

Schematics Page Index (Title / Revision / Change Date)							
Page	Title of Schematics Page	Rev.	Date	Page	Title of Schematics Page	Rev.	Date
01	Index page			41	EC+KBC (WPCE775L)		
02	BLOCK DIAGRAM			42	Flash ROM/SPI		
03	CLOCK GEN (SL28648BLC)			43	SATA HDD/CD-ROM		
04	Penryn(HOST BUS) 1/3			44	PCI (PCI BUS)		
05	Penryn(HOST BUS) 2/3			45	PCI (ILINK)		
06	Penryn(HOST BUS) 3/3			46	PCI (MS-STD/DUO/MDC/SD)		
07	Cantiga (HOST) 1/7			47	PCI (CF)		
08	Cantiga (DMI) 2/7			48	Bluetooth		
09	Cantiga (GRAPHIC) 3/7			49	Mini-PCIE Card(WLA)		
10	Cantiga (DDRII) 4/7			50	EXPRESS CARD		
11	Cantiga (POWER,VCC) 5/7			51	USB2.0		
12	Cantiga (VCC CORE) 6/7			52	CIR Reciver		
13	Cantiga (VSS) 7/7			53	FAN/ HW Protect		
14	DDRII(SO-DIMM 0) 1/3			54	Daughter Board Conn.		
15	DDRII(SO-DIMM 1) 2/3			55	CAM/OIDE		
16	DDRII(Termination) 3/3			56	AUDIO(CODEC & POWER)		
17	VGA (PCI-E) 1/9			57	AUDIO(AMP & SPK)		
18	VGA (PCI-E BUS)Strap 2/9			58	AUDIO(HP)		
19	VGA(GDDR) # 3/9			59	AUDIO(MUTE)		
20	VGA(GDDR) # 4/9			60	AUDIO(EQ)		
21	VGA(CRT) 5/9			61	AVD20 (FILTER)		
22	VGA(LVDS/TMDS) 6/9			62	AUDIO(SUBWOOFER AMP)		
23	VGA(XTAL/GPIO) 7/9			63	Audio BOARD conn		
24	VGA(INTER DISPLAY) 8/9			64	LED Status		
25	VGA(POWER/GROUND) 9/9			65	Robson 1.7 Connector		
26	VRAM(GDDR) # 1/2			66	Power Design Diagram		
27	VRAM(GDDR) # 2/2			67	DCIN&Charger		
28	VRAM(BYPASS) 1/2			68	SYS Power (+3 3V/+5V)		
29	VRAM(BYPASS) 2/2			69	SYS Power(+1 5V/+1 05V)		
30	Semi-PnP#			70	DDR2 Power(+1 8V/+0 9V)		
31	CRT			71	CPU Vcore---ISL6266A		
32	LVDS			72	Others power plan		
33	HDMI			73	OVP protection		
34	Mini-PCIE Card (TV)			74	VGA Power(+1.15V/+1 2V)		
35	ICH9-M(PCI/USB) 1/5			75	HOLE & BOSS		
36	ICH9-M(LPC, IDE, SATA) 2/5			76	HISTORY		
37	ICH9-M(GPIO) 3/5			77	HISTORY1		
38	ICH9-M(POWER) 4/5			78	Power Sequence Spec		
39	ICH9-M(GND) 5/5			79	Power Sequence Timing		
40	Marvell GLAN(88E8055)			80			

P. Leader	Check by	Design by

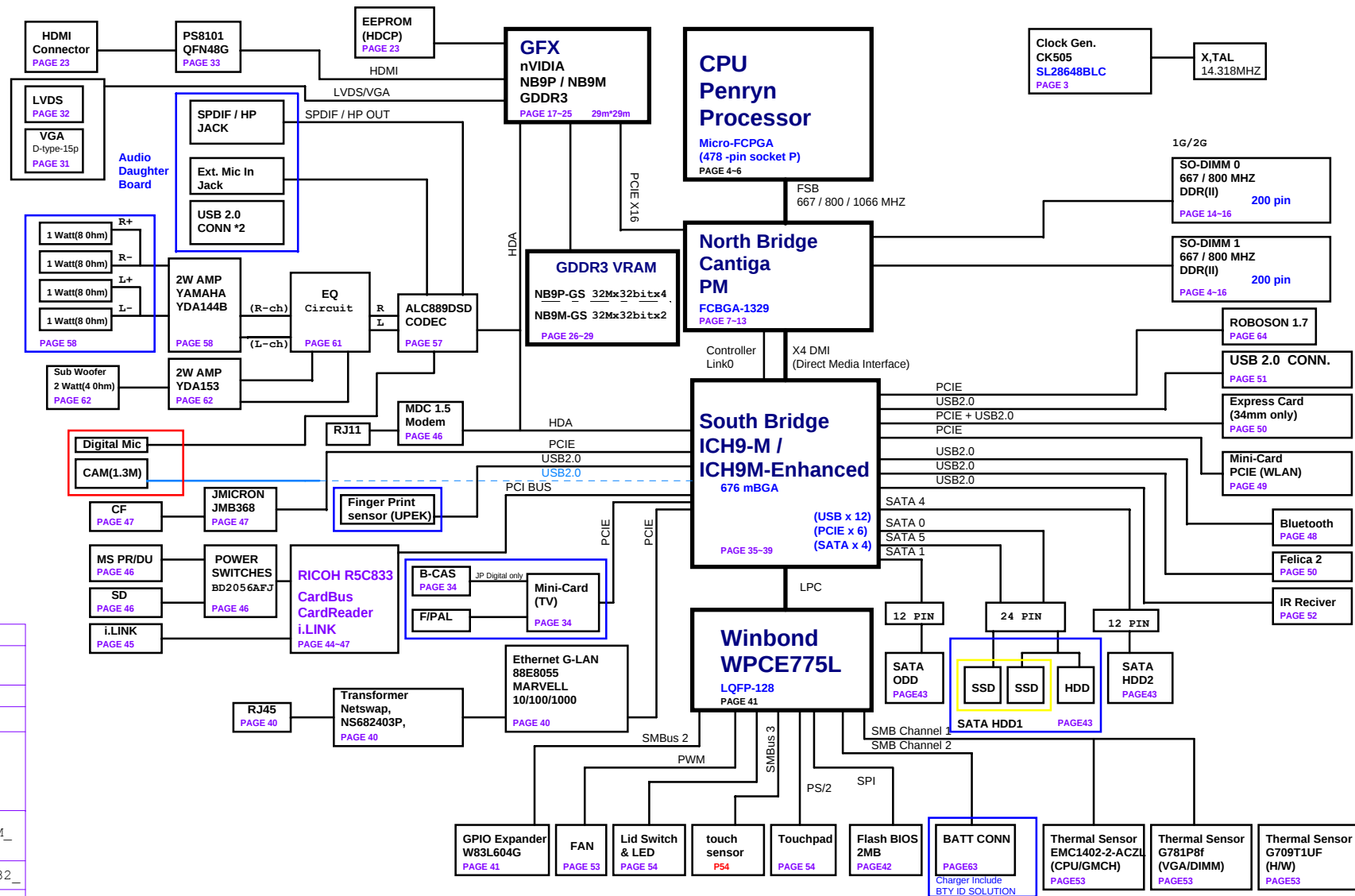
DVT to PVT

Project Code & Schematics Subject: M780 EVT Main Board

PCB P/N: FUBAI 1P-0086102-8010

FOXCONN HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title Index	
Size A3	Document Number M780(MBX-194)
Date: Monday, June 16, 2008	Rev 0.1
Sheet 1 of 79	

M780 Montevina Block Diagram



TI CHARGER	
BQ24751	P.63
INPUTS	OUTPUTS
DC_IN	BT+
	DCBATOUT

SYSTEM DC/DC	
ISL6236IRZA-T	P.64
INPUTS	OUTPUTS
	+5VALW
	+5VALW_LDO
	+3VALW
	+ECVCC
	+15V_ALW

SYSTEM DC/DC	
SC411	P.65
INPUTS	OUTPUTS
	+1_5VRUN
	+1_05VM

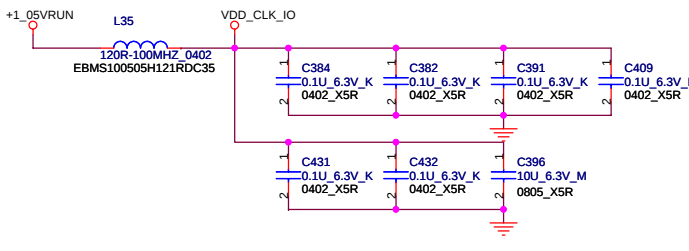
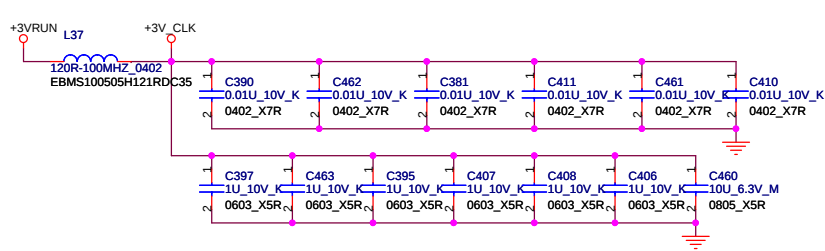
SYSTEM DC/DC	
ISL6269A	P.66
INPUTS	OUTPUTS
	+1_8VSUS

SYSTEM DC/DC	
G2998	P.66
INPUTS	OUTPUTS
	+0_9VRUN

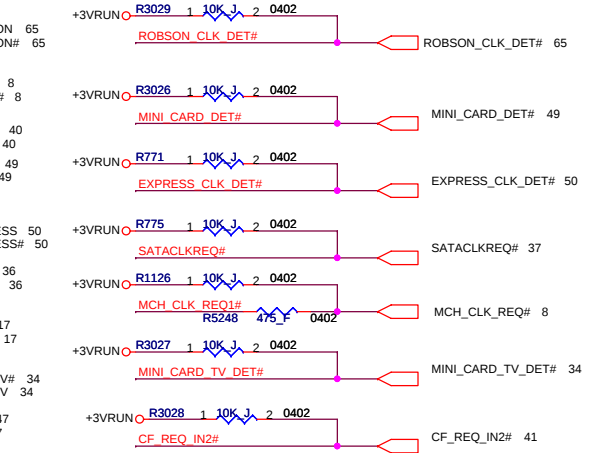
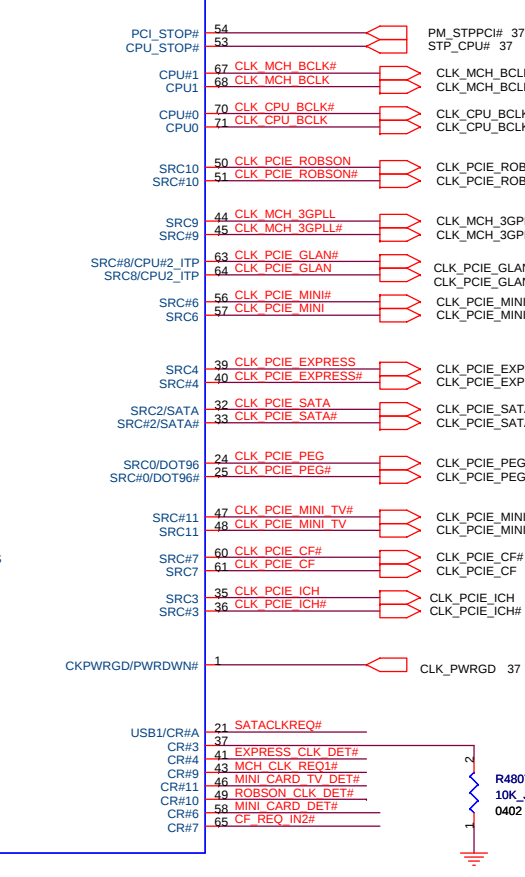
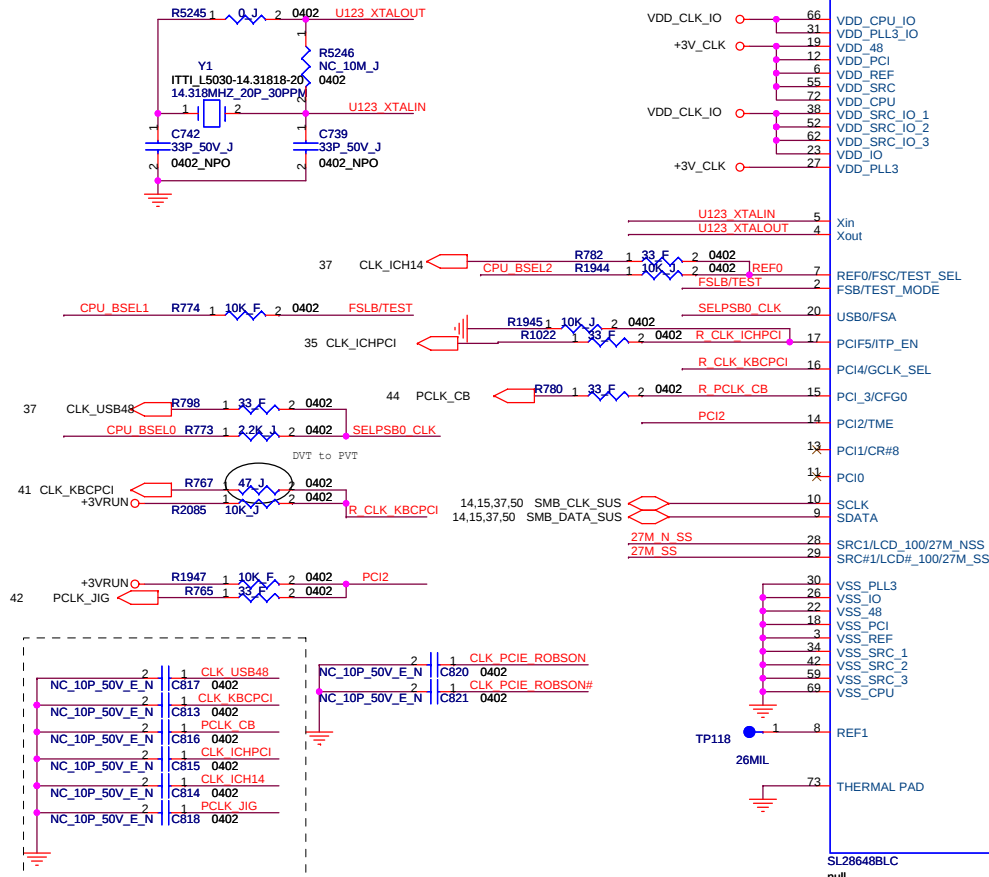
CPU DC/DC	
ISL6266A	P.67
INPUTS	OUTPUTS
	VBCORE

SYSTEM DC/DC	
APL5913	P.70
INPUTS	OUTPUTS
	+1_5VRUN
	APL5913

SYSTEM DC/DC	
SC411	P.70
INPUTS	OUTPUTS
	NV_VDD



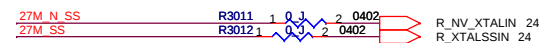
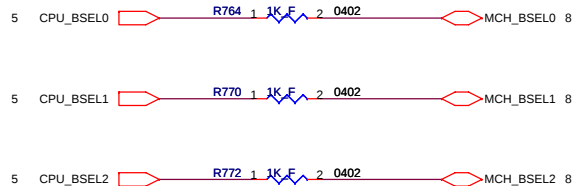
2007/11/12 delete damp resistor



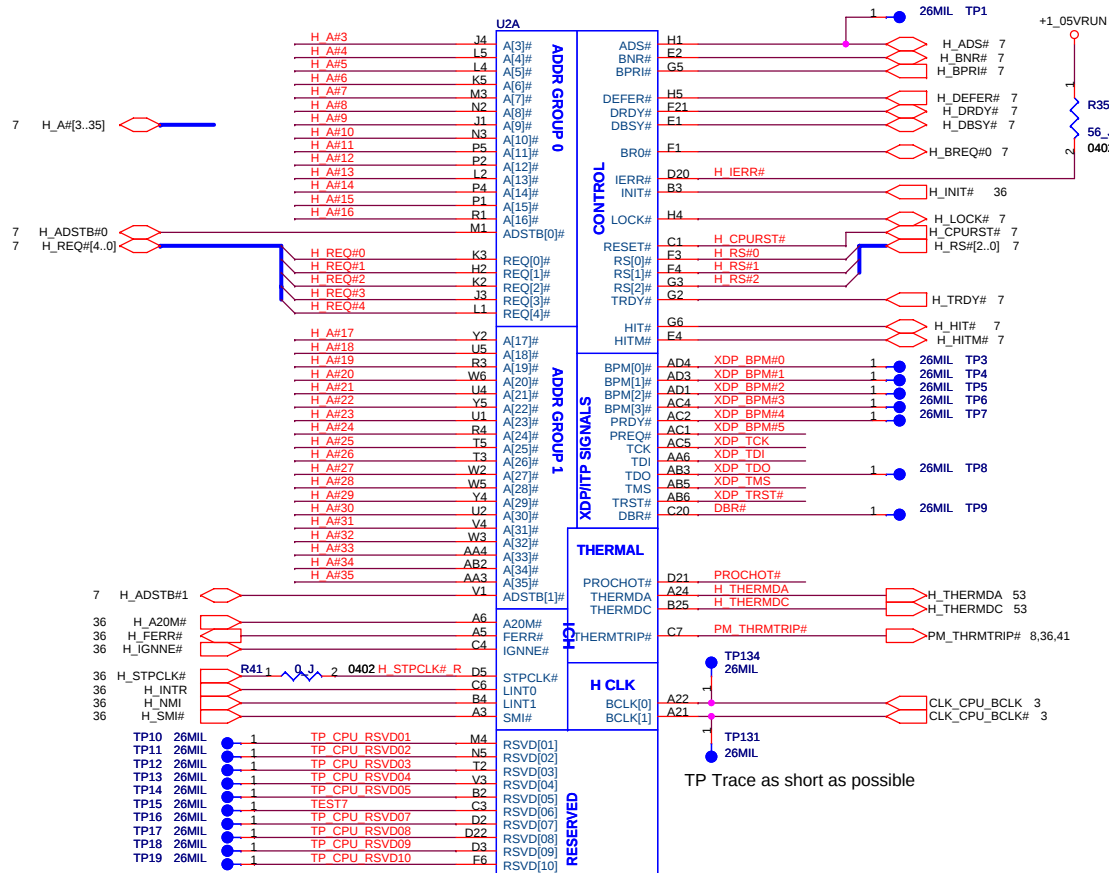
FSB Frequency Table:

close to clk gen (For EMI)

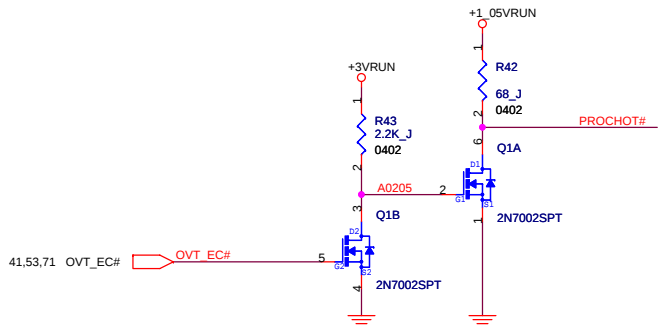
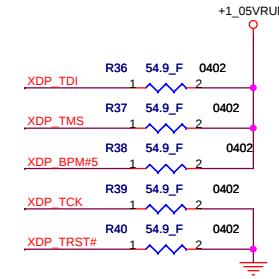
FSLC	FSLB	FSLA	CPU	SRC	PCI
0	0	0	266.66	100	33
0	0	1	133.33	100	33
0	1	0	200	100	33
0	1	1	166.66	100	33
1	0	0	333.33	100	33
1	0	1	100	100	33
1	1	0	400	100	33



Clock Request	Clock Request Function
CR#3	Pull 475 ohm to ground(FOR ICH9)
CR#4	EXPRESS_CLK_DET#
CR#6	MINI_CARD_DET#
CR#7	CF_REQ_IN#
CR#9	MCH_CLK_REQ#
CR#10	ROBSON_CLK_DET#
CR#11	MINI_CARD_TV_DET#
CR#A	SATACLKREQ#



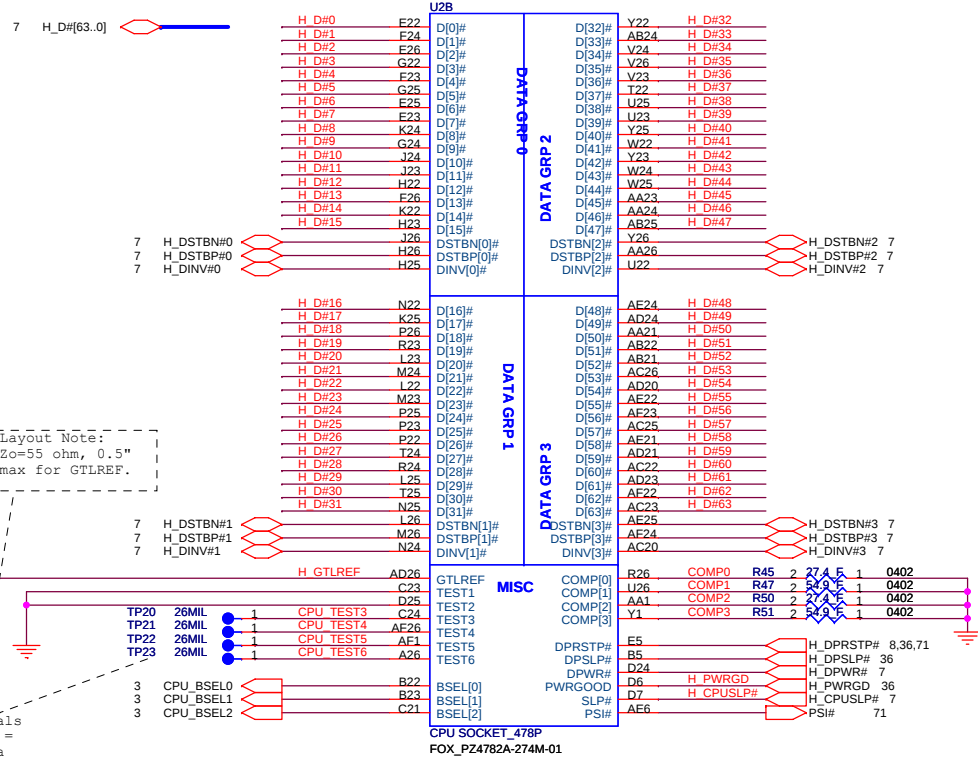
H_CPURST# 1 26MIL TP2
as Close as possible to Pin out trace

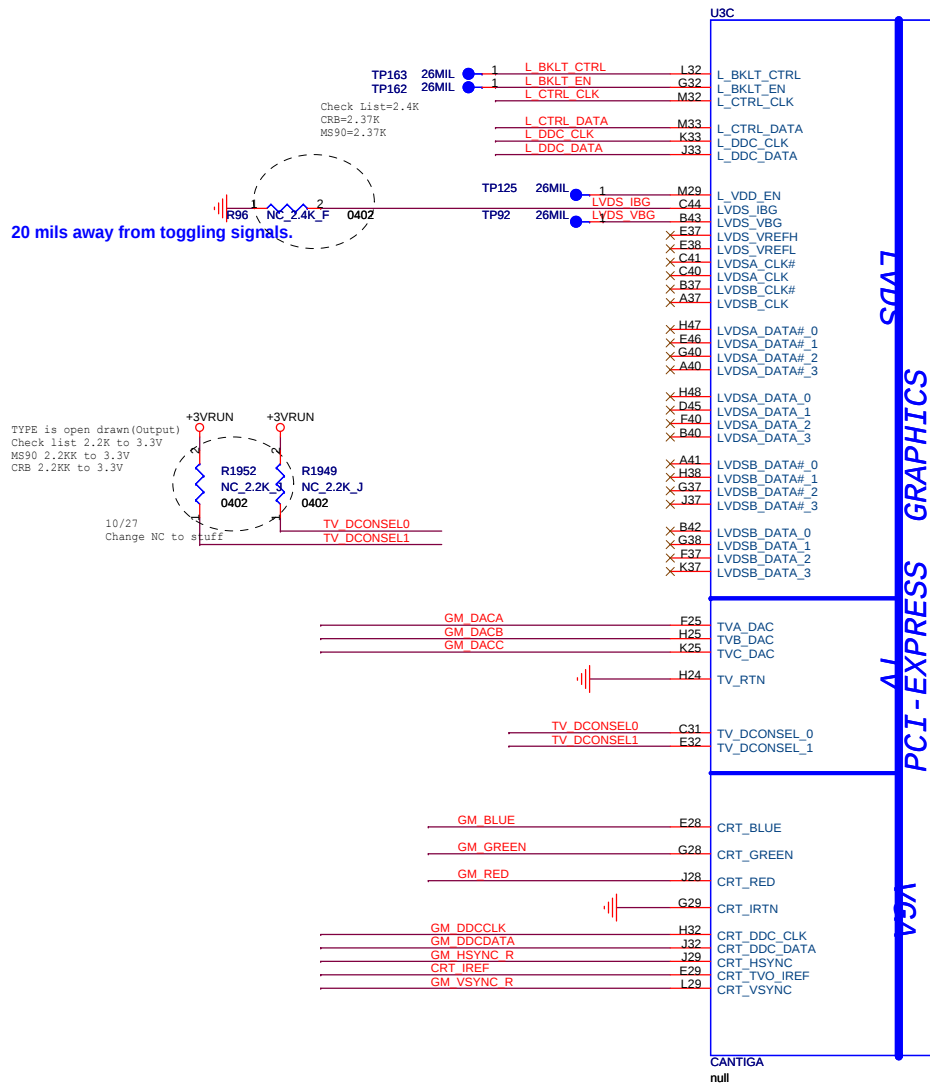


Place close to CPU

Route the TEST3 and TEST5 signals through a ground referenced Zo = 55-ohm trace that ends in a via that is near a GND via and is accessible through an oscilloscope connection. TEST4 and TEST6 and TEST7 pins can be left NC.

Layout Note:
Zo=55 ohm, 0.5"
max for GTLREF.

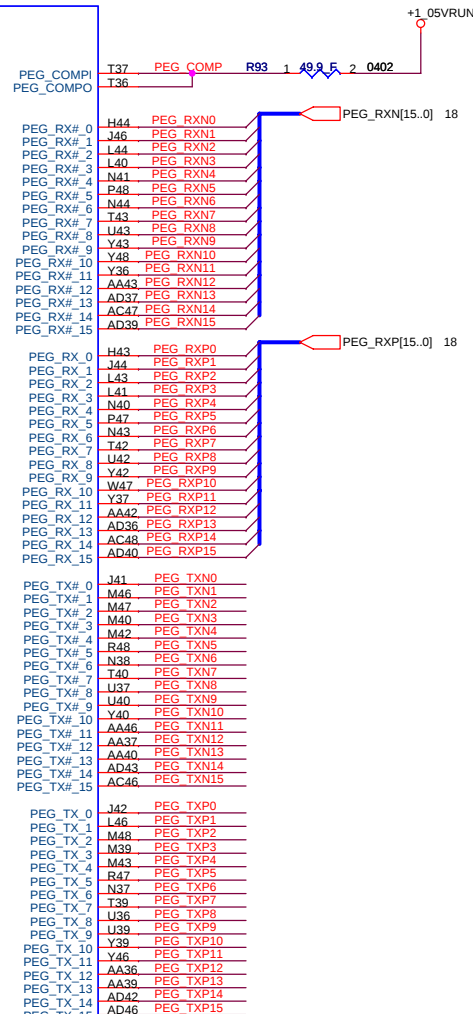




20 mils away from toggling signals.

TYPE is open drawn(Output)
Check list 2.2K to 3.3V
MS90 2.2KK to 3.3V
CRB 2.2KK to 3.3V

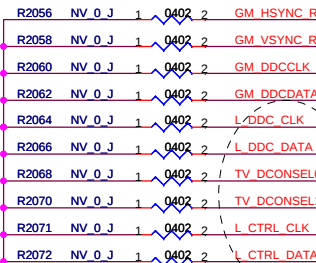
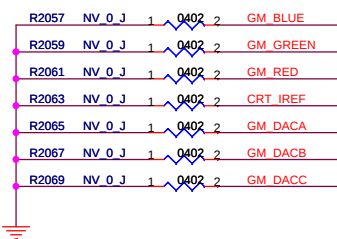
10/27
Change NC to stuff

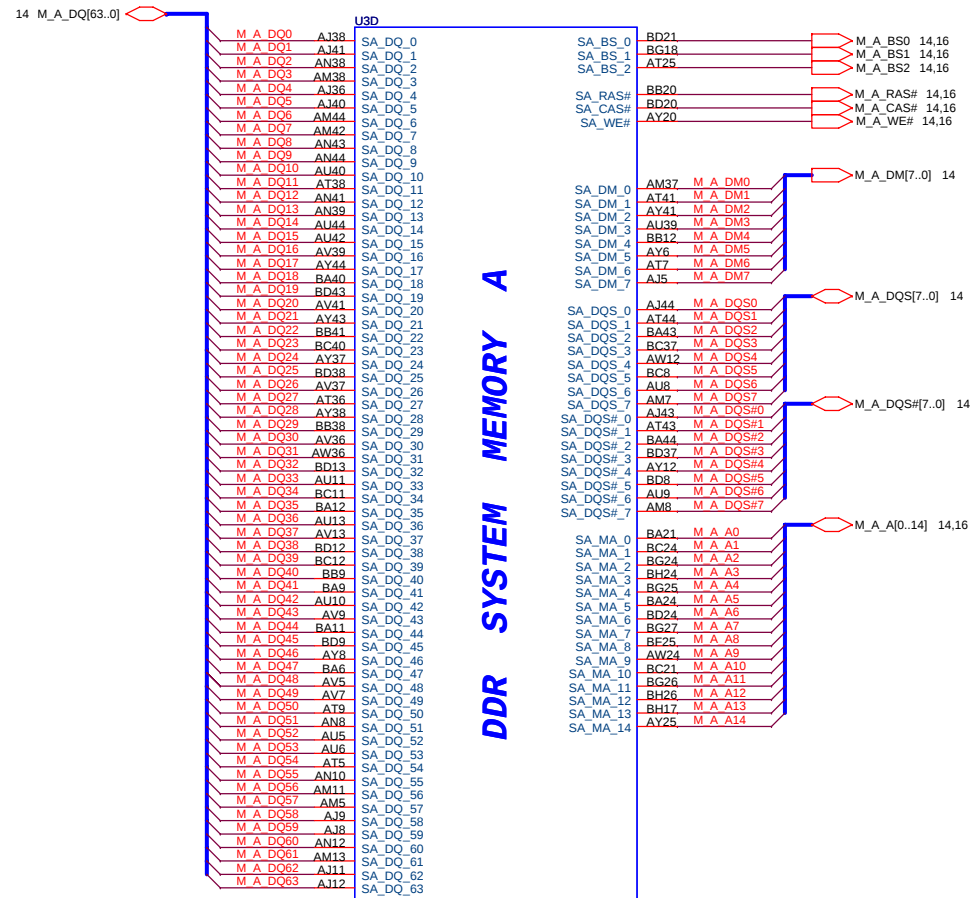


214.(Page 9) 07/11/28 Change PCIE Capacitor size from 0402 to 0201

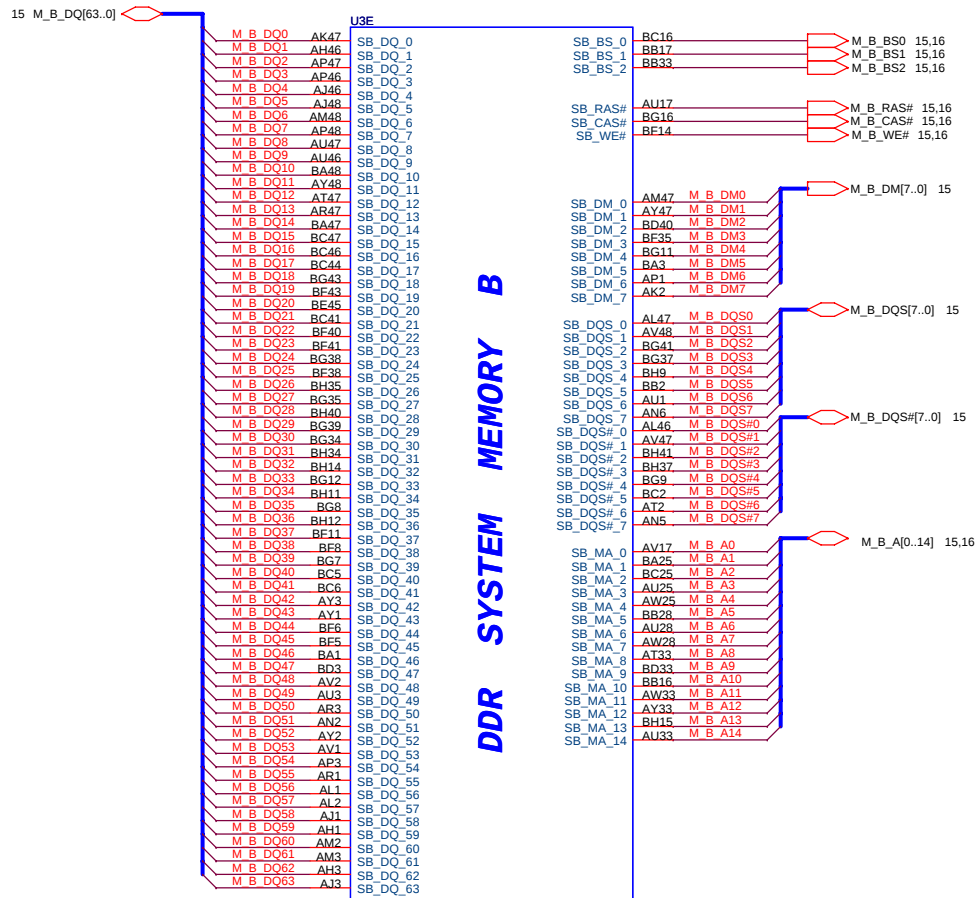


External Graphics (GMCH CRT/TVOUT Disable)

