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19	VGA (GDDR) # 4/9	1.0	09'07'27	56	SYS Power(+1 5V/+1 05V)	1.0	09'07'27
20	VGA (CRT)5/9	1.0	09'07'27	57	DDR2 Power(+1 8V/+0 9V)	1.0	09'07'27
21	VGA (LVDS/TMDS) 6/9	1.0	09'07'27	58	CPU Vcore---ISL6266A	1.0	09'07'27
22	VGA (XTAL/GPIO) 7/9	1.0	09'07'27	59	Others power plane	1.0	09'07'27
23	VGA (INTER DISPLAY) 8/9	1.0	09'07'27	60	OVP protection	1.0	09'07'27
24	VGA (POWER/GROUND) 9/9	1.0	09'07'27	61	VGA Power(NV VDD)	1.0	09'07'27
25	VRAM (GDDR3) 1/2	1.0	09'07'27	62	Audio (CODEC & POWER)	1.0	09'07'27
26	VRAM (GDDR3) 2/2	1.0	09'07'27	63	Audio (HP)	1.0	09'07'27
27	VRAM (BYPASS) 1/2	1.0	09'07'27	64	Audio (SPKR)	1.0	09'07'27
28	VRAM (BYPASS) 2/2	1.0	09'07'27	65	Audio (MUTE)	1.0	09'07'27
29	CRT	1.0	09'07'27	66	Audio+USB DB CONN	1.0	09'07'27
30	LVDS	1.0	09'07'27	67	Audio (HP, MIC Jack)	1.0	09'07'27
31	HDMI	1.0	09'07'27	68	USB 2.0	1.0	09'07'27
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34	ICH9-M (GPIO) 3/5	1.0	09'07'27	71	History (1)	1.0	09'07'27
35	ICH9-M (POWER) 4/5	1.0	09'07'27	72	History (2)	1.0	09'07'27
36	ICH9-M (GND) 5/5	1.0	09'07'27	73	History (3)	1.0	09'07'27
37	EC+KBC (WPCE775L)	1.0	09'07'27	74	History (4)	1.0	09'07'27

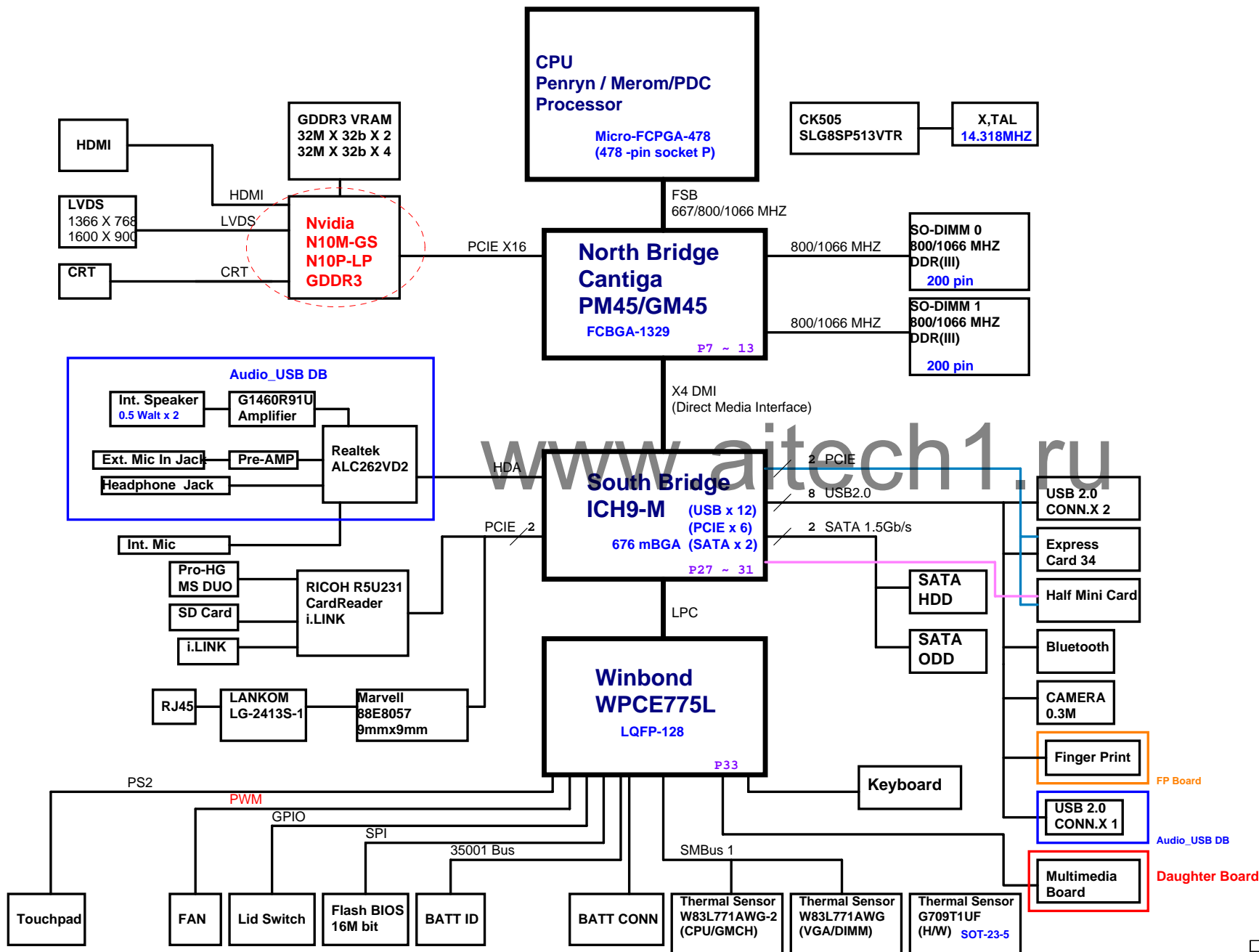
Project Code & Schematics Subject: M870 Main Board_8L

PCB P/N: (IRIS) :1P-0097J00-8010
(HANNSTAR) :1P-0097500-8010A/B P/N: (IRIS) :1P-1097J02-8010
(HANNSTAR) :1P-1097500-8010FU/B P/N: (IRIS) :1P-1097J00-8010
(HANNSTAR) :1P-1097503-8010Ch/B P/N: (IRIS) :1P-1097J01-8010
(HANNSTAR) :1P-1097501-8010
(IRIS) :1P-1097J03-8010

FP/B P/N: (HANNSTAR) :1P-1097502-8010

P. Leader	Check by	Design by
FOXCONN HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title Index Page		
Size Custom	Document Number M870-1-01	Rev 1.0
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M870(Montevina N10M/N10P-LP)



TI CHARGER BQ24753 P.54	
OUTPUTS	
DC_IN	BT+ DCBATOUT

SYSTEM DC/DC MAX17020ETJ+ P.55	
INPUTS	OUTPUTS
DCBATOUT	+5VALW +5VALW_LDO +3VALW +ECVCC +12V

SYSTEM DC/DC SC412 P.56	
INPUTS	OUTPUTS
DCBATOUT	+1_5VRUN +1_05VRUN

SYSTEM DC/DC SC412+G2998 P.57	
INPUTS	OUTPUTS
DCBATOUT	+1_8VSUS +0_9VRUN

CPU DC/DC ISL6266A P.58	
INPUTS	OUTPUTS
DCBATOUT	VHORE

SYSTEM DC/DC SC411+APL5913 P.61	
INPUTS	OUTPUTS
DCBATOUT	NV_VDD +1_5VRUN PEX_VDD

7 H_A# [3..35]

7 H_ADSTB#0
7 H_REQ# [4..0]

7 H_ADSTB#1

33 H_A20M#

33 H_FERR#

33 H_IGNNE#

33 H_STPCLK#

33 H_INTR#

33 H_NMI#

33 H_SMI#

TP15 20MIL 1 TP CPU RSVD01 M4
TP18 20MIL 1 TP CPU RSVD02 N5
TP7 20MIL 1 TP CPU RSVD03 T2
TP11 20MIL 1 TP CPU RSVD04 V3
TP5 20MIL 1 TP CPU RSVD05 B2
TP14 20MIL 1 CPU TEST7 C3
TP6 20MIL 1 TP CPU RSVD07 D2
TP25 20MIL 1 TP CPU RSVD08 D22
TP10 20MIL 1 TP CPU RSVD09 D3
TP19 20MIL 1 TP CPU RSVD10 F6



37.44.58 OVT_EC#

CPU SOCKET_478P
FOX_P24782A-274M-01

U26A
ADDR GROUP 0
ADDR GROUP 1
XDP/TP SIGNALS
RESERVED

ADDR GROUP 0

CONTROL

ADDR GROUP 1

THERMAL

H CLK

RESERVED

ADDR GROUP 0

CONTROL

ADDR GROUP 1

THERMAL

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CONTROL

ADDR GROUP 1

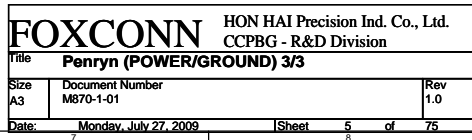
THERMAL

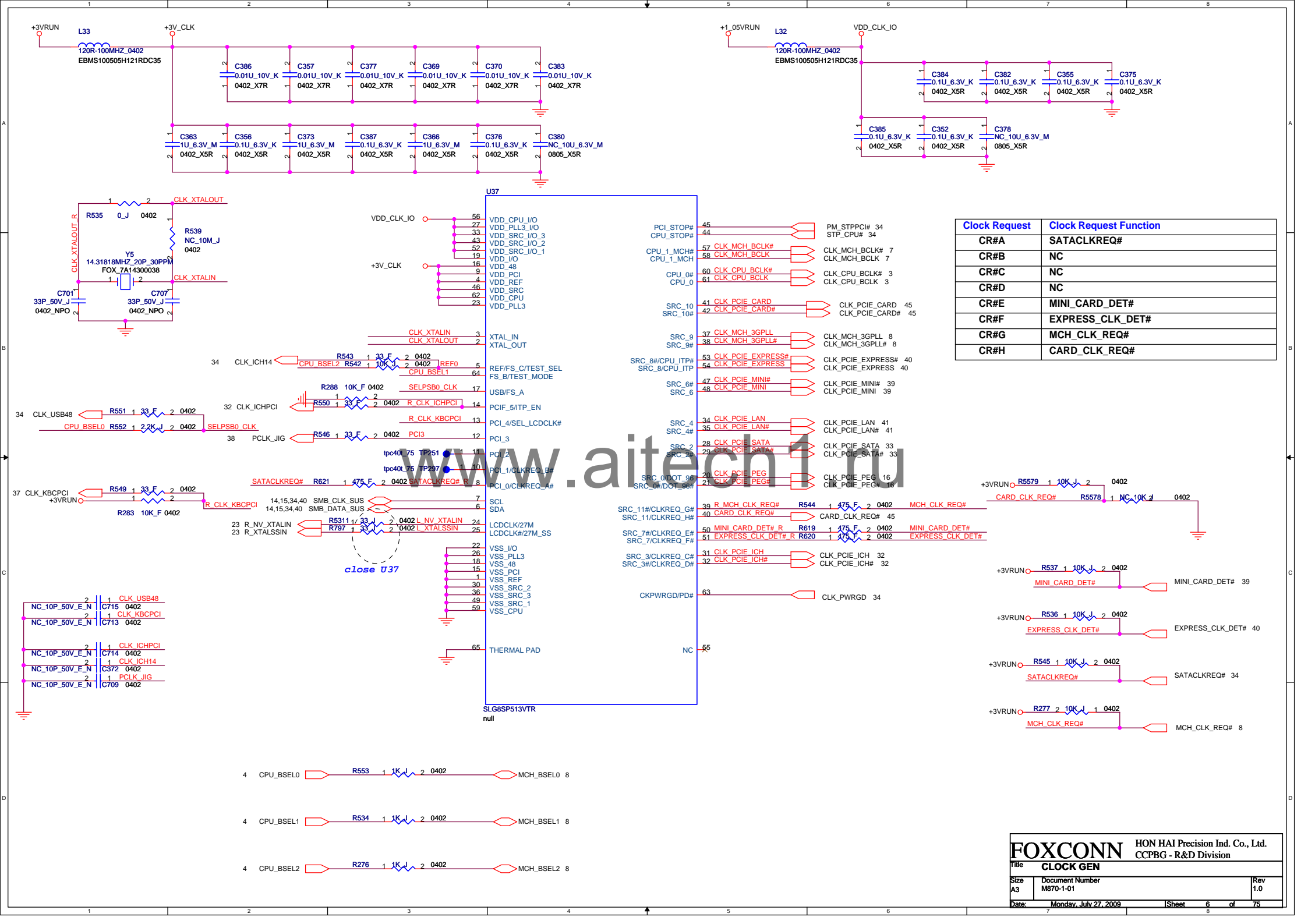
H CLK

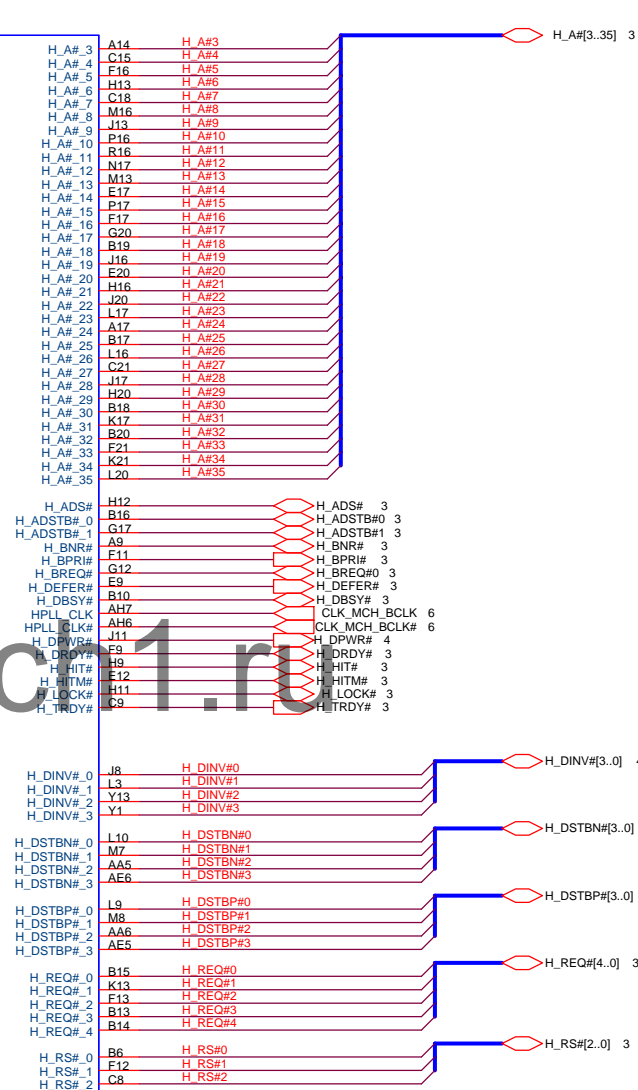
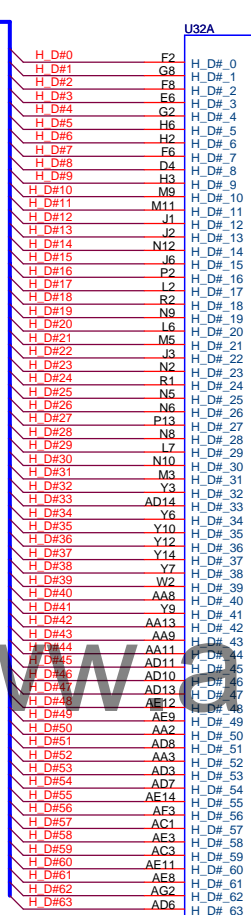
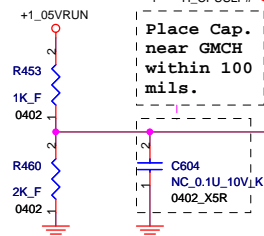
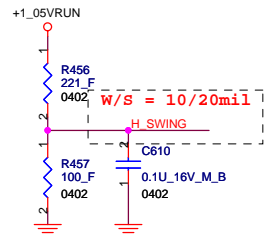
RESERVED

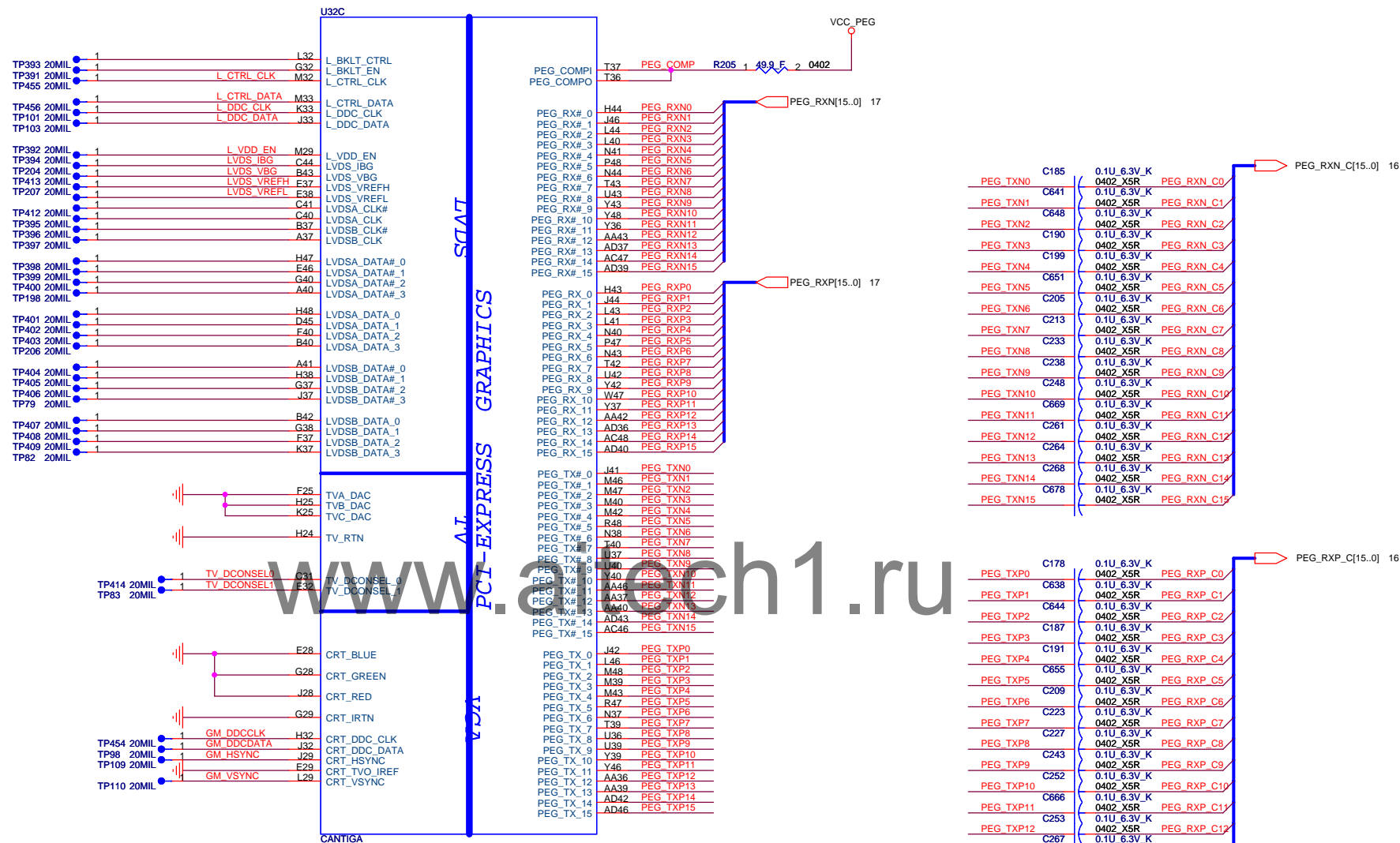
ADDR GROUP 0

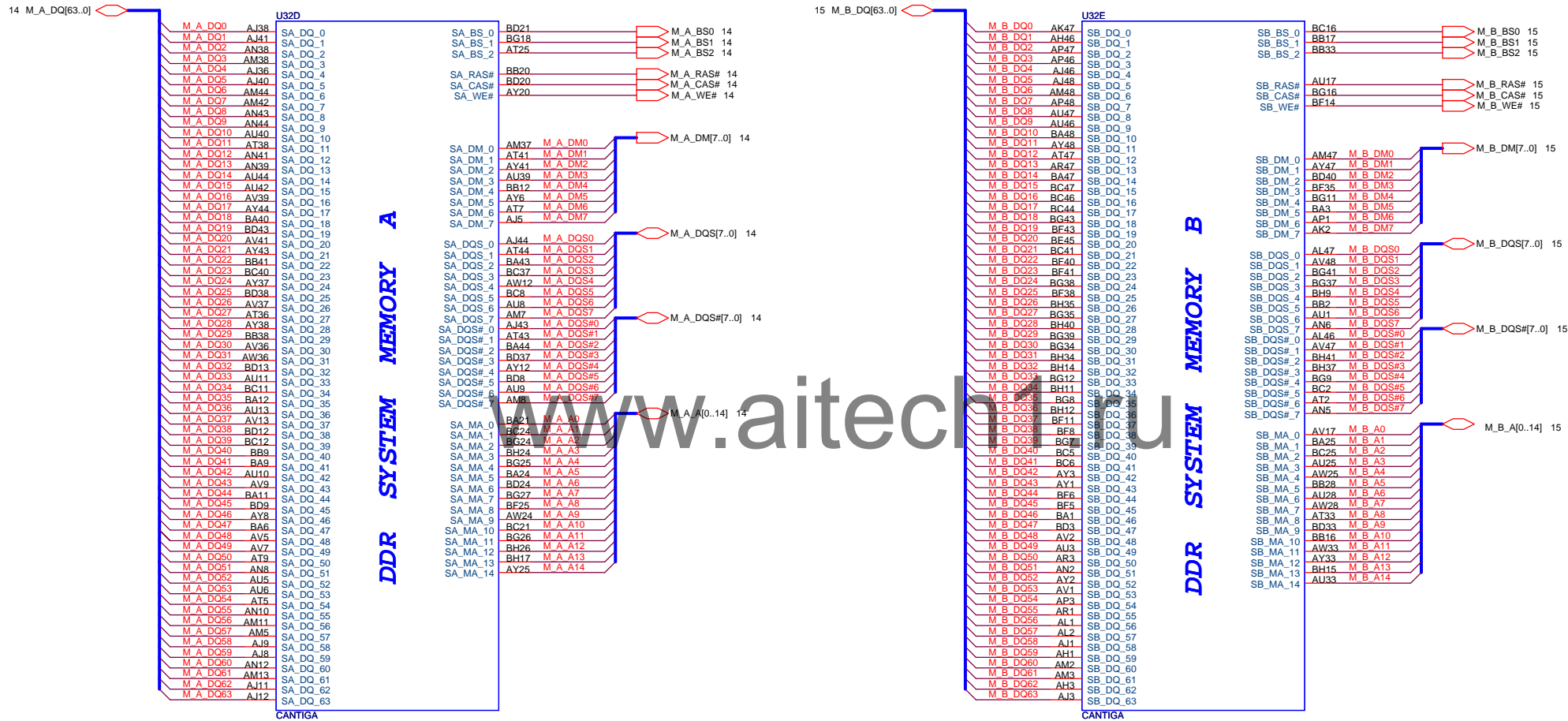
CONTROL

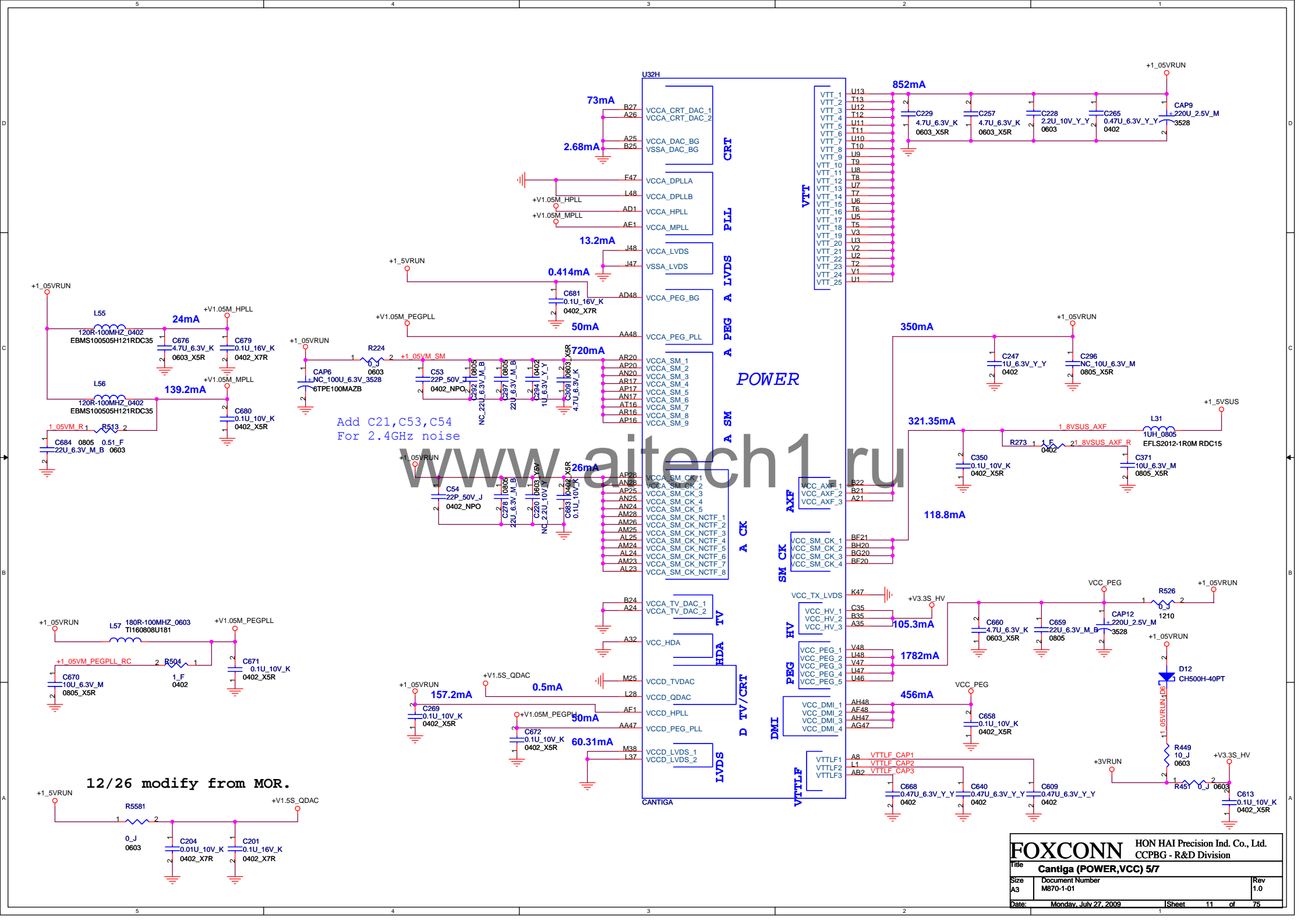


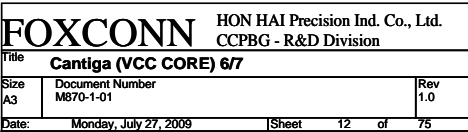


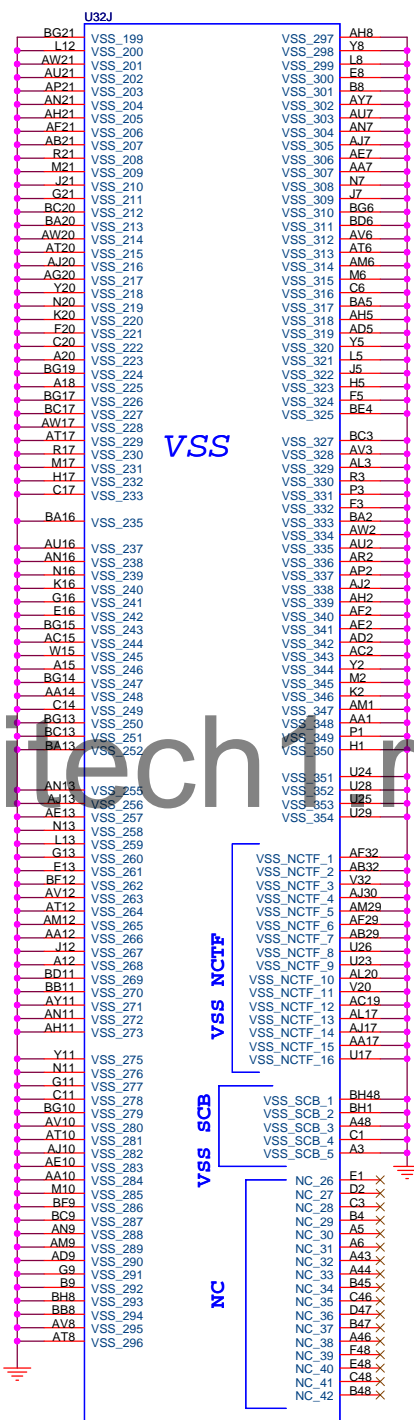
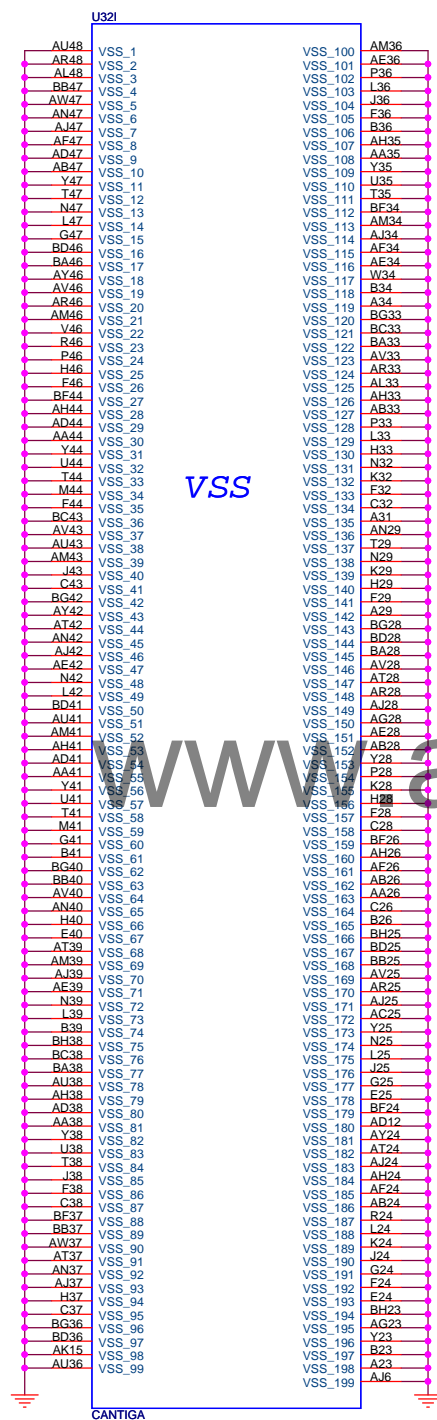


