Fanless Box PC User Manual

Model No.:

☑PC-GS2192A-FGB-CB

Version: Ver. A00

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We have no responsibility for any direct/indirect/intentional or unintentional damages and potential problems caused by unsuitable installation and usage.

Guarantee Clause:

The product has 12 months' warranty. If the user has special requirement, please do it as the contract signed by the two parties.

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Safety Instruction

1. Please read the user manual carefully before using the product, and carefully keep it for future reference.

2. Before connecting power supply to the product, please confirm the voltage is compliant with the requirement of the device.

3. To avoid electric shock or damage to the product, please unplug the power cord from the socket before cleaning the device by wet rag.

4. Please do not use liquid or aerosol cleaner to clean up the device.

5. To avoid short circuit or fire, please do not let any liquid get into or splash into the product.

6. For a device which needs to use power cord, there must be an easy-to-reach power socket around the device.

7. Please do not use the product in a damp environment.

8. Before installation, please make sure the device is placed on a solid surface; accidental drop or tipping may cause malfunction or damage to the device.

9. Before you connect or unplug any signal cable, make sure all power cords are unplugged in advance.

10. To avoid unnecessary damage caused by frequent power-on/off, wait at least 30 seconds after turning off the computer before re-turning on the computer.

11. If the product will not be used for a long time, please disconnect the power cord, to avoid damage to the product by transient voltage.

12. If the product needs to be upgraded, installed or dismantled, please implement all the operation on an ESD workstation, for some precision devices are sensitive to ESD;

13. Ensure excellent heat dissipation and ventilation of the system.

14. Please do not open or dismantle the device by yourself. For the sake of safety, this device can only be opened by a professional maintenance person.

Packing List

- A Fanless industrial computer with touch screen
- 1*AC 100V～240V transferred to DC+12V/5APower adapter
- 1*AC 110V～240V to DC+12V/5A power adapter
- 1*AC220V power cable
- 1*Certification, 1*packing list

Contents

1．Product Introduction

1.1 Brief Introduction

PC-GS2192A-FGB-CB is a low-power-consumption, high-performance and Fanless embedded Box PC, and its material is metal.

This product is with Cortex-A17 and the on-board RK3288 SoC Quad Core @ 1.8GHz processor, 2GB memory and 8GB eMMC storage, and it has rich I/O interfaces and it is with fully-sealed Fanless design, supporting Android 5.1. or above.

This product can be used in the field of mechanical equipment, Solar photovoltaic,Vehicle controlling and industrial automation (like paper-making, environment protection.etc) .

1.2Product specifications

Item		Definition
Main Index	**Processor**	● RK3288 SoC Cortex-A17 Quad Core @ 1.8GHz Max.
	Memory	● Standard 2GB DDR3
	OS	● Google Android 5.1 or Above
	Storage	● EMMC 8GB/16GB/32GB select（standard 8GB ）， NAND Flash compatible
	Network Function	● 1*RJ45 1000M LAN ● Include BT+WIFI module, support Wi-Fi 802.11a/b//g/n/ac,2.4G/5G dual band,Support BT 4.0 dual antenna
	Audio	● 1*Line out
	Expansion	● Support Mini-PCIE
	LED display features	● Display: 4.3″TFT LED ● Resolution：4.3″---480*272； ● Brightness： 4.3″---250cd/㎡ ● Visual Angle（CR≥10） ● Horizontal Level：80°～80°；Vertical：80°～80°
	Touch Screen	● Connection: USB ● Type :Multi-points Capacitive touch
	I/O	● Provide 4 COM(RJ45 output)：COM1（RS232），COM2（RS232），COM3（RS232），COM4（RS232）COM:4*RS232 (RJ45) ● 2*USB ● 1*1000M LAN ● 1*HDMI ● 1*audio in/ out ● 1*TF Card slot ● 1*SIM card slot
Main Function	**Dimensions**	● 199mm(L)*192mm(W)*57.8mm(H)；
	Mechanical	● Housing: Metal ● Color:Black ● Heat conduction:Al-alloy body with heat conduction design ● Material: high-density al-alloy cooling panel

