

IOT_3_ANALOG

User Manual

Rev 0.1



MVTECH
MVTECH Co.,Ltd.

[Revision History]

Version	Date	Change History	author	Confirmed By
0.1	20220831	draft		

1. Introduction

The IOT_3_ANALOG monitors the analog signal of equipment. The IOT_3_ANALOG processes the Analog signal of the monitored equipment and transmits the desired data to the server.

The IOT_3_ANALOG 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_3_ANALOG supports differential signal 16 channels.

2. IOT_3_ANALOG Specifications

The IOT_3_ANALOG consists of 3 boards. (Main Board, ANA. Board, OLED Board)

The IOT_3_ANALOG operating temperature : Max. 70 °

The IOT_3_ANALOG is a fixed equipment.

After installation, it is not accessible during normal use.

1) Board Components

A. Main

i . CPU / RAM / Flash / WiFi Module / GiGa LAN / 10/100 LAN / PMIC

B. ANALOG.

i . FPGA / ADC / LPF

C. OLED

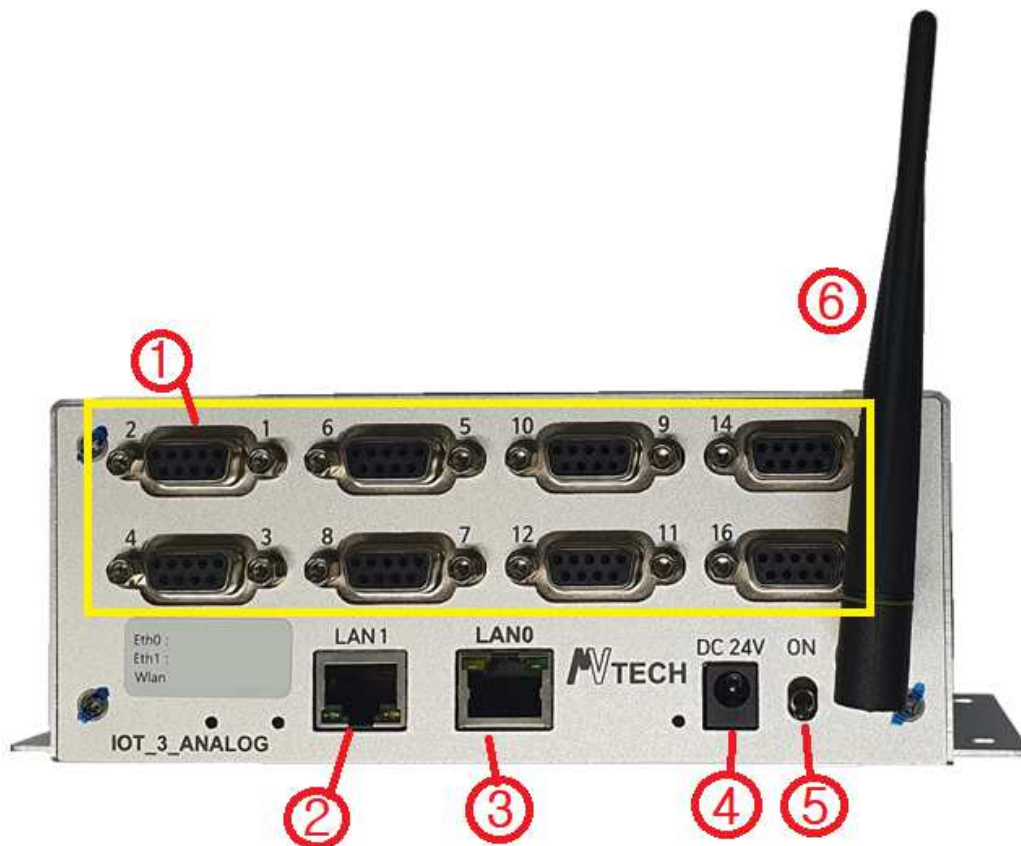
i . OLED

2) Exterior

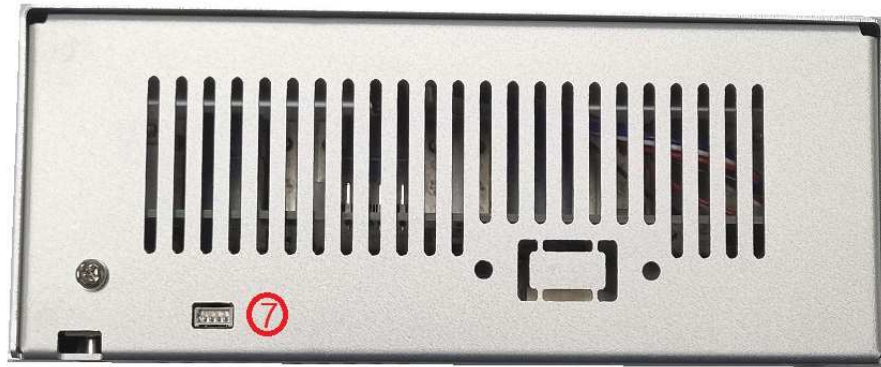
This is a picture of IOT_3_ANALOG case. The front panel of IOT_3_ANALOG has Power (24Vdc), POWER Switch, 2 LAN Port, a Port of external antenna, LED, 8 D-sub connectors. The rear panel of IOT_3_ANALOG has usb client connector for maintenance.



