
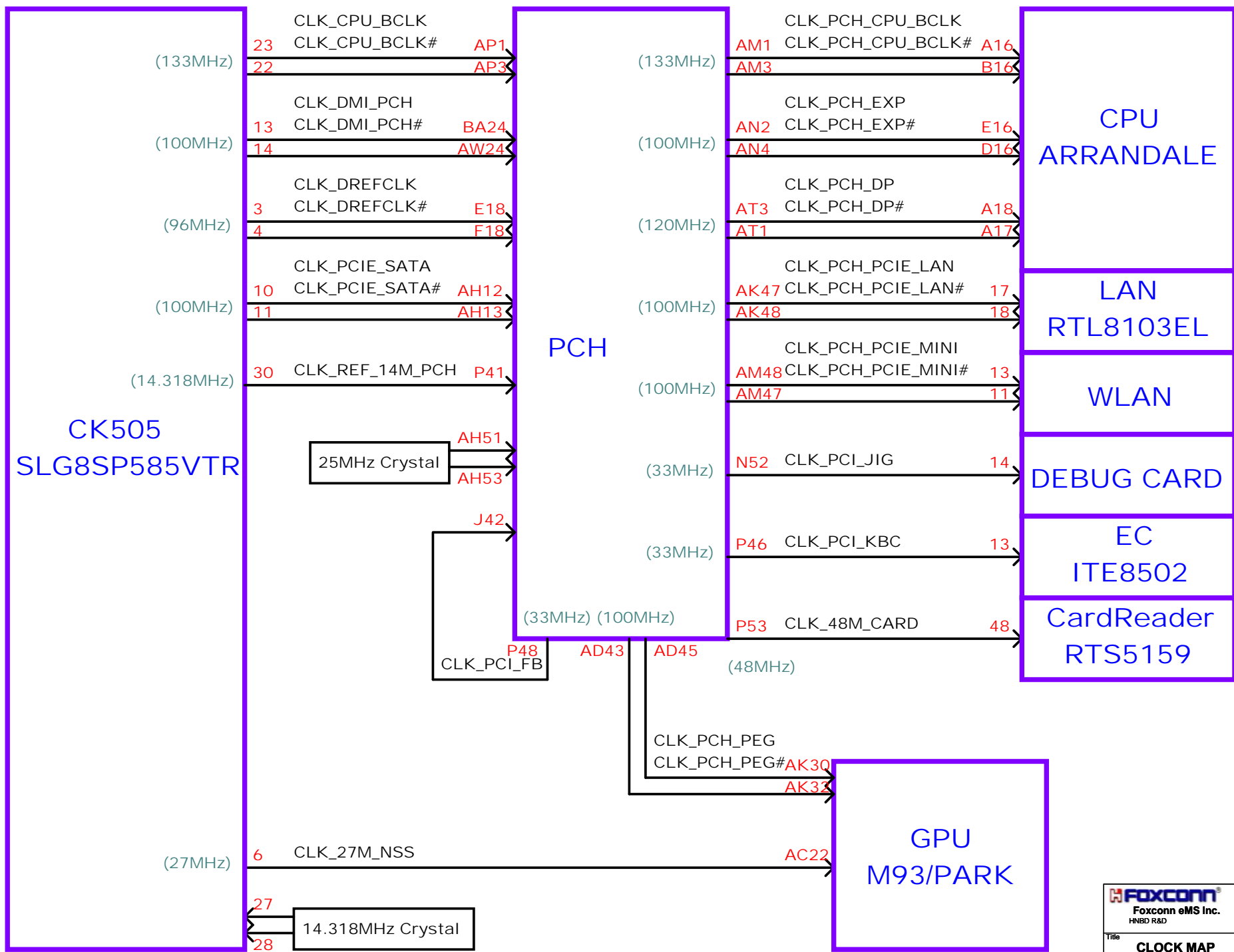
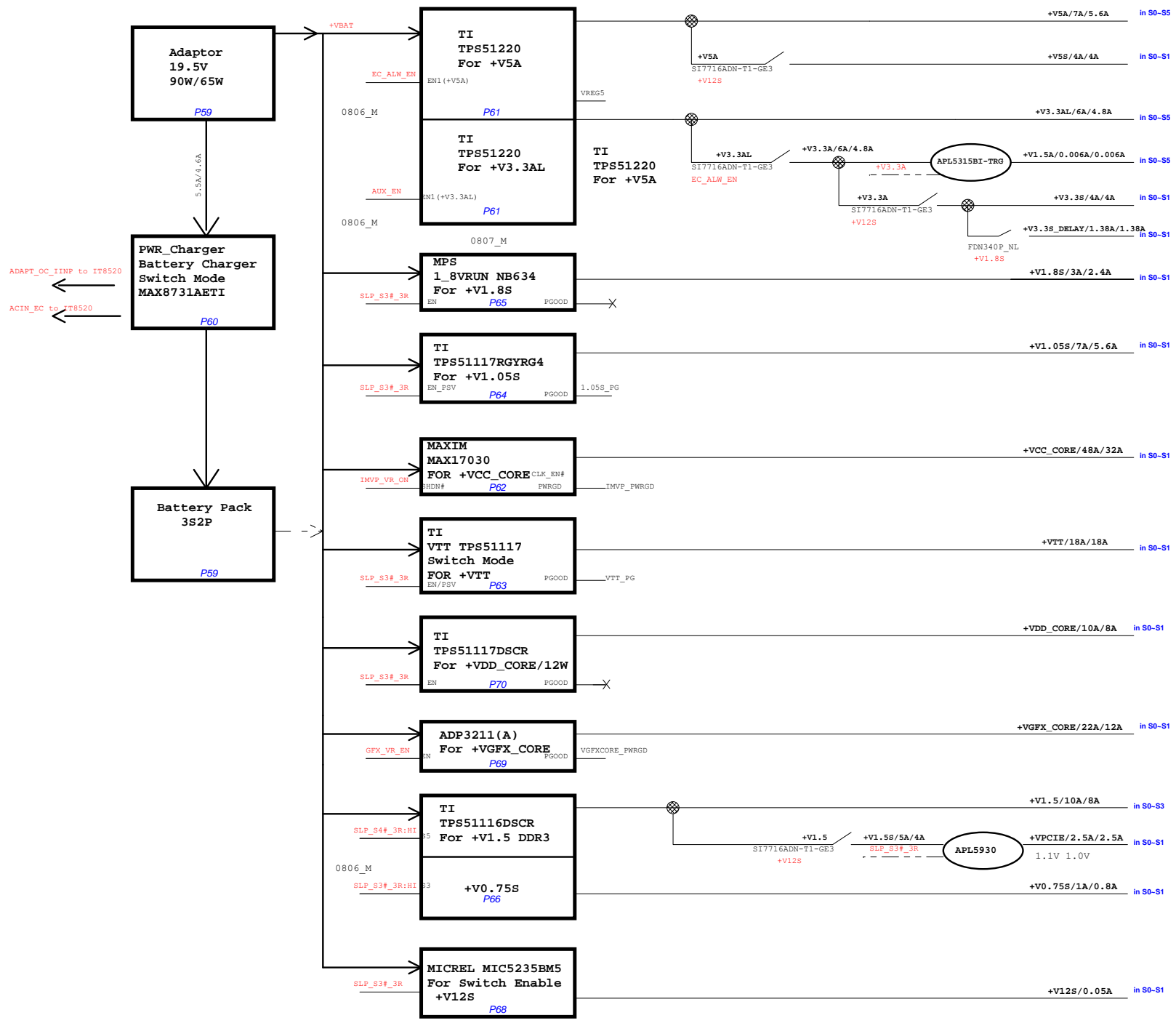


| | |
|--------------------------------|---------------------------------|
| 01 -- COVER SHEET | 21 -- VGA_S3 (IO) 2/5 |
| 02 -- SYSTEM BLOCK DIAGRAM | 22 -- VGA_S3 (DDR3) 3/5 |
| 03 -- CLOCK MAP | 23 -- VGA_S3 (DP) 4/5 |
| 04 -- POWER MAP | 24 -- VGA_S3 (POWER) 5/5 |
| 05 -- POWER SEQUENCY DIAGRAM | 25 -- VRAM (DDR3) |
| 06 -- POWER SEQUENCY TIMING | 26 -- EC+KBC (IT8502E) |
| 07 -- SMBUS MAP | 27 -- CODEC/JACK/SPEAKER/MIC |
| 08 -- RESET SIGNAL MAP | 28 -- LAN (RTL8103EL)/CLOCK GEN |
| 09 -- Calpella (DMI,PEG,FDI) | 29 -- Card Reader |
| 10 -- Calpella (CLK,MISC,JTAG) | 30 -- WLAN/BT/MDC/USB/MOUNTING |
| 11 -- Calpella (DDR3) | 31 -- LVDS/CRT/Webcam |
| 12 -- Calpella (POWER/GND) | 32 -- HDMI |
| 13 -- Calpella (GRAPHIC POWER) | 33 -- DCIN/Battery/OCP/FAN |
| 14 -- PCH (HDA,JTAG,SATA) | 34 -- PWR_Charger MAX8731AETI |
| 15 -- PCH (PCI-E,SMBUS,CLK) | 35 -- 5V/3.3V SN0608098RHB |
| 16 -- PCH (DMI,FDI,GPIO,LVDS) | 36 -- Vcore MAX17030 |
| 17 -- PCH (PCI,USB,NVRAM,GPIO) | 37 -- 1.1V VTT/+V1.05RUN |
| 18 -- PCH (POWER) | 38 -- 1.5VDDR3+0.75V+V1.8RUN |
| 19 -- DDR3(SO-DIMM 0&1) | 39 -- PWR_Others power plane |
| 20 -- VGA (PCI-E/STRAP) 1/5 | 40 -- CPU VREG & Decoupling |
| | 41 -- ATVDD/+VPCIE |

| | | |
|-----------|----------|-----------|
| P. Leader | Check by | Design by |
| | | |

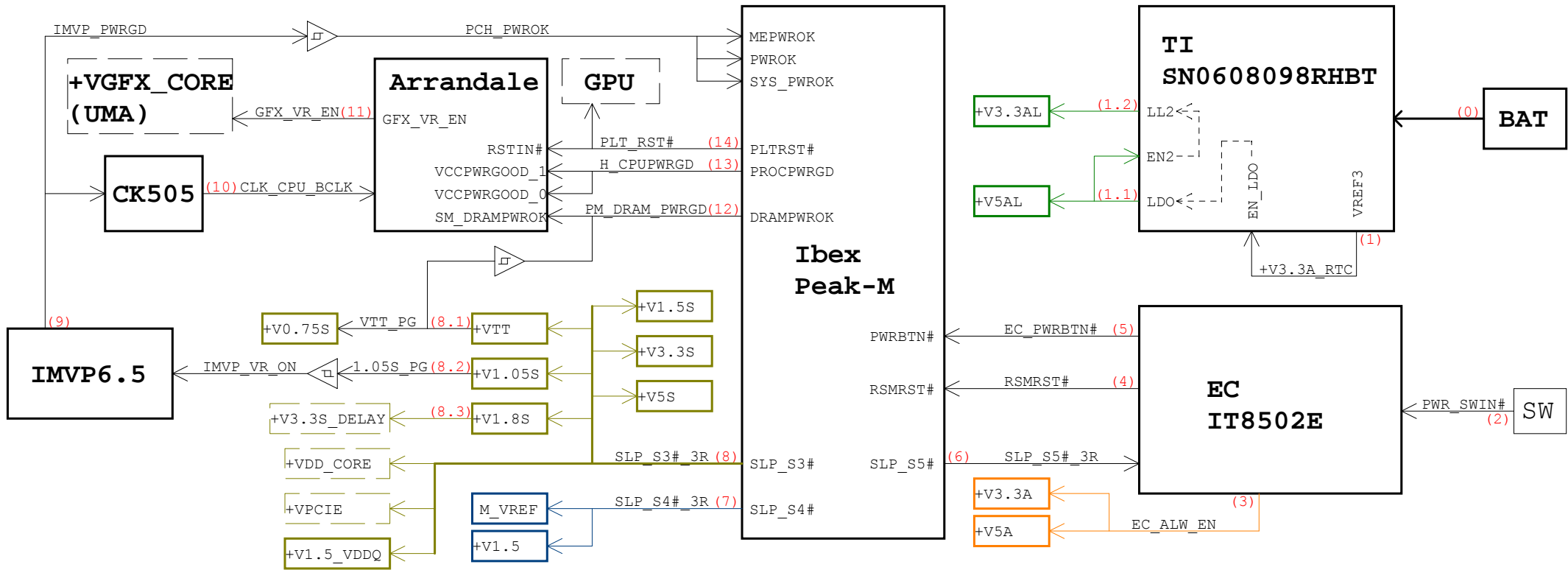
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|--|----------------------------------|
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| Foxconn eMS Inc. HNBD R&D | |
| phone: +886-2-2799-6111 | |
| Title Index Page | |
| Size | Document Number |
| Custom | STAR |
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Switching Linear Control signal Power Rail

