

HMI -200

10.4" (640x480) VIA
Eden 667MHz Panel PC

Shortform Users Manual

Contents

1	Description	2
2	Features	2
3	Specifications.....	3
4	Drawings	4-5
5	Connections	6-8

1 Description

The HMI-200 is a 10.4" Panel PC designed for a wide range of HMI (Human Machine Interface) applications. The rugged construction, modern styling and technical features make it ideal for both commercial and industrial use. Typical applications include Instrument Operator Panels, Machine Control, Factory Automation, POS terminals and Control & Monitoring.

The HMI-200 uses a low power Pentium III compatible VIA Eden 667MHz processor and is fan cooled to give reliable and robust performance in the most demanding of environments. It has a 10.4" high brightness TFT display with 640x480 resolution and 256K colours. A 40GB hard drive and 256MB memory are fitted as standard and both can be easily expanded. The unit is supplied with an autoswitching 110/240V AC power input as standard. Options include an 8-wire resistive touchscreen and DC power supplies for 12V, 24V or 48V DC operation. The HMI-200 has a comprehensive range of I/O ports and supports a wide range of operating systems including DOS, Win3.11/95/98/NT4/2000/XP, Linux and QNX.

The HMI-200 is constructed from anti-corrosive steel with an aluminium front bezel sealed to IP65 and finished in Black or RAL7032 as standard. The unit has a 75mm VESA standard mount and can be panel, wall, desktop or swing arm mounted. Because of the modular design and since it is manufactured by IPC in the UK it can be easily customised to suit most applications.

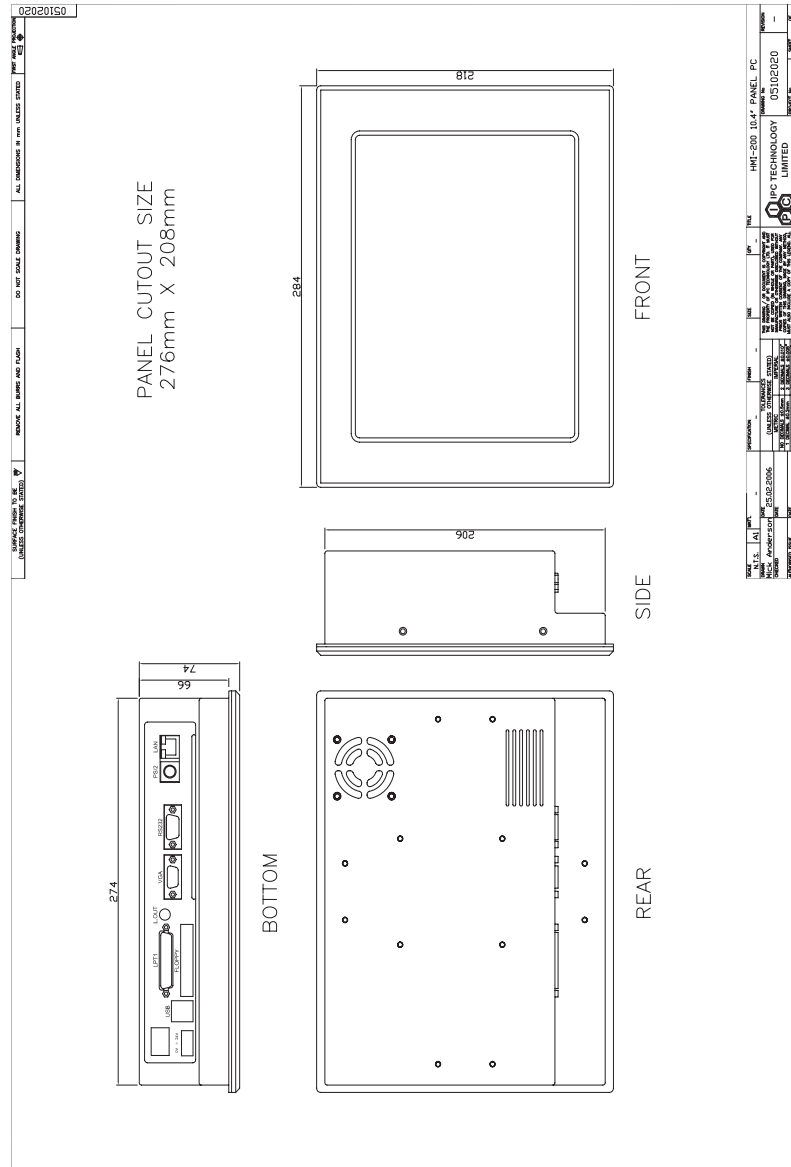
2 Features

- Low-power PIII-667MHz processor
- 10.4" Colour TFT display with 256K colours
- 256MB PC133 memory and 40GB Hard drive
- I/O ports include 2xUSB, Ethernet, Floppy, Printer, Audio Line-out, 1xRS232/422/485, VGA, PS/2 keyboard & mouse
- Optional Resistive Touchscreen & Flash Disk Storage
- Fan cooled enclosure for increased reliability
- Mains Input 100-240V AC (optional DC 12,24 or 48V)
- Rugged construction and IP65 sealed for harsh industrial environments
- Can be customised to suit specific applications
- Support for DOS, Win3.11/95/98/NT4/2000/XP, Linux, QNX etc.

