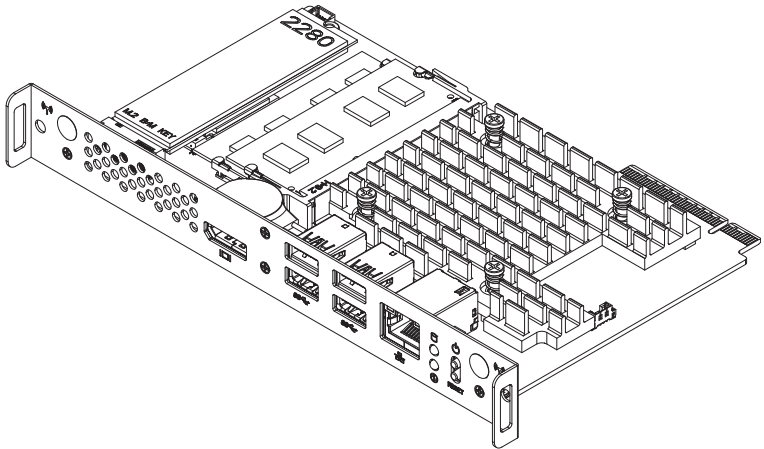


# SDM-4000L (MZGLKAL-SI) SDM-3350L (MAPLKAL-SI)

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SDM Series User's Manual 1st Ed



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## Acknowledgement

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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
SDM-4000L or SDM-3350L	1
Screw Kit with #0 ZIPLOCK BAG SCREW-BIND M3.0*L5.0 NI (P/N: 25KSD-130053-SOR)	2

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 [GIGAIPC.com](http://GIGAIPC.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 AC 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

GIGAIPC Main Board/ Daughter Board/ Backplane

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯 醚 (PBDE)
印刷电路板 及其电子组件	○	○	○	○	○	○
外部信号 连接器及线材	○	○	○	○	○	○

○: 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 SJ/T 11363-2006 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出

SJ/T 11363-2006 标准规定的限量要求。

备注: 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。

## China RoHS Requirement (EN)

### Poisonous or Hazardous Substances or Elements in Products GIGAIPC Main Board/ Daughter Board/ Backplane

Component	Poisonous or Hazardous Substances or Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
PCB & Other Components	O	O	O	O	O	O
Wires & Connectors for External Connections	O	O	O	O	O	O

O : The quantity of poisonous or hazardous substances or elements found in each of the component's parts is below the SJ/T 11363-2006-stipulated requirement.  
X: The quantity of poisonous or hazardous substances or elements found in at least one of the component's parts is beyond the SJ/T 11363-2006-stipulated requirement.  
Note: The Environment Friendly Use Period as labeled on this product is applicable under normal usage only

## Table Contents

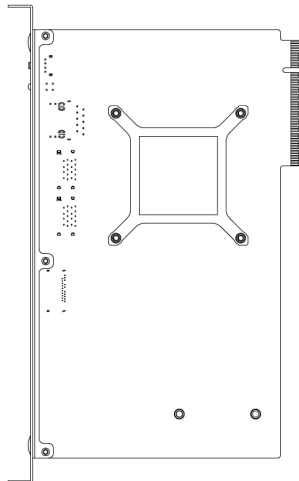
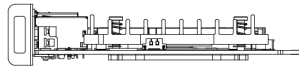
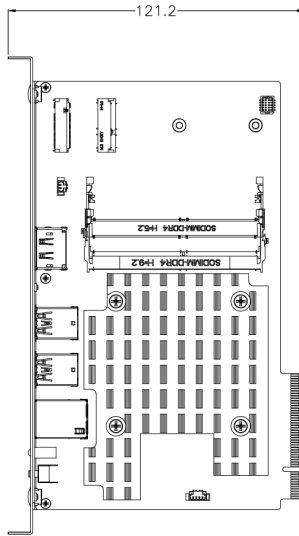
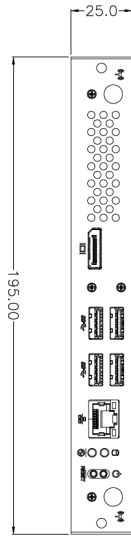
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# Chapter 1

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Chapter1 - Product Specifications  
SDM-4000L (MZGLKAL-SI)/ SDM-3350L (MAPLKAL-SI)



