

**986LCD50.rom:**

miniPCI – Firewire reset fix added.

**986LCD49.rom:**

Transcend (DOM) reset fix added.

**986LCD48.rom:**

Added support for 82945GME Chipset.  
Hardware monitor strings corrected.  
Fix for PMC bios chip in case of future use.  
Added display block V0.22.  
Updated VGA bios.

**986LCD47.rom:**

Fix always reload the MAC addresses on boot.

**986LCD46.rom:**

Option to keep IGD and PEG enabled if both present.

**986LCD45.rom:**

Fixed Vista S3 problem with LAN on ATXE boards.

**986LCD44.rom:**

When CF Sandisk reply invalid data at detection then reboot.

**986LCD43.rom:**

PPM support added for Vista.  
CPU count removed from main menu.

**986LCD42.rom:**

(Unreleased version).

**986LCD41.rom:**

(Unreleased version).

**986LCD40.rom:**

T7400 id 06FBh added.  
Fixed User view APM menu problem.

**986LCD39.rom:**

Added option for power button: Ignore.  
(Power button will now be ignored until boot and then follow the scheme).

**986LCD38.rom:**

“South Bridge Chipset Configuration -> Audio Jack Sensing” CMOS setting default -> Disabled.

**986LCD37.rom:**

Added CRT+EFP2 in display boot type.

**986LCD36.rom:**

Option for PCI slot1 IRQ unique allocation added.

**986LCD35.rom:**

System & CPU fan speed Default at 100% again.  
"Fan Step Time" can now be setup from 0 to 7.

**986LCD34.rom:**

Fix custom BIOS Logo in 1024\*768 mode issue.

Yonah CPU, Upgraded ver. 50 -> 54 (6EC).

Operate CPU and SYSTEM fan in DC mode (system & fan speed default @ 50%).

**986LCD33.rom:**

When Restore on AC power loss = Always on, the system will now power-up even if AfterG3 bit is set.

**986LCD32.rom:**

As 986LCD031 with MKF\_1394IRQ flag off.

BIOS option for "Init Boot order" will not be hidden when "Load default settings" is selected.

Add setup of "Fan Step Time".

**986LCD31.rom:**

Make sure pin115 CPU fan is in DC out mode.

Realtek reset fix moved to beginning for improved startup time.

Fix PS/2 keyboard mouse not working, when wake by WOL or USB.

Add setup of default control of the BKLTCTL PWM signal.

Add setup control of USB detection beep.

MKF\_1394IRQ flag is set in this compile for minimum share of the IEEE IRQ line.

**986LCD30.rom:**

Fix for FreeBSD when No 2nd SIO is present.

Changed ACPI code for 2nd SIO to reply devices disabled.

**986LCD29.rom:**

Fix GPIO restore upon wake from S3 (backlight).

**986LCD28.rom:**

Realtek reset fix, disable unicast wake. The fix above will lead to extended cold bootup time.

Add support for Celeron M500 series. (CUID=10661h). M021066131.PDB µcode support added.

Fix COMC+D IRQ selection.

**986LCD27.rom:**

PME wake option unhidden.

Fixed S3 wake automatic 2nd time if LAN wake disabled on device. USB wake from S3 needs the following in XP:

```
reg ADD HKLM\SYSTEM\CurrentControlSet\Services\usb /v USBBIOSx /t REG_DWORD /d  
00000000 /f
```

"Lock Keyboard before OS boot" and "Allow F11 Popup" options added.

Display block 0.15 added.

**986LCD26.rom:**

Fix IRQ routing for PCIe connector. (Dual Firewire + Matrox PCIe board).

**986LCD25.rom:**

Added 886 fix: Problems with "SMI on OS Ownership Change" sometimes not generating a SMI, causing handoff to OS fail! Problems seen with "ON Time Boot disk" Disable link and BUS master prior shutdown on all Lan devices.

**986LCD24.rom:**

WAKEUP\_FROM\_S3S4 added again to allow wake from Vista.

Fix PM + PS hard disk type NOT installed issue with load failsafe using OEM defaults.

Default CMOS settings key is now checked later so an USB keyboard can be used. The defaults will then be loaded and a reset applied.

**986LCD23.rom:**

Add delay when checking for esc key ejects function Cherry keyboard need extra delay in order to work. OEM expansion rom can now be executed if placed at location 0 in flash: "bf write oem.rom 0". Must be enabled in setup as well Boot->Settings->"Execute OEM extension". BIOS verifies for the 55 AA tag at beginning and then shadowing to C000 & D000 segment according to the length. If there is enough room it will be (far) called @ loc 3.

Bios does contain biosprobe extension per default.

**986LCD22.rom:**

1 sec spin-up option changed to: "don't spin-up".

**986LCD021.rom:**

Added Staggered spin-up for SATA (IDE configuration menu).

**986LCD020.rom:**

System temp offset +10 deg. as per request from support.

