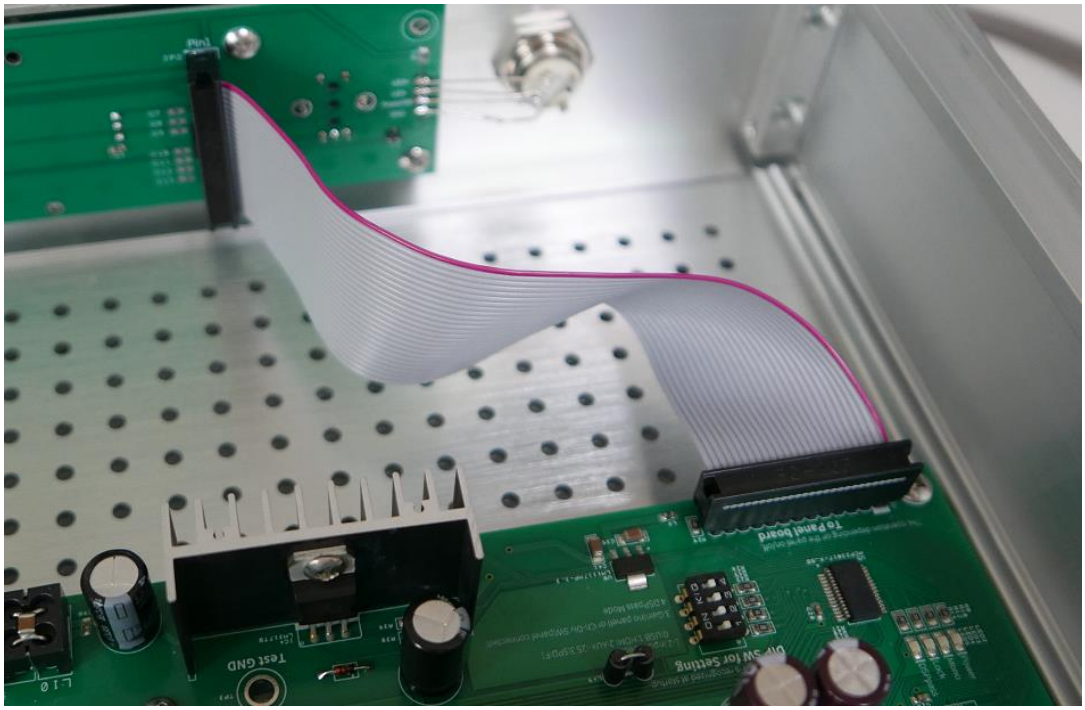
Combined Operation Test

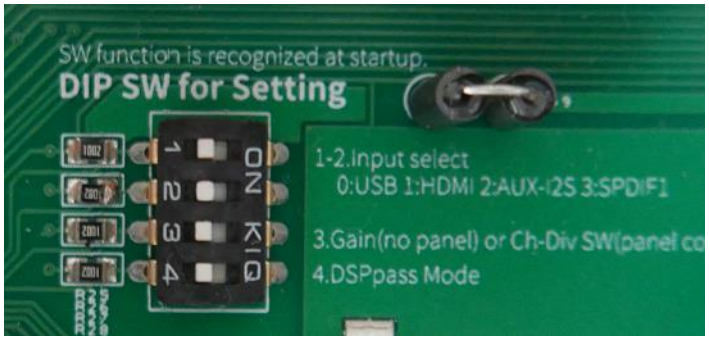
1. Preparation for test

Before this test, write the firmware and complete the A_1345897 voltage test. If you have not completed them, please finish them first.

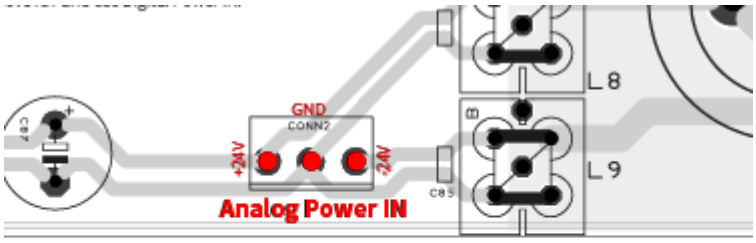
A_1345897 and A_1350338 must be interconnected with a 26-pin DIP sized flat cable. Make the connections as shown in the next picture. The direction in which the connections should be made is indicated by the silk on both boards.



And the DIP-switches should be set up as follows



2. Turn on the power



1.
Enter the voltages here.
They are positive and negative 24V.
The directions are marked in silk.

When the firmware is written correctly and A_1350338 is connected correctly, the red LED 6-25 should turn on for a while after +-24V is turned on, and then those LEDs should turn off automatically.

Checkpoint.

