**PRODUCT NAME**
TM87 Series

**TITLE**
The difference between Demo Board/TM8795 and Mask type MCU in CX/SEG24 pin function

**APPLICATION NOTE**

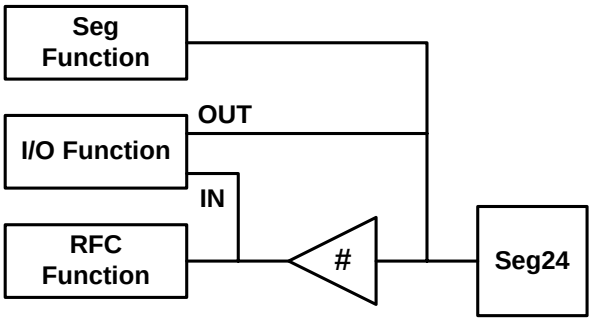


**Figure 1. TM8797 demo board and TM8795**

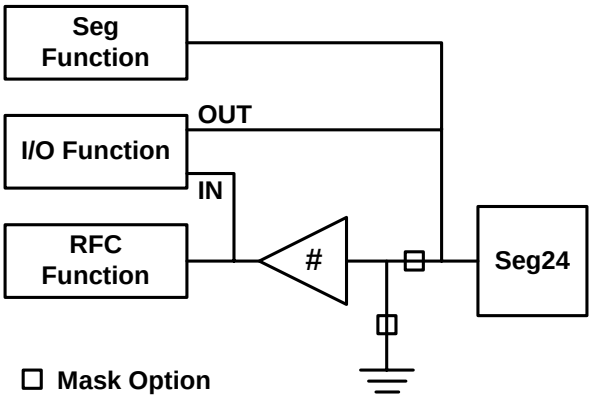


**Figure 2. Mask type TM87 series MCU**

***Figure 1*** shows the internal circuitry of CX/SEG24 pin in TM8797 demo board and TM8795. When these MCUs select 3V mode and CX/SEG24 pin alternate to SEG24 for LCD segment function, the output voltage level (VDD1=1.5V) on SEG24 pin will cause extra current consumption through Schmitt-trigger inverter (operated in 3V). But this extra current consumption won't affect the function of MCUs.

However, in 1.5V mode, the Schmitt-trigger inverter operates in 1.5V and VDD1 output voltage level on SEG24 pin is 1.5V too. No extra current consumption will flow through this inverter.

***Figure 2*** shows the internal circuitry of CX/SEG24 pin in mask type TM87 series MCUs. When these MCUs select 3V mode and CX/SEG24 pin alternate to SEG24 for LCD segment function, the input of Schmitt-trigger inverter will connect to GND and disconnected to SEG24 pin. The output voltage level (VDD1=1.5V) on SEG24 pin won't cause any extra current consumption through Schmitt-trigger inverter.