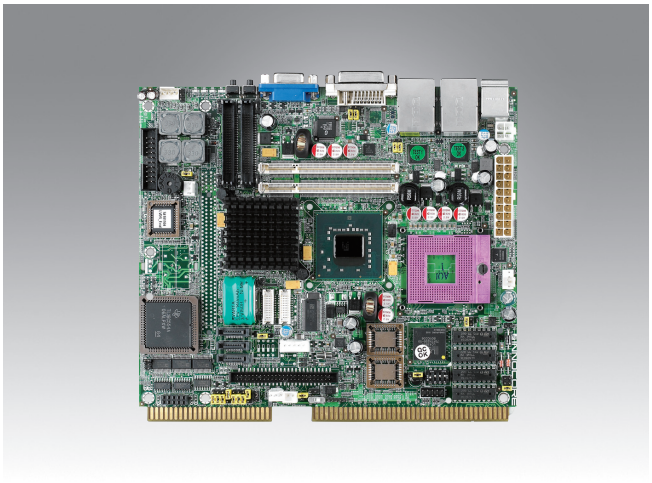
DPX®-S410

Intel® Core 2 Duo™ Gaming Platform



Features

- Very high performance Intel® platform
- Comprehensive Gaming features
- High performance integrated or PCI-Express graphics
- Low power consumption
- Small format

Introduction

The DPX®-S410 series boards, S410-SDVO and S410-PCIe, are extremely highly integrated industrial single board computers that offer unrivalled performance range, long lifecycle and low power with Intel®'s Core 2 Duo® and Celeron® M processors. A full feature set of I/O and COMs designed specifically for gaming devices is also included on the board allowing the DPX®-S410 series to be used without separate I/O cards or backplanes.

Feature Summary

System	Mobile Intel® Core 2 Duo®, Celeron® M performance
	Intel GME965 Express Embedded chipset
	Max. 4GB DDR2 SDRAM
	2 x Gigabit Ethernet LAN
	2 x Compact Flash sockets
	Sound (on-board stereo amp)
	2 MB SRAM and 2 MB ROM
	EEPROM
	PCI-Express Graphics Expansion slot
I/O	2 x RS232/TTL Serial, 4 x RS232/422/TTL
	2 x CCTalk/RS232/TTL
	10 x USB 2.0
	GPIO
	32 inputs and 32 outputs
Video	S410-SDVO: Embedded GMA X3100 Dual independent monitor support (on-board)
	S410-PCIE: Range of PCI-Express graphics cards from ATi® and Nvidia®
	Dual independent monitor support through video card
Security	TPM security device on board
	iButton® option
	Intrusion switch inputs
	BIOS customisation
Software	Edge-to-edge drivers and API/SDK
	Range of Advantech-Innocore software products for Gaming
CPU/Chipset	Intel Core 2 Duo:- T7500 (2.2/4/800/35W), T7700 (2.4/4/800/35W), T7100 (1.8/2/800/35W)
	Intel Celeron M 550 (2.0/1/533 27W) Very low power operation
	Intel GME965 Express. Embedded/long lifecycle chipset and CPUs.

Memory	2 x SO-DIMM socket
	4GB Max at DDR2 533MHz
BIOS	Award PCI/PnP/ACPI BIOS
	BIOS Flash can be write protected
	Fast boot option "No user menu" option
Video	S410-SDVO: Embedded GMA X3100
Video Ports	S410-PCIE: Embedded GMA X3100 or a range of PCI-Express graphics cards from ATi and Nvidia
	S410-SDVO: Primary:- Analog VGA Secondary:- Analog VGA Direct digital drive of LCD and Plasma One LVDS available from chipset
	S410-PCIE: PCI-E graphics card installed. Dependent on PCI-E adapter card: Primary: Analog VGA/DVI/etc Secondary: Analog VGA/DVI/etc
	S410-PCIE: No PCI-E graphics card installed
	Primary: Analog VGA
	Direct digital drive of LCD and Plasma
	One LVDS available from chipset
LAN 1	Gigabit Ethernet – BCM5787M
	Full duplex operation
	Wake-On-LAN capability
LAN 2	Gigabit Ethernet- BCM5787M
	Full duplex operation
	Wake-On-LAN capability
SATA Controller	3 x SATA ports
Compact Flash	2 x CompactFlash Type I/II headers (Flash/MicroDrive)

