From:	Felix Kunz	*Product:*	MSM486SV
To:	Customersupport	*Version:*	V2.00
Date:	03.05.1998	*BIOS:*	V2.04

Problem described from: DLAG Lab.

MSM486SV Board is hanging with wrong memorysize (AMD Errata P14):

Problem:

The ELAN400 need to be on real 0 Volt befor powerup, otherwise the RTC is in a undefined state. The Errata P14 from AMD describe the problem, that a max. of 0.06V is allowed befor appling the powersupply on VCC.

Since the powersupply generate the 3.3V with a switched mode regulator, much more capacitors are onboard. This capacitors must be discharged fully befor a new poweron may be occure.

The newest BIOS V2.04 will handle the memorysize problem better, if you receive the case, that the RTC is not accessible and the size is fully wrong.

Solution:
Work Around: None, Ensure that when the system is powered down, that the capacitors are fully discharged (smaler than 0.06V)

Longterm: None, Fix is planned from AMD

MSM486SV Board is hanging in the Hyperspeedmode (AMD Errata P09):

Problem:

The ELAN400 show a problem under full load (high transfering rate) in the hyperspeed mode and only on systems using the 32bit local bus. In some rare cases the ELAN400 will lock up. In AMD's Errata P09 is this case described, where a powermodeswitch could hand the system, if the system enters/leaves the hyperspeed mode. Since the MSM486SV Version 2.x the VGA controller is connected to the 32bit localbus, and we have seen this prblem also in our labs.

The system locks up problem is only on localbus system possible. Higher temperatures increase the possibility to become a system lock up in the hyperspeed mode. That means, on SMART486 we do not have this issue.

Solution:
Work Around: Disable in the BIOS-Setup the hyperspeedmode

Longterm: None, Fix is planed from AMD
Digital-Logic is working also on a work around.
The BIOS must ensure, that the PMU will change the mode to or from Hyperspeed while the code is running out of the internal cache !

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