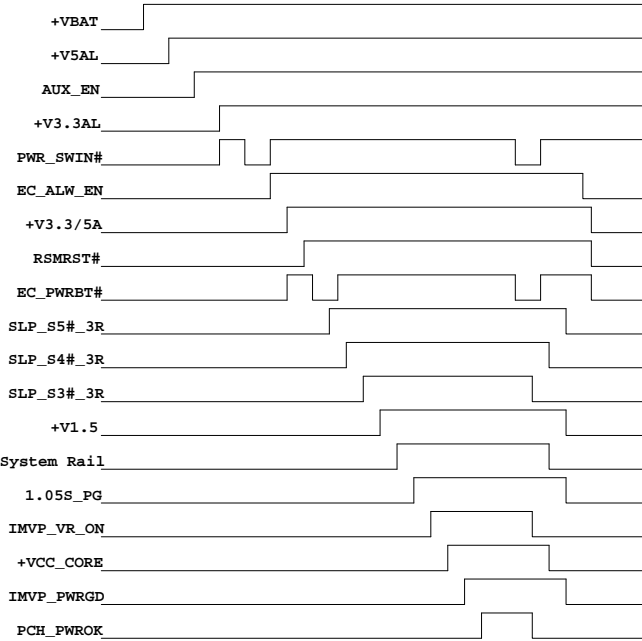
POWER SEQUENCY DIAGRAM



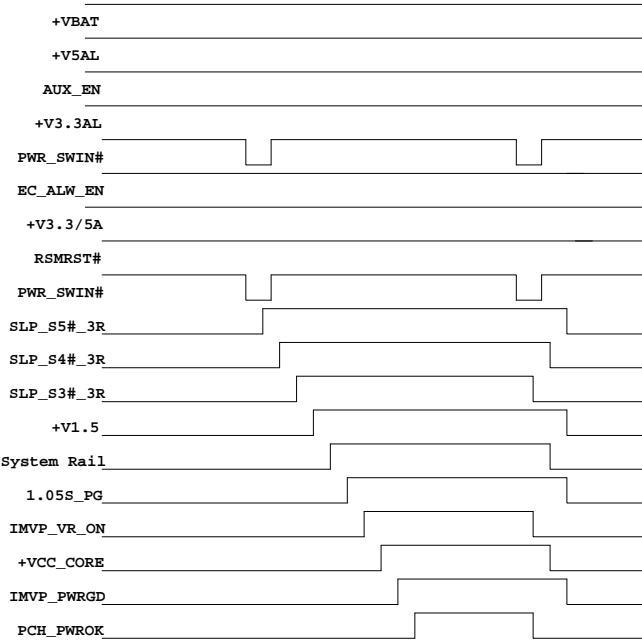
| | Source Rail | EN | PG | Power Status | | | | Remark |
|--------------|-------------|-------------|------------|--------------|----|----------|----------|--------|
| | | | | S0 | S3 | AC S4/S5 | DC S4/S5 | |
| +VBAT | +VBAT | +V3.3A_RTC | | V | V | V | V | |
| +V5AL | +VBAT | +V5AL | | V | V | V | V | |
| +V3.3AL | +VBAT | +V5AL | | V | V | V | V | |
| +V5A | +VBAT | EC_ALW_EN | | V | V | V | | |
| +V3.3A | +V3.3AL | EC_ALW_EN | | V | V | V | | |
| +V1.5 | +VBAT | SLP_S4#_3R | | V | V | | | |
| +V0.75S | +V1.5 | VTT_PG | | V | | | | |
| +V1.5S | +V1.5 | RUN_ON_LOAD | | V | | | | |
| +V1.5_VDDQ | +V1.5 | RUN_ON_LOAD | | V | | | | |
| +VCC_CORE | +VBAT | IMVP_VR_ON | IMVP_PWRGD | V | | | | |
| +VTT | +VBAT | SLP_S3#_3R | VTT_PG | V | | | | |
| +VGFX_CORE | +VBAT | GFX_VR_EN | | V | | | | |
| +V1.8S | +VBAT | SLP_S3#_3R | | V | | | | |
| +V1.05S | +VBAT | SLP_S3#_3R | 1.05S_PG | V | | | | |
| +V5S | +V5A | RUN_ON_LOAD | | V | | | | |
| +V3.3S | +V3.3A | RUN_ON_LOAD | | V | | | | |
| +VDD_CORE | +VBAT | SLP_S3#_3R | | V | | | | |
| +V3.3S_Delay | +V3.3S | +V1.8S | | V | | | | |
| +VPCIE | +V1.5S | SLP_S3#_3R | | V | | | | |

