

Seavo Motherboard User's Manual

用户手册

SV1a-34516 Series

Ver 1.0



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1. Models and Attentions

1.1 Models

This manual is applied to following models:

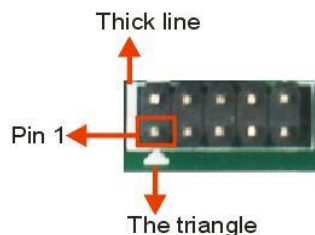
Model	CPU	COM	LAN	USB	HDMI	VGA	eDP	LVDS	M.2 Key-B	M.2 Key-E	Mini-PCIe	SATA 3.0
SV1a-34516	J3455	6	1	9	1	1	0	1	SATA	WIFI+BT	WIFI+4G/3G	1
SV1a-34526	J3455	6	2	9	1	1	0	1	SATA	WIFI+BT	4G/3G	1
SV1a-34516-C	J3455	6	1	9	0	1	1	1	SATA	WIFI+BT	WIFI+4G/3G	1

1.2 Attentions

1) Notes under a table or figure indicate the difference of models, or alternative definition of specific pin of the header (jumper/connector).

2) How to identify the first pin of a header or jumper

- Usually, there is a thick line or a triangle near the header's or jumper's pin 1.



- Square pad, which you can find on the back of the motherboard, is usually used for pin 1.



2. Specification

Model	SV1a-34516	SV1a-34526	SV1a-34516-C
CPU	Intel® Celeron® J3455, Quad-core, clock speed 1.50 GHz, up to 2.3GHz, TDP 10W		
Display	1 * HDMI (TYPE-A) ^[1] : max resolution up to 3840x2160 @30Hz		1 * eDP (Header) ^[1] : max resolution up to 1920x1080@60Hz
	1 * VGA (DB15/F/Header): max resolution up to 1920x1200@60Hz ^[2] 1 * eDP/LVDS (Header) ^[3] : LVDS max resolution up to 1920x1200@60Hz (default) or EDP max resolution up to 3840*2160@60Hz		
Memory	Support DDR3L-1333/1600/1866MHz, 1 * non-ECC SO-DIMM Slot, Up to 8GB		
Storage	1 * SATA3.0 7P Connector (with 1 * SATA Power Header) 1 * M.2 (NGFF) Key-B Slot (SATA SSD, 2242/2280) ^[4]		
Ethernet ^[5]	LAN1: 1 * Realtek GBE LAN Chip (RJ45, 10/100/1000 Mbps)		
	/	LAN2: 1 * Realtek GBE LAN Chip (RJ45,10/100/1000 Mbps)	/
Audio	Realtek ALC662 5.1 Channel HDA Codec, 1 * Line-out 3.5mm Jack 1 * MIC 3.5mm Jack 1 * Front Audio Header (Line-Out+MIC) 2 * Amplifier Header, 5-W (per channel) into an 8-Ω Loads		
Expansion Slots	1 * Mini PCI-E Slot (WIFI+4G/3G, with1 * SIM Card Header) ^{[4][6]} 1 * M.2 (NGFF) Key-E Slot (WIFI+BlueTooth, 2230)		
COM	1 * RS232 (COM1, Header) ^[1]		1 * RS232 (COM1, DB9/M) ^[1]
	4 * RS232 (COM2/4/5/6, Header) 1 * RS232/TTL (COM3, Header)		
USB ^{[5][6]}	2 * USB3.0 (TYPE-A, Rear IO)		
	7 * USB2.0 (Header, Internal)	2 * USB2.0 (TYPE-A, Rear IO) 5 * USB2.0 (Header, Internal)	
Other Ports	8 * GPIO 1 * Parallel Header 1 * PS/2 Connector (Keyboard & Mouse) 1 * Front Panel Header (HDD LED+PWR LED+PWR-ON+RESET) 1 * Port80 Debug Header 1 * System FAN Header 1 * CPU FAN Header 1 * CMOS Clear Jumper 1 * AT or ATX Select Jumper		
System	Windows 10 64-bit, Linux		
Temperature	Storage: -20~75°C Operating: 0~60°C		
BIOS	AMI UEFI BIOS (Support Watchdog Timer)		

Power Supply	DC 12V: 1 * DC 12V Power Input Φ 2.5mm Jack [7] 1 * DC 12V Power Input Header 1 * DC 12V + 5V Power Output Header
Factor	ITX Standard (170mm * 170mm)

Notes:

[1]: HDMI1 and EDP1 share the same signal, they cannot be accessed simultaneously. And HDMI colay with COM1 DB9M on the same position.

[2]: VGA DB15/F Connector and J_VGA1 Header share the same signal, they cannot be accessed simultaneously.

