

SOM-DB5700

**SOM-Express Evaluation Carrier
Board with VGA/LVDS, USB,
Audio & LAN Interface**

Copyright

The documentation and the software included with this product are copyrighted 2006 by Advantech Co., Ltd. All rights are reserved. Advantech Co., Ltd. reserves the right to make improvements in the products described in this manual at any time without notice. No part of this manual may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of Advantech Co., Ltd. Information provided in this manual is intended to be accurate and reliable. However, Advantech Co., Ltd. assumes no responsibility for its use, nor for any infringements of the rights of third parties, which may result from its use.

Acknowledgements

SOM and DTOS are trademarks of Advantech Co., Ltd.

AMD is a trademark of Advanced Micro Devices, Inc.

Award is a trademark of Award Software International, Inc.

Cyrix is a trademark of Cyrix Corporation.

IBM, PC/AT, PS/2 and VGA are trademarks of International Business Machines Corporation.

Intel® and Pentium® are trademarks of Intel Corporation.

Microsoft Windows® is a registered trademark of Microsoft Corp.

RTL is a trademark of Realtek Semiconductor Co., Ltd.

C&T is a trademark of Chips and Technologies, Inc.

UMC is a trademark of United Microelectronics Corporation.

Winbond is a trademark of Winbond Electronics Corp.

STPC is a trademark of SGS Thomson Corp.

For more information on this and other Advantech products, please visit our website at:

<http://www.emacinc.com>

For technical support and service, please visit our support website at:

<http://www.emacinc.com/support/>

This manual is for the SOM-DB5700

Packing List

Before you begin installing your card, please make sure that the following materials have been shipped:

- SOM-DB5700 Evaluation Carrier Board
- CD-ROM or Disks for utility, drivers, and manual (in PDF format)
- USB Cable
- RS-232 Cable

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Additional Information and Assistance

1. Visit the distributor's web site at www.emacinc.com where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance.

Please have the following information ready before you call:

- Product name and serial number
- Description of your peripheral attachments
- Description of your software (operating system, version, application software, etc.)
- A complete description of the problem
- The exact wording of any error messages

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution! *There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.*



Contents

Chapter 1 Connector and Jumper setting1

1.1	Placement of Evaluation Carrier Board.....	2
1.2	Connector Table.....	2
	Table 1.1: Connector Table	2
1.3	Jumper Table	3
	Table 1.2: Jumper Table.....	3
1.4	Connector and jumper pin definition:	4
	Table 1.3: CN3 LAN with USB 0/1.....	4
	Table 1.4: CN4 LAN	5
	Table 1.5: CN5 USB2/3/4/5	5
	Table 1.6: CN6 BIOS2 Socket.....	6
	Table 1.7: CN8 CRT Connector	7
	Table 1.8: CN11 TV out Connector	7
	Table 1.9: CN12 HD Audio Connector	8
	Table 1.10: CN17 CD Line-In	8
	Table 1.11: CN19 COM1 Connector	9
	Table 1.12: CN20 COM2 Connector	9
	Table 1.13: CN21 Floppy Connector	10
	Table 1.14: CN22 Print Port Connector.....	11
	Table 1.15: CN23 PS2 KB/MS Connector.....	12
	Table 1.16: CN25 CPU FAN Connector	12
	Table 1.17: CN26 System FAN Connector.....	12
	Table 1.18: CN27 GPIO Connector	13
	Table 1.19: CN28 SMB Connector	13
	Table 1.20: CN29 I2C Connector	13
	Table 1.21: CN31 ATX Power Connector.....	14
	Table 1.22: CN32 SATA 0 Connector	14
	Table 1.23: CN33 SATA 1 Connector	14
	Table 1.25: CN35 SATA 3 Connector	15
	Table 1.26: CN41 USB 6/7	15
	Table 1.24: CN34 SATA 2 Connector	15
	Table 1.27: CN44 New Card Connector.....	16
	Table 1.28: CN46 LVDS Connector	17
	Table 1.29: CN47 Inverter Power Connector	18
	Table 1.30: PCIE1-1X1 PCI-Express x1 Slot 1	18
	Table 1.31: PCIE2-1X1 PCI-Express x1 Slot 2	19
	Table 1.32: PCIE3-1X1 PCI-Express x1 Slot 3	20
	Table 1.33: PCIE-16X1 PCI-Express x16 Slot 1	21
	Table 1.34: CN16 BIOS Disable.....	24
	Table 1.35: CN36 COM Function Connector.....	24
	Table 1.36: CN37 COM Function Connector #: low active	25
	Table 1.37: CN38 COM2 RS232/422/485 Selector.....	25
	Table 1.38: CN39 CMOS Battery Mode	25
	Table 1.39: CN42 Embedded LVDS Panel Power Selector	26
	Table 1.40: CN43 PS-ON# for AT Power Mode Simulation	26
	Table 1.41: CN45 SDVO - LVDS Panel Power Selector	26
	Table 1.42: J1 Front Panel	26
	Table 1.43: SW1 Power Switch	26
	Table 1.44: SW2 Reset Switch.....	26
	Table 1.45: SW3/4/5 Switches for SDVO-LVDS	27

