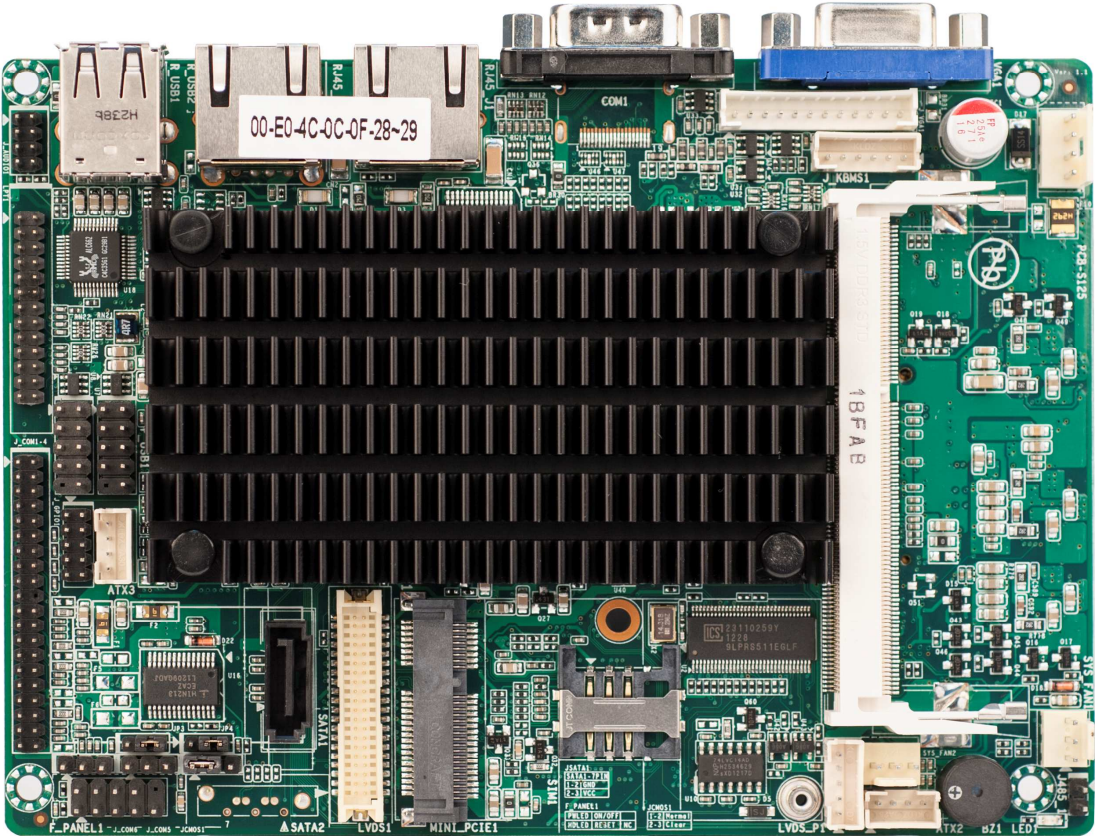


SV3-26026 Series Motherboard

User Guide

Ver 1.1



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1. Models and Attentions

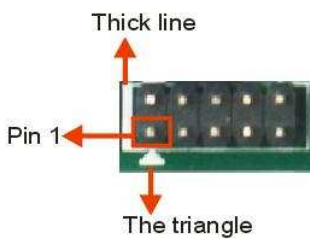
1.1 Models

This manual is applied to following models:

Model	Chipset	COM	USB	HDMI	LAN	LVDS
SV3-26026	N2600+NM10	6	6	0	2	Dual 24bit
SV3-26026-B	N2600+NM10	6	6	1	2	Dual 24bit
SV3-26016	N2600+NM10	6	8	0	1	Dual 24bit
SV3-26016-B	N2600+NM10	6	8	1	1	Dual 24bit
SV3-26016-C	N2600+NM10	6	8	0	1	Single 18bit
SV3-28026	N2800+NM10	6	6	0	2	Dual 24bit
SV3-28026-B	N2800+NM10	6	6	1	2	Dual 24bit
SV3-28016	N2800+NM10	6	8	0	1	Dual 24bit
SV3-28016-B	N2800+NM10	6	8	1	1	Dual 24bit