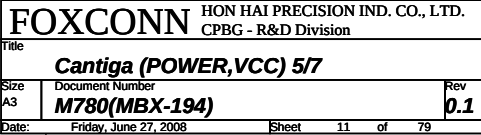


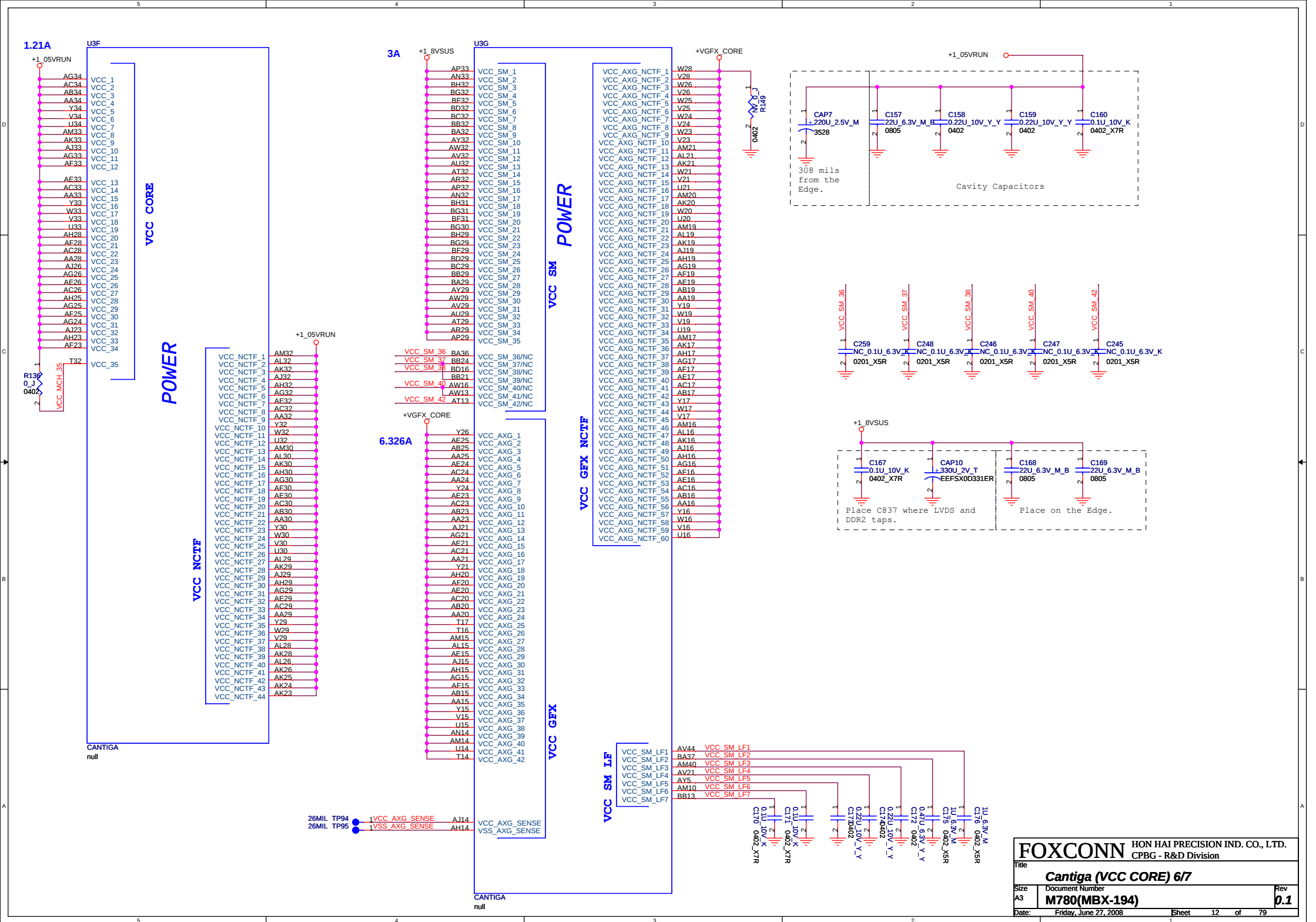


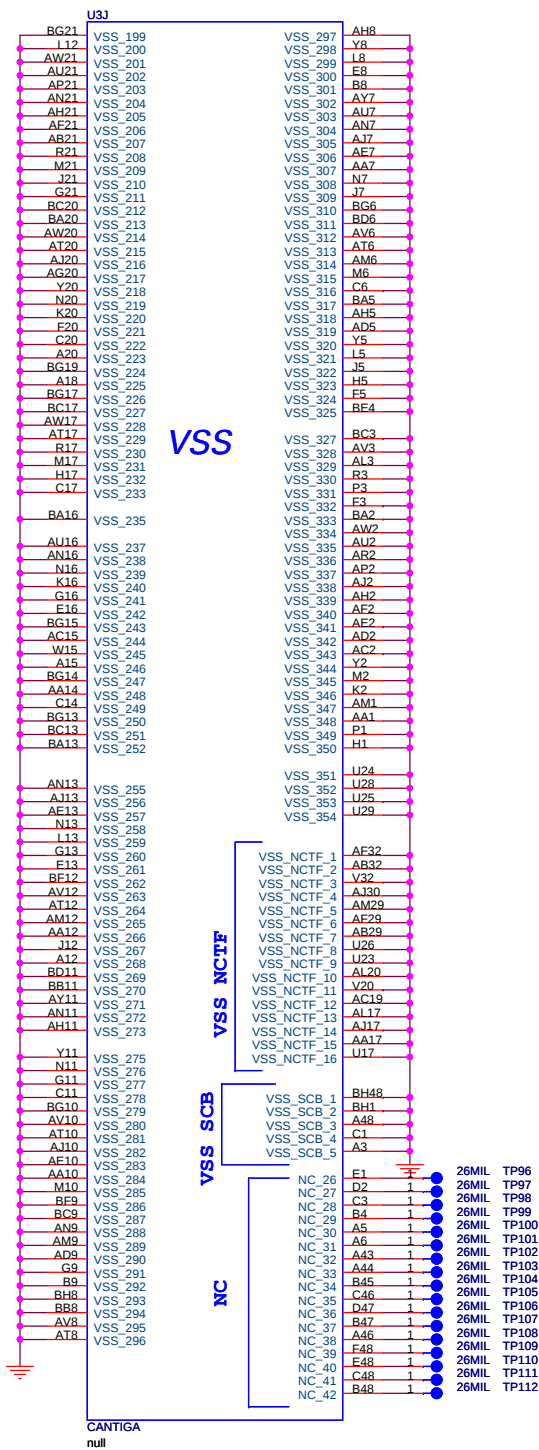
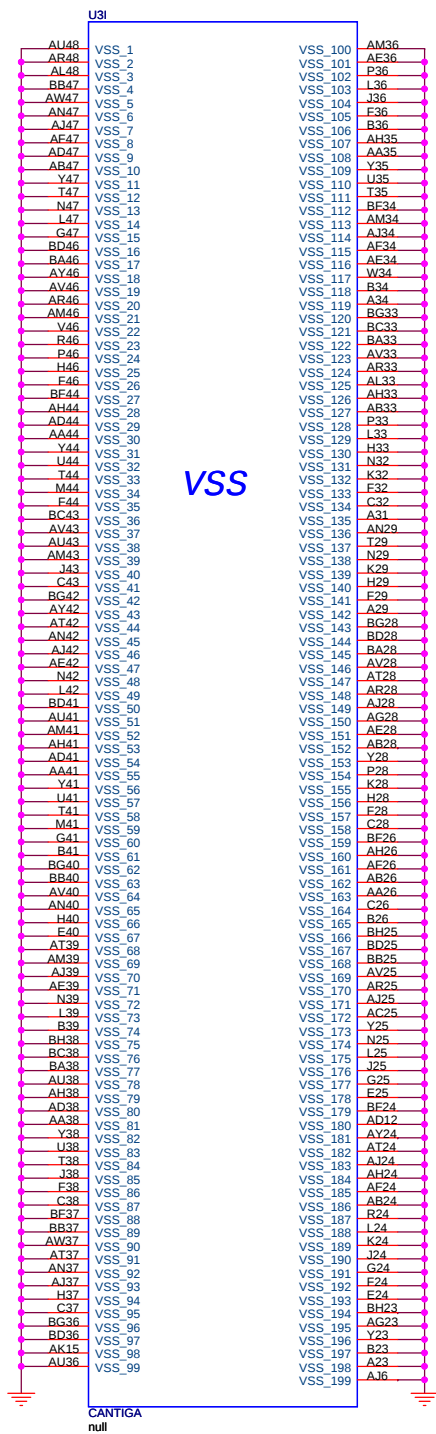
CANTIGA
null



CANTIGA
null







FOXCONN HON HAI PRECISION IND. CO., L.TD.
CPBG - R&D Division

Title
Cantiga (VSS) 717

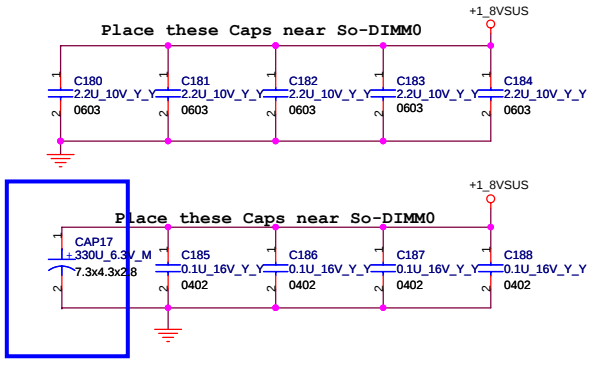
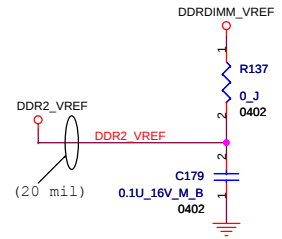
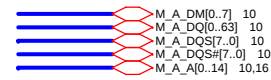
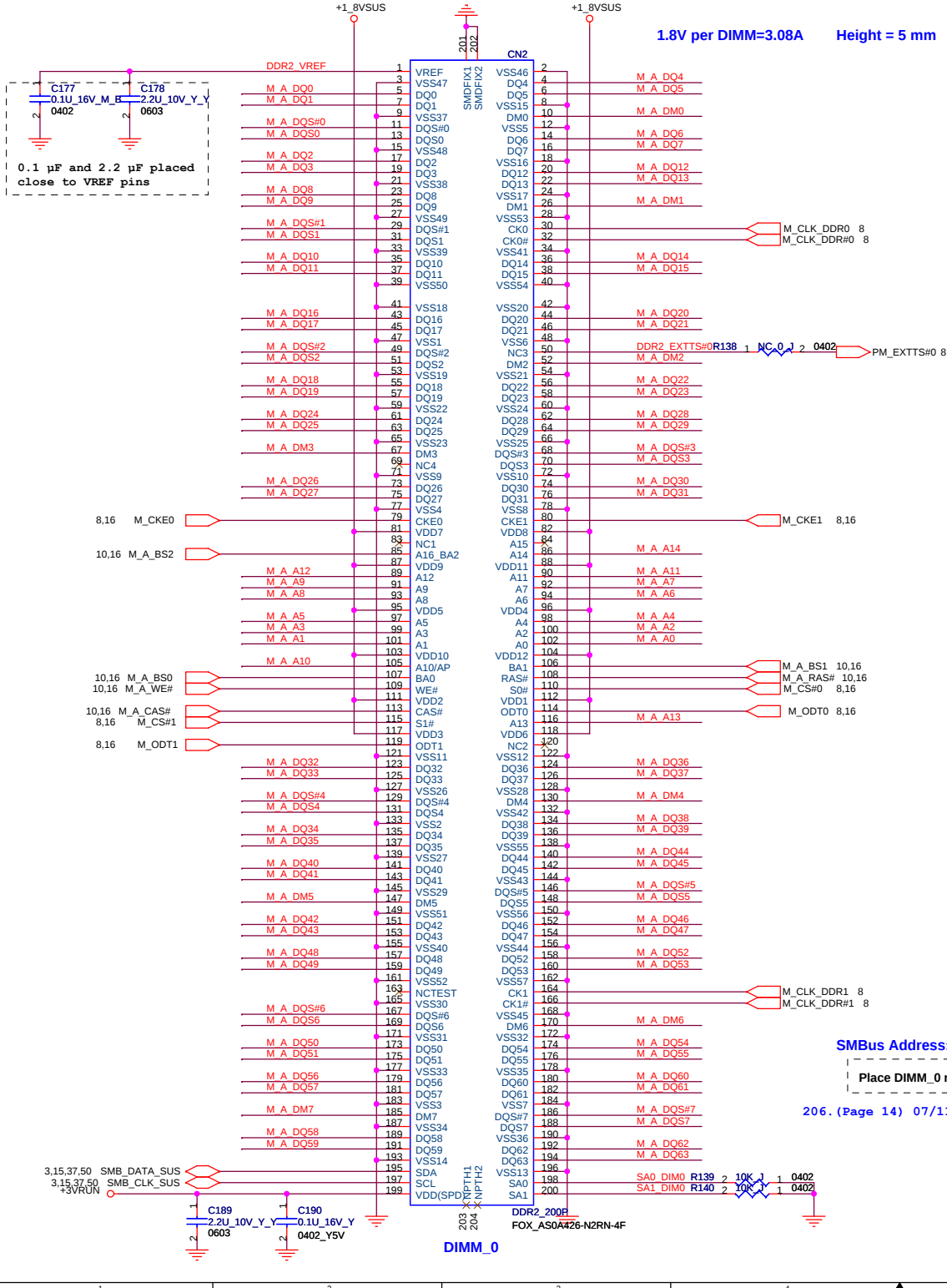
Size
A3

Document Number
M780(MBX-194)

Rev
0.1

Date: Friday, June 27, 2008

Sheet 13 of 79

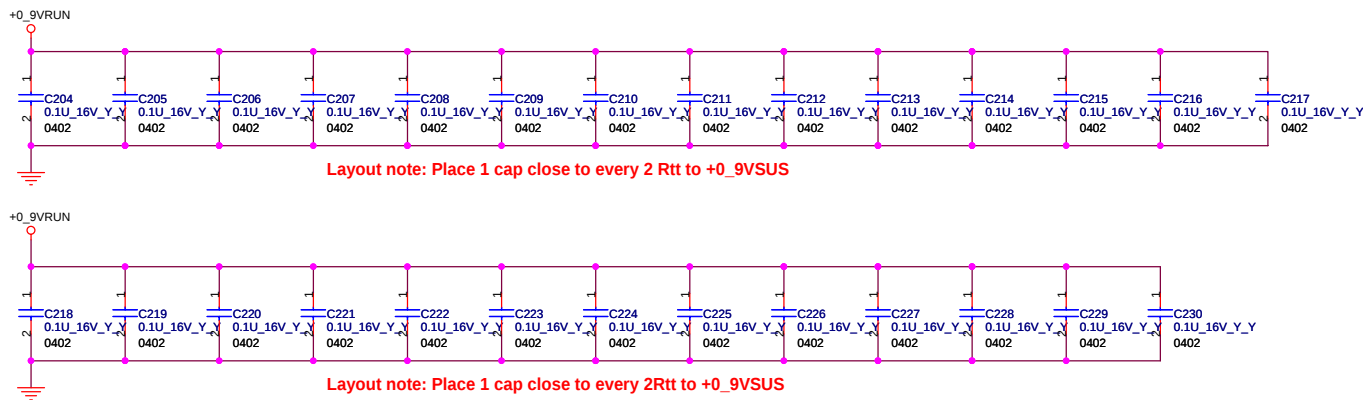


SMBus Address: A0H(W)/A1H(R)

Place DIMM_0 near GMCH

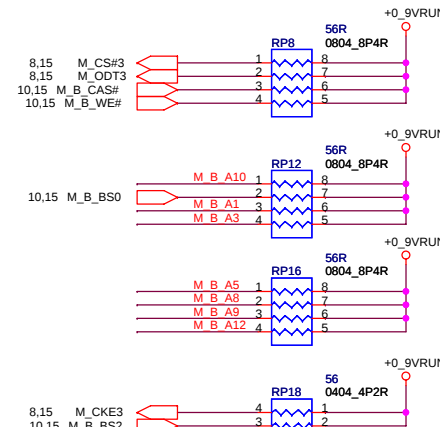
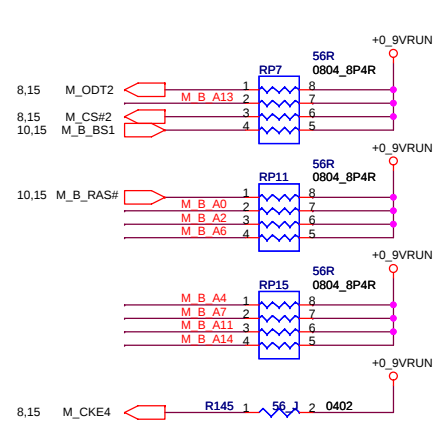
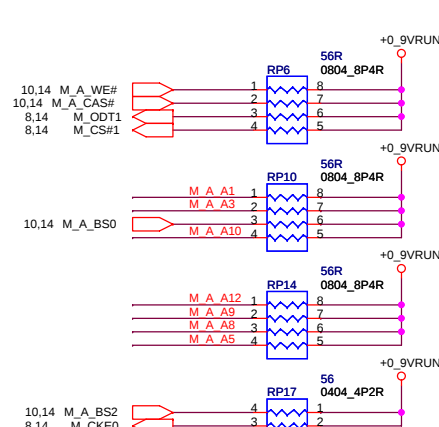
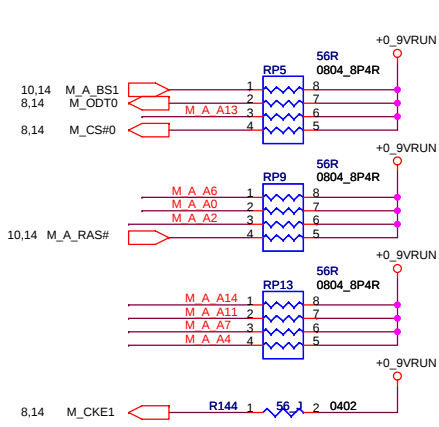
206. (Page 14) 07/11/27 change DDR2 CONN(CN1) from FOX_AS0A426-N5SN-7F to FOX_AS0A426_MN2RN_7F

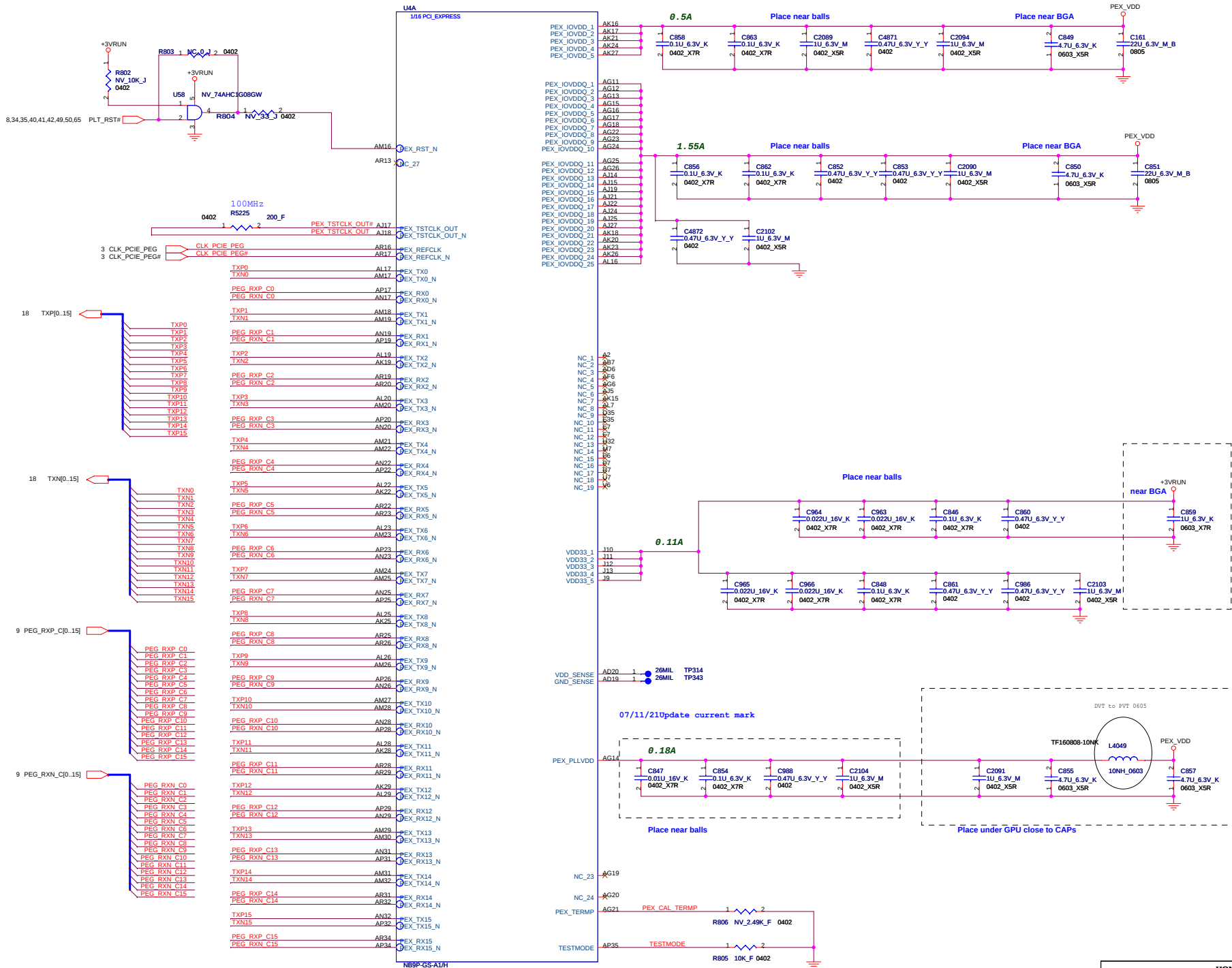
FOXCONN HON HAI PRECISION IND. CO., L.TD.		
CPBG - R&D Division		
Title DDR(II)SO-DIMM_0		
Size	Document Number	Rev
A3	M780(MBX-194)	0.1
Date:	Friday, June 13, 2008	Sheet 14 of 79



10,14 M_A_A[0..14]

10,15 M_B_A[0..14]







XCLK_277	
0	(Reserved)
1	(27M Hz)
NB9X TVMODE[2:0]	
000	
SUB_VENDOR	
0	(No vedio BIOS ROM)
1	(BIOS ROM is present)
SLOT_CLK_CFG	
0	(GPU and MCH not share a common reference clk)
1	(GPU and MCH share a common reference clk)
PEX_PLL_EN_TERM	
0	(Disable)
1	(Enable)
USER[3:0]	
1000	
NB9X 3GIO_PADCFG[3:0]	
0001	
NB9X PCI_DEVID[4:0]	
NB9P-GS	X1001
NB9M-GS	X1001

ROM_SI
(XXXX)

ROM_SO
(1000)

ROM_SCLK
(0010)

STRAP0
(1111)

STRAP1
(0001)

STRAP2
(1001)

0100 64-bit Reserved
 0101 32Mx32 GDDR3 - 136 ball - monolithic 64-bit Qimonda
 0110 32Mx32 GDDR3 - 136 ball - monolithic 64-bit Hynix
 0111 32Mx32 GDDR3 - 136 ball - monolithic 64-bit Samsung

0000 64-bit Reserved
 0001 16Mx32 GDDR3 - 136 ball 64-bit Qimonda
 0010 16Mx32 GDDR3 - 136 ball 64-bit Hynix
 0011 16Mx32 GDDR3 - 136 ball 64-bit Samsung

<< ROM_SI Setting condition >>

H Model

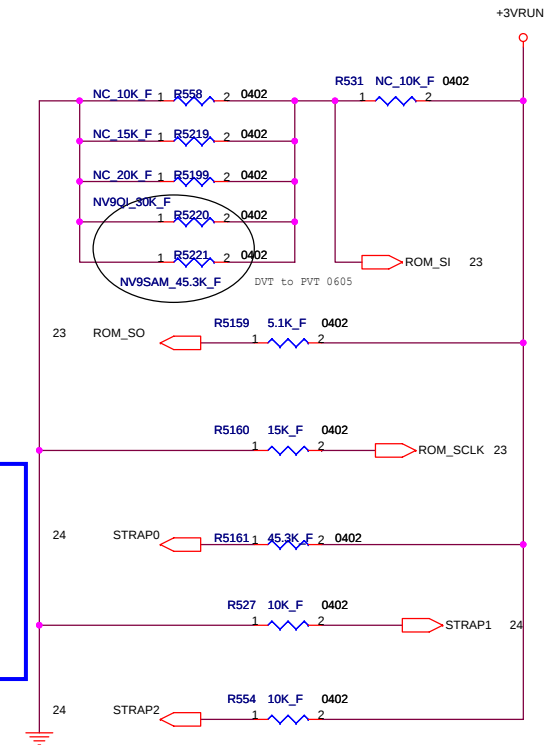
=> 32Mx32bx4 - 0101 Qimonda - 30K pull Low

M Model

=> 32Mx32bx4 - 0101(Qimonda) - 30K pul Low

L Model

=> 32Mx32bx2 - 0101 Qimonda - 30K pull Low



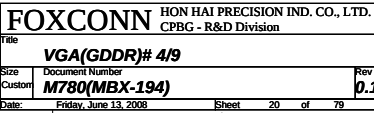
Logical Strap bit Mapping

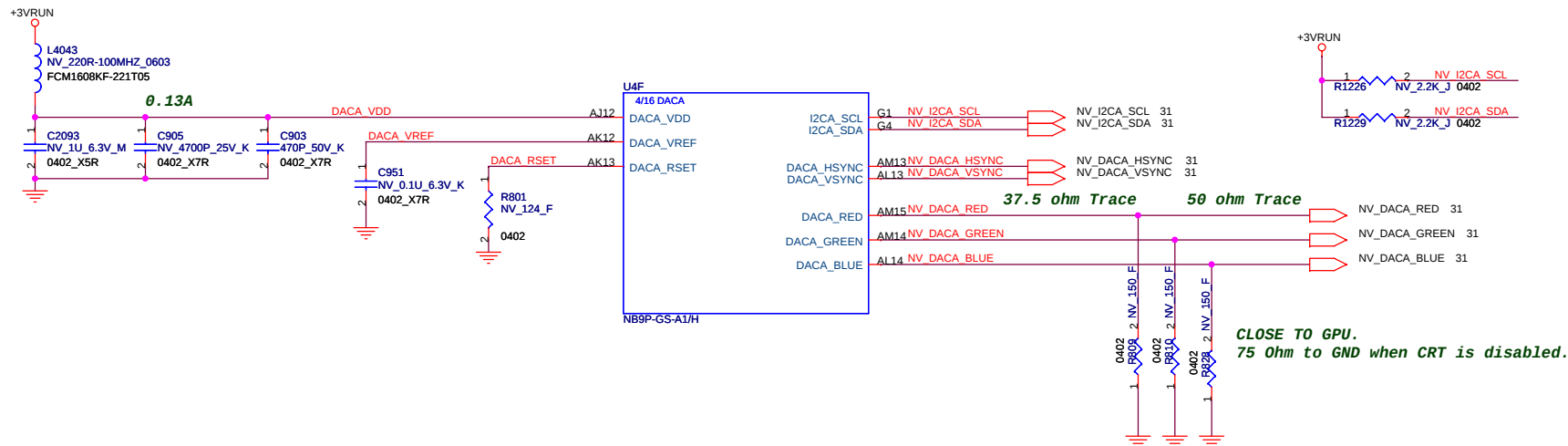
Resister values	Pull-up to VDD	Pull-down to GND
5KΩ	1000	0000
10KΩ	1001	0001
15KΩ	1010	0010
20KΩ	1011	0011
25KΩ	1100	0100
30KΩ	1101	0101
35KΩ	1110	0110
45KΩ	1111	0111

Strap Options

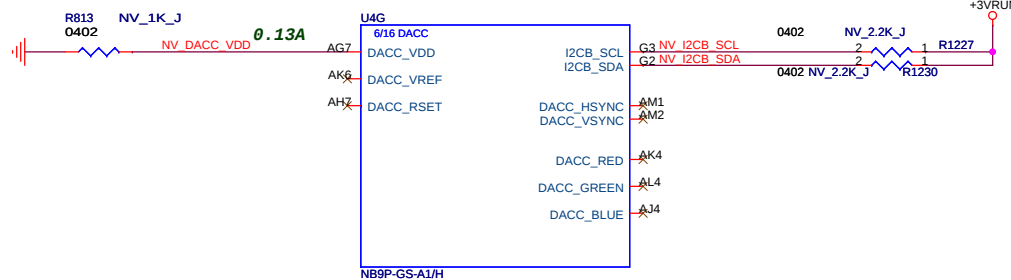
Physical Strapping pin	Power Rail	Logical Strapping pin3	Logical Strapping pin2	Logical Strapping pin1	Logical Strapping pin0
ROM_SI	+3VRUN	RAMCFG[3]	RAMCFG[2]	RAMCFG[1]	RAMCFG[0]
ROM_SO	+3VRUN	XCLK_277	TVMODE[2]	TVMODE[1]	TVMODE[0]
ROM_SCLK	+3VRUN	PCI_DEVID[4]	SUB_VENDOR	SLOT_CLK_CFG	PEX_PLL_EN_TERM
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>

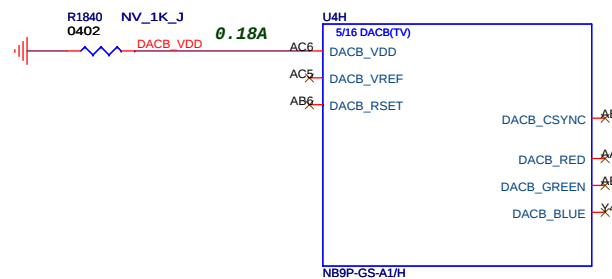


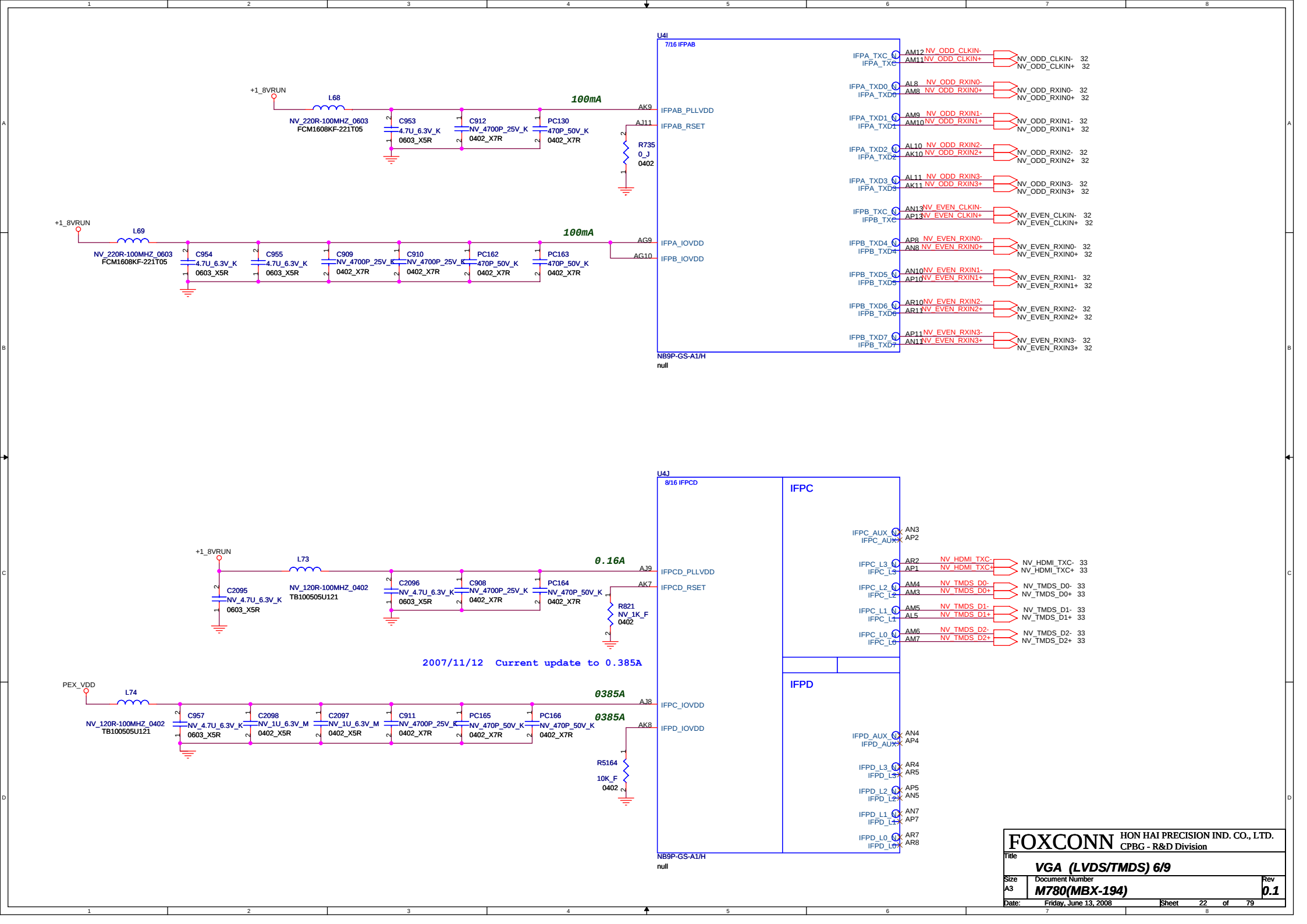


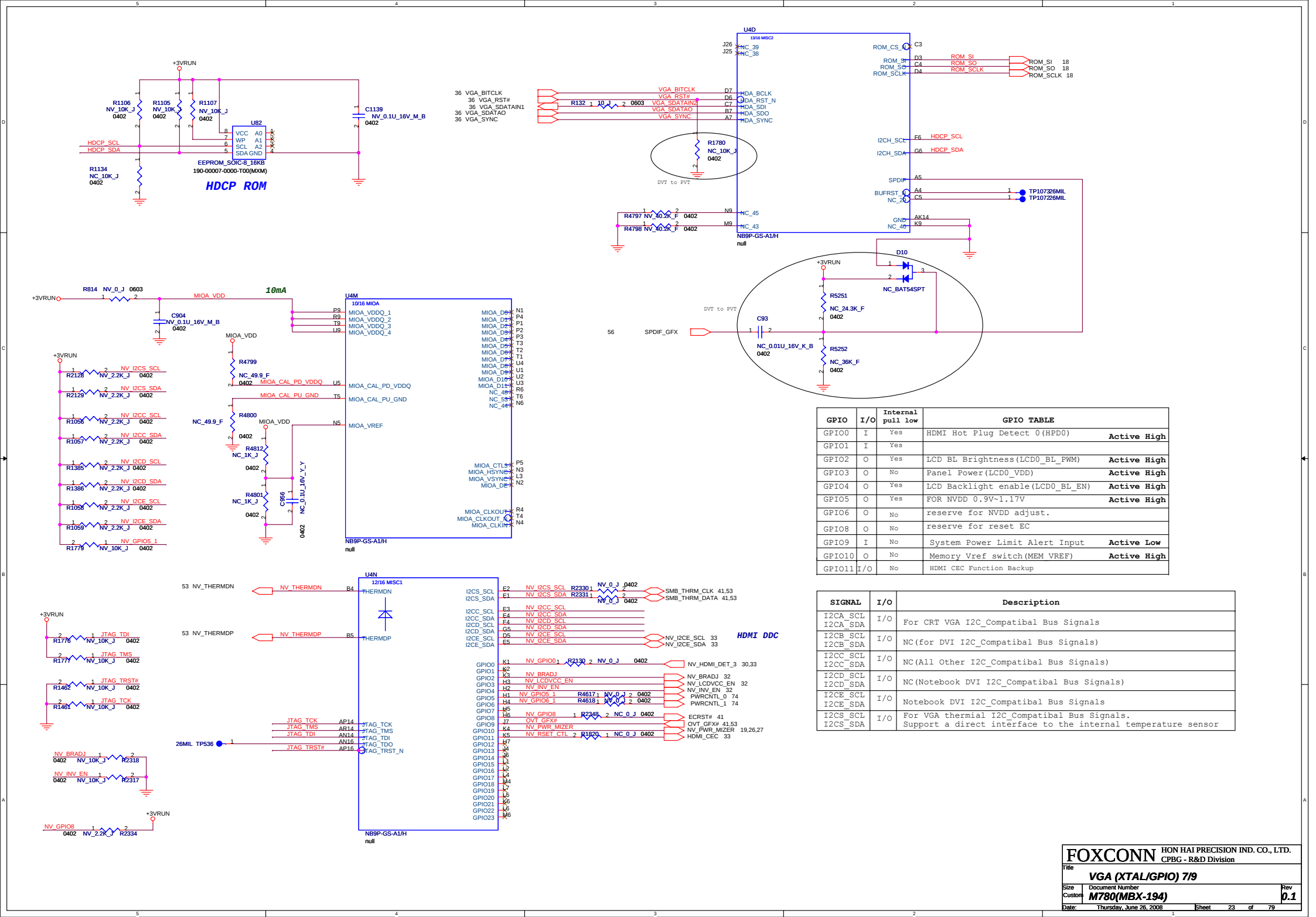
CLOSE TO GPU.
75 Ohm to GND when CRT is disabled.



