

MINI-32™

The whole PIC32 development board fitted in DIP26 form factor, containing powerful PIC32MX534F064H microcontroller. It's pin compatible with PIC16F887 and PIC18(L)F45K20 microcontrollers!

TO OUR VALUED CUSTOMERS

I want to express my thanks to you for being interested in our products and for having confidence in Mikroelektronika.

The primary aim of our company is to design and produce high quality electronic products and to constantly improve the performance thereof in order to better suit your needs.

A stylized, handwritten signature in black ink, consisting of a large 'C' followed by several loops and a long horizontal stroke.

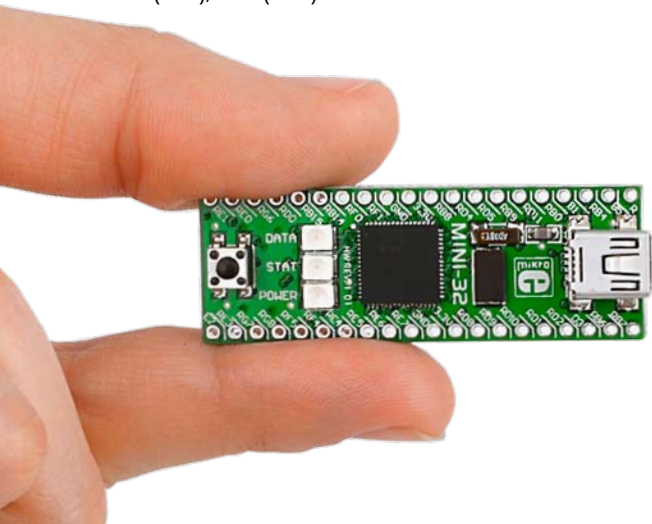
Nebojsa Matic
General Manager

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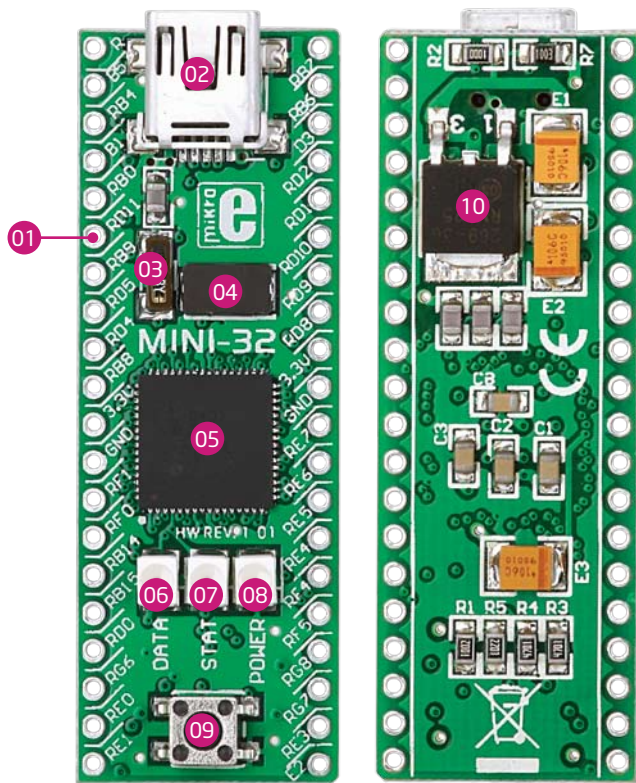
Introduction to MINI-32

Miniature and powerful development tool designed to work as stand alone device or as MCU card in DIP40 socket. MINI-32 is pre programmed with USB HID bootloader so it is not necessary to have external programmer. If there is need for external programmer (mikroProg) attach it to MINI-32 via pads marked with RB6 (PGC), RB7 (PGD) and MCLR.