Chapter 1

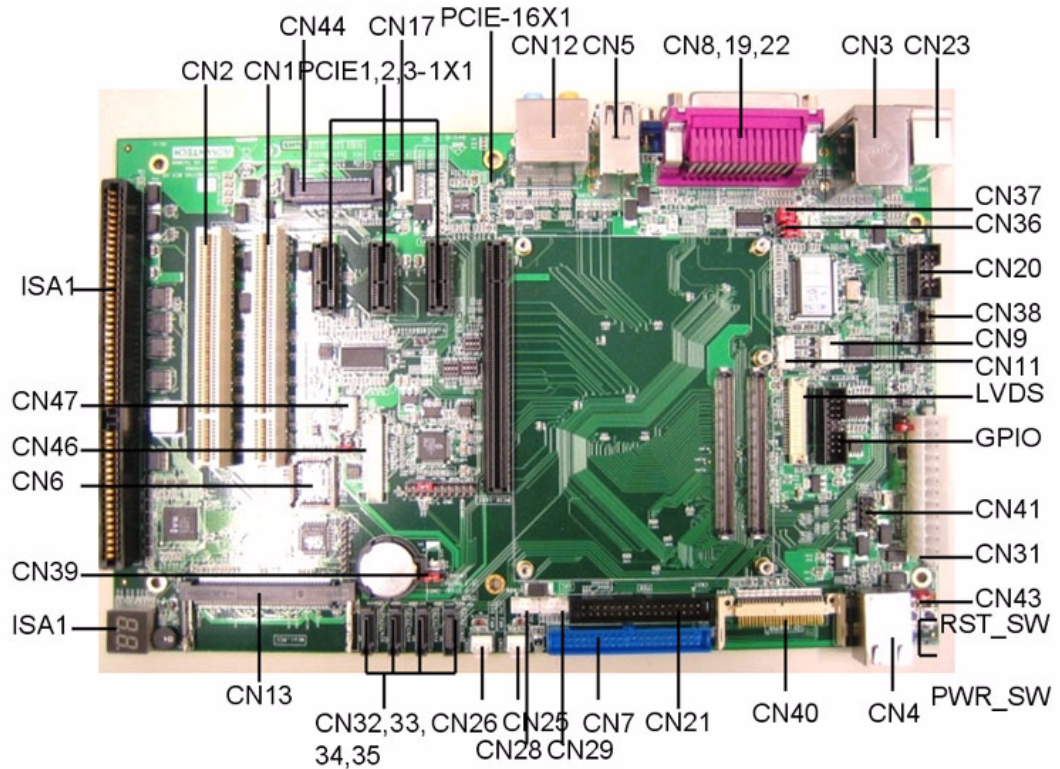
Connector and Jumper setting

This chapter gives you the connector and jumper installation information on the SOM-DB5700 Evaluation Carrier Board.

