MVTECH AMD 1900 Iot Vibration Sensor User Manual

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MVTECH AMD 1900 Iot Vibration Sensor

Product Information

Specifications

- **CPU:** S922X Quad-core A73 & Dual-core A53
- **DDR:** DDR4 4GByte, 32Bit Data bus
- **eMMC:** 32GByte
- **ETHERNET:** GIGABIT-LAN, 10/100
- **ADC:** Psudo Differential 4 ch.
- **WIFI:** 802.11 a/b/g
- **INDICATOR:** 3COLOR x3
- **USB:** USB 2.0 Client
- **POWER SWITCH:** Toggle switch x 1
- **SUPPLY POWER:** 24V (500mA)
- **Size:** 159 x 93 x 65 (mm)

Product Information

The IOT_4_VIBRATION is a device that monitors the analog signal of equipment and transmits the data to a server. It supports differential signal for up to 16 channels. The device can transmit data using its built-in WiFi or through Ethernet in areas where WiFi is not available. The IOT_4_VIBRATION is equipped with a main board that includes a CPU, RAM, Flash memory, WiFi module, GiGa LAN, 10/100 LAN, and PMIC. The analog processing is done by the FPGA, ADC, and LPF components. The device also features an OLED display for visual information.

FAQ

- **What should I do if I don’t have access to WiFi?**
  - If you don’t have access to WiFi, you can still use the IOT_4_VIBRATION by connecting it to a server using Ethernet. Follow the instructions provided in the “Connecting via Ethernet” section.
- **How many channels does the IOT_4_VIBRATION support?**
  - The IOT_4_VIBRATION supports up to 16 channels for monitoring analog signals.
- **Can I monitor multiple equipment simultaneously?**
  - Yes, you can monitor multiple equipment simultaneously by connecting them to the device’s BNC connectors and selecting the desired channels to monitor.
- **How do I perform maintenance on the device?**
  - To perform maintenance on the device, connect a USB cable to the USB client connector on the rear panel of the device. This will allow you to access and manage the device’s settings and firmware.

Revision History

Version	Date	Change History	author	Confirmed By
0.1	20221208	draft		

Introduction

The IOT_4_VIBRATION monitors the analog signal of equipment. The IOT_4_VIBRATION processes the Analog signal of the monitored equipment and transmits the desired data to the server. The IOT_4_VIBRATION transmits to the server using the built-in WIFI. In areas where Wi-Fi is not available, communication with servers is supported through Ethernet. The IOT_4_VIBRATION supports differential signal 16 channels.

Specifications

IOT_4_VIBRATION Specifications

- The IOT_4_VIBRATION consists of 3 boards. (Main Board, VIB. Board, OLED Board)
- **The IOT_4_VIBRATION operating temperature:** Max. 70 °
- The IOT_4_VIBRATION is a fixed equipment.
- After installation, it is not accessible during normal use.

Board Components

- Main
  - CPU / RAM / Flash / WiFi Module / GiGa LAN / 10/100 LAN / PMIC
- ANALOG.
  - FPGA / ADC / LPF
- OLED
  - OLED

Exterior

(IOT_4_VIBRATION Exterior)

(IOT_4_VIBRATION Front Exterior)

(IOT_4_VIBRATION Back Exterior)

(IOT_4_VIBRATION TOP Exterior)

