 is the latest addition to the DPX® family of integrated gaming platforms. Based on the revolutionary AMD R1000/V1000 Series embedded platform, the DPX®-J100 uses AMD's latest cost effective dual and quad core SOC devices with "Discrete-level Graphics" from the best-in-class integrated VEGA graphics core. Three independent monitors are supported. A full set of I/O, COMs and security features designed specifically for gaming devices is also included, making the DPX®-J100 an ideal platform at an economical price point for many gaming, amusement and kiosk applications. Passive cooling for the lower APUs allows for robust, maintenance free operation in the harshest gaming environments.

Feature Highlights

-  JAMMA Connectors
-  Passively Cooled (some APUs)
-  Chassis Available
-  Full set of I/O's, COMs and Security



DPX®-J100

AMD Ryzen™ Embedded V & R Series Gaming Platform













- High performance AMD Embedded V&R SOC APUs
- Quad and dual core APUs
- Radeon™ VEGA GPU with up to 8 compute units
- Up to 3 independent monitors supported
- Comprehensive Gaming Features
- 72 + 20 Pin JAMMA harness connectors
- Optional Enclosure



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Features

	Digital I/O 24/29		Expansion I2C, Mini PCI		DPX® Security suite (as below) +iButton
	Up to 2MB of battery backed FRAM		6 USB 4 x 2.0 - 2 x 3.1/2.0		DPX®-Software: Embedded OS , DPX® Diagnostics, DPX®-Connector DPX®-SAS
	1 x DP++, 1 x HDMI and 1 x VGA		6 Coms – RS232/485 Tx/Rx		Optional Enclosure
	Onboard audio amplifier, line out, digital SPDIF out		SATA DOM, SSD, HDD, M.2, USB, CFast		On board Micro Controller.