[3]: It supports LVDS by default and can support eDP if specified. (resistor selectable)

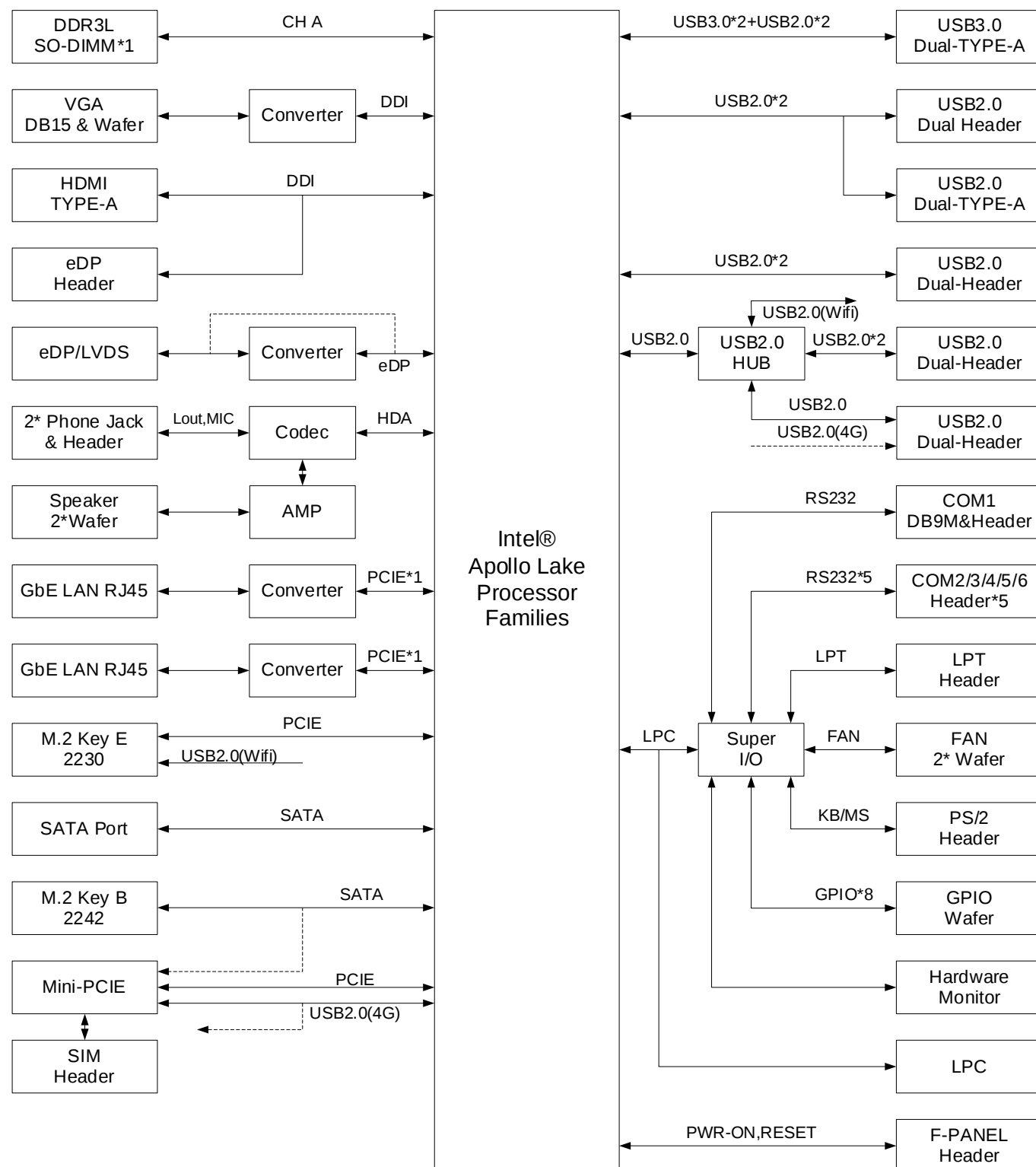
[4]: M.2 (NGFF) Key-B Slot colay SATA signal with Mini PCI-E Slot, support M.2 (NGFF) Key-B Slot by default.

[5]: F_USB4 signal colay with R_USB2. And R_USB2 colay with LAN2 on the same position.