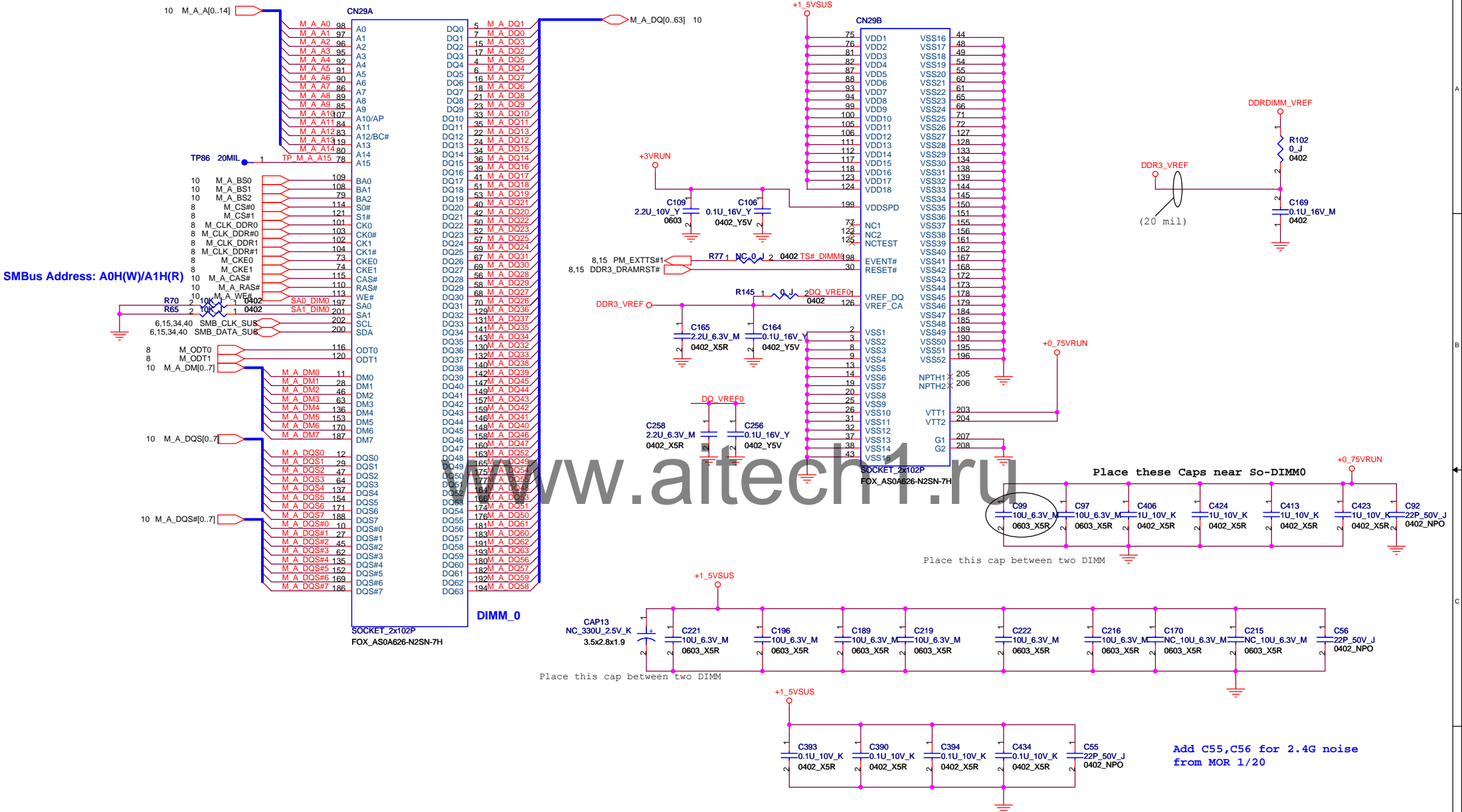


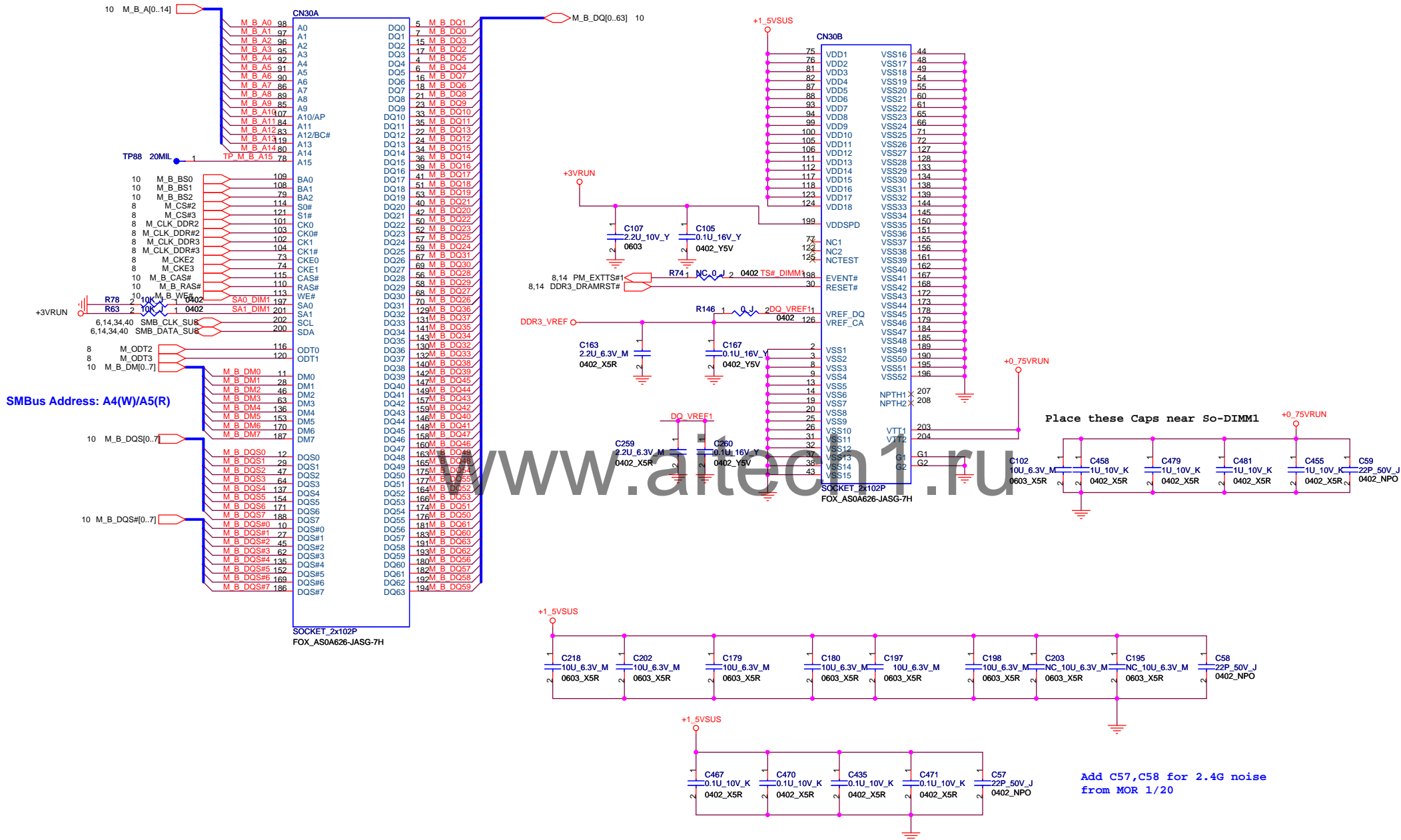


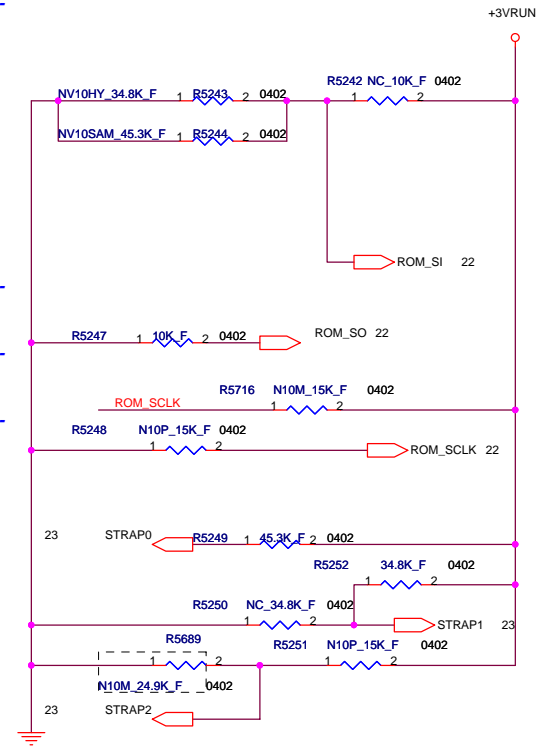
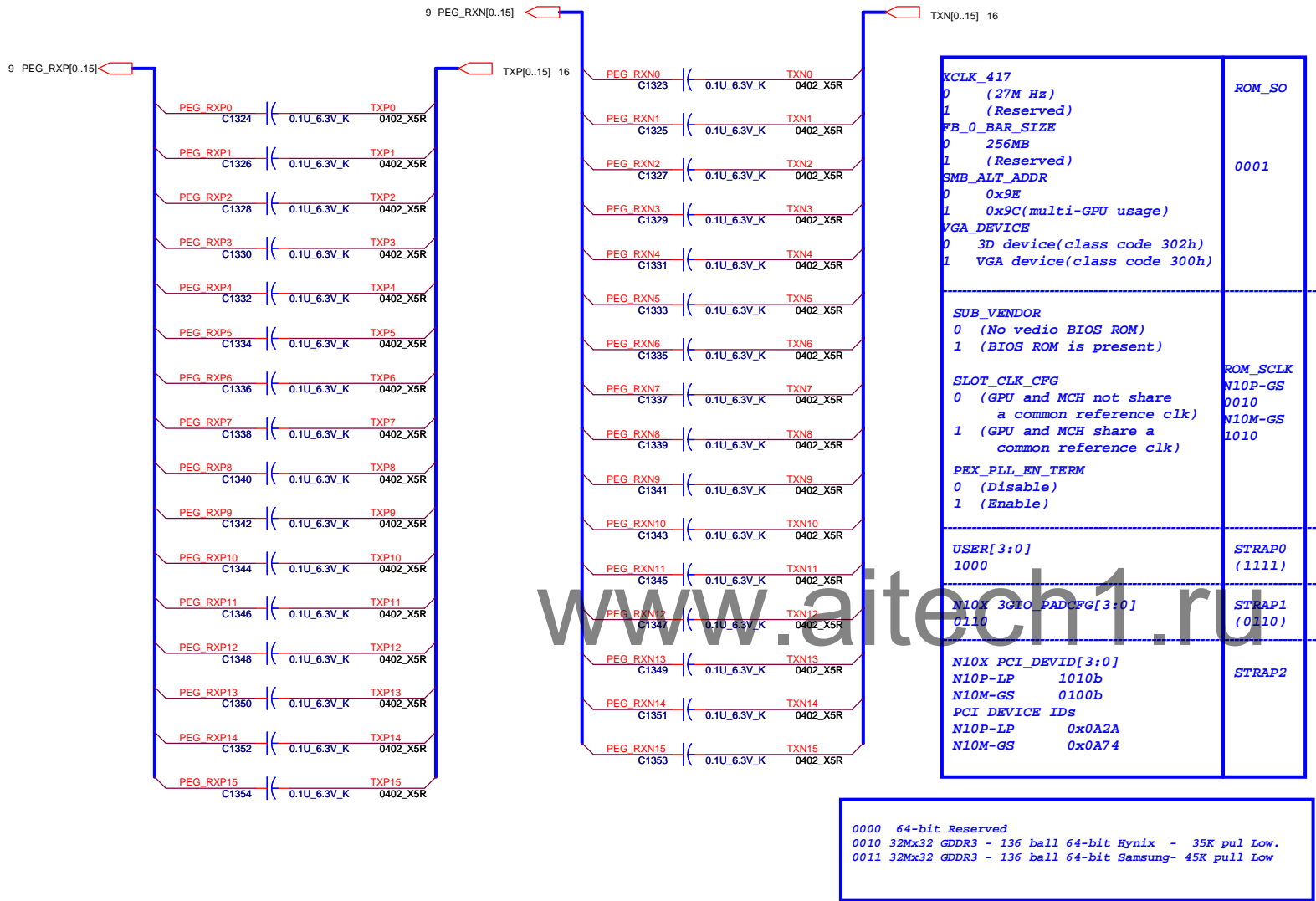












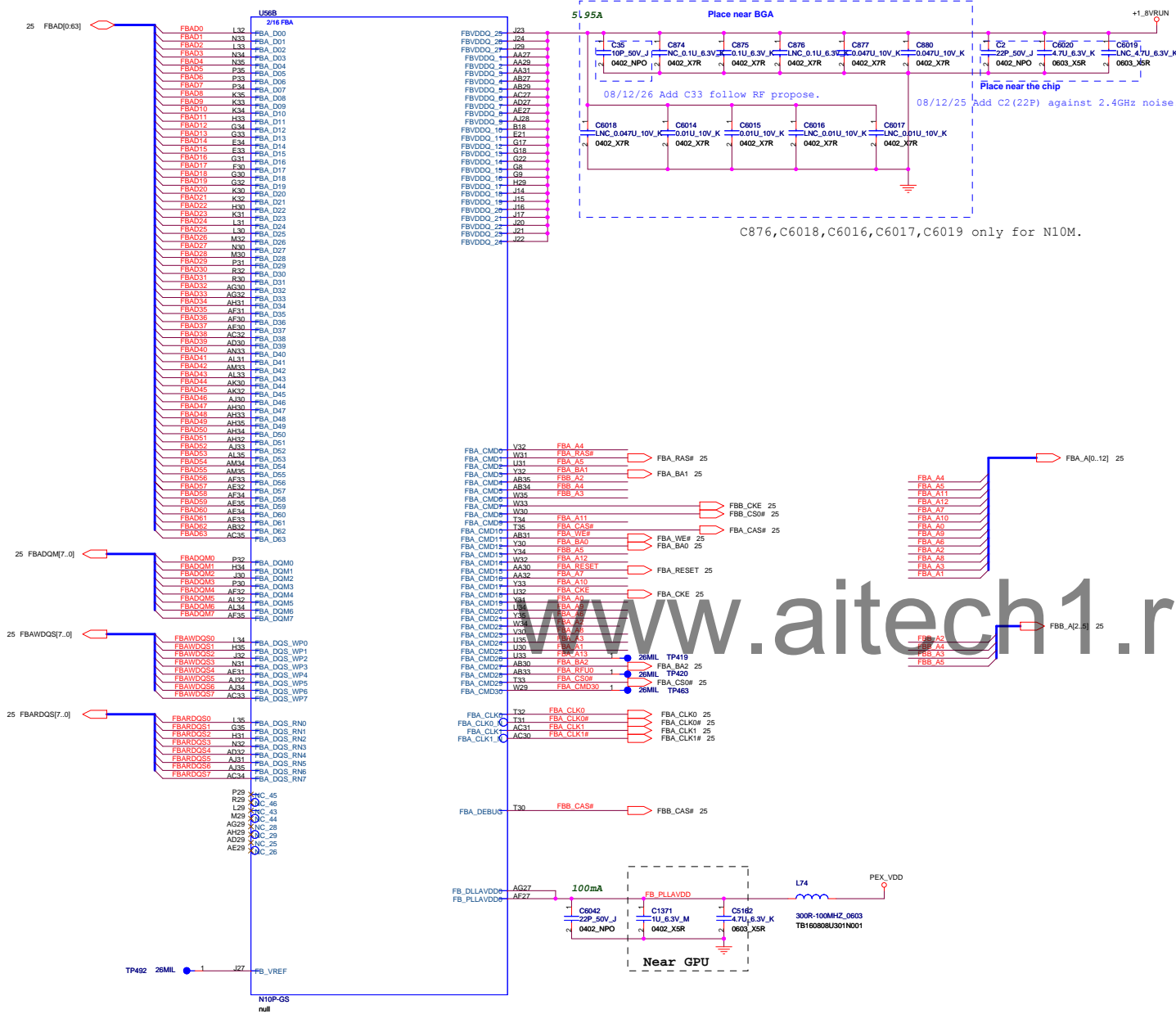
Logical Strap bit Mapping

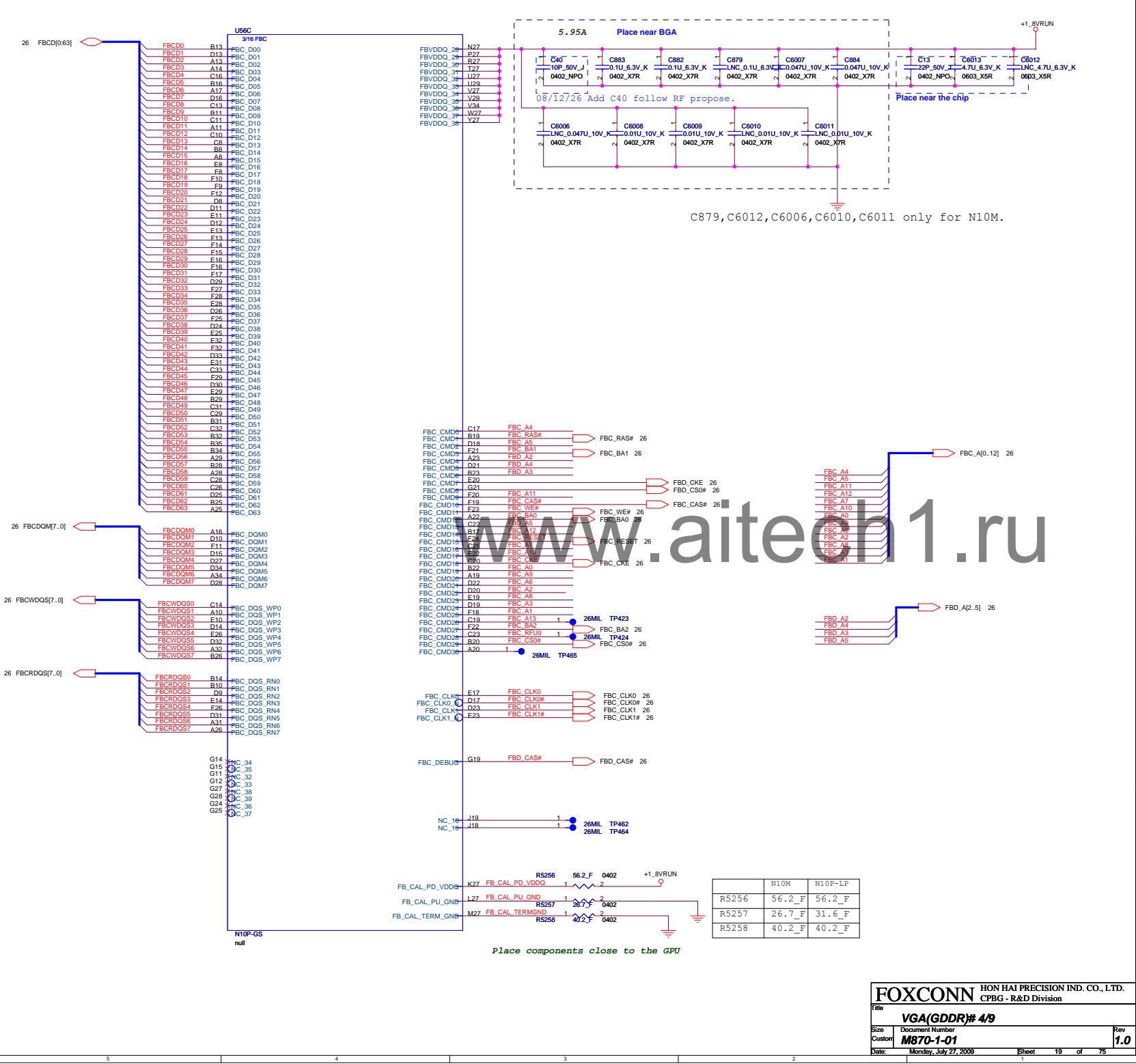
Resistor values	Pull-up to VDD	Pull-down to GND
5KΩ	1000	0000
10KΩ	1001	0001
15KΩ	1010	0010
20KΩ	1011	0011
25KΩ	1100	0100
30KΩ	1101	0101
35KΩ	1110	0110
45KΩ	1111	0111

Strap Options

Physical Strapping pin	Power Rail	Logical Strapping pin3	Logical Strapping pin2	Logical Strapping pin1	Logical Strapping pin0
ROM_SI	+3VRUN	RAMCFG[3]	RAMCFG[2]	RAMCFG[1]	RAMCFG[0]
ROM_SO	+3VRUN	XCLK_417	FB_0_BAR_SIZE	SMB_ALT_ADDR	VGA_DEVICE
ROM_SCLK	+3VRUN	PCI_DEVID[4]	SUB_VENDOR	SLOT_CLK_CFG	PEX_PLL_EN_TERM
STRAP0	+3VRUN	USER[3]	USER[2]	USER[1]	USER[0]
STRAP1	+3VRUN	3GIO_PADCFG[3]	3GIO_PADCFG[2]	3GIO_PADCFG[1]	3GIO_PADCFG[0]
STRAP2	+3VRUN	PCI_DEVID[3]	PCI_DEVID[2]	PCI_DEVID[1]	PCI_DEVID[0]

Refer to <GB1 Family Design Guide DG-03276-001_v01_secured>





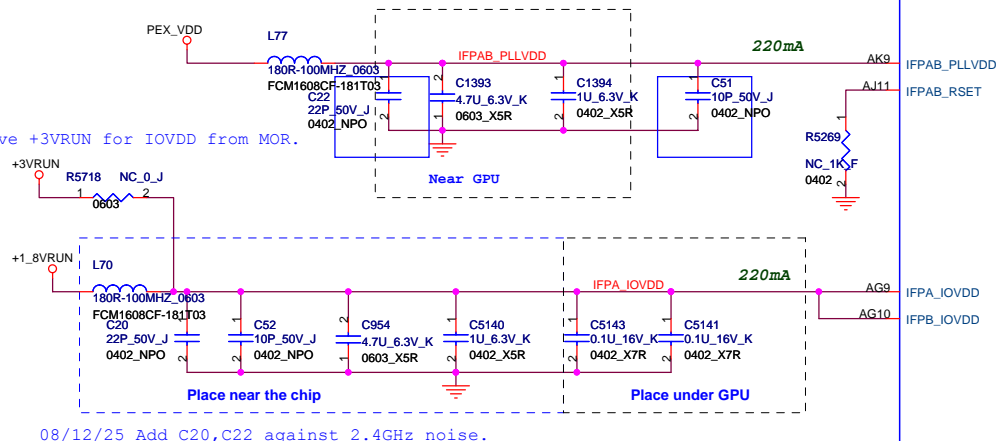
C879,C6012,C6006,C6010,C6011 only for N10M.

Place components close to the GPU

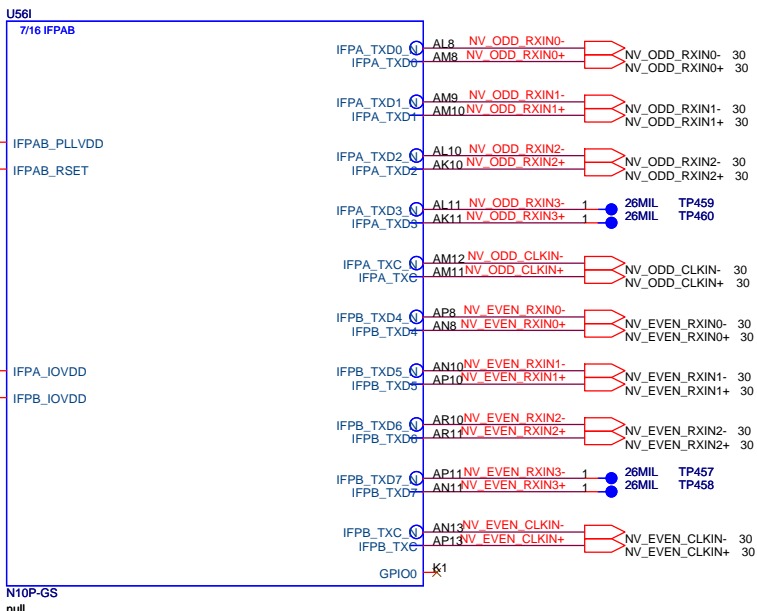
	N10M	N10P-LP
R5256	56.2_F	56.2_F
R5257	26.7_F	31.6_F
R5258	40.2_F	40.2_F

08/12/26 Add C51,C52 10p follow RF propose.

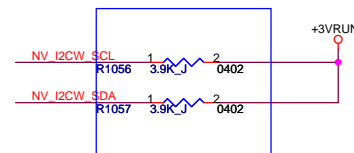
09/02/05 Reserve +3VRUN for IOVDD from MOR.



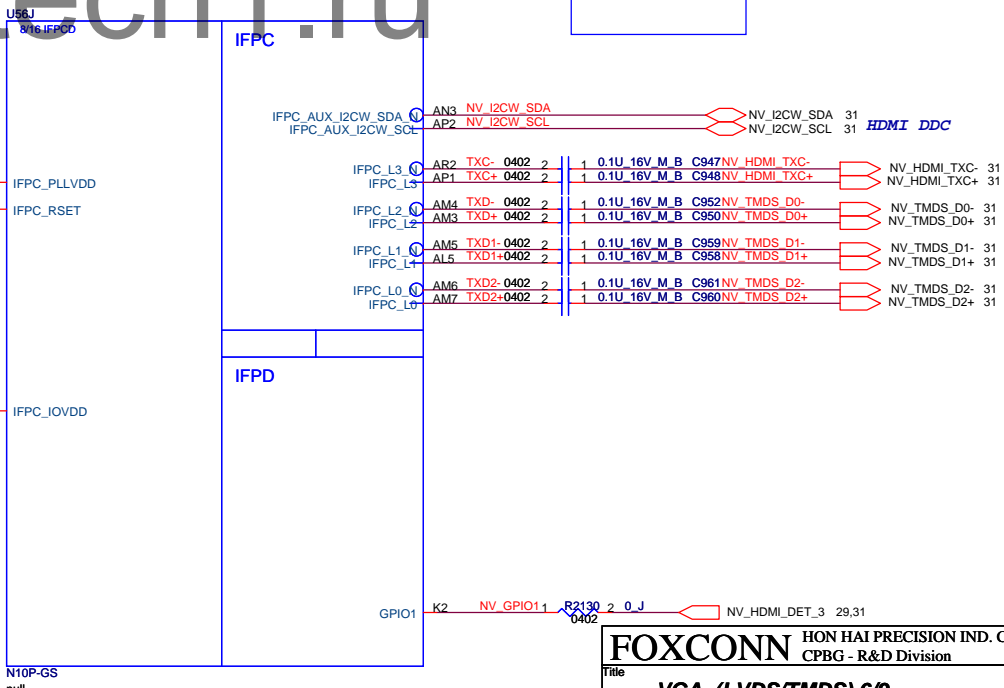
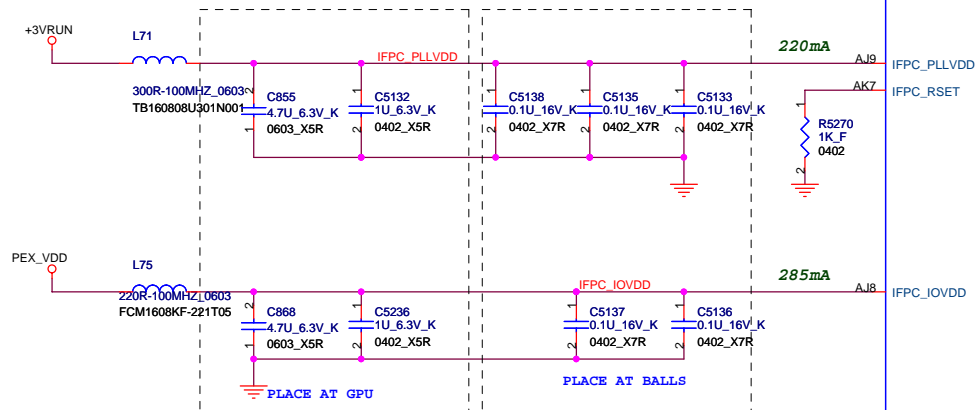
08/12/25 Add C20,C22 against 2.4GHz noise.

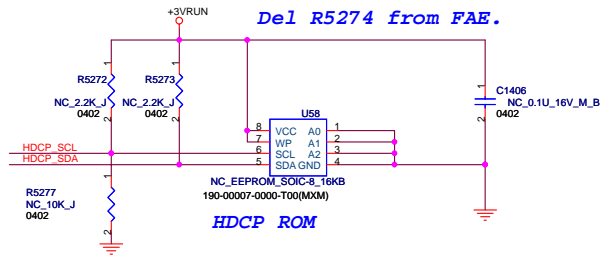


08/12/22 Change R1056,R1057 from 2.2K to 3.9K follow Mor-side propose.

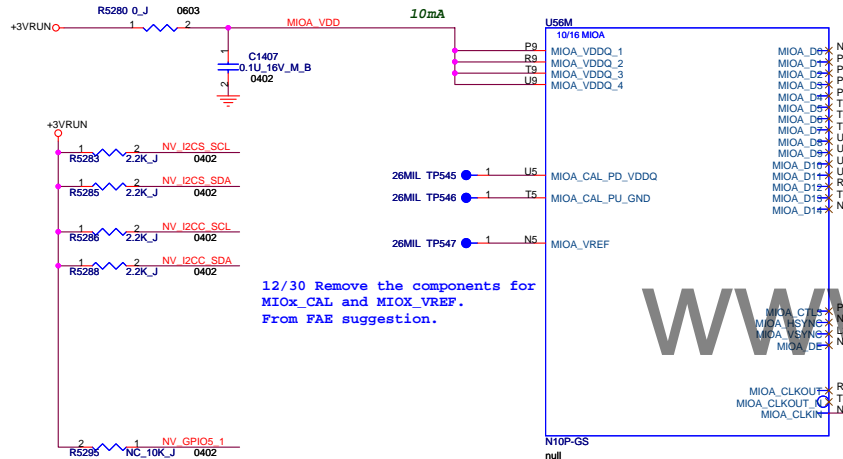
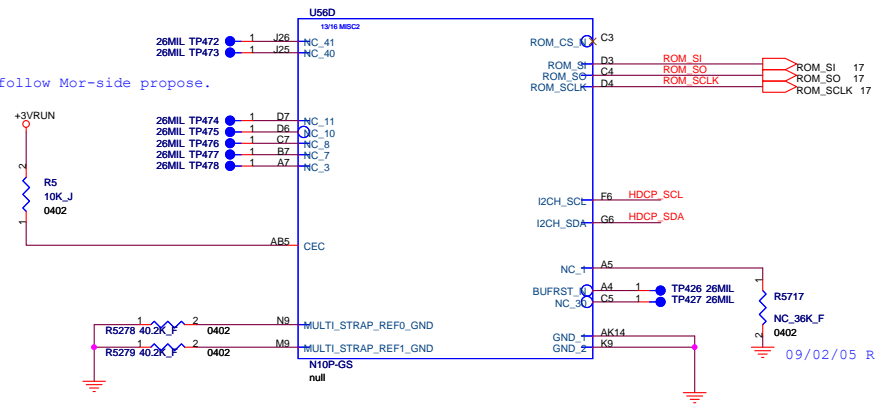


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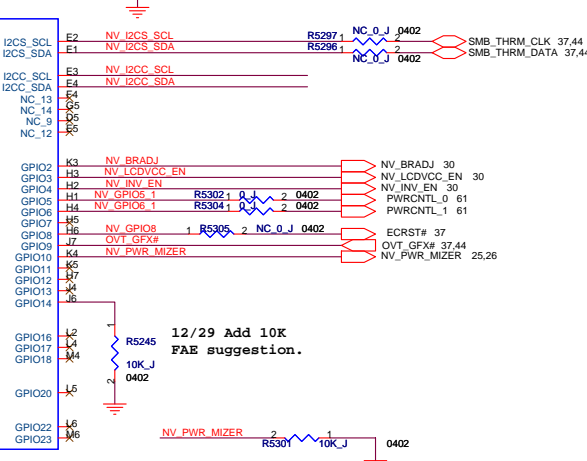
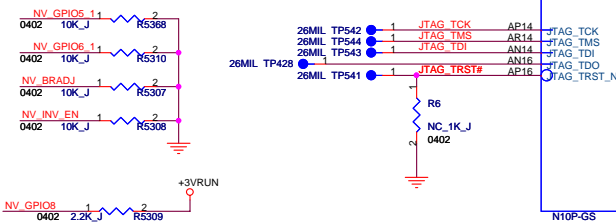
08/12/26 Add R5 follow Mor-side propose.



