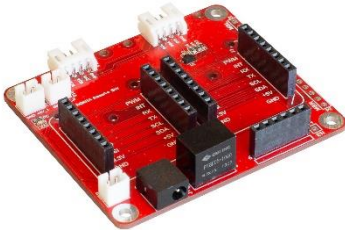


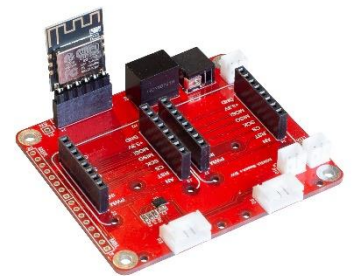
BaseA+ 5W



BOKRA BaseA+ 5W is designed to install mikroBUS modules and provides a device based on this module with non-isolated 5VDC power, up to 1A.

The MBL (labeled P1) and MBR (labeled P8) connectors are all mikroBUS bus signals. Thus, through these connectors it is easy to connect another module (or even several) with mikroBUS slots, increasing the number of slots on the common bus.

Third-party ESP-M3 modules can be installed in J4. Thus, a device based on **BOKRA BaseA+ 5W** can be easily provided with Wi-Fi connection. The ESP-M3 is UART controlled from the 2nd mikroBUS slot on the module. For stability, there is a DC-DC converter that provides 3.3VDC power for the ESP-M3, independent of the power supply on the mikroBUS common bus. There is a software control option for turning on the ESP-M3 using a single-pin P4 connector. To do this, P4 must be connected using the jumper JP12.

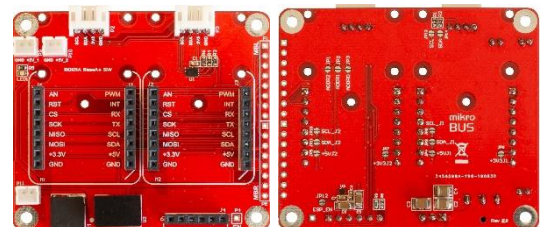


The I²C interface is most often used when designing devices based on this module. To do this, the adapter has an I²C connector, through which you can connect external devices and sensors.

The adapter has a temperature sensor - an [LM75B](#) chip, also connected via I²C. Temperature measurement accuracy: ± 2 °C for the temperature range from -25 °C to $+100$ °C, ± 3 °C for the temperature range from -55 °C to $+125$ °C. The LM75B chip can be replaced by the user on the [TMP1075](#) chip (maximum accuracy - ± 1 °C). The I²C address for the LM75B is 1001111*. This address can be changed by the user using jumpers JP1, JP2 and JP3.

The module power supply is non-isolated, in the range from 9VDC to 36VDC. The module converts the input power to the output, 5VDC. The maximum current is 1A. There are two connectors for distributing 5VDC to other modules and a connector for transmitting VIN input voltage to other modules.

Since some of the modules installed in mikroBUS and Adafruit Feather slots can themselves generate 5VDC and 3.3VDC, the module provides the ability to disconnect the corresponding power contacts of the mikroBUS slot from the common mikroBUS bus. It is also possible to disconnect SCL and SDA signals from the common bus for each mikroBUS slot. If necessary, you can connect pull-up resistors for I²C (jumpers J3 and J4).

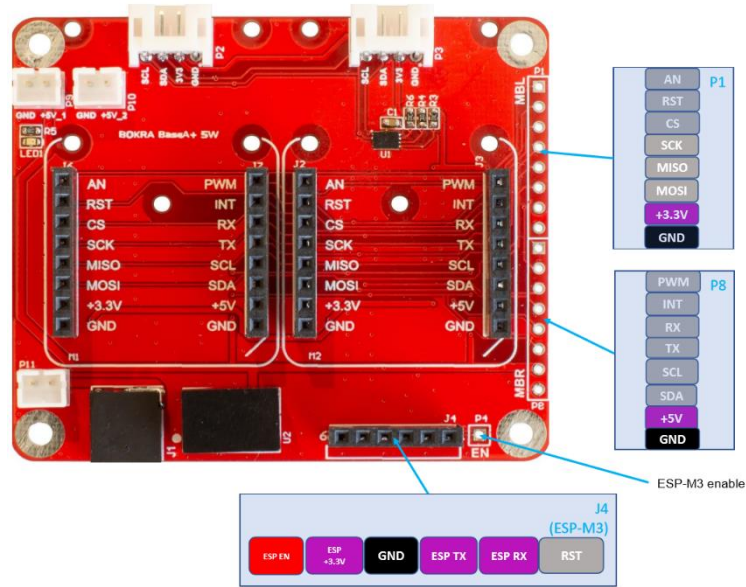


BOKRA BaseA+ 5W size 65 x 56 mm. The format of the module corresponds to the popular format of the Raspberry Pi 3A+, which greatly simplifies its use with the Raspberry Pi.