POWER SEQUENCE TIMING

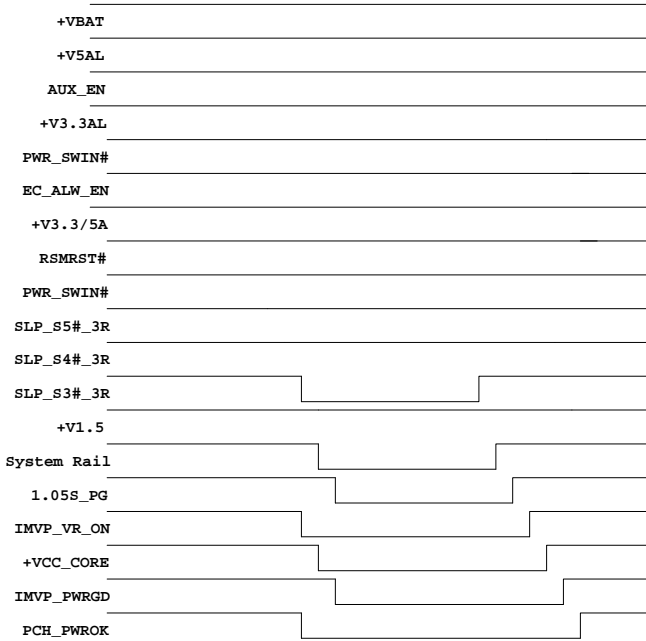
G3(OFF)->S0->S5



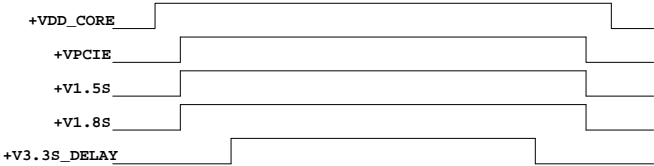
S5->S0->S5



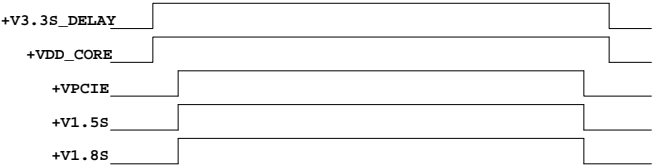
S0->S3->S0



M93 Sequence



Park Sequence



SMBUS&I2C MAP

Discrete
GPU

GPU
M93/Park
S3 Package

PCH

EC
ITE8502

DIMM0

DIMM1

CLOCK
GEN

WLAN


Temp
Sensor

Charger

Battery

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RESET SIGNAL MAP

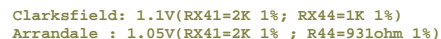


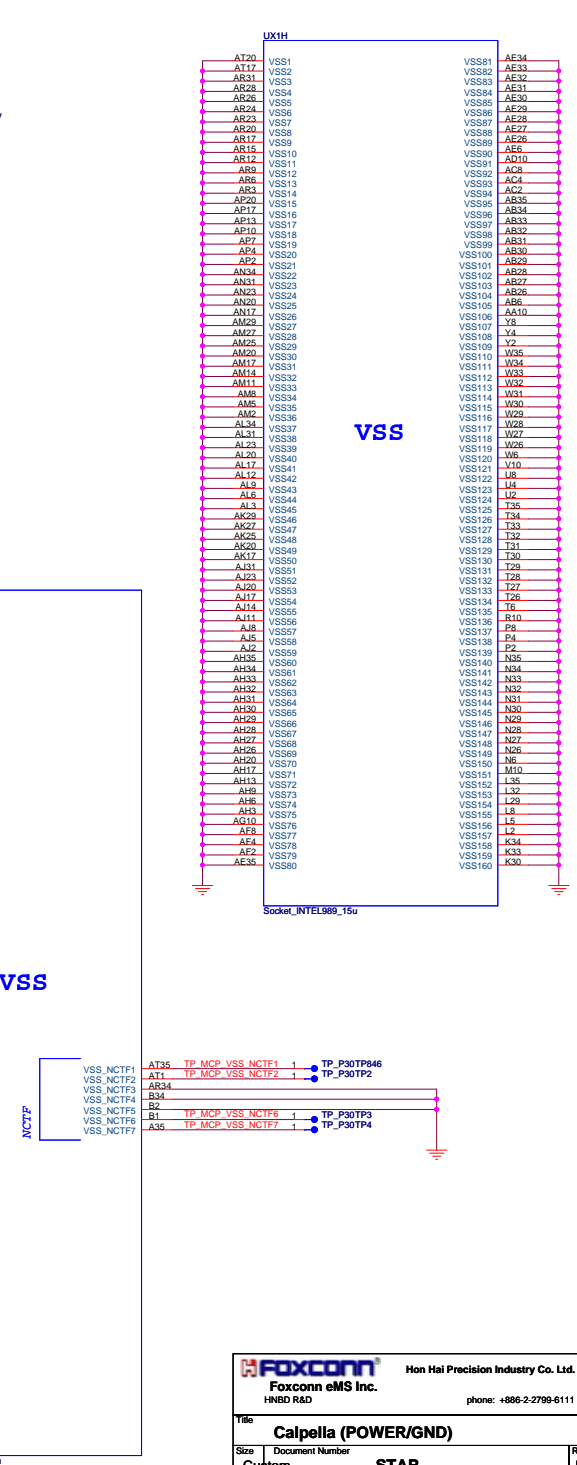
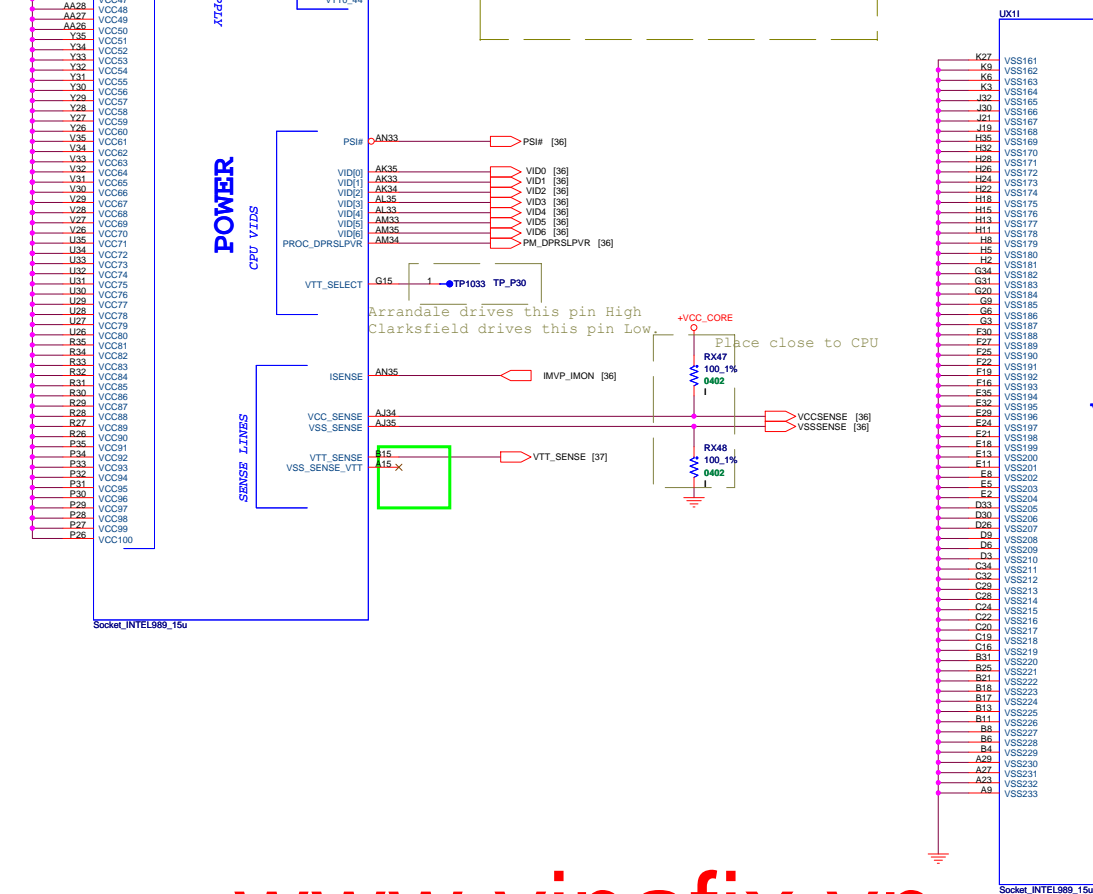
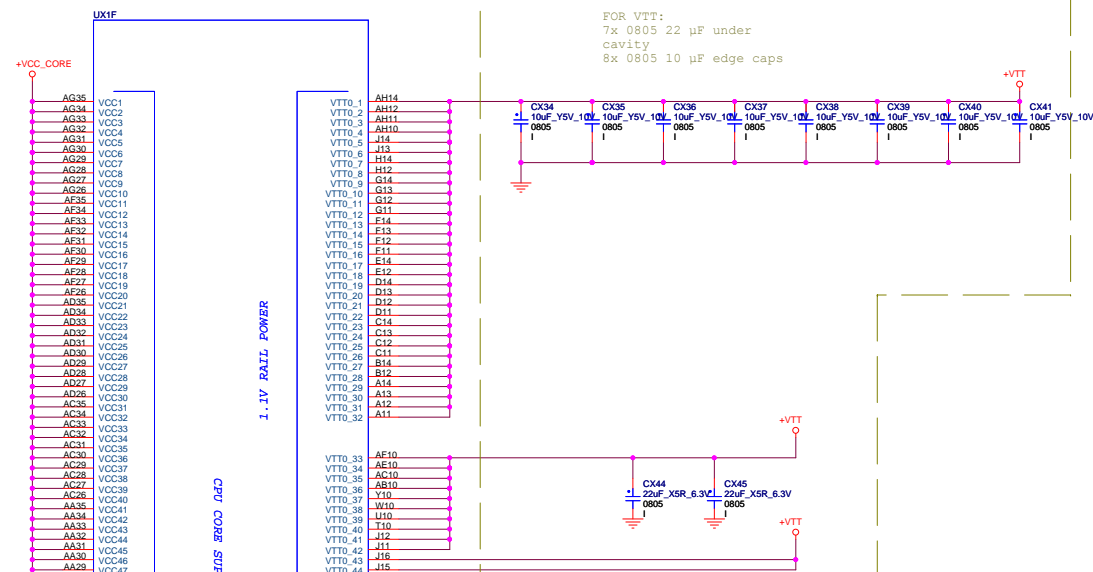
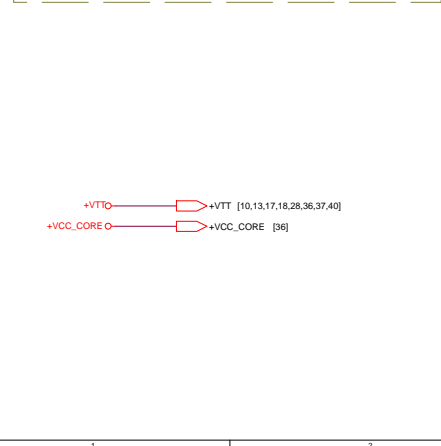
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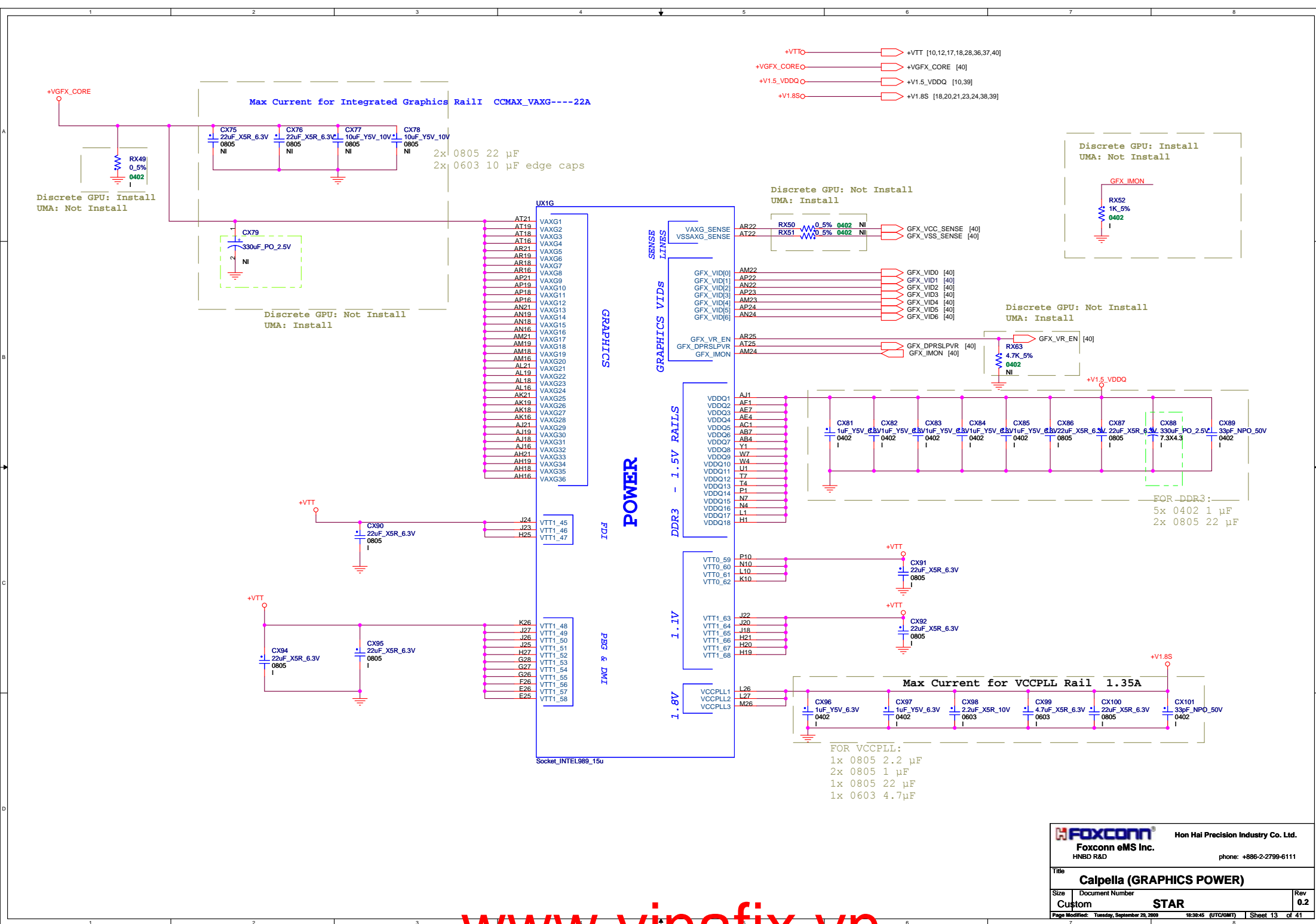
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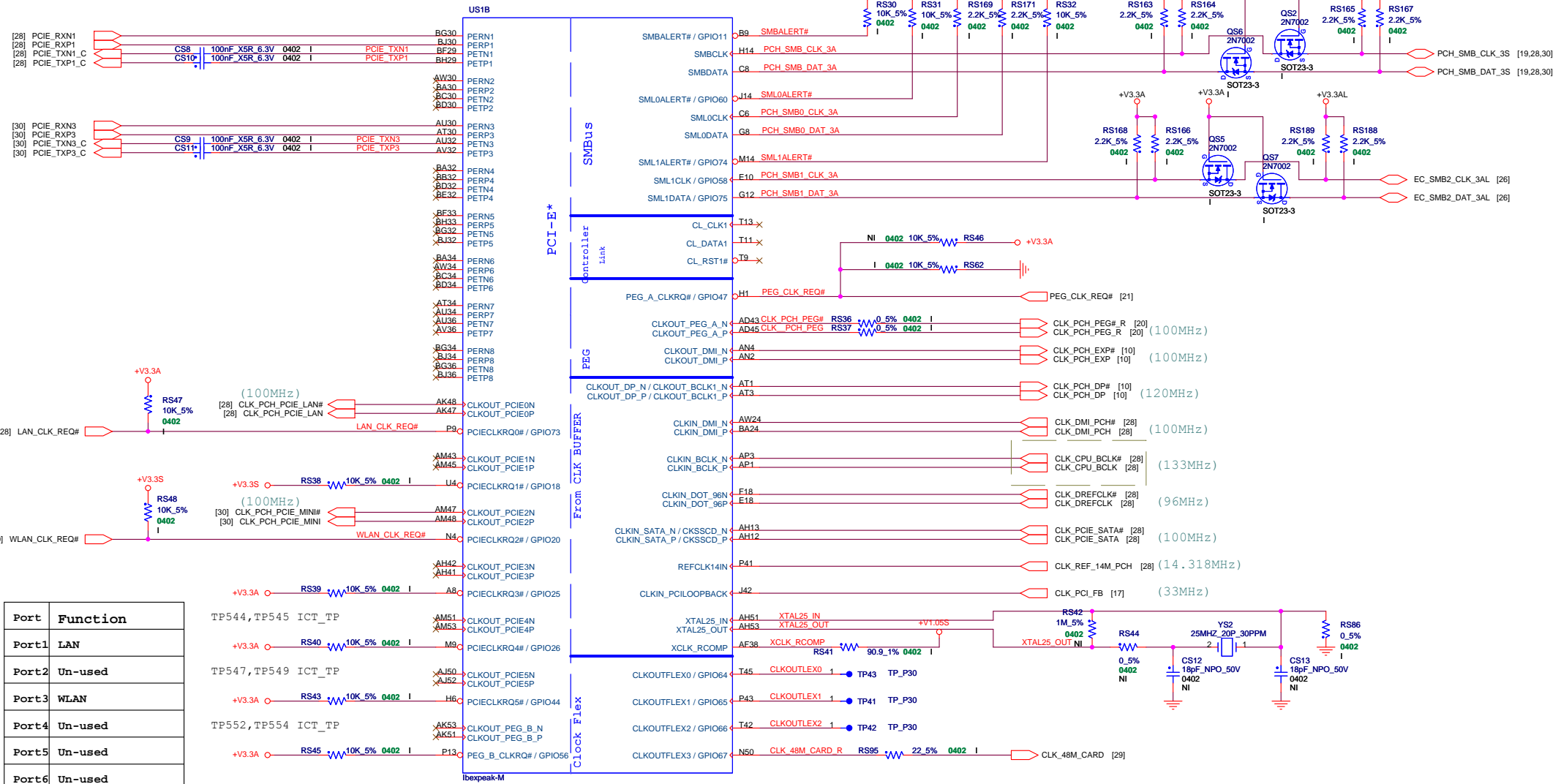
| | | |
|---|-----------------|-----|
| Title | | |
| RESET SIGNAL MAP | | |
| Size | Document Number | Rev |
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Place close to chip










| Port | Function |
|-------|----------|
| Port1 | LAN |
| Port2 | Un-used |
| Port3 | WLAN |
| Port4 | Un-used |
| Port5 | Un-used |
| Port6 | Un-used |
| Port7 | Un-used |
| Port8 | Un-used |

PCI-E Port Table

- +V3.3AL [14,26,33,35,39]
- +V3.3A [10,14,16,17,18,26,28,30,33,34,38,39]
- +V3.3S [10,14,16,17,18,19,26,27,28,29,30,31,32,33,36,37,39,40,41]
- +V1.05S [14,16,18,37,39]

