USER'S MANUAL

SMC V3.0 - EM317

AXIOMTEK®

Disclaimers

This manual has been carefully checked and believed to contain accurate information. Axiomtek Co., Ltd. assumes no responsibility for any infringements of patents or any third party's rights, or any liability arising from such uses.

Axiomtek does not warrant or assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information in this document. Axiomtek does not make any commitment to update any information in this manual.

Axiomtek reserves the right to change or revise this document and/or product at any time without notice.

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any forms or by any means, electronic, mechanical, photocopying, recording, among others, without prior written permissions of Axiomtek Co., Ltd.

Safety Precautions

Before getting started, please read the following important safety precautions.

1. The SMC V3.0 - EM317 does not come with an operating system which must be loaded first before installation of any software into the computer.

2. Be sure to ground yourself to prevent static charge when installing any internal components. Use a wrist grounding strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.

3. Disconnect the power cord from the SMC V3.0 - EM317 prior to making any installation. Be sure both the system and all external devices are turned OFF. Sudden surge of power could ruin sensitive components. Make sure the SMC V3.0 - EM317 is properly grounded.

4. Make sure the voltage of the power source is correct before connecting it to any power outlet.

5. Turn Off system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen.

6. Do not leave equipment in an uncontrolled environment where the storage temperature is below -40℃ or above 80℃ as it may damage the equipment.

7. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:

   ● Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help discharge any static electricity on human body.

   ● When handling boards and components, wear a wrist grounding strap available from most electronic component stores.

8. FCC ID：2ATPY-SMC-V3

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.

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.

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

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible

FCC RF Radiation Exposure Statement:

"This device contains transmitters and receivers which emit Radio Frequency (RF) energy. The device is designed to comply with the limits for exposure to RF energy set by the Federal Communications Commission (FCC) of the United States."

Classifications

1. Degree of production against electric shock: not classified
2. Equipment not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.
3. Mode of operation: Continuous

General Cleaning Tips

Please keep the following precautions in mind while understanding the details fully before and during any cleaning of the computer and any components within.

A piece of dry cloth is ideal to clean the device.
1. Be cautious of any tiny removable components when using a vacuum cleaner to absorb dirt on the floor.
2. Turn the system off before clean up the computer or any components within.
3. Avoid dropping any components inside the computer or getting circuit board damp or wet.
4. For cleaning, be cautious of all kinds of cleaning solvents or chemicals which may cause allergy to certain individuals.
5. Keep foods, drinks or cigarettes away from the computer.

Cleaning Tools:

Although many companies have created products to help improve the process of cleaning computer and peripherals, users can also use house hold items accordingly for cleaning. Listed below are items available for cleaning computer or computer peripherals.

Pay special attention to components requiring designated products for cleaning as mentioned below.

- Cloth: A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, it is recommended to use a piece of cloth.

- Water or rubbing alcohol: A piece of cloth may be somewhat moistened with water or rubbing alcohol before being rubbed on the computer. Unknown solvents may be harmful to plastic parts.

- Absorb dust, dirt, hair, cigarette and other particles outside of a computer can be one of the best methods of cleaning a computer. Over time these items may restrict the airflow in a computer and cause circuitry to corrode.

- Cotton swabs: Cotton swaps moistened with rubbing alcohol or water are applicable to reach areas in keyboard, mouse and other areas.

- Foam swabs: If possible, it is better to use lint free swabs such as foam swabs.

.

【Note】: *It is strongly recommended that customer should shut down the system before start to clean any single components.*

Please follow the steps below:
1. Close all application programs;
2. Close operating software;
3. Turn off power switch;
4. Remove all devices;
5. Pull out power cable.

Scrap Computer Recycling

Please inform the nearest Axiomtek distributor as soon as possible for suitable solutions in case computers require maintenance or repair; or for recycling in case computers are out of order.

Trademarks Acknowledgments

Axiomtek is a trademark of Axiomtek Co., Ltd.

IBM, PC/AT, PS/2, VGA are trademarks of International Business Machines Corporation. Intel® and Pentium® are registered trademarks of Intel Corporation.

MS-DOS, Microsoft C and QuickBasic, Windows 10, Windows 8.1, Windows 8, Windows 7, Windows XPE, Windows XP, Windows CE embedded, Linux are trademarks of Microsoft Corporation.

Other brand names and trademarks are the properties and registered brands of their respective owners.