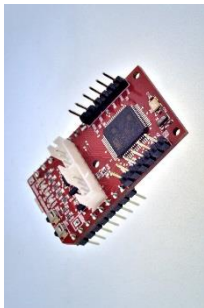
The main areas of application of the module:

- Industry and transport
- Data acquisition systems (DAS) and PLC
- Heating, Ventilation, & Air Conditioning (HVAC)
- Consumer electronics
- Ecology monitoring
- Smart home
- Power on / off
- Gaming Applications

The following figure shows the **location of elements on the BOKRA BaseA+ 5W**.



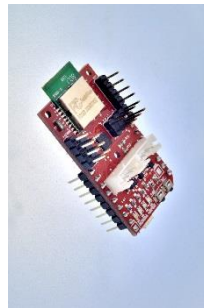
Install on your **BOKRA Adafruit Feather Adapter** in the mikroBUS slot one of the BOKRA SoM Pro or Lite series, one of the modules for wireless communication or another module with the mikroBUS interface:



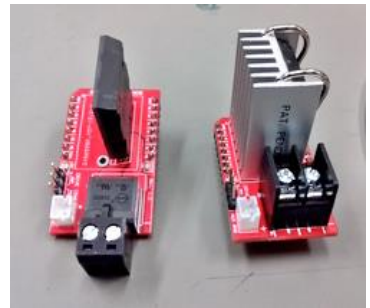
BOKRA STM32F405 Pro



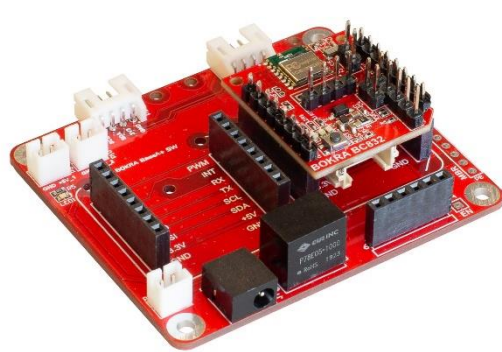
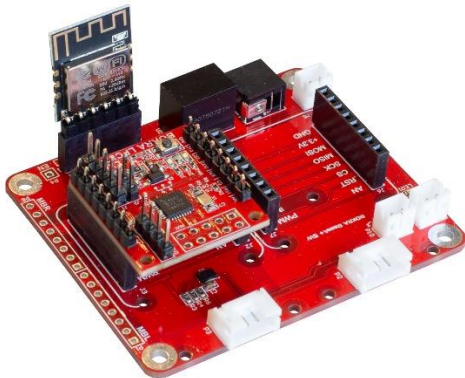
BOKRA LPC824 Lite



BOKRA BT832



BOKRA mikroBUS 60VDC SSR



MikroElektronika manufactures numerous modules with mikroBUS interface - Click® modules:



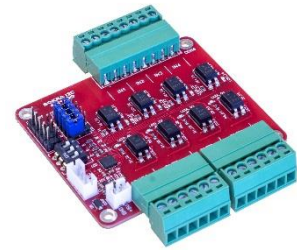
Through I²C or MBL and MBR connectors, you can easily connect Raspberry Pi 3A+ (65 x 56 mm) format modules manufactured by us or modules of the same size from other manufacturers to the adapter:



Analog input
BOKRA I2C 8AI LTC2309



Relay
BOKRA I2C 4RO SRD



Digital input and output
BOKRA I2C 4DI+4DO

It is also easy to connect numerous sensors, peripherals and modules from Grove Systems via the I²C connector to the **BOKRA BaseA+ 5W**.



BOKRA BaseA+ 5W schematic:

