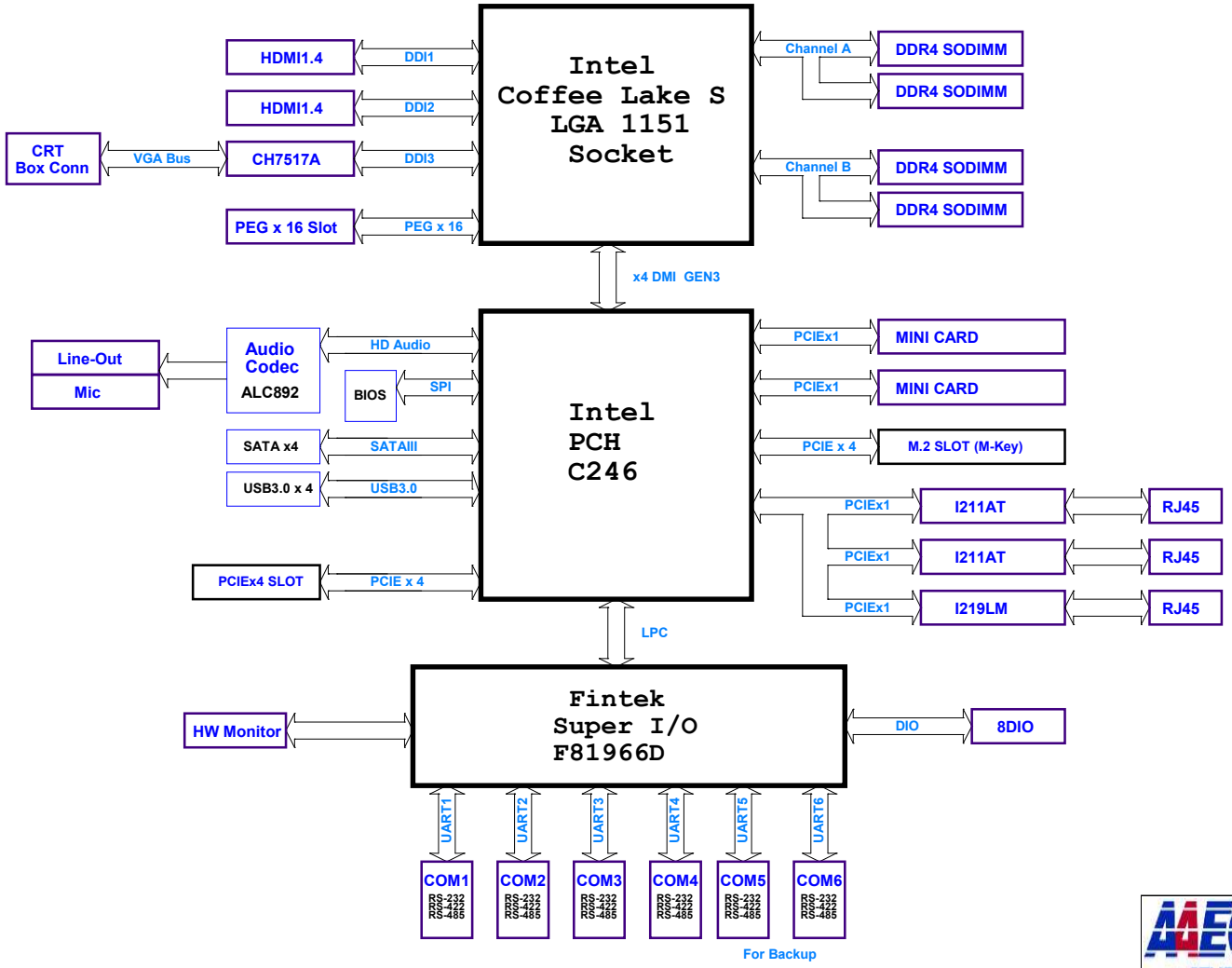
# BOXER-6842M BLOCK DIAGRAM



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|---|---|---|
| Title: Cover Sheet | | |
| Size: B | Document Number: PBA-CFL02 | Rev: A0.1 |
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## Super I/O F81966D GPIO Pins :

