S-IoT Hub V4.0 / OPM-1300

Product Specification

(July, 2021)

PLUTOSOLUTION

Contents

1. Introduction of the product

"S-IoT Hub V4.0" is a wireless communication-based sensor module for preventive maintenance essential for semiconductor production equipment. Collected and sent to the upper server.

2. Appearance

2.1. Appearance

<Top Side>
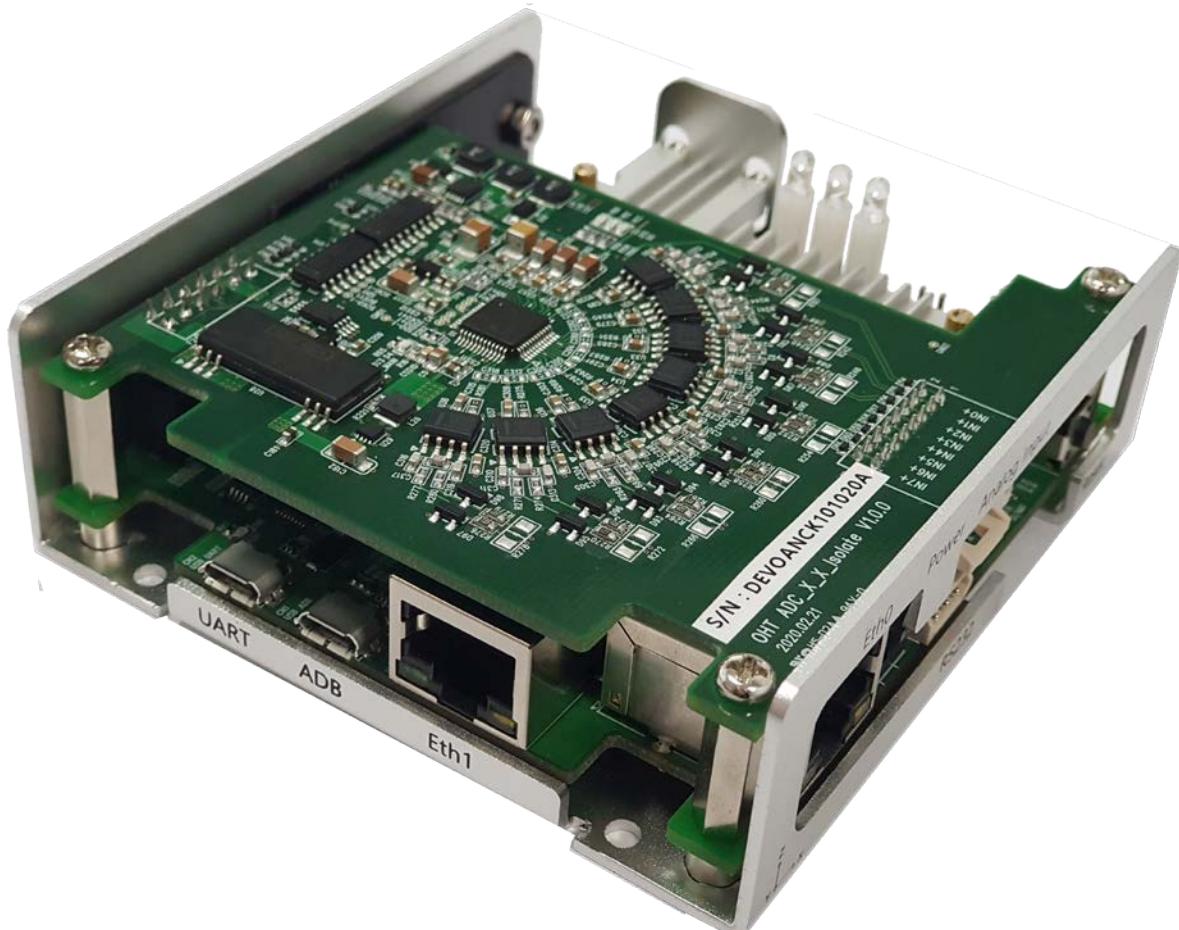
2.2. Interface Port

\<Bottom Side\>
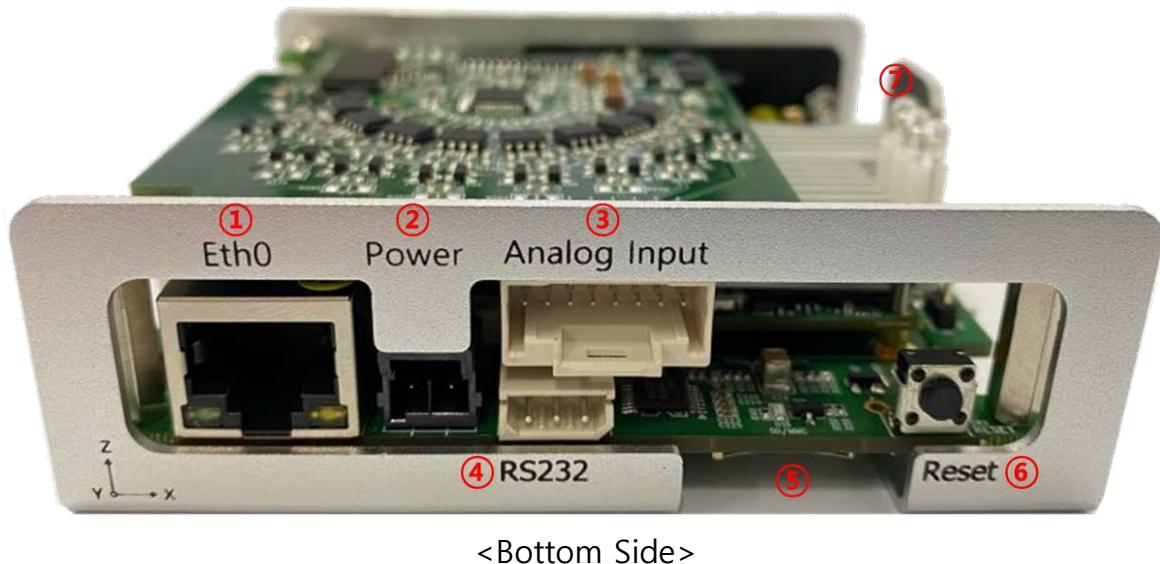
Num.	Functions
①	Eth0 LAN Port - 10/100/1000 MB LAN Port - Ethernet cat5 or cat6 cable (within 2m in length)
②	Power Jack DC 24V - Connector : Molex 1722561002 - DC 24V 5A (ferrite core attached)
③	Analog Input - ADC Analog signal input port. - Connector : Molex 5016461600 - ADC Cable (50cm, ferrite core attached)
④	RS232 Port (Unused) - BR (Barcode Reader)
⑤	Micro SD Card Slot - Micro SLC 4GB SD Card attached
⑥	Reset Button
⑦	Indicator LED