## 1.1 Specifications- SDM-4000L/ SDM-3350L

Motherboard	SDM-4000L (MZGLKAL-SI)	SDM-3350L (MAPLKAL-SI)
Form Factor	SDM-Large 175W x 100D (mm)	SDM-Large 175W x 100D (mm)
CPU	Intel® Celeron® N4000 Processor, 14nm, 2 cores, 2 threads, up to 2.6 GHz TDP 6W	Intel® Celeron® N3350 Processor 14nm, 2 cores, 2 threads, up to 2.4 GHz TDP 6W
Socket	1 x BGA 1090	1 x FCBGA1296
Chipset	-	-
Memory	2 x DDR4 SO-DIMM sockets, Max. Capacity 8 GB Support Dual channel DDR4 2400 MHz memory modules	2 x DDR3L SO-DIMM sockets, Max. Capacity 8 GB Support Dual Channel DDR3L 1866 MHz memory modules
Ethernet	1 x GbE LAN Port (Realtek® RTL8111HS)	
Video	Integrated Graphics Processor - Intel® UHD Graphics 600: 1 x HDMI 2.0 port (SDM), supporting a maximum resolution of 4096x2160 @60Hz 1 x DP port (Rear/SDM side), supporting a maximum resolution of 4096x2160 @60Hz  (2 independent display outputs)	Integrated Graphics Processor -Intel® HD Graphics 500: Support SDM interface: HDMI & DP (FHD) Rear IO: DP (FHD) 1 x HDMI 1.4 port (SDM), supporting a maximum resolution of 3840x2160 @30Hz 2 x DP port (Rear/SDM), supporting a maximum resolution of 1920x1080 @30Hz  (3 independent display outputs)
Audio	Intel® Integrated Audio	
Storage	1 x eMMC 32GB	
Raid	-	-
Expansion Slots	1 x 2280 M.2 M-Key (SATA 6Gb/s) 1 x 2230 M.2 E-key (WiFi/BT)	1 x 2280 M.2 M-Key (SATA 6Gb/s) 1 x 2230 M.2 E-key (WiFi/BT)

Motherboard	SDM-4000L (MZGLKAL-SI)	SDM-3350L (MAPLKAL-SI)
Rear I/O	1 x Display Port 1 x RJ45 LAN Port 4 x USB 3.2 Gen 1 1 x PWR LED 1 x HDD LED 2 x External Antenna Holes (Optional) 1 x Reset button 1 x Power button	1 x Display Port 1 x RJ45 LAN Port 4 x USB 3.2 Gen 1 1 x PWR LED 1 x HDD LED 2 x External Antenna Holes (Optional) 1 x Reset button 1 x Power button
TPM	-	-
OS Compatibility	Windows 10 (x64)	
Operating Properties	Operating temperature: 0°C to 55°C Operating humidity: 0-90% (non-condensing) Non-operating temperature: -40°C to +85°C Non-operating humidity: 0%-95% (non-condensing)	

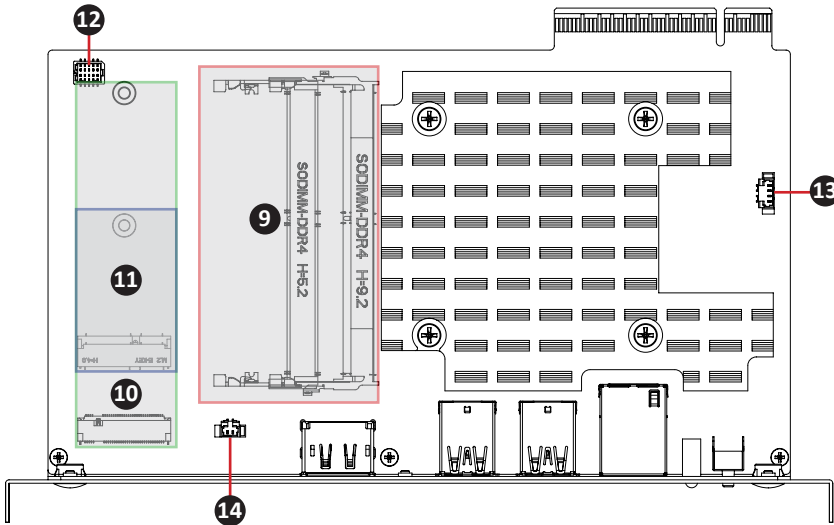
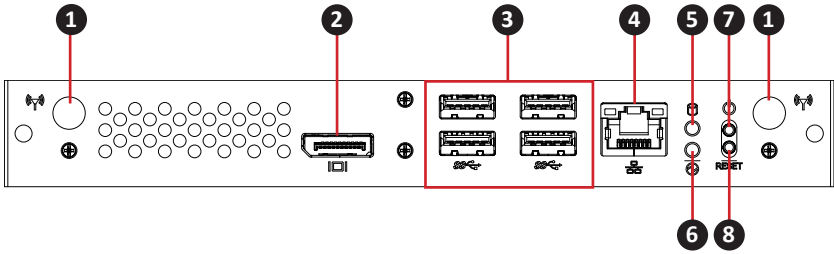