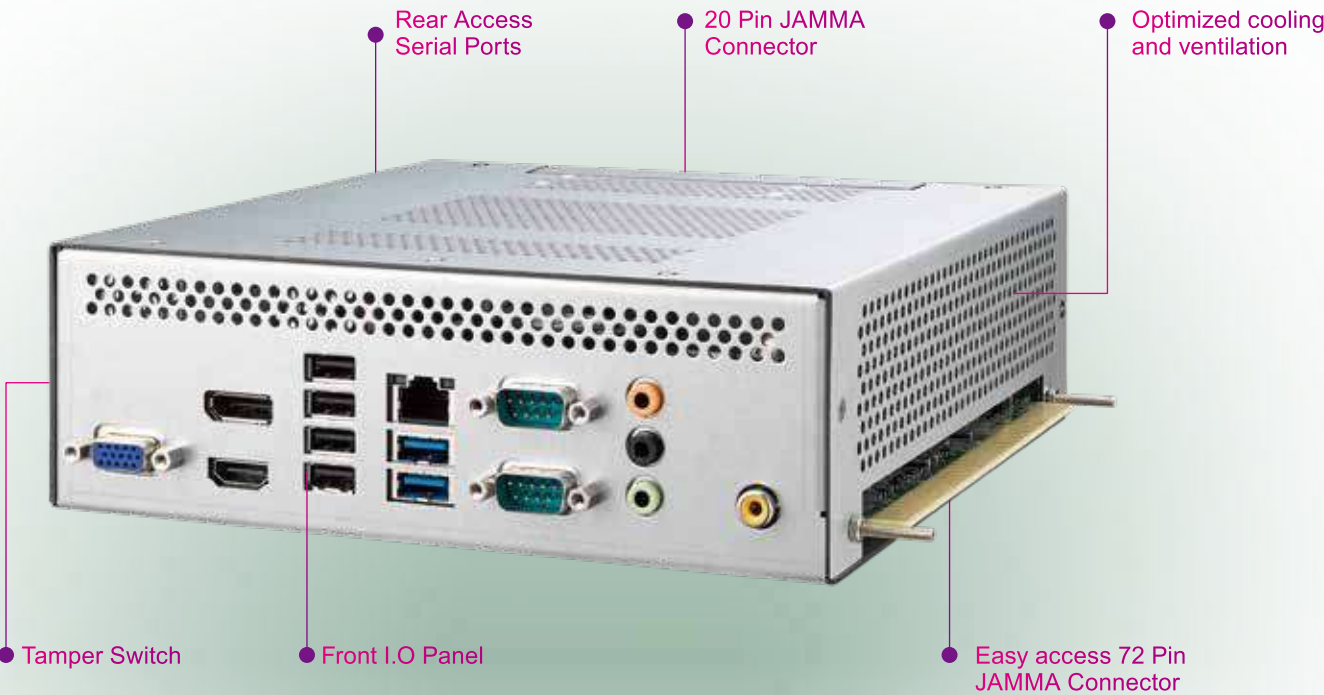
DPX®-J100 System

The DPX®-J100 systems are gaming system logic boxes designed around Advantech's DPX®-J series motherboards.

Easy access to a full set of I/O, COMs and tamper proof switch, security features designed specifically for gaming devices makes the J100 system ideal for many gaming, amusement and kiosk applications. Optimised cooling with fanless options for certain models, allows for robust, maintenance free operation in the harshest gaming environments.

Dimensions of Chassis

	Length	Width	Height
DPX®-J100 system	200mm	200mm	65mm



DPX®-Development Kits

All inclusive packages for quick development

With development times becoming shorter in the gaming industry, the range of DPX® Developer's kits provides a fast, simple way to get up and running with any of the DPX® Series products. It also provides the best possible out of the box experience, everything you need to begin developing on the DPX®-Hardware platforms, delivered to you, fully tested, up to date drivers etc in one handy box.

- All inclusive kits for each DPX® mainboard
- Fast and simple setup to evaluate and start development
- Includes pre-configured operating systems, drivers and utilities
- Demo and reference source code
- I/O development board, power supply, full documentation



The kits are based on a DPX® mainboard, and includes all the other necessary items to set up an evaluation and development station.

- Source code
- DPX®-Chassis
- Demo utilities
- CD/DVD ROM
- 128GB Advantech Storage
- Demo OS / Linux Image
- Full cable sets
- Motherboard + CPU
- 8GB Advantech RAM
- Complete documentation



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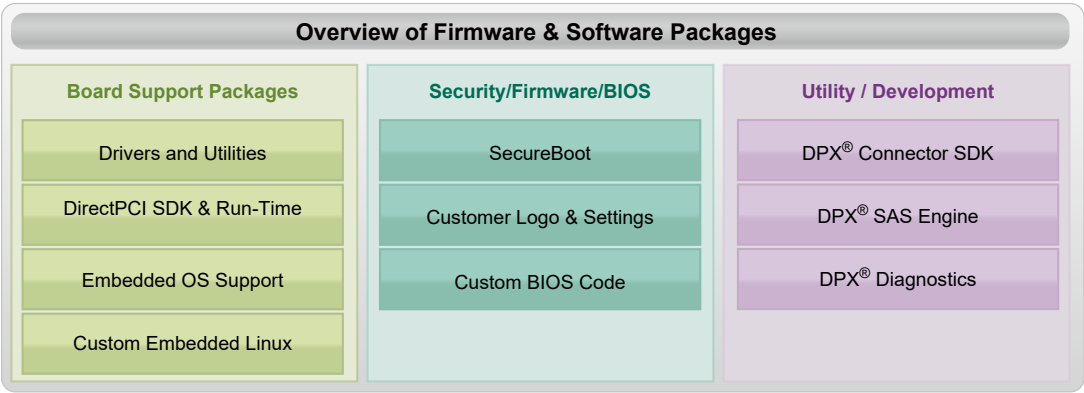
Gaming Software, Firmware, Integration and Security Support

Software Overview

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.



