AX6W-15J64

Service Manual

REVISION SHEET

No.	Version	Date	Chapter	Revision History
1	V1.0	2023/2/7		First edition

PREFACE

This service manual applies to the following products in the AX6W-15J64. This service manual describes the hardware system, hardware assembly, component specifications and system settings. For detailed specifications, please consult other documents.

SAFETY INSTRUCTIONS

Before installation and using the product, please read carefully the following instruction items:

- The terminal shall not be placed on unstable place, in case it may be severely damaged by drop or vibration.
- Don't put other goods into the slot. It has high voltage inside the machine, which may lead to macro shock or fire, or damage of the sensitive components.
- The slot or hole of product shell is designed for ventilation and heat elimination. Please don't cover these holes in case of overheating.
- The power specification of the product can be found at its back. Please follow the above specification. If you are not sure of the voltage, please consult the local dealer or the local power company.
- In China, please use the AC power line which comes together with the machine. In other countries, please use the power line which complies with local standard.
- Do not step or put any items on the power line.
- All the warning marks on the terminal must be well noticed.
- For the safety concern, please find the professional staff to open the terminal in necessary.
- Please do not use or store this product in the water, high temperature or under direct sunshine.

FCC NOTICE

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a class B digital device, this device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions; (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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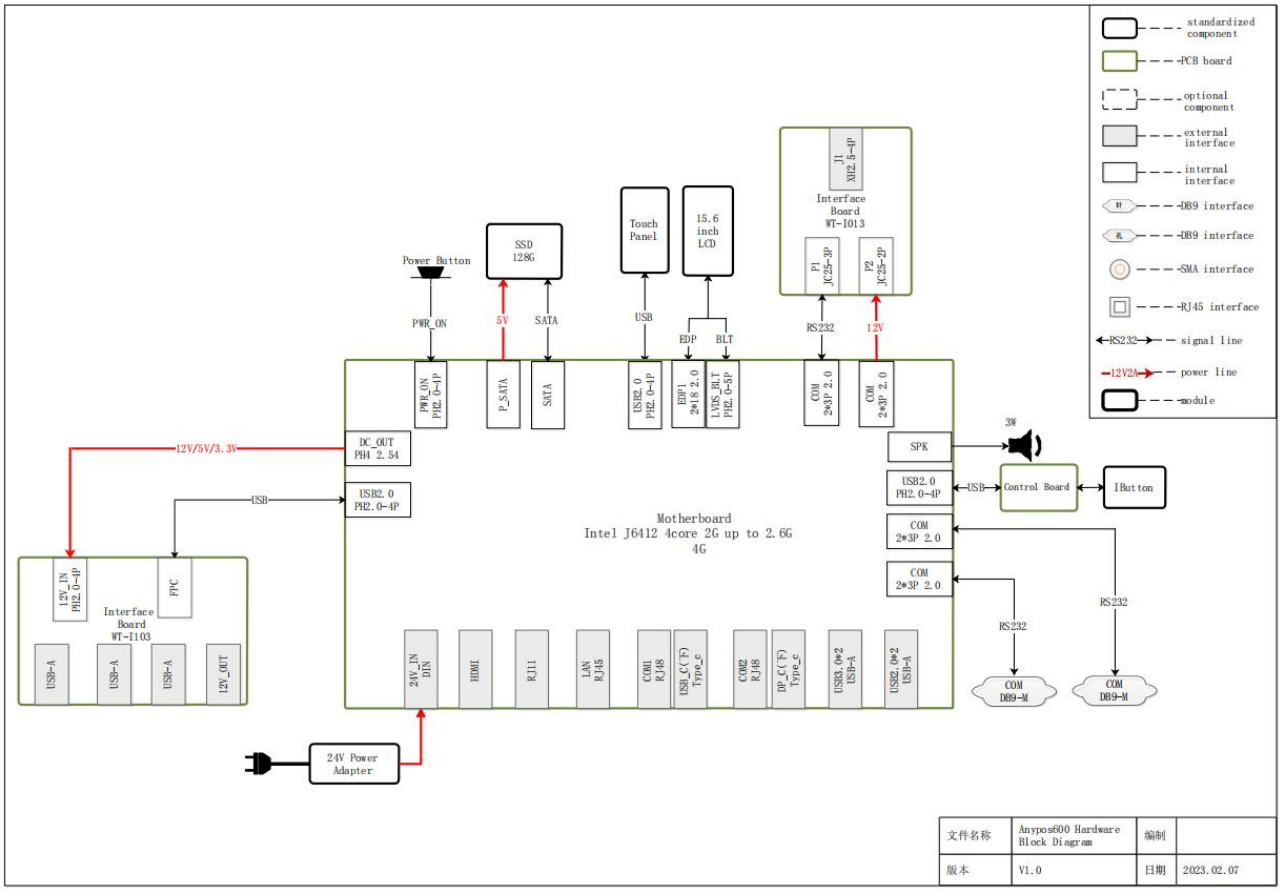
NOTICE