Sections include:

- Connector and Jumper table
- Connector and jumper pin definition

1.1 Placement of Evaluation Carrier Board



1.2 Connector Table

Table 1.1: Connector Table

Connector	Description
CN1	PCI Slot 0*
CN2	PCI Slot 1*
CN3	LAN with USB0/1
CN4	LAN
CN5	USB2/3/4/5
CN6	BIOS2 Socket
CN7	Primary IDE Connector*
CN8	CRT Connector
CN9	Inverter Power Connector
CN10	LVDS Connector
CN11	TV out Connector
CN12	HD Audio Connector
CN13	Mini PCI Connector*
CN17	CD Line-In
CN19	COM1 Connector
CN20	COM2 Connector
CN21	Floppy Connector
CN22	Print Port Connector

Table 1.1: Connector Table

CN23	PS2 KB/MS Connector
CN25	CPU FAN Connector
CN26	System FAN Connector
CN27	GPIO Connector
CN28	SMB Connector
CN29	I2C Connector
CN31	ATX Power Connector
CN32	SATA 0 Connector
CN33	SATA 1 Connector
CN34	SATA 2 Connector
CN35	SATA 3 Connector
CN40	CF Connector*
CN41	USB6/7
CN44	New Card Connector
CN46	LVDS Connector
CN47	Inverter Power Connector
ISA1	ISA Slot*
PCIE1-1X1	PCI-Express x1 Slot 1
PCIE2-1X1	PCI-Express x1 Slot 2
PCIE3-1X1	PCI-Express x1 Slot 3
PCIE-16X1	PCI-Express x16 Slot 1

* item shows the general interface and not described in this document.

1.3 Jumper Table

Table 1.2: Jumper Table

Jumper	Description
CN16	BIOS Disable
CN36	COM Function Connector
CN37	COM Function Connector
CN38	COM2 RS232/422/485 Selector
CN39	CMOS Battery Mode
CN42	Embedded LVDS Power Selector
CN43	PS-ON# for AT Power Mode Simulation
CN45	SDVO - LVDS Power Selector
J1	Front Panel
J2/ J3	Ground Pins for Probe Sensing
SW1	Power Button
SW2	Reset Button
SW3/4/5	Switches for SDVO-LVDS

1.4 Connector and jumper pin definition:

Table 1.3: CN3 LAN with USB 0/1

Pin	Pin name	#: low active
1	LAN2.5V	
2	LAN_MDI0P_R	
3	LAN_MDI0N_R	
4	LAN_MDI1P_R	
5	LAN_MDI1N_R	
6	LAN_MDI2P_R	
7	LAN_MDI2N_R	
8	LAN_MDI3P_R	
9	LAN_MDI3N_R	
10	GND	
11	LAN_LINK#	
12	LAN_ACT#	
13	LAN_LINK100#	
14	LAN_LINK1000#	
15	USBV0	
16	USBD1N	
17	USBD1P	
18	GND	
19	USBV0	
20	USBD0N	
21	USBD0P	
22	GND	
23	GND	
24	GND	
25	GND	
26	GND	
27	GND	
28	GND	
29	GND	
30	GND	

Table 1.4: CN4 LAN

Pin	Pin name	#: low active
1	LAN2MDI0P_R	
2	LAN2MDI0N_R	
3	LAN2MDI1P_R	
4	LAN2MDI1N_R	
5	LAN2.5	
6	LAN2.5	
7	LAN2MDI2P_R	
8	LAN2MDI2N_R	
9	LAN2MDI3P_R	
10	LAN2MDI3N_R	
11	LAN_LINK#	
12	LAN_ACT#	
13	LAN_LINK100#	
14	LAN_LINK1000#	
15	GND	
16	GND	

Table 1.5: CN5 USB2/3/4/5

Pin	Pin name
1	USBV1
2	USBD2N
3	USBD2P
4	GND
5	USBV1
6	USBD3N
7	USBD3P
8	GND
9	USBV2
10	USBD4N
11	USBD4P
12	GND
13	USBV2
14	USBD5N
15	USBD5P
16	GND
17	GND
18	GND
19	GND
20	GND
21	GND
22	GND

Table 1.6: CN6 BIOS2 Socket

Pin	Pin name
1	NC
2	RESET#
3	FGPI3
4	FGPI2
5	FGPI1
6	FGPI0
7	WP#
8	TBL#
9	D3
10	D2
11	D1
12	D0
13	LPC_AD0
14	LPC_AD1
15	LPC_AD2
16	GND
17	LPC_AD3
18	RSV
19	RSV
20	RSV
21	RSV
22	NC
23	LPC_FRAME#
24	#INIT
25	3.3V
26	GND
27	3.3V
28	GND
29	IC
30	FGPI4
31	CLK
32	3.3V

