

QUICK MANUAL

Kontron Embedded Linux Image
for Microclient (ETX–Celeron M)

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1 Preface

The document describes the features and adjustments for the Microclient
Kontron Embedded Linux Image.

2 Features

- **On-Board Hardware Support**
 - o COM Ports
 - o USB port
 - o Ethernet (LAN)
 - o VGA output,
 - o Flat panel interface
- **Storage Devices**
 - o Hard drives (HDD)
 - o **Compact Flash (CF)**
- **User Interface**
 - o PS/2 Mouse + PS/2 Keyboard
 - o USB HID support (keyboard + mouse)
 - o Touch Screen (Hampshire)
- **Communication Services and Networking**
 - o Wired LAN 802.3
- **Application**
 - o **Mozilla Firefox 1.0.6 / JRE 1.4.2_08**

3 Hardware

3.1 Adjustment COM1 / COM2

Serial Interface	Address	IRQ	Device
COM1	0x3F8	4	Serial A
COM2	0x2F8	3	Touch

3.2 Image Size

Released image: approx. 192 MB

4 Setting up a basic network support

4.1 Setting static IP address

- Press <Alt><Ctrl><i> on the keyboard to configure basic network support.
- Confirm the first dialog question by pressing the “**yes**” button on your connected keyboard or touch.
- Then choose your preferred network adapter (LAN1 is default / LAN2 is optional).
- Now press the “**static**” button
- You get some **dialog fields**:
 - First enter your **IP address**
 - Next enter your **subnet mask**
 - If you need a DNS server enter your **DNS IP**
 - If you need a gateway/router press the “**yes**” button on the next question and enter your **gateway address**
 - Last follow the instructions

Your static network address is set up now.

4.2 Setting dynamic (DHCP) IP address

- Press <Alt><Ctrl><i> on the keyboard to configure basic network support.
- Confirm the first dialog question by pressing the “**yes**” button on your connected keyboard or touch.
- Then choose your preferred network adapter (**LAN1** is default (eth0) / LAN2 is optional (eth1)).
- Now press the “**dhcp**” button
- Follow the instructions

5 Setting up the Startup WEB browser homepage

- Press <Alt><Ctrl><h> on the keyboard to enter your **default startup homepage site** in the dialog box.

Note: Changes take place on next reboot.

6 Setting the X11 server blank time (black screen)

- Press <Alt><Ctrl> on the keyboard to enter modify the **blank time**.

Default blank time is set to **10 minutes**.

If you want to disable black screen choose "0" with the slider for infinite time out

7 How to make a reboot

- Press <Ctrl><Esc> on the keyboard to get a drop down menu with all important menus.
- Choose "**Reboot**" from the drop down menu.

or press <Alt><Ctrl><e> on the keyboard for short.

8 Standard CMOS Features

Note:

- The most important Settings are marked blue !!!!
- Press „F2,, Key as long as booting the BIOS-setup starts

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8.1 Main

PhoenixBIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
System Time			Xxxxxx		Item Specific help
System Date			Xxxxxx		
Legacy Diskette A:			[Disabled]		
Legacy Diskette B:			[Disabled]		
> Primary Master			[None]		
> Primary Slave			[None]		
> Secondary Master			[None]		
> Secondary Slave			[None]		
> Memory Shadow					
> Memory Cache					
System Memory			Xxxxxx		
Extended Memory			Xxxxxx		
BIOS Date			xxxx		
F1 Help	↑↓	: Select Item	-/+	Change Value	F9 Setup Defaults
Esc Exit		Select Menu	Enter	Select > Sub-Menu	F10 Save and Exit

8.2 Primary/Secondary Master/Slave

PhoenixBIOS Setup Utility	
Main	
Primary Master / Primary Slave Secondary Master / Secondary Slave	Item Specific help
Type [Auto] XXXXX Cylinders: [XXXX] Heads: [XXXX] Sectors: [XXXX] Maximum Capacity XXXXX XXXXX Total Sectors : XXXXX Maximum Capacity : XXXXX Multi-Sector Transfer : [Disabled] LBA Mode Control : [Enabled] 32 Bit I/O [Disabled] Transfer Mode : [Fast PIO 4] Ultra DMA Mode: [Disabled] SMART Monitoring : Disabled	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

