

EBOX-335xDX3 Series

User's Guide



Copyright

The information in this manual is subject to change without notice for continuous improvement in the product. All rights are reserved. The manufacturer assumes no responsibility for any inaccuracies that may contain in this document, and makes no commitment to update or to keep current information contain in this manual.

No part of this manual may be reproduced, copied, translated or transmitted, in whole or in part, in any form or by any means without the prior written permission of the DMP Electronics Inc.

©Copyright 2019 DMP Electronics Inc.

Trademarks Acknowledgment

is the registered trademarks of DMP Electronics Inc. Other brand names, product names or trade names appearing in this document are the properties and registered trademarks of their respective owners. All names mentioned herewith are served for identification purpose only.

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 cabinet to avoid electrical shock. Refer to the nearest dealer for qualified personnel servicing.
- > Never touch un-insulated terminals or wire unless 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 & 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-336x Series, which is a simplified and economical design of an embedded device for Special Purpose Personal Computing. The basic specifications of this product is comprised of the x86 technology design, and with onboard 1GB/ 2GB DDR3 System memory, VGA or HDMI display, USB, COM ports, and LAN Interfaces.

Distribution Convention:

- This Product includes a PC and a power supply unit. Upon receiving this product, please refer to user manual to check for the contents and appearance of this product; contact the nearest dealer or DMP office for any defective or missing parts immediately. The supplier will not be responsible for any reported discrepancy there after the expiration period of 3-days from the received date.
- 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

07 Unpacking EBOX Mini PC

Chapter 2

- 10 EBOX-335xDX3 Series Overview
- 11 EBOX-335xDX3-RCA Series Overview
- 12 System Specifications
- 14 Peripherals
- 15 SD card recommendation

Chapter 3

- 17 BIOS Reconfiguring
- 18 Drivers Installation Guide
- 21 Additional Information
- 21 Screen rotation
- 22 Turn off the display function setting
- 23 HDMI 1080p video playback
- 24 PXE Diskless boot setting
- 25 Linux installation

Chapter 4

- 31 Onboard Connectors Summary
- 32 Pin Assignments

Chapter 5

- 35 Taking Care of EBOX
- 37 Troubleshooting

Chapter 6

- 40 Terms and Condition
- 40 Warranty
- 40 Service and Support
- 40 Return Merchandise Authorization (RMA) Policy
- 40 Shipping Policy

Chapter 1

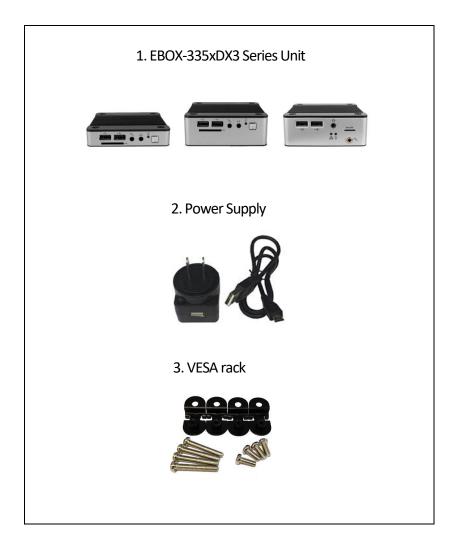
Unpacking EBOX Mini PC

Component List:

Item No.	Description	Quantity
1	EBOX-335xDX3 Series Mini PC	x1
2	10W power supply (Optional)	x1
3	75 x 75mm to 100 x 100mm VESA mounting rack (Optional)	x1

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

Check before Use



Preface EBOX-335xDX3 Series Mini PC

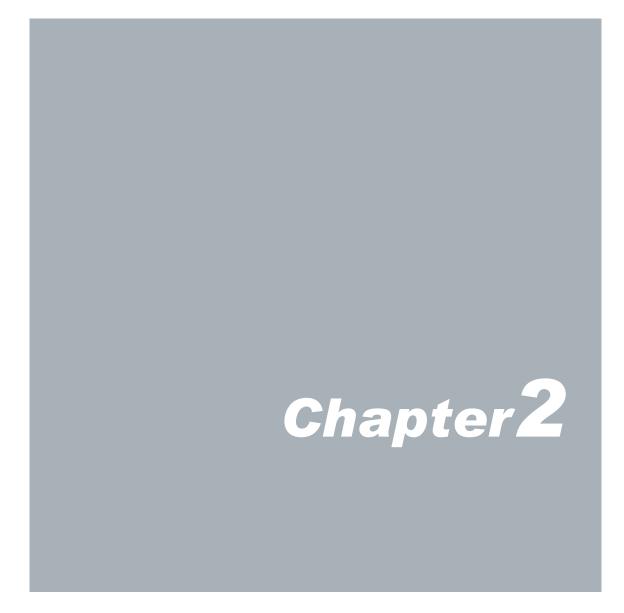


EBOX-335xDX3 Series is a revolutionary device which is especially designed for limited physical space and temperature concerns. No matter you are in a jammed office, a crowded place, or public transportation, EBOX can be easily integrated with a VESA LCD to bring it to access at any time.