The contents of this specification are subject to change without notice.

CONTENT

1. System Diagram

662A00



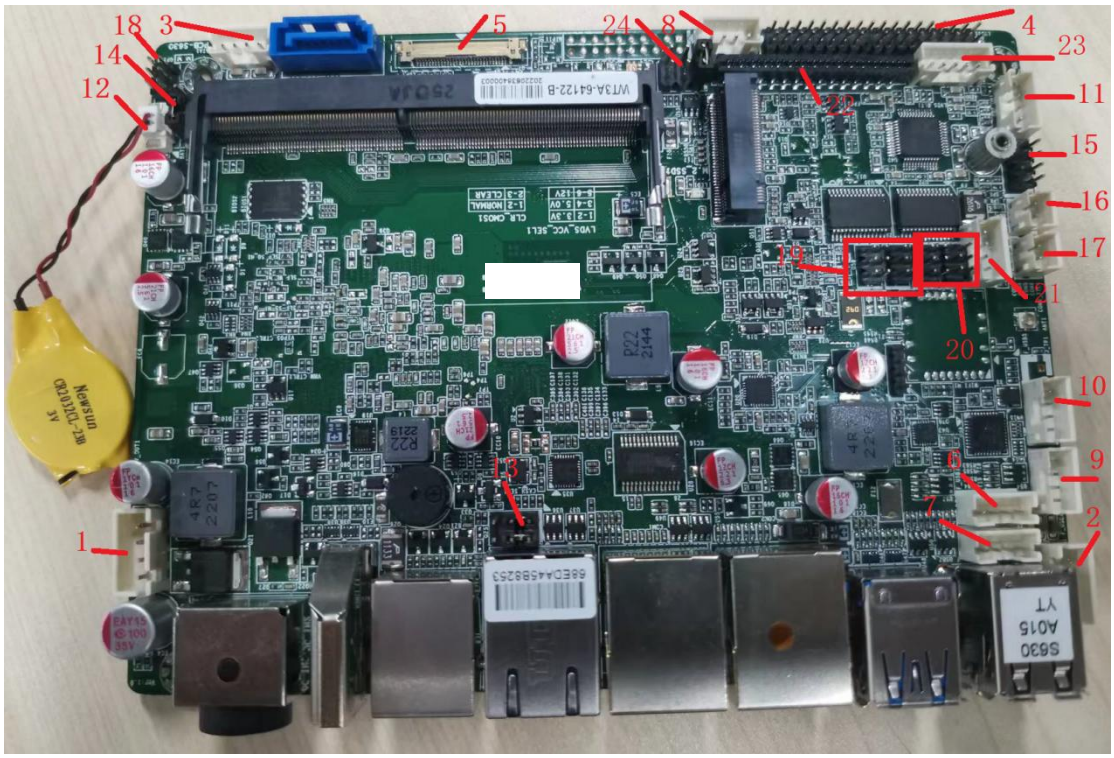
2. Main Component Specifications

2.1 Mother board

Material Code

POS Model	Version	Material Code
662A00	WT3A-64122-B，V1.1	2.1.01.0730

Picture

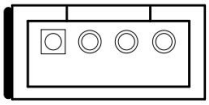


Jumpers / Headers and Connectors		
1	24V_OUT	24V output
2	DC_OUT	12V+5V+3.3V output
3	SATA_Power	SATA power supply
4	LVDS1	LVDS interface
5	EDP2	EDP interface
6	F_USB1 (Source Raw)	Source USB interface
7	F_USB2 (Source Raw)	Source USB interface
8	F_USB3 (expansion)	Extended USB port
9	F_USB4 (expansion)	Extended USB port
10	F_USB5 (Source Raw)	Source USB interface
11	PWR_ON	Switch/indicator
12	BAT_RTC	RTC battery interface
13	CASH_SEL	Money box signal jump pin
14	CLR_CMOS	COMS Jumpers
15	AUDIO	AUDIO interface

16	SPK_L	left channel
17	SPK_R	Right channel
18	GPIO	GPIO interface
19	COM3/4	COM3/4
20	COM5/6	COM5/6
21	COM6_TTL	COM6_TTL
22	FPC	FPC
23	LVDS_BLT1	LVDS/EDP1 Backlight Control
24	LVDS_VCC_SEL1	LVDS/EDP1 power jump selection

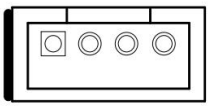
Definition of Jumpers /Headers and Connectors

1）24V output interface (XH direct plug 1*4Pin 2.5mm)



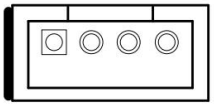