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Board Support Package

Board support packages provide software support such as Microsoft Windows embedded OS and range of embedded Linux. A full set of drivers and APIs are provided to all standard PC functions as well as all gaming specific hardware features. Direct PCI Software Development Kit are integrated into the DPX®- Series motherboards and handles gaming critical functions such as SRAM, Digital Inputs Outputs (DIO) Watchdog, as well as Intrusion monitoring and other functions. The API is optimized for Embedded Windows and Linux distributions and is common across all DPX®- Gaming motherboards.

Security

Advantech-Innocore understand that the protection of gameplay data and machine state are critical considerations, software / hardware tampering detection, as well as media validation are key requirements by the gaming regulators. The aim is Players and Operators protection, and fair games and correct payouts. As such the DPX® range of gaming motherboards come as standard with the following security features:

- | | | |
|----------------------------------|---------------------|--|
| • TPM Chip | • 88 Bit Unique ID | • Software authentication |
| • Random Number Generator (FIPS) | • EWF/UWF support | • TCG Opal 2.0 SQFlash products available |
| • Password protected i2c port | • BitLocker support | • Intrusion detection logging processor (IDLp) |

OEM Intellectual Property

Encryption of data and applications, strong password and key storage, platform authentication are all key considerations when choosing a gaming platform, as well as prevention of copying / cloning of game data, stopping unauthorized content from being loaded in order to maintain competitive advantage and protect investment and IP. Our software solutions combined with hardware features give the developer multiple methods to protect their game content.

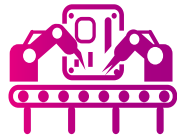
Featured Gaming Software

DPX® - SecureBoot™ SDK

Secureboot provides a toolkit for the developer to produce low-cost, low-overhead security mechanisms for gaming machines. The mechanisms security features cover various aspects of security control and ensure :

- 1) Customers' software applications can only run on designated hardware.
- 2) Designated systems only run designated software.
- 3) Compliance with U.S. and international gaming regulations for media validation.

- | | |
|---|--|
| • SDK for customizable pre boot BIOS media validation | • Supports encrypted digest and multiple hash tables |
| • Meets GLI-11 and other regulatory requirements | • Comprehensive user manual |
| • SHA-1 Hash and BIOS self-test | |



The Trusted Platform Module (TPM)

The trusted platform module (TPM) chip included on Advantech-Innocore DPX® Series main boards is an advanced security co-processor offering a high level of hardware-based security for application development and deployment.

- | | |
|--|---|
| • Unique per-board RSA key Generates, stores and protects RSA keys: keys never leave the TPM chip un-protected | • Generates random numbers to 1-million bit random-ness (as tested by US NSA) |
| • RSA asymmetric encryption and signing SHA-1 hashing | • Chip is physically secure from physical tampering |



BIOS

Advantech provides gaming-specific firmware and software customization services including BIOS and TPM support that deliver superior performance, compatibility and functionality, and also provide information encryption, which is expected by manufacturers of gaming platforms.

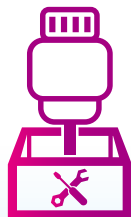
- | | |
|---|---|
| • Secure AMI APTIO UEFI BIOS | • Customization and write protection for security |
| • Customization | • Support for security ROM extensions |
| • Field verifiable BIOS | |
| • Field and Laboratory approved | |
| • Immutable BIOS and development versions | |



DPX® -Connector SDK

DPX® - Connector SDK is a software package developed to address customers' needs to connect third-party hardware peripherals to Advantech-Innocore computer boards. A unified event handler provides and efficient method to handle communications. The SDK supplies a range of hardware and protocol-oriented modules to allow connection of a range of peripherals including:

- Coin Hoppers • Bill Validators • Ticket Printers



The DPX®-Connector SDK supports ccTalk and JCM ID003 devices, as well as Windows and Linux.