DACA	VGA-CRT	I2CA
DACA-RED	R	
DACA-GREEN	G	
DACA-BLUE	B	
DACA-HSYNC	HSYNC	
DACA-VSYNC	VSYNC	
	VGA-DDCCLK	SCL
	VGA-DDCDA	SDA

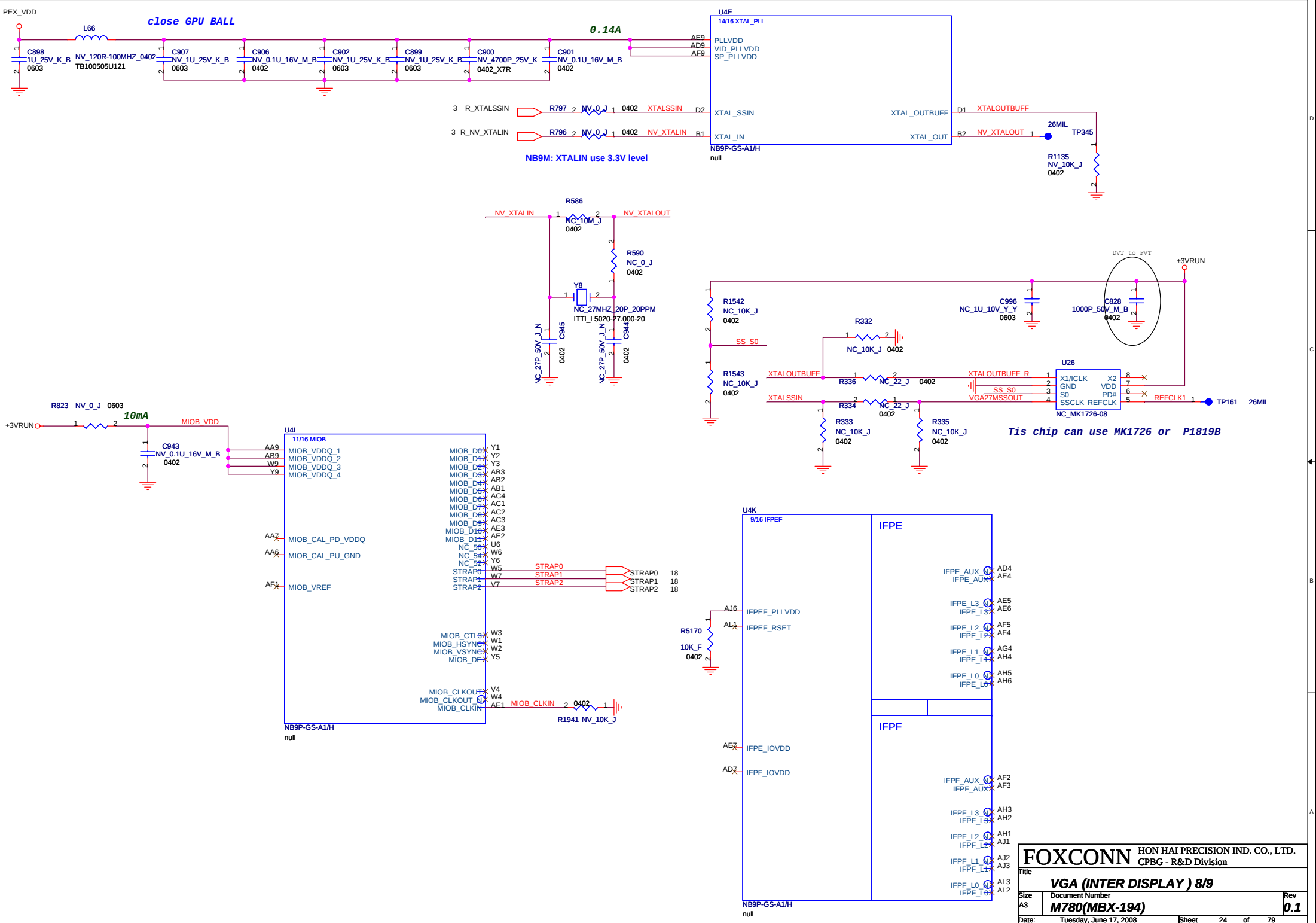


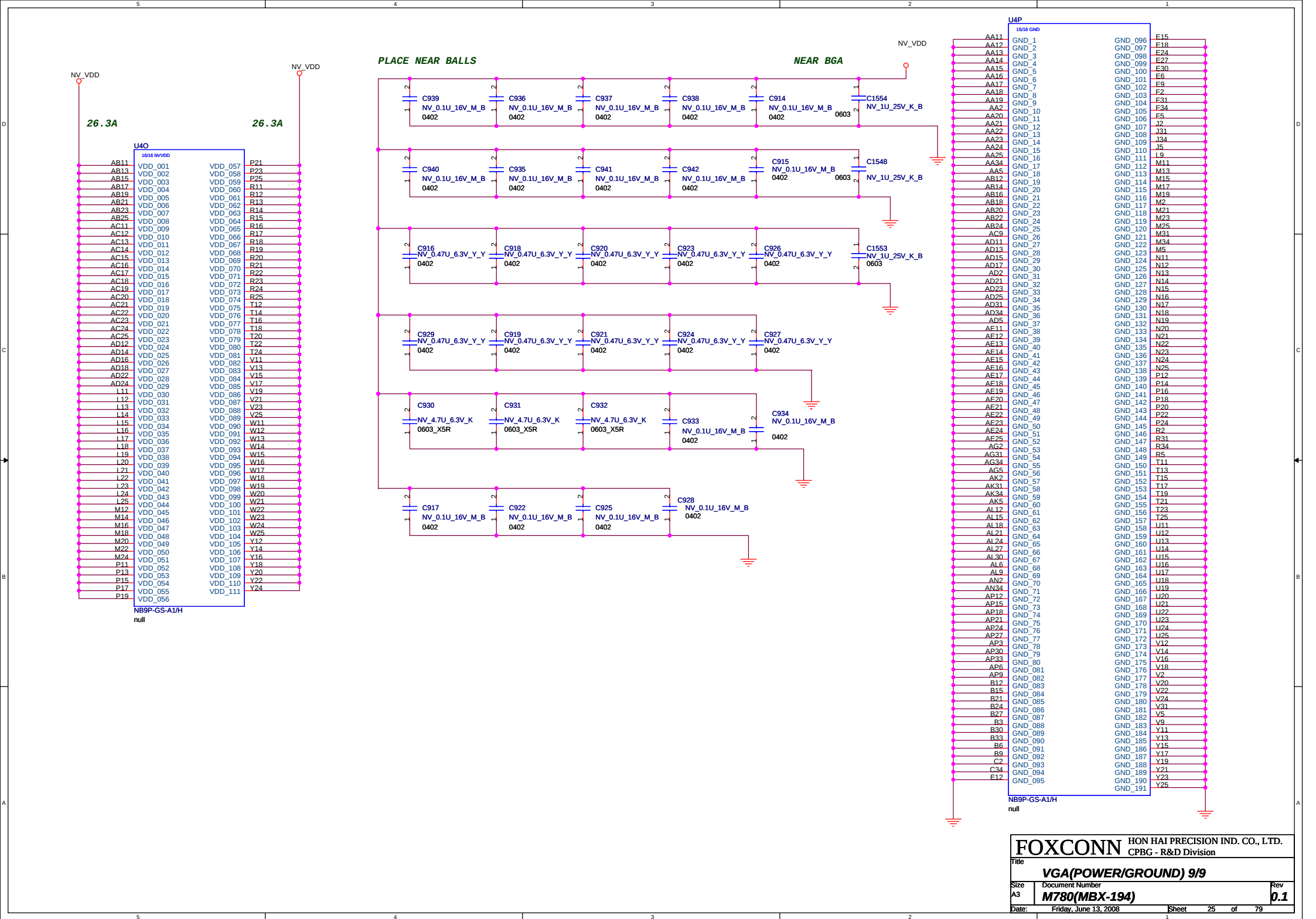




GPIO	I/O	Internal pull low	GPIO TABLE
GPIO0	I	Yes	HDMI Hot Plug Detect 0 (HPD0) Active High
GPIO1	I	Yes	
GPIO2	O	Yes	LCD BL Brightness(LCD0_BL_PWM) Active High
GPIO3	O	No	Panel Power(LCD0_VDD) Active High
GPIO4	O	Yes	LCD Backlight enable(LCD0_BL_EN) Active High
GPIO5	O	Yes	FOR NVDD 0.9V~1.17V Active 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
GPIO10	O	No	Memory Vref switch(MEM VREF) Active High
GPIO11	I/O	No	HDMI CEC Function Backup

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(All Other I2C_Compatibal Bus Signals)
I2CD_SCL I2CD_SDA	I/O	NC(Notebook DVI I2C_Compatibal Bus Signals)
I2CE_SCL I2CE_SDA	I/O	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



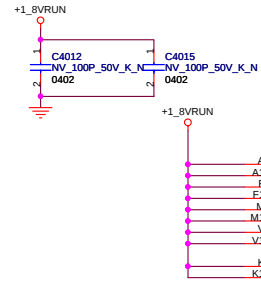


FOXCONN HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division

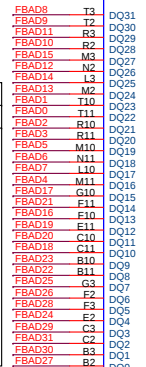
Title
VGA(POWER/GROUND) 9/9

Size A3 Document Number
M780(MBX-194) Rev
0.1

Date: Friday, June 13, 2008 Sheet 25 of 79

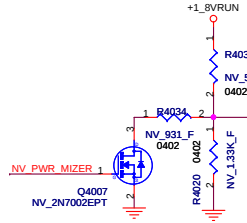
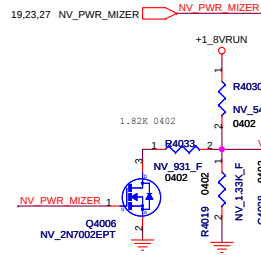


MIRROR TABLE		
MF STATE		
LOW	HIGH	SIGNAL
H3	H10	RAS#
F4	F9	CAS#
H9	H4	WE#
F9	F4	CS#
H4	H9	CKE
K4	K9	A0
H2	H11	A1
K3	K10	A2
M4	M9	A3
K9	K4	A4
H11	H2	A5
K10	K3	A6
L9	L4	A7
K11	K2	A8
M9	M4	A9
K2	K11	A10
L4	L9	A11
G4	G9	BA0
G9	G4	BA1
H10	H3	BA2

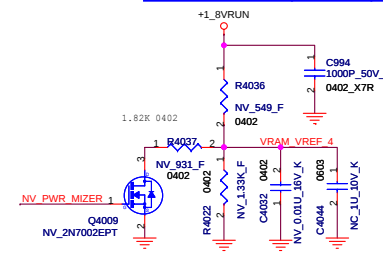
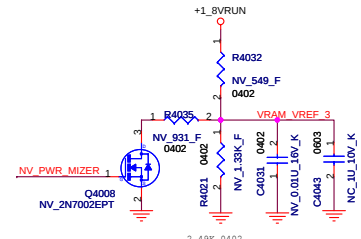
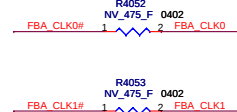


R66,R85 (120 ohm-360 ohm)
240 ohm --> Output impedance 40 ohm

VRAM_VREF is 70%FBVDDQ for GDDR3 1.26V

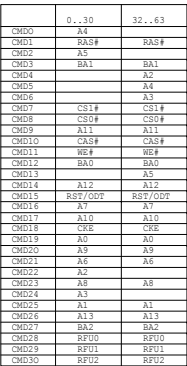


7/19 FAE Suggest: Ball to termination
resistor trace length < 75ps

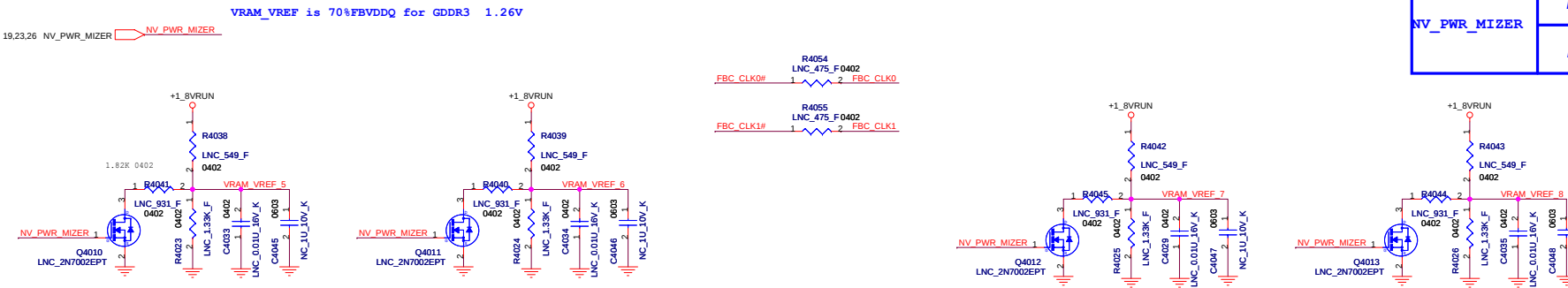


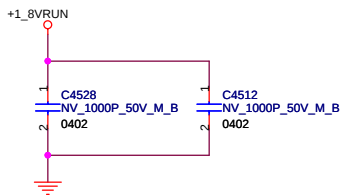
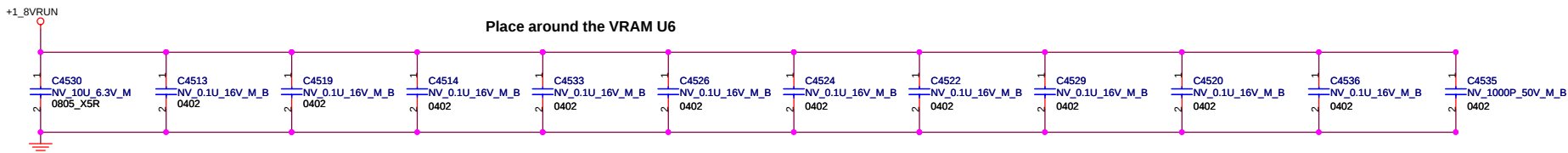
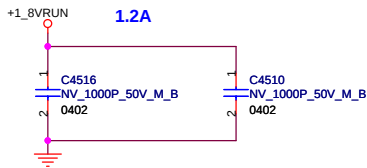
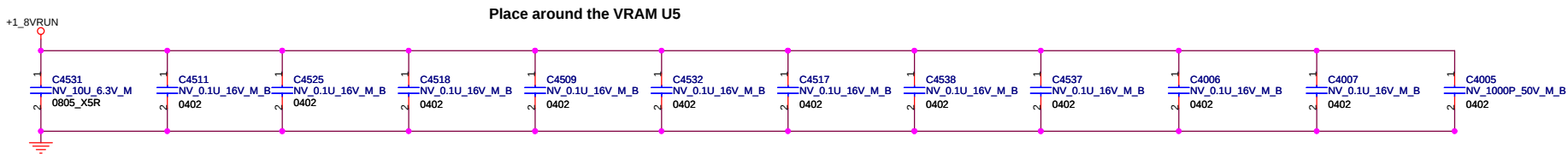
	0...30	32...63
CMDO	A4	RAS#
CMO1	RAS#	RAS#
CMO2	A5	BA1
CMO3	BA1	A2
CMO4	A2	A4
CMO5	A4	A3
CMO6	A3	CS1#
CMO7	CS1#	CS0#
CMO8	CS0#	CS0#
CMO9	A11	A11
CMO10	CAS#	CAS#
CMO11	WE#	WE#
CMO12	BA0	BA0
CMO13	A5	A5
CMO14	A12	A12
CMO15	RST/ODT	RST/ODT
CMO16	A7	A7
CMO17	A10	A10
CMO18	CKE	CKE
CMO19	A0	A0
CMO20	A9	A9
CMO21	A6	A6
CMO22	A2	A2
CMO23	A8	A8
CMO24	A3	A3
CMO25	A1	A1
CMO26	A13	A13
CMO27	BA2	BA2
CMO28	REFU0	REFU0
CMO29	REFU1	REFU1
CMO30	REFU2	REFU2

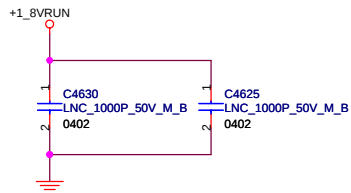
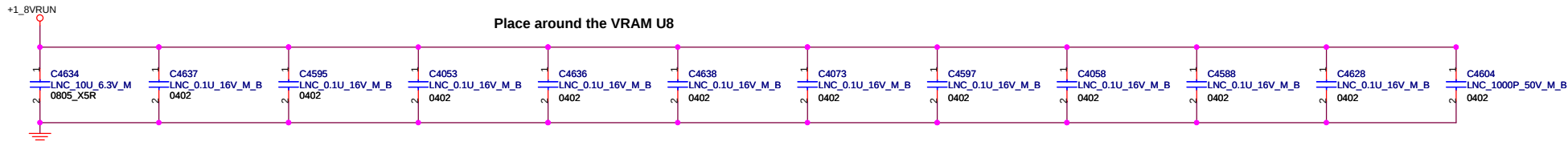
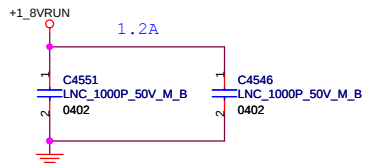
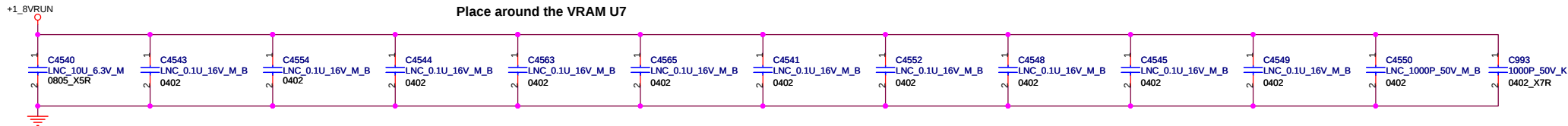
VREF	
H	50%
L	70%



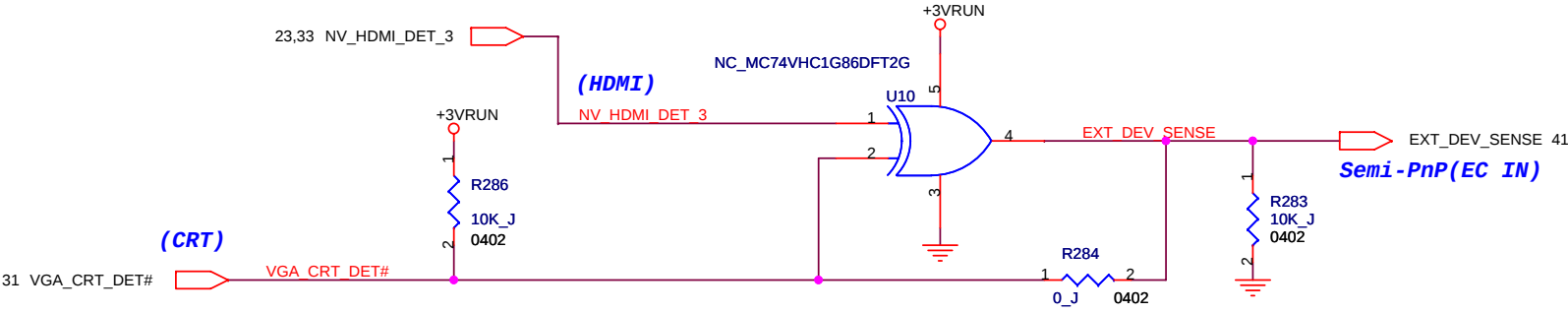
	VREF	
NV_PWR_MIZER	H	50%
	L	70%



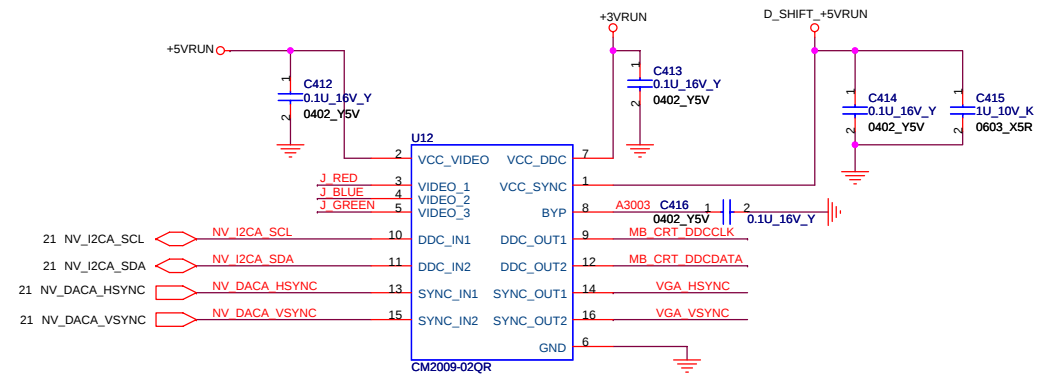
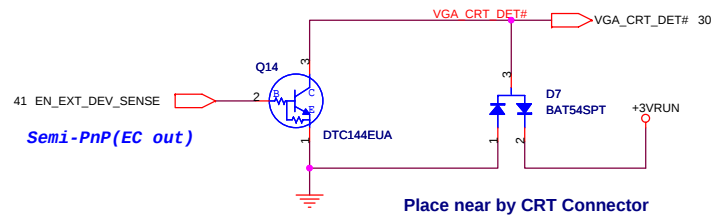




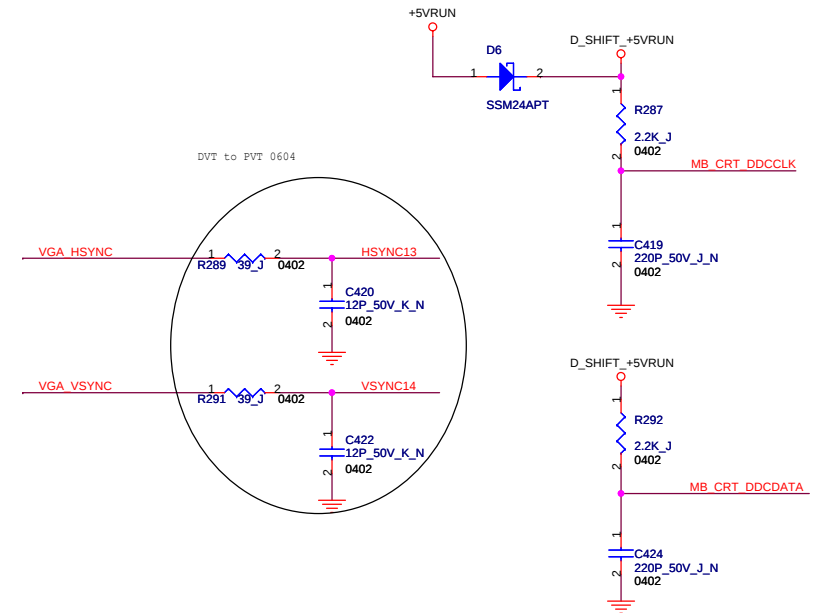
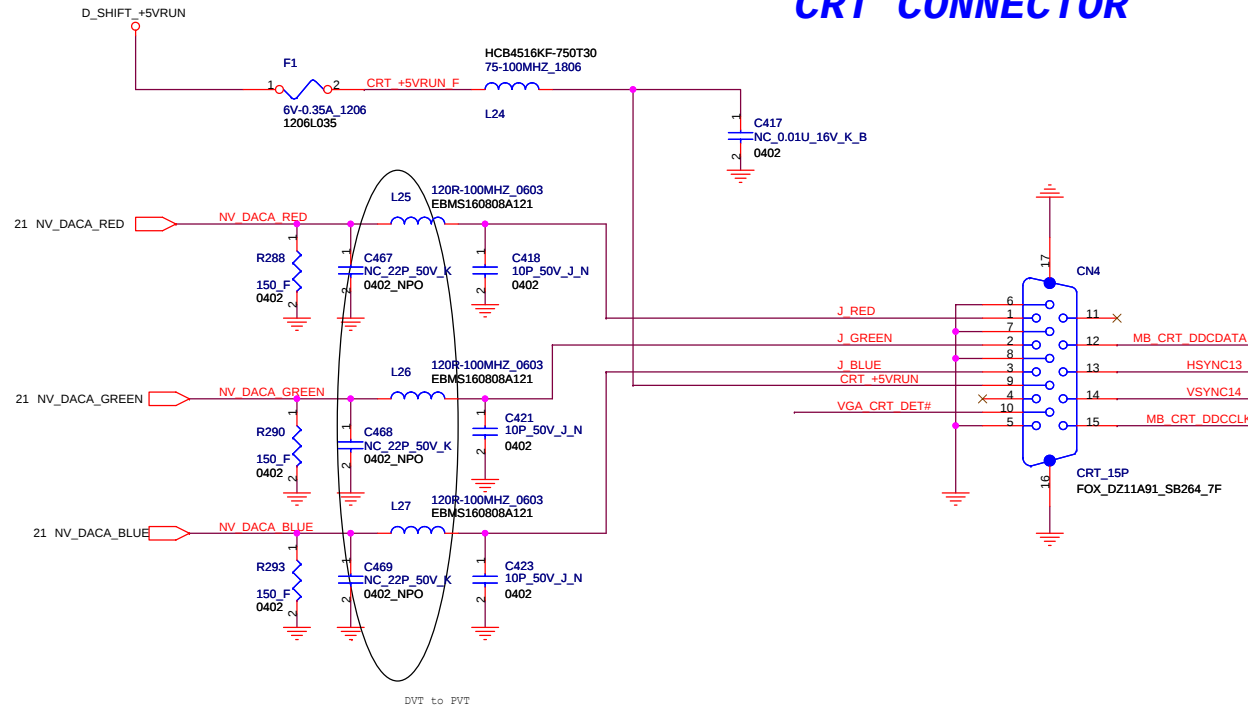
Semi-PnP Circuit



FOXCONN		HON HAI PRECISION IND. CO., LTD.	
Title		CPBG - R&D Division	
Semi-PnP			
Size	Document Number		Rev
Custom	M780(MBX-194)		0.1
Date:	Friday, June 13, 2008	Sheet	30 of 79

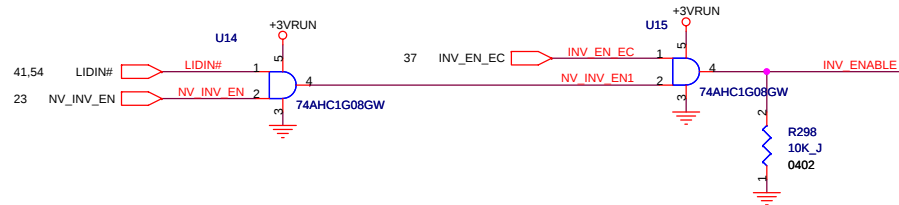
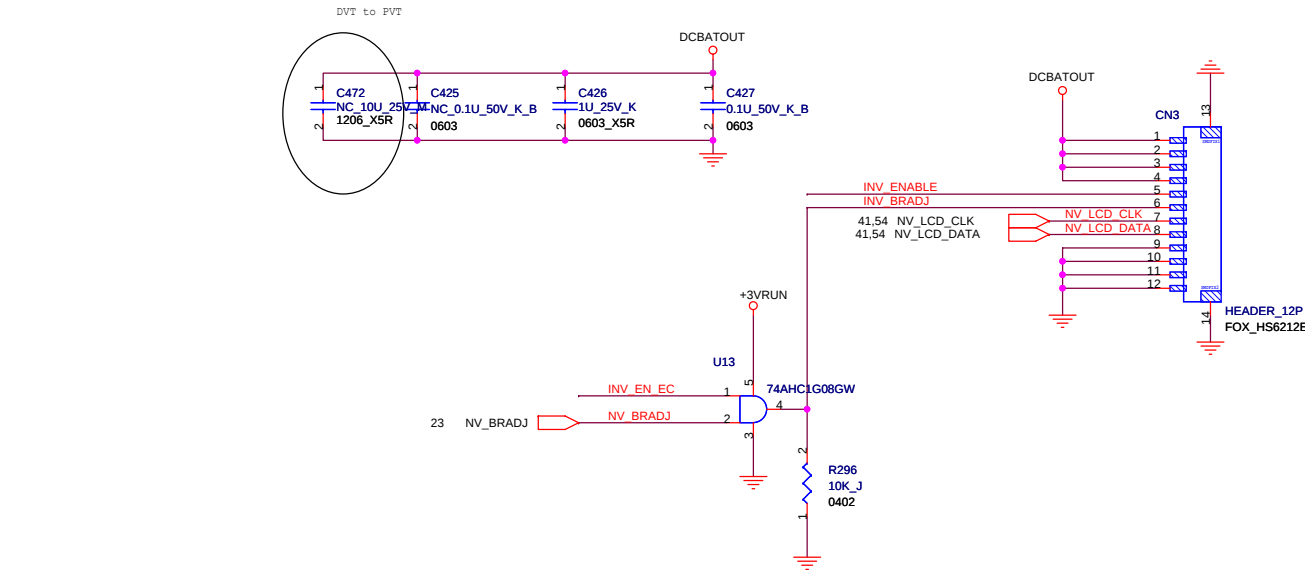


CRT CONNECTOR

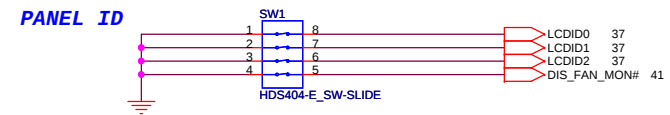
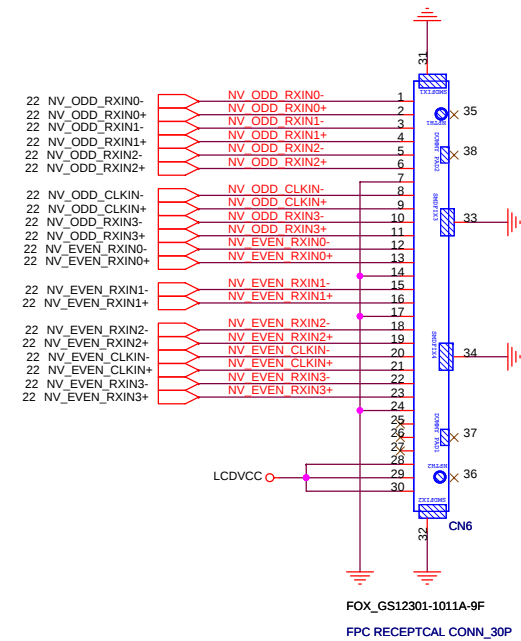
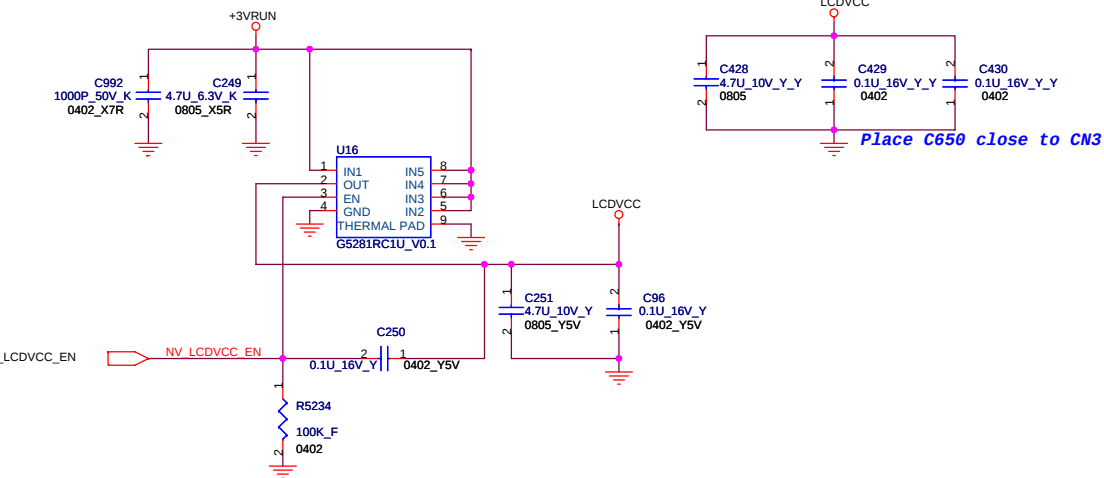


BLU CONNECTOR

LVDS CONNECTOR

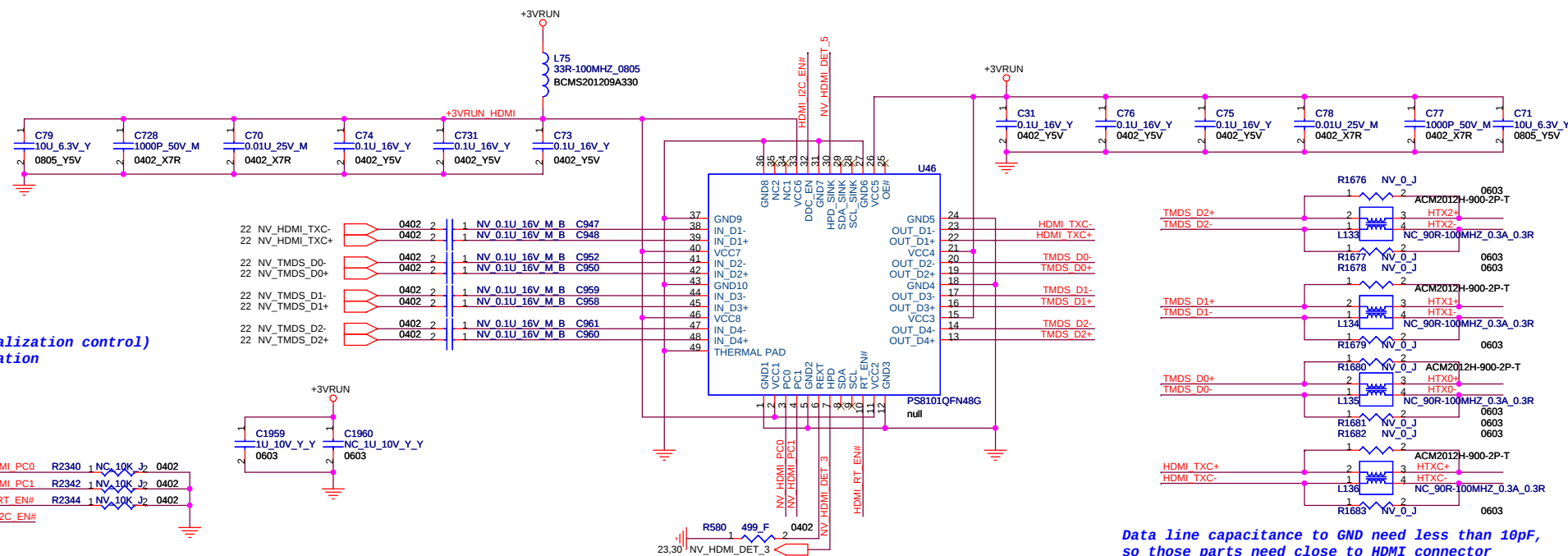


Current limit is from 1.1A to 2.1A.