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	SV3-26026	SV3-26026-B	SV3-26016	SV3-26016-B
CPU	Intel® Atom™ N2600 ,Dual core, clock speed 1.6G, TDP 3.5W			
Chipset	Intel® NM10, TDP 1.5 W			
Display	1 * VGA 1 * Dual Channel 24bit LVDS ^[1]	1 * VGA 1 * Dual Channel 24bit LVDS ^[1] 1 * HDMI	1 * VGA 1 * Dual Channel 24bit LVDS ^[1]	1 * VGA 1 * Dual Channel 24bit LVDS ^[1] 1 * HDMI
Memory	Support DDR3 1066/800 MHz, 1 * SO-DIMM Slot, Up to 2GB			
Storage	1 * Serial ATA Port 1 * mSATA ^[2]			
Ethernet	2 * Realtek 8111E PCI-E Gigabit LAN		1* Realtek 8111E PCI-E Gigabit LAN	
USB	5 * USB2.0: 2(Rear I/O) + 3(Header) ^[3]		7* USB2.0: 4(Rear I/O) + 3(Header) ^[3]	
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC/Line-out Ports			
COM	6 * RS232 ^[4]			
Other Ports	8 * GPIO 1 * LPT 1 * SIM Card Slot 1 * PS/2 1 * Mini PCI-E (Support 3G Device ^[3]) 1 * F_AUDIO 2 * SYS_FAN Connectors			
Temperature	Storage: -20~75°C Operating: 0~60°C			
BIOS	AMI UEFI BIOS			
Factor	3.5 Inch (146*105mm)			

Notes:

- [1]: The 24bit Dual Channel LVDS support a max resolution of 1600*1200, and a selectable 18bit Single Channel LVDS support a max resolution of 1366*768.
- [2]: If mSATA is not supported, one more SATA Port could be supplied.
- [3]: There are 2 USB ports co-lays with LAN2, so single-LAN models can supply 4 rear USB ports; And if 3G device will not be used, one more front USB header can be supplied (see page 7).
- [4]: COM6 could be RS485 by setting jumpers.

Model	SV3-28026	SV3-28026-B	SV3-28016	SV3-28016-B
CPU	Intel® Atom™ N2800 ,Dual core, clock speed 1.86G, TDP 6.5W			
Chipset	Intel® NM10, TDP 1.5 W			
Display	1 * VGA 1 * Dual Channel 24bit LVDS ^[1]	1 * VGA 1 * Dual Channel 24bit LVDS ^[1] 1 * HDMI	1 * VGA 1 * Dual Channel 24bit LVDS ^[1]	1 * VGA 1 * Dual Channel 24bit LVDS ^[1] 1 * HDMI
Memory	Support DDR3 1066/800 MHz, 1 * SO-DIMM slot, Up to 4GB			
Storage	1 * Serial ATA Port 1 * mSATA ^[2]			
Ethernet	2 * Realtek 8111E PCI-E Gigabit LAN		1* Realtek 8111E PCI-E Gigabit LAN	
USB	5 * USB2.0: 2(Rear I/O) + 3(Header) ^[3]		7* USB2.0: 4(Rear I/O) + 3(Header) ^[3]	
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC/Line-out Ports			
COM	6 * RS232 ^[4]			
Other Ports	8 * GPIO 1 * LPT 1 * SIM Card Slot 1 * PS/2 1 * Mini PCI-E (Support 3G Device ^[3]) 1 * F_AUDIO 2 * SYS_FAN Connectors			
Temperature	Storage: -20~75°C Operating: 0~60°C			
BIOS	AMI UEFI BIOS			
Factor	3.5 Inch (146*105mm)			

Notes:

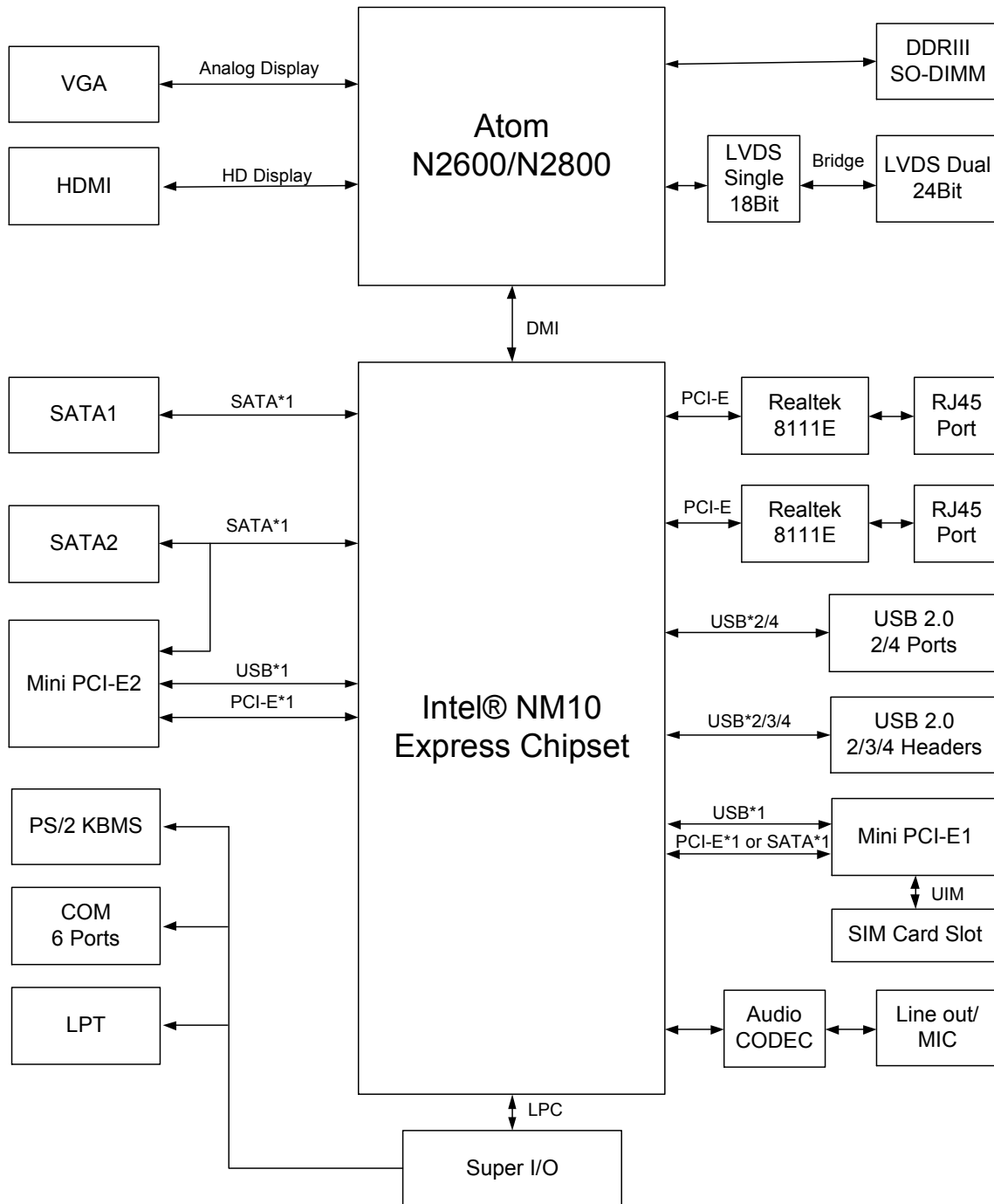
[1]: The 24bit Dual Channel LVDS support a max resolution of 1600*1200, and a selectable 18bit Single Channel LVDS support a max resolution of 1366*768.

[2]: If mSATA is not supported, one more SATA Port could be supplied.