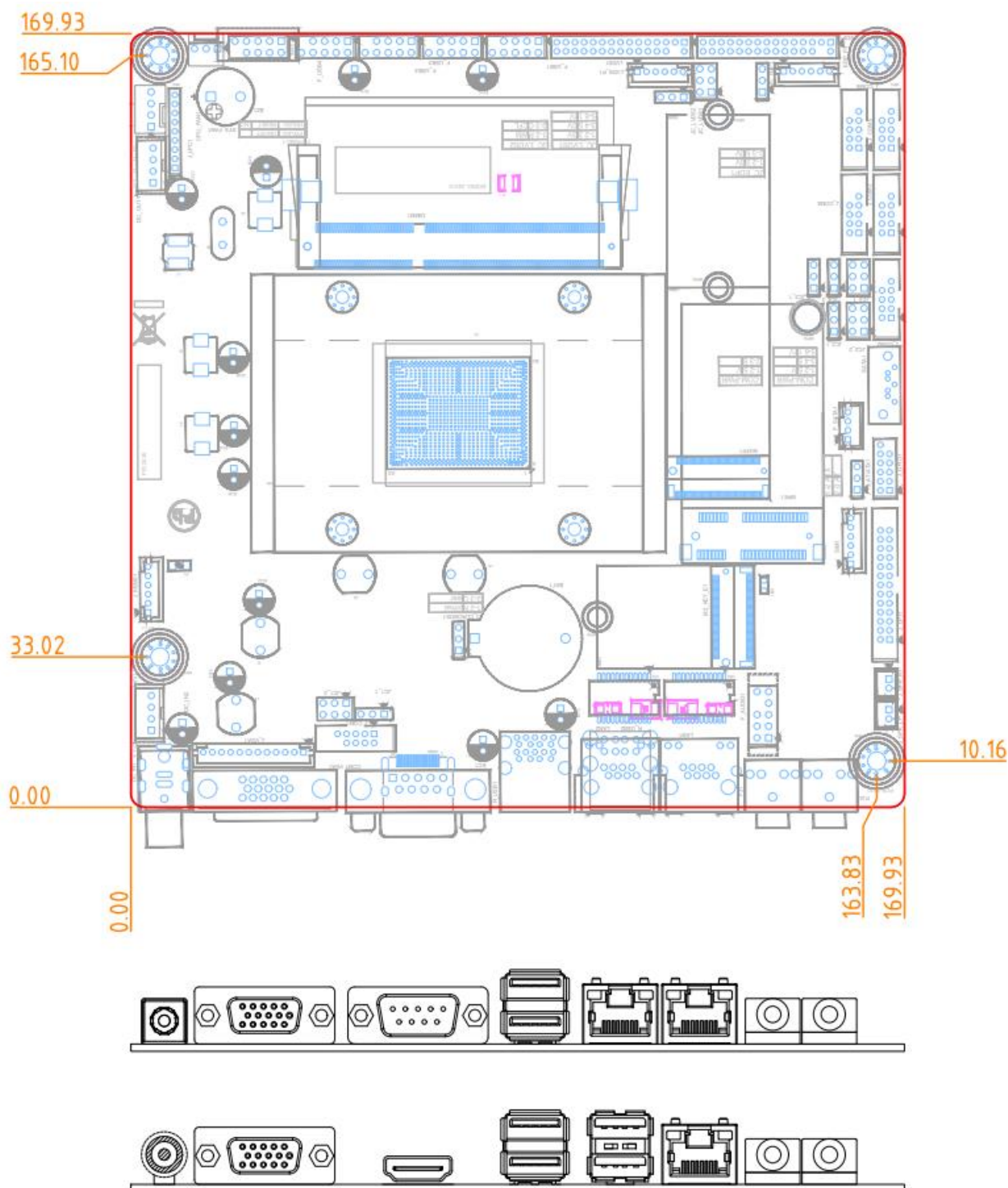
[6]: HUB1_USB2_4 signals of F_USB3 colay with MPE1, support MPE1 by default.

[7]: DC 12V Power Input Φ 2.5mm Jack colay with DC 12V Power Input Thread Connector on the same position.