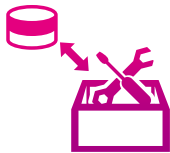
Slot Accounting System (SAS)

The DPX®-SAS Engine is a complete, ready to use driver and API environment that enables implementation of the SAS protocol with the DPX® range of products. Field proven and lab-certified the SAS Engine handles all SAS messaging, register structures and timing protocols.

- Fully Featured SAS protocol library
- Mature field-proven product
- Approved in all major jurisdictions
- Supports latest versions
- Multi-game support
- Windows and Linux
- Ticket in / Ticket Out (TITO)
- Advanced Funds transfer facilities
- Real Time events
- Supports different currencies
- Progressives and tournament support.

DPX® Diagnostics SDK

The DPX® Diagnostics SDK is the perfect pre-deployment hardware verification tool, allows gaming features and software testing. USB and CD bootable, and comprehensive Windows and Linux support. Source code is available.



1-Wire / iButton® SDK

The 1-Wire / iButton® SDK provides support for all 1-Wire and iButton devices, comprehensive Windows and Linux support. Source code is available.

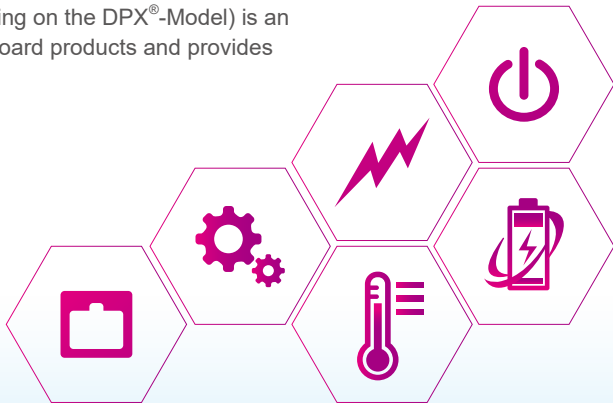
PuC Microcontroller

The PuC embedded Microcontroller (IOC, PuC, MPuc and PuC-Lite* depending on the DPX®-Model) is an integrated subsystem used across the range of Advantech Innocore motherboard products and provides a range of user functions suited to the gaming industry.

What is it? On-board, low cost, low power, 8 bit microcontroller.

What does it do? Provides system maintenance, diagnostics, configuration, reliability, security, event logging and manageability functions.

Customer Benefits Improved system reliability, remote manageability, remote updates, simplified factory set up (jumper-less design, single firmware image), improved security and logging, quieter operation.



Gaming Monitors

Designed exclusively for gaming applications, our gaming display solutions provide a wide range of gaming monitors to meet the special requirements of applications such as slot machines and casinos. Our solutions include open frame monitors and ultra widescreen displays. These display solutions feature widescreens, reliable touch screens and flexible mechanical designs that can be integrated with Advantech gaming platforms for a total gaming solution. Applications include slot machine, lottery terminals, jackpot systems, Sports Betting terminals, lottery terminals etc.



HALO Series

Standard, Front LED and Edge LED

Panel Size: 21.5"
Resolution: 1920x1080@60Hz
Brightness: 250 nits
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: HDMI/DP

Panel Size: 23.8"
Resolution: 1920x1080@60Hz
Brightness: 250 nits
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: VGA, DVI, DP

Panel Size: 27"
Resolution: 1920x1080@60Hz
Brightness: 300 nits
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: VGA, DVI, DP



Open Frame / Button Deck Touch

Panel Size: 10.1"
Resolution: 1280x800
Brightness: 500 nits
Viewing Angle: 85/85/85/85 LRUD
Video Inputs: VGA, DVI

Panel Size: 13.3"
Resolution: 1920 x 1080
Brightness: 500 nits
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: VGA, DVI

Panel Size: 16.3"
Resolution: 1920 x 1080
Brightness: 500 nits
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: VGA, DVI



CURVED Series

For C and J curved

Panel Size: 32" C Curved Only
Resolution: 3840x2160@60Hz
Brightness: 250 nits
Radius: 1500mm
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: DVI, DP, HDMI

