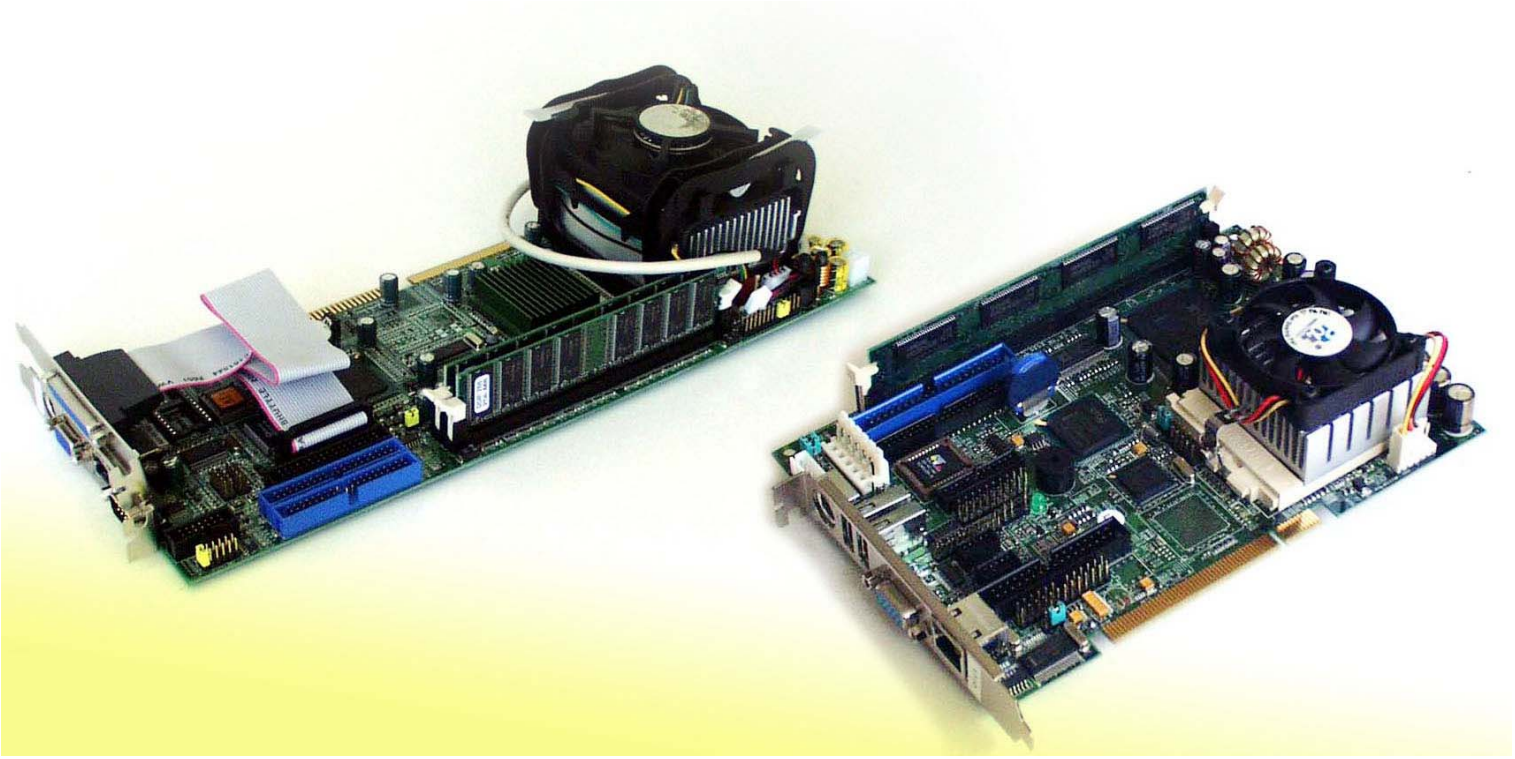

HMI/NC CPU cards

andron®

Version	V 1.7
Date	31.08.2011
Author	Pa.
Editing/Illustrations	Pa.
Tools	This documentation was created with Microsoft Word and Adobe Illustrator.
Trade mark	All product names or trademarks are properties of their respective owners.

| Validity | There could be additional functions running in the control who are not mentioned in this documentation. It insists no claim for this functions, in case of a new delivery or a service case.

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Table of contents

Revisions

Version	Date	Additions and changes	Initials
V 1.0	09.07.2003	First edition	Pa
V 1.1	25.04.2006	Additions: Pentium M / Celeron M CPU BIOS-Setup V 10.0	Pa
V 1.2	14.01.2007	Layout change to DIN A4	Pa
V 1.3	10.07.2007	Additions: New CPU EmCore-i6419VL Pentium M / Celeron M BIOS-Setup V 11.0/11.1	Pa
V 1.4	18.01.2008	Additions: BIOS-Setup V 11.2	Pa
V 1.5	25.02.2008	Changes: BIOS-Setup V 10.0	Pa
V 1.6	24.03.2011	Changes: BIOS-Setup V 11.0.1/11.2.1	Pa
V 1.7	31.08.2011	Additions: New CPU FS-97A with DVI adapter BIOS-Setup V 13.2	Pa

General

The principal item of the control system are two powerful Intel processors communicating with one another via a PCI-to-PCI bridge. One processor is responsible only for the control kernel (NC computer) and the other for the user interface (HMI computer).

The control is available in two versions with two types of CPU cards.

	bis/until 06.2007		06.2007-06.2011		ab/since 07.2011	
	NC-CPU	HMI-CPU	NC-CPU	HMI-CPU	NC-CPU	HMI-CPU
andronic 2060S	733 MHz 1.2 GHz	733 MHz 1.2 GHz	1.6 GHz/ 1.73 GHz	1.6 GHz/ 1.73 GHz	1.73 GHz	1.73 GHz
	 CI-TSPE	 CI-TSPE	NEW  EmCore-i6419VL	NEW  EmCore-i6419VL	 EmCore-i6419VL	 EmCore-i6419VL
andronic 2060L	733 MHz 1.2 GHz	1.6 GHz/ 1.73 GHz 1.8 GHz	1.6 GHz/ 1.73 GHz	1.6 GHz/ 1.73 GHz 1.8 GHz	1.73 GHz	1.73 GHz 1.8 GHz
	 CI-TSPE	or   IP-4MTP2G	NEW  EmCore-i6419VL	or   IP-4MTP2G	 EmCore-i6419VL	or NEW   FS-97A

EmCore-i6419VL Half-Size Pentium® M / Celeron® M CPU

The **EmCore-i6419VL** Half-Size single board computer is optimized for an Intel® Pentium® M or Celeron® M processor, supporting a 400 MHz Front Side Bus and the memory can accommodate up to 1 GB DDR SDRAM. It offers sufficiently performance for high requirements. Furthermore there are all necessary interfaces for the entire periphery onboard.

