EBOX-333x 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 adapter 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-333x series, which is a simplified & an economical design of an embedded device for Special Purpose Personal Computing. The basic specification of this product is comprised of the x86 technology design, and with onboard 1GB DDR2 System memory, VGA display, USB, PS/2 Keyboard/Mouse, and LAN Interfaces.

Distribution Convention:

1. This Product includes a gift box, an inner case, a PC, a Power adaptor, and SATA cable. 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 there after 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.

Contents

Chapter 1

Unpacking Your EBOX Mini PC

Congratulation! You have just acquired EBOX-333x series, please check the following items:

Packing List:

Item No.	Description	Q'ty
1	EBOX-333x 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.

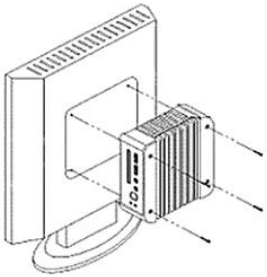
Check Before Use

1.EBOX-333x series Unit

2. AC Power Adaptor

Preface

EBOX-333x series: VESA PC



The EBOX-333x 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, the EBOX-333x can be easily integrated with a VESA LCD to bring it to access at any time.

It can be attached 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 be attached 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-333x series can be used with a large size LCD. Furthermore, with FANLESS design, the EBOX-333x 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 the EBOX-333x 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. The EBOX-333x series is designed to fit this standard to make monitor attachment quickly and easily.

Chapter 2

EBOX-333x series Overview

Front Panel

Power LED
The power LED lights up when the system is turned on.

HDD LED
LED flashes when the system is accessed Hard Drive.

Audio Line Out or Mic In
For EBOX-333x VGA version, the original setting is Audio Line out x 1.

For EBOX-333x HDMI version, the original setting is Mic Input x 1.

Mic in or Line out can be optional.

USB v2.0 ports
For connection to devices with USB interface (HDD, CD/DVD-ROM, Memory Stick, etc.)

SD Slot
This system is bootable from SD card.

COM port
COM3 & COM4 are optional for RS-232 ports.

Back Panel

DC Power Jack

VGA port
For EBOX-333x Series VGA version only.

Power switch

USB v2.0 ports

RJ-45 LAN Jack
LAN1 is 10/100 Mbps.
LAN2 is 1 Gbps.(Optional)

Wireless Antenna connector (optional)

HDMI port
For EBOX-333x Series HDMI version only. (Product number ended with DMI)

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).

Note: EBOX-333x series HDMI version is with PS2 designed, but VGA version is without the PS2 port.

COM port
COM1 & COM2 are optional for RS-232 ports, RS-485 ports, or RS-422 ports.

System Specification

CPU

Vortex86DX2 (933 MHz)

Main Memory

1GB DDR2

(32-bit DRAM bus, EBOX-3330 series)

2GB DDR2

(32-bit DRAM bus, EBOX-3332 series)

※ For Windows 7 users, EBOX-333x series support 32bit version only, 64bit version does not support.

BIOS

AMI BIOS

VGA

Resolution up to 1920 x 1440 High Colors

Keyboard and Mouse

PS/2 Keyboard and Mouse (HDMI version only)

※ For the single PS2 port, you may use PS2 keyboard and plug directly. For PS2 mouse, you'll need a PS2 Y-cable for extension to use PS2 Mouse.

On-Board SATA

SATA 2.0 connector x1

Peripheral

1. USB V2.0 x 3
2. SD slot x 1
3. Serial ports x 4 (available for some listed models)
4. Audio (VGA version with Line out as standard , HDMI version with Mic in as standard)

Dimension & Weight

115 x 115 x 35 mm / 500g ~ 510g

Operating System

Windows 7 Home/ Pro.

Windows 7 Embedded

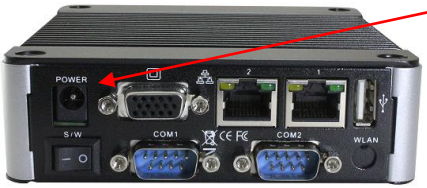
Windows XP Home/ Pro.

Windows XP Embedded

Windows Embedded CE

Peripherals

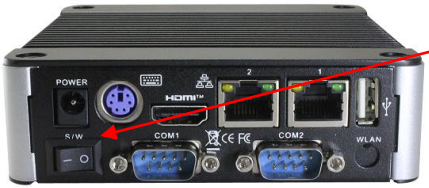
Connecting the Power Adaptor



DC Power Jack

To use EBOX-333x series immediately, please attach the supplied adapter 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-333x series.

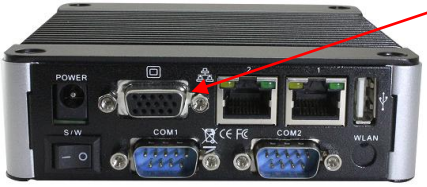


Turning ON EBOX-333x series

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

Note: With the Auto Power On supported function, when power & switch on, the system will be turned on automatically.

Connecting the Monitor



VGA out Connection

Connect your LCD display Monitor with the VGA cable (Not included in EBOX console bundles) to the 15-pin D-Sub VGA port.

HDMI out Connection

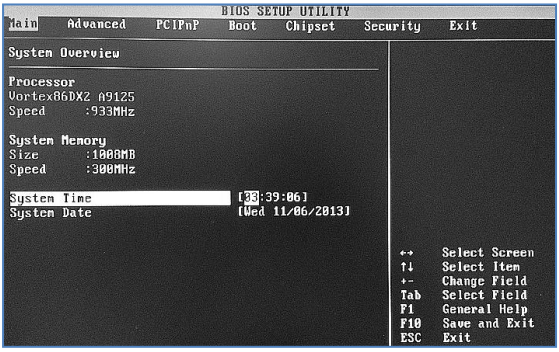
You can connect to the LCD or plasma TV display via the HDMI port by using the HDMI Cable (Not included in EBOX console bundles).

Note: HDMI-out only, not support HDMI-in.

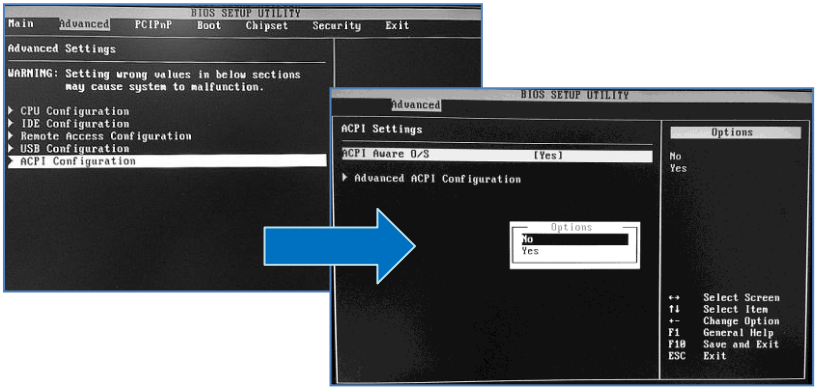
Chapter 3

BIOS Reconfiguring

1. AMI BIOS is used in the EBOX-333x series. To reconfigure the EBOX-333x series, press or hit the <Del> key to enter your BIOS setup main menu as below:



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. Press <F10> to and select “Save Settings and Exit”, press “Y” to save the changes that you just made. EBOX-333x series will restart accordingly to your new setup.
6. For Windows XP, Windows XP Embedded, and Windows Embedded CE OS platform please set ACPI Configuration to “No”.



7. Remark : If you used the SD card as main storage to boot Windows 7 OS or Windows 7 Embedded OS, please set the BIOS as below:
   1. IDE Operating mode => Legacy mode
   2. Primary IDE Pin Select => SD Card
   3. Standard IDE Compatible => Disabled

INSTALL THE DRIVER:

Under the Windows series OS, the following drivers need to be installed manually.

