PMC-LVDS CLOCK DRIVER

FEATURES:

- 12 Output Channels (see description below)
- Hardware Sync and Clock I/O for Multiboard Synchronization
- Clock or Sync inputs can be LVDS or TTL.
- Additional LVDS to TTL and TTL to LVDS converters for independent signal conversions (AUX)
- Only +5VDC Required from PCI bus.
- Conforms to PCI Bus Specification, Revision 2.3
- Available on Adapters for Alternate Form Factors: PCI, cPCI, PC104-*Plus*

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Overview:

The 12-channel PMC-LVDS Clock Driver Board provides a means of distributing LVDS signals among multiple boards, all from within a standard single-width PMC module. Optimized for flexibility and performance, the board is ideal for multi-board synchronization, LVDS to TTL conversion or TTL to LVDS.

Functional Description:

The Board provides two channel groups, A or B, consisting of five LVDS output channels. Each group has an optional input that can be either LVDS or TTL. The selection is made possible via a jumper (J1) residing on the board. The installation of a jumper will assign Group A or B (or both), for LVDS inputs. Removing the jumper will configure the inputs for TTL. Having this option allows one group's input source (Group A) to be configured differently from the other group (Group B). Also, two auxiliary converters (AUX) have been added for independent signal conversion. AUX00 provides a TTL to LVDS conversion. AUX01 provides a LVDS to TTL conversion.

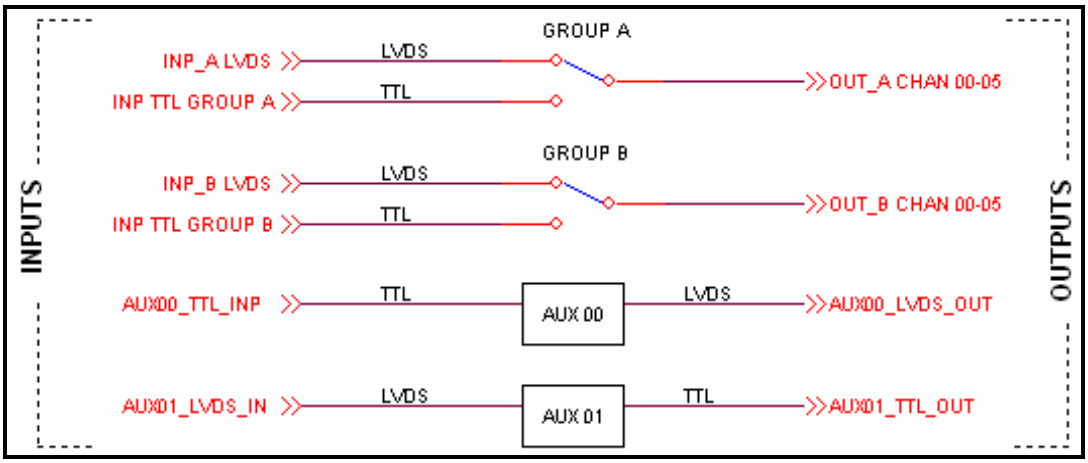

Figure 1. PMC-LVDS Clock Driver; Functional Organization

This product is functionally compatible with the IEEE PCI local bus specification Revision 2.3. System input/output connections are made at the front panel through a high-density 68-Pin I/O connector. Power requirements consist of +5 VDC, in compliance with the PCI specification.

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ELECTRICAL SPECIFICATIONS

At +25 ^{O}C, with specified operating conditions.

Power Requirements:

+5.0 VDC ±0.25 VDC at 0.75 watts typical. 1.7 watts maximum.

Mechanical Characteristics:

(HxWxD): 13.5 mm (0.53 in) x 74.0 mm (2.91 in) x 149.0 mm (5.87 in)

(Mechanical dimensions are shown for the native PMC form factor. See Ordering Information.)

