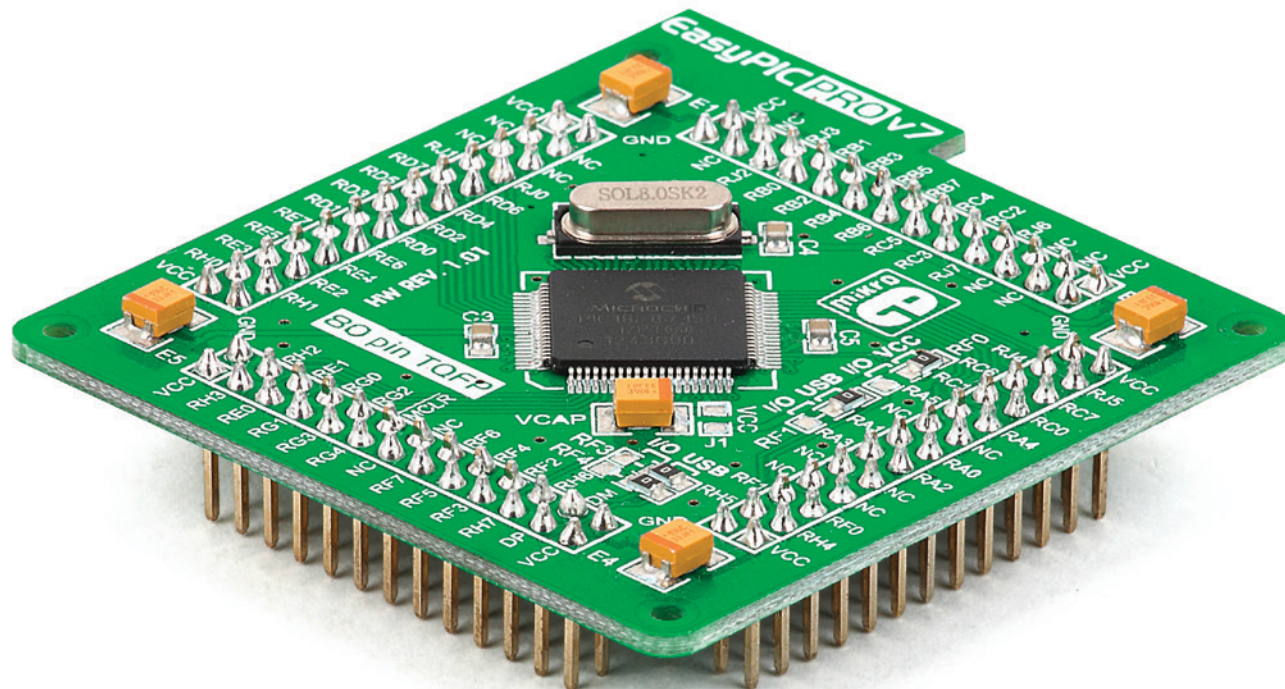


# Standard 80-pin TQFP card with PIC18F87J50 MCU



# What's on Card

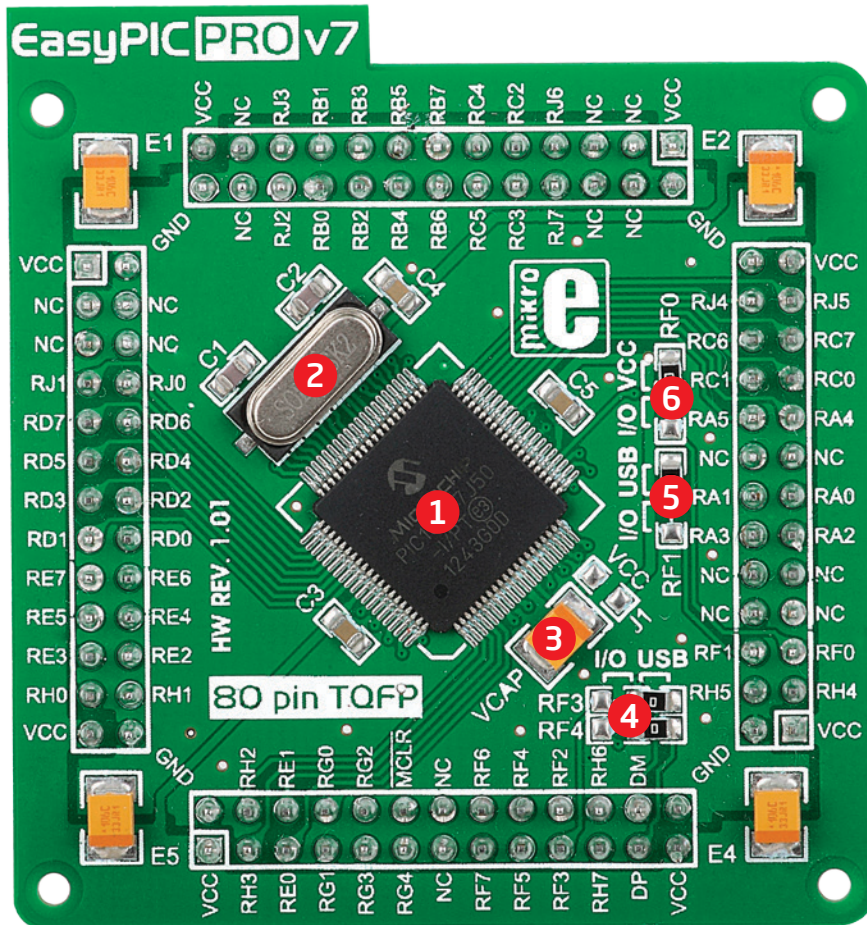


Figure 1: MCU card with PIC18F87J50

- 1 PIC18F87J50 microcontroller.** Featuring nanoWatt technology, it has up to 10 MIPS operation, 128K bytes of linear program memory, 3936 bytes of linear data memory, and lot of internal modules.
- 2 8MHz crystal oscillator.** We carefully chose the most convenient crystal value that provides clock frequency which can be used directly, or with the PLL multipliers and dividers to create higher MCU clock value.
- 3 VCAP jumper.** Some PIC18FK and all PIC18FJ microcontrollers have cores that work on 1.8V-2.5V voltage range, and peripherals that work with 3.3V and 5V voltages. Internally, those microcontrollers have power regulators which adjust the core voltage levels. In order for those devices to have a stable operation of the core, manufacturer recommends that decoupling capacitive filters should be provided, and connected between specific microcontroller pins designated with VCAP and GND. This MCU card provides a VCAP jumper which is used for this purpose. **Jumper is removed by default.**
- 4 USB communication lines.** These two jumpers, when in USB position, connect **D+** and **D-** lines of the on-board USB connector with **RF3** and **RF4** microcontroller pins. **Jumpers are in USB position.**
- 5 Vusb line jumper.** For PIC18F8xJ5x devices, this jumper should be connected to VCC for enabling internal USB controller. For PIC18F87J50 microcontroller **this jumper is in USB position.**
- 6 ENVREG selection jumper.** PIC18FJ and PIC18FK microcontrollers are using internal voltage regulator which is enabled by placing this jumper in VCC position. **For PIC18F87J50 this jumper is in VCC position.**