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 attach directly to any size LCD for a mobile system for the use at trade shows, presentations, promotions, etc. With FANLESS design, it's 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 with more mobility & space, and at the same time uses less power consumption, EBOX-335xDX3 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-335xDX3 Series is designed to fit this standard to make monitor attachment quickly and easily.



EBOX-335xDX3 Series Overview





Front Panel

A: Reset Button For system reset or turn on.

B: Power LED LED lights up when the system is turned on.

C: Audio Line Out Audio output to speaker.

D: Audio Mic In For Microphone input.

E: USB 2.0 port Connection for external USB devices.

F: SD Card Slot System support bootable from SD Card.





Back Panel

G: USB 2.0 port Connection for external USB devices.

H: VGA port D-Sub 15-pin Support VGA display.

I: RJ-45 LAN Jack 10/100 Mbps LAN x1 (Built-in PXE diskless boot) or 1G LAN x1 (PXE not support)

J: Micro-B USB Power connector

K: RS-232 port

EBOX-335xDX3 RCA Series Overview



Front Panel

A: Micro SD Card Slot System support bootable from Micro SD Card.

B: Audio Mic in For Microphone input.

C: Audio Line Out Audio output to speaker.

D: Power LED LED lights up when system is turned on.

E: Internet LED LED lights up when system is connected to internet.

F: USB 2.0 port Connection for external USB devices.





Back Panel

F: USB 2.0 port Connection for external USB devices.

G: RJ-45 LAN Jack 10/100Mbps LAN built-in PXE diskless boot.

H: HDMI output Support HDMI display.

I: Power switch To turn the system power on or off.

J: Micro-B USB Power connector

K: RCA jack (Isolation) Support speaker with RCA input.

L: VGA port D-Sub 15-pin Support VGA display.

System Specifications

<u>CPU</u>

Vortex86DX3 Dual core (1GHz) *Windows platform 64-bit not support

Main Memory

1GB DDR3 (32-bit DRAM bus, EBOX-3350DX3 Series) 2GB DDR3 (32-bit DRAM bus, EBOX-3352DX3 Series)

BIOS

AMI BIOS

Display

VGA: Resolution up to 1920 x 1080 pixels HDMI: Resolution up to 1920 x 1080 pixels

I/O Connectors

USB 2.0 x 3 (2 at front, 1 at rear)
 SATA (for SATA DOM) x 1(*)
 SD Card slot x1
 Micro SD card slot x1(*)
 10/100 Mbps LAN x1 or 1G LAN x1
 Mic in x 1 + Line out x 1
 Standard Mini PCle (not support USB Signal) x1(*)
 RS-232 port x2
 RCA connector x2(*)
 *2, 4, 7, 9 available in RCA Series.

Dimension & Weight

95 x 95 x 20mm/ 280g 95 x 95 x 35mm/ 360g

Power consumption

EBOX-335xDX3 Series: DC +5V@2A EBOX-335xDX3-RCA Series: DC +5V@1.5A

Supported Operating system

Windows 7 Home/ Pro Windows 7 Embedded Windows XP Home/ Pro Windows XP Embedded Linux OS (Support list on EBOX website)

Peripherals

Connecting Power Adaptor & Monitor



A: Micro -B USB Power Jack

EBOX-335xDX3 Series use Micro-B USB power cable +5V@2A AC adapter for the power source.

Note:

Model Types with Auto Power On supported, device will auto boot up after power adaptor is plug on.





B: VGA Connection

Connecting VGA display via VGA cable.



C: HDMI Connection

Connecting HDMI display via HDMI cable. *For EBOX- 335xDX3-RCA Series.

Peripherals

Connecting Input & Output ports

EBOX-335xDX3 series provides 3 external USB ports (2 at front, 1 at rear).



D: SD Card Slot For booting device by SD Card.

E: Microphone/Earphone
335xDX3 Series supports Microphone Input and Speaker Output

F: USB 2.0 port Connection for external USB devices.

G: RJ-45 LAN RJ-45 LAN jack for Ethernet connection.

H: Serial port Connection for serial port interface devices.



Connecting RCA connector



I: RCA port

RCA ports transmit stereo analog audio output

SD/ Micro SD card recommendation

To use Class 10 SD card is highly recommended.

EBOX-335xDX3 Series support SD and SDHC only (SDXC not support). Users may use SDXC on EBOX, however, it will be recognized as SDHC and capacity support up to 32GB only.

