

Windows POS motherboard specification

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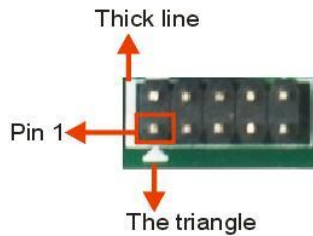
1. Attentions

- 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	S808W
CPU	Intel® Atom™ D2500, Dual core, clock speed 1.86G, TDP 10W
Chipset	Intel® NM10, TDP 1.5 W
Display	1 * VGA Onboard 1 * Single Channel 24-bit LVDS ^[1]
Memory	RAM :DDR3/2GB/1333 MHz ; ROM :500G
Storage	1 * Serial ATA Ports
Ethernet	1 * Realtek RTL8105E PCI-E Gigabit LAN ^[2]
Audio	Realtek ALC662 5.1 Channel HDA Codec , Support MIC/Line-out Ports 1 * Audio Amplifier
COM	2 * RS232
Other Ports	8 * USB2.0:4*Rear I/O + 4*Header 8 * GPIO 1 * PS/2 1 * PCI Slot 1 * Mini PCI-E ^[3] 1 * LPT
	1*RJ45 Port
Temperature	Storage: -20~75℃ Operating: 0~60℃
BIOS	AMI UEFI BIOS
Factor	Mini-ITX

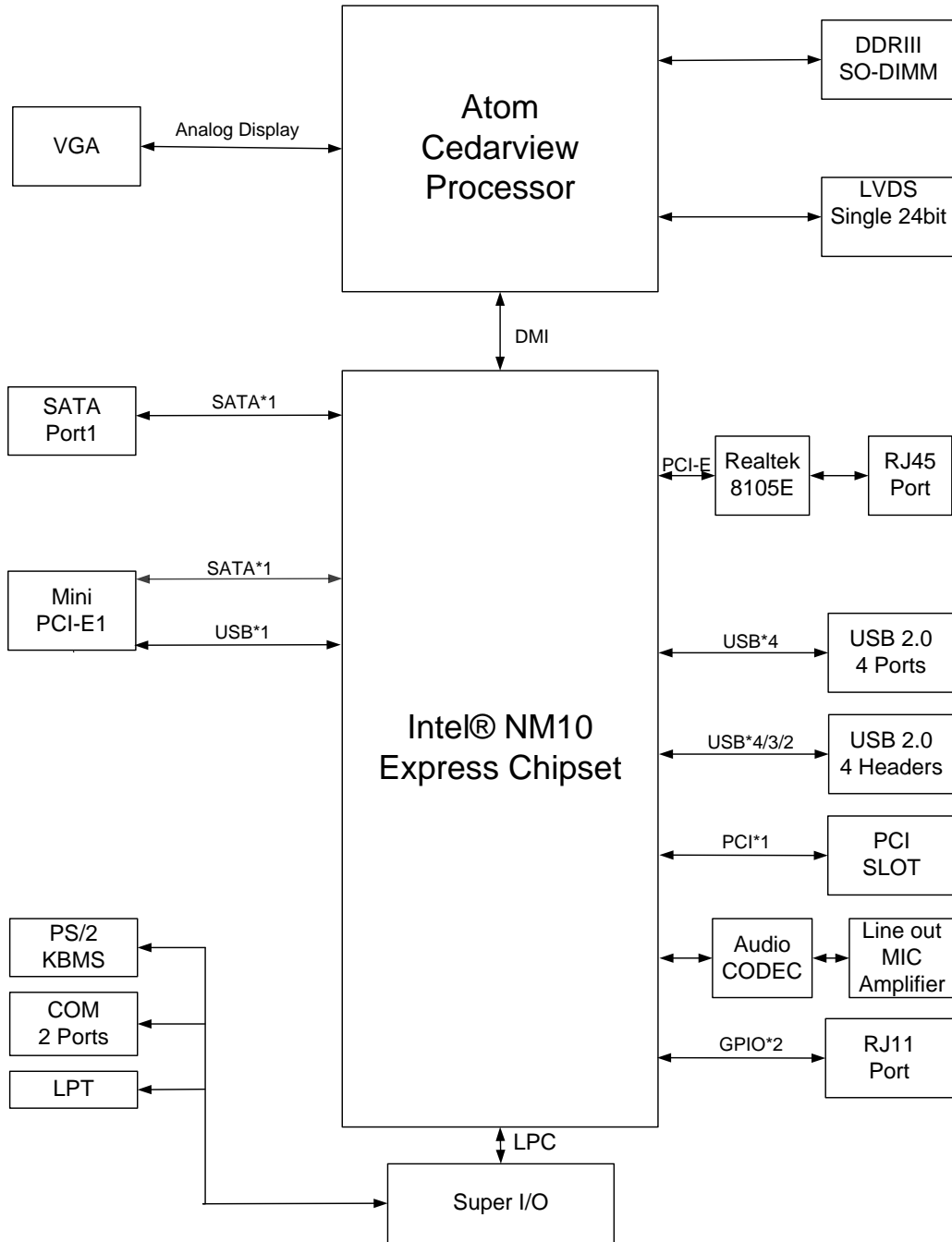
Notes:

[1]: The single channel 24-bit LVDS support a max resolution of 1366x768.

[2]: LAN can be customized into Dual LAN or 1000Mbps LAN.

[3]: Mini PCI-E1 supports mSATA at the cost of invalidating SATA2, and 3G devices.

3. Data Flow



4. Jumpers / Headers and Connectors

Jumpers/Headers/Connectors					
1	ATX3 Power Output Connector	P ₇	20	SATA DOM Power Supply Header	P ₁₂
2	Front USB Headers	P ₇	21	System Fan1 Header	P ₁₂
3	USB (Rear IO) Power Control Jumpers	P ₇	22	System Fan2 Header	P ₁₂
4	GPIO Header	P ₇	23	ATX1 Power Supply Connector	
5	COM1 Control Jumper	P ₈	24	ATX12V Power Supply Connector	
6	COM2 Header	P ₈	25	SO-DIMM Slot	
7	COM2 Control Jumpers	P ₈	26	Mini PCI-E1 Slot	
8	LVDS Header	P ₉	27	SATA Connectors	
9	LVDS VCC Selection Jumper	P ₉	28	LPT Connector	
10	LVDS Backlight Control Header	P ₉	29	COM1(DB9) Connector	
11	VGA Header	P ₁₀	30	LAN Connectors	
12	Front Panel Header	P ₁₀	31	Audio Connector	
13	Front Audio Header	P ₁₀	32	USB Connectors	
14	CD IN Header	P ₁₀	33	VGA Connector	
15	Audio Amplifier Header	P ₁₁	34	DC OUT Connector	
16	CMOS Clear Jumper	P ₁₁	35	PS/2 Keyboard Connector	
18	Keyboard & Mouse Header	P ₁₁			
19	SATA Power Headers	P ₁₁			

5. Definition of Jumpers/Headers and Connectors

[1] ATX3 Power Output Connector (4*1 Pin 2.54mm)

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

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

Location	Header	Pin	Definition	Pin	Definition
2	F_USB1	1	+ 5 V	2	+ 5 V
		3	USB4-	4	USB5-
		5	USB4+	6	USB5+
		7	GND	8	GND
				10	N/C
	F_USB2	1	+ 5 V	2	+ 5 V
		3	USB6-	4	USB7-
		5	USB6+	6	USB7+
		7	GND	8	GND
				10	N/C

[3] USB (Rear IO) Power Control Jumpers (2*1 Pin 2.54mm)

Location	Jumper	Setting	Function
3	JRU1	1-2(Default)	USB(Rear IO) Enable
	JRU2	Without Jumper	USB(Rear IO) Disable

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

Location	Header	Pin	Definition	Pin	Definition
5	J_GPIO1	1	GPO6(0x50C Bit6)	2	GPI22(0x50E Bit6)
		3	GPI12(0x50D Bit4)	4	GPI38(0x538 Bit6)
		5	GND	6	GPO7(0x50C Bit7)
		7	GPO33(0x538 Bit1)	8	GPO36(0x538 Bit4)
		9	GPI39(0x538 Bit7)	10	+ 5V *

* The value is 3.3V or 5V selectable (need hardware supported), and the default value is 5V.