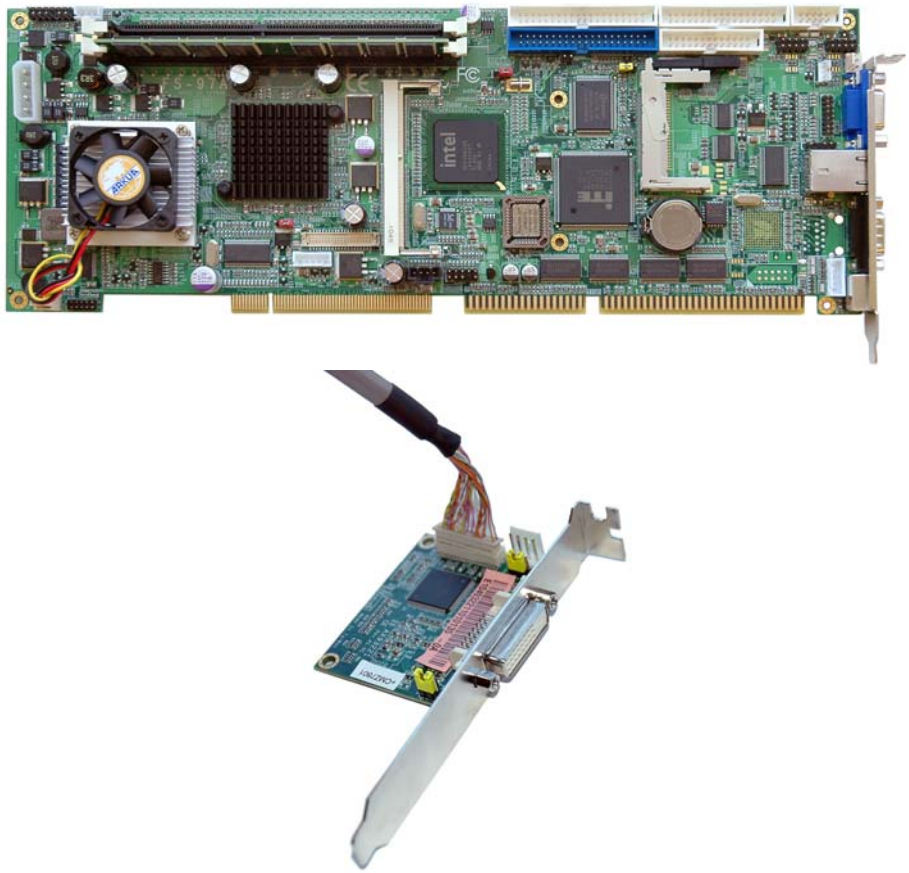
- Onboard LAN controller → Gigabit Ethernet 10/100/1000, RJ-45
- Onboard graphic controller with 64 MB (shared memory), VGA and DVI interface
- Onboard I/O controller for mouse, keyboard, serial and parallel interface
- Onboard UDMA / IDE controller
- 6 USB 2.0 Ports (4 are accessible from outside)

In the appendix you can find further technical data in the manufacturer documentation.

FS-97A Full-Size Pentium® M / Celeron® M CPU

The **FS-97A** Full -Size single board computer is optimized for an Intel® Pentium® M or Celeron® M processor (Socket 479), supporting a 400 MHz Front Side Bus and the memory can accommodate up to 2 GB DDR SDRAM. It offers sufficiently performance for high requirements. Furthermore there are all necessary interfaces for the entire periphery onboard.

- Onboard LAN controller → Gigabit Ethernet 10/100/1000, RJ-45
- Onboard graphic controller with 64 MB (shared memory)
- External DVI adapter board (optional)
- Onboard I/O controller for mouse, keyboard, serial and parallel interface
- Onboard UDMA / IDE controller
- 4 USB 2.0 Ports

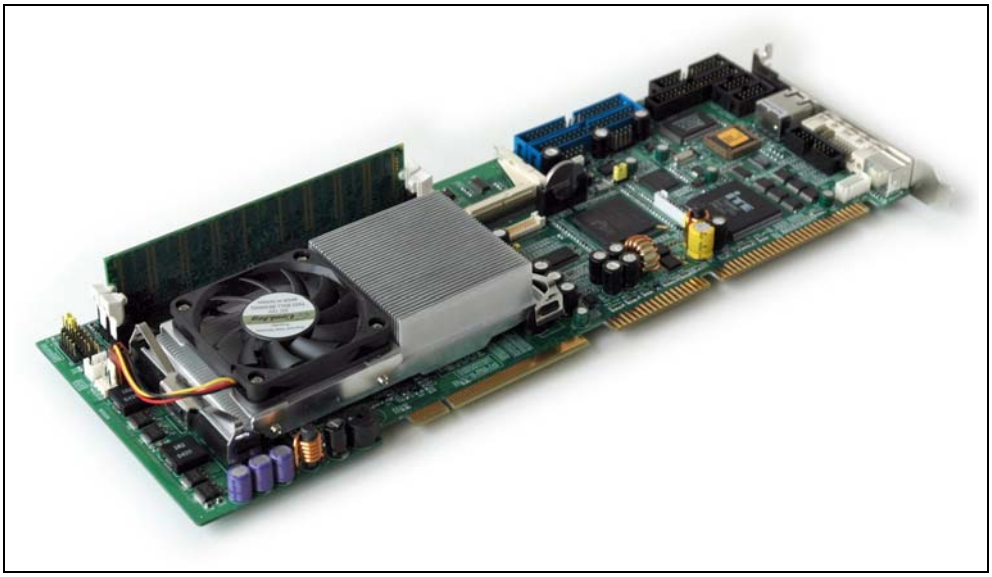


In the appendix you can find further technical data in the manufacturer documentation.

IP-4MTP2G Full-Size Pentium® M / Celeron® M CPU

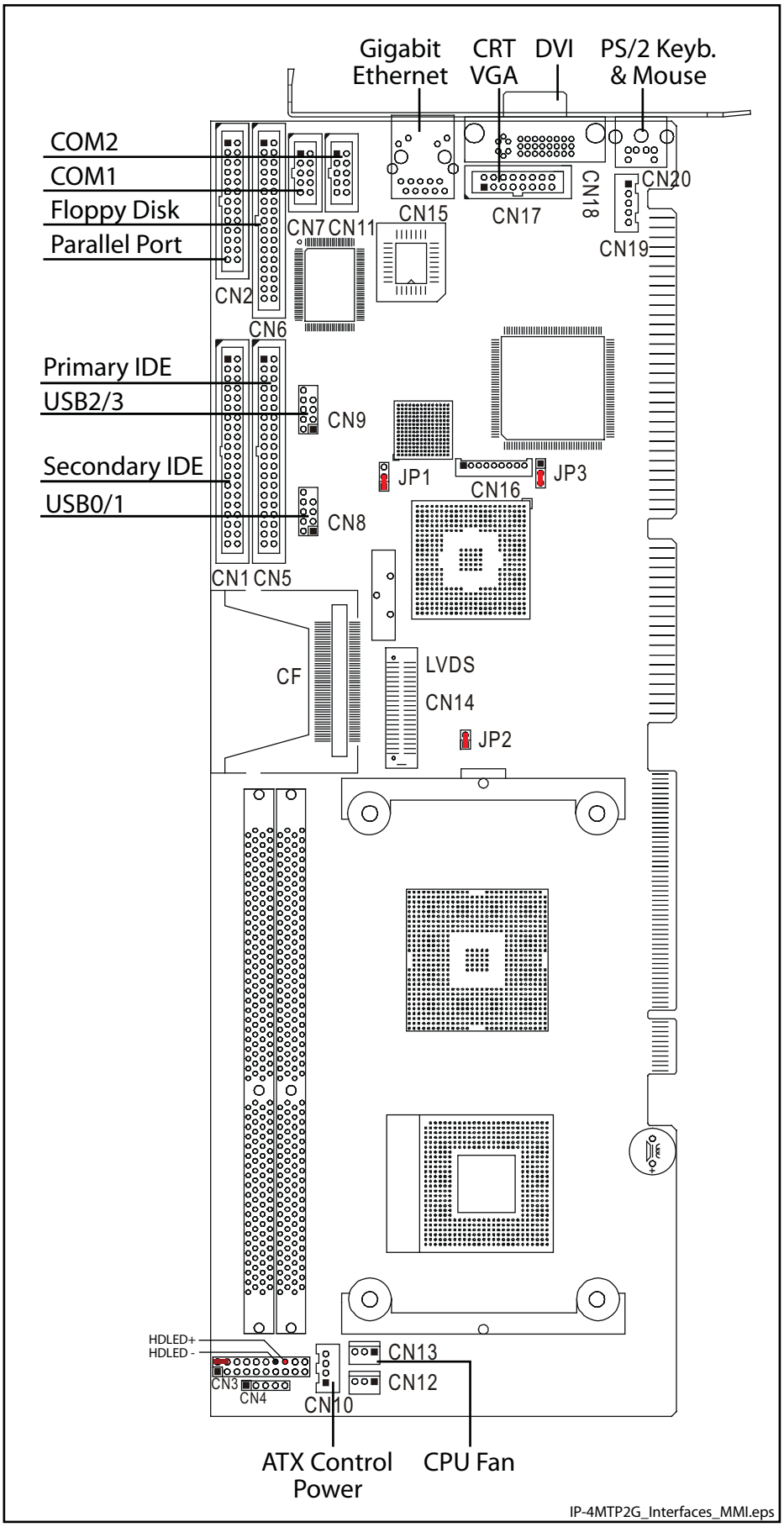
The **IP-4MTP2G** Series single board computer is optimized for an Intel® Pentium® 4 processor, supporting 533/400MHz Front Side Bus and the memory can accommodate up to 2GB DDR SDRAM. It offers sufficiently performance for highest requirements.
Furthermore there are all necessary interfaces for the entire periphery onboard.