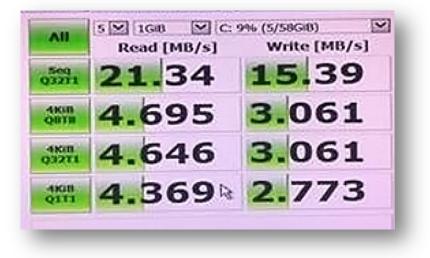
Test environment:

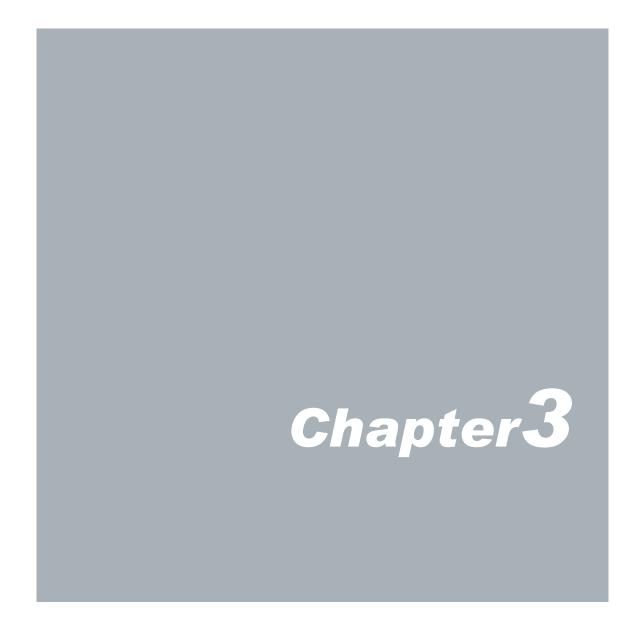
Products: EB-335xDX3 Series SD card: Kingston Canvas Select SDXC UHS-I 64GB Class 10 BIOS: AMI BIOS OS: WES7 (Windows embedded standard 7) Disk benchmark software: CrystalDiskMark 6.0.2

Test result:

SD card Speed	Read [MB/s]	Write [MB/s]
Seq Q32T1	21.34	15.39

Note: Seq Q32T1: Sequential (Block Size=128KiB) Read/ Write with multi Queues & Threads





BIOS Reconfiguring

1. AMI BIOS is used in EBOX. To reconfigure the hardware, press or hit the key to enter the BIOS setup main menu as below:

System Overu	iew		Use [ENTER], [TAB]
VGA BIOS	:000 :12/27/2015	[16:29:05] [Thu 01/07/2016]	- or [SHIFT-TAB] to select a field. Use [+] or [-] to configure system Date
Processor Type Speed System Memor Size	:DMP (R) A9126 :1000MHz 'Y :960MB		 Select Screen Select Item Change Field Tab Select Field F1 General Help F10 Save and Exit

- 2. Press <Esc> to go back to main menu.
- 3. Press <F9> to load factory default setting.
- 4. Adjust BIOS settings, and be sure that your settings will affect.

For Windows platform users, please use default setting directly.

5. Press <Tab> move to boot menu to find default setting as below:

Boot Device Priority		Specifies the boot
1st Boot Device 2nd Boot Device 3rd Boot Device 4th Boot Device 5th Boot Device	[USB] [Hard_Drive] [CD/DUD] [Removable_Dev.] [Network]	 sequence from the available devices. A device enclosed in parenthesis has been disabled in the corresponding type menu. * Select Screen 11 Select Item +- Change Option
		F1 General Help F10 Save and Exit ESC Exit

6. Set up the boot device order, press <F10> and select "Save Settings and Exit", press "Y" to save the changes. Unit will restart to the new setup.

Drivers Installation guide

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

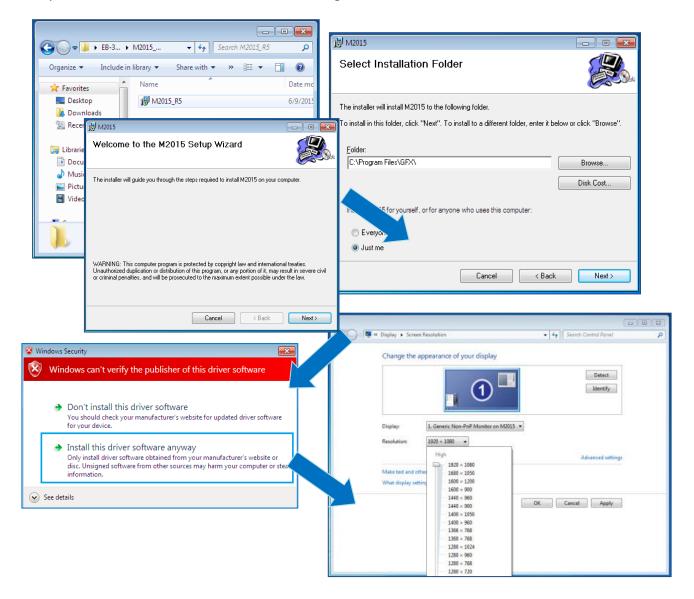
- 1. M2015 R7 VGA driver
- 2. Ethernet driver
- 3. USB Wireless LAN Dongle driver (Optional)
- 4. Audio driver (for windows XP only)

Note:

- 1. Please download drivers from EBOX download Page.
- 2. For Windows 7 or Windows 7 Embedded OS, install XMPlay for audio player, download here.

