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- 3 x 4-bit synchronisation signals
- 4 command signals
- 1 bidirectional serial communication channel

Board devices offer a 75 MHz input data flow, which translates to a maximum bandwidth of 750 MB / second.

3. BEHAVIOURAL DESCRIPTION

◆ The KLINK Full provides access to base, medium, and full Camera Link interfaces and to all the signals provided by the Camera Link devices (up to 10 taps of 8 bits), as shown in figure 2.

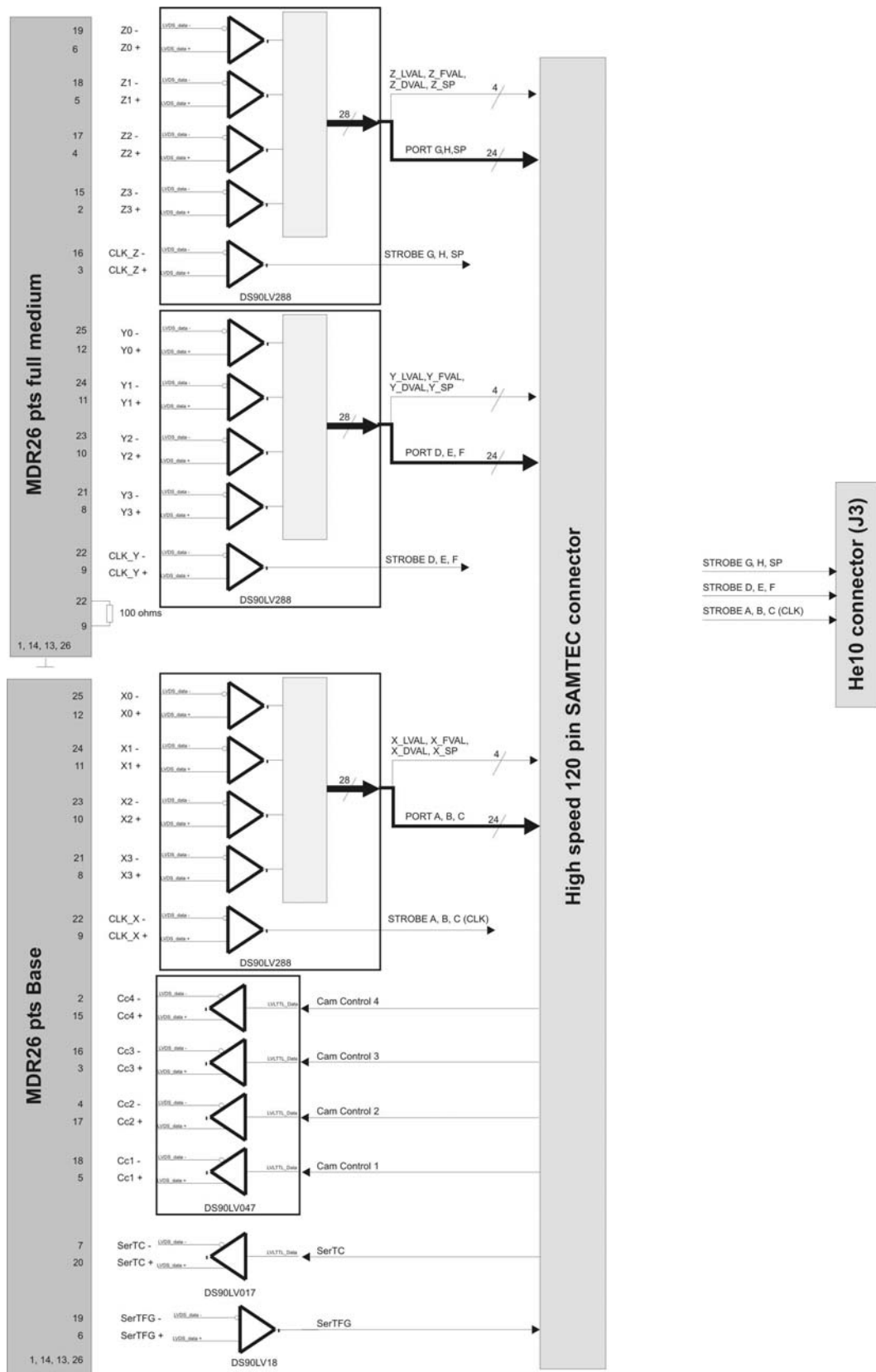


Figure 2 – Board bloc diagram

4. CONNECTIONS DESCRIPTION

The following table lists signal / pin assignments between the Camera Link and the SAMTEC P2 connector. For signal / pin assignments between the host-board FPGA and the daughter card, please see the Reference Manual for your particular board.

For more information concerning bit assignments, please see the Camera Link specification.

Samtec pin number	Signal name	Samtec pin number	Signal name
2	port_C4	1	NC
4	port_C3	3	NC
6	port_C2	5	NC
8	port_C7	7	NC
10	port_C1	9	NC
12	port_C0	11	port_A7
14	port_C6	13	Cam_Control4
16	port_B4	15	port_A3
18	port_B5	17	Cam_Control2
20	X_PWDN	19	Cam_Control3
22	port_B7	21	port_F2
24	port_B3	23	Cam_Control1
26	port_B2	25	port_F3
28	port_B6	27	port_F4
30	port_B0	29	port_F1
32	port_B1	31	port_F5
34	NC	33	NC
36	NC	35	NC
38	NC	37	NC