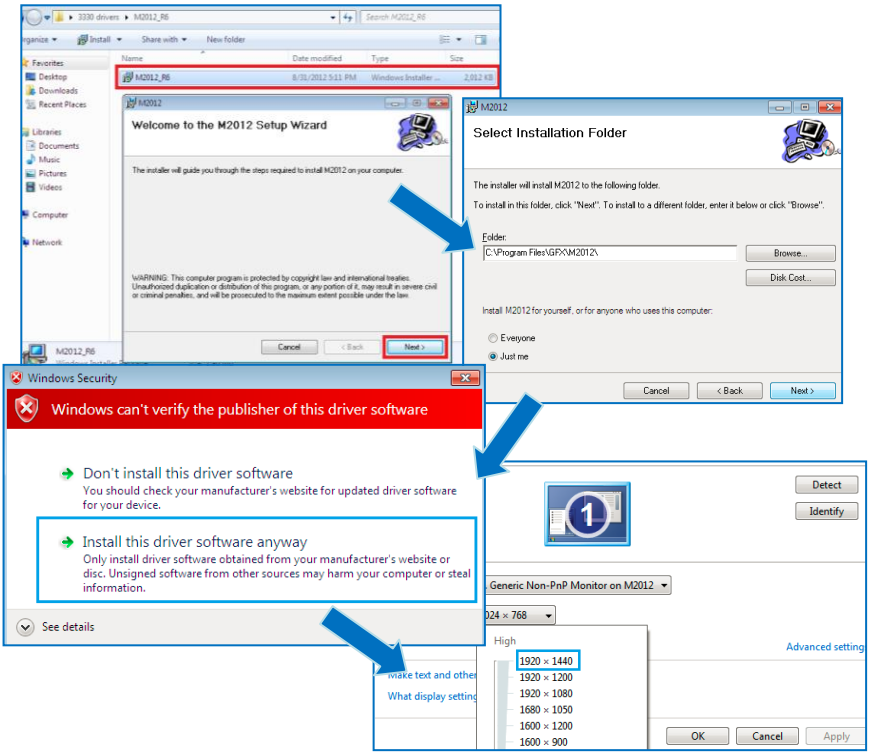
1. VGA driver
2. Ethernet driver
3. Wireless USB wifi Dongle driver (Optional)
4. Audio driver (for windows XP only)

Note:

1. Please find the mating drivers from DMP's support page .
2. For Windows 7 or Windows 7 Embedded OS, install the xmplay for audio player download here.

VGA DRIVER:

Unzip the downloaded file and double click the setting .exe file then "Next"as below to install:

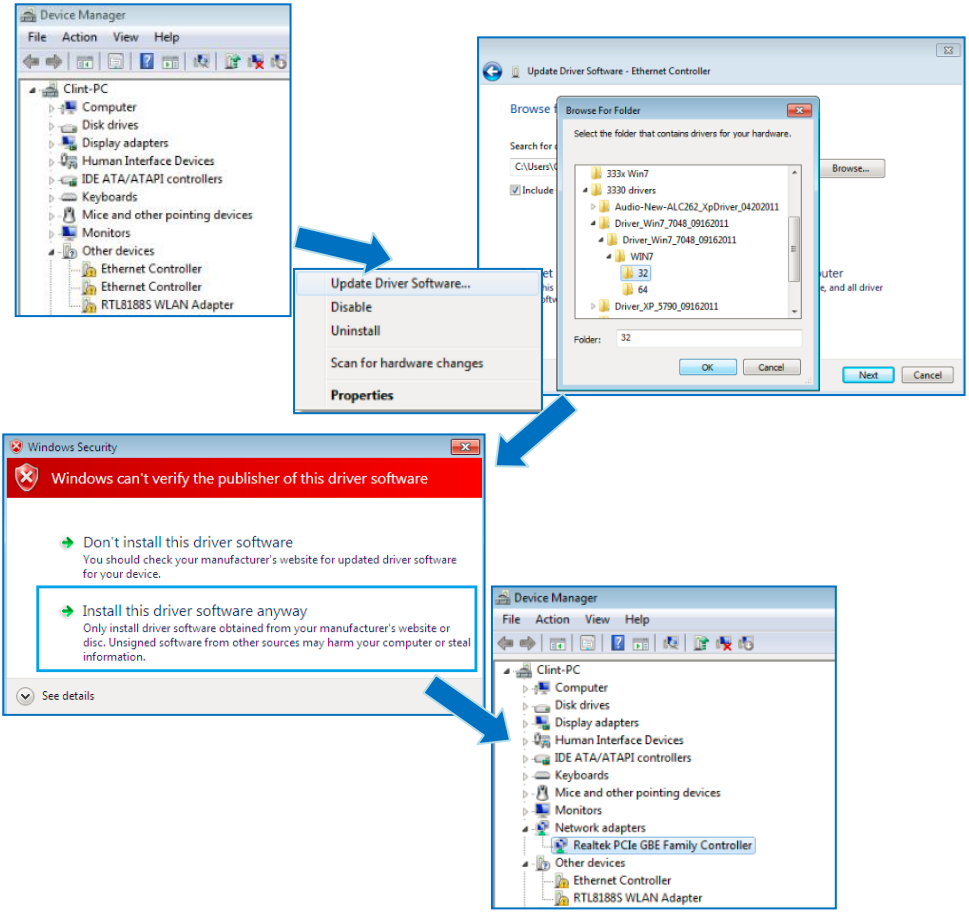


After VGA driver installation completed, you will have to restart the computer. Then you will be able to select the resolution up to 1920 x 1440 pixels.

ETHERNET DRIVER:

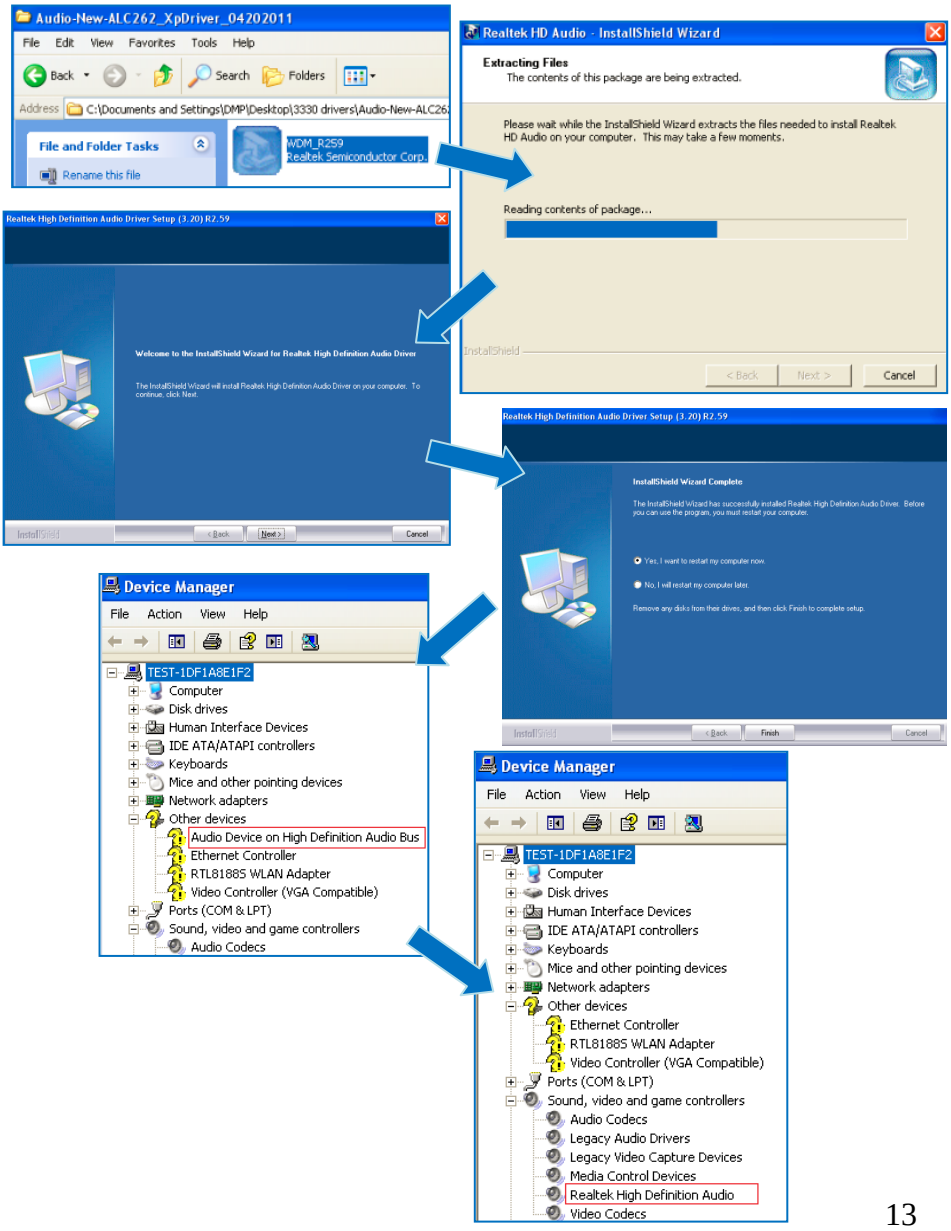
1. Find the yellow question mark of Ethernet in the Device Manager under the control panel/ system.
2. Select "Update Driver Software" and choose the right path, then click " Install this driver software anyway " when Windows Security popped out.
3. After installation completed, the Device Manager will update and show the correct device.

