



Seavo Motherboard

User's Manual

SV8-19026P Series

Ver 1.0

Contents

1. Models and Attentions	2
1.1 Models	2
1.2 Attentions	2
2. Specification	3
3. Functional Block Diagram	5
4. Mechanical Drawing	6
5. Jumpers / Headers and Connectors	8
6. Definition of Jumpers /Headers and Connectors	12
1) JCOM2_S1/S2/P1 (COM2 RS232/RS485 Select Jumpers 3*2/2*2 Pin 2.54mm)	12
2) JCOM1_S1/S2/P1 (COM1 RS232/RS485 Select Jumpers 3*2/2*2 Pin 2.54mm)	13
3) FAN1 (Smart Fan Connector 4*1 Pin 2.54mm)	13
4) J_COM6 (COM6 Pin Header 5*2 Pin 2.00mm)	13
5) J_COM5 (COM5 Pin Header 5*2 Pin 2.00mm)	14
6) J_SPKL_R1/L1 (Amplifier Pin Headers 2*1 Pin 2.00mm)	14
8) F_PANEL1 (Front Panel Pin Header 5*2 Pin 2.54mm)	14
12) J_USB2 (USB2 Pin Header 5*2 Pin 2.54mm)	14
14) J_CMOS1 (CMOS Clear Jumper 3*1 Pin 2.54mm)	15
15) J_USB1 (USB Pin Header1 5*1 Pin 2.00mm)	15
16) J_PSATA1 (SATA Power Pin Header 4*1 Pin 2.00mm)	15
17) J_DBG1 (Debug Pin Header 9*1 Pin 2.00mm)	15
18) DC_IN3 (DC 12V Power Input Pin Header 4*1 Pin 2.54mm)	15
19) J_VGA1 (VGA Pin Header 12*1 Pin 2.00mm)	16
21) DC_IN2 (DC 12V Power Input Connector 2Pin)	16
22) P_PB1 (Power Button 2P 3.5mm Terminal Block)	16
28) COM2 * (COM2 DB9/M Connector)	16
29) COM1-3B * (COM1 DB9/M Connector)	17
31) COM1-3A * (COM3 DB9/M Connector)	17
32) GPIO1 (GPIO 10P 3.5mm Terminal Block)	17
33) 34) PJ_LO1/PJ_MIC1 (Line Out/MIC 3.5mm Jack)	18
35) COM4 * (COM4 DB9/M Connector)	18
38) LED_SYS1 (System indicator)	18
7. BIOS setup	19

1. Models and Attentions

1.1 Models

This manual is applied to following models:

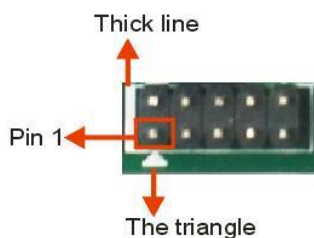
Model	CPU	COM	LAN	LVDS	HDMI	VGA	USB	Mini-PCIE	SATA2.0
SV8-19026P	J1900	6	2	1	1	1	9	2	1

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	SV8-19026P
CPU	Intel® Celeron® J1900 ^[1] , Quad-core, clock speed up to 2.42G, TDP 10W
Display ^[2]	1 * VGA(DB15/F) ^[3] : max resolution up to 1920*1080@60Hz 1 * HDMI TYPE-A: max resolution up to 1920*1080@60Hz
Memory	Support DDR3L 1333 MHz, 1 * SO-DIMM Slot, Up to 8GB
Storage	1 * SATA 2.0 Port 1 * Mini PCI-E Slot (mSATA)
Ethernet	2 * Realtek GBE LAN Chip (10/100/1000 Mbps, RJ45) ^[4]
Audio	Realtek ALC662 5.1 Channel HDA Codec, Support Audio Jack (Line-out+MIC) 2 * Amplifier, 2-W (per channel) into a 3-Ω Loads
COM	2 * RS232/RS485 (COM1-2, DB9/M) 2 * RS232 (COM3/COM4, DB9/M or Header) 2 * RS232 (COM5-6, Header)
USB	9 * USB: 1 * USB3.0 (TYPE-A) 3 * USB2.0 (TYPE-A) 4 * USB2.0 (TYPE-A or Header) ^[5] 1 * USB2.0 (Header)
Other Ports	1 * VGA Pin Header ^[3] 1 * Mini PCI-E Slot (WIFI+4G) 1 * Debug Pin Header 1 * SATA Power Pin Header 1 * Front Panel Pin Header 1 * Smart Fan 1 * SIM Card Slot 1 * GPIO 10P 3.5mm Terminal Block 1 * Power Button 2P 3.5mm Terminal Block 1 * Power Button 1 * System Reset Button 1 * System indicator 1 * DC 12V Power Input Connector
System	Windows 7/8/10, Linux
Temperature	Storage: -20~75°C Operating: 0~60°C
BIOS	AMI UEFI BIOS (Support Watchdog Timer)
Power Supply	DC 12V
Factor	185mm * 150mm