40	NC	39	NC
42	SerTC	41	NC
44	ENABLE	43	NC
46	ZSP	45	YLVAL
48	YSP	47	port_F7
50	port_F0	49	port_SP2
52	port_E5	51	port_SP4
54	port_F6	53	port_SP1
56	Y_PWDN	55	port_SP0
58	Z_PWDN	57	port_H3
60	port_E6	59	port_H5
62	port_E3	61	port_H0
64	port_E7	63	port_H7
66	port_E4	65	port_G3
68	port_E2	67	port_H2
70	port_E1	69	port_H1
72	port_D4	71	XSP
74	port_D5	73	SerTFG
76	port_D7	75	NC
78	port_D2	77	NC
80	port_D1	79	NC
82	port_G2	81	port_SP7
84	port_G5	83	port_SP3
86	port_G1	85	port_SP6

88	port_G7	87	ZDVAL
90	YDVAL	89	ZFVAL
92	port_E0	91	port_SP5
94	port_D3	93	port_A5
96	port_G4	95	port_A1
98	port_H4	97	port_A4
100	port_H6	99	port_A2
102	port_D6	101	XDVAL
104	YFVAL	103	port_A0
106	port_G0	105	port_A6
108	port_D0	107	XLVAL
110	ZLVAL	109	port_C5
112	port_G6	111	XFVAL
114	NC	113	+3.3V
116	NC	115	+3.3V
118	NC	117	NC
120	NC	119	NC

The following table lists connectors between the J6 pin and the Camera Link interface. Only clock signals are available to this connector.

J6 pin	Signal name
9	Strobe GHSP
11	Strobe DEF
13	Strobe ABC

5. COMMAND SIGNALS

The three channel Link drivers (DS90LV288A) and the command driver (DS90LV047) each have one power down signal, x_pdwn, y_pdwn, and z_pdwn respectively. These signals are active high and low by default.

6. INSTALLATION EXAMPLES

Figure 3 illustrates mounting the daughter card on the PCI Express Design Kit.

