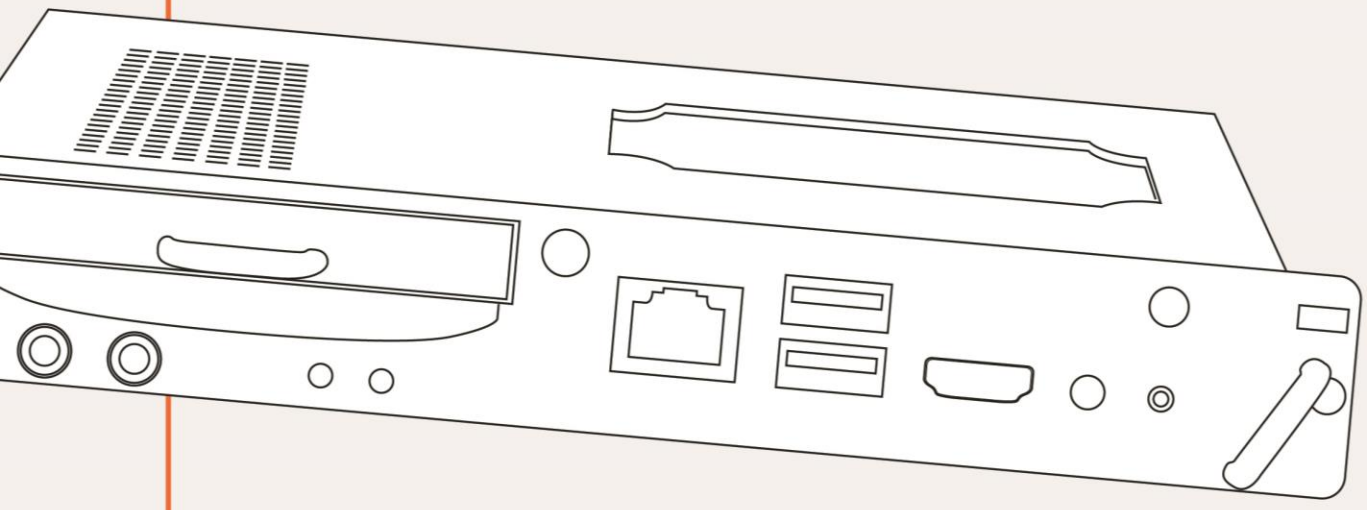


User Manual
OPS Computer
Open Pluggable Specification Computer

Speechi
Interactive solutions

Overview

Icon Descriptions

The icons are used in the manual to serve as an indication of interest topics or important messages. Below is a description of these icons:

NOTE: This mark indicates that there is a note of interest and is something that you should pay special attention on while using the product

WARNING: This mark indicates that there is a caution or warning and it is something that could damage your property or product

Acknowledgement

Intel, Pentium and Celeron are registered trademarks of Intel Corp.

Microsoft Windows and MS-DOS are registered trademarks of Microsoft Corp.

All other product names or trademarks are properties of their respective owners.

Compliances and Certification

CE Certification
This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class A Certification
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part
15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Contents

Chapter 1.

Chapter 1: Introduction

Thank you for choosing the AOPS-7080. The AOPS-7080 is an Open Pluggable Specification (OPS) for IWB and digital signage application. The AOPS-7080 addresses IWB and digital signage market fragmentation and simplify device installation, usage, maintenance, and upgrades.

This OPS provides a rich I/O capabilities via high-bandwidth interfaces such as PCI Express 2.0, Serial ATA 3.0, and Hi- Speed USB 3.0 connectivity.

Other I/O capabilities include an HDMI port, a MIC-In and Line Out as well as an Intel® i210 Gigabit Ethernet.

Warning:
While using the OPS, do not disconnect the power source. It will be Cause fatal failure

System Specification

System	
CPU	Intel® Core ™ i5-4400E Processor (3M Cache, up to 3.30 GHz)
BIOS	AMI SPI BIOS
System chipset	Intel® QM87 Express Chipset
System Memory	DDR3L-1333, 4GB (2GB x 2)
I / O	
Storage	2.5" SDD 128GB
USB	2x USB 3.0 Type A in front panel 3x USB 2.0 and 1x USB 3.0 through JAE TX25 80- pin connector
Mini- PCIe	1x mini-PCIexpress socket for mini-card module
Display	
Chipset	Intel® integrated HD 4600
Display Supported	HDMI: Display port and TMDS through JAE TX25 80-pin connector
Audio Interface	
Chipset	Realtek ALC886
Interface	Mic-in, Line-out : Audio L/R through JAE TX25 80-pin connector
Ethernet	
LAN Chip	Intel® i210 Gigabit Ethernet
Ethernet	1x10/ 100/ 1000 Base-Tx Gigabit Ethernet
Mechanical & Environmental	
Power Requirement	DC 12V, 5A
Operating Temperature	-5℃ to +45℃ (32 ~ 140°F)
Storage Temperature	-20℃ to +75℃ (-4 ~ 158°F)
Size (L x W x H)	119mm(D) x 200mm(W) x 30mm(H) (4.69" x 7.87" x 1.18")
Certification	CE / FCC / KCC