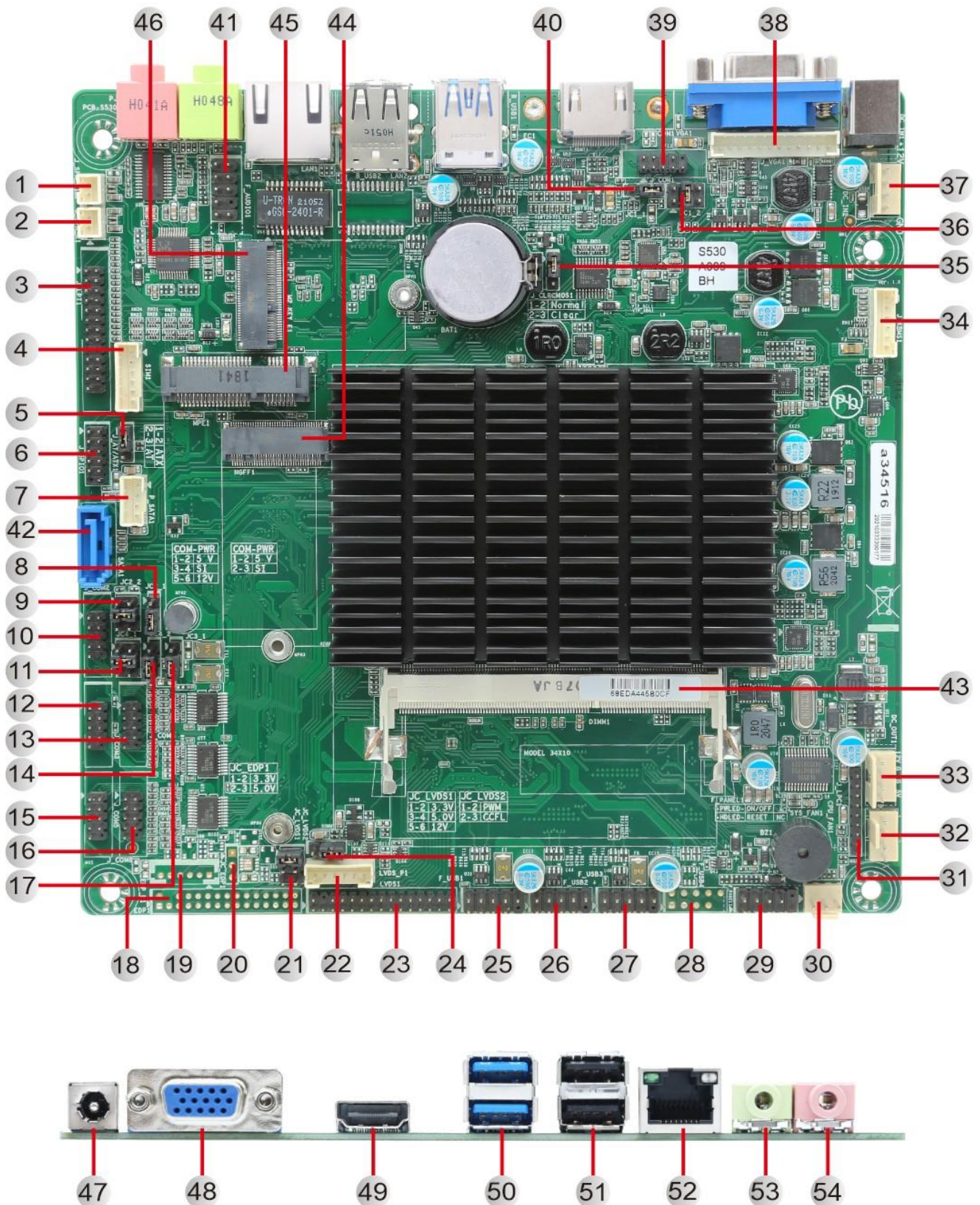
3.Functional Block Diagram

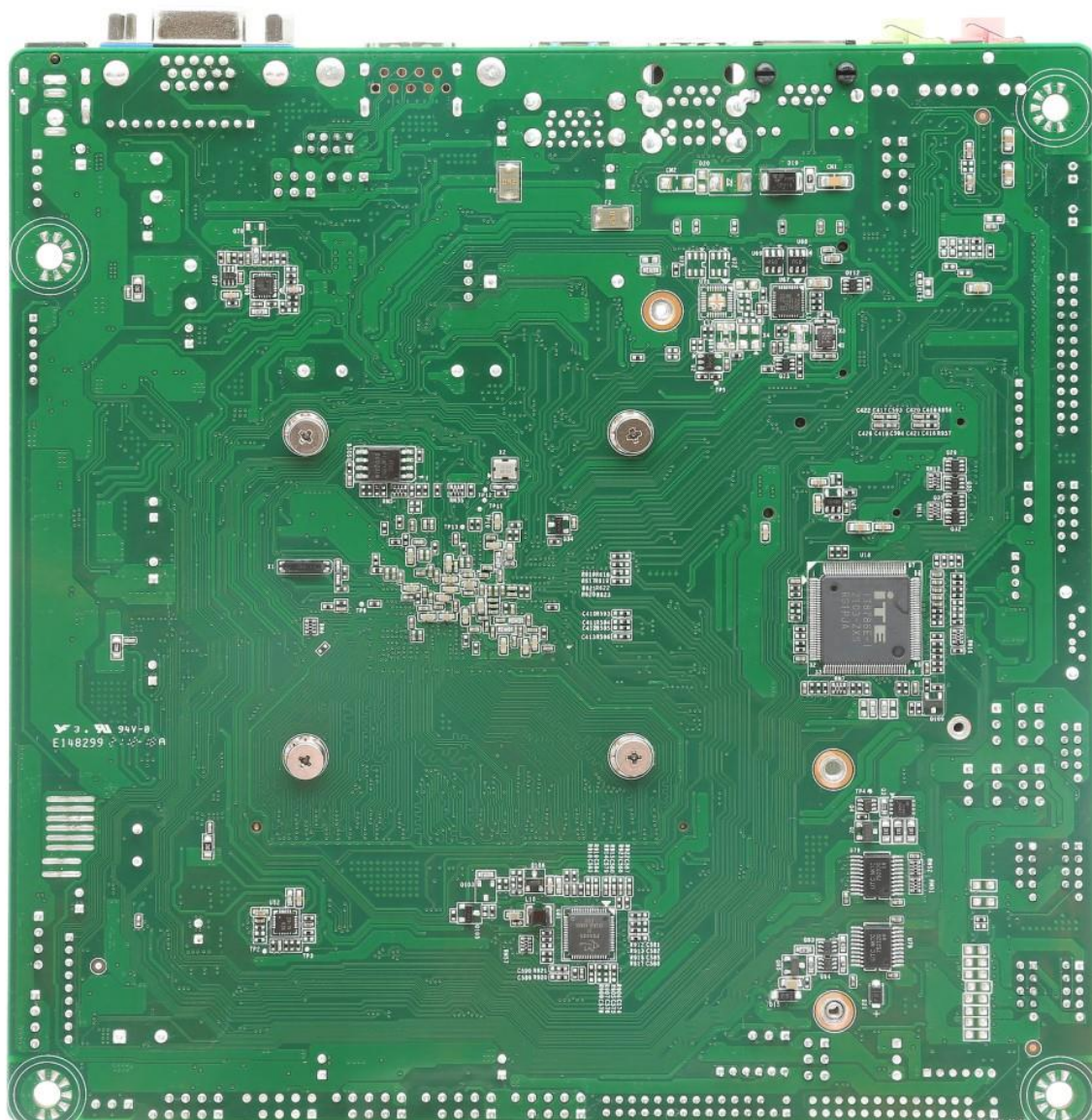


4. Mechanical Drawing



5. Jumpers / Headers and Connectors





Jumpers / Headers and Connectors

1	J_SPK_L1	Left Amplifier Header
2	J_SPK_R1	Right Amplifier Header
3	J_LPT1	Parallel Header
4	SIM1	SIM Card Header
5	J_AT/ATX1	AT or ATX Select Jumper
6	J_GPIO1	GPIO Header
7	P_SATA1	SATA Power Header
8	JC2_1	COM2 DCD Select Jumper
9	JC2_2	COM2 RI Select Jumper
10	J_COM2	COM2 Header
11	JC4_1	COM4 DCD Select Jumper
12	J_COM3	COM3 Header

13	J_COM4	COM4 Header
14	JC4_2	COM4 RI Select Jumper
15	J_COM5	COM5 Header
16	J_COM6	COM6 Header
17	JC3_1	COM3 DCD Select Jumper
18	EDP1	eDP2 Signal Header
19	EDP_P1	eDP2 Backlight Control Header
20	JC_EDP1	eDP2 VDD Select Jumper
21	JC_LVDS1	eDP1/LVDS VDD Select Jumper
22	LVDS_P1	eDP1/LVDS Backlight Control Header
23	LVDS1	eDP1/LVDS Signal Header
24	JC_LVDS2	eDP1/LVDS Backlight PWM/PWM# Select Jumper
25	F_USB1	Front USB2.0 Header1
26	F_USB2	Front USB2.0 Header2
27	F_USB3	Front USB2.0 Header3
28	F_USB4	Front USB2.0 Header4
29	F_PANEL1	Front Panel Header
30	SYS_FAN1	System FAN Header
31	J_LPC1	Port80 Debug Header
32	CPU_FAN1	CPU FAN Header
33	DC_OUT1	DC 12V + 5V Power Output Header
34	J_KBMS1	PS/2 Header (Keyboard & Mouse)
35	J_CLRCMOS1	CMOS Clear Jumper
36	JC1_2	COM1 RI Select Jumper
37	DC_IN2	DC 12V Power Input Header
38	J_VGA1	VGA Signal Header
39	J_COM1	COM1 Header
40	JC1_1	COM1 DCD Select Jumper
41	F_AUDIO1	Front Audio Header (Line-Out + MIC)
42	SATA1	SATA3.0 7P Connector
43	DIMM1	DDR3L SO-DIMM Slot
44	NGFF1	M.2 (NGFF) Key-B Slot (SATA SSD, 2242/2280)
45	MPE1	Mini PCI-E Slot (WIFI + 4G/3G)
46	M2_KEY_E1	M.2 (NGFF) Key-E Slot (WIFI+BlueTooth, 2230)
47	DC_IN1 (DC_IN3)	DC 12V Power Input Φ 2.5mm Jack (DC 12V Power Input Thread Connector Optional)
