

# EBOX-3300MX / 3310MX series

## User's Guide



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# Safety Information

## WARNING

- Do not expose EBOX to rain or moisture, in order to prevent shock and fire hazard.
- Never install EBOX in wet locations.
- Do not open the cabinet to avoid electrical shock. Refer to your nearest dealer for qualified personnel servicing.
- Never touch un-insulated terminals or wire unless your power adaptor and display monitor are disconnected.
- Locate EBOX as close as possible to the socket outline for easy access and to avoid force caused by entangling of your arms with surrounding cables from the EBOX.
- When using EBOX, avoid using or installing the modem to the serial port during a storm or a lightning.
- Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.
- USB connectors are supplied with Limited Power Sources.

**DO NOT ATTEMPT TO OPEN OR TO DISASSEMBLE THE CHASSIS (ENCASING) OF THIS PRODUCT. PLEASE CONTACT YOUR NEAREST DEALER FOR SERVICING FROM QUALIFIED TECHNICIAN.**

# Regulatory

## FCC Class A Note

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference in which case the user will be required to correct the interference at his own expense. Testing was done with shielded cables. Therefore, in order to comply with the FCC regulations, you must use shielded cables with your installation.

## WARNING

This product complies with EN55022 class A. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the 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.

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference - causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications.

## Manufacturer's Declaration of Conformity

This equipment has been tested and found to comply with the requirements of European Community Council Directives 89/336/EEC and 73/23/EEC relating to electromagnetic compatibility and product safety respectively.

## Attention

This product has been designed and certified to comply with certain regulatory requirements pertaining to Information Technology Equipment. This product has not been designed for use as a medical device. Without limitation of the foregoing, this product is not intended and has not been certified for use in a hospital or clinical environment to diagnose, treat, or monitor patients under medical supervision, and is not intended and has not been certified to make physical or electrical contact with patients, nor to transfer energy to or from patients and/or to detect such energy transfer to or from patients.

# Purchase Agreement

## Purpose:

In accordance to the general commercial conduct of Trust and Fair Trade, herewith below is the agreement for the protection for both parties, DMP and Users in pursuant of trading.

## Product Description:

With this product, herewith also known as EBOX-3300MX / 3310MX series, which is a simplified & an economical design of an embedded device for Special Purpose Personal Computing. The basic specification of this product comprises of the x86 technology design, and with onboard 1GB DDR2 System memory, VGA display, USB, PS/2 Keyboard/Mouse, RCA TV-in and LAN Interfaces.

## Distribution Convention:

1. This Product includes a gift box, an inner case, a PC, a Power adaptor, (and SATA cable will be included only for Models with SATA supported package). Upon receiving this product, kindly please refer to the User' Manual to check for the contents and appearance of this product; contact immediately your nearest dealer or DMP office for any defective or missing parts. The supplier will not be responsible for any reported discrepancy thereafter the expiration period of 3-days from the date of purchase.
2. In consideration of transportation and the cost of storage, the supplier provides to the distributors a warranty of 12-months. This warranty covers the failure caused by hardware breakdown (excluding hard drives), but does not cover the act of misuse and mishandling.
3. The supplier will not accept unknown post, therefore if you wish to repair or to return your goods – kindly please contact your nearest dealer to make your declaration, and at the same time, apply for an RMA number (RMA stands for Return Merchandise Authorization – please ask for RMA form and fill-up for authorization).
4. The freight for return goods for repair will follow the International customary practice and convention: Both parties is to pay for freight of one shipment each. The shipper is required to prepay the freight from the place of origin (This means that the returnee (user) covers the freight for return goods, while the Supplier covers the freight for goods after the repair).
5. Obsolete warranty is referred to as: (1) Expiration of warranty or (2) Damage due to misuse within warranty. The Supplier will be taken into consideration of the circumstances, to provide repair service with charges expense for obsolete warranty. This expense includes the cost of material and the cost of labor.

**Note:** If there is other particular issue not listed in the above conditions, both parties agreed to follow the General Law of Commerce with fair and reasonable discussion in handling and resolving the argument.

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# Chapter 1



# Unpacking Your EBOX Mini PC

Congratulation! You have just acquired EBOX-3300MX / 3310MX series, please check the following items:

## Packing List:

Item No.	Description	Q'ty
1	EBOX-3300MX / 3310MX series VESA PC	x1
2	Max. 22.5 watts External Power Adaptor, Vin: 100~240VAC 50/60Hz, Volt: +15VDC @ 1.5A Max.	x1

**Note:** The accessories are subject to change without immediate notice.

## Check Before Use

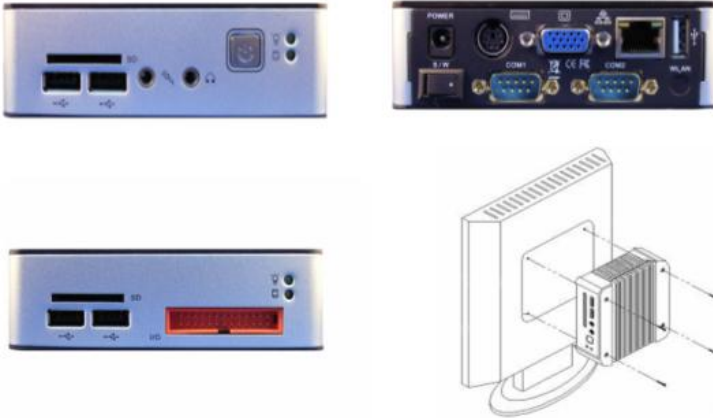
1..EBOX-3300MX / 3310MX series Unit

2. AC Power Adaptor



# Preface

## EBOX-3300MX / 3310MX series: VESA PC



The EBOX-3300MX / 3310MX series is a revolutionary device which is especially designed for limited physical space and temperature concerns. No matter you are in a jammed office, a crowded place, or public transportation, it can be easily integrated with a VESA LCD to bring you EBOX-3300MX / 3310MX series access at any time.