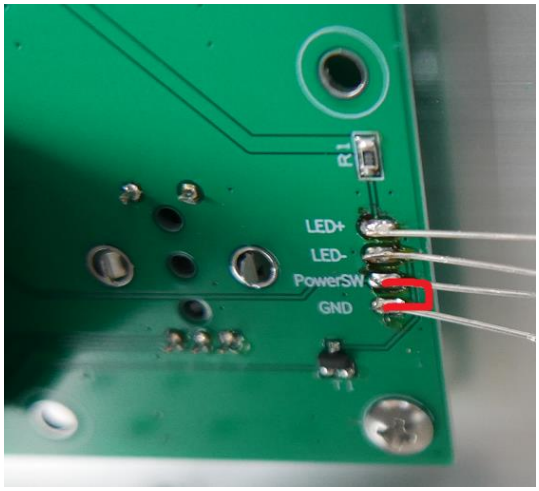
Q. The red LED 6-25 lights up continuously. What is the cause?

- Firmware was not written correctly
- Flat cable not connected properly
- A_1345897 or A_1350338 has an implementation problem

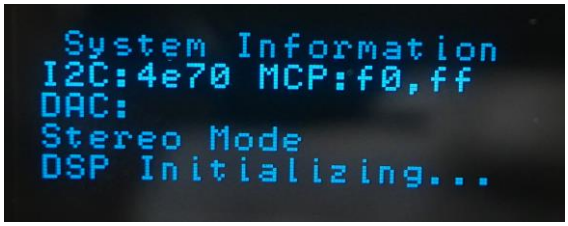
Q. If there is a problem with the implementation, where should I prioritize checking?

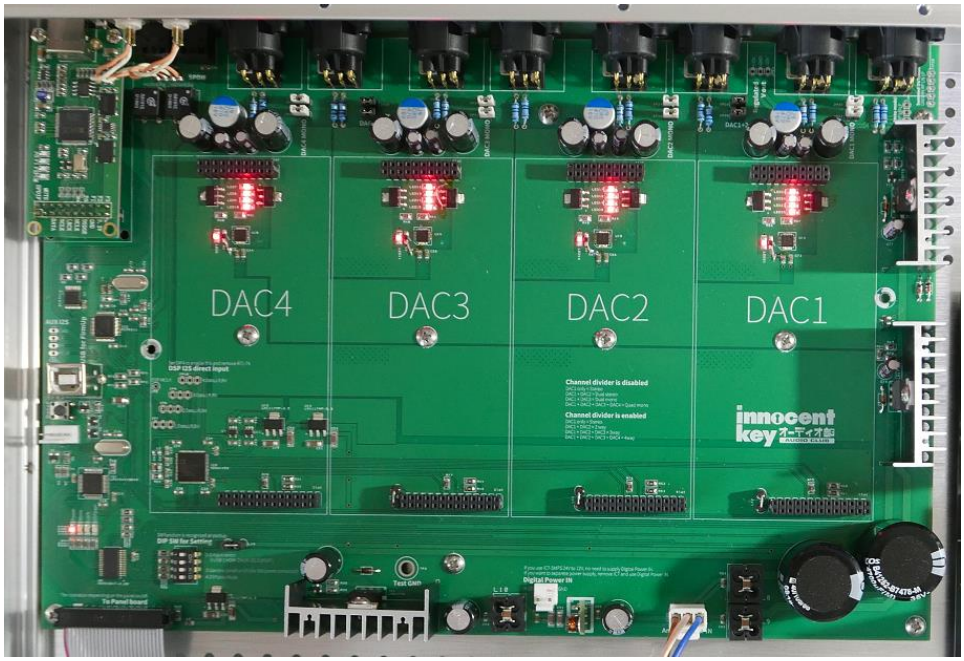
- In the case of A_1345897, there may be a problem with IC1, U5, S1 and JP4. And the component mounting around them is also relevant.
- In the case of A_1350338, there may be a problem with JP2.

3. Enable the soft-switch from A_1350338



Short the pins connected by the red line in the picture with metal. If everything is normal, the OLED should show the following. (no A_1350385 are connected to A_1345897.)





