

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:

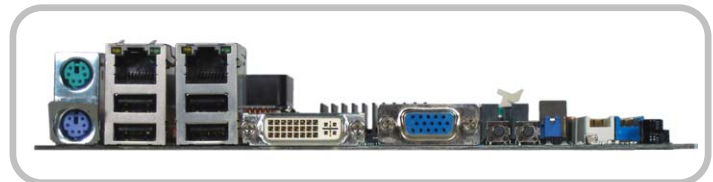
Edge-to-edge drivers and API/SDK
Range of Innocore software products for Gaming



S410-PCIE



Rear I/O



Front I/O of S410-SDVO

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-I12
Low Cost

See overleaf detailed specification

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
S410-PCIE: Embedded GMA X3100 or a range of PCI-Express graphics cards from ATi and Nvidia

Video Ports:

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 °C
Storage Temperature: -20 – 85 °C

Approvals:

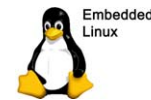
EMC: CE, FCC Class A
RoHS, WEEE

Dimensions:

170 x 200mm (6.7 x 7.9")

Optional Hardware:

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



OEM Customization and Product Development:

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.

*Specifications subject to change. E&OE.
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