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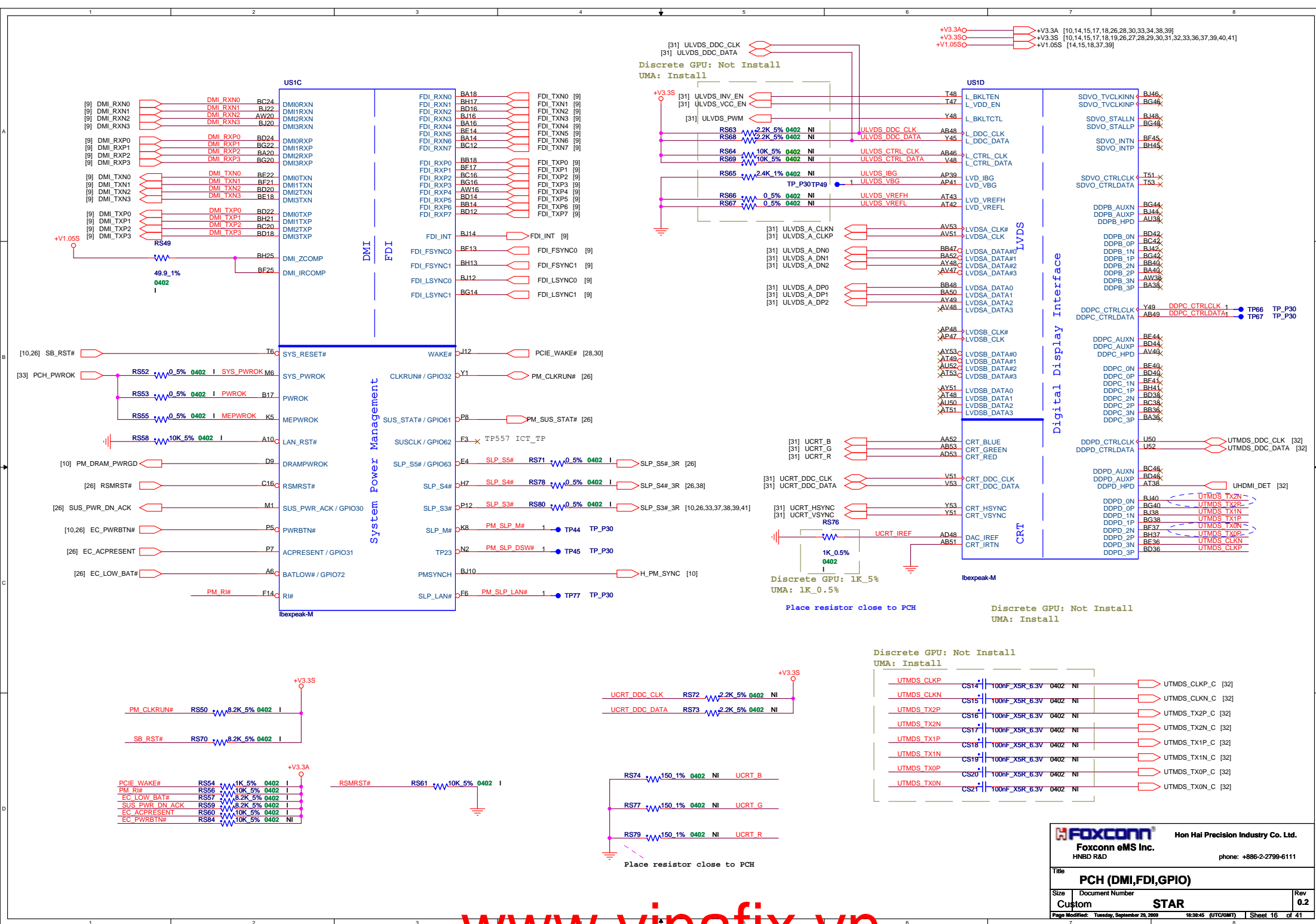
Title
PCH (PCI-E,SMBUS,CLK)

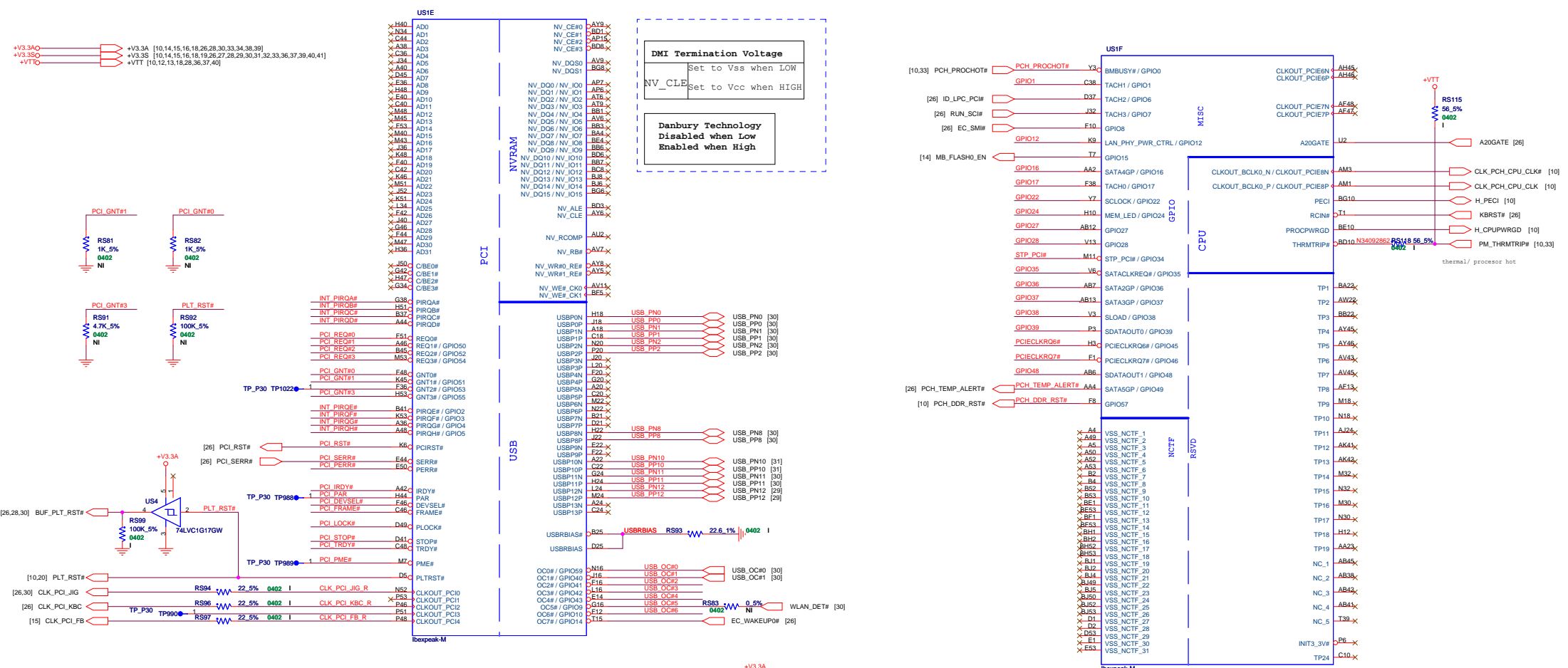
Size
Document Number

Custom
STAR

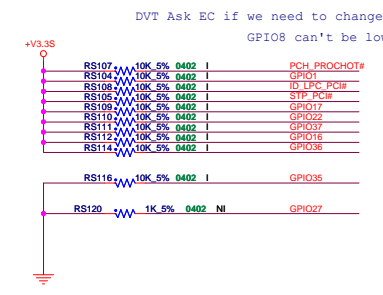
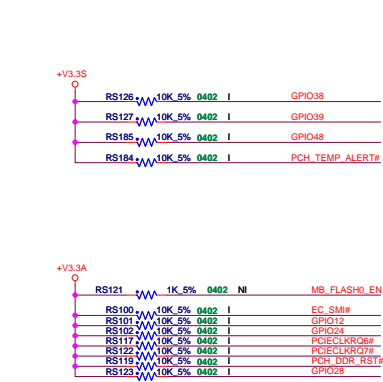
Rev
0.2

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| USB PORT | Function | OC pin |
|----------|-------------|--------|
| PORT-0 | Ext. USB 0 | |
| PORT-1 | Ext. USB 1 | |
| PORT-2 | Ext. USB 2 | |
| PORT-3 | | |
| PORT-4 | | |
| PORT-5 | | |
| PORT-6 | | |
| PORT-7 | | |
| PORT-8 | Bluetooth | |
| PORT-9 | | |
| PORT-10 | Camera | |
| PORT-11 | WLAN/WiMAX | |
| PORT-12 | Card reader | |
| PORT-13 | | |



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Title

PCH (PCI,USB,NVRAM,GPIO)

