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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.
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Title: *Index*

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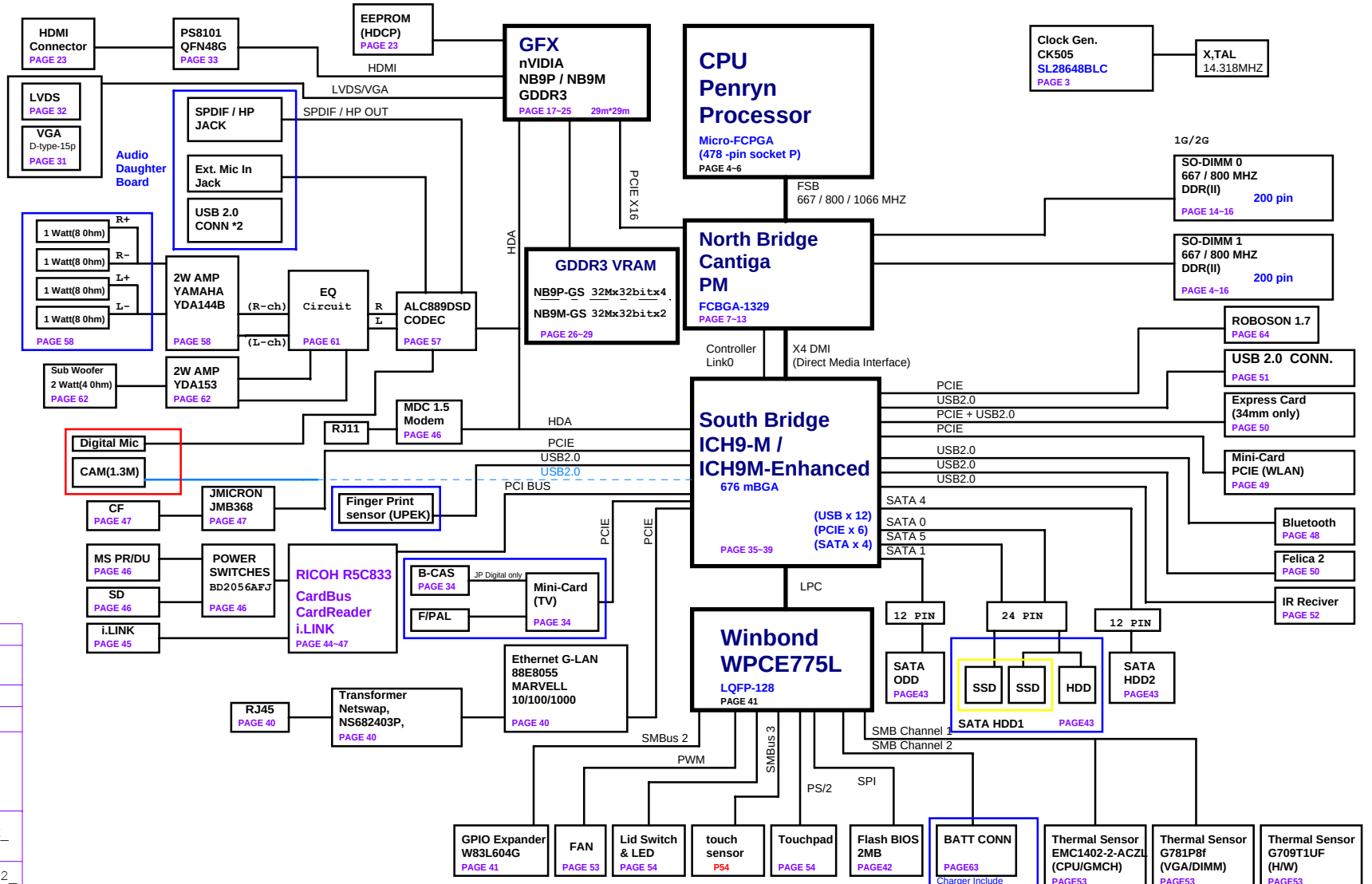
M780 Montevina Block Diagram



TI CHARGER BQ24751 P.63

INPUTS	OUTPUTS
DC_IN	BT+ DCBATOUT

SYSTEM DC/DC ISL6236IRZA-T P.64

INPUTS	OUTPUTS
DCBATOUT	+5VALW +5VALW_LDO +3VALW +ECVCC +15V_ALW

SYSTEM DC/DC SC411 P.65

INPUTS	OUTPUTS
DCBATOUT	+1_5VRUN +1_05VM

SYSTEM DC/DC ISL6269A P.66

INPUTS	OUTPUTS
DCBATOUT	+1_8VSUS

SYSTEM DC/DC G2998 P.66

INPUTS	OUTPUTS
DCBATOUT	+0_9VRUN

CPU DC/DC ISL6266A P.67

INPUTS	OUTPUTS
DCBATOUT	VHCORE

SYSTEM DC/DC APL5913 P.70

INPUTS	OUTPUTS
+1_5VRUN	APL5913

SYSTEM DC/DC SC411 P.70

INPUTS	OUTPUTS
DCBATOUT	NV_VDD

M780 BOM configuration

unstuff	NC_
NB9P-GS + NB9M-GS	NV_
for L model	NV9L_
for M model	NV9M_
B-CAS Card, FeliCa module for J SKU stuff Roboson,TV Tuner ,IR,Reciever,CF Card Slot unstuff for L Model	LNC_
for H M model	NV9HM_
for L model 32Mx32 GDDR3	NV9L32_
for H model	NV9H_
for Qimonda VRAM	NV9QI_
for Samsung VRAM	NV9SAM_

H-model used ICH9M enhanced
L-model used NB9M-GS

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Title: *Block Diagram*

Size: Custom | Document Number: *M780(MBX-194)* | Rev: *0.1*

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2007/11/12 delete damp resistor

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#

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

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Title: CLOCK GEN (SL28648LFXC)