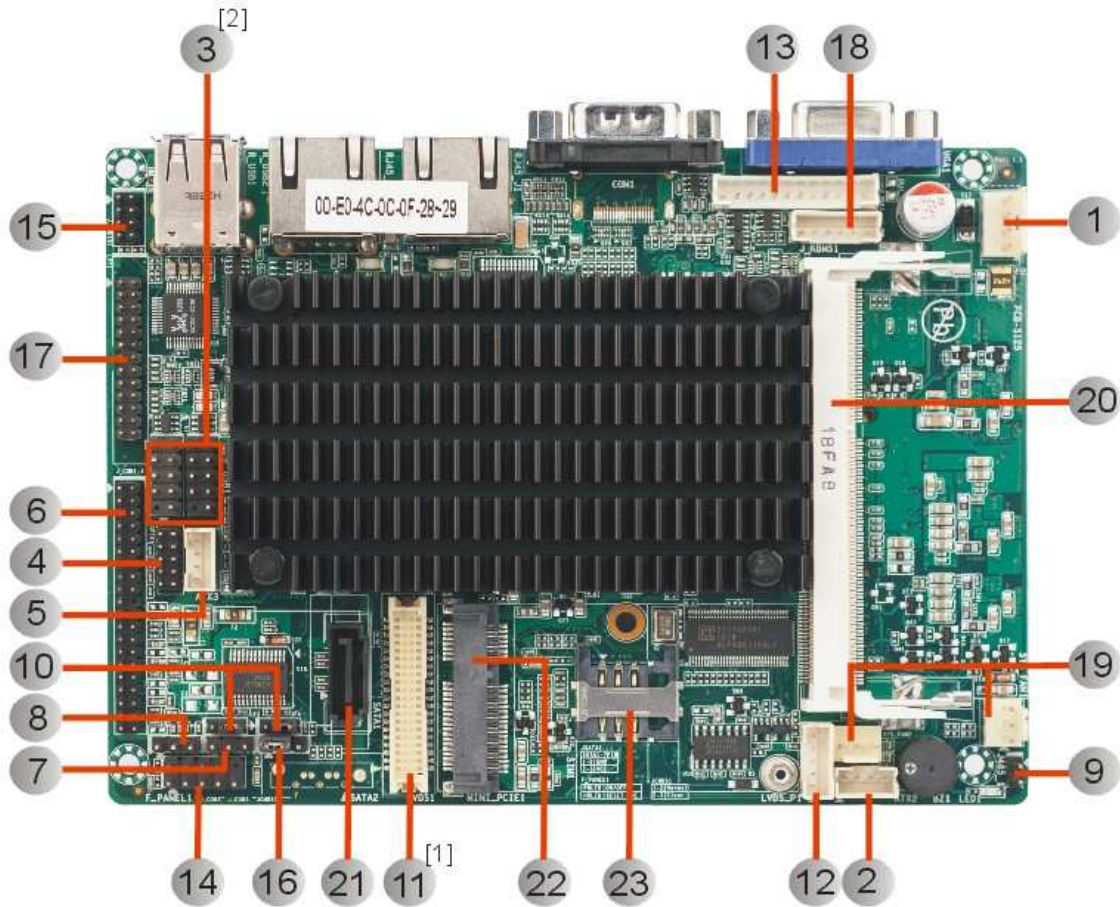
[3]: There are 2 USB ports co-lays with LAN2, so single-LAN models can supply 4 rear USB ports; And if 3G device will not be used, one more front USB header can be supplied (see page 7).

[4]: COM6 could be RS485 by setting jumpers.

