Onyx-151

Professional Panel PC / LCD PC

Quick Installation Guide

Safety & Warranty

1. Read these safety instructions carefully.

2. Keep this user's manual for later reference.

3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.

4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.

5. Keep this equipment away from humidity.

6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.

7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.

9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.

12. Never pour any liquid into an opening. This could cause fire or electrical shock.

13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

14. If any of the following situations arises, get the equipment checked by service personnel:

    a. The power cord or plug is damaged.

    b. Liquid has penetrated into the equipment.

    c. The equipment has been exposed to moisture.

    d. The equipment does not work well, or you cannot get it to work according to the users manual.

    e. The equipment has been dropped and damaged.

    f. The equipment has obvious signs of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.
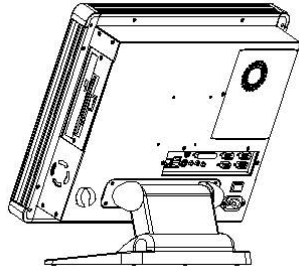
FCC Safety

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.
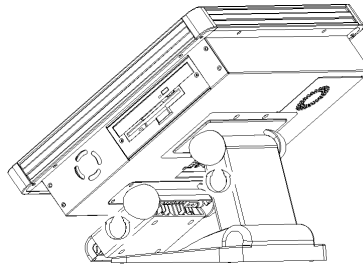
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A. Perspectives

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B. Specifications

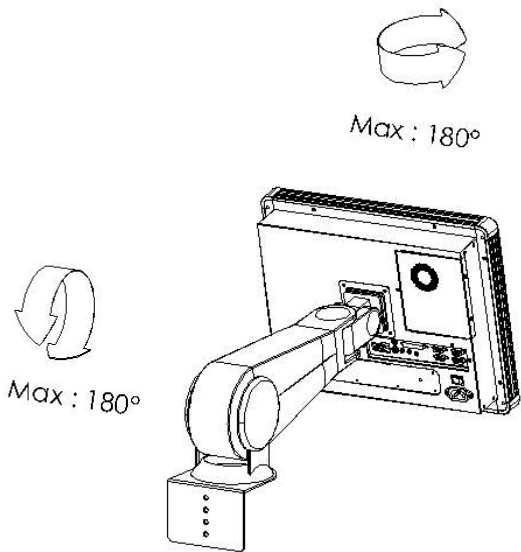| Onyx-151 General Specifications	
LCD	15" color TFT 1024x768, 250 cd/m2 high brightness
Power supply	100W 90~264VAC (optional 18~36VDC or 36~72VDC power supply)
CPU	Intel FC-370 Cerelon / Pentium III CPU up to Pentium III 850MHz
Memory	Up to 256MB
HDD	One 2.5" hard drive
FDD	One slim floppy drive
CD-ROM drive	One slim CD-ROM
Flash disk	DiskOnChip
Networking (LAN)	10/100 Base-T
I/O	COM ports	3 x RS-232, 1 x RS-232/422/485
	Parallel port	Yes
	PS/2 mouse & K/B	Yes
	VGA port	Yes
	Bus expansion	N/A
	Touch screen	Resistive touch screen (optional)
	USB	Yes
	Audio	Yes
Watchdog timer	Yes
Infrared transmission	Yes
Brightness control	Yes
Mounting	Desktop stand (standard), Tilting kit (optional), Swivel arm (optional) Panel mounting (standard)
Front panel meets IP-65, NEMA 4/12	Yes
Operation Temperature	PC module	0~45 ℃
	LCD module	0~45 ℃