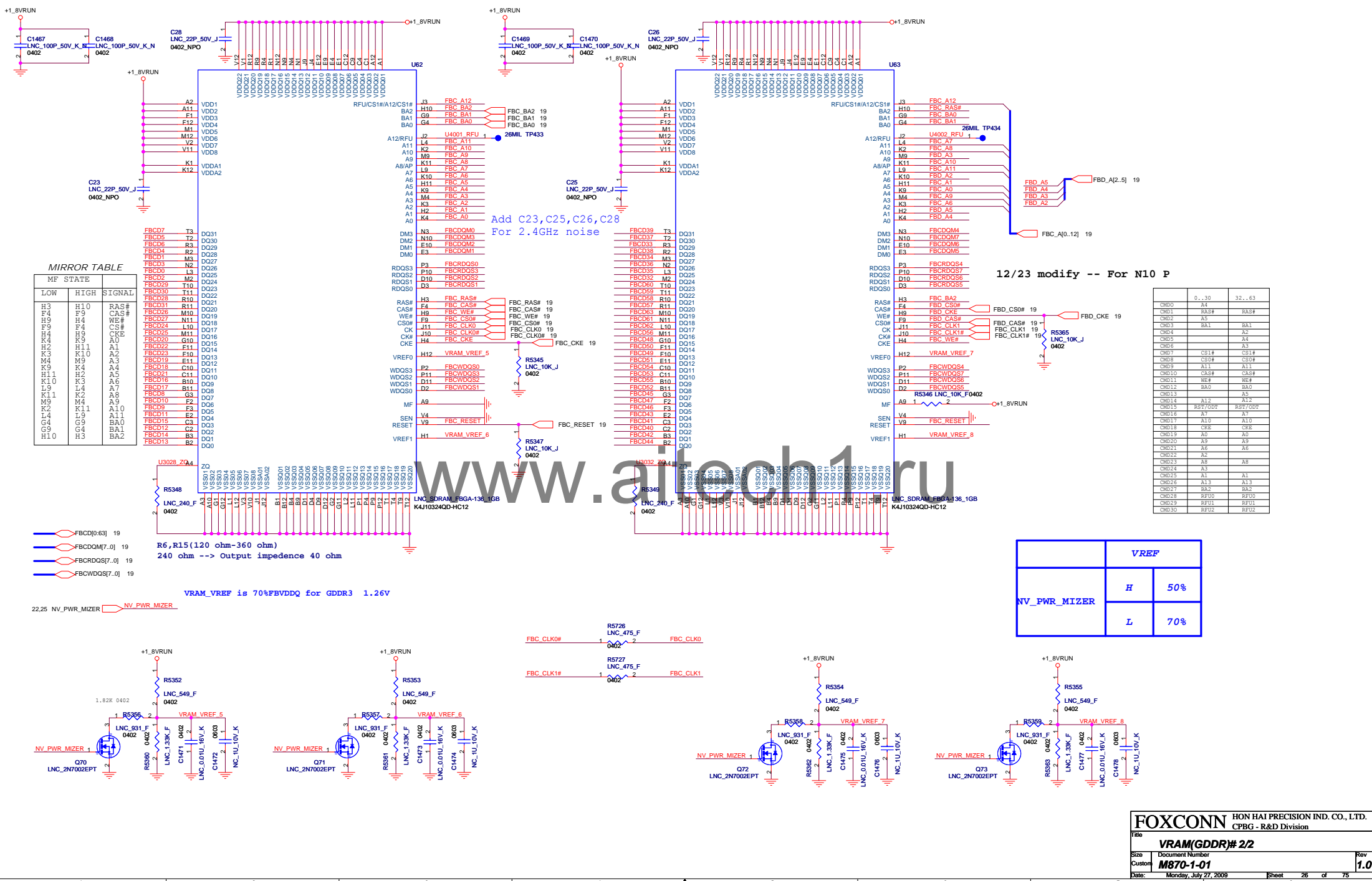
www.aitech1.ru

GPIO	I/O	Internal pull low	GPIO TABLE
GPIO0	I	Yes	
GPIO1	I	Yes	HDMI Hot Plug Detect 0(HPD0) Active High
GPIO2	O	Yes	LCD BL Brightness(LCD0_BL_PWM) Active High
GPIO3	O	No	Panel Power(LCD0_VDD) Active High
GPIO4	O	Yes	LCD Backlight enable(LCD0_BL_EN) Active High
GPIO5	O	Yes	FOR Power Control NVDD 0.95V/1.05V Active High
GPIO6	O	No	reserve for NVDD adjust.
GPIO8	O	No	reserve for reset EC
GPIO9	I	No	System Power Limit Alert Input Active Low

12/29 Add R5310 10K FAE suggestion.



SIGNAL	I/O	Description
I2CA_SCL I2CA_SDA	I/O	For CRT VGA I2C_Compatibal Bus Signals
I2CB_SCL I2CB_SDA	I/O	NC(for DVI I2C_Compatibal Bus Signals)
I2CC_SCL I2CC_SDA	I/O	NC(Notebook DVI I2C_Compatibal Bus Signals)
I2CS_SCL I2CS_SDA	I/O	For VGA thermal I2C_Compatibal Bus Signals. Support a direct interface to the internal temperature sensor

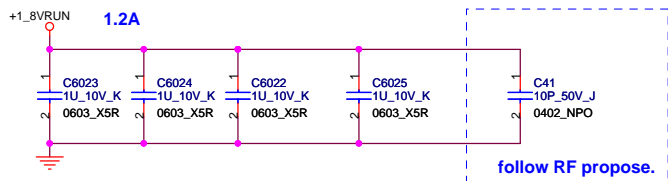
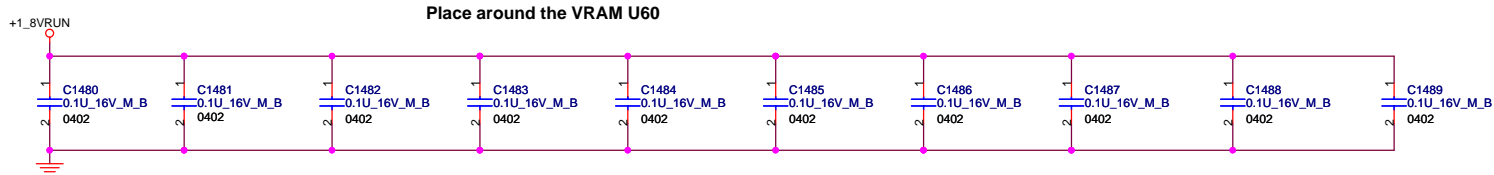


MIRROR TABLE

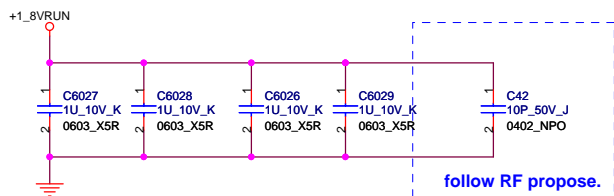
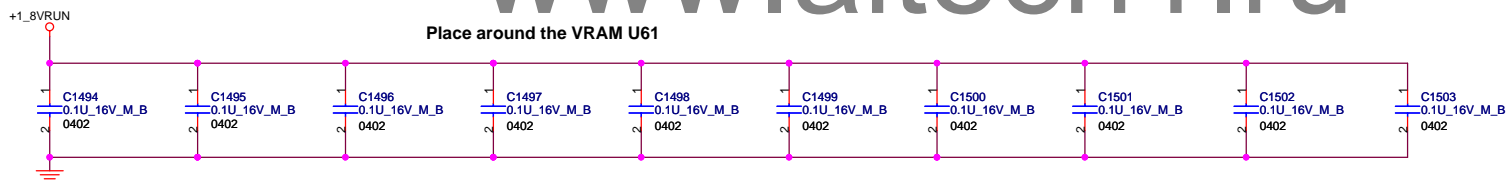
MF STATE		SIGNAL
LOW	HIGH	
H3	H10	RAS#
F4	F9	CAS#
H9	H4	WE#
F9	F4	CS#
H4	H9	CKE
K4	K9	A0
H2	H11	A1
K3	K10	A2
M4	M9	A3
K9	K4	A4
H11	H2	A5
K10	K3	A6
L9	L4	A7
K11	K2	A8
M9	M4	A9
K2	K11	A10
L4	L9	A11
G4	G9	BA0
G9	G4	BA1
H10	H3	BA2

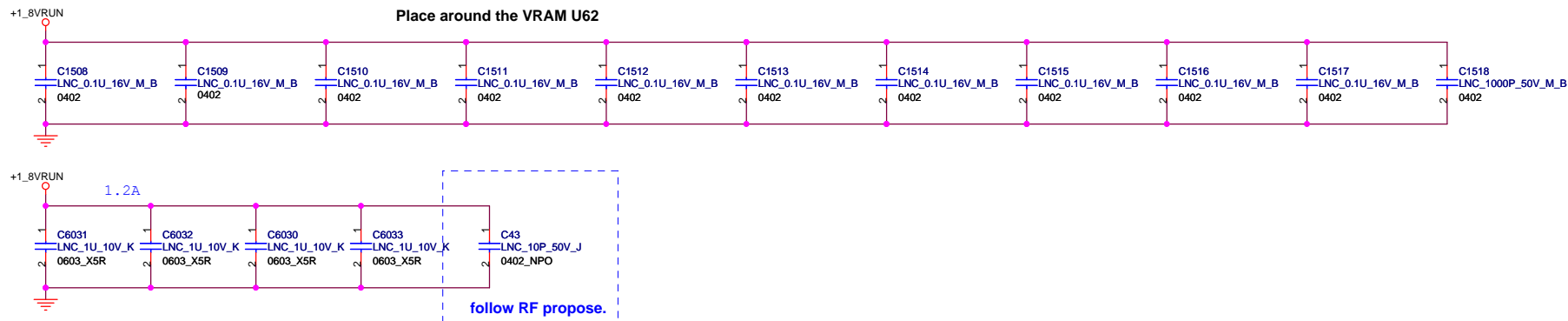
	0...30	32...63
CHD0	A4	
CHD1	RAS#	RAS#
CHD2	A5	
CHD3	BA1	BA1
CHD4	A2	
CHD5	A4	
CHD6	A3	
CHD7	CS1#	CS1#
CHD8	CS0#	CS0#
CHD9	A11	A11
CHD10	CAS#	CAS#
CHD11	WE#	WE#
CHD12	BA0	BA0
CHD13	A5	
CHD14	A12	A12
CHD15	AST/OUT	AST/OUT
CHD16	A3	
CHD17	A10	A10
CHD18	CKE	CKE
CHD19	A0	A0
CHD20	A9	A9
CHD21	A6	A6
CHD22	A2	
CHD23	AB	AB
CHD24	A3	
CHD25	A1	A1
CHD26	A13	A13
CHD27	BA2	BA2
CHD28	RFU0	RFU0
CHD29	RFU1	RFU1
CHD30	RFU2	RFU2

VREF	
NV_PWR_MIZER	H
	L

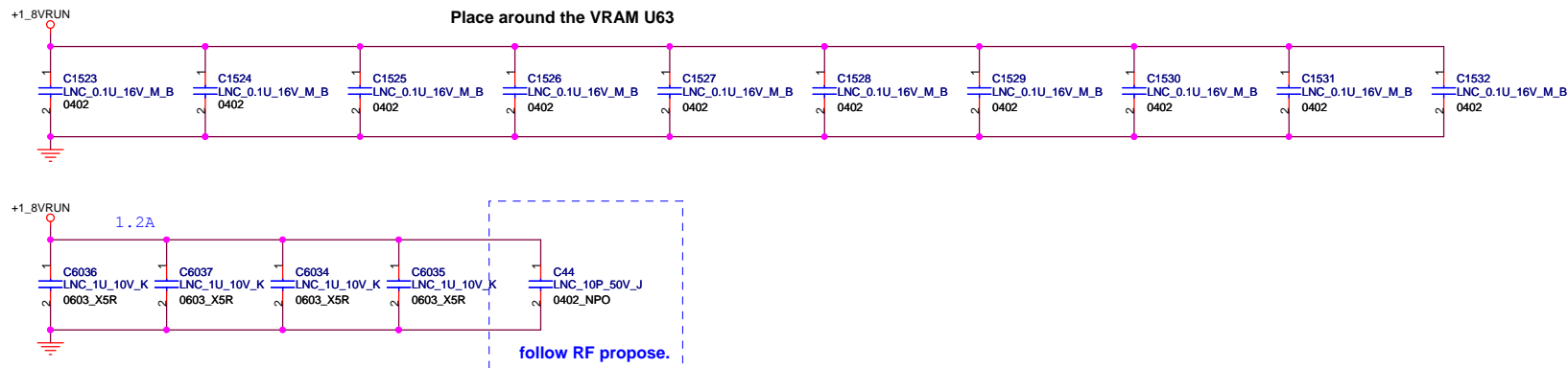


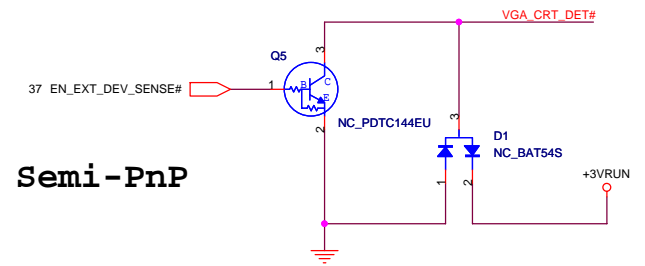
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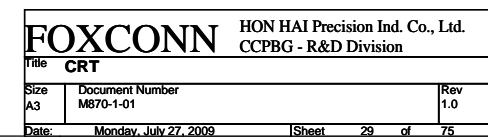




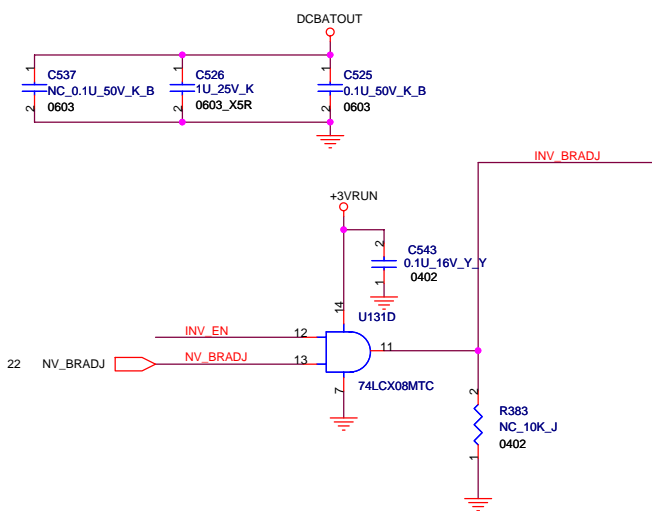
For EMI



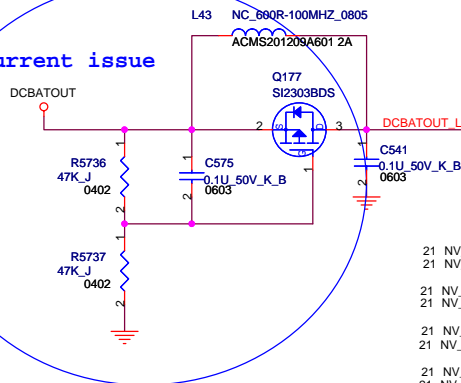
CRT CONNECTOR



LVDS CONNECTOR

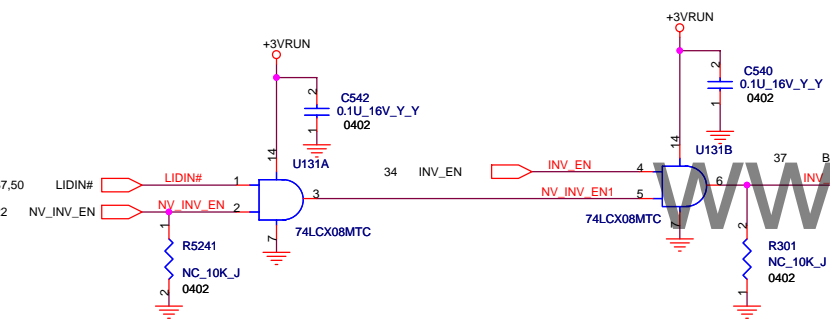
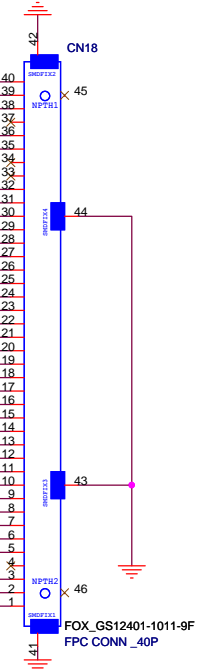


PVT
For rush current issue

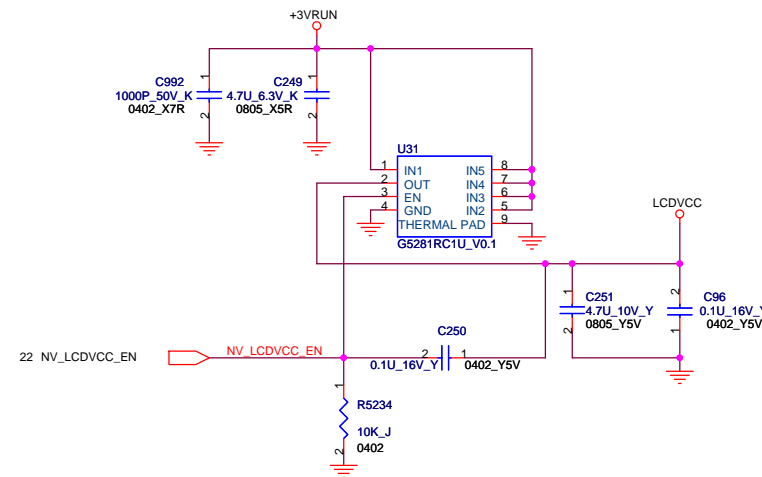


- 21 NV_EVEN_CLKIN- NV_EVEN_CLKIN+
- 21 NV_EVEN_RXIN0- NV_EVEN_RXIN0+
- 21 NV_EVEN_RXIN1- NV_EVEN_RXIN1+
- 21 NV_EVEN_RXIN2- NV_EVEN_RXIN2+
- 21 NV_ODD_CLKIN- NV_ODD_CLKIN+
- 21 NV_ODD_RXIN0- NV_ODD_RXIN0+
- 21 NV_ODD_RXIN1- NV_ODD_RXIN1+
- 21 NV_ODD_RXIN2- NV_ODD_RXIN2+

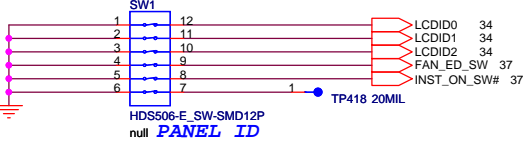
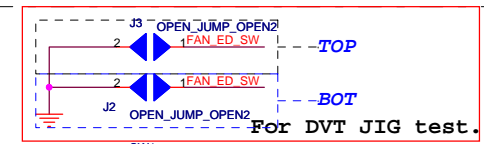
follow RF propose.



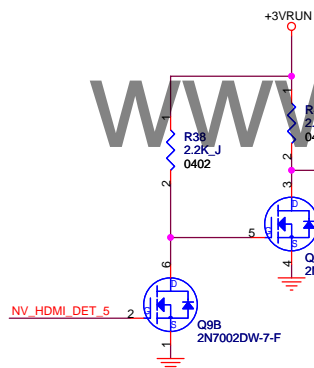
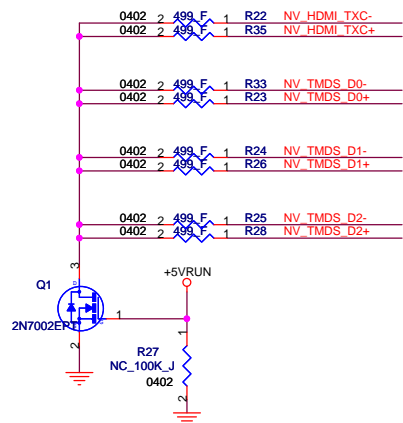
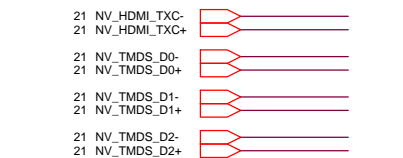
Current limit is from 1.1A to 2.1A.



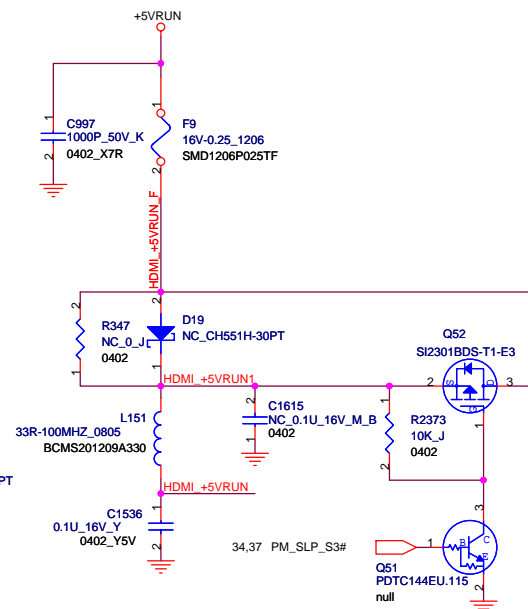
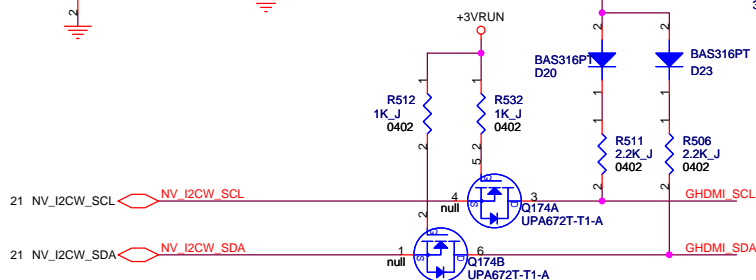
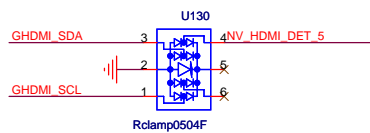
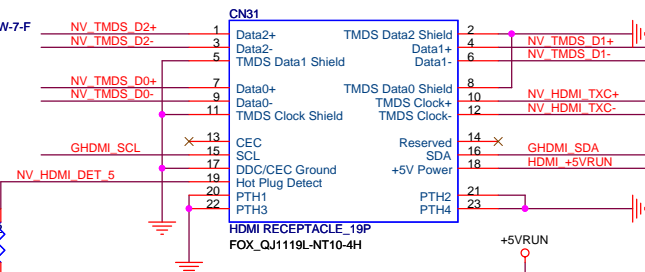
12/29 change to 10K
FAE suggestion.

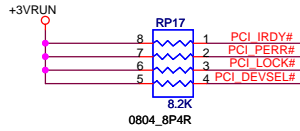
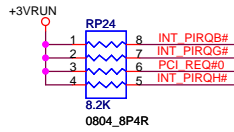
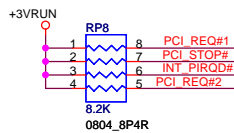


	DIS_FAN_MON#	LCDID2	LCDID1	LCDID0
RUD BI40XW02	0	0	0	0
LCD E140W02	0	0	0	1
SAMSUNG LTN140A078	0	0	1	1
DISABLE FAN LOCK FUNCTION ON:0 , OFF:1	0	X	X	X

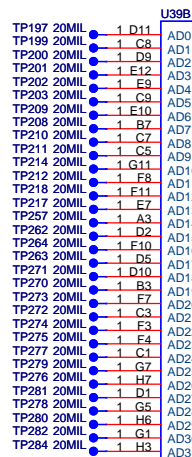
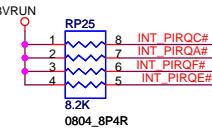
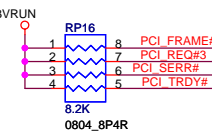


HDMI CONNECTOR



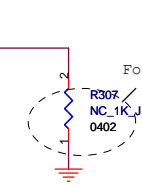
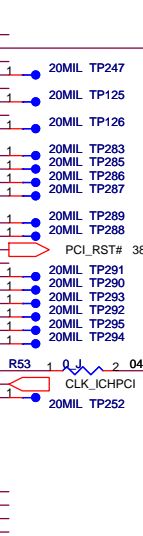
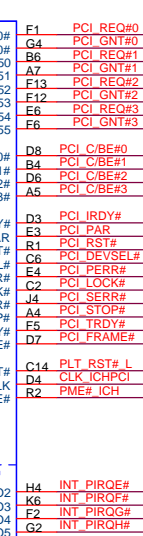


PCI Pullups



INT_PIROA# J5
INT_PIROB# E1
INT_PIROC# J6
INT_PIRQD# C4

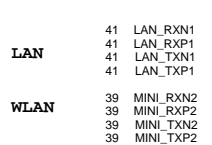
Interrupt I/F
PIROA# GPIO2
PIROB# GPIO3
PIROC# GPIO4
PIROD# GPIO5



For Boot BIOS Selection.

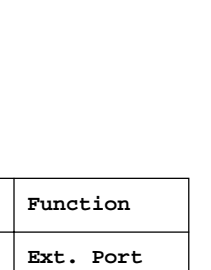
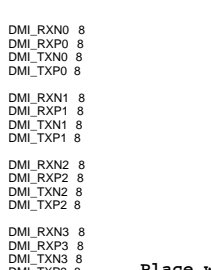
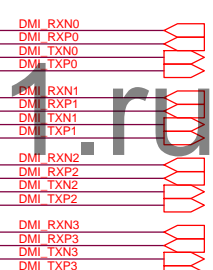
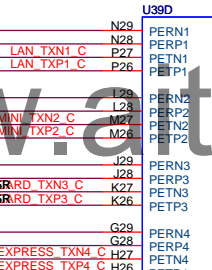
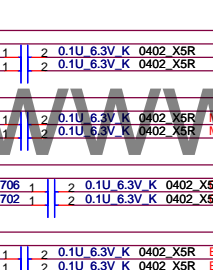
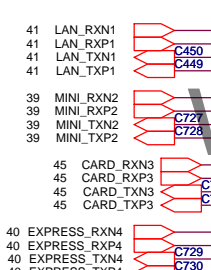
Strap for Boot-BIOS

	GNT0#	SPI_CS1#
LPC(Default)	Hi	Hi
PCI	Hi	LOW
SPI	LOW	Hi



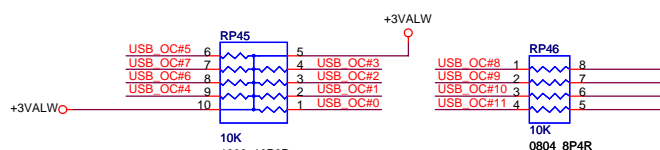
Cardreader

Express Card



Place within 500 mils of ICH

USB PORT	Function
PORT-0	Ext. Port
PORT-1	Ext. Port
PORT-2	Ext. Port
PORT-3	
PORT-4	Bluetooth
PORT-5	EXPRESS CARD
PORT-6	Fingerprint
PORT-7	Camera
PORT-8	
PORT-9	
PORT-10	Wi-MAX
PORT-11	



Place within 500 mils of ICH and don't routing next to high speed signals

Place within 500 mils of ICH and don't routing next to high speed signals

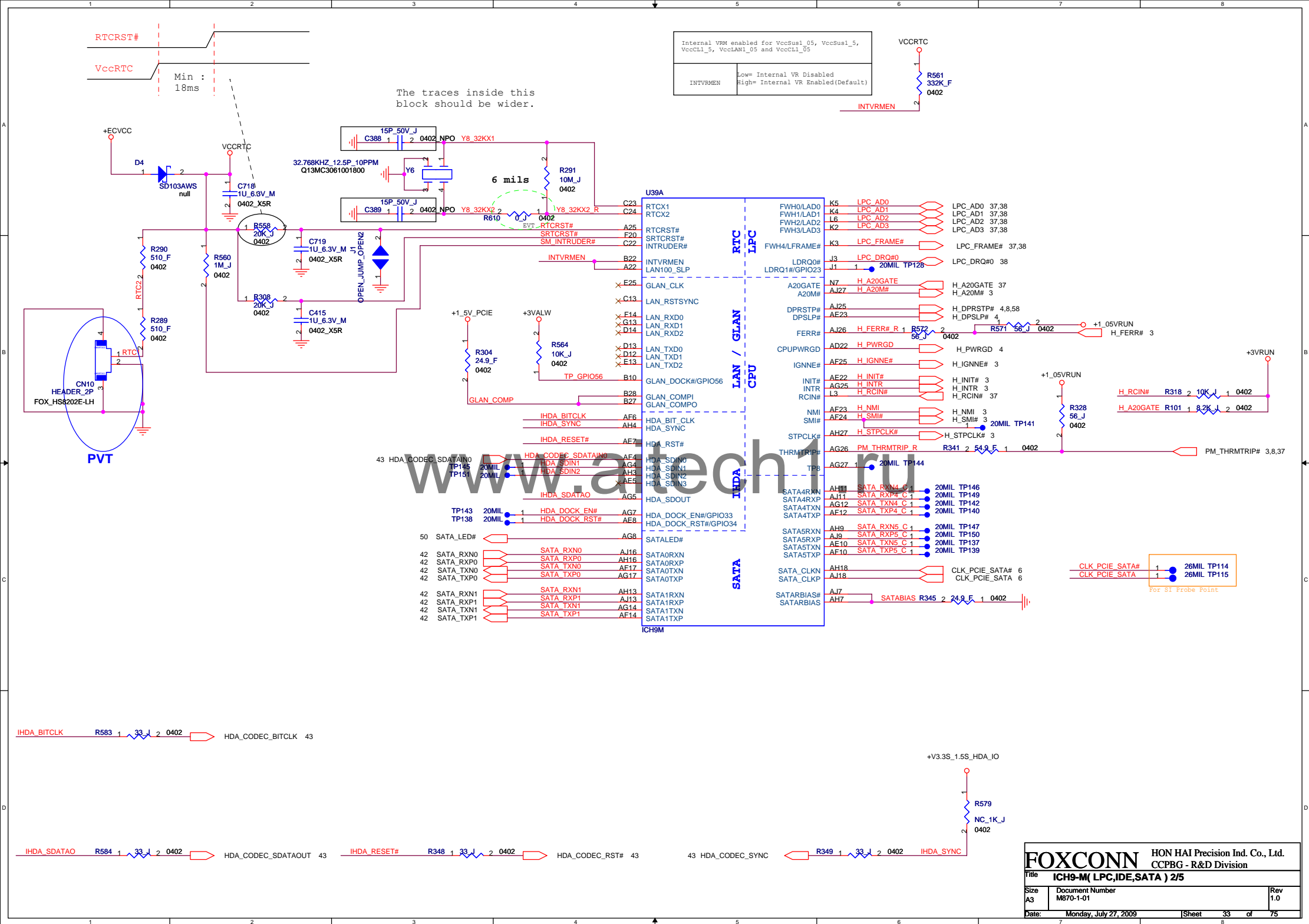
Place within 500 mils of ICH and don't routing next to high speed signals

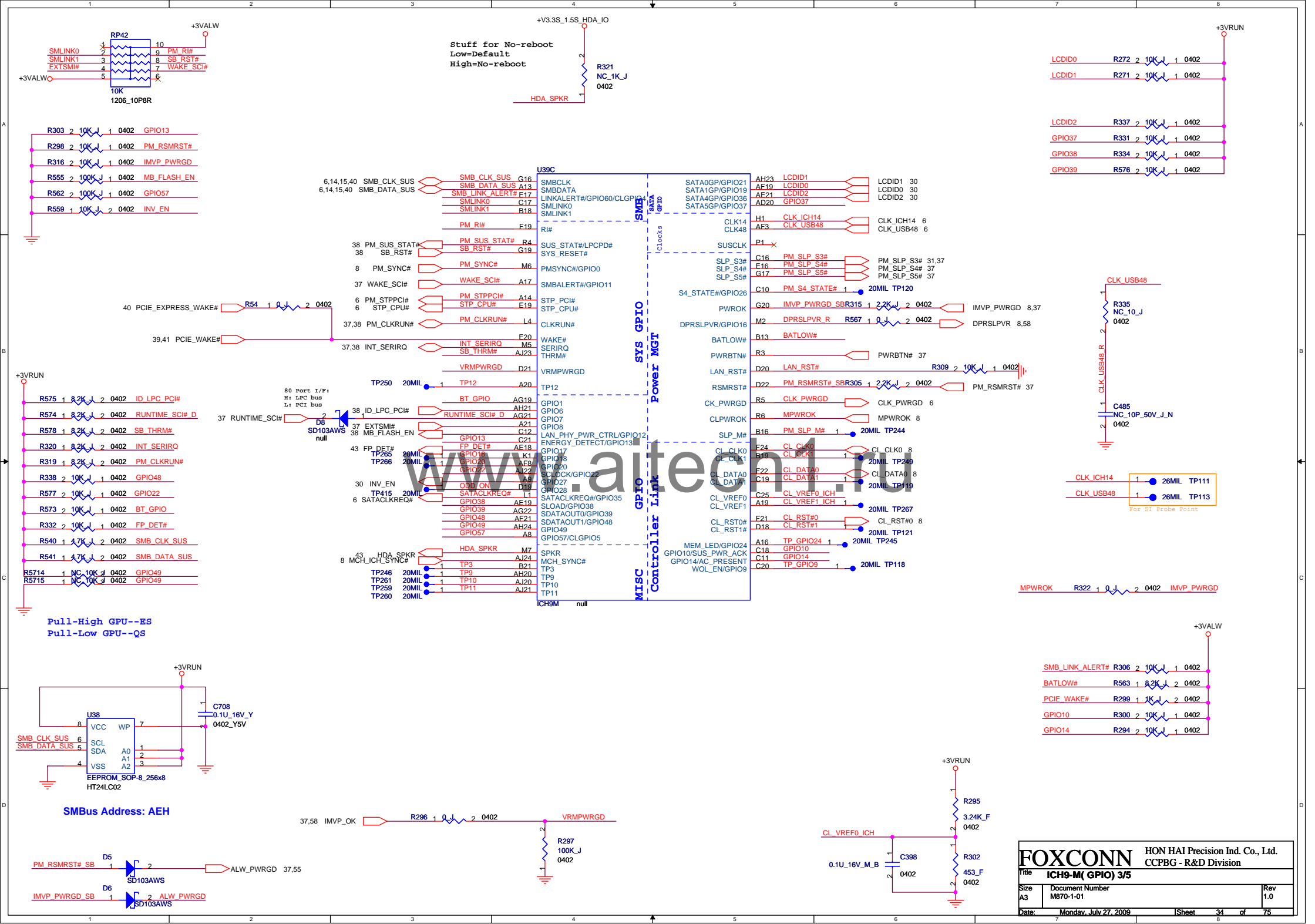
Place within 500 mils of ICH and don't routing next to high speed signals

