

Note 1: If you have some IO you don't need.

Please set these IO as output pin and output ground. Or set to input pin and connect to ground external.

Note 2: How to check your program is in IDLE mode or SLEEP mode?

- A. SLEEP mode ==> crystal will stop.
- B. IDLE mode and SLEEP mode will not run any instruction. Please scope at JP1 pin14 on ICE. It is a instruction running flag. A instruction has one pulse. So you will have no pulse when program at IDLE and SLEEP mode.
- C. You can check the frequency at JP1 pin13. It is a system clock output signal. If your program run at GREEN mode , you will find 32768 Hz clock at this pin.

Note 3: Key scan check

- A. Key scan period: Key scan period can not smaller than 60 mS. That means from one key scan to another key scan should longer than 60mS.
- B. Key scan time (the time destroy LCD waveform): Don't destroy LCD waveform too long. The suggestion time is about 120 uS.
- C. The key scan flow refer to SPEC.. (IOCE page0)
- D. Don't disable LCD when you check key. Use blank function.

Note 4: (9 common only)

Because the ICE (EM78R911) and OTP (EM78P911) is 16 common signal, so if you use 9 common application and you will have lighter display on ICE or OTP.

Set your program to 8 common to check the display is fit your LCD panel? (The 8 common voltage is almost same as 9 common)

And set your program to 16 common to verify your program.

If you use new ICE (EM78R862) and OTP (EM78P862A) , you don't need to take care of this item.

Note 5: To avoid LCD waveform destroyed.

IDLE mode wake up by external IO like port7 and port9 , please disable LCD and enable LCD. TCC doesn't need this procedure.

Note 6: I/O port use suggestion.

Port9 bit4 bit5 , Port7 bit7 => better for LCD output or output port. Please don't use it as input port.