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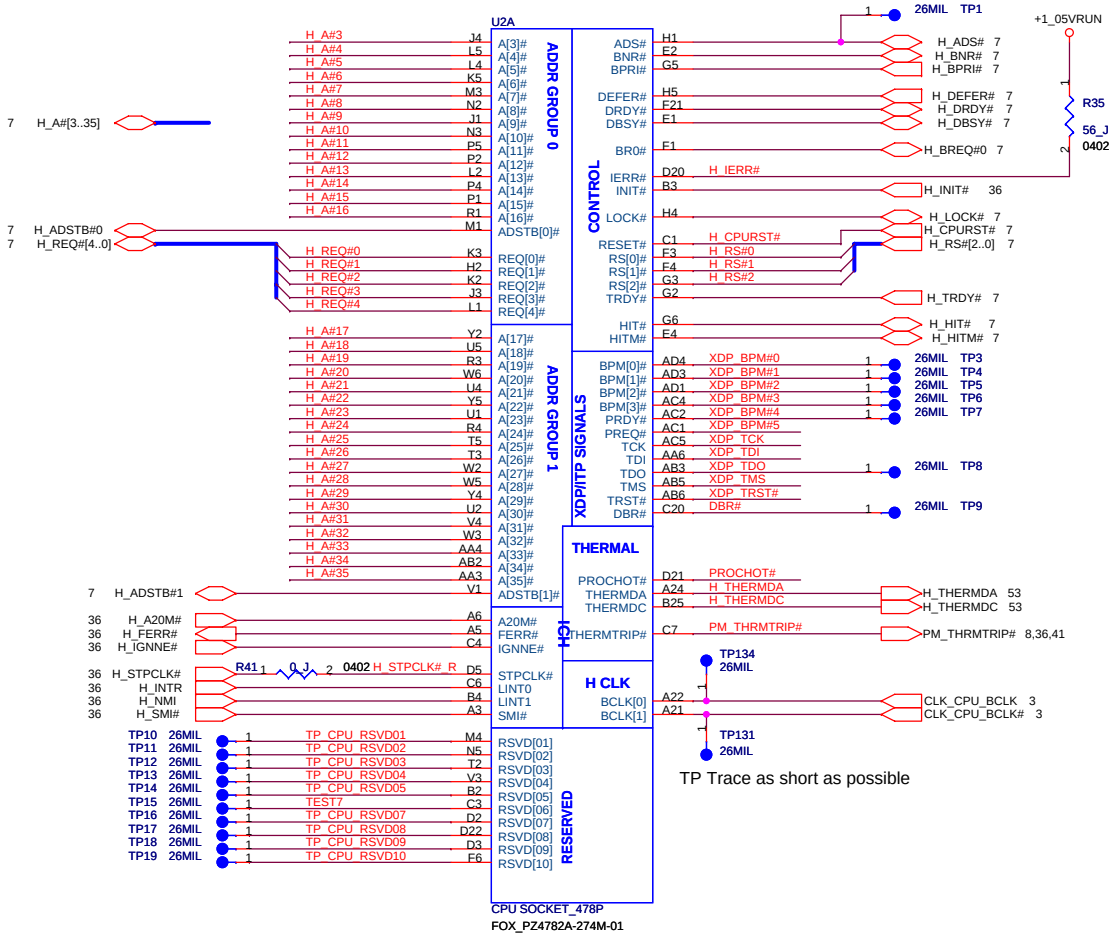
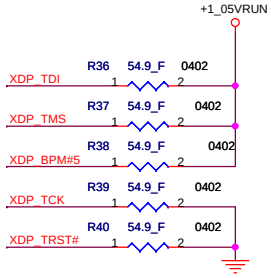
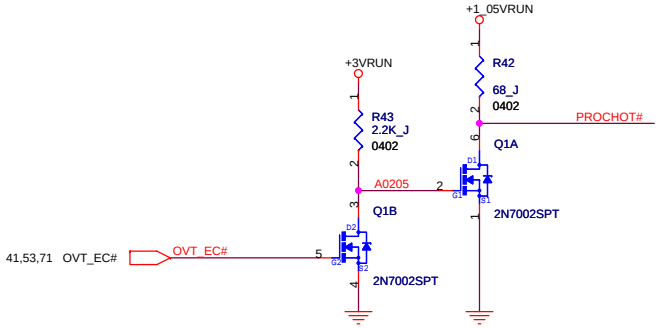


as Close as possible to Pin out trace





FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	*Penryn (HOST BUS) 1/3*
Size: A3	Document Number: *M780(MBX-194)*
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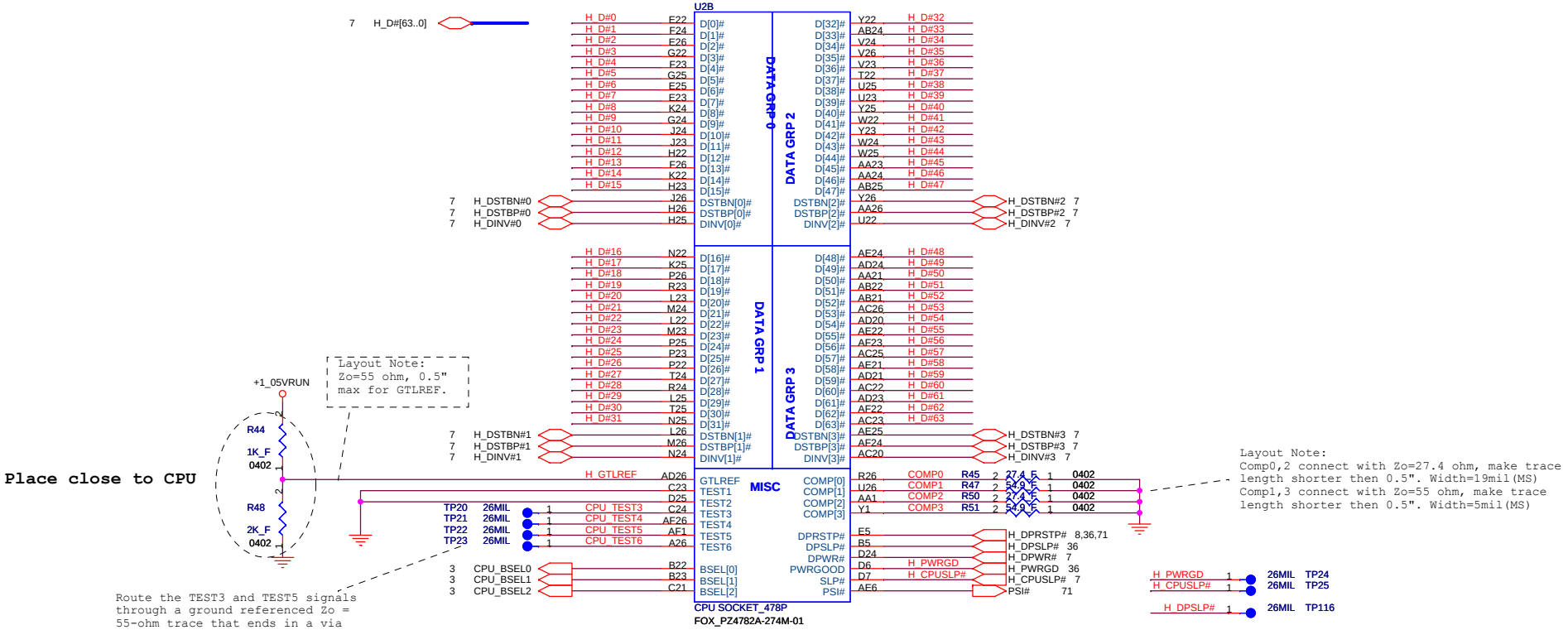