Chapter 1.

Package Contents

· If any items are missing, contact your dealer.

Your package contains the following items:

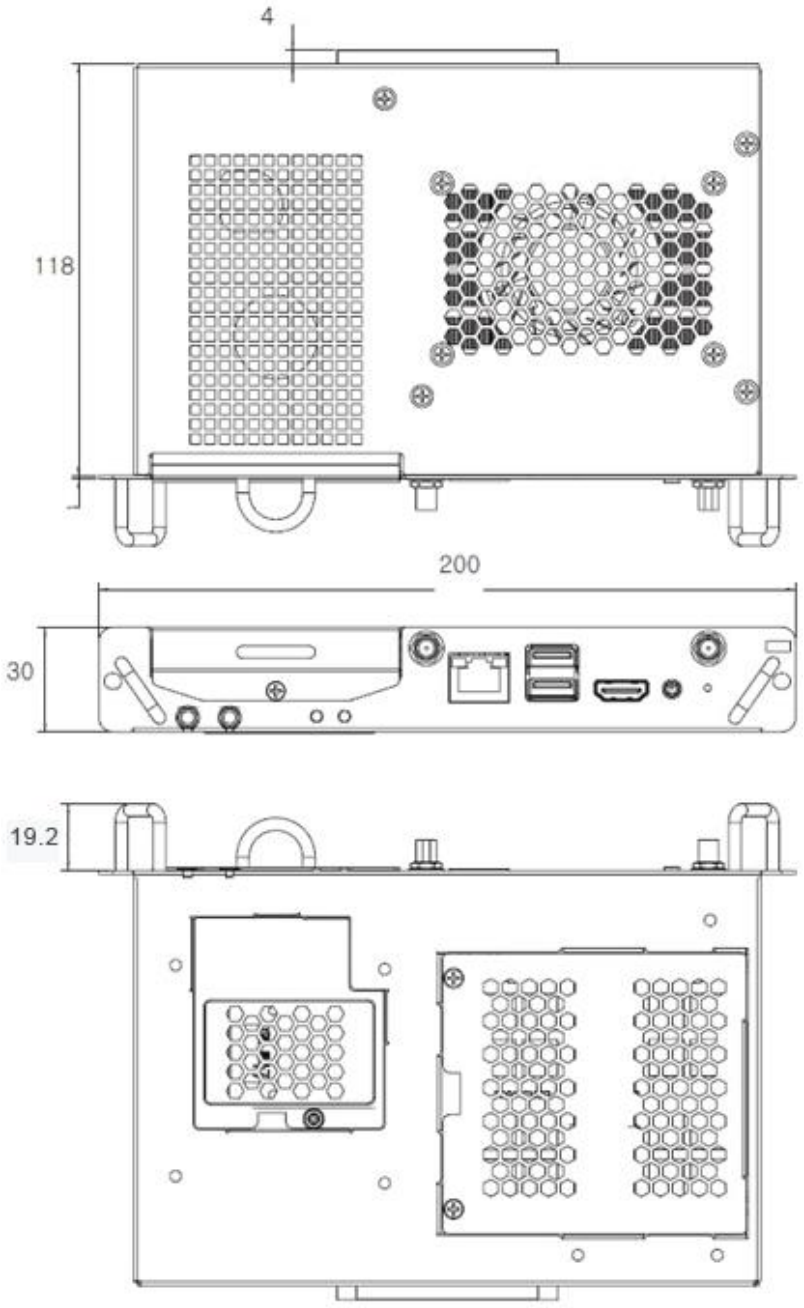
- AOPS-7080 OPS System (installed Set)
- Drivers and User's Manual CD
- Adaptor DC12V, 5A

Chapter 2.

