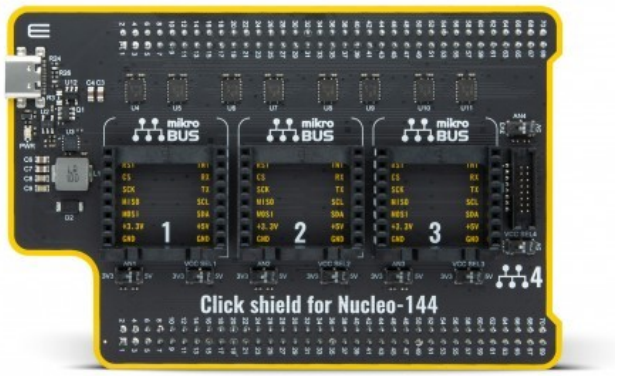
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Click Shield for Nucleo-144



PID: MIKROE-5487

Click Shield for Nucleo-144

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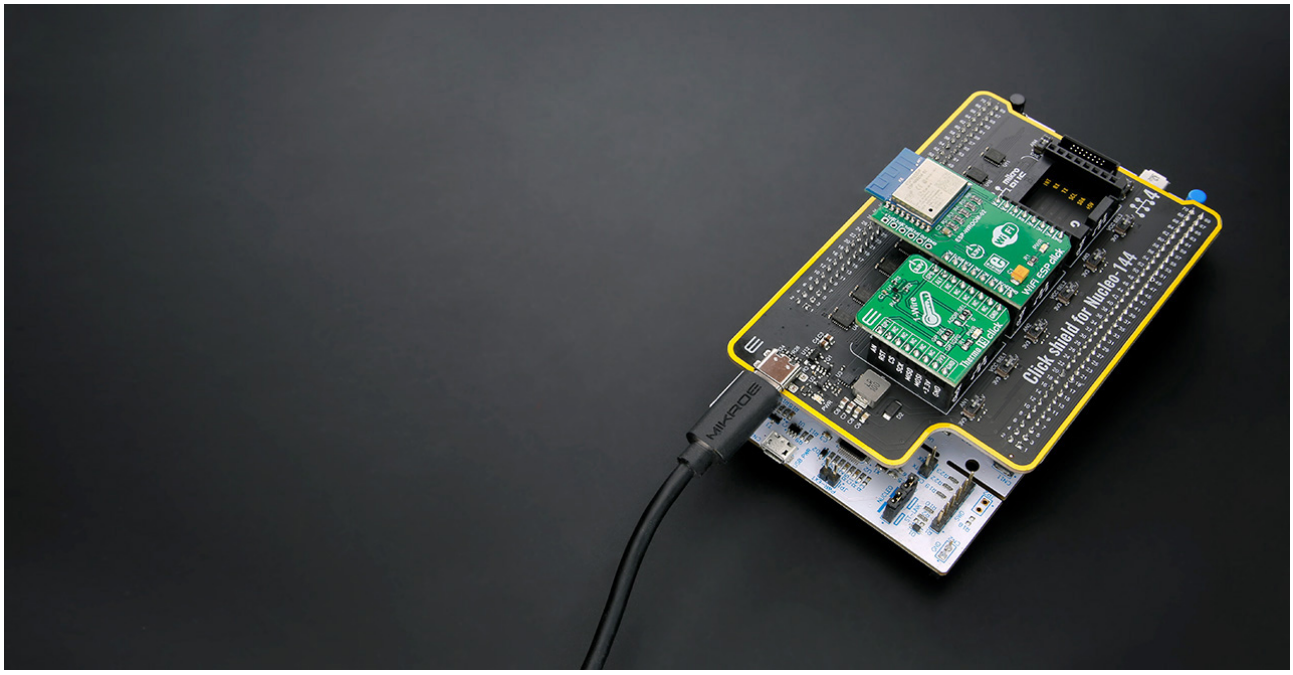
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Overview

Click Shield for Nucleo-144 is the perfect way to expand your development board's functionalities with STM32 Nucleo-144 pinout. The Click Shield for Nucleo-144 provides four mikroBUS™ sockets, with one in the form of a Shuttle connector, to add any functionality from our ever-growing range of Click boards™. We are fully stocked with everything, from sensors and WiFi transceivers to motor control and audio amplifiers.

The Click Shield for Nucleo-144 is compatible with the STM32 Nucleo-144 boards, providing an affordable and flexible way for users to try out new concepts and build prototypes with the STM32 microcontrollers from various combinations of performance, power consumption, and features. The STM32 Nucleo boards do not require any separate probe as they integrate the ST-LINK debugger and programmer alongside the comprehensive free software libraries and examples available with the STM32Cube MCU Packages, as well as direct access to the Arm® Mbed™ online resources.