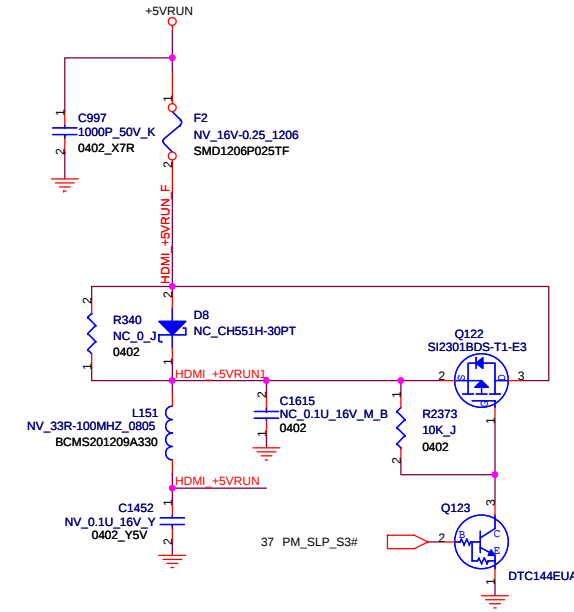
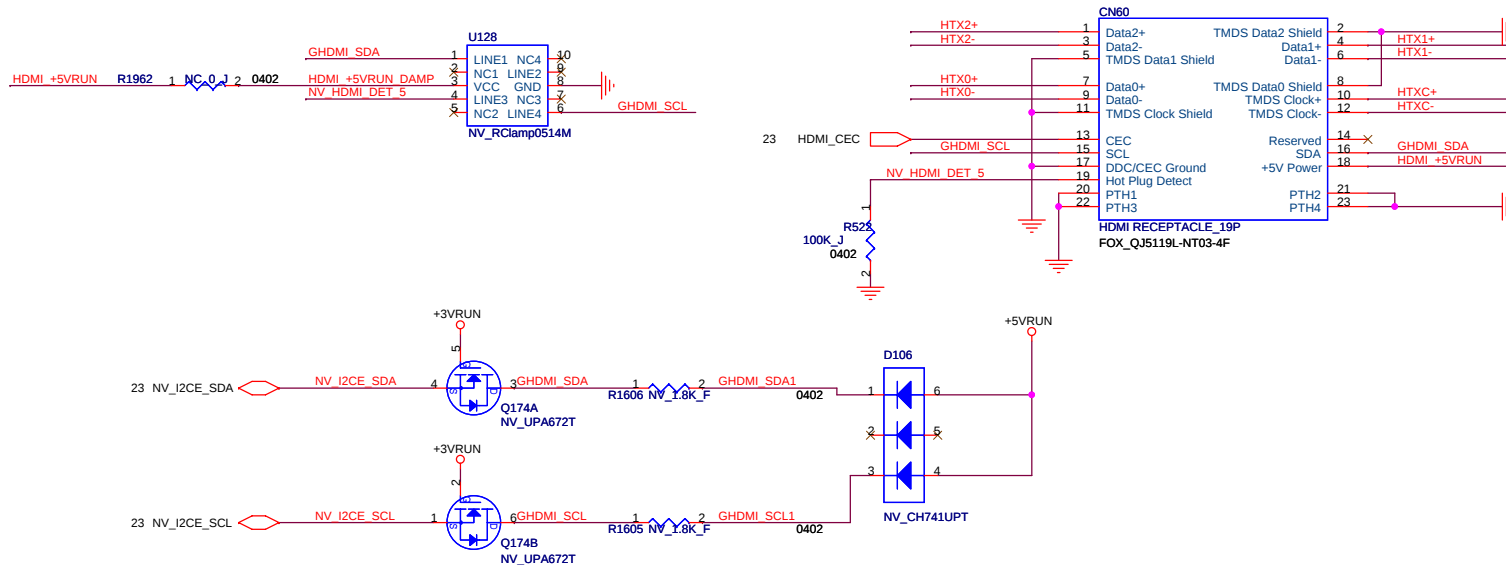


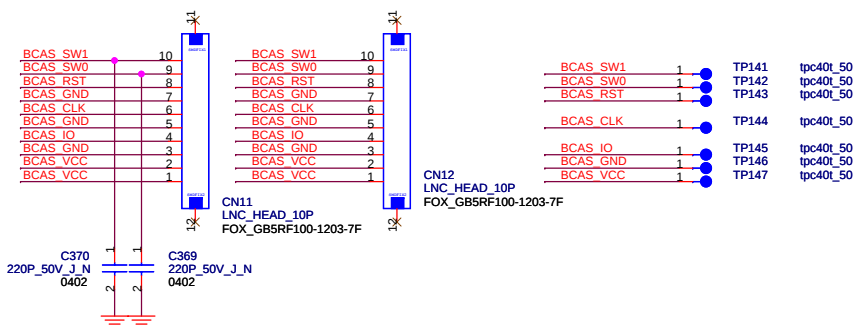
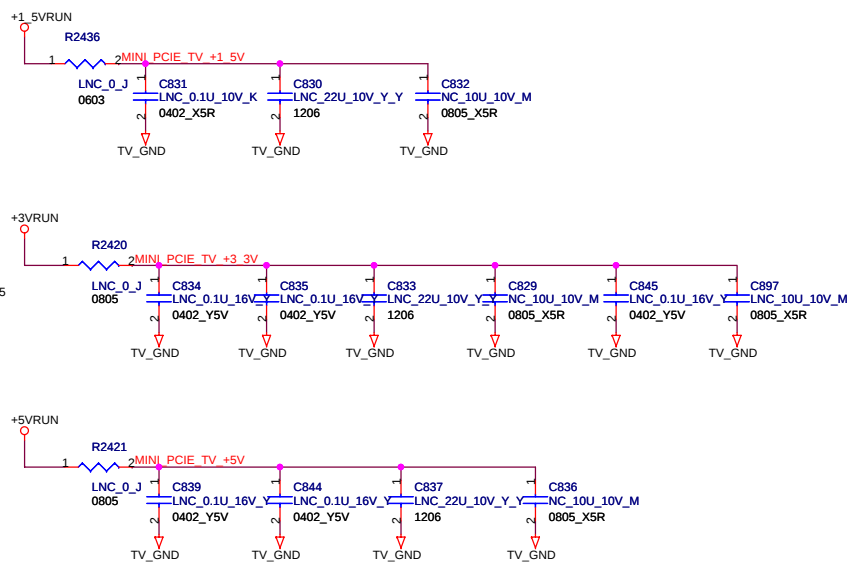
	DIS_FAN_MON#	LCDID2	LCDID1	LCDID0
Eagle1	1	0	0	1
Eagle2	1	0	1	0
Eagle3	1	0	1	1
DISABLE FAN LOCK FUNCTION	1	X	X	X

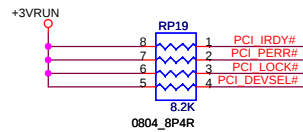
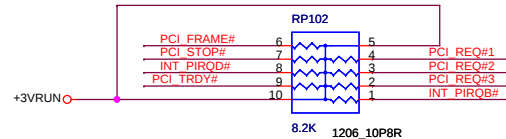
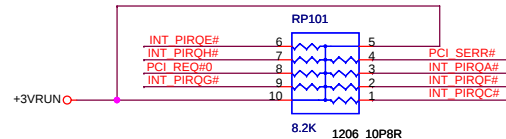
ON:0 , OFF:1



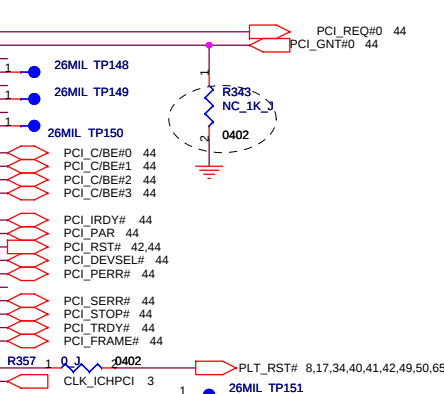
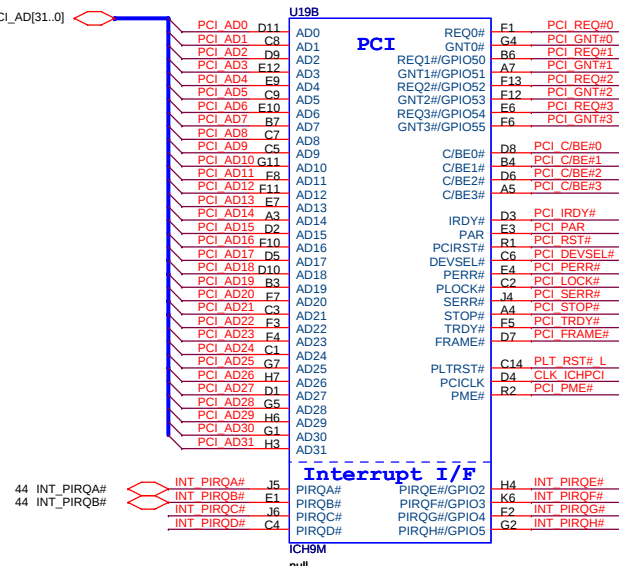
HDMI CONNECTOR





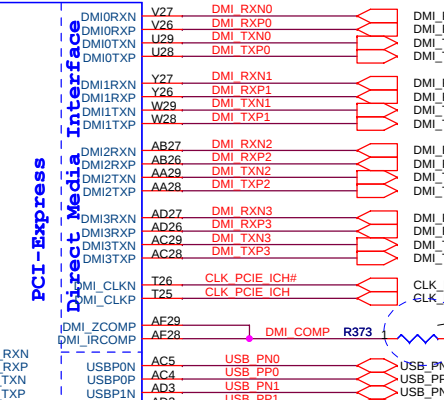
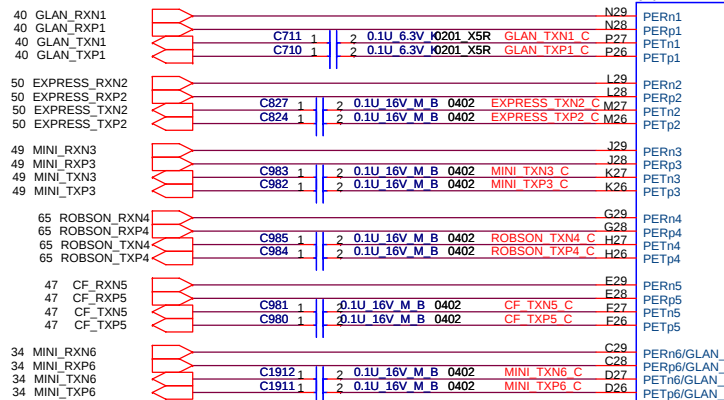


PCI Pullups

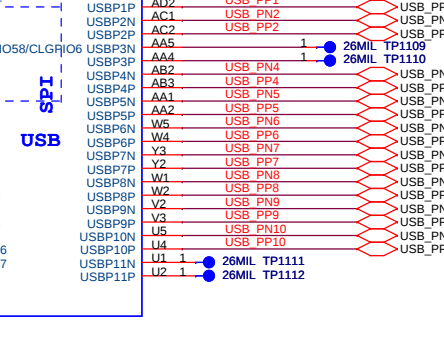
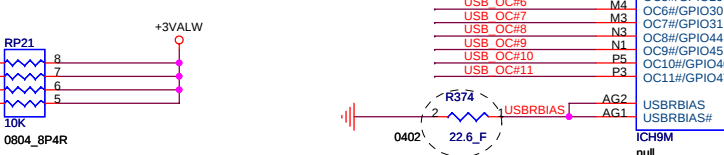
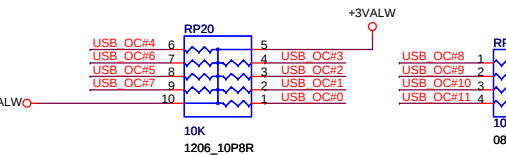


Strap for Boot-BIOS

	GNT0#	SPI_CS1#
LP(Default)	H1	H1
PCI	H1	LOW
SPI	LOW	H1

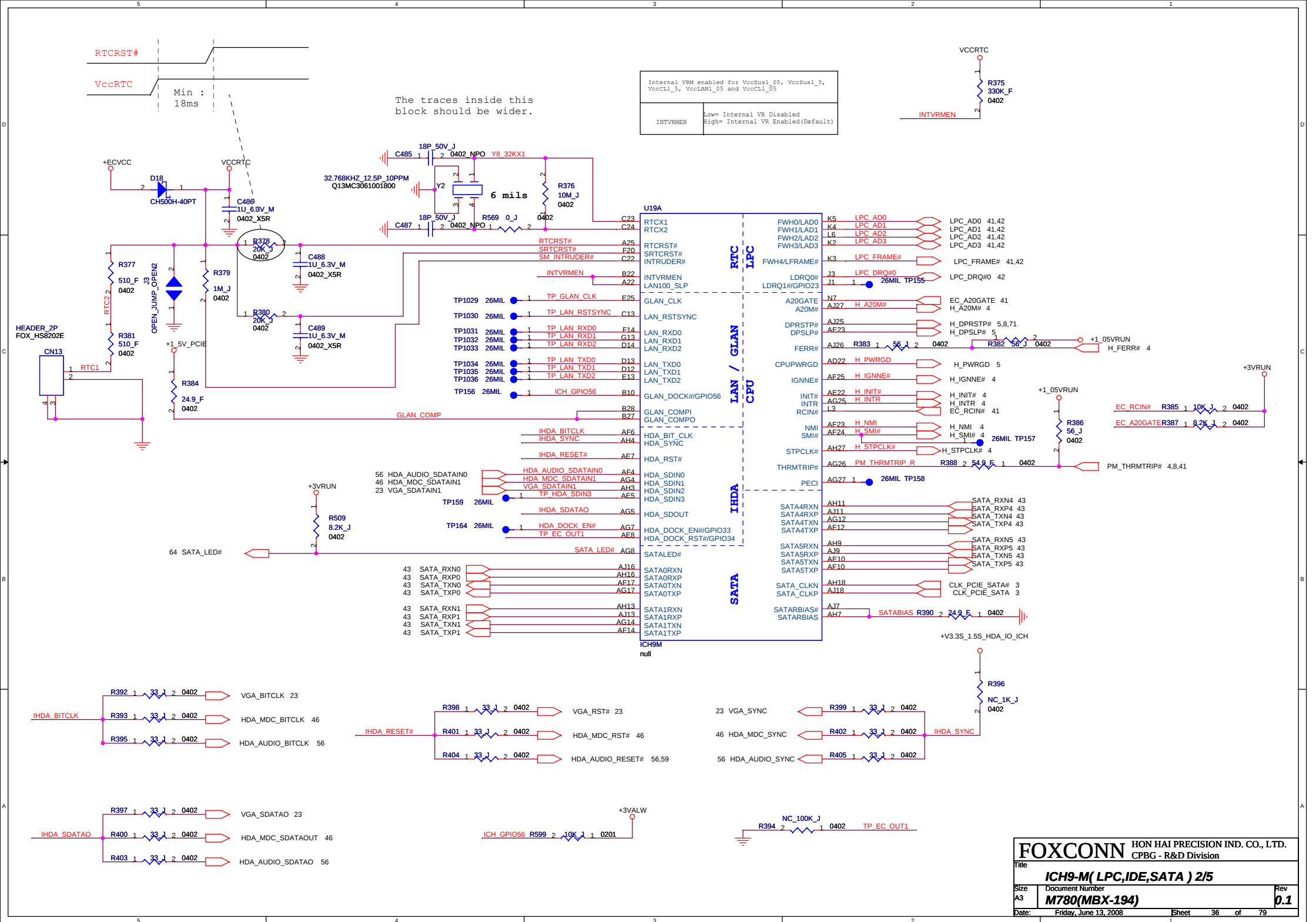


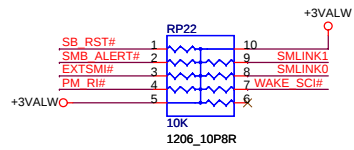
Place within 500 mils of ICH



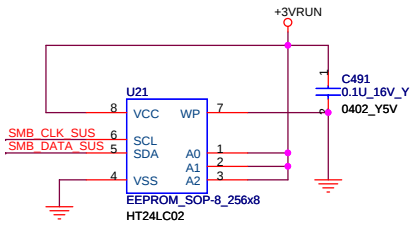
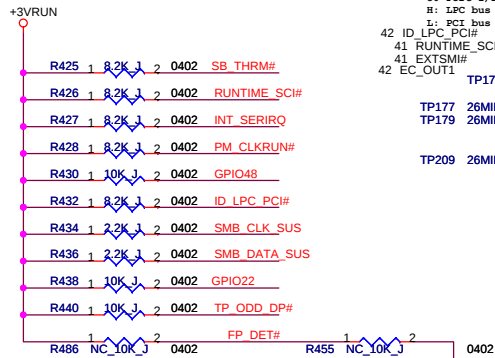
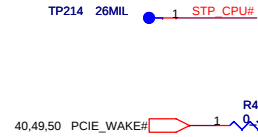
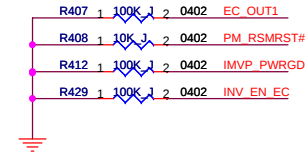
USB Port0 -- USB Port0
 USB Port1 -- USB Port1
 USB Port2 -- USB Port2
 USB Port3 -- X
 USB Port4 -- Bluetooth
 USB Port5 -- Express Card
 USB Port6 -- Finger print (Bottom Board)
 USB Port7 -- Camera
 USB Port8 -- OIDE
 USB Port9 -- CIR
 USB Port10 -- WiMAX
 USB Port11 -- X

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

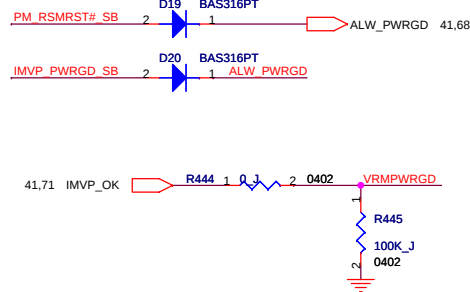




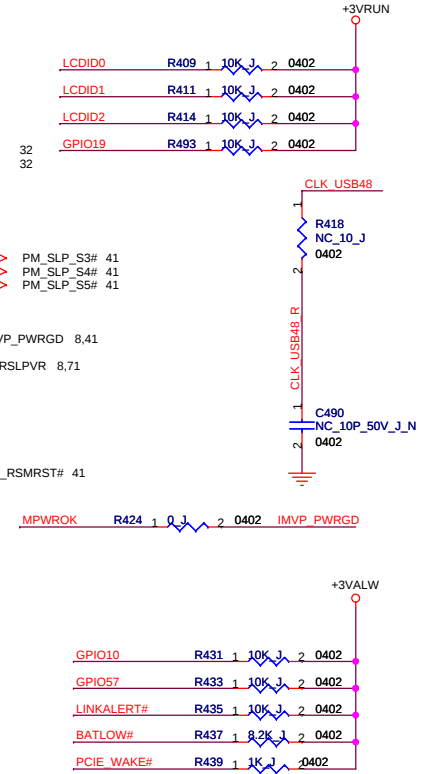
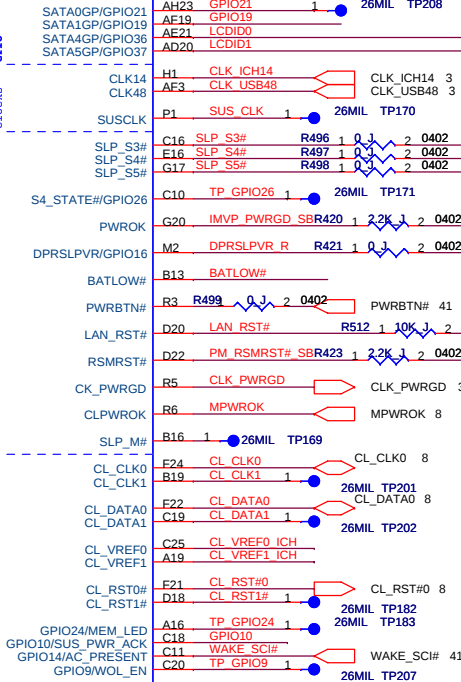
Stuff for No-reboot
Low=Default
High=No-reboot



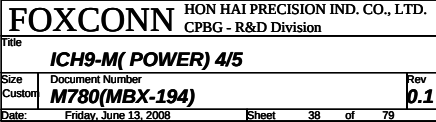
SMBus Address: AEH

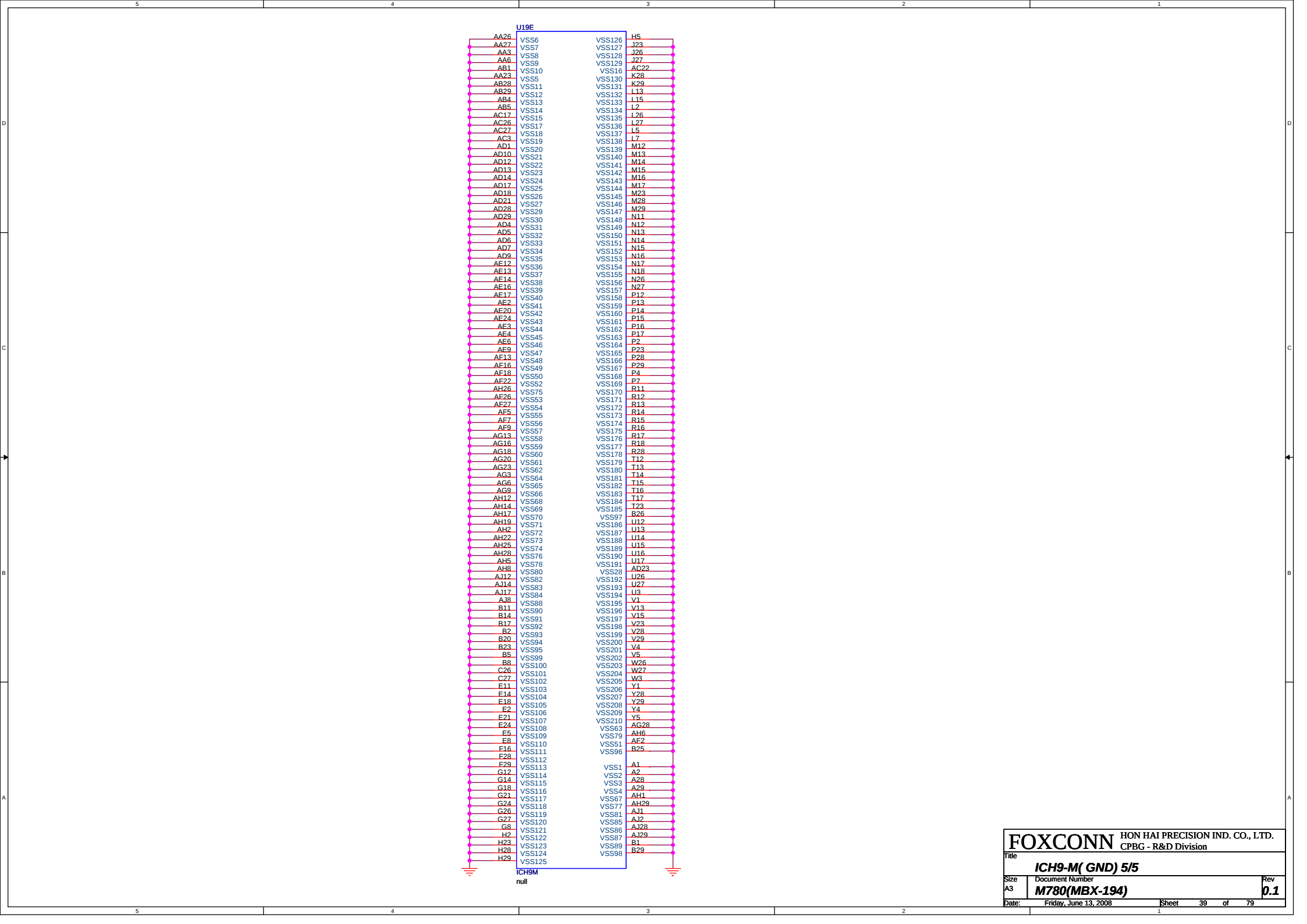


U19C
SMB
SYS GPIO
Power Mgt
GPIO
Controller Link
MISC



Change to 0402





FOXCONN

HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division

Title

ICH9-M(GND) 5/5

Size

Document Number

A3

M780(MBX-194)

Date:

Friday, June 13, 2008

Sheet

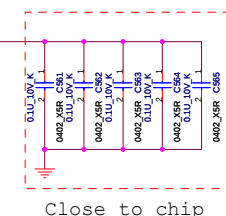
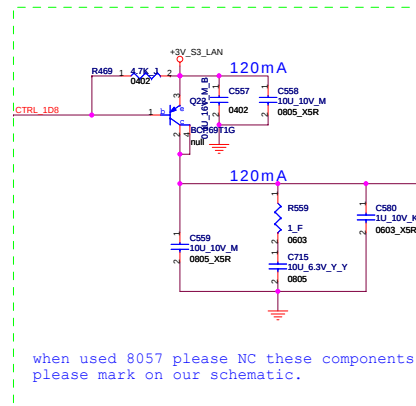
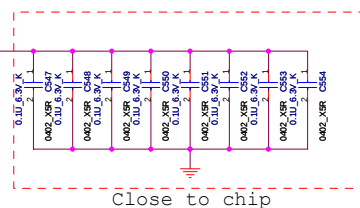
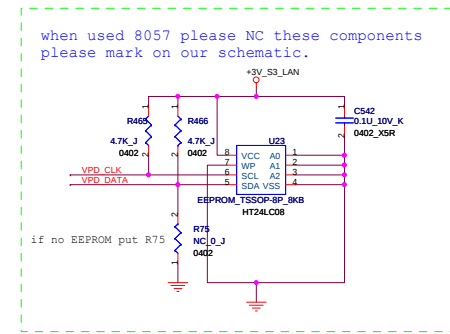
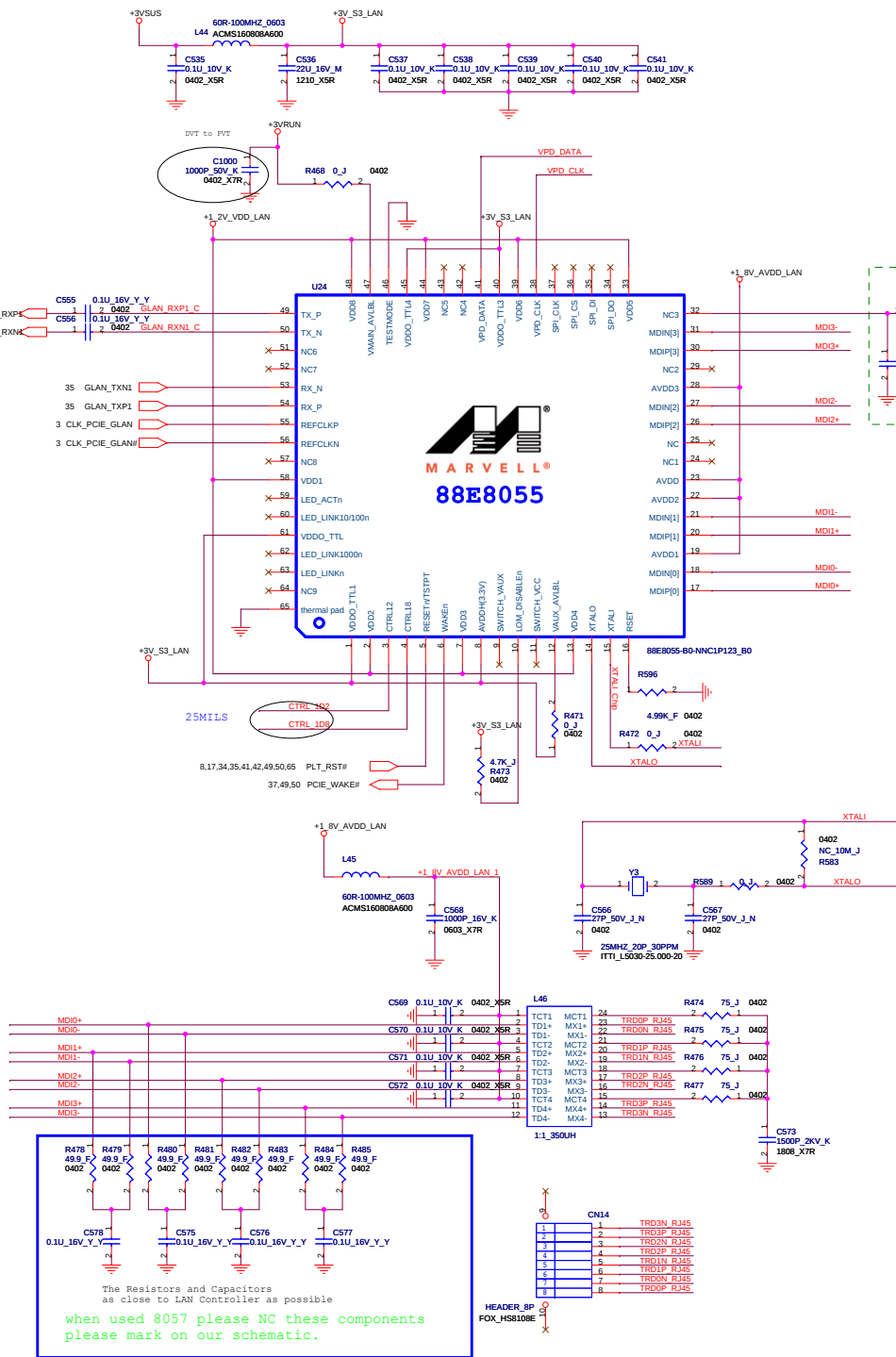
39

of

79

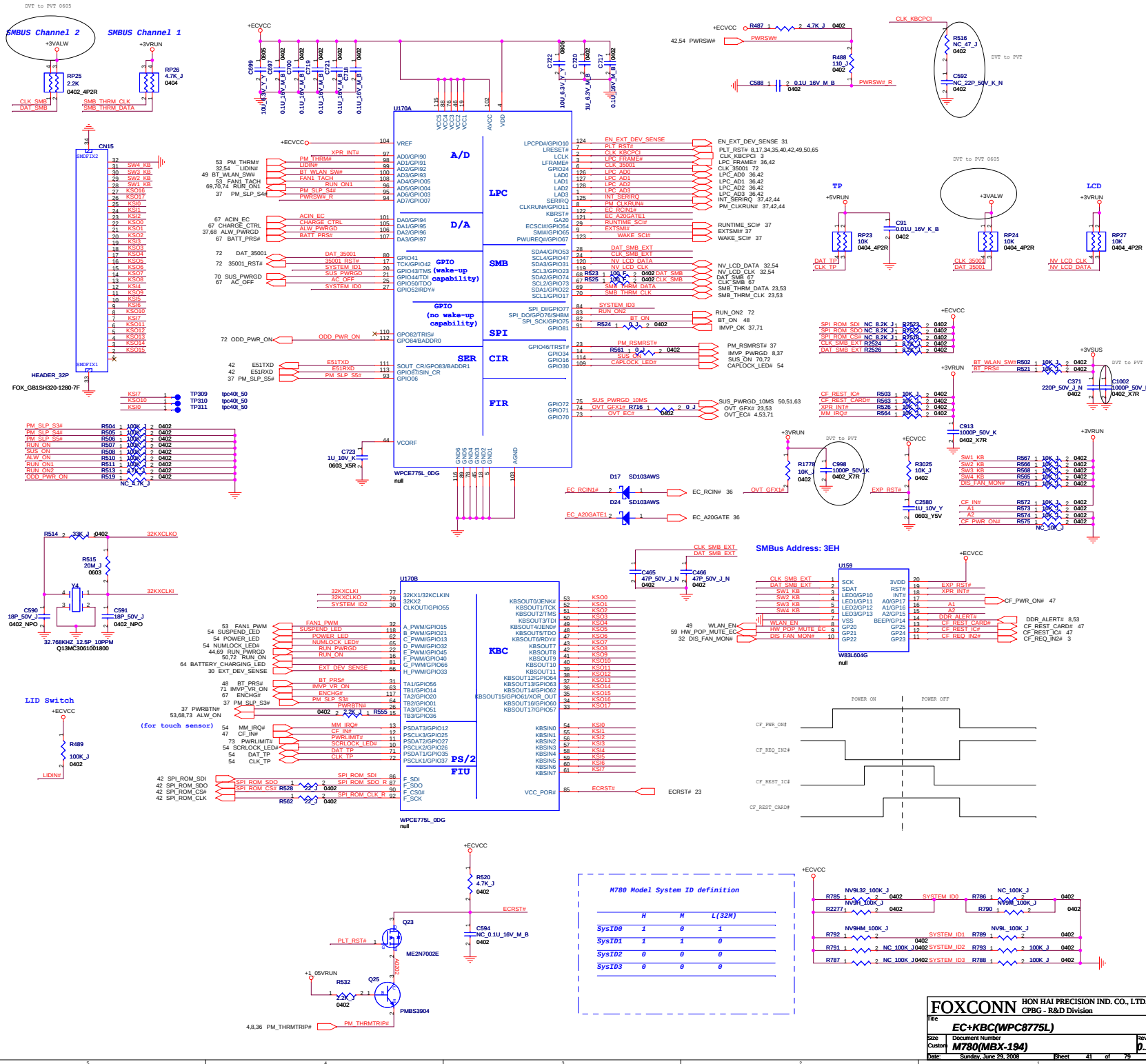
Rev

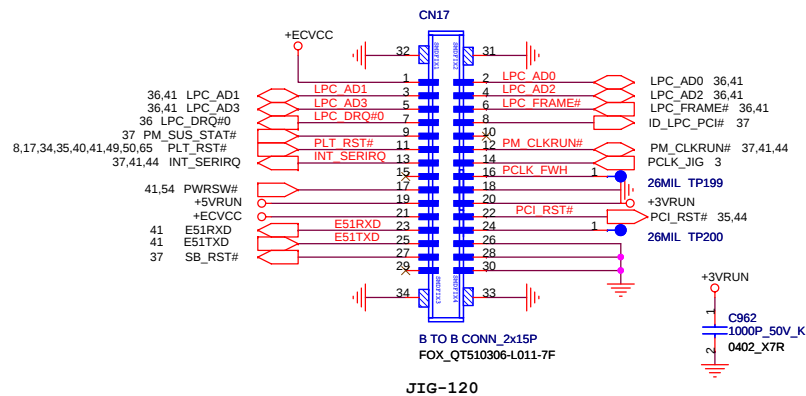
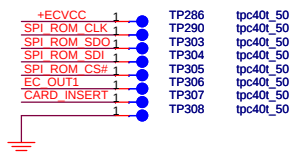
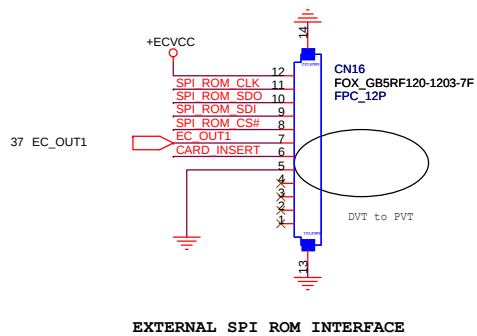
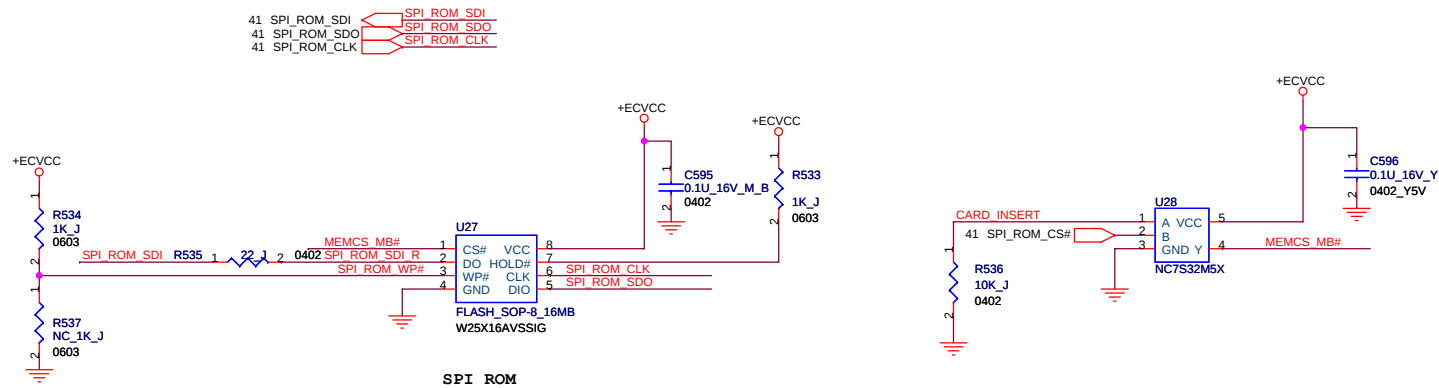
0.1



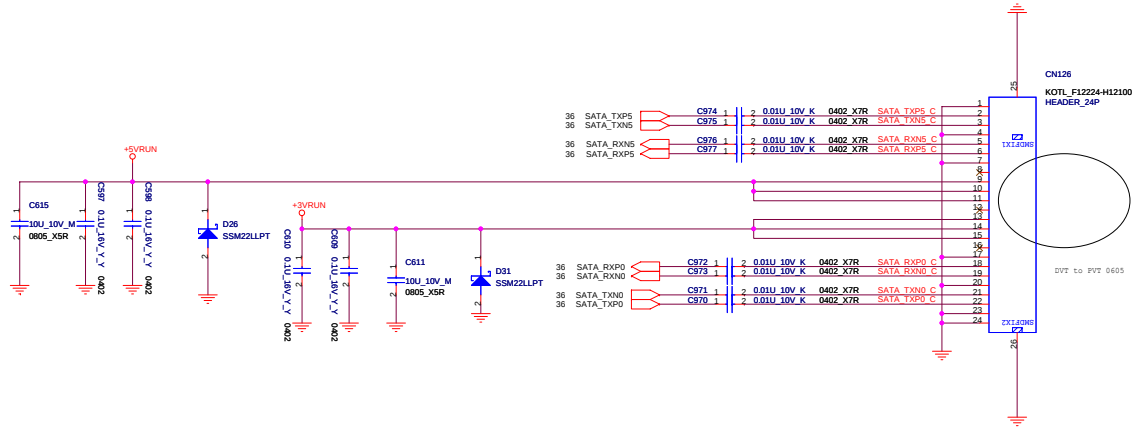
BFT Test Pad

TRD3N_RJ45	TP191	tpc40l_50
TRD3P_RJ45	TP206	tpc40l_50
TRD2N_RJ45	TP193	tpc40l_50
TRD2P_RJ45	TP194	tpc40l_50
TRD1N_RJ45	TP195	tpc40l_50
TRD1P_RJ45	TP196	tpc40l_50
TRDON_RJ45	TP197	tpc40l_50
TRDOP_RJ45	TP198	tpc40l_50



