SRC-BAMVC3 User Manual

Rev 0.1



[Revision History]

| Version | Date | Change History author | | Confirmed By |
|---------|----------|-----------------------|--|--------------|
| 0.1 | 20220831 | draft | | |
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1. Introduction

The SRC-BAMVC3 monitors the analog signal of equipment. The SRC-BAMVC3 processes the Analog signal of the monitored equipment and transmits the desired data to the server.

The SRC-BAMVC3 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 SRC-BAMVC3 supports differential signal 20 channels and single-end signal 40 channels.

2. SRC-BAMVC3 Specifications

The SRC-BAMVC3 consists of 4 boards. (CPU Board, Main Board, ANA. Board, Serial Board)

The SRC-BAMVC3 operating temperature : Max. 70 °

The SRC-BAMVC3 is a fixed equipment.

After installation, it is not accessible during normal use.

1) Board Components

- A. CPU Board
 - i. CPU / RAM / Flash / PMIC
- B. MAIN Board
 - i . WiFi Module / GiGa LAN / PMIC

C. ANALOG Board.

i . FPGA / ADC / LPF

D. SERIAL Board

i . Serial Port / 10/100 LAN

2) Exterior

This is a picture of SRC-BAMVC3 case. The front panel of SRC-BAMVC3 has 62 pin male D-SUB Connector, 37 pin female D-SUB Connector and INFO-LEDs. The rear puanel of SRC-BAMVC3 has Power (24Vdc), POWER Switch, 2 LAN Port, a Port of external antenna, USB client connector for maintenance.



(SRC-BAMVC3 Front Exterior)



(SRC-BAMVC3 Back Exterior)

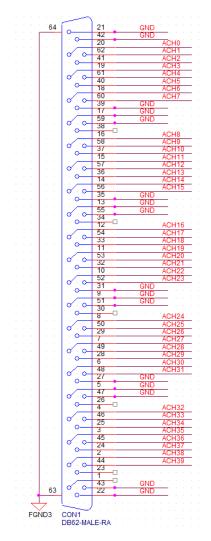
3) H/W Specification

| ITEM | SPECIFICATION |
|--------------|---------------------------------------|
| CPU | i.MX6 Quad-core CPU |
| DDR | DDR3 1GByte, 64Bit Data bus |
| eMMC | 8GByte |
| ETHERNET | GIGABIT-LAN, 10/100 |
| ADC | Differential 20 ch, Single-end 40 ch. |
| WIFI | 802.11 a/b/g |
| INDICATOR | 3COLOR LED |
| USB | USB 2.0 Client, USB 2.0 HOST |
| POWER SWITCH | Toggle switch x 1 |
| SUPPLY POWER | 24V (500mA) |
| Size | 108 x 108 x 50.8 (mm) |

4) DAQ connector pin description

A. ADC Connector Pin map

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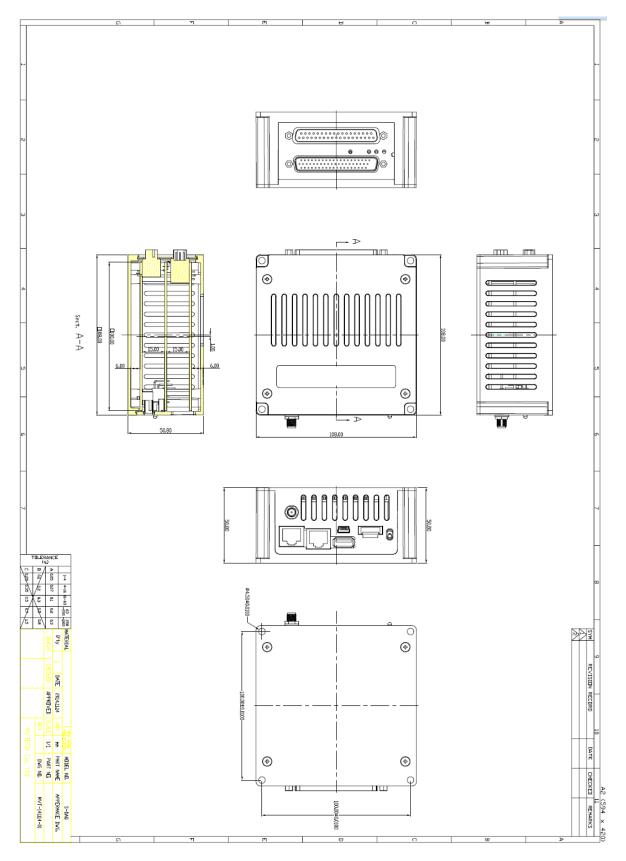


B. Serial Connector Pin map.

| | | 38 | | |
|---------|------------|----------|-----------|--------------|
| 19 | \sim | <u> </u> | | TxD1 |
| 37 | -0 | ••••• | •••• | RxD1 |
| 18 | | ••••• | •••• | GND1 |
| 36 | - ⊙ | ••••• | | GND |
| 17 | -0 | | | TxD2 |
| 35 | -0 | •••• | | RxD2 |
| 16 | | ••••• | •••• | GND2 |
| 34 | -0 | •••• | | |
| 15 | | | | TxD3 |
| 33 | <u> </u> | | | RxD3 |
| 4 | | | | GND3 |
| 32 | <u> </u> | | | |
| 13 | L | | | TxD4 |
| 31 | <u> </u> | | | RxD4 |
| 12 | Lo | | | GND4 |
| 30 | Ľ. | | | |
| | L | | | TxD5 |
| 29 | <u> </u> | | | RxD5 |
| 10 | Lo | | | GND5 |
| 28 9 | -0 | 1 | | |
| 27 | - <u>o</u> | ••••• | | TxD6 |
| 21 | | ••••• | •••• | RxD6 |
| 26 | - ⊙ | ••••• | •••• | GND6 |
| - 7 | -0 | | | |
| 25 | -0 | ••••• | • • • • • | TxD7 RxD7 |
| 6 | | ••••• | •••• | GND7 |
| 24 | - <u>o</u> | ••••• | •••• | and/ |
| 5 | -0 | | | TxD8 |
| 23 | -0 | ••••• | | RxD8 |
| 4 | | | •••• | GND8 |
| 22 | -0 | ••••• | | |
| 3 | | | | TxD9 |
| 21 | | | | RxD9 |
| 2 | | | | GND9 |
| 20 | Ľ. | | | |
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4. Case

1) Case drawings



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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.

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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 : The device(SRC-BAMVC3) has been tested for compliance with FCC RF exposure limits. This device should not be used with external antennas that are not approved for use with this device. Use of this device in any other configuration may exceed the FCC RF exposure compliance limits. A separation between the user's body and the antenna be at least 20cm and a prohibition that it cannot be co-located with other transmitters.

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.