Hotplug USB default device removed.

Renamed "removable devices first" to "Default init boot order" for more flexibility.

The items in "boot device priority" will now be reset (by "Default init boot order") when the amount/count is changed.

Vender codes (Customer requested functionality).

**986LCD019.rom:**

Quiet boot screen replaced with kontron logo + black and white option added.

Auto adjust boot priority removed and removable devices first improved.

Fix for HGA multimedia board.

New PXE/RPL rom added (2.06), RPL boot can now be used as well.

**986LCD018.rom:**

Display block V0.14 added.

CRT2 support fixed.

The ramp up/down time for controlling the fan speed is changed from .2 -> .8 seconds = 4 times slower.

The noticeable change of fan noise is now approx every 12 seconds.

USB emulation type default (when the number of devices is changed) can now be selected.

Kontron logo added. Black or White silent screen can now be selected.

Fixed so that the TAB key and exit without save setting will restore to text mode using longsplash.

Vender codes (Customer requested functionality).

**986LCD017.rom:**

Matrox fix improved.

Memtest does no longer override our shadow of secure cmos prom when Quickboot is disabled.

Vender codes (Customer requested functionality).

**986LCD016.rom:**

Root hub fix for Realtek lan vs. Matrox VGA card.

Link speed/status for Lan now displayed in setup.

**986LCD015.rom:**

Maximum supported speed on Compact Flash interface is UDMA2.

Setup string corrected to "Vanderpool Technology".

Corrected help strings <> "select screen".

Corrected help string regarding ACPI version select.

Fix S3 wakeup with 100% LAN/CPU load.

Add "Removable first" option.

Number of USB devices 6 to 10.



Number of removables 4à 12.

Number of boot devices in priority menu 8à 12.

Add patch + CRT2 fix.

Display block -> V0.12.

XP COM ports C and D, ACPI S3 problem fixed.

When "Force boot device" is set to Network and Bootrom fails, we will try again without requesting key press from the user.

Add LongSplash option (boot logo until Windows desktop appears) with WinXP and Vista selection.

Vender codes (Customer requested functionality).

**986LCD014.rom:**

Version number updated to 014.

**986LCD013.rom:**

Backlight Signal Inversion added. Default is disabled.

Display block updated from 006 to 008.

Add board emulation switch for debugging.

Fix control of LAN on all board form factors.

Change CPU diode temperature offset from 19h -> 22h for correct CPU temperature read-out.

Fix issue with USB floppy format under DOS (1.44Mb).

Control of ETH1 does not affect other PCIe devices anymore. (ETH2+3 gone in XP).

(Power needs to be recycled in order to enable ETH1 device again).

**986LCD012.rom:**

Intel Speed Step module is updated.

Windows 2003 could not install when CPU was in automatic mode.

Intruder bit is never cleared. It was always cleared before.

**986LCD011.rom:**

Added support for Flex version (LAN/PCI/DMI/i1h).

DMI type is now checking for "Kontron Technology" instead of "Kont".

**986LCD010.rom:**

Secure CMOS issue introduced in 986LCD009.rom fixed

**986LCD009.rom:**

FreeBSD shutdown fix caused XP troubles from ACPI S1 with ETH2-3. FreeBSD shutdown fix updated.

Fix Hardware Monitor ACPI saving of FAN2.

Upgraded RAID BIOS module to v5.6.2.1002.

COM C & COM D IRQ selections hidden when ports are disabled.

COM C & COM D IRQ problem fixed for Win2K ACPI S3.

SMBIOS / DMI type 1 & 2 are now equal containing Kontron Board type, Part number and Serial number.

When manufacturer string differs from "Kont" the BIOS will not fill any info into that type.

EEProm info will override Chassis type.

BIOS does not use absolute values for SMBIOS block any longer.

CRT fix detection during installation (1600\*1200 fix).

Display boot selection corrected.

**986LCD008.rom:**

Force boot: "fourth master" option changed to "third slave".

kbc.asm -> Remove PS/2 keyboard enable check by CMOS.

Rename Fan 1, 2, 3 strings.

Set fan3 divisor as fan 1 & 2 (div 4).

Fix PCI post card display issue stop at 2A.

The following options are hidden/removed from setup:

TV options, Clear NVRAM, PME wake & LAN wake.

DRAM speed options, panel scaling, wake usb s4/s5 & keyb ps2 monitor.

Q\_ACPI\_SUSPEND default changed from Auto -> S3.

No NEC Fuchu OEM Strings (DMI Type 11) in this release.

SMBIOS type 3 (Chassis) can now be changed by contents of the Secure EEprom.

3 Null terminated ASCII strings can be programmed into EEprom @ loc E0 - FF:

CHASSIS\_MANUFACTURER

CHASSIS\_VERSION

CHASSIS\_SERIAL\_NUM

The override is done if loc E0 in the EEprom differs from "FF" or "00".

