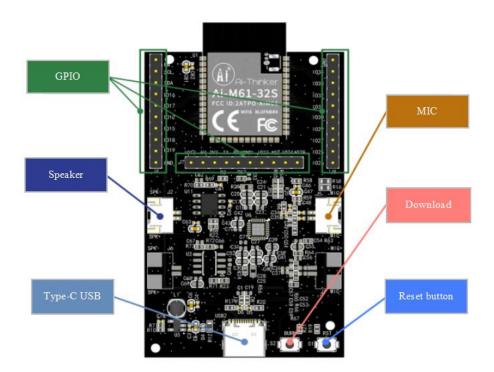
#### AiPi-Voice Development Board Test Firmware Use Tutorial

AiPi-Voice is a development board designed by Ai-Thinker open source team for Ai-M61-32S, which supports WiFi6 and BLE 5.3. The Ai-M61-32S module has rich peripheral interfaces, including DVP, MJPEG, Dispaly, AudioCodec, USB2.0, SDU, Ethernet (EMAC), SD / MMC (SDH), SPI, UART, I2C, I2S, PWM, GPDAC, GPADC, ACOMP and GPIO. The AiPi-Voice enables voice output processing through a built-in voice chip, which can be recorded and played through an audio codec. The external display screen can make the control play the sound.



# 1. Firmware burning

### 1.1 Serial port wiring

| TTL TOOL | AiPi |  |  |
|----------|------|--|--|
| 3.3V     | 3.3V |  |  |
| TXD      | RX   |  |  |
| RXD      | ТХ   |  |  |
| GND      | GND  |  |  |

## 2. Burning

Download burning tool: click to download

Firmware address: click to download

After the burning tool begins burning, first keep press the "download button" and then press the "reset button" and to release, then you can enter the burning mode. The operation steps are performed as below,

| -11-1  | iouttalo Lab D                        | Nev Cube 1.8.3 - 81.616/618  |                              |                       |                              |                       |               | - 0             | x c |   |  |
|--|---------------------------------------|--|------------------------------|-----------------------|------------------------------|-----------------------|---------------|-----------------|-----|---|--|
| Ele  | View Help                             |  |                              |                       |                              |                       |               |                 |     |   |  |
| 1  | 01 V 10                               | CU V MFG V   |                              |                       |                              |                       |               |                 |     |   |  |
| F  | errownen Cepter                       | PER .  |                              |                       |                              |                       | Basic Options |                 |     | 1 |  |
|  | learnson tabl                         | ter)   |                              |                       |                              | Browse                | Interface     | Uart            |     |   |  |
|  | ✓ boet2                               |  | Browse                       |                       |                              | Browse                | Port/SN       | COM28           | *   |   |  |
|  | meta                                  |  | Browse                       | rione                 |                              | Berngo                | Uart Rate     | 2000000         |     |   |  |
| gan and a second |                                       |  | Browse                       | hey.                  | 4. Choose Serial             | 4. Choose Serial Port |               | JLink Rate 1000 |     |   |  |
|  | data                                  |  | Browse                       | Titts                 |                              | Browse                |               |                 |     |   |  |
|  | Lass-secon                            | ypt. Ney (18 logtes)   |                              | (v (16 bytes)         |                              |                       |               | Refresh         |     |   |  |
| ece-signature public key   |                                       |  |                              | Browse private key    |                              | 3.Click Refresh       |               | Clear           |     |   |  |
|  |                                       |  |                              |                       |                              |                       |               | Log             |     |   |  |
| Single Download Options  |                                       |  |                              |                       |                              |                       | Open Uart     |                 |     |   |  |
| Z Enable 0x0 Browne Browne   |                                       |  |                              |                       | Create & Download            |                       |               |                 |     |   |  |
| A Calmar Facility  |                                       |  |                              |                       |                              |                       | 1             |                 |     |   |  |
|  | 1.Select Enable 2.Select the firmware |  |                              |                       |                              |                       | /             |                 |     |   |  |
| 100%   |                                       |  |                              |                       | 5.Click download for burning |                       |               |                 |     |   |  |
|  |                                       |  |                              |                       |                              |                       |               |                 | Ŭ.  |   |  |
|  |                                       |  |                              |                       |                              |                       |               |                 |     |   |  |
| 100  | 50.47 0101                            | Flack land blas cort   | t(ms): 7173.84716796875      |                       |                              |                       |               |                 |     | j |  |
| (89)   | :58:47.952]                           | - Finished   |                              |                       |                              |                       |               |                 | ŕ   |   |  |
|  |                                       | <ul> <li>Sha called by Nost: 4</li> <li>sip mode Verify</li> </ul> | 46120cb59584834e2186ba6e3095 | h1689566dea43ead78fe6 | 656f88c5d83416f              |                       |               |                 |     |   |  |
| 109  | 58:50.581]                            | - Read Sha256/3176896  |                              |                       |                              |                       |               |                 |     |   |  |
|  | 58:50,581]<br>58:50,581]              |  | ime cost(ms): 2633.782470703 | 129                   |                              |                       |               |                 |     |   |  |
| [89]   | 58:58.581]                            | - She called by devi 46  | i128cb5958d834e2186ba6e3895b | 1689566dea43ead78fe66 | 56F88c5d834b6F               |                       |               |                 |     |   |  |
|  |                                       | - Verify success<br>- Program Finished                             |                              |                       |                              |                       |               |                 |     |   |  |
| [89]   | :58:58.581]                           | - All time cost(ms): 2   | 29166.562255859375           |                       |                              |                       |               |                 |     | i |  |
|  |                                       | <ul> <li>close interface</li> <li>[All Success]</li> </ul>         |                              |                       |                              |                       |               |                 | -   | I |  |

**Note**: After the firmware is burned, you need to press the reset button for one time, then the program can be run.

# 3. Use steps

After burning, click **BURN** button to play "turn on switch", and press again to play "turn off switch".