Location	Serial number	Definition	Serial number	Definition
24V_OUT	1	+12V OUT	2	GND
	3	PRT_CASH_STATE	4	PRT_CASH_CTL

2) DC_OUT connector (XH straight plug 1*4Pin 2.5mm)



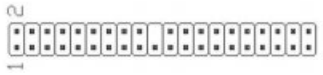
Location	Serial number	Definition	Serial number	Definition
DC_OUT	1	12V	2	5V
	3	GND	4	3.3V

3) SATA_Power interface (PH straight plug 1*4Pin 2.0mm)



Location	Serial number	Definition	Serial number	Definition
SATA_Power	1	12V	2	GND
	3	GND	4	5V

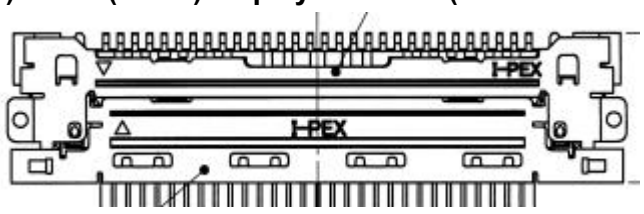
4) LVDS1 (DDI-0) (LVDS/eDP1 socket 18*2 Pin 2.00mm)



Location	Serial number	Definition	Serial number	Definition
LVDS1	1	GND	2	VDD_PANEL1 [1]
	3	LVDS_A_DATA0-/ N/C [2]	4	VDD_PANEL1 [1]
	5	LVDS_A_DATA0+/ N/C [2]	6	GND
	7	GND	8	GND
	9	LVDS_A_DATA1-/ N/C [2]	10	LVDS_A_CLK-/ N/C [2]
	11	LVDS_A_DATA1+/ N/C [2]	12	LVDS_A_CLK+/ N/C [2]
	13	GND	14	GND
	15	LVDS_A_DATA2-/ N/C [2]	16	LVDS_A_DATA3-/ N/C [2]
	17	LVDS_A_DATA2+/ N/C [2]	18	LVDS_A_DATA3+/ N/C [2]
	19	GND		
	21	LVDS_B_DATA0-/ EDP_TX0- [2]	22	N/C/ EDP_HPD1 [2]
	23	LVDS_B_DATA0+/ EDP_TX0+ [2]	24	N/C
	25	GND	26	GND
	27	LVDS_B_DATA1-/ EDP_TX1- [2]	28	LVDS_B_DATA3-/ N/C [2]
	29	LVDS_B_DATA1+/ EDP_TX1+ [2]	30	LVDS_B_DATA3+/ N/C [2]
	31	GND	32	GND
	33	LVDS_B_DATA2-/ EDP_AUX- [2]	34	LVDS_B_CLK-/ N/C [2]
	35	LVDS_B_DATA2+/ EDP_AUX+ [2]	36	LVDS_B_CLK+/ N/C [2]

