

## KOM Technical Info

MANUAL ID: REV. INDEX:	08205 00000 huby ( 2008
SUBJECT	Scan PCI with BIOS EFI tools to detect V2PMC2 on PENTXM2 or
	PENTXM4 Board
KEYWORDS	PENTXM2. PCI . BIOS. V2PMC2
Thema:	This Technical Info describes how to scan PCI with BIOS EFI tools in order to detect V2PMC2 on PENTXM2 or PENTXM4 Board
Report by/ Bericht von:	Technical Support, Kontron Modular Computers Toulon

To Scan PCI devices with the BIOS EFI tools, the customer needs following devices:

- 1 serial console configured in 115200 bps plugged on the front serial port COM1 of the PentXM2 board
- 1 USB key or USB miniDisk plugged on the front USB port of the PentXM2 board

Kontron Computers Support can provide the following file: <u>shell\_full\_ia32.efi</u> Please contact our support department to get this file. (support-kom-sa@kontron.com)

#### **OPERATING MODE:**

1. Copy the flash utility tool and the binary file under USB device.

2. Plug the USB device into the front USB port of the PentXM2 board

3. Power-on the PentXM2 board, wait about 5 seconds the end of the POST (Power-On Selt Test) and enter into BIOS Setup by pressing "S" key

4. In Advanced Menu, USB Configuration, choose <EFI USB> and type Enter

```
InsydeH2O Setup Utility Rev. 3.0
Advanced
Â<sup>3</sup> USB Configuration Â<sup>3</sup> EFI USB: Access USB Â<sup>3</sup>
\hat{A}^3 \hat{A}^3 devices in Shell. \hat{A}^3
Â<sup>3</sup> USB Driver Select <EFI USB> Â<sup>3</sup> Legacy USB: USB devices Â<sup>3</sup>
\hat{A}^3 \hat{A}^3 boot and access in DOS \hat{A}^3
\hat{A}^3 \hat{A}^3 \hat{A}^3
Â<sup>3</sup> Â<sup>3</sup> Â<sup>3</sup>
\hat{\mathrm{A}}^{3}\,\hat{\mathrm{A}}^{3}\,\hat{\mathrm{A}}^{3}
Â3 Â3 Â3
Â3 Â3 Â3
\hat{A}^3 \, \hat{A}^3 \, \hat{A}^3
\hat{A}^3 \, \hat{A}^3 \, \hat{A}^3
Â3 Â3 Â3
Â3 Â3 Â3
\hat{A}^3 \, \hat{A}^3 \, \hat{A}^3
Â3 Â3 Â3
Â<sup>3</sup> Â<sup>3</sup> Â<sup>3</sup>
\hat{A}^3 \hat{A}^3 \diamond Select Screen \hat{A}^3
Â<sup>3</sup> Â<sup>3</sup> Select Item Â<sup>3</sup>
Â<sup>3</sup> Â<sup>3</sup> Enter Select SubMenu Â<sup>3</sup>
\hat{A}^3 \hat{A}^3 \text{Esc} = \text{Exit} \hat{A}^3
```





- 5. Type ESC after configuring USB to come back to the shell menus
- 6. Enter into Exit Menu and choose "Exit Saving Changes"
- 7. At next boot, enter Boot Manager by typing ESC key and choose Internal EFI.

Boot Option Menu

On-board Flash Disk - 4.0 GB IBA GE Slot 0200 v1242 IBA GE Slot 0201 v1242 Internal EFI Shell

and to change option, ENTER to select an option

8. When the EFI shell is displayed, choose the USB key mapping file by typing: *fs0*: EFI Shell version 1.10 [4096.1] Current running mode 1.1.2 Device mapping table fs0 :Removeable HardDisk - Alias hd16b0b blk0 Acpi(PNP0A03,0)/Pci(1D|1)/Usb(1, 0)/HD(Part1,SigC3072E18) blk0 :Removeable HardDisk - Alias hd16b0b fs0 Acpi(PNP0A03,0)/Pci(1D|1)/Usb(1, 0)/HD(Part1,SigC3072E18) blk1 :BlockDevice - Alias (null) Acpi(PNP0A03,0)/Pci(1F]1)/Ata(Secondary,Master) blk2 :Removeable BlockDevice - Alias (null) Acpi(PNP0A03,0)/Pci(1D|1)/Usb(1, 0)