Table 1.7: CN8 CRT Connector

Pin	Pin name
1	VGAR
2	VGAG
3	VGAB
4	NC
5	GND
6	GND
7	GND
8	GND
9	NC
10	GND
11	NC
12	DDDA-R
13	VGAHSY-R
14	VGAVSY-R
15	DDCK-R
16	GND
17	GND

Table 1.8: CN11 TV out Connector

Pin	Pin name
1	DACC_L (from TVDAC_C)
2	DACB_L2 (from TVDAC_B)
3	GND
4	GND
5	DACA_L3 (from TVDAC_A)

Table 1.9: CN12 HD Audio Connector

Pin	Pin name
C0	GND
A1	LINE1-L2
A2	LINE1-JD
A3	GND
A4	LINE1-R2
C0	GND
B1	FRONT-L2
B2	FRONT-JD
B3	GND
B4	FRONT-R2
C0	GND
C1	MIC1-L2
C2	MIC1-JD
C3	GND
C4	MIC1-R2
F0	GND
D1	CEN2
D2	CEN-JD
D3	GND
D4	LFE2
F0	GND
E1	SURR-L2
E2	SURR-JD
E3	GND
E4	SURR-R2
F0	GND
F1	SIDESURR-L2
F2	SIDESURR-JD
F3	GND
F4	SIDESURR-R2

Table 1.10: CN17 CD Line-In

Pin	Pin name
1	CDINR
2	CDGND
3	CDGND
4	CDINL

Table 1.11: CN19 COM1 Connector

Pin	Pin name	#: low active
1	NDCD#1	
2	NRXD1	
3	NTXD1	
4	NDTR#1	
5	GND	
6	NDSR#1	
7	NRTS#1	
8	NCTS#1	
9	COMA	
10	GND	
11	GND	

Table 1.12: CN20 COM2 Connector

Pin	Pin name	#: low active
1	NDCD#2_TXD485-	
2	NDSR#2	
3	NRXD2_TXD485+	
4	NRTS#2	
5	NTXD2_RXD485+	
6	NCTS#2	
7	NDTR#2_RXD485-	
8	COMB	
9	GND	
10	NC	

Table 1.13: CN21 Floppy Connector

Pin	Pin name	#: low active
1	GND	
2	FDD_RWC#GND	
3	GND	
4	NC	
5	GND	
6	FDD_DS1#	
7	GND	
8	FDD_INDEX#	
9	GND	
10	FDD_MOA#	
11	GND	
12	FDD_DSB#	
13	GND	
14	FDD_DSA#	
15	GND	
16	FDD_MOB#	
17	GND	
18	FDD_DIR#	
19	GND	
20	FDD_STEP#	
21	GND	
22	FDD_WD#	
23	GND	
24	FDD_WE#	
25	GND	
26	FDD_TRACK0#	
27	GND	
28	FDD_WP#	
29	GND	
30	FDD_RDATA#	
31	GND	
32	FDD_HEAD#	
33	GND	
34	FDD_DSKCHG#	

Table 1.14: CN22 Print Port Connector

Pin	Pin name	#: low active
1	PIO_STB_L	
2	PIO_PD0_L	
3	PIO_PD1_L	
4	PIO_PD2_L	
5	PIO_PD3_L	
6	PIO_PD4_L	
7	PIO_PD5_L	
8	PIO_PD6_L	
9	PIO_PD7_L	
10	LPT_ACK#_L	
11	LPT_BUSY_L	
12	LPT_PE_L	
13	LPT_SLCT_L	
14	LPT_AFD#_L	
15	LPT_ERR#_L	
16	LPT_INIT#_L	
17	LPT_SLIN#_L	
18	GND	
19	GND	
20	GND	
21	GND	
22	GND	
23	GND	
24	GND	
25	GND	
26	GND	
27	GND	
28	GND	

Table 1.15: CN23 PS2 KB/MS Connector

Pin	Pin name
1	KBDAT1
2	NC
3	GND
4	VCCKB
5	KBCLK1
6	NC
7	MSDAT1
8	NC
9	GND
10	VCCKB
11	MSCLK1
12	NC
13	GND
14	GND
15	GND
16	GND
17	GND

