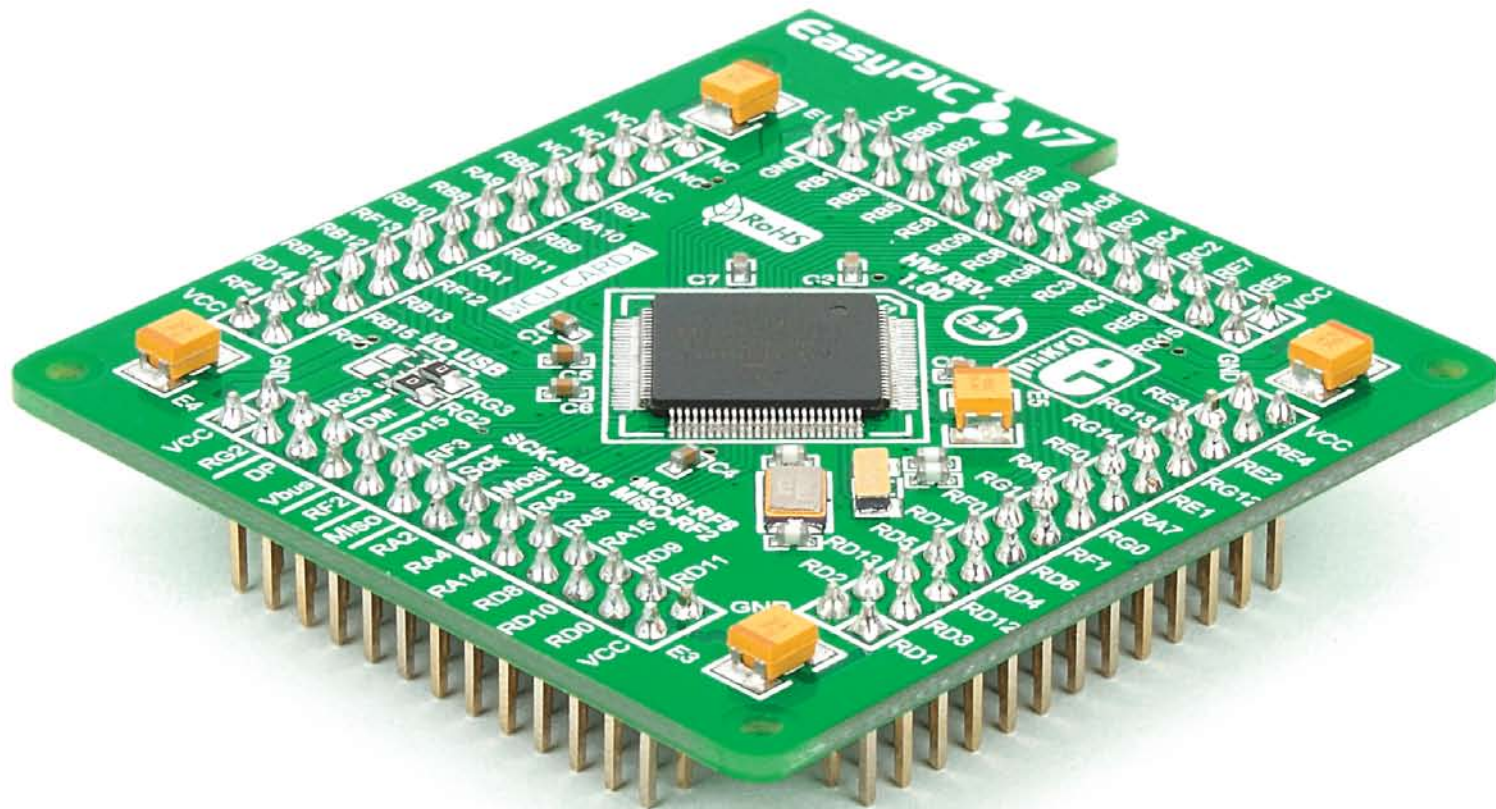


# 100-pin TQFP PT MCU CARD 1 with dsPIC33EP512MU810



# Card information

The PT MCU CARD 1 is shown on **Figure 1**. It contains **dsPIC33EP512MU810** microcontroller with on-chip peripherals and is a great choice for both beginners and professionals. After testing and building the final program, this card can also be taken out of the board socket and used in your final device.