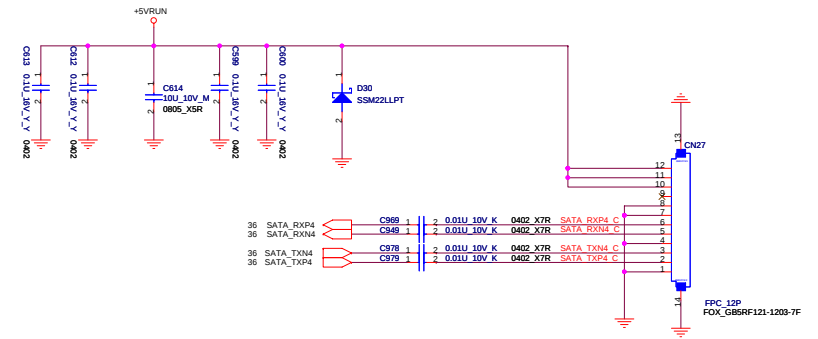


SATA HDD CONN (FPC)

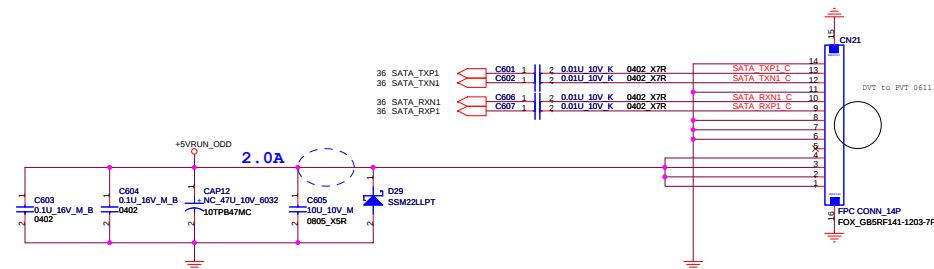


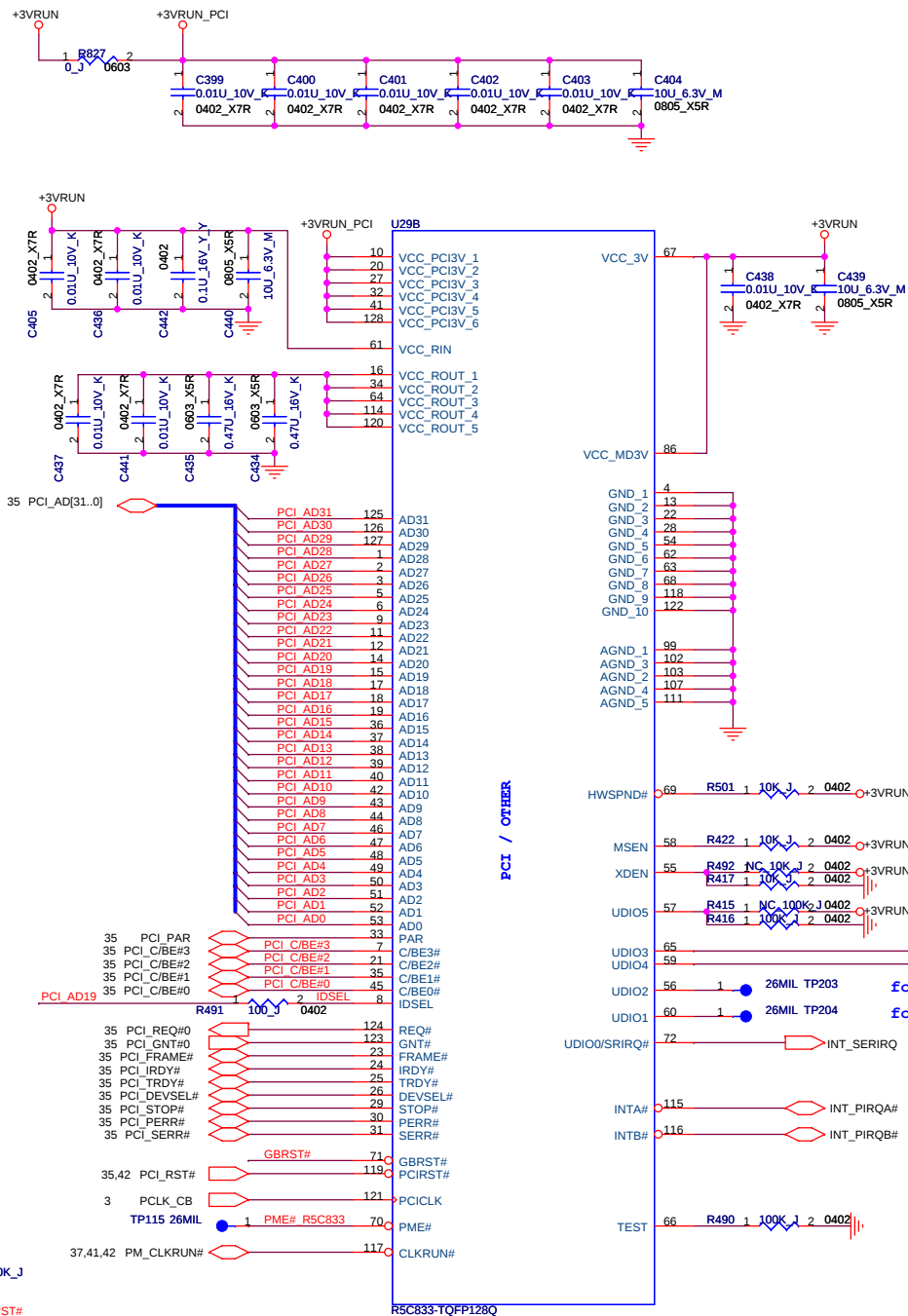
SATA0 : HDD or SSD (just connect to 24 Pin connector)
 SATA1 : ODD (fixed)
 SATA4 : HDD.(fixed for Single HDD connector)
 SATA5 : SSD.(just connect to 24 Pin connector)

SATA HDD CONN1 (FPC)



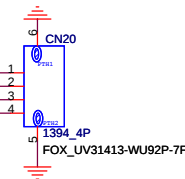
SATA ODD CONN (FPC)







118. (Page 30) 07/11/12 Change L29 from 1L-FTR1DB6-5600 to 1L-F0D6560-TE00.



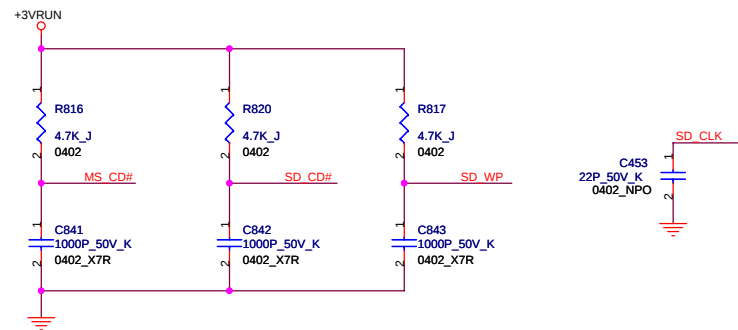
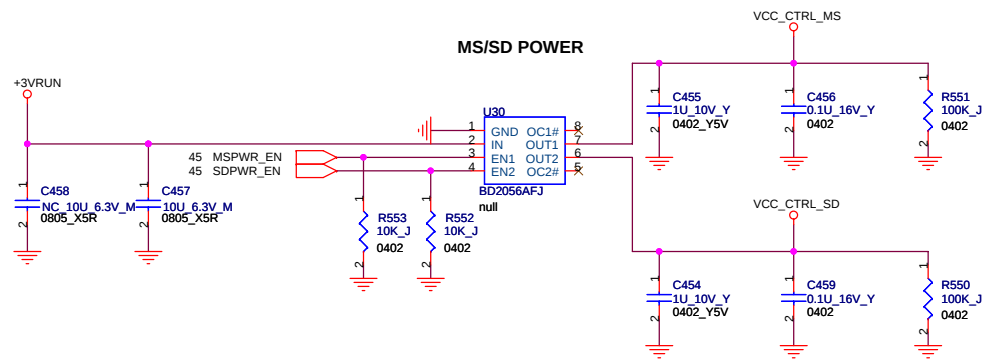
iLink CONN.

AS CLOSE AS POSSIBLE TO R5C833

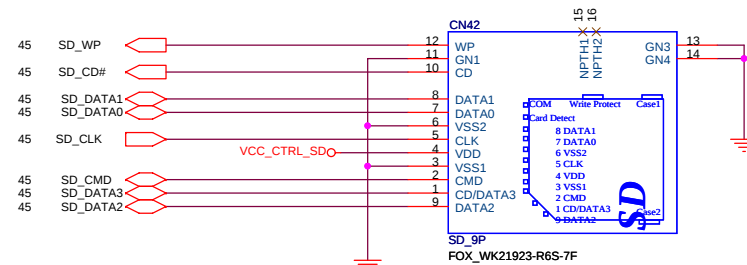
204. (Page 45) 07/11/27 change iLink CONN from FOX UV31413-WR56P-7F to FOX UV31413-WZ03P-7F.



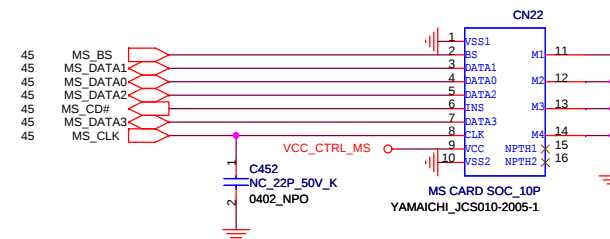
AS CLOSE AS POSSIBLE TO R5C833



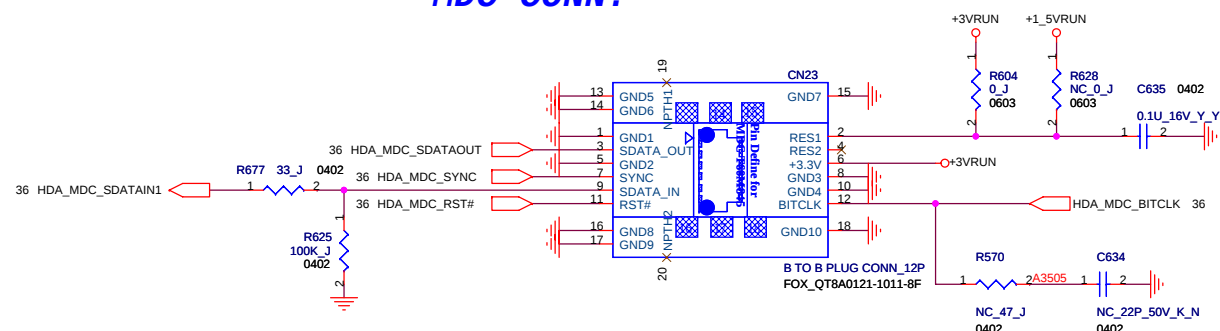
SD CONN.



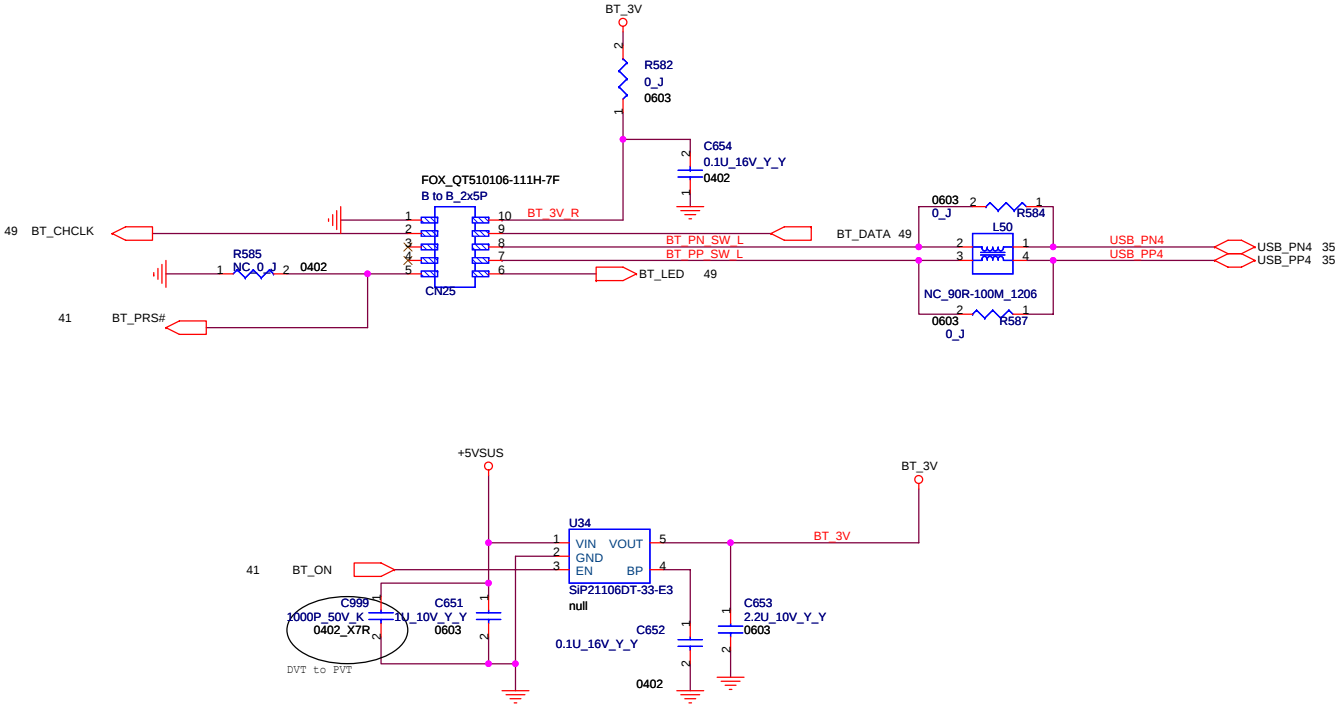
MS STD/DUO CONN.



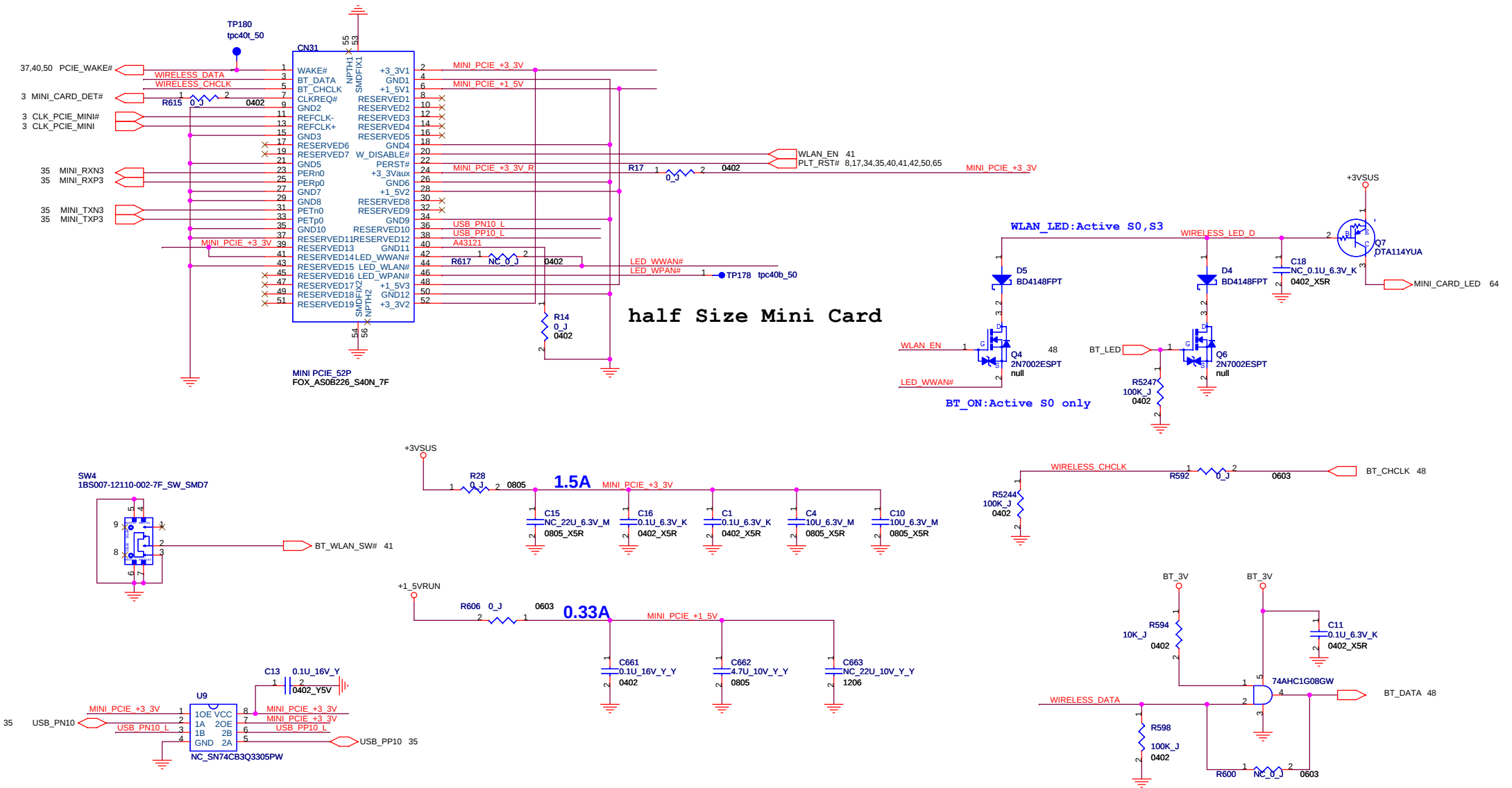
MDC CONN.



Bluetooth connector

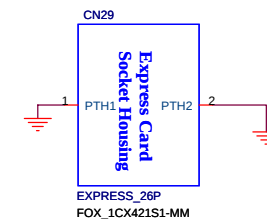
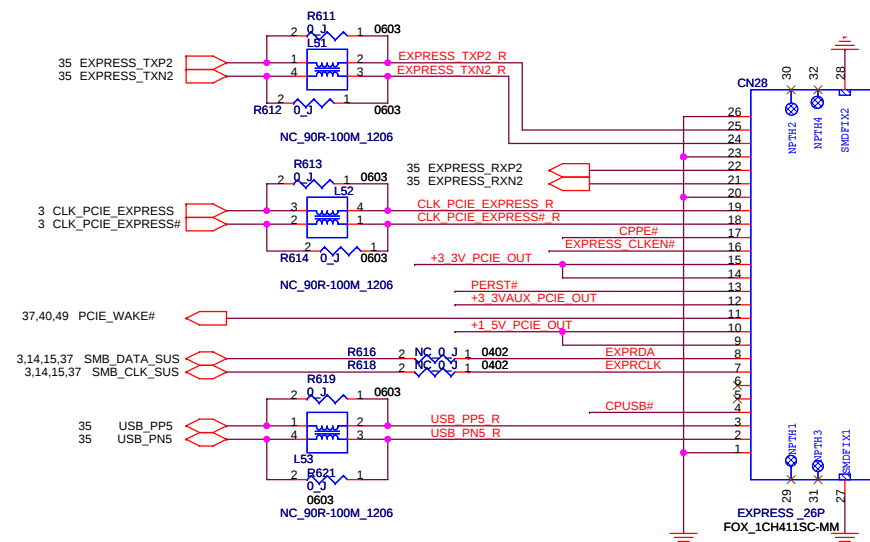


Mini-PCIE Card connector(WLA)



half Size Mini Card

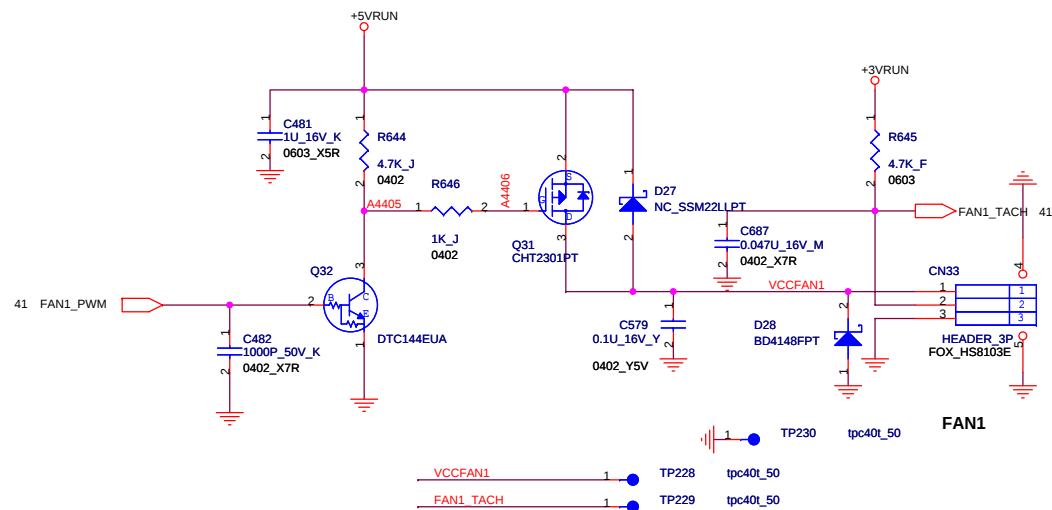
+1_5V=>0.65A
+3_3VAux=>0.275A
+3_3V=>1.3A



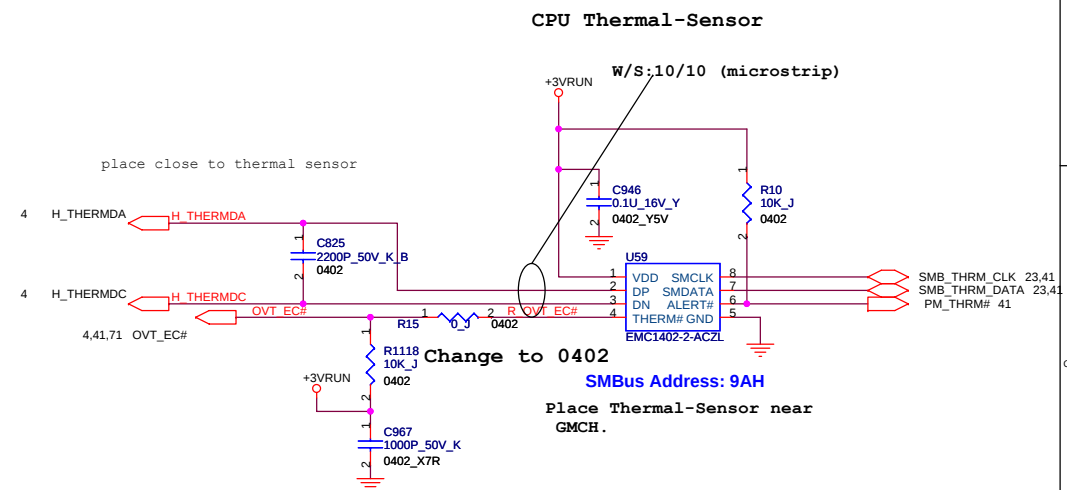


FOXCONN		HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title			
CIR Receiver			
Size A3	Document Number M780(MBX-194)		Rev 0.1
Date:	Friday, June 13, 2008	Sheet	52 of 79

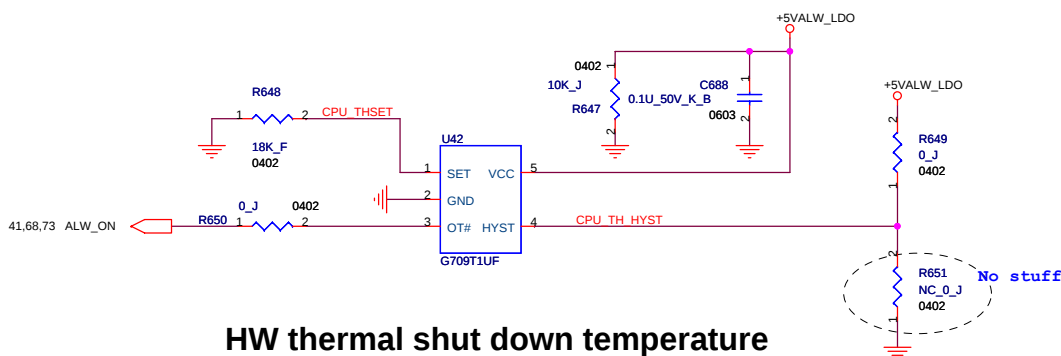
FAN circuit



CPU Thermal-Sensor

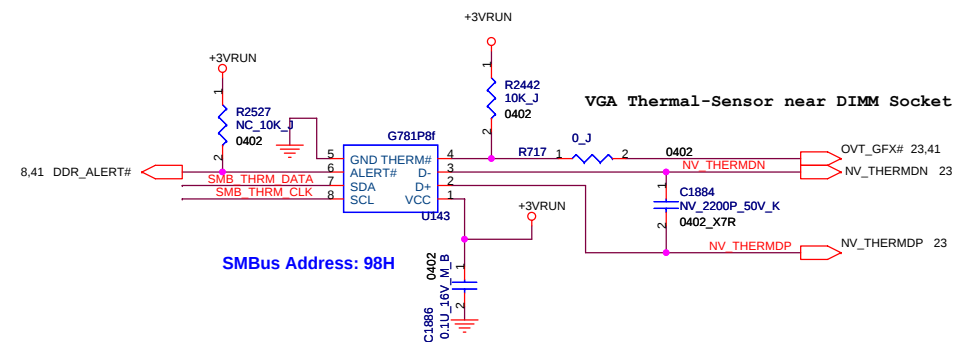


HW THERMAL PROTECTION

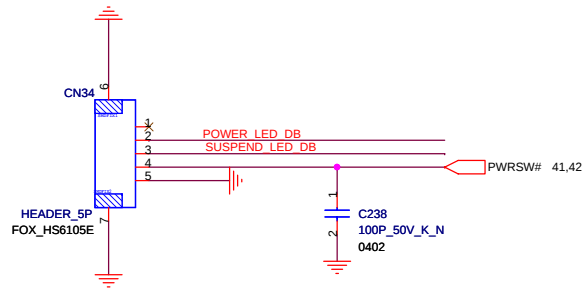


HW thermal shut down temperature setting 95 degree . Put Near CPU .

VGA Thermal-Sensor



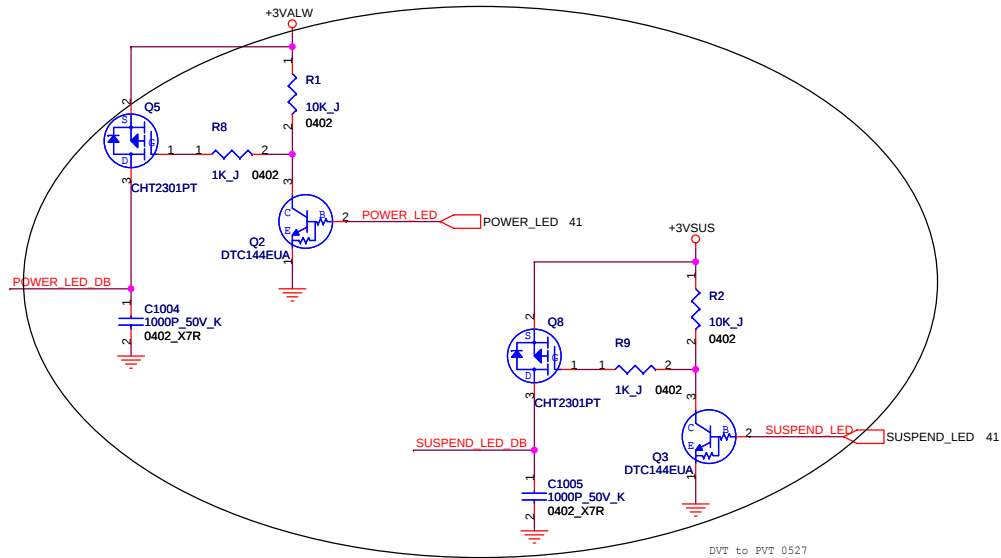
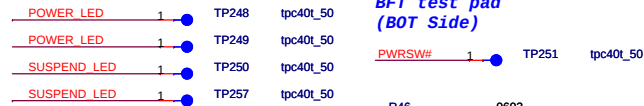
To Power Button Board Connector



**BFT test pad
(TOP Side)**

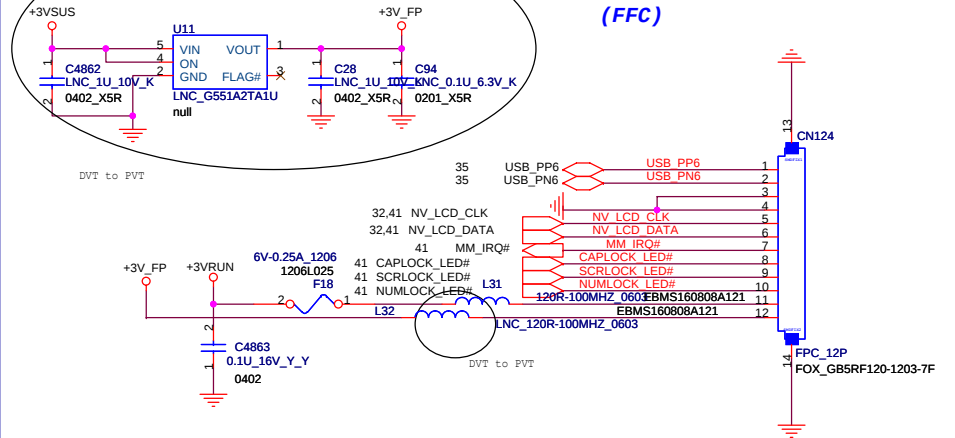


*BFT test pad
(BOT Side)*

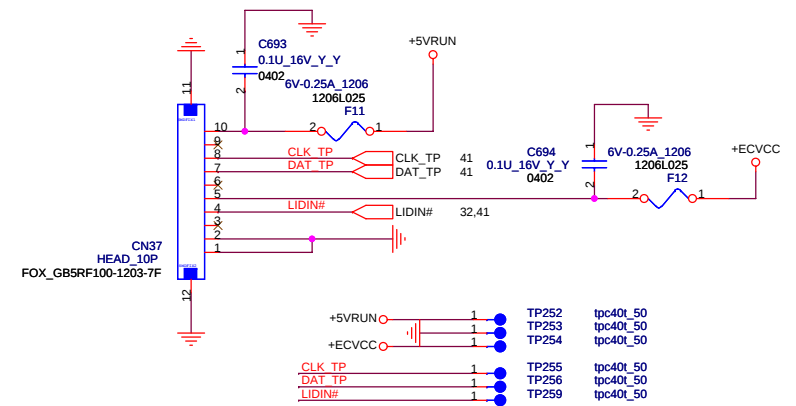


~~To TV Function Board Connector~~

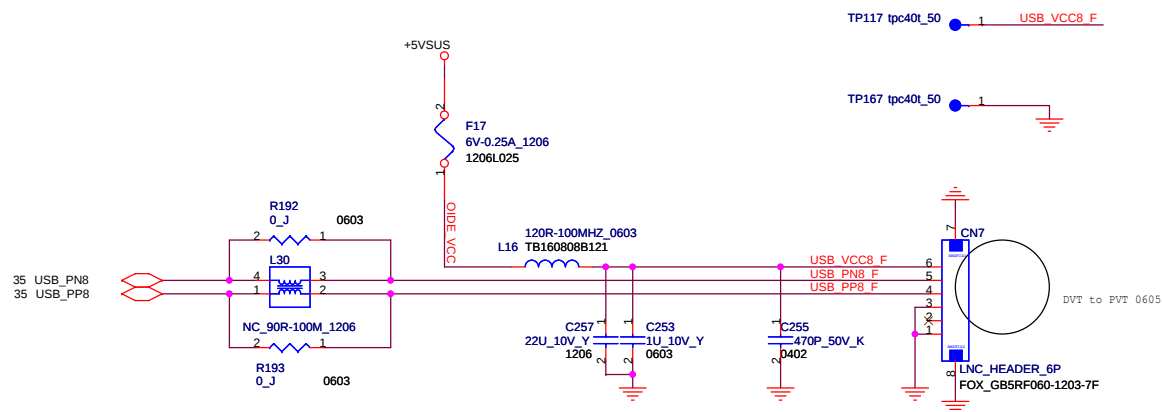
(FFC)



To Touch Pad Board Connector (FFC)

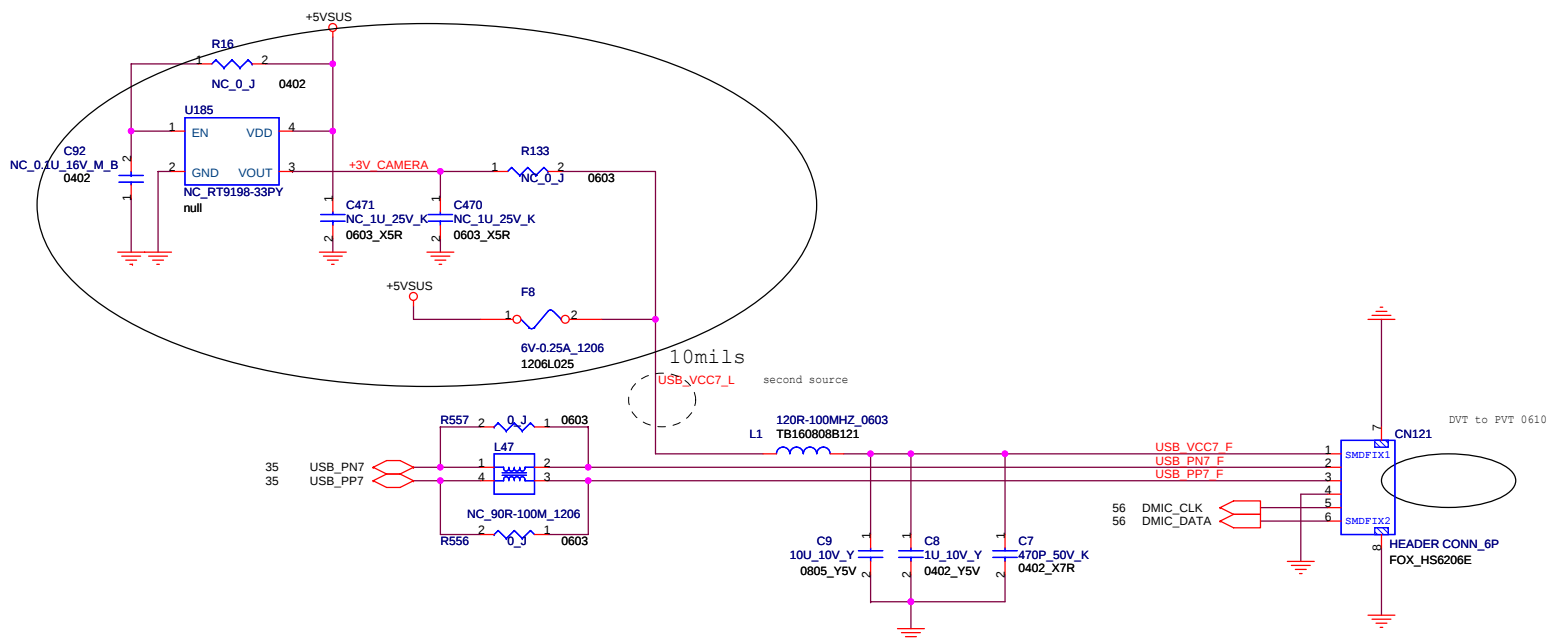


OIDE Connector



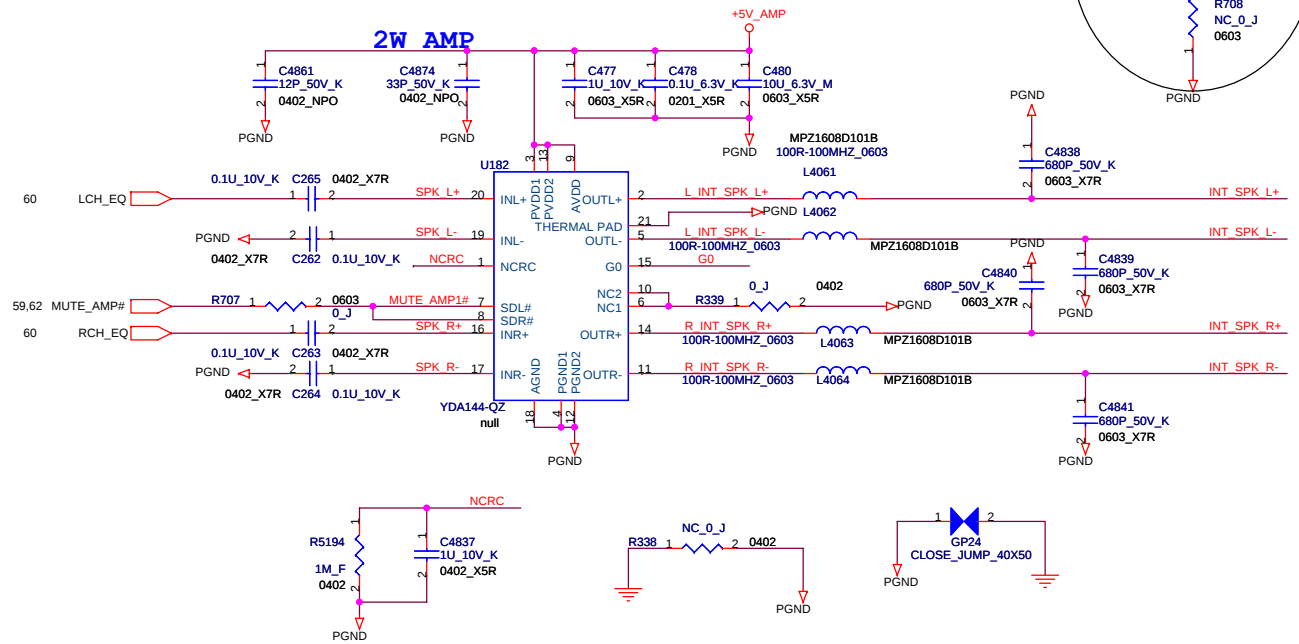
CAMERA +MIC CONN.