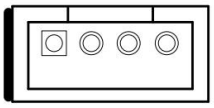
[1]: Panel Power VDD is 3.3V by default, 5V/12V is selectable by "LVDS/eDP1 VDD Select Jumper" (LVDS_VCC_SEL1, Table 16).
[2] : It supports LVDS by default and can support eDP if specified. (resistor selectable)

5) EDP2 (DDI-1) display interface (IPEX socket 1*30Pin 0.5mm)



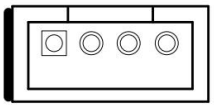
Location	Serial number	Definition	Serial number	Definition
EDP2	1	N/C	2	+12V
	3	+12V	4	+12V
	5	+12V	6	N/C
	7	N/C	8	EDP2_PWM
	9	LED_EN	10	GND
	11	GND	12	GND
	13	GND	14	EDP2_HPD
	15	GND	16	GND
	17	N/C	18	EDP2_PANEL
	19	EDP2_PANEL	20	GND
	21	EDP2_AUX-	22	EDP2_AUX+
	23	GND	24	EDP2_TX0+
	25	EDP2_TX0-	26	GND
	27	EDP2_TX1+	28	EDP2_TX1-
	29	GND	30	N/C

6) F_USB1 (Genesis) (PH direct plug 1*4Pin 2.0mm)



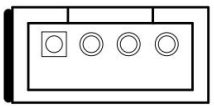
Location	Serial number	Definition	Serial number	Definition
F_USB1	1	5V	2	DM
	3	DP	4	GND

7) F_USB2 (Genesis) (PH straight plug 1*4Pin 2.0mm)



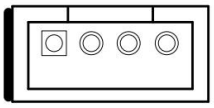
Location	Serial number	Definition	Serial number	Definition
F_USB2	1	5V	2	DM
	3	DP	4	GND

8）F_USB3 (Extension) (PH direct plug 1*4Pin 2.0mm)



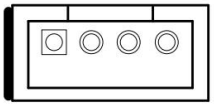
Location	Serial number	Definition	Serial number	Definition
F_USB3	1	5V	2	DM
	3	DP	4	GND

9）F_USB4 (Extension) (PH straight plug 1*4Pin 2.0mm)



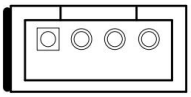
Location	Serial number	Definition	Serial number	Definition
F_USB4	1	5V	2	DM
	3	DP	4	GND

10) F_USB5 (Genesis) (PH straight plug 1*4Pin 2.0mm)



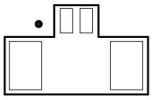
Location	Serial number	Definition	Serial number	Definition
F_USB5	1	5V	2	DM
	3	DP	4	GND

11) Switch indicator interface (PH direct plug 1*4Pin 2.0mm)



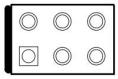
Location	Serial number	Definition	Serial number	Definition
PWR_ON	1	POWER ON	2	GND
	3	GND	4	VCC_3.3V

12) RTC battery interface (PH riser 1*2Pin 1.25mm)



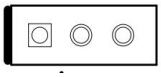
Location	Serial number	Definition	Serial number	Definition
BAT_RTC	1	POWER ON	2	GND