Note: For 2 LAN version, the 1st question mark need to be installed 1G LAN driver.



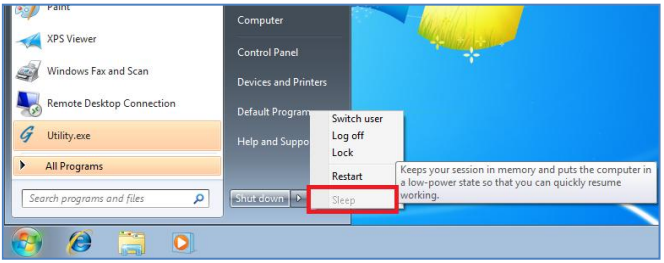
WIRELESS USB WIFI DONGLE DRIVER:

Unzip the downloaded file and double click the setting .exe file then “Next”as below to install. After the installation completed, the Device Manager will update and show the correct device.

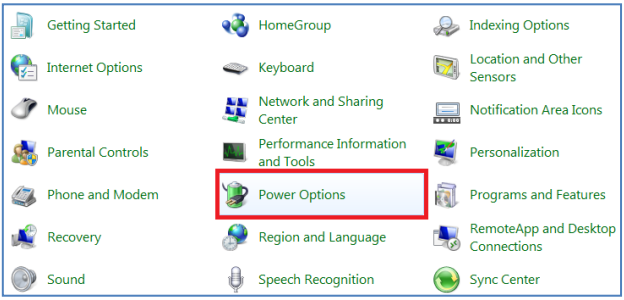


Additional information:

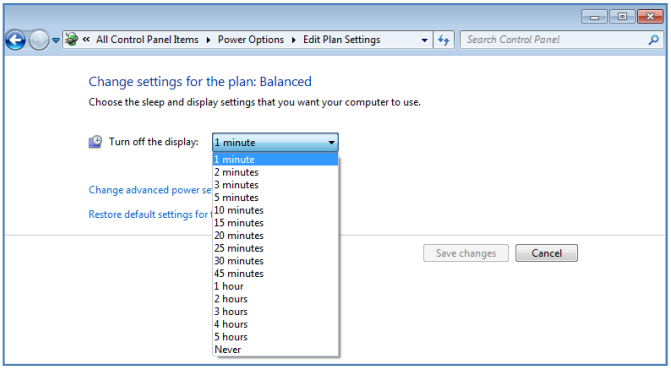
For Windows 7 OS or Windows 7 Embedded OS, the sleep function is hidden if you selected from the start menu.



To customize the settings, first go to **Start** > **Control Panel** > **Power Options**, or simply search for "**Power Options**" (without quotes). You will see a list of different power plans on your computer.



The plan currently in use has a blue dot in front of it. Click "**Change Plan Settings**" next to the power plan currently in use. Click on the drop-down menu list, that is exactly next to "Put the Computer to sleep:". From the options, you can set the amount of idle time before entering sleep mode.



Linux installation guide For Debian7.0/Ubuntu10.04

Regarding the system installation of Debian7.0/Ubuntu10.04, please follow the steps and suggestions to complete the system installation on the EBOX-333x Series platform. There we provided is a brief instruction to assist clients, but you can configure it by yourself with system's asking.

1. Configuration of BIOS.

- The first step is to ensure BIOS has correctly configured that necessary function was enabled for IDE device. (for Debian7.0 especially)

- Keep pressing the key <Del> can assist entering BIOS when the power turned on. The BIOS functions you need to check locate Advanced \ IDE Configuration \ Standard IDE Compatible. Set as Enabled.

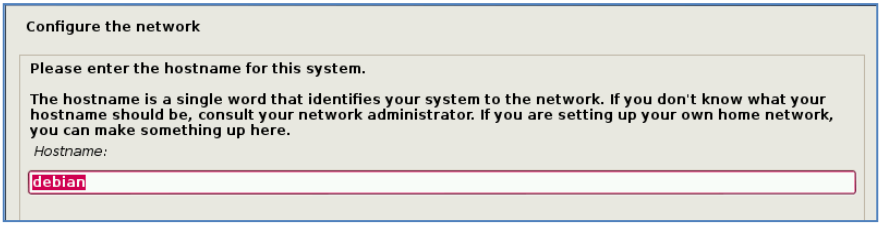
2. Basic system installation.

- For Debian7.0, after booting from the installation CD, moving straight to install system would get a text only system, please choose Graphic Install if GUI is necessary for your application.

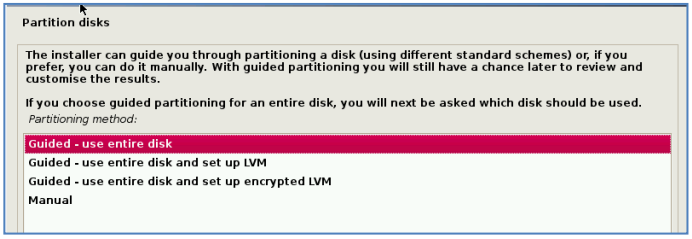
- The system would start to ask questions for basic configuration. Such as the language, keyboard map and time zone…etc.

- Then the system information appears for something about the detecting of network hardware, system requires users to load the firmware files for network device rtl8168, just answer no for this inquiry and move forward.

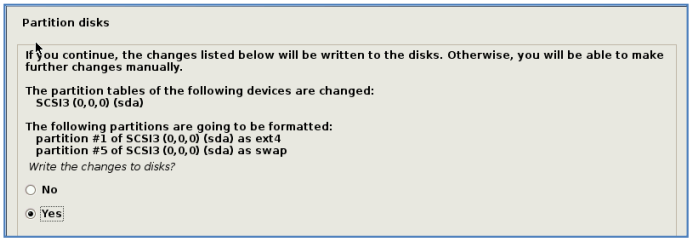
- Then the system would inform you that multiple network interfaces were detected on the EBOX-333x Series, and the user to choose the one as primary network interface, both of them all could be chosen. And the Ethernet cable must be plugged in this period.



- As installation processing, the system would need you to make decisions about how the partitions your disk for the system? Following the default option is using entire disk, for the beginner. Then choose the “all files in one partition. Other allocation is also available, depends on customers’ needs.

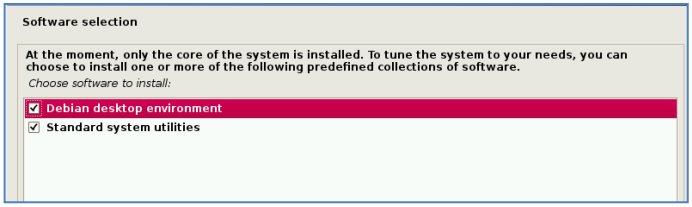


- In the final, remember to write the change to disk.

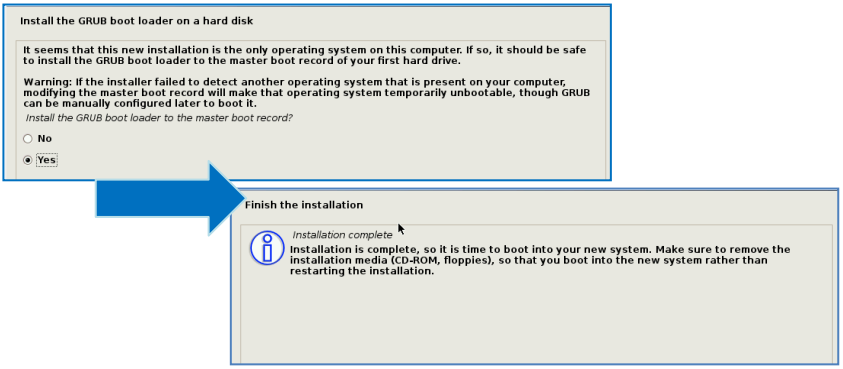


- Then the system would keep asking you few questions for configuration, suggestions were attached as follow.

