

ALI to SMSC Rework List

Remove ALI part

Remove 24MHz Xtal for ALI part (AGI702 = Y3)

Use SMSC FDC37C93xAMP

Lift Pin 22, and tie pin to 14.318MHz OSC (clock to chip)

Lift Pin 120 (power good not needed)

Lift Pin 39, 119 (do not need pins tied to VCC)

Remove RTC enable pull down (AGI702 = R92)

Remove KYB select enable pull up (AGI702 = R93)

Remove KYB enable pull up (AGI702 = R94)

Lift pin 32, and tie pin to VCC5

Change the base address of the SuperIO

Note: All thought the schematic has the ALI part has a configuration resistor pull up (10K) on RTS1 that is suppose to configure that base address of the ALI part to 370h. In truth, even with this resistor the ALI part operates at 3F0h, and the original BIOS is written to support 3F0h.

I chose to keep the pull up (10K) on RTS1, which does configure the SMSC part at 370h, and therefore required a BIOS change for the base address.

Change Lock / Unlock for super IO

For ALI (old)

Unlock:

<0x51, 0x23> written to CONFIG PORT

Lock:

<0xBB> written to the CONFIG PORT

For SMSC (new)

Unlock:

<0x55> written to CONFIG PORT

Lock:

<0xAA> written to the CONFIG PORT

Add to software BIOS that turns on logical 7 (to enable mouse and keyboard)

0x30 set to x01 (This line was all ready in the original BIOS)

0x70 set to x01

0x72 set to x0C

Add to software BIOS that turns on logical 3 (to enable LPT)

0x70 set to x07 (This line was all ready in the original BIOS)

0x60 set to x03

0x61 set to x78

Floppy: tested and works

Mouse: tested and works

Keyboard: tested and works

LPT: tested and works

RTC: tested and works (no problem with the SMSC and SC520 having RTC)

Serial IO (1 & 2): tested and works

All testing was done with a software package called QAFE.

I did not test the IR link since I do not use it in my system.