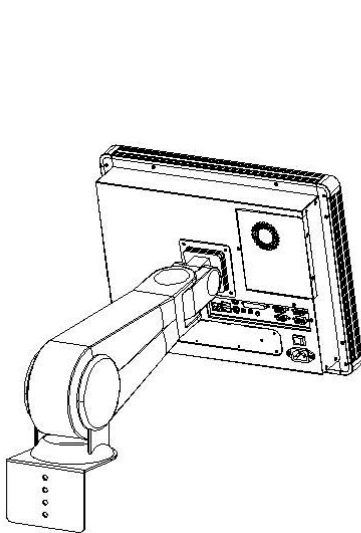## C. Onyx-151 in a desktop stand
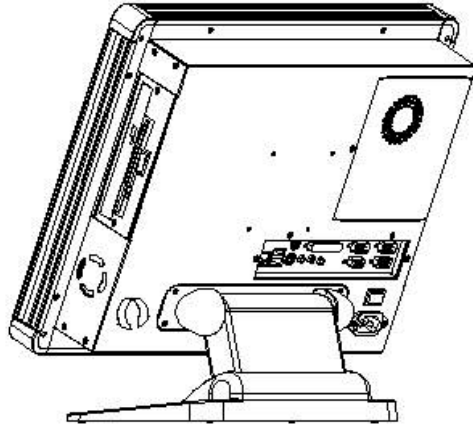
Rear view
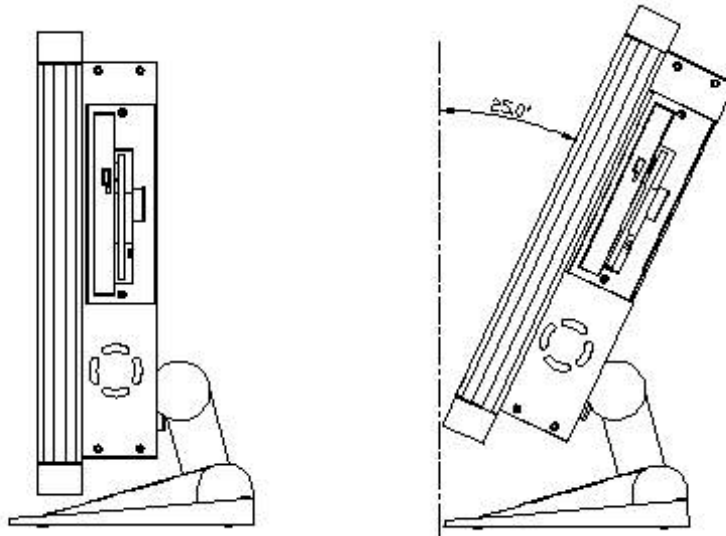
Side view

25 degree pitch allowance

D. Onyx-151 in a tilting stand

312.3

300.0

40.0°

35.0°

308.8

307.0

20.0°

292.0

321.6

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E. Onyx-151 in a swival arm

VESA standard
mounting holes

Max : 100.0°

Max : 270°

Max : R500mm

Max : 180°

Max : 180°

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F. Panel mounting

M4 STUD
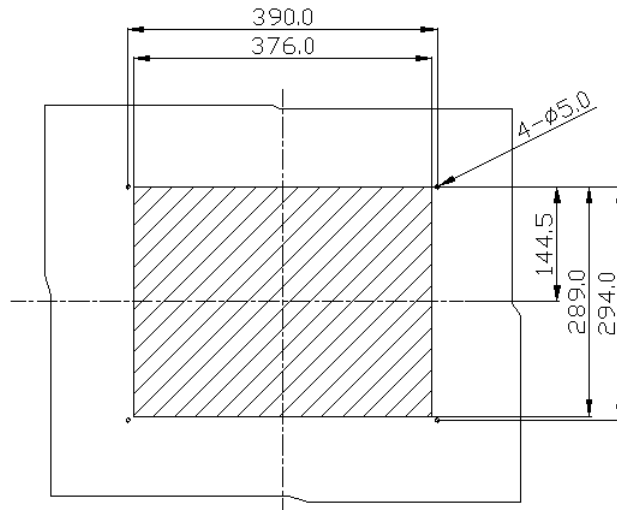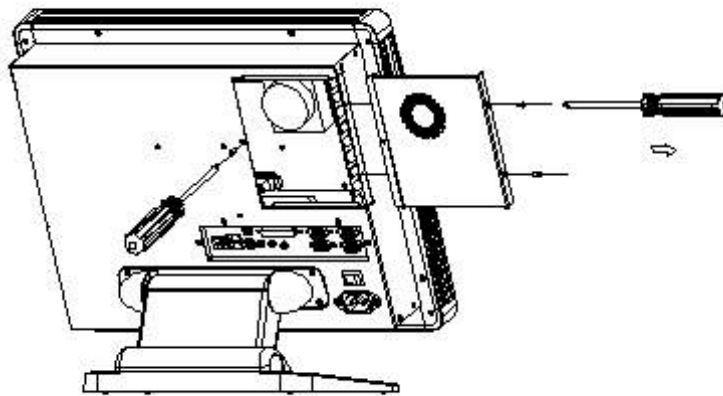