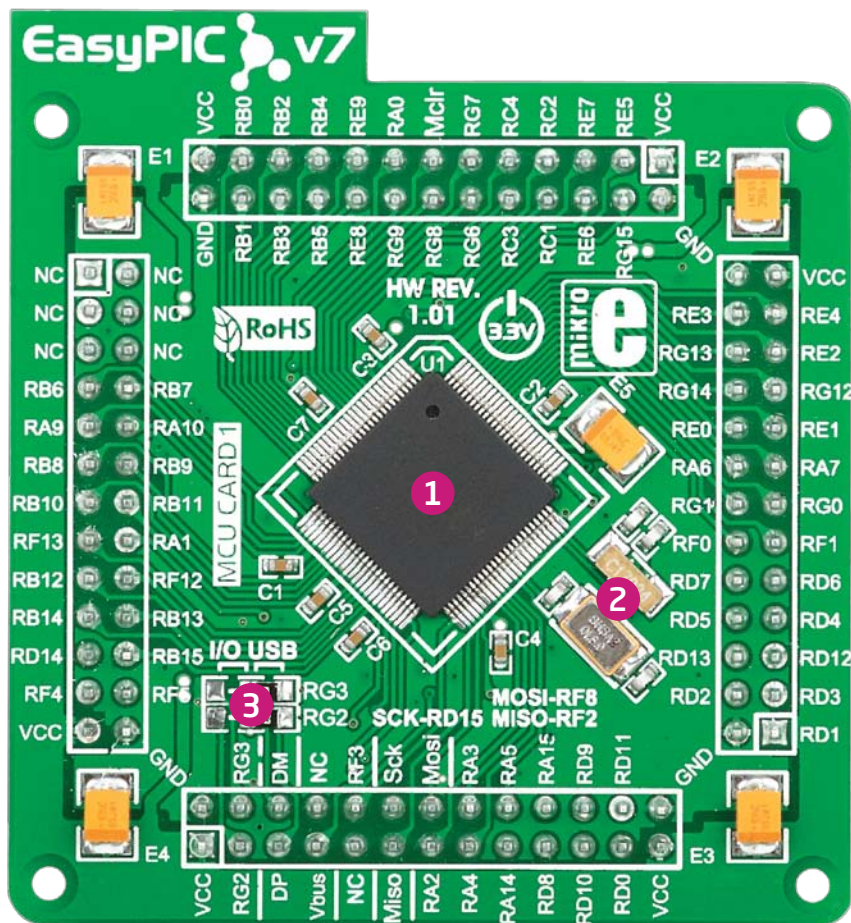


Figure 1: MCU card with dsPIC33EP512MU810

- 1 dsPIC33EP512MU810** has **70 MIPS** CPU speed, **512K bytes** of program memory (flash), **52K bytes** of data memory. It has **USB 2.0 OTG**, 83 General purpose **I/O pins**, 9 **16-bit timers**, 2 **ADC** (32 ch), 4 **UARTs**, internal 7.37 MHz and 32kHz oscillators, internal Real time clock (**RTC**), 2 **I2C**, 4 **SPI** and 2 **CAN** controllers. It also contains 3 **analog comparators**, 12 motor control PWM, 2 **QEI** and programming and debugging interface.
- 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 to create higher MCU clock value. MCU card also contains 32.768 kHz crystal oscillator which provides external clock waveform for RTCC module.
- 3 USB communications lines.** These two jumpers, when in USB position, connect D+ and D- lines of the on-board USB connector with RG2 and RG3 microcontroller pins. Since **dsPIC33EP512MU810** supports USB, jumpers are in USB position.