VGA driver:

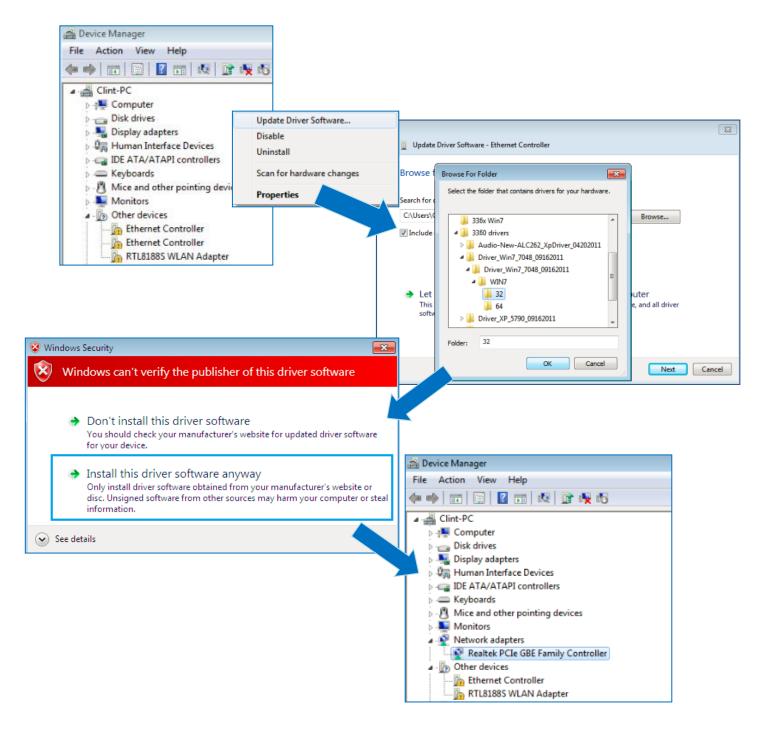
Unzip the downloaded file and double click the setting .exe file then "Next" as below to install:



After VGA driver installed, restart computer and you will be able to select resolution up to 1920 x 1080 pixels.

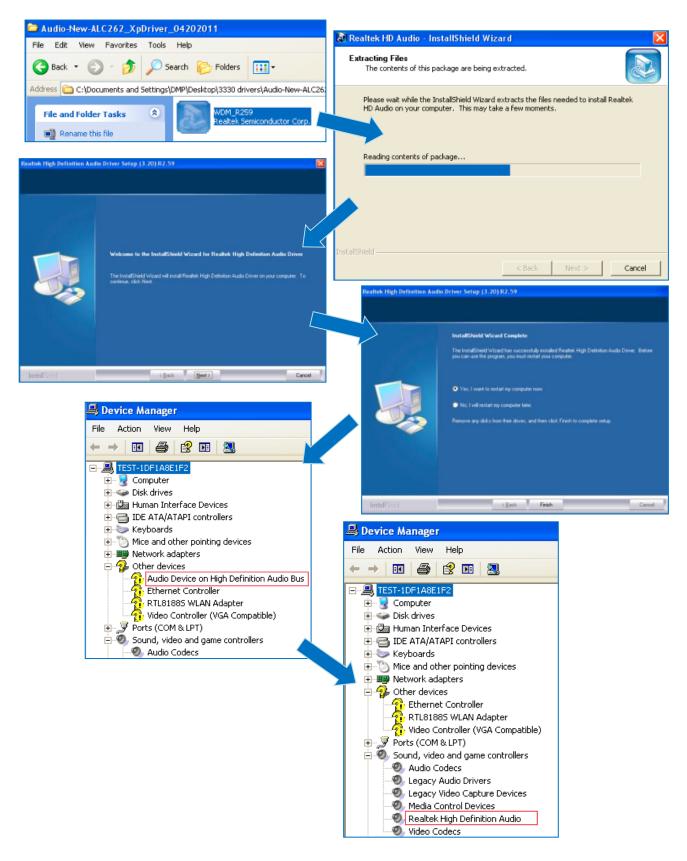
Ethernet driver:

- 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.



Audio driver:

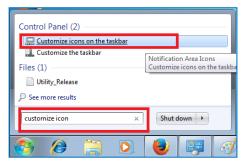
Unzip the downloaded file and double click the setting .exe file, then "Next" as below to install. After the installation completed, the Device Manager will update and show the correct device.



Additional information

Screen rotation:

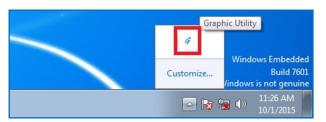
1. After VGA driver installation completed, type "Customize icons" in search bar.