3. Data Flow



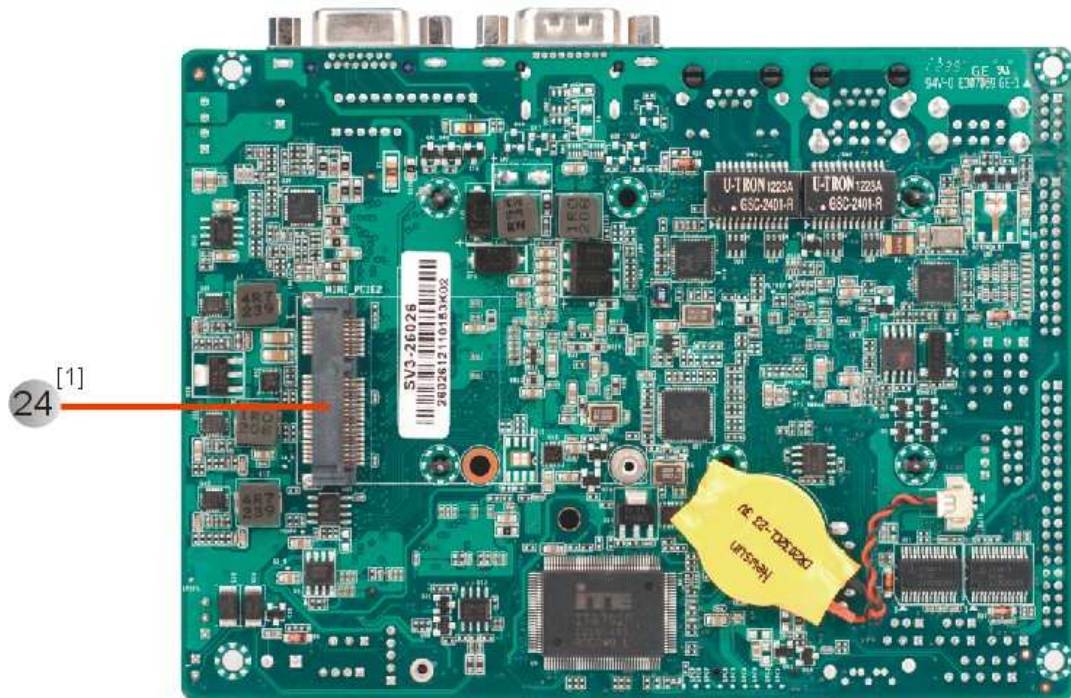
4. Jumpers / Headers and Connectors



Notes:

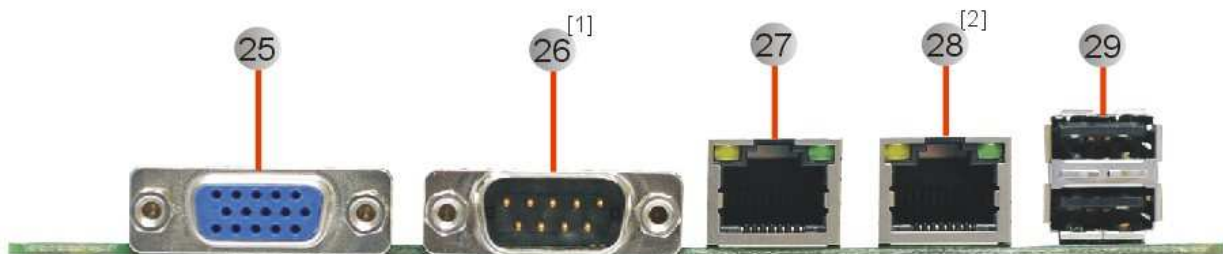
[1]: The 24-bit dual channel LVDS support a max resolution of 1600*1200, and a selectable 18-bit single channel LVDS support a max resolution of 1366*768.

[2]: One of the USB port of F_USB2 header (4 pins on the left side) will be invalid, if 3G devices are supported.



Notes:

[1]: Mini PCI-E2 slot support mSATA devices (default), at the cost of invalidating SATA2.



Notes:

[1]: The COM connector (DB9) co-lays with an HDMI connector.

[2]: This LAN connector co-lays with a USB connector.

Jumpers / Headers/Connectors					
1	ATX Power Supply Connector	P ₉	16	CMOS Clear Jumper	P ₁₄
2	ATX Power Output Connector	P ₉	17	LPT Header	P ₁₅
3	Front USB Headers	P ₉	18	Keyboard and Mouse Header	P ₁₅
4	GPIO Header	P ₁₀	19	System Fan Connectors	P ₁₅
5	SATA1 Power Supply Header	P ₁₀	20	SO-DIMM Slot	
6	COM1~4 Header	P ₁₁	21	SATA1 Connector	
7	COM5 Header	P ₁₁	22	Mini PCI-E1 Slot	
8	COM6 Header	P ₁₂	23	SIM Card Slot	
9	RS485 Header	P ₁₂	24	Mini PCI-E2 Slot	
10	RS232 or RS485 Mode Selection Jumpers	P ₁₂	25	VGA Connector	
11	LVDS Header	P ₁₃	26	COM Connector	
12	LVDS Backlight Control Header	P ₁₃	27	LAN1 Connector	
13	VGA Header	P ₁₄	28	LAN2 Connector	
14	Front Panel Header	P ₁₄	29	USB Connectors	
15	Audio Header	P ₁₄			