8.3 Memory Shadow

PhoenixBIOS Setup Utility			
Main			
Memory Shadow		Item Specific help	
CC00 - CFFF		[Disabled]	
D000 – D3FF		[Disabled]	
D400 – D7FF		[Disabled]	
D800 - DBFF		[Disabled]	
DC00 - DFFF		[Disabled]	
F1 Help	↑↓	: Select Item	-/+ Change Value
Esc Exit		Select Menu	Enter Select > Sub-Menu
		F9 Setup Defaults	
		F10 Save and Exit	

8.4 Memory Cache

PhoenixBIOS Setup Utility		
Main		
Memory Cache		Item Specific help
Memory Cache: [Enabled] Cache Syste BIOS area: [Write Protect] Cache Video BIOS area: [Write Protect] Cache Extended Memory Area : [Write Back] Cache D000 – D3FF: [Disabled] Cache D400 – D7FF: [Disabled] Cache D800 – DBFF: [Disabled] Cache DC00 – DFFF: [Disabled]		
F1 Help	↑↓ : Select Item -/+ Change Value	F9 Setup Defaults
Esc Exit	Select Menu Enter Select > Sub-Menu	F10 Save and Exit

8.5 Advanced

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Power Boot Exit
Setup Warning Setting items on this menu to incorrect values may cause your system to malfunction > Advanced Chipset Control PNP OS installed: [No] Reset Configuration Data: [No] Secured Setup Configuration [Yes] > PCI Configuration PS/2 Mouse [Auto Detect] > Keyboard Features > I/O Device Configuration > Hardware Monitor Large Disk Access Mode : [DOS] Halt On Errors [Yes]		Item Specific help	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit			

8.6 Advanced Chipset Control

PhoenixBIOS Setup Utility			
Advanced			
Advanced Chipset Control		Item Specific help	
PCI Delay Transaction: [Enabled]			
Aperture Size : [64M]			
Frame Buffer Size : [8 Mb]			
Enable memory gap : [Disabled]			
Spread Spectrum Modulation : [Disabled]			
F1 Help	↑↓	: Select Item -/+ Change Value	F9 Setup Defaults
Esc Exit		Select Menu Enter Select > Sub-Menu	F10 Save and Exit

8.7 PCI Configuration

PhoenixBIOS Setup Utility	
Advanced	
PCI Configuration	Item Specific help
> PCI Device, Slot #1 > PCI Device, Slot #2 > PCI Device, Slot #3 > PCI Device, Slot #4 PCI IRQ line 1: [Auto Select] PCI IRQ line 2: [Auto Select] PCI IRQ line 3: [Auto Select] PCI IRQ line 4: [Auto Select] > PCI/PNP ISA UMB Region Exclusion > PCI/PNP ISA IRQ Resource Exclusion Default Primary Video Adapter [AGP] Assign IRQ to PCI VGA [Yes]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

8.8 PCI Device, Slot #1 / #2 / #3 / #4

PhoenixBIOS Setup Utility	
Advanced	
PCI Device, Slot #1 / #2 / #3 / #4	Item Specific help
Option ROM Scan: [Enabled]	
Enable Master: [Disabled]	
Latency Timer: [0040h]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

8.9 PCI/PNP ISA UMB Region Exclusion

PhoenixBIOS Setup Utility			
Advanced			
PCI/PNP ISA UMB Region Exclusion		Item Specific help	
D000 – D3FF	[Available]		
D400 – D7FF	[Available]		
D800 – DBFF	[Available]		
DC00 – DFFF	[Available]		
F1 Help	↑↓	: Select Item	-/+ Change Value
Esc Exit		Select Menu	Enter Select > Sub-Menu
		F9 Setup Defaults	F10 Save and Exit