This development platform provides users an effortless and common way to combine the STM32 Nucleo-144 footprint-compatible board with their favorite Click boards™ in their upcoming projects.

Note: STM32 Nucleo-144 board is not included in the package.

CLICK BOARD
COMBINATIONS

Main features

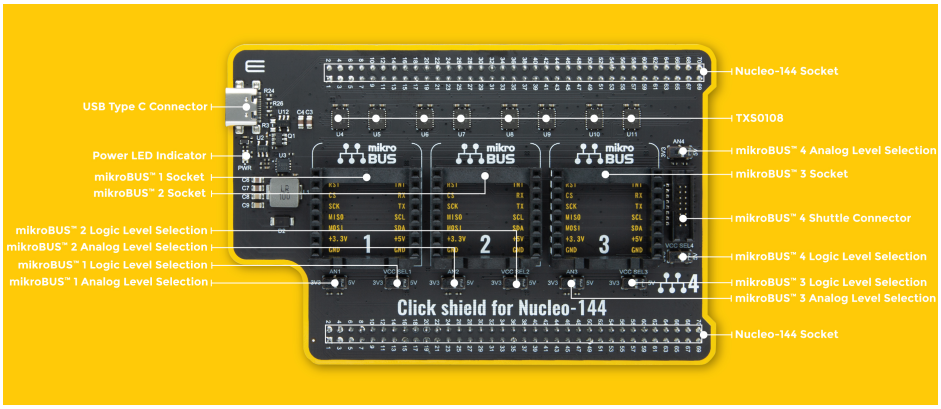
Click Shield for Nucleo-144 comes equipped with four mikroBUS™ sockets, with one in the form of a Shuttle connector, allowing all the Click board™ devices to be interfaced with the STM32

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Nucleo-144 board with no effort. This way, MIKROE allows its users to add any functionality from our ever-growing range of Click boards™, such as WiFi, GSM, GPS, Bluetooth, ZigBee, environmental sensors, LEDs, speech recognition, motor control, movement sensors, and many more. More than 1421 Click boards™, which can be stacked and integrated, are now available.



Featuring an ARM Cortex-M microcontroller, 144 pins, and Arduino™ compatibility, the STM32 Nucleo-144 board offers limitless possibilities for prototyping and creating diverse applications. These boards are controlled and powered conveniently through a USB connection to efficiently program and debug the Nucleo-144 board out of the box, with an additional USB cable connected to the USB mini port on the board. Simplify your project development with the integrated ST-Link debugger and unleash creativity using the extensive I/O options and expansion capabilities.

This Click Shield also has several switches that perform functions such as selecting the logic levels of analog signals on mikroBUS™ sockets and selecting logic voltage levels of the mikroBUS™ sockets themselves. Besides, the user is offered the possibility of using any Click board™ with the help of existing bidirectional level-shifting voltage translators, regardless of whether the Click board™ operates at a 3.3V or 5V logic voltage level.

Once you connect the STM32 Nucleo-144 board with our Click Shield for Nucleo-144, you can access hundreds of Click boards™, working with 3.3V or 5V logic voltage levels. Our Click boards™ are equipped with a library containing functions and example codes for MIKROE compilers available on LibStock, which can be used, as a reference, for further development.

