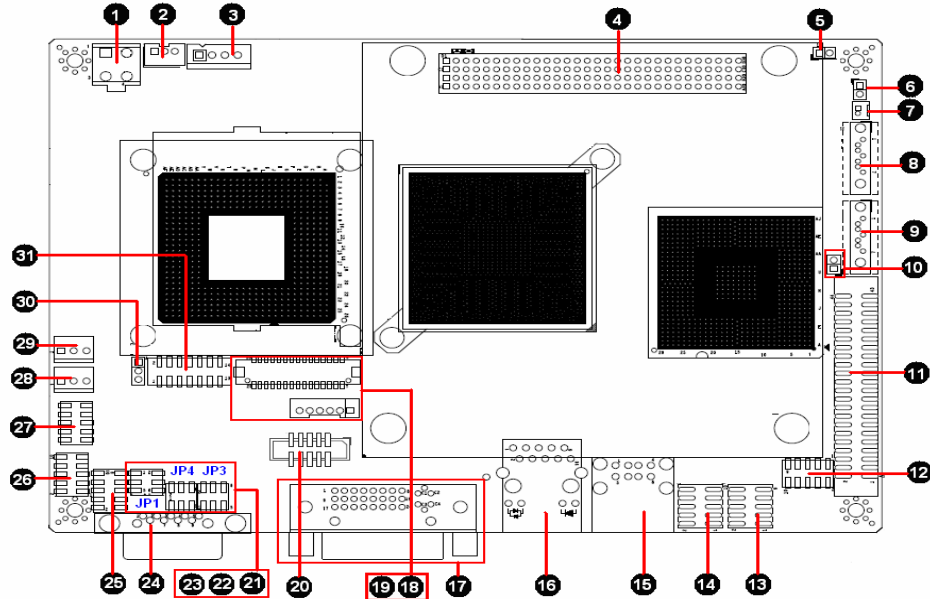


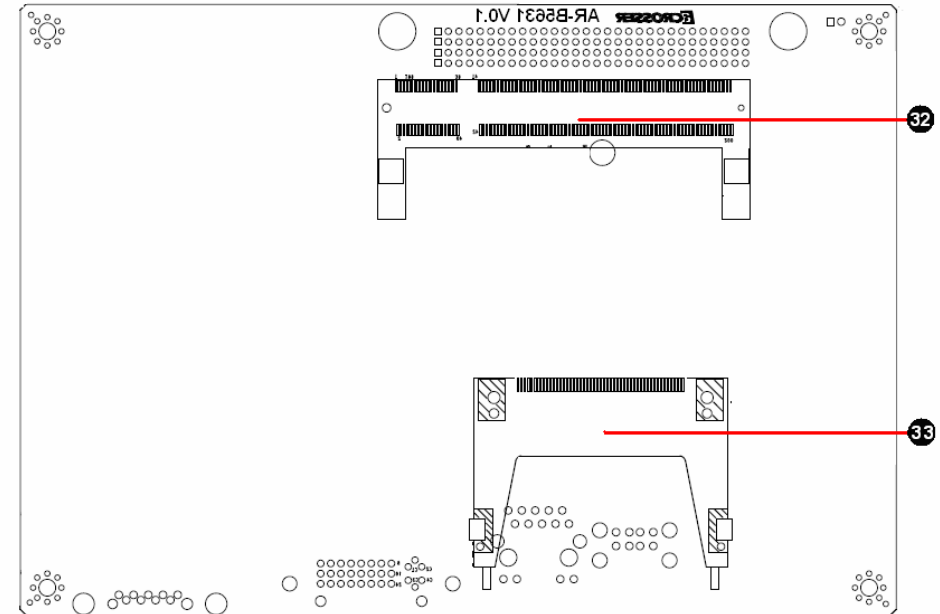
AR-B5631 Quick Manual V1.0

1. Main board illustration (Top Side)






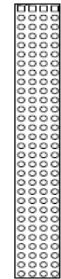





1	PWR2	13	USB3	25	COM2*
2	CON2	14	USB2	26	GPIO1
3	CON3	15	USB1	27	AUDIO1
4	J10	16	LAN1	28	FAN2
5	JP2	17	DVI1	29	FAN1
6	J5	18	LCD1	30	J1
7	BAT1	19	LCDPW1	31	TVCON1
8	SATA2	20	VGA1		
9	SATA1	21	JP3		
10	J8	22	JP4		
11	IDE1	23	JP1		
12	J12	24	COM1*		