Notes:

[1]: CPU can be customized into Celeron® J1800.

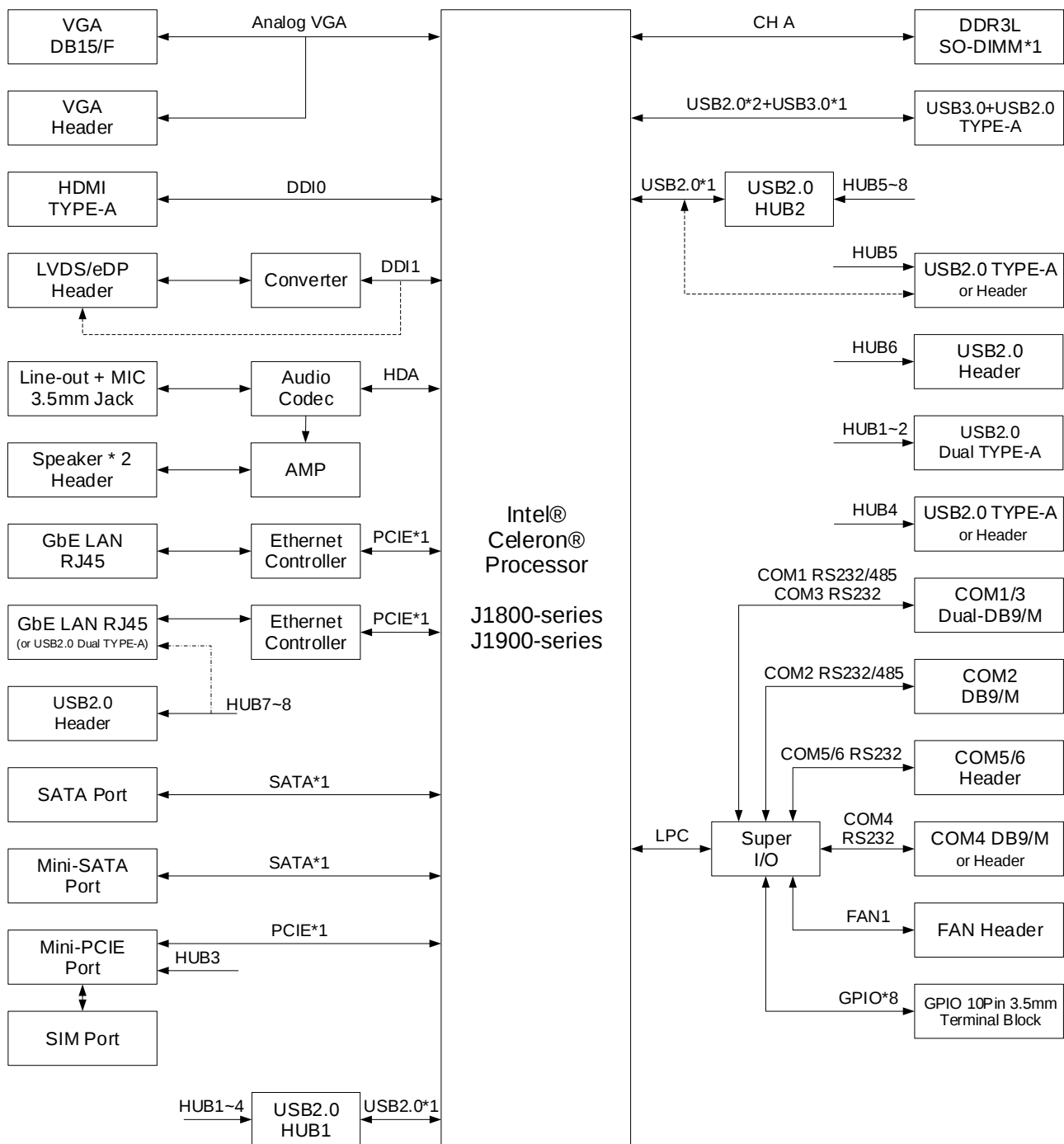
[2]: Up to two independents displays can be activated at the same time. It supports LVDS/eDP if specified (Default not onboard).