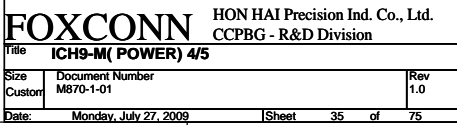
Place within 500 mils of ICH and don't routing next to high speed signals

Place within 500 mils of ICH and don't routing next to high speed signals

Place within 500 mils of ICH and don't routing next to high speed signals

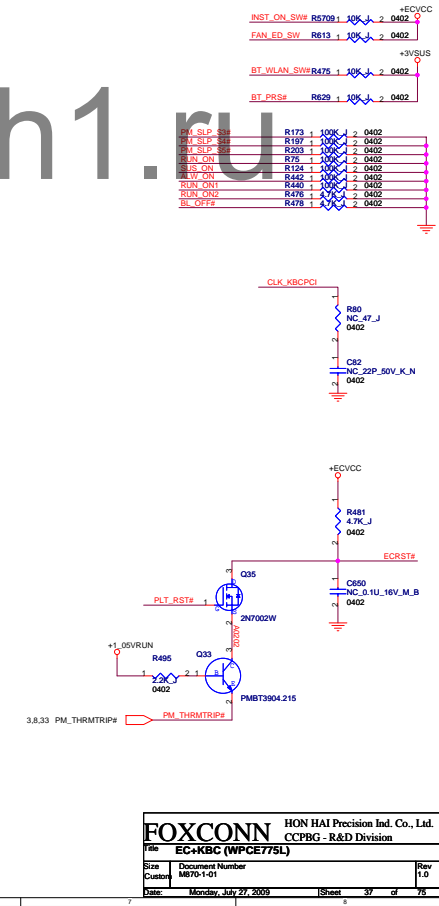
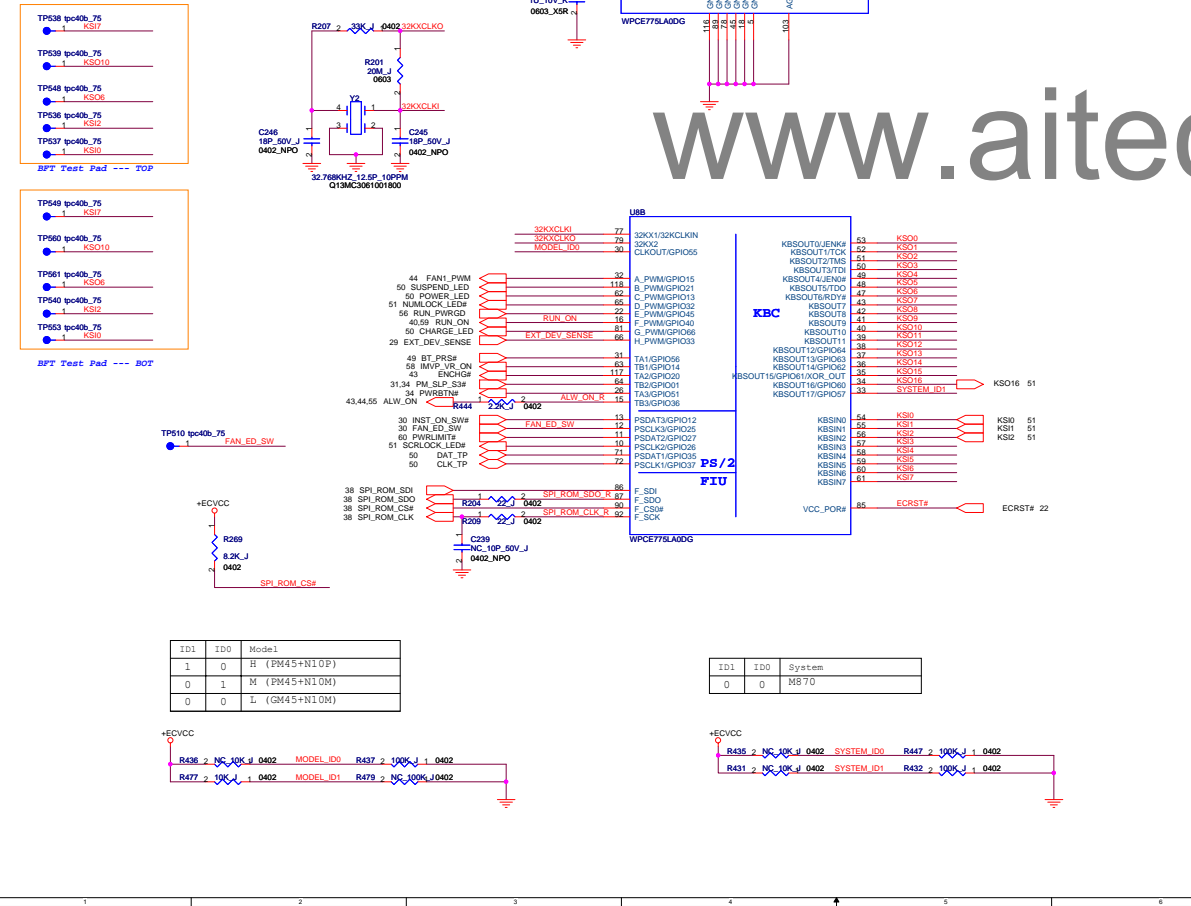
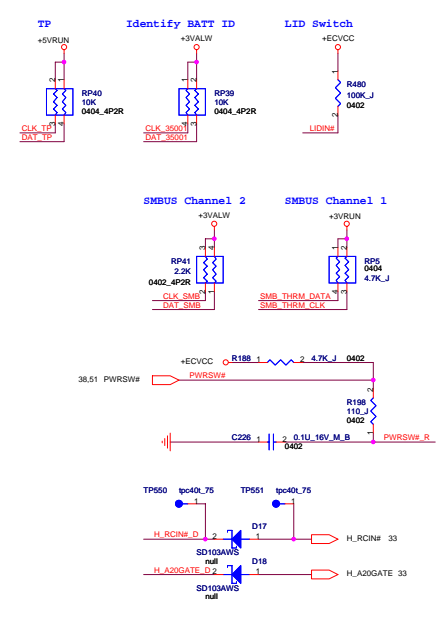
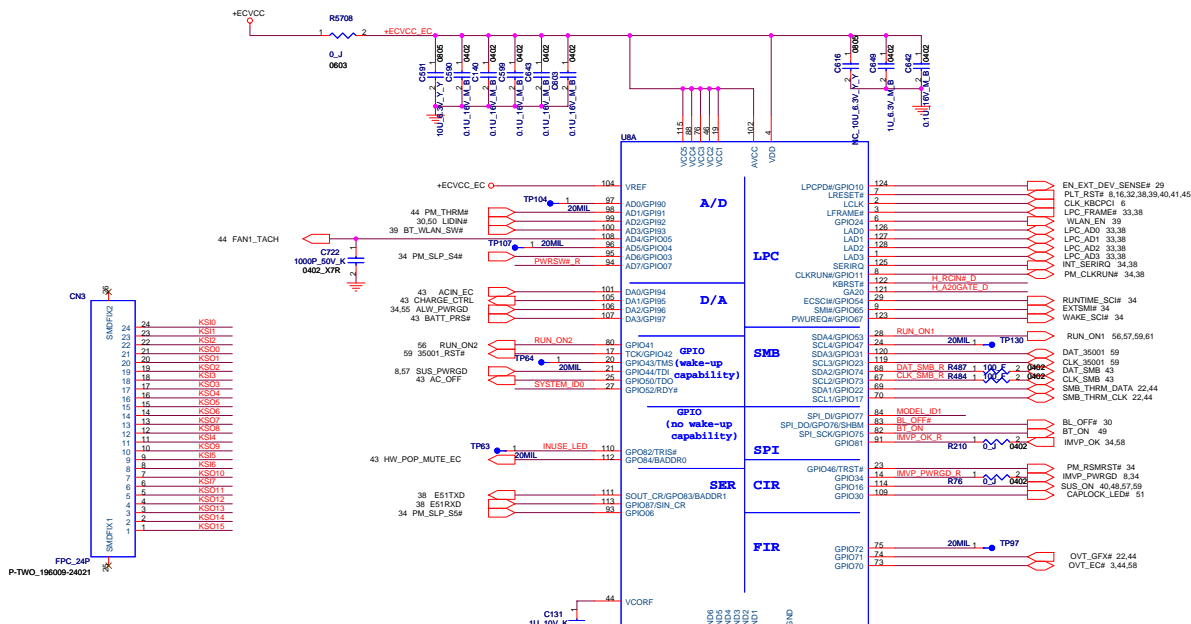






U39E	
AA26	VSS[001]
AA27	VSS[002]
AA3	VSS[003]
AA6	VSS[004]
AB1	VSS[005]
AA23	VSS[006]
AB28	VSS[007]
AB29	VSS[008]
AB4	VSS[009]
AB5	VSS[010]
AC17	VSS[011]
AC26	VSS[012]
AC27	VSS[013]
AC3	VSS[014]
AD1	VSS[015]
AD10	VSS[016]
AD12	VSS[017]
AD13	VSS[018]
AD14	VSS[019]
AD17	VSS[020]
AD18	VSS[021]
AD21	VSS[022]
AD28	VSS[023]
AD29	VSS[024]
AD4	VSS[025]
AD5	VSS[026]
AD6	VSS[027]
AD7	VSS[028]
AD9	VSS[029]
AE12	VSS[030]
AE13	VSS[031]
AE14	VSS[032]
AE16	VSS[033]
AE17	VSS[034]
AE2	VSS[035]
AE20	VSS[036]
AE24	VSS[037]
AE3	VSS[038]
AE4	VSS[039]
AE6	VSS[040]
AE9	VSS[041]
AE13	VSS[042]
AE16	VSS[043]
AE18	VSS[044]
AE22	VSS[045]
AH26	VSS[046]
AE26	VSS[047]
AE27	VSS[048]
AE5	VSS[049]
AE7	VSS[050]
AE9	VSS[051]
AG13	VSS[052]
AG18	VSS[053]
AG18	VSS[054]
AG20	VSS[055]
AG23	VSS[056]
AG3	VSS[057]
AG6	VSS[058]
AG9	VSS[059]
AH12	VSS[060]
AH14	VSS[061]
AH17	VSS[062]
AH19	VSS[063]
AH2	VSS[064]
AH22	VSS[065]
AH25	VSS[066]
AH28	VSS[067]
AH5	VSS[068]
AH8	VSS[069]
AJ12	VSS[070]
AJ14	VSS[071]
AJ17	VSS[072]
AJ8	VSS[073]
B11	VSS[074]
B14	VSS[075]
B17	VSS[076]
B2	VSS[077]
B20	VSS[078]
B23	VSS[079]
B5	VSS[080]
B8	VSS[081]
C26	VSS[082]
C27	VSS[083]
E11	VSS[084]
E14	VSS[085]
E18	VSS[086]
E2	VSS[087]
E21	VSS[088]
E24	VSS[089]
E5	VSS[090]
E8	VSS[091]
F18	VSS[092]
F28	VSS[093]
F29	VSS[094]
G12	VSS[095]
G14	VSS[096]
G18	VSS[097]
G21	VSS[098]
G24	VSS[099]
G26	VSS[100]
G27	VSS[101]
G8	VSS[102]
H2	VSS[103]
H23	VSS[104]
H28	VSS[105]
H29	VSS[106]
H5	VSS[107]
J23	VSS[108]
J26	VSS[109]
J27	VSS[110]
AC22	VSS[111]
K28	VSS[112]
K29	VSS[113]
L13	VSS[114]
L15	VSS[115]
L2	VSS[116]
L26	VSS[117]
L27	VSS[118]
L5	VSS[119]
L7	VSS[120]
M12	VSS[121]
M13	VSS[122]
M14	VSS[123]
M15	VSS[124]
M16	VSS[125]
M17	VSS[126]
M23	VSS[127]
M28	VSS[128]
M29	VSS[129]
N11	VSS[130]
N12	VSS[131]
N13	VSS[132]
N14	VSS[133]
N15	VSS[134]
N16	VSS[135]
N17	VSS[136]
N18	VSS[137]
N26	VSS[138]
N27	VSS[139]
P12	VSS[140]
P13	VSS[141]
P14	VSS[142]
P15	VSS[143]
P16	VSS[144]
P17	VSS[145]
P2	VSS[146]
P23	VSS[147]
P28	VSS[148]
P29	VSS[149]
P4	VSS[150]
P7	VSS[151]
R11	VSS[152]
R12	VSS[153]
R13	VSS[154]
R14	VSS[155]
R15	VSS[156]
R16	VSS[157]
R17	VSS[158]
R19	VSS[159]
T28	VSS[160]
T12	VSS[161]
T13	VSS[162]
T14	VSS[163]
T15	VSS[164]
T16	VSS[165]
T17	VSS[166]
T23	VSS[167]
B26	VSS[168]
U12	VSS[169]
U13	VSS[170]
U14	VSS[171]
U15	VSS[172]
U16	VSS[173]
U17	VSS[174]
AD23	VSS[175]
U26	VSS[176]
U27	VSS[177]
U3	VSS[178]
V1	VSS[179]
V13	VSS[180]
V15	VSS[181]
V23	VSS[182]
V28	VSS[183]
V29	VSS[184]
V4	VSS[185]
V5	VSS[186]
W26	VSS[187]
W27	VSS[188]
W3	VSS[189]
Y1	VSS[190]
Y28	VSS[191]
Y29	VSS[192]
Y4	VSS[193]
Y5	VSS[194]
AG28	VSS[195]
AH6	VSS[196]
AF2	VSS[197]
B25	VSS[198]
VSS_NCTF[01]	A1
VSS_NCTF[02]	A2
VSS_NCTF[03]	A28
VSS_NCTF[04]	A29
VSS_NCTF[05]	AH1
VSS_NCTF[06]	AH29
VSS_NCTF[07]	AJ1
VSS_NCTF[08]	AJ2
VSS_NCTF[09]	AJ28
VSS_NCTF[10]	AJ29
VSS_NCTF[11]	B1
VSS_NCTF[12]	B29

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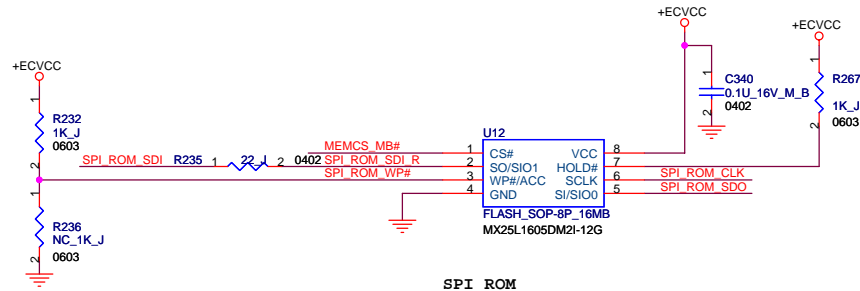


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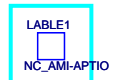
ID1	ID0	Model
1	0	H (PM45+N10P)
0	1	M (PM45+N10M)
0	0	L (GM45+N10M)

ID1	ID0	System
0	0	MS70

37 SPI_ROM_SDI
37 SPI_ROM_SDO
37 SPI_ROM_CLK

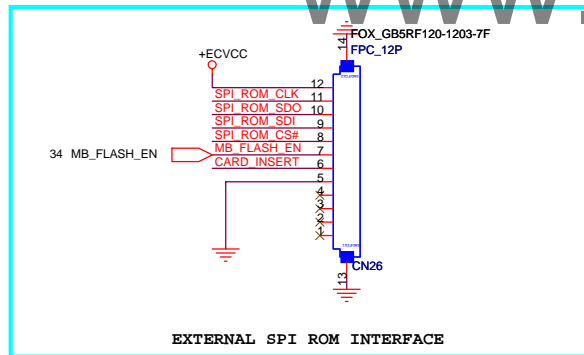


SPI ROM

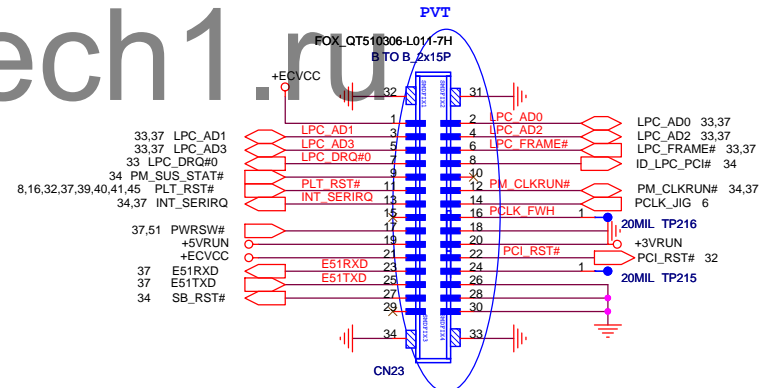
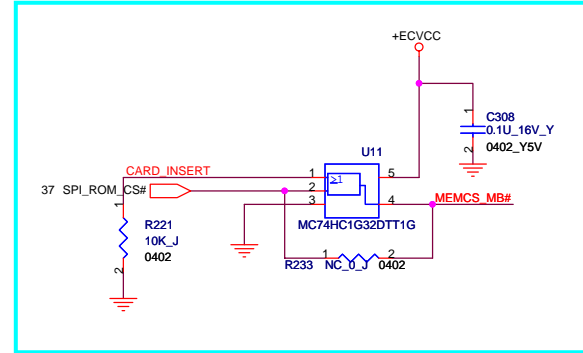


- TP531 tpc40b_75
1 CARD_INSERT
- TP530 tpc40b_75
1 MB_FLASH_EN
- TP532 tpc40b_75
1 SPI_ROM_CS#
- TP533 tpc40b_75
1
- TP529 tpc40b_75
1 SPI_ROM_SDI
- TP520 tpc40b_75
1 SPI_ROM_SDO
- TP519 tpc40b_75
1 SPI_ROM_CLK
- TP518 tpc40b_75
1 +ECVCC

BFT Test Pad --- TOP

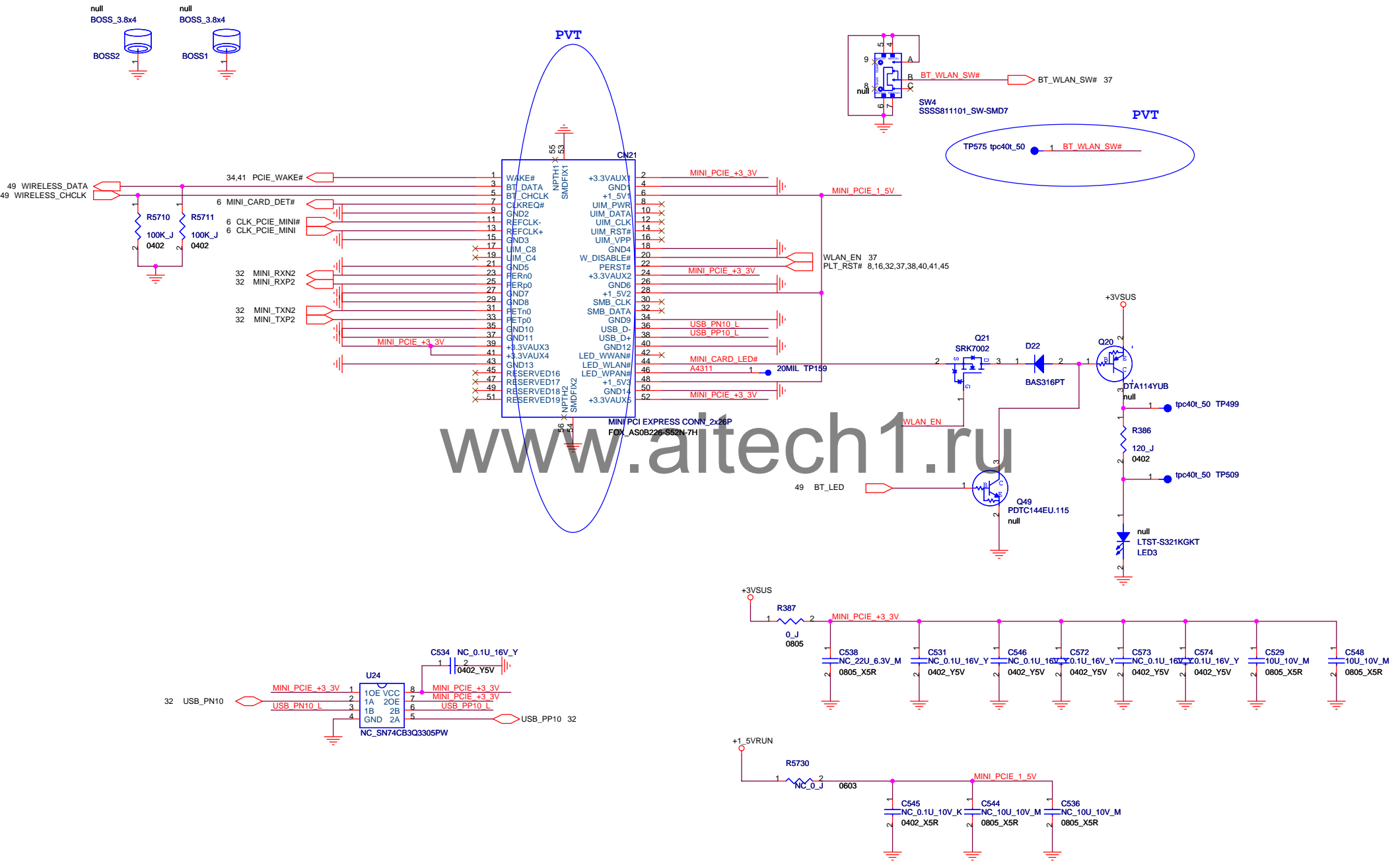


EXTERNAL SPI ROM INTERFACE

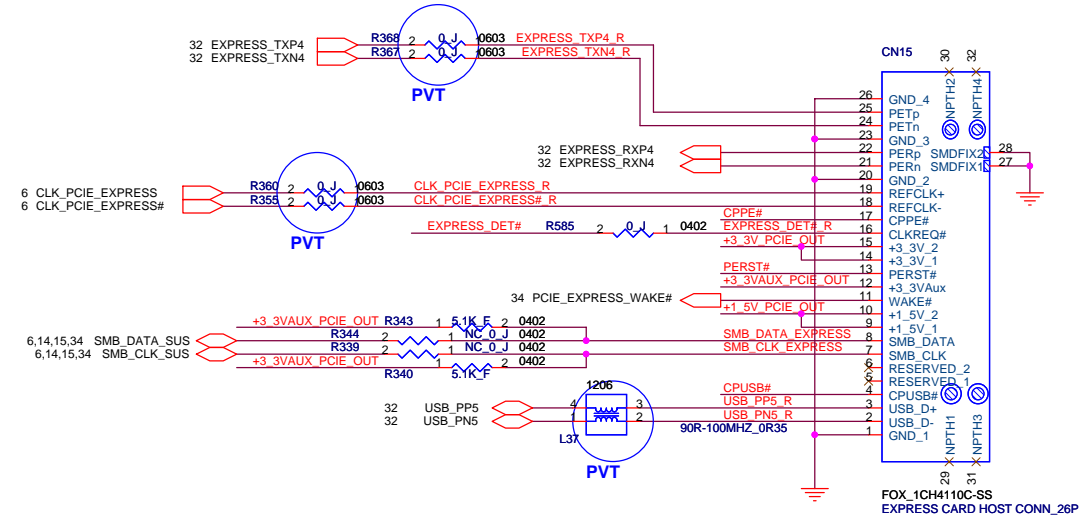
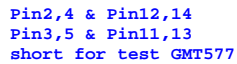


JIG-120

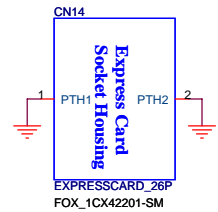
SW4.C pin delete and SW4.A connect to GND.



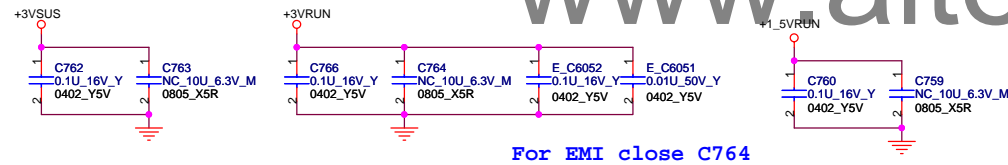
Express Card Power Switch



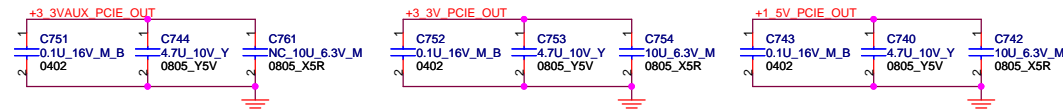
Express Card Slot.



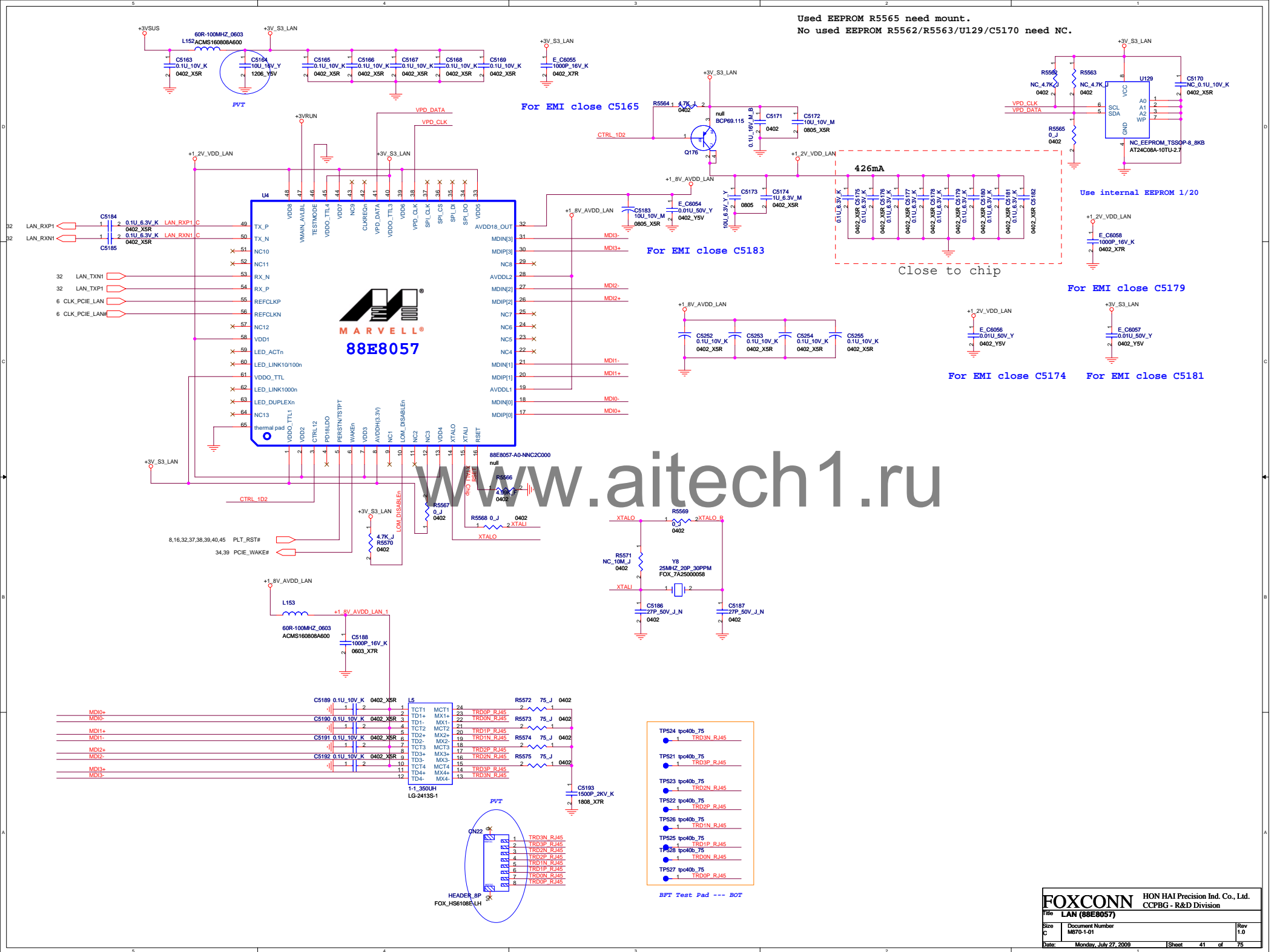
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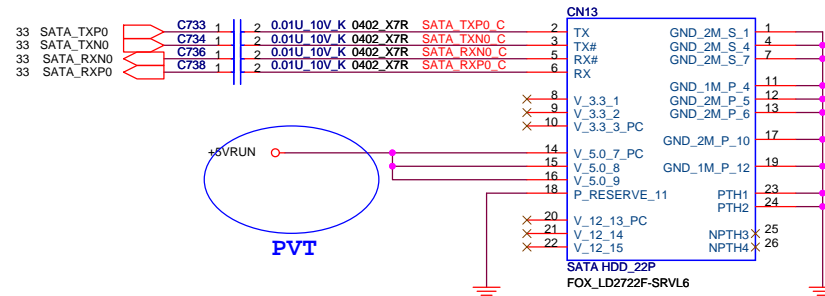
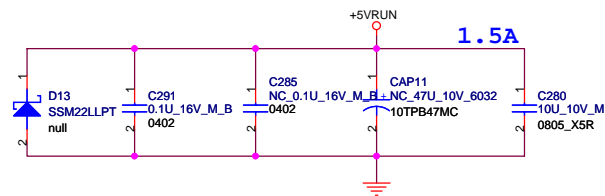


For EMI close C764

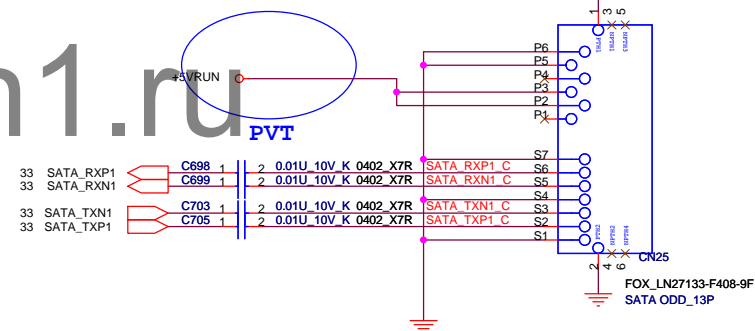
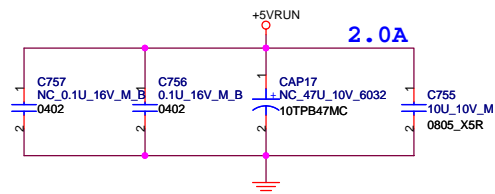


Used EEPROM R5565 need mount.
No used EEPROM R5562/R5563/U129/C5170 need NC.