- Onboard LAN controller → Gigabit Ethernet 10/100/1000, RJ-45
- Onboard VGA controller with 64 MB (shared memory)
- Onboard I/O controller for mouse, keyboard, serial and parallel interface
- Onboard UDMA / IDE controller
- 4 USB 2.0 Ports



In the appendix you can find further technical data in the manufacturer documentation.

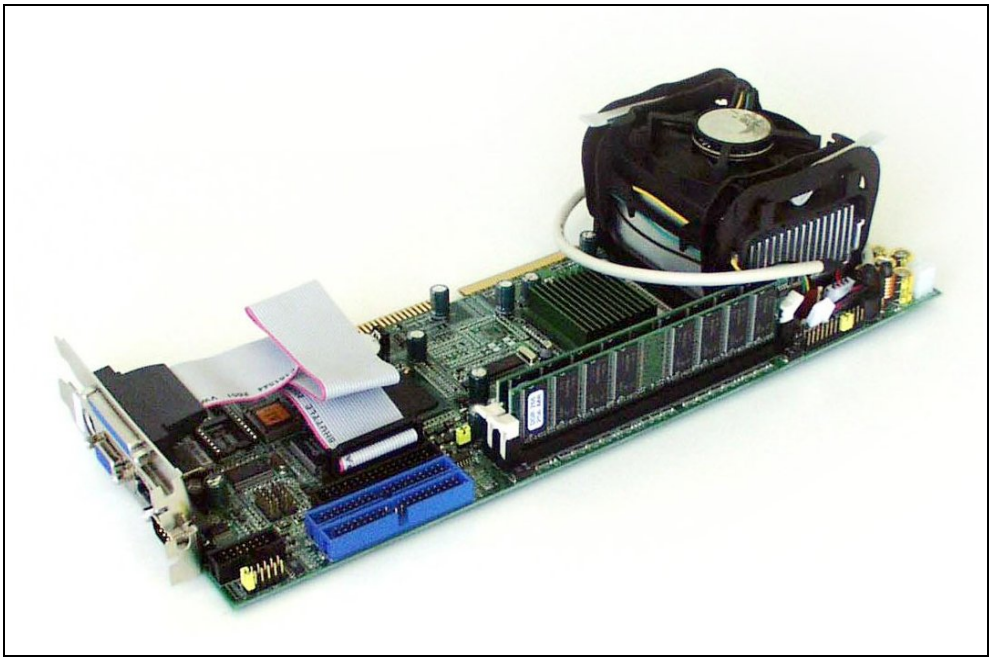
Interfaces of the CPU



F845G/VE Full-Size Pentium® 4 CPU

The **F845G/VE** Series single board computer is optimized for an Intel® Pentium® 4 processor, supporting 533/400MHz Front Side Bus and the memory can accommodate up to 2GB DDR SDRAM. It offers sufficiently performance for highest requirements.
Furthermore there are all necessary interfaces for the entire periphery onboard.

- Onboard LAN controller → Ethernet 10/100, RJ-45
- Onboard VGA controller with 64 MB (shared memory)
- Onboard I/O controller for mouse, keyboard, serial and parallel interface
- Onboard UDMA / IDE controller
- 4 USB 2.0 Ports

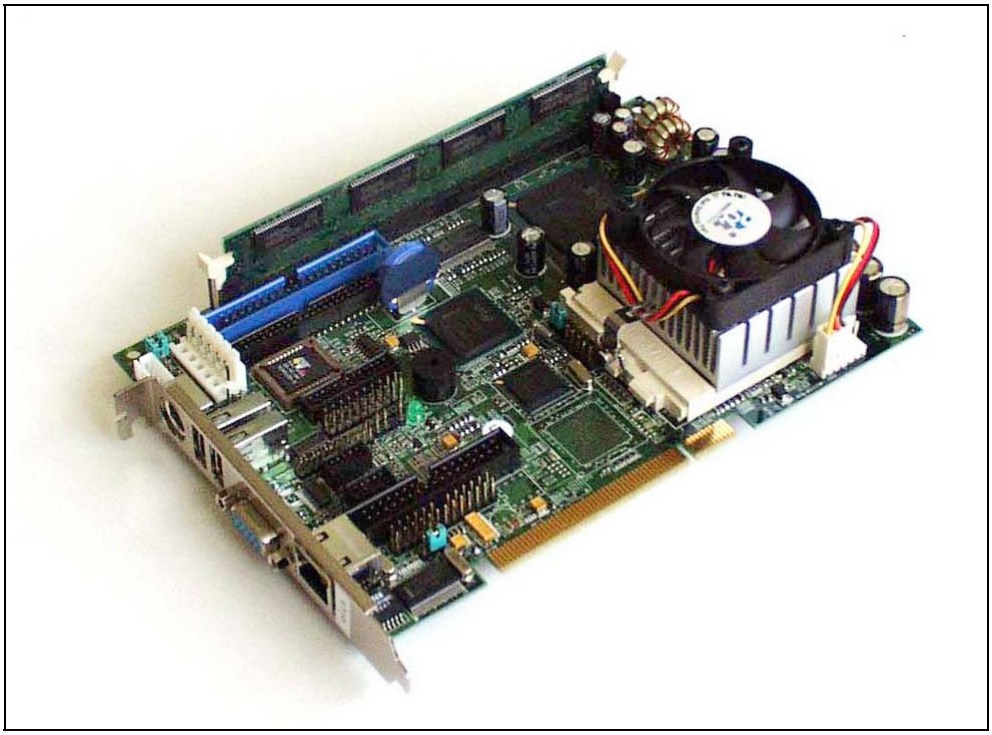


In the appendix you can find further technical data in the manufacturer documentation.

CI-TSPE Half-Size Celeron® CPU

The **CITSP** Half-Size single board computer is optimized for an Intel® Pentium® 3 or Celeron® processor, supporting 100/133 MHz Front Side Bus and the memory can accommodate up to 512 MB SDRAM.
Furthermore there are all necessary interfaces for the entire periphery onboard.

- Onboard LAN controller → Ethernet 10/100, RJ-45
- Onboard VGA controller with 4 MB
- Onboard I/O controller for mouse, keyboard, serial and parallel interface
- Onboard UDMA / IDE controller
- 4 USB 1.1 Ports



In the appendix you can find further technical data in the manufacturer documentation.