8.10 PCI/PNP ISA IRQ Resource Exclusion

PhoenixBIOS Setup Utility		
Advanced		
PCI/PNP ISA IRQ Resource Exclusion		Item Specific help
IRQ 3:	[Available]	
IRQ 4:	[Available]	
IRQ 5:	[Available]	
IRQ 7:	[Available]	
IRQ 9:	[Available]	
IRQ 10:	[Available]	
IRQ 11:	[Available]	
IRQ 12:	[Available]	
F1 Help	↑↓ : Select Item	-/+ Change Value
Esc Exit	Enter Select Menu	F9 Setup Defaults
		F10 Save and Exit

8.11 Keyboard Features

PhoenixBIOS Setup Utility			
Advanced			
Keyboard Features		Item Specific help	
NumLock: [Auto]			
Key Click: [Disabled]			
Keyboard auto-repeat rate: [30/sec]			
Keyboard auto-repeat delay: [1/2 sec]			
F1 Help	↑↓ : Select Item	-/+ Change Value	F9 Setup Defaults
Esc Exit	Select Menu	Enter Select > Sub-Menu	F10 Save and Exit

8.12 I/O Device Configuration

PhoenixBIOS Setup Utility	
Advanced	
I/O Device Configuration	Item Specific help
Local Bus IDE adapter: [Primary] Serial port A: [Enabled] Base I/O address [3F8] Interrupt: [IRQ 4] Serial port B: [Enabled] Mode: [Normal] Base I/O address [2F8] Interrupt: [IRQ 3] Onboard LPT: [Disabled] Base I/O address [378] Interrupt: [IRQ 7] Mode: [Bi-directional] Legacy USB Support: [Enabled] OnChip USB 2 Device: [Enabled] Onboard Legacy Audio: [Disabled] > Watchdog Settings	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

8.13 Watchdog Settings

PhoenixBIOS Setup Utility				
Advanced				
Watchdog Settings			Item Specific help	
Mode :			[Disabled]	
F1 Help	↑↓	: Select Item	-/+ Change Value	F9 Setup Defaults
Esc Exit		Select Menu	Enter Select > Sub-Menu	F10 Save and Exit

8.14 Security

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Power Boot Exit
			Item Specific help
Supervisor Password Is:			Clear
User Password IS:			Clear
Set Supervisor Password			[Enter]
Set User Password			[Enter]
Diskette access:			[Supervisor]
Fixed disk boot sector:			[Normal]
Virus check reminder			[Disabled]
System backup reminder			[Disabled]
Password on boot:			[Disabled]
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit			

8.15 Power

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Power
			Item Specific help
Power Savings			[Disabled]
Enable ACPI			[No]
> Wake Up Events			
Idle Mode:			[Off]
Standby Timeout :			[Off]
Auto Suspend Timeout:			[Off]
Hard Disk Timeout			[Disabled]
Video Timeout			[Disabled]
Resume On Modem Ring:			[Off]
Resume On Time:			[Off]
Resume Time:			[00:00:00]
F1 Help	↑↓	: Select Item	-/+ Change Value
Esc Exit		Select Menu	Enter Select > Sub-Menu
			F9 Setup Defaults
			F10 Save and Exit

8.16 Wake Up Events

PhoenixBIOS Setup Utility		
Power		
Wake Up Events	Item Specific help	
IRQ 1:	[Enabled]	
IRQ 3:	[Disabled]	
IRQ 4:	[Disabled]	
IRQ 5:	[Disabled]	
IRQ 6:	[Disabled]	
IRQ 7:	[Disabled]	
IRQ 9:	[Disabled]	
IRQ 10:	[Disabled]	
IRQ 11:	[Disabled]	
IRQ 12:	[Enabled]	
IRQ 15:	[Disabled]	
F1 Help	↑↓ : Select Item	-/+ Change Value
Esc Exit	Enter Select Menu	F9 Setup Defaults
		F10 Save and Exit

