MODEL 8088LIO

8 INPUT/8 OUTPUT LOGIC CARD

The Model 8088LIO Logic Card is a component of the IED 8000 Series™. It has 8 logic inputs which can be set up as a group by software and used individually to sense either a logic 'high' or a logic 'low'. The sensed conditions are configured by the 8001CPU, depending upon the system setup.

The 8088LIO also has 8 high current logic outputs. Individual control signals for the logic outputs are transmitted from the 8001CPU card. Each logic output can sink to ground up to 250 mA from external source voltages up to 45 VDC. The output circuit is designed to drive inductive loads, with an internal diode to clamp the output to 45 VDC. **THE APPLICATION OF MORE THAN 45 V TO THESE OUTPUTS WILL RESULT IN IRREVERSIBLE DAMAGE, AND WILL VOID THE WARRANTY**.

An on-board microcontroller (MCU) controls the output drivers and detects the input levels. It communicates with the 8001CPU and 8001SA via the I^2C bus on the mother board. A reset line on the mother board allows the on-board MCU to be reset by the 8001CPU.

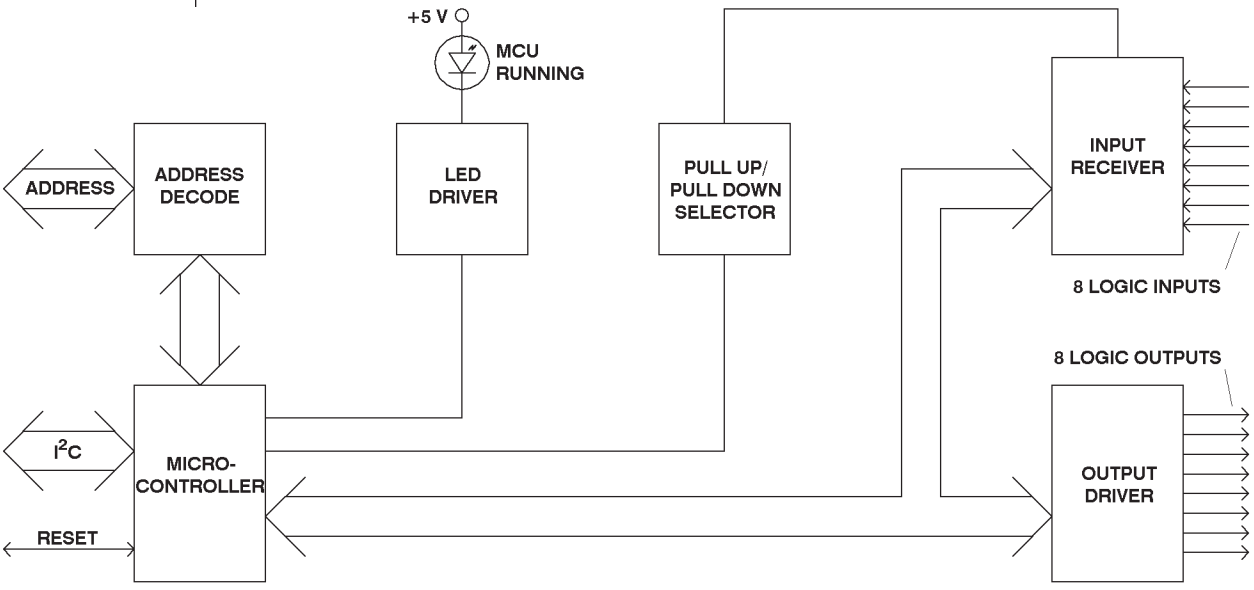

Figure 1 - 8088LIO 8 Input/8 Output Logic Card Block Diagram

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SPECIFICATIONS

ELECTRICAL, ANALOG

1. Power Supply
   - Supply Voltage Range
     - +15 V Supply . . . . . +14.25 V to +15.75 V
     - – 15 V Supply . . . . . –14.25 V to –15.75 V
   - Supply current
     - V= +15 V . . . . . 15 mA
     - V= –15 V . . . . . 0 mA
2. Logic Output Ratings
   - External Supply Voltage, Absolute Max. . . . . 45 V
   - External Load Current, Max. . . . . 250 mA
3. Logic Input Voltages
   - Logical 0 . . . . . –500 mV to +325 mV
   - Logical 1 . . . . . +3.3 V to +30 V

INDICATORS

1. MCU Running . . . . . Green LED

CONNECTORS

1. 32-pin Euro Connector, male, right-angle (2 each). . . Hirose PCN10-32P-2.54DS

MECHANICAL

1. Size (maximum overall dimensions as viewed from the front)
   - Height . . . . . (11.43 cm) 4.50"
   - Width . . . . . (2.03 cm) 0.80"
   - Depth. . . . . (20.42 cm) 8.04“
2. Weight . . . . . (121 gm) 0.266 lb

ENVIRONMENTAL

1. Operating Temperature Range . . . . . (+32 °F - +104 °F) 0 °C - +40 °C
2. Storage Temperature Range . . . . . (–40 °F - +158 °F) –40 °C - +70 °C

Innovative Electronic Designs, Inc. • 9701 Taylorsville Road • Louisville, Kentucky 40299 • USA
Phone: (502) 267-7436 • Fax: (502) 267-9070 • Internet: http://www.iedaudio.com

PIN	FUNCTION	PIN	FUNCTION
1	Ch 7 Out	17	Ch 8 Out
2	Ground	18	Ground
3	Ch 5 Out	19	Ch 6 Out
4	Ground	20	Ground
5	Ch 3 Out	21	Ch 4 Out
6	Ground	22	Ground
7	Ch 1 Out	23	Ch 2 Out
8	No Connection	24	No Connection
9	No Connection	25	No Connection
10	Ch 7 In	26	Ch 8 In
11	Ground	27	Ground
12	Ch 5 In	28	Ch 6 In
13	Ground	29	Ground
14	Ch 3 In	30	Ch 4 In
15	Ground	31	Ground
16	Ch 1 In	32	Ch 2 In

Table 1 - Pin Connections, Upper Euro Connector

PIN	FUNCTION	PIN	FUNCTION
1	Address Line 4	17	Address Line 3
2	Address Line 2	18	Address Line 1
3	Address Line 0	19	I^2C Bus Interrupt Line (Inverted)
4	I^2C Serial Data	20	I^2C Serial Clock
5	+5 V	21	Master Reset Line
6	–15 V	22	–15 V
7	+15 V	23	+15 V
8	Spare 2	24	Spare 3
9	Ground	25	Ground
10	Ground	26	Ground
11	Ground	27	Ground
12	Audio Test Bus +	28	Audio Test Bus –
13	Audio Monitor Bus +	29	Audio Monitor Bus –
14	Audio Test Signal Bus +	30	Audio Test Signal Bus –
15	Internal Audio Routing Bus 2	31	Internal Audio Routing Bus 1
16	Internal Audio Routing Bus 3	32	Internal Audio Routing Bus 4

Table 2 - Pin Connections, Lower Euro Connector

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