
MODEL 8022DR

2-CHANNEL LINE RECEIVER/LINE DRIVER CARD

The Model 8022DR 2-Channel Line Receiver/Line Driver Card is a component of the IED 8000 Series™.

The 8022DR has 2 differential, balanced, terminated line receiver inputs. The terminating resistors can be chosen to match the impedance of the line. By the use of jumpers, Line Receiver Input 1 can be connected to incoming channel 1 or 3, but not to both. By the use of jumpers, Line Receiver Input 2 can be connected to incoming channel 2 or 4, but not to both. The jumper selections allow 4 channels of line audio input to be bussed the rear of the 8000 Mainframe using a single ribbon cable and 2 8022DR cards.

The line inputs are sourced through a digitally controlled amplifier (DCA), and is then fed to either a balanced, floating line driver, or through another DCA to a bus which can be switched by the on-board microcontroller to any of the four unbalanced audio buses on the 8000 motherboard. The balanced, floating line driver is specifically designed to drive long lines without high frequency rolloff.

The 8022DR can switch audio from any of the 4 unbalanced audio busses through a DCA, which is then summed individually with each input to its corresponding output.

By the use of jumpers, the output of line driver number 1 can be connected to output channels 1 and/or 3. Similarly, the output of line driver number 2 can be connected to output channels 2 and/or 4.



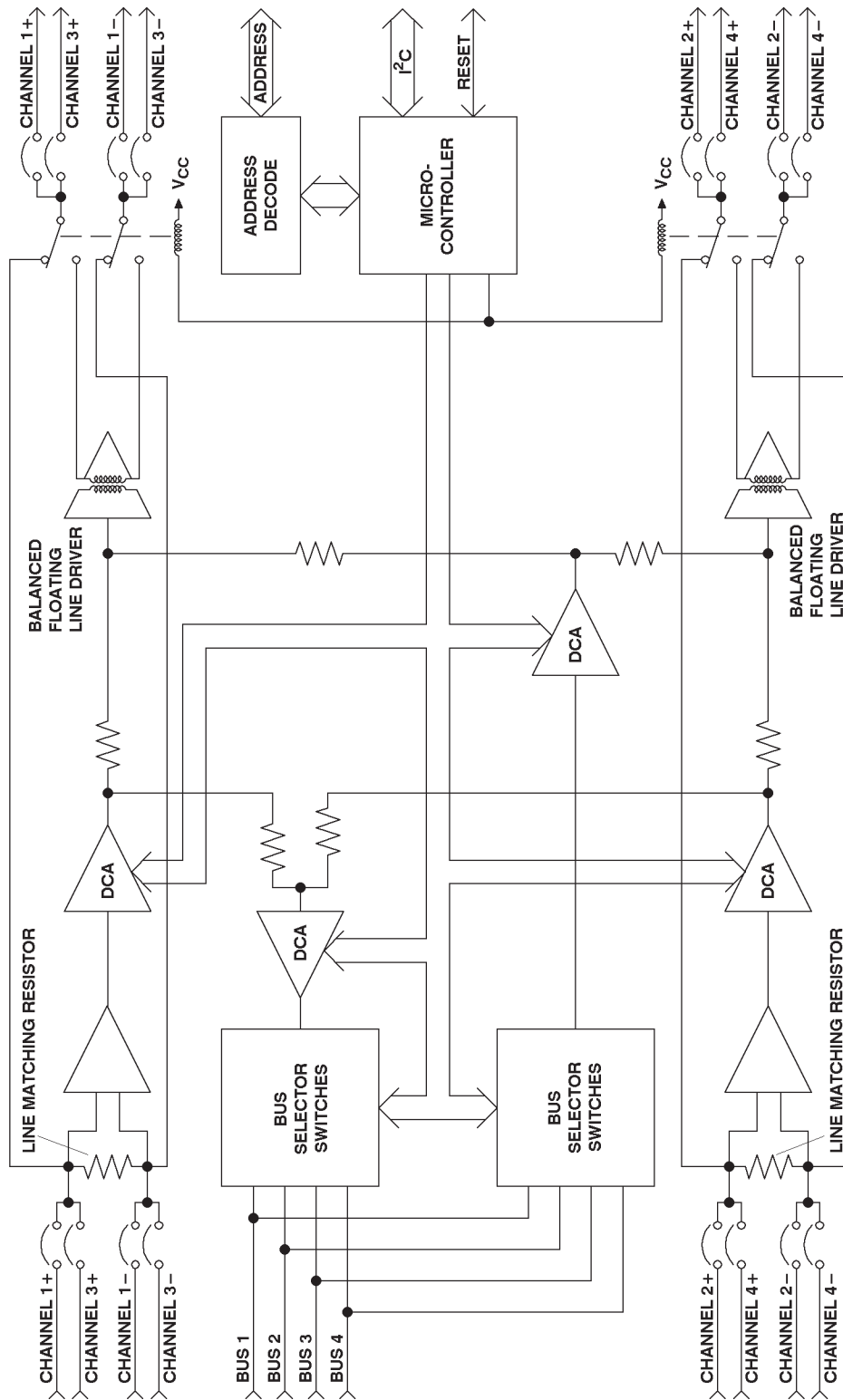


Figure 1 - 8022DR Line Driver/Line Receiver Block Diagram

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

SPECIFICATIONS

ELECTRICAL, ANALOG, VS = +15 VDC, -15 VDC, Gain control set to 0 dB, all inputs to all outputs

1. Frequency Response	+0, -0.2 dB
20 Hz - 20 kHz	
2. Total Harmonic Distortion, THD.	<0.02%
20 Hz - 20 kHz, 16 Hz - 80 kHz filters	
3. Intermodulation Distortion, IMD.	<0.02%
60 Hz/7 kHz	
4. Signal-to-Noise Ratio, S/N	>85 dB
Referenced to +4 dBu, 20 Hz - 22 kHz filters	
5. Output (max.)	+24 dBu
$R_L \geq 600 \Omega$	
6. 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

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	(217 gm) 0.48 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



PIN	FUNCTION	PIN	FUNCTION
1	CH 4 OUT +	17	CH 4 OUT -
2	CH 3 SHIELD	18	CH 4 SHIELD
3	CH 3 OUT +	19	CH 3 OUT -
4	GROUND	20	GROUND
5	CH 2 OUT +	21	CH 2 OUT -
6	CH 1 SHIELD	22	CH 2 SHIELD
7	CH 1 OUT +	23	CH 1 SHIELD
8	GROUND	24	GROUND
9	GROUND	25	GROUND
10	CH 4 IN +	26	CH 4 IN -
11	CH 4 SHIELD	27	CH 3 SHIELD
12	CH 3 IN +	28	CH 3 IN -
13	GROUND	29	GROUND
14	CH 2 IN +	30	CH 2 IN -
15	CH 2 SHIELD	31	CH 1 SHIELD
16	CH 1 IN +	32	CH 1 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 ² C Bus Interrupt Line (Inverted)
4	I ² C Serial Data	20	I ² C 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

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