## mail

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MIKROE-2287

## OVERVIEW

| Summary              | A smart display solution, <b>mikromedia HMI 5" UXW</b> has a <b>800x480px</b> color display with a capacitive touch panel and decorative white bezel on the front, and a powerful <b>FT900Q</b> 32-bit MCU with additional essential circuitry on the back - making it a standalone but cost-effective solution suitable for industrial applications.          |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MCU                  | mikromedia HMI boards are driven by FTDI Chip's FT900Q with their proprietary <b>32-bit RISC core</b> with industry-<br>leading performance. With execution from shadow memory, the MCU can achieve speeds of <b>3.1 DMIPS/MHz at</b><br><b>100 MHz</b> . FT900Q has 256KB of Flash memory, a small part of which is taken by the <b>built-in bootloader</b> . |
| Additional circuitry | 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 <b>microSD card</b> for expanding storage capacity, a <b>haptic feedback motor</b> , small <b>audio</b><br><b>speaker</b> , and a <b>micro USB connector</b> . A connector for interfacing the MCU with external electronics, along with<br>a separate connector for FT900Q's <b>parallel camera interface</b> .                        |
| Display              | mikromedia for HMI 5" UXW has a high-quality <b>Riverdi display</b> with <b>16.7M color depth</b> and <b>550 NIT brigtness</b> .<br>The display is driven by a <b>FT812 graphic controller</b> . A <b>mounting frame</b> surrounding the screen simplifies integration.                                                                                        |







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## **KEY FEATURES**

- Size: 5"
- Resolution: 800x480
- Brightness: 510
- MCU: FT900Q

Speed: 100MHz; 310 DMIPS

Memory: 256 KB Flash

Peripherals include: 2xCAN, 2xSPI, 2xI2C, I2S, UART

- Graphic controller: FT813
- Touchscreen: Capacitive
- Interface: Main connector, Camera connector, Micro USB
- Storage: 8MB Flash + MicroSD card slot
- Audio speaker
- Haptic feedback engine
- Decorative white bezel





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COMPARISON CHART

| See how mikromedia HMI 4.3" | <b>UXW</b> compares with the rest of the product line. |
|-----------------------------|--------------------------------------------------------|
|-----------------------------|--------------------------------------------------------|

| Product Name            | Size | Resolution | Touch<br>Panel       | Luminosity | Active<br>Area | Graphics<br>Controller | Haptic<br>Feedback | Dot Pitch<br>(mm2) |
|-------------------------|------|------------|----------------------|------------|----------------|------------------------|--------------------|--------------------|
| mikromedia HMI 3.5"     | 3.5" | 320 x 240  | None                 | 540        | 70.08 x 52.56  | FT812                  | No                 | 0.73 x 0.219       |
| mikromedia HMI 3.5" Res | 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 0.19       |
| mikromedia HMI 4.3" Res | 4.3" | 480 x 272  | Resistive            | 440        | 95.04 x 53.86  | FT812                  | Yes                | 0.066 x 0.19       |
| mikromedia HMI 4.3" Cap | 4.3" | 480 x 272  | Capacitive           | 500        | 95.04 x,53.86  | FT813                  | Yes                | 0.066 x 0.19       |
| mikromedia HMI 4.3" UXB | 4.3" | 480 x 272  | Capacitive, UX Black | 500        | 95.04 x 53.86  | FT813                  | Yes                | 0.066 x 0.19       |
| mikromedia HMI 4.3" UXW | 4.3" | 480 x 272  | Capacitive, UX White | 500        | 95.04 x 53.86  | FT813                  | Yes                | 0.066 x 0.19       |
| mikromedia HMI 5"       | 5.0" | 800 x 480  | None                 | 600        | 118.00 x 64.80 | FT812                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 5" Res   | 5.0" | 800 x 480  | Resistive            | 480        | 118.00 x 64.80 | FT812                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 5" Cap   | 5.0" | 800 x 480  | Capacitive           | 510        | 118.00 x 64.80 | FT813                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 5" UXB   | 5.0" | 800 x 480  | Capacitive, UX Black | 510        | 118.00 x 64.80 | FT813                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 5" UXW   | 5.0" | 800 x 480  | Capacitive, UX White | 510        | 118.00 x 64.80 | FT813                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 7"       | 7.0" | 800 x 480  | None                 | 400        | 154.08 x 85.92 | FT812                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 7" Res   | 7.0" | 800 x 480  | Resistive            | 320        | 154.08 x 85.92 | FT812                  | Yes                | 0.045 x 0.13       |
| mikromedia HMI 7" Cap   | 7.0" | 800 x 480  | Capacitive           | 350        | 154.08 x 85.92 | FT813                  | Yes                | 0.045 x 0.13       |

| 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 |