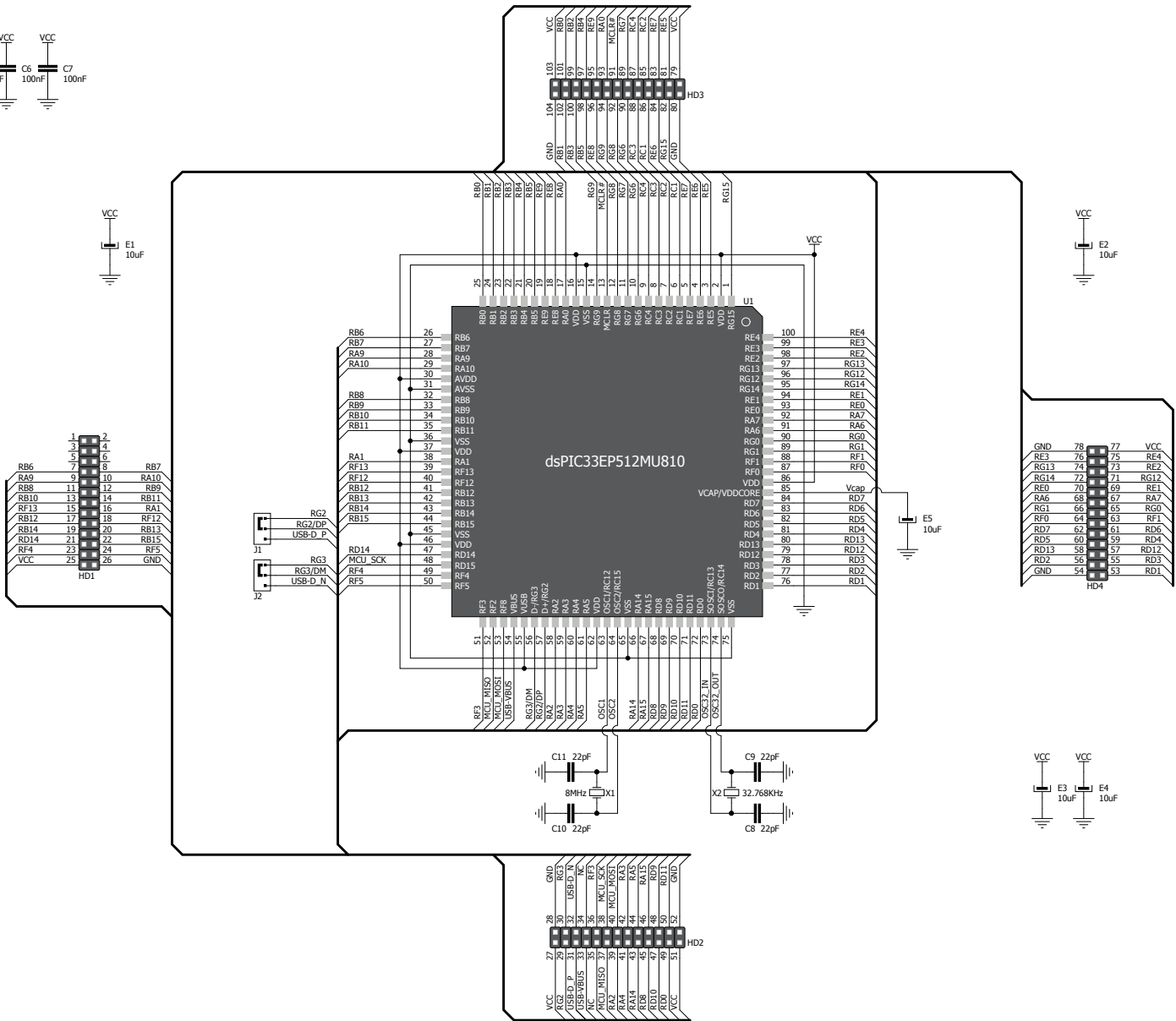
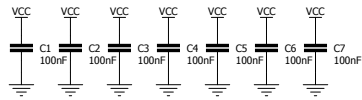