Product key

+	C	x	x	x	x	x	x

08.2011

CPU Type

M ..... HMI-CPU
N ..... NC-CPU
T ..... Transformation-CPU

CPU / BUS

1 ..... LEAD F845G/VE (P4 / PICMG fullsize)
2 ..... LEAD CI-TSPE (P3 / PCI halfsize)
3 ..... LEAD IP-4MTP2G (PM/ PICMG fullsize)
4 ..... LEAD EmCore-i6419VL (PM/ PCI halfsize)
5 ..... LEAD IPO-2040 (Core2Duo/ PCI fullsize)
6 ..... DSM 96m4211o (PM/ PICMG fullsize)
7 ..... DSM SHB210 (PICMG 1.3 halfsize)
8 ..... LEAD FS-97A (PICMG 1.3 fullsize)
9 ..... HS-7165 (PICMG 1.3 fullsize)

CPU Processor Frequence

1 ..... Intel® Celeron PPGA 733 MHz
2 ..... Intel® Celeron PPGA 1.2 GHz
3 ..... Intel® Pentium 4 2.4 GHz
4 ..... Intel® Celeron M 1.6 GHz
5 ..... Intel® Pentium M 1.8 GHz
6 ..... Intel® Core2Duo 2.66 GHz
7 ..... Intel® Celeron M 1.3 GHz
8 ..... Intel® Celeron M 575 1.73 GHz
9 ..... Intel® Core Duo T4400 2.2 GHz

CPU RAM

1 ..... 128 MB DIMM
2 ..... 256 MB DIMM
3 ..... 512 MB DIMM
4 ..... 256 MB DDR 266/333
5 ..... 512 MB DDR 266/333
6 ..... 1024 MB DDR 266/333
7 ..... 128 MB DDR 266/333
8 ..... 256 MB DDR 400 CL3 PC 3200U
9 ..... 256 MB DDR2 SO DIMM
A ..... 512 MB DDR2 SO DIMM
B ..... 1024 MB DDR2 SO DIMM
C ..... 2048 MB DDR2 SO DIMM

CPU Interfaces Onboard

1 ..... 4x USB, VGA, COM, LPT, Ethernet
(Type IP-4MTP2G mit 3-fach Winkel / with triple bracket)
2 ..... 2x USB, VGA, COM, LPT, Ethernet
3 ..... 2x USB, VGA, COM, LPT, 2x Ethernet
4 ..... VGA, COM, LPT, Ethernet
5 ..... 4x USB, VGA, COM, LPT, Ethernet
6 ..... 4x USB, VGA, COM, DVI, Ethernet
7 ..... 4x USB, VGA, DVI, 2x Ethernet
8 ..... 2x (4x) USB, VGA/DVI, COM1/2, 2x Ethernet
9 ..... 2x (4x) USB, VGA/DVI, COM1-4, 2x Ethernet
A ..... 2x USB, COM1, Ethernet
(Type FS-97A, COM2/LPT1/HD LED on additional bracket, COM3/4 on additional interface card)
B ..... 4x USB, COM1, Ethernet
(Type FS-97A, COM2/LPT1/HD LED on additional bracket, DVI on extra DVI adapter card)
N ..... no interfaces

BIOS Versions

1 ..... V. 7.x (Typ CI-TSPE)
2 ..... V. 8.x (Typ F845G/VE)
3 ..... V. 10.x (Typ IP-4MTP2G) andronic 2060L/HMC600
4 ..... V. 9.x (Typ IP-4MTP2G) andronic 2000/HMC500
5 ..... V. 11.x (Typ EmCore-i6419VL)
6 ..... V. 12.x (Typ IP-4MTP2G) andronic 400/HMC400
7 ..... V. 13.x (Typ DSM 96m4211o / LEAD FS-97A)
8 ..... V. 14.x (Typ DSM SHB210) andronic 3060S
9 ..... V. 15.x (Typ HS-7165) andronic 3060L/HMC700

Illustration: CPU product key (andron article numbers)

CPU and BIOS versions

CPU	View	Name	Interfaces	BIOS version
HMI		**EmCore-i6419VL**	▪ VGA/DVI ▪ LAN ▪ USB 2.0 (1-4) ▪ IDE ▪ **COM1**	(V 11.0 D) **V 11.0.1**
			▪ VGA/DVI ▪ **2x LAN** ▪ USB 2.0 (1-4) ▪ IDE	(V 11.2 D) **V 11.2.1**
HMI		**IP-4MTP2G**	▪ VGA/DVI ▪ LAN ▪ USB 2.0 (1-4) ▪ IDE ▪ COM1/2 ▪ LPT1	**V 10.0D**
HMI		**F845G/VE**	▪ VGA ▪ LAN ▪ USB 2.0 (1-4) ▪ IDE ▪ COM1 ▪ LPT1	**V 8.0D**
HMI		**CI-TSPE**	▪ VGA ▪ LAN ▪ USB 1.1 (1-2) ▪ IDE ▪ COM1 ▪ LPT1	**V 7.0D**
HMI	 	**FS-97A**	▪ VGA ▪ LAN ▪ USB 2.0 ▪ IDE ▪ COM ▪ LPT ▪ DVI (ext. adapter)	**V 13.2**

CPU	View	Name	Interfaces	BIOS version
NC		**EmCore-i6419VL**	without	**V 11.1 D**
NC		**CI-TSPE**	without	**V 7.1D**

BIOS 11.0 Default-Einstellungen

BIOS 11.0 HMI-CPU EmCore-i6419VL (mit VGA, LAN, USB, ...)

BIOS display: 05/04/2006 V11.0 andron MMI-CPU +CM45525 (alte Version)
21/06/2007 V11.0 andron MMI-CPU +CM45525
xx/03/2011 V11.0.1 andron MMI-CPU +CM45525

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	PC Health Status
Advanced BIOS Features	Frequency / Voltage Control
Advanced Chipset Features	Load andron Defaults
Intergrated Peripherals	Set Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configurations	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Actual date
Time (hh:mm:ss)	Actual time
IDE Primary Master	Auto
IDE Primary Slave	Auto
IDE Secondary Master	Auto
IDE Secondary Slave	Auto
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	All, But Keyb
Base Memory	640K
Extended Memory	...K
Total Memory	...K

Advanced BIOS Features

CPU Feature	[Press Enter]
Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
CPU L3 Cache	Enabled
Quick Power On Self Test	Enabled
First Boot Device	HDD-0
Second Boot Device	Disabled
Third Boot Device	Disabled
Boot Other Device	Disabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Enabled
Typematic Rate (Chars/Sec)	12
Typematic Delay (Msec)	250
Security Option	Setup
APIC Mode	Disabled
MPS Version Control For OS 1.4	
OS Select For DRAM > 64MB	Non-OS2
Small Logo(EPA) Show	Enabled

CPU Feature

Thermal Management	Thermal Monitor 1
TM2 Bus Ratio	17 X
TM2 Bus VID	1.xxxV

Advanced Chipset Features

DRAM Timing Selectable	By SPD
CAS Latency Time	2.5
Active to Precharge Delay	7
DRAM RAS# to CAS# Delay	3
DRAM RAS# Precharge	3
DRAM Data Integrity Mode	Non-ECC
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Prior to Thermal	16 Min
AGP Aperture Size (MB)	64
** On-Chip VGA Setting **	
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	32 MB
Boot Display	CRT+LFP
Panel Number	1024x768 24-bit

Integrated Peripherals

On-Chip IDE Device	[Press Enter]
Onboard Device	[Press Enter]
SuperIO Device	[Press Enter]

Submenu: On-Chip IDE Device

On-Chip Primary PCI IDE	Enabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Enabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
IDE HDD Block Mode	Enabled

Submenu: Onboard Device

USB Controller	Enabled
USB 2.0 Controller	Enabled
USB Keyboard Support	Enabled
USB Mouse Support	Enabled
AC97 Audio	Disabled
Init Display First	Onboard/AGP
Onboard LAN1	Enabled
Onboard LAN2	Disabled