DVT to PVT 0611



- TP51 tpc40t_50 1 USB_VCC7_F
- TP126 tpc40t_50 1 USB_PN7_F
- TP128 tpc40t_50 1 USB_PP7_F
- TP127 tpc40t_50 1
- TP139 tpc40t_50 1 DMIC_CLK
- TP160 tpc40t_50 1 DMIC_DATA

SPEAKER AMP



INTERNAL SPEAKER Connector

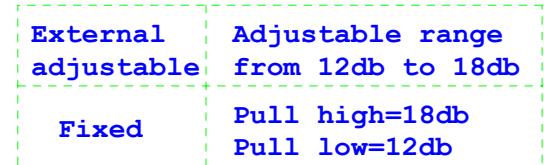


(20mil)

BFT Test Pad

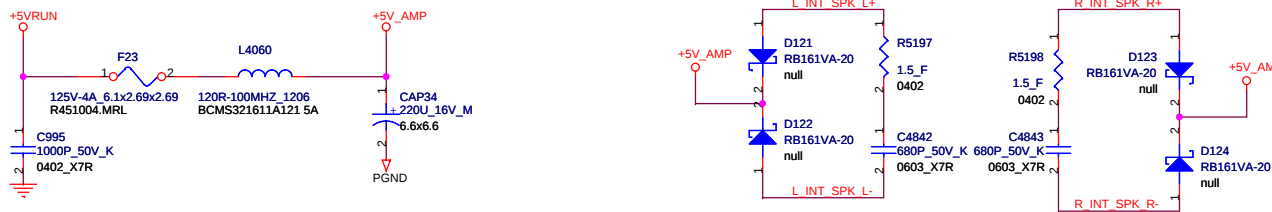


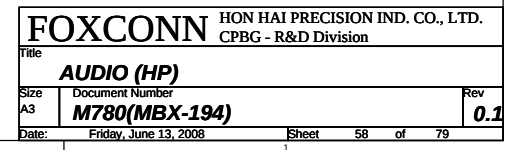
GAIN

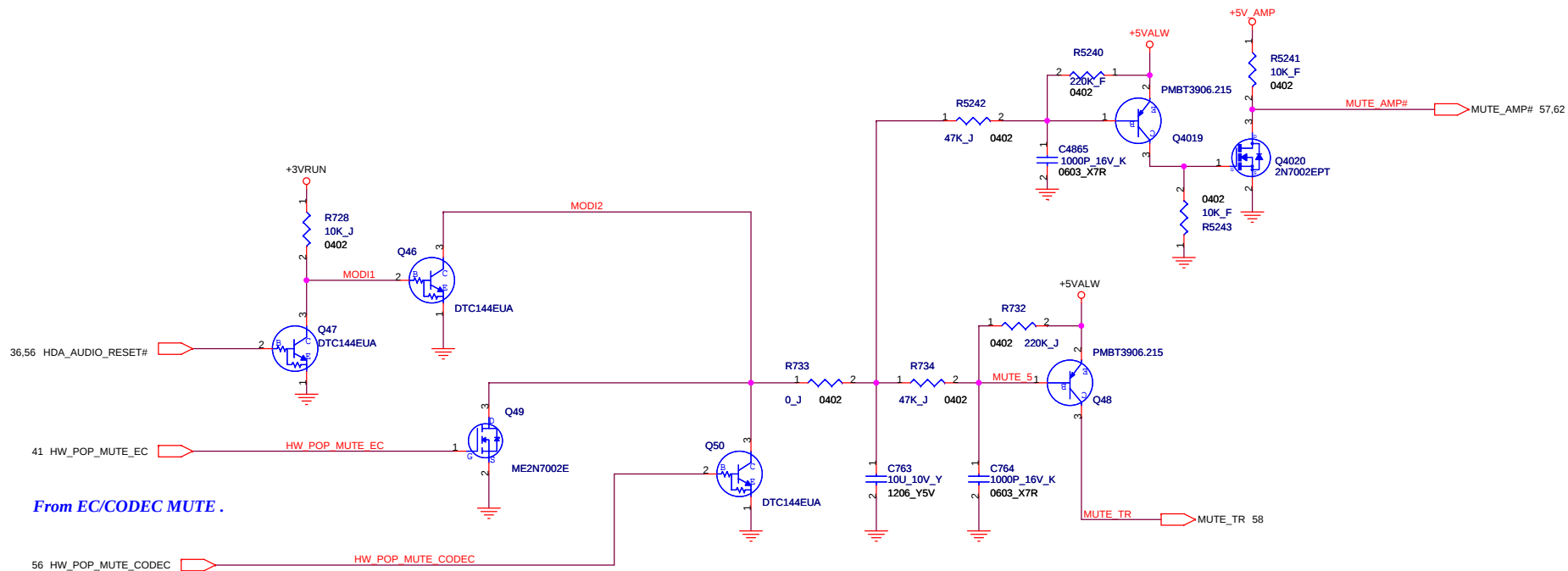


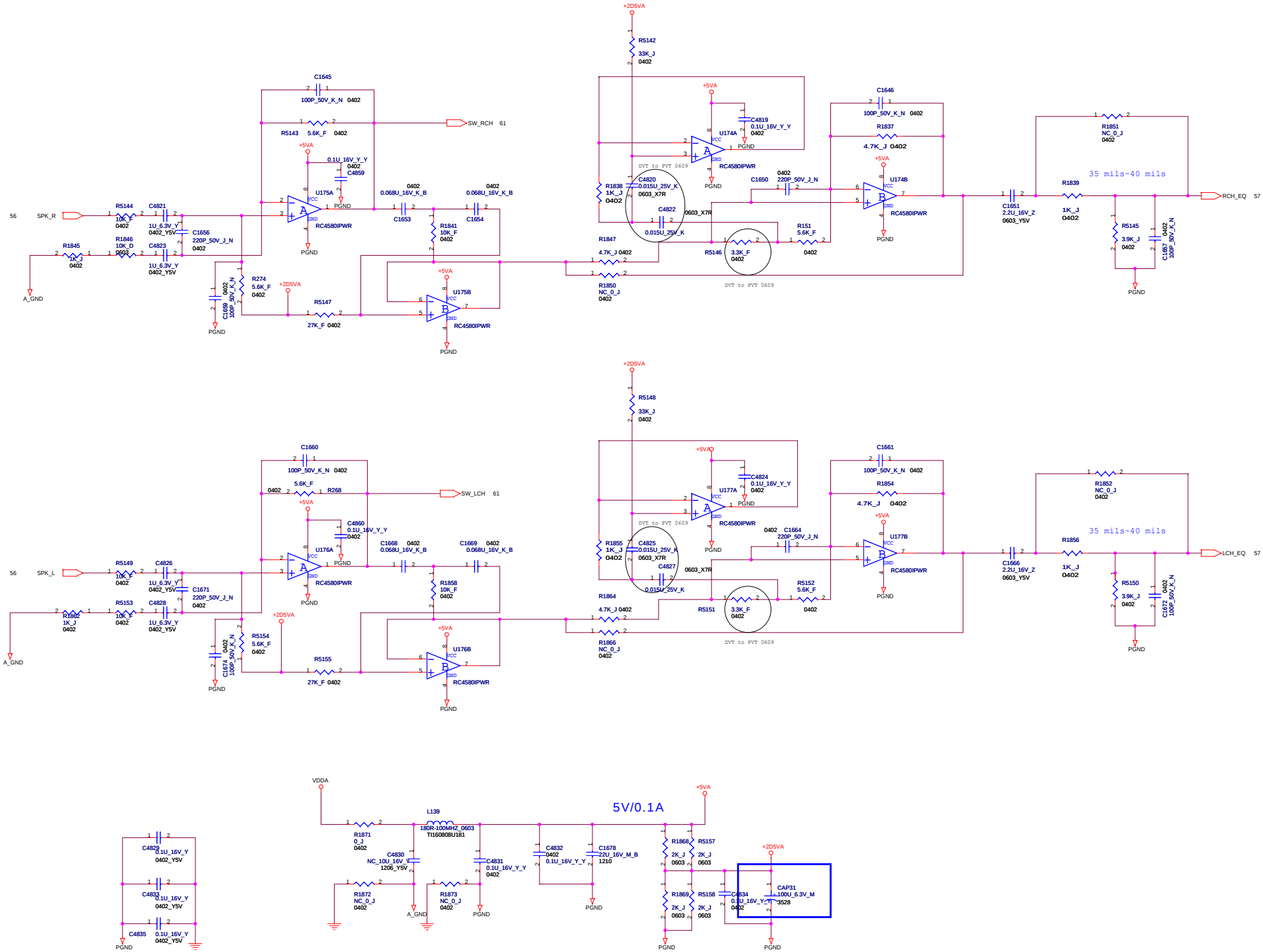
SPEAKER POWER

Close to Amp









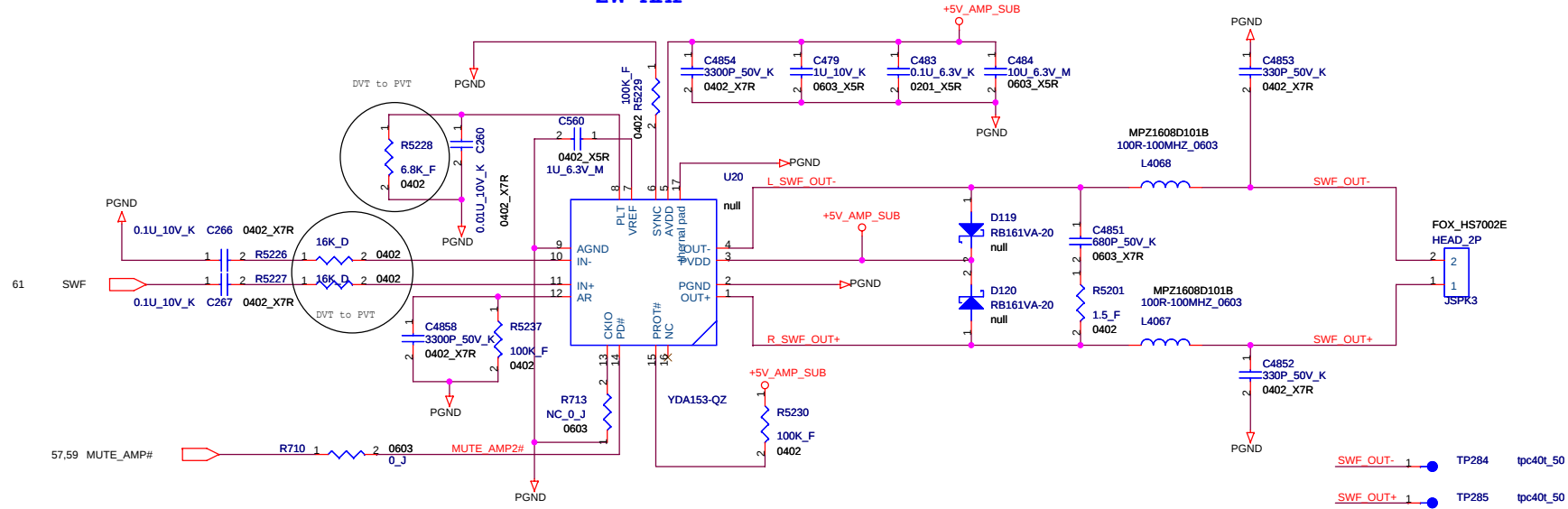
Does R2164,R2165 and C237 Circuit need?

FOXCONN		HON HAI PRECISION IND. CO., LTD.	
		CPBG - R&D Division	
Title			
<i>Filter Circuit</i>			
Size	Document Number		Rev
Custom	M780(MBX-194)		0.1
Date:	Friday, June 13, 2008	Sheet	61 of 79

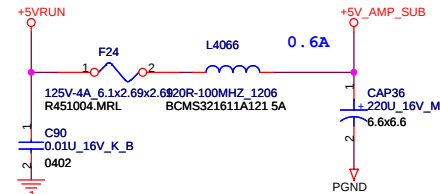
SUB_WOOFER AMP

C479,C484
Locate them close to FVDD pin

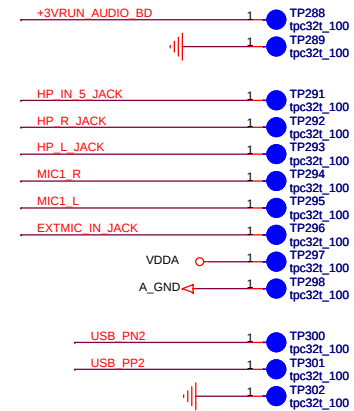
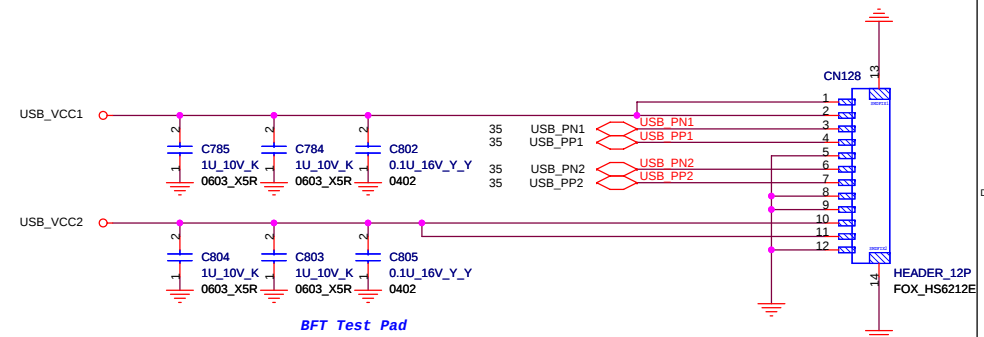
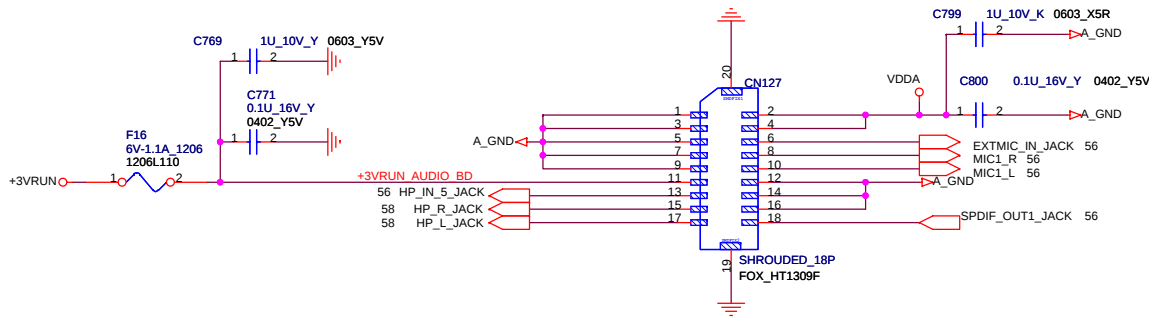
2W AMP



SUB_WOOFER POWER

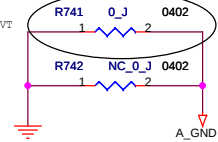


Audio Board connector

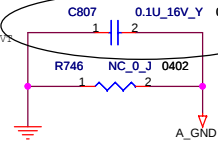


Backup two jumper resistors for bridge between GND and A_GND

Close screw hole H3

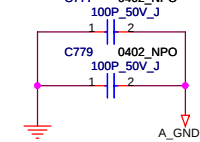


Close screw hole H5

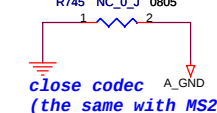
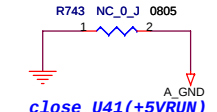


Isolate screw hole H4, and add EMI/ESD solution

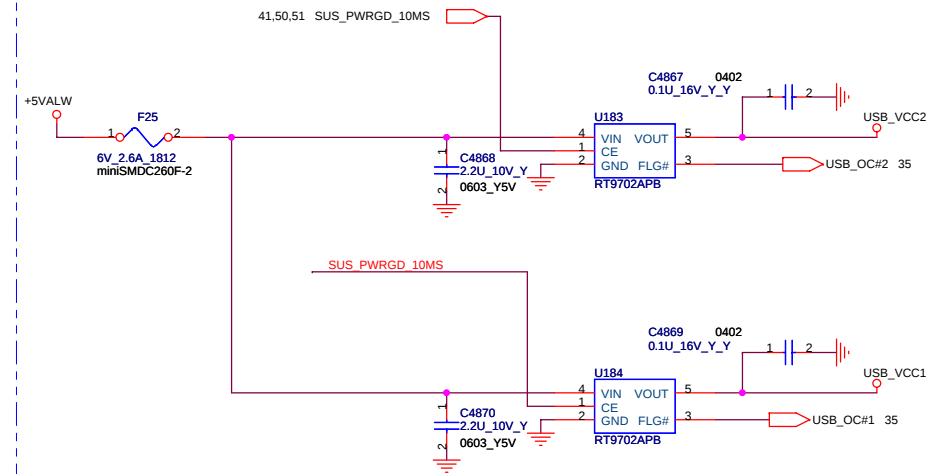
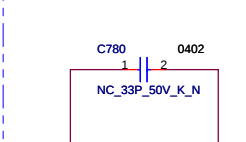
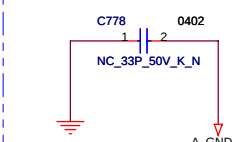
EMI



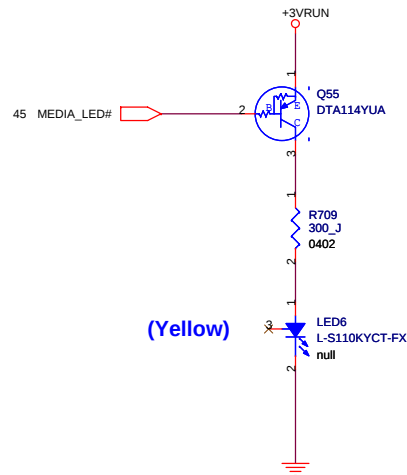
Add jumper resistor for Return patch



Original EMI back up solution to continue with MS20(bridge between GND and A_GND)

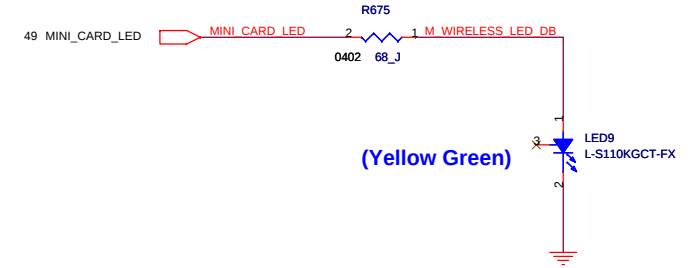


MS/SD LED



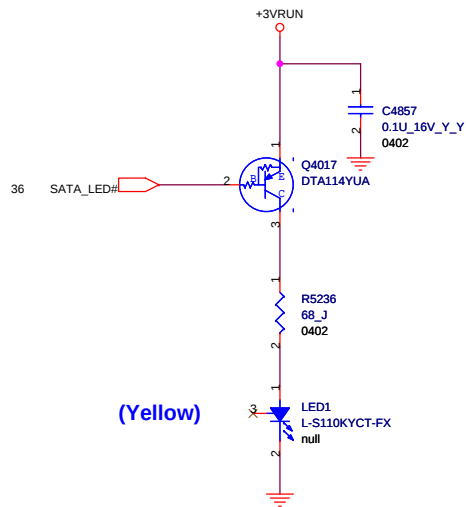
230. (Page 64) 07/12/05 Change MS/SD LED control signal share one LED

WLAN/BLUETOOTH LED

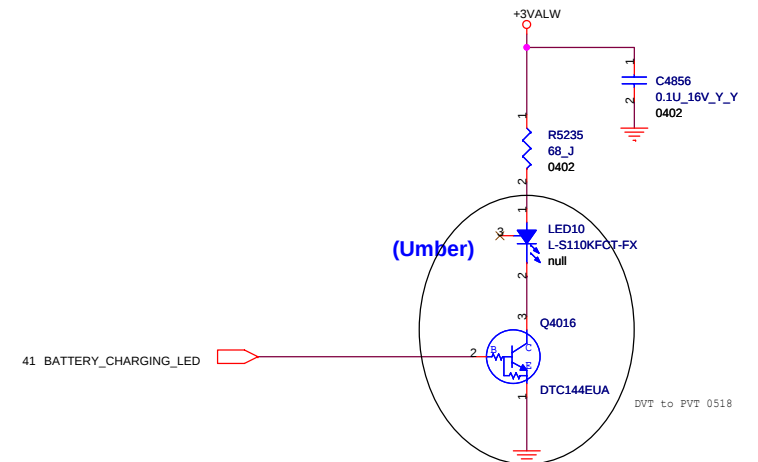


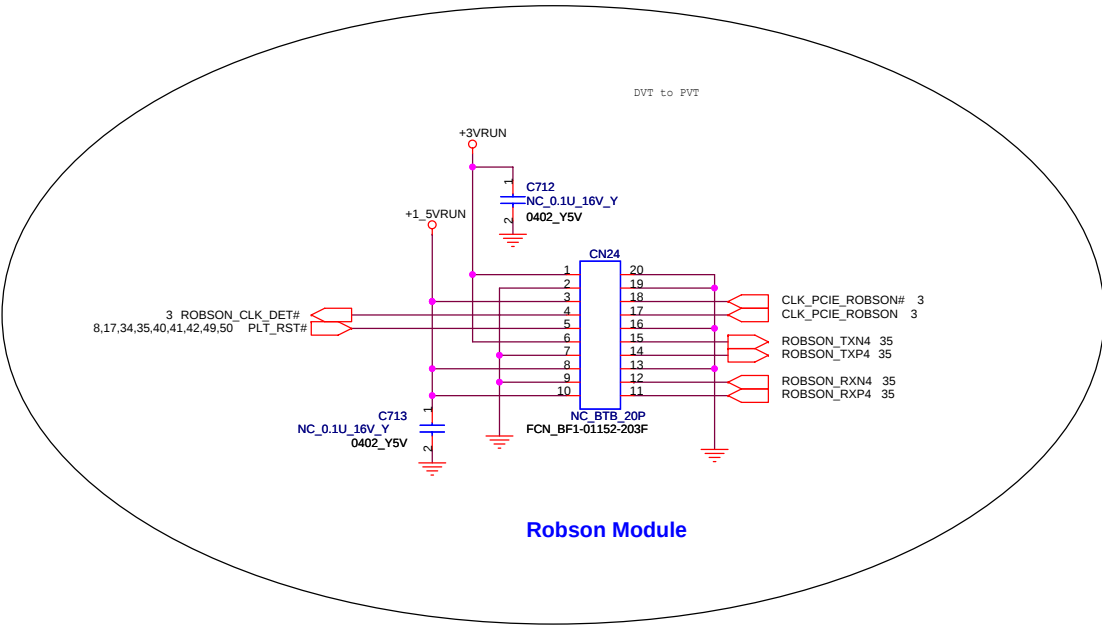
232. (Page 64) 07/12/05 Change Wireless/Bluetooth LED control signal share one LED

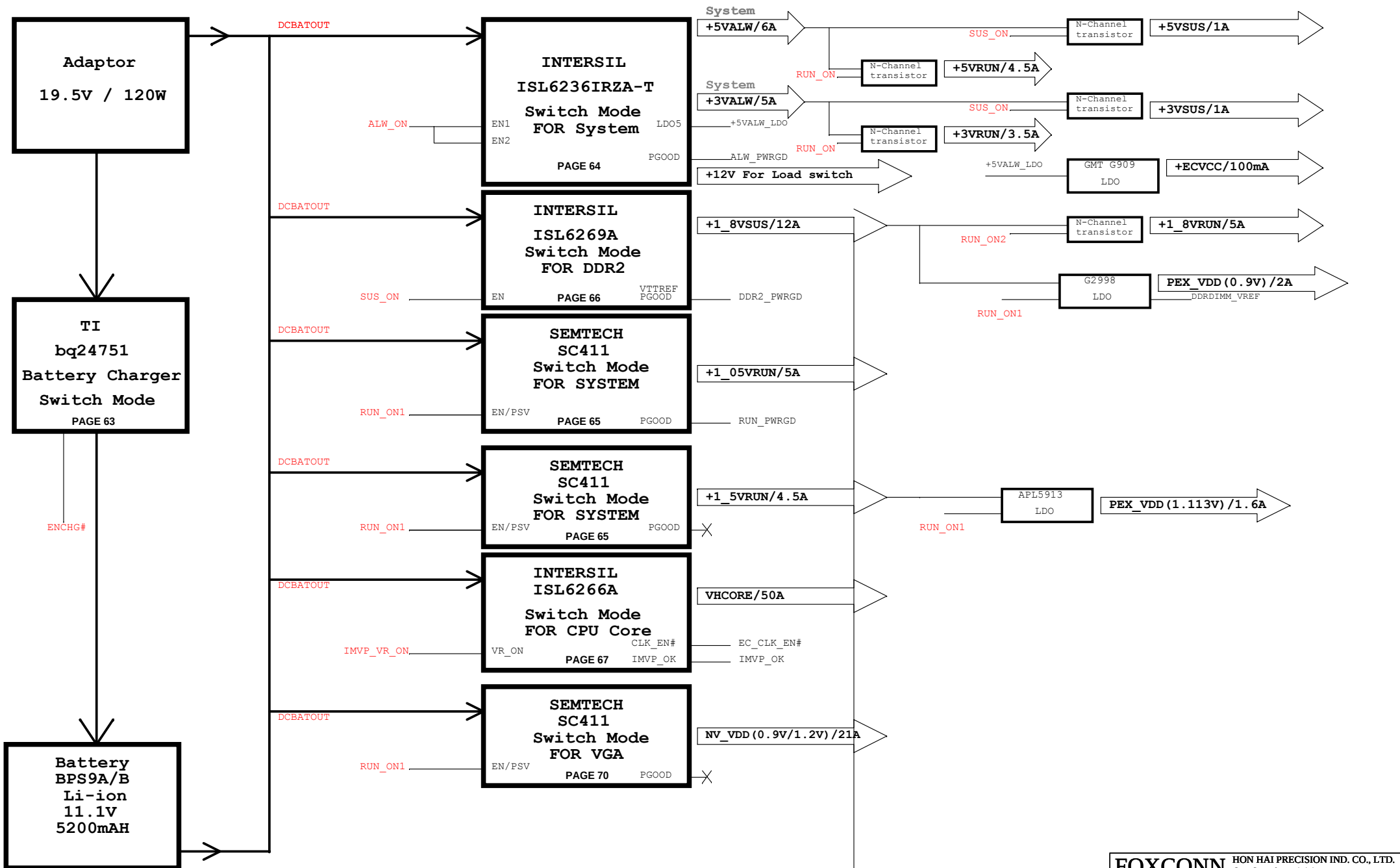
HDD/ODD LED

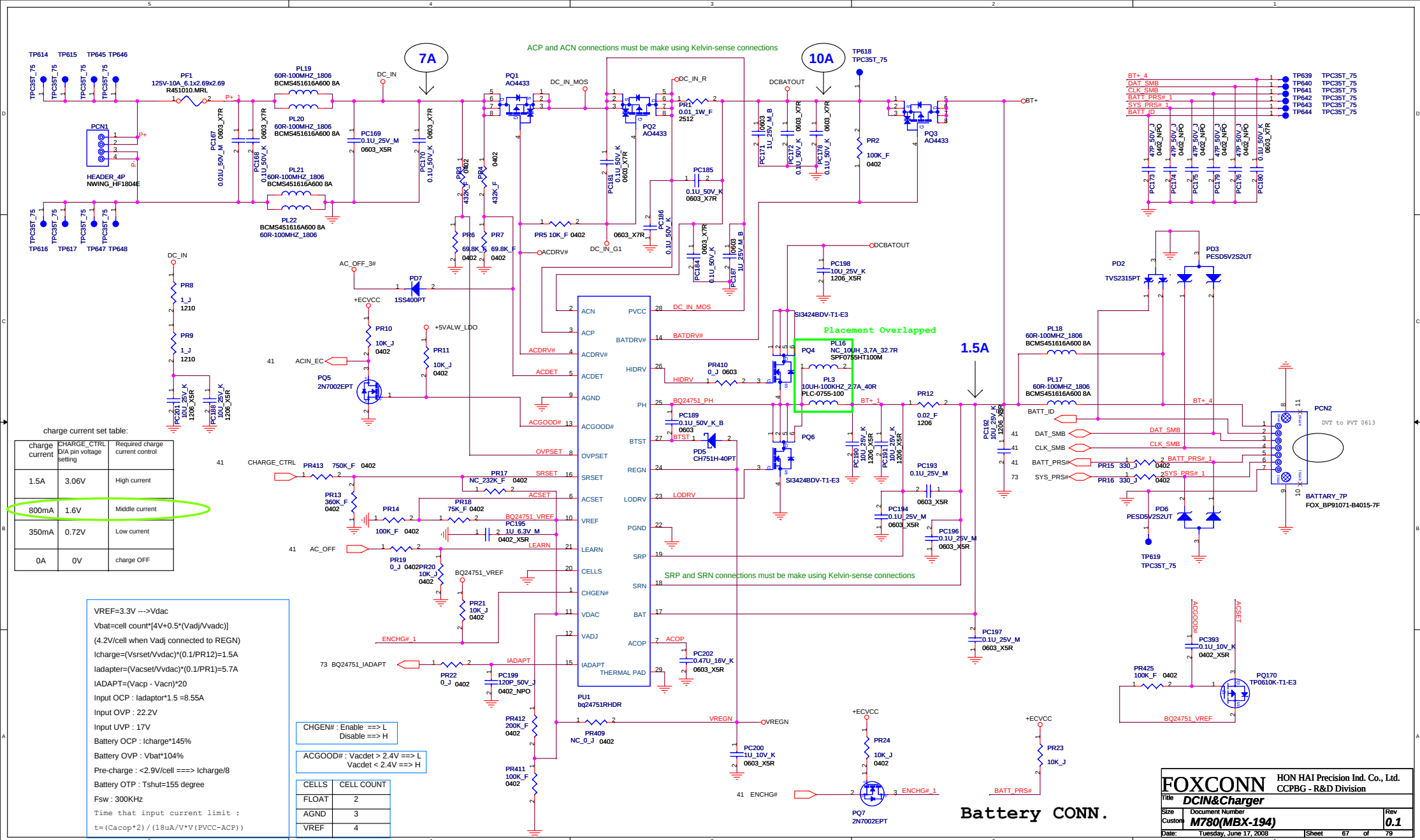


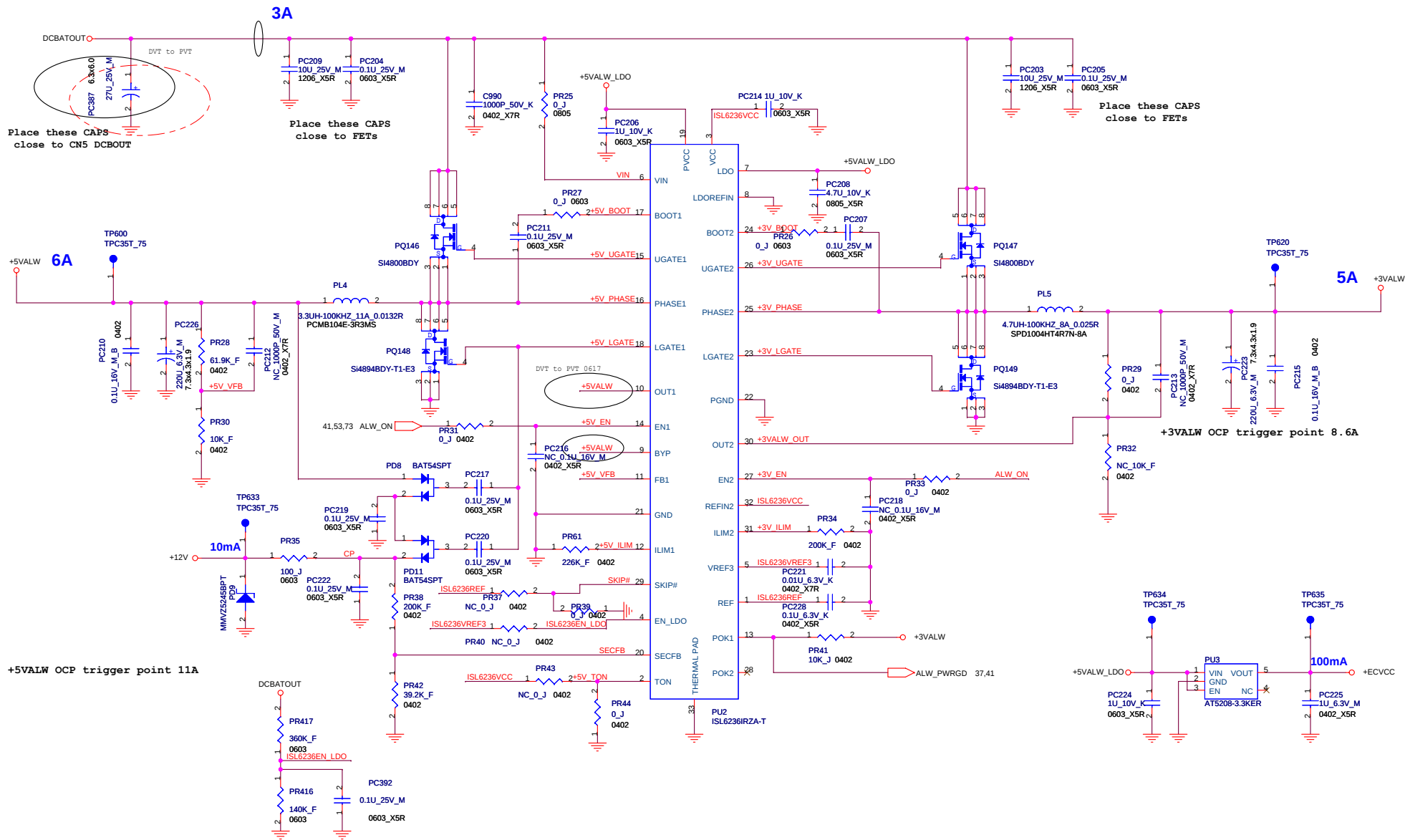
Charge LED











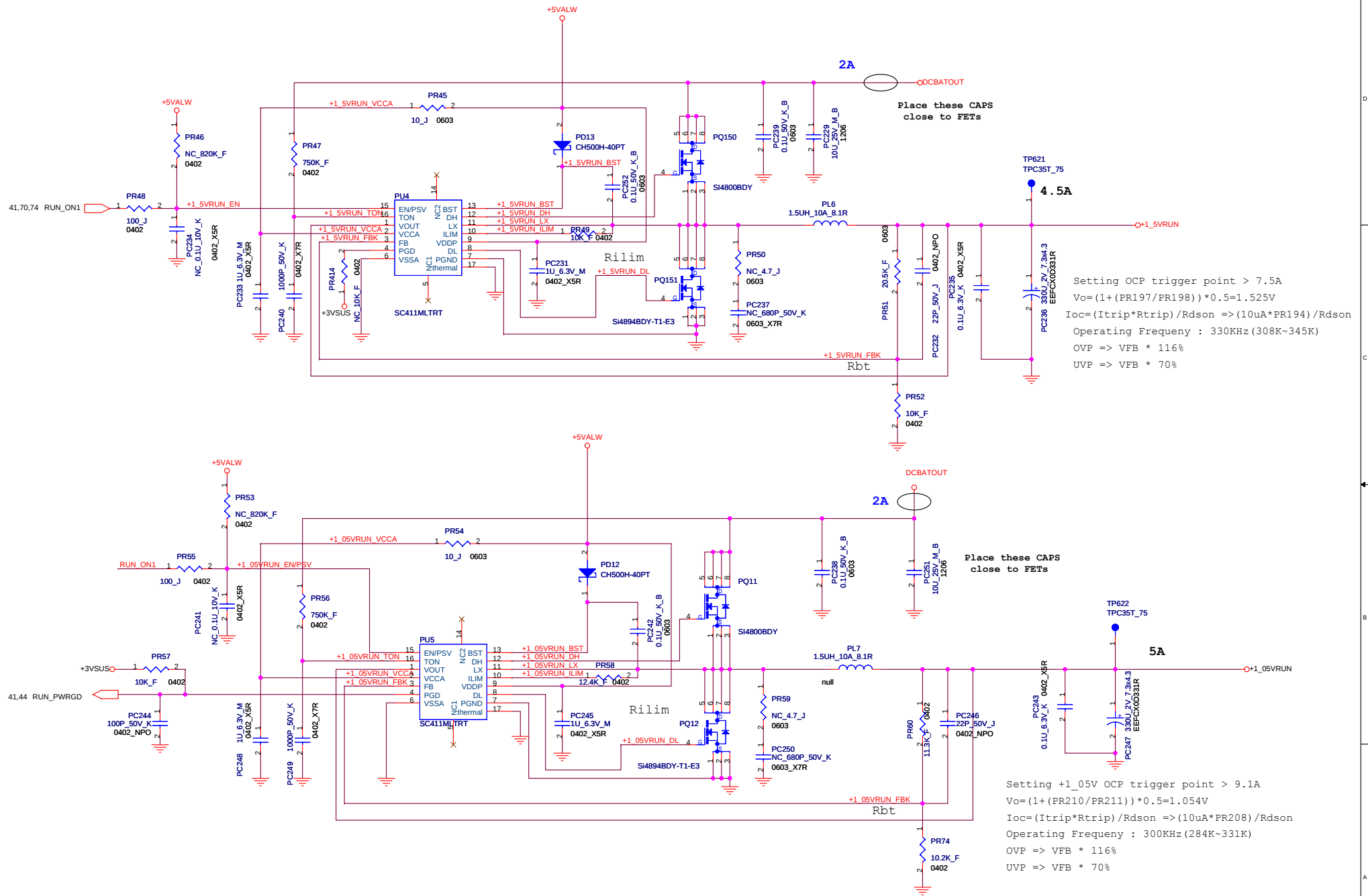
TON	Operating Frequency (+5VALW/+3VALW)
VCC	200KHz/300KHz
REF (OPEN)	400KHz/300KHz
GND	400KHz/500KHz