- When system asking you to choose the software to install for system, you can remark both the Debian desktop environment and standard system utilities, then to continue following procedure. It would start the package installation, around hundred packages would be installed, please be patient until system informed you for the next step.

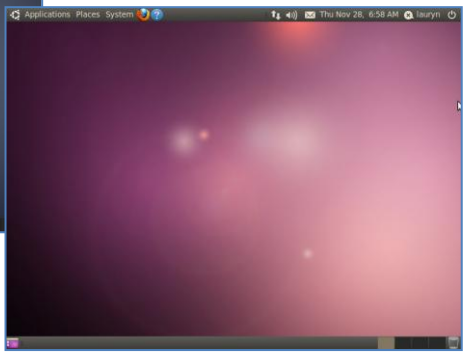


- The next question is about the agreement of the installation of the GRUB boot loader to the MBR area? Answer YES and wait system to complete the installation as last procedure.



- When it's completed, the disc tray will eject and inform you, then press continue to restart and be ready to enjoy the new system!

The Debian7.0



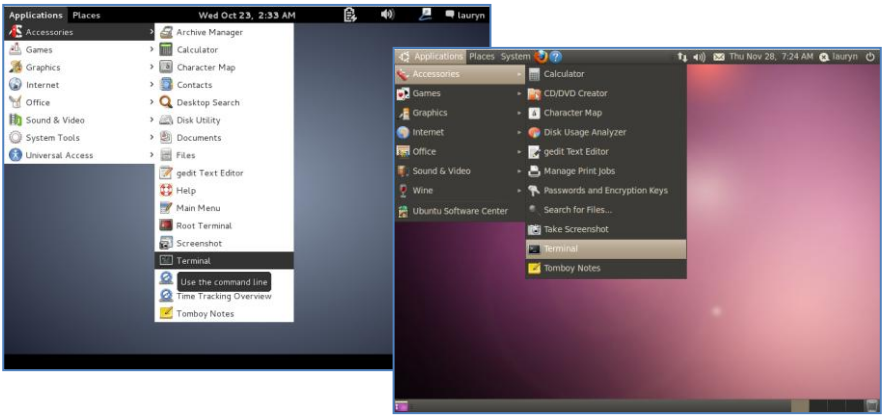
The Ubuntu10.04

3. Kernel and graphic driver installation.

Install the Kernel Package (Console mode).

- For Debian7.0, you can skip this procedure for kernel installation; Because system could work with default kernel version (3.2.0).

- Clicking the icon of the terminal from the application. And download the kernel 2.6.32-21 from below link then to store the kernel package.

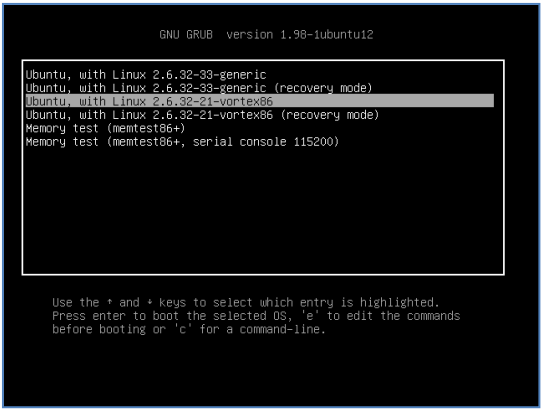


- Follow the instructions to complete the kernel installation, get into the folder that kernel file stored, and switching as the root before command executed.

```
# dpkg -i linux-image-2.6.32-21-vortex86_2.6.32-21.32_i386.deb
```

Kernel Package (click 2.6.32-21-Vortex86)

- When download completed, restart the system and to choose the kernel 2.6.34.10 to boot when GRUB boot loader was loaded. You can keep pressing the key “Shift” when the system from booting, then the boot loader would show the option of kernel for you. Then find the “Ubuntu, With Linux 2.6.32-21-vortex86” to execute.



- Or you can remove the default kernel 2.6.32-??-generic that be arranged as a higher priority than the kernel we installed for the EBOX-333x platform, with the instruction below through the terminal.

- First, check what version be installed as default in the system:

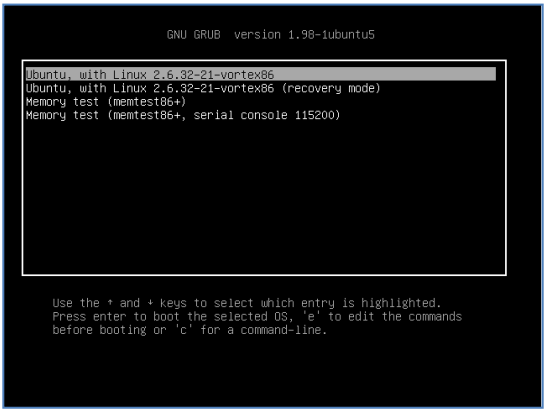
```
# grep –w linux-image-2.6.32 /var/log/dpkg.log
```

- To find the last two numbers as location of question marks that the system shows on screen “linux-image-2.6.32-??

- Then execute it with the correct numbers that you found in previous, and to replace the question mark with correct version numbers shown below.

```
# apt-get remove linux-image-2.6.32-??-generic
```

- Then you would see only one kernel on the GRUB list.



Install the VGA driver (Console mode)

- Switch to console mode by pressing key <Ctrl> + <Alt> + <F1>, then copy the VGA driver rdc_drv.so to the driver folder /usr/lib/xor/modules/drivers/, before that, you can download the driver from links below for Debian7 and Ubuntu10.04 individually.

The Ubuntu10.04 Xorg Version is **1.7.6**
The Debian 7.0 Xorg Version is **1.12.4**

VGA Driver (click M2012_R0.04 to download) for Ubuntu 10.04

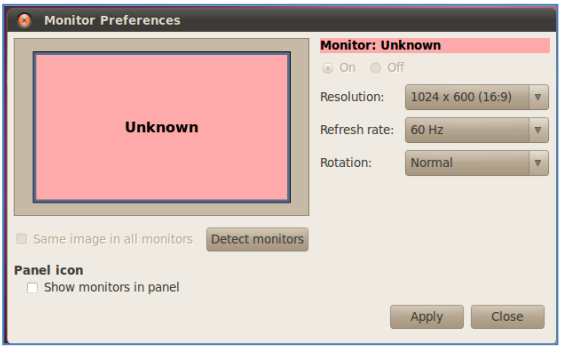
VGA Driver (click M2012_T0.0.9.1 to download) for Debian 7.0

- Follow instruction below to execute.

```
#/etc/init.d/gdm stop
#X –configure
#cp /root/xorg.conf.new /etc/X11/xorg.conf
#/etc/init.d/gdm restart
```

※Please click xorg.conf to download for your system, if the display is out of range.

- Reboot and make sure all the display is normal then set the resolution as requested.



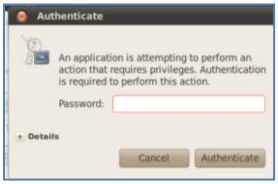
The supported resolutions:

1920x1200 (16:10)	1400x960	1280x768 (16:10)
1920x1080 (16:9)	1280x1024 (5:4)	1280x720 (16:9)
1600x1200 (4:3)	1440x900 (16:10)	1024x768 (4:3)
1680x1050 (16:10)	1280x960 (4:3)	800x600 (4:3)
1400x1050 (4:3)	1366x768 (16:9)	640x480 (4:3)
1440x960 (3:2)	1360x768 (16:9)	

4. The system configuration:

Enable the Auto login
System / Administration / Login Screen

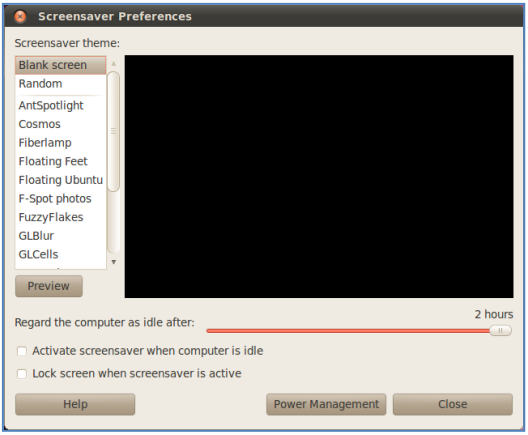
Execute the utility “Login Screen” and enter the password to process it



Set the Log in as “user account” automatically.

