USER MANUAL

ZKBio910

Version 1.0   Date: May, 2019

Important Claim

Firstly, thank you for purchasing this hybrid-bio terminal. Before using, please read this manual carefully to avoid the unnecessary damage! The company reminds you that the proper use will improve the use affect and authentication speed.

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Safety Instructions

1. Read these instructions carefully. Keep these instructions for future reference.
2. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
3. Please keep this equipment from humidity.
4. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
5. Make sure power cord such a way that people cannot step on it. Do not place anything over the power cord.
6. All cautions and warnings on the equipment should be noted.
7. If the equipment is not used for long time, disconnect the equipment from main to avoid being damaged by transient over voltage.
8. Never pour any liquid into opening; this could cause fire or electrical shock.
9. If one of the following situations arises, get the equipment checked by a service personnel:
10. The power cord or plug is damaged.
11. Liquid has penetrated into the equipment.
12. The equipment has been exposed to moisture.
13. The equipment does not work well or you cannot get it work according to user manual.
14. The equipment has dropped and damaged.
15. Do not leave this equipment in an environment unconditioned, storage temperature below -20°C or above 60°C, it may damage the equipment.
16. Unplug the power cord when doing any service or adding optional kits.

Lithium Battery Caution:

1. Danger of explosion can happen if the battery is incorrectly replaced. Replace only the original or equivalent type recommended by the manufacture. Dispose used batteries according to the manufacturer's instructions.
2. Do not remove the cover, and ensure no user serviceable components are inside. Take the unit to the service center for service and repair.

Table of Contents

1. Packing List

1.1. Standard Accessories

a.	b.	a. System (with stand)
		b. Power Adapter
		c. Power Cord
		d. Driver Bank
c.	d.	

1.2 Optional Accessories

a.	b.	c.

d.	e	f.
g.	a. Single MSR b. VFD c. 10" 2nd Display d. 1D or 2D Attached Type Barcode Scanner e. 1D or 2D Handheld Type Barcode Scanner f. Thermal Printer g. Cash Drawer	

2. System View

2.1. Rear View

☆ Please make sure 12V DC plug in the right direction before plugging in DC jack.

2.2. Back View
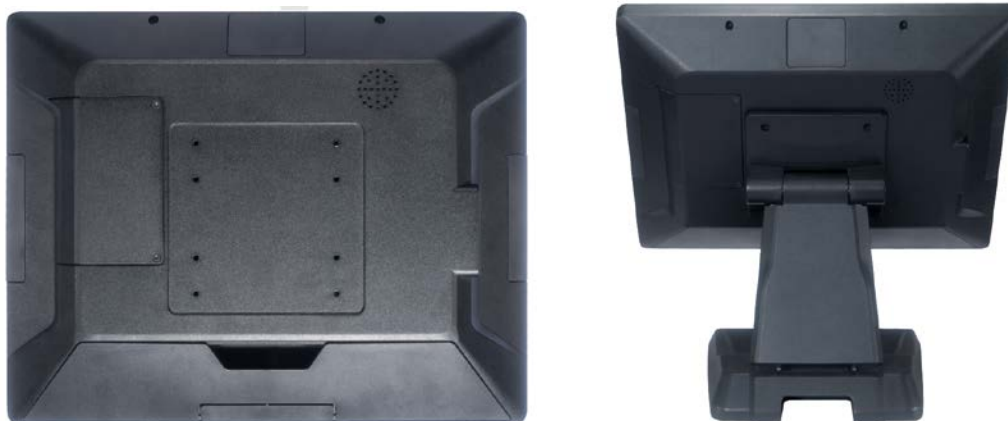
2.3. Specification

Display & Touch	LCD Display Size		15" TFT LCD
	Max. Resolution		1024x768
	Brightness		250 cd/㎡
	Support Color		16.2M/ 262K colors
	Backlight		LED
	Touch Type		Projected Capacitive
Main Board	Processor		Intel® Celeron J1900 QC 2.0GHz
	System Memory		One SO-DIMM socket supports DDR3L 1333 up to 8GB
Storage	HD		2.5" SATAII HDD x 1&MSATA x 1
I/O	USB		X 4 (USB 2.0)
			X 1 (USB 3.0)
	COM		X 3
	Cash Drawer Port		X 1 (12V/24V RJ11 cash drawer port)
	Audio Port		x 1 Line-out
Network	LAN		X 1 (RJ45 10/100/1000 Base-T)
Peripherals			VFD /10" Attached second display / MSR/ RFID / i-Button / 1D/2D Barcode scanner
Environmental	Temperature	Operation	32° to 104° F (0° to 40° C)
		Storage	-4° to 140° F (-20° to 60° C)
	Relative Humidity		20% to 80% non-condensing
Power Supply			60W power adapter
OS Support			POS Ready 7 / Win 8.1 Industry / Win 10 IoT Enterprise
Dimension			228*385*403 mm
Compliance	Certifications		CE / FCC