Main board illustration (Bottom Side)



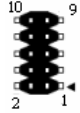
32	SODIMM1
33	CF1

2. Connectors and Jumper settings

1. PWR2: External +12V DC power input connector.	2. CON2: ATX function connector.	3. CON3: Extra +12V and +5V DC power output connector (for SATA device).																												
 <table border="1" data-bbox="174 443 318 616"> <thead> <tr> <th>PIN</th> <th>SETTING</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GND</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>+12V</td> </tr> <tr> <td>4</td> <td>+12V</td> </tr> </tbody> </table>	PIN	SETTING	1	GND	2	GND	3	+12V	4	+12V	 <table border="1" data-bbox="461 459 689 596"> <thead> <tr> <th>PIN</th> <th>SETTING</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GND</td> </tr> <tr> <td>2</td> <td>PS_ON</td> </tr> <tr> <td>3</td> <td>+5V_SUS</td> </tr> </tbody> </table>	PIN	SETTING	1	GND	2	PS_ON	3	+5V_SUS	 <table border="1" data-bbox="864 443 1003 616"> <thead> <tr> <th>PIN</th> <th>SETTING</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>+12V</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>+3.3V</td> </tr> <tr> <td>4</td> <td>+5V</td> </tr> </tbody> </table>	PIN	SETTING	1	+12V	2	GND	3	+3.3V	4	+5V
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4. J10: PCI-104 connector.	5. JP2: Signal SERIRQ connects to PCI-104 pin #B2 selection.	6. J5: CMOS data retention/clear.																												
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7. BAT1: CMOS battery holder.	8. SATA2: SATA device connector #2.	9. SATA1: SATA device connector #1.																												
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10. J8: CF master or slave select.	11. IDE1: PATA connector.																																																																																																		
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14. USB2: Internal USB2, USB3 connector.



PIN	SIGNAL	PIN	SIGNAL
1	+5V	2	+5V
3	USB_3-	4	USB_2-
5	USB_3+	6	USB_2+
7	GND	8	GND
9	GND	10	GND

15. USB1: External USB0, USB1 connector.



PIN	SIGNAL	PIN	SIGNAL
1	+5V	5	+5V
2	USB_1-	6	USB_0-
3	USB_1+	7	USB_0+
4	GND	8	GND

16. LAN1: RJ45 connector for Gigabit Ethernet port #1



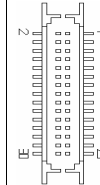
RJ45 connector for Gigabit Ethernet port #1.

17. DVI1: Digital Video Interface (DVI-D).



PIN	SIGNAL	PIN	SIGNAL
1	TD2- (Digital red-)	13	N.C
2	TD2+ (Digital red+)	14	+VCC
3	GND	15	GND
4	N.C	16	Hot plug detect
5	N.C-	17	TD0- (Digital blue-)
6	DDC clock	18	TD0+ (Digital blue+)
7	DDC data	19	GND
8	N.C	20	N.C
9	TD1- (Digital green-)	21	N.C
10	TD1+ (Digital green+)	22	GND
11	GND	23	TCLK- (Digital clock-)
12	N.C	24	TCLK+ (Digital clock+)

18. LCD1: LCD panel (LVDS, 18-bit/36-bit) connector.



PIN	SETTING	PIN	SETTING
1	LCD VDD	2	GND
3	E CLK-	4	E CLK+
5	GND	6	E Data2-
7	E Data2+	8	GND
9	E Data1-	10	E Data1+
11	NC	12	NC
13	E Data0+	14	E Data0-
15	GND	16	O CLK+
17	O CLK-	18	GND
19	O Data2+	20	O Data2-
21	I2C CLK	22	O Data1+
23	O Data1-	24	I2C Data
25	O Data0+	26	O Data0-
27	NC	28	NC
29	LCD VDD	30	LCD VDD

E: Even for dual channel.
O: Odd for single channel.