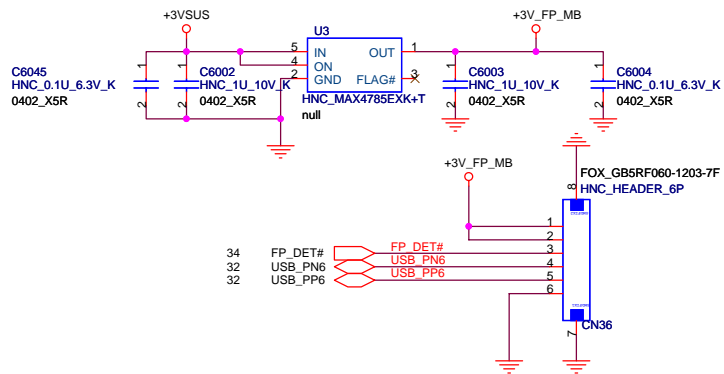




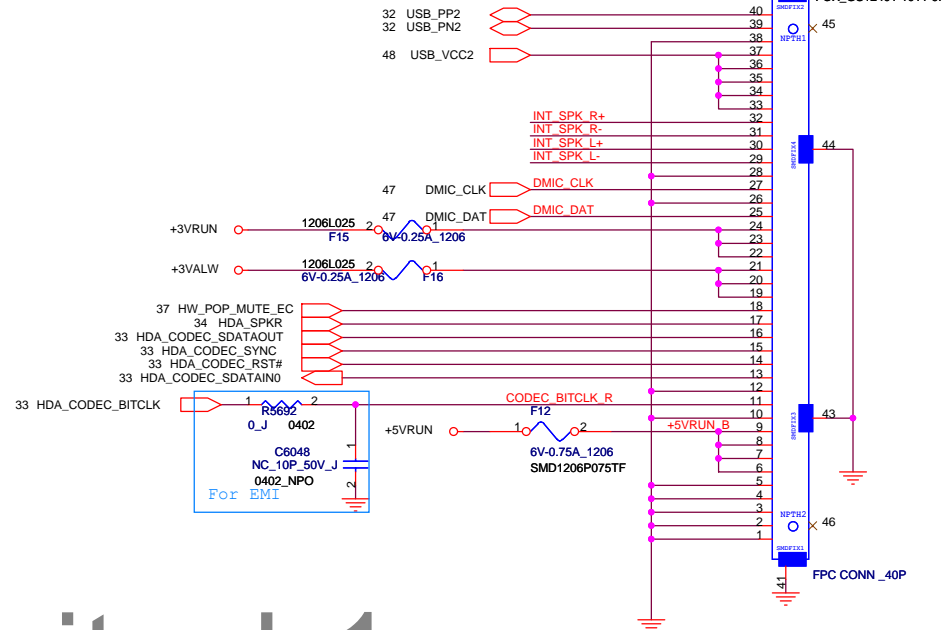
SATA ODD CONN



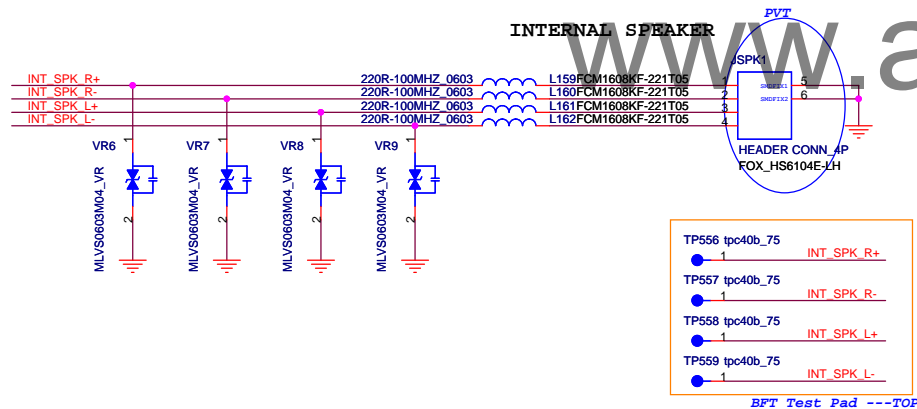
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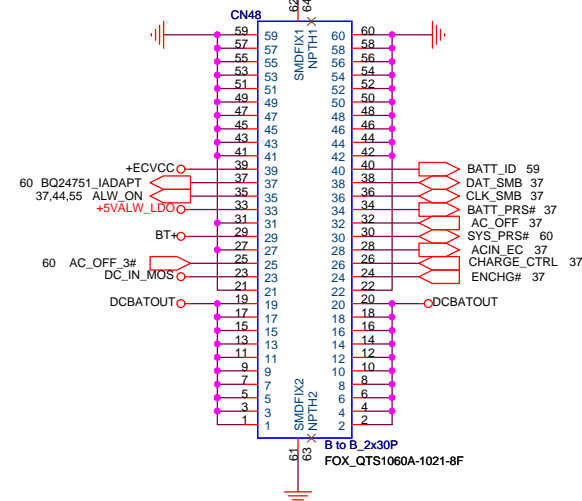
Fingerprint FTB CONN.



Audio & USB WTB CONN.

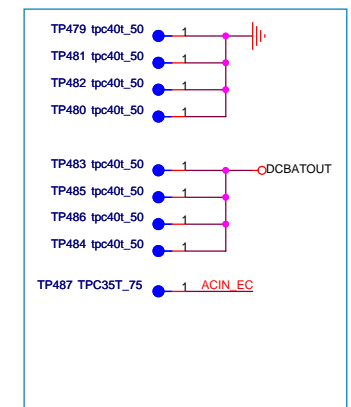


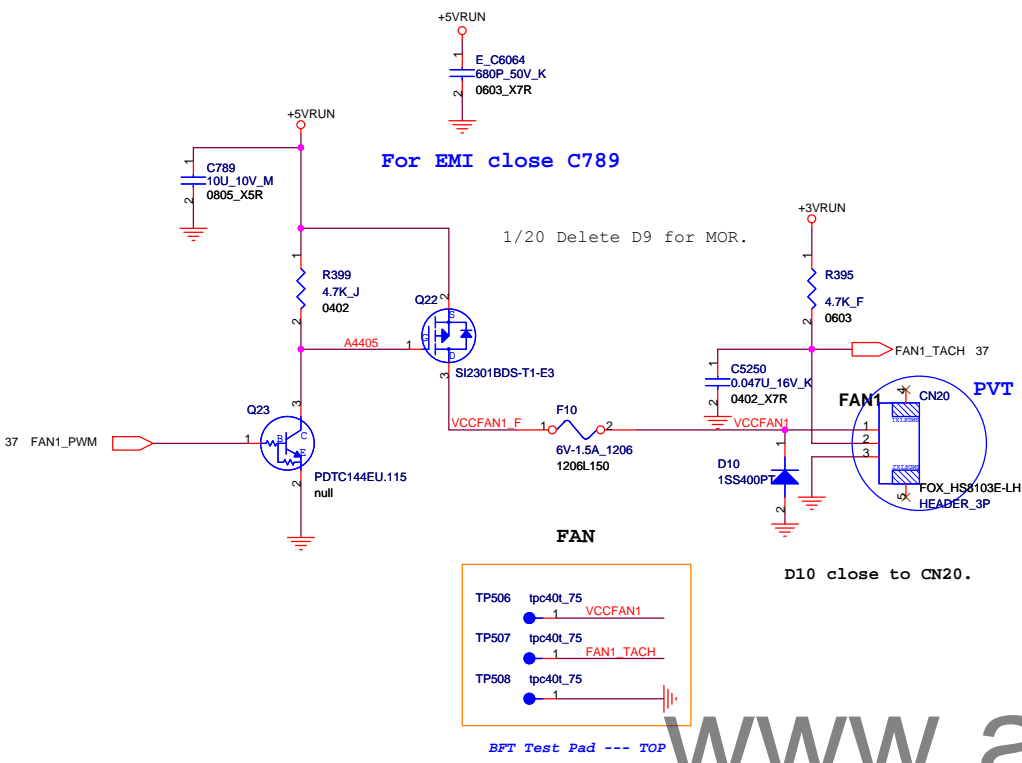
INTERNAL SPEAKER



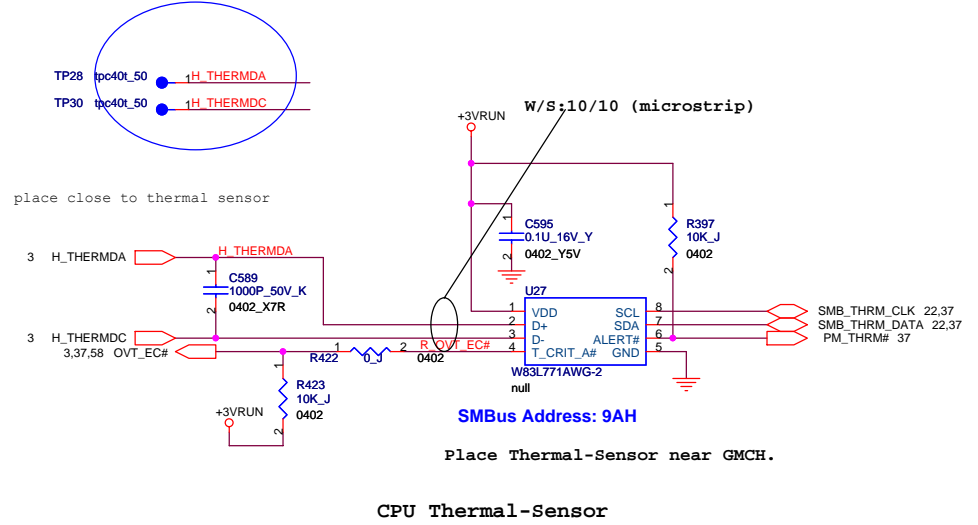
Charger Board CONN.

For Power Test (Top side)

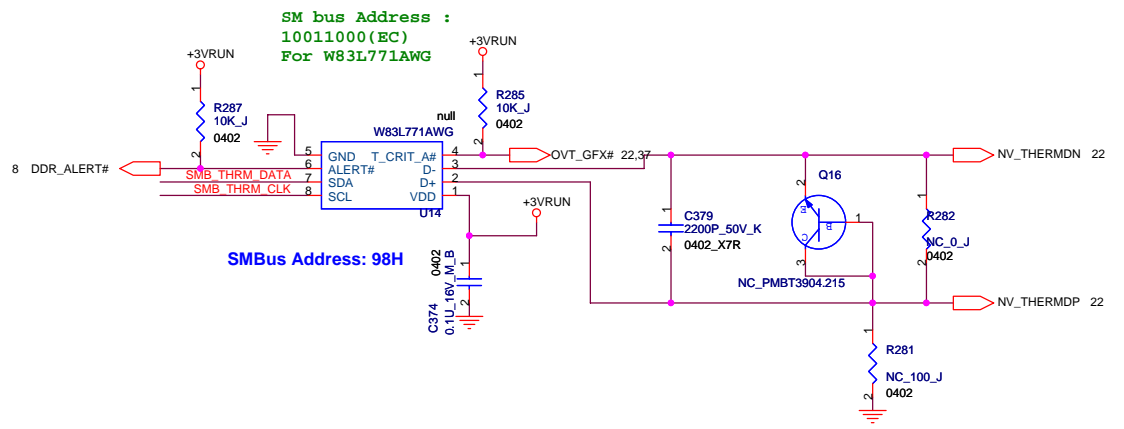
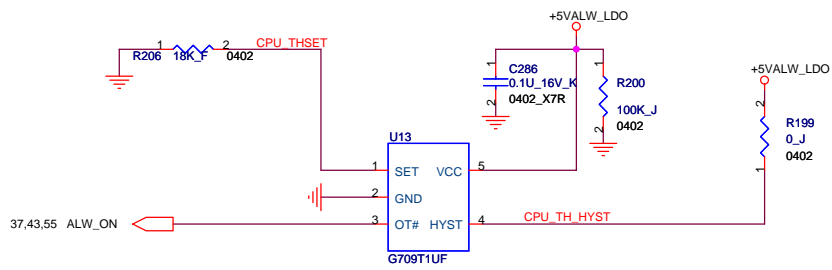


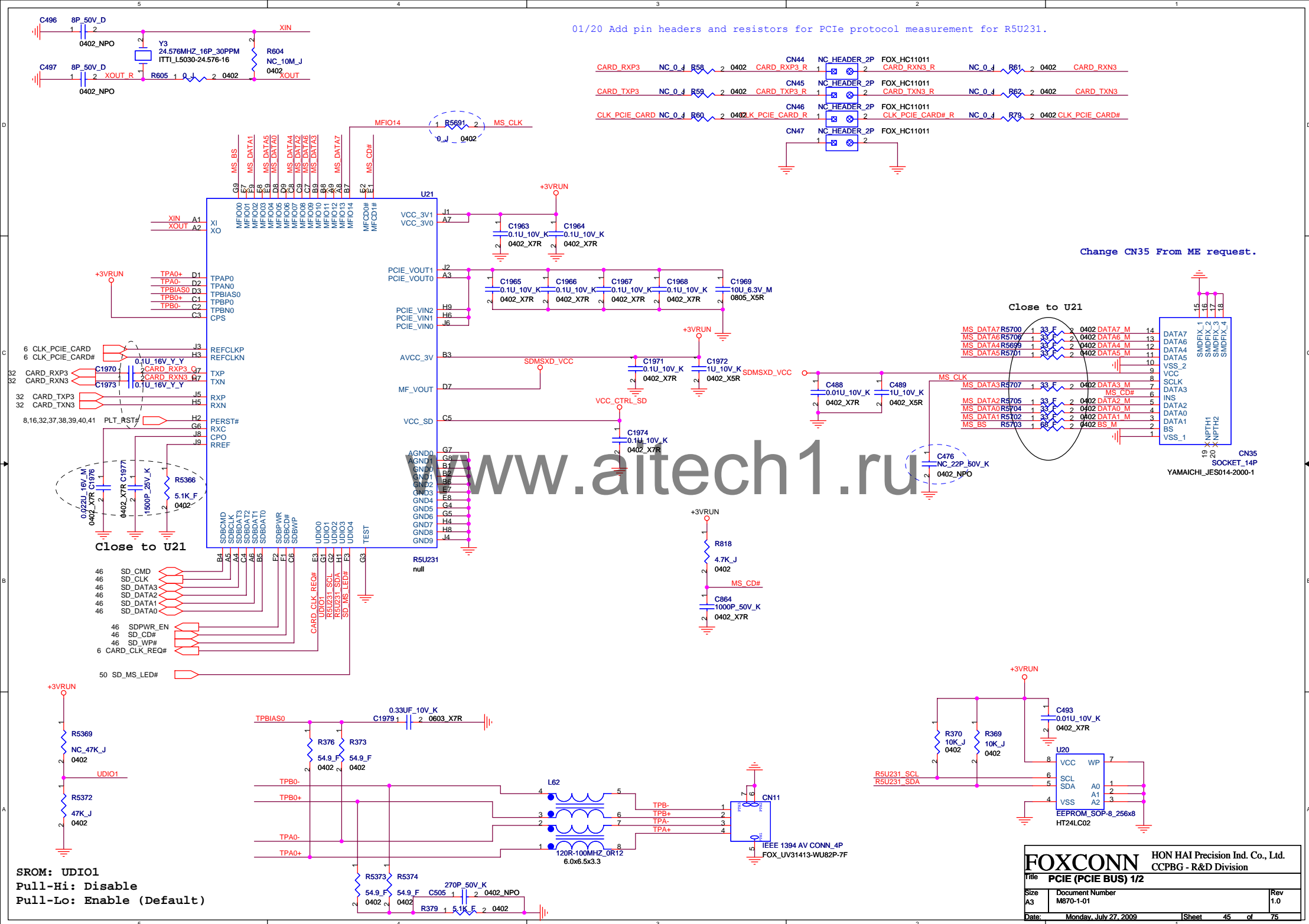


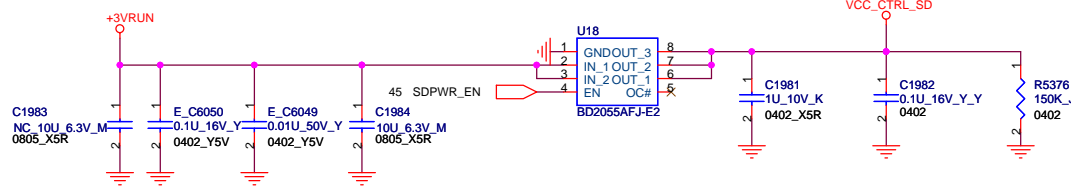
將這2個點位置拉大至少100mil，DVT時距離太進影響測



HW THERMAL PROTECTION

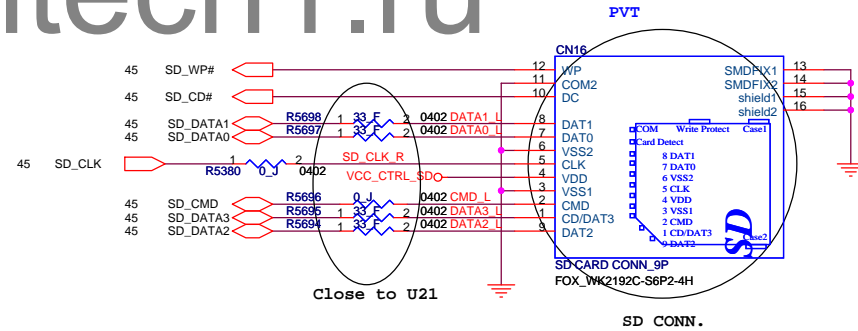
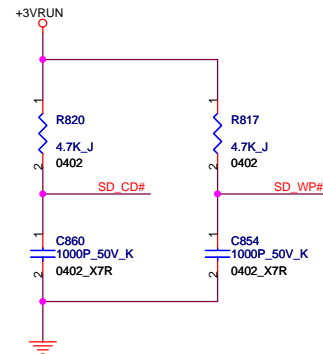




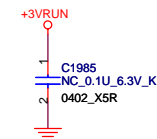
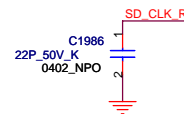


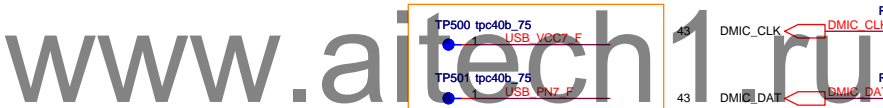
For EMI close C1983

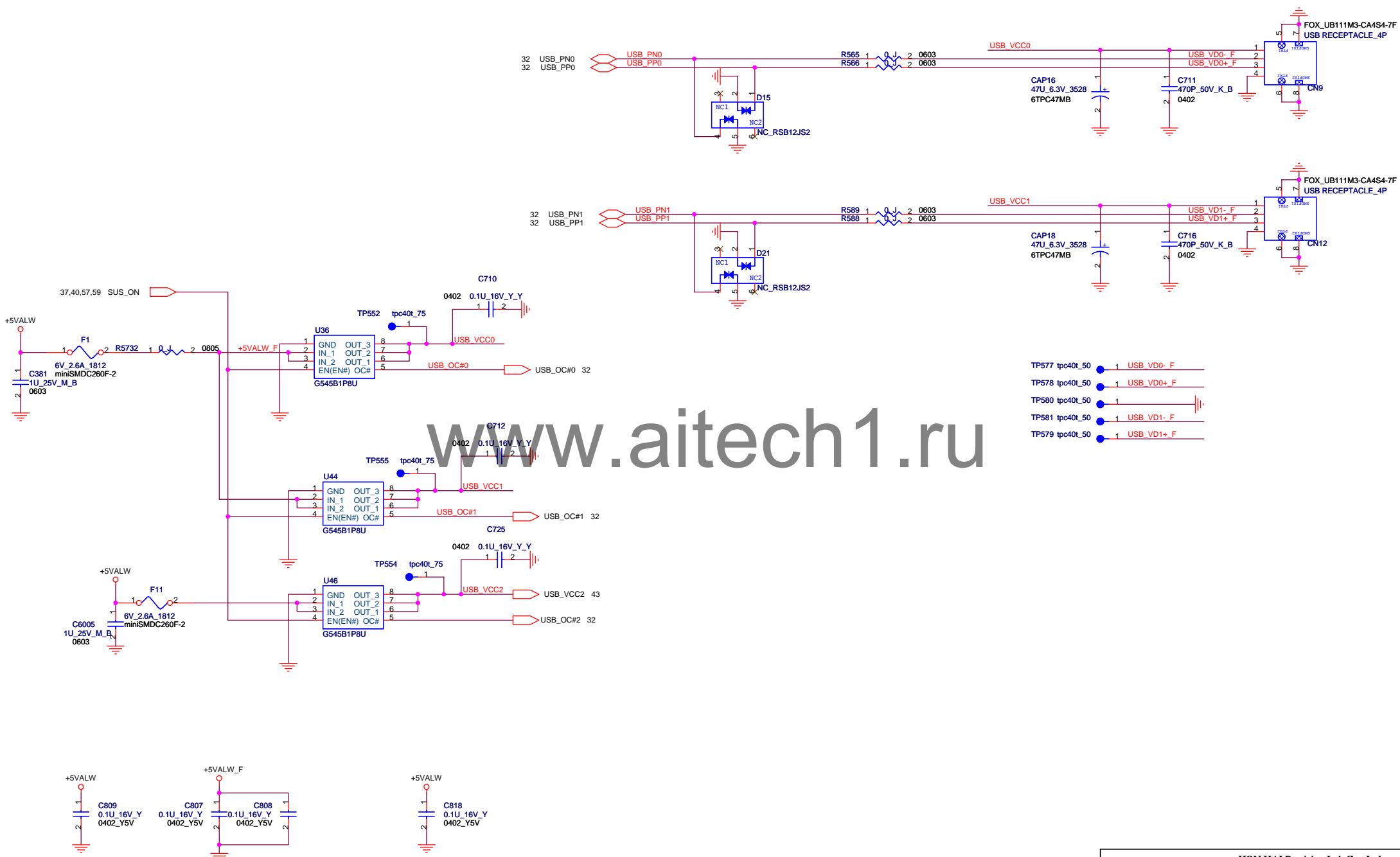
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For EMI





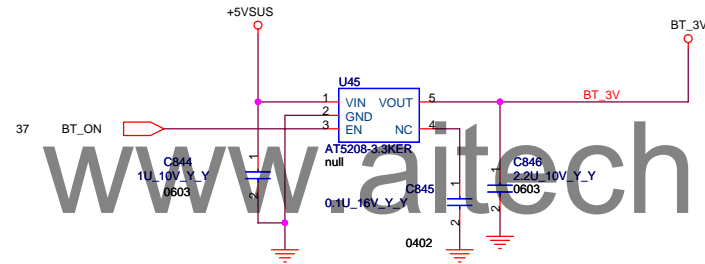
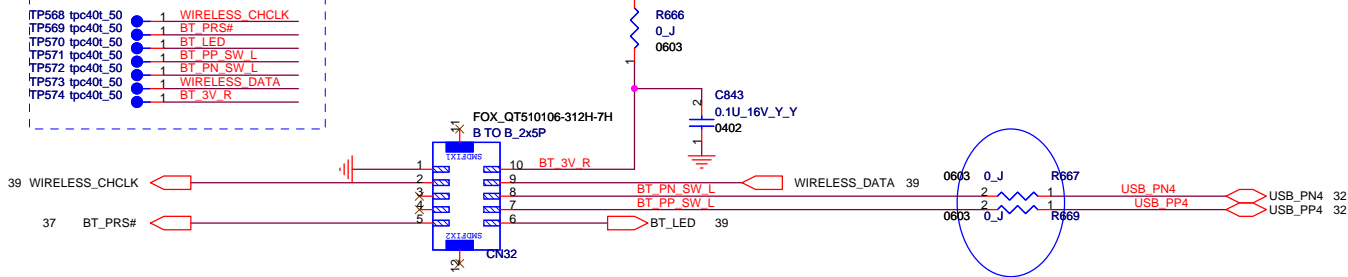


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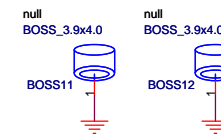
- TP577 tpc40t_50 1 USB_VD0- F
- TP578 tpc40t_50 1 USB_VD0+ F
- TP580 tpc40t_50 1
- TP581 tpc40t_50 1 USB_VD1- F
- TP579 tpc40t_50 1 USB_VD1+ F

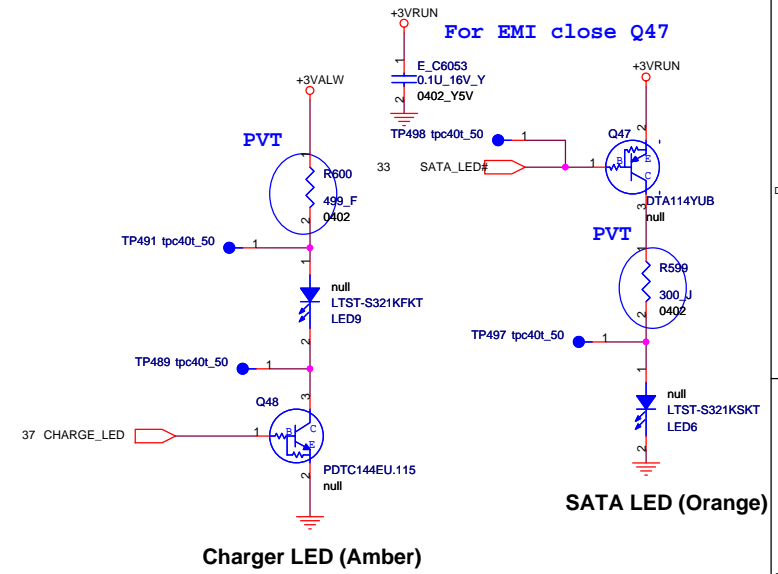
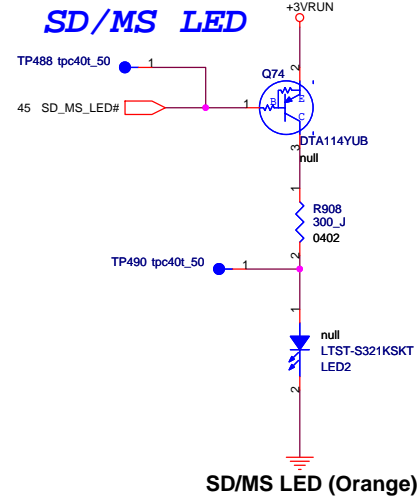
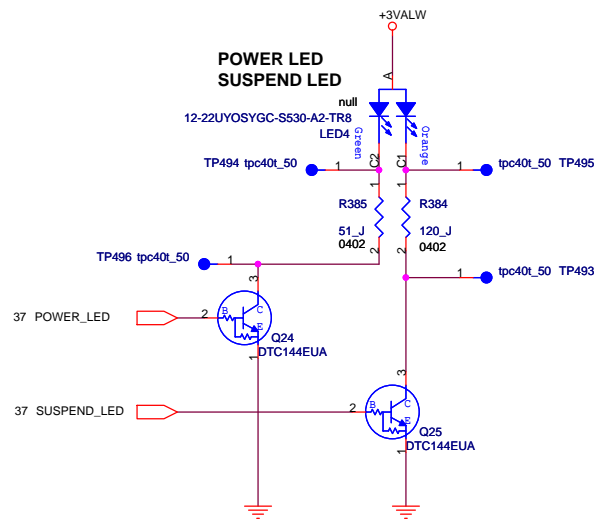
Bluetooth connector

BOT Side PVT

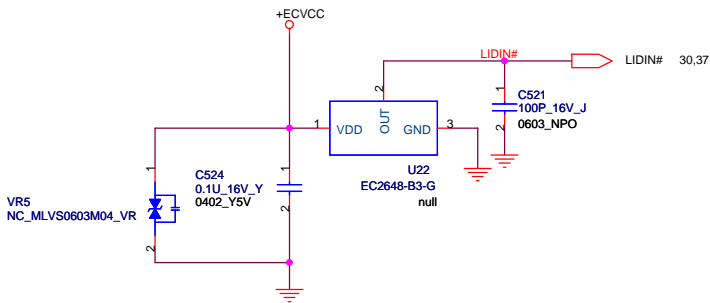
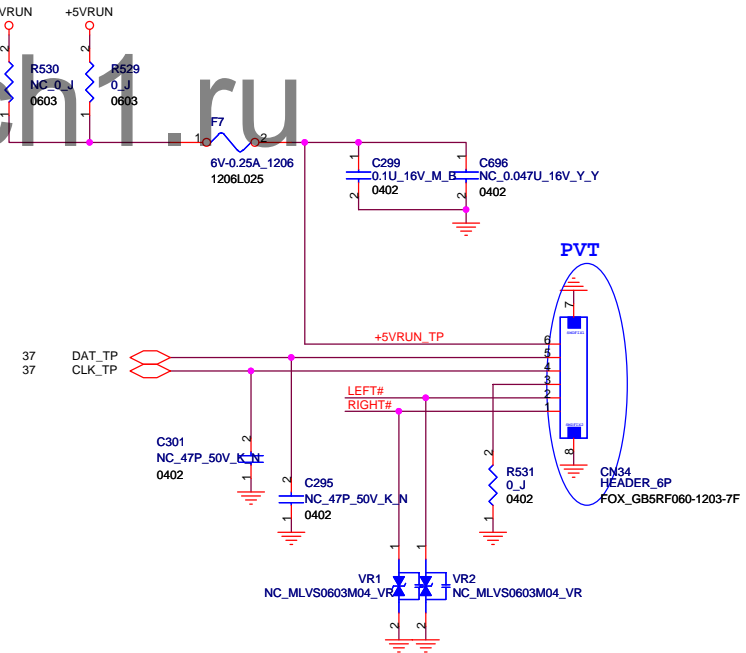
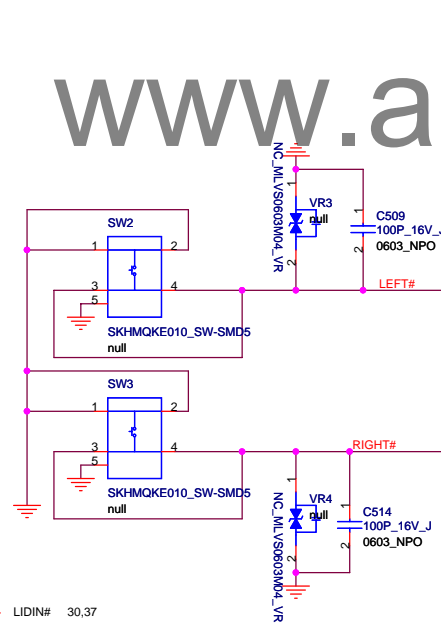