Note: Intel® Celeron J1900 CPU does not support POS Ready 2009

2.4. Internal Layout

M/B PCBA
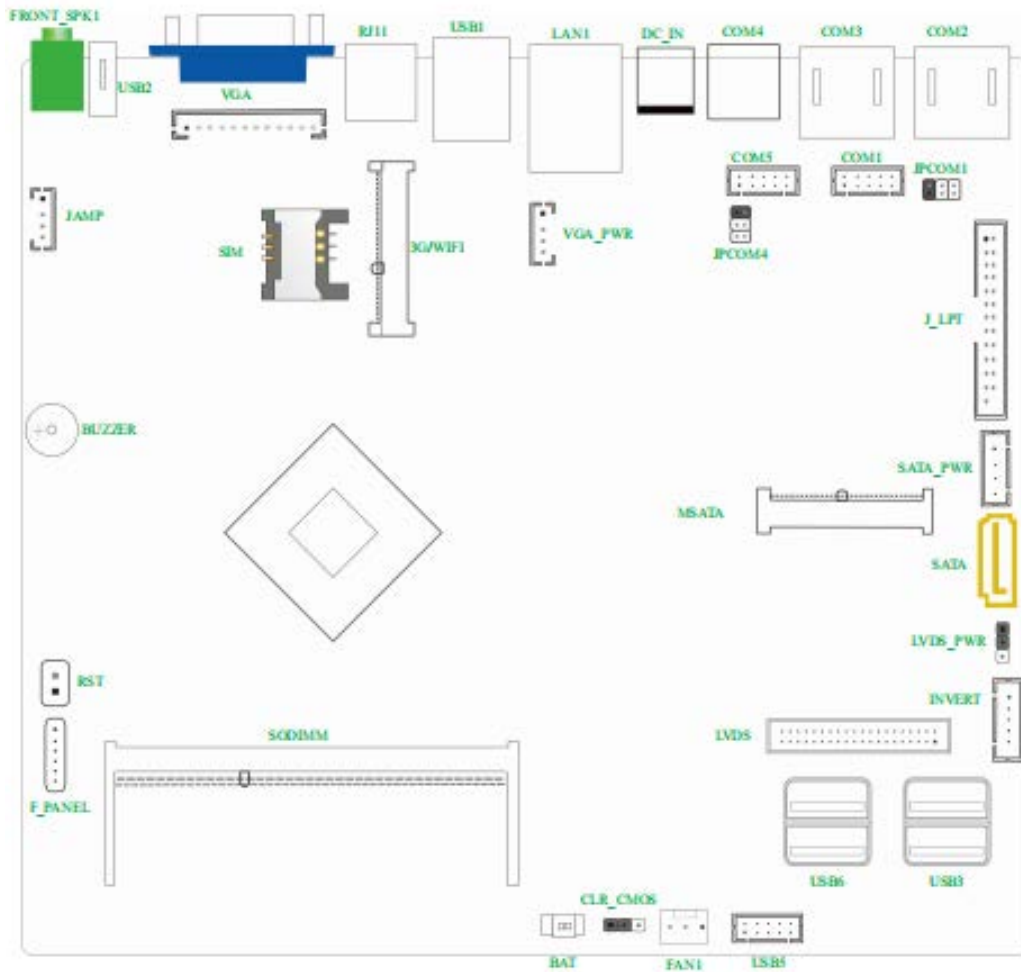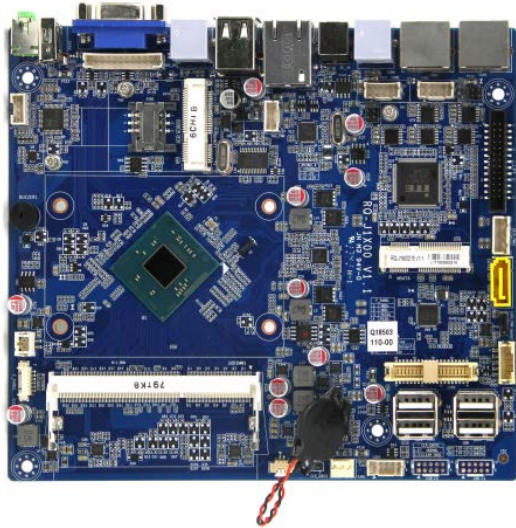
3. Pin Definition