| PIN NO. | PIN Name | Multi-Func | Power Well | GPIO Function |
|---|---|---|---|---|
| 52 | GPIO00 | ERP_CTRL0# | SB3V | mSATA_PCIe_SEL |
| 53 | GPIO01 | ERP_CTRL1# | SB3V | USB_EN |
| 54 | GPIO02 | SUS_WARN# | SB3V | SUS_WARN# |
| 55 | GPIO03 | SUSACK# | SB3V | SUSACK# |
| 56 | GPIO04 | SLP_SUS# | SB3V | SLP_SUS# |
| 57 | GPIO05 | SOUT5 | SB3V | STXD5X |
| 58 | GPIO06 | SIN5 | SB3V | SRXD5X |
| 59 | GPIO07 | RTS5# | SB3V | SRTS5X |
| 65 | GPIO10 | LED_VSB | SB3V | NC |
| 66 | GPIO11 | LED_VCC | SB3V | NC |
| 67 | GPIO12 | IRTX/SCL | SB3V | SML1_CLK |
| 68 | GPIO13 | IRRX/SDA | SB3V | SML1_DATA |
| 69 | GPIO14 | ATX_AT_TRAP | SB3V | ATX_AT_TRAP |
| 70 | GPIO15 | WDTRST# | SB3V | WDTRST# |
| 71 | GPIO16 | BEEP/SDA | SB3V | SIO_SPK |
| 72 | GPIO17 | PECI | SB3V | H_PECI |
| 76 | GPIO20 | ALBERT#/SCL3 | SB3V | NC |
| 77 | GPIO21 | ATXPG_IN | SB3V | ATXPG_IN |
| 78 | GPIO22 | PWSIN# | SB3V | PANSWH# |
| 79 | GPIO23 | PWSOUT# | SB3V | PM_PWRBTN# |
| 80 | GPIO24 | S3# | SB3V | SLP_S3# |
| 81 | GPIO25 | PS_ON# | SB3V | PS_ON# |
| 82 | GPIO26 | PWOK | VBAT | PWROK |
| 83 | GPIO27 | RSMRST# | VBAT | RSMRST# |

| PIN NO. | PIN Name | Multi-Func | Power Well | GPIO Function |
|---|---|---|---|---|
| 36 | GPIO30 | DCD3 | 3VCC | SDCD3X |
| 37 | GPIO31 | RI3 | 3VCC | SRI3X |
| 38 | GPIO32 | CTS3 | 3VCC | SCTS3X |
| 39 | GPIO33 | DTR3 | 3VCC | SDTR3X |
| 40 | GPIO34 | RTS3 | 3VCC | SRTS3X |
| 41 | GPIO35 | DSR3 | 3VCC | SDSR3X |
| 42 | GPIO36 | SOUT3 | 3VCC | STXD3X |
| 43 | GPIO37 | SIN3 | 3VCC | SRXD3X |
| 44 | GPIO40 | DCD4 | 3VCC | SDCD4X |
| 45 | GPIO41 | RI4 | 3VCC | SRI4X |
| 46 | GPIO42 | CTS4 | 3VCC | SCTS4X |
| 47 | GPIO43 | DTR4 | 3VCC | SDTR4X |
| 48 | GPIO44 | RTS4 | 3VCC | SRTS4X |
| 49 | GPIO45 | DSR4 | 3VCC | SDSR4X |
| 50 | GPIO46 | SOUT4 | 3VCC | STXD4X |
| 51 | GPIO47 | SIN4 | 3VCC | SRXD4X |
| 9 | GPIO50 | RTS6 | 3VCC | SRTS6X |
| 10 | GPIO51 | SIN6 | 3VCC | SRXD6X |
| 11 | GPIO52 | SOUT6 | 3VCC | STXD6X |
| 12 | GPIO53 | DCD6 | 3VCC | SDCD6X |
| 13 | GPIO54 | RI6 | 3VCC | SRI6X |
| 14 | GPIO55 | CTS6 | 3VCC | SCTS6X |
| 15 | GPIO56 | DTR6 | 3VCC | SDTR6X |
| 16 | GPIO57 | DSR6 | 3VCC | SDSR6X |