Chapter 2:
System Components

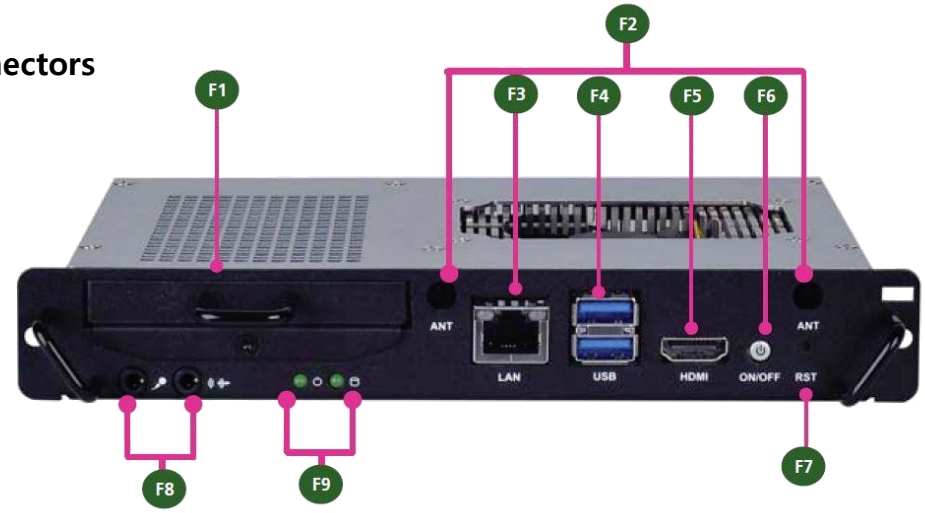
System Drawing

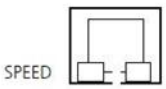
Mechanical dimensions of the AOPS-7080.
Unit: mm



Chapter 2.

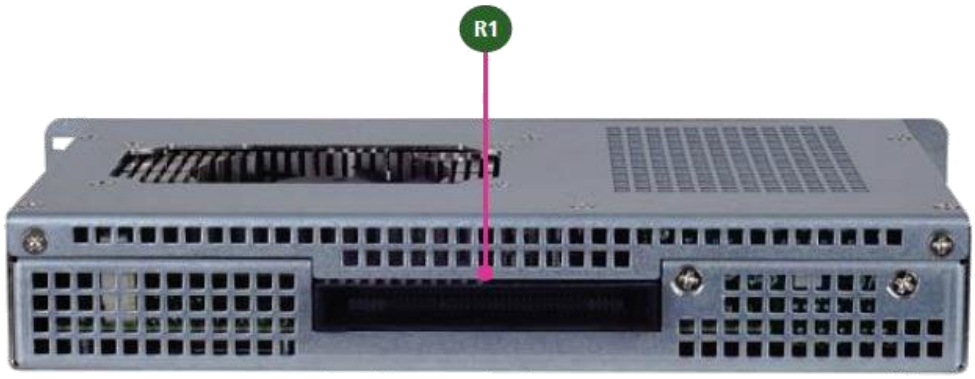
Front Connectors



Component	Description	Pin Definition Reference
F1 Hard Disk Slot	External 2.5" hard drive bay for easy access and replacement of the data storage. It supports SATA 3.0 specification	
F2 Antenna Hole	Reserved hole for 3G/Wi-Fi module antenna	
F3 Gigabit Ethernet LAN port  	The LAN port is provided by Intel i210 Ethernet controller which supports10/100/1000Mbps connection speeds and PXE (Preboot eXecution Environment). The LAN port LED indicator is described below: LINK/ACT (Amber) • On/Flashing: The port is linking and active in data transmission. • Off: The port is not linking. SPEED (Green/Yellow) • Yellow: The connection speed is 1000Mbps. • Green: The connection speed is 100Mbps • Off: .The connection speed is 10Mbps.	LAN1 on page 11
F4 USB 3.0 type A ports	Two USB 3.0 type A ports	USB1 on page 11
R5 HDMI Port (*)	An HDMI port (single link) which is provided by Intel integrated HD 4600	HDMI1 on page 10
F6 Power-on Button with Dual LED	ATX power-on button with LEDs: stand-by mode in red; power-on mode in green.	
F7 Reset Button	A hardware reset button	
F8 Mic-in Port/Line-out	Connect audio devices to these port.	MIC1/LINE1 on page 10
F9 HDD (Green) and Power LED (Green)	HDD • Blinking: data access activities • Off: no data access activities Power • On: The computer is on. • Off: The computer is off .	

Chapter 2.

