

# KAMAMI

## KAmoD USB-UART-mini



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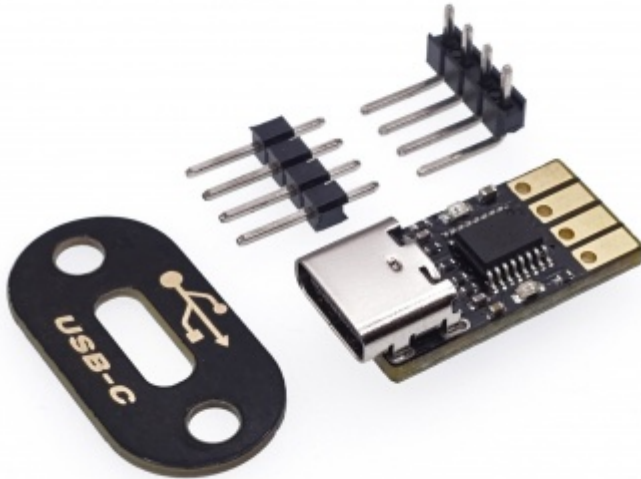
Źródło: [https://wiki.kamamilabs.com/index.php/KAmoD\\_USB-UART-mini](https://wiki.kamamilabs.com/index.php/KAmoD_USB-UART-mini)

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## Description

**KAmoD USB-UART-mini** is a USB-C interface converter to the UART serial interface with small dimensions - only 20.5x10.5 mm. The module is based on the FT230XS system and has only basic signal lines - RX and TX, which operate at a voltage of 3.3 V. Additionally, the module contains communication indicators in the form of miniature LEDs. Optionally, the converter can be equipped with a front panel, which allows easy and aesthetic mounting of the module on the wall of almost any housing.