It can attach to any VESA mounting fixture; allowing it to be securely mounted onto desks, walls, or buildings, and thereby optimizes your work area. It can also attach directly to any size LCD for a mobile system for the use at trade shows, presentations, promotions, etc. Unlike traditional portable laptop design, the EBOX-3300MX / 3310MX series can be used with a large size LCD. Furthermore, with FANLESS design, EBOX-3300MX / 3310MX series is ideal to be used in the environment where temperature demand is critical.

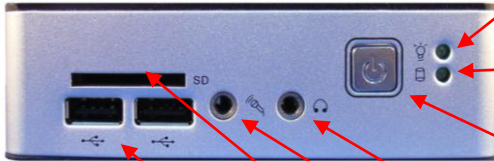
So, if you are looking for a device that is able to provide you with more mobility & space but at the same time uses less power consumption, then EBOX-3300MX / 3310MX series will be surely meet your need.

The VESA® FDMI™ Standard defines mounting interfaces, hole patterns and associated cable/power supply locations for LCD monitors, plasma displays and other flat panel devices. EBOX-3300MX / 3310MX series is designed to fit this standard to make monitor attachment quickly and easy.

# Chapter 2

# EBOX-3300MX / 3310MX series Overview

## Front Panel



### Power LED

The power LED lights up when system is turn on.

### HDD LED

LED flashes when the system is accessing Hard Drive.

### Reset Button

For system reset or turn on

### Audio Line Out

Audio output to speaker

### Audio Mic In

For Microphone Input

### SD Slot

This system is bootable from SD card.

### USB v2.0 ports

For connection to devices with USB interface (HDD, CD/DVD-ROM, Memory Stick, etc.)

## Back Panel

### DC Power Jack

### PS/2 Keyboard or Mouse (6-pin)

### VGA

### Power switch

### USB Port

### RJ-45 LAN Jack

### Wireless Antenna connector (optional)

### RS-232



# System Specification

## CPU

Vortex86MX ( EBOX-3300MX series)

Vortex86MX+ (EBOX-3310MX series)

## Main Memory

512MB DDR2

( 16-bit DRAM bus, EBOX-3300MX series)

1GB DDR2

( 32-bit DRAM bus, EBOX-3310MX series)

## BIOS

AMI BIOS

## VGA

Resolution up to 1600 x 1200 High Colors

( EBOX-3300MX series)

Resolution up to 1920 x 1200 High Colors

( EBOX-3310MX series)

## TV Output

RCA Jack x1 (Optional)

## Keyboard and Mouse

PS/2 Keyboard and Mouse

## On-Board SATA

SATA 2.0 connector x1

## Peripheral

1. USB V2.0 x 6

2. SD slot x 1(Optional)

3. Serial ports x 4 (available for some listed models)

4. Audio (Mic In, Line Out)

5. 24 bit GPIO port x 1

(available for GPIO supported models)

## Dimension & Weight

115 x 115 x 35 mm / 500g

## Operating System

Windows XP Home/ Pro.

Windows XP Embedded

Windows Embedded CE

## Supported Linux Distribution list:

1. Debian 4.0
2. Debian 5.0
3. Ubuntu 8.04
4. Ubuntu 8.10
5. **Ubuntu 9.04**
6. Ubuntu 10.04
7. **Edubuntu 9.04 (Ubuntu 8.10 base)**
8. **Easy Peasy 8.10**
9. Puppy 4.2.1
10. Puppy 4.1.2
11. WattsOS2 Warp30 (Ubuntu 8.10 base)

※ Red letters: Standard IDE compatible option enable could help for install directly

※ Ubuntu 8.10 / WattOS, Remember to enable the Media Port Instruction option for VGA compatible. Resource (Kernel/Drivers Package):

# Peripherals

## Connecting the Power Adaptor



### DC Power Jack

To use EBOX-3300MX / 3310MX series immediately, please attach the supplied adaptor for the power source. See the left diagram for visual connection.

Connect the DC power jack of the power adaptor to the DC Input of EBOX-3300MX / 3310MX series.



### Turning ON EBOX-3300MX / 3310MX series

Switch on power as indicated on your left-side figure, the system will start .

**Note:** With the Auto Power On supported models (optional), the system then will be turned on automatically.

## Connecting the Monitor



### VGA Connection

Make your LCD display connection with the VGA cable to the 15-pin D-Sub VGA port.



