Motherboard Introduction

The BIGTREETECH TFT35-MZ V3.0 panel is a medium-sized, dual-mode, ultra-clear 3D printer display panel launched by the 3D printing team of Shenzhen Biqu Technology Co., Ltd., which can perfectly replace the original LCD of the MEGA Zero 3D printer screen to use.

Mainboard features:

Using 32-bit ARM-level Cortex-M3 series STM32F207VCT6 main control chip with 120MHz frequency;

Upgrading the configuration firmware via SD card, the operation is simple and convenient;

UART serial port screen and 12864-like screen can be selected in two working modes, with higher compatibility;

The serial screen mode supports two printing methods: SD card and U disk;

Reserve WIFI interface, support external WIFI module to realize WIFI function;

Reserve the expansion port for material break detection function (FIL-DET);

Reserve the expansion port (PS-ON) for the shutdown function after playing;

LCD12864 modes include EXP1, EXP2, EXP3, among which EXP1 and

EXP2 are the LCD screen interfaces of ordinary motherboards, and EXP3 is the LCD screen interface used by E3 series motherboards (such as SKR MINI MZ V1.0, SKR MINI E3 V1.2, etc.);

TFT touch screen mode: serial screen RS232 interface;

Reserve 2 sets of UART serial port expansion ports for users to DIY.

Except for encoder and buzzer, SMT technology is adopted.

Motherboard parameters:

Appearance size: 93*87mm

Installation size: perfect replacement of MEGA Zero original

LCD screen, see TFT35-MZ V3.0 SIZE for details

Microprocessor: STM32F207VCT6
Power input: DC 5V
SD card logic voltage: 3.3V and 5V
2. Mainboard indicator light description
After the motherboard is powered on:
LED3 (POWER) red light is the power indicator: the red light is on, indicating that the power supply is normal;
The green light of LED1 is the SD card detection indicator: it is always on when the SD card is inserted, and it goes out after being pulled out;

Motherboard interface description
Dimensions
Wiring diagram
Description:
When using the 12864-like screen mode, connect with EXP1 and EXP2 of the motherboard, there is no touch function in this mode;
When using the serial screen mode, connect to the TFT or AUX-1 on the motherboard through RS232, and there is a touch function in this mode;
The two modes can be switched with one key. The specific operation is to press and hold the encoder for about 3S until the mode selection page appears, and then after selecting the mode,

press it.

Motherboard firmware description

The factory motherboard will be equipped with the firmware for testing, which can be used directly or upgraded according to the firmware update of our original website.

How to obtain motherboard firmware

Ask customer service or technical personnel to obtain;

Log in to our original website to download: https://github.com/bigtreetech

Mainboard firmware update method

The format of the firmware file name is as follows:

BIGTREE_TFT35_V3.0. version number.bin

First copy the above firmware to the root directory of the SD card, then insert the card into the SD card slot on the screen, re-power on or press the reset button, wait for about 10 seconds to complete the update;

3. Please refer to TFT35-E3 V3.0PIN information for motherboard firmware DIY;

Five, matters needing attention:

1. The name of the firmware file in the SD card cannot be changed (including upper and lower case);

2. The wiring process must be performed under the premise of power failure, and the power can be turned on after checking that the wiring is correctly connected and the driver is correctly plugged in to prevent the board and screen from being burned due to the wrong wiring and causing unnecessary losses;

3. Pay attention to the wire sequence when wiring, do not insert reversely; please refer to the PIN file for the detailed wire sequence;

If you encounter any problems during using, please contact us and we will answer for you. If you have any good comments or suggestions on our products, you are also welcomed to give us feedback, we will seriously consider your comments or suggestions, thank you for choosing BIGTREETECH products, thank you!