2. Adjust Utility Application to "Show icon and notifications".

Select wh	Panel All Control Panel Items Notification Area Lons ich icons and notifications appear on the taskba to hide icons and notifications, you won't be notified about area on the taskbar.	ar	Search Control Panel	<u>م</u> و
()) : ()) :	Utility Application Graphic Utility Volume Speakers: 60% Windows Explorer Safely Remove Hardware and Eject Media	Behaviors Show icon and notifications Drew icon and notifications Only show notifications Only show notifications Only show notifications		•
Restore defa	icons on or off ult icon behaviors iow all icons and notifications on the taskbar	(OK Cancel	

3. A blue icon = Graphic Utility appears on screen, double click it.



4. In Graphic Utility, go to Rotation section. Select the direction of rotation then press Apply to test and OK to save the changes.



Turn off the display function setting:

For Win 7 or Win 7 Embedded OS users, click **Start Menu > Control Panel > Power Options** or simply search for "**Power Options**" (without quotes). You will see a list of different power plans.

💣 Mouse	Network and Sharing Center	Notification Area Icons
Parental Controls	Performance Information and Tools	Yersonalization
Phone and Modem	Power Options	Programs and Features
Recovery	Region and Language	RemoteApp and Desktop Connections

The plan currently in use has a blue dot in front of it. Click "**Change Plan Settings**" next to the power plan currently use. Click on the drop-down menu list which is exactly next to "Turn off the display". From the options, you can set the amount of idle time.

Weight and Sound Power Optio	ns 🕨 Edit Plan Settings		
Change settings for the pla	n: High performance		
Choose the sleep and display settin	gs that you want your computer to us	e.	
Turn off the display:	Never 👻		
g Put the computer to seep.	1 minute 2 minutes 3 minutes 5 minutes		
Change advanced power settings	10 minutes 15 minutes 20 minutes		
	25 minutes 30 minutes 45 minutes		
	L hour 2 hours 3 hours	Save changes Cancel	
	4 hours 5 hours Never		

EBOX-335xDX3 Series does not support sleep function, it cannot wake up after sleep.

To avoid the unwakeable situation, disable the function by setting "Put the computer to sleep" to "Never".

🕽 🔵 🗢 🗃 « Hardware and Sound 🕨 Power Opti	ons 🕨 Edit Plan Seti	tings		
Change settings for the pl	an: High perfor	mance		
Choose the sleep and display setti	ngs that you want yo	our computer to	use.	
Turn off the display:	Never	•		
9 Put the computer to sleep:	Never	-		
Change advanced power settings	1 minute 2 minutes 3 minutes 5 minutes			
Restore default settings for this pla	10 minutes 15 minutes 20 minutes			
	25 minutes 30 minutes 45 minutes		Save changes Cancel	
	1 hour 2 hours			
	3 hours 4 hours 5 hours		- Never	
	Never			

HDMI 1080p video playback:

For windows platform (Windows 7, WES7, XP, XPe):

Click here to download 1080p video specific use media player DMP_mpc-hc_R7.



In media player DMP_mpc-hc_R7 full screen mode, adjust screen with keyboard number pad "8" to increase or "2" to decrease screen height if the screen display is not 100% fitting the monitor.

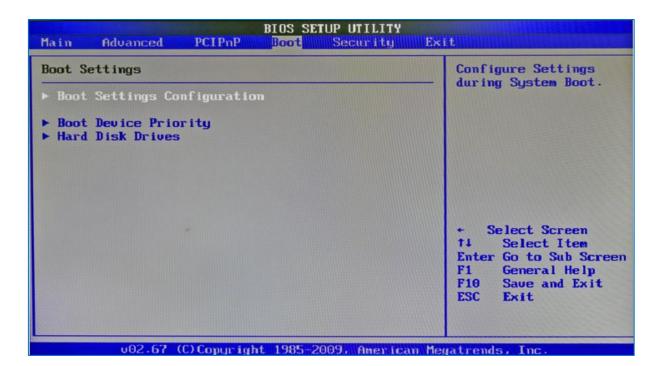
* DMP_mpc-hc_R7 video player is capable of MPEG-2, AVI, MP4...formats without additional software or codecs installation.

For Linux platform:

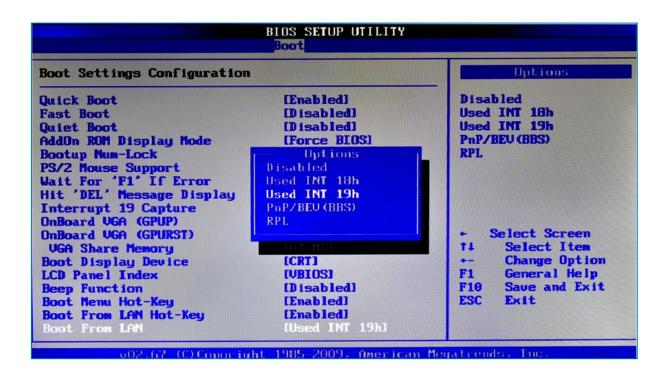
Click here to download EBOX HDMI 1080p video playback Linux Driver & GStreamer Installation Guide.