(IOT_3_ANALOG Exterior)



(IOT_3_ANALOG Front Exterior)



(IOT_3_ANALOG Back Exterior)



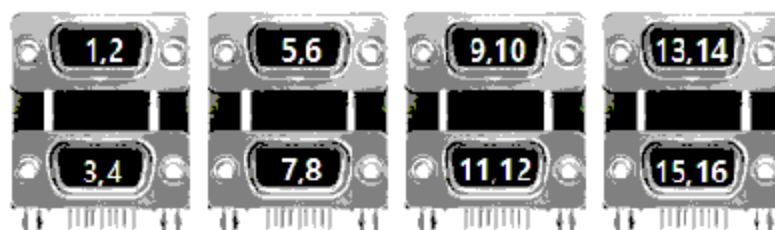
(IOT_3_ANALOG TOP Exterior)

3) 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	Differential 16 ch.
WIFI	IEEE 802.11 b/g : 2412 ~ 2462 MHz IEEE 802.11 a : 5180 ~ 5240, 5745 ~ 5805 MHz
Modulation	DSSS(CCK), OFDM
POWER SWITCH	Toggle switch x 1
SUPPLY POWER	24V (500mA)
Size	159 x 93 x 65 (mm)

4) DAQ connector pin description

A. ADC Connector Pin map



◆ DB9 Pinmap

5	4	3	2	1
9	8	7	6	

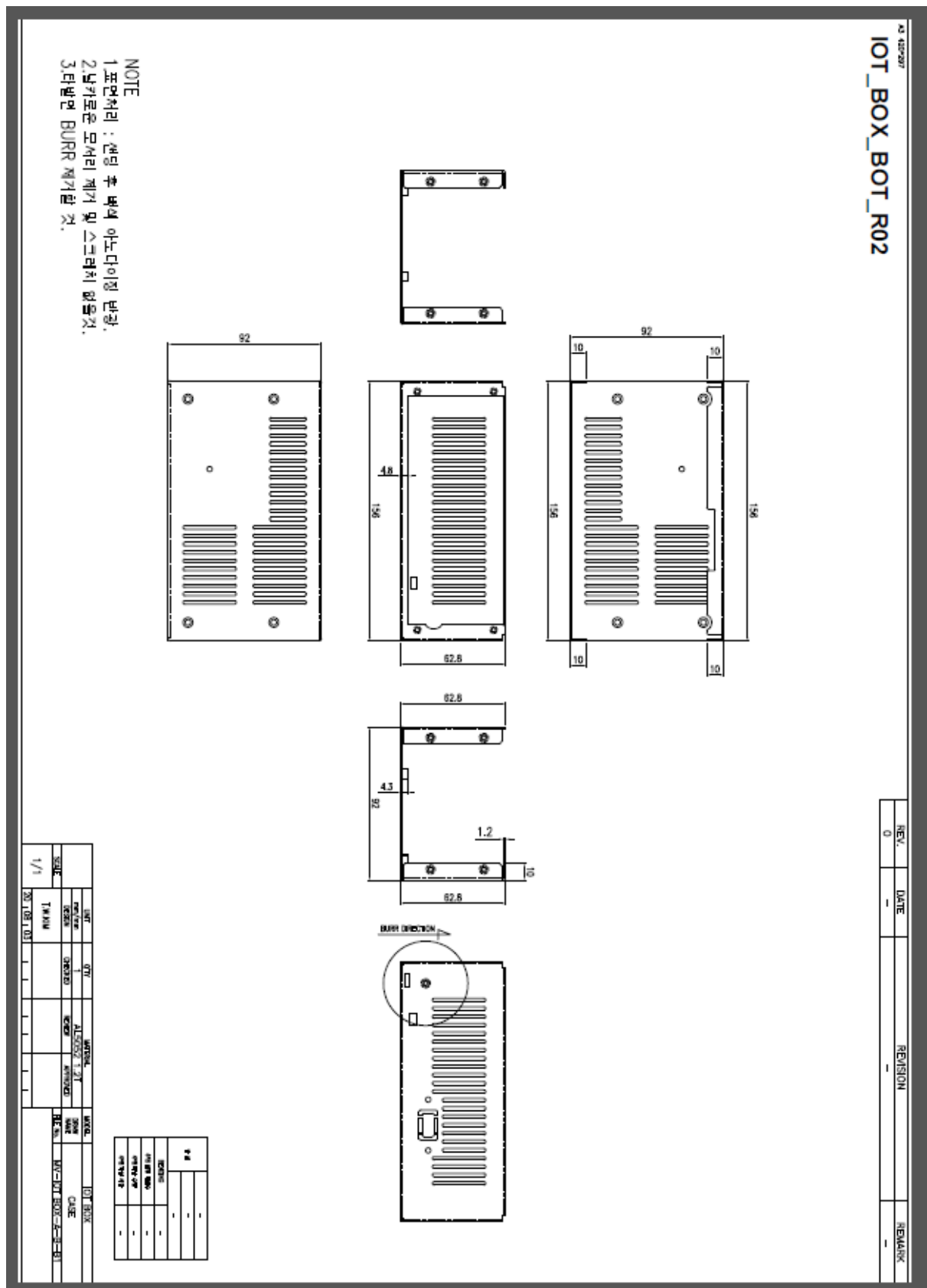


178-009-513R691

PIN #	PIN NAME
1	24V_1
2	GND
3	Dedicated
4	24V_2
5	GND
6	A IN1+
7	A IN1-
8	A IN2+
9	A IN2-

4. Case

1) Case drawings



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, and (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.