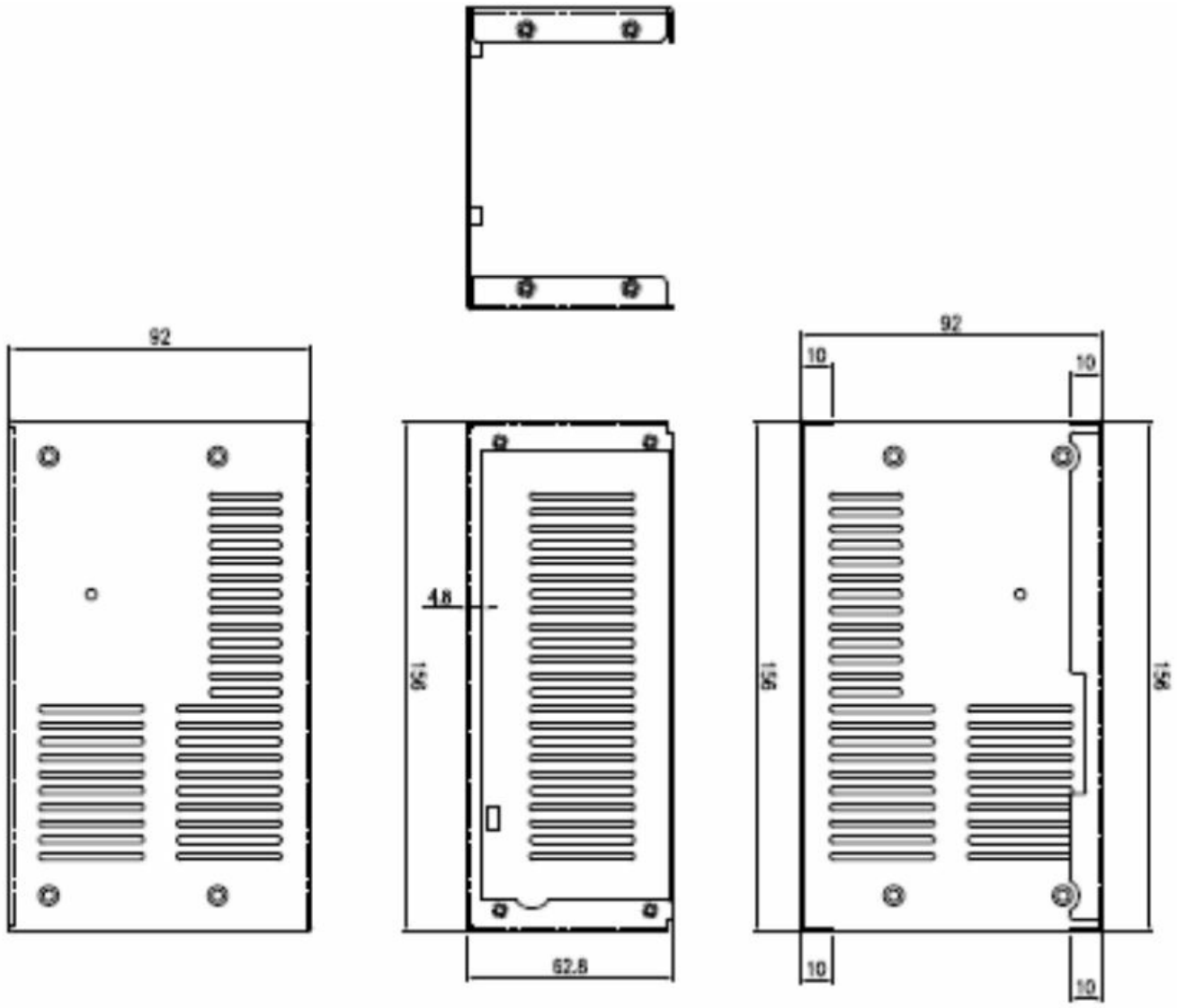
- This is a picture of the IOT_4_VIBRATION case.
- The front panel of IOT_4_VIBRATION has Power (24Vdc), POWER Switch, 2 LAN Port, a Port of external antenna, LED, 4 BNC connectors.
- The rear panel of IOT_4_VIBRATION has usb client connector for maintanace.

H/W Specification

ITEM	SPECIFICATION
CPU	S922X Quad-core A73 & Dual-core A53
DDR	DDR4 4GByte, 32Bit Data bus
eMMC	32GByte
ETHERNET	GIGABIT-LAN, 10/100
ADC	Psudo Differential 4 ch.
WIFI	802.11 a/b/g
INDICATOR	3COLOR x3
USB	USB 2.0 Client
POWER SWITCH	Toggle switch x 1
SUPPLY POWER	24V (500mA)
Size	159 x 93 x 65 (mm)

Case

Case drawings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156
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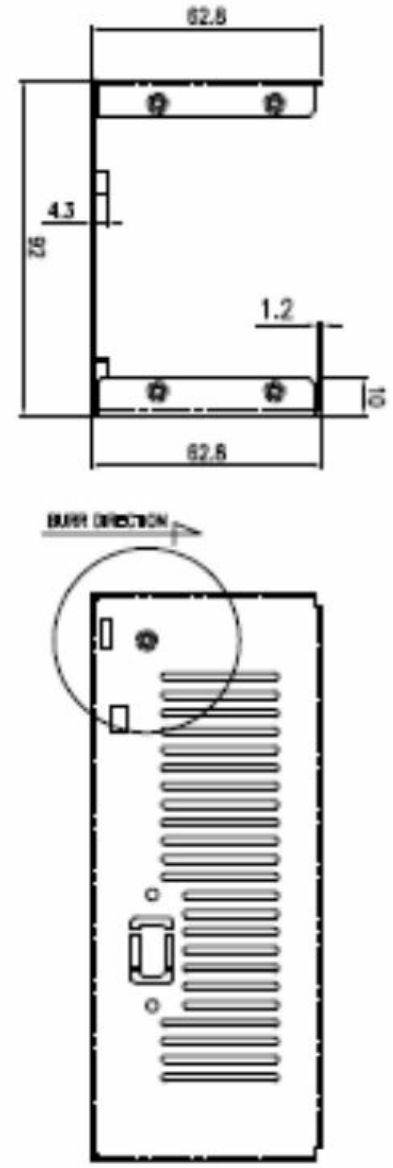

FCC STATEMENT

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio, TV technical for help.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

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
2. this device must accept any interference received, including interference that may cause undesired operation

Caution: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device is operation in 5.15 – 5.25 GHz frequency range, then restricted in indoor use only.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Documents / Resources

	MVTECH AMD 1900 Iot Vibration Sensor [pdf] User Manual AMD 1900 Iot Vibration Sensor, AMD 1900, Iot Vibration Sensor, Vibration Sensor, Sensor

References

- User Manual