[5] COM1 Control Jumper (3*2 Pin 2.00mm)

Location	Jumper	Setting	Function
5	JC1_1	1-2(Default)	Pin1:DCD
		3-4	Pin1:+5V
		5-6	Pin1:+12V

[6] COM2 Header (5*2 Pin 2.00mm)

Location	Jumper	Pin	Definition	Pin	Definition
6	J_COM2	1	JC2_1*	2	RXD
		3	TXD	4	DTR
		5	GND	6	DSR
		7	RTS	8	CTS
		9	JC2_2*		

*These signals are depend on relevant Jumpers (e.g. Pin1 of J_COM2 depends on JC2_1 Jumper), to find more details, check the following table (Location 7).

[7] COM2 Control Jumpers (3*2 Pin 2.00mm)

Location	Jumper	Setting	Function
7	JC2_1	1-2(Default)	Pin1:DCD
		3-4	Pin1:+5V
		5-6	Pin1:+12V
	JC2_2	1-2(Default)	Pin9:RI
		3-4	Pin9:+5V
		5-6	Pin9:+12V

[8] LVDS Header (15*2 Pin 2.00mm)

Location	Header	Pin	Definition	Pin	Definition
8	LVDS1	1	VCC*	2	VCC*
		3	VCC*	4	N/C
		5	GND	6	GND
		7	LVDS_A_DATA0-	8	LVDS_A_DATA0+
		9	LVDS_A_DATA1-	10	LVDS_A_DATA1+
		11	LVDS_A_DATA2-	12	LVDS_A_DATA2+
		13	GND	14	GND
		15	LVDS_A_CLK-	16	LVDS_A_CLK+
		17	LVDS_A_DATA3-	18	LVDS_A_DATA3+
		19	LVDS_B_DATA0-	20	LVDS_B_DATA0+
		21	LVDS_B_DATA1-	22	LVDS_B_DATA1+
		23	LVDS_B_DATA2-	24	LVDS_B_DATA2+
		25	GND	26	GND
		27	LVDS_B_CLK-	28	LVDS_B_CLK+
		29	LVDS_B_DATA3-	30	LVDS_B_DATA3+

* VCC could be 3.3V(default) or 5V or 12V by setting the LVDS VCC Selection Jumper(LVDS_P2, Location 15).

[9] LVDS VCC Selection Jumper (3*2 Pin 2.54mm)

Location	Jumper	Setting	Function
9	LVDS_P2	1-2(Default)	+ 3.3V
		3-4	+ 5V
		5-6	+ 12V

[10] LVDS Backlight Control Header (5*1 Pin 2.00mm)

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

[11] VGA Connector (12*1 Pin 2.00mm)

Location	Connector	Pin	Definition	Pin	Definition
11	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

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

Location	Header	Pin	Definition	Pin	Definition
12	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		

[13] Front Audio Header (5*2 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
13	F_AUDIO1	1	FP_MIC_L	2	GND
		3	FP_MIC_R	4	+ 3.3 V
		5	FP_OUT_R	6	Jack Detect
		7	GND		
		9	FP_OUT_L	10	Jack Detect

[14] CD IN Header (4*1 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
14	CD1	1	CD_IN_L	2	GND
		3	GND	4	CD_IN_R

[15] Audio Amplifier Header (3*2 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
15	F_AUDIO2	1	SPKR_R-	2	SPKR_L-
		3	SPKR_R+	4	SPKR_L+
				6	GND

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

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

[17] RJ11 Header (5*1 Pin 2.00mm)

Location	Header	Pin	Definition	Pin	Definition
17	JRJ11_1	1	+ 24V	2	N/C
		3	N/C	4	GND
		5	GND		

[18] Keyboard and Mouse Header (6*1 Pin 2.00mm)

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

[19] SATA Power Supply Headers (4*1 Pin 2.00mm)

Location	Header	Pin	Definition	Pin	Definition
19	SATA_P1	1	+ 12V	2	GND
		3	GND	4	+ 5V
	SATA_P2	1	+ 12V	2	GND
		3	GND	4	+ 5V

[20] SATA DOM Power Supply Header (2*1 Pin 2.00mm)