Panel Size: 43" Availalbe in C & J Curved
Resolution: 3840x2160@60Hz
Brightness: 450 nits
Radius: 1500mm
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: DVI, DP, HDMI

EDGE Series

Zero Bezel

Panel Size: 21.5"
Resolution: 1920x1080@60Hz
Brightness: 250 nits
Viewing Angle: 89/89/89/89 LRUD
Video Inputs: VGA, DVI (optional HDMI/DP)



Industrial Memory & Storage, Microsoft OS, PCIe Graphics Cards

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

- Long lifecycle graphic cards
 - Storage devices - HDD, CFast, SSD, M.2
 - Embedded operating system licenses
 - Long lifecycle, reliable RAM modules
- Backplanes and Connector Boards
 - iButtons
 - Enclosures

SQFlash Industrial Storage Solutions

SQFlash series supports various interfaces such as SATA, PCIe/NVMe and PATA/IDE with multiple form factors including 2.5" SSD, mSATA, M.2, DOM, CFast, half-slim SSD and more.



SGRAM Industrial Memory Solutions

SGRAM series offers a comprehensive range of product lines including Unbuffered DIMM ECC DIMM, server DIMM and rugged DIMM with speed of DDR4, DDR3, DDR2 and DDR1.

Graphic Cards

Increasingly in embedded systems, more and more demands are made for rich, vibrant graphics and enhanced parallel computing capabilities. Advantech recently introduced a comprehensive product line of graphics solutions specifically designed for diverse industrial applications needing high processing and imaging technology requirements. Graphics cards feature high performance, rich I/O interface, wide temperature operation, and low power consumption. Advantech supports long lifecycles from 3 to 5 years.



Microsoft OS License



Advantech is a gold worldwide partner and licensed distributor of Microsoft OS and Cloud solutions. Windows 10 IoT is a family of Windows 10 editions targeted towards a wide range of intelligent devices, from small industrial gateways to larger, more complex devices like point of sales terminals and ATMs. Combined with the latest Microsoft development tools and Azure IoT services, partners can gather, store and process data, creating actionable business intelligence that affects business outcomes. Partners building solutions based on Windows 10 IoT will realize expanded opportunities when they harness the full breadth of Microsoft technologies to offer end-to-end solutions.

Gaming Platform and Customization Services

Service Overview

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
 - Intel® & AMD Select Partner
- In house design validation (EMC, signal integrity, thermal, vibration, HALT)
 - Worldwide base of installed hardware and field proven software