48	VGA1	VGA DB15/F Connector
49	HDMI1(COM1)	HDMI TYPE-A Connector (COM1 DB9/M Connector Optional)
50	R_USB1	Dual USB3.0 TYPE-A Connector
51	R_USB2 (LAN2)	Dual USB2.0 TYPE-A Connector (GBE LAN RJ45 Connector2 Optional)

52	LAN1	GBE LAN RJ45 Connector1
53	PJ1	Line-Out 3.5mm Jack
54	PJ2	MIC 3.5mm Jack

6. Definition of Jumpers /Headers and Connectors

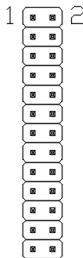
1) J_SPK_L1 (Left Amplifier Header 2*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	SPK_OUT_L-	2	SPK_OUT_L+

2) J_SPK_R1 (Right Amplifier Header 2*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	SPK_OUT_R-	2	SPK_OUT_R+

3) J_LPT1 (Parallel Header 13*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	LPT_STB#	2	EXPLPT_AFD#
	3	LPT_PD0	4	EXPLPT_ERR#
	5	LPT_PD1	6	EXPLPT_INIT#
	7	LPT_PD2	8	EXPLPT_SLIN#
	9	LPT_PD3	10	GND
	11	LPT_PD4	12	GND
	13	LPT_PD5	14	GND
	15	LPT_PD6	16	GND
	17	LPT_PD7	18	GND
	19	LPT_ACK#	20	GND
	21	LPT_BUSY	22	GND
	23	LPT_PE	24	GND
	25	LPT_SLCT	26	N/C

4) SIM1 (SIM Card Header 6*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	UIM_PWR	4	UIM_CLK
	2	GND	5	UIM_RST
	3	UIM_DAT	6	UIM_VPP

5) J_AT/ATX1 (AT or ATX Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2(Default)	ATX MODE
	2-3	AT MODE

6) J_GPIO1 (GPIO Header 6*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	SIO_GP10SB (0xA00 Bit0, H ^[1])	2	SIO_GP23SB (0xA01 Bit3, H ^[1])
	3	SIO_GP40SB (0xA03 Bit0, H ^[1])	4	SOC_GPIO_2 (0xD0C50510, H ^[1])
	5	GND	6	SIO_GP51 (0xA04 Bit1, H ^[1])
	7	SIO_GP42SB (0xA03 Bit2, H ^[1])	8	SIO_GP54SB (0xA04 Bit4, H ^[1])
	9	SOC_GPIO_3 (0xD0C50518, H ^[1])	10	+ 3.3V ^[2]
			12	N/C

Notes:

[1]: "H" or "L" means the default voltage is High or Low level (3.3V GPIO, Power of this Pin depends on Pin10).

