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.

Card information

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.

1. **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.

2. **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 1: MCU card with dsPIC33EP512MU810
Figure 2: MCU card schematic
Card dimensions

Figure 3: MCU card dimensions.
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