| PIN NO. | PIN Name | Multi-Func | Power Well | GPIO Function |
|---|---|---|---|---|
| 17 | GPIO60 | DCD5 | 3VCC | SDCD5X |
| 18 | GPIO61 | RI5 | 3VCC | SRI5X |
| 19 | GPIO62 | CTS5 | 3VCC | SCTS5X |
| 20 | GPIO63 | DTR5 | 3VCC | SDTR5X |
| 21 | GPIO64 | DSR5 | 3VCC | SDSR5X |
| 74 | GPIO65 | PME# | SB3V | LPC_PME# |
| 86 | GPIO66 | DPWROK | VBAT | DPWROK |
| 87 | GPIO67 | S5# | VBAT | SLP_S4# |
| 103 | GPIO70 | PE | 3VCC | DIO_0 |
| 104 | GPIO71 | BUSY | 3VCC | DIO_1 |
| 105 | GPIO72 | ACK | 3VCC | DIO_2 |
| 106 | GPIO73 | SLIN | 3VCC | DIO_3 |
| 107 | GPIO74 | INIT | 3VCC | DIO_4 |
| 108 | GPIO75 | ERR | 3VCC | DIO_5 |
| 109 | GPIO76 | AFD | 3VCC | DIO_6 |
| 110 | GPIO77 | STB | 3VCC | DIO_7 |
| 111 | GPIO80 | PD0 | 3VCC | NC |
| 112 | GPIO81 | PD1 | 3VCC | NC |
| 113 | GPIO82 | PD2 | 3VCC | NC |
| 114 | GPIO83 | PD3 | 3VCC | NC |
| 115 | GPIO84 | PD4 | 3VCC | NC |
| 116 | GPIO85 | PD5 | 3VCC | NC |
| 117 | GPIO86 | PD6 | 3VCC | WLAN_DIS2# |
| 118 | GPIO87 | PD7 | 3VCC | WLAN_DIS3# |

### PCH GPIO Pins :

| Group | Name | Power Well | Default | GPIO Function |
|---|---|---|---|---|
| Group A | GPP_A0 | Primary Core 3.3V | | KBRST |
| | GPP_A1 | | | LPC_AD0 |
| | GPP_A2 | | | LPC_AD1 |
| | GPP_A3 | | | LPC_AD2 |
| | GPP_A4 | | | LPC_AD3 |
| | GPP_A5 | | | LPC_FRAME# |
| | GPP_A6 | | | INT_SERIRQ |
| | GPP_A7 | | | PIRQA# |
| | GPP_A8 | | | PM_CLKRUN# |
| | GPP_A9 | | | PCH_CLK_LPC0 |
| | GPP_A10 | | | CLK_LPC1_R |
| | GPP_A11 | | | LPC_PME# |
| | GPP_A12 | | | |
| | GPP_A13 | | | SUS_WARN# |
| | GPP_A14 | | | PM_SUS_STAT# |
| | GPP_A15 | | | SUSACK# |
| | GPP_A16 | | | |
| | GPP_A17 | | | |
| | GPP_A18 | | | H_A20GATE |
| | GPP_A19~A23 | | | |
| Group B | GPP_B0~B7 | Primary Core 3.3V | | |
| | GPP_B8 | | | CLK_PCIE_LAN4_REQ# |
| | GPP_B9 | | | |
| | GPP_B10 | | | |
| | GPP_B11 | | | |
| | GPP_B12 | | | |
| | GPP_B13 | | | PLT_RST# |
| | GPP_B14 | | | HDA_SPKR |
| | GPP_B15~B21 | | | BOOT_BIOS_STRAP |
| | GPP_B22 | | | SML1_ALERT# |
| Group C | GPP_C0 | Primary Core 3.3V | | SMB_CLK |
| | GPP_C1 | | | SMB_DATA |
| | GPP_C2 | | | SMB_ALERT# |
| | GPP_C3 | | | SML0_CLK |
| | GPP_C4 | | | SML0_DATA |
| | GPP_C5 | | | SML0_ALERT# |
| | GPP_C6 | | | SML1_CLK |
| | GPP_C7 | | | SML1_DATA |
| | GPP_C8~C15 | | | |
| | GPP_C16 | | | I2C0_SDA |
| | GPP_C17 | | | I2C0_SCL |
| | GPP_C18~C23 | | | |