[2]: Power on this Pin is 3.3V by default, 5V is available if specified. (resistor selectable)

7) P_SATA1 (SATA Power Header 4*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 12V	3	GND
	2	GND	4	+ 5V

8) JC2_1* (COM2 DCD Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2	COM2_PIN1: + 5V
	2-3(Default)	COM2_PIN1: DCD

Notes:

[*]: If JC2_1 not on the board, PIN1 of COM2 can be DCD / 12V, SEL by RES.

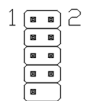
9) JC2_2* (COM2 RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-2	COM2_PIN9: + 5V
	3-4(Default)	COM2_PIN9: RI
	5-6	COM2_PIN9: + 12V

Notes:

[*]: If JC2_2 not on the board, PIN9 of COM2 can be RI, SEL by RES.

10) J_COM2 (COM2 Header 5*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	COM2_PIN1 ^[1]	2	COM2_RXD
	3	COM2_TXD	4	COM2_DTR
	5	GND	6	COM2_DSR
	7	COM2_RTS	8	COM2_CTS
	9	COM2_PIN9 ^[2]		

Notes:

[1]: PIN1 of COM2 can be DCD (default) / 5V, selectable by "COM2 DCD Select Jumper". (JC2_1, Location 8)

[2]: PIN9 of COM2 can be RI (default) / 5V / 12V, selectable by "COM2 RI Select Jumper". (JC2_2, Location 9)

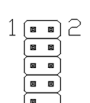
11) JC4_1* (COM4 DCD Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-2	COM4_PIN1: + 5V
	3-4(Default)	COM4_PIN1: DCD
	5-6	COM4_PIN1: + 12V

Notes:

[*]: If JC4_1 not on the board, PIN1 of COM4 can be DCD, SEL by RES.

12) J_COM3 (COM3 Header 5*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	COM3_PIN1 ^[1]	2	COM3_RXD(Default)/ COM3_TTL_RXD ^[2]
	3	COM3_TXD(Default)/ COM3_TTL_TXD ^[2]	4	COM3_DTR
	5	GND	6	COM3_PIN6 ^[3]
	7	COM3_RTS	8	COM3_CTS(Default)/ COM3_TTL_RXD ^[2]

	9	COM3_RI(Default)/ COM3_TTL_TXD [2]		
--	---	---------------------------------------	--	--

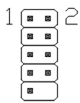
Notes:

[1]: PIN1 of COM3 can be DCD (default) / 5V, selectable by "COM3 DCD Select Jumper". (JC3_1, Location 17)

[2]: PIN2/3/8/9 of COM3 can be RS232(default) / TTL SEL by RES.

[3]: PIN6 of COM3 can be DSR (default) / 3.3V / 5V, SEL by RES.

13) J_COM4 (COM4 Header 5*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	COM4_PIN1 [1]	2	COM4_RXD
	3	COM4_TXD	4	COM4_DTR
	5	GND	6	COM4_DSR
	7	COM4_RTS	8	COM4_CTS
	9	COM4_PIN9 [2]		

Notes:

[1]: PIN1 of COM4 can be DCD (default) / 5V/ 12V, selectable by "COM4 DCD Select Jumper". (JC4_1, Location 11)

[2]: PIN9 of COM4 can be RI (default) / 5V, selectable by "COM4 RI Select Jumper". (JC4_2, Location 14)

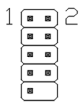
14) JC4_2* (COM4 RI Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2	COM4_PIN9: + 5V
	2-3(Default)	COM4_PIN9: RI

Notes:

[*]: If JC4_2 not on the board, PIN9 of COM4 can be RI, SEL by RES.

15) J_COM5 (COM5 Header 5*2 Pin 2.00mm)

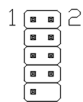
Graphic	Pin	Definition	Pin	Definition
	1	COM5_PIN1 [1]	2	COM5_RXD
	3	COM5_TXD	4	COM5_DTR
	5	GND	6	COM5_DSR
	7	COM5_RTS	8	COM5_CTS
	9	COM5_PIN9 [2]		

Notes:

[1]: PIN1 of COM5 is DCD by default, 5V / 12V is available if specified. (resistor selectable)

[2]: PIN9 of COM5 is RI by default, 5V / 12V is available if specified. (resistor selectable)

16) J_COM6 (COM6 Header 5*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	COM6_PIN1 ^[1]	2	COM6_RXD
	3	COM6_TXD	4	COM6_DTR
	5	GND	6	COM6_DSR
	7	COM6_RTS	8	COM6_CTS
	9	COM6_PIN9 ^[2]		

Notes:

[1]: PIN1 of COM6 is DCD by default, 5V / 12V is available if specified. (resistor selectable)

[2]: PIN9 of COM6 is RI by default, 5V / 12V is available if specified. (resistor selectable)

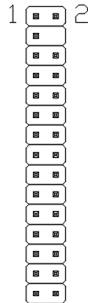
17) JC3_1* (COM3 DCD Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2	COM3_PIN1: + 5V
	2-3(Default)	COM3_PIN1: DCD

Notes:

[*]: If JC3_1 not on the board, PIN1 of COM1 can be DCD / 3.3V, SEL by RES.