# Chapter 2

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## Chapter 2 – Hardware Information

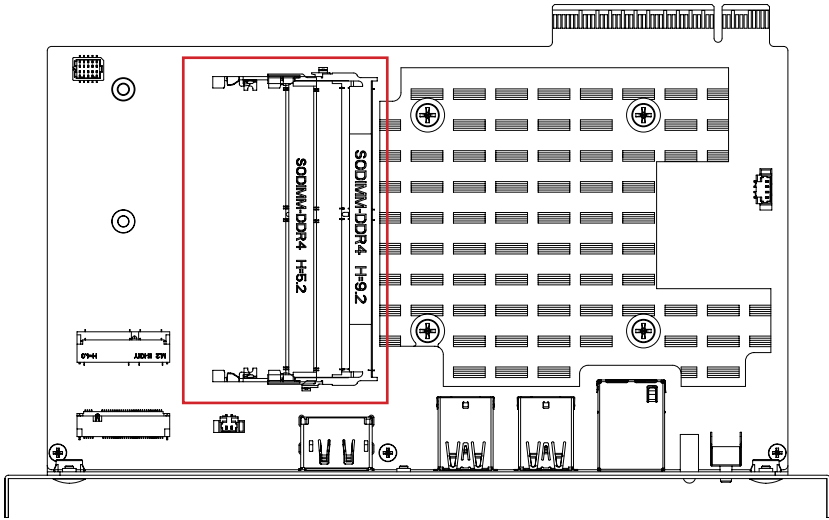
## 2.1 Jumpers and Connectors



No	Code	Description
1	Antenna Hole	2 x Antenna(WiFi & BT)(Option)
2	DP	1 x Display Port (When SDM Connect Docking board DP port that will choose one of them to working)
3	USB3.0	4 x USB 3.2 Gen 1
4	RJ45	1 x RJ45 LAN Port
5	HDD LED	1 x HDD LED
6	PWR LED	1 x PWR LED
7	Power button	1 x Power button
8	Reset button	1 x Reset button
9	SODIMM	2 x DDR4/3L SO-DIMM sockets
10	M2M	1 x M.2 2280 M-key
11	M2E	1 x M.2 2230 E-key
12	80H	Debug Port
13	CPU_FAN	CPU Fan connector
14	BATTERY	Battery cable connector

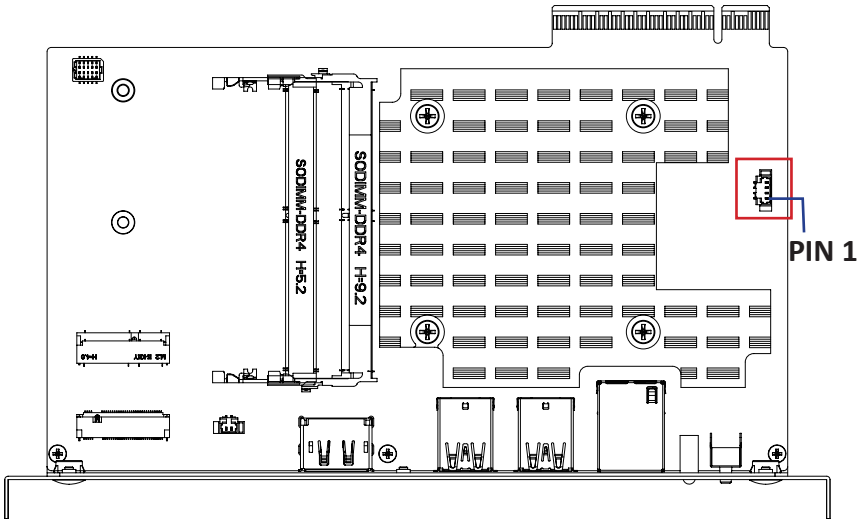
## 2.2.1 SODIMM (2 x DDR4/3L SO-DIMM sockets)