PXE Diskless boot setting:

- 1. Boot up EBOX unit and press to get into BIOS menu.
- 2. Select "Boot" then move to "Boot Settings Configuration" and press ENTER.



3. Move to "Boot From LAN" and choose "Used INT 19h" then press "F10" to save setting and exit.



Linux installation 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-335xDX3 Series. Following brief instruction, users may configure it according to their specific needs.

1. Basic system installation

• For Debian7.0, after booting from installation CD, moving straight to install would get a text mode system only, please choose Graphic Install for Graphical User Interface OS installation.

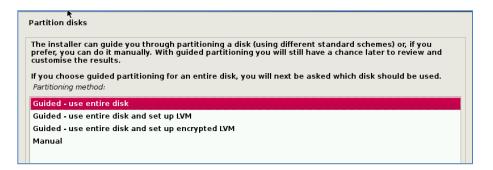
	Constall
Debian GNU/Linux installer boot menu Install Graphical install Advanced options Help Install with speech synthesis	English * Welcome Esperanto * Yue can try Ubuntu 10.04.3 LTS from this CD without Euskara Français Try Ubuntu 10.04.3 LTS Français Galego Try Ubuntu 10.04.3 LTS Galego Ready to install? Once you answer a few questions, the contents of the live CD can be installed on this computer so you can run Ubuntu 10.04.3 LTS at full speed without the CD. Kurdi Answering the questions should only take a few minutes. Letviška Install Ubuntu 10.04.3 LTS Norsk hokmåi *
Press ENTER to boot or TAB to edit a menu entry	

- Set basic configuration such as language, keyboard map and time zone, etc. steps by steps.
- Then the system will detect the network hardware, and ask users to load the firmware files for network device rtl8168, just answer no for this inquiry and move forward.
- Next the system will detect multiple network interfaces on the EBOX-335xDX3 Series, and users have to decide the primary network interface, both of them could be chosen.

Note: Ethernet cable must be plugged in during this period.

_	
	Configure the network
	Please enter the hostname for this system. The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting up your own home network, you can make something up here. <i>Hostname:</i>

 During the installation process, the system would ask users to create partitions for the operating system. Following example is using entire disk for the beginner. Choose "Guided use entire disk".



• Select "Yes" to create the partition.

Partition disks
If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.
The partition tables of the following devices are changed: SCSI3 (0,0,0) (sda)
The following partitions are going to be formatted: partition #1 of SCSI3 (0,0,0) (sda) as ext4 partition #5 of SCSI3 (0,0,0) (sda) as swap
Write the changes to disks?
○ No
• Yes

- Then the system would keep asking few questions for configuration, suggestions were attached as follow.
- Then the system would keep popping out questions for configuration, suggestions as below:

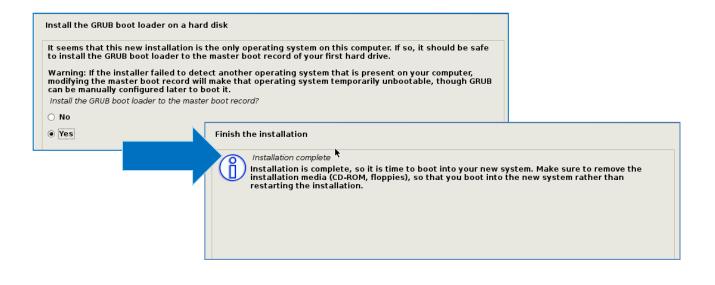
For Software selection:

Please remark both the Debian desktop environment and standard system utilities, and click to continue. It would start the package installation, and around hundred packages would be installed, after installation completed, the next indication message would pop up.

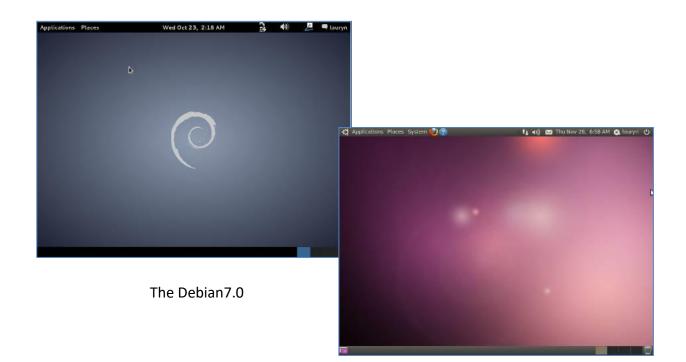
Software selection	
	At the moment, only the core of the system is installed. To tune the system to your needs, you can choose to install one or more of the following predefined collections of software. Choose software to install:
☑ Debian desktop environment ☑ Standard system utilities	

For Install the GRUB boot loader on a hard disk:

Answer YES 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 Ubuntu10.04

2. 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/, please refer to EBOX download page for most updated drivers.
- Follow instruction below to execute.