Location	Header	Pin	Definition	Pin	Definition
20	JSAP1	1	GND	2	+ 5V

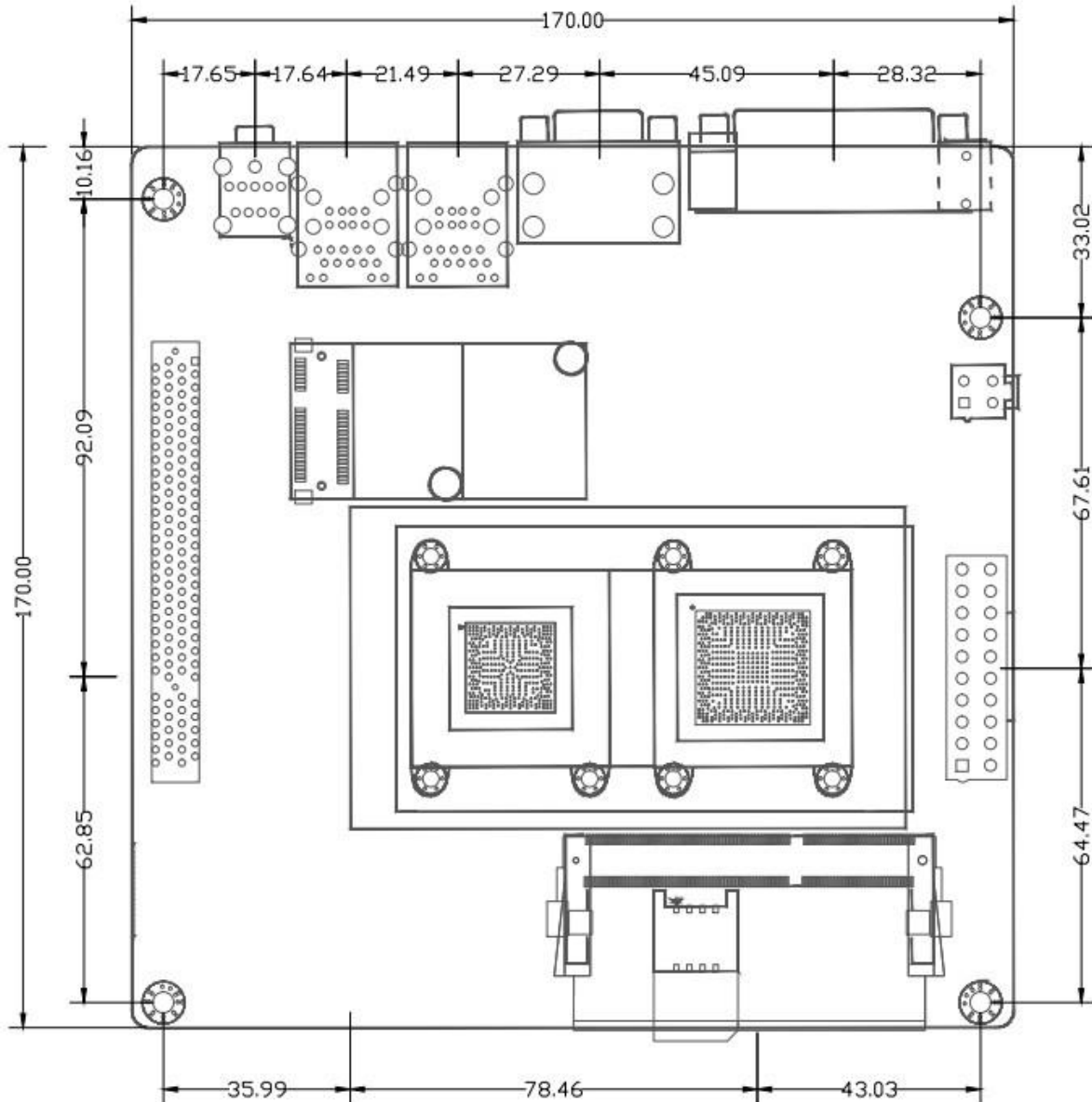
[21] System Fan1 Header (4*1 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
21	SYS_FAN1	1	GND	2	+ 12V
		3	FAN Speed Detection	4	FAN Speed Control

[22] System Fan2 Header (3*1 Pin 2.54mm)

Location	Header	Pin	Definition	Pin	Definition
22	SYS_FAN2	1	GND	2	+ 12V
		3	+ 5V		

6. Dimensions



Windows POS real pictures



【End】