Shell>

9. Launch a new shell full with extended commands by typing: *shell\_full\_ia32.efi* fs0:\> ls Directory of: fs0:\

11/17/06 08:39a 1,191,936 shell\_full\_ia32.efi 11/16/06 10:10a 20,480 start\_pbit.efi 02/29/08 05:58p 20,769,483 wireshark-setup-0.99.7.exe 03/03/08 10:33a <DIR> 16,384 Thales Netherland 3 File(s) 21,981,899 bytes 1 Dir(s)

fs0:\> shell\_full\_ia32.efi EFI Shell version 1.10 [4096.1] Current running mode 1.1.2 Device mapping table fs0 :Removeable HardDisk - Alias hd16b0b blk0 Acpi(PNP0A03,0)/Pci(1D|1)/Usb(1, 0)/HD(Part1,SigC3072E18) blk0 :Removeable HardDisk - Alias hd16b0b fs0 Acpi(PNP0A03,0)/Pci(1D|1)/Usb(1, 0)/HD(Part1,SigC3072E18) blk1 :UnknownDevice - Alias (null) Acpi(PNP0A03,0)/Pci(1F|1)/Ata(Secondary,Master) blk2 :Removeable UnknownDevice - Alias (null) Acpi(PNP0A03,0)/Pci(1D|1)/Usb(1, 0)

Press ESC in 3 seconds to skip startup.nsh, any other key to continue. Shell>

### KOM Technical Info



#### 10. A new shell is executed, then execute the PCI Scan By typing : *Pci result:*

Shell> pci Seg Bus Dev Func 00 00 00 00 ==> Bridge Device - Host/PCI bridge Vendor 8086 Device 3590 Prog Interface 0 00 00 02 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 3595 Prog Interface 0 00 00 03 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 3596 Prog Interface 0 00 00 04 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 3597 Prog Interface 0 00 00 05 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 3598 Prog Interface 0 00 00 06 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 3599 Prog Interface 0 00 00 08 00 ==> Base System Peripherals - Other system peripheral Vendor 8086 Device 359B Prog Interface 0 00 00 1C 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 25AE Prog Interface 0 00 00 1D 00 ==> Serial Bus Controllers - USB Vendor 8086 Device 25A9 Prog Interface 0 00 00 1D 01 ==> Serial Bus Controllers - USB Vendor 8086 Device 25AA Prog Interface 0 00 00 1D 04 ==> Base System Peripherals - Other system peripheral Vendor 8086 Device 25AB Prog Interface 0 00 00 1D 05 ==> Base System Peripherals - PIC Vendor 8086 Device 25AC Prog Interface 20 00 00 1D 07 ==> Serial Bus Controllers - USB Vendor 8086 Device 25AD Prog Interface 20 00 00 1E 00 ==> Bridge Device - PCI/PCI bridge Vendor 8086 Device 244E Prog Interface 0 00 00 1F 00 ==> Bridge Device - PCI/ISA bridge Vendor 8086 Device 25A1 Prog Interface 0 00 00 1F 01 ==> Mass Storage Controller - IDE controller Vendor 8086 Device 25A2 Prog Interface 8A 00 00 1F 02 ==> Mass Storage Controller - IDE controller Vendor 8086 Device 25A3 Prog Interface 8F 00 00 1F 03 ==> Serial Bus Controllers - System Management Bus Vendor 8086 Device 25A4 Prog Interface 0 00 01 00 00 ==> Bridge Device - PCI/PCI bridge Vendor 1033 Device 0125 Prog Interface 0 00 01 00 01 ==> Bridge Device - PCI/PCI bridge Vendor 1033 Device 0125 Prog Interface 0 00 04 00 00 ==> Network Controller - Ethernet controller Vendor 8086 Device 105E Prog Interface 0 00 04 00 01 ==> Network Controller - Ethernet controller Vendor 8086 Device 105E Prog Interface 0 00 09 04 00 ==> Data Acquisition & Signal Processing Controllers - DP Vendor 184A Device 1100 Prog Interface 0 00 09 05 00 ==> Bridge Device - Other bridge type Vendor 10E3 Device 0000 Prog Interface 0 Shell>

#### The V2PMC2 Bridge PCI/PCIExpress is detected by the Pentxm2, the flowing print is present in the dump of apcia command :

00 01 00 00 ==> Bridge Device - PCI/PCI bridge Vendor 1033 Device 0125 Prog Interface 0 00 01 00 01 ==> Bridge Device - PCI/PCI bridge Vendor 1033 Device 0125 Prog Interface 0

# KOM Technical Info



Copyright Copyright © 2008 Kontron Modular Computers S.A.S.. All rights reserved. This manual may not be copied, photocopied, reproduced, translated or converted to any electronic or machine-readable form in whole or in part without prior written approval of Kontron Modular Computers S.A.S.