IrDA2 click™

1. Introduction

IrDA2 Click™ is an accessory board in **mikroBUS™** form factor. It's a compact and easy solution for adding infrared communication to your device. It features **TFDU4101** infrared transceiver module as well as **MCP2120** infrared encoder/decoder connected with the 7.3728 MHz external crystal. IrDA2 Click™ communicates with target board via UART interface. The board is designed to use 3.3V and 5V power supply. It has a LED diode (GREEN) that indicates the presence of power supply.

2. Soldering the headers

Before using your click board™, make sure to solder 1x8 male headers to both left and right side of the board. Two 1x8 male headers are included with the board in the package.
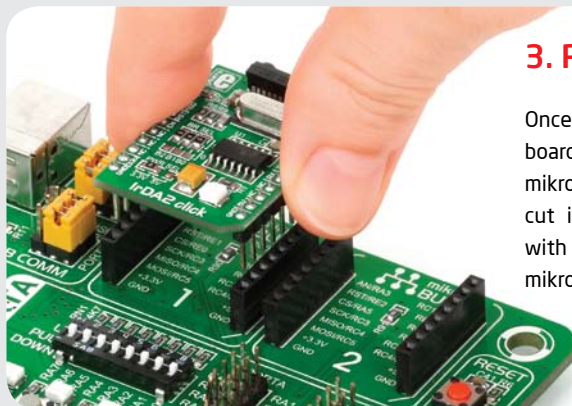
1

2

Turn the board upside down so that bottom side is facing you upwards. Place shorter parts of the header pins in both soldering pad locations.

3

Turn the board upward again. Make sure to align the headers so that they are perpendicular to the board, then solder the pins carefully.

3. Plugging the board in

Once you have soldered the headers your board is ready to be placed into desired mikroBUS™ socket. Make sure to align the cut in the lower-right part of the board with the markings on the silkscreen at the mikroBUS™ socket. If all of the pins are aligned correctly, push the board all the way into the socket.
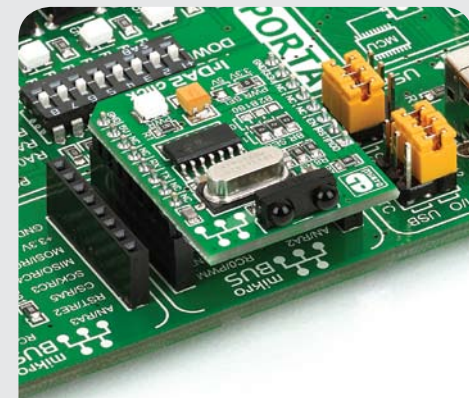
4. Essential features

The combination of the **TFDU4101** and **MCP2120** results in support for fast and stable infrared data communication. The **TFDU4101** infrared transceiver module covers the full IrDA range of more than 1m and speed up to 115.2 kbit/s. With low power consumption, all these features make this board ideal for TV and video systems, printers, fax machines, copiers, external infrared adapters, diagnostic systems and other industrial applications.
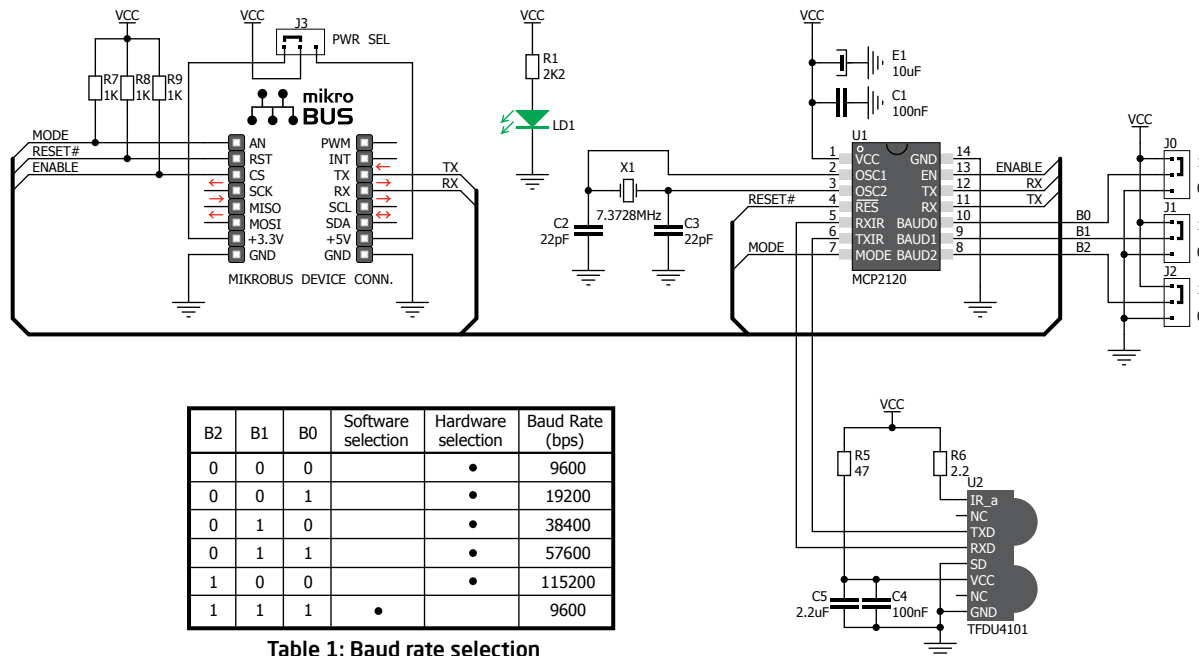
click™
BOARD
www.mikroe.com

IrDA2 click Manual
ver. 1.00

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5. IrDA2 Click™ Board Schematic

B2	B1	B0	Software selection	Hardware selection	Baud Rate (bps)
0	0	0		●	9600
0	0	1		●	19200
0	1	0		●	38400
0	1	1		●	57600
1	0	0		●	115200
1	1	1	●		9600

Table 1: Baud rate selection

6. SMD Jumpers

Jumpers **J0**, **J1** and **J2** connect **MCP2120** controller BAUD0, BAUD1 and BAUD2 pins to VCC or GND. You can change baud rate settings by soldering **J0**, **J1** and **J2** in the appropriate position (**Table 1**). These jumpers are soldered in logic 1 position by default (9600 bps, software selection enabled). SMD jumper **J3** is used to select 5V or 3.3V power supply (default position is 3.3V).

7. Code Examples

Once you have done all the necessary preparations, it's time to get your click board up and running. We have provided the examples for mikroC, mikroBasic and mikroPascal compilers on our **Libstock** website. Just download them and you are ready to start.

8. Support

MikroElektronika offers **Free Tech Support (www.mikroe.com/esupport)** until the end of product lifetime, so if something goes wrong, we are ready and willing to help!

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