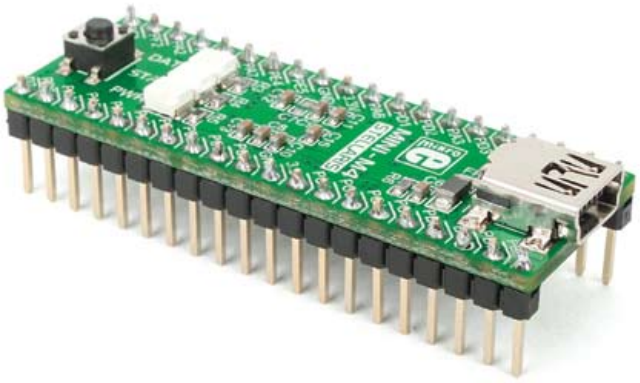


MINI-M4™

development board for Stellaris®

The whole Stellaris® development board fitted in DIP40 form factor, containing powerful LX4F320H5QR microcontroller.

MikroElektronika
DEVELOPMENT TOOLS | COMPILERS | BOOKS

MINI ARM

TO OUR VALUED CUSTOMERS

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

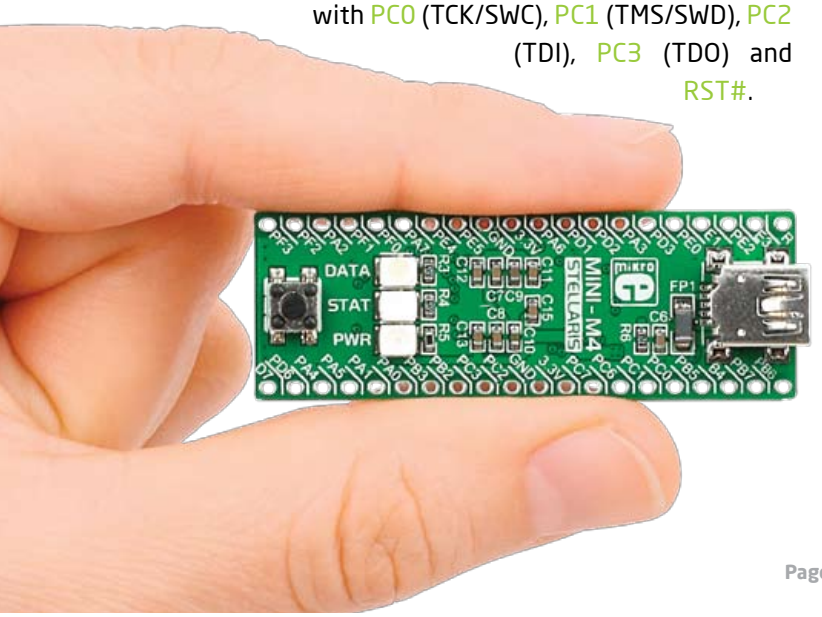
The primary aim of our company is to design and produce high quality electronic products and to constantly improve the performance thereof in order to better suit your needs.