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Document Number

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STAR

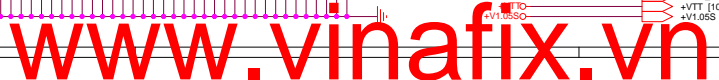
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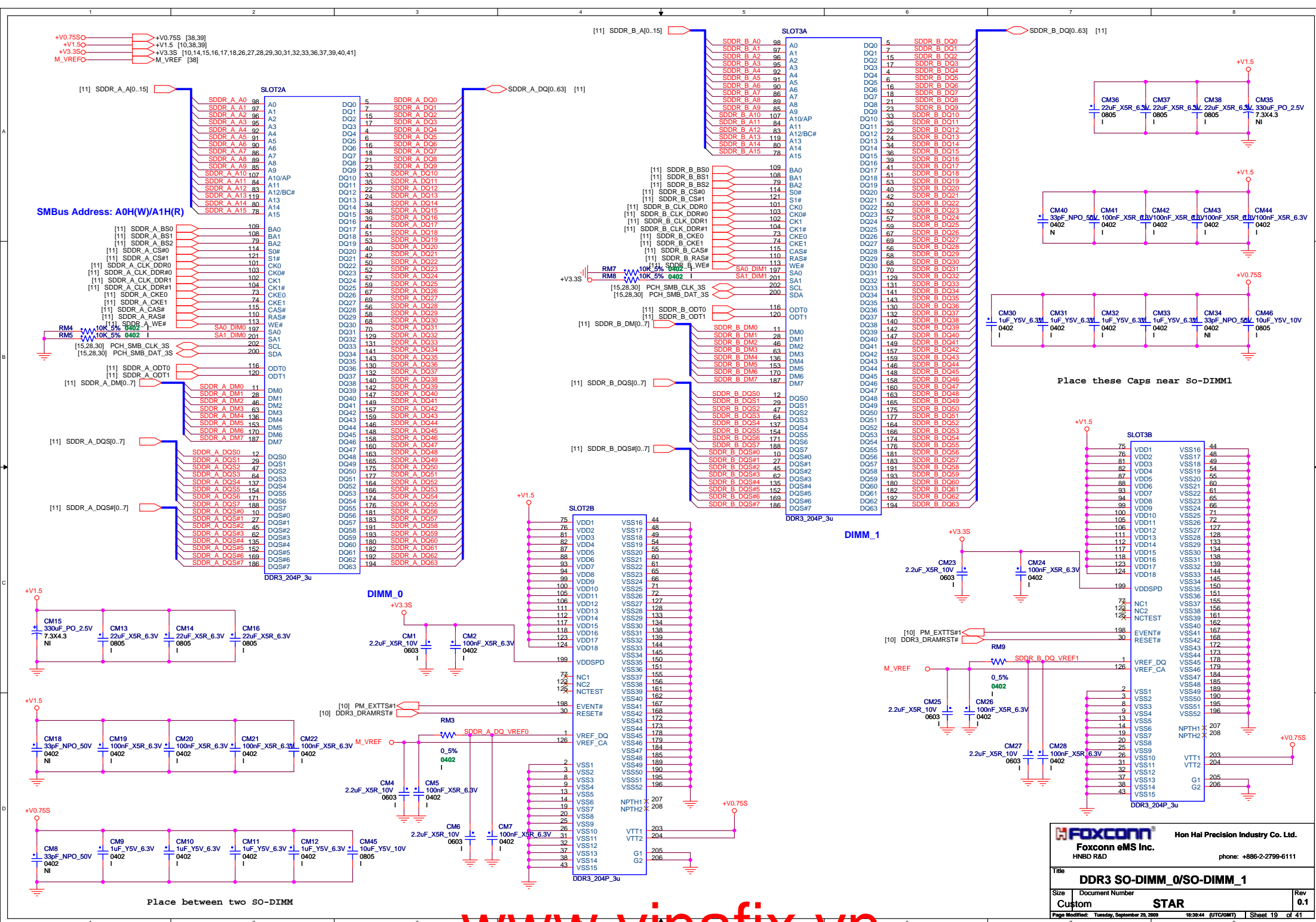
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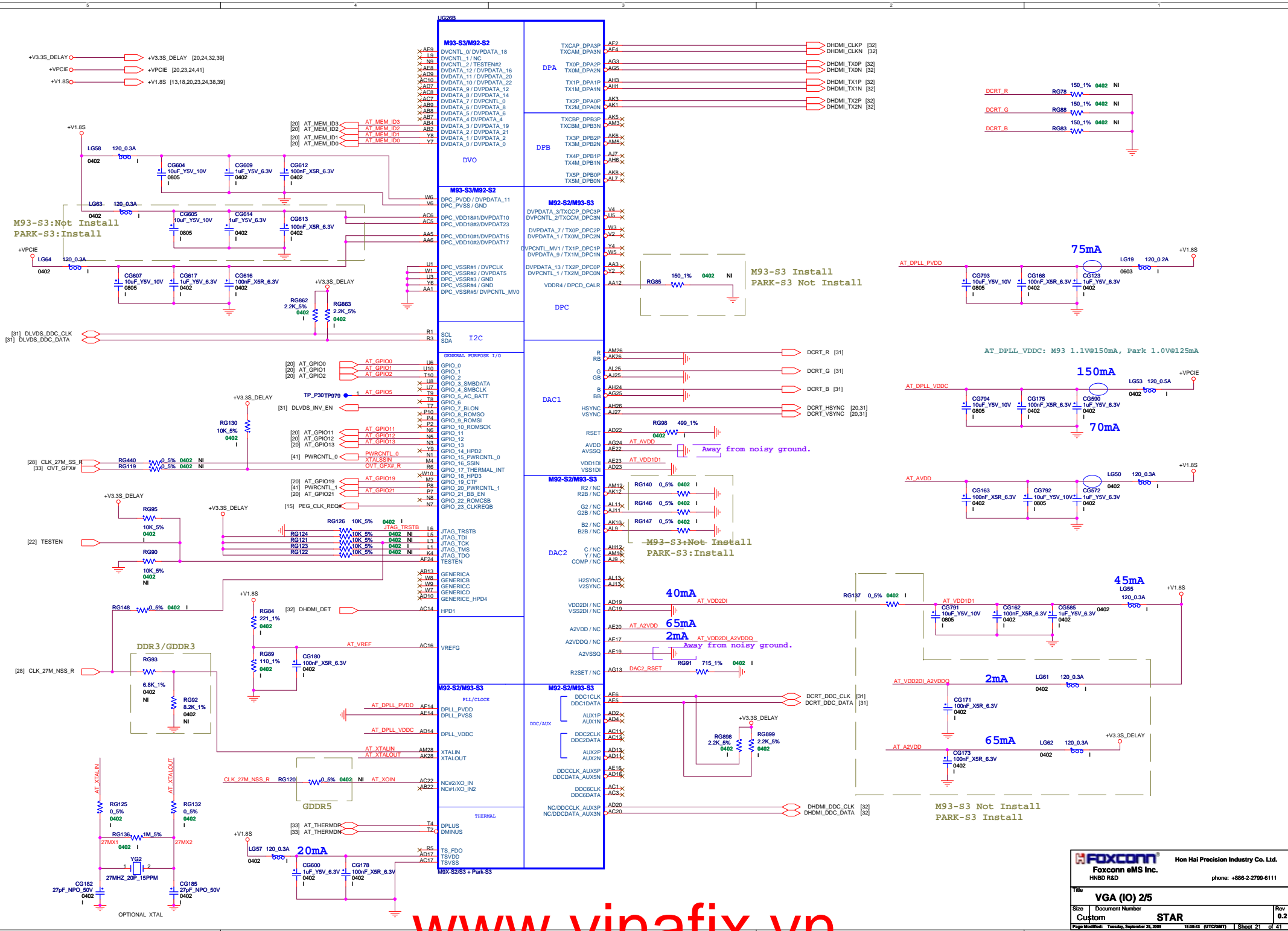
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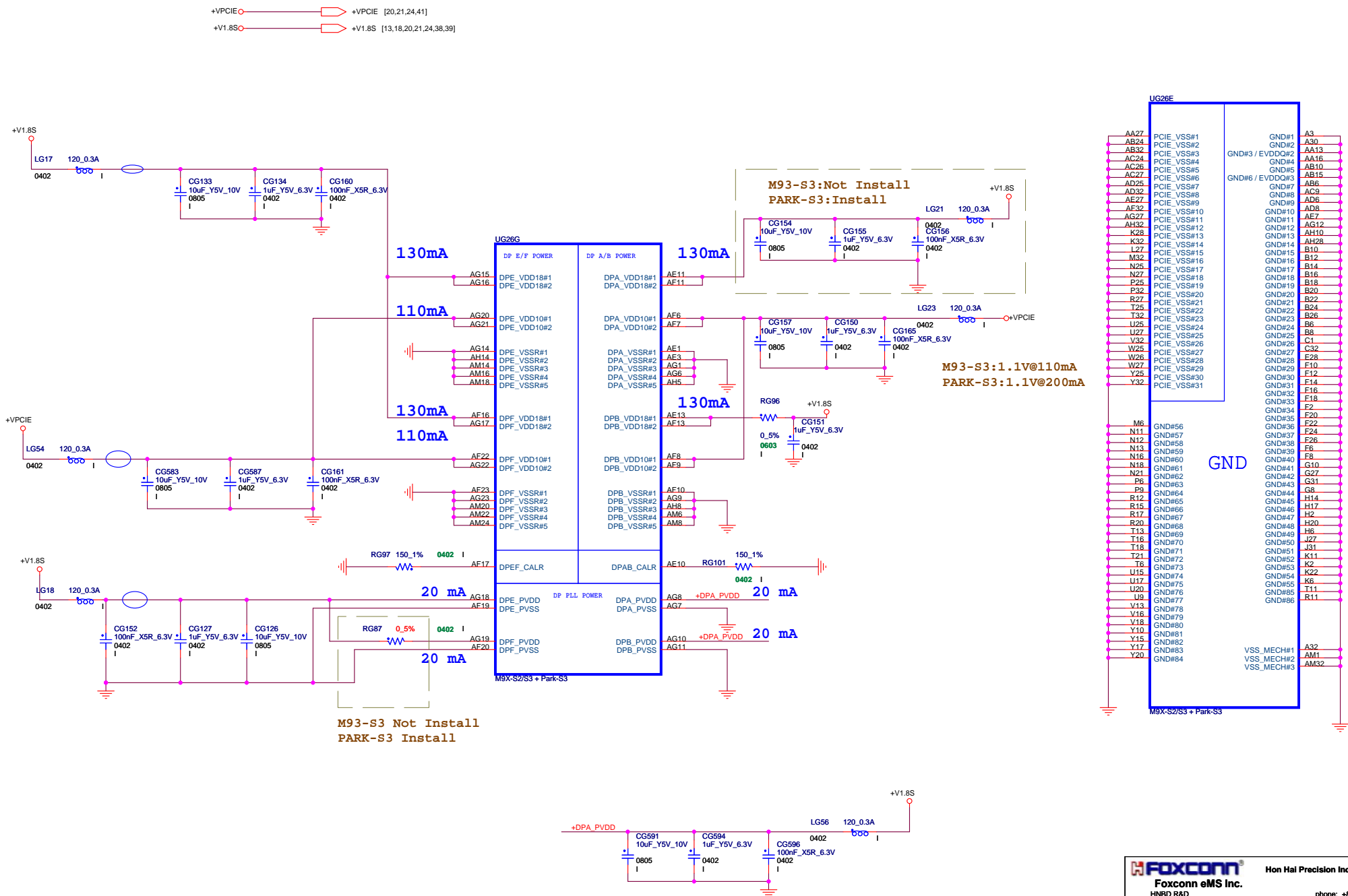
Rev

0.2

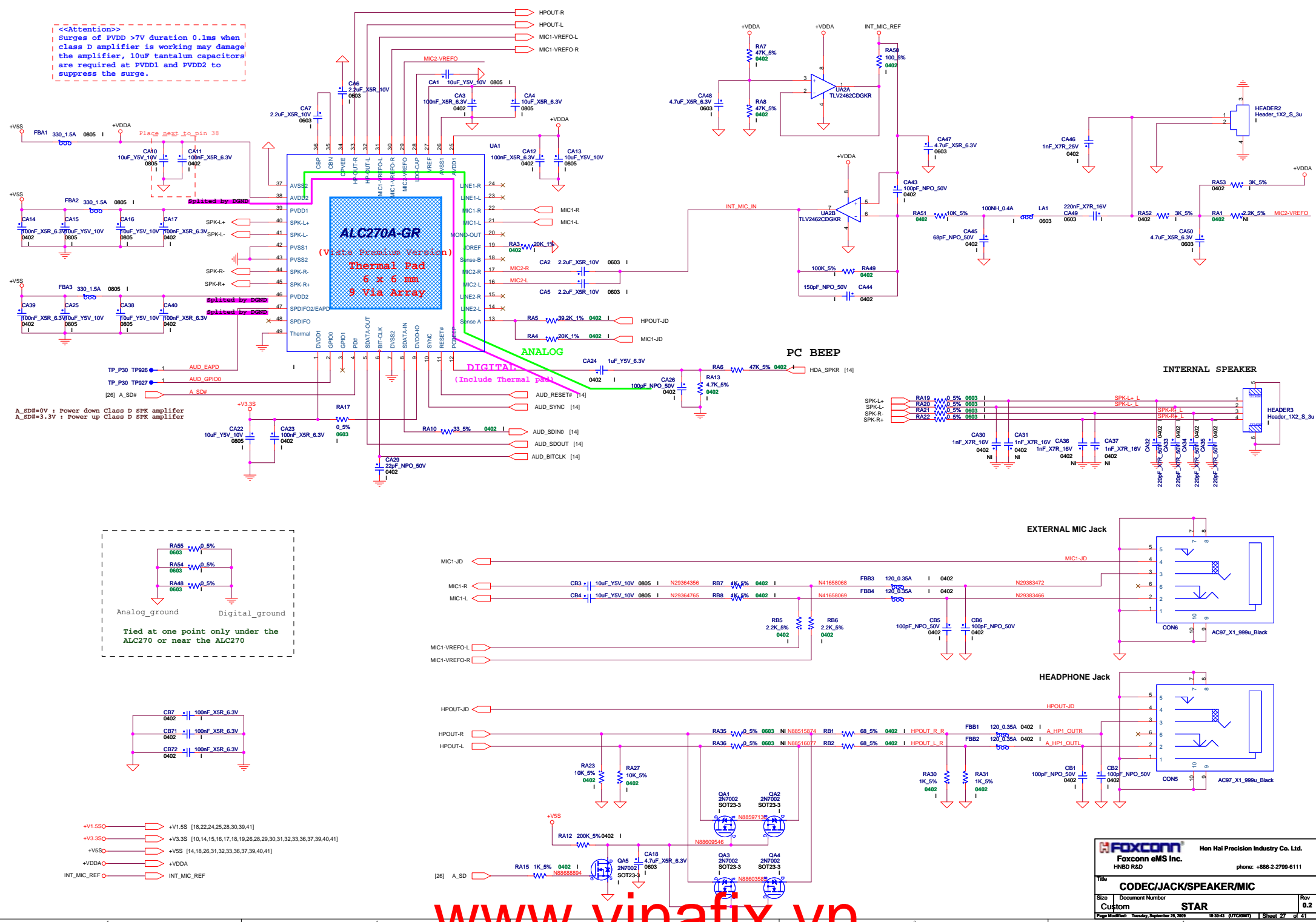


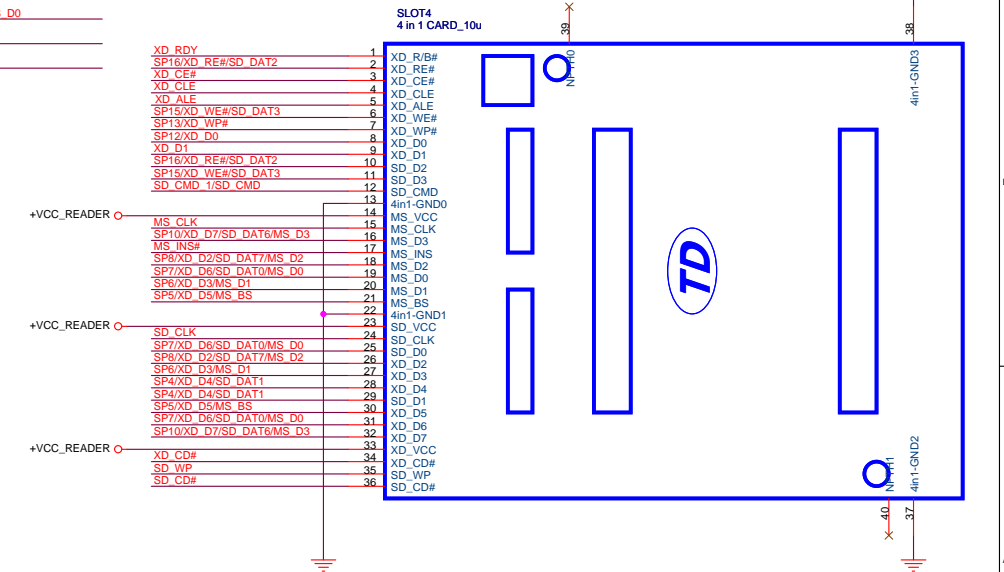
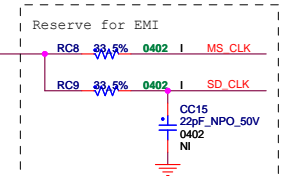






