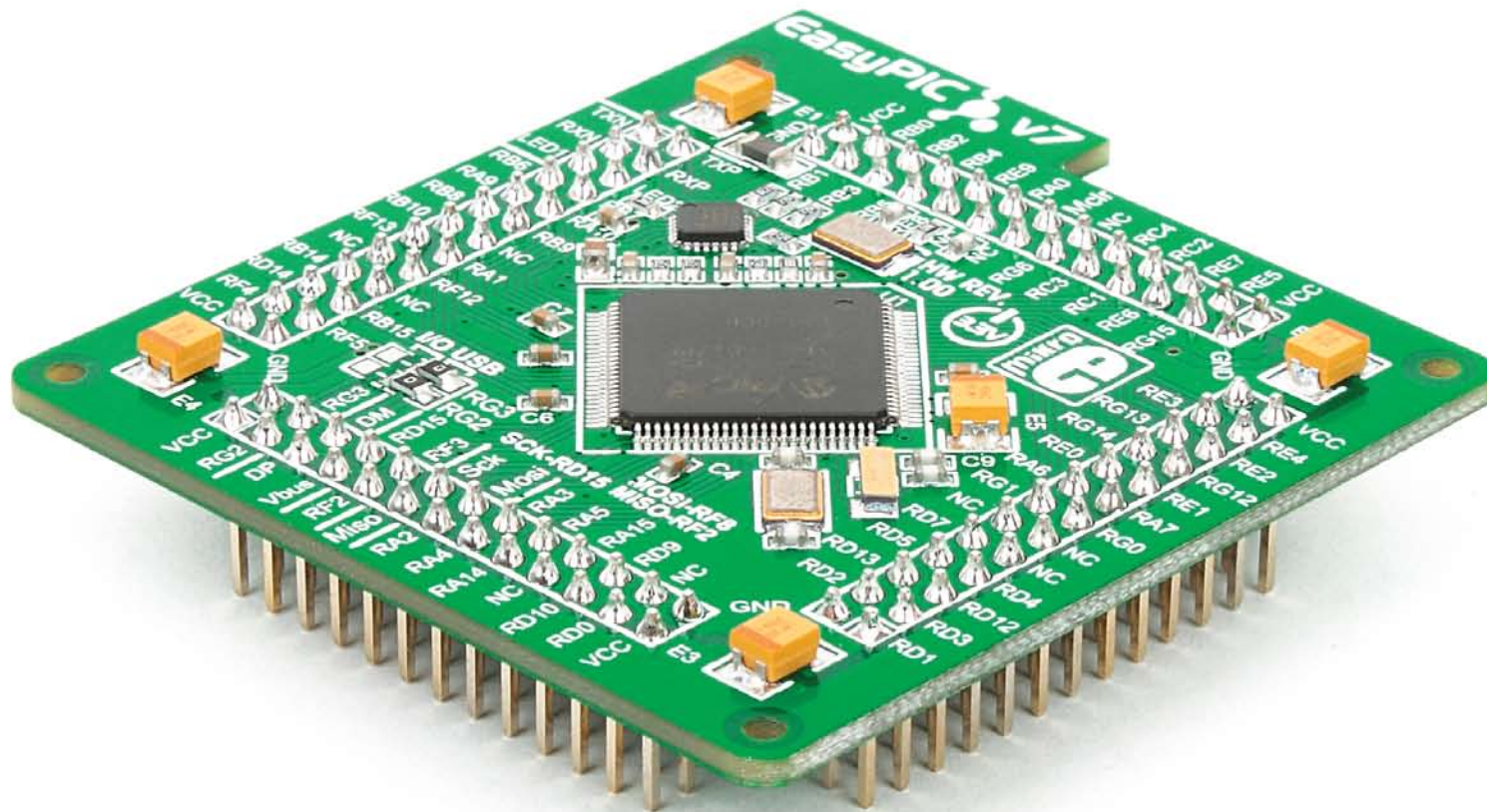


100-pin TQFP PT ETHERNET with PIC32MX795F512L



Card information

The **ETHERNET MCU card** is shown on **Figure 4-1**. It contains **PIC32MX795F512L** 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.