* Please click <u>xorg.conf</u> 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.

Monitor Preferences			
		Monitor: Unk	nown
		💿 On 🕚 Off	f
		Resolution:	1024 x 600 (16:9) ▼
Unknown		Refresh rate:	60 Hz 🔻
		Rotation:	Normal 🔻
Same image in all monitors Detect r	monitors		
Panel icon Show monitors in panel 			
			Apply Close

The supported resolutions:

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)	
1400x960	1280x768 (16:10)	
	· · · · · ·	

3. 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.

● ● Login Screen Settings
When the computer starts up:
Play login sound
○ Show the screen for choosing who will log in
Log in as lauryn (lauryn) v automatically Allow 30 + seconds for anyone else to log in first
Select GNOME (This session logs you into GNOME) vas default session
Unlock Close

Disable the power saving mode when system idle,

System / Preference / Screensaver

Unmarked the option "Active the screensaver when computer is idle".

8 Screensaver Preferences	
Screensaver theme:	
Blank screen	
Random	
AntSpotlight	
Cosmos	
Fiberlamp	
Floating Feet	
Floating Ubuntu F-Spot photos	
FuzzyFlakes	
GLBlur	
GLCells	
Preview	
Regard the computer as idle after:	2 hours
 Activate screensaver when computer is idle 	
Lock screen when screensaver is active	
Help Power Management	Close

Click close to complete the system configuration.

<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header>

Onboard Connectors Summary

Summary Table for CPU Board

Nbr.	Description	Type of Connections	Pin nbrs.
J3	VGA	D-Sub connector	15-pin
J3	mPCle	mPCle socket	52-pin
J4	DC +5V Input	Micro USB B Type	5-pin
J4	SATA	SATA socket	7-pin
J5	Line out	Audio Jack	2-pin
J6	Mic in	Audio Jack	2-pin
J7, J8	USB (Front)	USB connector	4-pin
J8, J9	RCA	RCA connector	1-pin
19	USB (Back)	USB connector	4-pin
J12	Ethernet LAN	RJ-45	8-pin
J13, J14	COM port	Box Header 5 x 2 2.0mm	9-pin
J18	HDMI	HDMI connector	19-pin

Note

J3, J4, J8, J9, J18 only available in EBOX-335xDX3-RCA Series.

J13, J14 only available in EBOX-335xDX3-C2 Series.

Pin Assignments

J3: VGA – 15-pin D-Sub connector

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

J4: Micro-B USB DC Power Input

	Pin #	Signal Name
	1	VCC
⁵⁴³²¹	2	Data
Micro-B	3	Data +
	4	ID
	5	GND

J7, J8: USB 2.0 (180°) – 4-pin USB Type 1 connector (H)

	Pin #	Signal Name
1 /	1	VCC
	2	Data
(لخصفا)	3	Data +
	4	GND

J9: USB 2.0 (90°) – 4-pin USB Type 1 connector (V)

	Pin #	Signal Name
4 🕞	1	VCC
	2	Data
1	3	Data +
	4	GND

J12: LAN: RJ-45 connector

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

J13, J14: RS-232 9-pin D-Sub connector

	Pin #	Signal Name	Pin #	Signal Name
	1	DCD	2	RXD
$ \begin{array}{c} 1 5 \\ \bigcirc \left(\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	3	TXD	4	DTR
<u> </u>	5	GND	6	DSR
0 3	7	RTS	8	CTS
	9	RI		

LEDS: POWER ON/ OFF

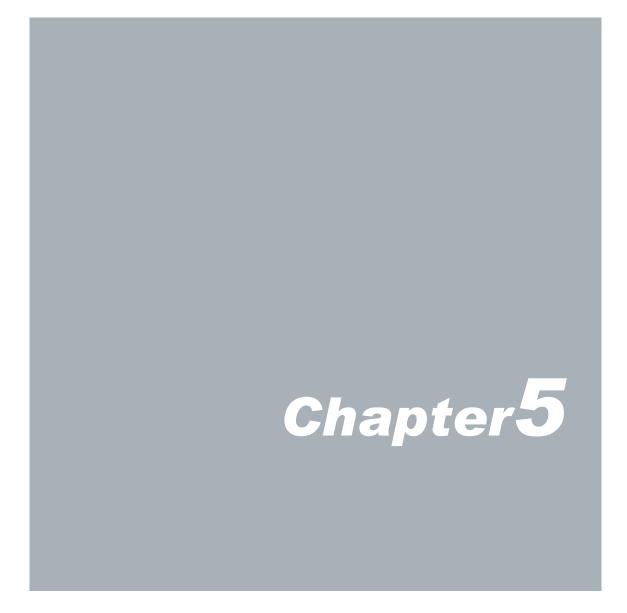
_	LED Color	State
•	Blue	Power On

J8, J9: RCA Connectors/ Stereo sound output

RCA AUDIO	Shell	Center	Shell
		Signal receiver	GND

J18: HDMI

	Pin #	Signal Name	Pin#	Signal Name
	1	DATA2+	2	DATA2_Shield
	3	DATA2-	4	DATA1+
	5	DATA1_Shield	6	DATA1-
	7	DATA0+	8	DATA0_Shield
	9	DATA0-	10	CLK+
	11	CLK_Shield	12	CLK-
	13	CEC	14	Reserved
	15	SCL	16	SDA
	17	CEC_GND	18	+5V_power
	19	Hot_Plug_Detect	-	



Taking Care of EBOX

This section provide guidelines on using EBOX-335xDX3 Series – Safe using, Storing and Handling.