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division		
Title	Penryn (HOST BUS) 2/3		
Size A3	Document Number M780(MBX-194)		Rev 0.1
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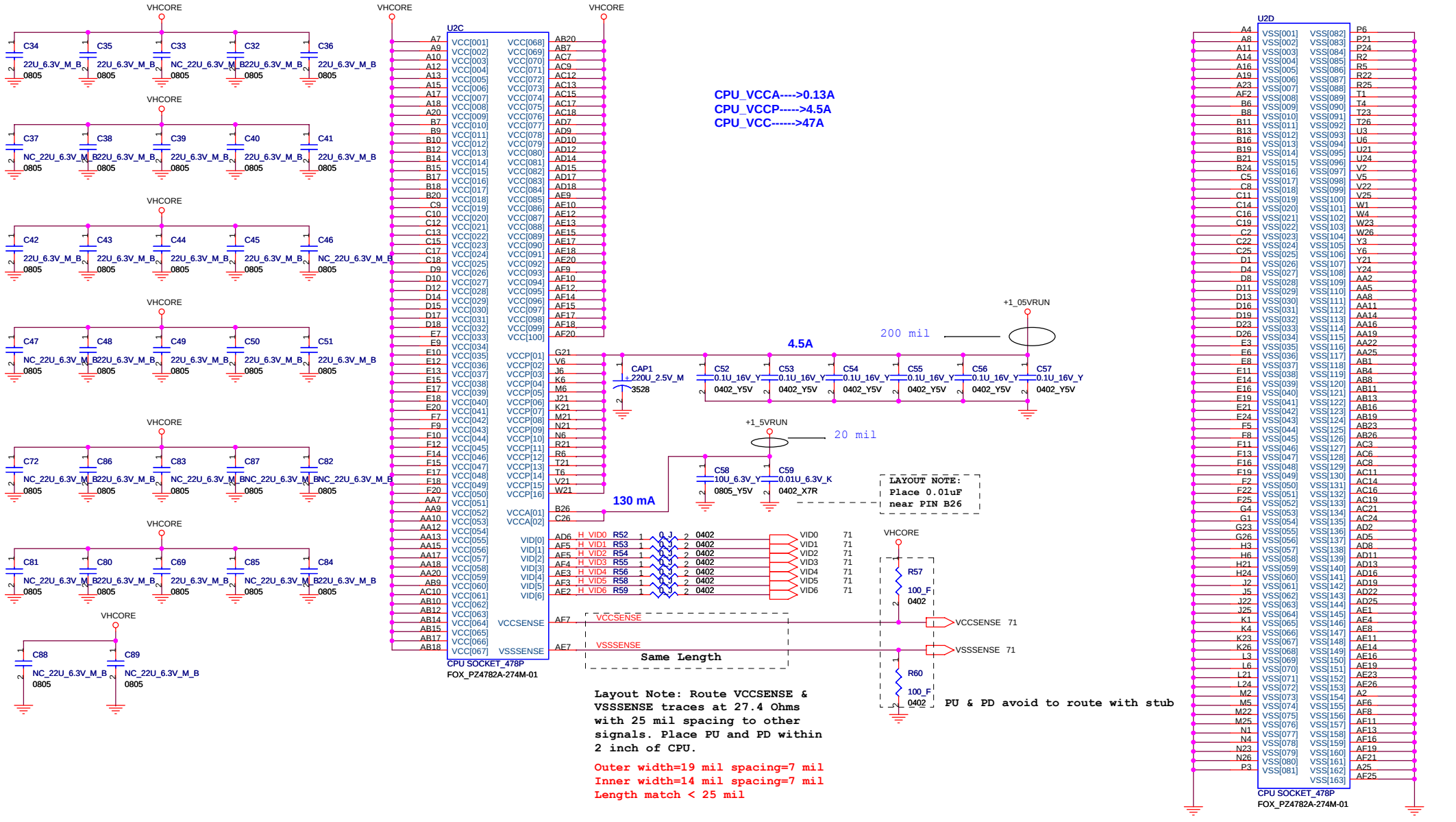
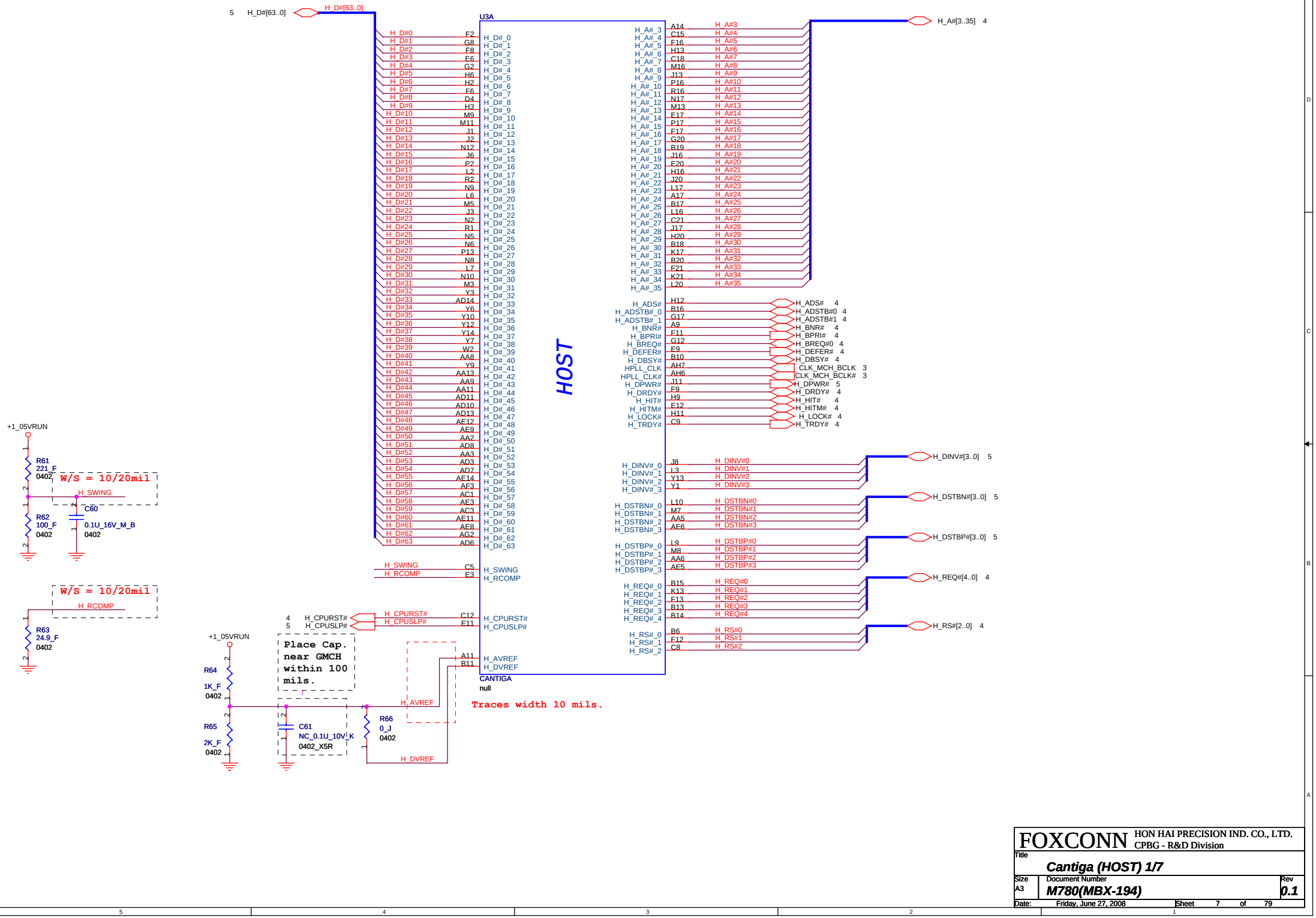