19. LCDPW1: LCD panel inverter power connector.



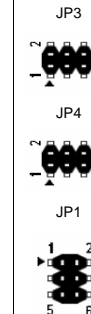
PIN	SETTING
1	+12V
2	+12V
3	GND
4	BKL ON
5	GND
6	Reserved.

20. VGA1: Pin Header for D-Sub 15 Pin VGA.



PIN	SIGNAL	PIN	SIGNAL
1	R	2	GND
3	G	4	GND
5	B	6	GND
7	VSYNC	8	SCL
9	HSYNC	10	SDA

21/22/23. JP3 & JP4 & JP1: Select COM2* RS232/422/485.



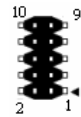
STATUS	SETTING		
	JP1	JP4	JP3
RS-232	1-2	1-3 2-4	1-3 2-4
RS-422	3-4	3-5 4-6	3-5 4-6
RS-485	5-6	3-5 4-6	N/A

24. COM1 : RS232 signal connector for port #1.



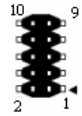
D-SUB-9 male connector for RS232 port #1.

25. COM2 : RS-232/422/485 signal connector for port #2.



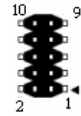
PIN	RS-232	RS-422	RS-485
1	DCD	N.C	N.C
2	DSR	RX-	N.C
3	RX	RX+	N.C
4	RTS	N.C	N.C
5	TX	N.C	N.C
6	CTS	TX-	DATA-
7	DTR	N.C	N.C
8	RI	TX+	DATA+
9	GND	GND	GND
10	GND	GND	GND

26. GPIO1:8-bit TTL-5V GPIO connector.



PIN	SETTING	PIN	SETTING
1	GPIO0 [30]	2	+5V
3	GPIO1 [31]	4	GPIO7 [37]
5	GPIO2 [32]	6	GPIO6 [36]
7	GPIO3 [33]	8	GPIO5 [35]
9	GND	10	GPIO4 [34]

27. AUDIO1: 2 channels Audio signal connector.



PIN	SETTING	PIN	SETTING
1	Line-out Right	2	Line-out Left
3	AGND	4	AGND
5	Line-in Right	6	Line-in Left
7	MIC-in	8	AGND
9	AGND	10	AGND

28. FAN2: System DC fan connector.



PIN	SETTING
1	GND
2	+12V
3	Fan speed data

ON/OFF controlled by system temperature setting of BIOS.

29. FAN1: CPU DC fan connector.



PIN	SETTING
1	GND
2	+12V
3	Sense

30. J1: LCD panel driving voltage selection.



STATUS	SETTING
1-2	+5V for LCD panel.
2-3	+3.3V for LCD panel. (Default).

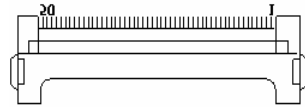
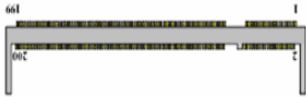
31. TVCON1: TV-out signal connector.



PIN	SETTING	PIN	SETTING
1	Y-G	2	N/A
3	GND	4	N/A
5	CVBS/Pb-G	6	N/A
7	GND	8	N/A
9	C/Pr-G	10	N/A
11	GND	12	N/A
13	GND	14	N/A

32. SODIMM1: DDR2 SO-DIMM SLOT.

33. CF1: CF CARD SOCKET.



- *:1. COM1 is the external UART RS-232 port, the text description on the PCB board is "CON1".
- *:2. COM2 is the internal UART RS-232/422/485 port, the text description on the PCB board is "COM1".

NOTE 1:

J12: Front panel connector.

STATUS	SETTING
1, 2	Standby power indicator LED 1: LED+ 2: LED-
3, 4	HDD access indicator 3: LED+ 4: LED-
5, 6	External buzzer. 5: Buzz + 6: Buzz -
7-8	Hardware reset
9-10	Power button for ATX mode; jumper shorted for AT mode.

When using **AT mode** in the system, the pin9-10 of header **J12** must be shorted. If using **ATX mode** in the system, the pin9-10 of header **J12** should connect to a **Push-Button-Switch**.
*The default setting is shorted the pin 9-10 of header **J12** with a jumper.*

NOTE: When using AT mode, the monitor will not display any message and the system will not auto-shut down after soft-off. In this case, please cut the PSU's power off or remove PSU's power to cut the system power off.