Disable the power saving mode when system idle,
System / Preference / Screensaver

Unmarked the option “Active the screensaver when computer is idle”



Now, it is a workable Linux system for your EBOX-333x Series.

Chapter 4

Technical Specification

EBOX-3330 Series VGA, LAN x 1, RS-232

Model Type		EB-3330-SS	EB-3330-C1	EB-3330-C2	EB-3330-C3	EB-3330-C4
Processor		Vortex86DX2 (933MHz)				
BIOS		AMI BIOS				
Memory		Onboard 1GB DDR2				
VGA		Integrated Graphics Chip/ D-Sub 15-pin				
Ethernet		10/100 Mbps LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)				
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port				
HD Audio		Line out				
I/O	SD Slot	1x				
	SATA	1x				
	COM1	N/A	RS-232	RS-232	RS-232	RS-232
	COM2		N/A	RS-232	RS-232	RS-232
	COM3			N/A	RS-232	RS-232
	COM4				N/A	RS-232
Auto Power On		Yes				
Power		DC +8V ~ +15V				
Dimensions		115 x 115 x 35 mm				
Weight		510g				
Operation Temp.		5 ~ 50 ℃				
Certification		CE, FCC, VCCI				
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232				
Note		RS-232 COM ports in Full 9pin				

EBOX-3330 Series VGA, LAN x 1, RS-485

Model Type		EB-3330-851	EB-3330-852	EB-3330-851C1	EB-3330-851C2	EB-3330-851C3	EB-3330-852C1	EB-3330-852C2	EB-3330-851221	EB-3330-851221C1	EB-3330-851221C2
Processor		Vortex86DX2 (933MHz)									
BIOS		AMI BIOS									
Memory		Onboard 1GB DDR2									
VGA		Integrated Graphics Chip/ D-Sub 15-pin									
Ethernet		10/100 Mbps LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)									
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port									
HD Audio		Line out									
I/O	SD Slot	1x									
	SATA	1x									
	COM1	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485
	COM2	N/A	RS-485	RS-232	RS-232	RS-232	RS-485	RS-485	RS-422	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232	N/A	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232		N/A	RS-232
Auto Power On		Yes									
Power		DC +8V ~ +15V									
Dimensions		115 x 115 x 35 mm									
Weight		510g									
Operation Temp.		5 ~ 50 ℃									
Certification		CE, FCC, VCCI									
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232									
Note		RS-232 COM ports in Full 9pin									

EBOX-3330 Series VGA, LAN x 1, RS-422

Model Type		EB-3330-221	EB-3330-222	EB-3330-221C1	EB-3330-221C2	EB-3330-221C3	EB-3330-222C1	EB-3330-222C2
Processor		Vortex86DX2 (933MHz)						
BIOS		AMI BIOS						
Memory		Onboard 1GB DDR2						
VGA		Integrated Graphics Chip/ D-Sub 15-pin						
Ethernet		10/100 Mbps LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)						
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port						
HD Audio		Line out						
I/O	SD Slot	1x						
	SATA	1						
	COM1	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422
	COM2	N/A	RS-422	RS-232	RS-232	RS-232	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232
Auto Power On		Yes						
Power		DC +8V ~ +15V						
Dimensions		115 x 115 x 35 mm						
Weight		510g						
Operation Temp.		5 ~ 50 ℃						
Certification		CE, FCC, VCCI						
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232						
Note		RS-232 COM ports in Full 9pin						

EBOX-3330 Series VGA, LAN x 2, RS-232

Model Type		EB-3330-L2SS	EB-3330-L2C1	EB-3330-L2C2	EB-3330-L2C3	EB-3330-L2C4
Processor		Vortex86DX2 (933MHz)				
BIOS		AMI BIOS				
Memory		Onboard 1GB DDR2				
VGA		Integrated Graphics Chip/ D-Sub 15-pin				
Ethernet		10/100 Mbps LAN x 1, 1G LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)				
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port				
HD Audio		Line out				
I/O	SD Slot	1x				
	SATA	1x				
	COM1	N/A	RS-232	RS-232	RS-232	RS-232
	COM2		N/A	RS-232	RS-232	RS-232
	COM3			N/A	RS-232	RS-232
	COM4				N/A	RS-232
Auto Power On		Yes				
Power		DC +8V ~ +15V				
Dimensions		115 x 115 x 35 mm				
Weight		510g				
Operation Temp.		5 ~ 50 ℃				
Certification		CE, FCC, VCCI				
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232				
Note		RS-232 COM ports in Full 9pin				

EBOX-3330 Series VGA, LAN x 2, RS-485

Model Type		EB-3330-L2851	EB-3330-L2852	EB-3330-L2851C1	EB-3330-L2851C2	EB-3330-L2851C3	EB-3330-L2852C1	EB-3330-L2852C2	EB-3330-L2851221	3330-L2851221C1	3330-L2851221C2
Processor		Vortex86DX2 (933MHz)									
BIOS		AMI BIOS									
Memory		Onboard 1GB DDR2									
VGA		Integrated Graphics Chip/ D-Sub 15-pin									
Ethernet		10/100 Mbps LAN x 1, 1G LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)									
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port									
HD Audio		Line out									
I/O	SD Slot	1x									
	SATA	1x									
	COM1	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485
	COM2	N/A	RS-485	RS-232	RS-232	RS-232	RS-485	RS-485	RS-422	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232	N/A	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232		N/A	RS-232
Auto Power On		Yes									
Power		DC +8V ~ +15V									
Dimensions		115 x 115 x 35 mm									
Weight		510g									
Operation Temp.		5 ~ 50 ℃									
Certification		CE, FCC, VCCI									
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232									
Note		RS-232 COM ports in Full 9pin									

EBOX-3330 Series VGA, LAN x 2, RS-422

Model Type		EB-3330-L2221	EB-3330-L2222	EB-3330-L2221C1	EB-3330-L2221C2	EBO3330-L2221C3	EB-3330-L2222C1	EB-3330-L2222C2
Processor		Vortex86DX2 (933MHz)						
BIOS		AMI BIOS						
Memory		Onboard 1GB DDR2						
VGA		Integrated Graphics Chip/ D-Sub 15-pin						
Ethernet		10/100 Mbps LAN x 1, 1G LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)						
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port						
HD Audio		Line out						
I/O	SD Slot	1x						
	SATA	1x						
	COM1	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422
	COM2	N/A	RS-422	RS-232	RS-232	RS-232	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232
Auto Power On		Yes						
Power		DC +8V ~ +15V						
Dimensions		115 x 115 x 35 mm						
Weight		500g						
Operation Temp.		5 ~ 50 ℃						
Certification		CE, FCC, VCCI						
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232						
Note		RS-232 COM ports in Full 9pin						

EBOX-3330 Series HDMI, LAN x 1, RS-232

Model Type		EB-3330-SSDMI	EB-3330-C1DMI	EB-3330-C2DMI	EB-3330-C3DMI	EB-3330-C4DMI
Processor		Vortex86DX2 (933MHz)				
BIOS		AMI BIOS				
Memory		Onboard 1GB DDR2				
VGA		HDMI				
Ethernet		10/100 Mbps LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)				
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port				
HD Audio		Mic in				
I/O	PS2	PS/2 for Keyboard / Mouse x 1				
	SD Slot	1x				
	SATA	1x				
	COM1	N/A	RS-232	RS-232	RS-232	RS-232
	COM2		N/A	RS-232	RS-232	RS-232
	COM3			N/A	RS-232	RS-232
	COM4				N/A	RS-232
Auto Power On		Yes				
Power		DC +8V ~ +15V				
Dimensions		115 x 115 x 35 mm				
Weight		500g				
Operation Temp.		5 ~ 50 ℃				
Certification		CE, FCC, VCCI				
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232				
Note		RS-232 COM ports in Full 9pin				