Table 1.16: CN25 CPU FAN Connector

Pin	Pin name
1	GND
2	12V
3	FAN_IO1

Table 1.17: CN26 System FAN Connector

Pin	Pin name
1	GND
2	12V
3	FAN_IO2

Table 1.18: CN27 GPIO Connector

Pin	Pin name
1	GPI0
2	5V
3	GPI1
4	GPO0
5	GPI2
6	FETGND
7	GPI3
8	DIOOT1
9	GND
10	12V
11	NC
12	NC
13	GPO3
14	FETGND
15	DIOOT2
16	12V

Table 1.19: CN28 SMB Connector

Pin	Pin name
1	GND
2	SMB_DAT
3	SMB_CLK
4	VCCSB5V

Table 1.20: CN29 I2C Connector

Pin	Pin name
1	GND
2	I2C_DAT
3	I2C_CLK
4	VCCSB5V

Table 1.21: CN31 ATX Power Connector

Pin	Pin name	#: low active
1	3.3V	
2	3.3V	
3	GND	
4	5V	
5	GND	
6	5V	
7	GND	
8	PWR_OK	
9	VCCSB5V	
10	12V	
11	12V	
12	3.3V	
13	3.3V	
14	-12V	
15	GND	
16	PS-ON#	
17	GND	
18	GND	
19	GND	
20	-5V	
21	5V	
22	5V	
23	5V	
24	GND	

Table 1.22: CN32 SATA 0 Connector

Pin	Pin name
1	GND
2	SATA_TX0P
3	SATA_TX0N
4	GND
5	SATA_RX0N
6	SATA_RX0P
7	GND

Table 1.23: CN33 SATA 1 Connector

Pin	Pin name
1	GND
2	SATA_TX1P
3	SATA_TX1N
4	GND
5	SATA_RX1N
6	SATA_RX1P
7	GND

Table 1.24: CN34 SATA 2 Connector

Pin	Pin name
1	GND
2	SATA_TX2P
3	SATA_TX2N
4	GND
5	SATA_RX2N
6	SATA_RX2P
7	GND

Table 1.25: CN35 SATA 3 Connector

Pin	Pin name
1	GND
2	SATA_TX3P
3	SATA_TX3N
4	GND
5	SATA_RX3N
6	SATA_RX3P
7	GND

Table 1.26: CN41 USB 6/7

Pin	Pin name
1	USBV3
2	USBV3
3	USBD6N
4	USBD7N
5	USBD6P
6	USBD7P
7	GND
8	GND
9	GND
10	GND

Table 1.27: CN44 New Card Connector

Pin	Pin name
1	GND
2	USBD6N
3	USBD6P
4	CPUSB#
5	RESERVED1
6	RESERVED2
7	RESERVED3
8	RESERVED4
9	+1.5V
10	+1.5V
11	WAKE#
12	+3.3VAUX
13	PERST#
14	+3.3V
15	+3.3V
16	CLKREQ#
17	CPPE#
18	REFCLK-
19	REFCLK+
20	GND
21	PERn0
22	PERp0
23	GND
24	PETn0
25	PETp0
26	GND

Table 1.28: CN46 LVDS Connector

Pin	Pin name
1	3.3V
2	3.3V
3	GND
4	GND
5	3.3V
6	3.3V
7	LVDS0_D0N
8	LVDS1_D0N
9	LVDS0_D0P
10	LVDS1_D0P
11	GND
12	GND
13	LVDS0_D1N
14	LVDS1_D1N
15	LVDS0_D1P
16	LVDS1_D1P
17	GND
18	GND
19	LVDS0_D2N
20	LVDS1_D2N
21	LVDS0_D2P
22	LVDS1_D2P
23	GND
24	GND
25	LVDS0_CLKN
26	LVDS1_CLKN
27	LVDS0_CLKP
28	LVDS1_CLKP
29	GND
30	GND
31	LVDS_CLK_R
32	LVDS_DAT_R
33	GND
34	GND
35	LVDS0_D3N
36	LVDS1_D3N
37	LVDS0_D3P
38	LVDS1_D3P
39	GND
40	VCON