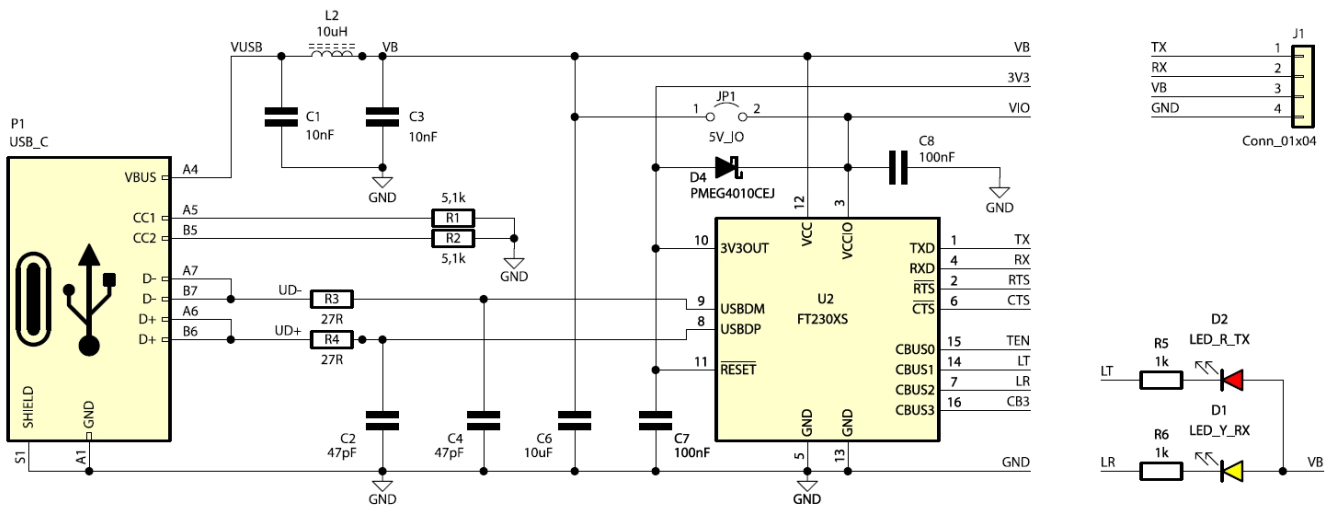
## Basic parameters

- The converter is based on the FTDI FT230XS chip
- Compatible with USB 2.0 Full Speed
- Drivers for Windows/Linux/Mac systems
- On the USB interface side it contains a USB-C connector
- Contains only the basic UART interface signal lines - RX and TX
- 5 V power supply supplied to the USB connector
- The voltage level for serial interface signals is 3.3 V (tolerates 5 V voltage at the input)
- Optionally, the voltage level for serial interface signals can be set to 5 V
- Communication speed (bit rate): 300 bps...3 Mbps
- LEDs indicating communication
- Small board dimensions 20.5x10.5 mm, height approx. 7 mm
- Optionally, it can be equipped with a front panel, which allows easy and aesthetic installation of the module on the wall of almost any housing

## Standard equipment

Code	Description
<b>KAmoD USB-UART-mini</b>	<ul style="list-style-type: none"><li>• Assembled and started module</li><li>• Front panel (to be soldered)</li><li>• Straight goldpin male connector (to be soldered)</li><li>• Angled goldpin male connector (to be soldered)</li></ul>

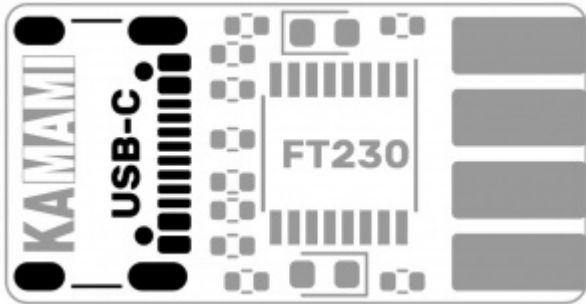
## Electrical diagram



## USB interface connector

Connector	Function
USB-C	<ul style="list-style-type: none"><li>• It implements communication in the USB 2.0 Full Speed standard</li><li>• It provides 5 V power</li></ul>

The USB-C connector is small, but convenient to use and resistant to damage. Additionally, it allows for the conduction of significant currents and can be used in the latest generation of interfaces - USB 3.x. These features make USB-C replace the old standards of USB connectors in many applications, which is why KAmoD USB-UART-mini has been equipped with a USB-C connector.

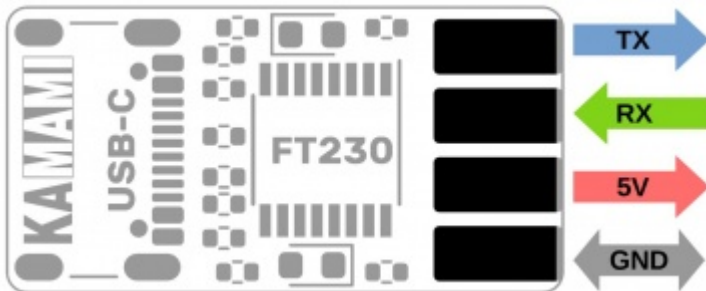


## Serial interface connector

Connector	Function
<b>RX, TX, 5V, GND</b>	<ul style="list-style-type: none"> <li>• RX and TX signals of the serial UART interface are derived</li> <li>• 5 V power supply connected to the USB connector</li> </ul>

The serial interface connector is adapted to mount goldpin pins with a pitch of 2.54 mm, but it also allows for soldering wires directly to the converter board. The signals derived on the connector are as follows:

- **TX** – data output from the serial UART interface;
- **RX** – data input to the UART interface;
- **5V** – power output with a value of approx. 5 V supplied to the USB connector;
- **GND** – power/signal ground.