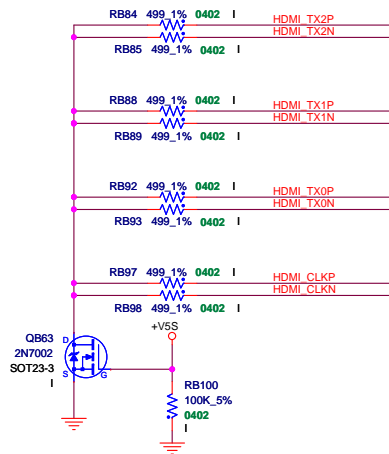
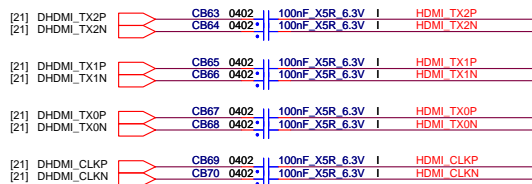
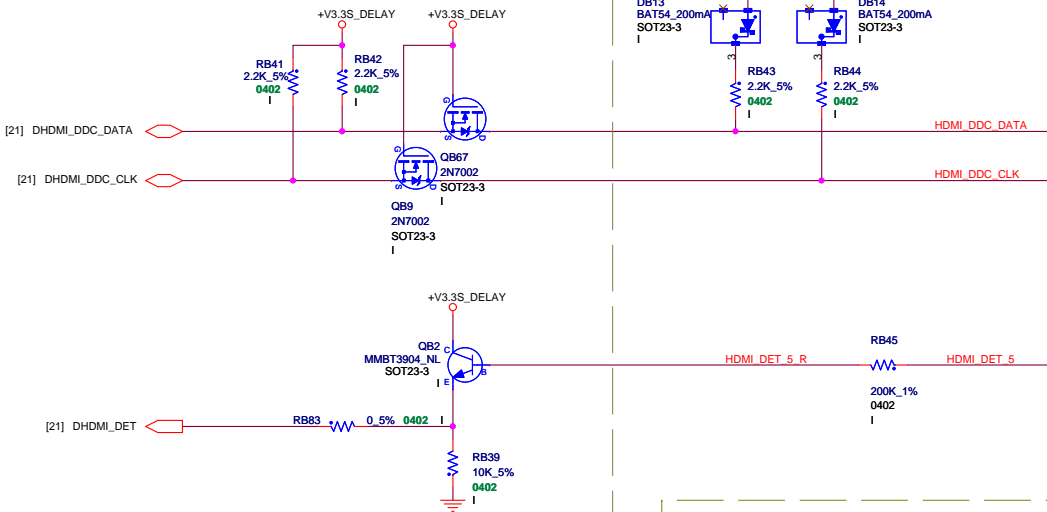




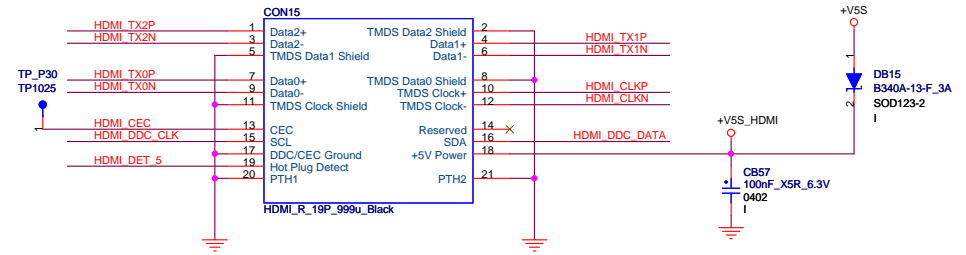
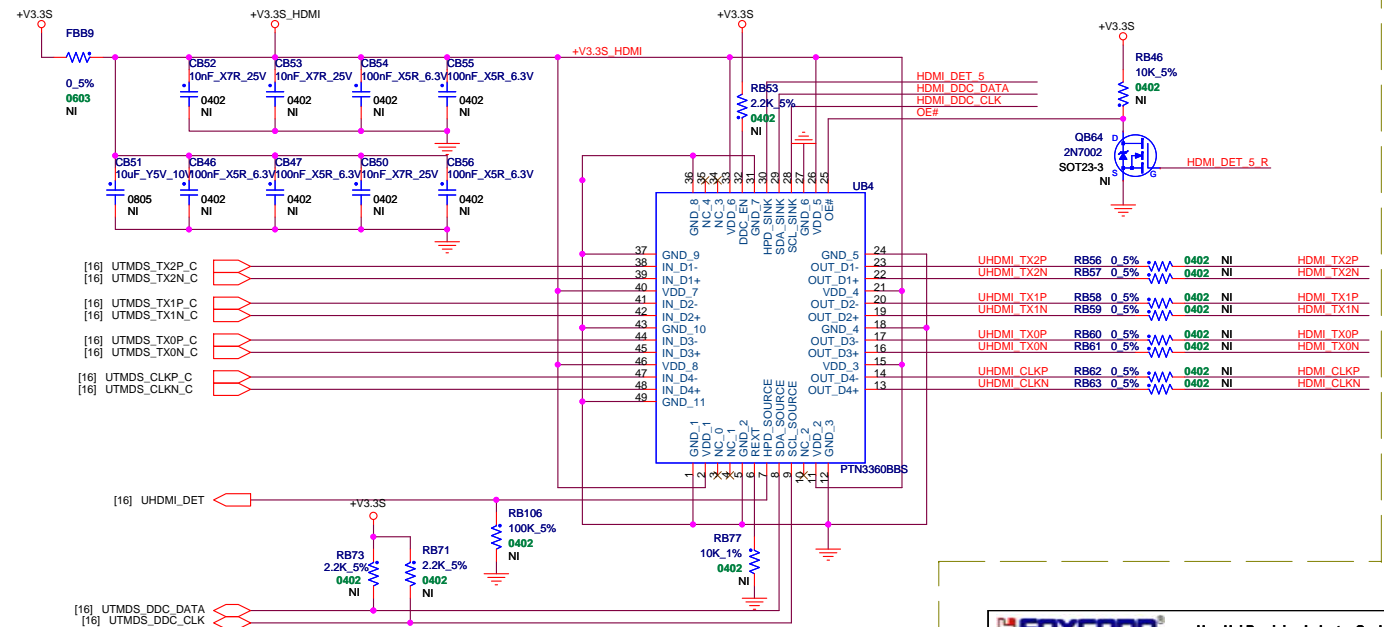




