

## mikromedia HMI 4.3" UXB



PID: MIKROE-2281

RS Product Code: 122-5392

A smart display solution, mikromedia HMI 4.3" UXB has a 480x272px colour display with a capacitive touch panel and decorative black bezel on the front, and a powerful FT900Q 32-bit MCU with additional essential circuitry on the back - making it a standalone but cost-effective solution suitable for industrial applications.

mikromedia HMI boards are driven by FTDI Chip's FT900Q with their proprietary 32-bit RISC core with industry-leading performance. With execution from shadow memory, the MCU can achieve speeds of 3.1 DMIPS/MHz at 100MHz. FT900Q has 256KB of Flash memory, a small part of which is taken by the built-in bootloader.

The concept of mikromedia HMI is to keep only the essential components that simplify its integration into a final product, whilst keeping overall costs down.

The board integrates a microSD card for expanding storage capacity, a haptic feedback motor, small audio speaker, and a micro USB connector. A connector for interfacing the MCU with external electronics, along with a separate connector for FT900Q's parallel camera interface.

mikromedia for HMI 4.3" UXB has a high-quality Riverdi display with 16.7M colour depth and 550 NIT brightness. The display is driven by a FT812 graphic controller. A mounting frame surrounding the screen simplifies integration.

Tutorial on [learn.mikroe.com](https://learn.mikroe.com) | Code for demo example on [Libstock](#) | Schematics on [documentation page](#).

Extras. mikromedia HMI breakout board (sold separately) contains a micro USB port, an RJ-45 Ethernet connector, as well as an external programmer connector (ideally used with mikroProg for FT90x). Two 24-pin flat cables are included in the packaging, enabling the use of both mikromedia HMI connectors at the same time (MAIN, CAMERA).

## Specification

Display size	4.3"
Resolution	480x272px
Graphic controller	FT813
Brightness	500
Touch Screen	Capacitive
Architecture	FT90x (32-bit)
MCU	FT900Q
MCU speed	100MHz; 310 DMIPS
MCU Memory	256 KB Flash
MCU Peripherals	2xCAN, 2xSPI, 2xI2C, I2S, UART
Interface	Main connector, Camera connector, Micro USB
Storage	8MB Flash + MicroSD card slot
Peripherals include	Audio speaker, Haptic feedback engine
Integration	Decorative black bezel
Power Supply	5V (via USB)
Weight	146g

See how **mikromedia HMI 3.5" Res** compares with the rest of the product line.

Product Name	Size	Resolution	Touch Panel	Luminosity	Active Area	Graphics Controller	Haptic Feedback	Dot Pitch (mm2)
mikromedia HMI 3.5"	3.5"	320 x 240	None	540	70.08 x 52.56	FT812	No	0.73 x 0.219
<b>mikromedia HMI 3.5" Res</b>	3.5"	320 x 240	Resistive	450	70.08 x 52.56	FT812	No	0.73 x 0.219
mikromedia HMI 3.5" Cap	3.5"	320 x 240	Capacitive	480	70.08 x 52.56	FT813	No	0.73 x 0.219
mikromedia HMI 4.3"	4.3"	480 x 272	None	550	95.04 x 53.86	FT812	Yes	0.066 x 0.198
mikromedia HMI 4.3" Res	4.3"	480 x 272	Resistive	440	95.04 x 53.86	FT812	Yes	0.066 x 0.198
mikromedia HMI 4.3" Cap	4.3"	480 x 272	Capacitive	500	95.04 x 53.86	FT813	Yes	0.066 x 0.198
<b>mikromedia HMI 4.3" UXB</b>	<b>4.3"</b>	<b>480 x 272</b>	<b>Capacitive, UX Black</b>	<b>500</b>	<b>95.04 x 53.86</b>	<b>FT813</b>	<b>Yes</b>	<b>0.066 x 0.198</b>
mikromedia HMI 4.3" UXW	4.3"	480 x 272	Capacitive, UX White	500	95.04 x 53.86	FT813	Yes	0.066 x 0.198
mikromedia HMI 5"	5.0"	800 x 480	None	600	118.00 x 64.80	FT812	Yes	0.045 x 0.135
mikromedia HMI 5" Res	5.0"	800 x 480	Resistive	480	118.00 x 64.80	FT812	Yes	0.045 x 0.135
mikromedia HMI 5" Cap	5.0"	800 x 480	Capacitive	510	118.00 x 64.80	FT813	Yes	0.045 x 0.135
mikromedia HMI 5" UXB	5.0"	800 x 480	Capacitive, UX Black	510	118.00 x 64.80	FT813	Yes	0.045 x 0.135
mikromedia HMI 5" UXW	5.0"	800 x 480	Capacitive, UX White	510	118.00 x 64.80	FT813	Yes	0.045 x 0.135
mikromedia HMI 7"	7.0"	800 x 480	None	400	154.08 x 85.92	FT812	Yes	0.045 x 0.135
mikromedia HMI 7" Res	7.0"	800 x 480	Resistive	320	154.08 x 85.92	FT812	Yes	0.045 x 0.135
mikromedia HMI 7" Cap	7.0"	800 x 480	Capacitive	350	154.08 x 85.92	FT813	Yes	0.045 x 0.135
mikromedia HMI 7" UXB	7.0"	800 x 480	Capacitive UX Black	350	154.08 x 85.92	FT813	Yes	0.045 x 0.135
mikromedia HMI 7" UXW	7.0"	800 x 480	Capacitive UX White	350	154.08 x 85.92	FT813	Yes	0.045 x 0.135