5. Definition of Jumpers/ Headers and Connectors

[1] ATX Power Supply Connector (4*1 Pin 2.54mm)

Location	Connector	Pin	Definition	Pin	Definition
1	ATX1	1	+ 12V IN	2	+ 12V IN
		3	GND	4	GND

[2] ATX Power Output Connector (4*1 Pin 2.0mm)

Location	Connector	Pin	Definition	Pin	Definition
2	ATX2	1	+ 12V OUT	2	GND
		3	GND	4	+ 5V OUT

[3] Front USB Headers (5*2 Pin 2.54 mm)

Location	Header	Pin	Definition	Pin	Definition
3	F_USB1	1	+ 5 V	2	+ 5 V
		3	USBP4-	4	USBP5-
		5	USBP4+	6	USBP5-
		7	GND	8	GND
				10	N/C
	F_USB2	1	+ 5 V	2	+ 5 V
		3	N/C ^[1]	4	USBP7-
		5	N/C ^[1]	6	USBP7+
		7	GND	8	GND
				10	N/C

Notes:

[1]: Mini PCI-E1 slot support 3G devices (default), at the cost of invalidating one of the USB ports of F_USB2.

[4] GPIO Header (5*2 Pin 2.00mm)

Location	Header	Pin	Definition	Pin	Definition
4	J_GPIO1	1	GPI6 (0x50C Bit6)	2	GPI22(0x50E Bit6)
		3	GPI15 (0x50D Bit7)	4	GPI38(0x538 Bit6)
		5	GND	6	GPO7(0x50C Bit7)
		7	GPO33(0x538 Bit1)	8	GPO36(0x538 Bit4)
		9	GPO39(0x538 Bit7)	10	+5V

[5] SATA Power Supply Connectors (4*1 Pin 2.00mm)

Location	Connector	Pin	Definition	Pin	Definition
5	ATX3	1	+ 12V OUT	2	GND
		3	GND	4	+ 5V OUT

[6] COM1-4 Header (20*2 Pin 2.0 mm)

Location	Header	Pin	Definition	Pin	Definition
6	J_COM1-4	1	COM1_DCD ^{[1][4]}	2	COM1_RXD ^[4]
		3	COM1_TXD ^[4]	4	COM1_DTR ^[4]
		5	GND ^[4]	6	COM1_DSR ^[4]
		7	COM1_RTS ^[4]	8	COM1_CTS ^[4]
		9	COM1_RI ^[4]	10	GND ^[4]
		11	COM2_DCD ^[1]	12	COM2_RXD
		13	COM2_TXD	14	COM2_DTR
		15	GND	16	COM2_DSR
		17	COM2_RTS	18	COM2_CTS
		19	COM2_RI ^[2]		
		21	COM3_DCD ^[1]	22	COM3_RXD
		23	COM3_TXD	24	COM3_DTR
		25	GND	26	COM3_DSR
		27	COM3_RTS	28	COM3_CTS
		29	COM3_RI ^[2]	30	GND
		31	N/C ^[3]	32	COM4_RXD
		33	COM4_TXD	34	COM4_DTR
		35	GND	36	COM4_DSR
		37	COM4_RTS	38	COM4_CTS
		39	N/C ^[3]	40	GND

Notes:

[1]: This pin is default to be DCD signal and alternative to be 5V or 12V.

[2]: This pin is default to be RI signal and alternative to be 5V or 12V.

[3]: This pin is default to be N/C signal and alternative to be 5V or 12V.

[4]: COM1 header co-lays with the rear panel's DB9 connector, so for the models with a DB9 connector on the rear panel, the definition of pin1-pin10 will be "N/C".

[7] COM5 Header (3*1 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
7	J_COM5	1	RXD	2	TXD
		3	GND		

[8] COM6 Header (3*1 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
8	J_COM6	1	RXD	2	TXD
		3	GND		

[9] RS485 Header (2*1 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
9	J485_1	1	RS485+	2	RS485-

[10] RS232 or RS485 Mode Selection Jumpers (3*1 Pin 2.00mm)

Location	Jumper	Settings	Function
10	JP3, JP4	1-2	J485_1 ^[1]
		2-3(Default)	J_COM6 ^[1]

Notes:

[1]: Only one of the J485_1 and the J_COM6 can work at the same time.