### TV Out Connection (Optional)

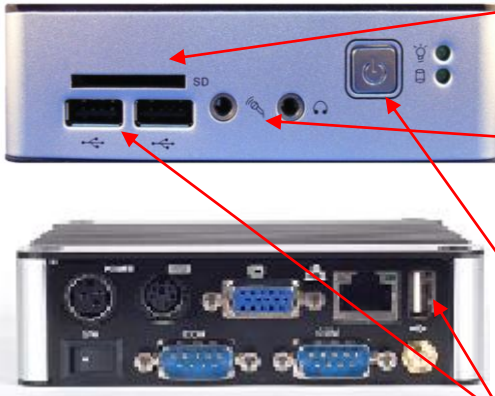
You can connect to the Traditional TV display via RCA Jack by using the Audio/Video Cable (Not included).

**Note:** This feature only available on TV-out supported model.

# Peripherals

## Connecting the USB

EBOX-3300MX / 3310MX series provide 3 external USB ports with ( 2 at the front, 1 at the rear ) and one internal USB port.



### SD Slot

For booting device by SD Card.

### Microphone/Earphone

The EBox-33xxMX supports Microphone Input and Speaker Output

### Reset Button

For system reset or turn on  
Note: Models with Auto Power On feature has Reset Button Eliminated.

### USB Ports

The USB ports are available for connection to USB devices such as CD-ROM / Pen Drive.

## Connecting the LAN



### RJ-45 LAN

There is an available RJ-45 LAN jack for Ethernet connection.  
(see left diagram for RJ-45 Jack).

# Connecting the Keyboard and Mouse



## PS/2 Keyboard or Mouse (6-pin)

This PS/2 Port is shared for connecting Keyboard and/or Mouse by using Split Y-Cable (not included).

# Connecting Serial port



## Serial Ports (Optional)

The serial port is usually connected to a serial device like modem or terminal devices.



# Chapter 3

# BIOS Reconfiguring

1. AMI BIOS is used in the EBOX-3300MX / 3310MX series. To reconfigure the EBOX-3300MX / 3310MX series, depress or hit the <Del> key to enter your BIOS setup main menu.
2. Select from the menu, the desired setup for change.
3. Press <Esc> to go back to main menu.
4. Press <F9> to load factory default setting
5. Move to “Exit” TAB and select “Save Settings and Exit”, press “Y” to save the changes that you just made. EBOX-3300MX / 3310MX series will restart accordingly to your new setup.



(AMI BIOS Setup menu)

# Debian / Ubuntu Linux Installation Guide

In the MX platform, with the newer IDE and Ethernet controller, both of the two controllers just start supporting from kernel 2.6.28.3. Please refer to the guide to help you complete the installation.

## How to install Linux on Vortex86MX platform?

Preparation:

1. The Linux installation DISC (Ubuntu8.04, 9.04, 10.04, Debian4.0, 5.0)
2. A completely formatted storage (SD, 2.5' SATA HDD or SATA DOM )
3. Intel/AMD platform Personal Computer
4. Confirm the BIOS setting,
  - A. IDE Configuration\ IDE mode >> **Native mode**
  - B. USB Configuration\ USB 2.0 Controller Mode >> **Fullspeed**
5. The 2.6.30 or higher kernel package DMP provided for Vortex86MX+ platform.

**Note:** The completely formatted storage is helpful to avoid some unexpected error in the procedure. After you plug all the devices and ready to install, please follow the steps as below:

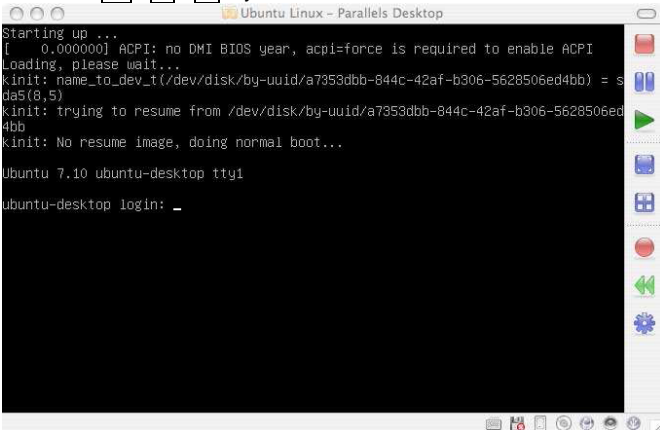
### Step1:

Please follow the standard procedure to install the Linux OS base on the Intel or AMD platform first, and make sure your Linux can boot up normally, after install completed.

### Step2:

A. Copy the .deb file (kernel package) that DMP provided into your USB pen driver or other removable storage.

B. Press **Ctrl + Alt + F1** keys to enter text mode.



```
Starting up ...
[ 0.000000] ACPI: no DMI BIOS year, acpi=force is required to enable ACPI
loading, please wait...
kinit: name_to_dev_t(/dev/disk/by-uuid/a7353dbb-844c-42af-b306-5628506ed4bb) = s
daS(0,5)
kinit: trying to resume from /dev/disk/by-uuid/a7353dbb-844c-42af-b306-5628506e
d4bb
kinit: No resume image, doing normal boot...

Ubuntu 7.10 ubuntu-desktop tty1
ubuntu-desktop login: _
```

The system would ask you to enter your user name and password.