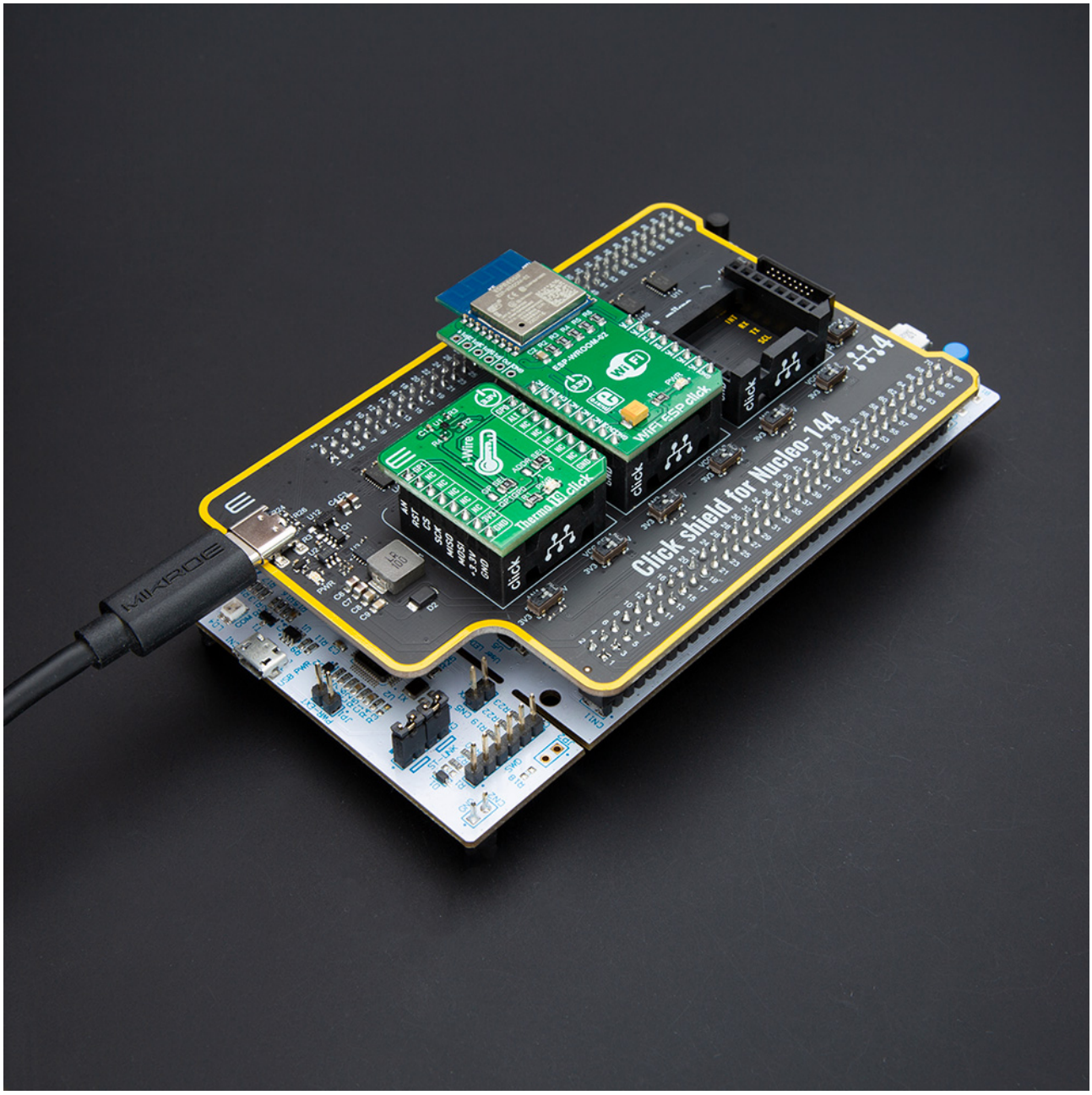
Power your inventions

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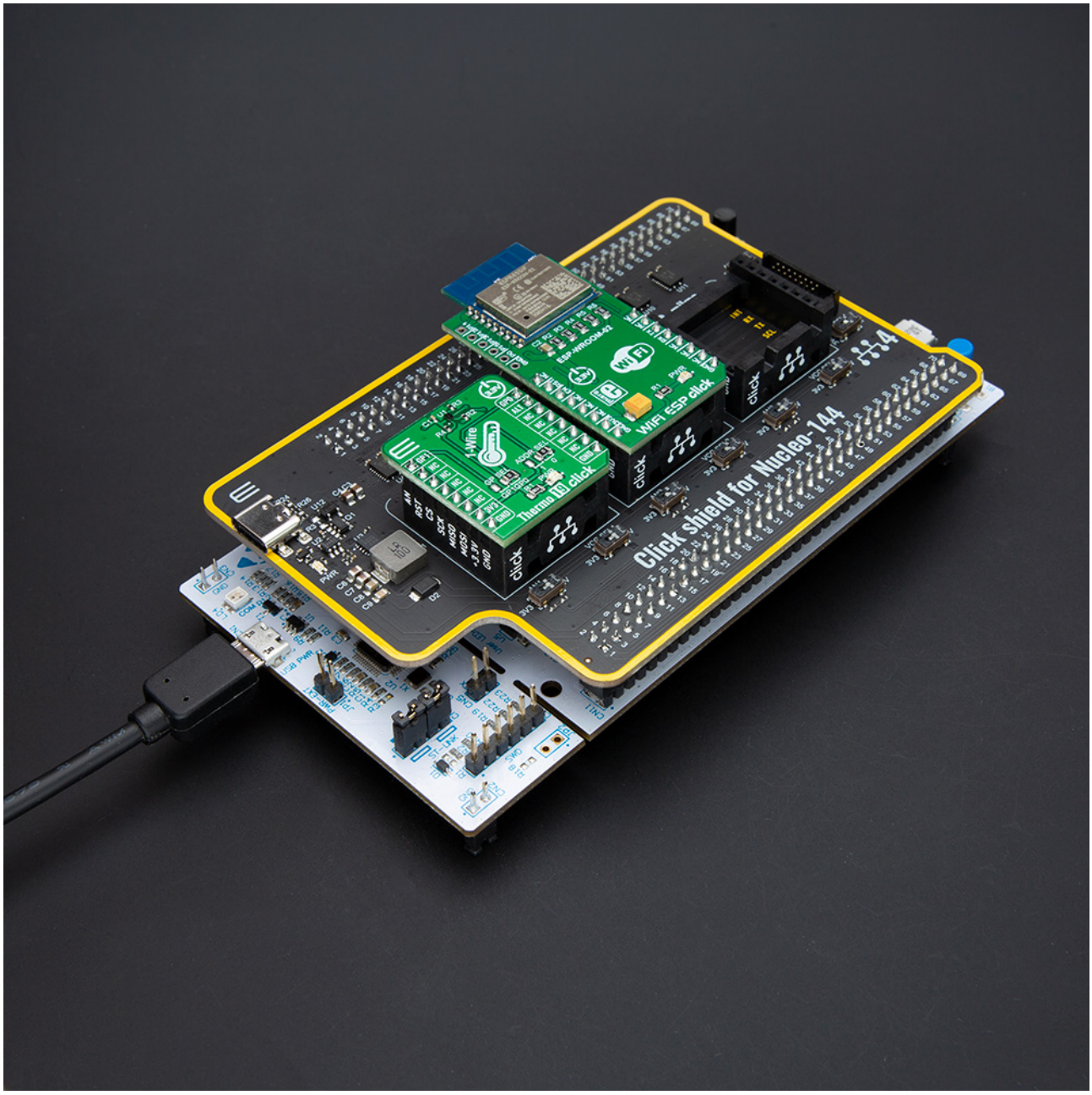
When the USB type C connector is connected to the Click Shield, the PWR diode will glow Blue, and at this setup, the connected STM32 Nucleo-144 baseboard and all mikroBUS™ sockets will be powered from it.

