# VGA driver for Windows XP Installation Guide

Model: IMB-130, IMB-140, IMB-143, IMB-145TD-C, IMB-146, IMB-147, 251D

Before installing the driver, please check if you use "LVDS" port under Windows XP. If you would like to use "LVDS" port, please update the latest BIOS in our website Beta Drivers & Utilities Download zone (BIOS description: Update vBIOS version) and follow the steps in <u>Page10</u> to update CH7511B ROM first.

After updating the correct BIOS and CH7511B ROM, please refer to below steps to install VGA driver.



Step1. Execute "EMGD\_1\_15\_CDV\_GOLD\_3190" file.

## Step2. Press "Continue".



#### Step3. Choose "Accept".



#### Step4. Enter "Continue".



Step5. Installing driver.



#### Step6. Installation Successful.

Installat	ion Successful 🛛 🔀
(į)	Installation was completed successfully.
	ок

<u>Step7.</u> Please execute "Shortcut to emgd-ced.exe" on desktop.



## Step8. Click "New Configuration".

EMGD Configuration Editor			
File Help			
New Configuration New Package	New DTD Ger	nerate Installation	
Configuration package constallation to be dtd constallation c	EMGD Con.     The Inte(8) Em     (CED) allows u     EMGD installati     installations fo     video BIOS op     Press F1 fo     Configuration:     DTD:     Packages:     Installation:     This offering in	sole bedded Media and Graphics Driver (EMGD) Configuration Editor sers to configure the multitude of settings in EMGD and generate ions to be installed on target embedded platforms. CED will generate r Microsoft Windows* drivers, Microsoft Windows CE* drivers, the tion ROM, and EFI <b>or help at any time.</b> A configuration contains all the settings for one platform and one combination of displays. First create one or more configurations and then create a package. Detailed Timing Descriptions (DTD) are customized timing settings for an individual display. A DTD for a display can be created and is then available for use in any configuration. A package consists of one or more configurations. A package is used to create an Installation that will work for multiple platforms and display combinations. An installation is the generated package for Microsoft Windows*, video BIOS, and/or EFI which can be transferred and installed on a target embedded platform. cludes BEA WebLogic* JRockit*	

<u>Step9</u>. Key in "Configuration File Name" and choose the ports that you would like to use. We choose "CRT", "HDMI-B/DP-B" and "HDMI-C/DP-C/eDP" as example. If you want to use "HDMI port", please choose "HDMI-B/DP-B" in this step.

If you would like to use "LVDS", please choose "HDMI-C/DP-C/eDP" in below picture.

EMGD Configuration Editor		×		
Chipset Configuration Page This page allows you to configure general settings for one platform and one display combination.				
Configuration File Name	Platform Chipset			
ASRock	Intel(R) Atom(TM) Processor N2000 and D2000 Serie: 💙			
Display Configuration Mode	Clone Settings			
Single	Clone Width			
Overlay Color Correction				
Windows Embedded Compact 7 Settings	Clone Height			
- Display Detection -				
	Clone Refresh			
O Disable				
Overlay Off				
Disable Detection of Multiple DVO Transmitt	ers of the Same Type			
Port Devices				
Available Ports	Port Order	_		
LVDS				
	HDMI-C/DP-C/eDP			
	<b>~</b>			
Choose the ports that you want to use Clear				
	< <u>B</u> ack <u>N</u> ext > Einish	Cancel		

### Step10. Enter CRT "Port Name".

Readable Port Name         A         Port Rotation         0       Image: Configuration         Port Rotation         0       Image: Configuration         Port Rotation       Image: Configuration         Image: Configuration       Image: Configuration         Image: Configuration       Image: Configuration         Image: Conterooff       Image: Conterooff         Image: Conterooff       Image: Configuration         Image: Conterof	EMGD Configuration Editor CRT Configuration Page This page allows you to configure the settings for a	in individual display port.
<[]»	Readable Port Name         A         Port Rotation         0       Image: Constraint of the second se	
	<	

<u>Step11.</u> For setting HDMI port, please enter HDMI-B/DP-B "Port Name" and select "HDMI Display". (If you don't choose HDMI-B/DP-B in <u>Step9</u>, please ignore this step.)

BAGD Configuration Editor	<u> </u>
HDMI-B/DP-B Configuration Page This page allows you to configure the settings f	or an individual display port.
Readable Port Name HDMI CenterOff EDID Options Use EDID Display if available If EDID Device (edid_avail) Use driver built-in standard timings Use EDID Block Use user-defined DTDs If Not EDID Device (edid_not_avail) Use driver built-in standard timings Use user-defined DTDs	Digital Display Configuration Select the Display Type HDMI Display Select HDMI display Attribute Settings DDC Settings Flat Panel Settings Framebuffer Color Correction Attributes Custom Display Timing Descriptors (DTDs) 1024x6005amsung4_8,dtd 1024x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd 1280x768@60Hz.dtd
	<back next=""> Einish Cancel</back>

<u>Step12.</u> For setting LVDS, please key in HDMI-C/DP-C/eDP "Port Name" and then select "DP Display".