C. Plug on the USB pen driver and try to mount it as mnt.

```
#sudo su
#mount /dev/sda1 /mnt
#cd /mnt
```

Confirm the actual codename to mount.

D. To unpack the kernel package and update.

```
# dpkg -i xxx.deb  
# update-initramfs -k 2.6.30-vortex86mx -c  
# update-grub
```

E. When these three procedures completed, type reboot to reboot system.

```
# reboot
```

**Step3:**

Moving the storage installed Linux, back to VortexMX platform.

**Step4:**

Turn on the power to boot.

### For Ubuntu

When it starts booting, press the **Esc** key when it boot. Confirm the Grub list first. There should have an option 2.6.30-vortex86mx, and then to boot.

```
Ubuntu 9.04, kernel 2.6.30-vortex86mx
Ubuntu 9.04, kernel 2.6.30-vortex86mx (recovery mode)
Ubuntu 9.04, kernel 2.6.28-11-generic
Ubuntu 9.04, kernel 2.6.28-11-generic (recovery mode)
Ubuntu 9.04, nentest86+
```

Use the ↑ and ↓ keys to select which entry is highlighted.  
Press enter to boot the selected OS, 'c' to edit the  
commands before booting, or 'c' for a command-line.

### For Debian

Please press the **Esc** key to confirm Grub list and press **E** key to confirm and modify the storage's codename.

```
root (hd0,0)
kernel: /boot/vmlinuz-2.6.30-vortex86mx root=/dev/hdcl ro quiet splash
initrd /boot/initrd.img-2.6.30-vortex86mx
quiet
```

Use the ↑ and ↓ keys to select which entry is highlighted.  
Press 'b' to boot, 'e' to edit the selected command in the  
boot sequence, 'c' for a command-line, 'o' to open a new line  
after ('O' for before) the selected line, 'd' to remove the  
selected line, or escape to go back to the main menu.

**Note:** The Grub list parameters you can modify in the file `/boot/grub/menu.lst`.

- Primary / Master = hda1
- Primary / Slaver = hdb1
- Secondary / Master = hdc1
- Secondary / Slaver = hdd1

# Chapter 4

# Technical Specification

Model Type	3300MX	3300MX-M	3300MX-H	3300MX-C	3300MX-C22	3300MX-C85	3300MX-T	3300MX-TM	3300MX-TH	3300MX-TC		
Processor	Vortex86MX / Vortex86MX+ (933Mhz)											
Memory	Onboard 512MB DDR2/ Onboard 1GB DDR2 (Note 1)											
VGA	Integrated Graphics Chip/ D-Sub 15-pin						Integrated Graphics Chip / RCA Jack					
Ethernet	10/100 Mbps LAN(RJ-45 connector) Built-in PXE diskless boot function											
USB	External: 3 ports (2 in the front) Internal: 1 port (reserved for USB Dongle)											
Audio	Mic in and Line out											
GPIO	N/A											
MIO	SD Slot	1x										
	SATA(Note 2)	1x	N/A	1x	N/A	N/A	N/A	1x	N/A	1x	N/A	
	PS2	PS/2 for keyboard/ Mouse x 1						N/A				
Serial	RS-232(Note 3)	3x	N/A	N/A	3x	2x	2x	3x	N/A	N/A	3x	
	RS-422	N/A	N/A	N/A	N/A	1x	N/A	N/A	N/A	N/A	N/A	
	RS-485	N/A	N/A	N/A	N/A	N/A	1x	N/A	N/A	N/A	N/A	
Power	DC +8V ~ +15V											
Dimensions	115x115x35 mm											
Weight	500g											
Operation Temp.	5~50 °C											

Model Type	3300MX-G	3300MX-GC22	3300MX-GC85	3300MX-JSK
Processor	Vortex86MX / Vortex86MX+ (933Mhz)			
Memory	Onboard 512MB DDR2/ Onboard 1GB DDR2 (Note 1)			
VGA	Integrated Graphics Chip/ D-Sub 15-pin			
Ethernet	10/100 Mbps LAN(RJ-45 connector) Built-in PXE diskless boot function			
USB	External: 3 ports (2 at the front) Internal: 1 port (reserved for USB Dongle)			
Audio	N/A			
GPIO	24-bit GPIO			
MIO	SD Slot	1x		
	SATA (Note 2)	N/A	N/A	1x
	PS2	PS/2 for keyboard/ Mouse x 1		
Serial	RS-232(Note 3)	N/A	2x	3x
	RS-422	N/A	1x	N/A
	RS-485	N/A	N/A	1x
Power	DC +8V ~ +15V			
Dimensions	115 x 115 x 35 mm			
Weight	500g			
Operation Temp.	5~50 °C			