| Group | Name | Power Well | Default | GPIO Function |
|---|---|---|---|---|
| Group D | GPP_D0~8 | Deep Sleep Power 3.3V | | |
| | GPP_D9 | | | |
| | GPP_D10 | | | |
| | GPP_D11 | | | |
| | GPP_D12 | | | |
| | GPP_D13~16 | | | |
| | GPP_D17~D23 | | | |
| Group E | GPP_E0~2 | | | SATAGP0~SATAGP2 |
| | GPP_E4 | | | |
| | GPP_E5 | | | |
| | GPP_E6~7 | | | |
| | GPP_E8 | | | SATA_LED# |
| | GPP_E9 | | | USB_OC#_0 |
| | GPP_E10 | | | USB_OC#_1 |
| | GPP_E11 | | | USB_OC#_2 |
| | GPP_E12 | | | USB_OC#_3 |
| Group F | GPP_F0 | Primary Core 3.3V | | SATAGP3 |
| | GPP_F15 | | | USB_OC#_4 |
| | GPP_F16 | | | USB_OC#_5 |
| | GPP_F17 | | | USB_OC#_6 |
| | GPP_F18 | | | USB_OC#_7 |
| | GPP_F19 | | | |
| | GPP_F20 | | | |
| | GPP_F21 | | | |
| | GPP_F22~23 | | | |
| Group G | GPP_G0~8 | | | |
| Group H | GPP_H0~2 | | | |
| | GPP_H3 | | | CLK_PCIE_MINI_REQ#1 |
| | GPP_H4 | | | CLK_PCIE_MINI_REQ#2 |
| | GPP_H5~H23 | | | |
| Group I | GPP_I0 | | | DPB_HPD |
| | GPP_I1 | | | DPC_HPD |
| | GPP_I2 | | | DPD_HPD |
| | GPP_I3 | | | DPE_HPD |
| | GPP_I4 | | | EDP_HPD |
| | GPP_I5 | | | DPB_CTRLCLK |
| | GPP_I6 | | | DPB_CTRLDATA |
| | GPP_I7 | | | DPC_CTRLCLK |
| | GPP_I8 | | | DPC_CTRLDATA |
| | GPP_I9 | | | DPD_CTRLCLK |
| | GPP_I10 | | | DPD_CTRLDATA |
| | GPP_I11 | | | H_SKTOCC_N |
| | GPP_I12~I14 | | | |

| Group | Name | Power Well | Default | GPIO Function |
|---|---|---|---|---|
| Group J | GPP_J0 | Primary Core 1.8V | | |
| | GPP_J1 | | | CPU_VCCIO_PWR_GATEB |
| | GPP_J2 | | | |
| | GPP_J3 | | | |
| | GPP_J4 | | | GPP_J4 |
| | GPP_J5 | | | |
| | GPP_J6 | | | |
| | GPP_J7 | | | |
| | GPP_J8 | | | |
| | GPP_J9 | | | GPP_J9 |
| | GPP_J10 | | | |
| | GPP_J11 | | | |
| Group K | GPP_K0~K23 | | | |
| GPD | GPD0 | Primary Core 3.3V | | PM_BATLOW# |
| | GPD1 | | | AC_PRESENT |
| | GPD2 | | | LAN_WAKE# |
| | GPD3 | | | PM_PWRBTN# |
| | GPD4 | | | SLP_S3# |
| | GPD5 | | | SLP_S4# |
| | GPD6 | | | PCH_SLP_A_N |
| | GPD7 | | | GPP_D_USB_WAKEOUT |
| | GPD8 | | | SUS_CLK |
| | GPD9 | | | |
| | GPD10 | | | SLP_S5# |
| | GPD11 | | | PM_LANPHY_ENABLE |

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Title: GPIO Setting

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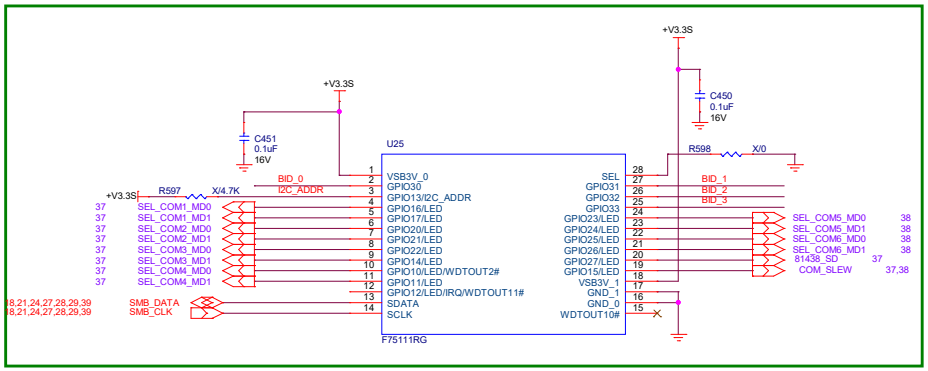
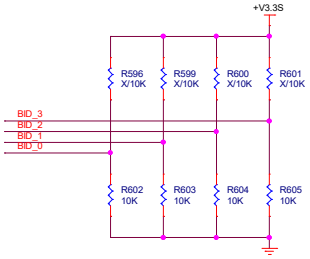