[3]: VGA DB15/F Connector and VGA Pin Header share the same signal; they can't be accessed simultaneously.

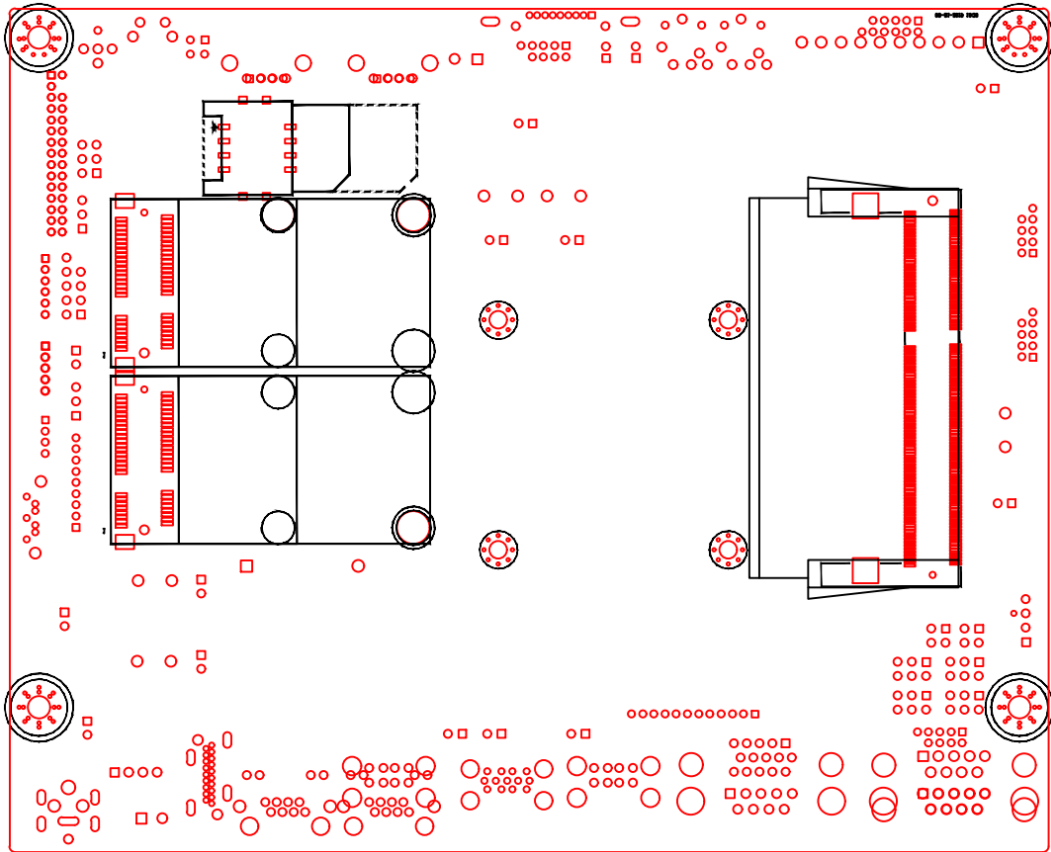
[4]: LAN1 RJ45 Connector and USB2.0 Dual TYPE-A Connector(R_USB3) on rear I/O share the same position and are mutually exclusive. If LAN1 is not populated, one more USB2.0 Dual TYPE-A(R_USB3) can be supplied.

[5]: J_USB2 signals co-lay with R_USB3. It supports J_USB2 by default and can support R_USB3 if specified. JF_USB1/2 supports TYPE-A Connector by default and can support Header if specified.