Model Type		3300MX-AP	3300MX-MAP	3300MX-HAP	3300MX-CAP	3300MX-C22AP	3300MX-C85AP
Processor		Vortex86MX / Vortex86MX+ (933Mhz)					
Memory		Onboard 512MB DDR2/ Onboard 1GB DDR2 (Note 1)					
VGA		Integrated Graphics Chip/ D-Sub 15-pin					
Ethernet		10/100 Mbps LAN (RJ-45 connector) Built-in PXE diskless boot function					
USB		External: 3 ports (2 in the front) Internal: 1 port (reserved for USB Dongle)					
Audio		Mic in and Line out					
GPIO		N/A					
MIO	SD Slot	1x					
	SATA(Note 2)	1x	N/A	1x	N/A	N/A	N/A
	PS2	PS/2 for keyboard/ Mouse x 1					
Serial	RS-232(Note 3)	3x	N/A	N/A	3x	2x	2x
	RS-422	N/A	N/A	N/A	N/A	1x	N/A
	RS-485	N/A	N/A	N/A	N/A	N/A	1x
Power		DC +8V ~ +15V					
Dimensions		115 x 115 x 35 mm					
Weight		500g					
Operation Temp.		5-50 °C					

Model Type		3300MX-TAP	3300MX-TMAP	3300MX-THAP	3300MX-TCAP
Processor		Vortex86MX / Vortex86MX+ (933MHz)			
Memory		Onboard 512MB DDR2/ Onboard 1GB DDR2 (Note 1.)			
VGA		Integrated Graphics Chip / RCA Jack			
Ethernet		10/100 Mbps LAN (RJ-45 connector) Built-in PXE diskless boot function			
USB		External : 3 ports (2 at the front) Internal : 1 port (reserved for USB Dongle)			
Audio		Mic in and Line out			
GPIO		N/A			
MIO	SD Slot	1x			
	SATA (Note 2.)	1x	N/A	1x	N/A
	PS2	N/A			
Serial	RS-232(Note 3.)	3x	N/A	N/A	3x
	RS-422	N/A	N/A	N/A	N/A
	RS-485	N/A	N/A	N/A	N/A
Power		DC +8V ~ +15V			
Dimensions		115 x 115 x 35 mm			
Weight		500g			
Operation Temp.		5 ~ 50 °C			



Model Type		EBOX-3310MX-L3U4	EB-3310MX-L3U4AP
Processor		Vortex86MX+ (933MHz)	
Memory		Onboard 1GB DDR2	
VGA		Integrated Graphics Chip / D-Sub 15-pin	
Ethernet		10/100 Mbps LAN x 3 (RJ-45) LAN 2, LAN 3 Realtek RTL8100B LAN 1 from CPU support Built-in PXE diskless boot function	
USB		External: 4 ports (2 at the front; 2 at the rear)	
Audio		Mic in and Line out	
MIO	SD Slot	1x	
	SATA (Note 2)	1x	
	PS2	N/A	
Serial	RS-232	1x	
	RS-422	N/A	
	RS-485	N/A	
Power		DC +8V ~ +15V	
Dimensions		115 x 115 x 35 mm	
Weight		500g	
Operation Temp.		5 ~ 50 °C	

**Note:**

- 1GB DDR2 version called 3310MX series.
- 2.5" Internal SATA HDD / SATA DOM support.
- On EBOX-33xxMX or 33xxMX-C COM3 and COM4 have "TXD" and "RXD" signals only, not support to use "Flow Control" on EBOX-3300MX's COM3 and COM4.

**33xxMX/ AP, 33xxMX-C/ CAP, 33xxMX-T, 33xxMX-TC, 33xxMX-JSK COM ports x 3 how to use:**

The second COM port use Y cable became COM ports x 2 + COM1 port = total COM ports x 3

COM2 Connector defines as COM3 and COM4, to use two COM ports:

33xxMX = RS-232 x 3 (8pin)

COM 1 = Full 9pin RS-232

COM 2 Connector (COM 3, COM 4) = RS232 x 2 ( Support TX & RX signals only)

If user second device connecting on COM2 don't need to use the standard 9pin COM port, then, TX RX possible can be used to do the send and receive functions but not the flow control.

If user needs to use more than one complete full 9 pin RS-232 COM port, please choose the model type EBOX-3310MX-TS4C series.

## **EBOX-3300MX / 3310MX series Models Listing:**

EBOX-3300MX / 3310MX: Standard Version with SATA and 3 x RS-232 ports  
EBOX-3300MX-AP / 3310MX-AP: Standard Version with SATA and 3 x RS-232 ports and Auto Power On Support  
EBOX-3300MX-M / 3310MX-M: Standard Version  
EBOX-3300MX-MAP / 3310MX-MAP: Standard Version and Auto Power On Support  
EBOX-3300MX-H / 3310MX-H: Standard Version with SATA support  
EBOX-3300MX-HAP / 3310MX-HAP: Standard Version with SATA support and Auto Power On Support

EBOX-3300MX-C / 3310MX-C: Standard Version with 3 x RS-232 ports  
EBOX-3300MX-CAP / 3310MX-CAP: Standard Version with 3 x RS-232 ports, and Auto Power On Support  
EBOX-3300MX-C22 / 3310MX-C22: Standard Version with 2 x RS-232 ports, 1x RS-422 port  
EBOX-3300MX-C22AP / 3310MX-C22: Standard Version with 2 x RS-232 ports, 1x RS-422 port and Auto Power On  
EBOX-3300MX-C85 / 3310MX-C85: Standard Version with 2 x RS-232 ports, and 1x RS-485 port  
EBOX-3300MX-C85AP / 3310MX-C85AP: Standard Version with 2 x RS-232, 1x RS-485 port and Auto Power On

