DB-8150

High-speed Triggering Daughter Board

Features

- High performance FPGA inside
- On-board SDRAM for comparing point table (2 M points for one channel)
- Simultaneous 8 channel TTL compatible differential output
- One general-purpose digital output channel, current sink capacity up to 20 mA
- Two general-purpose digital input channels, 10 kHz response time
- Two high speed digital input channels
- Three 32-bit comparators for position comparing
- Trigger output pulse polarity and pulse width adjustable
- Two 32-bit position counters by two EA/EB encoder signals input from carrier board
- Two EA/EB encoder signals input from daughter board
- Counter clear signal via EZ input from carrier board
- Supports trigger output toggle modes
- Equal and window condition comparison available
- Linear function and point table mode for continuous trigger output
- Counter latched by digital input pins

Specifications

High-speed Trigger

- FPGA on-board to process the trigger function without consuming CPU resources

Max. Trigger Pulse Frequency	Up to 1 MHz
FIFO Capacity	2 M x 32-bit
Max. Encoder Input Frequency	6.5 MHz under 4xAB mode, 1.5 meter cable
Dimension	96.42 (L) x 62 (W) mm
Operating Temperature	0°C to +60°C
Storage Temperature	-20°C to +80°C
Power Consumption	+3.3 V @ 250 mA typical, +5 V @ 100 mA typical

Connections

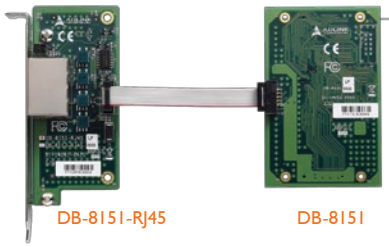
PIN No.	Name	Function (Axis)	PIN No.	Name	Function (Axis)
1	CMP0+	Compare output+	14	CMP0-	Compare output-
2	CMP1+	Compare output+	15	CMP1-	Compare output-
3	CMP2+	Compare output+	16	CMP2-	Compare output-
4	CMP3+	Compare output+	17	CMP3-	Compare output-
5	CMP4+	Compare output+	18	CMP4-	Compare output-
6	CMP5+	Compare output+	19	CMP5-	Compare output-
7	CMP6+	Compare output+	20	CMP6-	Compare output-
8	CMP7+	Compare output+	21	CMP7-	Compare output-
9	EGND	Ext. Ground	22	EGND	Ext. Ground
10	DO	Open collectoroutput	23	DO_COM	Output COM
11	EXGND	Ext. Ground	24	EXGND	Ext. Ground
12	DI_0	Digital Input Ch_0	25	DI_1	Digital Input Ch_1
13	N/A	Empty	26	N/A	Empty

Ordering Information

- **DB-8150**
  High-speed triggering daughter board for PCI-8158/PCI-8154

DB-8151

Single HSL Master Controller Daughter Board



DB-8151-RJ45 DB-8151

Features

- Programmable timer interrupt
- RJ-45 jack for easy installation (with DB-8151-RJ45)
- Provides both 4 to 8-axis control and distributed I/O and does not occupy a PCI slot when attached to a PCI-815x
- Software selectable transmission speed and mode
- Supports HSL-HUB3/HSL-Repeater
- DI data transmission interrupt

Specifications

HSL Master Controller

- Full duplex, RS-485 with transformer isolation

Transmission Speed	3/6/12 Mbps
Dimension	96.42 (L) x 62 (W) mm
Operating Temperature	0°C to +60°C
Storage Temperature	-20°C to +80°C
Power Consumption	+3.3 V @ 250 mA, +5 V @ 100 mA typical

Connections

PIN NO.	PIN OUT
PIN 1	+5V
PIN 2	FG
PIN 3	DG
PIN 4	LED Signal
PIN 5	RXD1
PIN 6	TXD
PIN 7	RXD2
PIN 8	TXE
PIN 9	DG
PIN 10	FG

CN3: Main DB-8151 connector

Connections

PIN NO.	PIN OUT
PIN 1	NC
PIN 2	NC
PIN 3	RX+
PIN 4	TX-
PIN 5	TX+
PIN 6	RX-
PIN 7	NC
PIN 8	NC

RJ1: DB-8151-RJ45 RJ-45 connector

Ordering Information

- **DB-8151**
  Single HSL master controller daughter board for PCI-8158/PCI-8154
- **DB-8151-RJ45**
  Bracket with RJ-45 jack for DB-8151