M4 NUT

M4 WASHER

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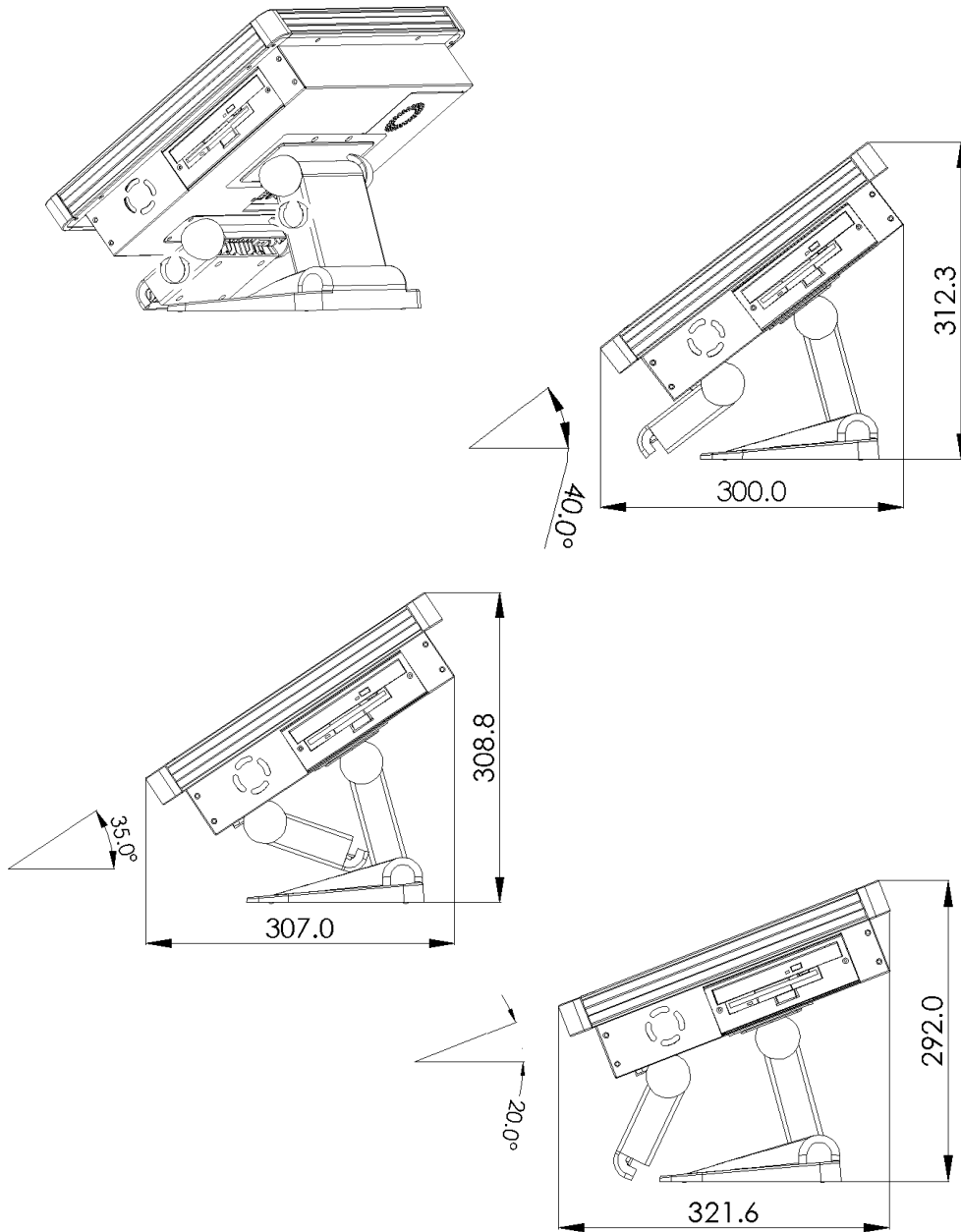