



MMI8121

12.1" Color Graphic Display Panel and Touch Screen

Introduction

The MMI8121 is a compact HMI platform. This new and improved design comes very close to mimicking an Industrial PC. Its 32-bit RISC 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 MMI8121 has features for Data logging and Compact Flash 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 MMI8121 is the sensible choice for present and future Operator Interface applications.

- Bright 12.1" TFT LCD 65536 Color Display
- NEMA4/IP65 Compliant Front Panel
- Built-in Flash Memory
- One Compactflash™ Slot
- 3 USB Ports
- Ethernet Modbus TCP/IP; Ethernet I/P
- 2 RS232 and 3 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



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Integration Guide

Supported Peripherals



MMI8121 12.1" Color Graphic Display Panel and Touch Screen

Specifications	
Construction:	plastic molding housing
Display:	12.1" 800 x 600 65536 color TFT LCD
CPU:	32 bit RISC
System DRAM:	64 MB on board
Storage:	32 MB flash memory on board, 1 CompactFlash™ card slot, 44-pin IDE interface
I/O: 3 serial ports:	COM1: RS232/RS485 (2 or 4 Wire) COM2: RS232 COM3: RS232/RS485 (2 Wire)
Ethernet:	1 Ethernet port (10/100Base-T)
USB:	3 USB 2.0 full-speed host (12Mbps)
Sound output:	No
RTC:	Built-in
Power input:	24 VDC, 0.5A maximum

LCD Display	
Display type	TFT color LCD
Display size (diagonal)	12.1"
Max colors	65536
Resolution	800 x 600
Pixel pitch (HxV, mm)	0.3075 x 0.3075
Viewing angle ()	95 (Upper+Lower), 120 (Left+Right)
Luminance (cd/m2)	300
Storage temperature (C)	-20~60
Operating temperature (C)	0~45
Backlight	CCFL x 2
Contrast ratio	200:1

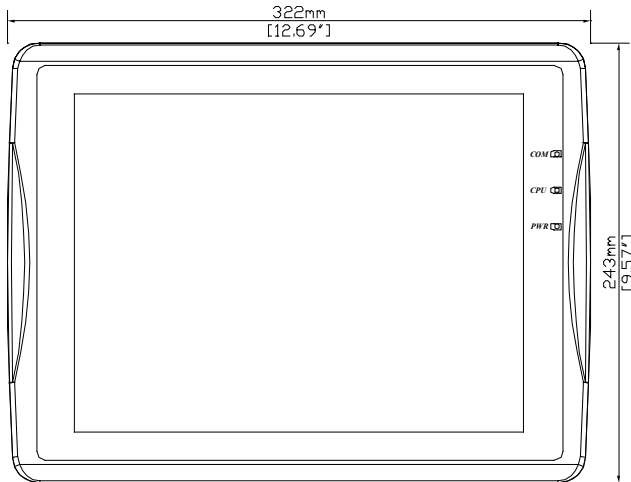
Touchscreen	
Type:	4-wire, analog resistive
Resolution:	continuous
Light transmission:	above 80%
Life:	1 million activation minimal

Environmental Specifications	
Operating temperature:	0 ~ 45C (32 ~ 113F)
Relative humidity:	10% ~ 90% @ 40C, non-condensing
Shock (operation):	10 to 25Hz(X,Y,Z direction 2G 30minutes)
EMI:	Complies with FCC Class A
CE :	Complies with EN50081-2 and EN50082-2 standards
Front panel:	NEMA4 / IP65