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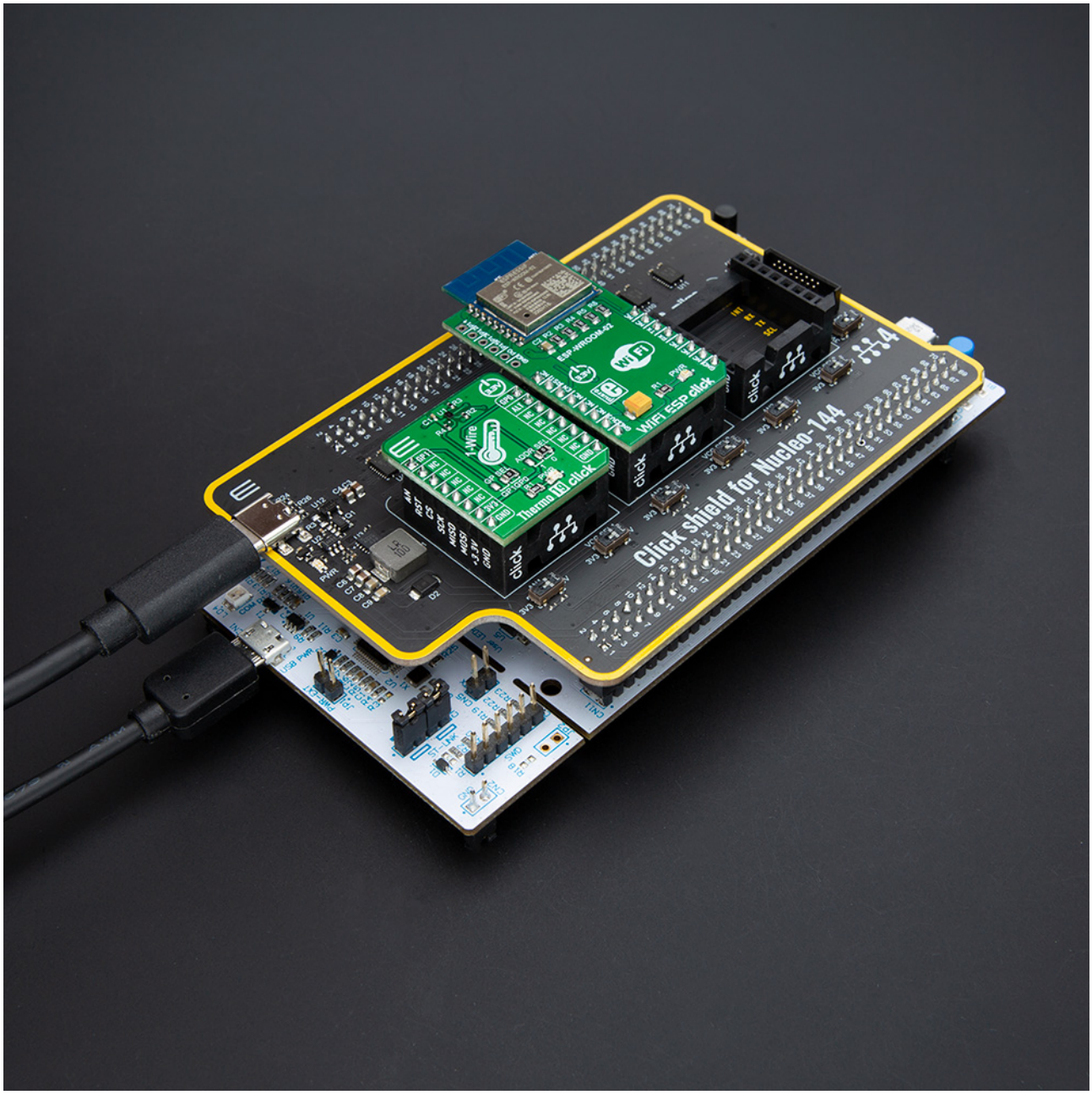
When the USB is connected to the STM32 Nucleo-144 board, the PWR diode will glow Green, and at this setup, the STM32 Nucleo-144 baseboard itself will be supplied, and it will provide power to the Click Shield, including all mikroBUS™ sockets.

