MMI8104XH

X86 CPU Core
Touch Panel Computer
with 10.4" SVGA TFT Display

Introduction

The MMI8104XH is a compact HMI platform. This new and improved "X" design offers a faster processor, more memory and a brighter display and higher resolution than the standard MMI8104. Its 32-bit CISC kernel delivers impressive performance at low power. A hardware graphics acceleration engine gives superior 65K color graphics performance. This leaves more time for Data management.

The MMI8104XH has features for Data logging and SD Card or USB Stick type memory storage. Data information can also be accessed by SCADA/HMI software running on remote PC's via Ethernet. MMI to MMI communications are easily done through Ethernet. With its many features the MMI8104XH is the sensible choice for present and future Operator Interface applications.

- **Bright 10.4" TFT LCD 65536 Color Display**
- **NEMA4/IP65 Compliant Front Panel**
- **Built-in Flash Memory**
- **2 USB Ports**
- **Ethernet Modbus TCP/IP; Ethernet I/P**
- **3 RS232 and 2 RS485 ports**
- **Supports Multiple PLC Types to one MMI**
- **Data Logging to USB, CF Card**
- **6 Levels of User Security for up to 12 Users**
- **True Type Font Capability**
- **Alarm and Alarm History (Events) Tracking**
- **Real time and Historical Trending**
- **Multiple Language Support (up to 7 languages)**
- **Simple scripting for Advanced Users (Macro)**
- **Free Design Mode, Windows™ Based Setup Software Included**

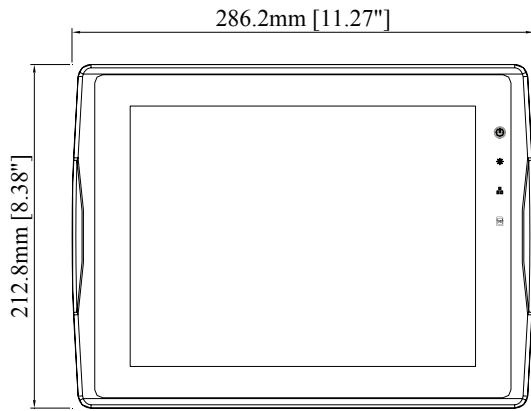# MMI8104XH 10.4" Color Graphic Display Panel and Touch Screen

Hardware Specifications

Display	10.4" TFT
Brightness	400 cd/m²
Color	65,536 colors
Contrast Ratio	400:1
Resolution (WxH dots)	800 x 600
Back light	LED
CCFL life time	30,000 hr. min.
Touch panel	4 wires resistive type
Touch Accuracy	Active Area Length(X) ±2%, Width(Y) ±2%
Surface Hardness	4H
Ethernet port	(10/100 Base-T)
I/O port	COM1 (RS-232/RS-485 2W/4W) COM2(RS232) COM3(RS-232/RS-4852W)
USB Host	2 USB Host port
Audio	1 x Audio Line Out, 1 x MIC In
Processor	AMD Geode™ LX800/500MHz core processor
Storage	256MB D.O.M
DRAM	256MB on board DDR-400MHz SDRAM
SD card slot	Supports SDHC/SD, MT8000 doesn't support Plug & Play
RTC	Built-in (CR2032 3V lithium battery.)

General Specifications

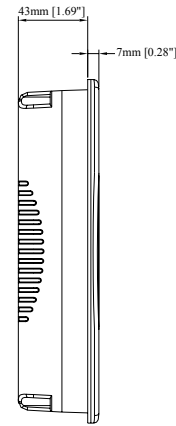|	
Input Power	24 ±10% VDC (21.6~26.4VDC) (Power Isolator Inside)
Power Consumption	1.25 A@24VDC
CE	Complies with EN50081-2 and EN50082-2 standards
FCC	Complies with FCC Class A
Voltage resistance	500VAC (1 min.)
Isolation resistance	Exceed 50M at 500VDC
Vibration endurance	10 to 25 Hz (X,Y,Z direction 2G 30minutes)
Protection structure	IP65 front panel (O ring seal)
Operating Temperature	0~45°C
Operation humidity	10-90% RH (non-condense)
Enclosure	Plastic
Dimensions WxHxD	286 x 212 x 50 mm
Panel cutout dimension	259 x 201 mm
Weight	Approx. 1.6 kg
Operating System	EB8000 V2.0.0 or Newer