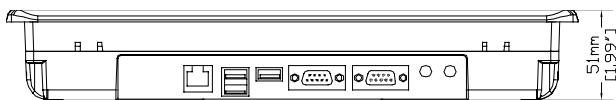
EasyBuilder Software Specification	
Screen editor	EasyBuilder Ver. EB8000 1.0.1 or later (requires Windows 2000, XP)
No. of window	Up to 1989 Windows
No. of object	Up to 500 per window, limited by memory
Text strings	limited only by memory
Graphics	Supports BMP, GIF and JPG
PLC Support	Most popular PLC's
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	<p>EasyBuilder has a complete set of drawing tools as well as the ability to import and place bitmaps. Summary of EasyBuilder Objects</p> <p>Bit Lamp – Place an indicator that is bit triggered</p> <p>Word Lamp – Place an indicator that is word triggered</p> <p>Set Bit – Set a bit on a button press, button hold, window change, backlight activation or data entry.</p> <p>Set Word – Set a word on a button press, button hold, window change, backlight activation or data entry.</p> <p>Toggle Switch – Toggle a bit</p> <p>MultiState Switch – Increment/Decrement a word</p> <p>Slider – Change word value by dragging cursor</p> <p>Function Button – Perform a system operation</p> <p>Numeric Input / Display – Change/Display digital data</p> <p>ASCII Input / Display – Change/Display alphanumeric data</p> <p>X,Y Move Animation – Move an object via pixel coordinates</p> <p>Spot Move Animation – Move an object on a predefined path</p> <p>Direct Window – Popup Window on Bit status change</p> <p>Indirect Window – Popup Window depending on Word's value</p> <p>Bargraph – Display data as changing rectangle</p> <p>Alarm Display – display predefined text strings in response to bit changes</p> <p>Trend Graph – Plots active data on a trend</p> <p>Data History Display – Show contents of Data Logger</p> <p>Meter – Display one of 4 different types of meters</p> <p>Scrolling Alarm – display predefined text strings in response to bit changes</p> <p>Event Display – display and log predefined text strings in response to bit or word changes</p> <p>Data Logging – Move PLC data to USB or CF Card memory</p> <p>PLC Controls: Change window, Backlight control, Macro Execution, Data Transfer</p>

Installation Guide

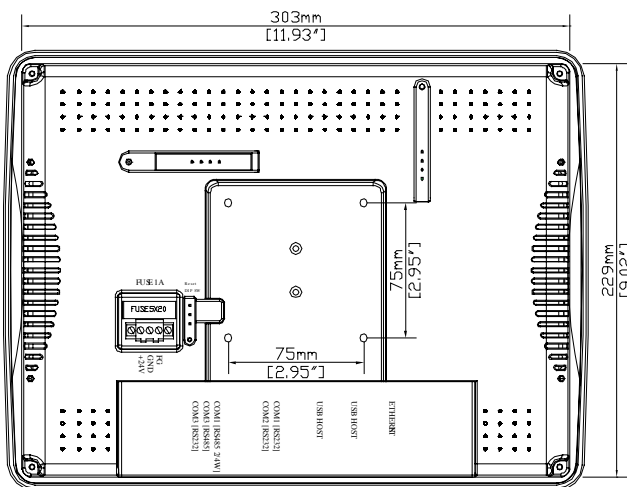
Dimensions are in mm (inches)



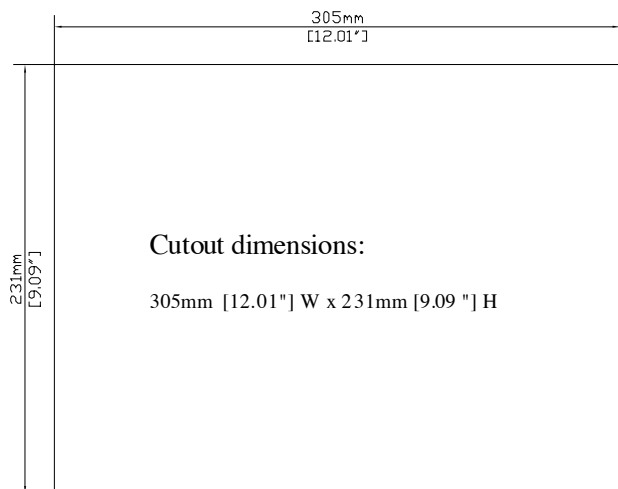
Front View



Bottom View



Rear View



Panel Cutout



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Ordering Information

Part Number	Description
MMI8121	Graphic Interface with 12.1" Color LCD display and Touchscreen. Setup software and Ethernet Crossover cable for programming included