

I/O Board-II forms part of the Connectbus-II platform, designed to work with standard backplanes and all the Connectbus-II DPX boards. The I/O Board-II provides a range of Serial Ports, Digital Inputs/Outputs, EEPROM, and Thermal Monitoring as well as Audio Amplification to further boost the functionality of the DPX Connectbus-II series mainboards and backplanes.

The built in configurability and range of build options maximizes flexibility to the end user.

FEATURE SUMMARY

Audio:

Stereo or Fully amplified 5.1 Surround Sound 12W per channel with user adjustable gain.

Digital I/O:

40 Darlington Open-Drain Digital Outputs

32 Digital Inputs

User selectable output transient protection levels

Output Watchdog

Serial Ports:

8 x RS232 / RS485 Full Duplex Ports (with Rx Tx line termination), all user configurable

Additional Features:

2Kbit EEPROM for status or revision data storage

I²C Connection via Backplane

Power and ground tracking designed for best signal integrity and immunity to noise and ESD

Operating temperature range of 0°C to +50°C

Meets FCC (Class A) and CE (Class A) EMC standards

Fully ROHS compliant

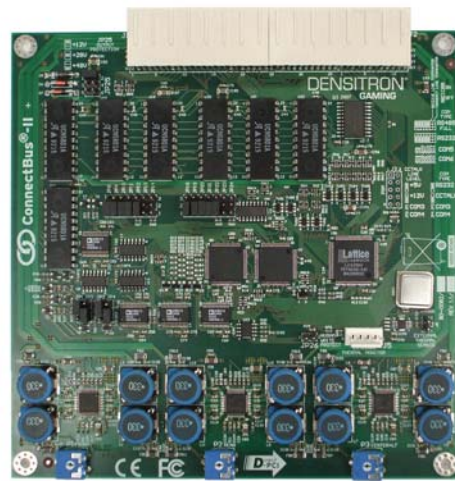
Uses commonly available mating connectors

Full software API support provided in extensive DPCI

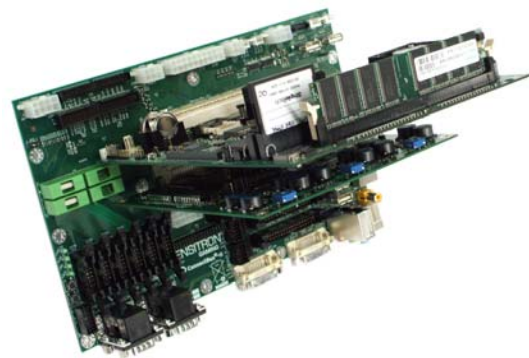
SDK and Run-time package

Physical Dimensions:

155mm x 155mm



I/O Board-II shown mounted to Passive Backplane with DPX-116



SOFTWARE SUPPORT

DPCI SDK and Run-time Software Package

All hardware functions on the I/O board are fully supported in the DPCI SDK and Run-time software developers package – an extensive set of libraries, utilities, documentation and demonstration programs to speed the process of software development.

See overleaf detailed specification

Build Options:

To enable greater configurability for each application the I/O Board is available in a number of standard builds

Feature \ Build	Surround Sound	Stereo	Stereo-Lite	Lite
Part No.	80-0062-00	80-0062-02	80-0062-03	80-0062-04
Amplified Audio Channels (12W per Channel)	5.1 – 6 Channel (FL, FR, RL, RR, CE, LFE)	FL, FR	FL, FR	-
Serial Ports	8	8	4	4
Digital Outputs	40	40	40	40
Digital Inputs	32	32	32	32
I ² C Connection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dual Channel Thermal Monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EEPROM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhanced PLD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Audio:

Fully amplified 5.1 Surround Sound 12W per channel with user adjustable gain. Efficient class-D design eliminates heatsinks and reduces power requirements. Thermal and short circuit protection

Amplifier Specifications

Supply Voltage 8.5 – 18v
 Oscillator Frequency 225 – 275KHz
 Output Current 20mA
 Max Differential Input -0.3v - +7v
 Package Dissipation 2.7 – 4.3W
 Volume Control 32 Steps from -40dB to +36dB

Required Hardware:

- Connectbus-II DPX Mainboard
- Backplane

Digital I/O:

40 Darlington Open-Drain Digital Outputs (4x 2A, 4x 1A, 32x 500mA)
 32 Digital Inputs, each able to cause edge triggered interrupt (bit selectable)
 User selectable output transient protection levels (12v, 28v, 48v)
 Output Watchdog, resets outputs to OFF state on timeout lapse

Speaker Impedance

Recommended 8Ω
 Minimum 4Ω

THD + Noise

(1kHz, V_{cc}=12v, R_L=8Ω, Gain=+36dB)
 0.08% (P_o = 5W)
 0.06% (P_o = 2.5W)
 0.1% (P_o = 0.5W)

Serial Ports:

2x RS232 / RS485 Full Duplex Ports – User configurable (with Rx Tx line termination)
 2x RS232 / ccTalk Ports – User configurable
 4x RS232 inc 1x TTL, 1x Fully Featured, 2x RTS, CTS, Rx/D, Tx/D only

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. All trademarks are acknowledged and respected

For more technical details please refer to Innocore documents 200-307 I/O Board II User Manual, 200-308 Passive Backplane User Manual, 200-0278 DPX116 User Manual, 200-312 DPX117 User Manual, the ConnectBus-II Platform Datasheet and DPCI SDK and Run-time Package.