eINK click

MIKROE-2659

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eINK displays

The display uses electronic ink, which makes the display “Bistable”. It means that the display consumes power only when something is changing on the screen. This reduces the power consumption of the target device considerably. So, the display retains the image even when the power is off.

eINK displays have good sunlight readability, it's like you are reading something on real paper. It is the same type of display used in you ebook reader, like the Kindle™.

How the click works

The display communicates with the eINK click over SPI interface. The onboard LM75 temperature sensor is used for temperature calibration from the look-up table.

The click can be used with different eINK displays we plan to release in the future.

Display features

Retains the image, even when the power is off

The eINK display (EA EPA20-A) is a high-contrast e-paper display. It has a wide viewing angle and the resolution of 172X72 dots. The color of the display has four scales: black, dark gray, light gray, and white.

The power consumption, while the display is on, is around 40mW.

Specifications

Type	Electronic Paper Display
Applications	Adding a display where low power consumption is necessary.
On-board modules	LMA temperature sensor
Key Features	The eINK displays retains an image even when the power is off
Interface	GPIO,SPI
Input Voltage	3.3V
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)

Pinout diagram

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

Notes	Pin	mikroBUS				Pin	Notes
	NC	1	AN	PWM	16	**D/C#**	Data/configuration
Reset	**RES#**	2	RST	INT	15	**BUSY**	Busy indicator from the screen
SPI enable	**CS#**	3	CS	TX	14	NC	
SPI Clock	**SCK**	4	SCK	RX	13	NC	
	NC	5	MISO	SCL	12	NC	
SPI data input	**SDI**	6	MOSI	SDA	11	NC	
Power supply	**+3.3V**	7	3.3V	5V	10	NC	
Ground	**GND**	8	GND	GND	9	**GND**	Ground