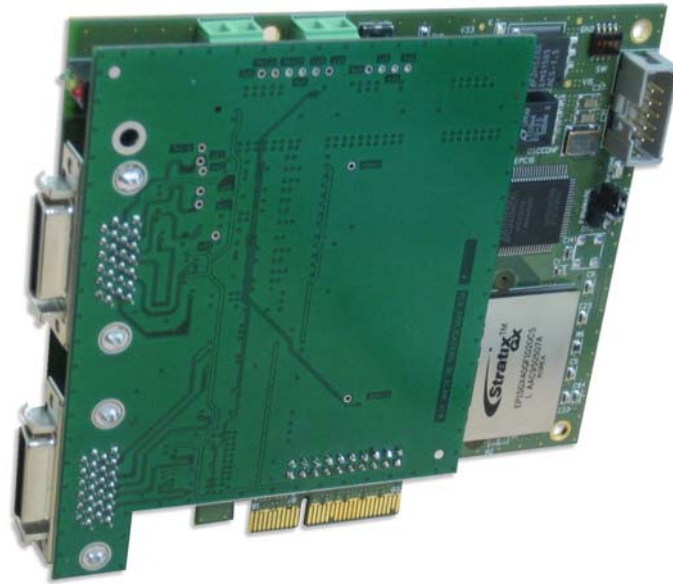


Figure 3 – DK_PClE x4 + KLINK Full

Figure 4 illustrates mounting the daughter card on the PCIe XpressFX.

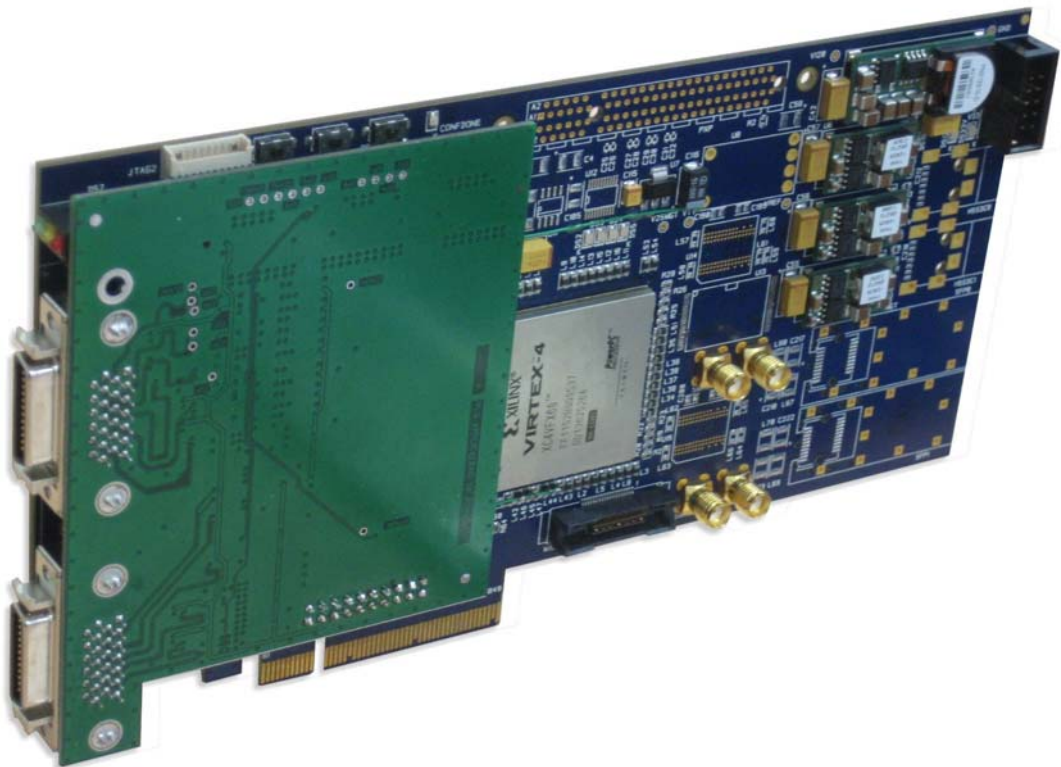


Figure 4 - XpressFX + KLINK Full