Nebojsa Matic
General Manager

Table of Contents

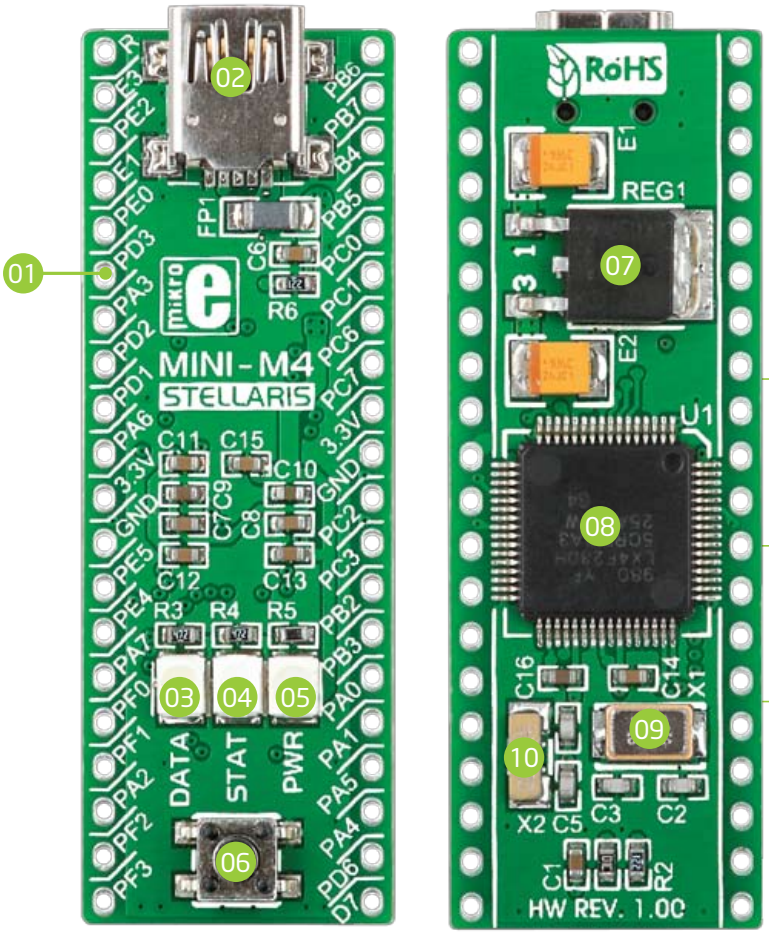
Introduction to MINI-M4 for Stellaris®

Miniature and powerful development tool designed to work as stand alone device or as MCU card in DIP40 socket. MINI-M4 for Stellaris® is pre programmed with USB HID bootloader so it is not necessary to have external programmer. If there is need for external programmer (mikroProg™ for Stellaris®) attach it to MINI-M4 for STM32 via pads marked with PC0 (TCK/SWC), PC1 (TMS/SWD), PC2 (TDI), PC3 (TDO) and RST#.



Key features

01 Connection Pads
02 USB MINI-B connector
03 DATA LED
04 STAT LED
05 POWER supply LED
06 Reset button
07 Power supply regulator
08 Microcontroller LX4F320H5QR
09 16 MHz Crystal oscillator
10 32.768kHz Crystal oscillator



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 800mA)

board dimensions

50.8 x 17.78mm (2 x 0.7")

weight

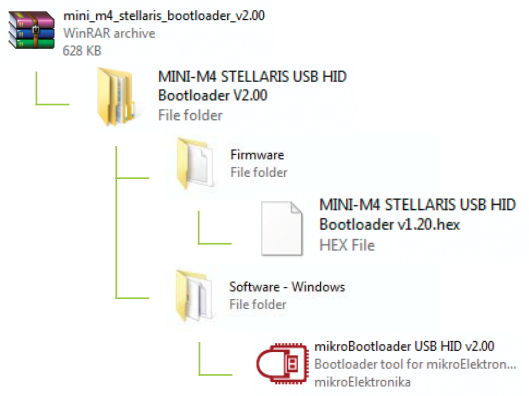
~6g (0.013 lbs)

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/downloads/get/1937/mini_m4_stellaris_bootloader_v200.zip

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



step 1 - Connecting MINI-M4

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-M4 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