EBOX-3330 Series HDMI, LAN x 1, RS-485

Model Type		EB-3330-851DMI	EB-3330-852DMI	EB-3330-851C1DMI	EB-3330-851C2DMI	EB-3330-851C3DMI	EB-3330-852C1DMI	EB-3330-852C2DMI	3330-851221DMI	3330-851221C1DMI	3330-851221C2DMI
Processor		Vortex86DX2 (933MHz)									
BIOS		AMI BIOS									
Memory		Onboard 1GB DDR2									
VGA		HDMI									
Ethernet		10/100 Mbps LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)									
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port									
HD Audio		Mic in									
I/O	PS2	PS/2 for Keyboard / Mouse x 1									
	SD Slot	1x									
	SATA	1x									
	COM1	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485
	COM2	N/A	RS-485	RS-232	RS-232	RS-232	RS-485	RS-485	RS-422	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232	N/A	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232		N/A	RS-232
Auto Power On		Yes									
Power		DC +8V ~ +15V									
Dimensions		115 x 115 x 35 mm									
Weight		500g									
Operation Temp.		5 ~ 50 ℃									
Certification		CE, FCC, VCCI									
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232									
Note		RS-232 COM ports in Full 9pin									

EBOX-3330 Series HDMI, LAN x 1, RS-422

Model Type		EB-3330-221DMI	EB-3330-222DMI	EB-3330-221C1DMI	EB-3330-221C2DMI	EB-3330-221C3DMI	EB-3330-222C1DMI	EB-3330-222C2DMI
Processor		Vortex86DX2 (933MHz)						
BIOS		AMI BIOS						
Memory		Onboard 1GB DDR2						
VGA		HDMI						
Ethernet		10/100 Mbps LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)						
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port						
HD Audio		Mic in						
I/O	PS2	PS/2 for Keyboard / Mouse x 1						
	SD Slot	1x						
	SATA	1x						
	COM1	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422
	COM2	N/A	RS-422	RS-232	RS-232	RS-232	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232
Auto Power On		Yes						
Power		DC +8V ~ +15V						
Dimensions		115 x 115 x 35 mm						
Weight		500g						
Operation Temp.		5 ~ 50 ℃						
Certification		CE, FCC, VCCI						
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232						
Note		RS-232 COM ports in Full 9pin						

EBOX-3330 Series HDMI, LAN x 2, RS-232

Model Type		EB-3330-L2SSDMI	EB-3330-L2C1DMI	EB-3330-L2C2DMI	EB-3330-L2C3DMI	EB-3330-L2C4DMI
Processor		Vortex86DX2 (933MHz)				
BIOS		AMI BIOS				
Memory		Onboard 1GB DDR2				
VGA		HDMI				
Ethernet		10/100 Mbps LAN x 1, 1G LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)				
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port				
HD Audio		Mic in				
I/O	PS2	PS/2 for Keyboard / Mouse x 1				
	SD Slot	1x				
	SATA	1x				
	COM1	N/A	RS-232	RS-232	RS-232	RS-232
	COM2		N/A	RS-232	RS-232	RS-232
	COM3			N/A	RS-232	RS-232
	COM4				N/A	RS-232
Auto Power On		Yes				
Power		DC +8V ~ +15V				
Dimensions		115 x 115 x 35 mm				
Weight		500g				
Operation Temp.		5 ~ 50 ℃				
Certification		CE, FCC, VCCI				
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232				
Note		RS-232 COM ports in Full 9pin				

EBOX-3330 Series HDMI, LAN x 2, RS-485

Model Type		EB-3330-L2851DMI	EB-3330-L2852DMI	3330-L2851C1DMI	3330-L2851C2DMI	3330-L2851C3DMI	3330-L2852C1DMI	3330-L2852C2DMI	3330-L2851221DMI	3330-L2851221C1D	3330-L2851221C2D
Processor		Vortex86DX2 (933MHz)									
BIOS		AMI BIOS									
Memory		Onboard 1GB DDR2									
VGA		HDMI									
Ethernet		10/100 Mbps LAN x 1, 1G LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)									
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port									
HD Audio		Mic in									
I/O	PS2	PS/2 for Keyboard / Mouse x 1									
	SD Slot	1x									
	SATA	1x									
	COM1	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485	RS-485
	COM2	N/A	RS-485	RS-232	RS-232	RS-232	RS-485	RS-485	RS-422	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232	N/A	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232		N/A	RS-232
Auto Power On		Yes									
Power		DC +8V ~ +15V									
Dimensions		115 x 115 x 35 mm									
Weight		500g									
Operation Temp.		5 ~ 50 ℃									
Certification		CE, FCC, VCCI									
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232									
Note		RS-232 COM ports in Full 9pin									

EBOX-3330 Series HDMI, LAN x 2, RS-422

Model Type		EB-3330-L2221DMI	EB-3330-L2222DMI	3330-L2221C1DMI	3330-L2221C2DMI	3330-L2221C3DMI	3330-L2222C1DMI	3330-L2222C2DMI
Processor		Vortex86DX2 (933MHz)						
BIOS		AMI BIOS						
Memory		Onboard 1GB DDR2						
VGA		HDMI						
Ethernet		10/100 Mbps LAN x 1, 1G LAN x 1 (RJ-45 connector, Built-in PXE diskless boot)						
USB (2.0)		External: 3 ports (Front x 2, Rear x 1) Internal: 1 port						
HD Audio		Mic in						
I/O	PS2	PS/2 for Keyboard / Mouse x 1						
	SD Slot	1x						
	SATA	1x						
	COM1	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422	RS-422
	COM2	N/A	RS-422	RS-232	RS-232	RS-232	RS-422	RS-422
	COM3		N/A	N/A	RS-232	RS-232	RS-232	RS-232
	COM4				N/A	RS-232	N/A	RS-232
Auto Power On		Yes						
Power		DC +8V ~ +15V						
Dimensions		115 x 115 x 35 mm						
Weight		500g						
Operation Temp.		5 ~ 50 ℃						
Certification		CE, FCC, VCCI						
Optional		1. Mic input 2. 2GB DDR2 on board 3. Internal SD Card slot 4. TTL Level RS-232						
Note		RS-232 COM ports in Full 9pin						

EBOX-333x series Models with LAN x 1 Listing:

EB-3330-SS: Standard Version
EB-3300-C1: Standard Version with RS-232 port x 1
EB-3330-C2: Standard Version with RS-232 ports x 2
EB-3330-C3: Standard Version with RS-232 ports x 3
EB-3330-C4: Standard Version with RS-232 ports x 4

EB-3330-851: Standard version with RS-485 port x 1
EB-3330-852: Standard version with RS-485 ports x 2
EB-3330-851C1: Standard version with RS-485 port x 1 & RS-232 port x 1
EB-3330-851C2: Standard version with RS-485 port x 1 & RS-232 ports x 2
EB-3330-851C3: Standard version with RS-485 port x 1 & RS-232 ports x 3
EB-3330-852C1: Standard version with RS-485 ports x 2 & RS-232 port x 1
EB-3330-852C2: Standard version with RS-485 ports x 2 & RS-232 ports x 2
EB-3330-851221: Standard version with RS-485 port x 1 & RS-422 port x 1
EB-3330-851221C1: Standard version with RS-485 port x 1, RS-422 port x 1 & RS-232 port x 1
EB-3330-851221C2: Standard version with RS-485 port x 1, RS-422 port x 1 & RS-232 ports x 2

EB-3330-221: Standard version with RS-422 port x 1
EB-3330-222: Standard version with RS-422 ports x 2
EB-3330-221C1: Standard version with RS-422 port x 1 & RS-232 port x 1
EB-3330-221C2: Standard version with RS-422 port x 1 & RS-232 ports x 2
EB-3330-221C3: Standard version with RS-422 port x 1 & RS-232 ports x 3
EB-3330-222C1: Standard version with RS-422 ports x 2 & RS-232 port x 1
EB-3330-222C2: Standard version with RS-422 ports x 2 & RS-232 ports x 2