Item		Definition
	Weight	● PC-GS2192A-FGB-CB: N/W：1.5Kg；G/W：2.1Kg
	TEMP	● Operation temperature:-10℃～50℃ with air flow ● Storage temperature:-20℃～60℃
	Humidity	● 95％@40℃（non-condensing）
	EMC	● Meet GB9254 Level A ● Meet GB/T 17618
	RELIABILITY	● MTBF≥5000h ● MTTR≤0.5h
	Safety	● Meet basic requirement of GB4943
	Protection Level	● Front Panel IP65(Optional)
	ENVIRONMENT	● Anti-vibration：5-19Hz/1.0mmamplitude；19-200Hz/1.0g acceleration ● Anti-Shock：Acceleration 10g,11ms duration；
	Power feature	● Input Volt/Freq：100～240VAC/50～60Hz（Adapter）; Input Volt/Current：12V DC（Optional without adapter）; ● Power 7.2W(standby)，13.2W(rated)
Hardware Version		● V1.31.16
Software Version		● rk3288-userdebug 5.1.1LMY49F harri3 20190221.120035 test-keys

1.3 I/O Interface Introduction

2．Application Planning

2.1 Transportation

Well-packaged products are suited for transportation by truck, ship, and plane. During transportation, products should not be put in open cabin or carriage. During transshipping, products should not be stored in open air without protection from the atmospheric conditions. Products should not be transported together with inflammable, explosive and corrosive substances and are not allowed to be exposed to rain, snow and liquid substances and mechanical force.

2.2 Storage Requirements

Products should be stored in package box when it is not used. And warehouse temperature should be $0^{O}C \sim 40\,^{O}C$, and relative humidity should be 20% ~ 85%. In the warehouse, there should be no harmful gas, inflammable, explosive products, and corrosive chemical products, and strong mechanical vibration, shock and strong magnetic field interference. The package box should be at least 10cm above ground, and 50cm away from wall, thermal source, window and air inlet

Caution!
Risk of destroying the device! When shipping the PC in cold weather, please pay attention to the extreme temperature variation. Under this circumstance, please make sure no water drop   (condensation)   is formed on the surface or interior of the device. If condensation is formed on the device, please wait forover twelve hours before connecting the device.

2.3Unpack and check the delivered equipment

Unpack the equipment

Pay attention to the following things when you unpack the equipment.

- Please take the advice not to throw away the original packaging material and please retain to use it when the equipment should be transported again.

- Please put the document in a safe place. It will be used in the initial adjustment of equipment and it is a part of the equipment.

- When you check the delivered equipment, please check whether it is obviously damaged during the transportation.
- Please check whether the delivered parcel includes the whole equipment and the accessories you ordered separately. If there is any discrepancy or damaged during transportation, please contact our customer-service staff