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	Penryn (HOST BUS) 3/3	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 6 of 79	



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	Cantiga (HOST) 1/7
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MCH_CFG_2~0 FSB Frequency	000 = FSB1066 ; 010 = FSB800; 011 = FSB667 ; Others = Reserved
MCH_CFG_3~4	Reserved
MCH_CFG_5 DMI X2 Select	Low = DMI X2 High = DMI X4 (Default)
MCH_CFG_6 ITPM Host Interface	Low =The ITPM Host Interface is enabled2 High = The ITPM Host Interface is disabled (default)
MCH_CFG_7 Intel Management Engine Crypto Strap	Low = Intel Management Engine Crypto Transport Layer Security (TLS) cipher suite with no confidentiality High = Intel Management Engine Crypto TLS cipher suite with confidentiality (default)
MCH_CFG_8	Reserved
MCH_CFG_9 PCIE Graphics Lane	Low = Reverse Lane High = Normal operation
MCH_CFG_10 PCIE Loopback enable	Low = Enabled3 High = Disabled (default)
MCH_CFG_11	Reserved
MCH_CFG_12 ALLZ	Low = ALLZ mode enabled3 High = Disabled (default)
MCH_CFG_13 XOR	Low = XOR mode enabled3 High = Disabled (default)
MCH_CFG_14~15	Reserved
MCH_CFG_16 FSB Dynamic ODT	Low = Dynamic ODT disabled High = Dynamic ODT enabled (default)
MCH_CFG_17~18	Reserved
MCH_CFG_19 DMI Lane Reversal	Low = Normal operation (Default): Lane Numbered in Order High = Reverse Lanes DMI x4 mode [(G)MCH->ICH]: (3->0, 2-> 1, 1->2 and 0->3) DMI x2 mode [(G)MCH ->ICH]: (3->0, 2->1)
MCH_CFG_20 Digital Display Port (SDVO/ DP/iHDMI) Concurrent with PCIe	Low = Only digital display port (SDVO/DP/iHDMI) or PCIe is operational (default) High = Digital display port (SDVO/DP/iHDMI) and PCIe are operating simultaneously via the PEG port

U3B

RSVD

CFG[17:3] internal pull-up
CFG[20:18] internal pull-down

DMI

GRAPHICS VID

NC

MISC

HDA

CANTIGA

null

DDR CLK/ CONTROL/COMPENSATION

CLK

TP Trace as short as possible

External Graphics (GMCH CRT/TVOUT Disable)

Width =12mil

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
Title	Cantiga (DMI) 2/7
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214.(Page 9) 07/11/28 Change PCIE Capactior size from 0402 to 0201

20 mils away from toggling signals.

External Graphics (GMCH CRT/TVOUT Disable)

Title	Cantiga (GRAPHIC) 3/7
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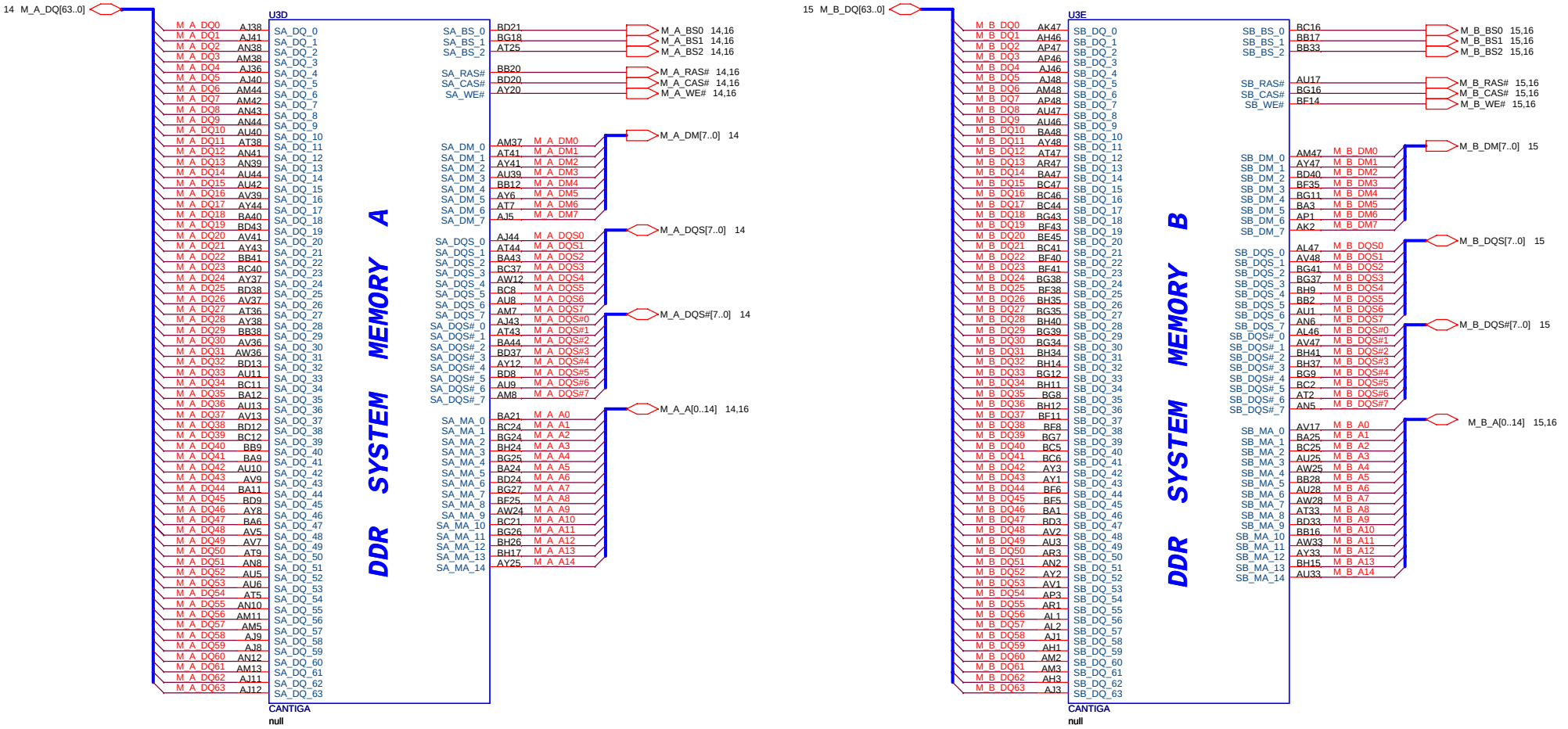
FOXCONN HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division