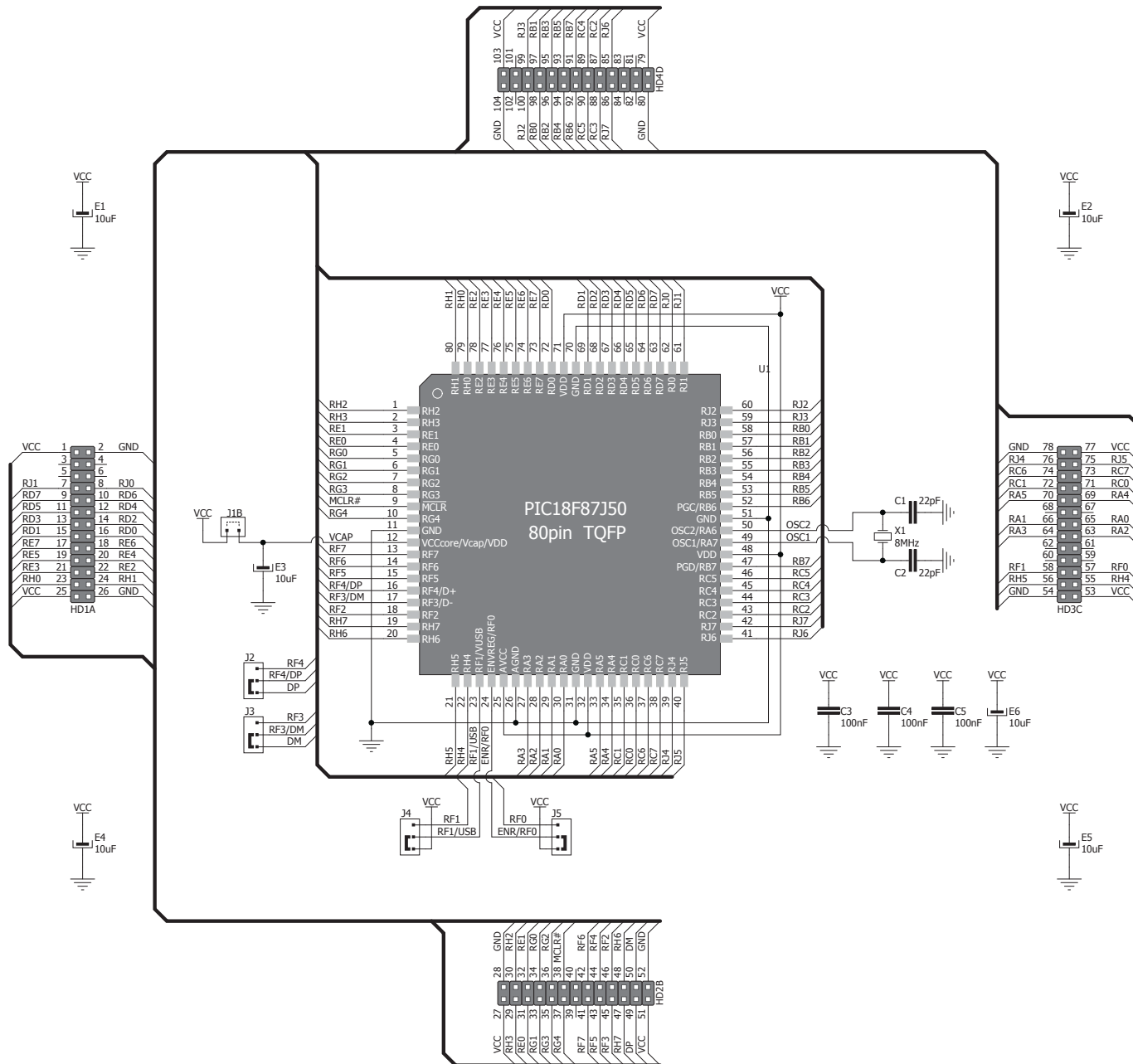


Figure 2: MCU card schematics

# Card dimensions

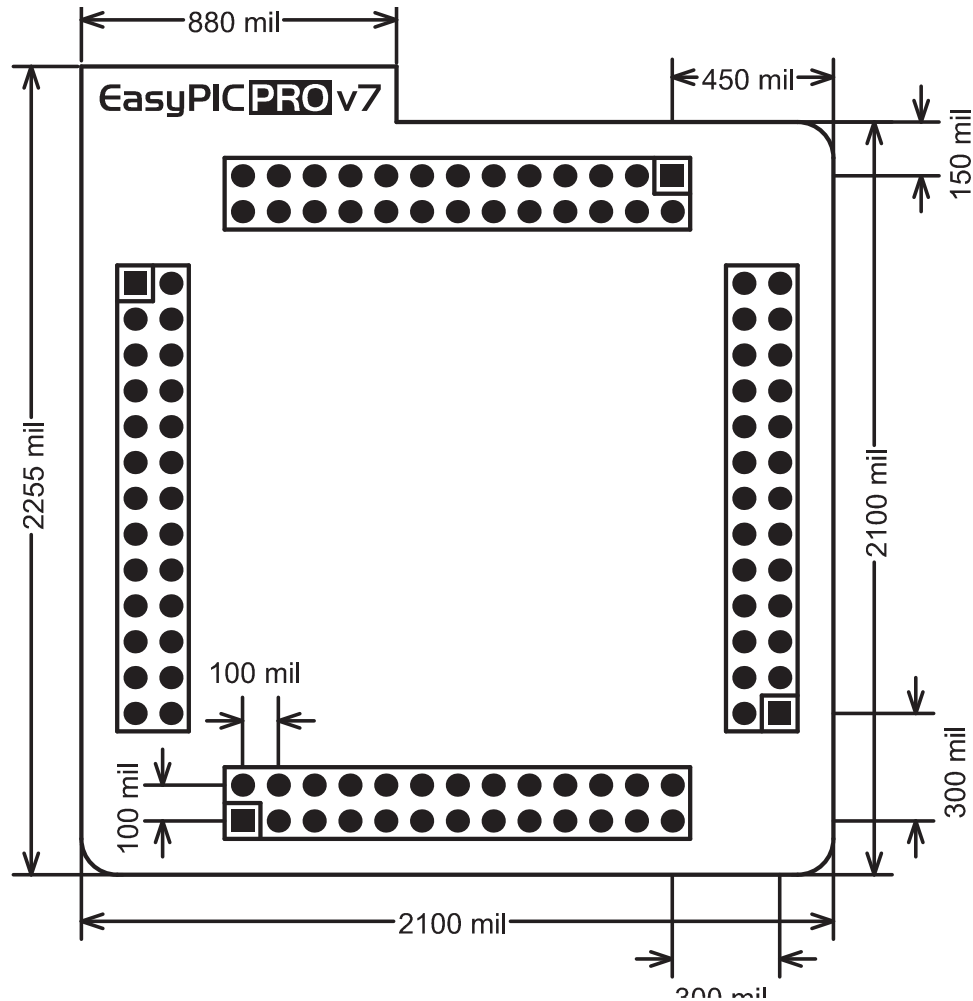
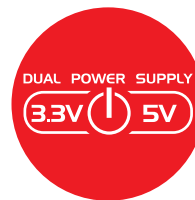
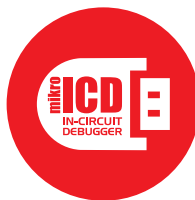


Figure 3: MCU card dimensions. Values are in mils.



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