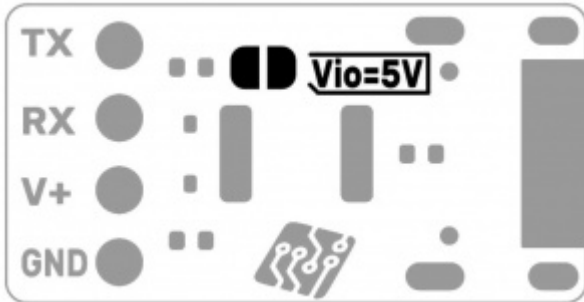




## Voltage level on UART interface lines

The RX and TX lines of the UART interface operate at a voltage of 3.3 V. Additionally, the RX input tolerates higher voltages, up to a maximum of 5 V.

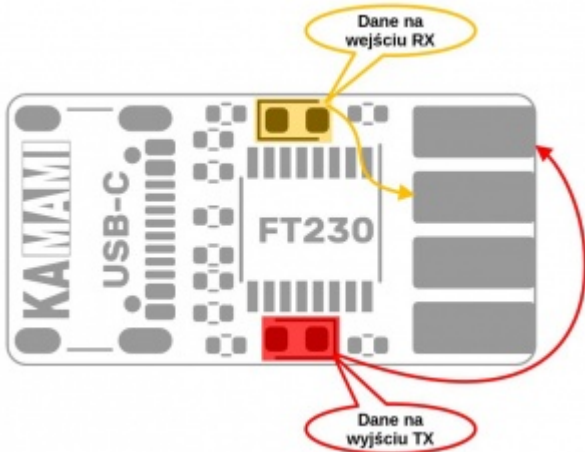
Optionally, the module can be configured so that the RX and TX lines of the UART interface operate at a voltage of 5 V. Permanently shorting the pads located on the bottom of the board, marked "**Vio=5V**", with a drop of hot solder, will cause the interface to operate at a voltage of 5 V.



## Signaling

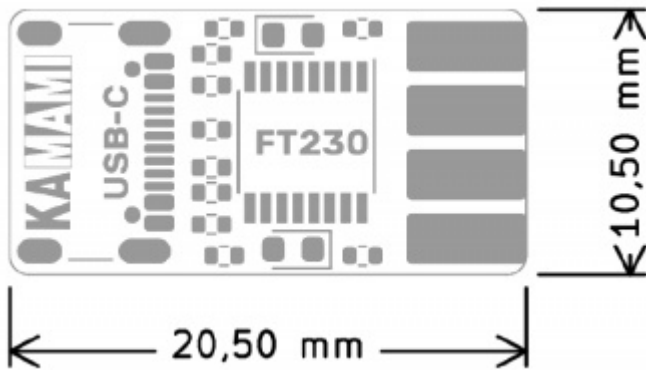
Type	Function
LEDs	• Signaling of data transmission and reception

There are 2 miniature LEDs on the converter board, which signal the flow of data between the interfaces.