## BID Setting




| BID_0 | BID_1 | BID_2 | BID_3 | SET |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | |
| 0 | 0 | 0 | 1 | |
| 0 | 0 | 1 | 0 | |
| 0 | 0 | 1 | 1 | |
| 0 | 1 | 0 | 0 | |
| 0 | 1 | 0 | 1 | |
| 0 | 1 | 1 | 0 | |
| 0 | 1 | 1 | 1 | |
| 1 | 0 | 0 | 0 | |
| 1 | 0 | 0 | 1 | |
| 1 | 0 | 1 | 0 | |
| 1 | 0 | 1 | 1 | |
| 1 | 1 | 0 | 0 | |
| 1 | 1 | 0 | 1 | |
| 1 | 1 | 1 | 0 | |
| 1 | 1 | 1 | 1 | |

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Title: **GPIO F75111RG**

| Size | Document Number | Rev: |
|---|---|---|
| A | **PBA-CFL02** | **A0.1** |

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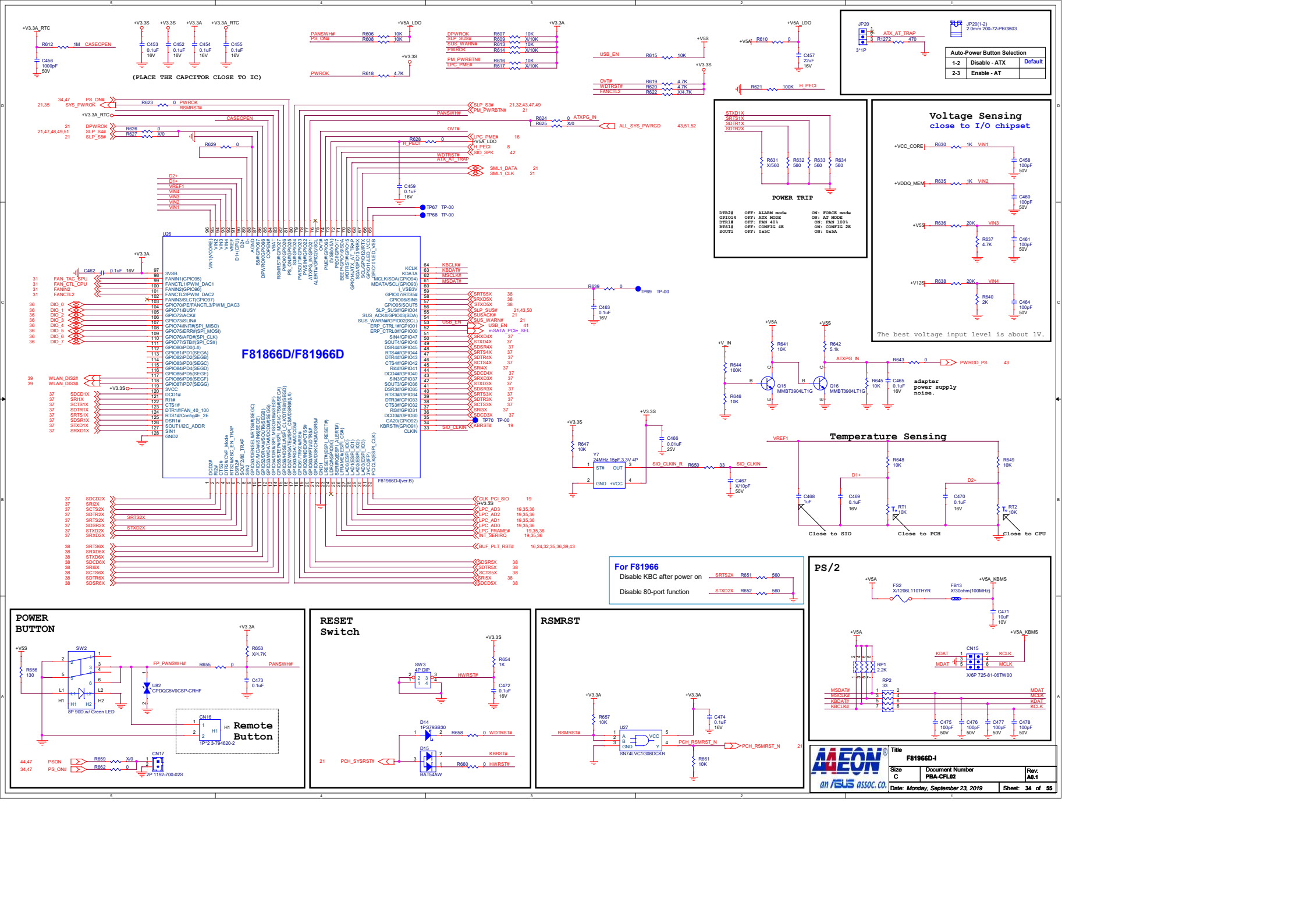