FOXCONN HON HAI PRECISION IND. CO., LTD.
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Title: Cantiga (DDRII) 4/7

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

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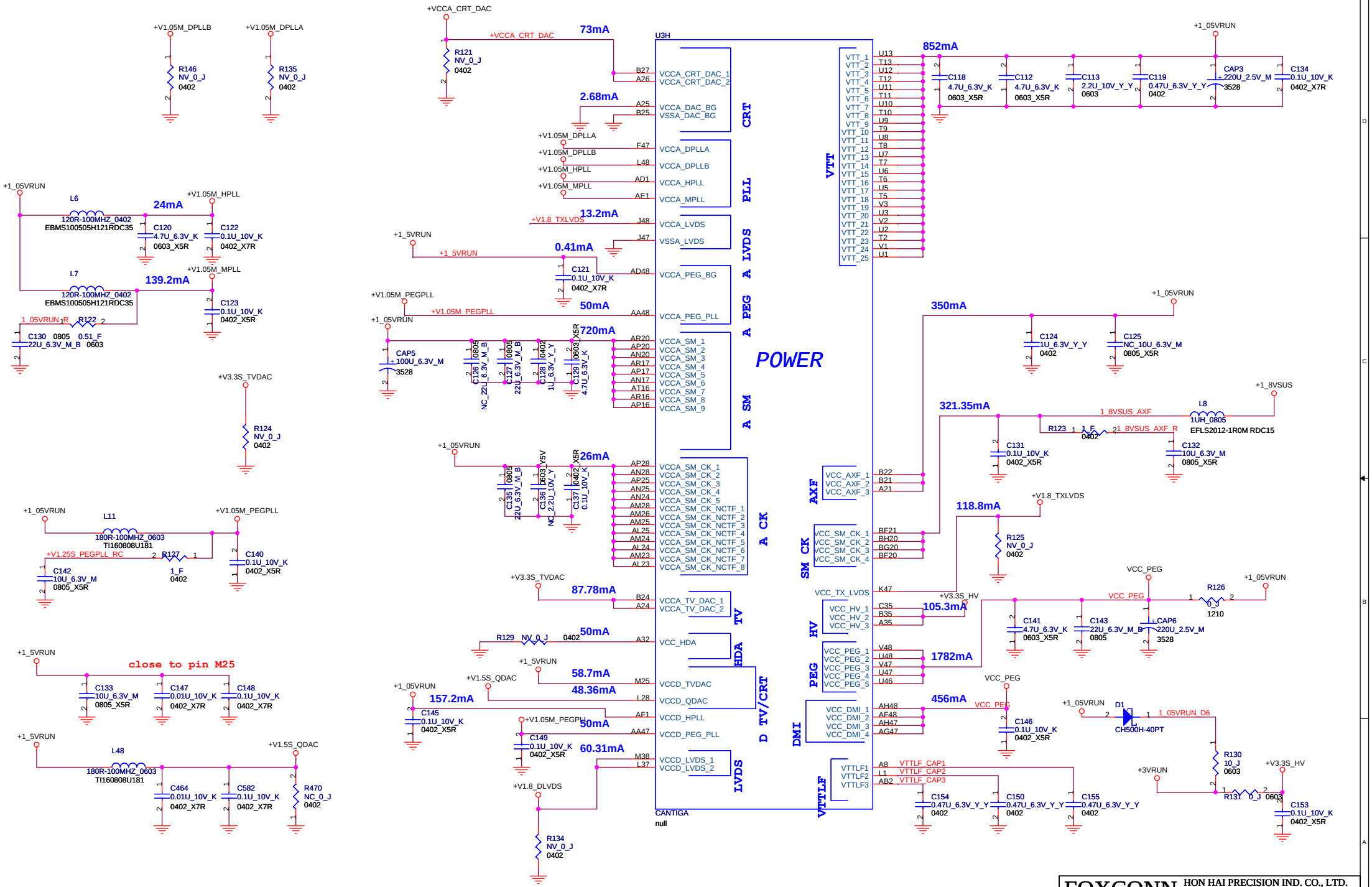