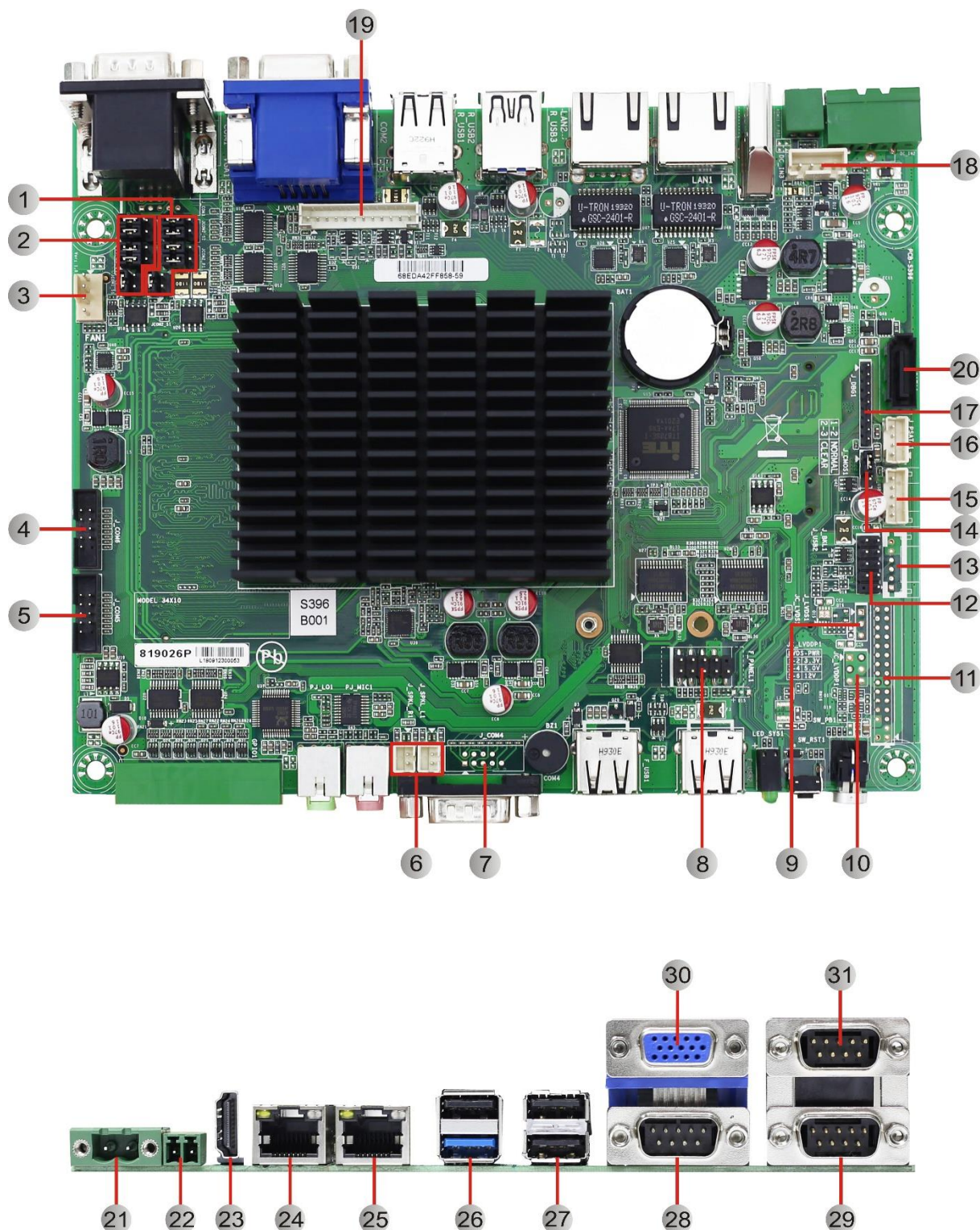
3.Functional Block Diagram

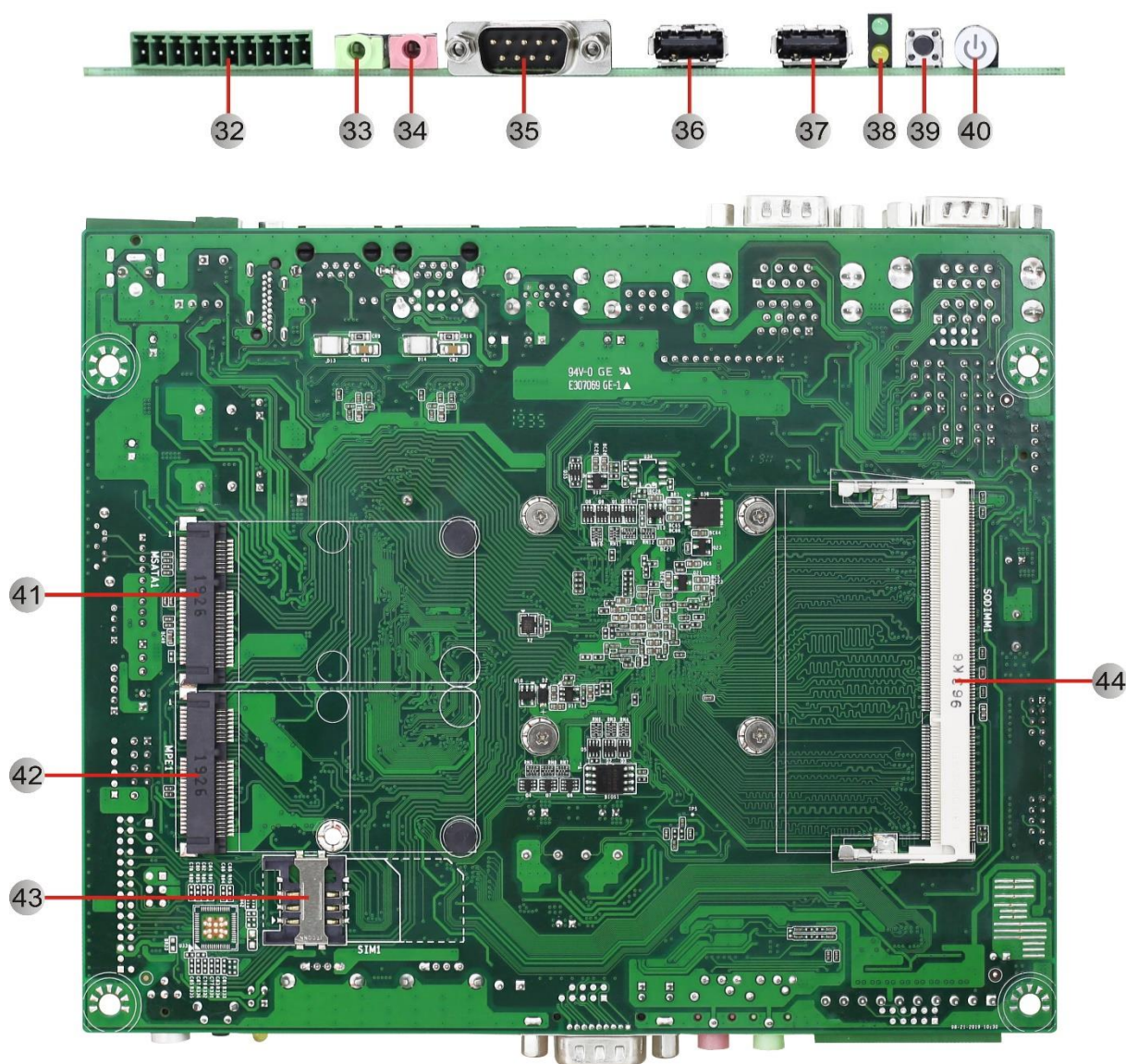


This architectural floor plan depicts a large hall or auditorium. The central feature is a large rectangular stage area with a grid pattern. Surrounding the stage are various seating areas, including rows of chairs and circular tables. The plan includes numerous technical details such as lighting fixtures, speakers, and equipment racks. The layout is symmetrical, with a central aisle and side aisles. The plan is oriented with the stage at the top and the entrance at the bottom.