EBOX-3300MX-G / 3310MX-G: GPIO Version  
EBOX-3300MX-GC22 / 3310MX-GC22: GPIO Version with 2 x RS-232, and 1 x RS-422 port  
EBOX-3300MX-GC85 / 3310MX-GC85: GPIO Version with 2 x RS-232, and 1 x RS-485 port  
EBOX-3300MX-JSK / 3310MX-JSK: GPIO Version with 3 x RS-232 ports

EBOX-3300MX-T / 3310MX-T: Standard Version with SATA , TV-Out, and 3 x RS-232 ports  
EBOX-3300MX-TM / 3310MX-TM: Standard Version with TV-Out  
EBOX-3300MX-TH / 3310MX-TH: Standard Version with SATA support, and TV-Out  
EBOX-3300MX-TC / 3310MX-TC: Standard Version with 3 x RS-232 ports, and TV-Out  
EBOX-3300MX-TAP: Standard Version with SATA, TV-Out, 3 x RS-232 ports and Auto Power On Support  
EBOX-3300MX-TMAP: Standard Version with TV-Out and Auto Power On Support  
EBOX-3300MX-THAP: Standard Version with SATA support, TV-Out and Auto Power On Support  
EBOX-3300MX-TCAP: Standard Version with 3 x RS-232 ports, TV-Out and Auto Power On Support

EBOX-3310MX-L3U4: VGA out, SATA, LAN x 3, USB 2.0 x 4, (No internal USB reserved), RS-232 full 9pin port x 1.  
EB-3310MX-L3U4AP: VGA out, SATA, LAN x 3, USB 2.0 x 4, (No internal USB reserved), RS-232 full 9pin port x 1, and Auto Power On.

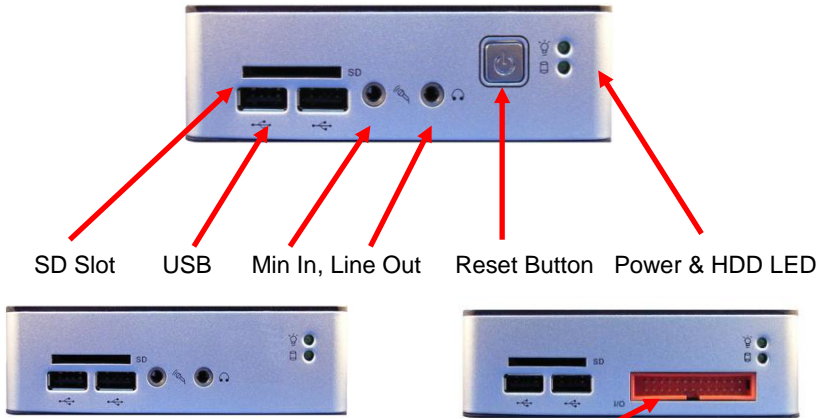
# Chapter 5

# Onboard Connectors Summary

**Summary Table for CPU Board**

Nbr	Description	Type of Connections	Pin nbrs.
J1	SODIMM-SOC-200P-1.8V	SODIMM socket 200 Pin	200-pin
J3	SATA	SATA socket	7-pin
J5	USB5 (Front)	USB Connector	8-pin
J6	USB6 (Front)	USB Connector	8-pin
J7	USB1 (Back)	USB Connector	8-pin
J8	USB3 (Inside)	USB Connector	8-pin
J9	Ethernet LAN	RJ-45	8-pin
J10	VGA	D-Sub Connector	15-pin
J11	Line-Out	Audio Jack	2-pin
J12	PS/2 connector	Mini Din connector	6-pin
J13	Microphone	Audio Jack	1-Pin
J14	COM1 Port	Box Header 5x2 2.0mm	10-pin
J15	COM2 Port	Box Header 5x2 2.0mm	10-pin
J16	DC 15V Input	DC-JACK	1-pin
J17	Power Switch	Power Switch	4-pin

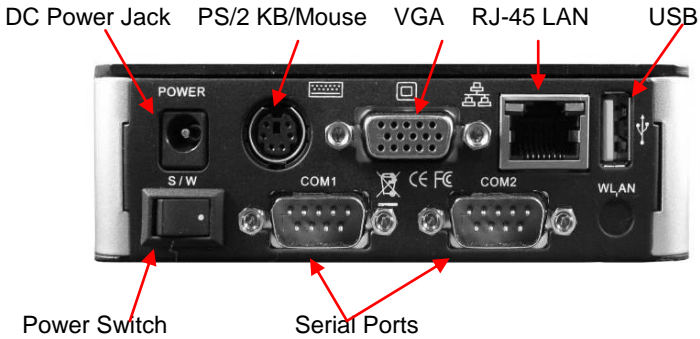
## ► Front Connectors Outline



\*Models with Auto Power On feature do NOT have front Reset Button

\*Only available on GPIO Supported models

## ► Rear Connectors Outline



*\*Only Available on TV Out support model.*

# Pin Assignments

J12: PS/2 Keyboard or Mouse – 6-pin Mini-Din Connector

	Pin #	Signal Name
	1	KBCLK
	2	PMCLK
	3	GND
	4	KBDAT
	5	PMDAT
6	SB5V	

J17: Power SW – Push Button Switch

	Pin #	Status
		ON
	○	OFF

J16: DC-IN (15V) – 2-pin Jack

	Pin #	Signal Name
	1	+15V Input
	2	GND

J7: USB (90°) – 4-pin USB Type 1 Connector (Vertical Type)