3．Installation Instructions

3.1 Product photo


Photo 3-1

3.2 Product Image & Dimensions Drawing
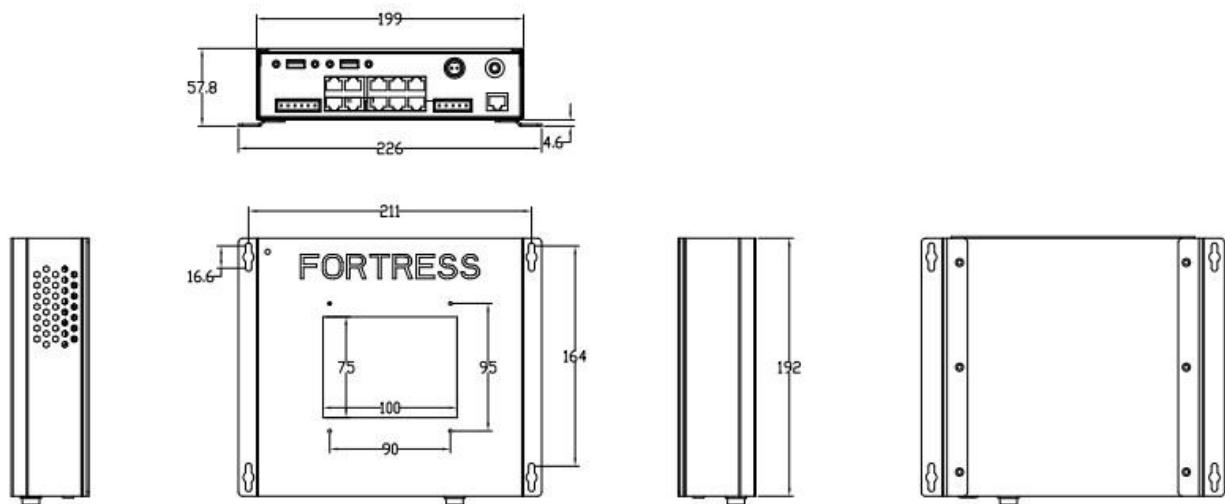
photo 3-2

3.3 Installation Sketch

9	2192A-FGB-CB-Z01A
8	2192A-FGB-CB-M11A
7	2192A-FGB-CB-M10A
6	2192A-FGB-CB-M09A
5	2192A-FGB-CB-M08A
4	2192A-FGB-CB-M06A
3	2192A-FGB-CB-M05A
2	2192A-FGB-CB-M02A
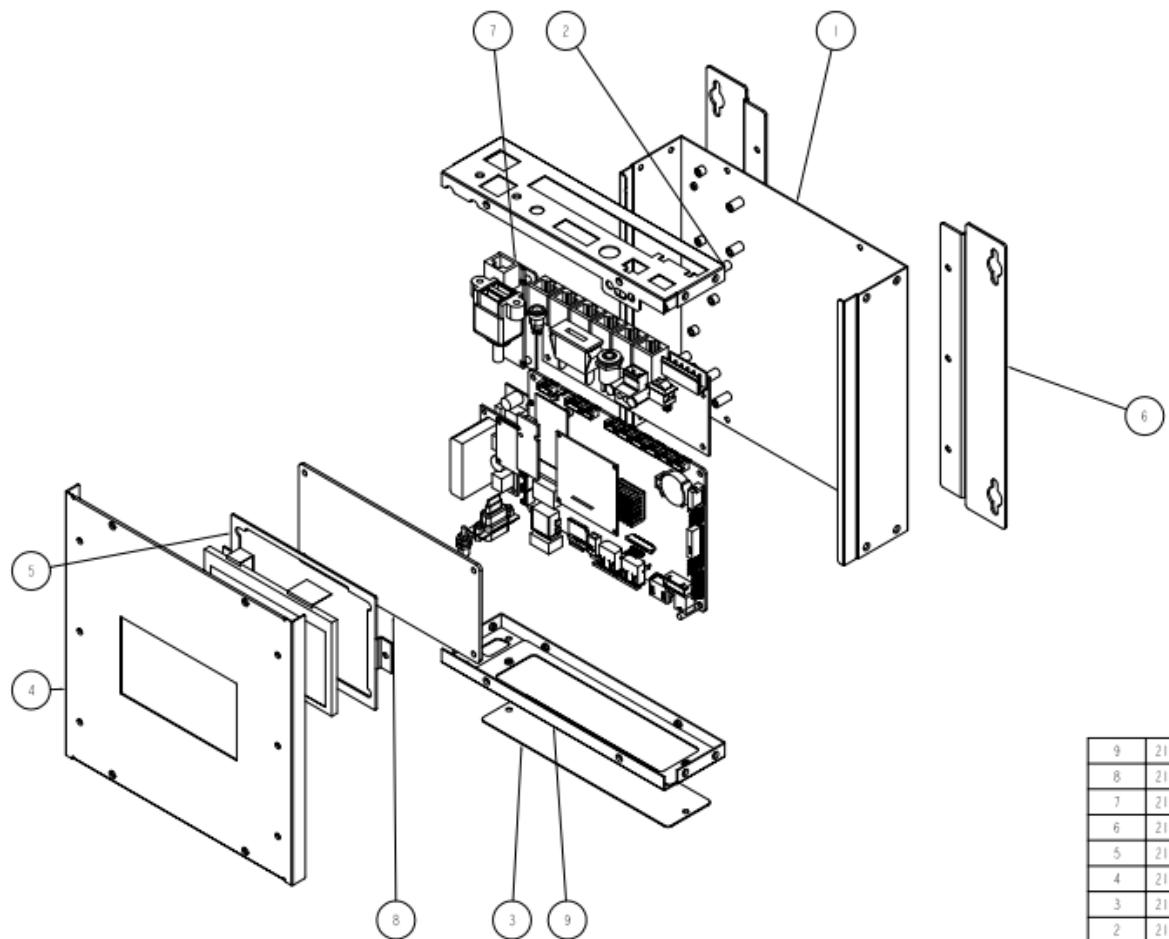
| 1.Casing	2.Front Plate	3.Back Plate	4. Cover
5. LCD frame	6.installation stand	7.Speaker	8. POE Stand
9.Screen pressure plate	10. Rear baffle assembly		
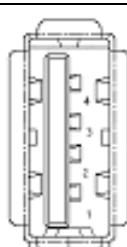
4．Product Specification