Bluetooth

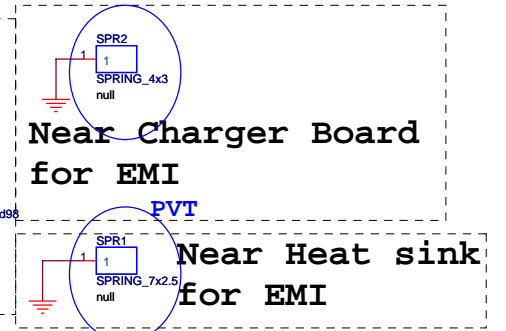
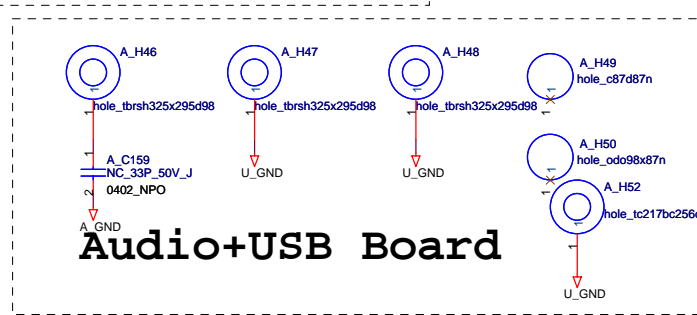
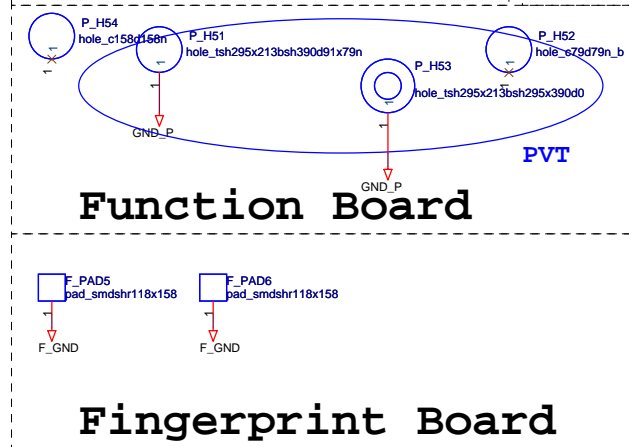
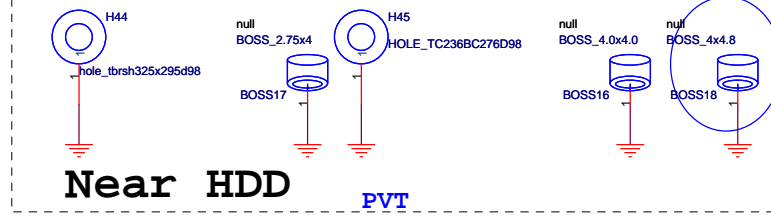
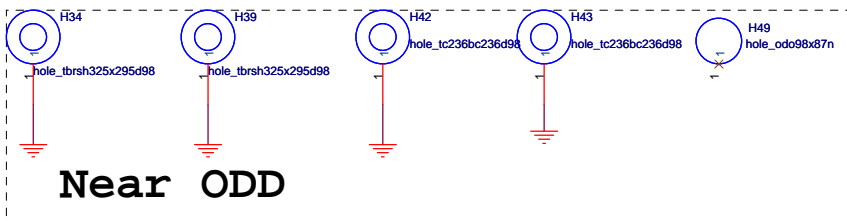
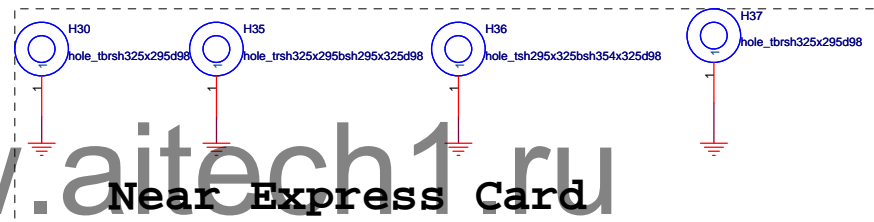
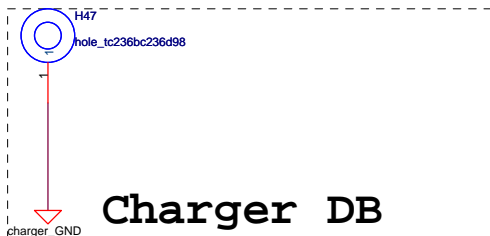
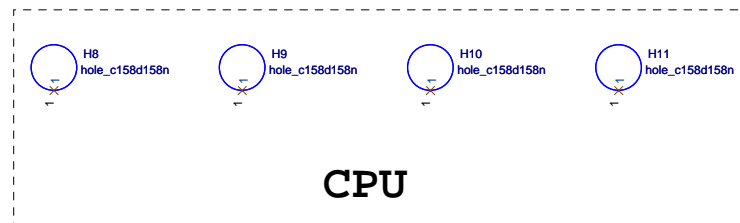
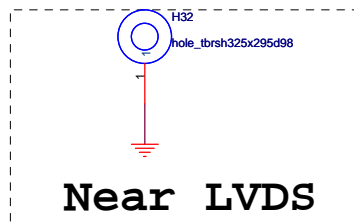
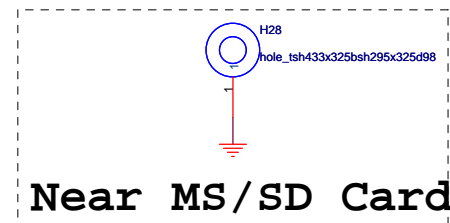
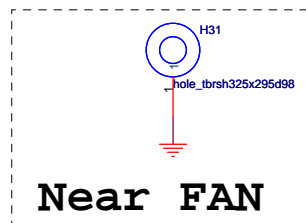
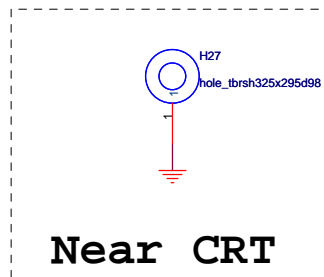
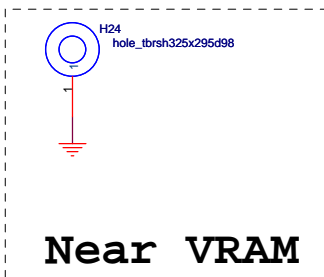
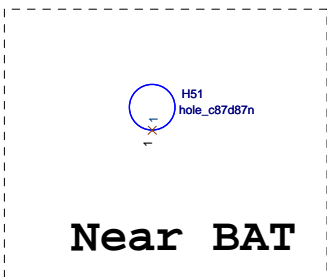
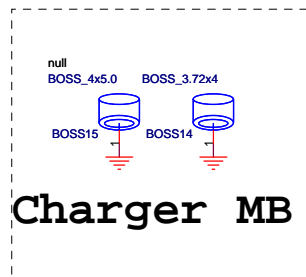


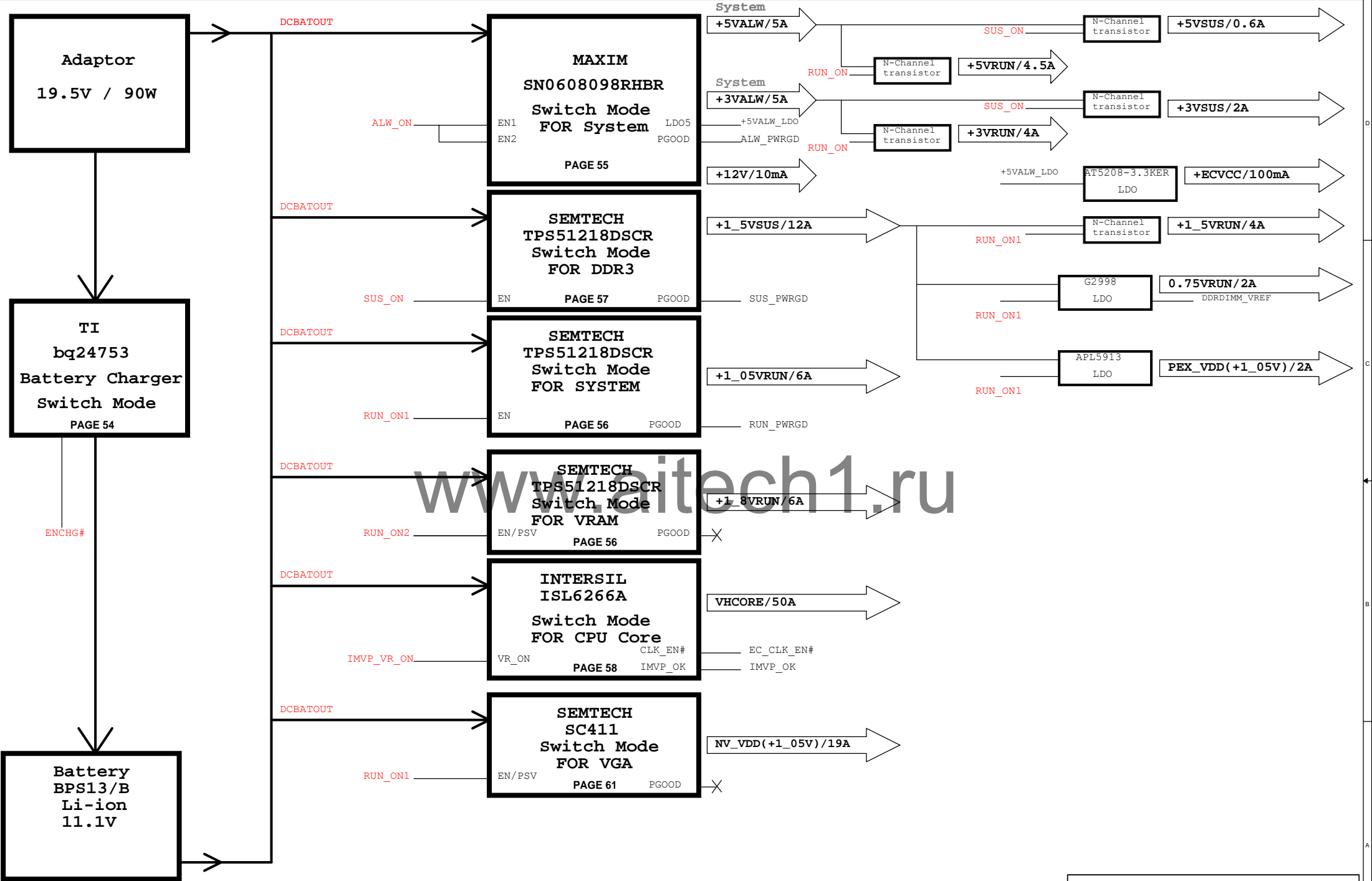


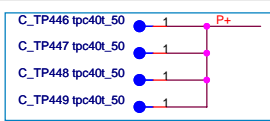
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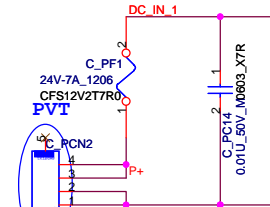




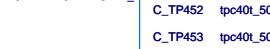




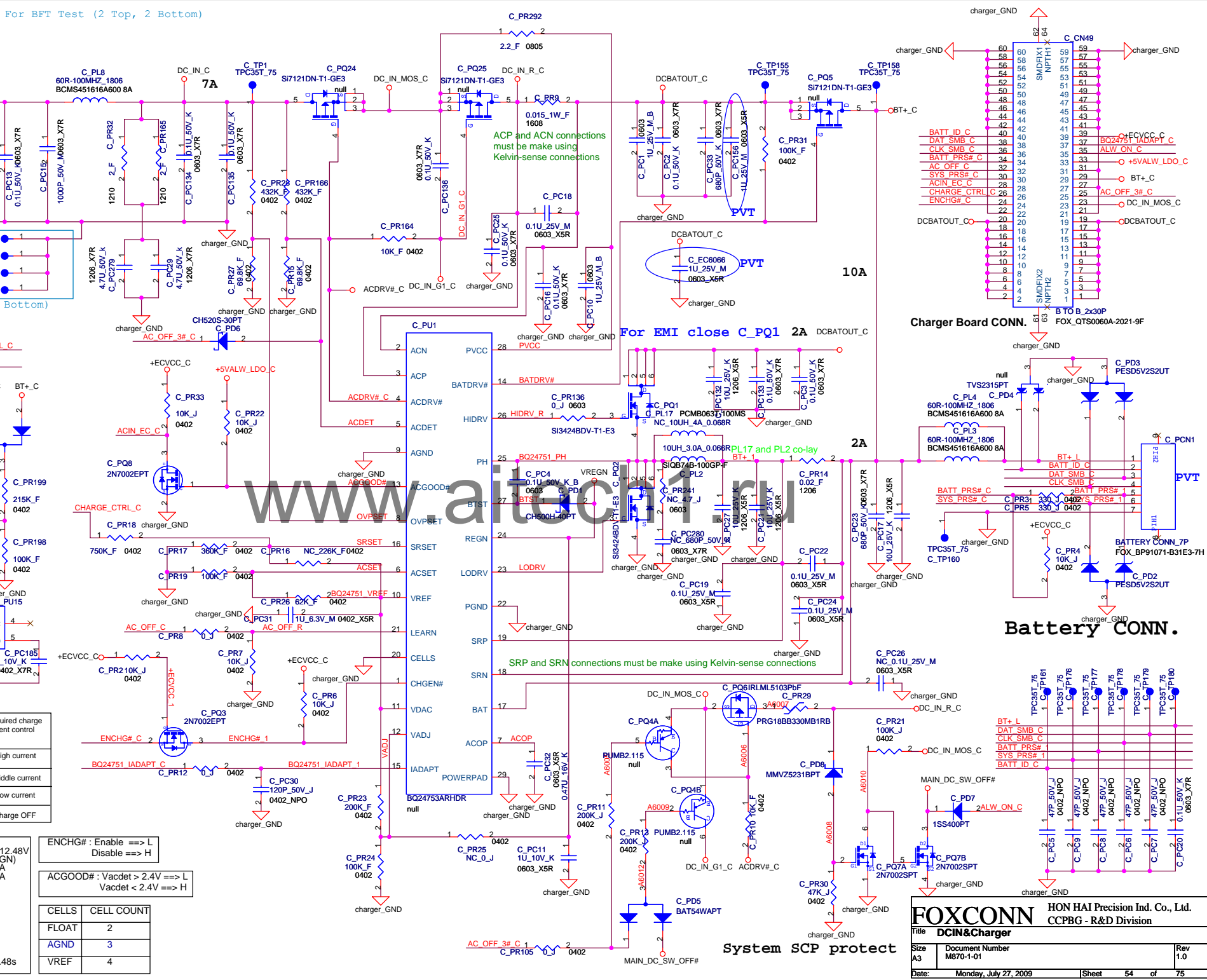
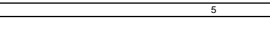
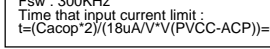
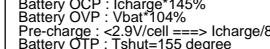
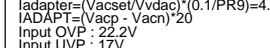
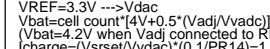
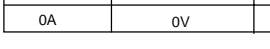
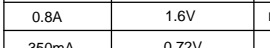
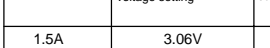
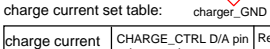
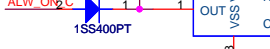
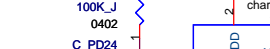
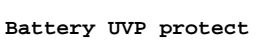
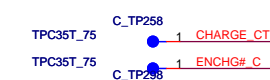
For BFT Test (2 Top, 2 Bottom)



FOX_GS73041-10272-7H POWER BOARD SIDE_4P



For BFT Test (2 Top, 2 Bottom)



charge current set table:

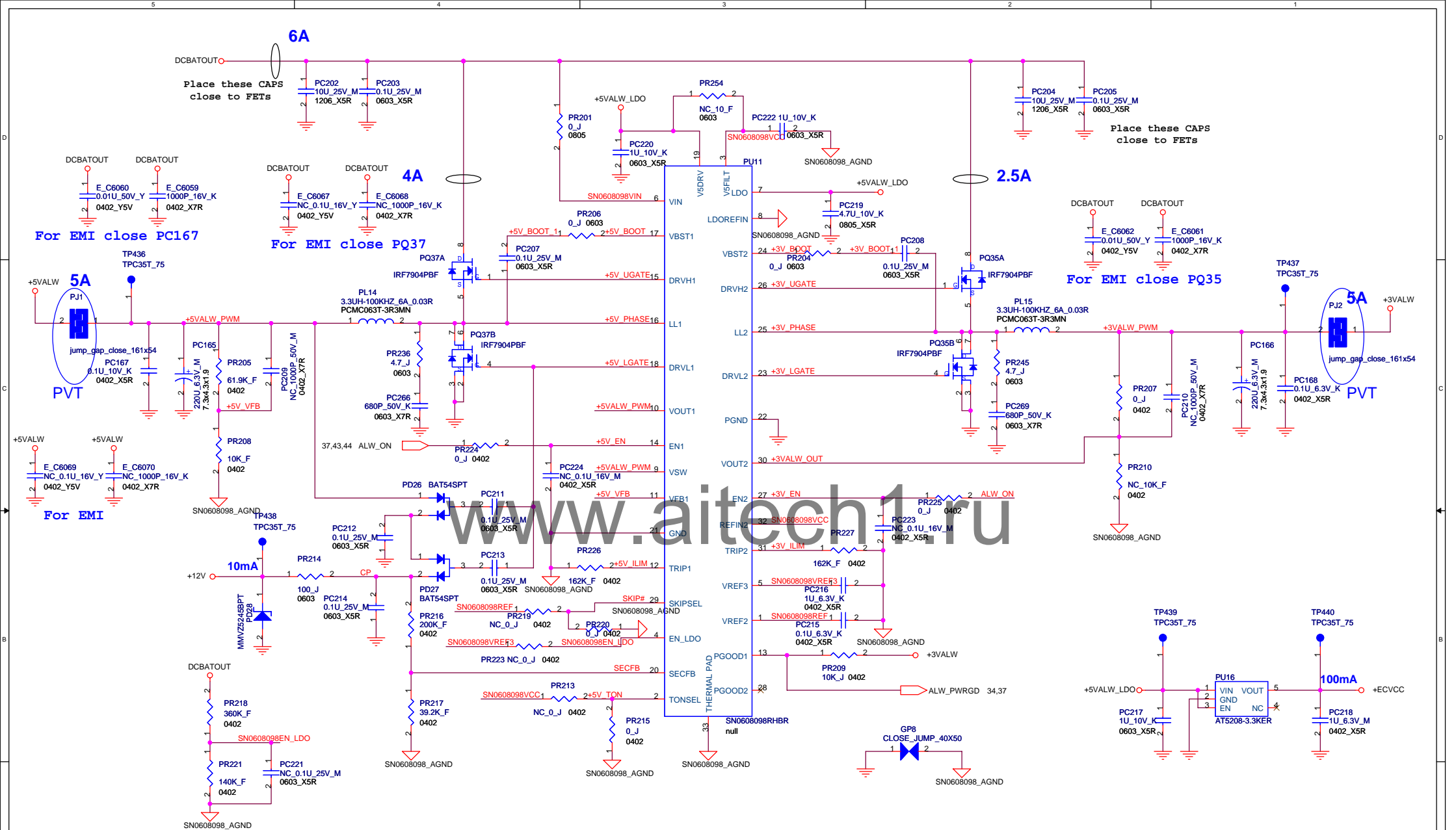
charge current	CHARGE_CTRL D/A pin voltage setting	Required charge current control
1.5A	3.06V	High current
0.8A	1.6V	Middle current
350mA	0.72V	Low current
0A	0V	charge OFF

VREF=3.3V ---> Vdac
Vbat=cell count[4V+0.5*(Vadj/Vvado)]=12.48V
(Vbat=4.2V when Vadj connected to REGN)
Icharge=(Vrsset/Vvado)*(0.1/PR9)=1.5A
Iadapt=(Vrsset/Vvado)*(0.1/PR9)=4.1A
IADAPT=(Vacc - Vacn)*20
Input OVP : 22.2V
Input OVP : 17V
Battery OCP : Icharge*145%
Battery OVP : Vbat*1.04%
Pre-charge : <2.9V/cell ==> Icharge/8
Battery OTP : Tshut=155 degree
Fsw : 300KHz
Time that input current limit :
t=(Cacop*2)/(18uA/V*(PVCC-ACP))=0.48s

ENCHG# : Enable ==> L
 Disable ==> H

ACGOOD# : Vacdet > 2.4V ==> L
 Vacdet < 2.4V ==> H

CELLS	CELL COUNT
FLOAT	2
AGND	3
VREF	4



TON	Operating Freqence (+5VALW/+3VALW)
VCC	200KHz/300KHz
REF (OPEN)	400KHz/300KHz
GND	400KHz/500KHz

SKIP#	Operating Mode
GND	Pulse-Skipping
REF	Ultrasonic-Skip
VCC	PWM

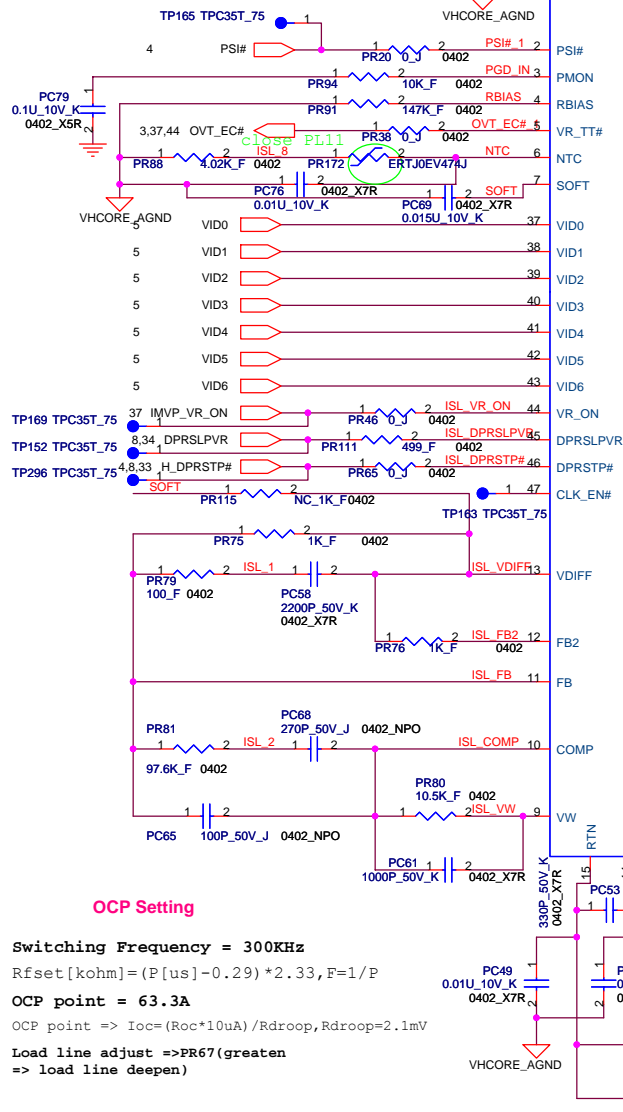
$$L = VOUT (VIN - VOUT) / (VIN * f * LIR * ILOAD (MAX))$$

$$Rocp = (Iocp - Tripple / 2) * (10 * Rds (on)) / 5u$$

$$+5VALW = ((PR205 / PR208) + 1) * VFB1$$

TP164 TPC35T_75 1 VID0
 TP172 TPC35T_75 1 VID1
 TP168 TPC35T_75 1 VID2
 TP171 TPC35T_75 1 VID3
 TP167 TPC35T_75 1 VID4
 TP170 TPC35T_75 1 VID5
 TP166 TPC35T_75 1 VID6

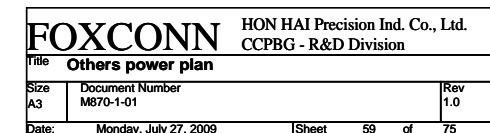
+3VRUN
 PR134 NC_10K_J 0402
 H_DPRSTP#

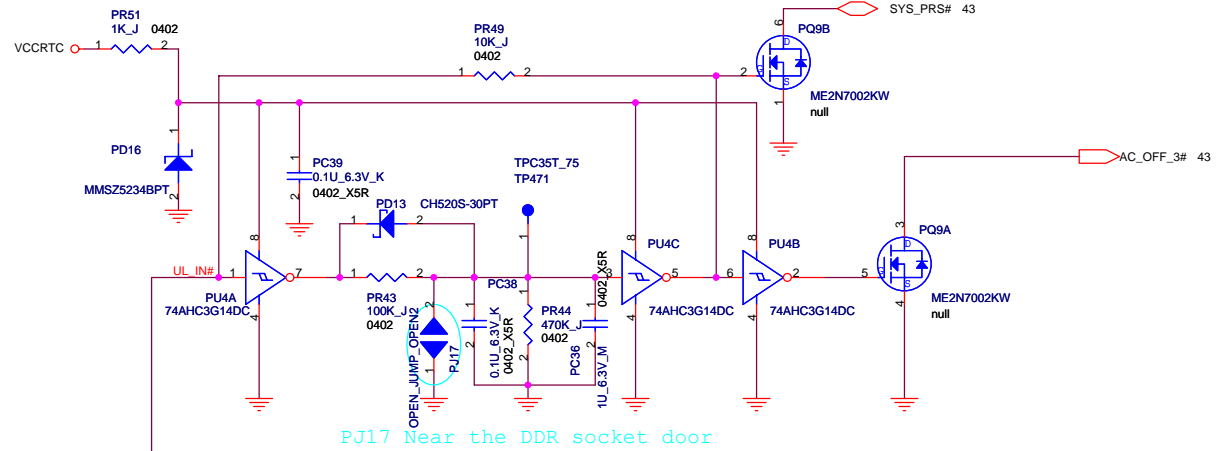
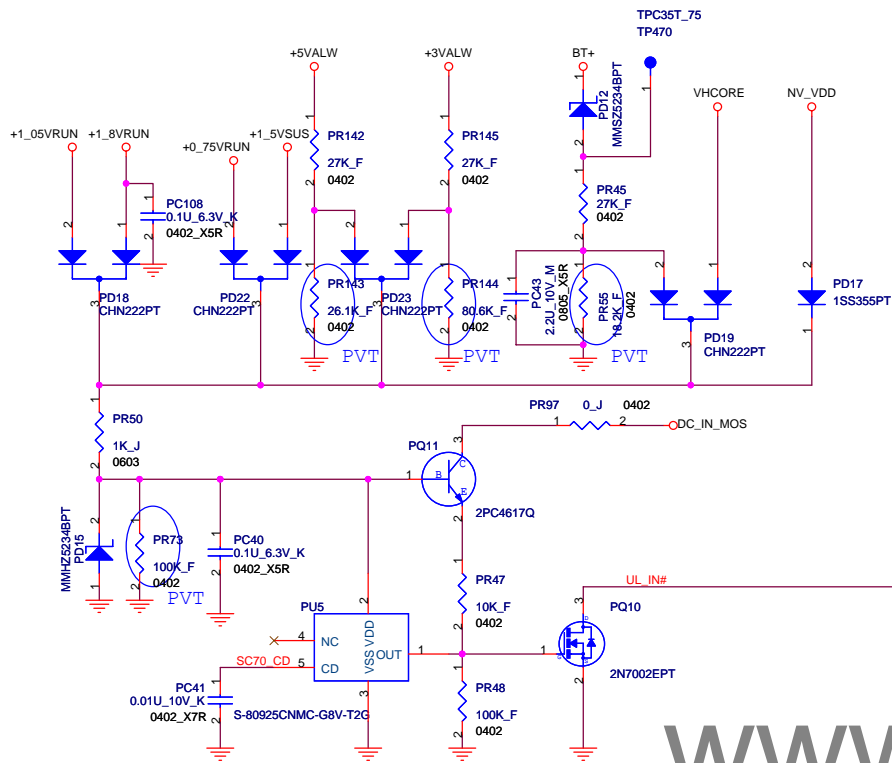


OCP Setting

Switching Frequency = 300KHz
 $R_{fset} [k\Omega] = (P[us] - 0.29) * 2.33, F=1/P$
 OCP point = 63.3A
 OCP point => $I_{oc} = (R_{oc} * 10uA) / R_{droop}, R_{droop} = 2.1mV$
 Load line adjust => PR67(greaten
 => load line deepen)

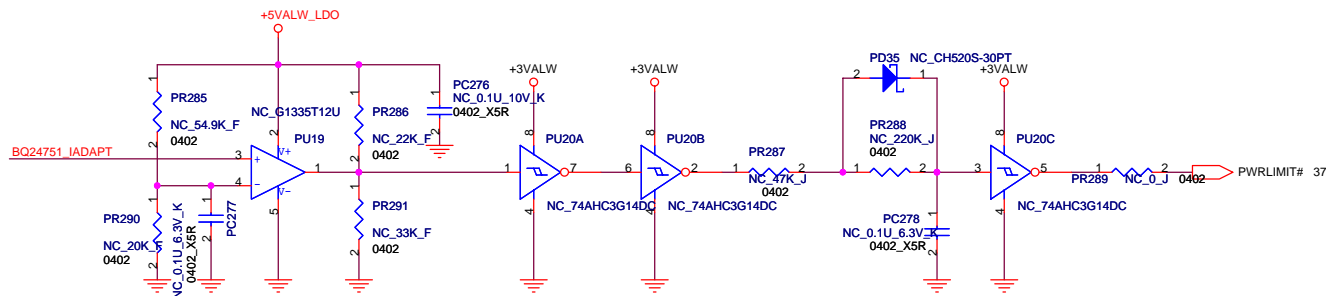
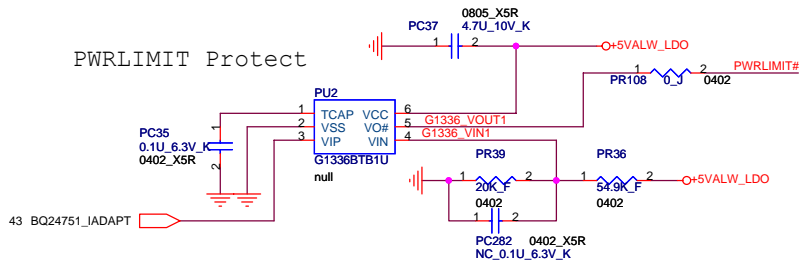
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PWRLIMIT Protect



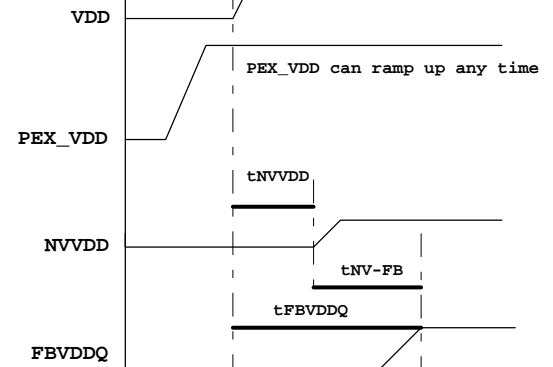
PWRLIMIT Protect

VIINP	90W adaptor
PWRLIMIT	1.3V/85W

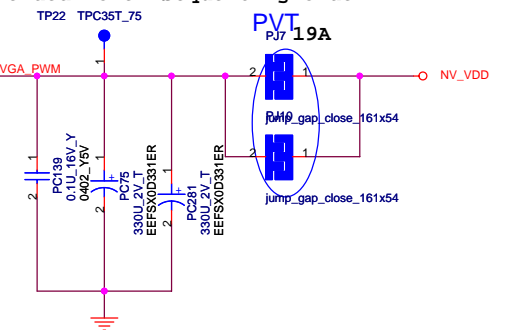
adaptor max load : 5.7A/3000ms
adaptor OCP : 7.5Amax

FOXCONN		HON HAI Precision Ind. Co., Ltd.	
Title OVP protection		CCPBG - R&D Division	
Size A3	Document Number M870-1-01	Rev 1.0	
Date: Monday, July 27, 2009	Sheet 60	of 75	

The ramp time for any rail must be more than 40 us
 $NVVDD \leq VDD (3.3V + 0.5V)$
 $FBVDDQ \leq VDD (3.3V + 0.5V)$



Recommended Power sequencing order



$$V_o = (1 + (PR181/PR184)) * 0.5$$

$$I_{oc} = (I_{trip} * R_{trip}) / R_{dson} \Rightarrow (10\mu A * PR180) / R_{dson}$$

Operating Frequency : 300KHz

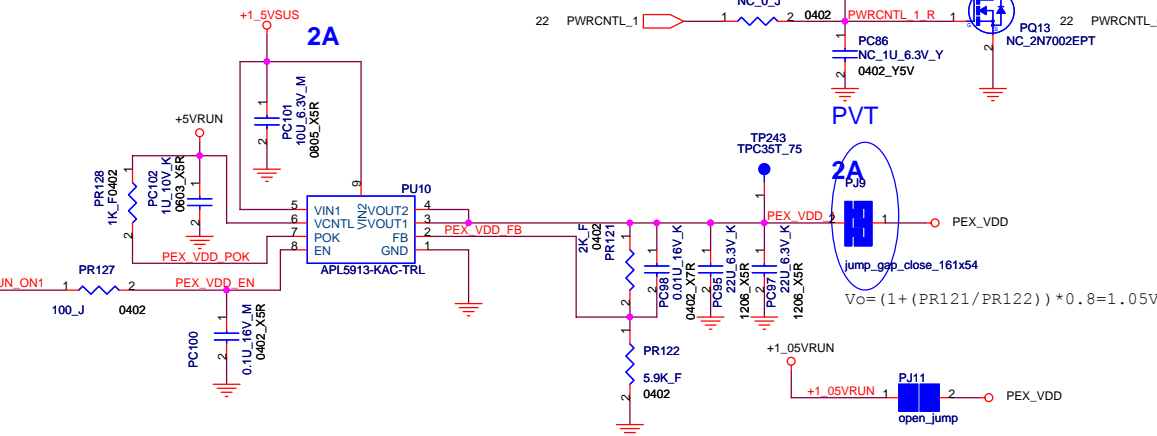
OVP $\Rightarrow V_{FB} * 116\%$

UVP $\Rightarrow V_{FB} * 70\%$

N10P-LP	I/O	Inter pull low	GPIO TABLE
PWRCNTL_0	O	Yes	GPU Voltage fix 0.85V

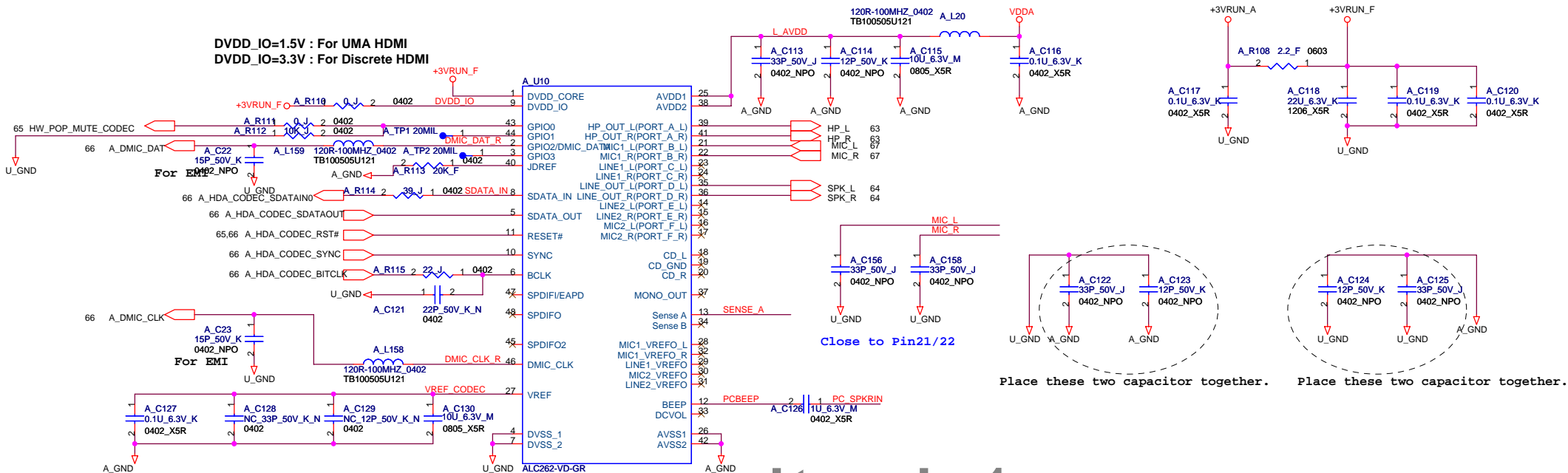
N10M-GS	I/O	Inter pull low	GPIO TABLE
PWRCNTL_0	O	Yes	GPU Voltage H:=1.00V GPU Voltage L:=0.85V