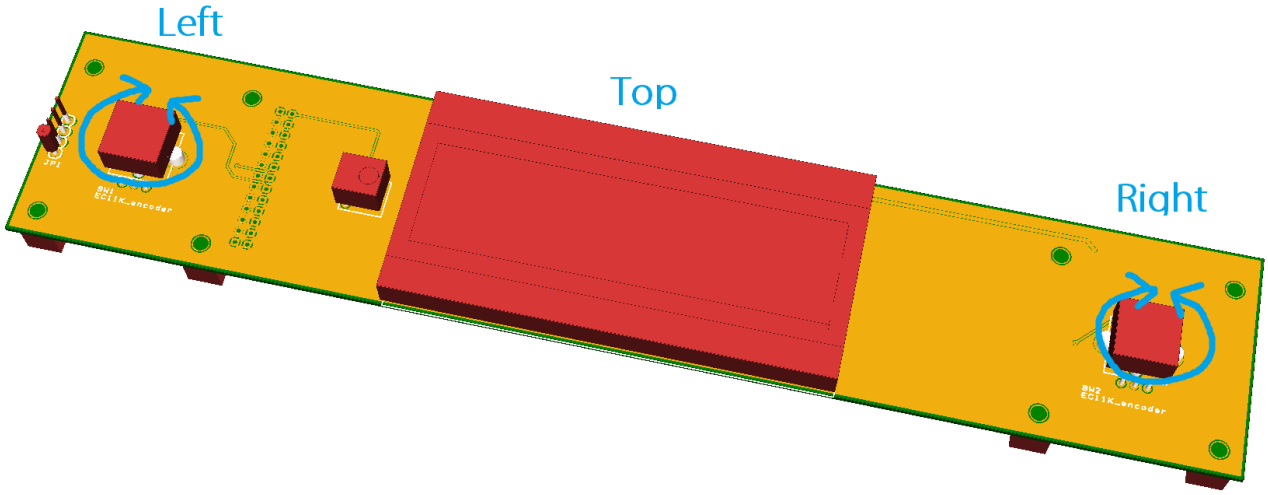
Checkpoint

- Please check "I2C:4e70" and "MCP:f0,ff" are correct number. It is very important.
- LED6-25 should be red. (The voltage should have already been tested)
- Initializing the DSP takes a bit of time.
- The color of the OLED that has been implemented this time is “yellow”.

Q. If the OLED is not displayed, what is the cause?

- In the case of A_1350338, there may be a problem with JP2, LCD1.
- In the case of A_1345897, there may be a problem with IC1, JP4.

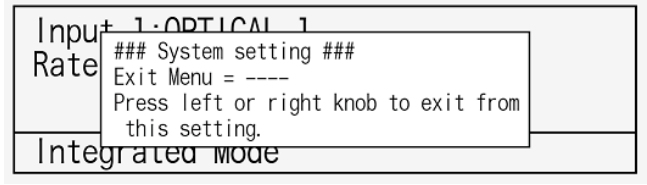
4. Encoder test of A_1350338



Test to the left and right encoders are working properly. Rotate them as shown by the blue arrows in the diagram, to make sure that the OLED display switches correctly.

Rotation of the left encoder changes the input (example “Input 1”), and rotation of the right encoder changes the volume number (example “-24.0 dB”).

If press the left encoder from the front, you will see the following screen. The text in the details may vary, but it's important that the screen switch responses from your action.



Checkpoint

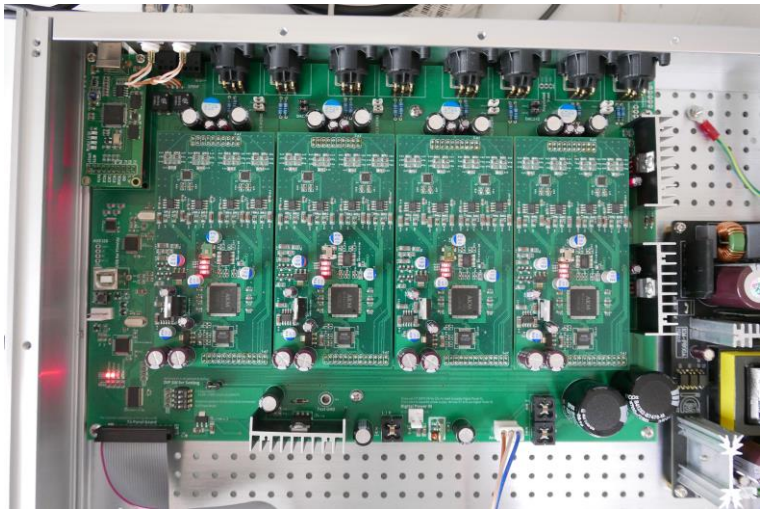
Q. There is a problem with the operation of the encoder. What is the cause of the problem?

- In the case of A_1350338, there may be a problem with SW1, SW2 and JP2.
- In the case of A_1345897, there may be a problem with IC1, JP4.

5. Preparing for the voltage test of A_1350385

- A_1345897 voltage test must be completed first before performing this test.
- The A_1350385 is powered by the A_1345897. Therefore, the A_1345897 and A_1350385 must be properly stabbed.
- The connection between the A_1350385 and the A_1345897 must be made when there is no +-24V power coming to the A_1345897 for safety reasons.

The orientation of the board must be as follows.



At this time, be sure to check that the pins are not misaligned. If the power is turned on with misaligned, the unit will fail.

When the 4 set of A_1350385 are installed correctly, the OLED at startup should look like this.

Checkpoint

- If you put 4 pieces of A_1350385 on it, "DAC1, DAC2, DAC3, DAC4" appears on the OLED. If you put one board, OLED will show one location. If the board set silkscreened as “DAC1”, the OLED should be show "DAC1".
- QG1 of A_1350385 is not implemented, so some I2C devices may be not enumerated (20 22 24 26).