4.1 Basic software Specification

| OS	Google Android 5.1 and above
Basic software function	Camera, web browser, Online chat ,e-mail,E-book,Resource manager
Sound Mode	Calendar,Clock, Calculator, recording
Language support	Multiple language
Recording	Support MP3,WMA format
TOOL	Calendar/Alarm Clock/calculator/notes/weather+ clock/recording
Word processing	EPUB, WORD, EXCEL, POWERPOINT, PDF, TXT
E-book	PDF/TXT/CHM/DOC/EXCEL/EPUB/RTF/FB2
Input method	Standard Andriod key-board, Optional third-input (optional Chinese, Korean,Japanese etc.)
Net	Browser –ChromeLite/GOOGLE Market/Email/Gmail/Google talk
System management	APK installer, Original Android system, open root authority, support ODM development /System setting/google Maps/global time/support OTA remote-upgrade

4.2 Interface definition

1.This device provides 2*USB 2.0, and definition as below:

USB1～2	USB2.0	Signal
	1	5V
	2	D-
	3	D+
	4	GND

4.3Network interface

1*1000M LAN interface, definition as below

MX0+(Pin#1)
MX0-(Pin#2)
MX1+(Pin#3)
MX2+(Pin#4)
MX2-(Pin#5)
MX1-(Pin#6)
MX3+(Pin#7)
MX3-(Pin#8)
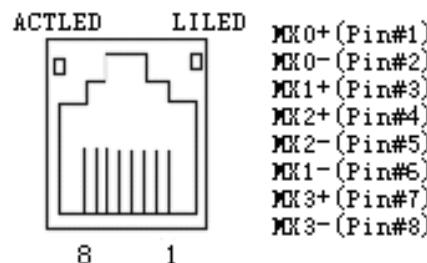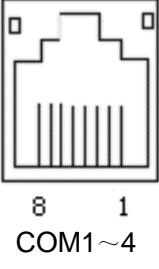
LAN
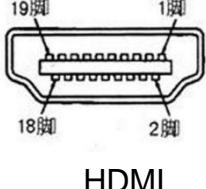
ACTLED（Single Green Light）	Network status	LILED（Double: Green/Orange）	Network Speed
		Green	1000Mbps
Twinkle	data transmission	Orange	100Mbps
Light Off	No data transmission	Light Off	10Mbps

4.4COM definition (RJ45 output)

This device provides 4*RS232 Definition as below

COM1~4
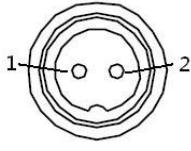
PIN	Signal
	RS-232
1	NC
2	NC
3	GND
4	RXD
5	GND
6	5V
7	TXD
8	5V

4.5 Standard HDMI A Type interface

PIN	Signal	PIN	Signal
1	DATA2+	2	DATA2shielding
3	DATA2-	4	DATA1+
5	DATA1 shielding	6	DATA1-
7	DATA0+	8	DATA0shielding
9	DATA0-	10	DATA1_CK+
11	DATA1_CKshielding	12	DATA1_CK-
13	CEC	14	Reserved
15	SCL（DDC clock）	16	SDA（DDC data）
17	DCC/CEC GND	18	+5V
19	Hot swap check	/	

4.6 Power interface

This device support DC +12V power input, can with power adapter,

definition as below

PIN	Signal
1	＋12V
2	GND

5. FCC Caution

5.1 FCC Caution

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.

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

NOTE: 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.