EB-3330-SSDMI: HDMI version
EB-3330-C1DMI: HDMI version with RS-232 port x 1
EB-3330-C2DMI: HDMI version with RS-232 ports x 2
EB-3330-C3DMI: HDMI version with RS-232 ports x 3
EB-3330-C4DMI: HDMI version with RS-232 ports x 4

EB-3330-851DMI: HDMI version with RS-485 port x 1
EB-3330-852DMI: HDMI version with RS-485 ports x 2
EB-3330-851C1DMI: HDMI version with RS-485 port x 1 & RS-232 port x 1
EB-3330-851C2DMI: HDMI version with RS-485 port x 1 & RS-232 ports x 2
EB-3330-851C3DMI: HDMI version with RS-485 port x 1 & RS-232 ports x 3
EB-3330-852C1DMI: HDMI version with RS-485 ports x 2 & RS-232 port x 1
EB-3330-852C2DMI: HDMI version with RS-485 ports x 2 & RS-232 ports x 2
EB-3330-851221DMI: HDMI version with RS-485 port x 1 & RS-422 port x 1
EB-3330-851221C1DMI: HDMI version with RS-485 port x 1, RS-422 port x 1 & RS-232 port x 1
EB-3330-851221C2DMI: HDMI version with RS-485 port x 1, RS-422 port x 1 & RS-232 ports x 2

EB-3330-221DMI: HDMI version with RS-422 port x 1
EB-3330-222DMI: HDMI version with RS-422 ports x 2
EB-3330-221C1DMI: HDMI version with RS-422 port x 1 & RS-232 port x 1
EB-3330-221C2DMI: HDMI version with RS-422 port x 1 & RS-232 ports x 2
EB-3330-221C3DMI: HDMI version with RS-422 port x 1 & RS-232 ports x 3
EB-3330-222C1DMI: HDMI version with RS-422 ports x 2 & RS-232 port x 1
EB-3330-222C2DMI: HDMI version with RS-422 ports x 2 & RS-232 ports x 2

EBOX-333x series Models with LAN x 2 Listing:

EB-3330-L2SS: Standard Version with LAN x 2
EB-3330-L2C1: Standard Version with LAN x 2, RS-232 port x 1
EB-3330-L2C2: Standard Version with LAN x 2, RS-232 ports x 2
EB-3330-L2C3: Standard Version with LAN x 2, RS-232 ports x 3
EB-3330-L2C4: Standard Version with LAN x 2, RS-232 ports x 4

EB-3330-L2851: Standard version with LAN x 2, RS-485 port x 1
EB-3330-L2852: Standard version with LAN x 2, RS-485 ports x 2
EB-3330-L2851C1: Standard version with LAN x 2, RS-485 port x 1 & RS-232 port x 1
EB-3330-L2851C2: Standard version with LAN x 2, RS-485 port x 1 & RS-232 ports x 2
EB-3330-L2851C3: Standard version with LAN x 2, RS-485 port x 1 & RS-232 ports x 3
EB-3330-L2852C1: Standard version with LAN x 2, RS-485 ports x 2 & RS-232 port x 1
EB-3330-L2852C2: Standard version with LAN x 2, RS-485 ports x 2 & RS-232 ports x 2
EB-3330-L2851221: Standard version with LAN x 2, RS-485 port x 1 & RS-422 port x 1
EB-3330-L2851221C1: Standard version with LAN x 2, RS-485 port x 1, RS-422 port x 1 & RS-232 port x 1
EB-3330-L2851221C2: Standard version with LAN x 2, RS-485 port x 1, RS-422 port x 1 & RS-232 ports x 2

EB-3330-L2221: Standard version with LAN x 2, RS-422 port x 1
EB-3330-L2222: Standard version with LAN x 2, RS-422 ports x 2
EB-3330-L2221C1: Standard version with LAN x 2, RS-422 port x 1 & RS-232 port x 1
EB-3330-L2221C2: Standard version with LAN x 2, RS-422 port x 1 & RS-232 ports x 2
EB-3330-L2221C3: Standard version with LAN x 2, RS-422 port x 1 & RS-232 ports x 3
EB-3330-L2222C1: Standard version with LAN x 2, RS-422 ports x 2 & RS-232 port x 1
EB-3330-L2222C2: Standard version with LAN x 2, RS-422 ports x 2 & RS-232 ports x 2

EB-3330-L2SSDMI: HDMI Version with LAN x 2
EB-3300-L2C1DMI: HDMI Version with LAN x 2, RS-232 port x 1
EB-3300-L2C2DMI: HDMI Version with LAN x 2, RS-232 ports x 2
EB-3300-L2C3DMI: HDMI Version with LAN x 2, RS-232 ports x 3
EB-3300-L2C4DMI: HDMI Version with LAN x 2, RS-232 ports x 4

EB-3330-L2851DMI: HDMI version with LAN x 2, RS-485 port x 1
EB-3330-L2852DMI: HDMI version with LAN x 2, RS-485 ports x 2
EB-3330-L2851C1DMI: HDMI version with LAN x 2, RS-485 port x 1 & RS-232 port x 1
EB-3330-L2851C2DMI: HDMI version with LAN x 2, RS-485 port x 1 & RS-232 ports x 2
EB-3330-L2851C3DMI: HDMI version with LAN x 2, RS-485 port x 1 & RS-232 ports x 3
EB-3330-L2852C1DMI: HDMI version with LAN x 2, RS-485 ports x 2 & RS-232 port x 1
EB-3330-L2852C2DMI: HDMI version with LAN x 2, RS-485 ports x 2 & RS-232 ports x 2
EB-3330-L2851221DMI: HDMI version with LAN x 2, RS-485 port x 1 & RS-422 port x 1
EB-3330-L2851221C1DMI: HDMI version with LAN x 2, RS-485 port x 1, RS-422 port x 1 & RS-232 port x 1
EB-3330-L2851221C2DMI: HDMI version with LAN x 2, RS-485 port x 1, RS-422 port x 1 & RS-232 ports x 2

EB-3330-L2221DMI: HDMI version with LAN x 2, RS-422 port x 1
EB-3330-L2222DMI: HDMI version with LAN x 2, RS-422 ports x 2
EB-3330-L2221C1DMI: HDMI version with LAN x 2, RS-422 port x 1 & RS-232 port x 1
EB-3330-L2221C2DMI: HDMI version with LAN x 2, RS-422 port x 1 & RS-232 ports x 2
EB-3330-L2221C3DMI: HDMI version with LAN x 2, RS-422 port x 1 & RS-232 ports x 3
EB-3330-L2222C1DMI: HDMI version with LAN x 2, RS-422 ports x 2 & RS-232 port x 1
EB-3330-L2222C2DMI: HDMI version with LAN x 2, RS-422 ports x 2 & RS-232 ports x 2

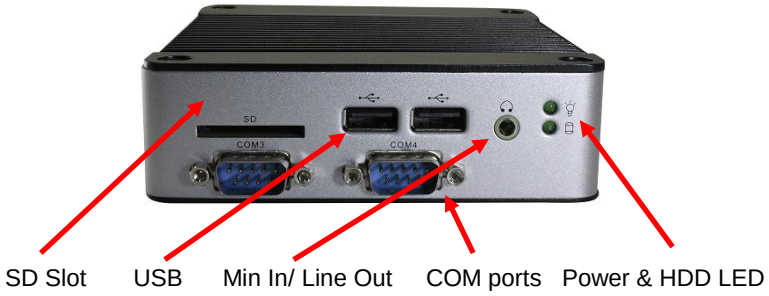
Note:
1. 2GB DDR2 version called EBOX-3332 series.
2. Complete full 9 pin standard for all RS-232 COM ports