For EMI close PC102

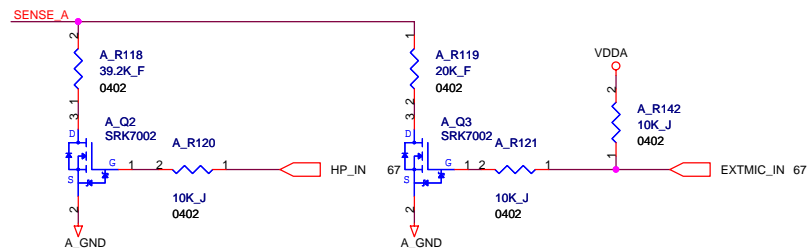


$$V_o = (1 + (PR121/PR122)) * 0.8 = 1.05V$$

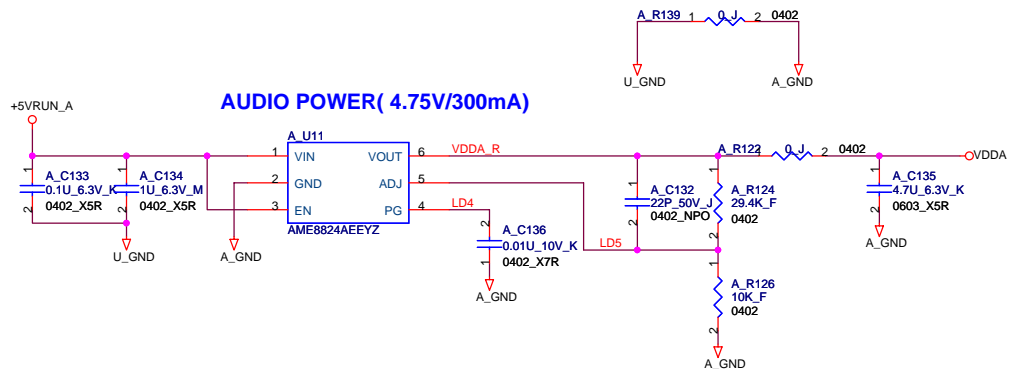
DVDD_IO=1.5V : For UMA HDMI
DVDD_IO=3.3V : For Discrete HDMI



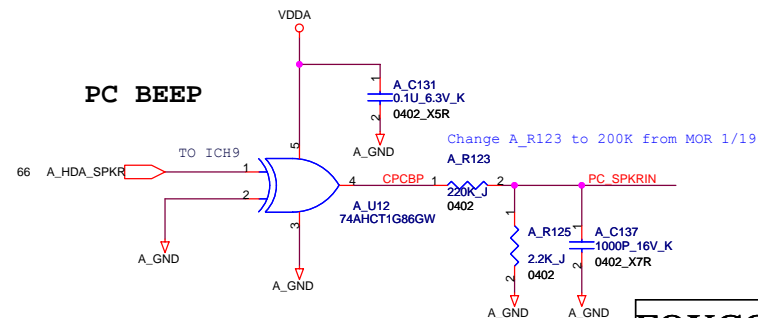
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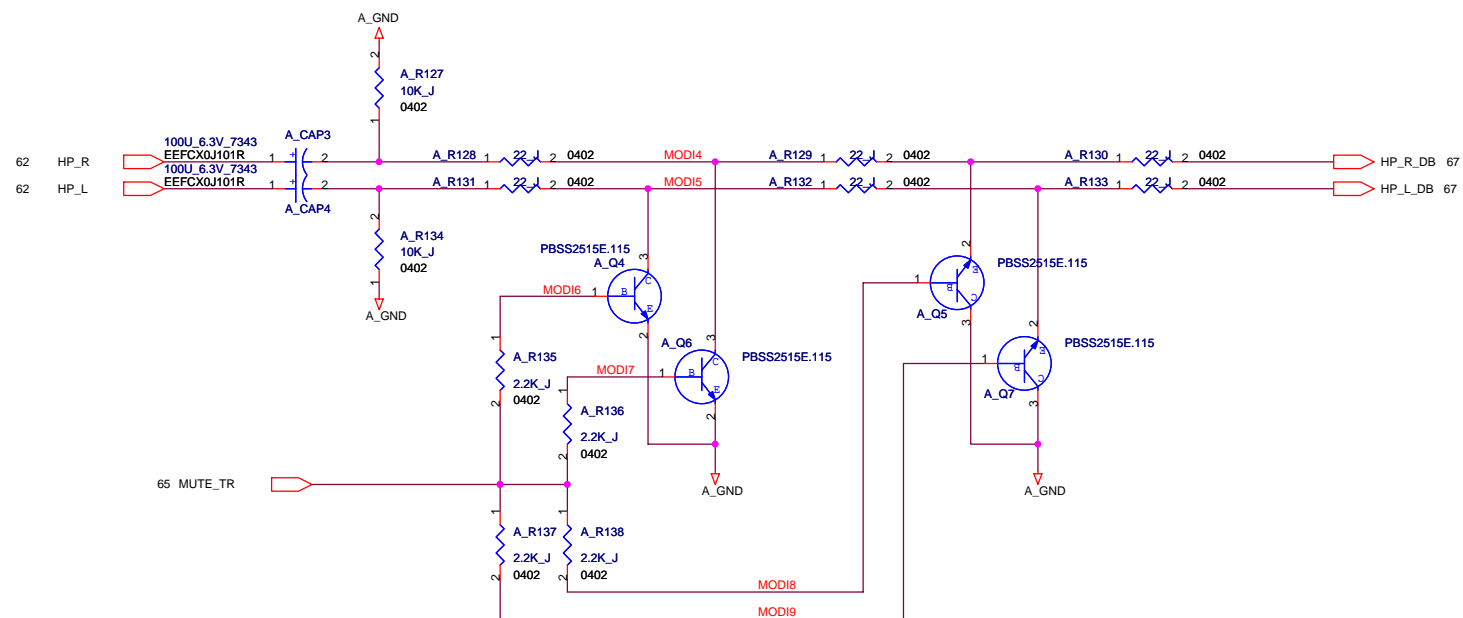


AUDIO POWER(4.75V/300mA)

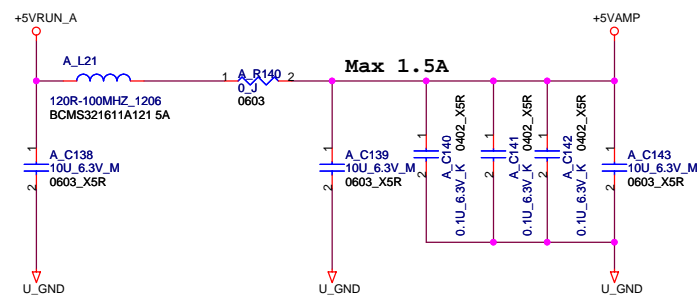


PC BEEP

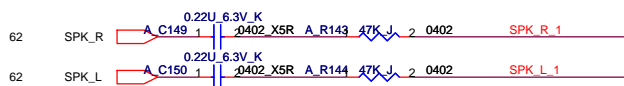
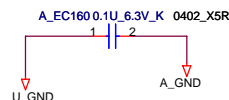




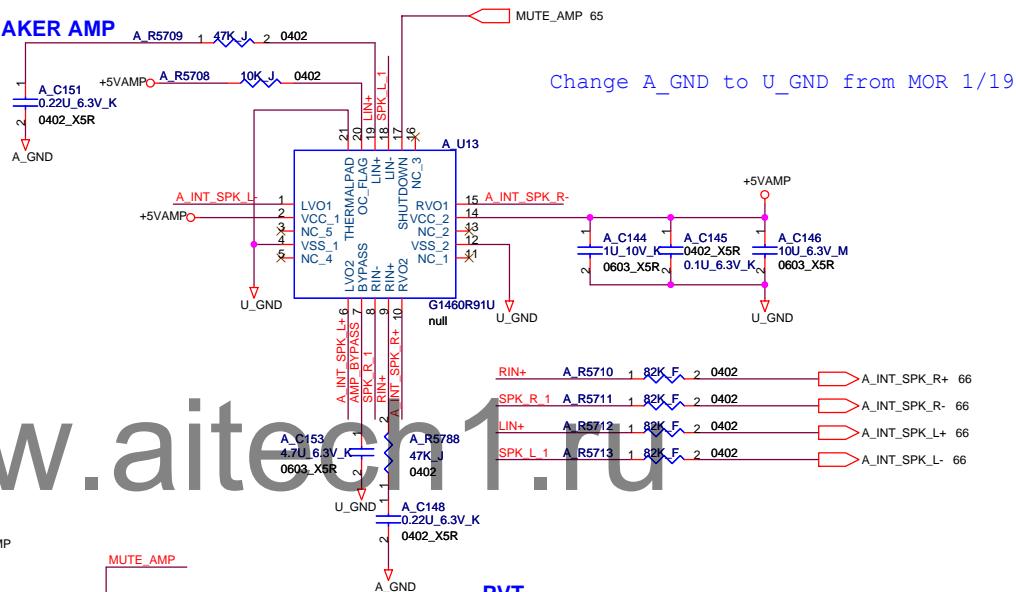
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For EMI

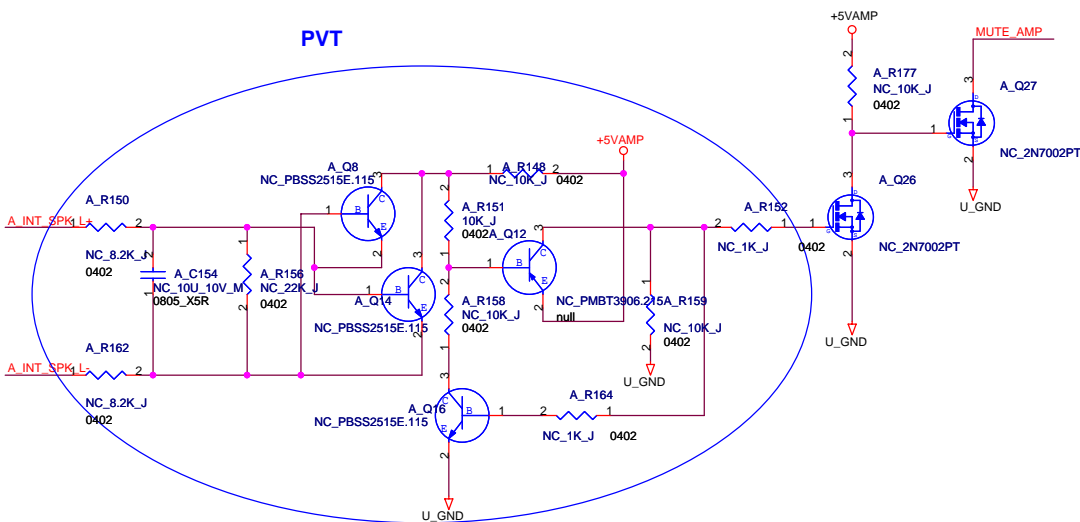


SPEAKER AMP

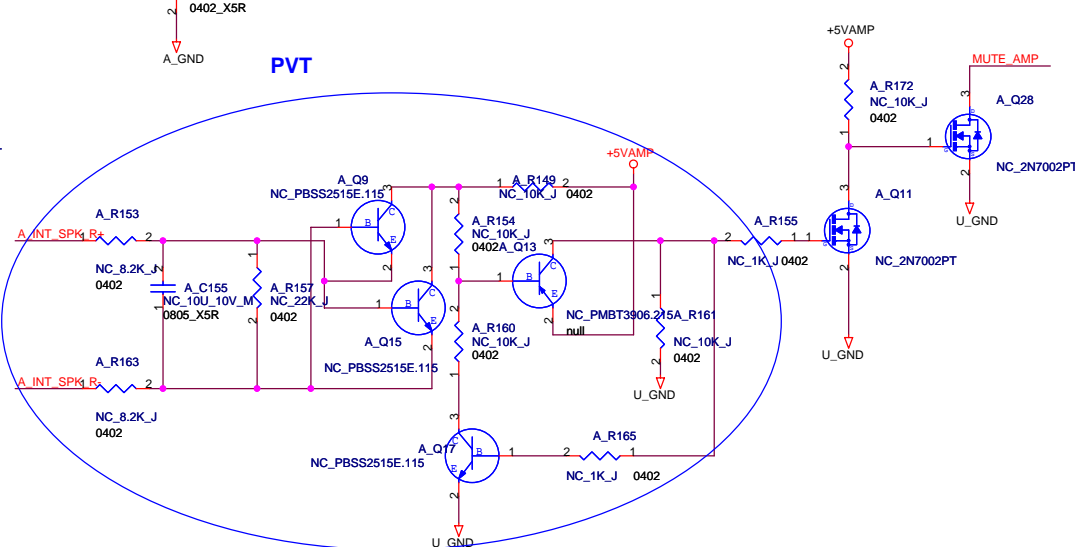


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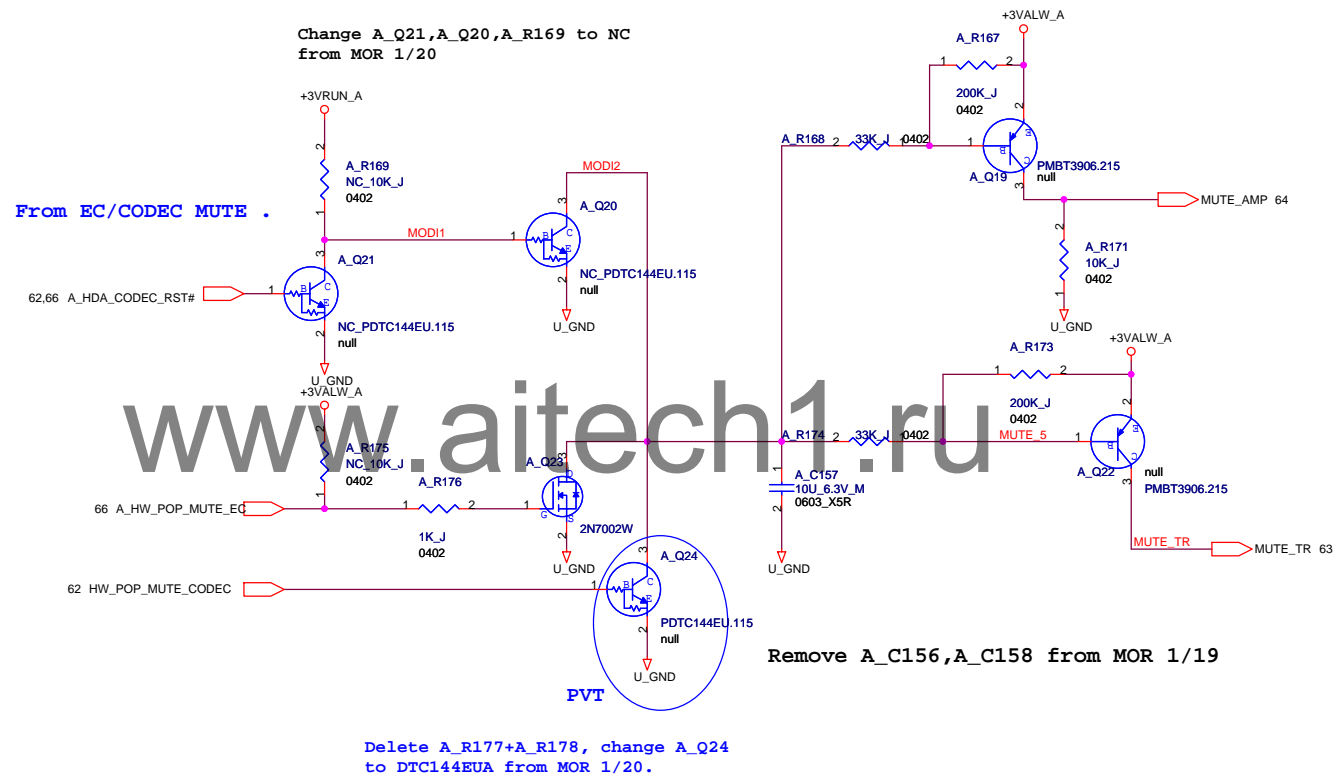
PVT



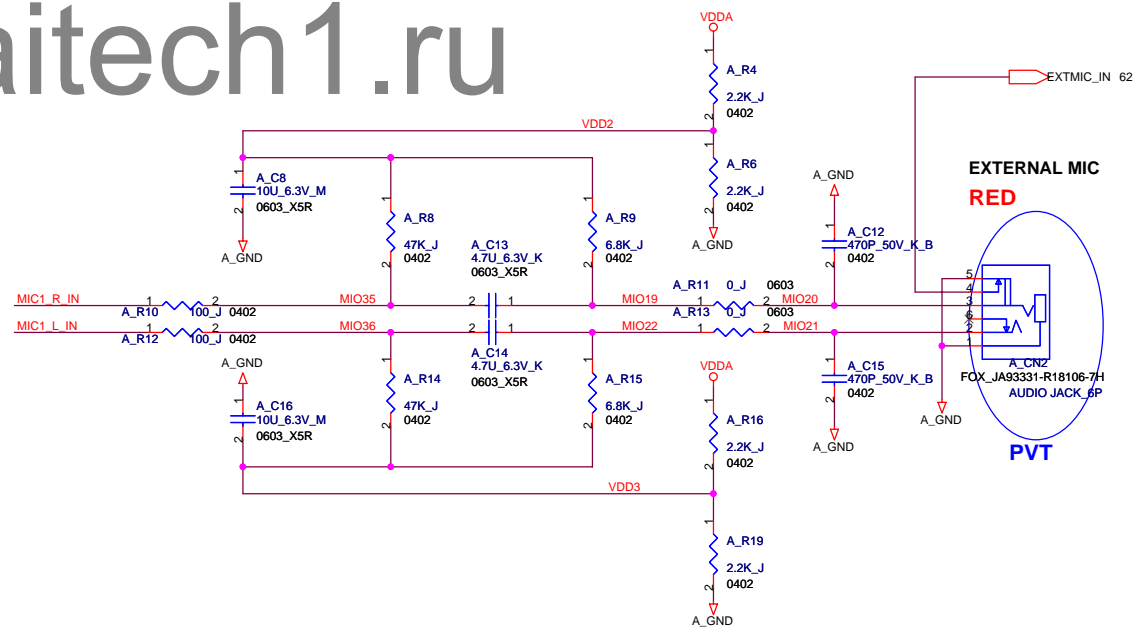
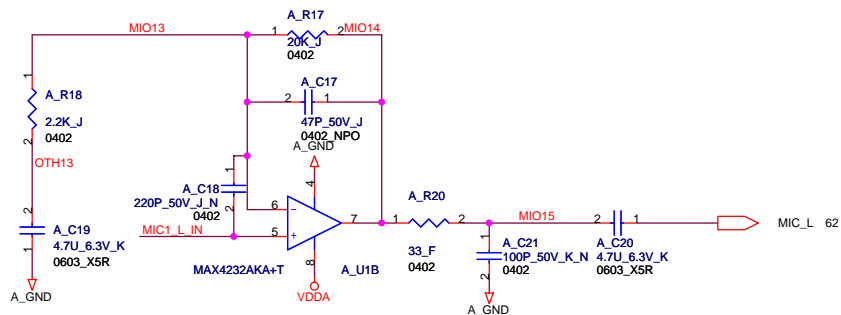
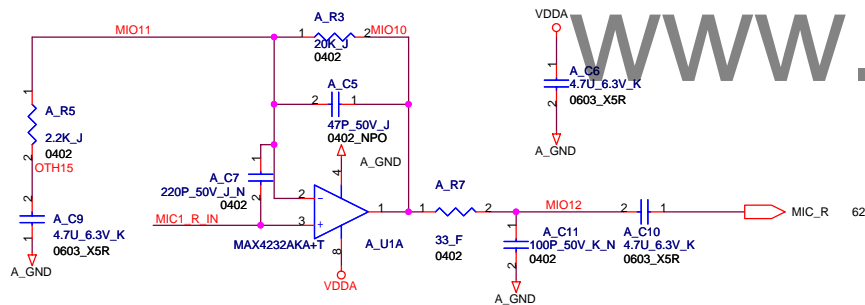
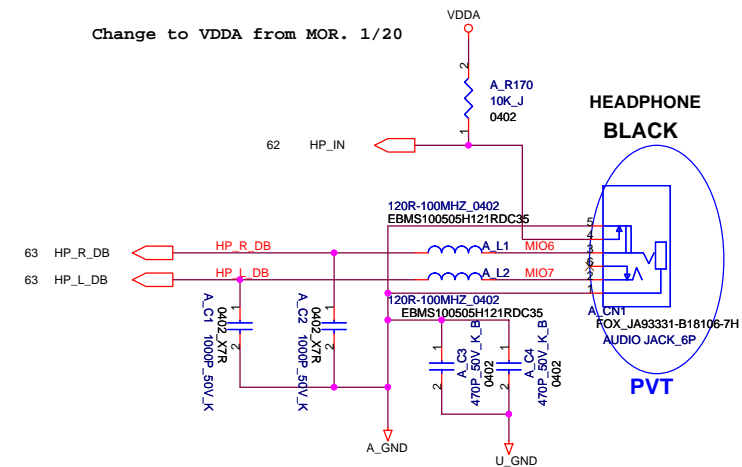
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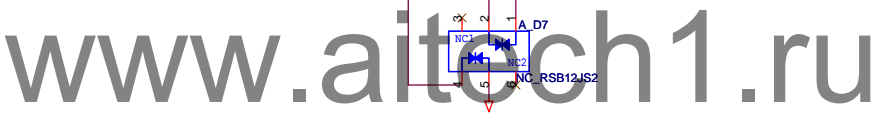


For Mor request, add the speaker cable short protection circuit

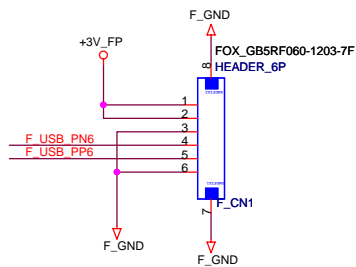
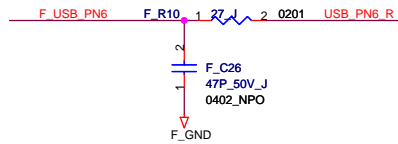
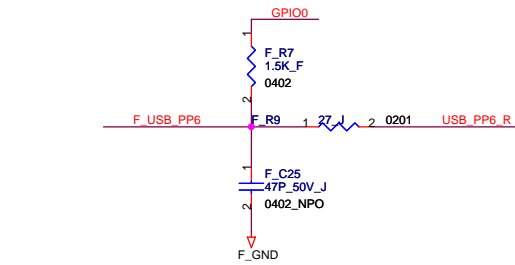


Change to VDDA from MOR. 1/20

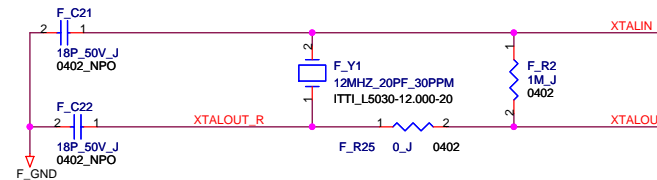
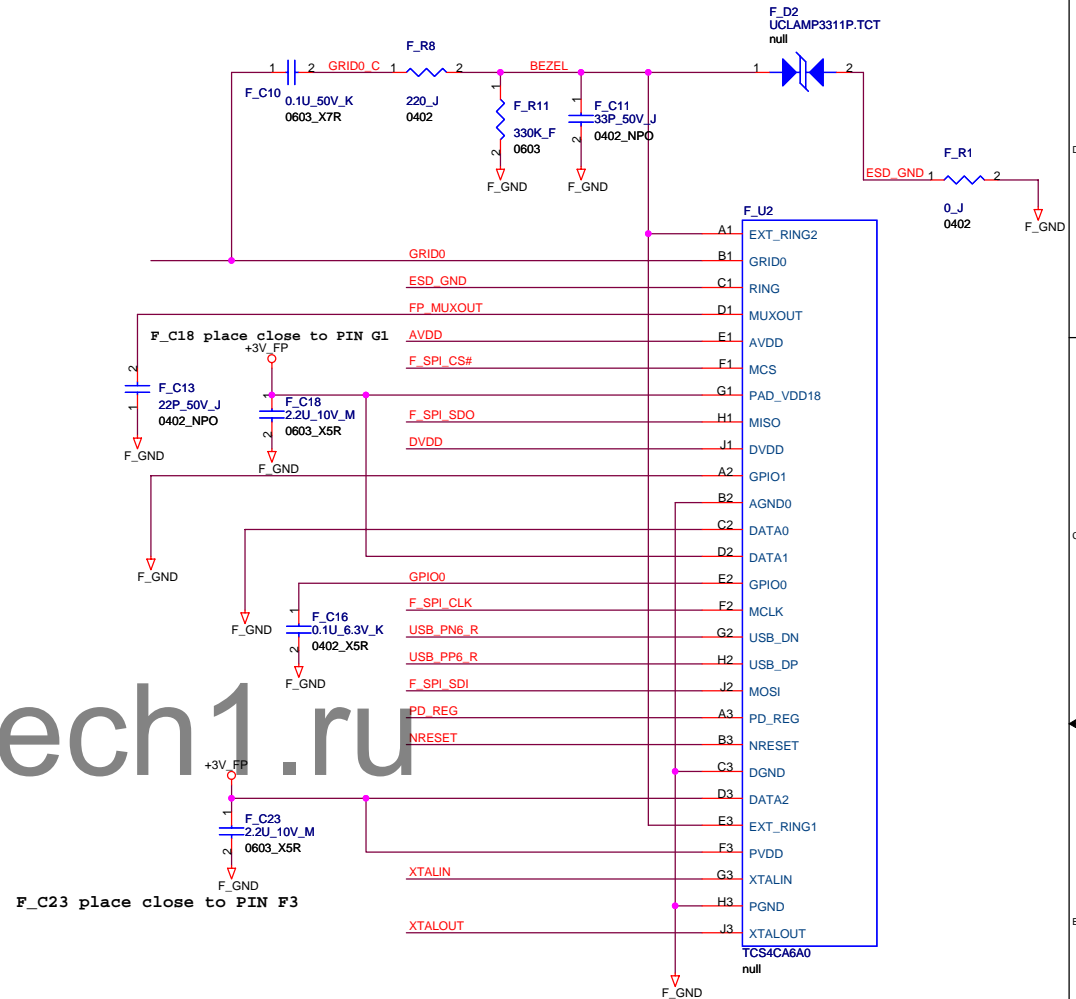
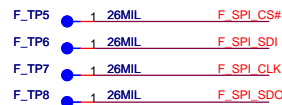
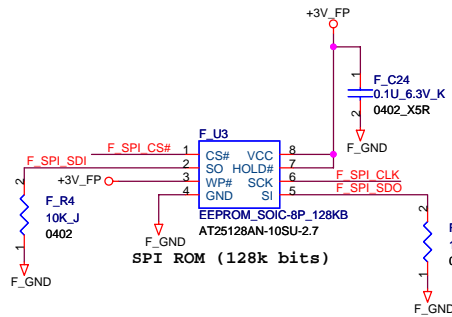
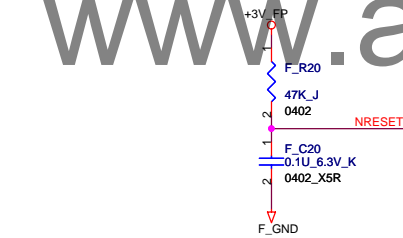
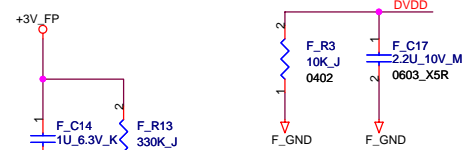
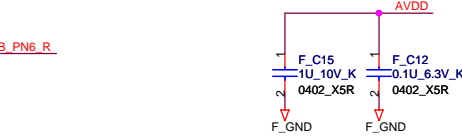


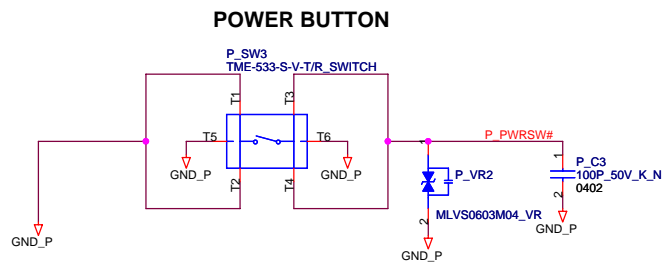


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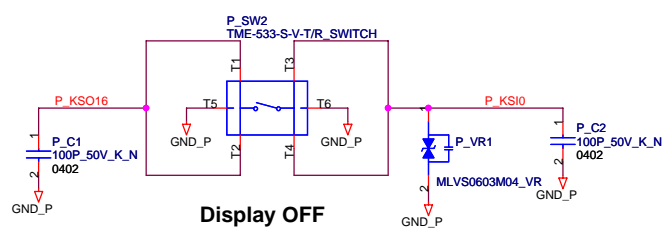
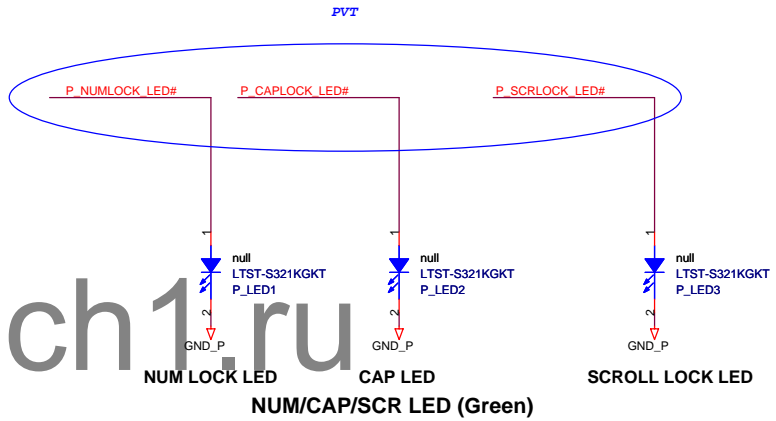
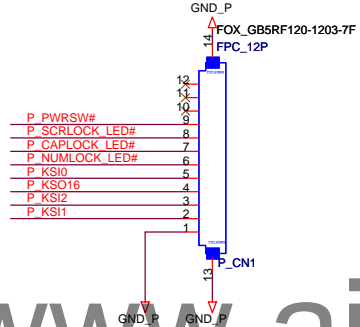


Fingerprint FTB CONN.

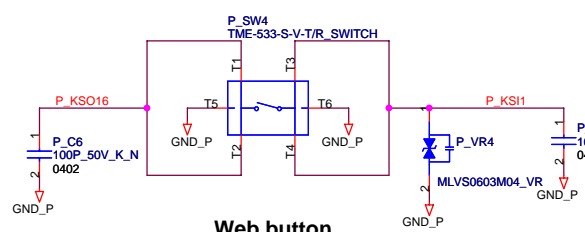




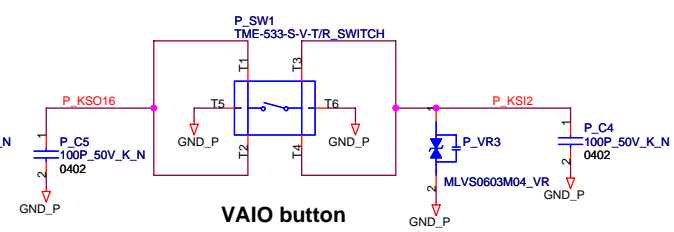
Power Button Board



Display OFF



Web button



VAIO button

(2009/01/08)
P.37 RP41 pin swap for layout request.
P.31 RP1~RP4 pin swap for layout request.
P.30 Reserve R5693 for SW test od del SW1.
P.41 Change C5183 4.7u to 10u for FAE suggestion.
P.33 Change D4 footprint for SMT request.
P.34 Change D5,D6,D8 footprint for SMT request.
P.35 Change D7,D14,D16 footprint for SMT request.
P.37 Change D17,D18 footprint for SMT request.

