



The LIH 8+8 is a high resolution, low-noise scientific data acquisition system. It utilizes the latest USB 2.0 and high speed processing technologies. The LIH 8+8 provides expandability and versatility that will satisfy both current and future needs. With its USB 2.0 interface, the LIH 8+8 can easily be connected to a laptop computer without the need for a peripheral PCI card. The analog input and output channels are isolated from the digital lines that communicate with the computer. Each analog channel has its own separate ground patch and the digital section has a completely different ground. The result is complete isolation of the acquisition side from the computer side with full 16 bit capability and low noise.

### Specifications:

#### Analog Inputs

- Eight 16-bit analog inputs
- Two A/D converters, each multiplexed into 4 inputs
- 400 kHz aggregate, max. 200 kHz per A/D converter
- Input type: differential
- Input Range: -10.24 to + 10.23 V
- Differential non-linearity:  $\pm 0.002\%$  of FSR
- Drift:  $\pm 2$  ppm/ $^{\circ}\text{C}$
- Input impedance: 1 MOhm
- Signal to noise ratio: 86dB at DC to 160 kHz, <1mV PP

#### Sound Output

- One 3.5 mm output receptacle on rear panel
- Frequency range of 200 Hz to 4 kHz

#### Digital Inputs

- Sixteen rear digital inputs
- Four of the sixteen digital inputs can be accessed on the front panel via BNC connectors.
- 3.3. and 5 V logic compatible

## Trigger Inputs

- One isolated hardware trigger input (on either positive or negative edge transition)
- 3.3. and 5 V logic compatible
- One BNC on rear panel

## Analog Outputs

- Four 16-bit analog outputs
- Four individual D/A converters, each running at 200kHz
- Output type: pseudo differential
- Settling time < 1  $\mu$ s
- Output Range: -10.24 to + 10.23 V
- Gain error: 0.2% of FSR
- Gain linearity: < 2dB
- Drift:  $\pm 4$  ppm/ $^{\circ}$ C
- Output impedance: 4.7 Ohm
- Signal to noise ratio: 116dB

## Digital Outputs

- Sixteen rear panel digital outputs
- Four of the sixteen digital outputs can be accessed on the front panel via BNC connectors
- TTL compatible
- Maximum output current: +/-35 mA

## Additional Connectors

- Digital I/O connector for EPC 8 or TIB 14 S
- 2 CAT5 connectors for slave / master operation of multiple LIH 8+8

## Dimensions

- (47.5 x 4.4 x 31.1) cm
- Weight: 3.6 kg
- mounts in 19" rack
- operates on 90V - 250V, 50/60Hz

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