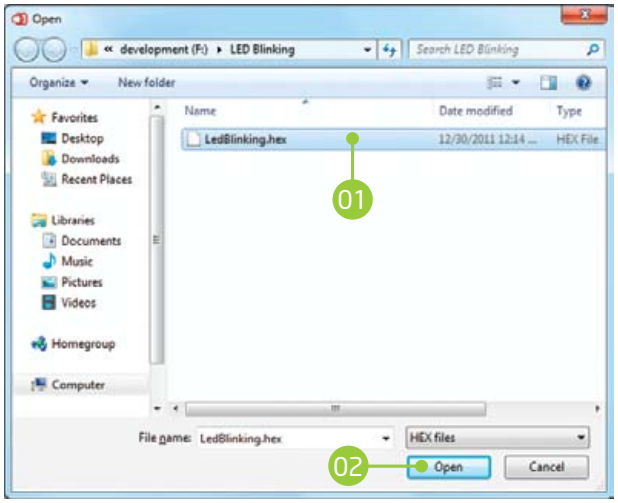


Figure 1-3: Selecting HEX

01 Select .HEX file using open dialog window.

02 Click the **"Open"** button.

step 4 – Uploading .HEX file

Figure 1-4: Begin uploading

Figure 1-5: Progress bar

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

01 You can monitor .HEX file uploading via progress bar

step 5 - Finish upload

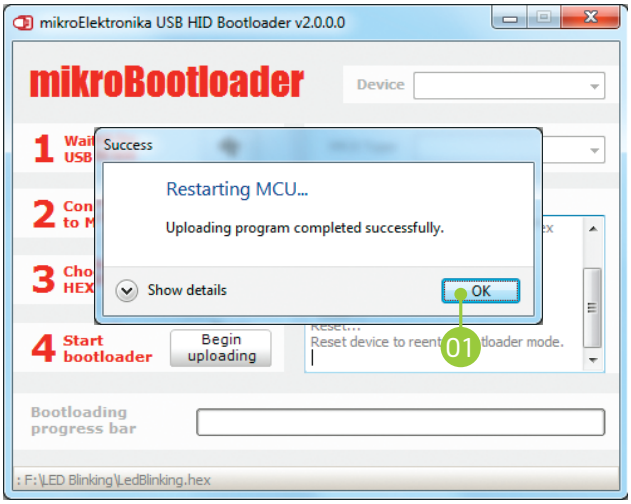
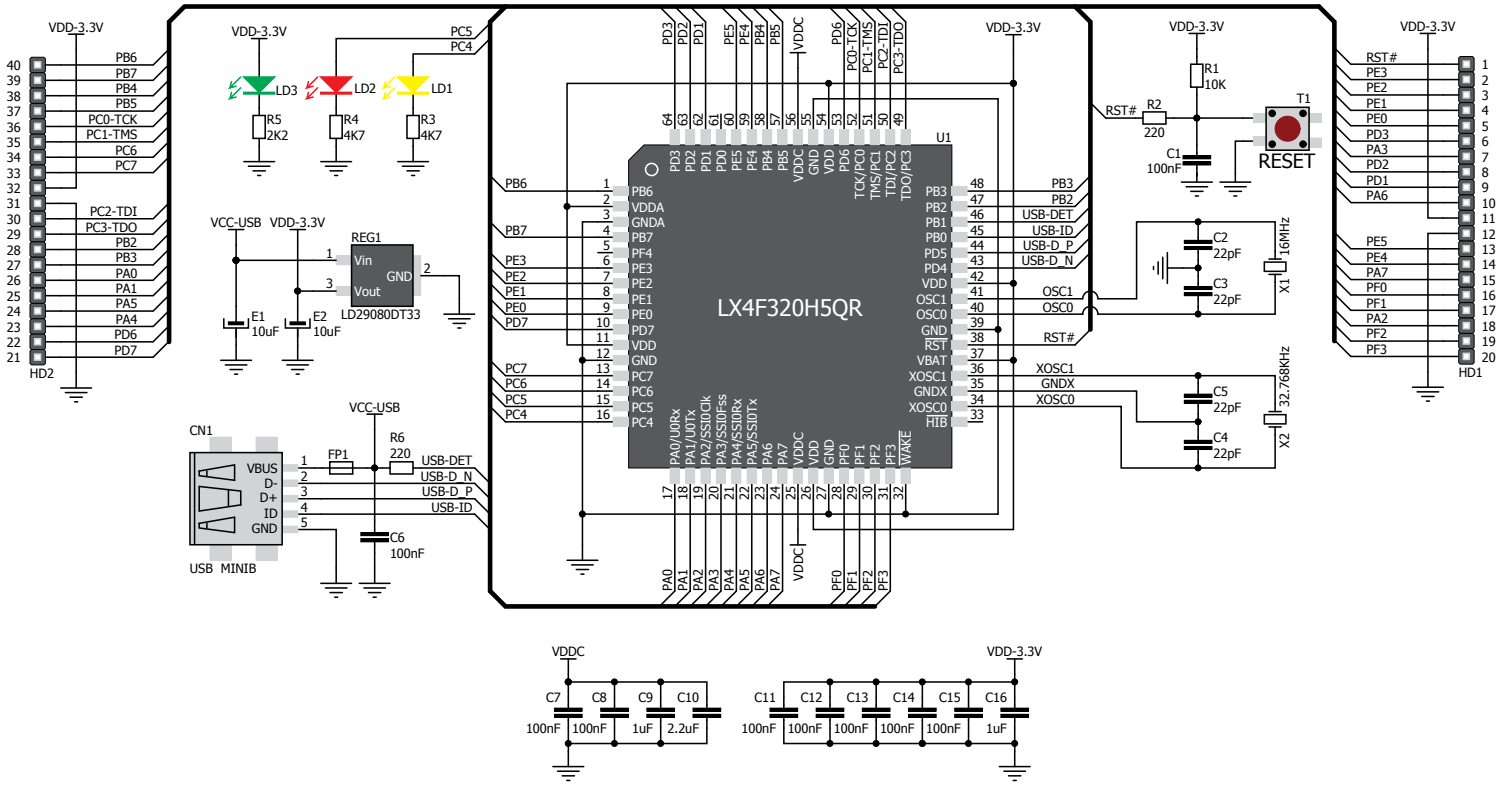