Table 1.29: CN47 Inverter Power Connector

Pin	Pin name
1	+V12SA_SDVO
2	GND
3	LVDS_ENBKL / LVDS_ENBKL_CH7308
4	LVDS_SDVO_VBR
5	+V5SA_SDVO

Table 1.30: PCIE1-1X1 PCI-Express x1 Slot 1

Pin	Pin name	#: low active
A1	NC	
A2	12V	
A3	12V	
A4	GND	
A5	NC	
A6	NC	
A7	NC	
A8	NC	
A9	3.3V	
A10	3.3V	
A11	EXCD_RST#	
A12	GND	
A13	CLK_PCIE_SL0P	
A14	CLK_PCIE_SL0N	
A15	GND	
A16	PCIE_RX0P	
A17	PCIE_RX0N	
A18	GND	
B1	12V	
B2	12V	
B3	12V	
B4	GND	
B5	SMB_CLK	
B6	SMB_DAT	
B7	GND	
B8	3.3V	
B9	NC	
B10	VCCSB3.3V	
B11	PCIE_WAKE#	
B12	NC	
B13	GND	
B14	PCIE_TX0P	
B15	PCIE_TX0N	
B16	GND	
B17	NC	
B18	GND	

Table 1.31: PCIE2-1X1 PCI-Express x1 Slot 2

Pin	Pin name	#: low active
A1	NC	
A2	12V	
A3	12V	
A4	GND	
A5	NC	
A6	NC	
A7	NC	
A8	NC	
A9	3.3V	
A10	3.3V	
A11	EXCD_RST#	
A12	GND	
A13	CLK_PCIE_SL1P	
A14	CLK_PCIE_SL1N	
A15	GND	
A16	PCIE_RX1P	
A17	PCIE_RX1N	
A18	GND	
B1	12V	
B2	12V	
B3	12V	
B4	GND	
B5	SMB_CLK	
B6	SMB_DAT	
B7	GND	
B8	3.3V	
B9	NC	
B10	VCCSB3.3V	
B11	PCIE_WAKE#	
B12	NC	
B13	GND	
B14	PCIE_TX1P	
B15	PCIE_TX1N	
B16	GND	
B17	NC	
B18	GND	

Table 1.32: PCIE3-1X1 PCI-Express x1 Slot 3

Pin	Pin name	#: low active
A1	NC	
A2	12V	
A3	12V	
A4	GND	
A5	NC	
A6	NC	
A7	NC	
A8	NC	
A9	3.3V	
A10	3.3V	
A11	EXCD_RST#	
A12	GND	
A13	CLK_PCIE_SL2P	
A14	CLK_PCIE_SL2N	
A15	GND	
A16	PCIE_RX2P	
A17	PCIE_RX2N	
A18	GND	
B1	12V	
B2	12V	
B3	12V	
B4	GND	
B5	SMB_CLK	
B6	SMB_DAT	
B7	GND	
B8	3.3V	
B9	NC	
B10	VCCSB3.3V	
B11	PCIE_WAKE#	
B12	NC	
B13	GND	
B14	PCIE_TX2P	
B15	PCIE_TX2N	
B16	GND	
B17	NC	
B18	GND	

Table 1.33: PCIE-16X1 PCI-Express x16 Slot 1

Pin	Pin name	#: low active
A1	NC	
A2	12V	
A3	12V	
A4	GND	
A5	NC	
A6	NC	
A7	NC	
A8	NC	
A9	3.3V	
A10	3.3V	
A11	EXCD_RST#	
A12	GND	
A13	CLK_PCIE_SL4P	
A14	CLK_PCIE_SL4N	
A15	GND	
A16	PEG_RXP0	
A17	PEG_RXN0	
A18	GND	
A19	NC	
A20	GND	
A21	PEG_RXP1	
A22	PEG_RXN1	
A23	GND	
A24	GND	
A25	PEG_RXP2	
A26	PEG_RXN2	
A27	GND	
A28	GND	
A29	PEG_RXP3	
A30	PEG_RXN3	
A31	GND	
A32	NC	
A33	NC	
A34	GND	
A35	PEG_RXP4	
A36	PEG_RXN4	
A37	GND	
A38	GND	
A39	PEG_RXP5	
A40	PEG_RXN5	
A41	GND	
A42	GND	
A43	PEG_RXP6	
A44	PEG_RXN6	
A45	GND	