Table of Contents

This section contains general information and detailed specifications of the SMC V3.0 - EM317. Section 1 consists of the following sub-sections:

- General Descriptions
- System Specifications
- Dimensions
- I/O Outlets
- Packing List

1.1 General Descriptions

The SMC is a controller to support Information inside a supermarket.
- Offers 10 connectors with RS485 to support Devices (KLS, ext. GPIO,….)
- Supports Audio broadcasting trough 8 mono lines
- Supports radio/audio broadcasting-devices with audio files (approved: Quail Adapter/Motorola XT420)
- SMC offers 256 addresses to connect devices trough RS485
- One Port Extender can be connected to offer more RS485 Ports
- 24V is distributed through the RJ-45 Cash Register Connector to power the devices
- 24V on each cash register Port is short circuit protected
- Hardware driver for the SMC will be supported by AXIOMTEK (exclude LoRa module)

Embedded O.S. Supported

The SMC V3.0 - EM317 supports Windows® 10 IoT.

1.2 System Specifications

1.2.1 CPU

● **CPU**
   ■ Intel® Celeron® J6412 processor

● **Chipset**
   ■ SoC integrated

● **BIOS**
   ■ American Megatrends Inc. UEFI (Unified Extensible Firmware Interface) BIOS.

● **System Memory**
   ■ 32GB DDR4-3200

1.2.2 I/O System

- 1x Power switch
- 1 x Reset button
- 1 x Blue LED for stand by power
- 1 x Green LED for main power
- 1 x 2.5G LAN
- 1 x Antenna opening
- 8 x Wireless DI(w/o function)
- 1 x Antenna opening for LoRa
- 1 x USB2.0
- 1 x HDMI1.4
- 1 x Radio interface
- 4 x Relay
- 16 x GPIOs software selectable 5V Switching voltage
- software selectable
- 10 x RS-485 Ports to connect external devices incl. 24V-DC with short-circuit protection
- 2 x RJ45 for Amplink (W/o LED)
- 1 x RS-485 Port for Extender connection
- 6 x Audio output(XLR)
- 1 x AC power input connector

- **1.2.3System Specifications**

- **Power**
  - Internal module 90-246V, 47/63Hz Input

- **Operation Temperature**
  - 0℃ ~+50℃

- **Weight**
  - 8kg

- **Dimension**
  - 4.45 x 48.26 x 30 cm

【**Note**】**:** *All specifications and images are subject to change without notice.*

1.3 I/O Outlets

The following figures show I/O outlets on the SMC V3.0 - EM317.

Front View
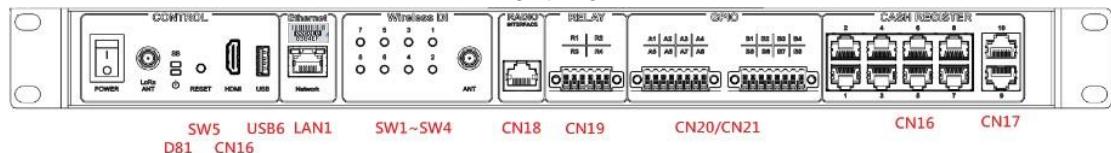
Rear View
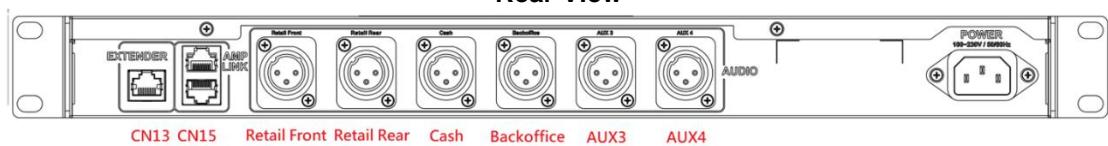
Connector	Description
D81	Power LED
SW5	Reset Button
CN16	HDMI Connector
USB6	USB2.0 Type A Connector
LAN1	RJ45 Connector
SW1~SW4	Wireless DIO Button
CN18	Radio Connector
CN19	Relay Connector
CN20~CN21	GPIO Connector
CN16~CN17	RJ45 Cash Reegister Connector
CN13	RJ45 Extender Connector
CN15	2 x RJ45 AMPLINK Connecctor
Retail Front Retail Rear Cash Backoffice AUX3 AUX4	Audio XLR Connector