(2009/01/09)
P.44 Change R200 from 150 ohm to 100K.C286 change to 0402.
P.50 Modify MS/SD LED circuit of active low schematic.
P.06 Del R547,R556 for FAE suggestion.
P.09,17 Change PCIE cap to 0402 size.
P.46 Add 0 ohm resistor for SD Data.
P.45 Add 0 ohm resistor for MS Data.
P.64 Change SPK AMP circuit.
P.41 Add C5252,C5253,C5254,C5255 for FAE suggestion.

(2009/01/10)
P.03 Add Test point for CPU side (TP34,TP38)
P.69 Change F_U3 to AT25128AN-10SU-2.7.

(2009/01/12)
P.37,43 Add LED control signal for MOR request.
P.64 Add A_R5708,A_R5709,A_R5710,A_R5711,A_R5712,A_R5713 for FAE request.

(2009/01/13)
P.18 Add C878 change L74 for demo circuit.
P.23 Remove R4813,R4802,R4803,R4804,C5127 from FAE.
P.20 Change C1390 to 1u.
P.16 Remove C1322
P.20 Change R5265 to 10K ohm from Design guide.
P.58 Add PC145 for power suggestion.
P.41 Change C5184,C5185 cap size to 0402.
P.69 Change F_C12,F_C16,F_C20,F_C24 size to 0402.
P.46 Change C1985 size to 0402.
P.70 Change P_LED1,P_LED2,P_LED3 to HT-170UYG for PE suggestion.
P.50 Change LED9 to HT-170UD,LED2,LED8,LED6 to HT-170UY for PE suggestion.
P.32 Change PCIE port, port3 for cardreader,port4 for Express from MOR suggestion.
P.50 Add Q59,Q60 for power and suspend LED control.
P.24 Add C5195,C5199 for DG.
P.15 RP36,RP34,RP33,RP38 pin3,4 swap for layout.
P.20 Change C5240 for PUR request.
P.24 Change C5243,C5246 for PUR suggestion.
P.30 Change C1264 for PUR suggestion.
P.69 Change F_C10 for PUR suggestion.
P.69 Change F_C28 size to 0402.

(2009/01/14)
P.37 Add R5708 for power request.
P.62 Add A_R117 and reserve A_C22,A_C23,A_CN3,change A_R116 for EMI suggestion.
P.50 Modify power and suspend LED schematic.
P.42 Change CN13 to LD2722F-S08L6 for ME request.
P.54 Change PCN1 to BP91071-B71E3-7F for ME request.

(2009/01/15)
P.62 Delete A_C112,A_R109.
P.43,66 Modify DB conector pin define.
P.21 Change R5269 value to stuff from MOR suggestion.

(2009/01/15)
P.31 {HDMI}Delete R515,R538 because double pull-high.
P.18/19 {VGA}Remove R5576,R5579,R5577,R5580
P.62 {Audio}Change A_R112 to 10K and add A_R142 from MOR request.
P.64 {Audio}Remove A_R150,A_R162,A_R153,A_R163.
P.65 {Audio}Remove A_R172 because have double resistor.
P.16 {VGA}Remove C5124.Add C1303 for DG.
P.22 {VGA}Remove R5300 from FAE suggestion.
P.17 {VGA}Add R5251 for N10P-Lp deivce ID 0x0A2A.
P.43 {LED}Move LED circuit to MB.

(2009/01/19)
P.55 {3V/5V}Add PR236,PR245,PC266,PC269 for EMI request.
P.62 {Audio}A_CN3 For EMI Request.
P.12 {Cantiga}Remove R211 from MOR request
P.30 {LVDS} Change L43 to 600R-100MHZ_0805 from MOR request.
P.37 {EC} Add 10K pull-high resistor for INST_ON_SW.
P.30 Change SW1 to HDS406-021E_SW-SMD12 for INST_ON_SW function.
P.45 {Cardreader} Add R818,C864 MOR request (For noise reduction).
P.45 {Cardreader} Change C489 to 1u MOR request.
P.46 {Cardreader} Change C1981 to X5R MOR request.
P.46 {Cardreader} Remove R5377 for MOR request.
P.65 {Audio}Remove A_C156,A_C158 from MOR request.
P.62 {Audio} Change A_R123 to 200K from MOR request.
P.64 {Audio} Change A_5709,A_5788 to 47K,A_C148,A_C151 to 1U from MOR request.
P.26 {VRAM} Add C23,C25,C26,C28 For 2.4GHz noise.
P.25 {VRAM} Add C30,C31,C32,C45 For 2.4GHz noise.
P.16 {VGA} Add C46,C47,C48,C49,C50 For 2.4GHz noise.
P.11 {Cantiga} Add C21,C53,C54 For 2.4GHz noise.
P.14/15 {DDR3} Modify to DDR3 circuit from MOR request.

(2009/01/20)
P.60 {OVP} Remove PD10 from MOR request.
P.08 {Cantiga} Add U43, C820, R568,R582 to solve SUS_PWRGD level drop issue.
P.37 {EC} EXT_DEV_SENSE change to GPIO33 from EC request.

(2009/01/23)
P.45,46 {Cardreader} Change CN35,CN16 connector from ME request.
P.34 {ICH9} Add R5714 for GPU ES sample.
P.17 {VGA} Change R5251 to 15K,Add R5716 15K for FAE request.
P.38 {EC} Add 1K pull-high from Vendor suggestion.
P.43 {LED} Change LED power plan from 3V to 5V from MOR suggestion.
P.17 {VGA} Change R5249 to 45.3K.

(2009/02/05)
P.38 {SPI} Change U12 to MX25L1605DM2I-12G.
P.21 {VGA} R5269 to no stuff from MOR request.
P.22 {VGA} Reserve R5717 from MOR request.
P.30 {LVDS} Change U29.1 to INV_EN from MOR request.(LCD timing)
P.21 {VGA} Reserve R5718(+3VRUN) for IOVDD backup from MOR.

(2009/02/16)
P.42 {SATA} Change CN13 HDD CONN from ME request.
P.21 {VGA} Add C5138 for design guide v03.
P.31 {HDMI} Delete LEVEL SHIFTER circuit from MOR.
P.56 {+1_8V/+1_05V} Change PL12 to PCMB053T-1R5MS for Power request.
P.45 {Cardreader} Change PCIE Head connector.
P.43,69 {Fingerprint} Change Fingerprint CONN to 6pin for layout sapce.

(2009/02/19)

P.24 {VGA Power} Delete C5246,C5207,C5210
Add C6038,C6039,C5201,C6040,C6041 from DG v04.
P.25 {VRAM} Delete R5336,R5720,R5344,R5721 Add R5724,R5725
from DG v04.
P.26 {VRAM} Delete R5350,R5723,R5351,R5722 Add R5726,R5727
from DG v04.
P.18 {VGA} Delete C876,C6018,C6016,C6017,C6019 for M and L board.
for N10M.
P.18 {VGA} Delete C879,C6012,C6006,C6010,C6011 for M and L board.
for N10M.
P.21 {VGA} Change L70,L77 to 180R from DG v04.
P.21 {VGA} Change L75 to 220R from DG v04.
P.21 {VGA} Change C5132 to 1U from DG v04.
P.20 {VGA} Change C5200 to 1U and add C5202 from DG v04.
P.20 {VGA} Change L155 to 220R from DG v04.
P.20 {VGA} Add C1395,C1397,C1396 from DG v04.
P.14 {DDR} Change CAP13,C222,C219,C196,C221 to stuff.
P.15 {DDR} Change C202,C179,C197 to stuff.
P.54 {Charger} Reserve PQ14,PD9 and PR34.
P.41 {LAN} Change L5 to LFE9249-R for PUR request.
P.70 {Power Board} Change P_SW1~P_SW4 to TME-533-S-V-T/R_SWITCH
from PUR request.
P.38 {SPI} Change R269 to 8.2K from FAE.

(2009/02/23)

P.50 {LED} Change LED2,LED6,LED9 for ME request.
P.49 {BT} Change BOSS11,BOSS12 to A40M20-31BS for ME request.
P.52 {HOLE} Change BOSS14 to A40M20-40BS for ME request.
P.39 {WLAN} Change BOSS1,BOSS2 to A40M20-30BS for ME request.
P.39 {WLAN} Change SW4 to 1BS007-12120-002-7F fro ME request.
P.39 {WLAN} Change CN21 to AS0B226-S52N-7F fro ME request.
P.68 {USB/DB} Change A_CN7 to UB11123_R1201_7F for ME request.
P.16 {VGA} Change L73 to 100NH from DG v04.
P.18 {VGA} Change L74 to 300R from DG v04.
P.50 {TP} Change F7 to 6V-0.25A_1206 from MOR request.
P.21 {VGA} Change L71 to 300R from DG v04.
P.20 {VGA} Change L76 to 300R from DG v04.
P.20 {VGA} Change L81,L83 to 100NH from DG v04.
P.42 {HDD} Change CN13 to LD2522H-S02 from ME request.
P.42 {ODD} Change CN25 to LN27133-F408-9F from ME request.

(2009/02/24)

P.69 Change F_D2 to UCLAMP3311P.TCT.
P.22 {VGA} Delete R5297,R5296.
P.47 {CAM} Change U41 to MAX4789EUK+T.
P.31 {HDMI} Delete RP1,RP2,RP3,RP4 from FAE suggestion.
P.24 {VGA} Change C6040,C6041 to 0.22U_6.3V_K from PUR suggestion.

(2009/02/25)

P.18 {VGA} Remove U56.J27 reserve circuit from FAE suggestion.
P.30 {LVDS} Change CN18 to GS12401-1011-9F from ME request.
P.54 {Charger} Change PF1 to 24V-7A_1206 from power request.
P.52 {HOLE} Delete BOSS3,BOSS13, add BOSS15 from ME request.
P.69 {FP} Delete F_BOSS1 from ME request.
P.64 {Audio} Change A_R5710,A_R5711,A_R5712,A_R5713 to 105K
from FAE suggestion.
P.22 {VGA} Add R5728,R5729 from FAE sguusetion.
Because use external thermal sensor.

(2009/02/26)

P.45 {Cardreader} Change CN11 to UV31413-RU82P-7H from ME request.
P.49 {BT} Change CN32 to QT510106-312H-7H from ME request.
P.29 {CRT} Change CN2 to DZ11A91-MB229-9F from ME request.
P.48 {USB} Change CN9,CN12 to UB111M3-CAGS4-7H from ME request.
P.42 {HDD} Change CN13 to LD2722F-SRYL6 from ME request.
P.41 {LAN} Chnage L5 to LG-2413S-1 from PUR suggestion.
P.47 {CAM} Change CN17 to HS6204E. Because move MIC to Audio board from MI request.
P.62 {Audio} Change A_CN3 to HS6202E from ME request.
P.47 {CAM} Delete L65,L63,C779,C780 from EMI request.
P.62 {Audio} Add A_L27,A_L28,A_C159,A_C160 from EMI request.
P.17 {VGA} Change R5251 to 15K from FAE request.

(2009/02/27)

P.20 {VGA} Change L154 to 33ohm from DG v04.
P.47 {CAM} Remove R7,R4. Add R8 from MOR suggestion.
P.11 {Cantiga} Change C21 value to NC from MOR request.
P.15 {DDR3} Add C59 from MOR request.
P.16,23 {VGA} Change L73,L81,L83 to TL160808-R10K.
P.18 {VGA} Add C6042 from MOR request.
P.27 {VRAM} Remove C14,C15 from MOR request.
P.28 {VRAM} Remove C16,C17 from MOR request.
P.39 {WLAN} Reserve R5370 from MOR request.
P.29 {CRT} Change R83,R72,R64 to 75ohm from MOR suggestion.
P.20 {VGA} Remove R5262,R5263,R5264 from MOR suggestion.

(2009/03/02)

P.39 {WLAN} Change BOSS1,BOSS2 footptint.
P.14 {DDR} Change C92 to 22P for RE suggestion.
P.14,15 {DDR} Remove C214,C200, because had same solution.
P.52 {HOLE} Modify F_PAD5,F_PAD6 PAD size from EMI request.
P.42 {HDD} Remove R5712, add open jump.
P.42 {ODD} Remove R5713, add open jump.
P.54 {Charger} Change PCN2 to GS73041-10272-7F from ME request.
P.21 {VGA} Change C5132,C5236 size to 0402 from DG v04.
P.54 {Charger} Change PCN1 to BP91071-B71E3-7H from ME request.

(2009/03/03)

P.62 {Audio} Change A_CN3 to HS8202E from ME request.
P.52 {HOLE} Add P_R4,P_C8(reserve) for EMI request.
P.50 {LED} Change LED2,6 to L-C170KRCT-FX for SPEC.
P.50 {LED} Change LED9 to HT-191UD for SPEC.
P.70 {Function} Change P_LED1,P_LED2,P_LED3,P_LED11 to L-C170KGCT-FX for SPEC.
P.39 {WLAN} Change LED3 to L-C170KGCT-FX for SPEC.
P.50 {TP} Chnage CN34 to GB5RF060-1203-7F from ME request.
P.39 {WLAN} Change SW4 to SSSS811101_SW-SMD7 from ME request.

(2009/03/04)

P.50 {TP} Add R5733~R5740 for co-lay 2 TP vendor.
P.14 {DDR} Change CN29 to AS0A626-U2SN-7F from ME request.
P.48 {USB} Add L156 for EMI suggestion.
P.61 {VGA} Change PR87 to 7.15K for power request.
P.52 {HOLE} Add BOSS16 for ME request.

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(2009/03/09)

P.48,43 {USB} Change F1,F11,F12 to 6V_2.6A_1812.
P.62 {Audio} Change A_R118,A_R119,A_R120,A_R121,A_C116,A_C117,A_C119,A_C120,A_C127,A_C133,A_C131,A_C136 to 0402 size.
P.62,67 {Audio} Change A_C137,A_R119,A_R125,A_R5,A_R18 to 0402 size.
P.63 {HP} Change A_R127,A_R134,A_R128,A_R129,A_R130,A_R131,A_R132,A_R133,A_R135,A_R136,A_R137,A_R138 to 0402 size.
P.37 {EC} Change R476,R487,R484,R76,R210,R437,R479,R447,R432,R173,R197,R203,R124,R75,R442,R440,R477,R436,R431,R435,R613,R475,R629,R444 to 0402 size.
P.34 {ICH9} Change R302,R295,R563,R575,R574,R578,R320,R319,R271,R272,R337,R331,R334,R576,R309,R294,R300,R306,R298,R303,R316,R338,R577,R573,R332,R555,R562,R297,R322,R296,R567,R54,R540,R541,R299,R321,R305,R315 to 0402 size.
P.06 {CLK} Change R288,R283,R542,R537,R536,R545,R277,R553,R534,R276,R552,C357,C377,C369,C370,C383,C386 to 0402 size.
P.64 {SPK} Change A_C145,A_C140,A_C141,A_C142 to 0402 size.
P.54 {Charger} SWAP PD2 Pin1.2 for layout.
P.12 {Cantiga} Change R208,C234,C346,C320,C287,C316,C326,C328,C313,C298 to 0402 size.
P.06 {CLK} Change R544,R619,R620,R621,R543,R550,R546,R551,R549,C384,C382,C355,C375,C385,C352,C376,C387,C356 to 0402 size.
P.32 {ICH9} Change R53,R307,C449,C450,C727,C728,C706,C702,C729,C730 to 0402 size.
P.69 {FP} Change F_R9,F_R10,F_R20,F_R1,F_R25,F_R3,F_R26,F_R4,F_C12,F_C20,F_C24,F_C16 to 0402 size.
P.65 {Audio} Change A_R166,A_R171,A_R169,A_R175,A_R176 to 0402 size.
P.67 {HP} Change A_R7,A_R20,A_R170 to 0402 size.
P.08 {Cantiga} Change R268,R195,R286,R181,R130,R193 to 0402 size.
P.33 {ICH9} Change R101,R610,R318,R564 to 0402 size.
P.67 {MIC} Change A_R17,A_R3 to 0402 size.
P.65 {MUTE} Change A_R174,A_R168,A_R167,A_R173 to 0402 size.
P.38 {FLASH} Change R233 to 0402 size.

(2009/03/10)

P.55 {3V/5V} Change PU11 to SN0608098RHBR for power request.
P.55 {3V/5V} Change PC216 to 1U for power request.
P.54 {Charger} Add 2 test point for BFT.
P.43 {Audio} Move D-MIC and SPK circuit to MB for ME request.
P.43.66 {Audio} Change CN37 to 40 pin for ME request.
P.49 {BT} Delete R909 from MOR suggestion.Because Vespa is used only UGPZ9.

(2009/03/11)

P.46 {SD} Change U18 to BD2055AFJ-E2 for VEDS spec.
P.50 {TP} Change R529 value to stuff.
P.43,66 {Audio} Modify Audio connector pin define for layout.

(2009/03/12)

P.52 {HOLE} Add A_C159 for EMI request.
P.31 {HDMI} Delete U128, add U130 for low cost solution.

(2009/03/13)

P.29 {CRT} Change Q5,D1,R627,R284 value to no stuff from MOR request.
P.29 {CRT} Add R292 from MOR request.
P.37 {EC} Change C616 value to no stuff from power request.

(2009/03/16)

P.43,66 {Audio} Change Audio BTB connector pin define for EMI suggestion.
P.52 {HOLE} Change H45 for ME request.
P.42 {HDD} Change CN13 to LD2722F-SRVL6 from ME request.

(2009/03/17)

P.64 {SPK} Change cable short circuit from A_GND to U_GND.
P.50 {TP} Delete R5733~R5740 for remove co-lay 2 TP vendor.
P.64 {SPK} Change A_R5710,A_R5711,A_R5712,A_R5713 to 75K from FAE suggestion.

(2009/03/18)

P.50,70 {LED} Move Power & suspend LED to MB for ID modify.
P.54 {Charger} Change PCN1 to BP91071-B31E3-7H from ME request.
P.52 {HOLE} Add A_H49,A_H50 for ME request.
P.70 {LED} Change P_LED1,P_LED2,P_LED3 to L-S110KGCT-FX from ME request.
P.50 {TP} Change SW2,SW3 SKHMQKE010_SW-SMD5 from ME suggestion.
P.52 {HOLE} Delete P_PAD1,P_PAD2,P_PAD3,P_PAD4 for EMI request.

(2009/03/19)

P.52 {HOLE} Change BOSS14,BOSS15 from ME request.
P.49 {BT} Change U45 to AT5208-3.3KER.
P.50 {TP} Change R530 to stuff,R529 to no stuff from MOR request.
P.64 {SPK} Change A_Q10,A_Q11 to 2N7002PT and add A_Q27,A_Q28,A_R172,A_R177.
P.65 {MUTE} Delete A_Q18,A_R166 for MUTE_AMP high active of AMP.

(2009/03/20)

P.52 {HOLE} Delete A_C159 from EMI suggestion.
P.52 {HOLE} Change BOSS15 to BOSS_3.72x4 from ME request.
P.31 {HDMI} Change CN31 to QJ1119L-NT10-4H from ME request.
P.04 {CPU} Reserve C6047 for H_DPRSTP#.

(2009/03/23)

P.22 {VGA} Delete R5728,R5729 because double pull-high.
P.38 {EC} Move R269 to SPI_ROM_CS# signal of EC side.
P.16 {VGA} Change C571,C569 value to no stuff. because control IC have 22uF.
P.14 {DDR3} Change CAP13 to no stuff.
P.54 {Charger} SWAP PD2 pin1,2 for layout request.
P.30 {LVDS} Add CN18.32 to GND.
P.17 {GPU} Change R5689 to 24.9K from DG v04.
P.52 {HOLE} Reserve A_C159 to A_GND from EMI suggestion.
P.69 {FP} Change F_R9,F_R10 to 0201 size for layout space issue.

(2009/03/24)

P.52 {HOLE} Delete SPR1 for EMI request.

(2009/03/25)

P.19 {VGA} Change R5256,R5257 to 56.2 and 27 ohm from N10M PUN modify.

(2009/03/27)

P.50 {TP} Change R529 to stuff,R530 to no stuff for new TP power.
P.08 {Cantiga} Change C820 to Y5V.
P.57 {1.5V_0.75V} Change PC250 to no stuff.
P.59 {Others} Change PC262,PC264,PC265,PC270,PR262,PR263,PR264,PQ50,PQ55,PR265,PR266,PQ51 to no stuff.
P.29 {CRT} C577,C592,C583,C584 to no stuff.
P.30 {LVDS} Delete L43,Add R5731 and change R394 to no stuff.
P.41 {LAN} Delete L152,Add R5733.C5164 change to 10U.
P.42 {SATA} Change C285,C757 to no stuff.
P.48 {USB} Delete L156, Add R5372, Change CAP16,CAP18 to 47UF.
P.50 {LED} Change C6045,C6046,C295,C301 value to no stuff.

(2009/04/03)

P.34 {ICH9} Change R5714 value to no stuff.
P.17 {VGA} Change R5250 to 34.8K from PUN update.
P.39 {WLAN} Change C531,C546,C573 value to no stuff.
P.16 {VGA} Change C1290,C1300,C1312 to no stuff.
P.18 {VGA} Change C874 value to no stuff.
P.20 {VGA} Change C1395,C1397,C5196,C5197 value to no stuff.
P.11 {Canita} Change CAP6 to NC.

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DVT
(2009/04/10)
P.21 {VGA} HDMI I2C data and CLK signal swap.
P.19 {VGA} Change R5256 to 56.2_F,R5257 to 40.2_F for PUN V07.
P.37 {EC} Add R478 pull-down resistor for BL_OFF#.
P.50 {TP} Modify SW2,SW3 pin define.
(2009/04/18)
P.39 {WLAN} SW4.C pin delete and SW4.A connect to GND for ME ID design.
P.61 {VGA POWER} Change PR99 to 13.7K, PR110 to 33K,PC85 value to stuff for N10M GPU power.
P.61 {VGA POWER} Change PR99 to 13.7K, Change PR110 to NC_* for N10P GPU power.
P.44 {Thermal} Delete R426,R430 for vendor suggestion.
P.30 {LVDS} Delete U25,U29,U2,U23 and Add U131 (4 channel) for can reducing parts.
(2009/04/21)
P.58 {CPU_CODE} Change PR67 to 3.3K from Power request.
(2009/04/22)
P.43,54 {Charger} Modify charger board BTB connector from ME request.
P.55 {3V/5V} Change PC216 to 1U_6.3V from power request.
(2009/04/28)
P.50 {LED} Change LED2,LED6 to HT-110UY for ME request.
P.50 {LED} Change LED9 to HT-110UD for ME request.
P.43 {SPK} Change JSPK1 to HS6104E for ME request.
P.47 {CAM} Change CN17 to HS6106E for ME request.
P.52 {HOLE} Add BOSS17 for ME request.
(2009/04/30)
P.54 {Charger} Change charger board location to C_*.
P.29 {CRT} Change D11 to SSM22LLPT for leakage issue.
P.30 {LVDS} Change R5241 to no stuff, because had double PL.
(2009/05/04)
P.43 {Audio} Change F12 from 2.6A to 0.75A, because +5VRUN power budget only 0.55A.
P.50 {LED} Change power/suspend LED circuit, same M850.
P.37 {KB} Add 10 test point for BFT.
(2009/05/05)
P.39 {WLAN} Chnage LED3 to HT-110UYG for ME request.
P.70 {Function} Change P_LED1~PLED3 to HT-110UYG for ME request.
P.30 {LVDS} Add J3 for BFT test.
(2009/05/07)
P.39 {WLAN} Add TP499,TP509 for Power test.
P.50 {LED} Add TP494,TP496,TP495,TP493,TP488,TP490,TP491,TP489,TP498,TP497 for power test.
P.57 {DDR Power} Change PU17 pin6 change from +3VSUS to +3VALW for Power request.
P.58 {CPU Power} Add TP176 for Power test.
P.54 {Charger} C_PU1 change to BQ24753ARHDR and schematic_part select bq24753ARHDR_T821_PWR for power request.
P.60 {OVP} PU2 change to G1336BTB1U for power request.
P.60 {OVP} De1 PR40,PR41 and pin6 link to +5VALW_LDO directly.
P.30,43,66 {LVDS,BTB,Audio} Change CN18,CN37,A_CN5 to GS12407-11151-9F from ME request.
(2009/05/11)
P.58 {CPU} Add 0.1ux5pcs (EC283~EC287) and PC143,PC149 stuff for EMI suggestion.
P.25 {VRAM} Add EC6048 for EMI suggestion.
P.59 {Others} Add EC288,EC289,EC290 for EMI suggestion.
P.64 {Audio} Delete A_R141, Add A_EC160 for EMI suggestion.
P.14 {DDR} Change CN29 to AS0A626-N2SN-7H from ME request.
P.15 {DDR} Change CN30 to AS0A626-JASG-7H from ME request.
P.40 {Express} Delete R330,R333, Add L37 for express card SI test fail issue.

(2009/05/13)
P.46 {SD} Change R5694,R5695,R5697,R5698 to 33ohm for SI test solution.
P.45 {MS} Change R5704,R5705,R5707,R5701 to 33ohm R5703 to 68ohm for SI test solution.
P.43 {Audio} Chnage A_C110 to C6048 for layout suggestion.
P.43 {Audio} Chnage A_F16,A_F17 to F15,F16 for layout suggestion.
P.33 {ICH9} Change CN10 to HS8102E from ME request.
P.45 {MS} Change CN35 to JES014-2000-1 from ME request.
P.30,43,66 {LVDS,BTB,Audio} Change CN18,CN37,A_CN5 to GS12401_1011 for ME request.
P.52 {HOLE} Change function board and Audio board serew.
P.69 {FP} Change F_CN1 pin define from ME request.
P.70 {Function} Change P_CN1 pin define from ME request.
(2009/05/18)
P.56 {+1_05V} Add 3pcs 680p CAP of EMI suggestion.
P.54 {Charger} Add C_PR136 of EMI request.
P.47 {DMI} Delete L157,L158, add R5734,R5735 for EMI request.
P.43,54 {Charger} Modify charger board CONN pin define for EMI suggestion.
(2009/05/19)
P.62 {Audio} Change A_C23,A_C22 to 15p, And delete A_R117,A_R116 Add A_L158,A_159 for EMI request.
(2009/05/20)
P.56 {1.8/1.05V} Change power solution to TPS51218DSCR for power request.
P.57 {1.05/0.75V} Change power solution to TPS51218DSCR for power request.
(2009/05/21)
P.41 {LAN} Change R5733 to Bead (L152),Add E_C6054,E_C6055,E_C6056 for EMI request.
P.46 {SD} Add E_C6049,E_C6050 for EMI request.
P.40 {Express} Add E_C6051,E_C6052 for EMI request.
P.50 {LED} Add E_C6053 for EMI request.
(2009/05/22)
P.56 {1.8V 1.05V} Change PR235 to 9.76K, PC176 to 330U for power request.
P.52 {HOLE} Add SPR1,SPR2 for EMI request.
P.41 {LAN} Add E_C6054~E_C6057 for EMI request.
P.70 {Function LED} Change P_LED1,P_LED2,P_LED3 for factory request.
P.39 {WLAN LED} Change LED3 for factory request.
P.50 {LED} Change LED2,LED6 for factory request.
(2009/05/23)
P.55 {SYSPower} Add E_C6059,E_C6060,E_C6061,E_C6062 for EMI request.
P.41 {LAN} Add E_C6058 for EMI request.
P.44 {LAN} Add E_C6064 for EMI request.
P.61 {VGA Power} Add E_C6063,E_C6065 for EMI request.
P.54 {Charger} Reserve E_C6066 for EMI request.
P.55 {SYSPower} Reserve E_C6067,E_C6068,E_C6069,E_C6070 for EMI request.
(2009/05/25)
P.11 {Cantiga} Delete C21 from MOR request.
P.45 {MS} Change R376,R373,R5373,R5374 to 54.9 ohm for i.LINK test issue.
P.20 {VGA} Change R1228,R1231 to NC_* from MOR suggestion.
P.47 {CAM} Change CN17 to HS6206E for ME request.
P.64 {SPK} Delete A_C147,A_C152,Change A_C149,A_C148,A_C150,A_C151 to 0.22u for POP noise issue.
P.64 {SPK} Change A_R5710~A_R5713 resistor to 82K for SPK low voice issue.
P.43 {FP} Change U3 to Max4785 for FP current limit issue.
P.46 {SD} Change CN16 to WK21923-S6P1-7F from ME request.
P.30 {LVDS} Add Swith circuit for rush current issue.

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(2009/06/03)
P.30 {LVDS} Change SW1 to DHNF-06F-T-V-T-R_SW-SMD12 because original part well EOL.
P.17 {VGA} Add R5252 for nVIDIA suggestion.

PVT
(2009/07/01)
P.30 {LVDS} Modify rush current circuit.
P.29 {CRT} Change CN2 to DZ11A91-MB229-9H for ME request.
P.44 {FAN} Change CN20 to HS8103E-LH for ME request.
P.37 {EC} Change CN3 to 196009-24021-3 for ME request.
P.41 {LAN} Change CN22 to HS6108E-LH fot ME request.
P.50/43/69 {TP} Change CN34/CN36/F_CN1 to GB5RF060-1203-7H for ME request.
P.39 {WLAN} Change CN21 to AS0B226-S52N-7H for ME request.
P.43 {BTB} Change JSPK1 to HS6104E-LH for ME request.
P.67 {HP} Change A_CN1 to JA93331-B18106-7H for ME request.
P.52 {HOLE} Change BOSS16 and Add BOSS18 for ME request.
P.45 {Cardreader} Change CN11 to UV31413-WU82P-7H for ME request.
P.38 {Flash} Change CN23 to QT510306-L011-7H for ME request.

(2009/07/03)
P.65 {MUTE} Change A_Q24 to stuff from MOR request.
P.42 {HDD/ODD} Remove PJ12,PJ13,F13,F14 for PVT not need.
P.64 {AMP} Modify cable circuit to no stuff.

(2009/07/06)
P.49 {BT} Add TP568~TP574 test point of BT.
P.49 {BT} Remove L72. DVT no mount becasue have 2 0ohm res.
P.40 {EXpress} Delete R333,R330,L38,L40. becasue have colay parts.
P.48 {USB} Delete L66,L61 becasue have colay res.

(2009/07/07)
P.67 {Audio} Change A_CN2 to JA93331-R18106-7H from ME request.
P.33 {ICH9} Change CN10 to HS8202E-LH from ME request.
P.70 {Function} Move P_R1,P_R2,P_R3 TO PAGE. 50 from MOR side suggestion.
P.55,56,57,61 {Power JP} Modify power Jump for power request.
P.30 {LVDS} L43 no stuff and Q177,C575,R5736,R5737 stuff for LVDS dcbatout inruch current issue.

(2009/07/10)
P.57 {DDR3} Add PJ6 for Power request.
P.45 {MS} Change R5700,R5706,R5699,R5702 to 33ohm for overshoot issue.
P.68 {USB} Change A_CN7 to UB11123-R1201-7H for ME request.
P.39 {WLAN} Add TP575 for WLAN test point.

(2009/07/15)
P.05 {CPU VID} Delete R29,R30,R31,R32,R39,R40,R41 for power suggestion.
P.54 {Charger} Change C_EC6066,C_PC156 to 1u for EMI request.
P.48 {USB} Add USB test point of BFT.
P.58 {CPU} Reserve EC294,EC295,EC296 on DCBATOUT for EMI request.

(2009/07/16)
P.52 {HOLE} Change SPR1,SPR2 for EMI request.
P.46 {SD} Change CN16 to WK2192C-S6P2-4H for ME request.
P.54 {Charger} Change C_PCN1 to BP91071-B31E3-7H for ME request.
P.46 {SD} Change CN16 to WK2192C-S6P2-4H from ME request.

(2009/07/17)
P.23 {VGA} Add R5741,R5742 0 ohm for MOR suggestion.
P.52 {HOLE} Change P_H51,P_H53 for ME request.

(2009/07/18)
P.52 {HOLE} Add function board hole for ME request.
P.50 {LED} Change R599,R600 to 499,300 ohm for brightness issue.

(2009/07/24)
P.60 {OVP} Change PR55 to 18.2K,PR143 to 26.1K,PR144 to 80.6K and mount PR73 from MOR request.

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