Figure 2: MCU card schematic

# Card dimensions

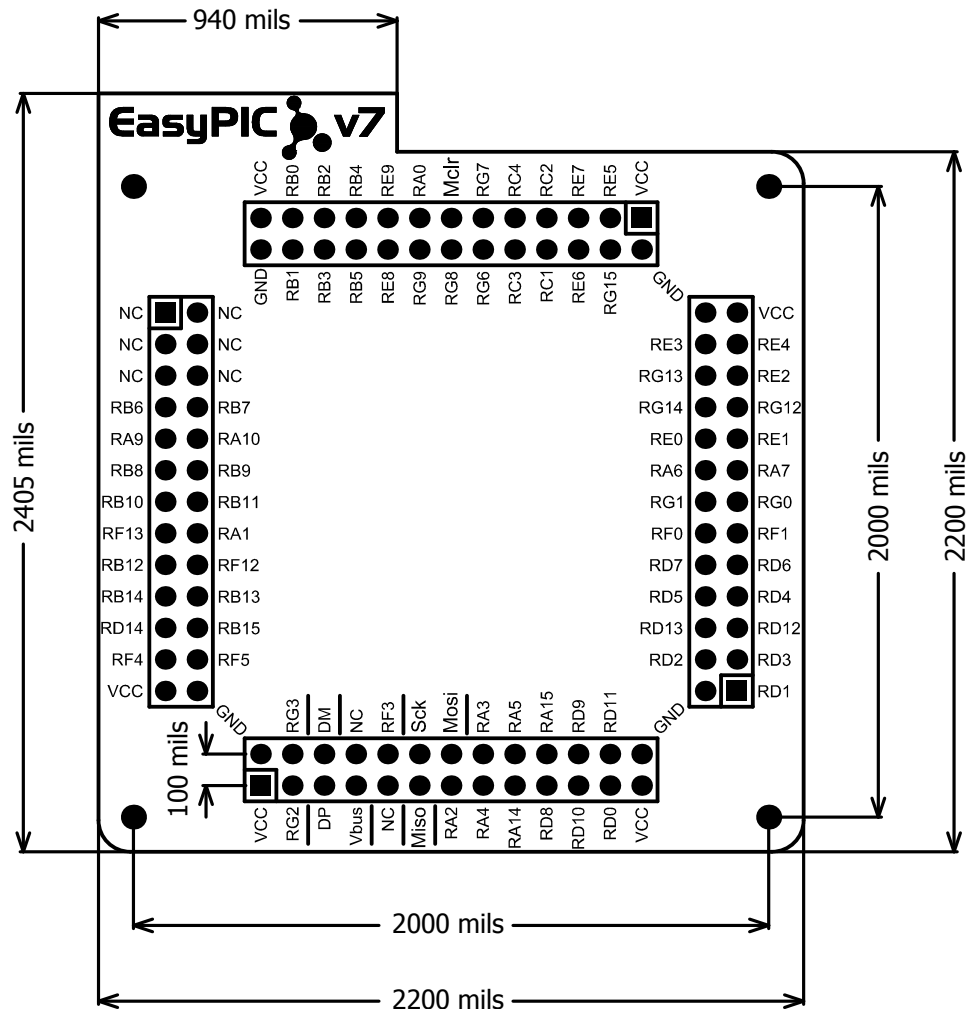
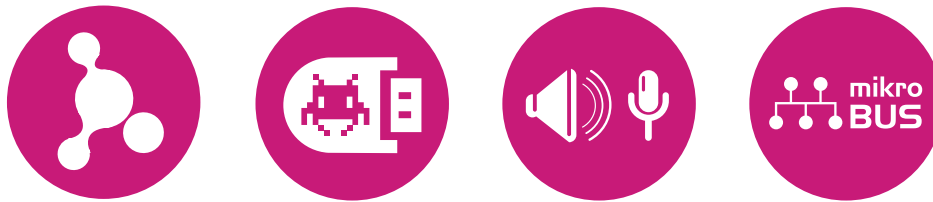


Figure 3: MCU card dimensions.



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