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	Cantiga (POWER,VCC) 5/7	
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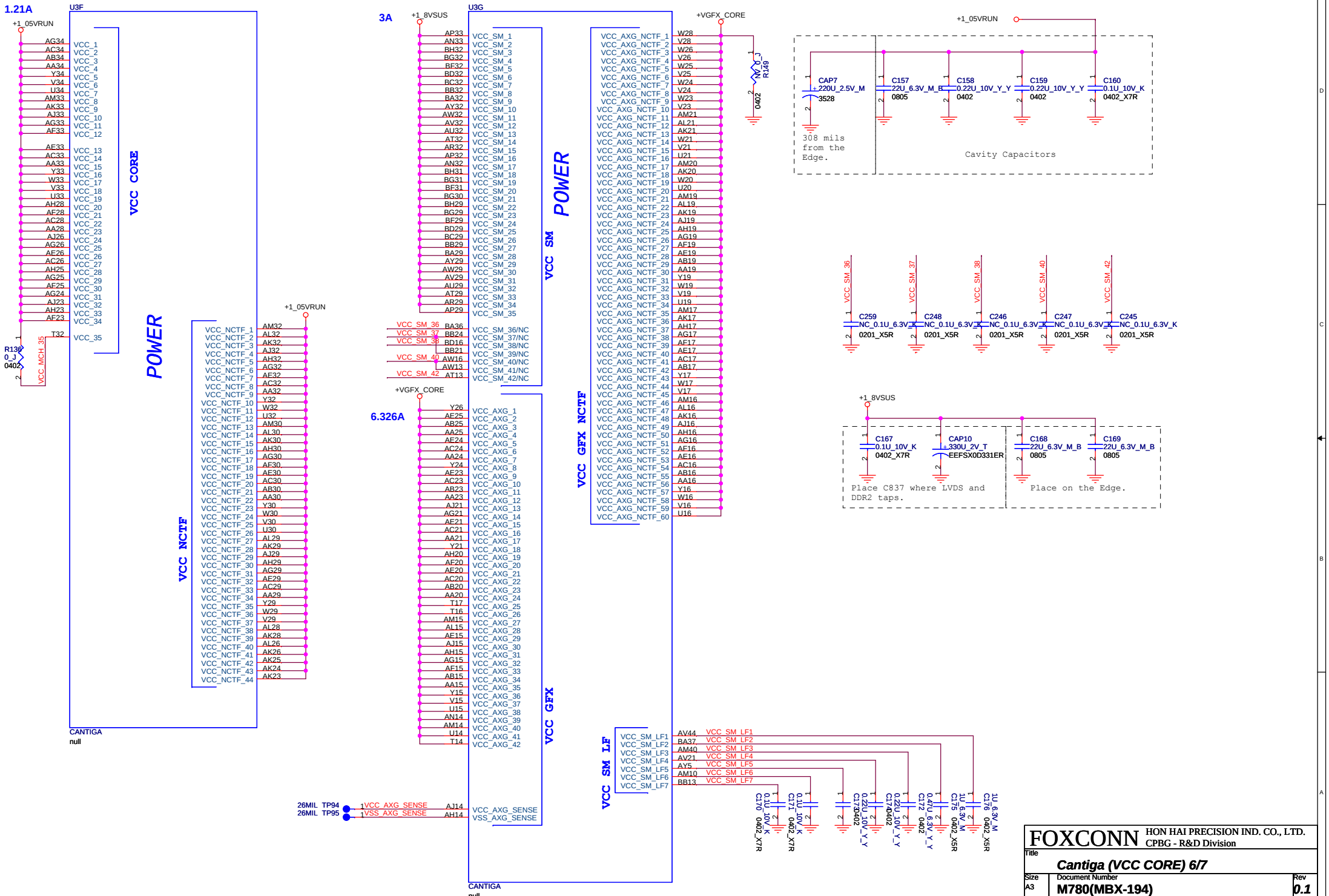
1.21A
U3F
+1_05VRUN
VCC CORE
POWER
VCC NCTF
CANTIGA
null
3A
+1_8VSUS
U3G
VCC SM POWER
+VGFX_CORE
VCC GFX NCTF
6.326A
VCC GFX
VCC SM LF
CANTIGA
null
308 mils from the Edge.
Cavity Capacitors
Place C837 where LVDS and DDR2 taps.
Place on the Edge.
FOXCONN
HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division
Cantiga (VCC CORE) 6/7
M780(MBX-194)
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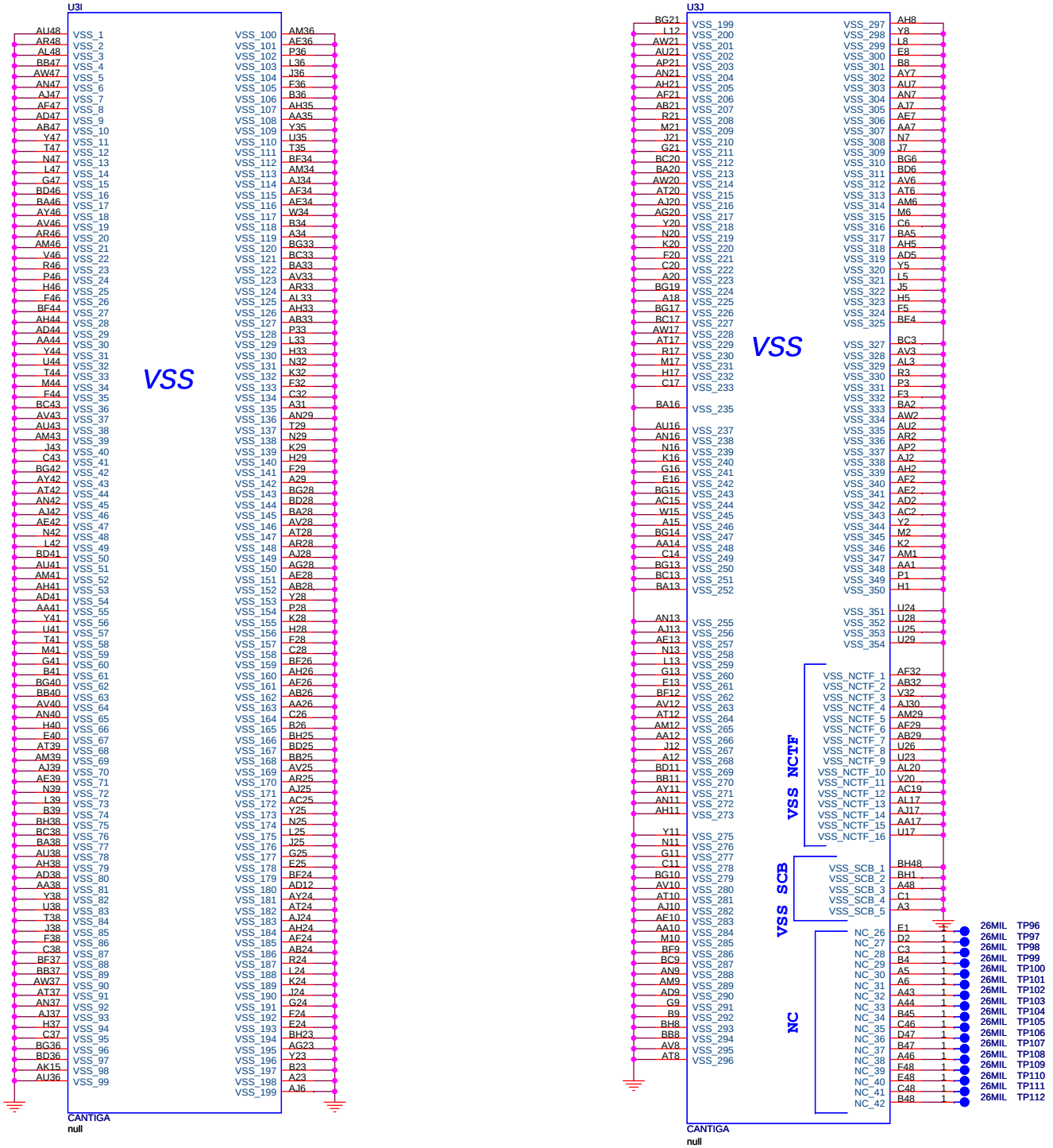