18) EDP1 (eDP2 Signal Header 15*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	VDD_PANEL2 ^[1]	2	VDD_PANEL2 ^[1]
	3	VDD_PANEL2 ^[1]		
	5	EDP_DDI0_HPD	6	EDP_DDI0_HPD
	7	N/C	8	N/C
	9	N/C	10	N/C
	11	N/C	12	N/C
	13	GND	14	GND
	15	N/C	16	N/C
	17	N/C	18	N/C
	19	EDP_DDI0_TX0- ^[2]	20	EDP_DDI0_TX0+ ^[2]
	21	EDP_DDI0_TX1- ^[2]	22	EDP_DDI0_TX1+ ^[2]
	23	N/C	24	N/C
	25	GND	26	GND
	27	N/C	28	N/C
	29	EDP_DDI0_AUX-	30	EDP_DDI0_AUX+

Notes:

- [1]: VDD_PANEL2 is 3.3V by default, 5V is selectable by “eDP2 VDD Select Jumper”. (JC_EDP1, Table20)
[2]: EDP1 and HDMI1 share the same signal, they can't be accessed simultaneously.. (resistor selectable)

19) EDP_P1 (eDP2 Backlight Control Header 6*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	4	EDP2_BKLT_EN
	2	GND	5	+ 12V
	3	EDP2_BKLT_CTL	6	+ 12V

20) JC_EDP1 (eDP2 VDD Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2(Default)	+ 3.3V
	2-3	+ 5V

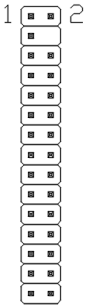
21) JC_LVDS1 (eDP1/LVDS VDD Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-2(Default)	+ 3.3V
	3-4	+ 5V
	5-6	+ 12V

22) LVDS_P1 (eDP1/LVDS1 Backlight Control Header 6*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	4	EDP1/LVDS_BKLT_EN
	2	GND	5	+ 12V
	3	EDP1/LVDS_BKLT_CTL	6	+ 12V

23) LVDS1 (eDP1/LVDS Signal Header 15*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	VDD_PANEL1 [1]	2	VDD_PANEL1 [1]
	3	VDD_PANEL1 [1]		
	5	LVDS_PRSENT#/ EDP1_HPD [2]	6	LVDS_PRSENT#/ EDP1_HPD [2]
	7	LVDS_A_DATA0-/ EDP1_2- [2]	8	LVDS_A_DATA0+/ EDP1_2+ [2]
	9	LVDS_A_DATA1-/ EDP1_3- [2]	10	LVDS_A_DATA1+/ EDP1_3+ [2]
	11	LVDS_A_DATA2-/ N/C [2]	12	LVDS_A_DATA2+/ N/C [2]
	13	GND	14	GND
	15	LVDS_A_CLK-/ N/C [2]	16	LVDS_A_CLK+/ N/C [2]
	17	LVDS_A_DATA3-/ N/C [2]	18	LVDS_A_DATA3+/ N/C [2]
	19	LVDS_B_DATA0-/ EDP1_0- [2]	20	LVDS_B_DATA0+/ EDP1_0+ [2]
	21	LVDS_B_DATA1-/ EDP1_1- [2]	22	LVDS_B_DATA1+/ EDP1_1+ [2]
	23	LVDS_B_DATA2-/ N/C [2]	24	LVDS_B_DATA2+/ N/C [2]
	25	GND	26	GND
	27	LVDS_B_CLK-/ N/C [2]	28	LVDS_B_CLK+/ N/C [2]
	29	LVDS_B_DATA3-/ EDP1_AUX- [2]	30	LVDS_B_DATA3+/ EDP1_AUX+ [2]

Notes:

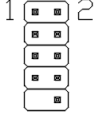
[1]: Panel Power VDD is 3.3V by default, 5V / 12V is selectable by “eDP1/LVDS VDD Select Jumper” (JC_LVDS1, Table21).

[2]: It supports LVDS by default and can supports eDP if specified. (resistor selectable)

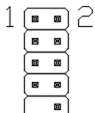
24) JC_LVDS2 (eDP1/LVDS Backlight PWM/PWM# Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2(Default)	PWM# (Reverse)
	2-3	PWM (Normal)

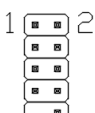
25) F_USB1 (Front USB2.0 Header1 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 5V	2	+ 5V
	3	USB2_5-	4	USB2_6-
	5	USB2_5+	6	USB2_6+
	7	GND	8	GND
			10	GND

26) F_USB2 (Front USB2.0 Header2 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 5V	2	+ 5V
	3	HUB1_USB2_1-	4	HUB1_USB2_2-
	5	HUB1_USB2_1+	6	HUB1_USB2_2+
	7	GND	8	GND
			10	GND

