

# HIGH SPEED LINK

## Real-Time, High-Speed Control, and Remote Motion Control Realization

- Selectable Baud Rate: 3/6/12 Mbps
- Transmission Length up to 200 m at 6Mbps
- Fast and Real-Time Response
- Multiple Module Choice: Digital I/O, Analog I/O, and Remote Motion
- Save Wiring - Using RJ45 Cable for Wiring



**PCI-7851/52**  
High Speed Link Master  
Controller Interface Cards

High Speed Link



DI16DO16



DI32



DO32



AI16AO12

New



4-Axis Control

New

New



DI8/DO8/DI4DO4  
Compact Size  
5.5 x 5 x 1.8 cm



**ADLINK**  
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Advance Technologies; Automate the World

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# HSL-4XMO-CG-N

4 Axes Motion Control Module

## General Features

- ▶▶ HSL Communication Protocol
- ▶▶ Selectable Baud Rate: 3/6/12 Mbps
- ▶▶ Support Half / Full Duplex Mode
- ▶▶ On-Board DSP
- ▶▶ 4 Axes Pulse Train Output Channels
- ▶▶ Up to 63 Axes in One HSL Network
- ▶▶ Motion Point Table Management
- ▶▶ Motion Script Download (G-Code-Like Language)



163.5 mm (W) x 74.9 mm (D) x 52.7 mm (H)

## Motion Control Features

- ▶▶ Pulse Train Frequency up to 6.55 MHz
- ▶▶ Point-to-Point Motion
- ▶▶ Linear/Circular Interpolation
- ▶▶ On-the-Fly Speed / Position Change
- ▶▶ Continuous Contouring Motion
- ▶▶ 13 Home Return Modes
- ▶▶ 4 Axes Position Compare & Trigger Output Channels
- ▶▶ 4 Axes High-Speed Position Counter Latches
- ▶▶ Dedicated Motion I/O: EL, ORG, INP, RDY, SVON, ERC and ALM
- ▶▶ Hardware Emergency Stop

### Brief Specifications

<b>Command Response Time</b>	120 us for two modules at 12Mbps transmission rate
<b>Pulse Output Type</b>	Line Drive / Open Collector Output
<b>Pulse Output Frequency</b>	6.55 MHz (Max)
<b>Encoder Input Voltage</b>	Logic: High at 3~5V; Low at 0~2.4V
<b>Encoder Input Frequency</b>	5 MHz (Max)
<b>General-Purposed Input Type</b>	NPN Sinking / PNP Sourcing Type Selectable
<b>General-Purposed Input Voltage</b>	ON: 6.5~24 Volt; OFF: 0~3 Volt
<b>General-Purposed Input Impedance</b>	4.7 k $\Omega$
<b>General-Purposed Output Type</b>	NPN Sinking Type for -N Module; PNP Sourcing Type for -P Module
<b>General-Purposed Output Current</b>	$\pm$ 90 mA (Max)



# HSL-DI8-L-N & HSL-DI8-L-P

8-CH Discrete Input Low-Profile Module

## Features

- ▶▶ HSL Communication Protocol
- ▶▶ Selectable Baud Rate: 3/6/12 Mbps
- ▶▶ Support Half / Full Duplex Mode
- ▶▶ Low Profile and Compact Size Design
- ▶▶ Save Space & Distributed Allocation
- ▶▶ NPN Sinking Type for-N Module
- ▶▶ PNP Sourcing Type for-P Module



55 mm (W) x 50 mm (D) x 18 mm (H)

Brief Specifications-for -N Module	
Input Current	10 mA (Max)
Input Impedance	4.7 kΩ
Photo Couple Isolation Voltage	2500 Vrms
Operation Voltage	ON: 9.6 V <sub>DC</sub> (Max); OFF: 19.0 V <sub>DC</sub> (Min)
Response Time	ON: 5μs (Typical); OFF: 10μs (Typical)