Discrete GPU: Install
UMA: Not Install



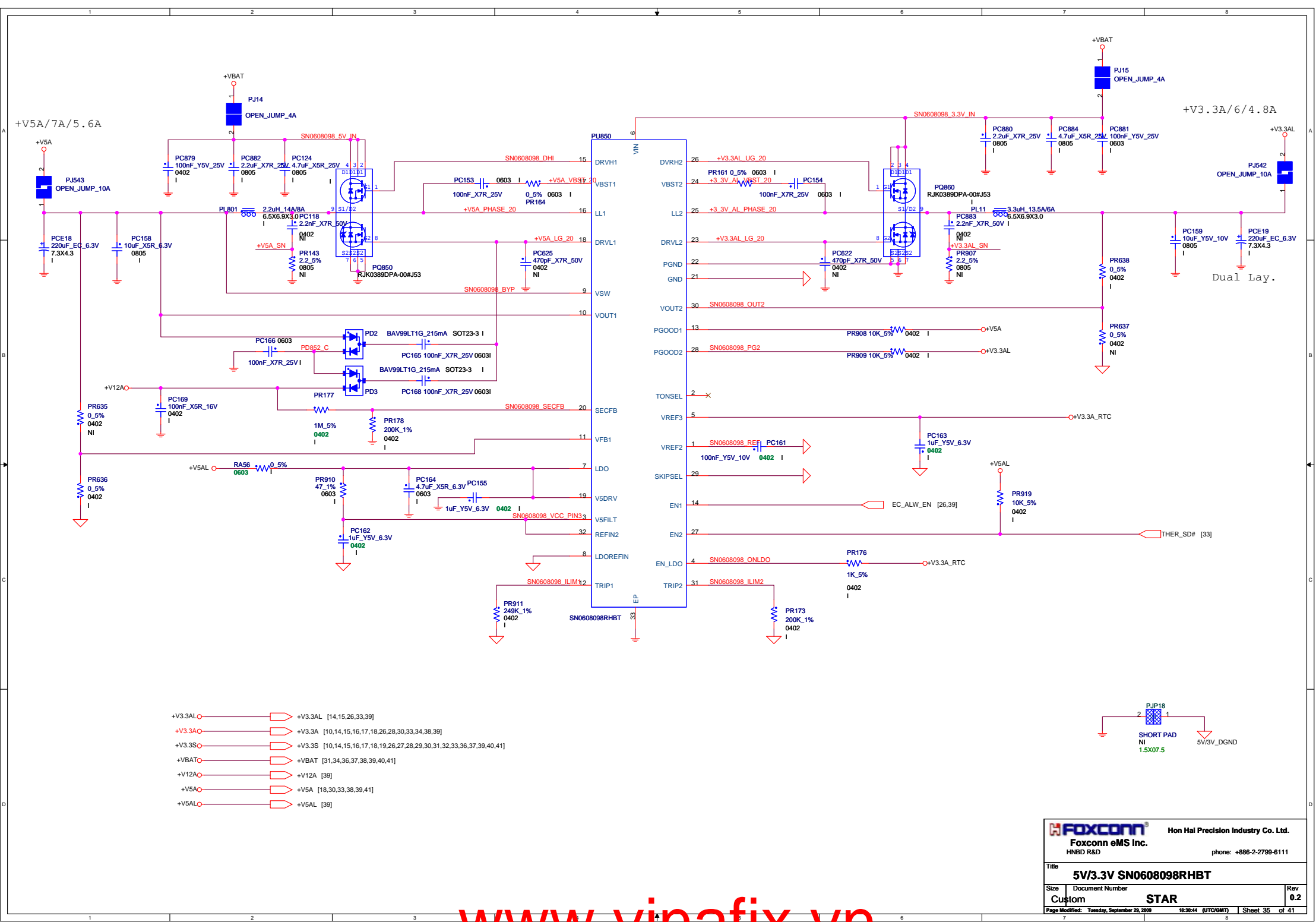
Discrete GPU:Not Install
UMA:Install



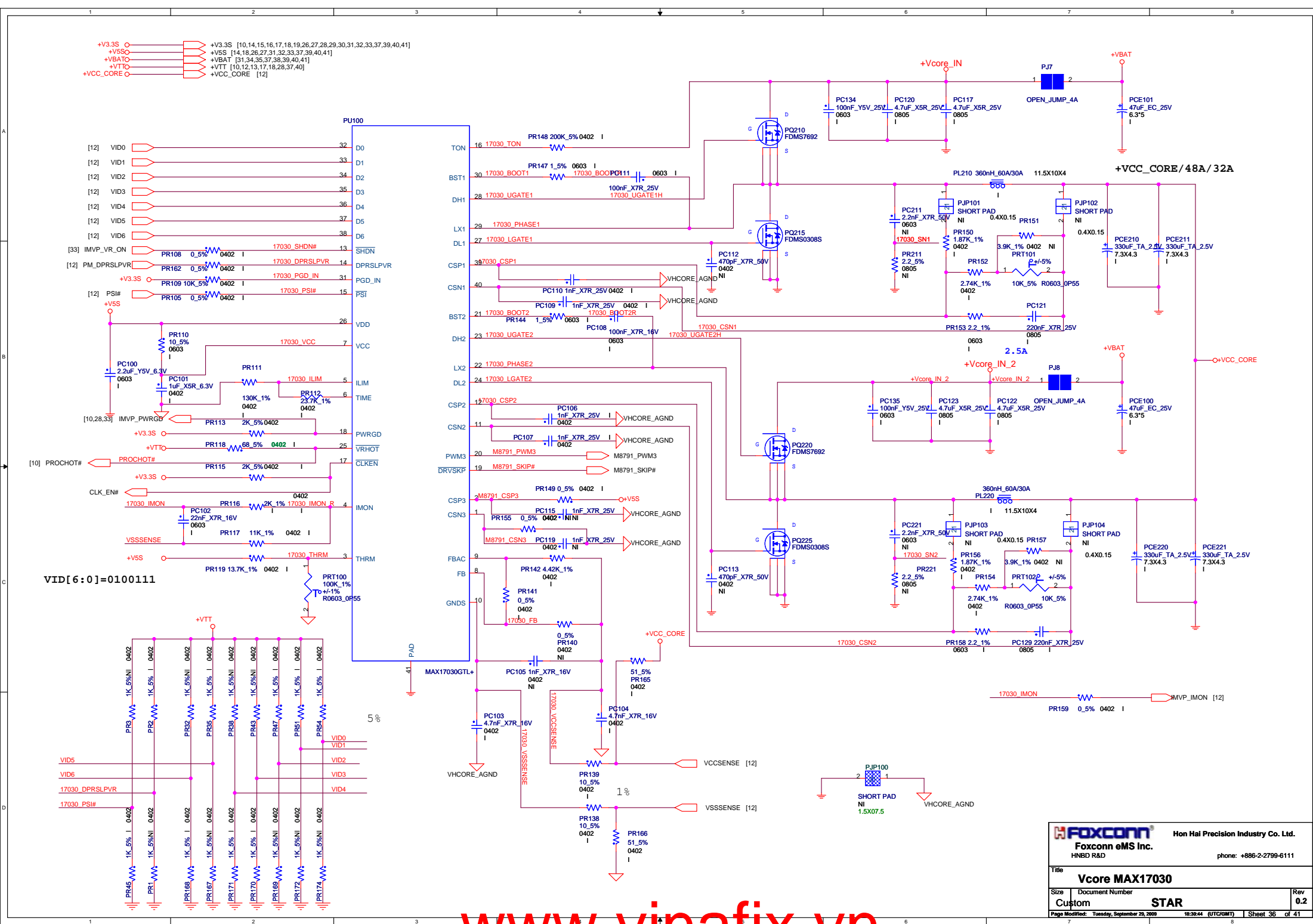
HDMI spec: +5V:4.7V min , 55mA max.


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Title

Vcore MAX17030

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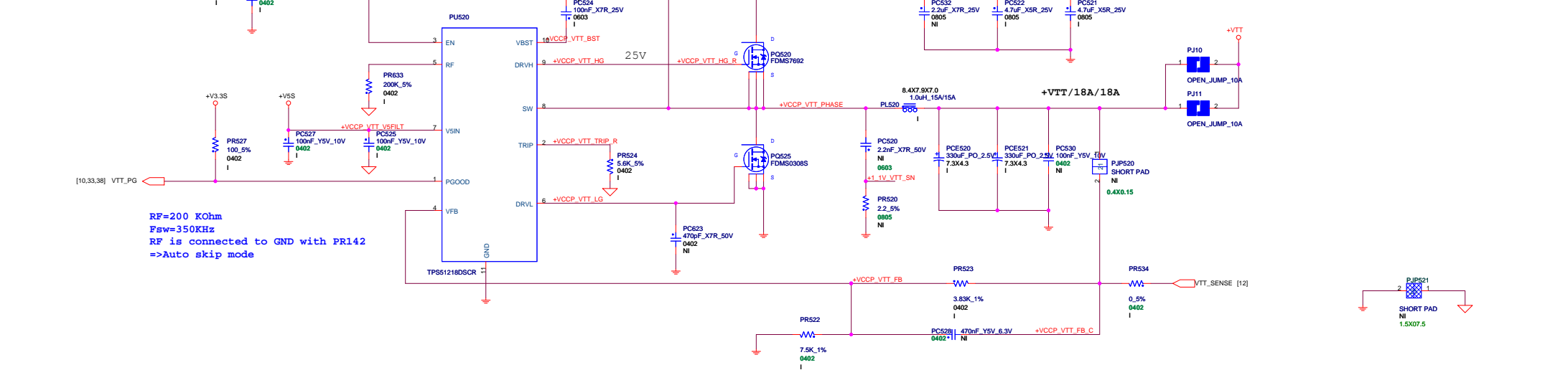
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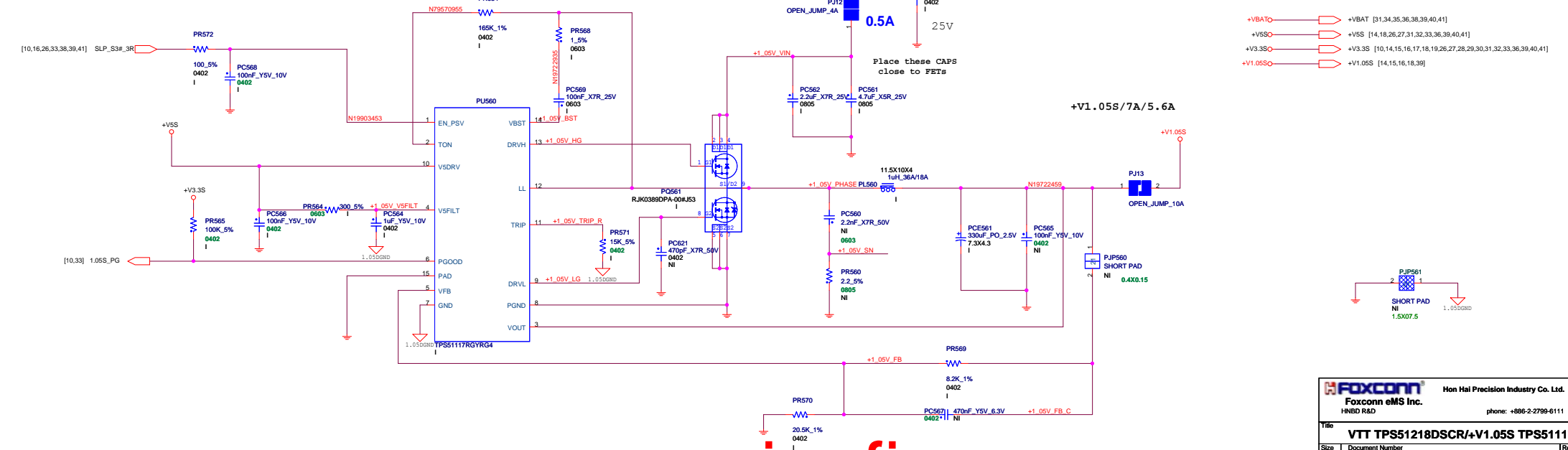
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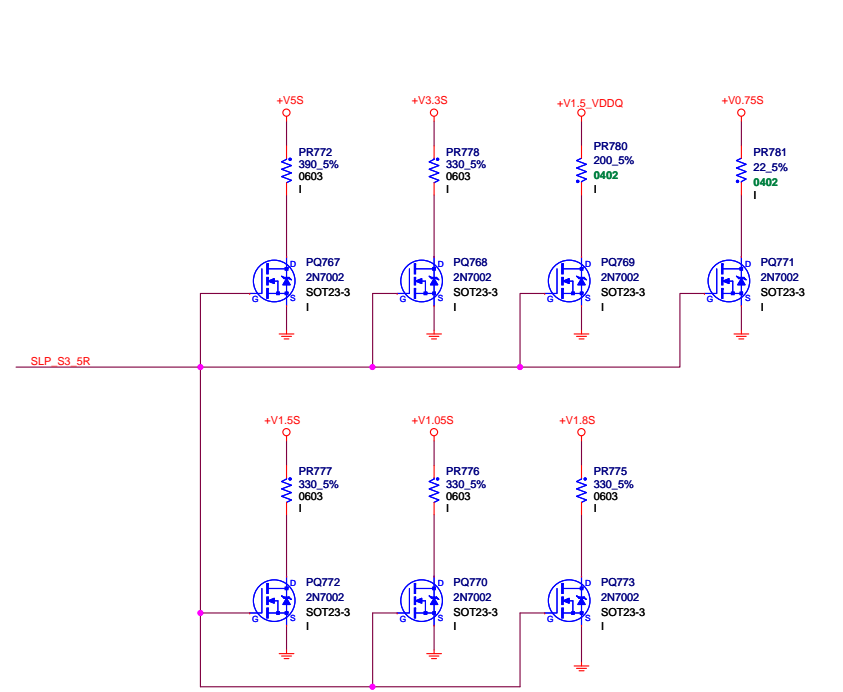
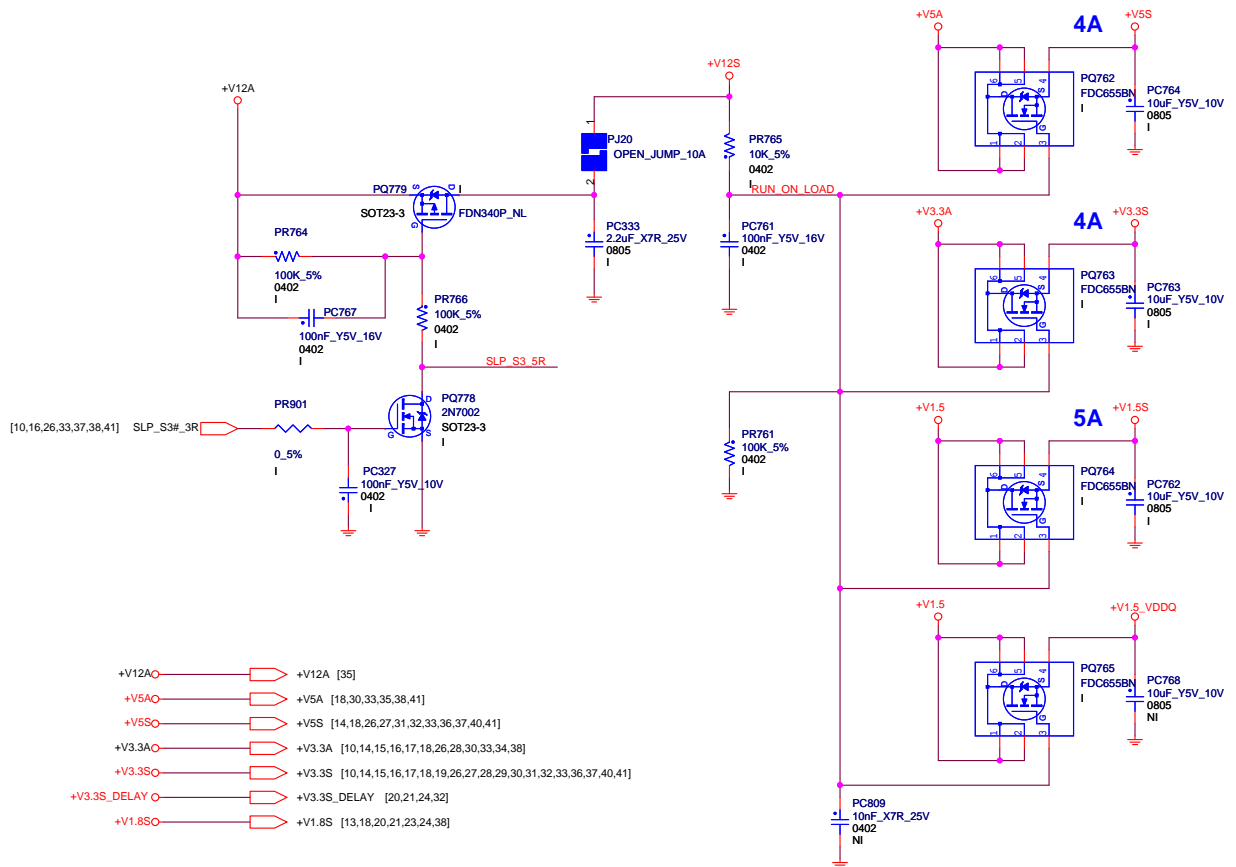
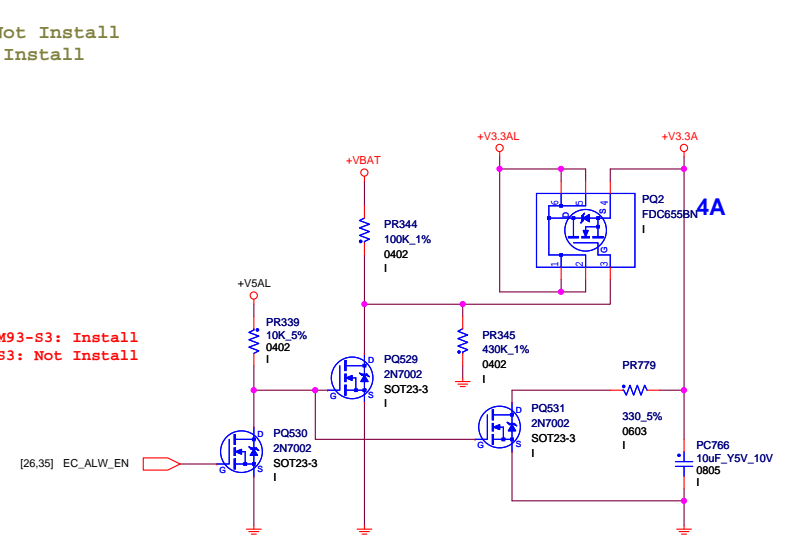
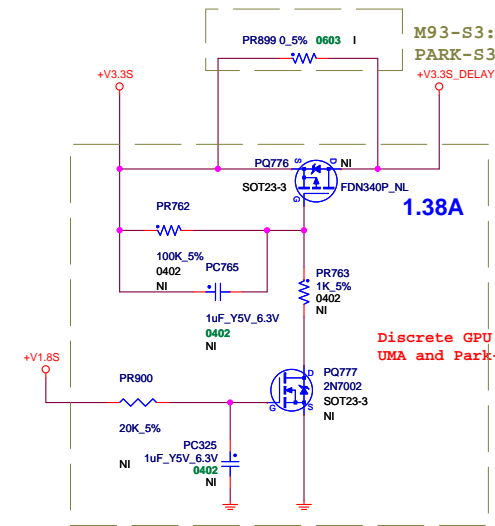
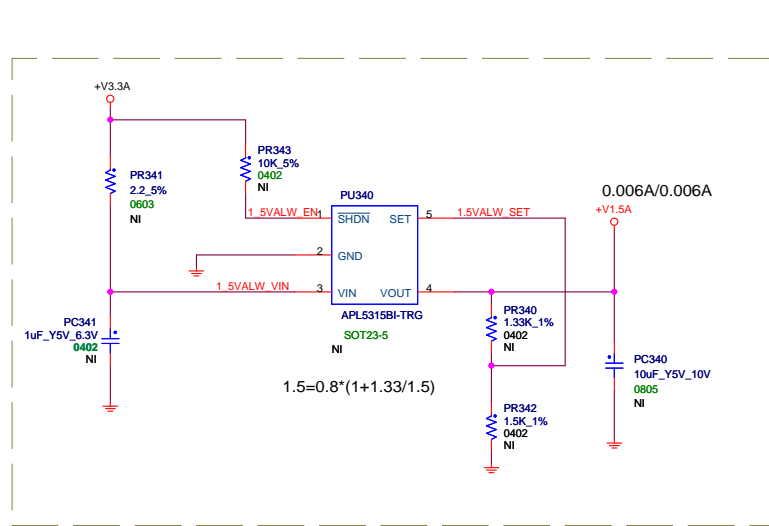
0.2