Key features

- 01 Connection Pads
- 02 USB MINI-B connector
- 03 32.768kHz Crystal oscillator
- 04 8 MHz Crystal oscillator
- 05 Microcontroller PIC32MX534F064H
- 06 DATA LED (connected on RD6)
- 07 STAT LED (connected on RG6)
- 08 POWER supply LED
- 09 Reset button
- 10 Power supply regulator



System Specification



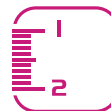
power supply

3.3V via pads or 5V via USB



power consumption

depends on MCU state (max current into 3.3V pad is 300mA)



board dimensions

50.8 x 17.78mm (2 x 0.7")



weight

~9g (0.02 lbs)

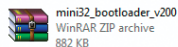
1. Programming with mikroBootloader

You can program the microcontroller with bootloader which is pre programmed into the device by default. To transfer .hex file from a PC to MCU you need bootloader software (**mikroBootloader USB HID**) which can be downloaded from:

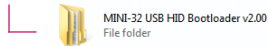


http://www.mikroe.com/eng/downloads/get/1678/mini32_bootloader_v200.zip

After software is downloaded unzip it to desired location and start mikroBootloader USB HID software.



mini32_bootloader_v200
WinRAR ZIP archive
882 KB



MINI-32 USB HID Bootloader v2.00
File folder



Firmware
File folder



MINI-32 USB HID Bootloader
v1.20.hex
HEX File



Software - Windows
File folder



mikroBootloader USB HID v2.00
Bootloader tool for mikroElektronika

step 1 - Connecting MINI-32



Figure 1-1: USB HID mikroBootloader window

- 01** To start, connect the USB cable, or if already connected press the **Reset** button on your MINI-32 board. Click the **"Connect"** button within 5s to enter the bootloader mode, otherwise existing microcontroller program will execute.

step 2 - Browsing for .HEX file



Figure 1-2: Browse for HEX

- 01 Click the **"Browse for HEX"** button and from a pop-up window (**Figure 1-3**) choose the .HEX file which will be uploaded to MCU memory.

step 3 - Selecting .HEX file

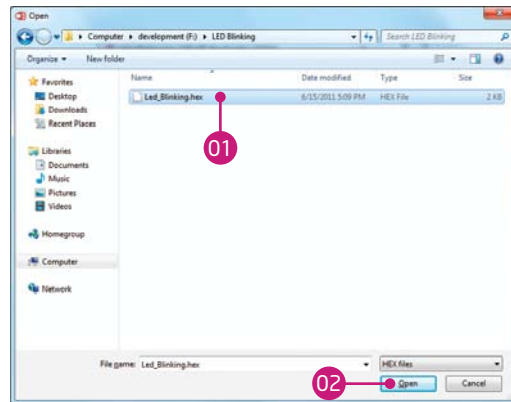


Figure 1-3: Selecting HEX

- 01 Select .HEX file using open dialog window.
- 02 Click the **"Open"** button.

step 4 - Uploading .HEX file



Figure 1-4: Begin uploading

- 01 To start .HEX file bootloading click the **"Begin uploading"** button.