Submenu: SuperIO Device

Onboard FDC Controller	Enabled
Onboard Serial COM 1	3F8/IRQ4
Onboard Serial COM 2	2F8/IRQ3
UART Mode Select	Normal
RxD , TxD Active	Hi, Lo
IR Transmission Delay	Enabled
UR2 Duplex Mode	Half
Use IR Pins	IR-Rx2Tx2
Onboard Parallel Port	378/IRQ7
Parallel Port Mode	SPP
EPP Mode Select	EPP1.7
ECP Mode USE DMA	3
PWRON After PWR-Fail	On
Watch Dog Timer Select	Disabled

Power Management Setup

Power-Supply Type	AT
ACPI Function	Enabled
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
MODEM Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Instant-Off
Power-On by LAN	Disabled
Power-On by Ring	Disabled
Resume by Alarm	Disabled
Date(of Month) Alarm	0
Time(hh:mm:ss) Alarm	0 : 0 : 0
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

Reset Configuration Data	Disabled
Resources Controlled By	Auto(ESCD)
IRQ Resources	[Press Enter] → all PCI/ISA PnP
DMA Resources	[Press Enter] → all PCI/ISA PnP
PCI/VGA Palette Snoop	Disabled
PCI IRQ Actived By	Level

PC Health Status

Shutdown Temperature	65°C/149°F
CPU Temperature	
VCORE	
VTT	
+3.3V	
+ 5 V	
CPUFAN Speed	

Frequency / Voltage Control

Auto Detect PCI Clk	Enabled
Spread Spectrum	Disabled

BIOS 11.1 Default-Einstellungen

BIOS 11.1D NC-CPU EmCore-i6419VL (mit VGA, LAN, USB, ...)

BIOS display: 10/04/2006 V11.1 andron NC-CPU +CN447N5 (alte Version)
21/06/2007 V11.1 andron NC-CPU +CN447N5

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	PC Health Status
Advanced BIOS Features	Frequency / Voltage Control
Advanced Chipset Features	Load andron Defaults
Intergrated Peripherals	Set Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configurations	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Actual date
Time (hh:mm:ss)	Actual time
IDE Primary Master	None
IDE Primary Slave	None
IDE Secondary Master	None
IDE Secondary Slave	None
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	No Errors
Base Memory	640K
Extended Memory	...K
Total Memory	...K

Advanced BIOS Features

CPU Feature	[Press Enter]
Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
CPU L3 Cache	Enabled
Quick Power On Self Test	Enabled
First Boot Device	Disabled
Second Boot Device	Disabled
Third Boot Device	Disabled
Boot Other Device	Enabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Disabled
Typematic Rate (Chars/Sec)	6
Typematic Delay (Msec)	250
Security Option	Setup
APIC Mode	Disabled
MPS Version Control For OS 1.4	
OS Select For DRAM > 64MB	Non-OS2
Small Logo(EPA) Show	Enabled

CPU Feature

Thermal Management	Thermal Monitor 1
TM2 Bus Ratio	17 X
TM2 Bus VID	1.xxxV

Advanced Chipset Features

DRAM Timing Selectable	By SPD
CAS Latency Time	2.5
Active to Precharge Delay	7
DRAM RAS# to CAS# Delay	3
DRAM RAS# Precharge	3
DRAM Data Integrity Mode	Non-ECC
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Prior to Thermal	16 Min
AGP Aperture Size (MB)	4
** On-Chip VGA Setting **	
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	1 MB
Boot Display	CRT+LFP
Panel Number	1024x768 18-bit

Integrated Peripherals

On-Chip IDE Device	[Press Enter]
Onboard Device	[Press Enter]
SuperIO Device	[Press Enter]

Submenu: On-Chip IDE Device

On-Chip Primary PCI IDE	Disabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Disabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
IDE HDD Block Mode	Enabled

Submenu: Onboard Device

USB Controller	Disabled
USB 2.0 Controller	Disabled
USB Keyboard Support	Disabled
USB Mouse Support	Disabled
AC97 Audio	Disabled
Init Display First	PCI Slot
Onboard LAN1	Disabled
Onboard LAN2	Disabled

Submenu: SuperIO Device

Onboard FDC Controller	Disabled
Onboard Serial COM 1	Disabled
Onboard Serial COM 2	Disabled
UART Mode Select	Normal
RxD , TxD Active	Hi, Lo
IR Transmission Delay	Enabled
UR2 Duplex Mode	Half
Use IR Pins	IR-Rx2Tx2
Onboard Parallel Port	Disabled
Parallel Port Mode	SPP
EPP Mode Select	EPP1.7
ECP Mode USE DMA	3
PWRON After PWR-Fail	On
Watch Dog Timer Select	Disabled

Power Management Setup

Power-Supply Type	AT
ACPI Function	Enabled
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
MODEM Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Instant-Off
Power-On by LAN	Disabled
Power-On by Ring	Disabled
Resume by Alarm	Disabled
Date(of Month) Alarm	0
Time(hh:mm:ss) Alarm	0 : 0 : 0
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

Reset Configuration Data	Disabled
Resources Controlled By	Auto(ESCD)
IRQ Resources	[Press Enter] → all PCI/ISA PnP
DMA Resources	[Press Enter] → all PCI/ISA PnP
PCI/VGA Palette Snoop	Disabled
PCI IRQ Actived By	Level

PC Health Status

Shutdown Temperature	65°C/149°F
CPU Temperature	
VCORE	
VTT	
+3.3V	
+ 5 V	
CPUFAN Speed	

Frequency / Voltage Control

Auto Detect PCI Clk	Enabled
Spread Spectrum	Disabled

BIOS 11.2 default settings

BIOS 11.2 HMI-CPU EmCore-i6419VL (mit VGA, 2x LAN, USB, ...)

BIOS display: 29/10/2007 V11.2 andron MMI-CPU +CM44475
xx/xx/2011 V11.2.1 andron MMI-CPU +CM44475

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	PC Health Status
Advanced BIOS Features	Frequency / Voltage Control
Advanced Chipset Features	Load andron Defaults
Intergrated Peripherals	Set Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configurations	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Actual date
Time (hh:mm:ss)	Actual time
IDE Primary Master	Auto
IDE Primary Slave	Auto
IDE Secondary Master	Auto
IDE Secondary Slave	Auto
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	All, But Keyb
Base Memory	640K
Extended Memory	...K
Total Memory	...K

Advanced BIOS Features

CPU Feature	[Press Enter]
Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
CPU L3 Cache	Enabled
Quick Power On Self Test	Enabled
First Boot Device	HDD-0
Second Boot Device	Disabled
Third Boot Device	Disabled
Boot Other Device	Disabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Enabled
Typematic Rate (Chars/Sec)	12
Typematic Delay (Msec)	250
Security Option	Setup
APIC Mode	Enabled
MPS Version Control For OS 1.4	
OS Select For DRAM > 64MB	Non-OS2
Small Logo(EPA) Show	Enabled

CPU Feature

Thermal Management	Thermal Monitor 1
TM2 Bus Ratio	17 X
TM2 Bus VID	1.xxxV

Advanced Chipset Features

DRAM Timing Selectable	By SPD
CAS Latency Time	2.5
Active to Precharge Delay	7
DRAM RAS# to CAS# Delay	3
DRAM RAS# Precharge	3
DRAM Data Integrity Mode	Non-ECC
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Prior to Thermal	16 Min
AGP Aperture Size (MB)	64
** On-Chip VGA Setting **	
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	32 MB
Boot Display	CRT+LFP
Panel Number	1024x768 24-bit

Integrated Peripherals

On-Chip IDE Device	[Press Enter]
Onboard Device	[Press Enter]
SuperIO Device	[Press Enter]

Submenu: On-Chip IDE Device

On-Chip Primary PCI IDE	Enabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Enabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
IDE HDD Block Mode	Enabled

Submenu: Onboard Device

USB Controller	Enabled
USB 2.0 Controller	Enabled
USB Keyboard Support	Enabled
USB Mouse Support	Enabled
AC97 Audio	Disabled
Init Display First	Onboard/AGP
Onboard LAN1	Enabled
Onboard LAN2	Enabled