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

Gaming Computing Platforms

Standalone Series



Model Name		DPX®-S2450	DPX®-S450	DPX®-S2445	DPX®-S445
Form Factor		DPX® Gaming System	DPX® Gaming Board	DPX® Gaming System	DPX® Gaming Board
Processor System	CPU	AMD Ryzen™ Embedded V1000/R1000 APU		Intel® 6 th / 7 th Generation Core™- i	
	Socket	BGA		LGA 1151	
	max. speed	3.35 (3.8) GHz		2.9 GHz (3.8) GHz	
	TDP	45W		54W	
	Chipset	SoC		Q170	
	BIOS	AMI APTIO UEFI (Gaming optimised)		AMI APTIO UEFI (Gaming optimised)	
	PCI	-		-	
Expansion Slot	MINI PCIe/msATA	-		-	
	PCIe	PCIe x 16 (x8 signal)		PCIe x 16	
	MXM	-		-	
Memory	Technology	Dual Channel DDR4 3200MHz		Dual Channel DDR4 2400MHz	
	Max. Capacity	32GB		32GB	
	Socket	2x SODIMM		2x SODIMM	
Graphics	Controller	in APU (AMD Radeon™ VEGA series graphics engine)		in CPU (Intel GT2-530)	
	VGA	-		-	
	DVI	-		-	
	DP	4		3	
Ethernet	HDMI	-		-	
	LAN1	GbE		GbE	
	LAN2	GbE		GbE	
Storage	SATA	2		2	
	CompactFlash	-		-	
	Cfast	2		-	
	M.2	1		-	
I/O	VGA/DVI/HDMI/DP	0/0/0/4		0/0/0/3	
	Ethernet	2		2	
	USB 2.0	8		9	
	USB 3.0	3		2	
	Audio	1 (ch5.1), SPDIF		1 (ch5.1), SPDIF	
	Serial Port	10		10	
	Serial Type RS232/Cctalk/TTL/485	9/2/2/1		10/2/2/1	
Gaming Hardware	SRAM	8MB		8MB	
	ROM Sockets	SPI ROM module		SPI ROM module	
	TPM	TPM 2.0/1.2		TPM 2.0/1.2	
	Audio Amplifier	15W+15W+15W (FL,FR, LFE)		15W+15W+15W (FL,FR, LFE)	
	Digital Inputs	32 (ESD protected)		32 (ESD protected)	
	Digital Outputs	32 (OC 500mA 50V)		32 (OC 500mA 50V)	
	Intrusion Inputs	8		8	
	iButton® / GPIO	2		2	
	DPCI Expansion	-		-	
	Watchdog Timer	1		1	
	Dual BIOS	-		-	
Gaming Software	DPCI Advanced Gaming API & Runtime	Standard		Standard	
	DPX® Connector Peripherals Libraries	Standard		Standard	
	Embedded OS Support	Standard		Standard	
	BIOS Customization	Optional		Optional	
	DPX® SAS Connector	Optional		Optional	
	SecureBoot	Optional		Optional	
Other Features		I2C, Precision RTC, ATX or 12VDC power		I2C, Precision RTC, ATX or 12VDC power	

Economy Series



Model Name		DPX®-E145	DPX®-E140	DPX®-E265	DPX®-E1265
Form Factor		DPX® Gaming System	DPX® Gaming System	Extended Mini-ITX	DPX® Gaming System
Processor System	CPU	11 th Generation Intel® Core™ SOC CPU	AMD Ryzen™ Embedded V1000 APU	AMD Ryzen™ Embedded V1000 APU	
	Socket	BGA	BGA	BGA	
	max. speed	2.8 (4.4) GHz	3.35 (3.8) GHz	3.35 (3.8) GHz	
	TDP	28W (passive cooled)	15-25W (passive cooled), 54W (fan)	54W	
	Chipset	SoC	SoC	SoC	
	BIOS	AMI APTIO UEFI (Gaming optimised)	AMI APTIO UEFI (Gaming optimised)	AMI APTIO UEFI (Gaming optimised)	
Expansion Slot	PCI	-	-	-	
	MINI PCIe/msATA	-	-	-	
	PCIe	-	-	PCIe x16 (x8 signal), 2 PCI-e x1 (via side expansion)	
Memory	MXM	-	-	-	
	Technology	Dual Channel DDR4 3200MHz	Dual Channel DDR4 3200MHz	Dual Channel DDR4 3200MHz	
	Max. Capacity	32GB	32GB	32GB	
Graphics	Socket	2x SODIMM	2x SODIMM	2x SODIMM	
	Controller	in CPU (Intel Iris Xe integrated graphics engine)	in APU (AMD Radeon™ VEGA series graphics engine)	in APU (AMD Radeon™ VEGA series graphics engine)	
	VGA	-	-	-	
	DVI	-	-	-	
	DP	4	4	4	
Ethernet	HDMI	-	-	-	
	LAN1	GbE	GbE	GbE	
	LAN2	GbE	GbE	GbE	
Storage	SATA	2	2	2	
	CompactFlash	-	-	-	
	Cfast	2	2	2	
	M.2	1	1	1	
I/O	VGA/DVI/HDMI/DP	0/0/0/4	0/0/0/4	0/0/0/4	
	Ethernet	2	2	2	
	USB 2.0	6	7	6 (2 via side expansion)	
	USB 3.0	3	2	3	
	Audio	1 (ch5.1), SPDIF	1 (ch5.1), SPDIF	1 (ch2.1)	
	Serial Port	9	9	6	
	Serial Type RS232/Cctalk/TTL/485	4/2/1/1	4/2/1/1	6/1/1/1	
Gaming Hardware	SRAM	8MB	8MB	-	
	ROM Sockets	SPI ROM module	SPI ROM module	SPI ROM module	
	TPM	TPM 2.0/1.2	TPM 2.0/1.2	TPM 2.0/1.2	
	Audio Amplifier	20W+20W (FL, FR)	20W+20W (FL, FR)	-	
	Digital Inputs	32 (ESD protected)	32 (ESD protected)	-	
	Digital Outputs	32 (OC 500mA 50V)	32 (OC 500mA 50V)	-	
	Intrusion Inputs	8	8	1	
	iButton® / GPIO	2	2	-	
	DPCI Expansion	-	-	-	
	Watchdog Timer	1	1	1	
	Dual BIOS	-	-	-	
Gaming Software	DPCI Advanced Gaming API & Runtime	Standard	Standard	N/A	
	DPX® Connector Peripherals Libraries	Standard	Standard	Standard	
	Embedded OS Support	Standard	Standard	Standard	
	BIOS Customization	Optional	Optional	Optional	
	DPX® SAS Connector	Optional	Optional	Optional	
	SecureBoot	Optional	Optional	Optional	
Other Features		ATX or 12VDC power	ATX or 12VDC power	ATX or 12VDC power Side expansion for M series modules	