5. Jumpers / Headers and Connectors





Jumpers / Headers and Connectors		
1	JCOM2_S2, JCOM2_P1, JCOM2_S1	COM2 RS232/RS485 Select Jumpers
2	JCOM1_S2, JCOM1_P1, JCOM1_S1	COM1 RS232/RS485 Select Jumpers
3	FAN1	Smart Fan Connector
4	J_COM6	COM6 Pin Header
5	J_COM5	COM5 Pin Header
6	J_SPKL_L1, J_SPKL_R1	Amplifier Pin Headers
7	J_COM4	COM4 Pin Header (not onboard)
8	F_PANEL1	Front Panel Pin Header
9	JC_LVDS1	LVDS/eDP Backlight PWM/CCFL Select Jumper (not onboard)
10	JC_LVDDP1	LVDS/eDP VDD Select Jumper (not onboard)
11	J_LVDS1(J_LVDS1_1)	LVDS/eDP Signal Header (not onboard, Side plug selectable)
12	J_USB2	Front USB Pin Header2
13	J_BKL1(J_BKL1_1)	LVDS/eDP Backlight Control Pin Header (not onboard, Side plug selectable)
14	J_CMOS1	CMOS Clear Jumper
15	J_USB1(J_USB1_1)	Front USB Pin Header1 (Side plug selectable)
16	J_PSATA1	SATA Power Pin Header
17	J_DBG1	Debug Pin Header
18	DC_IN3	DC 12V Power Input Pin Header
19	J_VGA1	VGA Pin Header
20	SATA1	SATA 2.0 Connector
21	DC_IN2(DC_IN1)	DC 12V Power Input Connector (DC 12V Power Input 2.5mm Jack)
22	P_PB1	Power Button 2P 3.5mm Terminal Block
23	HDMI1	HDMI TYPE-A Connector
24	LAN1	LAN1 RJ45 Connector
25	LAN2(R_USB3)	LAN2 RJ45 Connector (USB2.0 Dual TYPE-A Connector)
26	R_USB2	USB3.0+USB2.0 TYPE-A Connector
27	R_USB1	USB2.0 Dual TYPE-A Connector
28	COM2	COM2 DB9/M Connector
29	COM1-3B(COM1)	COM1 DB9/M Connector
30	VGA1	VGA DB15/F Connector
31	COM1-3A(J_COM3)	COM3 DB9/M Connector

		(COM3 Pin Header)
32	GPIO1	GPIO 10P 3.5mm Terminal Block
33	PJ_LO1	Line Out 3.5mmJack
34	PJ_MIC1	MIC 3.5mm Jack
35	COM4	COM4 DB9/M Connector
36	F_USB1 (JF_USB1)	USB2.0 TYPE-A Connector1 (Front USB1 Pin Header)
37	F_USB2 (JF_USB2)	USB2.0 TYPE-A Connector2 (Front USB2 Pin Header)
38	LED_SYS1	System indicator
39	SW_RST1	System Reset Button
40	SW_PB1	Power Button
41	MSATA1	Mini SATA Slot (mSATA)
42	MPE1	Mini PCI-E1 Slot (WIFI+4G)
43	SIM1	SIM Card Slot
44	SODIMM1	DDR3L SO-DIMM Slot

6. Definition of Jumpers /Headers and Connectors

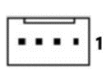
1) JCOM2_S1/S2/P1 (COM2 RS232/RS485 Select Jumpers 3*2/2*2 Pin 2.54mm)

Graphic	Settings	Function
 JCOM2_S1	JCOM2_S1 (1-2, Default) JCOM2_S2 (1-3,2-4, Default) JCOM2_P1 (1-3,2-4, Default)	RS232(Uncharged): COM2_PIN1: DCD COM2_PIN2: RXD
	JCOM2_S1 (1-2, Default) JCOM2_S2 (1-3,2-4, Default) JCOM2_P1 (3-5,2-4)	RS232(COM2_PIN1: + 5V): COM2_PIN1: DCD COM2_PIN2: RXD
 JCOM2_S2	JCOM2_S1 (1-2, Default) JCOM2_S2 (1-3,2-4, Default) JCOM2_P1 (1-3,4-6)	RS232(COM2_PIN9: + 12V): COM2_PIN1: DCD COM2_PIN2: RXD
	JCOM2_S1 (1-2, Default) JCOM2_S2 (1-3,2-4, Default) JCOM2_P1 (3-5,4-6)	RS232(COM2_PIN1: + 5V COM2_PIN9: + 12V): COM2_PIN1: DCD COM2_PIN2: RXD
 JCOM2_P1	JCOM2_S1 (3-4) JCOM2_S2 (3-5,4-6) JCOM2_P1 (1-3,2-4, Default)	RS485(Uncharged): COM2_PIN1: RS485- COM2_PIN2: RS485+
	JCOM2_S1 (3-4) JCOM2_S2 (3-5,4-6) JCOM2_P1 (1-3,4-6)	RS485(COM2_PIN9: + 12V): COM2_PIN1: RS485- COM2_PIN2: RS485+