[11] LVDS(24-bit Dual Channel) Connector (20*2 Pin 1.25mm)

Location	Connector	Pin	Definition	Pin	Definition
11	LVDS1	1	VCC ^[1]	2	VCC ^[1]
		3	GND	4	GND
		5	VCC ^[1]	6	VCC ^[1]
		7	LVDS_A_DATA0-	8	LVDS_B_DATA0-
		9	LVDS_A_DATA0+	10	LVDS_B_DATA0-
		11	GND	12	GND
		13	LVDS_A_DATA1-	14	LVDS_B_DATA1-
		15	LVDS_A_DATA1+	16	LVDS_B_DATA1+
		17	GND	18	GND
		19	LVDS_A_DATA2-	20	LVDS_B_DATA2-
		21	LVDS_A_DATA2+	22	LVDS_B_DATA2+
		23	GND	24	GND
		25	LVDS_A_CLK-	26	LVDS_B_CLK-
		27	LVDS_A_CLK+	28	LVDS_B_CLK+
		29	GND	30	GND
		31	LDDC_DATA	32	LDDC_CLK
		33	GND	34	GND
		35	LVDS_A_DATA3-	36	LVDS_B_DATA3-
		37	LVDS_A_DATA3+	38	LVDS_B_DATA3+
39	N/C	40	GND		

Notes:

[1]: The VCC is 3.3V or 5V or 12V selectable, and the default voltage is 3.3V.

[12] LVDS Backlight Control Connector (5*1 Pin 2.54mm)

Location	Connector	Pin	Definition	Pin	Definition
12	LVDS_P1	1	+ 12V	2	GND
		3	LVDS_BKL_EN	4	N/C
		5	+ 5V		

[13] VGA Header (12*1 Pin 2.00 mm)

Location	Header	Pin	Definition	Pin	Definition
13	J_VGA1	1	GND	2	VSYNC
		3	HSYNC	4	GND
		5	RED	6	GND
		7	GREEN	8	GND
		9	BLUE	10	GND
		11	DDCDAT	12	DDCCLK

[14] Front Panel Header (5*2 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
14	F_PANEL1	1	HD LED+	2	Power LED+
		3	HD LED-	4	Power LED-
		5	RESET+	6	PWR+
		7	RESET-	8	PWR-
		9	N/C		

[15] Audio Header (4*2 Pin 2.00mm)

Location	Header	Pin	Definition	Pin	Definition
15	J_AUDIO1	1	LINEOUT_R	2	MIC_R
		3	GND	4	GND
		5	GND	6	GND
		7	LINEOUT_L	8	MIC_L

[16] CMOS Clear Jumper (3*1 Pin 2.54mm)

Location	Jumper	Setting	Function
16	JCMOS1	1-2(Default)	Normal
		2-3	Clear CMOS

[17] LPT Header (13*2 Pin 2.0mm)

Location	Header	Pin	Definition	Pin	Definition
17	LPT1	1	STB	2	-AFD
		3	DATA0	4	-ERR
		5	DATA1	6	-PINIT
		7	DATA2	8	-SLIN
		9	DATA3	10	GND
		11	DATA4	12	GND
		13	DATA5	14	GND
		15	DATA6	16	GND
		17	DATA7	18	GND
		19	-ACK	20	GND
		21	BUSY	22	GND
		23	PE	24	GND
		25	SLCT	26	GND

[18] Keyboard and Mouse Connector (6*1 Pin 2.0mm)

Location	Connector	Pin	Definition	Pin	Definition
18	J_KBMS1	1	KB_CLK	2	KB_DATA
		3	MS_CLK	4	GND
		5	+ 5V	6	MS_DATA

[19] System Fan Connectors (3*1 Pin 2.54 mm)

Location	Connector	Pin	Definition	Pin	Definition
19	SYS_FAN1	1	GND	2	+ 12V
		3	FAN Speed Detection		
	SYS_FAN2	1	GND	2	+ 12V
		3	FAN Speed Detection		

6. BIOS setup

See "SV3-26026 BIOS User Manual" for detail information of BIOS setup.

【End】