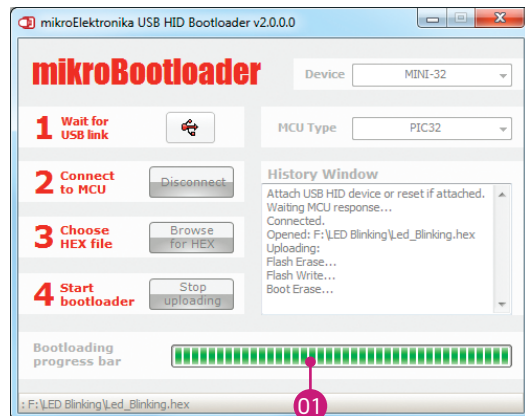


Figure 1-5: Progress bar

- 01 You can monitor .HEX file uploading via progress bar

step 5 - Finish upload

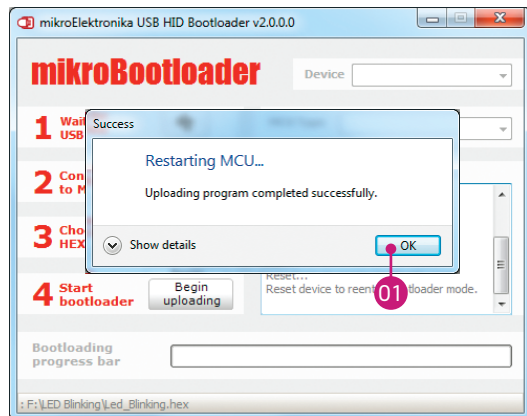


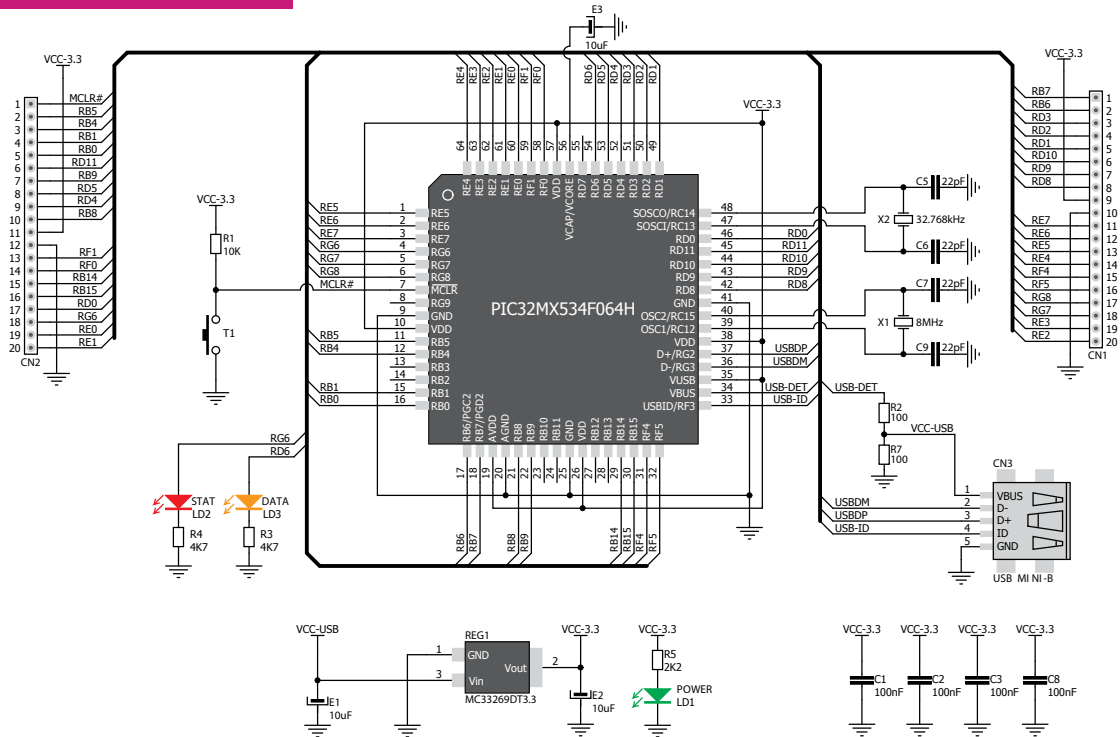
Figure 1-6: Restarting MCU

- 01 Click the **"OK"** button after uploading is finished and wait for 5 seconds. Board will automatically reset and your new program will execute.