<Left Side>
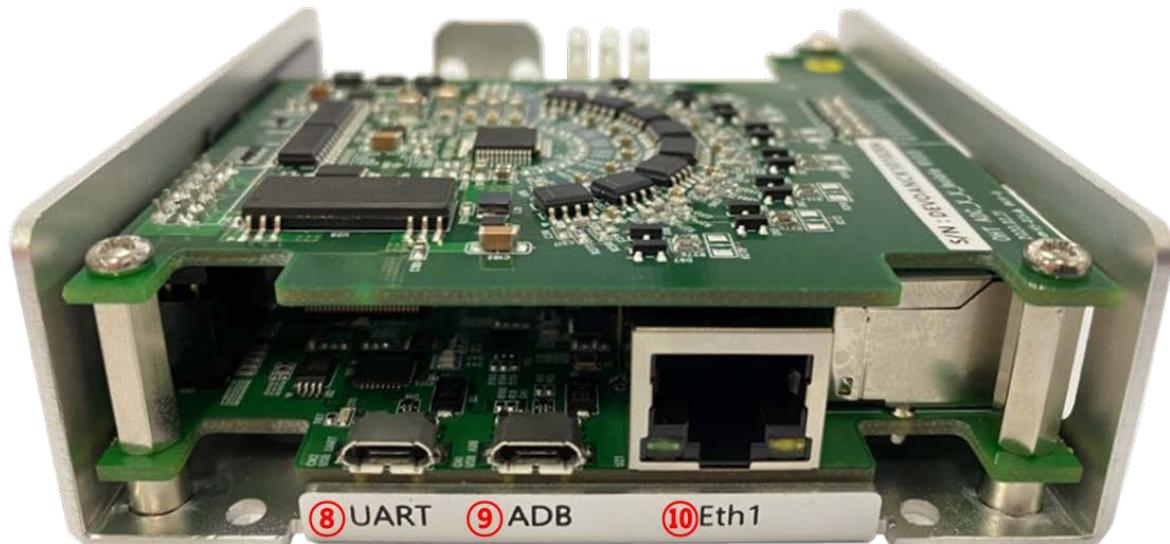
Num.	Functions
⑧	Debug UART Micro USB
⑨	Debug ADB Micro USB
⑩	Eth1 LAN Port - 10/100 MB LAN Port. LAN Port. Factory Network - Ethernet cat5 or cat6 cable (within 2m in length)

3. Product Specification

Division	Specification
Product Name	S-IoT Hub V4.0
Model Name	OPM-1300
Main Platform	• 4-core ARM® Cortex®-A53 • 1GB RAM, 8GB flash (eMMC)
Wi-Fi	Wi-Fi 802.11ac (2.4GHz / 5GHz)
Ethernet	Realtek RTL8211E-VB-CG 10/100/1000M (Front Lan Port)) Realtek 8152B 10/100M (Left Lan Port)
Sensor	6-axis accelerometer MPU-6500 (Max 1KHz Sampling)
ADC	16-bit 8Ch AD Converter (-10V ~ +10V, Max 2KHz Sampling)
Power	DC 24V 2A Connector : Molex 1722561002 part
Port	• Micro SD Card Slot 1ea • Analog Input 1ea (Connector : Molex 5016461600) • Ethernet Lan Port 2ea (Connector : RJ45) • RS232 Port 1ea (Unused) • Debug UART Port 1ea (micro USB) • ADB(Android Debug Bridge) Port 1ea (micro USB)
Functions	• 6-axis accelerometer up to 1 KHz sampling data acquisition • 8-channel 16-bit ADC data acquisition (up to 2KHz) • 2-axis angle calculation function • Defect criteria setting and defect data acquisition • OHT controller / Stocker controller communication • Diagnostic Server / DS IoT Server Communication • S/W Update
Operating Temp	0 ℃ ~ 60 ℃
Case material	Aluminum
Weight	121.6g
Size	88 x 92 x 30 mm

4. Precautions

① Be sure to use connectors and cables of the standard for the connection terminals. Using a connector other than the dedicated connector may cause product malfunction or malfunction.

② Fix the product firmly without shaking in the place to be installed.

③ Do not install in a place exposed to water or rainwater or in a humid place.

④ Be careful not to let moisture or other foreign substances enter the product.

⑤ Be careful not to drop the product or subject it to external impact.

⑥ Do not disassemble, modify or change the product arbitrarily.

⑦ This product is designed for use in the temperature range of 0°C to 60°C. It is not recommended for use in extremely low or high temperatures outside this range.

⑧ Do not install in a place that does not meet the purpose of the product or use it outside of its intended use.

⑨ If there is a burning smell when operating the product, immediately remove the power and contact the Pluto Solution Customer Support Center (+82-031-337-6780).

※ **FCC**

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 (including the antennas) to this device

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that are not expressly approved by the manufacturer may 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 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.

✓ This device is installed inside the facility.
This device is used at a distance of more than 20cm from the human body.

※ RF Exposure Statement

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF Radiation exposure limits set forth for an uncontrolled environment.

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