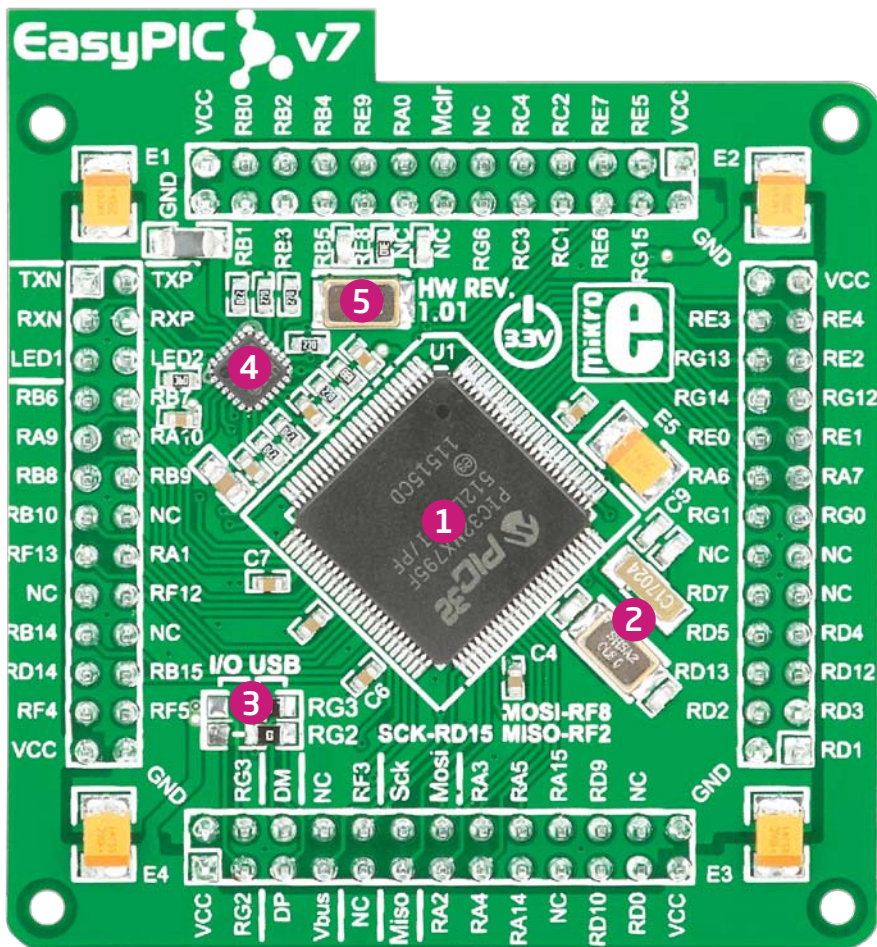


Figure 4-1: MCU card with PIC32MX795F512L

- 1** **PIC32MX795F512L** has **80MHz** maximum frequency, **512K bytes** of program memory (flash), **128K bytes** of data memory. It has integrated **Ethernet controller**, **USB** (OTG, Host, Device), 85 General purpose **I/O pins**, 5 **16-bit timers**, 16 Analog Input pins (**ADC**), 6 **UARTs**, internal 8 MHz and 32kHz oscillators, internal Real time clock (**RTC**), 5 **I2C**, 4 **SPI** and 2 **CAN** controllers. It also contains 3 **analog comparators** and two programming and debugging interfaces.
- 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 **PIC32MX795F512L** supports USB, jumpers are in USB position.
- 4** **Ethernet transceiver**. This MCU card contains single-chip Ethernet physical (PHY) layer transceiver which provides additional Ethernet functionality to **PIC32MX795F512L** controller
- 5** **25MHz crystal oscillator**. This crystal oscillator is connected to external Ethernet module.