Ports	2 x RS232/TTL Serial, 16550 compatible
	4 x RS232/422/485
	2 x CCTalk/RS232/TTL
	10 x USB 2.0 (4 with over-current detect)
	Keyboard/Mouse on-board
	2 x I2C ports on board headers
iButton/GPIO	Bi-Directional, programmable GPIO header for iButton, special purpose device or security module
I/O	32 ESD protected inputs
	32 OC Outputs (500mA, 50V)
Sound	Accelerated PCI wavetable polyphonic sound. 6-channel Line level outputs
	Stereo line in, SPDIF (Digital) audio in/out
	Onboard 10W+10W class D audio amp with FL + FR speaker connectors
ROM	2MB EPROM/OTPROM PLCC32 sockets (PCI, Bootable)
SRAM On-Board	2048kB fast SRAM (2 banks) on PCI bus
	Battery state software readable (Option 4MB)
Security	TCPA/TPM 1.2 compliant security device
Watchdog Timer	Programmable time-out of 1-255 seconds
	"Always on" design (default 255 seconds)
EEPROM	Serial EEPROM for storage of serial numbers, data, security keys. 32kB (option for larger)

Intrusion Detection	Six Intrusion detection input lines
	Operates with and without system active
	Logs date/time of last 48 events
	Logs system resets/brownouts as events
	EEPROM backup for 10 years retention
System Health Monitoring	Measurement of CPU core temp. With thermal trip. PWM fan for CPU. Monitoring up to 3 fans.
Power Fail Detect	External sensor input for advanced warning of AC power fail
Quiet Mode	Function to silence audio and blank screen to conserve power, instant resume
Expansion	1) Up to 240 Bytes of PCI-based I/O expansion available through DirectPCI + interface on board header.
	2) PCI-Express graphics card (S410-PCIE)
Power	ATX or AT mode, typical 20-45W
Environment	Operating Temperature: 0 – 50 ºC
	Storage Temperature: -20 – 85 ºC
Approvals	EMC: CE, FCC Class A RoHS, WEEE
Dimensions	170 x 200mm (6.7 x 7.9")

All product specifications are subject to change without notice.

Optional Hardware

- Full System chassis
- Range of PCI-E graphics cards
- Advantech-Innocore 12W Class D Audio connector breakout board
- I/O Connector breakout board
- iButton Carrier

Benefits

- Low Power (CPU power between 9W and 34W)
- Single board solution
- Edge connector for I/O
- Small size – 170 x 200 mm (6.7 x 7.9")
- Long Life Cycle
- Designed for the Gaming Industry
- Meets GLI and other regulatory standards
- Backward compatible with DPX-112
- Low Cost

OEM Customization and Product Development

- Advantech-Innocore specializes in the fields of PC-based hardware design and software development. Our in-depth knowledge and global resources make us your ideal partner.
- Advantech-Innocore is part of the Advantech Co., Ltd. Group of Companies.
- Specifications subject to change. E&OE.
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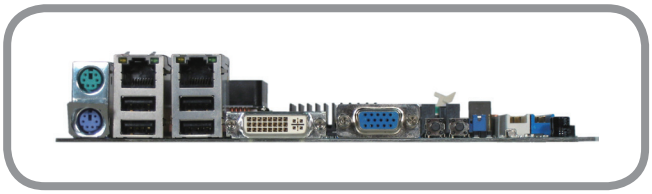
Front I/O



Rear I/O