EasyBuilder Software Specification

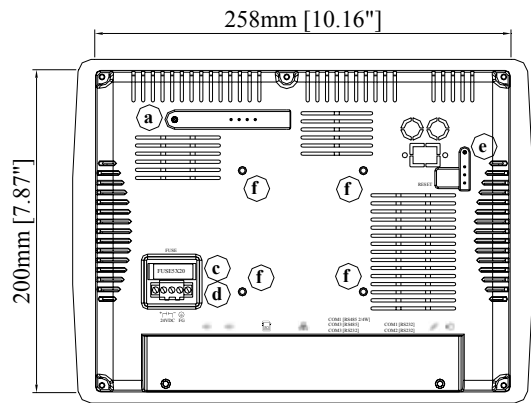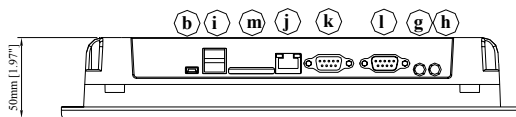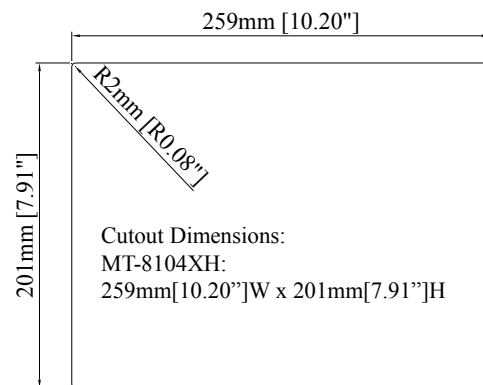|	
Screen editor	**EasyBuilder Ver. EB8000 2.0.0 or later** (requires Windows 2000, XP)
No. of window	Up to 1989 Windows
No. of object	Up to 500 per window, limited by memory
Text strings	limited only by memory
Graphics	Supports BMP, GIF and JPG
PLC Support	Most popular PLC's
Macro Scripts	Easy to use macro scripting language
System Requirements	Computer requirements include at least a Pentium 90Mhz PC, 16MB RAM, 10MB available hard disk space, minimum 800x600 resolution VGA, and one available RS-232 serial port.
EB8000 Setup and Features	EasyBuilder has a complete set of drawing tools as well as the ability to import and place bitmaps. Summary of EasyBuilder Objects **Bit Lamp** – Place an indicator that is bit triggered **Word Lamp** – Place an indicator that is word triggered **Set Bit** – Set a bit on a button press, button hold, window change, backlight activation or data entry. **Set Word** – Set a word on a button press, button hold, window change, backlight activation or data entry. **Toggle Switch** – Toggle a bit **MultiState Switch** – Increment/Decrement a word **Slider** – Change word value by dragging cursor **Function Button** – Perform a system operation **Numeric Input / Display** – Change/Display digital data **ASCII Input / Display** – Change/Display alphanumeric data **X,Y Move Animation** – Move an object via pixel coordinates **Spot Move Animation** – Move an object on a predefined path **Direct Window** – Popup Window on Bit status change **Indirect Window** – Popup Window depending on Word's value **Bargraph** – Display data as changing rectangle **Alarm Display** – display predefined text strings in response to bit changes **Trend Graph** – Plots active data on a trend **Data History Display** – Show contents of Data Logger **Meter** – Display one of 4 different types of meters **Scrolling Alarm** – display predefined text strings in response to bit changes **Event Display** – display and log predefined text strings in response to bit or word changes **Data Logging** – Move PLC data to USB or CF Card memory **PLC Controls:** Change window, Backlight control, Macro Execution, Data Transfer

Installation Guide

Dimensions are in mm (inches)

286.2mm [11.27"]

212.8mm [8.38"]

Front View

43mm [1.69"]

7mm [0.28"]

Side View

258mm [10.16"]

200mm [7.87"]

Rear View

259mm [10.20"]

201mm [7.91"]

R2mm [R0.08"]

Cutout Dimensions:
MT-8104XH:
259mm[10.20"]W x 201mm[7.91"]H

50mm [1.97"]

Bottom View

a	IDE Interface (DOM Slot)	h	Line Out
b	Mini USB	i	USB Host Port x 2
c	Fuse	j	Ethernet Port 10/100 Base-T
d	Power Connector	k	Com1 RS485,Com3 RS485, Com3 RS232
e	Reset Button	l	Com1 RS232, Com2 RS232
f	VESA 75mm Screw Holes	m	SD CARD SLOT
g	Mic In		

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Ordering Information	
Part Number	**Description**
MMI8104XH	Graphic Interface with 10.4" Color LCD display and Touchscreen. Setup software and Ethernet Crossover cable for programming included