Rear Connectors



Component	Description	Pin Definition Reference
R1 TX-25 80-pin connector	This connects to the docking board–LEK-IOB2	OPS1 on page 10

Chapter 3.

Chapter 3:
Board connector

Connectors and Jumpers List

The tables below list the function of each of the board connectors by labels shown in the above section. The next section in this chapter gives pin definitions.

Label	Function	Pin Definition Ref. Page
OPS Connector	JAE TX-25 80-pin Connectors	Page 10
Line 1	Line-out Phone Jack	Page 10
MIC 1	MIC-in Phone Jack	Page 10
HDMI 1	HDMI Connector	Page 10
LAN 1	LAN Port	Page 11
USB 1	Dual Stack USB type A Connector	Page 11
MPCIE 1	Mini-PCIe Connector	Page 11
CMOS 1	Clear CMOS Jumper (Inside of set)	Page 11

Chapter 3.

OPS Connector (OPS1)

PIN	Signal	PIN	Signal
1	DDP_3N	41	RSVD
2	DDP_3P	42	RSVD
3	GND	43	RSVD
4	DDP_2N	44	RSVD
5	DDP_2P	45	RSVD
6	GND	46	RSVD
7	DDP_1N	47	RSVD
8	DDP_1P	48	RSVD
9	GND	49	RSVD(DDP_ AUX_EN)
10	DDP_0N	50	SYS_FAN_EN
11	DDP_0P	51	UART_RX
12	GND	52	UART_TX
13	DDP_AUXN	53	GND
14	DDP_AUXP	54	Stda_SSRX-
15	DDP_HPLUG	55	Stda_SSRX+
16	GND	56	GND
17	TMDS_CLKN	57	Stda_SSTX-
18	TMDS_CLKP	58	Stda_SSTX+
19	GND	59	GND
20	TMDS0N	60	USB_PN2
21	TMDS0P	61	USB_PP2
22	GND	62	GND
23	TMDS1N	63	USB_PN1
24	TMDS1P	64	USB_PP1
25	GND	65	GND
26	TMDS2N	66	USB_PN0
27	TMDS2P	67	USB_PP0
28	GND	68	GND
29	TMDS_DDC_ DATA	69	AZ_LINEOUT_L
30	TMDS_DDC_ CLK	70	AZ_LINEOUT_R
31	TMDS_HPLUG	71	CEC
32	GND	72	PB_DET
33	DC_IN	73	PS_ON#
34	DC_IN	74	PWR_STATUS
35	DC_IN	75	GND
36	DC_IN	76	GND
37	DC_IN	77	GND
38	DC_IN	78	GND
39	DC_IN	79	GND
40	DC_IN	80	GND

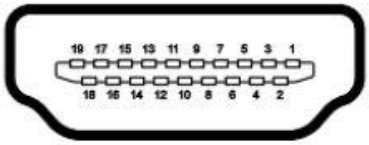
Line-out Jack (Line 1)

PIN	Signal
1	LINE_OUT_R
2	N.C
3	LINE_OUT_L
4	EARPHONE DET
5	GND
6	GND

Microphone Jack (MIC1)

PIN	Signal
1	MIC_R
2	N.C
3	MIC_L
4	MIC DET
5	GND
6	GND

High-Definition Multimedia Interface (HDMI1)



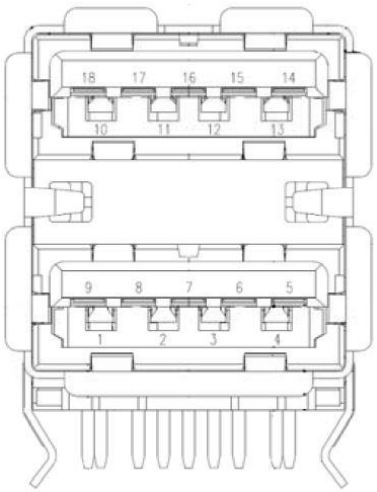
PIN NO.	Signal	PIN NO.	Signal
1	DATA2+	2	GND
3	DATA2-	4	DATA1+
5	GND	6	DATA1-
7	DATA0+	8	GND
9	DATA0-	10	CLK+
11	GND	12	CLK-
13	N.C	14	N.C
15	DDC CLK	16	DDC DAT
17	GND	18	HDMI_VCC
19	HPD		

Chapter 3.