F81866D/F81966D
(PLACE THE CAPCITOR CLOSE TO IC)
Auto-Power Button Selection
1-2 Disable - ATX Default
2-3 Enable - AT
POWER TRIP
Voltage Sensing
close to I/O chipset
The best voltage input level is about 1V.
adapter power supply noise.
Temperature Sensing
Close to SIO
Close to PCH
Close to CPU
For F81966
Disable KBC after power on
Disable 80-port function
POWER BUTTON
RESET Switch
RSMRST
PS/2
Remote Button
Title
F81966D-I
Size C
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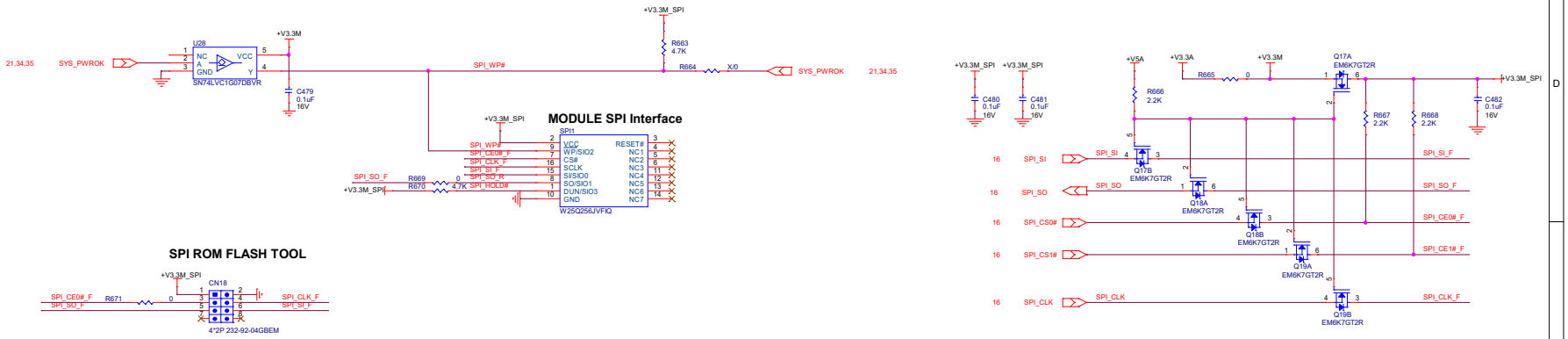
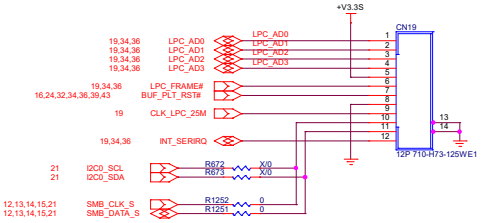
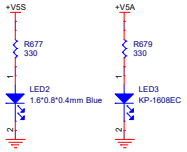
# SPI ROM