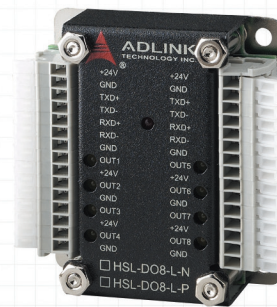
Brief Specifications-for -P Module	
Input Current	10 mA (Max)
Input Impedance	4.7 kΩ
Photo Couple Isolation Voltage	2500 Vrms
Operation Voltage	ON: 14.4 V <sub>DC</sub> (Max); OFF: 5.0 V <sub>DC</sub> (Min)
Operation Voltage	ON: 5μs (Typical); OFF: 10μs (Typical)

# HSL-DO8-L-N & HSL-DO8-L-P

8-CH Discrete Output Low-Profile Module

## Features

- ▶▶ HSL Communication Protocol
- ▶▶ Selectable Baud Rate: 3/6/12 Mbps
- ▶▶ Support Half / Full Duplex Mode
- ▶▶ Low Profile and Compact Size Design
- ▶▶ Save Space & Distributed Allocation
- ▶▶ NPN Sinking Type for -N Module
- ▶▶ PNP Sourcing Type for -P Module



55 mm (W) x 50 mm (D) x 18 mm (H)

Brief Specifications-for -N Module	
Output Current	500 mA for Single Channel; 60 mA for 8 Channels
Photo Couple Isolation Voltage	2500 Vrms
Response Time	ON: 1.2μs (Typical); OFF: 180μs (Typical)

Brief Specifications-for -P Module	
Output Current	500 mA for Single Channel; 60 mA for 8 Channels
Photo Couple Isolation Voltage	2500 Vrms
Response Time	ON: 1.2μs (Typical); OFF: 180μs (Typical)

# HSL-DI4DO4-L-X X

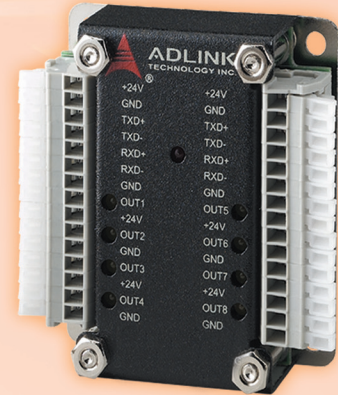
4-CH Discrete Output /  
4-CH Discrete Input Low-Profile Module

Output Type

-N: NPN Sinking  
-P: PNP Sourcing

Input Type

-N: NPN Sinking  
-P: PNP Sourcing



55 mm (W) x 50 mm (D) x 18 mm (H)

## Features

- ▶ HSL Communication Protocol
- ▶ Selectable Baud Rate : 3/6/12 Mbps
- ▶ Support Half / Full Duplex Mode
- ▶ Low Profile and Compact Size Design
- ▶ Save Space & Distributed Allocation
- ▶ NPN Sinking Type for -N Module
- ▶ PNP Sourcing Type for -P Module

### Brief Specifications for - N or - P Output

Output Current	500 mA for Single Channel; 120 mA for 4 Channels
Photo Couple Isolation Voltage	2500 Vrms
Response Time	ON: 1.2 $\mu$ s (Typical); OFF: 180 $\mu$ s (Typical)

### Brief Specifications for - N Input

Input Current	10 mA (Max)
Input Impedance	4.7 k $\Omega$
Photo Couple Isolation Voltage	2500 Vrms
Operation Voltage	ON: 9.6 V <sub>DC</sub> (Max); OFF: 19.0 V <sub>DC</sub> (Min)
Response Time	ON: 5 $\mu$ s (Typical); OFF: 10 $\mu$ s (Typical)

### Brief Specifications for - P Input

Input Current	10 mA (Max)
Input Impedance	4.7 k $\Omega$
Photo Couple Isolation Voltage	2500 Vrms
Operation Voltage	ON: 14.4 V <sub>DC</sub> (Max); OFF: 5.0 V <sub>DC</sub> (Min)
Response Time	ON: 5 $\mu$ s (Typical); OFF: 10 $\mu$ s (Typical)



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