(If you don't choose HDMI-C/DP-C/eDP in <u>Step9</u>, please ignore this step.)

B EMGD Configuration Editor	X
HDMI-C/DP-C/eDP Configuration Pag This page allows you to configure the settings fo	je ran individual display port.
Readable Port Name         LVDS         CenterOff         EDID Options         ✓ Use EDID Display if available         If EDID Device (edid_avail)         ✓ Use driver built-in standard timings         ✓ Use EDID Block         Use user-defined DTDs         If Not EDID Device (edid_not_avail)         ✓ Use driver built-in standard timings         Use user-defined DTDs	Digital Display Configuration   Select the Display Type   P Display   P DP Display   BC Settings   Fat Panel Settings
	< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel

## Step13. Click "New Package".

EMGD Configuration Editor	r	
File Help		
New Configuration New Package	New DTD Generate Installation	
Configuration	<ul> <li>EMGD Console</li> <li>The Intel® Embedded Media and Graphics Driver (EMGD) Configuration Editor (CED) allows users to configure the multitude of settings in EMGD and generate EMGD installations to be installed on target embedded platforms. CED will generate installations for Microsoft Windows* drivers, Microsoft Windows CE* drivers, the video BIOS option ROM, and EFI</li> <li>Press F1 for help at any time.</li> <li>Configuration: A configuration contains all the settings for one platform and one combination of displays. First create one or more configurations and then create a package.</li> <li>DTD: Detailed Timing Descriptions (DTD) are customized timing settings for an individual display. A DTD for a display can be created and is then available for use in any configuration.</li> <li>Packages: A package consists of one or more configurations. A package is used to create an Installation that will work for multiple platforms and display combinations.</li> <li>Installation: An installation is the generated package for Microsoft Windows*, video BIOS, and/or EFI which can be transferred and installed on a target embedded platform.</li> <li>This offering includes BEA WebLogic* JRockit*</li> </ul>	

Step14. Key in "Package Name" and select "Configurations" and "target OS" as Windows XP.

🐻 EMGD Package Editor	X
EMGD Package Page This page allows you to build a Package configuration fro	m existing platform Configurations.
Package File Name         ASRock1         Configurations         Configuration Name         Chipset       Config ID         ASRock.cnfg       ND2000         Select the configurations         Select All       Clear All         Default Configuration         ASRock.cnfg         General Driver Windows Embedded Compact 7 Setting	Target OS         Microsoft Windows XP*/XPe*         Video BIOS         EFI         Choose Windows XP as the target OS         Microsoft Windows* Settings         EFI Splash Screen         Add Splash Screen         Browse
	< Back Next > Finish Cancel

<u>Step15.</u> Choose the package and then click "Generate Installation".

B EMGD Configuration Edito	r 📃	
File Help		
New Configuration New Package	e New DTD Generate Installation	
Configuration	EMGD 💂 Console	• <sup>-</sup>
ASRock1.pkg		_
dtd		
		-
	<u>×</u>	≥ ×

<u>Step16.</u> After generating installation, please find the file of "IEMGD\_HEAD\_Windows" in below path. Then extract the zip file.

EMGD_HEAD_Windows		
File Edit View Favorites Tools Help		<b>1</b>
🕝 Back 🔹 🕥 🕤 🏂 🔎 Search 🎼 Folde	Jers 🔢 -	
Address 🛅 C:\IEMGD\IEMGD_1.15\workspace\installation	n\ASRock1.pkg_installation\IEMGD_HEAD_Windows	💙 🄁 Go
File and Folder Tasks 🔕 🗰 Setup	IP Information	
<ul> <li>Rename this file</li> <li>Move this file</li> <li>Copy this file</li> <li>Publish this file to the Web</li> <li>E-mail this file</li> <li>Delete this file</li> </ul>	Open     Search       Explore     Extract All       Open With     Send To	
Other Places	Cut Copy	
ASRock1.pkg_installation	Create Shortcut Delete Rename	
My Computer	Properties	
My Network Places		

**<u>Step17.</u>** Enter to "Utilities" folder in IEMGD\_HEAD\_Windows.



### Step18. Execute "Setup" as below picture.

🗁 Utilities		
File Edit View Favorites Tool	s Help	an 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 19
🚱 Back 🝷 🕥 🕤 🏂 🔎	Search 🕞 Folders	
Address 🛅 C:\IEMGD\IEMGD_1.15\w	orkspace\installation\ASRock1.pkg_installation\IE	:MGD_HEAD_Windows\IEMGD_HEAD_Window: 🔽 🄁 Go
File and Folder Tasks	Internal	display_license Text Document 12 KB
Publish this folder to the Web	emgd_crg	EMGDGUI Intel Embedded Media and Gr Intel Corporation
Other Places	emgdgui.dll 1.15.0.3190 Intel Embedded Media and Gr	emgdui.dll
IEMGD_HEAD_Windows  My Documents  Shared Documents	Setup Intel Embedded Media and Gr Intel Corporation	
<ul> <li>My Computer</li> <li>My Network Places</li> </ul>	~	

