

# UPS-GWS01

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Gateway System for UP-APL01

User's Manual 3<sup>rd</sup> Ed

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# Packing List

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Before setting up your product, please make sure the following items have been shipped:

| Item                 | Quantity |
|----------------------|----------|
| ● UP-APL01           | 1        |
| ● UP2+RoHs+user menu | 1        |

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

## About this Document

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This User's Manual contains all the essential information, such as detailed descriptions and explanations on the product's hardware and software features (if any), its specifications, dimensions, jumper/connector settings/definitions, and driver installation instructions (if any), to facilitate users in setting up their product.

Users may refer to the [AAEON.com](http://AAEON.com) for the latest version of this document.

## Safety Precautions

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Please read the following safety instructions carefully. It is advised that you keep this manual for future references

1. All cautions and warnings on the device should be noted.
2. Make sure the power source matches the power rating of the device.
3. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
4. Always completely disconnect the power before working on the system's hardware.
5. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
6. If the device is not to be used for a long time, disconnect it from the power supply to avoid damage by transient over-voltage.
7. Always disconnect this device from any power supply before cleaning.
8. While cleaning, use a damp cloth instead of liquid or spray detergents.
9. Make sure the device is installed near a power outlet and is easily accessible.
10. Keep this device away from humidity.
11. Place the device on a solid surface during installation to prevent falls.
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out for high temperatures when the system is running.
14. Do not touch the heat sink or heat spreader when the system is running
15. Never pour any liquid into the openings. This could cause fire or electric shock.
16. As most electronic components are sensitive to static electrical charge, be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and contain all electronic components in any static-shielded containers.

17. If any of the following situations arises, please the contact our service personnel:
  - i. Damaged power cord or plug
  - ii. Liquid intrusion to the device
  - iii. Exposure to moisture
  - iv. Device is not working as expected or in a manner as described in this manual
  - v. The device is dropped or damaged
  - vi. Any obvious signs of damage displayed on the device
18. **DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WITH TEMPERATURES BEYOND THE DEVICE'S PERMITTED STORAGE TEMPERATURES (SEE CHAPTER 1) TO PREVENT DAMAGE.**

## FCC Statement

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### **Warning!**



This device complies with Part 15 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.

### **Caution:**

*There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.*

### **Attention:**

*Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte. Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.*



China RoHS Requirements (CN)

产品中有毒有害物质或元素名称及含量

AAEON System

QO4-381 Rev.A2

| 部件名称            | 有毒有害物质或元素 |           |           |                 |               |                 |
|-----------------|-----------|-----------|-----------|-----------------|---------------|-----------------|
|                 | 铅<br>(Pb) | 汞<br>(Hg) | 镉<br>(Cd) | 六价铬<br>(Cr(VI)) | 多溴联苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
| 印刷电路板<br>及其电子组件 | ×         | ○         | ○         | ○               | ○             | ○               |
| 外部信号<br>连接器及线材  | ×         | ○         | ○         | ○               | ○             | ○               |
| 外壳              | ○         | ○         | ○         | ○               | ○             | ○               |
| 中央处理器<br>与内存    | ×         | ○         | ○         | ○               | ○             | ○               |
| 硬盘              | ×         | ○         | ○         | ○               | ○             | ○               |
| 液晶模块            | ×         | ○         | ○         | ○               | ○             | ○               |
| 光驱              | ×         | ○         | ○         | ○               | ○             | ○               |
| 触控模块            | ×         | ○         | ○         | ○               | ○             | ○               |
| 电源              | ×         | ○         | ○         | ○               | ○             | ○               |
| 电池              | ×         | ○         | ○         | ○               | ○             | ○               |

本表格依据 SJ/T 11364 的规定编制。  
○：表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。  
×：表示该有害物质的某一均质材料超出了 GB/T 26572 的限量要求，然而该部件仍符合欧盟指令 2011/65/EU 的规范。  
环保使用期限(EFUP (Environmental Friendly Use Period))：10 年  
备注：  
一、此产品所标示之环保使用期限，系指在一般正常使用状况下。  
二、上述部件物质中央处理器、内存、硬盘、光驱、电源为选购品。  
三、上述部件物质液晶模块、触控模块仅一体机产品适用。

China RoHS Requirement (EN)