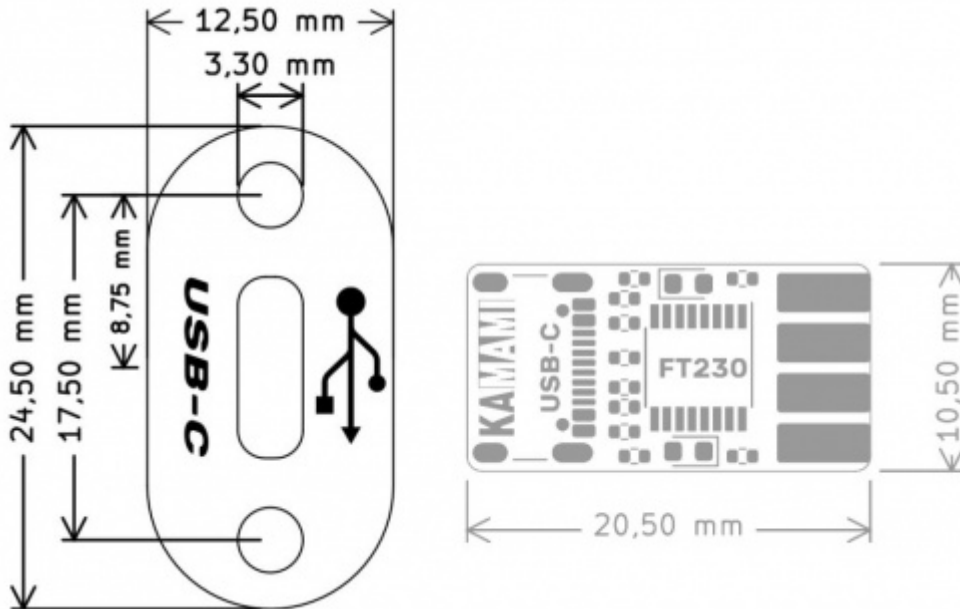
## Dimensions

The KAmoD USB-UART-mini converter has small dimensions, the board measures 20.5x10.5 mm, and its height is approx. 7 mm.

