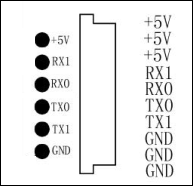
**T5UIC1 platform**

**DMT48320C035\_04WN module use experience**

## I recently used the module DMT48320C035\_04WN of the T5UIC1 platform for a small project. Because it was the first time I used it, I was confused when I only looked at the technical documentation at first. Later, after careful analysis and in the forum "The beginning of the month and the end of the month"(UID: 11476)And after-sales Yougong (You Chengwen) patiently gave advice and finally got on the right track. Now I will write down some application experiences for the reference of friends who will use it in the future.

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| **About serial connection** |



**I only used RX0/TX0 (I didn't consider what RX1/TX1 would do).**

**Regardless of sending the display command or calibrating the clock, only the serial port 0 is used**

***In addition:***Pay special attention to the power supply voltage must not be lower than 4.5V.

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| **About SD card** |

**1,Choose a low-speed SD card with a capacity below 16G**(Or buy directly from Diwen)**；**

**2,Be sure to format the SD card in DOS mode**

***because:***Under WINDOWS, it is not guaranteed to be completely formatted into FAT32\_4096b.

method:

Insert the SD card into the computer card reader;

Enter DOS mode (start-run-enter command [WIN7 is cmd]);

Type the command: format/qe:/fs:fat32/a:4096 (note the space between q and e. e is the drive number of the SD card);

Press Enter to execute.

**OK!**

***note:***Using a non-standard SD card may cause various inexplicable abnormalities.

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| **About screen rotation display** |

The birth gene of DMT48320C035\_04WN is a vertical screen with a resolution of 320\*480.

If you want to use it as a horizontal screen, you must set it to rotate 90 degrees in the configuration file CFG.

***note:***The screen rotation configuration is only valid for the serial port commands (coordinates, drawing and text arrangement direction, etc.), and the direction control word in the configuration file does not rotate the base map.

That is to say: the base image must be made into a 320\*480 picture, and cannot be made into a 480\*320 picture. If the base map is made into a 480\*320 picture, it will be displayed as a half frame after downloading, and there will be some garbled characters.

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| **About image format** |

The T5UIC1 platform of DMT48320C035\_04WN only supports pictures in the bottom JPG format (within 32KB each) due to memory capacity limitations. Since the JPG format generated by different graphics software has too many detailed differences, Divine provides a dedicated graphics format conversion tool:

JPGCONVERT_V12.bmp

***Suggest:***First use it as a drawing tool software to create a 320\*480 BMP format file, and then use "JPGConvert V1.2" to convert it to a JPG format file recognized by the T5UIC1 platform.

***note:***The JPG format files created by photo tools such as Photoshop may not be correctly parsed by the T5UIC1 platform.

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| **About the clock calibration command 5A A5 in the CFG file** |

The typical content of the CFG file in the DMT48320C035\_04WN routine (factory configuration) provided in the DWIN technical document is:

**54 35 43 31 00 04 5A A5 00 44 00 00 00 00 00 00**

xx04=00 The screen rotation angle is 0 (normal vertical screen 320\*480 mode);

xx06-07=5A, A5 starts clock calibration;

xx08-09=00,44 Serial communication baud rate is 115200bps

***but!***When you get a new factory module, don't use this file to refresh and download it.

***because:***The modules are all clock calibrated before leaving the factory, and normal use does not need to be calibrated every time. If the configuration file contains the 5A A5 command, the clock calibration program will be started when the module is powered on and initialized. At this time, if the serial port does not have a corresponding calibration code, or there are other codes, the module clock may be confused, causing the serial port to fail Normal communication (the baud rate is messed up).

***Suggest:***

If you are using the vertical screen (320\*480 mode, 115200 baud rate), the CFG file is configured as:

**54 35 43 31 00 04 00 00 00 44 00 00 00 00 00 00**

If you are using in landscape mode (480\*320 mode, 115200 baud rate), the CFG file is configured as:

**54 35 43 31 01 04 00 00 00 44 00 00 00 00 00 00**

In other words, do not start the "clock calibration" in normal use.

**If, if you accidentally mess up the clock, the serial communication handshake fails**

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| **Recalibrate the clock** |

1. First modify the CFG file to:

**54 35 43 31 00 04 5A A5 00 44 00 00 00 00 00 00**

1. Insert the SD card into the module (do not power on the module first), and connect the computer serial port to the module;
2. Open the serial port tool software (such as SSCOM32) on the computer, set the baud rate to 115200bps, the frame format to n, 8, 1, and the timing to send 30ms. Write 32 strings of 55 (HEX transmission);
3. Power up the module. After the module reads the card (blue screen) and ends (red screen), then the module is powered off.
4. Pull out the SD card and modify the CFG file on the card to:

**54 35 43 31 00 04 00 00 00 44 00 00 00 00 00 00**

1. Stop the serial port sending on the computer. Re-insert the card to the module, power on again, and power off after the module reads the card (blue screen) and finishes (red screen).
2. After the module is powered on again, normal communication can be restored.