Chapter 5

Onboard Connectors Summary

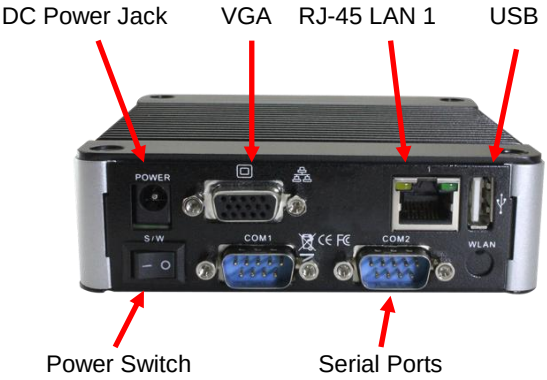
Summary Table for CPU Board			
Nbr	**Description**	**Type of Connections**	**Pin nbrs.**
J1	SODIMM-SOC-200P-1.8V	SODIMM socket 200 Pin	200-pin
J3	SATA	SATA socket	7-pin
J5	USB1 (Front)	USB Connector	8-pin
J6	USB2 (Front)	USB Connector	8-pin
J7	USB3 (Back)	USB Connector	8-pin
J8	USB4 (Inside)	USB Connector	8-pin
J9	Ethernet LAN	RJ-45	8-pin
J10	Ethernet LAN	G-LAN, RJ-45	8-pin
J11	COM1 port (Back)	Box Header 5x2 2.0mm	10-pin
J12	COM2 port (Back)	Box Header 5x2 2.0mm	10-pin
J13	COM3 Port (Front)	Box Header 5x2 2.0mm	10-pin
J14	COM4 Port (Front)	Box Header 5x2 2.0mm	10-pin
J15	DC 15V Input	DC-JACK	1-pin
J16	Power Switch	Power Switch	4-pin
J17	HDMI	HDMI connector	19-pin
J18	VGA	D-Sub Connector	15-pin
J19	PS/2 connector	Mini Din connector	6-pin
J20	Line-Out/ Mic-In	Audio Jack	2-pin

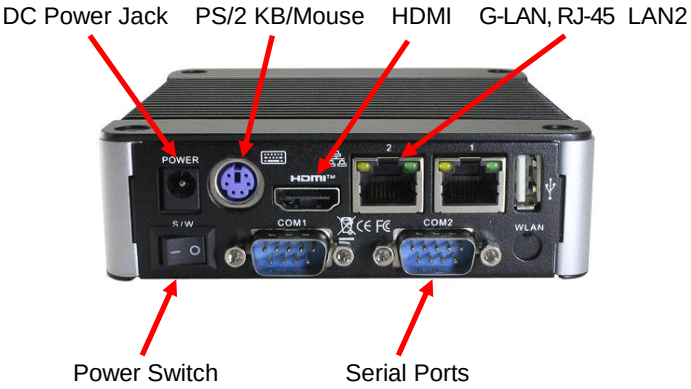
Front Connectors Outline



*EBOX 333x Models all with Auto Power On feature, do NOT have front Reset Button

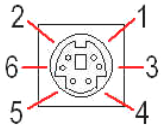
Rear Connectors Outline





Pin Assignments

J19: PS/2 Keyboard or Mouse – 6pin Mini-Din Connector

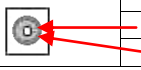


Pin #	Signal Name
1	KBCLK
2	PMCLK
3	GND
4	KBDAT
5	PMDAT
6	SB5V

J16: Power SW – Push Button Switch

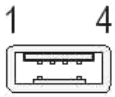
Pin #	Status
|	ON
O	OFF

J15: DC-IN (15V) – 2pin Jack



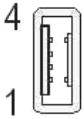
Pin #	Signal Name
1	+15V Input
2	GND

J5, J6, J8: USB2.0 (180°) : 4pin USB Type 1 Connector (Horizontal Type)



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

J7: USB2.0 (90°) – 4pin USB Type 1 Connector (Vertical Type)

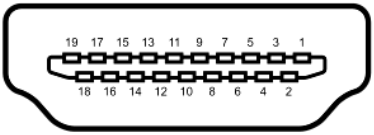


Pin #	Signal Name
1	VCC
2	USB0-
3	USB0+
4	GND
5	GGND
6	GGND

LEDS: POWER ON / OFF & HDD R/W

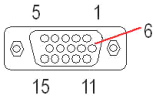
LED Color	State
Green	Power On
Green	HDD On
Green Flashes	HDD R/W

J17: HDMI – 19pin HDMI Connector



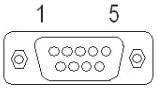
Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name
1	TMDS Data2+	8	TMDS Data0 Shield	15	SCL
2	TMDS Data2 Shield	9	TMDS Data0–	16	SDA
3	TMDS Data2–	10	TMDS Clock+	17	DDC/CEC Ground
4	TMDS Data1+	11	TMDS Clock Shield	18	+5 V Power
5	TMDS Data1 Shield	12	TMDS Clock–	19	Hot Plug Detect
6	TMDS Data1–	13	CEC		
7	TMDS Data0+	14	Reserved (N.C. on device)		

J18: VGA – 15pin D-Sub Connector



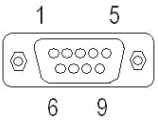
Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name
1	MR	6	GND	11	NC
2	MG	7	GND	12	VCC
3	MB	8	GND	13	HYSYNC
4	NC	9	NC	14	VSYNC
5	GND	10	GND	15	VCC

J11, J12 : COM - 9pin 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	--	--

J13, J14 : COM - 9pin D-Sub Connector



Pin #	Signal Name	Pin #	Signal Name
1	DCD1	2	RXD1
3	TXD1	4	DTR1
5	GND	6	DSR1
7	RTS1	8	CTS1
9	RI1	- -	- -

J9, J10: 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-333x series – Safe using, Storing and Handling.

Storing

- Do not place EBOX-333x 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^{O}F (35^{O}C) or less than 32^{O}F (0^{O}C)
- Do not place other electronic device or electrical equipment near EBOX-333x series. The electromagnetic field of the EBOX-333x series may cause interference subjecting to malfunction.
- Provide adequate air ventilation (circulation) to prevent internal buildup of heat. Do not place EBOX-333x 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-333x series.
- Change of environmental temperature: Problems may occur when there is a sudden change of environmental temperature, or if the EBOX-333x series is brought directly from a cold location to a warm one, moisture may condense inside EBOX-333x series. Turn off the device, and contact your nearest dealer.
- Check the surrounding appliance(s) before using EBOX-333x series. Since the EBOX-333x 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-333x series by a suitable distance away from the set.
- Do not drop the EBOX-333x 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-333x 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-333x 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-333x series Overview".
- When the EBOX-333x 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-333x series to malfunction for a while. If this happens, do not use the EBOX-333x series for at least one hour.
- When you have checked all the above guidelines and the EBOX-333x series does not work. Remove the power adaptor from the EBOX-333x 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

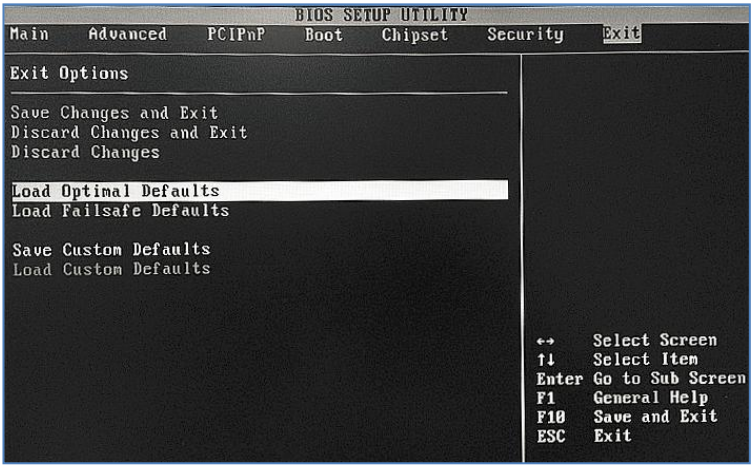
If the BIOS error message appears, press any key to resume or, hit <DEL> to enter the BIOS setup main menu, follow these steps:

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 the VESA PC starts (Windows won't start)

- Enter the BIOS setup main menu by pressing <DEL> key, be sure that the correct boot drive is enabled.

- If Windows still does not start, follow these steps to initialize the BIOS:
  1. Turn off the EBOX-333x series.
  2. Remove any peripheral devices connected to the EBOX-333x series.
  3. Restart the EBOX-333x 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-333x series to a CD/DVD or USB Drivers, remove these peripherals. And restart to confirm that the Windows operating system starts properly. If EBOX-333x 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-333x 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-333x 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.