Flex & ATX version should now be recognized, PCI routing prepared for slot 2-6

Serial redirection limited to COMA and COMB Only.

Fix hide of COMC & D IRQ, when ports are disabled.

#### **986LCD007.rom:**

Force CRT added.

VIA raiser IRQ routing corrected, must now be setup for device 9 (leaving device/slot 6 free for ATX version).

Via EXT-PCI Rev-B Jumper selection:

V

Device 9 15 7 13 5 11

Select <> <> <> <> <> <>

Jumper 10 4 8 14 6 12

AmiLOGO replaced with a black logo.

OnScreen Branding (OSB), Intel VIIV logo removed.

NEC Fuchu OEM Strings (DMI Type 11) in this release.

#### **986LCD006.rom:**

DRAM ceiling is now F0000000 if onboard VGA is disabled (up to 3.75GB). Default is C8000000 (3.2GB).

This is changed for support of up to 3GB DRAM (2GB + 1GB DDR2 module).

Post 2A (4 sec watchdog delay) fix now only on PCB 0.

SLP\_S4# minimum assertion width is now shorted to 1-2 RTCclocks for quick Power-On.

Setup of Audio Jack Sensing (useful when using the Audio pinrow).

MKF\_FDC\_SUPPORT disabled and Floppy setup item removed.

"PS/2 Kbd/Mouse S4/S5 Wake" & "S3-S5 Keyboard Hotkey" added.

"Any movement" of mouse will no longer wake the system, except if suspend from DOS or S1.

Force HDD boot added.

#### **986LCD005.rom:**

Fixed S3 wake with R1x8 DDR2 DRAM modules.

Added support for Micron 93LC56A (Secure CMOS Eeprom), 8 bit device.

IrDA TX/RX now routed correctly.

ComD IrDA option removed.

Added watchdog support: 15sec, 30sec, 1min, 2min, 5min, 10min.

Boot display device CMOS default changed -> "CRT on Port 0"

ACPI tables updated to release PCI Bus mastering during shutdown (S5) for correct support of e.g.

FreeBSD shutdown.

Kontron Technology LCD panel selection in BIOS setup.

Wake On LAN supported on ETH1, ETH2, and ETH3.

System temperature offset corrected.

BIOS setup items reduced.

#### **986LCD004.rom:**

Hardware monitor restored from ACPI.

Suspend LED working from ACPI.

Added Secure CMOS + OEM defaults.

Fixed problem when 1<sup>st</sup> LAN was disabled, causing remainder PCIE devices to be undetected.

**986LCD003.rom:**

DTS removed to allow S4 wake.

APM call can now turn off.

KBD+PS2 can wake from S1, S3 and S4.

Suspend LED working from DOS.

**986LCD002.rom:**

AMI core modules updated to latest available.

SATA Enhanced mode support added.

Basic display selection added, updated VGA BIOS added.

Post codes will now display on PCI post if CPLD emulator is not found.

ESCD will now be updated = boot order can be set.

IRQ 5 option removed from "LNKD" to please RAID systems.

IRQ's floppy controller must be disabled to allow IRQ 6 for RAID.

**986LCD001.rom:**

Removed forced programming of FSB (can run 667MHz), but cause problem with IST.

4 com ports with basic setup added.

Post codes regarding DRAM detection:

Error Code Error Description

=====

E0h	Unsupported/No DIMM detected
E1h	Mix of ECC and non-ECC DIMMs detected
E2h	Unsupported number of sides
E3h	Unsupported DIMM width
E4h	TRFC Timing problem with the DIMM
E5h	Unsupported CAS Latencies
E6h	Unsupported refresh rate
E7h	All DIMMs do not support BL of 8
E8h	Unsupported config populated
E9h	Unsupported frequency combo.
EAh	Unsupported DIMM size
EBh	Power-cycle event error
ECh	TRAS Timing problem with the DIMM
EDh	TRP Timing problem with the DIMM
EEh	TRCD Timing problem with the DIMM
EFh	TWR Timing problem with the DIMM
F0h	Receive Enable calculation error

If these codes are posted, the speaker will now reveal them as well. Eg. post E3 - "1110 small pause 0011 long pause" and repeat the sequence. Zero's are short beeps.

Via EXT-PCI Rev-B Jumper selection:

PCI3 ===== Upper/ Routing F G H E

Device 9 15 7 13 5 11

Select <> <> <> <> <> <>

jumper 10 4 8 14 6 12

^

PCI2 ===== Lower/ Routing E F G H (Pass through)

VIA raiser is supported only in PCI slot 1 and jumper must select device 6.

PCI slot routing fixed.

80 cable harddisk detection fixed.

Phantom Com ports removed.

LAN control added.



HW monitor added.

LAN 3 legacy routing fixed.

XP graphic failure seems to occur when Speedstep is set to Auto!

Currently default -> Maximum