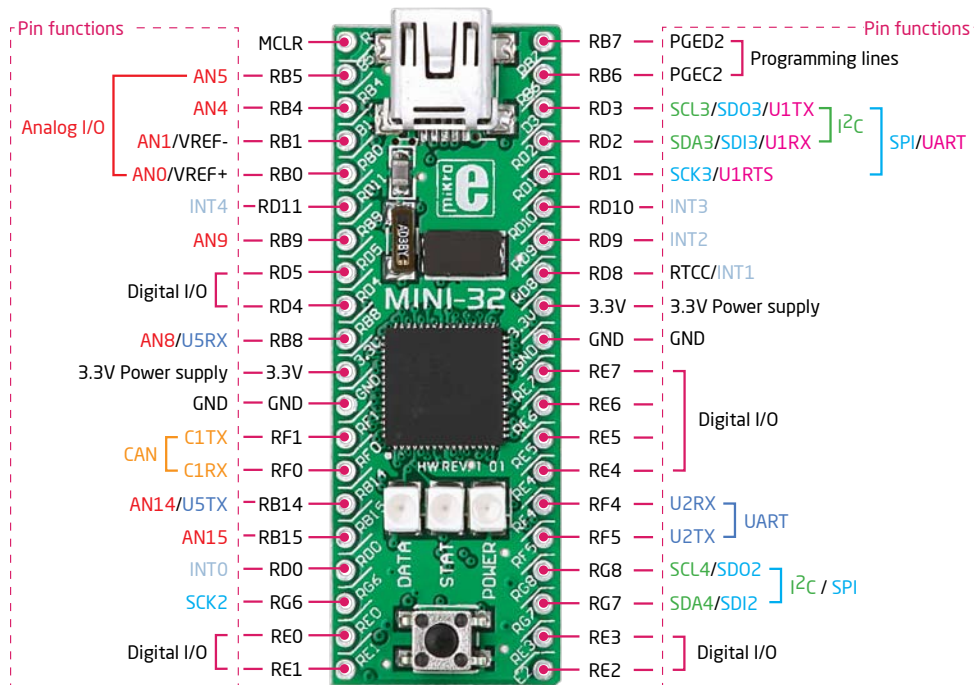


Figure 1-7: mikroBootloader ready for next job

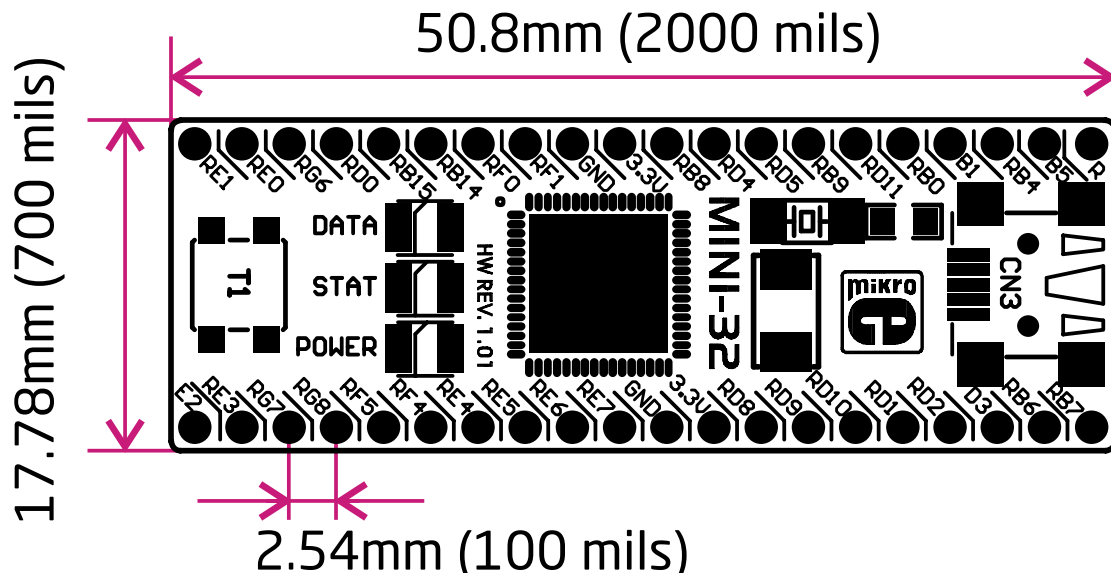
2. Schematic



3. Pinout



4. Dimensions



Notes:

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