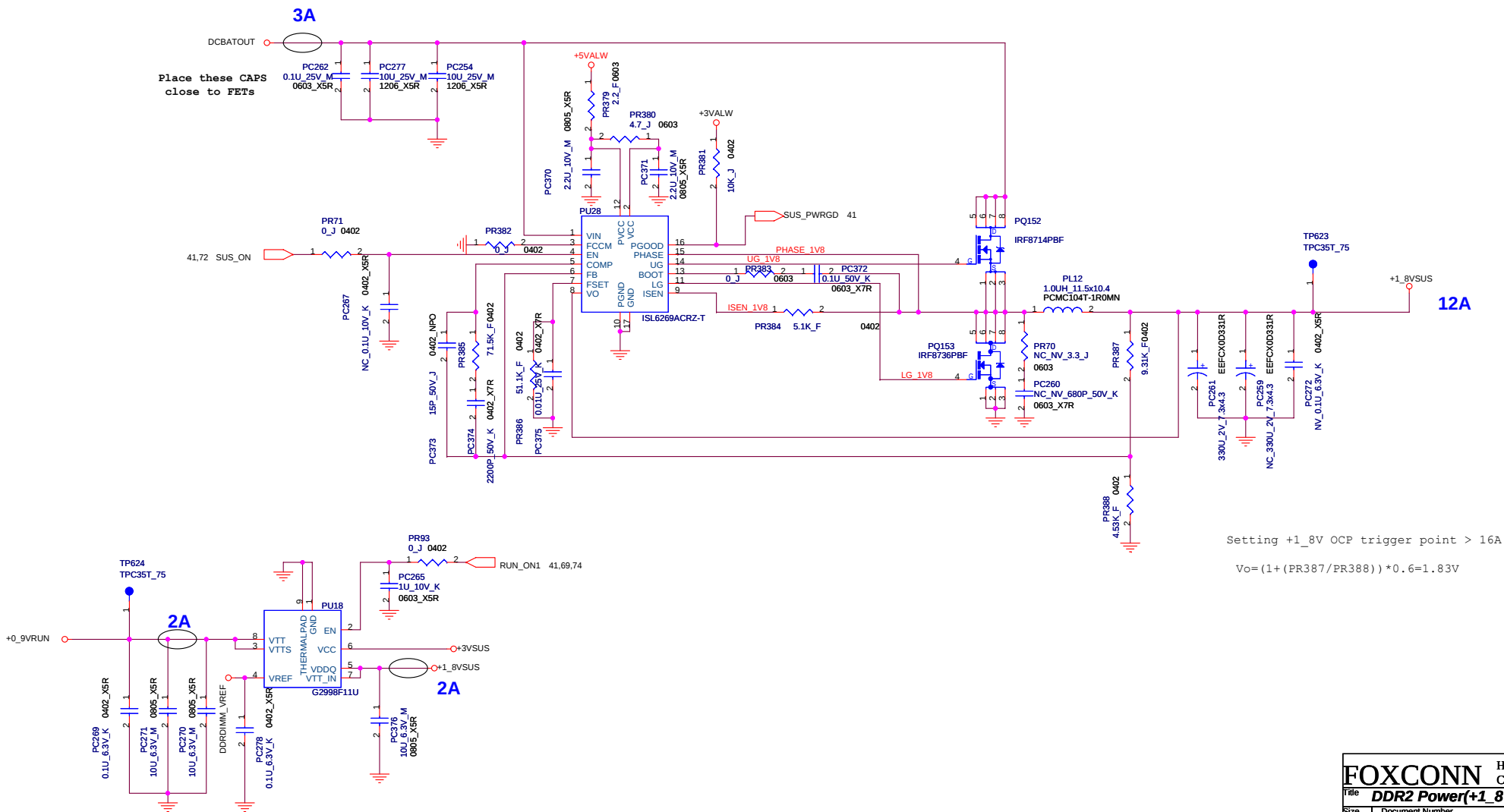
SKIP#	Operating Mode
GND	Pulse-Skipping
REF	Ultrasonic-Skip
VCC	PWM

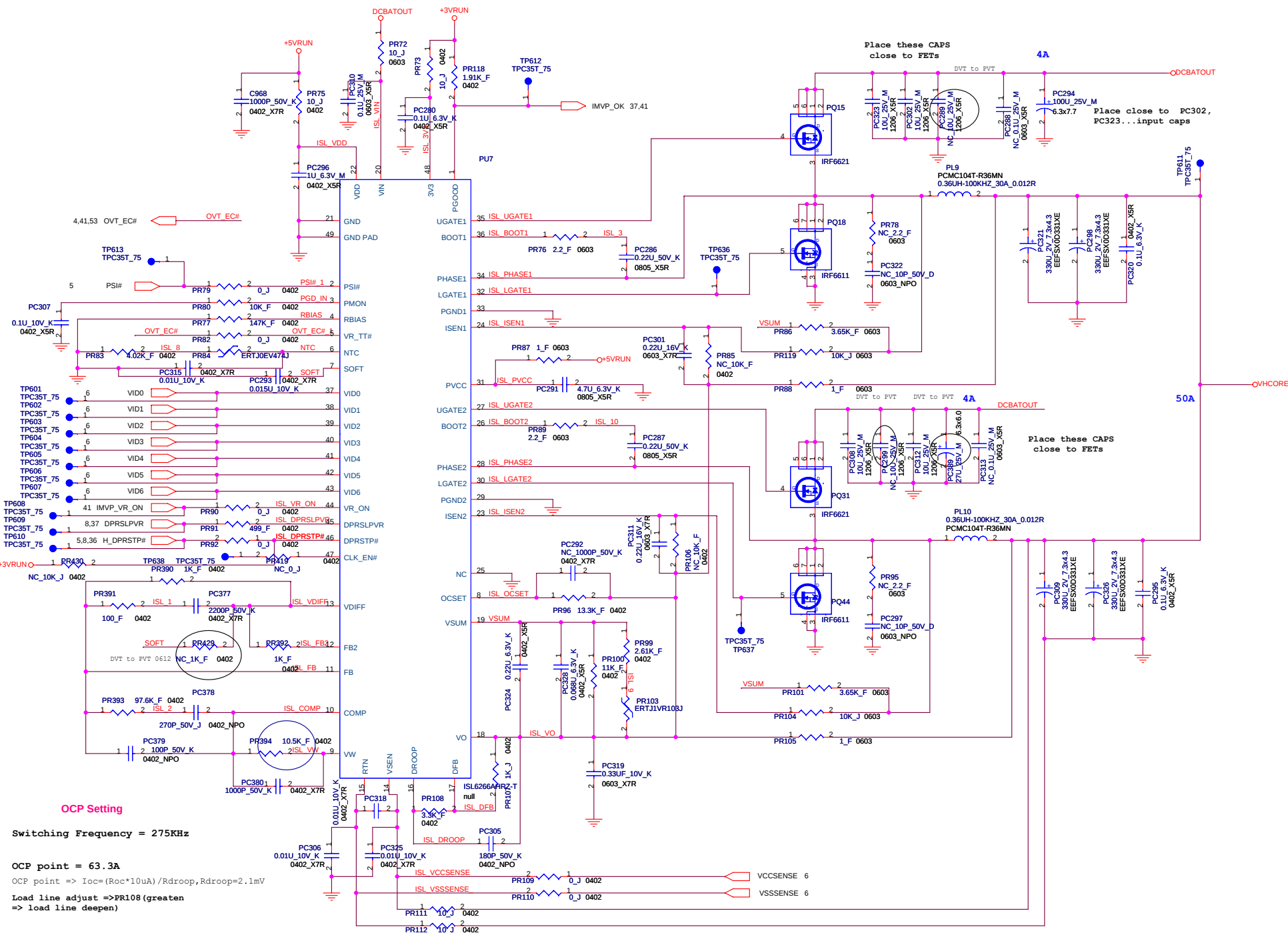
$$L = VOUT (VIN - VOUT) / (VIN * f * LIR * ILOAD (MAX))$$

$$R_{ocp} = (I_{ocp} - I_{ripple} / 2) * (10 * R_{ds(on)}) / 5u$$

$$+5VALW = ((PR28 / PR30) + 1) * VFB1$$







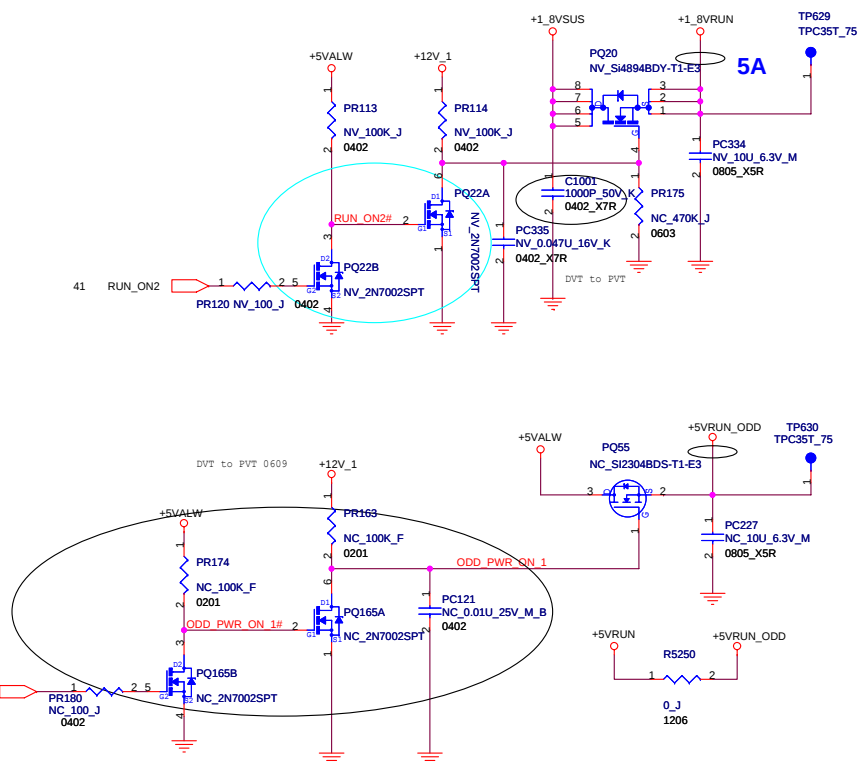
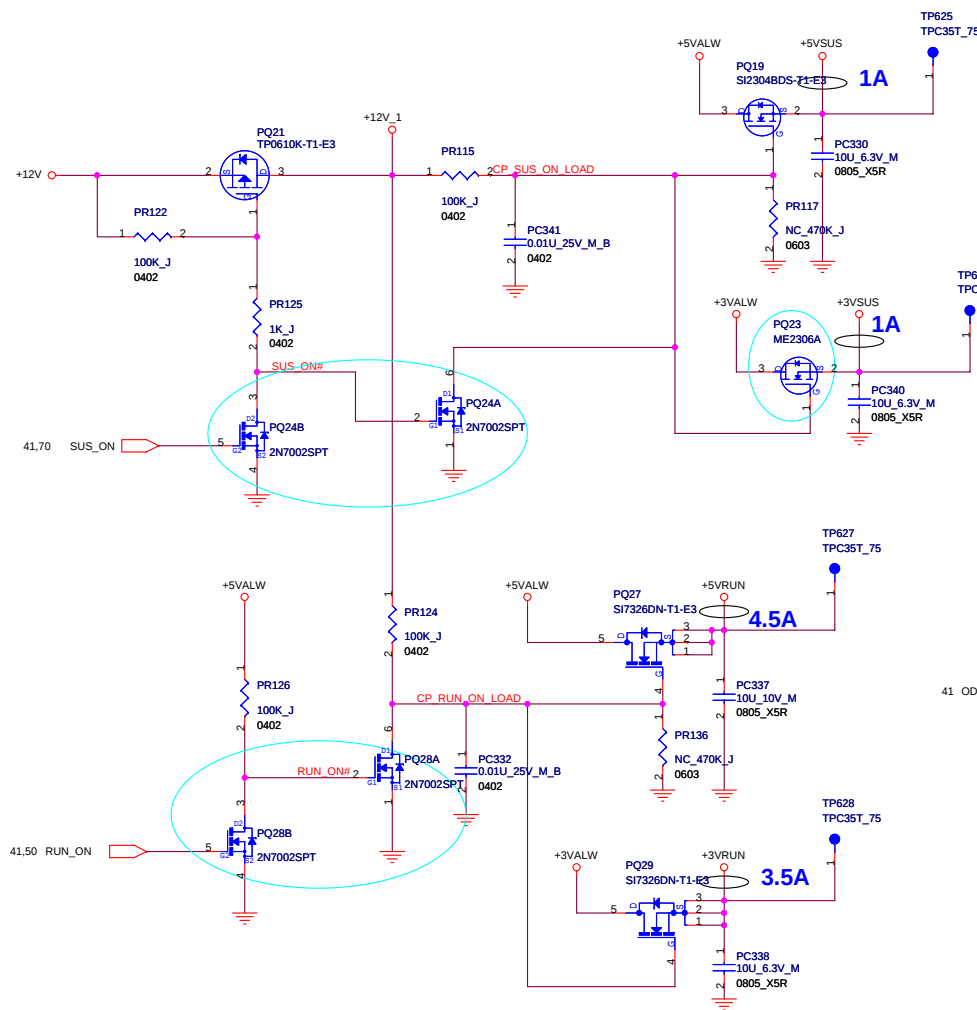
OCP Setting

Switching Frequency = 275KHz

OCP point = 63.3A

OCP point => $I_{oc} = (R_{oc} \cdot 10\mu A) / R_{droop}$, $R_{droop} = 2.1m\Omega$

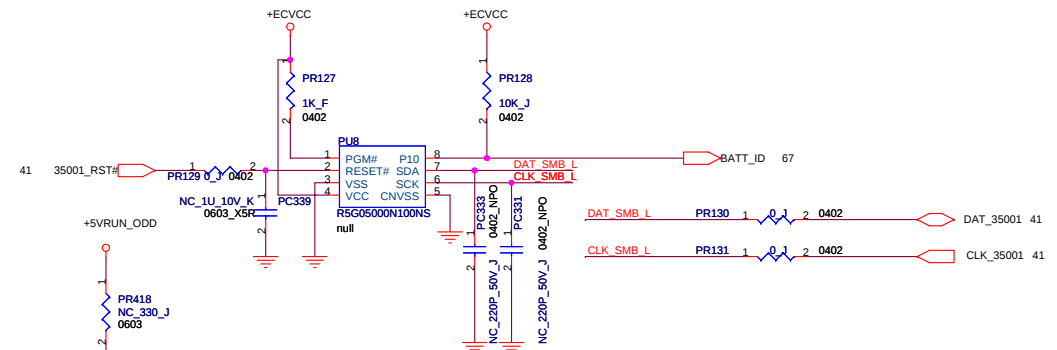
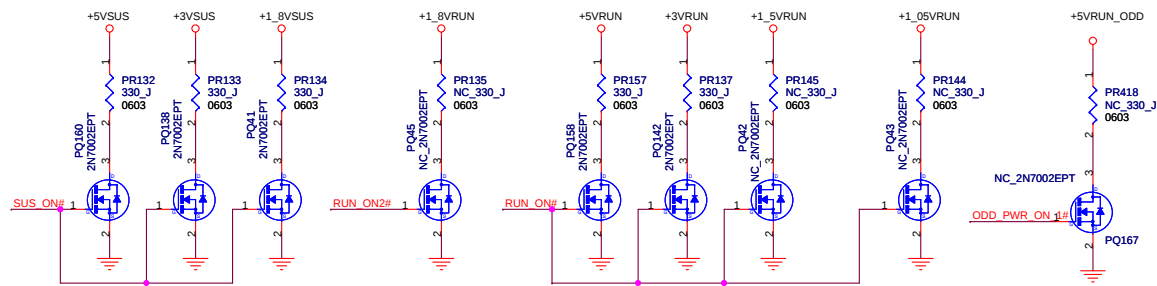
Load line adjust => PR108 (greater => load line deepen)

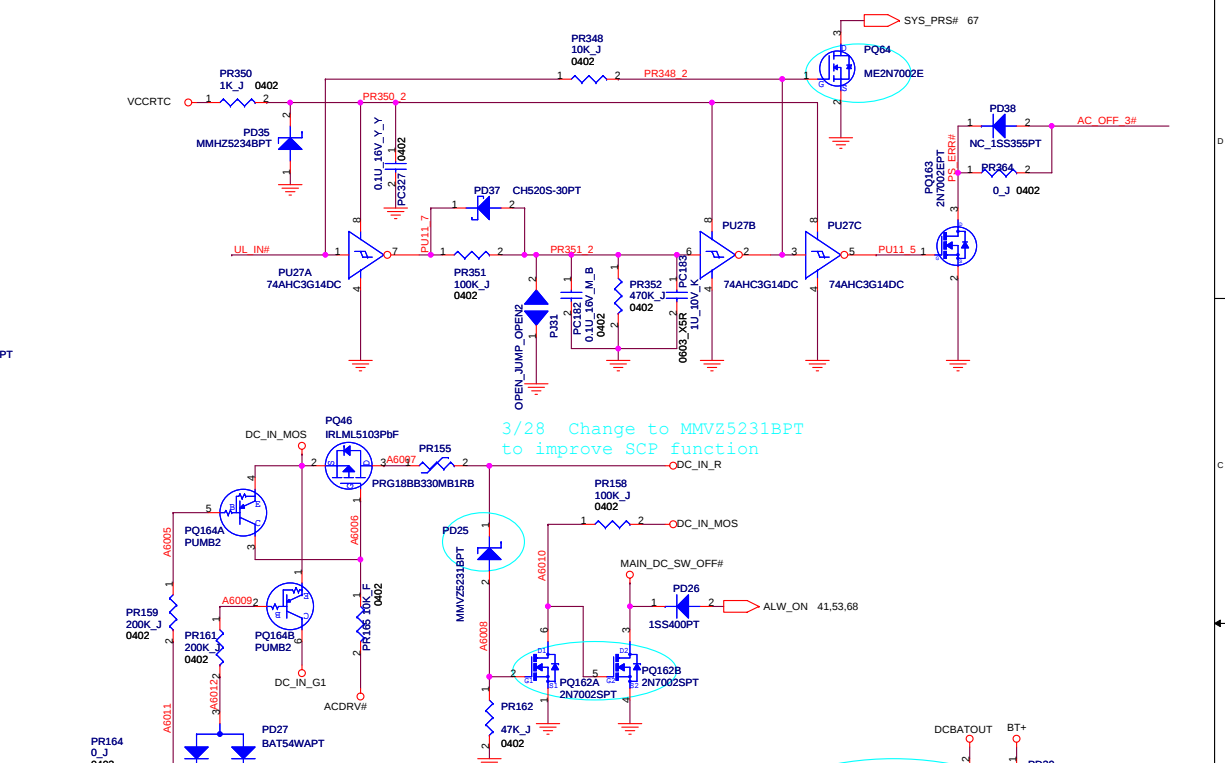
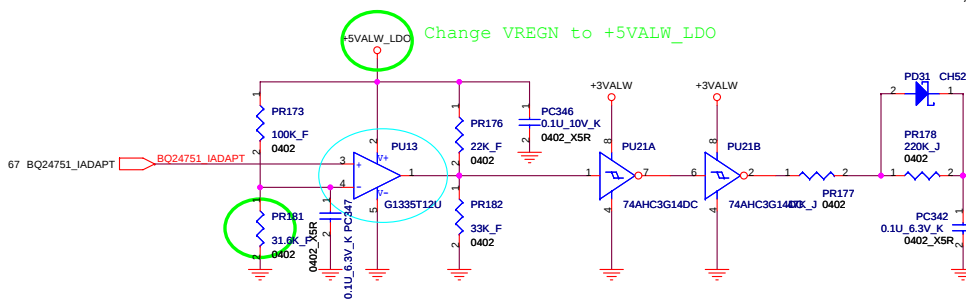
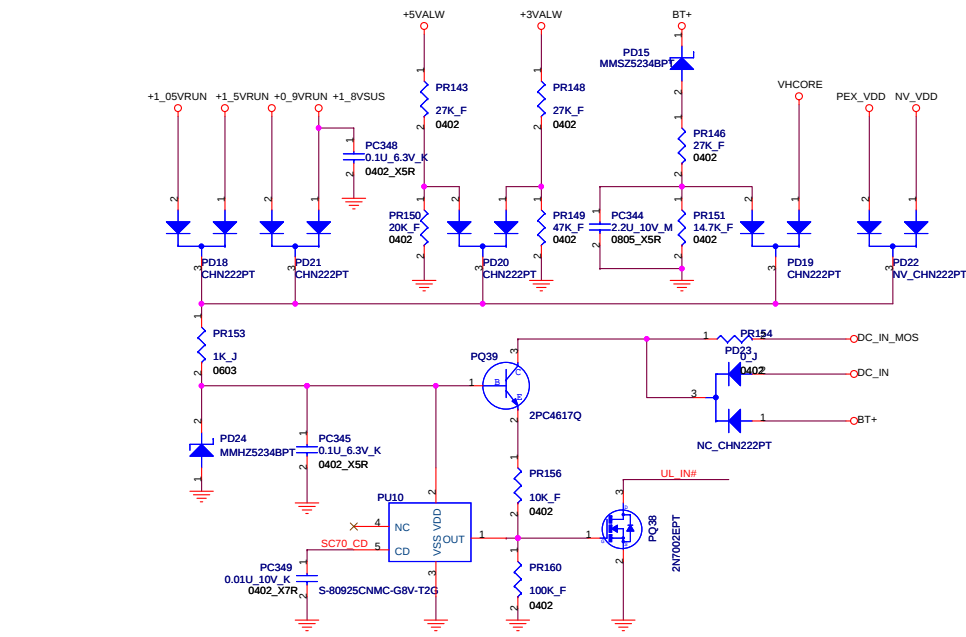


242. (Page 72) 07/12/10 add ODD POWER plan.

DVT R5250 mount, PR163 NC
PVT :R5250 mount,PR180, PR174, PR163, PQ165, PQ55, PC121, PC227 all NC

Discharge
circuit for
power-off





System SCP protect

Battery UVP protect

120W adaptor	
PWRLIMIT	1.2V/114W
Adaptor max load: 7.7A under 3 sec	
Adaptor OCP: 9.7A typ	
11A max	

3/28 Add battery UVP protect circuit to separate SCP and OCP function.

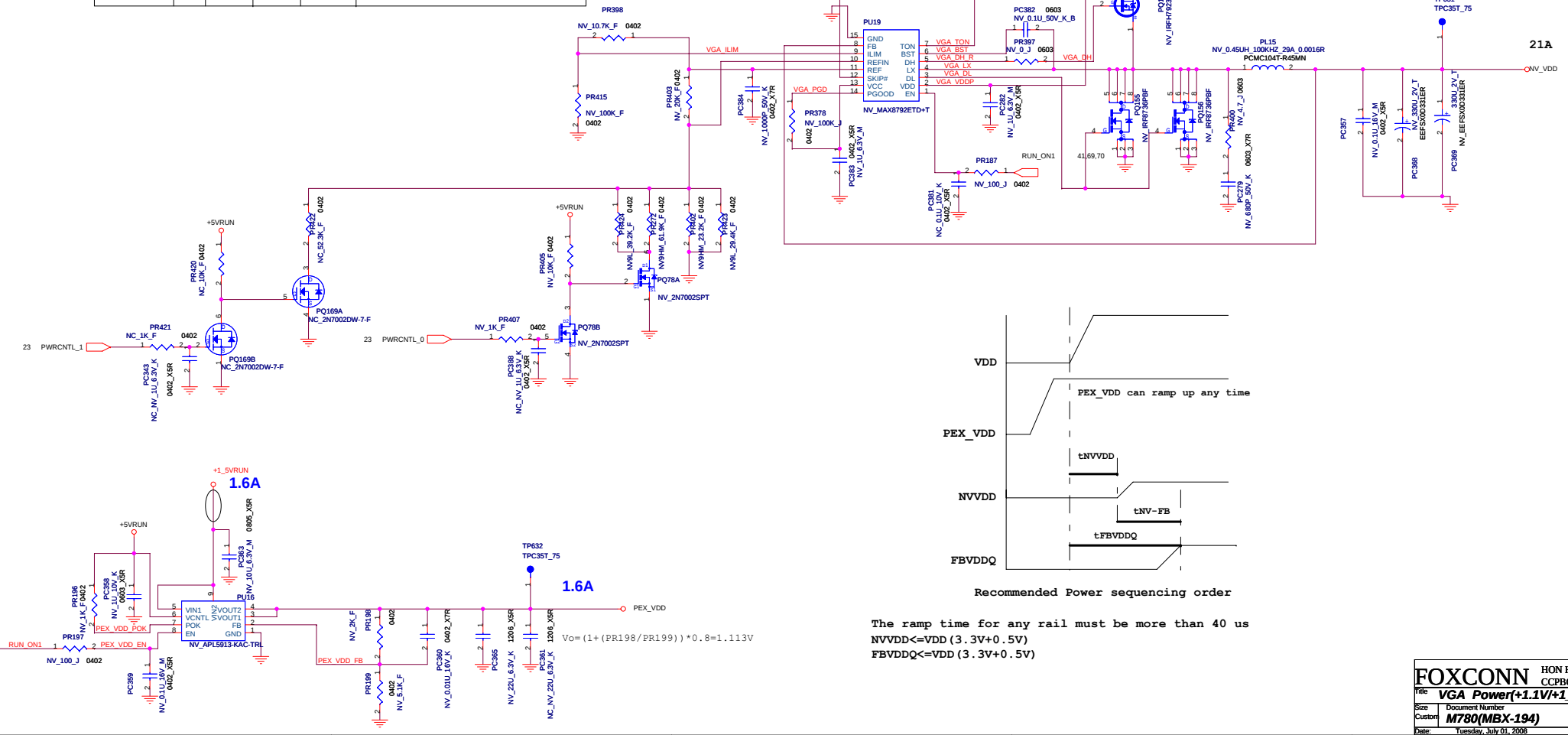
FOXCONN		HON HAI PRECISION IND. CO., LTD.	
Title		CPBG - R&D Division	
Size		Document Number	
Custom		M780(MBX-194)	
Date:		Friday, June 13, 2008	
Sheet		73 of 79	
Rev		0.1	

TABLE (01/08)

NB9P	I/O	Inter pull low			PR402: 23.2K 1%_0402,1R-0002322-F200 PR272: 61.9K 1%_0402,1R-0006192-F200
GPU Voltage			1.05V	0.9V	
PWRCNTL_0	O	Yes	H	L	

NB9M	I/O	Inter pull low			PR423: 29.4K 1%_0402,1R-0002942-F200 PR424: 39.2K 1%_0402,1R-0003922-F200
GPU Voltage			1.17V	0.9V	
PWRCNTL_0	O	Yes	H	L	

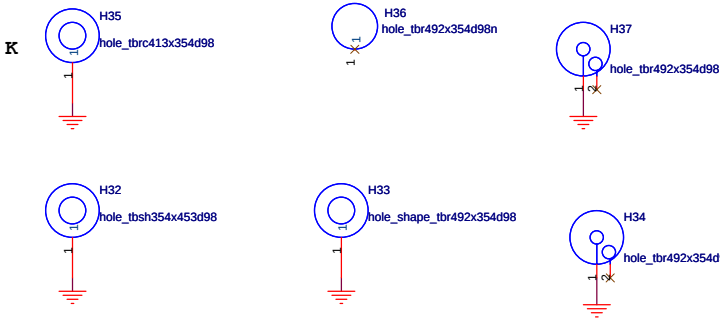
Setting current limit trigger point >25A
 $V_o = V_f$; $V_f = ((PR272 + PR402) / (PR403 + PR272 + PR402)) * 2$
 $V_{lim} = 20[I_o - I_r / 2] * R_{low-dsn} * 1.2$
 Operating Frequency : 300KHz
 $OVP \Rightarrow V_o + 0.25V$
 $UVP \Rightarrow V_{FB} - 0.16V$



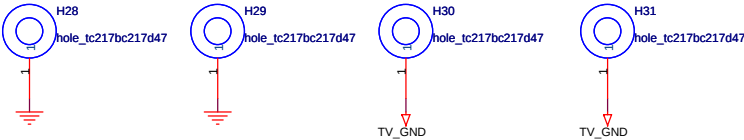
HOLE (TOP SIDE)

HOLE (BOTTOM SIDE)

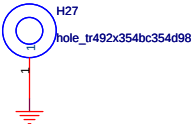
Type 1



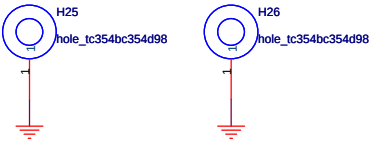
Type 2



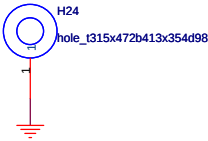
Type 3



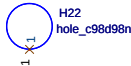
Type 4



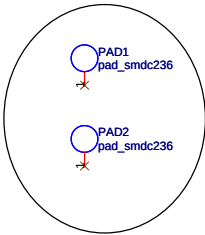
Type 5



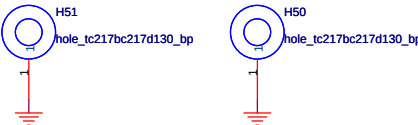
Type 6



DVT to PVT 0617



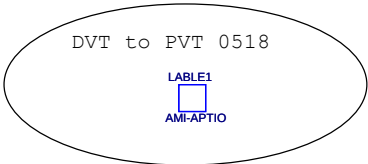
Robason Hole



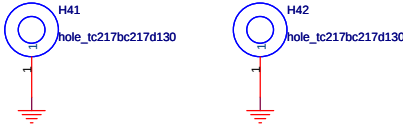
DVT to PVT



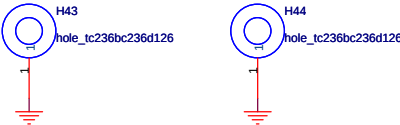
DVT to PVT 0518



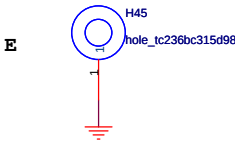
Type 2



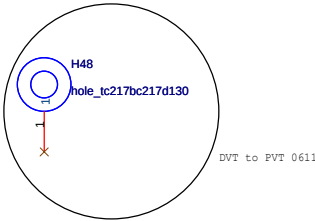
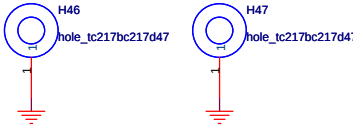
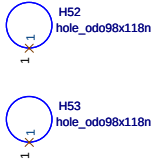
Type 3



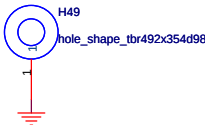
Type 4



Type CPU



DVT to PVT 0611



FOXCONN HON HAI PRECISION IND. CO., LTD.		
CPBG - R&D Division		
Title	HOLE & BOSS	
Size	Document Number	Rev
A3	M780(MBX-194)	0.1
Date:	Wednesday, June 25, 2008	Sheet 75 of 79

M780 EVT Change History

1. (Page 37) 07/08/21 As IC95 IAN_RST# need to pull low to GND,Add 10K to GND.
2. (Page 41) 07/08/21 Change CS18(RUN GM2) pull low value from 100K to 4.7K.
3. (Page 38) 07/08/29 Dot to HDA bus is changed to 1.5V level, HDA_CODEC_RST# signal is not able to turn on MOSFET "Q47", so changed to 3V for HDA Power Plane.
4. (Page 61) 07/09/07 Finger print solution update (UPPER cost down)
5. (Page 57) 07/09/07 Change Codec from CMB92728MDX8082X to ALCB938 for Audio solution.
6. (Page 57) 07/09/07 Change resistor of audio BEEP (R683) to 10K depend on W/P(2/R).
7. (Page 57) 07/09/15 Change thermal sensor (TS5) to 15-EMC142-0000.
8. (Page2) 07/09/19 Lid interface map "P52" change to placed at 7/9 block.
9. (Page 33) 07/09/19 delete all "CA" marking of components.
10. (Page 55) 07/09/19 remove D-MIC to CAM path and clear D-MIC circuit.
11. (Page 23) 07/09/19 delete PLVDD plane for all.
12. (Page 41) 07/09/26 Change EC from M9CF761 to M9CF775L for RMI issue.
13. (Page 48) 07/09/26 Change BT Power switch from R191830T-33-21-E3 to R1921106DT-33-E3 for ROL.
14. (Page 44-47) 07/09/26 Change PCI Card reader from PC18412 to R5C833 for CF card solution.