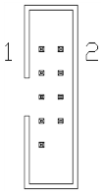
2) JCOM1_S1/S2/P1 (COM1 RS232/RS485 Select Jumpers 3*2/2*2 Pin 2.54mm)

Graphic	Settings	Function
 JCOM1_S1	JCOM1_S1 (1-2, Default) JCOM1_S2 (1-3,2-4, Default) JCOM1_P1 (1-3,2-4, Default)	RS232(Uncharged): COM1_PIN1: DCD COM1_PIN2: RXD
	JCOM1_S1 (1-2, Default) JCOM1_S2 (1-3,2-4, Default) JCOM1_P1 (3-5,2-4)	RS232(COM1_PIN1: + 5V): COM1_PIN1: DCD COM1_PIN2: RXD
 JCOM1_S2	JCOM1_S1 (1-2, Default) JCOM1_S2 (1-3,2-4, Default) JCOM1_P1 (1-3,4-6)	RS232(COM1_PIN9: + 12V): COM1_PIN1: DCD COM2_PIN2: RXD
	JCOM1_S1 (1-2, Default) JCOM1_S2 (1-3,2-4, Default) JCOM1_P1 (3-5,4-6)	RS232(COM1_PIN1: + 5V COM1_PIN9: + 12V): COM1_PIN1: DCD COM1_PIN2: RXD
 JCOM1_P1	JCOM1_S1 (3-4) JCOM1_S2 (3-5,4-6) JCOM1_P1 (1-3,2-4, Default)	RS485(Uncharged): COM1_PIN1: RS485- COM1_PIN2: RS485+
	JCOM1_S1 (3-4) JCOM1_S2 (3-5,4-6) JCOM1_P1 (1-3,4-6)	RS485(COM1_PIN9: + 12V): COM1_PIN1: RS485- COM1_PIN2: RS485+

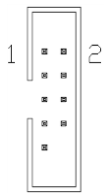
3) FAN1 (Smart Fan Connector 4*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	2	+ 12V
	3	FAN Speed Detection	4	FAN Speed Control

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

Graphic	Pin	Definition	Pin	Definition
	1	COM6_DCD#	2	COM6_RXD
	3	COM6_TXD	4	COM6_DTR#
	5	GND	6	COM6_DSR#
	7	COM6_RTS#	8	COM6_CTS#
	9	COM6_RI#		

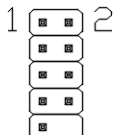
5) J_COM5 (COM5 Pin Header 5*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	COM5_DCD#	2	COM5_RXD
	3	COM5_TXD	4	COM5_DTR#
	5	GND	6	COM5_DSR#
	7	COM5_RTS#	8	COM5_CTS#
	9	COM5_RI#		

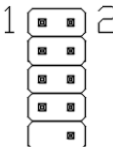
6) J_SPKL_R1/L1 (Amplifier Pin Headers 2*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	SPK_R_OUT-	2	SPK_R_OUT+
	1	SPK_L_OUT-	2	SPK_L_OUT+

8) F_PANEL1 (Front Panel Pin 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	PWR+
	7	RESET+	8	PWR-
	9	N/C		

12) J_USB2 (USB2 Pin Header 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	+ 5V	2	+ 5V
	3	HUB2_USB3- ^[1]	4	HUB2_USB4- ^[1]
	5	HUB2_USB3+ ^[1]	6	HUB2_USB4+ ^[1]
	7	GND	8	GND
			10	N/C

Notes:

[1]: J_USB2 signals co-lay with R_USB3. It supports J_USB2 by default and can supports R_USB3 if specified (resistor selectable).

