Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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OVERVIEW

Summary

A smart display solution, **mikromedia HMI 7" Res** has a **800x480px** color display with a resistive touch panel 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.

MCU

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 100 MHz**. FT900Q has 256KB of Flash memory, a small part of which is taken by the **built-in bootloader**.
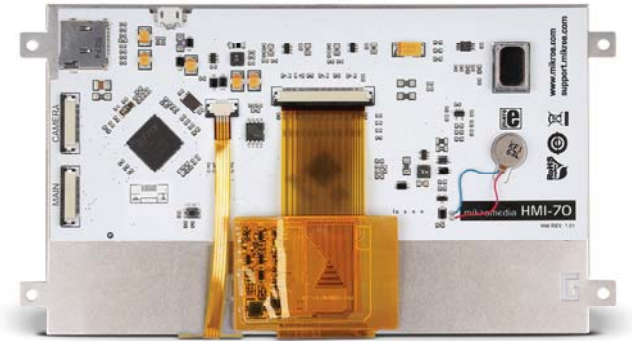
Additional circuitry

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 **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**.

Display

mikromedia for HMI 5" Res has a high-quality **Riverdi display** with **16.7M color depth** and **550 NIT brigtness**. The display is driven by a FT812 graphic controller. A **mounting frame** surrounding the screen simplifies integration.

KEY FEATURES

- **Size:** 7"
- **Resolution:** 800x480
- **Brightness:** 320
- **MCU:** FT900Q

    Speed: 100MHz; 310 DMIPS

    Memory: 256 KB Flash

    Peripherals include: 2xCAN, 2xSPI, 2xI2C, I2S, UART
- **Graphic controller:** FT812
- **Touchscreen:** Resistive
- **Interface:** Main connector, Camera connector, Micro USB
- **Storage:** 8MB Flash + MicroSD card slot
- **Audio speaker**
- **Haptic feedback engine**
- **Mounting frame**

SMART DISPLAY

COMPARISON CHART

See how **mikromedia HMI 5"** 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
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 0.198
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
mikromedia HMI 4.3" UXB	4.3"	480 x 272	Capacitive, UX Black	500	95.04 x 53.86	FT813	Yes	0.066 x 0.198
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 |