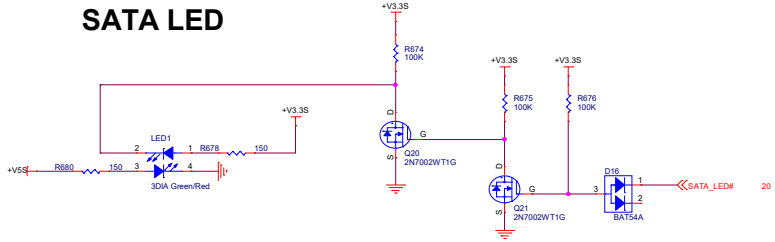

# LPC CONN for Debug




# POWER LED




# SATA LED




| | | |
|---|---|---|
| Title: **SPI_ROM / LED** | | |
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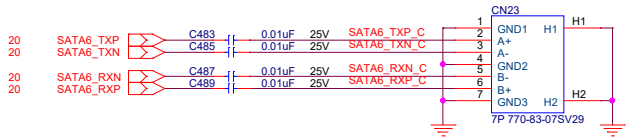
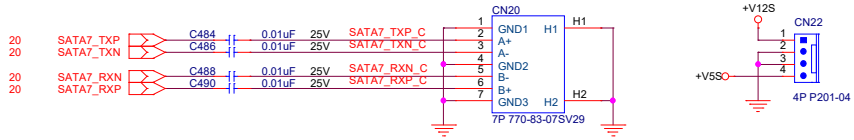
## SATA (SATA3.0)




## SATA (SATA3.0)

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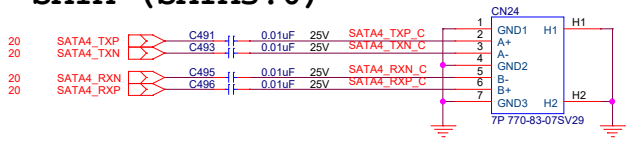


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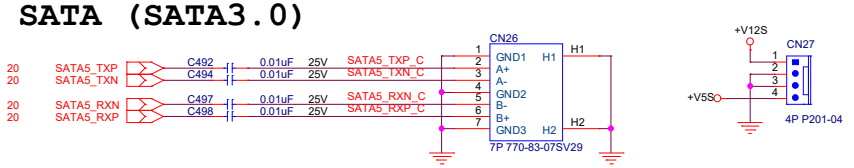
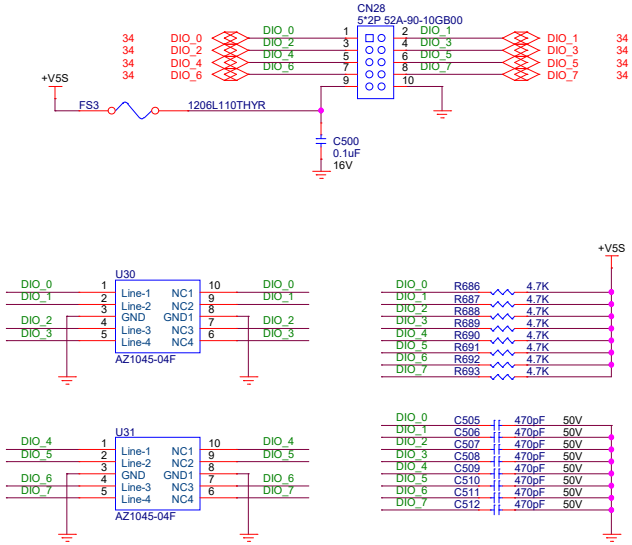
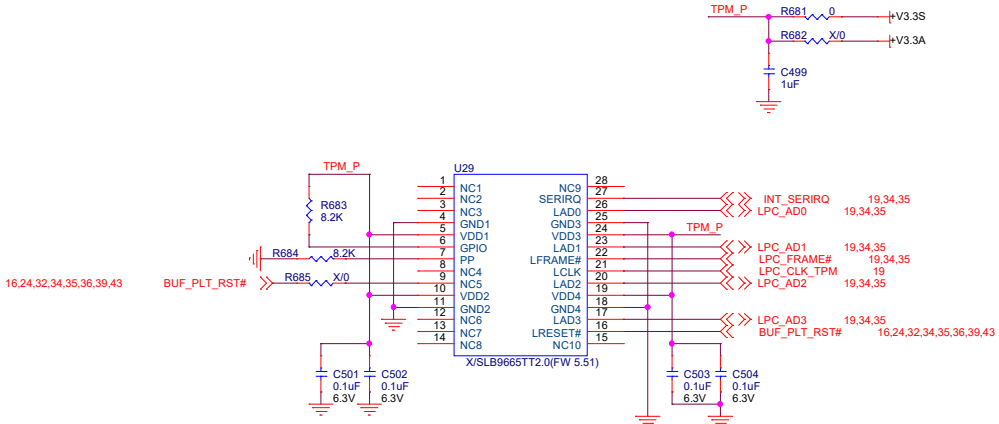



## DIO




## TPM

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