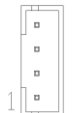
14) J_CMOS1 (CMOS Clear Jumper 3*1 Pin 2.54mm)

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

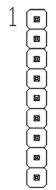
15) J_USB1 (USB Pin Header1 5*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	2	GND
	3	HUB2_USB2+	4	HUB2_USB2-
	5	+ 5V		

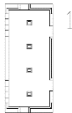
16) J_PSATA1 (SATA Power Pin Header 4*1 Pin 2.00mm)

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

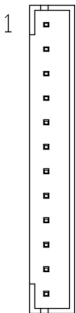
17) J_DBG1 (Debug Pin Header 9*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	LFRAME#	2	LAD3
	3	LAD2	4	LAD1
	5	LAD0	6	GND
	7	PCI_RST#	8	LPC_CLK
	9	+ 3.3V		

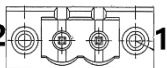
18) DC_IN3 (DC 12V Power Input Pin Header 4*1 Pin 2.54mm)

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

19) J_VGA1 (VGA Pin Header 12*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	2	CRT_VS
	3	CRT_HS	4	GND
	5	CRT_RED	6	GND
	7	CRT_GREEN	8	GND
	9	CRT_BLUE	10	GND
	11	CRT_SDA	12	CRT_SCL

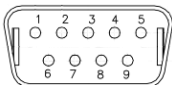
21) DC_IN2 (DC 12V Power Input Connector 2Pin)

Graphic	Pin	Definition	Pin	Definition
	2	+ 12V IN	1	GND

22) P_PB1 (Power Button 2P 3.5mm Terminal Block)

Graphic	Pin	Definition	Pin	Definition
	1	Power -	2	Power +

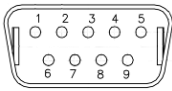
28) COM2 * (COM2 DB9/M Connector)

Graphic	Pin	Definition	Pin	Definition
	1	DCD#*	2	RXD*
	3	TXD	4	DTR#
	5	GND	6	DSR#
	7	RTS#	8	CTS#
	9	RI#*		

Note:

*: COM2 signal is selectable by COM2 RS232/RS485 Select Jumpers, see Table 1.

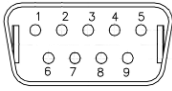
29) COM1-3B * (COM1 DB9/M Connector)

Graphic	Pin	Definition	Pin	Definition
	1	DCD#*	2	RXD*
	3	TXD	4	DTR#
	5	GND	6	DSR#
	7	RTS#	8	CTS#
	9	RI#*		

Note:

*: COM1 signal is selectable by COM1 RS232/RS485 Select Jumpers, see Table 2.

31) COM1-3A * (COM3 DB9/M Connector)

Graphic	Pin	Definition	Pin	Definition
	1	DCD#	2	RXD
	3	TXD	4	DTR#
	5	GND	6	DSR#
	7	RTS#	8	CTS#
	9	RI#		

Note:

*: COM3 DB9/M Connector signal co-lay with COM3 Pin Header, when COM3 DB9/M Connector is not populated, COM3 signal is available via COM3 Pin Header.

32) GPIO1 (GPIO 10P 3.5mm Terminal Block)

Graphic	Pin	Definition	Pin	Definition
	1	+ 5V	2	GND
	3	SIO_ GPI80 (0xA07 Bit0, L) [1]	4	SIO_ GPI81 (0xA07 Bit1, L)
	5	SIO_ GPI82 (0xA07 Bit2, L)	6	SIO_ GPI83 (0xA07 Bit3, L)
	7	SIO_ GPO84 (0xA07 Bit4, H) [1]	8	SIO_ GPO85 (0xA07 Bit5, H)
	9	SIO_ GPO86 (0xA07 Bit6, H)	10	SIO_ GPO87 (0xA07 Bit7, H)

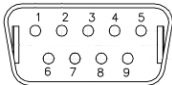
Notes:

[1]: "H" or "L" means the default voltage is High or Low level.

33) 34) PJ_LO1/PJ_MIC1 (Line Out/MIC 3.5mm Jack)

Graphic	Pin	Definition
	Green	LINE-OUT
	Pink	MIC-IN

35) COM4 * (COM4 DB9/M Connector)

Graphic	Pin	Definition	Pin	Definition
	1	DCD#	2	RXD
	3	TXD	4	DTR#
	5	GND	6	DSR#
	7	RTS#	8	CTS#
	9	RI#		

Note:

*: COM4 DB9/M Connector signal co-lay with COM3 Pin Header, when COM4 DB9/M Connector is not populated, COM4 signal is available via COM4 Pin Header.

38) LED_SYS1 (System indicator)

Graphic	Pin	Definition
	Green	Power Standby Indicator
	Yellow	SATA Indicator

7. BIOS setup

See “BIOS Spec for SV8-19026P Series” for detail information of BIOS setup.

【End】