Environmental Specifications:

Ambient Temperature Range:`	Operating: Standard: 0 to +65 degrees Celsius inlet air Storage: -40 to +85 degrees Celsius.
Relative Humidity:	Operating: 0 to 80%, non-condensing Storage: 0 to 95%, non-condensing
Altitude:	Operation to 10,000 ft.
Cooling:	Conventional convection cooling; 150 LFPM

Ordering Information:

Basic Model Number	Form Factor
PMC-LVDS Clock Driver	**PMC *(Native)***
PCI- LVDS Clock Driver *	**PCI, short length**
cPCI- LVDS Clock Driver *	**cPCI, 3U**

* PMC module installed and tested on an adapter, with mechanical and functional equivalency. Contact factory for availability in native form factors.

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SYSTEM I/O CONNECTIONS

I/O CONNECTOR PIN ASSIGNMENTS

ROW-A		ROW-B	
PIN	**FUNCTION**	**PIN**	**FUNCTION**
1	GND	1	GND
2	GND	2	GND
3	**OUT_A CHAN 00 LO**	3	**OUT_A CHAN 01 LO**
4	**OUT_A CHAN 00 HI**	4	**OUT_A CHAN 01 HI**
5	GND	5	GND
6	GND	6	GND
7	**OUT_A CHAN 02 LO**	7	**OUT_A CHAN 03 LO**
8	**OUT_A CHAN 02 HI**	8	**OUT_A CHAN 03 HI**
9	GND	9	GND
10	GND	10	GND
11	**OUT_A CHAN 04 LO**	11	**INP_A LVDS LO**
12	**OUT_A CHAN 04 HI**	12	**INP_A LVDS HI**
13	GND	13	GND
14	GND	14	GND
15	**OUT_B CHAN 00 LO**	15	**OUT_B CHAN 01 LO**
16	**OUT_B CHAN 00 HI**	16	**OUT_B CHAN 01 HI**
17	GND	17	GND
18	GND	18	GND
19	**OUT_B CHAN 02 LO**	19	**OUT_B CHAN 03 LO**
20	**OUT_B CHAN 02 HI**	20	**OUT_B CHAN 03 HI**
21	GND	21	GND
22	GND	22	GND
23	**OUT_B CHAN 04 LO**	23	**INP_B LVDS LO**
24	**OUT_B CHAN 04 HI**	24	**INP_B LVDS HI**
25	GND	25	GND
26	GND	26	GND
27	**INP AUX01 LO**	27	GND
28	**INP AUX01 HI**	28	**INP AUX00 TTL**
29	GND	29	GND
30	GND	30	**OUT AUX01 TTL**
31	**OUT AUX00 LO**	31	GND
32	**OUT AUX00 HI**	32	**INP TTL GROUP A**
33	NC	33	GND
34	NC	34	**INP TTL GROUP B**

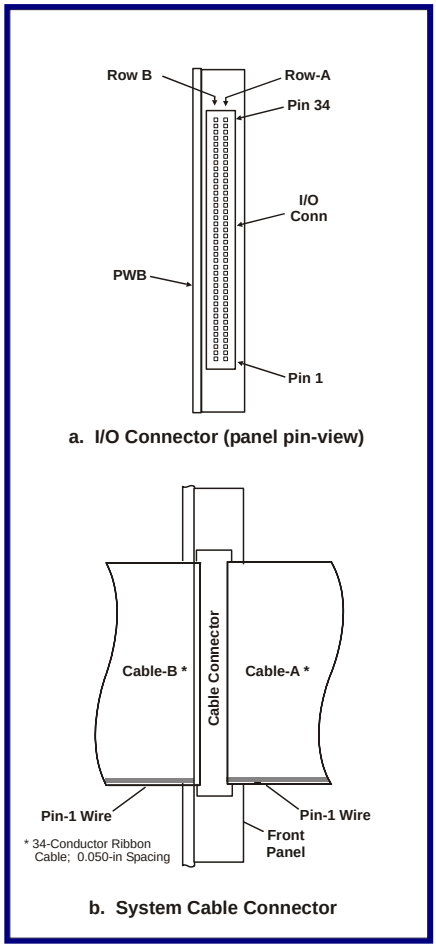

Figure 2. System I/O Connector

System Cable Mating Connector:

68-pin 0.050" Subminiature connector: with metal shield:
AMP #749621-7 or equivalent.

I/O Connector Installed on Board (Ref)**:**

Amp # 787170-7

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