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	Cantiga (VSS) 7/7	
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
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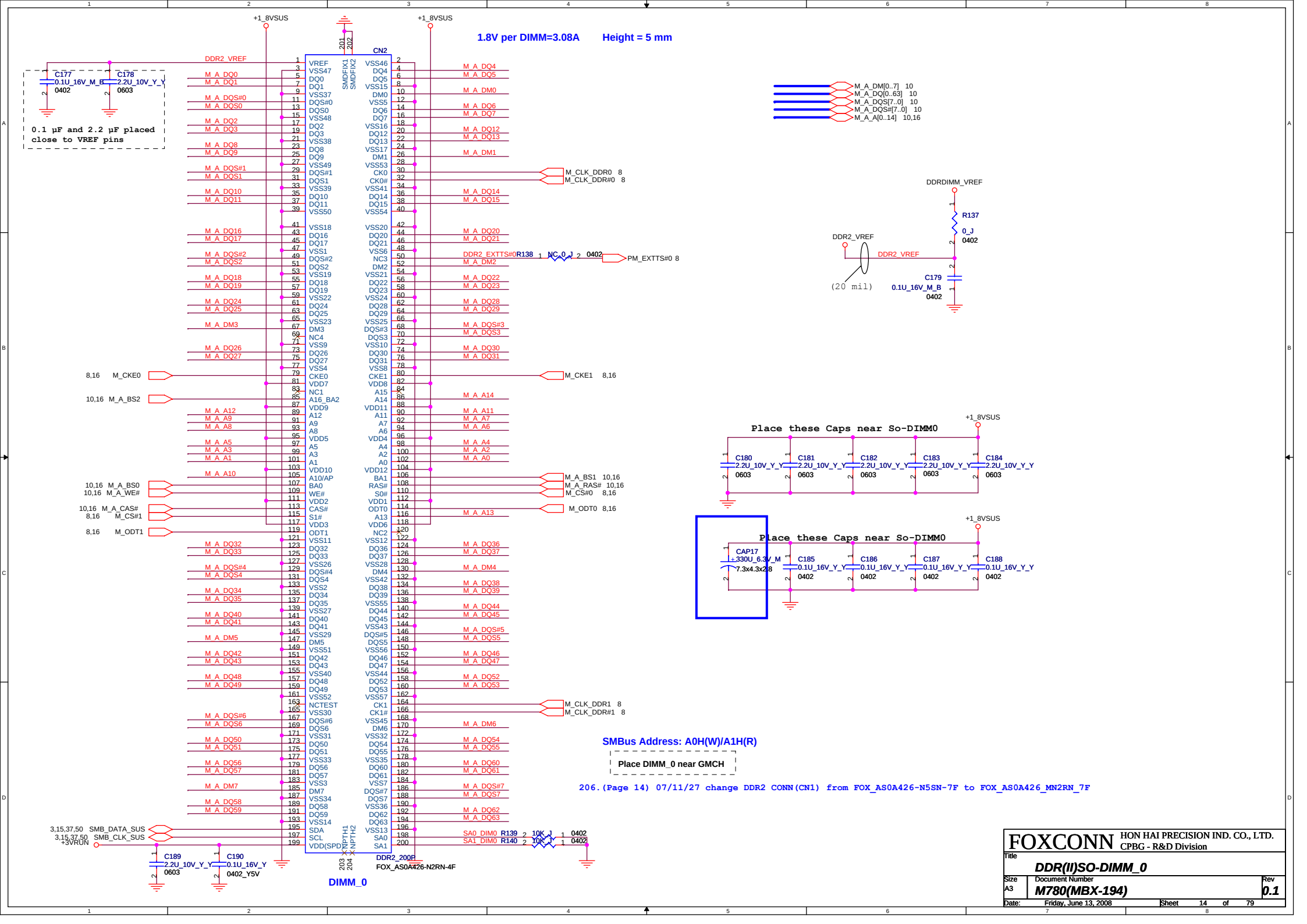