Name and content of hazardous substances in product

AAEON System

QO4-381 Rev.A2

| Part Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Hazardous Substances |           |           |                 |               |                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------|-----------|-----------------|---------------|-----------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 铅<br>(Pb)            | 汞<br>(Hg) | 镉<br>(Cd) | 六价铬<br>(Cr(VI)) | 多溴联苯<br>(PBB) | 多溴二苯醚<br>(PBDE) |
| PCB Assemblies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ×                    | ○         | ○         | ○               | ○             | ○               |
| Connector and Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ×                    | ○         | ○         | ○               | ○             | ○               |
| Chassis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ○                    | ○         | ○         | ○               | ○             | ○               |
| CPU and Memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ×                    | ○         | ○         | ○               | ○             | ○               |
| Hard Disk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ×                    | ○         | ○         | ○               | ○             | ○               |
| LCD Modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ×                    | ○         | ○         | ○               | ○             | ○               |
| CD-ROM/DVD-ROM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ×                    | ○         | ○         | ○               | ○             | ○               |
| Touch Modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ×                    | ○         | ○         | ○               | ○             | ○               |
| Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ×                    | ○         | ○         | ○               | ○             | ○               |
| Battery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ×                    | ○         | ○         | ○               | ○             | ○               |
| <p>The table is prepared in accordance with the provisions of SJ/T 11364.</p> <p>○ : Indicates that said hazardous substance contained in all of the homogenous materials for this product is below the limit requirement of GB/T 26572.</p> <p>× : Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572. But this product still be compliance with 2011/65/EU Directive (allowed with 2011/65/EU Annex III of RoHS exemption with number 6(c),7(a),7(c)-1).</p> <p>EFUP (Environment Friendly Use Period) value: 10 years.</p> <p>Notes:</p> <p>1. This product defined period of use is under normal condition.</p> <p>2. In above part, CPU/Memory/ Hard Disk/CD-ROM/DVD-ROM/ Power are optional.</p> <p>3. In above part, LCD Modules/ Touch Modules are for all-in-one product model.</p> |                      |           |           |                 |               |                 |

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# Chapter 1

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Product Specifications

# 1.1 Specifications

| System |                             |                                                                                                                                                  |
|--------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| ●      | Form Factor                 | 95 x 95 x 50 mm (L x W x H)                                                                                                                      |
| ●      | CPU                         | Intel® Celeron™ N3350 Processor<br>Intel® Pentium™ N4200 Processor                                                                               |
| ●      | CPU Frequency               | Intel® Celeron™ N3350 Processor (2M Cache,<br>1.10 GHz up to 2.40 GHz)<br>Intel® Pentium™ N4200 Processor (2M Cache,<br>1.10 GHz up to 2.50 GHz) |
| ●      | Chipset                     | Processor integrated                                                                                                                             |
| ●      | Memory Type                 | Onboard Single/Dual Channel LPDDR4<br>memory, Max 8GB                                                                                            |
| ●      | Max Memory Capacity         | 8 GB                                                                                                                                             |
| ●      | BIOS                        | SPI BIOS — 128Mb Flash                                                                                                                           |
| ●      | Power Requirement           | 5V DC Only                                                                                                                                       |
| ●      | Power Supply Type           | DC-In                                                                                                                                            |
| ●      | Power Consumption (Typical) | 2W ~ 15W                                                                                                                                         |
| ●      | Dimensions (L x W)          | 95 x 95 x 50 mm (L x W x H)                                                                                                                      |
| ●      | Operating Temperature       | Without power adaptor 0°C ~ 45°C (32°F ~<br>113°F)<br>With power adaptor 0°C ~ 40°C (32°F ~ 104°F)                                               |
| ●      | Operation Humidity          | 10 ~ 80% relative humidity, non-condensing                                                                                                       |
| ●      | Certification               | CE, FCC Class A, UL                                                                                                                              |