Submenu: SuperIO Device

Onboard FDC Controller	Enabled
Onboard Serial COM 1	3F8/IRQ4
Onboard Serial COM 2	2F8/IRQ3
UART Mode Select	Normal
RxD , TxD Active	Hi, Lo
IR Transmission Delay	Enabled
UR2 Duplex Mode	Half
Use IR Pins	IR-Rx2Tx2
Onboard Parallel Port	378/IRQ7
Parallel Port Mode	SPP
EPP Mode Select	EPP1.7
ECP Mode USE DMA	3
PWRON After PWR-Fail	Off
Watch Dog Timer Select	Disabled

Power Management Setup

Power-Supply Type	ATX
ACPI Function	Enabled
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
MODEM Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Instant-Off
Power-On by LAN	Disabled
Power-On by Ring	Disabled
Resume by Alarm	Disabled
Date(of Month) Alarm	0
Time(hh:mm:ss) Alarm	0 : 0 : 0
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

Reset Configuration Data	Disabled
Resources Controlled By	Auto(ESCD)
IRQ Resources	[Press Enter] → all PCI/ISA PnP
DMA Resources	[Press Enter] → all PCI/ISA PnP
PCI/VGA Palette Snoop	Disabled
PCI IRQ Actived By	Level

PC Health Status

Shutdown Temperature	65°C/149°F
CPU Temperature	
VCORE	
VTT	
+3.3V	
+ 5 V	
CPUFAN Speed	

Frequency / Voltage Control

Auto Detect PCI Clk	Enabled
Spread Spectrum	Disabled

BIOS 10.0 default settings

BIOS 10.0D HMI-CPU IP-4MTP2G (with VGA, LAN, USB, ...)

BIOS display:

07/02/2006 V10.0 andron MMI-CPU +CM35613 i855 Series (first version)
10/05/2006 V10.0 andron MMI-CPU +CM35613 i855 Series (second version)
02/20/2008 V10.0 andron MMI-CPU +CM35613 i855 Series

When you have problems with F1-confirmations in the boot phase (because of changed boot device , e.g. USB stick) please install the latest BIOS version, there the F1-inquiry was removed.

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load andron Defaults
Advanced Chipset Features	Load Optimized Defaults
Intergrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Actual date
Time (hh:mm:ss)	Actual time
IDE Primary Master	Auto
IDE Primary Slave	Auto
IDE Secondary Master	Auto
IDE Secondary Slave	Auto
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	All, But Keyb
Base Memory	640K
Extended Memory	...K
Total Memory	...K

Advanced BIOS Features

CPU Feature	[Press Enter]
Hard Disk Boot Priority	[Press Enter]
Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
Quick Power On Self Test	Enabled
USB Flash Disk Type	Floppy
First Boot Device	USB-ZIP
Second Boot Device	USB-CDROM
Third Boot Device	Hard Disk
Boot Other Device	Enabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Security Option	Setup
APIC Mode	Enabled

Advanced Chipset Features

DRAM Timing Selectable	By SPD
CAS Latency Time	2.5
Active to Precharge Delay	6
DRAM RAS# to CAS# Delay	3
DRAM RAS# Precharge	3
DRAM Data Integrity Mode	Non-ECC
MGM Core Frequency	Auto Max 266
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Prior to Thermal	16 Min
AGP Aperture Size (MB)	256MB
** On-Chip VGA Setting **	
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	32 MB
Boot Display	CRT-ONLY
Panel Number	2

Integrated Peripherals

On-Chip IDE Device	[Press Enter]
Onboard Device	[Press Enter]
SuperIO Device	[Press Enter]
Onboard Lan Boot ROM	Disabled

Submenu: On-Chip IDE Device

On-Chip Primary PCI IDE	Enabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Enabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
IDE HDD Block Mode	Enabled

Submenu: Onboard Device

USB Controller	Enabled
USB 2.0 Controller	Enabled
USB Keyboard Support	Enabled
USB Mouse Support	Enabled
Onboard LAN device	Enabled
Init Display First	Onboard

Submenu: SuperIO Device

POWER ON Function	BUTTON ONLY
Hot Key Power ON	Ctrl-F1
Onboard FDC Controller	Enabled
Onboard Serial COM 1	3F8/IRQ4
Onboard Serial COM 2	2F8/IRQ3
UART Mode Select	Normal
RxD , TxD Active	Hi, Lo
IR Transmission Delay	Enabled
UR2 Duplex Mode	Half
Use IR Pins	IR-Rx2Tx2
Onboard Parallel Port	378/IRQ7
Parallel Port Mode	SPP
EPP Mode Select	EPP1.7
ECP Mode USE DMA	3
PWRON After PWR-Fail	On

Power Management Setup

ACPI Function	Enabled
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
Suspend Mode	Disabled
HDD Power Down	Disabled
CPU THRM-Throttling	50,0%
Wake-Up by PCI card	Disabled
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

PNP OS Installed	Yes
Reset Configuration Data	Disabled
Resources Controlled By	Auto(ESCD)
IRQ Resources	[Press Enter] → all PCI/ISA PnP
DMA Resources	[Press Enter] → all PCI/ISA PnP
PCI/VGA Palette Snoop	Disabled

PC Health Status

CPU Warning Temperature	66°C/151°F
SYS Temperature	
CPU Temperature	
SYSFAN	
COUFAN	
VDIMM	
VCORE	
+3.3V	
+ 5 V	
+12 V	
-12 V	
- 5 V	
VBAT	
5VSB	
Shutdown Temperature	75°C/167°F

Frequency / Voltage Control

Spread Spectrum	Disabled

BIOS 8.0 default settings

BIOS 8.0D HMI CPU F845G/VE (with VGA, LAN, USB, ...)

BIOS display: 10/06/2003 andron V8.0D for HMI / Stand 21.03.2003

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load andron Defaults
Advanced Chipset Features	Load Optimized Defaults
Intergrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Tue, Nov 12 2002
Time (hh:mm:ss)	13 : 53: 39
IDE Primary Master	None
IDE Primary Slave	
IDE Secondary Master	
IDE Secondary Slave	
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	All, But Keyb
Base Memory	640K
Extended Memory	515072K
Total Memory	516096K

Advanced BIOS Features

Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
Quick Power On Self Test	Enabled
First Boot Device	USB-ZIP
Second Boot Device	HDD-0
Third Boot Device	Disabled
Boot Other Device	Enabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Enabled
Typematic Rate (Chars/Sec)	12
Typematic Delay (msec)	250
Security Option	Setup
APIC Mode	Enabled
MPS Version Control For OS	1.4
OS Select For DRAM > 64MB	Non-OS2
Report No FDD For WIN95	No

Advanced Chipset Features

DRAM Timing Selectable	By SPD
X CAS Latency Time	2.5
X Active Precharge Delay	6
X DRAM RAS# to CAS# Delay	3
X DRAM RAS# Precharge	3
Turbo Mode	Disabled
Memory Frequency For	Auto
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Priorto Thermal	16 Min
AGP Aperture Size (MB)	64MB
** On-Chip VGA Setting **	
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	8 MB
Disk On Chip Adress	D8000H-DBFFFH

Integrated Peripherals

On-Chip Primary PCI IDE	Enabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Enabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
USB Controller	Enabled
USB 2.0 Controller	Enabled
USB Keyboard Support	Enabled
USB Mouse Support	Enabled
AC97 Audio	Disabled
Init Display First	Onboard
IDE HDD Block Mode	Enabled
Onboard Lan Boot ROM	Disabled
Onboard FDC Controller	Enabled
Onboard Serial Port 1	3F8/IRQ4
Onboard Serial Port 2	2F8/IRQ3
UART Mode Select	Normal
X RXD , TXD Active	Hi, Lo
X IR Transmission Delay	Enabled
X UR2 Duplex Mode	Half
X USE IR Pins	IR-Rx2Tx2
Onboard Parallel Port	378/IRQ7
Parallel Port Mode	SPP
X EPP Mode Select	EPP1.7
X ECP Mode USE DMA	3
PWRON After PWR-Fail	on