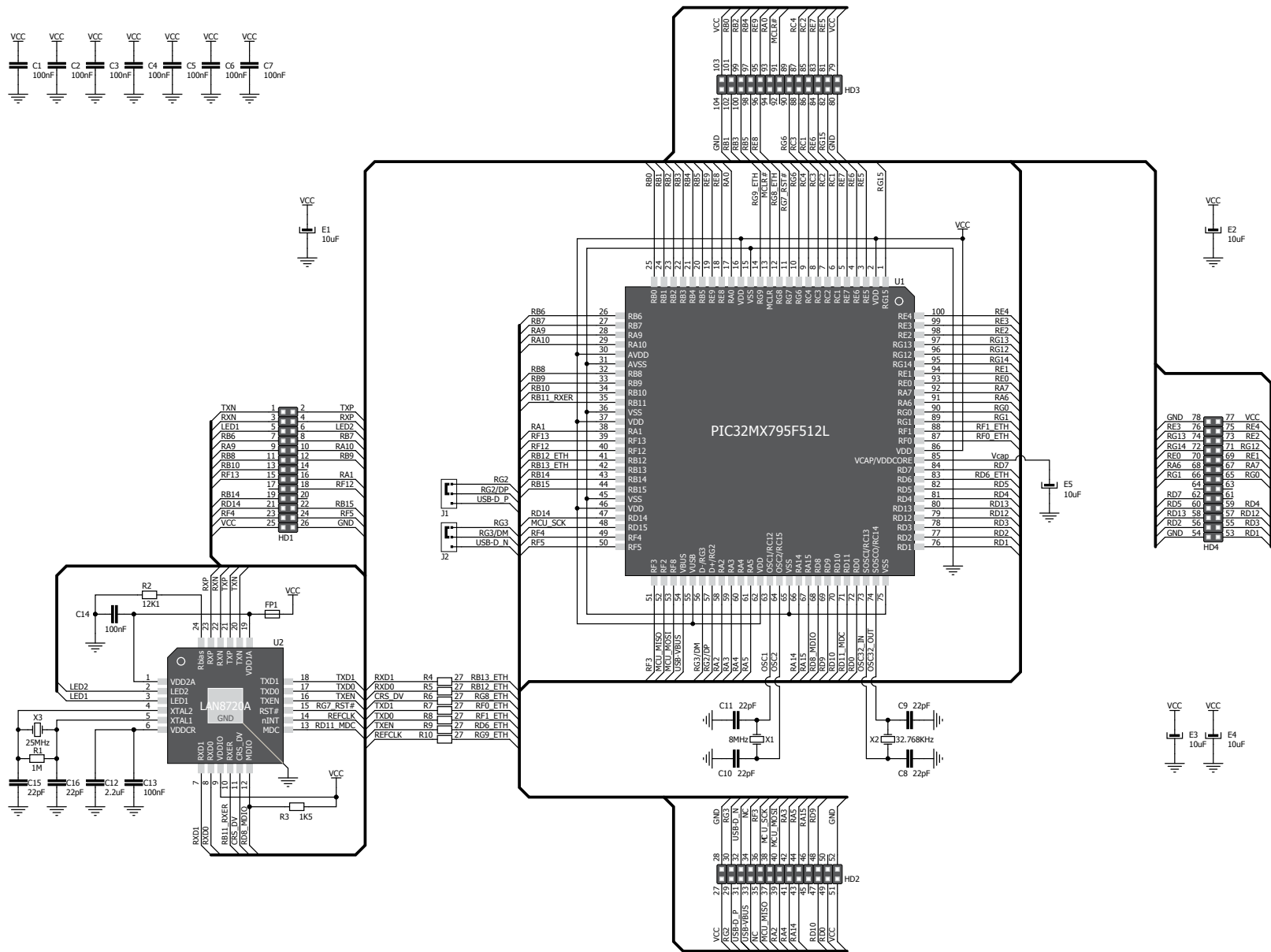


Figure 2: MCU card schematic

Card dimensions

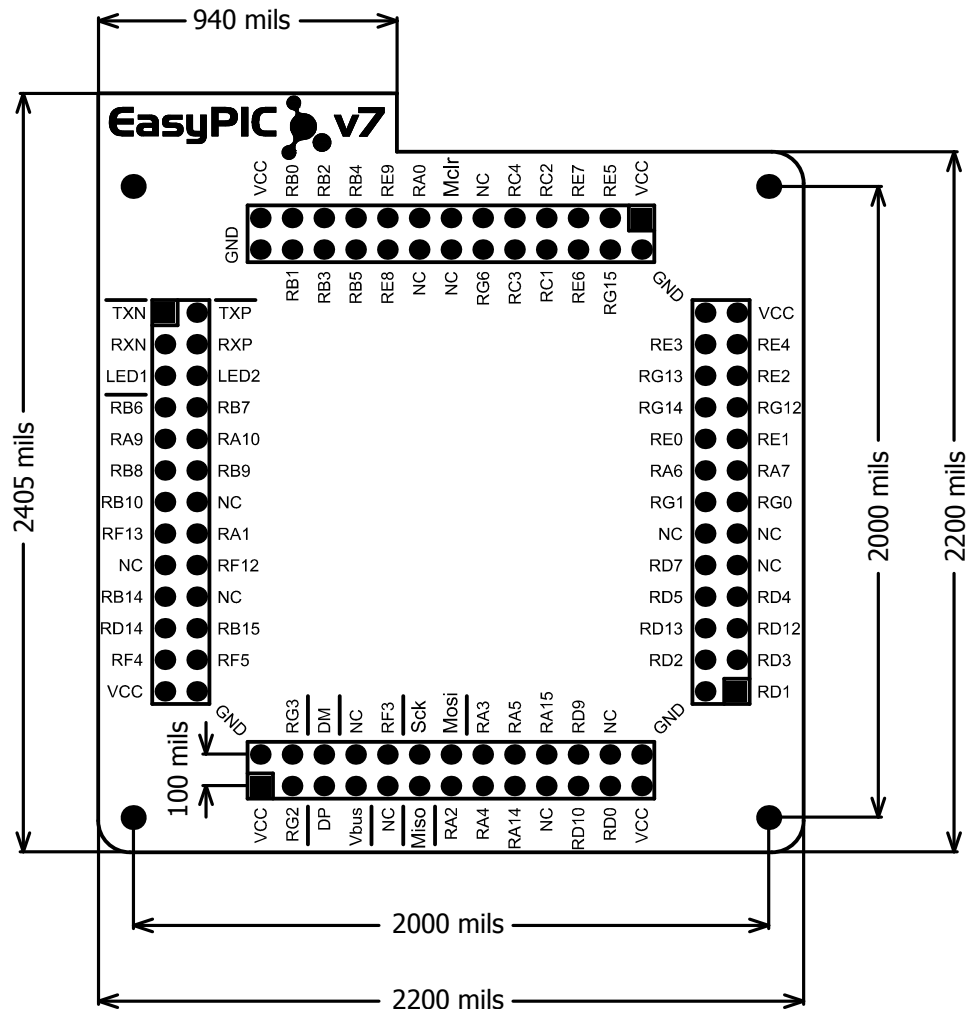


Figure 3: MCU card dimensions.