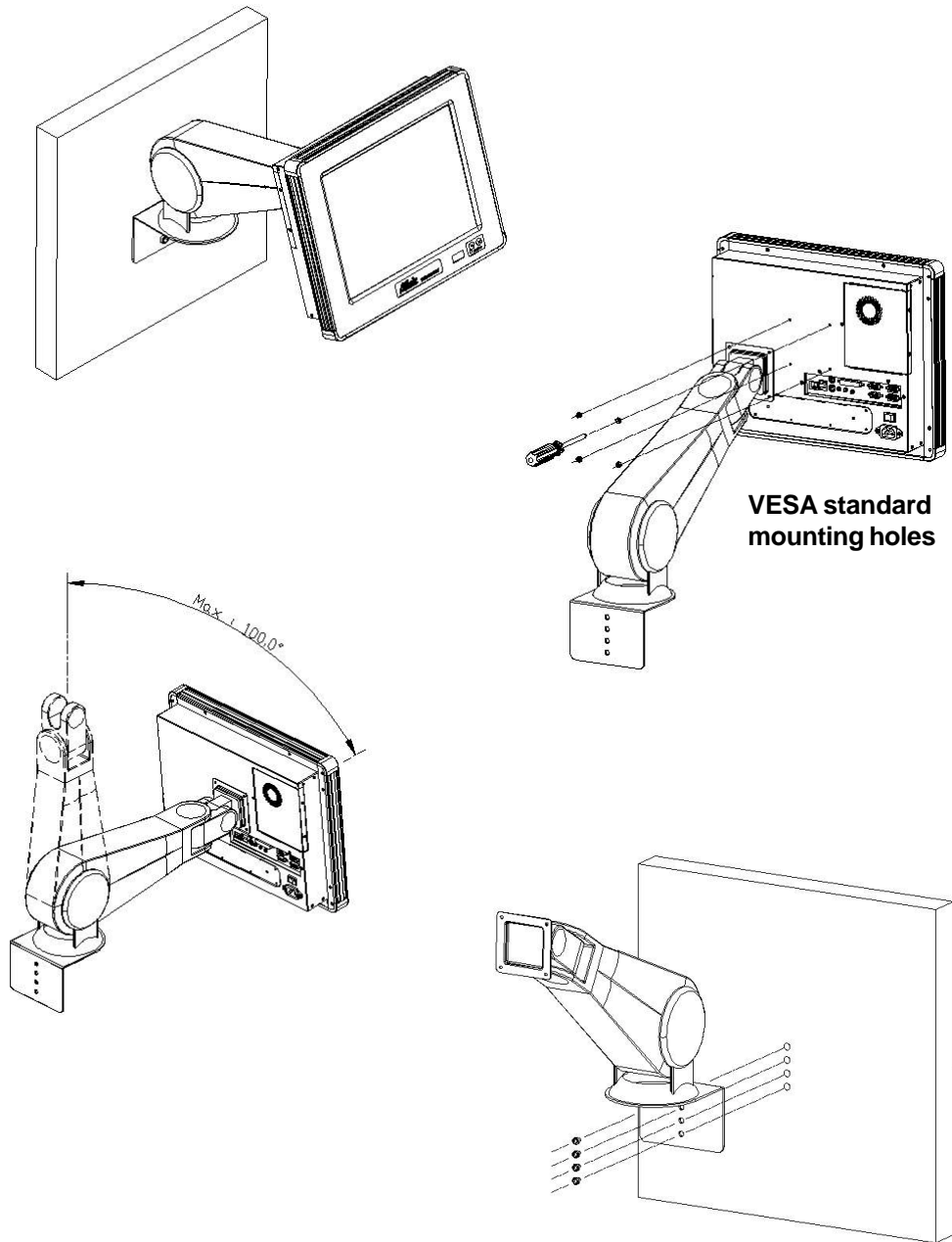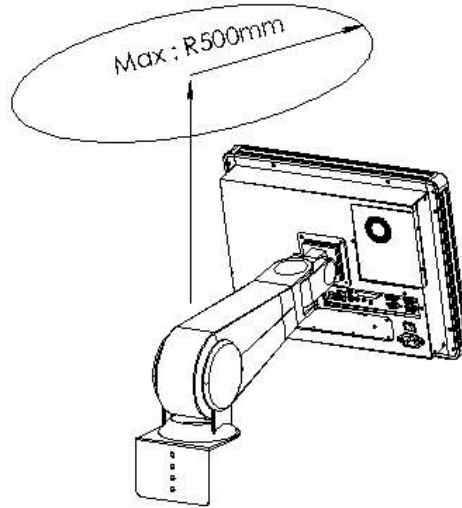