Gigabit Ethernet (LAN1)

Pin No.	Signal	
	Fast Ethernet	Gigabit Ethernet
1	TX+	MD0+
2	TX-	MD0
3	RX+	MD1+
4	T45	MD2+
5	T45	MD2-
6	RX-	MD1-
7	T78	MD3+
8	T78	MD3-
9	10-/100-/1000+	
10	10+/100+/1000-	
11	Link+/ACT-	
12	Link-/ACT+	

Dual Stack USB 3.0 Type A Connector (USB1)

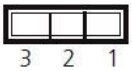


PIN NO.	Signal	PIN NO.	Signal
1	USB_VCC1	10	USB_VCC2
2	USB1_D-	11	USB2_D-
3	USB1_D+	12	USB2_D+
4	GND	13	GND
5	USB1_RX-	14	USB2_RX-
6	USB1_RX+	15	USB2_RX+
7	GND	16	GND
8	USB1_TX-	17	USB2_TX-
9	USB1_TX+	18	USB2_TX+

Mini PCI-Express with SIM Card Reader(MPCIE1)

PIN NO.	Signal	PIN NO.	Signal
1	WAKE#	2	+3.3V
3	RSVD	4	GND
5	RSVD	6	+1.5V
	GND	13	GND
7	CLKREQ#	8	UIM_PWR
9	GND	10	UIM_DATA
11	REFCLK-	12	UIM_CLK
13	REFCLK+	14	UIM_RESET
15	GND	16	UIM_VPP
Key			
17	RSVD	18	GND
19	RSVD	20	W_DISABLE#
21	GND	22	PERST#
23	PERn0	24	+3.3V
25	PERp0	26	GND
27	GND	28	+1.5V
29	GND	30	SMB_CLK
31	PETn0	32	SMB_DATA
33	PETp0	34	GND
35	GND	36	USB_D+
37	GND	38	USB_D-
39	+3.3V	40	GND
41	+3.3V	42	LED_WWAN#
43	GND	44	LED_WLAN#
45	RSVD	46	LED_WPAN#
47	RSVD	48	+1.5V
49	RSVD	50	GND
51	RSVD	52	+3.3V

Clear CMOS Jumper (CMOS1)



PIN No.	Signal
1-2	Normal (Default)
2-3	Clear CMOS

Chapter 4.

Chapter 4: Hardware Setup

Preparing the Hardware Installation

To access some components and perform certain service procedures, you must perform the following procedures first.

WARNING: To reduce the risk of personal injury, electric shock, or damage to the equipment, remove the power cord to remove power from the server. Portions of the power supply and some internal circuitry remain active until power is removed.

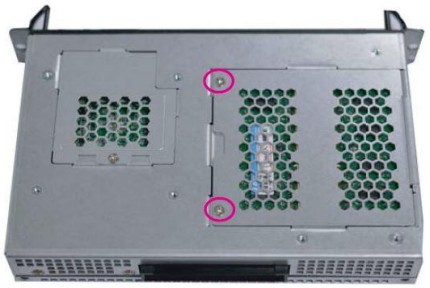
1. Unpowered the AOPS-7080 and make sure that the power source is removed.

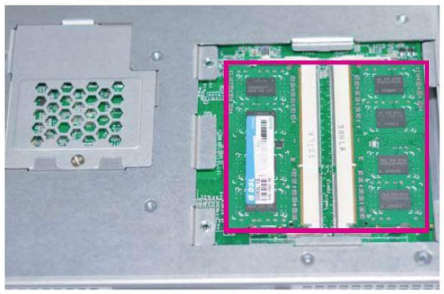
2. It is not required to remove the system's top cover for installing most parts of the system such as the memory, 3G wireless module, SIM card, and the hard disk.

Installing the System Memory

The motherboard supports DDR3L memory that features data transfer rates of 1333 MHz to meet the higher bandwidth requirements of the latest operating system and Internet applications. It comes with one Double Data Rate 3 Low Voltage (DDR3L) Small Outline Dual Inline Memory Module (SO-DIMM) socket.

1. Put the device upside down.
2. Take off the cover of the memory compartment by unscrewing two screws from its cover.
3. Align the memory module's key with the SO-DIMM socket's key.
4. Install the SO-DIMM.
5. Install the cover back to the system.





Note:

1. SO-DIMMs installed should meet the required speed which is DDR3L 1333 MHz. Do not install SO-DIMM supporting different speeds.
2. The motherboards can support up to 16 GB memory capacity in maximum.

Chapter 4.