3.1. LVDS connector Pin Definition

No.	Definition	No.	Definition	No.	Definition	No.	Definition
1	VCC	2	VCC	21	ADO2+	22	BDO2+
3	GND	4	GND	23	GND	24	GND
5	VCC	6	VCC	25	ACLK-	26	BCLK-
7	ADO 0-	8	BDO 0-	27	ACLK+	28	BCLK+
9	ADO 0+	10	BDO 0+	29	GND	30	GND
11	GND	12	GND	31	NC	32	NC
13	ADO1-	14	BDO1-	33	GND	34	GND
15	ADO1+	16	BDO1+	35	AD03-	36	BD03-
17	GND	18	GND	37	ADO3+	38	BDO3+
19	ADO2-	20	BDO2-	39	NC	40	NC

3.2. DC Jack Pin Definition

No.	Definition
1	+12V
2	Ground

3.3. COM connector Pin Definition

No.	Definition
1	NC
2	SIN
3	SOUT
4	NC
5	GND
6	NC
7	RTS
8	CTS#
9	+5V/+12V/Ring

3.4. SATA: 22-pin SATA Pin Definition

No.	Definition	No.	Definition
S1	GND	P1	N/C
S2	SATA_TX0_P	P2	N/C
S3	SATA_TX0_N	P3	N/C
S4	GND	P4	GND
S5	SATA_RX0_N	P5	GND
S6	SATA_RX0_P	P6	GND
S7	GND	P7	+5V
		P8	+5V
		P9	+5V
		P10	GND
		P11	GND
		P12	GND
		P13	N/C
		P14	N/C
		P15	N/C

3.5. Mini-PCIE Pin Definition

No.	Definition	No.	Definition
1	WAKE#	29	GND
2	+V3.3V	30	SMB__CLK
3	N/C	31	PCIE_TX_N
4	GND	32	SMB_DATA
5	N/C	33	PCIE_TX_P
6	+1.5V	34	GND
7	CLKREQ#	35	GND
8	N/C	36	USB D-
9	GND	37	N/C
10	N/C	38	USB D+
11	CLK_PCIE_N	39	N/C
12	N/C	40	GND
13	CLK_PCIE_P	41	N/C
14	N/C	42	N/C

15	GND	43	N/C
16	N/C	44	N/C
17	N/C	45	N/C
18	GND	46	N/C
19	N/C	47	N/C
20	W_DISABLE#	48	+V1.5V
21	GND	49	N/C
22	RESET#	50	GND
23	PCIE_RX_N	51	N/C
24	+3.3V_AUX	52	+V3.3V
25	PCIE_RX_P	53	GND
26	GND	54	GND
27	GND	55	GND
28	+V1.5V	56	GND

3.6. Int. Speaker Pin Definition

No.	Definition
1	Left Out +
2	Left Out -
3	Right Out-
4	Right Out+

3.7. Power On/Off connector Pin Definition

No.	Definition
1	+5V Standby
2	+5V Status
3	Power On#
4	GND

4. Rear I/O Interface

4.1. 2-Layer USB2.0 connector Pin Definition

No.	Definition	No.	Definition
1	+5V	5	+5v
2	D-	6	D-
3	D+	7	D+
4	GND	8	GND

4.2. 2-Layer USB3.0+2.0 connector Pin Definition

No.	Definition	No.	Definition
1	+5V	8	TX-
2	D-	9	TX+
3	D+	10	+5V
4	GND	11	D-
5	RX-	12	D+
6	RX+	13	GND
7	GND		

4.3. LAN: RJ45 Pin Definition

No.	Definition
1	MDI0A+
2	MDI0A-
3	MDI1A+
4	MDI1A-
5	MDI2A+
6	MDI2A-
7	MDI3A+
8	MDI3A-

4.4. LINE-OUT JACK Pin Definition

No.	Definition
1	GND_AUD
2	GND_AUD
3	LINE_OUTR2
4	LINE_OUTL2
5	LINE2-JD

5. LCD Surface Cleaning

1. How to clean the LCD surface properly?
   ◇ Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.
   ◇ Always apply the solution to your cloth first, not directly to the parts you are cleaning. You want to avoid dripping the solution directly into your computer or laptop.
   ◇ Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. What are some of the basic supplies needed to clean an LCD screen?
   ◇ A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.
   ◇ Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.
   ◇ Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. What types of cleaners are acceptable?
   ◇ Water
   ◇ Vinegar (mixed with water)
   ◇ Isopropyl Alcohol

NOTICE: The following cleaners are unacceptable:
   ◇ Acetone
   ◇ Ethyl alcohol
   ◇ Ethyl acid
   ◇ Ammonia
   ◇ Methyl chloride

CE Notice

This device complies with the requirements of the CE directive.'

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.   However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WEEE Notice

This appliance is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

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