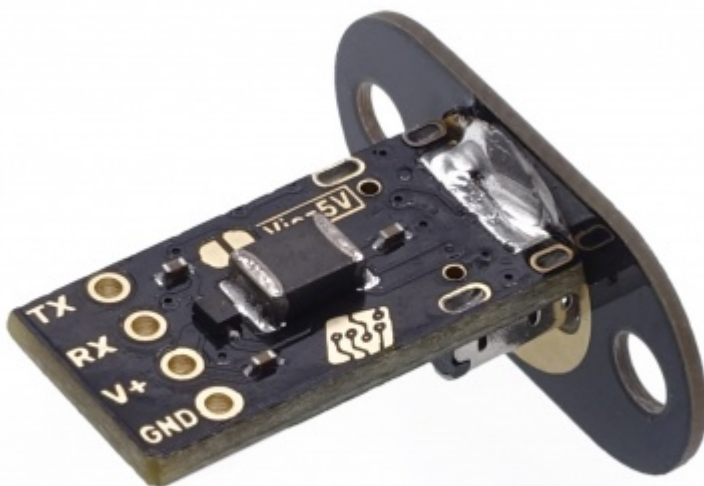


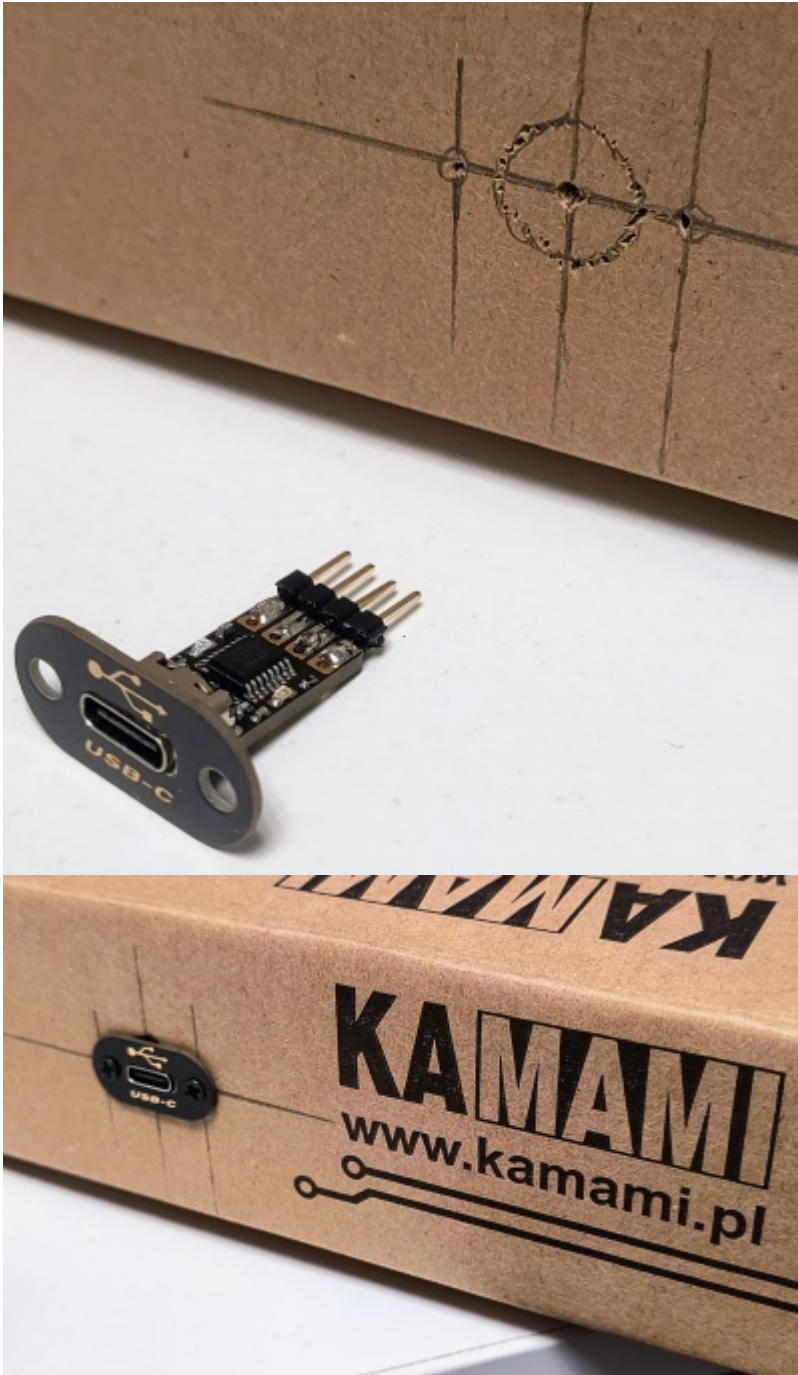
## Mounting in the housing

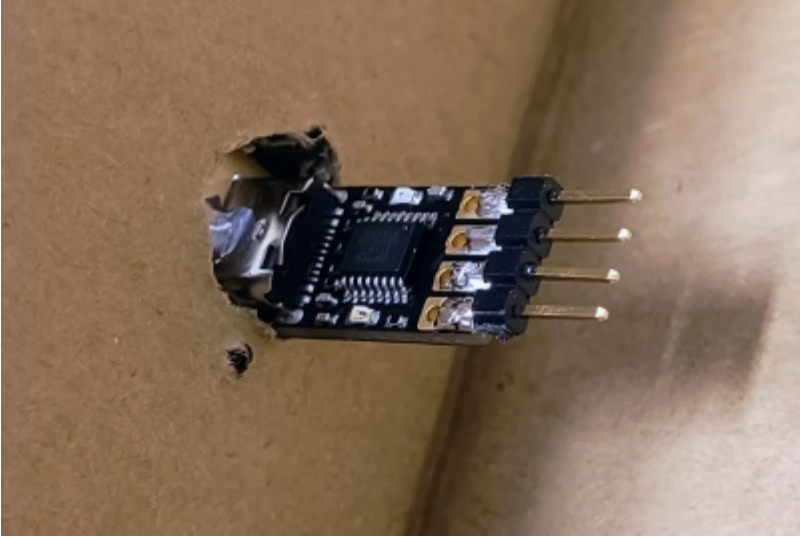
The KAmoD USB-UART-mini converter can optionally be equipped with a front panel, which allows easy and aesthetic mounting of the module on the wall of almost any housing. The dimensions of the front panel are shown in the drawing below.



Mounting the converter requires making a main hole with a diameter of 11 mm and two holes in one line, for mounting screws with a diameter of approx. 2...3 mm at a distance of 8.75 mm from the center of the main hole. An example of the assembly is shown in the photos:







## External links

- [FTDI FT230XS datasheet](#)
- [FTDI drivers](#)



Zastrzegamy prawo do wprowadzania zmian bez uprzedzenia.

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