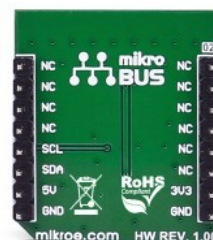


MAC Address Click



PID: MIKROE-2733

MAC Address click provides a unique node address for your application. It also has 1Kbit of writable EEPROM memory. MAC Address click carries the [24AA025E64](#) 2K I2C Serial EEPROM with EU1-64™ node identity. The click is designed to run on either 3.3V or 5V power supply. MAC Address click communicates with the target microcontroller over I2C interface.

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24AA025E64 features

The Microchip Technology Inc. 24AA025E64 is a 2Kb Serial EEPROM with a pre-programmed IEEE EU1-64 MAC Address. The device is organized as two blocks of 128 x 8-bit memory with a 2-wire serial interface. Low voltage design permits operation down to 1.7V, with maximum standby and active currents of only 1 uA and 1 mA, respectively. The 24AA025E64 also has a page write capability for up to sixteen bytes of data.

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ISO 27001: 2013 certification of informational security management system.
ISO 14001: 2015 certification of environmental management system.
OHSAS 18001: 2008 certification of occupational health and safety management system.




ISO 9001: 2015 certification of quality management system (QMS).

Specifications

Type	EEPROM
Applications	Pre-programmed globally unique node address for your application
On-board modules	24AA025E64 2K I2C Serial EEPROMs with EUI-64™ node identity from Microchip
Key Features	Pre-programmed globally unique, 64-bit node address; more than 1 Million erase/write cycles
Interface	I2C
Feature	No ClickID
Compatibility	mikroBUS™
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V or 5V

Pinout diagram

This table shows how the pinout on **MAC Address click** corresponds to the pinout on the mikroBUS™ socket (the latter shown in the two middle columns).

Notes	Pin					Pin	Notes
	NC	1	AN	PWM	16	NC	
	NC	2	RST	INT	15	NC	
	NC	3	CS	TX	14	NC	
	NC	4	SCK	RX	13	NC	
	NC	5	MISO	SCL	12	SCL	I2C clock
	NC	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

Jumpers and settings

Designator	Name	Default Position	Default Option	Description
JP2	ADD SEL	Down	0	I2C slave address A0 (LSB) bit selection 0/1, down position 0, upper position 1.
JP3	ADD SEL	Down	0	I2C slave address A1 bit selection 0/1, down position 0, upper position 1.
PWR SEL	PWR SEL	Left	3.3V	Power Supply Voltage Selection 3V3/5V, left

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				position 3V3, right position 5V
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Programming

Code examples for MAC Address click, written for MikroElektronika hardware and compilers are available on Libstock.

Code snippet

The following code reads one byte from EEPROM and transmits data to UART.

```
01 if( !MACADDRESS_readByte( loop, &read ) )
02 {
03     LOG( "rn Byte value [ " );
04     ByteToHex( read, txt );
05     Ltrim( txt );
06     LOG( txt );
07     LOG( " ] succeessfully read from [ " );
08     ByteToHex( loop, txt );
09     Ltrim( txt );
10     LOG( txt );
11     LOG( " ] address" );
12 }
13 else
14 {
15     LOG( "rn Read Byte Error" );
16 }
17 }
```

Resources

[mikroBUS™](#)

[Click board™ Catalog](#)

[Click Boards™](#)

Downloads

[24AA025E64 datasheet](#)

[MAC Address click schematic](#)

[MAC Address click example on Libstock](#)

[MAC Address click 2D and 3D files](#)

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