Power Management Setup

ACPI Function	Enabled
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
Modem Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Delay 4 sec.
CPU Thermal-Throttling	50,0%
Wake-Up by PCI card	Disabled
PowerOn by Ring	Disabled
Resume by Alarm	Disabled
X Date (of Month) Alarm	0
X Time (hh:mm:ss) Alarm	0 : 0 : 0
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

Reset Configuration Data	Disabled
Resources Controlled By	Auto (ESCD)
X IRQ Resources	Press Enter
PCI/VGA Palette Snoop	Disabled

PC Health Status

CPU Warning Temperature	70°C / 158°F
Current System Temp	
Current CPU1 Temperature	
Current CPU FAN Speed	
Current Chassis FAN Speed	
VDIMM(V)	
Vcore (V)	
VCC 3.3(V)	
+ 5 V	
+12 V	
-12 V	
- 5 V	
VBAT(V)	
5VSB(V)	
Shutdown Temperature	75°C / 167°F

Frequency / Voltage Control

Auto Detect PCI CLK	Enabled
Spread Spectrum	Disabled

BIOS 13.2 default settings

BIOS 13.2 HMI-CPU FS-97A (with VGA, LAN, USB, ...)

Display: FS-97A VER:2.3 andron GmbH V13.2

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load andron Defaults
Intergrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Wed, Aug 31 2011
Time (hh:mm:ss)	13 : 53: 39
IDE Primary Master	None
IDE Primary Slave	None
IDE Secondary Master	None
IDE Secondary Slave	None
Driva A:	1.44M, 3.5 in.
Drive B:	None
Video	EGA/VGA
Halt On:	All, But Keyboard
Base Memory	640K
Extended Memory	1013760K
Total Memory	1014784K

Advanced BIOS Features

Virus Warning	Disabled
CPU L1 & L2 Cache	Enabled
Quick Power On Self Test	Enabled
First Boot Device	HDD-0
Second Boot Device	Disabled
Third Boot Device	Disabled
Boot Other Device	Disabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Enabled
Typematic Rate (Chars/Sec)	15
Typematic Delay (msec)	250
Security Option	Setup
APIC Mode	Enabled
MPS Version Control For OS	1.4
OS Select For DRAM > 64MB	Non-OS2
Report No FDD For WIN95	No

Advanced Chipset Features

DRAM Timing Selectable	By SPD
X CAS Latency Time	2.5
X Active Precharge Delay	6
X DRAM RAS# to CAS# Delay	3
X DRAM RAS# Precharge	3
DRAM Data Integrity Mode	Non-ECC
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
Delayed Transaction	Enabled
Delay Prior to Thermal	16 Min
AGP Aperture Size (MB)	256
** On-Chip VGA Setting **	
On-Chip VGA	Enabled
On-Chip Frame Buffer Size	32 MB
Boot Display	AUTO
Panel Number	3
TV Standard	PAL

Integrated Peripherals

On-Chip Primary PCI IDE	Enabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
On-Chip Secondary PCI IDE	Enabled
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
USB Controller	Enabled
USB 2.0 Controller	Enabled
USB Keyboard Support	Enabled
USB Mouse Support	Enabled
AC97 Audio	Auto
Init Display First	Onboard/AGP
POWER ON Function	BUTTON ONLY
Onboard FDC Controller	Enabled
Onboard Serial Port 1	3F8/IRQ4
Onboard Serial Port 2	2F8/IRQ3
UART Mode Select	Normal
x RXD , TXD Active	Hi, Lo
x IR Transmission Delay	Enabled
x UR2 Duplex Mode	Half
x USE IR Pins	IR-Rx2Tx2
Onboard Parallel Port	378/IRQ7
Parallel Port Mode	SPP
x EPP Mode Select	EPP1.7
x ECP Mode USE DMA	3
PWRON After PWR-Fail	On
Game Port Address	Disabled
Midi Port Address	Disabled

Power Management Setup

ACPI Function	Enabled
ACPI Suspend Type	S1(POS)
Power Management	User Define
Video Off Method	V/H SYNC+Blank
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
Modem Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Instant-Off
CPU Thermal-Throttling	50,0%
Wake-Up by PCI card	Disabled
Power On by Ring	Disabled
Wake up on LAN	Disabled
Resume by Alarm	Disabled
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

PNP OS Installed	Yes
Reset Configuration Data	Disabled
Resources Controlled By	Auto (ESCD)
X IRQ Resources	Press Enter
PCI/VGA Palette Snoop	Disabled

PC Health Status

CPU Warning Temperature	Disabled
Current System Temp	
Current CPU1 Temperature	
Current CPU FAN Speed	
Current Chassis FAN Speed	
VDIMM(V)	
Vcore (V)	
VCC 3.3(V)	
+ 5 V	
+12 V	
-12 V	
- 5 V	
VBAT(V)	
5VSB(V)	
Shutdown Temperature	Disabled

Frequency / Voltage Control

Auto Detect PCI CLK	Enabled
Spread Spectrum	Disabled
CPU Host/3V66/PCI Clock	Default

BIOS 7.0 default settings

BIOS 7.0D HMI CPU CITSPE (with VGA, LAN, USB, ...)

BIOS display: 17/06/2003 andron V7.0D for HMI / Stand 21.03.2003

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load andron Defaults
Advanced Chipset Features	Load Optimized Defaults
Intergrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Tue, Nov 12 2002
Time (hh:mm:ss)	13 : 53: 39
IDE Primary Master	None
IDE Primary Slave	
IDE Secondary Master	
IDE Secondary Slave	
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	All, But Keyboard
Base Memory	640K
Extended Memory	129024K
Total Memory	130048K

Advanced BIOS Features

Virus Warning	Disabled
CPU Internal Cache	Enabled
External Cache	Enabled
CPU L2 Cache ECC Checking	Enabled
Processor Number Feature	Enabeld
Quick Power On Self Test	Enabled
First Boot Device	USB-ZIP
Second Boot Device	HDD-0
Third Boot Device	Disabled
Boot Other Device	Enabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Enabled
Typematic Rate (Chars/Sec)	12
Typematic Delay (msec)	250
Security Option	Setup
OS Select For DRAM > 64MB	Non-OS2
Report No FDD For WIN95	No
Video BIOS Shadow	Disabled
C8000-CBFFF Shadow	Disabled
CC000-CFFFF Shadow	Disabled
D0000-D3FFF Shadow	Disabled
D4000-D7FFF Shadow	Disabled
D8000-DBFFF Shadow	Disabled
DC000-DFFFF Shadow	Disabled
Small Logo(EPA) Show	Disabled

Advanced Chipset Features

SDRAM CAS Latency Time	2
SDRAM Cycle Time Tras/Trc	Auto
SDRAM RAS-to-CAS Delay	Auto
SDRAM RAS Precharge Time	Auto
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Enabled
CPU Latency Timer	Enabled
Delayed Transaction	Enabled
AGP Graphics Aperture Size	64MB
Power-Supply Type	AT
On-Chip Video Window Size	64MB

Integrated Peripherals

On-Chip Primary PCI IDE	Enabled
On-Chip Secondary PCI IDE	Disabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
USB Controller	Enabled
USB Keyboard Support	Disabled
USB Mouse Support	Enabled
Init Display First	Onboard / AGP
AC97 Audio	Disabled
IDE HDD Block Mode	Enabled
Onboard FDC Controller	Enabled
Onboard Serial Port 1	3F8/IRQ4
Onboard Serial Port 2	Disabled
UART Mode Select	Normal
RXD , TXD Active	Hi, Lo
IR Transmission Delay	Enabled
UR2 Duplex Mode	Half
USE IR Pins	IR-Rx2Tx2
Onboard Parallel Port	378/IRQ7
Parallel Port Mode	SPP
EPP Mode Select	EPP1.7
ECP Mode USE DMA	3
Game Port Address	Disabled
Midi Port Address	Disabled
Midi Port IRQ	10