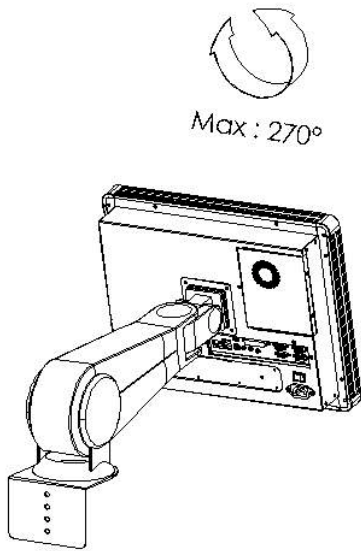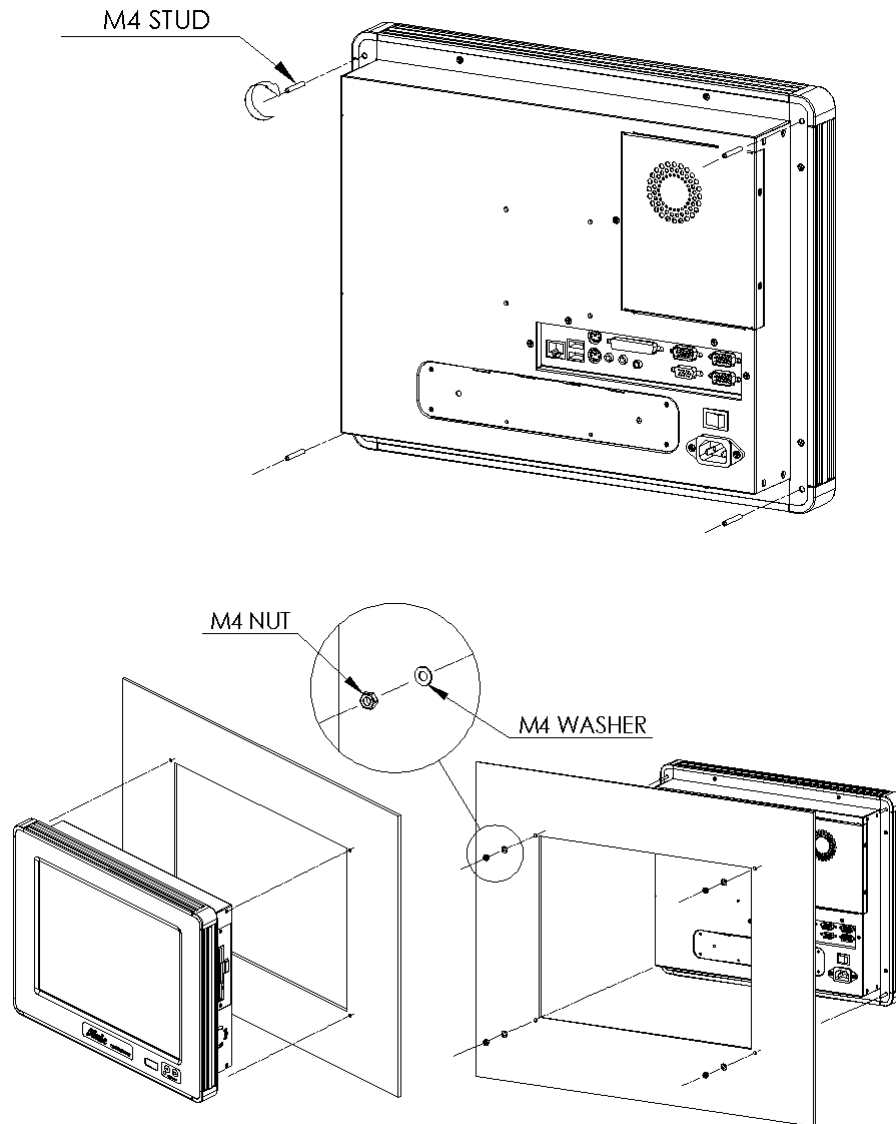
G. Cut out for Panel mounting