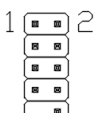
27) F_USB3 (Front USB2.0 Header3 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 5V	2	+ 5V
	3	HUB1_USB2_3-	4	HUB1_USB2_4- [1]
	5	HUB1_USB2_3+	6	HUB1_USB2_4+ [1]
	7	GND	8	GND
			10	GND

Notes:

[1]: HUB1_USB2_4 signal of F_USB3 colay with MPE1, they cannot be used at the same time, support MPE1 by default. (resistor selectable)

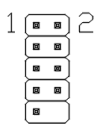
28) F_USB4 (Front USB2.0 Header4 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 5V	2	+ 5V
	3	USB2_3- [1]	4	USB2_4- [1]
	5	USB2_3+ [1]	6	USB2_4+ [1]
	7	GND	8	GND
			10	GND

Notes:

[1]: F_USB4 signal colay with R_USB2.

29) F_PANEL1 (Front Panel Header 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	HD LED+	2	POWER LED+
	3	HD LED-	4	POWER LED-
	5	RESET-	6	POWER+
	7	RESET+	8	POWER-
	9	N/C		

30) SYS_FAN1 (System FAN Header 3*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	3	FAN Speed Detection2
	2	+ 12V		

31) J_LPC1 (Port80 Debug Header 9*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	LFRAME_N	6	GND
	2	LPC_AD3	7	SIO_PCIRST_N
	3	LPC_AD2	8	CLKOUT_LPC1
	4	LPC_AD1	9	+ 3.3V
	5	LPC_AD0		

32) CPU_FAN1 (CPU FAN Header 4*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	3	FAN Speed Detection1
	2	+ 12V	4	FAN Speed Control1

33) DC_OUT1 (DC 12V + 5V Power Output Header 4*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 12V	3	GND
	2	GND	4	+ 5V

34) J_KBMS1 (PS/2 Header (Keyboard & Mouse) 6*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	KB_CK1	4	PS2_GND
	2	KB_DT1	5	+ 5V
	3	MS_CK1	6	MS_DT1

35) J_CLRCMOS1 (CMOS Clear Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2(Default)	Normal
	2-3	Clear CMOS

36) JC1_2* (COM1 RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-2	COM1_PIN9: + 5V
	3-4(Default)	COM1_PIN9: RI
	5-6	COM1_PIN9: + 12V

Notes:

[*]: If JC1_2 not on the board, PIN9 of COM1 can be RI, SEL by RES.

37) DC_IN2 (DC 12V Power Input Header 4*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 12V	3	GND
	2	+ 12V	4	GND

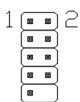
38) J_VGA1* (VGA Signal Header 12*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	7	CRT_G
	2	CRT_VS	8	GND
	3	CRT_HS	9	CRT_B
	4	GND	10	GND
	5	CRT_R	11	CRT_SDA
	6	GND	12	CRT_SCL

Notes:

[*]: VGA1(DB15) Connector and J_VGA1 header share the same signal, they cannot be accessed simultaneously.

39) J_COM1* (COM1 Header 5*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	COM1_PIN1 [1]	2	COM1_RXD
	3	COM1_TXD	4	COM1_DTR
	5	GND	6	COM1_DSR
	7	COM1_RTS	8	COM1_CTS
	9	COM1_PIN9 [2]		

Notes:

[*]: COM1 DB9M Connector and J_COM1 Header share the same signal, they cannot be accessed simultaneously.

[1]: PIN1 of COM1 can be DCD (default) / 5V, selectable by "COM1 DCD Select Jumper". (JC1_1, Location 40)

[2]: PIN9 of COM1 can be RI (default) / 5V / 12V, selectable by "COM2 RI Select Jumper". (JC1_2, Location 36)

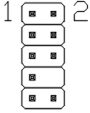
40) JC1_1* (COM1 DCD Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2	COM1_PIN1: + 5V
	2-3(Default)	COM1_PIN1: DCD

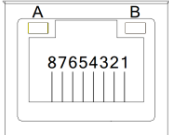
Notes:

[*]: If JC1_1 not on the board, PIN1 of COM1 can be DCD / 12V, SEL by RES.

41) F_AUDIO1 (Front Audio Header (Line-Out + MIC) 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	MIC_IN2_L	2	GND_AUD
	3	MIC_IN2_R	4	+ 3.3V
	5	LINE_OUT2_R	6	N/C
	7	GND_AUD		
	9	LINE_OUT2_L	10	LINE2_JD

52) LAN1 (GBE LAN RJ45 Connector1 8Pin)

Graphic	Pin	Definition	Pin	Definition
	1	MDI0_1+	5	MDI2_1-
	2	MDI0_1-	6	MDI1_1-
	3	MDI1_1+	7	MDI3_1+
	4	MDI2_1+	8	MDI3_1-
	A	Active LED	B	Speed LED
		ACT: Twinkling Green		1000M: Turn Yellow
		Stop: Lights Off		100M: Turn Green
				10M: Lights Off

7. BIOS setup

See “BIOS Spec for SV1a-34516 Series” for detail information of BIOS setup.

【End】