Figure 1-6: Restarting MCU

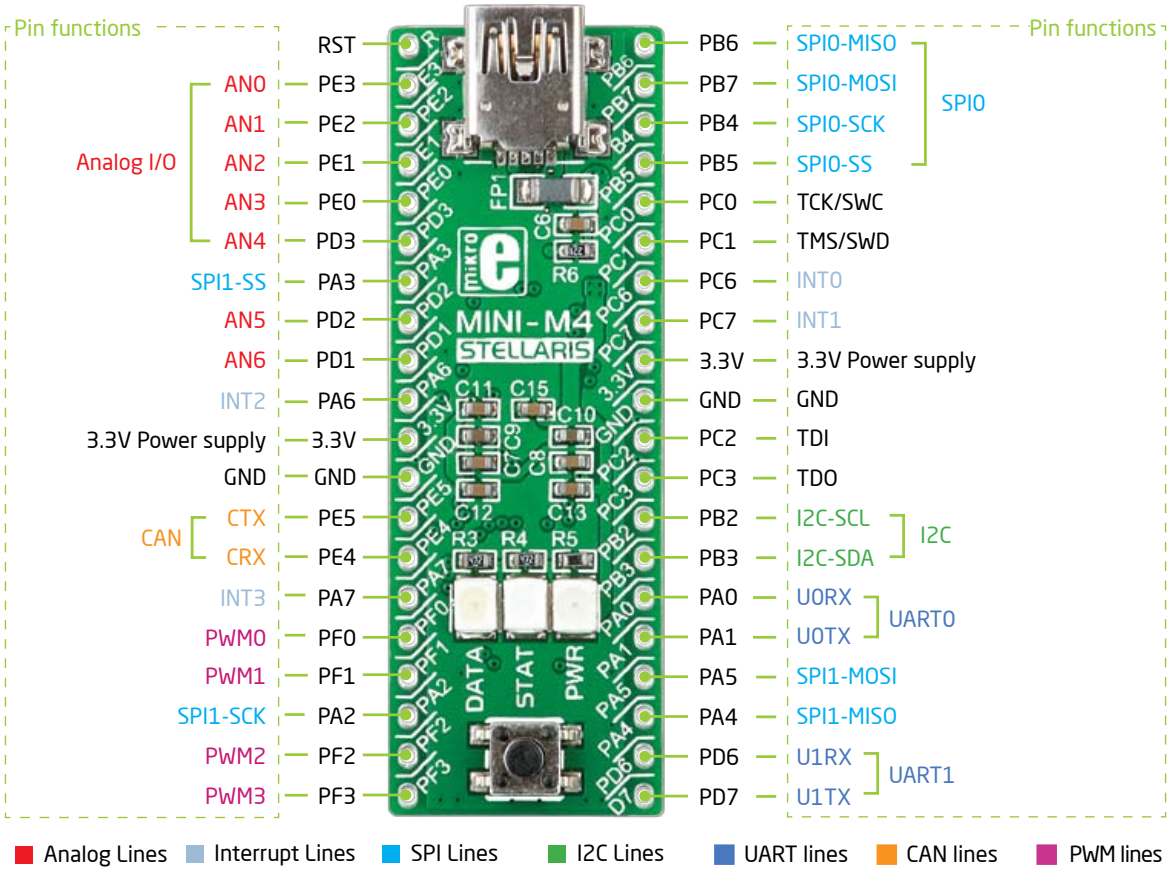
Figure 1-7: mikroBootloader ready for next job