#### Step19. Press "Next"



### Step20. Select "I agree" and then press "Install"

Intel® Embedded Media and Graphics Driver Setup	×
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<ul> <li>evaluating Intel's Pre-Release Products and developing product(s) incorporating one or more Intel products. You agree that you will not offer for sale, sell, transfer or distribute the Pre-Release Product to any third party (including, without limitation, any end customers, resellers or distributors of your products). The Pre-Release Product may not be resold or used for any other purposes whatsoever.</li> <li>DEVELOPMENT PLATFORM. You understand that the Pre-Release Product is still under development by Intel and/or Intel's suppliers. It may not be fully tested, lack regulatory approvals, and contain bugs or errors. Accordingly, you agree that the</li> </ul>	
Pre-Release Product is not suitable for commercial release in its current state. Intel           I agree         I disagree         Install         Close	<b>∨</b>

#### Step21. Press "Continue Anyway"



#### Step22. Enter "Yes" to restart system.

Intel® E	mbedded Graphic	s Driver Setu	Р	
?	You must restart yo	ur computer to co Yes	mplete installati No	ion. Do you want to restart now?

<u>Step23.</u> After restarting system, please check whether VGA card is installed in device manager.



## Update CH7511B ROM Guide

If you would like to use LVDS port under Windows XP, please update the latest BIOS in our website Beta Drivers & Utilities Download zone (BIOS description: Update vBIOS version) and follow below steps to update CH7511B ROM.

Step 1. Please download "CH511B" file in Beta Driver Zone.

And then click "Install.bat" in the folder to install SMBus driver.

(Path: CH7511B -> CH7511B Release V1.02.20\SMBUS\_driver\setupX86)



Step 2. After clicking "install.bat", driver will be installed on OS and display below picture.



Step 3. After installing driver, please execute "CH7511B-Utility-v1.02.20" in CH7511B folder.



Step 4. Please select "CH7511B Image Copy" and then click "Import"

CHRONTEL CH7511B BOOTROM Image Utility - DP AUX	
CH7511B Image Generator CH7511B Image Copy Diagnostics Ch7511B Image Copy Diagnostics Click "CH7511B Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image into the BOOTROM on the Image Copy Utility flashs a CH7511B image Image Copy Utility flashs a CH7511B image Image Copy Utility flashs a CH7511B image Image Image Copy Utility flashs a CH7511B image I	e Copy and then mother board.
	<b>Import</b> Flash
Tips: You can import a CH7511B image, then change them with the ger	Options
	Exit

Step 5. Please Choose "10220\_PWM0\_120828\_XP.chr" and click "Open" to import it.

Open		?×
Look in:	🗁 CH7511B Release V1.02.20 💽 🔶 🖻 📸	
My Recent Documents Desktop My Documents My Computer	SMBUS_driver 10220_PWM0_120828_XP.chr	
My Network Places	File name: 10220_PWM0_120828_XP	Open
	Files of type: CH7511B Image (*.chr)	Cancel

<u>Step 6.</u> When importing the image file, there are many warning messages will pop-up. It's normal. Please don't worried about it and press "OK" to import the image file.

CHRONTEL CH7511	B BOOTROM Image Utility - DP AUX			
CH7511B Image Generat	Or CH7511B Image Copy Diagnostics	1		
The Image Cop	i11B-Utility-v1.02.20	her board.		
C:\Document: War	ing: The image file you import may be not correct!	Import		
	ОК	Flash		
	_	Options		
Tips: You can import a CH7511B image, then change them with the generator utility.				
		Exit		

Step 7. After importing the image file, please click "Options".

🐮 CHRONTEL CH7511B BOOTROM Image Utility - DP AUX 📃 🗖 🔀			
CH7511B Image Generator CH7511B Image Copy Diagnostics			
The Image Copy utility flashs a CH7511B image into the BOOTROM on mother board.			
C:\Documents and Settings\asrock\Desktop\CH7511B\CH7511B R&			
Flash			
Options			
Tips: You can import a CH7511B image, then change them with the generator utility.			
Exit			

Step 8. Please set "Interface Select" to [SMBus] and then click OK.



Step 9. Please click "Flash" to update it.

🐮 CHRONTEL CH7511B BOOTROM Image Utility - SMBus 📃 🗖 🔀		
CH7511B Image Generator CH7511B Image Copy Diagnostics		
The Image Copy utility flashs a CH7511B image into the BOOTROM on mother board.		
C:\Documents and Settings\asrock\Desktop\CH7511B\CH7511B Re Import		
Elash		
Options		
Tips: You can import a CH7511B image, then change them with the generator utility.		
Exit		

<u>Step 10.</u> After flashing it, it will show "Flash Finished" message.

CHRONTEL CH7511B BOOTRO	DM Image Utility - SMBus 📃 🗖 🗙			
CH7511B Image Generator CH7511	B Image Copy Diagnostics			
The Image Copy utility flashs a CH7511B image into the BOOTROM on mother board.				
C:\Documents and Set CH7511	B-Utility-v1.02.20			
	OK Options			
Tips: You can import a C <del>rimoria mi</del>	<del>ago, anon anango anom mar an</del> ê generator utility.			
	Exit			