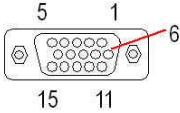
	Pin #	Signal Name
	1	VCC
	2	USB0-
	3	USB0+
	4	GND
	5	GGND
6	GGND	

LEDS: POWER ON / OFF & HDD R/W

	LED Color	State
	Green	Power On
	Green	HDD On
	Green Flashes	HDD R/W

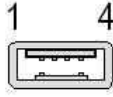
J10: VGA – 15-pin D-Sub Connector

Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name
1	MR	6	GND	11	NC
2	MG	7	GND	12	VCC
3	MB	8	GND	13	HYSYNC
4	NC	9	NC	14	VSYNC
5	GND	10	GND	15	VCC



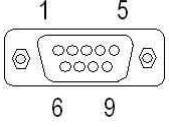
J5, J6, J8: USB (USB2): For connection to external USB device –4-pin USB Type 1 Connector (H)

Pin #	Signal Name
1	VCC
2	USB2-
3	USB2+
4	GND
5	NC
6	NC



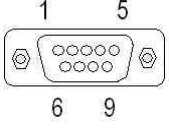
J14: COM - 9-pin D-Sub Connector ( RS-485/RS422 optional )

Pin #	Signal Name	Pin #	Signal Name
1	DCD1/ RS-485-1 / 422TX-1	2	RXD1/ RS485+1 / 422RX-1
3	TXD1/ 422RX+1	4	DTR1/ 422RX-1
5	GND	6	DSR1
7	RTS1	8	CTS1
9	RI1	--	--



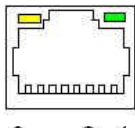
J15: COM - 9-pin D-Sub Connector

Pin #	Signal Name	Pin #	Signal Name
1	--	2	RXD3
3	TXD3	4	--
5	GND	6	--
7	TXD4	8	RXD4
9	--	--	--



J9: LAN: RJ-45 Connector

Pin #	Signal Name	Pin #	Signal Name
1	FTXD+	2	FTXD-
3	FRXIN+	4	NC
5	NC	6	FRXIN-
7	NC	8	NC



# Chapter 6



# Taking Care of your EBOX

This section gives you some guidelines on using EBOX-3300MX / 3310MX series – Safe using, Storing and Handling.

## Storing

- ▶ Do not place EBOX-3300MX / 3310MX series in a location that is subject to:
  - Heating sources, such as stove, oven, heater, radiator or air duct
  - Direct contact from sunlight
  - Rain or moisture area
  - Excessive dust accumulation area
  - High humidity place
  - Constant or occasional mechanical movement, vibration or shock
  - Strong magnets or magnetic fields or magnetically unshielded speakers
  - Ambient temperature of more than 95°F (35°C) or less than 32°F (0°C)
  
- ▶ Do not place other electronic device or electrical equipment near EBOX-3300MX / 3310MX series. The electromagnetic field of the EBOX-3300MX / 3310MX series may cause interference subjecting to malfunction.
  
- ▶ Provide adequate air ventilation (circulation) to prevent internal buildup of heat. Do not place EBOX-3300MX / 3310MX series near the wall, behind the curtains or draperies, in between two books that block its ventilation slots. Leave a space of at least 8 inches (20cm) behind the sides and back panel of the EBOX-3300MX / 3310MX series.
  
- ▶ Change of environmental temperature: Problems may occur when there is a sudden change of environmental temperature, or if the EBOX-3300MX / 3310MX series is brought directly from a cold location to a warm one, moisture may condense inside EBOX-3300MX / 3310MX series. Turn off the device, and contact your nearest dealer.
  
- ▶ Check the surrounding appliance(s) before using EBOX-3300MX / 3310MX series. Since the EBOX-3300MX / 3310MX series uses high-frequency radio signal and may interface with radio or TV reception causing interference or poor signal display. When this happens, relocate the EBOX-3300MX / 3310MX series by a suitable distance away from the set.
  
- ▶ Do not drop the EBOX-3300MX / 3310MX series from the working table nor place heavy objects on top of it.

## Using Cables for Connection

- ▶ To avoid the problem, use only the specified interface cables in your accessory bag. The supplier will not be responsible for the connection arising from the other unspecified peripheral equipment.
- ▶ Do not use cut or damaged cables for connection.

## Cleaning Your VESA PC

- ▶ Clean the VESA PC with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution.
- ▶ Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzene, as these may damage the finish of EBOX.
- ▶ When a solid object falls or a liquid spills onto the EBOX, turn off the EBOX immediately and unplug the LAN and power cables. Contact a qualified person or your dealer to check the EBOX before you use it again.
- ▶ Always disconnect the power cord from the power source before cleaning the EBOX.

# Troubleshooting

This section describes the techniques of resolving some basic problems that you encounter when using EBOX-3300MX / 3310MX series. For more troubleshooting guidelines, please contact your nearest dealer for technical support.