POWER Change History

15. (Page 64) 07/09/28 Change PQ6 IRT904 to PQ146/PQ148:SI484008/SI48494 ==>component cost down
16. (Page 64) 07/09/28 Change P14 from 3.30(CY) to 4.70(A0G)==>component cost down
17. (Page 64) 07/09/28 Change PQ5 IRT904 to PQ147/PQ149:SI484008/SI48494==>component cost down
18. (Page 64) 07/09/28 Change P14 from 3.30(CY) to 4.70(A0G)==>component cost down
19. (Page 64) 07/09/28 Change P02 AGND to PGND
20. (Page 65) 07/09/28 Change PQ10 IRT904 to PQ150/PQ151:SI484008/SI48494==>component cost down
21. (Page 65) 07/09/28 Change P17 from 1.00(CY) to 1.50(CY) for improve efficiency
22. (Page 65) 07/09/28 Change PC247 from 330M(EF8X) to 330U(EF8X) ==>component cost down
23. (Page 65) 07/09/28 delete PC230==> cost down
24. (Page 65) 07/09/28 Change P04,P05 from AGND to PGND
25. (Page 66) 07/09/28 Change D08 solution from PFM55116 to ISL62659A+G299871IU ==>cost down
26. (Page 67) 07/09/28 Change CPU PMM IC PUT from ISL6262A to ISL6266A, and PR390 from 1.82K to 1k,PR391 from 453 to 400,PC316 from470P to 2200P,PR398 from NC to 1k,PR393 from 182K to 97.6K,PR379from 120P to 100P,PR394 from6.81k to 8.25K.
27. (Page 67) 07/09/28 Change P07 AGND to PGND
28. (Page 68) 07/09/28 Change PQ27 SI484008 to ST13622N
29. (Page 70) 07/09/28 Change P015 TP98117 to P019 SC411 solution for TP98117 light loading bug
30. (Page 69) 07/09/28 Change P16 from AM5812 to AR5812==> cost down
31. (Page 65) 07/09/28 Change P14 from 1.50(CY) to 1.50(A0G)==>component cost down
32. (Page 64/64/64/70) 07/09/29 Change PC210/PC215/PC235/PC243/PC316/PC317 from 0.1u_0402_Y5V to 0.1u_0402_X8R+5.3V due to power regulator output filter cap temperature characterator tolerance.
33. (Page 70) 07/09/29 Add PR407,PR408 0_0402 for remote sense detect
34. (Page 63) 07/09/29 Add PR410: 0_0403, reserve for EMI.
35. (Page 63) 07/09/29 Change to program charger voltage / add PR412: 191K, PR411: 100K ,reserve PR409
36. (Page 63) 07/09/29 change charger current setting to DAC input ; add PR413:750K,change PR413 from 100K to 499K,delete PR417: 222K
37. (Page 65) 07/09/29 reserve PR414 for 1.5V power good pull high resistor.
38. (Page 65) 07/09/29 change 1.05V power good pull high power from +3Vrun to +3Vaux ==>design issue
39. (Page 65) 07/10/03 delete PC253==> cost down
40. (Page 65) 07/10/03 Change P011/PQ12 PDS8880/PDS8896 to SI484008/SI48494==>component cost down
41. (Page 65) 07/10/03 Change P17 from 1.50(CY) to 1.50(DELT4) ==>component cost down
42. (Page 65) 07/10/03 Change P14 from 1.50(A0G) to 1.50(DELT4) ==>component cost down
43. (Page 68) 07/10/03 Change PC09 PDS8880 to ST13622N
44. (Page 68) 07/10/03 Change PQ20 PDS8896 to SI48494
45. (Page 63) 07/10/03 Change P02 from PDS15V82UT to GMD15S because PDS15V82UT have shortage issue
46. (Page 51) 07/10/05 Change USB Power Plane from +3VBUS to +3VALM.
47. (Page 3) 07/10/05 Update R2087 Pull High to +3VRUN.
48. (Page 3) 07/10/05 Change resistor(R1947) to unstuff.
49. (Page 64) 07/09/29 reserve PC387:ECAP:100U(NC) /PC388POSCAP:150(NC) near CN5 DCBOOTUP for NOISE debug
50. (Page 3) 07/10/08 Change CLK gen from IC59LPR8365 to IC59LPR8392.
51. (Page 3) 07/10/24 Change CLK gen from IC59LPR8392 to R22664LFXC for cost down.
52. (Page 60) 07/10/24 Add Subvoter circuit for MOR side request.
53. (Page 60) 07/10/24 Add Roboset circuit for MOR side request.
54. (Page 41) 07/10/24 Change GPIO Expander from W316E036 to W316E040G.
55. (Page 41) 07/10/24 Update EC Pin define for MT60 Project.
56. (Page 47) 07/10/24 Add C987,C989 for design rule.
57. (Page 60) 07/10/24 Add TV tuner power sequence request need two GPIO pin controller time (RUN_ON_TV1,RUN_ON_TV2) for TV team.
58. (Page 47) 07/10/24 Add two GPIO pin (CF_IRQ0_IN18,CF_REST) controll reset (JMB368 and CF Card) for CF time request.
59. (Page 18) 07/10/26 updated the circuit Strapping portion for NVIDIA.
60. (Page 23) 07/10/26 updated the circuit Strapping portion for NVIDIA.
61. (Page 24) 07/10/26 updated the circuit Strapping portion for NVIDIA.
62. (Page 3) 07/10/26 updated BLOCK DIAGRAM for AUDIO function.
63. (Page 32) 07/10/29 update LVDS Pin define.
64. (Page 33) 07/10/29 delete GAMMA function for MOR side request.
65. (Page 3) 07/10/30 delete R3017 for CF solution.
66. (Page 35) 07/10/30 updated USB Function define for IC95 USB Port.
67. (Page 54) 07/10/30 delete USB PH1,USB PH11 pin for TV tuner function.
68. (Page 3) 07/10/30 updated BLOCK DIAGRAM for AUDIO function.
69. (Page 32) 07/10/30 add NV_ODD_XIN3-,NV_ODD_XIN3+,NV_EVEN_XIN3-,NV_EVEN_XIN3+ for LVDS Pin define.
70. (Page 42) 07/10/31 Change I27 Flash ROM from 13-W25X80V-7000(M) to 13-W25X16V-7000(1M6).
71. (Page 30) 07/11/1 Remove 8-OUT Circuit according to MOR side information.
72. (Page 18) 07/11/06 Update VGA Portion.
73. (Page 18) 07/11/06 Update VGA Portion.
74. (Page 18) 07/11/06 Update VGA Portion.
75. (Page 18) 07/11/06 Update VGA Portion.
76. (Page 18) 07/11/06 Update VGA Portion.
77. (Page 18) 07/11/06 Update VGA Portion.
78. (Page 18) 07/11/06 Update VGA Portion.
79. (Page 18) 07/11/06 Update VGA Portion.
80. (Page 18) 07/11/06 Update VGA Portion.
81. (Page 18) 07/11/06 Update VGA Portion.
82. (Page 18) 07/11/06 Update VGA Portion.
83. (Page 18) 07/11/06 Update VGA Portion.
84. (Page 18) 07/11/06 Update VGA Portion.
85. (Page 18) 07/11/06 Update VGA Portion.
86. (Page 18) 07/11/06 Update VGA Portion.
87. (Page 18) 07/11/06 Update VGA Portion.
88. (Page 18) 07/11/06 Update VGA Portion.
89. (Page 18) 07/11/06 Update VGA Portion.
90. (Page 18) 07/11/06 Update VGA Portion.
91. (Page 18) 07/11/06 Update VGA Portion.
92. (Page 18) 07/11/06 Update VGA Portion.
93. (Page 18) 07/11/06 Update VGA Portion.
94. (Page 18) 07/11/06 Update VGA Portion.
95. (Page 18) 07/11/06 Update VGA Portion.
96. (Page 18) 07/11/06 Update VGA Portion.
97. (Page 18) 07/11/06 Update VGA Portion.
98. (Page 18) 07/11/06 Update VGA Portion.
99. (Page 18) 07/11/06 Update VGA Portion.
100. (Page 18) 07/11/06 Update VGA Portion.
101. (Page 18) 07/11/06 Update VGA Portion.
102. (Page 18) 07/11/06 Update VGA Portion.
103. (Page 18) 07/11/06 Update VGA Portion.
104. (Page 18) 07/11/06 Update VGA Portion.
105. (Page 18) 07/11/06 Update VGA Portion.
106. (Page 18) 07/11/06 Update VGA Portion.
107. (Page 18) 07/11/06 Update VGA Portion.
108. (Page 18) 07/11/06 Update VGA Portion.
109. (Page 18) 07/11/06 Update VGA Portion.
110. (Page 18) 07/11/06 Update VGA Portion.
111. (Page 18) 07/11/06 Update VGA Portion.
112. (Page 18) 07/11/06 Update VGA Portion.
113. (Page 18) 07/11/06 Update VGA Portion.
114. (Page 18) 07/11/06 Update VGA Portion.
115. (Page 18) 07/11/06 Update VGA Portion.
116. (Page 18) 07/11/06 Update VGA Portion.
117. (Page 18) 07/11/06 Update VGA Portion.
118. (Page 18) 07/11/06 Update VGA Portion.
119. (Page 18) 07/11/06 Update VGA Portion.
120. (Page 18) 07/11/06 Update VGA Portion.
121. (Page 18) 07/11/06 Update VGA Portion.
122. (Page 18) 07/11/06 Update VGA Portion.
123. (Page 18) 07/11/06 Update VGA Portion.
124. (Page 18) 07/11/06 Update VGA Portion.
125. (Page 18) 07/11/06 Update VGA Portion.
126. (Page 18) 07/11/06 Update VGA Portion.
127. (Page 18) 07/11/06 Update VGA Portion.
128. (Page 18) 07/11/06 Update VGA Portion.
129. (Page 18) 07/11/06 Update VGA Portion.
130. (Page 18) 07/11/06 Update VGA Portion.
131. (Page 18) 07/11/06 Update VGA Portion.
132. (Page 18) 07/11/06 Update VGA Portion.
133. (Page 18) 07/11/06 Update VGA Portion.
134. (Page 18) 07/11/06 Update VGA Portion.
135. (Page 18) 07/11/06 Update VGA Portion.
136. (Page 18) 07/11/06 Update VGA Portion.
137. (Page 18) 07/11/06 Update VGA Portion.
138. (Page 18) 07/11/06 Update VGA Portion.
139. (Page 18) 07/11/06 Update VGA Portion.
140. (Page 18) 07/11/06 Update VGA Portion.
141. (Page 18) 07/11/06 Update VGA Portion.
142. (Page 18) 07/11/06 Update VGA Portion.
143. (Page 18) 07/11/06 Update VGA Portion.
144. (Page 18) 07/11/06 Update VGA Portion.
145. (Page 18) 07/11/06 Update VGA Portion.
146. (Page 18) 07/11/06 Update VGA Portion.
147. (Page 18) 07/11/06 Update VGA Portion.
148. (Page 18) 07/11/06 Update VGA Portion.
149. (Page 18) 07/11/06 Update VGA Portion.
150. (Page 18) 07/11/06 Update VGA Portion.
151. (Page 18) 07/11/06 Update VGA Portion.
152. (Page 18) 07/11/06 Update VGA Portion.
153. (Page 18) 07/11/06 Update VGA Portion.
154. (Page 18) 07/11/06 Update VGA Portion.
155. (Page 18) 07/11/06 Update VGA Portion.
156. (Page 18) 07/11/06 Update VGA Portion.
157. (Page 18) 07/11/06 Update VGA Portion.
158. (Page 18) 07/11/06 Update VGA Portion.
159. (Page 18) 07/11/06 Update VGA Portion.
160. (Page 18) 07/11/06 Update VGA Portion.
161. (Page 18) 07/11/06 Update VGA Portion.
162. (Page 18) 07/11/06 Update VGA Portion.
163. (Page 18) 07/11/06 Update VGA Portion.
164. (Page 18) 07/11/06 Update VGA Portion.
165. (Page 18) 07/11/06 Update VGA Portion.
166. (Page 18) 07/11/06 Update VGA Portion.
167. (Page 18) 07/11/06 Update VGA Portion.
168. (Page 18) 07/11/06 Update VGA Portion.
169. (Page 18) 07/11/06 Update VGA Portion.
170. (Page 18) 07/11/06 Update VGA Portion.
171. (Page 18) 07/11/06 Update VGA Portion.
172. (Page 18) 07/11/06 Update VGA Portion.
173. (Page 18) 07/11/06 Update VGA Portion.
174. (Page 18) 07/11/06 Update VGA Portion.
175. (Page 18) 07/11/06 Update VGA Portion.
176. (Page 18) 07/11/06 Update VGA Portion.
177. (Page 18) 07/11/06 Update VGA Portion.
178. (Page 18) 07/11/06 Update VGA Portion.
179. (Page 18) 07/11/06 Update VGA Portion.
180. (Page 18) 07/11/06 Update VGA Portion.
181. (Page 18) 07/11/06 Update VGA Portion.
182. (Page 18) 07/11/06 Update VGA Portion.
183. (Page 18) 07/11/06 Update VGA Portion.
184. (Page 18) 07/11/06 Update VGA Portion.
185. (Page 18) 07/11/06 Update VGA Portion.
186. (Page 18) 07/11/06 Update VGA Portion.
187. (Page 18) 07/11/06 Update VGA Portion.
188. (Page 18) 07/11/06 Update VGA Portion.
189. (Page 18) 07/11/06 Update VGA Portion.
190. (Page 18) 07/11/06 Update VGA Portion.
191. (Page 18) 07/11/06 Update VGA Portion.
192. (Page 18) 07/11/06 Update VGA Portion.
193. (Page 18) 07/11/06 Update VGA Portion.
194. (Page 18) 07/11/06 Update VGA Portion.
195. (Page 18) 07/11/06 Update VGA Portion.
196. (Page 18) 07/11/06 Update VGA Portion.
197. (Page 18) 07/11/06 Update VGA Portion.
198. (Page 18) 07/11/06 Update VGA Portion.
199. (Page 18) 07/11/06 Update VGA Portion.
200. (Page 18) 07/11/06 Update VGA Portion.
201. (Page 18) 07/11/06 Update VGA Portion.
202. (Page 18) 07/11/06 Update VGA Portion.
203. (Page 18) 07/11/06 Update VGA Portion.
204. (Page 18) 07/11/06 Update VGA Portion.
205. (Page 18) 07/11/06 Update VGA Portion.
206. (Page 18) 07/11/06 Update VGA Portion.
207. (Page 18) 07/11/06 Update VGA Portion.
208. (Page 18) 07/11/06 Update VGA Portion.
209. (Page 18) 07/11/06 Update VGA Portion.
210. (Page 18) 07/11/06 Update VGA Portion.
211. (Page 18) 07/11/06 Update VGA Portion.
212. (Page 18) 07/11/06 Update VGA Portion.
213. (Page 18) 07/11/06 Update VGA Portion.
214. (Page 18) 07/11/06 Update VGA Portion.
215. (Page 18) 07/11/06 Update VGA Portion.
216. (Page 18) 07/11/06 Update VGA Portion.
217. (Page 18) 07/11/06 Update VGA Portion.
218. (Page 18) 07/11/06 Update VGA Portion.
219. (Page 18) 07/11/06 Update VGA Portion.
220. (Page 18) 07/11/06 Update VGA Portion.
221. (Page 18) 07/11/06 Update VGA Portion.
222. (Page 18) 07/11/06 Update VGA Portion.
223. (Page 18) 07/11/06 Update VGA Portion.
224. (Page 18) 07/11/06 Update VGA Portion.
225. (Page 18) 07/11/06 Update VGA Portion.
226. (Page 18) 07/11/06 Update VGA Portion.
227. (Page 18) 07/11/06 Update VGA Portion.
228. (Page 18) 07/11/06 Update VGA Portion.
229. (Page 18) 07/11/06 Update VGA Portion.
230. (Page 18) 07/11/06 Update VGA Portion.
231. (Page 18) 07/11/06 Update VGA Portion.
232. (Page 18) 07/11/06 Update VGA Portion.
233. (Page 18) 07/11/06 Update VGA Portion.
234. (Page 18) 07/11/06 Update VGA Portion.
235. (Page 18) 07/11/06 Update VGA Portion.
236. (Page 18) 07/11/06 Update VGA Portion.
237. (Page 18) 07/11/06 Update VGA Portion.
238. (Page 18) 07/11/06 Update VGA Portion.
239. (Page 18) 07/11/06 Update VGA Portion.
240. (Page 18) 07/11/06 Update VGA Portion.
241. (Page 18) 07/11/06 Update VGA Portion.
242. (Page 18) 07/11/06 Update VGA Portion.
243. (Page 18) 07/11/06 Update VGA Portion.
244. (Page 18) 07/11/06 Update VGA Portion.
245. (Page 18) 07/11/06 Update VGA Portion.
246. (Page 18) 07/11/06 Update VGA Portion.
247. (Page 18) 07/11/06 Update VGA Portion.
248. (Page 18) 07/11/06 Update VGA Portion.
249. (Page 18) 07/11/06 Update VGA Portion.
250. (Page 18) 07/11/06 Update VGA Portion.
251. (Page 18) 07/11/06 Update VGA Portion.
252. (Page 18) 07/11/06 Update VGA Portion.
253. (Page 18) 07/11/06 Update VGA Portion.
254. (Page 18) 07/11/06 Update VGA Portion.
255. (Page 18) 07/11/06 Update VGA Portion.
256. (Page 18) 07/11/06 Update VGA Portion.
257. (Page 18) 07/11/06 Update VGA Portion.
258. (Page 18) 07/11/06 Update VGA Portion.
259. (Page 18) 07/11/06 Update VGA Portion.
260. (Page 18) 07/11/06 Update VGA Portion.
261. (Page 18) 07/11/06 Update VGA Portion.
262. (Page 18) 07/11/06 Update VGA Portion.
263. (Page 18) 07/11/06 Update VGA Portion.
264. (Page 18) 07/11/06 Update VGA Portion.
265. (Page 18) 07/11/06 Update VGA Portion.
266. (Page 18) 07/11/06 Update VGA Portion.
267. (Page 18) 07/11/06 Update VGA Portion.
268. (Page 18) 07/11/06 Update VGA Portion.
269. (Page 18) 07/11/06 Update VGA Portion.
270. (Page 18) 07/11/06 Update VGA Portion.
271. (Page 18) 07/11/06 Update VGA Portion.
272. (Page 18) 07/11/06 Update VGA Portion.
273. (Page 18) 07/11/06 Update VGA Portion.
274. (Page 18) 07/11/06 Update VGA Portion.
275. (Page 18) 07/11/06 Update VGA Portion.
276. (Page 18) 07/11/06 Update VGA Portion.
277. (Page 18) 07/11/06 Update VGA Portion.
278. (Page 18) 07/11/06 Update VGA Portion.
279. (Page 18) 07/11/06 Update VGA Portion.
280. (Page 18) 07/11/06 Update VGA Portion.
281. (Page 18) 07/11/06 Update VGA Portion.
282. (Page 18) 07/11/06 Update VGA Portion.
283. (Page 18) 07/11/06 Update VGA Portion.
284. (Page 18) 07/11/06 Update VGA Portion.
285. (Page 18) 07/11/06 Update VGA Portion.
286. (Page 18) 07/11/06 Update VGA Portion.
287. (Page 18) 07/11/06 Update VGA Portion.
288. (Page 18) 07/11/06 Update VGA Portion.
289. (Page 18) 07/11/06 Update VGA Portion.
290. (Page 18) 07/11/06 Update VGA Portion.
291. (Page 18) 07/11/06 Update VGA Portion.
292. (Page 18) 07/11/06 Update VGA Portion.
293. (Page 18) 07/11/06 Update VGA Portion.
294. (Page 18) 07/11/06 Update VGA Portion.
295. (Page 18) 07/11/06 Update VGA Portion.
296. (Page 18) 07/11/06 Update VGA Portion.
297. (Page 18) 07/11/06 Update VGA Portion.
298. (Page 18) 07/11/06 Update VGA Portion.
299. (Page 18) 07/11/06 Update VGA Portion.
300. (Page 18) 07/11/06 Update VGA Portion.
301. (Page 18) 07/11/06 Update VGA Portion.
302. (Page 18) 07/11/06 Update VGA Portion.
303. (Page 18) 07/11/06 Update VGA Portion.
304. (Page 18) 07/11/06 Update VGA Portion.
305. (Page 18) 07/11/06 Update VGA Portion.
306. (Page 18) 07/11/06 Update VGA Portion.
307. (Page 18) 07/11/06 Update VGA Portion.
308. (Page 18) 07/11/06 Update VGA Portion.
309. (Page 18) 07/11/06 Update VGA Portion.
310. (Page 18) 07/11/06 Update VGA Portion.
311. (Page 18) 07/11/06 Update VGA Portion.
312. (Page 18) 07/11/06 Update VGA Portion.
313. (Page 18) 07/11/06 Update VGA Portion.
314. (Page 18) 07/11/06 Update VGA Portion.
315. (Page 18) 07/11/06 Update VGA Portion.
316. (Page 18) 07/11/06 Update VGA Portion.
317. (Page 18) 07/11/06 Update VGA Portion.
318. (Page 18) 07/11/06 Update VGA Portion.
319. (Page 18) 07/11/06 Update VGA Portion.
320. (Page 18) 07/11/06 Update VGA Portion.
321. (Page 18) 07/11/06 Update VGA Portion.
322. (Page 18) 07/11/06 Update VGA Portion.
323. (Page 18) 07/11/06 Update VGA Portion.
324. (Page 18) 07/11/06 Update VGA Portion.
325. (Page 18) 07/11/06 Update VGA Portion.
326. (Page 18) 07/11/06 Update VGA Portion.
327. (Page 18) 07/11/06 Update VGA Portion.
328. (Page 18) 07/11/06 Update VGA Portion.
329. (Page 18) 07/11/06 Update VGA Portion.
330. (Page 18) 07/11/06 Update VGA Portion.
331. (Page 18) 07/11/06 Update VGA Portion.
332. (Page 18) 07/11/06 Update VGA Portion.
333. (Page 18) 07/11/06 Update VGA Portion.
334. (Page 18) 07/11/06 Update VGA Portion.
335. (Page 18) 07/11/06 Update VGA Portion.
336. (Page 18) 07/11/06 Update VGA Portion.
337. (Page 18) 07/11/06 Update VGA Portion.
338. (Page 18) 07/11/06 Update VGA Portion.
339. (Page 18) 07/11/06 Update VGA Portion.
340. (Page 18) 07/11/06 Update VGA Portion.
341. (Page 18) 07/11/06 Update VGA Portion.
342. (Page 18) 07/11/06 Update VGA Portion.
343. (Page 18) 07/11/06 Update VGA Portion.
344. (Page 18) 07/11/06 Update VGA Portion.
345. (Page 18) 07/11/06 Update VGA Portion.
346. (Page 18) 07/11/06 Update VGA Portion.
347. (Page 18) 07/11/06 Update VGA Portion.
348. (Page 18) 07/11/06 Update VGA Portion.
349. (Page 18) 07/11/06 Update VGA Portion.
350. (Page 18) 07/11/06 Update VGA Portion.
351. (Page 18) 07/11/06 Update VGA Portion.
352. (Page 18) 07/11/06 Update VGA Portion.
353. (Page 18) 07/11/06 Update VGA Portion.
354. (Page 18) 07/11/06 Update VGA Portion.
355. (Page 18) 07/11/06 Update VGA Portion.
356. (Page 18) 07/11/06 Update VGA Portion.
357. (Page 18) 07/11/06 Update VGA Portion.
358. (Page 18) 07/11/06 Update VGA Portion.
359. (Page 18) 07/11/06 Update VGA Portion.
360. (Page 18) 07/11/06 Update VGA Portion.
361. (Page 18) 07/11/06 Update VGA Portion.
362. (Page 18) 07/11/06 Update VGA Portion.
363. (Page 18) 07/11/06 Update VGA Portion.
364. (Page 18) 07/11/06 Update VGA Portion.
365. (Page 18) 07/11/06 Update VGA Portion.
366. (Page 18) 07/11/06 Update VGA Portion.
367. (Page 18) 07/11/06 Update VGA Portion.
368. (Page 18) 07/11/06 Update VGA Portion.
369. (Page 18) 07/11/06 Update VGA Portion.
370. (Page 18) 07/11/06 Update VGA Portion.
371. (Page 18) 07/11/06 Update VGA Portion.
372. (Page 18) 07/11/06 Update VGA Portion.
373. (Page 18) 07/11/06 Update VGA Portion.
374. (Page 18) 07/11/06 Update VGA Portion.
375. (Page 18) 07/11/06 Update VGA Portion.
376. (Page 18) 07/11/06 Update VGA Portion.
377. (Page 18) 07/11/06 Update VGA Portion.
378. (Page 18) 07/11/06 Update VGA Portion.
379. (Page 18) 07/11/06 Update VGA Portion.
380. (Page 18) 07/11/06 Update VGA Portion.
381. (Page 18) 07/11/06 Update VGA Portion.
382. (Page 18) 07/11/06 Update VGA Portion.
383. (Page 18) 07/11/06 Update VGA Portion.
384. (Page 18) 07/11/06 Update VGA Portion.
385. (Page 18) 07/11/06 Update VGA Portion.
386. (Page 18) 07/11/06 Update VGA Portion.
387. (Page 18) 07/11/06 Update VGA Portion.
388. (Page 18) 07/11/06 Update VGA Portion.
389. (Page 18) 07/11/06 Update VGA Portion.
390. (Page 18) 07/11/06 Update VGA Portion.
391. (Page 18) 07/11/06 Update VGA Portion.
392. (Page 18) 07/11/06 Update VGA Portion.
393. (Page 18) 07/11/06 Update VGA Portion.
394. (Page 18) 07/11/06 Update VGA Portion.
395. (Page 18) 07/11/06 Update VGA Portion.
396. (Page 18) 07/11/06 Update VGA Portion.
397. (Page 18) 07/11/06 Update VGA Portion.
398. (Page 18) 07/11/06 Update VGA Portion.
399. (Page 18) 07/11/06 Update VGA Portion.
400. (Page 18) 07/11/06 Update VGA Portion.
401. (Page 18) 07/11/06 Update VGA Portion.
402. (Page 18) 07/11/06 Update VGA Portion.
403. (Page 18) 07/11/06 Update VGA Portion.
404. (Page 18) 07/11/06 Update VGA Portion.
405. (Page 18) 07/11/06 Update VGA Portion.
406. (Page 18) 07/11/06 Update VGA Portion.
407. (Page 18) 07/11/06 Update VGA Portion.
408. (Page 18) 07/11/06 Update VGA Portion.
409. (Page 18) 07/11/06 Update VGA Portion.
410. (Page 18) 07/11/06 Update VGA Portion.
411. (Page 18) 07/11/06 Update VGA Portion.
412. (Page 18) 07/11/06 Update VGA Portion.
413. (Page 18) 07/11/06 Update VGA Portion.
414. (Page 18) 07/11/06 Update VGA Portion.
415. (Page 18) 07/11/06 Update VGA Portion.
416. (Page 18) 07/11/06 Update VGA Portion.
417. (Page 18) 07/11/06 Update VGA Portion.
418. (Page 18) 07/11/06 Update VGA Portion.
419. (Page 18) 07/11/06 Update VGA Portion.
420. (Page 18) 07/11/06 Update VGA Portion.
421. (Page 18) 07/11/06 Update VGA Portion.
422. (Page 18) 07/11/0

EVT TO DVT

Page 20 .Add power source for FB_DLLAVDD1 & FB_PLLAVDD1

Page 61. change R2164 from 1K to 2.7K for MOR request

Page 57. change SPK AMP Gain setting to 18dB for MOR request

Page 48,49. change BT LED control signal source from BT module directly

Page 32,41. Use SW1 one pin to disable Fan monitor function

Page 54. F11,F12,F18,F19 change from 350mA to 250mA

Page 59. Change Q4019 pin 2 from +3VALW to +5VALW

Page 37. Change EC_OU71 pin to GPIO12

Page 41. Add R572,R573,R574 pull low

Page 61. R259 NC

Page 41. Add C465,C466 47pF pull low

Page 24. Add R586,R590 for MOR request.

Page 3. Add R5248 in series for MCH_CLK_REQ#.

Page 47. Add F27 Poly switch for CF card protection.

Page 37. Add D9 diode for RUNTIME_SCI# leakage.

Page 41. Add D17,D24 for EC_RCIN#,EC_A20GATE leakage.

Page 23. Add R1779 for PWRCNTL_0 pull high.

Page 37. Add R455 for Finger print Detect.

Page 60,63. Remove C4830,R740,R743,R745 for MOR request.

Page 33. Add R340,Q122,R2373,Q123 for HDMI drop issue.

Page 3. Add C820 ,C821 for Robson CLK to match rising and falling time spec.

Page 52. Add F13 for CIR FFC protection.

Page 40. Add R75 ,R5249,C138 for 8057 used

Page 49. Remove C18,add R617 for MOR request.

Page 41. Add C913 for EMI.

Page 42. Add C962 for EMI.

Page 53. Add C967 for EMI.

Page 71. Add C968 for EMI.

Page 68. Add C990 for EMI.

Page 74. Add C991 for EMI.

Page 32. Add C992 for EMI.

Page 56. Add C368 for TV .

Page 60. change C4820,C4822,C4825,C4827 to 0.047U
R5146,R5151 to 1.8k R151,R5152 t o5.6k

Page 61. change R244,R249 to15k R2160 to 18k, PR523,PR524 to 15k, C367 to 0.022U, R2164 to 1.8k.

Page 31. Add C467,C468,C469 for EMI.

Page 46. Mount C453 for EMI.

Page 41. Add R575 for CF always power on.

Page 37. Remove R455,R486 for FP_DET#,change by BIOS detect.

Page 6. add C88,C89 for MOR request.

Page 72. add R5250 for MOR request.

Page 34. add C370,C369 for EMI

Page 41. add C371 for EMI

Page 29. add C993 for EMI

Page 26. add C994 for EMI

Page 41. change charge LED to high active.

Page 57. add C995 for EMI.

Page 33. add C997 for EMI.

Page 62. add C90 for EMI.

Page 41. add C91 for EMI.

Page 54. add C238 for EMI.

Page 47. add U17 ,R91,R92 for CF solution.

Page 73. change PR181 from 34k to 31.6k for changing power limit from 118W to 114W

DVT to PVT

Page 64(LED Status) .charging LED logic change

Page 75(HOLE & BOSS) .Add AMI label on M/BD

Page 31(CRT) .change VSYNC and HSYNC resistor and capacitor for SI test fail.

Page 54(Daughter Board Conn) .change PWR and Suspend LED logic same as M760 for more brightness.

Page 47(PCI CF) .separate CF controller power and card power for hot-plug issue.

Page .change NV9P,9M ,HDCP KEY HH P/N

Page 17(VGA (PCI-E) 1/9) .L4049 change vendor

Page 41(EC+KBC (WPCE775L) .change RP24,RP25 to +3VALW

Page 67(DCIN&Charger) .Delete PJ1 and PJ2

Page 68(SYS Power (+3 3V/+5V) .Delete PJ3 and PJ4

Page 69(SYS Power(+1 5V/+1 05V) .Delete PJ7 and PJ8

Page 70(DDR2 Power(+I 8V/+0 9V) .Delete PJ10 and PJ13

Page 71(CPU Vcore---ISL6266A) .Delete PJ12

Page 74(VGA Power(0.9V/+1 05V) .Delete PJ15,PJ16,PJ17

Page 43(SATA HDD/CD-ROM) .change CN126 to KOTL

Page 3(CLOCK GEN (SL28648BLC) .U123 change HH P/N

Page 18(VGA (PCI-E BUS)Strap 2/9) .add samsung VRAM strap pin

Page 55(OIDE/CAM) .change OIDE connector to LNC PVT 0605.pdf

Page 60(AUDIO(EQ) .C4820,C4822,C4825,C4827; Change from 0.047μ/50V to 0.015μ/25V,R5146,R5151; Change from 1.8k to 3.3k

Page 61(AVD20 (Filter Circuit) .R2164 change to 1k,R2165 change to 4.7k

Page 72(Others power plan) .R5250 mount,PR180, PR174, PR163, PQ165, PQ55, PC121, PC227 all NC

Page 51(USB 2.0) .add USB connector TID No.

Page 55(OIDE/CAM) .change camera connector for easy to unplug.

Page 43(SATA HDD/CD-ROM) .change ODD connector to 14 pin

Page 75(HOLE & BOSS) .change H48 to PTH type

Page 55(OIDE/CAM) .reserve 3.3V for camera module.

Page 47(PCI CF) .change discharge circuit for CF card power,add 4.7U for CF card power ,change CF card LED power source.

Page 45(PCI (ILINK) .change Y5 capacitor for accuracy.

Page 71(CPU Vcore---ISL6266A) .PR429 NC

Page 67(DCIN&Charger) .PCN2 add two pillars to fix position for our production line smoothly. PVT 0613.pdf

Page 1(index) .change HH P/N

Page 75(HOLE & BOSS) .add two PAD for ME request

Page 68(SYS Power (+3 3V/+5V) .PU2 Pin9 ,pin10 connect from +5VALW_PWM to +5VALW PVT 0617.pdf

Page 41(EC+KBC (WPCE775L) .mount R516,C592 for EMI

Page 24(VGA (INTER DISPLAY) 8/9) .mount C828 for EMI

Page 41(EC+KBC (WPCE775L) .add C998 for EMI

Page 48(bluetooth) .add C999 for EMI

Page 40(Marvell GLAN(88E8055) .add C1000 for EMI

Page 72(Others power plan) .add C1001 for EMI

Page 41(EC+KBC (WPCE775L) .add C1002 for EMI

Page 56(AUDIO(CODEC & POWER) .add C1003 for EMI

Page 54(Daughter Board Conn) .add C1004,C1005 for EMI

Page 54(Daughter Board Conn) .add L31,L32 for EMI

Page 23(VGA (XTAL/GPIO) 7/9) . reserve D10,R5251,R5252,C93,R1780 for HDMI Audio issue.

Page 56(AUDIO(CODEC & POWER) . reserve R749,C12 for HDMI Audio issue.

Page 63(Audio BOARD conn) . mount R741,change R744 to C807 0.1u for EMI

Page 56(AUDIO(CODEC & POWER) .change R5222 to C809 0.1uf for EMI.

Page 42(AUDIO(Flash ROM/SPI) .CN16 change from 1200 to 1203 for EOL issue.

Page 65(Robson 1.7 Connector) .remove CN24,C712,C713 for Robson no used.

Page 65(AUDIO (SUBWOOFER AMP).change R5228 from 68k to 6.8k for MOR request.

Page 75(HOLE & BOSS) .Add PAD 3 for ME request.

Page 75(LVDS) .reserve C472 for invertor power PVT 0625.pdf

Page 31(CRT) .change L25,L26,L27 to 120R bead,C467,C468,C469 to NC.

Page 62(AUDIO (SUBWOOFER AMP) .change R5226,R5227 to 0.5% resistors

Page 54(Daughter Board Conn) .add U11 for finger print protection. PVT 0627.pdf

Page 71(CPU Vcore---ISL6266A) .PC389 NC,PC299,PC289 mount for solid cap issue.

Page 68(SYS Power (+3 3V/+5V) .PC387 NC for solid cap issue

Page 74(VGA Power(0.9V/+1 05V) .PC391 NC,PC353 mount for solid cap issue.

Page 32(LVDS) .Add C472 for solid cap issue.

Page 45(PCI (ILINK) .change R540~R543 to 47 ohm for MS overshoot and undershoot issue.

Page 41(EC+KBC (WPCE775L) .R516,C592 NC for signal quality.

Page 3(CLOCK GEN (SL28648BLC) .change R767 to 47 ohm for EMI issue. PVT 0629.pdf

Title			<Title>
Size	Document Number	Rev	
A3	<Doc>	<Rev Code>	
Date:	Sunday, June 29, 2008	Sheet	77 of 79