Storing

- Do not place EBOX 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
 - Out of the operating temperature
- Do not place other electronic device or electrical equipment near EBOX. The electromagnetic field of EBOX may cause interference subjecting to malfunction.
- Provide adequate air ventilation (circulation) to prevent internal buildup of heat. Do not place EBOX near 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.
- Change of environmental temperature: Problems may occur when there is a sudden change of environmental temperature, or if the EBOX is brought directly from a cold location to a warm one, moisture may condense inside EBOX. Turn off the device, and contact your nearest dealer.
- Check the surrounding appliance(s) before using EBOX. Since the EBOX uses high-frequency radio signal and may interface with radio or TV reception causing interference or poor signal display. When happens, relocate the EBOX by a suitable distance away from it.
- Do not drop EBOX from working table nor place heavy objects on top of it.

Cleaning EBOX

- Clean EBOX 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 EBOX, turn off EBOX immediately; 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 EBOX.

Troubleshooting

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

Troubleshooting EBOX

A. EBOX does not start -

- Make sure EBOX is properly secured and plugged into a power source before it is turned on.
- Make sure the power indicator shows the power is on.
- When EBOX unit 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 display (monitor) for details.
- Check if power control button function well by removing the AC adaptor. Wait for one minute, and then reattach all power connection before pressing the power button.
- Condensation may cause EBOX malfunction for a while. If happens, do not use EBOX for at least one hour.
- When all above guidelines checked and EBOX unit still not work. Remove the power adaptor from EBOX, unplug the power supply, and plug it in again. Then turn on the power.
- When booting EBOX, if LED power indicator is on but no display on monitor, please reboot and keep pressing <C> key to force CRT display (VGA mode).

B. BIOS Error Message –

BIOS error message appears when EBOX starts

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

 Press , and the BIOS Setup main menu appears, check if storage 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"

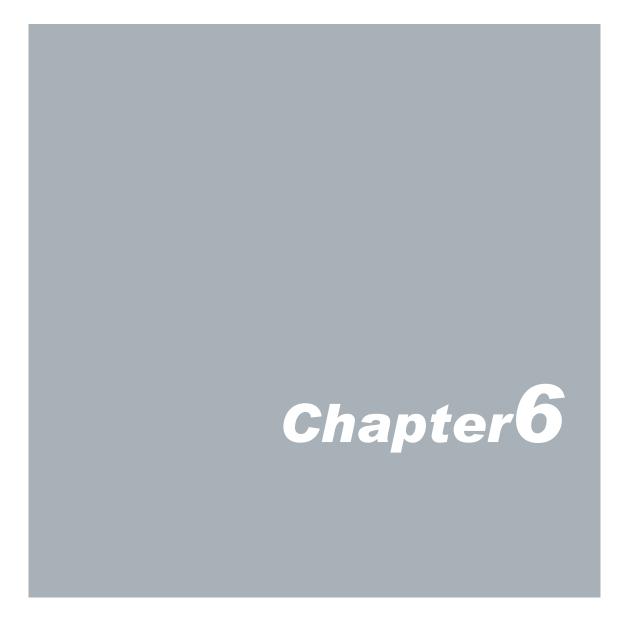
BIOS SETUP UTILITY Main Advanced PCIPnP Boot Security	Exit
Exit Options Save Changes and Exit Discard Changes and Exit Discard Changes Load Optimal Defaults Load Failsafe Defaults	Load Optimal Default values for all the setup questions. F9 key can be used for this operation.
	← Select Screen ↑↓ Select Item Enter Go to Sub Screen F1 General Help F10 Save and Exit ESC Exit

(BIOS Setup menu "Exit")

C. "Operating System Not Found" -

A message indicating "Operating system not found" appear when unit starts (Windows won't start)

- ▶ Enter BIOS setup main menu by pressing 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 unit.
 - 2. Remove any peripheral devices connected to the EBOX unit.
 - 3. Restart the EBOX unit.
 - 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 unit to a CD/ DVD or USB Drivers, remove these peripherals. And restart to confirm that the Windows operating system starts properly. If EBOX unit continues to display the message "Operating system not found," and Windows does not start, please contact nearest dealer for servicing.



Terms and Conditions

Warranty

The warranty terms for EBOX 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 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.