Power Management Setup

ACPI Function	Enabled
ACPI Suspend Type	S1(POS)
Run VGABIOS if S3 Resume	Auto
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
Modem Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Delay 4 sec.
PowerOn by Ring	Disabled
USB KB Wake-Up From S3	Disabled
CPU Thermal-Throttling	50,0%
Resume by Alarm	Disabled
X Date (of Month) Alarm	0
X Time (hh:mm:ss) Alarm	0 : 0 : 0
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

PNP OS Installed	Yes
Reset Configuration Data	Disabled
Resources Controlled By	Auto (ESCD)
X IRQ Resources	Press Enter
PCI/VGA Palette Snoop	Disabled

PC Health Status

CPU Warning Temperature	70°C / 158°F
Current System Temp	
Current CPU1 Temperature	
Current CPUFAN1 Speed	
Current CPUFAN2 Speed	
IN0(V)	
IN1(V)	
IN2(V)	
+ 5 V	
+12 V	
-12 V	
- 5 V	
VBAT(V)	
5VSB(V)	

Frequency / Voltage Control

Auto Detect DIMM/PCI CLK	Enabled
Spread Spectrum	Disabled
CPU HOST/PCI Clock/PC133	Default
CPU Clock Ratio	X 11

BIOS 7.1 default settings

BIOS 7.1D NC CPU CITSPE (without interfaces)

BIOS display: 07/07/2003 andron V7.1D for NC / Stand 07.07.2003

Phonix Award BIOS CMOS Setup Utility

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load andron Defaults
Advanced Chipset Features	Load Optimized Defaults
Intergrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving

Standard CMOS Features

Date (mm:dd:yy)	Tue, Nov 12 2002
Time (hh:mm:ss)	13 : 53: 39
IDE Primary Master	None
IDE Primary Slave	None
IDE Secondary Master	None
IDE Secondary Slave	None
Driva A:	None
Drive B:	None
Video	EGA/VGA
Halt On:	No Errors
Base Memory	640K
Extended Memory	129024K
Total Memory	130048K

Advanced BIOS Features

Virus Warning	Disabled
CPU Internal Cache	Enabled
External Cache	Enabled
CPU L2 Cache ECC Checking	Enabled
Quick Power On Self Test	Enabled
First Boot Device	Disabled
Second Boot Device	Disabled
Third Boot Device	Disabled
Boot Other Device	Enabled
Swap Floppy Drive	Disabled
Boot Up Floppy Seek	Disabled
Boot Up NumLock Status	Off
Gate A20 Option	Fast
Typematic Rate Setting	Enabled
Typematic Rate (Chars/Sec)	12
Typematic Delay (msec)	250
Security Option	Setup
OS Select For DRAM > 64MB	Non-OS2
Report No FDD For WIN95	No
Video BIOS Shadow	Disabled
C8000-CBFFF Shadow	Disabled
CC000-CFFFF Shadow	Disabled
D0000-D3FFF Shadow	Disabled
D4000-D7FFF Shadow	Disabled
D8000-DBFFF Shadow	Disabled
DC000-DFFFF Shadow	Disabled
Small Logo(EPA) Show	Disabled

Advanced Chipset Features

SDRAM CAS Latency Time	2
SDRAM Cycle Time Tras/Trc	Auto
SDRAM RAS-to-CAS Delay	Auto
SDRAM RAS Precharge Time	Auto
System BIOS Cacheable	Enabled
Video BIOS Cacheable	Enabled
CPU Latency Timer	Enabled
Delayed Transaction	Enabled
AGP Graphics Aperture Size	64MB
Power-Supply Type	AT
On-Chip Video Window Size	64MB

Integrated Peripherals

On-Chip Primary PCI IDE	Disabled
On-Chip Secondary PCI IDE	Disabled
IDE Primary Master PIO	Auto
IDE Primary Slave PIO	Auto
IDE Secondary Master PIO	Auto
IDE Secondary Slave PIO	Auto
IDE Primary Master UDMA	Auto
IDE Primary Slave UDMA	Auto
IDE Secondary Master UDMA	Auto
IDE Secondary Slave UDMA	Auto
USB Controller	Disabled
USB Keyboard Support	Disabled
USB Mouse Support	Disabled
Init Display First	PCI Slot
AC97 Audio	Disabled
IDE HDD Block Mode	Enabled
Onboard FDC Controller	Disabled
Onboard Serial Port 1	Disabled
Onboard Serial Port 2	Disabled
UART Mode Select	Normal
RXD , TXD Active	Hi, Lo
IR Transmission Delay	Enabled
UR2 Duplex Mode	Half
USE IR Pins	IR-Rx2Tx2
Onboard Parallel Port	Disabled
Parallel Port Mode	SPP
EPP Mode Select	EPP1.7
ECP Mode USE DMA	3
Game Port Address	Disabled
Midi Port Address	Disabled
Midi Port IRQ	10

Power Management Setup

ACPI Function	Disabled
ACPI Suspend Type	S1(POS)
Run VGABIOS if S3 Resume	Auto
Power Management	User Define
Video Off Method	DPMS
Video Off IN Suspend	Yes
Suspend Type	Stop Grant
Modem Use IRQ	NA
Suspend Mode	Disabled
HDD Power Down	Disabled
Soft-Off by PWR-BTTN	Delay 4 Sec.
PowerOn by Ring	Disabled
USB KB Wake-Up From S3	Disabled
CPU Thermal-Throttling	50%
Resume by Alarm	Disabled
X Date (of Month) Alarm	0
X Time (hh:mm:ss) Alarm	0 : 0 : 0
Reload Global Timer Events	
Primary IDE 0	Disabled
Primary IDE 1	Disabled
Secondary IDE 0	Disabled
Secondary IDE 1	Disabled
FDD, COM,LPT Port	Disabled
PCI PIRQ(A-D)#	Disabled

PNP/PCI Configurations

PNP OS Installed	No
Reset Configuration Data	Disabled
Resources Controlled By	Auto (ESCD)
X IRQ Resources	Press Enter
PCI/VGA Palette Snoop	Disabled

PC Health Status

CPU Warning Temperature	70°C / 158°F
Current System Temp	
Current CPU1 Temperature	
Current CPUFAN1 Speed	
Current CPUFAN2 Speed	
IN0(V)	
IN1(V)	
IN2(V)	
+ 5 V	
+12 V	
-12 V	
- 5 V	
VBAT(V)	
5VSB(V)	

Frequency / Voltage Control

Auto Detect DIMM/PCI CLK	Enabled
Spread Spectrum	Disabled
CPU HOST/PCI Clock/PC133	Default
CPU Clock Ratio	X 11

Further information

Further information about the CPU cards you can find in the manufacturer documentation which is enclosed to every control delivery as well as a driver CD and miscellaneous connection cables of the respective CPU card.

- Manufacturer documentation of the **FS-97A** Full-Size PCI plug-in CPU card (Pentium® M / Celeron® M)
- Manufacturer documentation of the **EmCore-i6419VL** Half-Size PCI plug-in CPU card (Pentium® M / Celeron® M)
- Manufacturer documentation of the **IP-4MTP2G** Full-Size PICMG plug-in CPU card (Pentium® M / Celeron® M)
- Manufacturer documentation of the **F845G/VE** Full-Size PICMG plug-in CPU card (Pentium® 4)
- Manufacturer documentation of the **CITSP** Half-Size PCI plug-in CPU card (Celeron®/Pentium®3)