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Click Logger

PID: MIKROE-6548

Click Logger is a specialized development tool designed for data logging and real-time monitoring of mikroBUS™-compatible Click boards™. It functions as both a UART Logger, capturing and storing data from the mikroBUS™ TX line onto a microSD card via an ATmega328P microcontroller, and a mikroBUS™ to USB adapter for serial communication using the FT4232H chip. With additional features like a power monitoring for real-time voltage, current, and power measurements, a built-in Li-Po battery charger for portable use, and versatile GPIO control, Click Logger is an essential tool for developers working on Click board-based projects, ensuring reliable data acquisition and streamlined debugging in both lab and field environments.

For more information about **Click Logger** visit the official product page.

How does it work?

Click Logger is a versatile tool for Click board™ development, combining **USB connectivity and UART data** logging into a single compact board. It serves two primary functions:

- **mikroBUS™ to USB Adapter** – Enables seamless communication with mikroBUS™ modules (Click boards) via USB using the FT4232H chip, ensuring reliable **serial-to-USB conversion** and real-time data access.
- **UART Logger** – Captures and logs UART data from the mikroBUS™ TX line onto a microSD card using an ATmega328P microcontroller. A LOG LED indicator provides visual feedback on logging activity, while the MCU can be reprogrammed via an ICSP connector for custom firmware updates.

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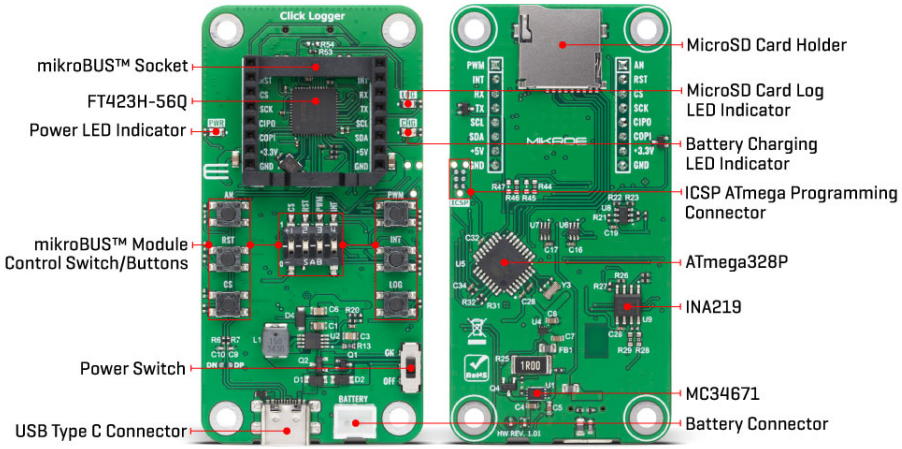

Key features

- **Power monitoring** – Integrated INA219BIDR enables real-time measurement of voltage, current, and power consumption.
- **Battery support** – Built-in Li-Po charging (MC34671 IC) for standalone operation in field applications.
- **GPIO control** – Four-position DIP switch used for default voltage level control. The switch sets the initial state of the CS, RST, PWM, and INT lines, while the six control buttons (AN, RST, CS, PWM, INT, LOG) allow dynamic state changes during operation, giving developers enhanced flexibility for signal management.
- **u-blox compatibility** – Direct support for u-blox modules, with USB-based integration for real-time tracking using the u-center application.

With its combination of **real-time monitoring, data logging, and flexible connectivity**, Click Logger is an essential tool for engineers and developers working with **mikroBUS™-based hardware**.

Specifications

Type	Shield
Applications	Ideal for real-time data monitoring, efficient logging, and testing of mikroBUS™-compatible hardware in both lab and field application
On-board modules	FT4232H - USB to UART converter from FTDI | ATmega328P - 8-bit AVR MCU from Microchip
Key Features	mikroBUS™ to USB Adapter, UART logger functionality, ATmega328P for UART logging and data storage, USB MIKROE VID and LOGGER PID parameters, battery support, LED indicators, GPIO control, ICSP connector for MCU reprogramming, power monitor, compact and portable, and more
Interface	Analog,GPIO,I2C,PWM,SPI,UART,USB
Feature	No ClickID
mikroBUS No.	1

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Supply Voltage	Battery, USB
Category	Bundles-Kits-Sheilds

Pinout diagram

This table shows how the pinout on Click Logger corresponds to the pinout on the mikroBUS™ socket (the latter shown in the two middle columns).

Notes	Pin	mikroBUS				Pin	Notes
Analog Output	**AN**	1	AN	PWM	16	**PWM**	PWM Signal
Reset / ID SEL	**RST**	2	RST	INT	15	**INT**	Interrupt
SPI Select / ID COMM	**CS**	3	CS	RX	14	**TX**	UART TX
SPI Clock	**SCK**	4	SCK	TX	13	**RX**	UART RX
SPI Data OUT	**SDO**	5	MISO	SCL	12	**SCL**	I2C Clock
SPI Data IN	**SDI**	6	MOSI	SDA	11	**SDA**	I2C Data
Power Supply	**3.3V**	7	3.3V	5V	10	**5V**	Power Supply
Ground	**GND**	8	GND	GND	9	**GND**	Ground

Onboard settings and indicators

Label	Name	Default	Description
LD1	CHG	-	Battery Charging LED Indicator
LD2	PWR	-	Power LED Indicator
LD2	LOG	-	MicroSD Card Log LED Indicator
T1-T5	AN/CS/RST/PWM/INT	-	mikroBUS™ Module Control Buttons
T6	LOG	-	Logging Process Control Button
SW1	-	-	mikroBUS™ Module Control Switches

Click Logger electrical specifications

Description	Min	Typ	Max	Unit
USB Supply Voltage	-	5	-	V
Battery Supply Voltage	3.4	4.1	4.2	V

Software Support

MIKROE does not currently provide software support for Click Logger board in the form of libraries, functions, or example code. For additional information or assistance, we recommend reaching out to u-blox. Find more details at the following resources:

- For general inquiries and technical support materials, visit the u-blox Contact Us page, where you can submit a support ticket for further assistance.
- Additional support can be found on the u-blox official Support Community page, where you can find answers, ask questions and connect with community of u-blox users from around the world.

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Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

ClickID

Downloads

Click Logger 2D and 3D files v101

ATmega328P datasheet

FT4232H datasheet

Click Logger schematic v101

Click Logger board - u-blox driver