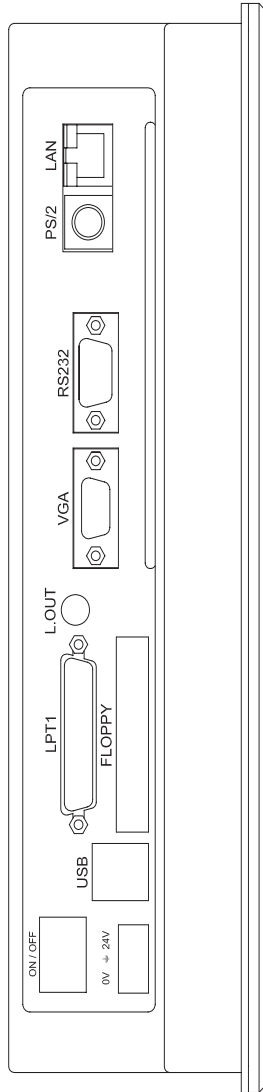
3 Specifications

Single Board Computer	
Processor Card	PCM-9372F
CPU	Low Power VIA Eden 667MHz
Memory	256MB (512MB Max.)
Graphics	VIA Twister chip with Savage4 video accelerator
Network	1x10/100 Base-T Ethernet
Audio	AC97 Line-out
Miscellaneous	On-board Watchdog Timer
I/O Ports	2xUSB, LAN, FDD, VGA, COM1, Audio Line-out, PS/2 keyboard & mouse
Display	
Size	10.4"
Resolution	VGA (640x480)
Viewing Angle	170 degrees (horiz. & vert.)
Contrast Ratio	300:1
Luminance	350 cd/sq.m
Colours	262,144
Touchscreen	
Type	8-wire resistive
Resolution	1024 x 1024
Transmissivity	80%
Durability	>50 million operations
Interface	RS232 (USB or PS/2 optional)
Software Support	Drivers for DOS, Win 3.11/95/98/NT4/2000/XP etc.
Drives	
Floppy Drive	None (FDD port available for external floppy drive)
CD/DVD	None (use external CD/DVD on USB)
Hard Drive	40GB 2.5" Drive Installed
Miscellaneous	Optional Flash Hard Drive or DOM(DiskOnModule)
Power	
Consumption	Typical 30W
Mains Input Voltage	81 -264 VAC autoswitching 50/60Hz
Optional DC Input	12V, 24V or 48V
Mounting Options	Panel Mounting (4 x Panel Mounting Brackets) and 75mm VESA Mount
Operating Conditions	
Temperature	0 to 50° (operating) -20 to 60° (non-operating)
Humidity	10 - 90% (non-condensing)
Shock	10G (operating) 30G (non-operating)
MTBF	>50,000 hrs
Physical Characteristics	
Overall Dimensions (W x H x D)	284 x 218 x 66 mm
Panel Cut Out (W x H)	276 x 208 mm
Weight (kg)	3.5kg

4 Drawings



4.1 HMI-200 10.4" Panel PC



4.2 HMI-200 DC Connector Panel

5 Connections

Power Connector - 24V DC	
Pin	Signal
1	0V
2	EARTH
3	+24V

Dual USB Port Connector			
Pin	Signal (USB1)	Pin	Signal (USB2)
1	+5V	1	+5V
2	-DATA	2	-DATA
3	+DATA	3	+DATA
4	GND	4	GND

Floppy Disk Drive Connector			
Pin	Signal	Pin	Signal
1	GND	2	DENSITY SELECT*
3	GND	4	N/C
5	GND	6	DRIVE TYPE
7	GND	8	INDEX*
9	GND	10	MOTOR 0*
11	GND	12	DRIVE SELECT 1*
13	GND	14	DRIVE SELECT 0*
14	GND	16	MOTOR 1*
17	GND	18	DIRECTION*
19	GND	20	STEP*
21	GND	22	WRITE DATA*
23	GND	24	WRITE GATE*
25	GND	26	TRACK 0*
27	GND	28	WRITE PROTECT*
29	GND	30	READ DATA*
31	GND	32	HEAD SELECT*
33	GND	34	DISK CHANGE*
*low active			

34

32

33

31

4

3

2

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Printer Port LPT1 Connector				
Pin	Signal	Pin	Signal	
1	STROBE*	14	AUTOFEED*	
2	D0	15	ERROR	
3	D1	16	INIT*	
4	D2	17	SELECTIN*	
5	D3	18	GND	
6	D4	19	GND	
7	D5	20	GND	
8	D6	21	GND	
9	D7	22	GND	
10	ACK*	23	GND	
11	BUSY	24	GND	
12	PE	25	GND	
13	SELECT			
* low active				

VGA Connector			
Pin	Signal	Pin	Signal
1	Red	9	VDDC
2	Green	10	GND
3	Blue	11	N/C
4	N/C	12	DDCSDA
5	GND	13	H-SYNC
6	GND	14	V-SYNC
7	GND	15	DDCSCL
8	GND		

COM1 RS-232 Serial Port Connector	
Pin	Signal
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

PS/2 Keyboard & Mouse Port Connector	
Pin	Signal
1	KB DATA
2	MS DATA
3	GND
4	VCC
5	KB CLOCK
6	MS CLOCK

Ethernet 10/100 Base-T Connector	
Pin	Signal
1	XMT+
2	XMT-
3	RCV+
4	N/C
5	N/C
6	RCV-
7	N/C
8	N/C