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

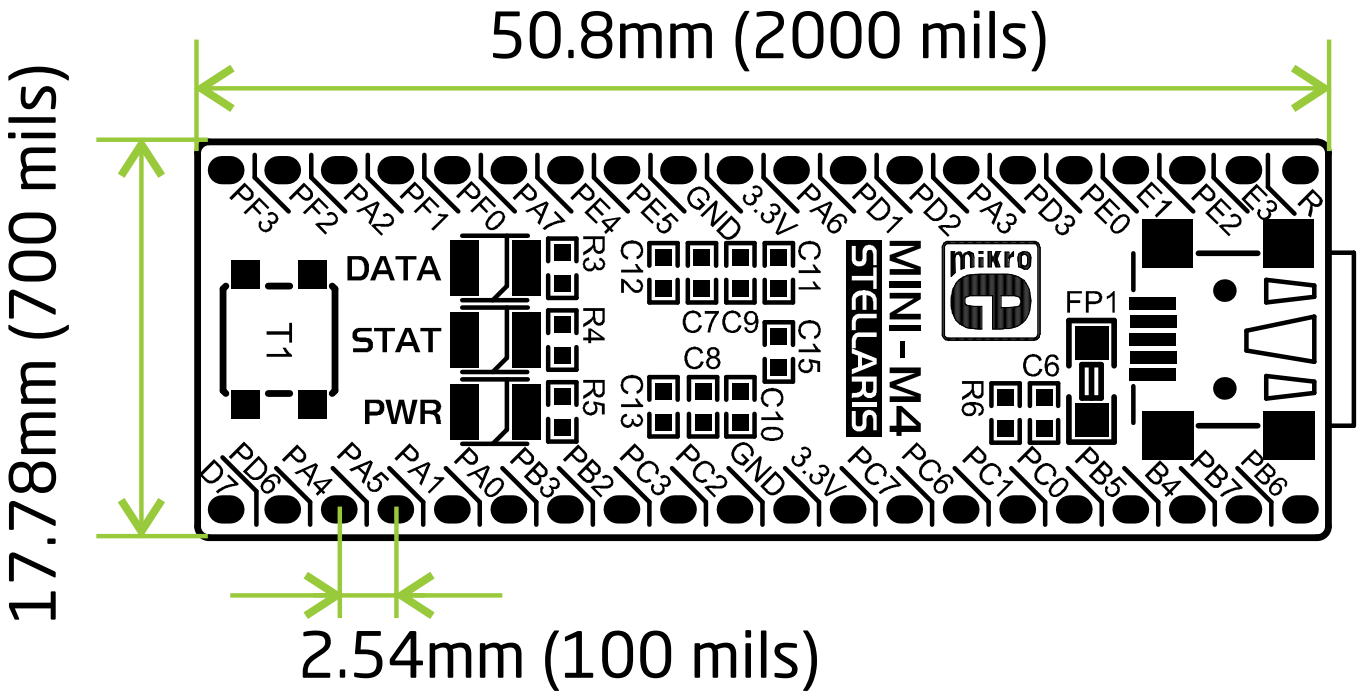
2. Schematic



3. Pinout



4. Dimensions



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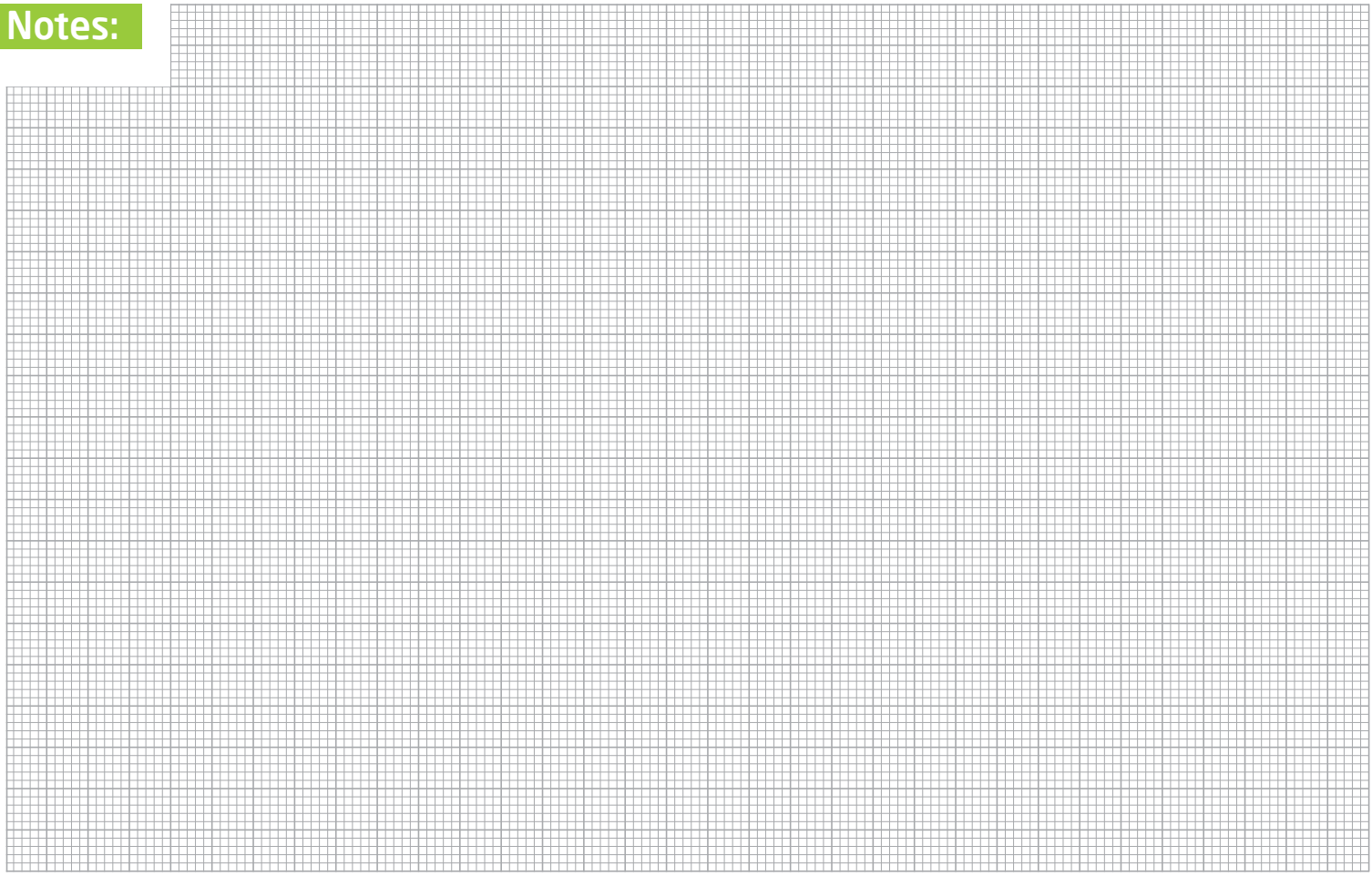

DISCLAIMER

HIGH RISK ACTIVITIES

TRADEMARKS

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If you are experiencing some problems with any of our products or just need additional information, please place your ticket at www.mikroe.com/esupport
If you have any questions, comments or business proposals, do not hesitate to contact us at office@mikroe.com

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