3G and Wireless Module Installation(Optional)

1. Take out the Mini-PCIe and SIM card compartment's cover by unscrewing the screws on the cover.
2. Align the wireless module's cutout with the Mini-PCIe slot notch.
3. Insert the wireless module into the connector diagonally.
4. Push the other end of the wireless module and secure it in place with the screws.
5. Install the Antenna to the module.

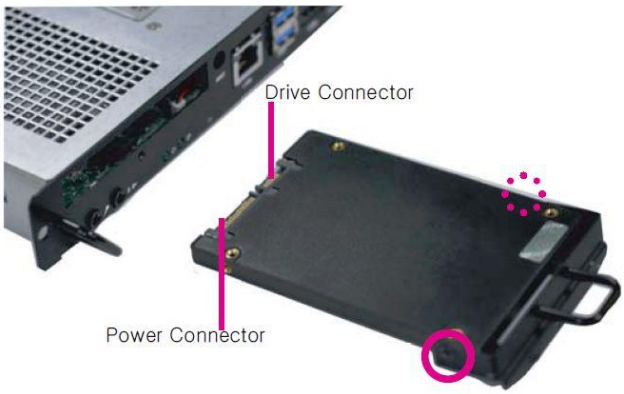
3G SIM Card Installation(Optional)

1. Take out the Mini-PCIe and SIM compartment's cover by unscrewing the screws on the cover.
2. Unlock the SIM card tray by sliding it outward and open it.
3. Place the SIM card in the tray. Make sure the ICs is in contact with the socket. The angled corner of the SIM ensures that the card fits only the correct way in the tray.
4. Close and lock the tray. You should feel a click when the SIM card is locked securely in the socket.

Installing the Hard Disk

The system can accommodate one Serial-ATA 2.5" disk. Follow these steps to install a hard disk into the AOPS-7080):

1. Take out the hard disk tray from the system.
2. Place hard disk on the hard disk tray and align the holes of the hard disk with the mounting holes on the tray.
3. Fix the hard disk on the hard disk tray by using 2 mounting screws
4. Push the hard disk into the hard disk slot and secure it with a screw.



Note:

The system only accommodates 2.5" SSD. It supports SATA 3.0 specification.

Appendix A:
Terms and Conditions

Warranty Policy

1. All products are under warranty against defects in materials and workmanship for a period of one year from the date of purchase.
1. Compensation standard of our products in accordance with the Ministry of Finance Notice legitimate consumer damage will be compensated.

Product Warranty

Product :	Model :	Purchase a day :	year	month	day
Customer Name :	Phone :	Address :			
Mutual agency :	Phone :	Address :			

- When requesting repairs and the year of purchase date must be presented above Enough to receive service so please keep it.
- Major parts of the retention period is 2 years.

1. Warranty for this product to ensure the information contained in the warranty benefits.
2. The warranty period calculated from the date of purchase dated, so please come (Date of purchase. If this should not check 6 months from date of manufacture from the date of the warranty period shall be added to.)
3. Not household products also(operating activities, unusual environments, etc.), or industrial products. If the warranty period of 6 months will apply. (Key parts)
4. This warranty will not be reissued.

Compensation for consumers guide

Type of consumer harm			Details of compensation	
			Warranty information	After the warranty period
occurred in normal use performance, failure occurs of functional (Components within the retention period)	when within 10 days of purchase repair important requiring		Product exchange or The purchase price Refunds	
	when within 1 month of purchase repair important requiring		Product exchange	
	When exchange goods within 1 month of purchase repair important requiring		The purchase price Refunds	
	When the exchange is not possible			
	When the re fair is possible	When Defective goods occurrence	Free fix	Charged repair
		Repair for the same Defective, but when recurrence of failures (4 time)	Product exchange or The purchase price Refunds	Duration of use based on the Depreciation
	When the repair is not possible			
	Do not have the repair parts and repair is not possible			
	if consumer requesting repairs products, business lost it			
	At the time of purchase, transport process and product damage incurred during installation		Product exchange	
Due to negligence on the part of consumers performance, failure of functional	When the refair is possible	Failure due to use of power over	Charged repair	Charged repair
		Connection failures due to equipment failure		
		Failure or defect caused by natural disasters		
	When the refair is not possible	Performance, functional failure or damage is not a defect in	After collecting the amount paid to repair the exchange of goods	Our standard Subject to determined a separate
Consumer spontaneous decomposition	When the refair is not possible	Trail the decomposition of the consumer if the product	Can not be repaired	Can not be repaired

- With regard to the product of the three defects in the compensation is not subject.