Note: "-": means Not Applicable (N/A)

Memo



Model Name		DPX®-J100
Form Factor		Extended Mini-ITX
Processor System	CPU	AMD Ryzen™ Embedded V1000/ R1000 APU
	Socket	BGA
	max. speed	2.6 (3.5) GHz
	TDP	15W
	Chipset	SoC
	BIOS	AMI Aptio UEFI BIOS
Expansion Slot	PCI	-
	MINI PCIe/mSATA	half mini-PCI
	PCIe	-
	MXM	-
Memory	Technology	Dual Channel DDR4 2400MHz
	Max. Capacity	32GB
	Socket	2x SODIMM
Graphics	Controller	in APU (AMD Radeon™ VEGA series graphics engine)
	VGA	1
	DVI	-
	DP	1
	HDMI	1
Ethernet	LAN1	GbE
	LAN2	GbE
Storage	SATA	1
	CompactFlash	-
	Cfast	1
	M.2	1
I/O	VGA/DVI/HDMI/DP	1/0/1/1
	Ethernet	2
	USB 2.0	4
	USB 3.0	2
	Audio	1 (ch5.1), SPDIF (Option)
	Serial Port	6
	Serial Type RS232/ Cctalk/TTL/485	3/2/0/1
Gaming Hardware	SRAM	-
	ROM Sockets	-
	TPM	TPM2.0 (Option)
	Audio Amplifier	6W+6W (FL, FR)
	Digital Inputs	24 (ESD protected)
	Digital Outputs	24 (500mA), 5 (2A)
	Intrusion Inputs	8
	iButton® / GPIO	iButton® /one-wire (Option)
	DPCI Expansion	-
Gaming Software	DPCI Advanced Gaming API & Runtime	N/A
	DPX® Connector Peripherals Libraries	Standard
	Embedded OS Support	Standard
	BIOS Customization	Optional
	DPX® SAS Connector	Optional
	SecureBoot	Optional
Other Features		12V DC for V1605, 5V/ 12V JAMMA input for R series

Note 2: (3 simultaneous for Q370, 2 simultaneous for H310)

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Memo

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Regional Service & Customization Centers

China	Kunshan 86-512-5777-5666	Taiwan	Taipei 886-2-2792-7818	Netherlands	Eindhoven 31-40-267-7000	Poland	Warsaw 00800-2426-8080	USA	Milpitas, CA 1-408-519-3898
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