8.17 Boot

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Power Boot Exit
			Item Specific help
Floppy check			[Disabled]
Summary screen:			[Disabled]
QuickBoot Mode:			[Enabled]
Extended Memory Testing			[None]
Dark Boot:			[Enabled]
ATX AC Power On Mode			[Server]
Power Supply:			[AT]
Onboard LAN PXE ROM:			[Disabled]
> Boot Device Priority			
> Display Control			
F1 Help	↑↓	: Select Item	-/+ Change Value
Esc Exit		Select Menu	Enter Select > Sub-Menu
		F9 Setup Defaults	F10 Save and Exit

8.18 Boot Device Priority

PhoenixBIOS Setup Utility	
Boot	
Boot Device Priority	Item Specific help
Boot priority order: 1: USB KEY: 2: IDE 0: 3: IDE 1: 4: IDE 2: 5: IDE 3: 6: IDE CD: 7: USB CDROM: 8: Excluded from boot order: : USB FDC: : USB HDD: : USB ZIP: : USB LS120: : PCI BEV: : PCI SCSI: : Bootable Add-in Cards : Legacy Network Card	
F1 Help ↑↓ : Select Item -/+ Change Value Esc Exit Select Menu Enter Select > Sub-Menu F9 Setup Defaults F10 Save and Exit	

8.19 Display Control

PhoenixBIOS Setup Utility	
Boot	
Display Control	Item Specific help
Display Mode: [CRT+LCD] JDA Revision: 1.9 TC Type: [PAL] Flat Panel Type: [SVGA] LCD Backlight: [128]	
F1 Help ↑↓ : Select Item -/+ Change Value F9 Setup Defaults Esc Exit Select Menu Enter Select > Sub-Menu F10 Save and Exit	

9 Touch calibration

- Press <Ctrl><Esc> on the keyboard to get a drop down menu with all important menus.
- Choose "**TouchCalib**" from the drop down menu.

or press <Alt><Ctrl><c> on the keyboard

10 Setting a virtual soft keyboard on startup

- Press <Alt><Ctrl><v> on the keyboard to set the default keyboard startup mode.
- Follow the instructions

Note: Changes take place on next reboot.

11 Using a virtual soft keyboard

- Press <Alt><Ctrl><k> on the keyboard to start the virtual keyboard.

12 Restoring the default WEB browser settings

- Press <Ctrl><Esc> on the keyboard to get a drop down menu with all important menus.
- Choose -> **Browser_Prefs->restoreBrowserDefaultPrefs**

13 Saving WEB browser setting

- Press <Ctrl><Esc> on the keyboard to get a drop down menu with all important menus.
- Choose -> **Browser_Prefs->saveBrowserPrefs**

14 Disable/Enable the WEB browser on startup

- Press <Ctrl><Esc> on the keyboard to get a drop down menu with all important menus.
- Choose -> **Browser_Prefs->autoStartBrowser**

or press <Alt><Ctrl><w> on the keyboard

15 Setting the WEB browser Startup Mode

- Press <Ctrl><Esc> on the keyboard to get a drop down menu with all important menus.
- Choose -> **Browser_Prefs->setBrowserStartupMode**

or press <Alt><Ctrl><u> on the keyboard

**Note: The default browser mode is the KIOSK-Mode.
To force exit Firefox see Point Nr. 18.**

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16 Opening a virtual terminal (shell)

- Press <Alt><Ctrl><t> on the keyboard to start the virtual terminal.

17 Starting Mozilla Firefox manually

- Press <Alt><Ctrl><f> on the keyboard to start **Firefox**.

18 Closing any X11 application manually

Press <Alt><F4> on the keyboard to terminate the actual focused application (e.g. Firefox).

19 Changing fullscreen browser mode to user-based mode

- In Firefox press <F11> on the keyboard to change from **fullscreen** to **user-based mode** and **reverse**.