9

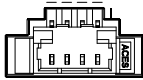


## 2.2.2 CPU\_FAN (CPU Fan connector)

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CPU/System FAN



1 2 3 4

Connector PN

85205-0470N

A1250WV-S-04PC

Vendor

ACES

JOINT-TECH

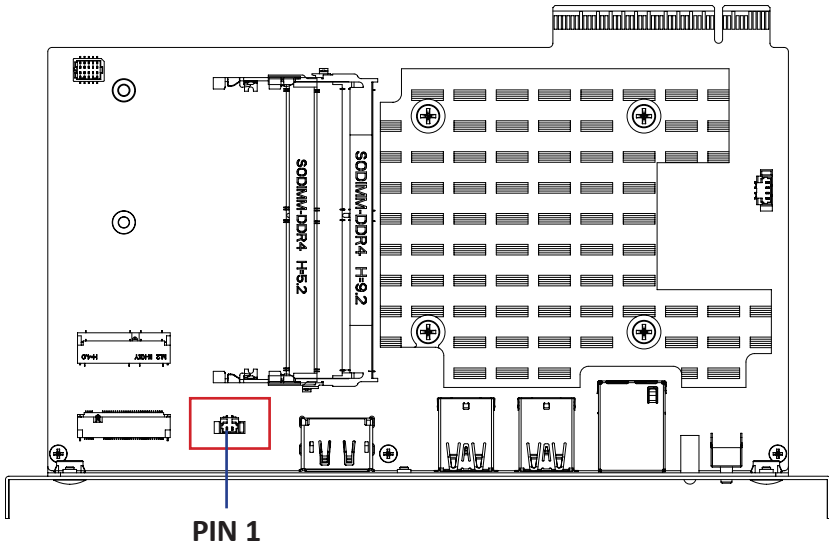
Pin No.

Definition

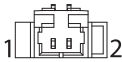
1	Speed Control
2	Detect
3	GND
4	12V

## 2.2.3 BATTERY

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**Battery Cable Connector**



**Connector PN**

85205-0270L

A1250WV-S-02PC

**Vendor**

ACES

JOINT-TECH

**Pin No.**

1

2

**Definition**

3.3V RTC

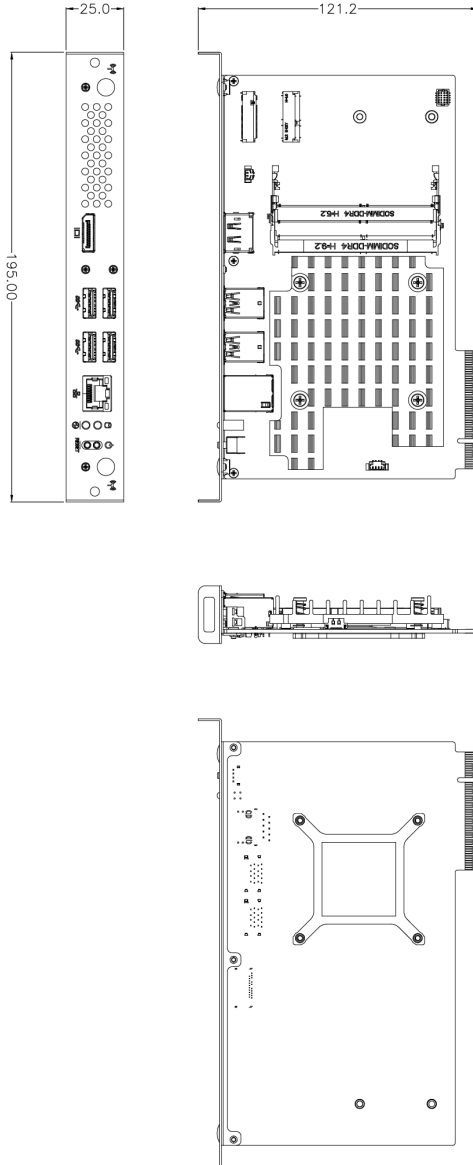
GND

# Chapter 3

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## Chapter 3 – SDM-L Installation

# 3.1 Dimension





## 3.2 Installation

### [SDM Install]