Table 1.33: PCIE-16X1 PCI-Express x16 Slot 1

A46	GND
A47	PEG_RXP7
A48	PEG_RXN7
A49	GND
A50	NC
A51	GND
A52	PEG_RXP8
A53	PEG_RXN8
A54	GND
A55	GND
A56	PEG_RXP9
A57	PEG_RXN9
A58	GND
A59	GND
A60	PEG_RXP10
A61	PEG_RXN10
A62	GND
A63	GND
A64	PEG_RXP11
A65	PEG_RXN11
A66	GND
A67	GND
A68	PEG_RXP12
A69	PEG_RXN12
A70	GND
A71	GND
A72	PEG_RXP13
A73	PEG_RXN13
A74	GND
A75	GND
A76	PEG_RXP14
A77	PEG_RXN14
A78	GND
A79	GND
A80	PEG_RXP15
A81	PEG_RXN15
A82	GND
B1	12V
B2	12V
B3	12V
B4	GND
B5	SMB_CLK
B6	SMB_DAT
B7	GND
B8	3.3V
B9	NC
B10	VCCSB3.3V

Table 1.33: PCIE-16X1 PCI-Express x16 Slot 1

B11	PCIE_WAKE#
B12	NC
B13	GND
B14	PEG_TXP0
B15	PEG_TXN0
B16	GND
B17	SDVO_CLK
B18	GND
B19	PEG_TXP1
B20	PEG_TXN1
B21	GND
B22	GND
B23	PEG_TXP2
B24	PEG_TXN2
B25	GND
B26	GND
B27	PEG_TXP3
B28	PEG_TXN3
B29	GND
B30	NC
B31	SDVO_DAT
B32	GND
B33	PEG_TXP4
B34	PEG_TXN4
B35	GND
B36	GND
B37	PEG_TXP5
B38	PEG_TXN5
B39	GND
B40	GND
B41	PEG_TXP6
B42	PEG_TXN6
B43	GND
B44	GND
B45	PEG_TXP7
B46	PEG_TXN7
B47	GND
B48	NC
B49	GND
B50	PEG_TXP8
B51	PEG_TXN8
B52	GND
B53	GND
B54	PEG_TXP9
B55	PEG_TXN9
B56	GND
B57	GND

Table 1.33: PCIE-16X1 PCI-Express x16 Slot 1

B58	PEG_TXP10
B59	PEG_TXN10
B60	GND
B61	GND
B62	PEG_TXP11
B63	PEG_TXN11
B64	GND
B65	GND
B66	PEG_TXP12
B67	PEG_TXN12
B68	GND
B69	GND
B70	PEG_TXP13
B71	PEG_TXN13
B72	GND
B73	GND
B74	PEG_TXP14
B75	PEG_TXN14
B76	GND
B77	GND
B78	PEG_TXP15
B79	PEG_TXN15
B80	GND
B81	NC
B82	NC

Table 1.34: CN16 BIOS Disable

Pin	Function
1-2	Disable the BIOS on SOM. Use BIOS2 on carrier board.
N/C	Normal

Table 1.35: CN36 COM Function Connector

Pin	Function
1	5V
2	5V
3	PCOMB
4	PCOMA
5	12V
6	12V

Table 1.39: CN42 Embedded LVDS Panel Power Selector

Pin	Function
1-2	3.3V
3-4	5V
5-6	12V

Table 1.40: CN43 PS-ON# for AT Power Mode Simulation

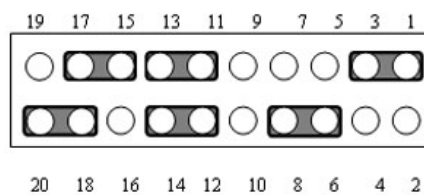
Pin	Function
1-2	AT Power Mode Simulation
2-3	Normal ATX Mode

Table 1.41: CN45 SDVO - LVDS Panel Power Selector

Pin	Function
1-2	3.3V
3-4	5V
5-6	12V

Table 1.42: J1 Front Panel

Position	Function
1-3	Power LED. Pin 1 is positive.
6-8	Buzzer Enable
12-14	HDD LED. Pin 14 is positive.
11-13	Power Button to SOM Board (for without Super IO)
15-17	Power Switch to Super IO (as the SW1)
18-20	Reset Switch

**Table 1.43: SW1 Power Switch**

The power switch is connected to the Super IO, not directly connected to the SOM board.

Table 1.44: SW2 Reset Switch

Table 1.45: SW3/4/5 Switches for SDVO-LVDS

Position	Mode
All on	Enable SDVOB to LVDS Transmitter
All off	PCIEx16 Card (Default)