## Troubleshooting Your VESA PC

### A. VESA PC does not start

- ▶ Make sure the EBOX-3300MX / 3310MX series is properly secured and plugged into a power source before it is turned on. Make sure the power indicator shows the power is on. See section 2 for more information about “EBOX-3300MX / 3310MX series Overview”.
- ▶ When the EBOX-3300MX / 3310MX series is plugged into a power strip or the UPS (Uninterruptible Power Supply), make sure the power strip or UPS is turned on and working normally.
- ▶ Check if your VGA or LCD monitor is properly plugged into a power source and turned on. Make sure the brightness and contrast controls are adjusted correctly. See the manual that came with your display (monitor) for details.
- ▶ Check if your power control button does not function, by removing the AC adaptor. Wait for one minute, and then reattach all power connection before pressing the power button.
- ▶ Condensation may cause the EBOX-3300MX / 3310MX series to malfunction for a while. If this happens, do not use the EBOX-3300MX / 3310MX series for at least one hour.
- ▶ When you have checked all the above guidelines and the EBOX-3300MX / 3310MX series does not work. Remove the power adaptor from the EBOX-3300MX / 3310MX series, unplug the power cord, and plug it in again. Then turn on the power.

### B. BIOS Error Message –

#### BIOS error message appears when my VESA PC starts

If the BIOS error message appears, press any key to resume or, hit <DEL> to enter BIOS setup main menu, follow these steps:

1. Press <DEL>, and the BIOS Setup main menu appears, check if HDD is detected. If it is not detected, use Direction keys <↑↓> to choose “AUTO” and then go back to the main menu by pressing <ESC>. Move your cursor down with Direction keys <↓>, and choose “Save Settings and Exit”, a message dialog appears as seen below, hit <Enter>.

“Save current settings and exit (Y/N)? Y”

2. Go to “Exit” menu using the Direction keys <↑↓> and choose the option “Load Optimal Defaults”, then press <Enter>. A message dialog appears as seen below, hit “Y” key and presses <Enter> to save and recover to the factory setting.

“Load Optimal Defaults (Y/N)? Y”



(BIOS Setup menu "Exit")

### C. "Operating System Not Found" –

**A message indicating that "Operating system not found" appear when my VESA PC starts (Windows won't start)**

- ▶ Enter your BIOS setup main menu by pressing <DEL> key, be sure that the C: drive is enable.
- ▶ If Windows still does not start, follow these steps to initialize the BIOS:
  1. Turn off the EBOX-3300MX / 3310MX series.
  2. Remove any peripheral devices connected to the EBOX-3300MX / 3310MX series.
  3. Restart the EBOX-3300MX / 3310MX series.
  4. Press <DEL> to enter **BIOS Setup main menu** window.
  5. Follow the steps as written in item **B. BIOS** error message.
- ▶ If you have just connected EBOX-3300MX / 3310MX series to a CD/DVD or USB Drivers, remove these peripherals.. And restart to confirm that the Windows operating system starts properly. If EBOX-3300MX / 3310MX series continues to display the message "Operating system not found," and Windows does not start, please contact your nearest dealer for servicing.

# Chapter 7

# Terms and Conditions

## Warranty

The warranty terms for EBOX-33xxMX series are twelve (12) months from the shipped month. During the warranty period, DMP Electronics Will repair replace the product covered under this limited warranty.

## Service and Support

DMP Electronics Inc. provides the technical support for hardware problems with your system throughout the warranty period. The technical support service is limited to configuration and operation of EBOX-3300MX / 3310MX series sold by DMP Electronics Inc. The technical support service does not offer software tutoring or training.

## Return Merchandise Authorization (RMA) policy

If the DMP staff or dealer determines that a part is defective. Purchaser must call our technical support service to obtain an RMA number before attempting to return any part. Please refer to your nearest dealer for

To obtain an RMA number, Purchaser must follow procedures as below :

1. Complete the DMP Electronics Inc. standard RMA Form and fax back to the RMA Department.
2. The RMA Number must be used within 7 DAYS
3. The RMA Number must be shown clearly on your shipping label.
4. DMP Electronics Inc. must receive all Returns before a replacement will be sent.
5. The repair cost depends on the parts, the damage reasons, and whether under warranty period. .etc. The Seller will charge the Purchaser in a reasonable price.
6. A copy of the invoice for the RMA product(s) will also be shipped to Purchaser.
7. The freight of return to DMP Electronics Inc. is charged to the Purchaser's account and accompanied by an RMA number. Any Returns with freight collect will be refused and returned to you. After Repairing, the cost of freight will be paid by Seller.
8. DMP Electronics Inc. must receive all returned goods within the warranty period.

## Shipping Policy

The Purchaser must pre-pay shipping for any defective system or parts returned under the warranty. DMP Electronics Inc. shall not be liable for risk of loss or damage during shipment of your returned system or parts if you fail to insure the shipment.

All products must be shipped back to DMP Electronics Inc. in original or equivalent packaging. DMP Electronics Inc. will ship the repaired or replacement product(s) to the Purchaser by freight prepaid. Purchaser assumes the risk of loss. DMP Electronics Inc. shall not be responsible for failure of the delivery service to make on-time delivery.