+VTT TPS51218



+V1.05S TPS51117





- +V12A [35]
- +V5A [18,30,33,35,38,41]
- +V5S [14,18,26,27,31,32,33,36,37,40,41]
- +V3.3A [10,14,15,16,17,18,26,28,30,33,34,38]
- +V3.3S [10,14,15,16,17,18,19,26,27,28,29,30,31,32,33,36,37,40,41]
- +V3.3S_DELAY [20,21,24,32]
- +V1.8S [13,18,20,21,23,24,38]

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Title **PWR_OTHER Power**

Size Document Number **Custom STAR** Rev **0.2**

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+VGFXCORE



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| | |
|-------|----------------------------------|
| Title | CPU VREG & Decoupling |
|-------|----------------------------------|

| | | |
|---|-----------------|----------------|
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| Custom | STAR | 0.2 |
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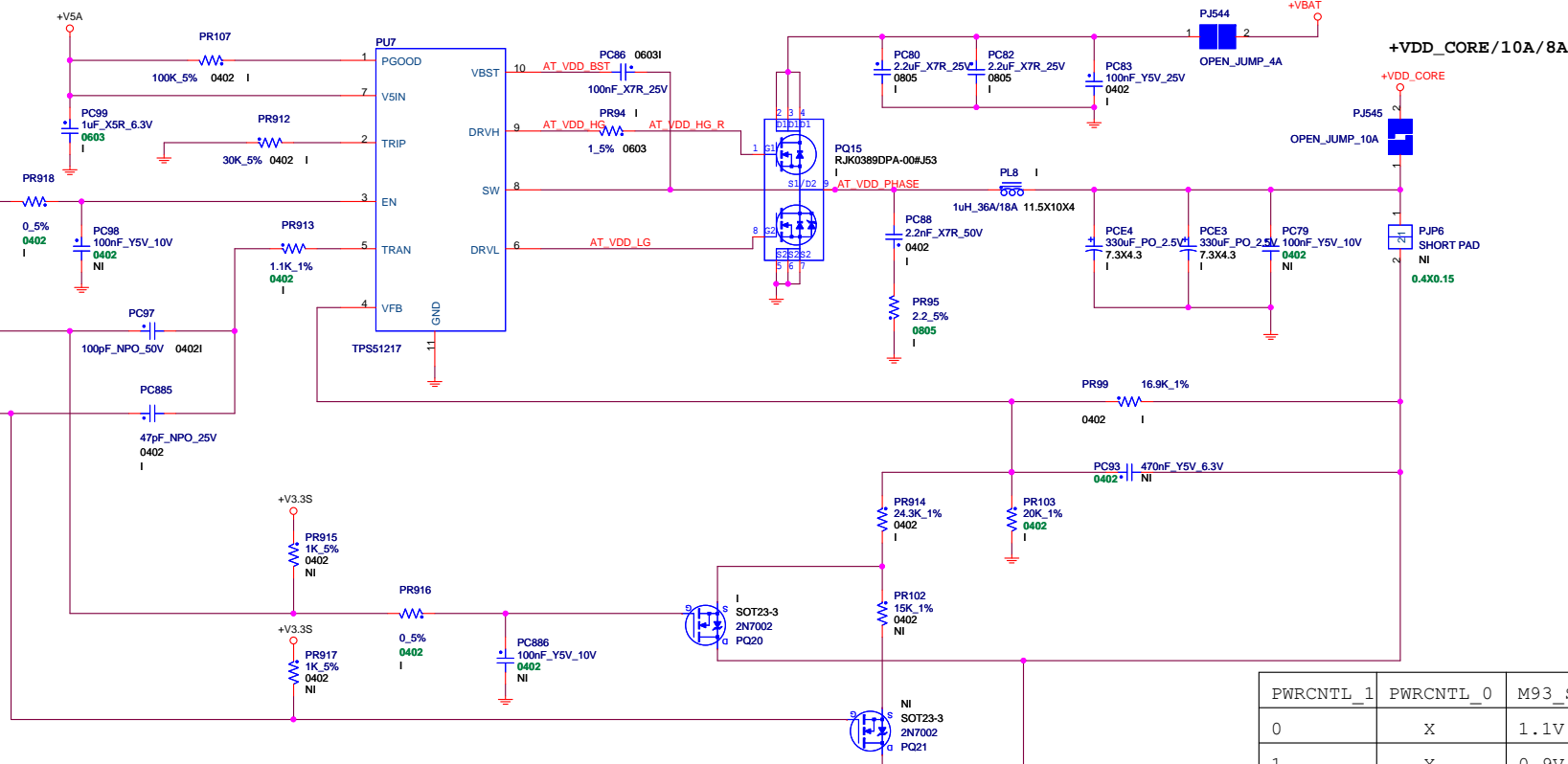
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Discrete GPU: Install
UMA: Not Install

[10,16,26,33,37,38,39] SLP_S3#_3R

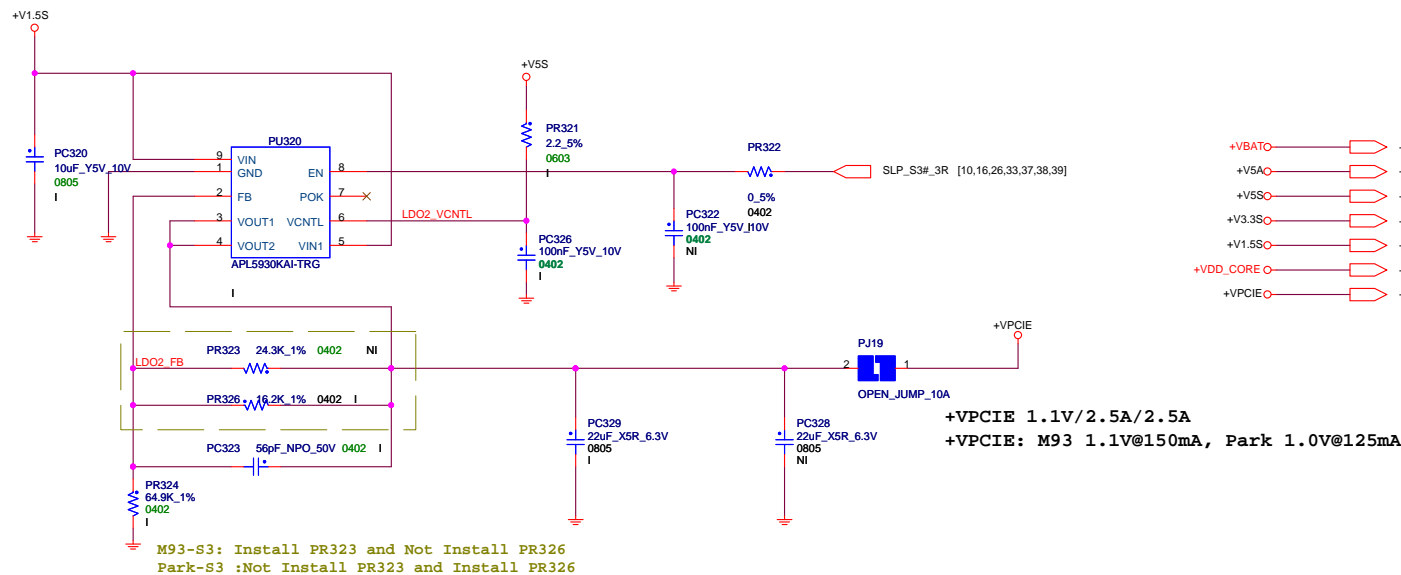
[21] PWRCNTL_1

[21] PWRCNTL_0



| PWRCNTL_1 | PWRCNTL_0 | M93_S3 | Park_S3 |
|-----------|-----------|--------|---------|
| 0 | X | 1.1V | ? |
| 1 | X | 0.9V | ? |

Discrete GPU: Install
UMA: Not Install



- +VBATO → +VBAT [31,34,35,36,37,38,39,40]
- +V5A → +V5A [18,30,33,35,38,39]
- +V5S → +V5S [14,18,26,27,31,32,33,36,37,39,40]
- +V3.3S → +V3.3S [10,14,15,16,17,18,19,26,27,28,29,30,31,32,33,36,37,39,40]
- +V1.5S → +V1.5S [18,22,24,25,28,30,39]
- +VDD_CORE → +VDD_CORE [24]
- +VPCIE → +VPCIE [20,21,23,24]

+VPCIE 1.1V/2.5A/2.5A
+VPCIE: M93 1.1V@150mA, Park 1.0V@125mA

M93-S3: Install PR323 and Not Install PR326
Park-S3 :Not Install PR323 and Install PR326

| | | | |
|--|-------------|---|-------------------|
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| Title ATVDD/+VPCIE | | | |
| Size Document Number Custom | STAR | | Rev 0.2 |
| Page Modified: Tuesday, September 29, 2009 18:30:45 (UTC/GMT) Sheet 41 of 41 | | | |