H. Remove speaker panel to upgrade CPU & RAM

I. CPU configuration

CPU core frequency = CPU frequency ratio (2~5.5)*External bus clock (66 or 100Mhz)

CPU FREQUENCY RATIO	SW1(4)	SW1(5)	SW1(6)
2X	ON	OFF	OFF
2.5X	ON	OFF	ON
3X	ON	ON	OFF
3.5X	ON	ON	ON
4X	OFF	OFF	OFF
4.5X	OFF	OFF	ON
5X	OFF	ON	OFF
* 5.5X	OFF	ON	ON

* Default

Note :

Most requency ratio of Celeron CPUs are pre-locked within the CPUs. These CPUs run at fixed speed (frequency) regardless of the configurations listed above.

If the CPU you are using requires higher ratio than 5.5X, it is most likely pre-locked.

J. DRAM installing

System Memory
The left edge of the Onyx-151 MAIN BOARD contains a socket for 168-pin dual inline memory module (DIMM). The socket uses 3.3 V unbuffered synchronous DRAM (SDRAM). DIMM is available in capacities of 16, 32, 64, or 128 MB. The socket can be filled in the DIMM of any size, giving your Onyx-151 MAIN BOARD between 16 and 128 MB of memory.

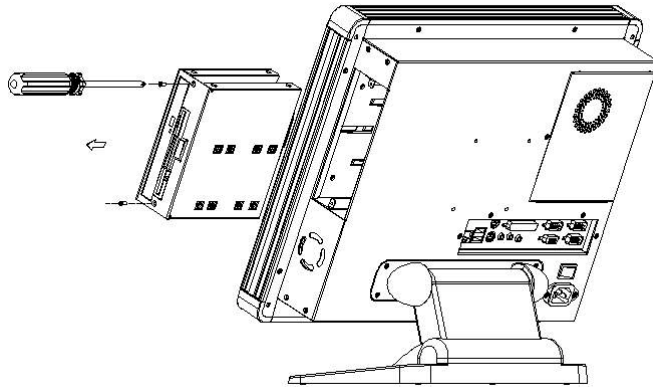### Supplementary information about DIMM
Your Onyx-151 MAIN BOARD can accept both regular and PC-100 SDRAM DIMM Module(with or without parity). However, if the Pentium II 350MHz or up CPU is used, The Onyx-151 MAIN BOARD can only accept PC-100 SDRAM DIMM Module. Single-sided modules are typically 16 or 64 MB; double-sided modules are usually 32 or 128 MB.

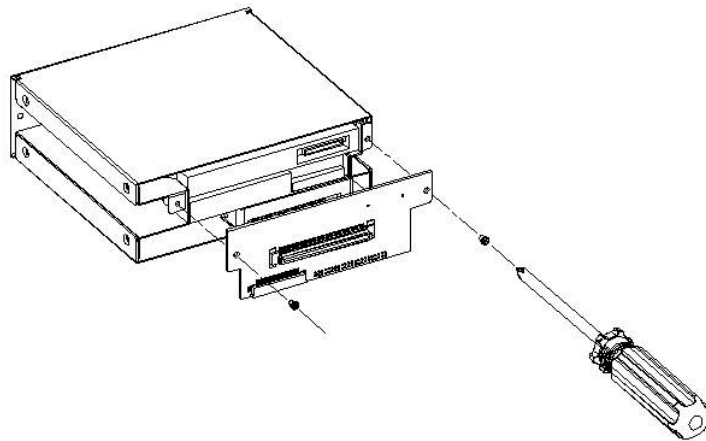### Memory Installation Procedures
To install DIMM, first make sure the two handles of the DIMM socket are in the **open**" position. i.e. The handles remain outward. Slowly slide the DIMM module along the plastic guides on both ends of the socket. Then press the DIMM module right down into the socket, until you hear a click. This is when the two handles
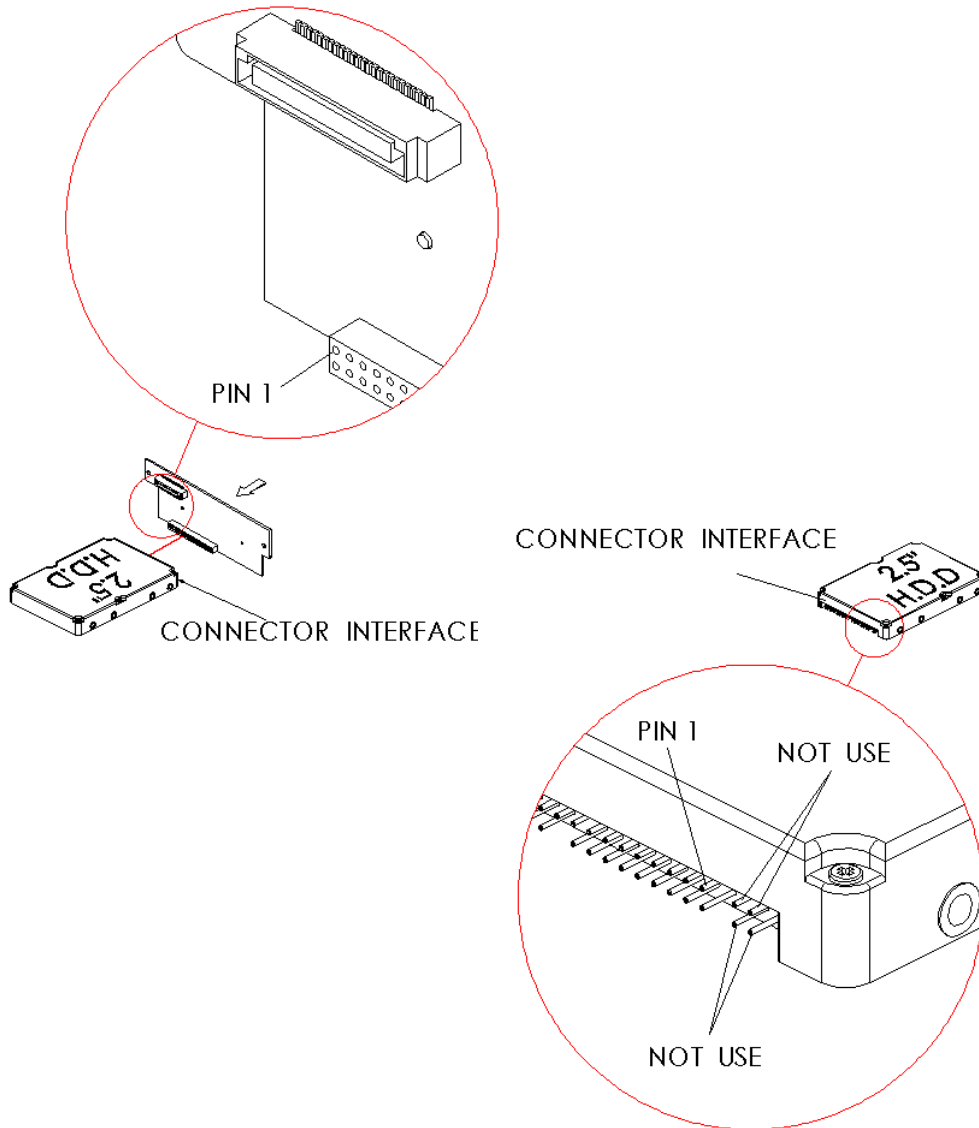
K. HDD/CD-ROM/FDD installation