Display

- VGA/LCD Controller Intel® HD Graphics

I/O

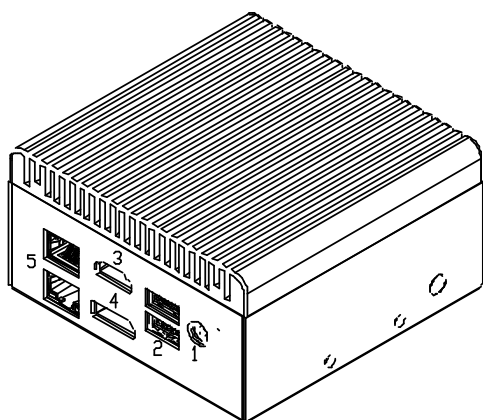
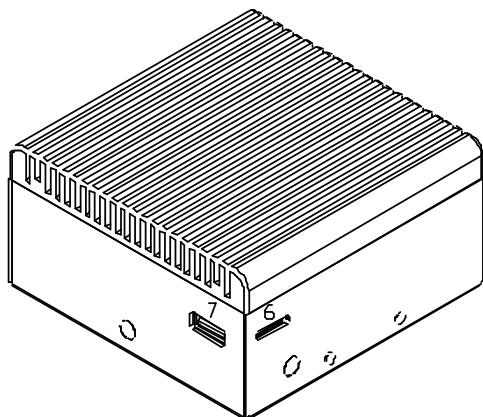
- Ethernet Realtek RTL8111G-CG
- Audio HDMI I2S  
DP
- USB USB 3.0 OTG x 1  
USB 3.0 x 3
- Onboard eMMC 16 GB / 32 GB / 64 GB / 128GB
- Expansion Slot HAT 40 GPIO Pin  
ext-HAT connector 60 pin  
Mini Card (Full-size) (auto switch with mSATA)  
M.2 2230/ E Key

# Chapter 2

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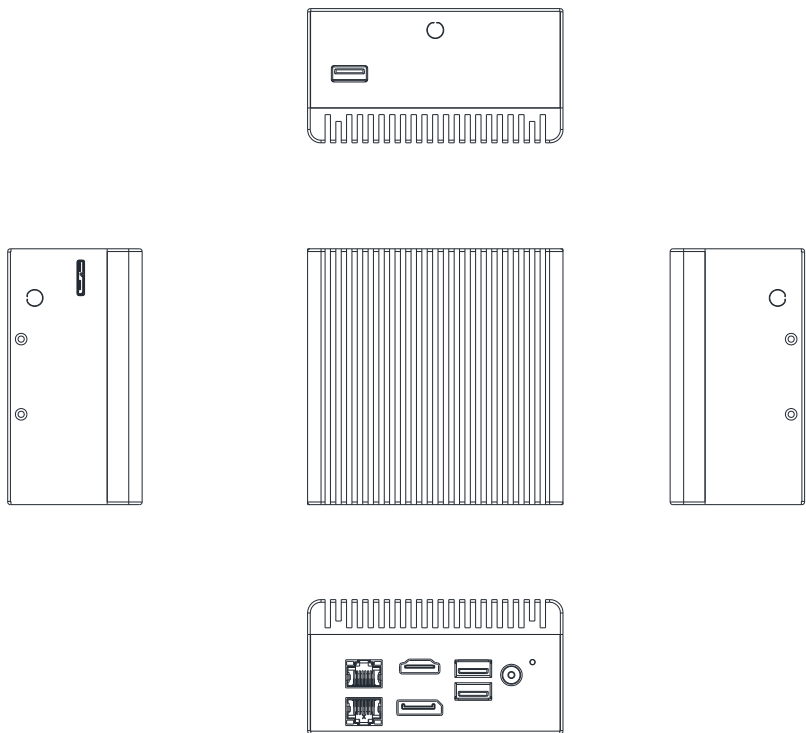
Hardware Information

## 2.1 Dimensions





## 2.2 I/O Location



### 2.3 List of Jumpers and Connectors

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Please refer to the table below for all of the system's jumpers that you can configure for your application

| Label | Function                    |
|-------|-----------------------------|
| 1     | Ex. Power Jack Input        |
| 2     | 2 x USB 3.0 STACK Connector |
| 3     | HDMI STACK Connector        |
| 4     | DP                          |
| 5     | 2 x RJ45 Ethernet connector |
| 6     | USB 3.0 OTG                 |
| 7     | USB 3.0 single Connector    |

# Chapter 3

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Drivers Installation

## 3.1 Driver Download and Installation

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\* Please access <https://www.up-community.org> and go to the Downloads section>UP  
Squared to find the relevant driver.