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When the USB type C connector is connected to the Click Shield, and the other USB is connected to the STM32 Nucleo-144 board, the PWR diode will glow Cyan, and at this setup, the mikroBUS™ sockets are powered from the Type C connector.

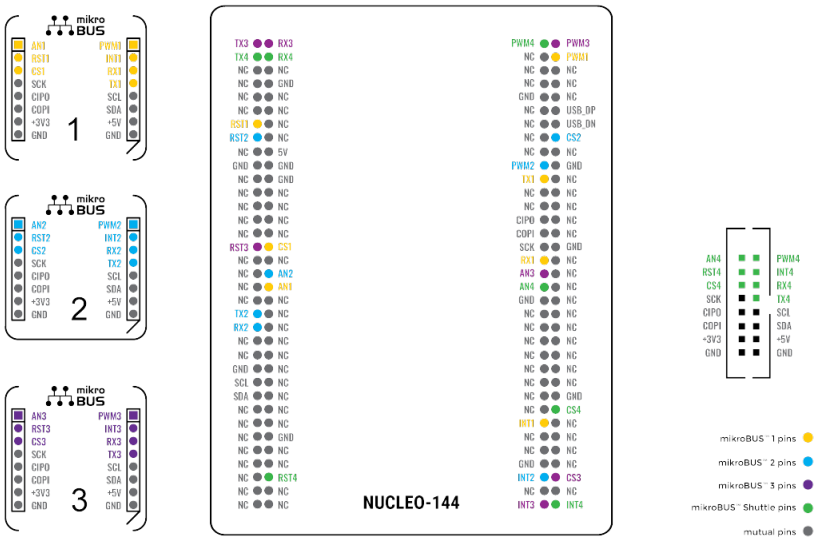
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STM32 NUCLEO-144 TO MIKROBUS™ PINOUT



Specifications

Type	Adapter,Shield
Applications	Click Shield for Nucleo-144 allows you to use Click boards™ on your STM32 Nucleo-144 boards
On-board modules	3x mikroBUS™ sockets, one in the form of a Shuttle connector, connector for connecting compatible STM32 Nucleo-144 board, eight TXS0108 level-shifting voltage translators, power part for converting 5V USB to the 3.3V
Interface	Analog,GPIO,I2C,PWM,SPI,UART
Compatibility	mikroBUS™,STM32 Nucleo
Input Voltage	3.3V,5V

Resources

[mikroBUS™]

[mikroSDK]

[Click board™ Catalog]

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Click boards™

Downloads

Click Shield for Nucleo-144 schematic

Click Shield for Nucleo-144 2D and 3D files

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