To remove the HDD/CD-ROM/FDD module

To remove the backplane from the module

To install a 2.5 inches HDD

PIN 1

CONNECTOR INTERFACE

2.5'
H.D.D

CONNECTOR INTERFACE

2.5'
H.D.D

PIN 1   NOT USE

NOT USE

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To secure HDD, FDD, CD-ROM

Note:
1. **FDD & CD-ROM should be intalled before HDD**
2. **HDD should always attach to the backplane first before sliding into the module**
3. **There should be a mylar at the bottom of the module to protect HDD from grounding. If not, please check with your supplier.**

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L. Dimensions

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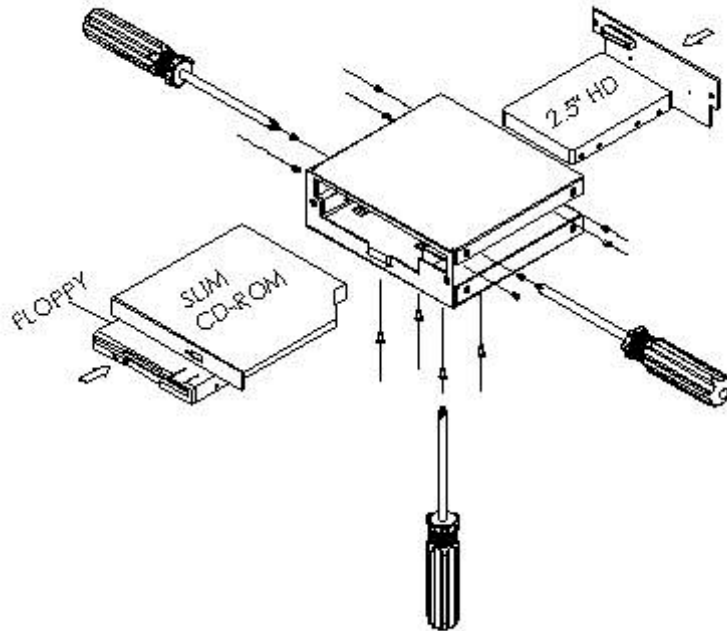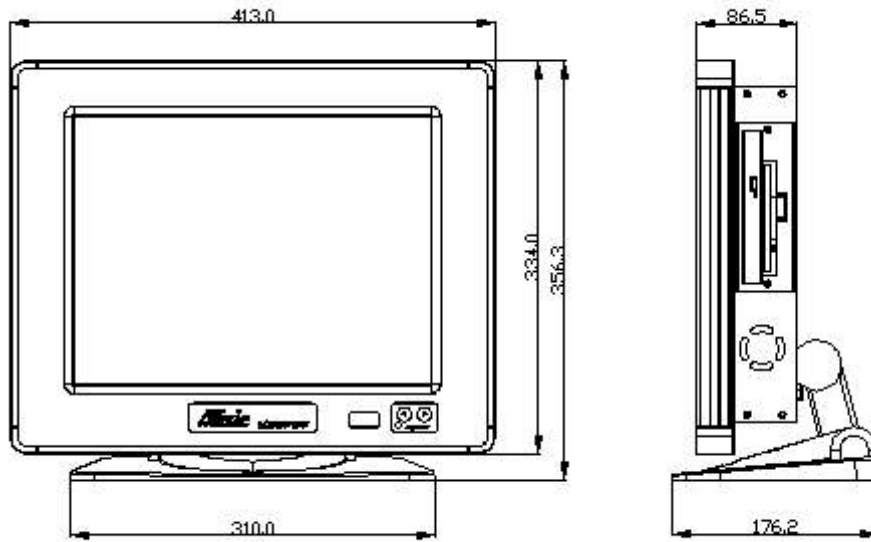
M. I/O ports
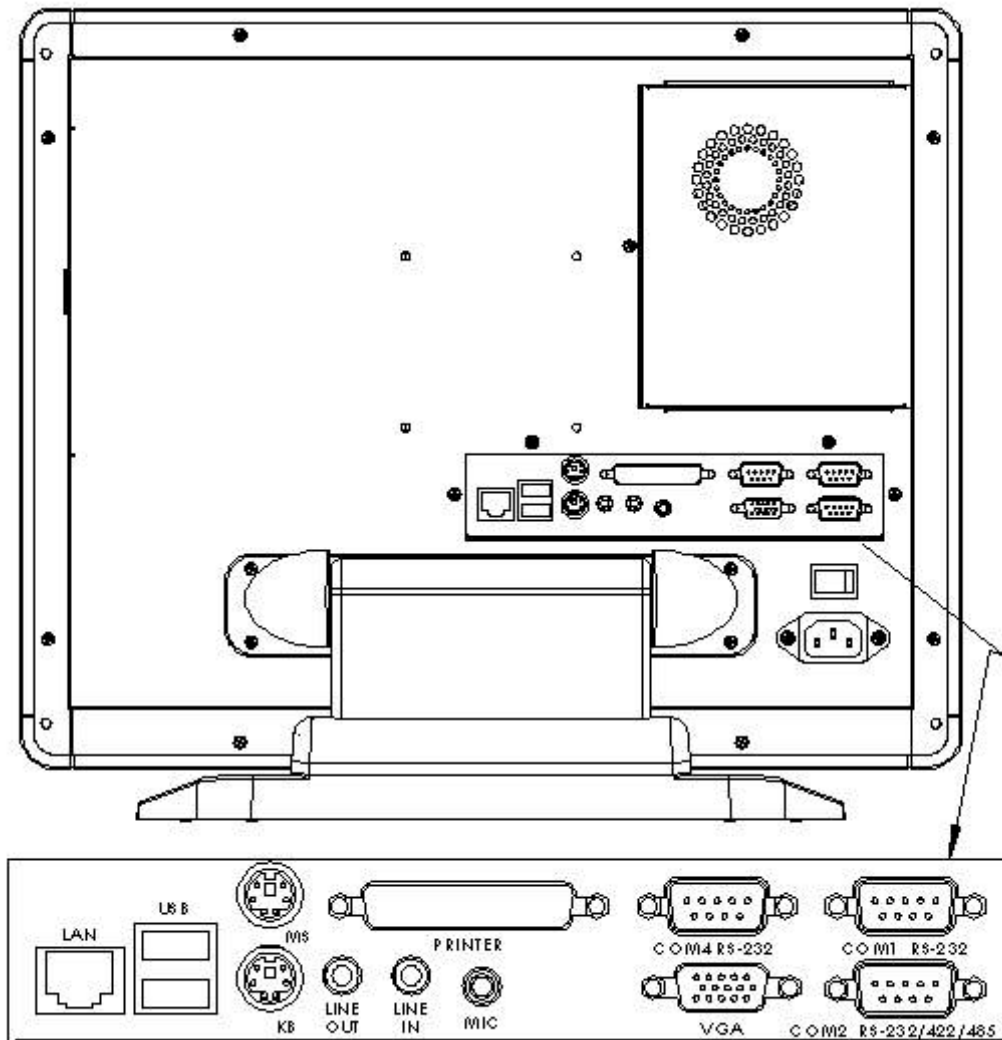
N. COM2 RS-232/422/485 select (J10, J7)

COM2 RS-232/422/485 select (J10, J7)

The COM2 serial port can be selected as RS-232, RS-422, or RS-485 by setting J10 & J7.

COM2 Select (J10, J7)

	RS-232*	RS-422	RS-485
J10	1 4 7 10 ... 3 6 9 12	1 4 7 10 ... 3 6 9 12	1 4 7 10 ... 3 6 9 12
J7	1 3 5 ... 2 4 6	1 3 5 ... 2 4 6	1 3 5 ... 2 4 6

*default