13) money box signal jump pin (pin 2 * 3Pin 2.54mm), the default printer money box 3-5 and 4-6



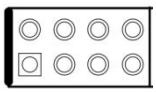
Location	Serial number	Definition	Serial number	Definition
CASH_SEL	1	MB_CTL	2	MB_STATE
	3	CTL	4	STATE
	5	PRT_CTL	6	PRT_STATE

14) CMOS jump pin (pin 1*3Pin 2.54mm)



Location	Serial number	Definition	Serial number	Definition
CLR_CMOS	1	N/C	2	RTC_RST
	3	GND		

15) Audio interface (pin 2*4Pin 2.0mm)



Location	Serial number	Definition	Serial number	Definition
AUDIO	1	12V	2	5V
	3	GND	4	GND
	5	HP out R	6	MIC R
	7	HP out L	8	MIC L

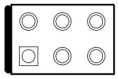
16) SPK_L(PH straight plug 1*2Pin 2.0mm)

Location	Serial number	Definition	Serial number	Definition
SPK_L	1	SPK_OUT_L-	2	SPK_OUT_L+

17) SPK_R(PH straight plug 1*2Pin 2.0mm)

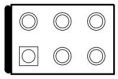
Location	Serial number	Definition	Serial number	Definition
SPK_R	1	SPK_OUT_R-	2	SPK_OUT_R+

18) GPIO interface (pin 2*3Pin 2.0mm)



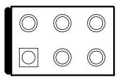
Location	Serial number	Definition	Serial number	Definition
GPIO	1	VCC(5V)	2	IO
	3	IO	4	IO
	5	IO	6	GND

19) COM3/4 interface (pin 2*3Pin 2.0mm) Logic voltage 5/12V 0 OHM resistor jump selection, default 5V



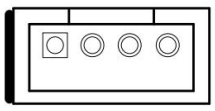
Location	Serial number	Definition	Serial number	Definition
COM3/4	1	VCC(5V)	2	RXD
	3	TXD	4	GND
	5	RTS	6	CTS

20) COM5/6 interface (pin 2*3Pin 2.0mm) Logic voltage 5/12V 0 OHM resistor jump selection, default 12V



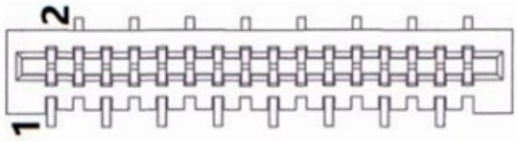
Location	Serial number	Definition	Serial number	Definition
COM5/6	1	VCC(12V)	2	RXD
	3	TXD	4	GND
	5	RTS	6	CTS

21) COM6_TTL interface (PH straight plug 1*4Pin 2.0mm) logic voltage 5V



Location	Serial number	Definition	Serial number	Definition
COM6_TTL	1	VCC(5V)	2	TTL_RXD
	3	TTL_TXD	4	GND

22) FPC interface (stand-up paste 2*15Pin 1.0mm)

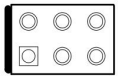


Location	Serial number	Definition	Serial number	Definition
FPC	1	+ 12V	2	+ 12V
	3	GND	4	GND
	5	COM4_RXD	6	COM4_TXD
	7	COM4_RTS	8	COM4_CTS
	9	GND	10	USB2+
	11	USB2-	12	GND
	13	+5V	14	+5V
	15	GND	16	GND
	17	KB_DATA	18	KB_CLK
	19	GND	20	CASH_CTL
	21	CASH_STATE	22	COM6_TTL_RXD
	23	COM6_TTL_TXD	24	COM6_TTL_RTS
	25	COM6_TTL_CTS	26	GND
	27	COM3_RXD	28	COM3_TXD
	29	COM3_RTS	30	COM3_CTS

23) LVDS_BLT1 (PH straight plug 1*5Pin 2.0mm)

Location	Serial number	Definition	Serial number	Definition
LVDS_BLT1	1	12V	2	GND
	3	LVDS/EDP_BKLT_EN	4	LVDS/EDP_BKLT_CTL
	5	5V		

24) LVDS_VCC_SEL1 (Pin 2*3Pin 2.0mm)



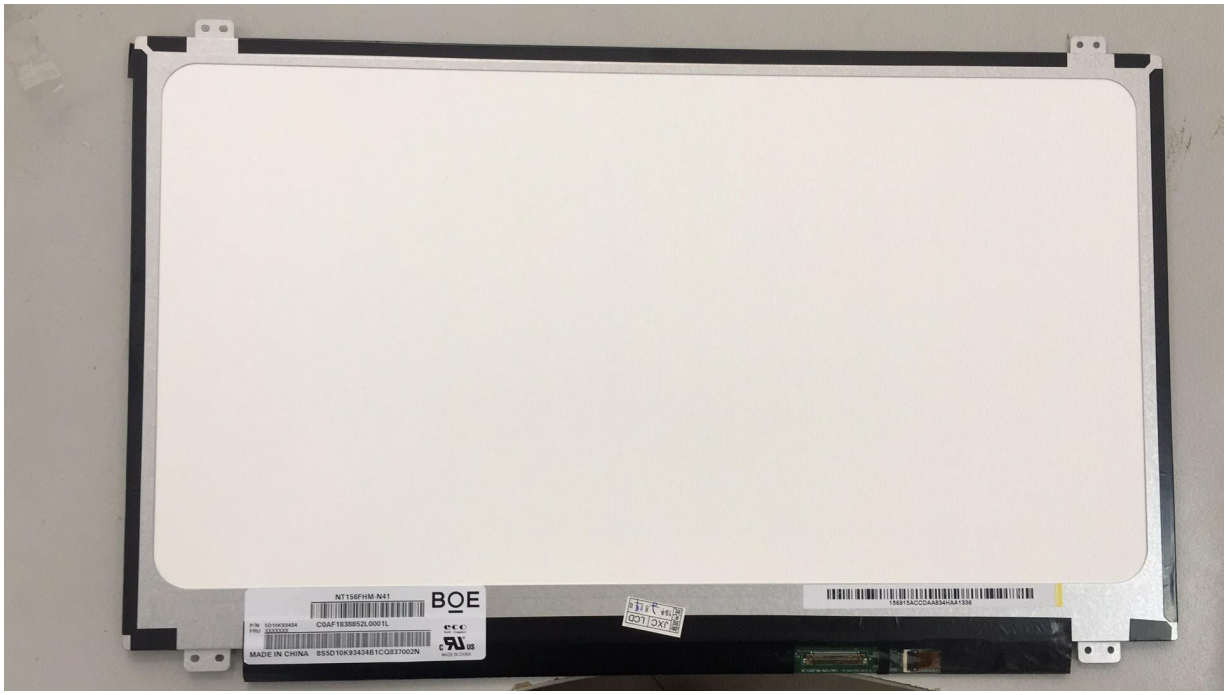
Location	Serial number	Definition
COM5/6	1-2 (default)	3.3V
	3-4	5V
	5-6	12V

2.2 LCD Screen

Material Code

POS Model	Version	Material Code
869A60	NT156FHM-N41	2.2.04.0180

Picture



Parameter

Panel model	NT156FHM-N41
Panel size	15.6"
Working temperature	0-50℃
Resolving power	1920*1080
Panel brightness	220 cd/m^2 (Typ.)
Signal interface	EDP

3. Machine Assembly

3.1 Motherboard

a.Remove the screws shown in red in the figure below and remove the base.

b.Remove the screws shown in red in the figure below, and gently lift the rear cover.

c.After removing the back cover, unplug the plug cable to separate the screen from the motherboard for future maintenance.

4. Function test

4.1 Function test

If you want to test the whole machine, please consult Solux customer service to obtain "AX6W-15J64 production test software (windows version)", select the function items in the main interface to test, and the software will display the results of various functions for you.