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	DDR(II)SO-DIMM_0
Size A3	Document Number M780(MBX-194) Rev 0.1
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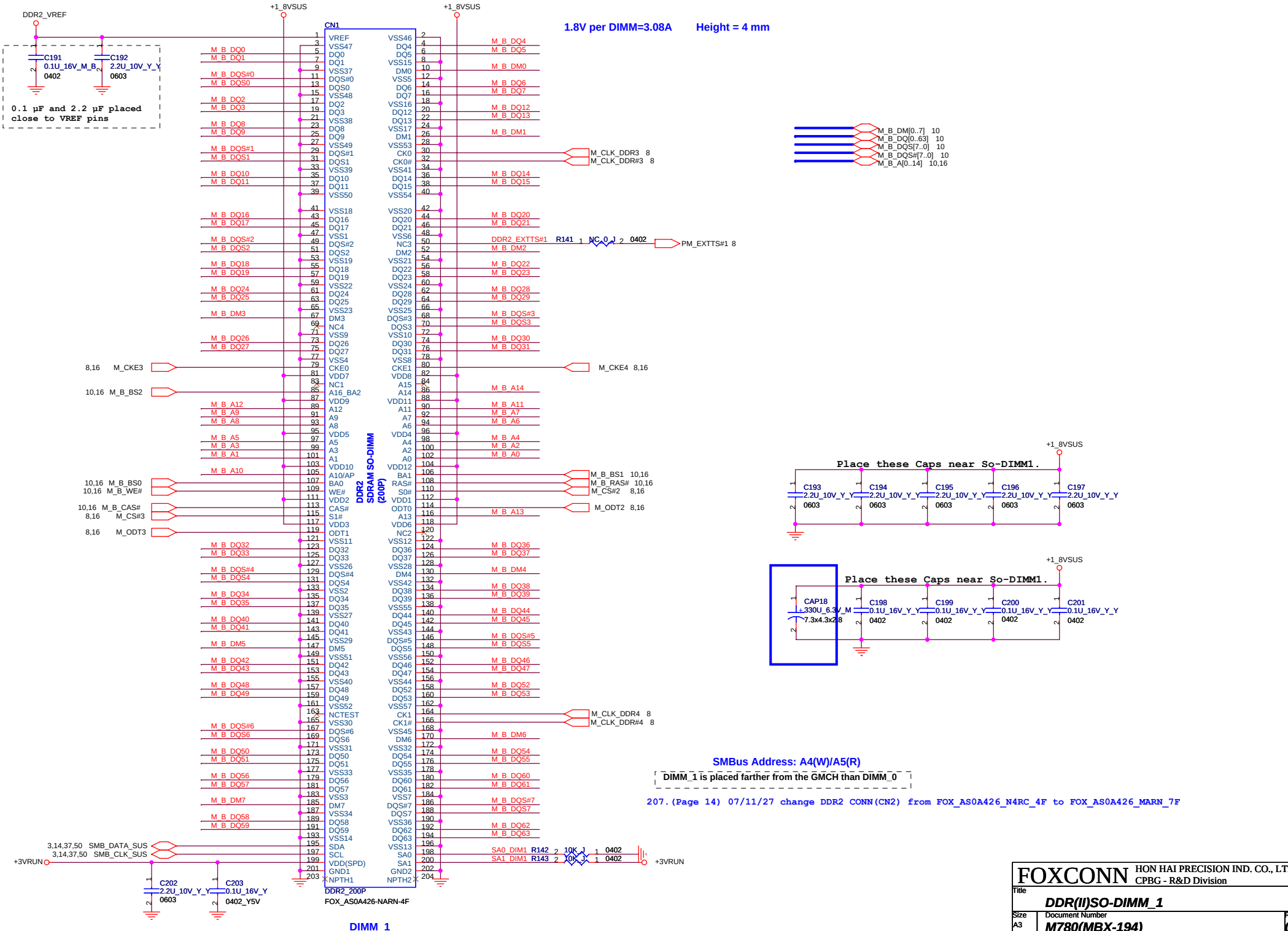
1.8V per DIMM=3.08A
Height = 4 mm
DDR2_VREF
+1_8VSUS
CN1
C191 0.1U_16V_M_B 0402
C192 2.2U_10V_Y_Y 0603
0.1 µF and 2.2 µF placed close to VREF pins
DDR2 SDRAM SO-DIMM (200P)
M_CLK_DDR3 8
M_CLK_DDR#3 8
M_CLK_DDR4 8
M_CLK_DDR#4 8
M_CKE3 8,16
M_CKE4 8,16
M_B_BS2 10,16
M_B_BS1 10,16
M_B_BS0 10,16
M_B_WE# 10,16
M_B_RAS# 10,16
M_B_CAS# 10,16
M_CS#2 8,16
M_CS#3 8,16
M_ODT2 8,16
M_ODT3 8,16
DDR2_EXTTS#1 R141 NC_0_J 0402
PM_EXTTS#1 8
M_B_DM[0..7] 10
M_B_DQ[0..63] 10
M_B_DQS[7..0] 10
M_B_DQS#[7..0] 10
M_B_A[0..14] 10,16
Place these Caps near So-DIMM1.
C193 2.2U_10V_Y_Y 0603
C194 2.2U_10V_Y_Y 0603
C195 2.2U_10V_Y_Y 0603
C196 2.2U_10V_Y_Y 0603
C197 2.2U_10V_Y_Y 0603
CAP18 330U_6.3V_M 7.3x4.3x2.8
C198 0.1U_16V_Y_Y 0402
C199 0.1U_16V_Y_Y 0402
C200 0.1U_16V_Y_Y 0402
C201 0.1U_16V_Y_Y 0402
SMBus Address: A4(W)/A5(R)
DIMM_1 is placed farther from the GMCH than DIMM_0
207.(Page 14) 07/11/27 change DDR2 CONN(CN2) from FOX_AS0A426_N4RC_4F to FOX_AS0A426_MARN_7F
3,14,37,50 SMB_DATA_SUS
3,14,37,50 SMB_CLK_SUS
+3VRUN
SA0_DIM1 R142 10K_J 0402
SA1_DIM1 R143 10K_J 0402
C202 2.2U_10V_Y_Y 0603
C203 0.1U_16V_Y 0402_Y5V
DDR2_200P
FOX_AS0A426-NARN-4F
DIMM_1
FOXCONN
HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division
Title
DDR(II)SO-DIMM_1
Size A3
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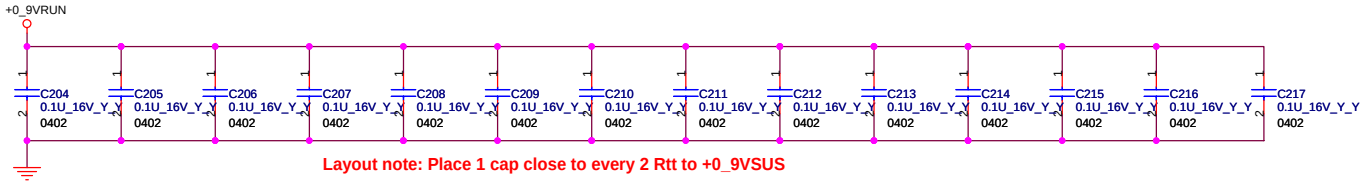
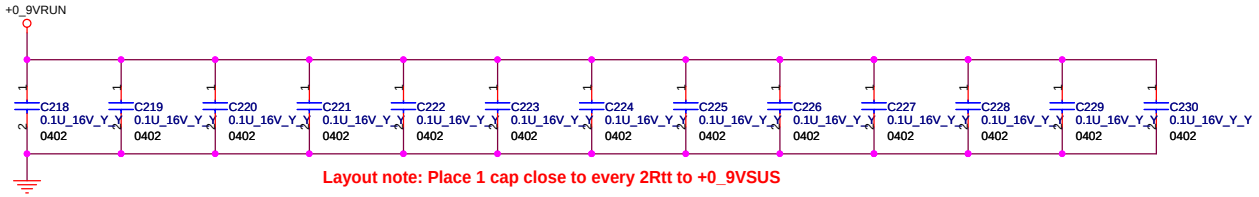
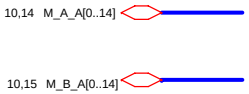
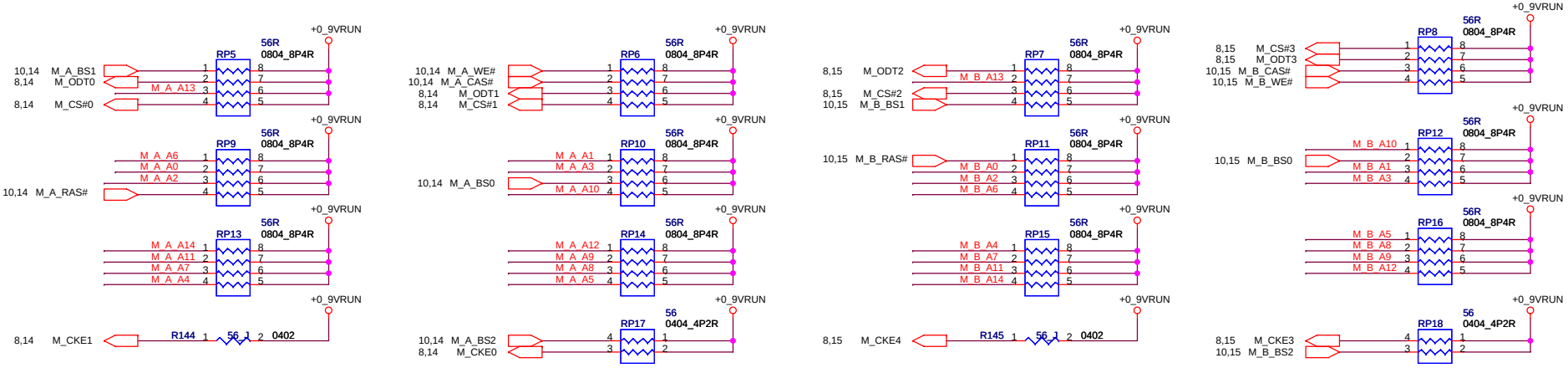


Layout note: Place 1 cap close to every 2 Rtt to +0_9VSUS



Layout note: Place 1 cap close to every 2Rtt to +0_9VSUS





FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: ***DDR(II)Termination***		
Size: A3	Document Number: ***M780(MBX-194)***	Rev: ***0.1***
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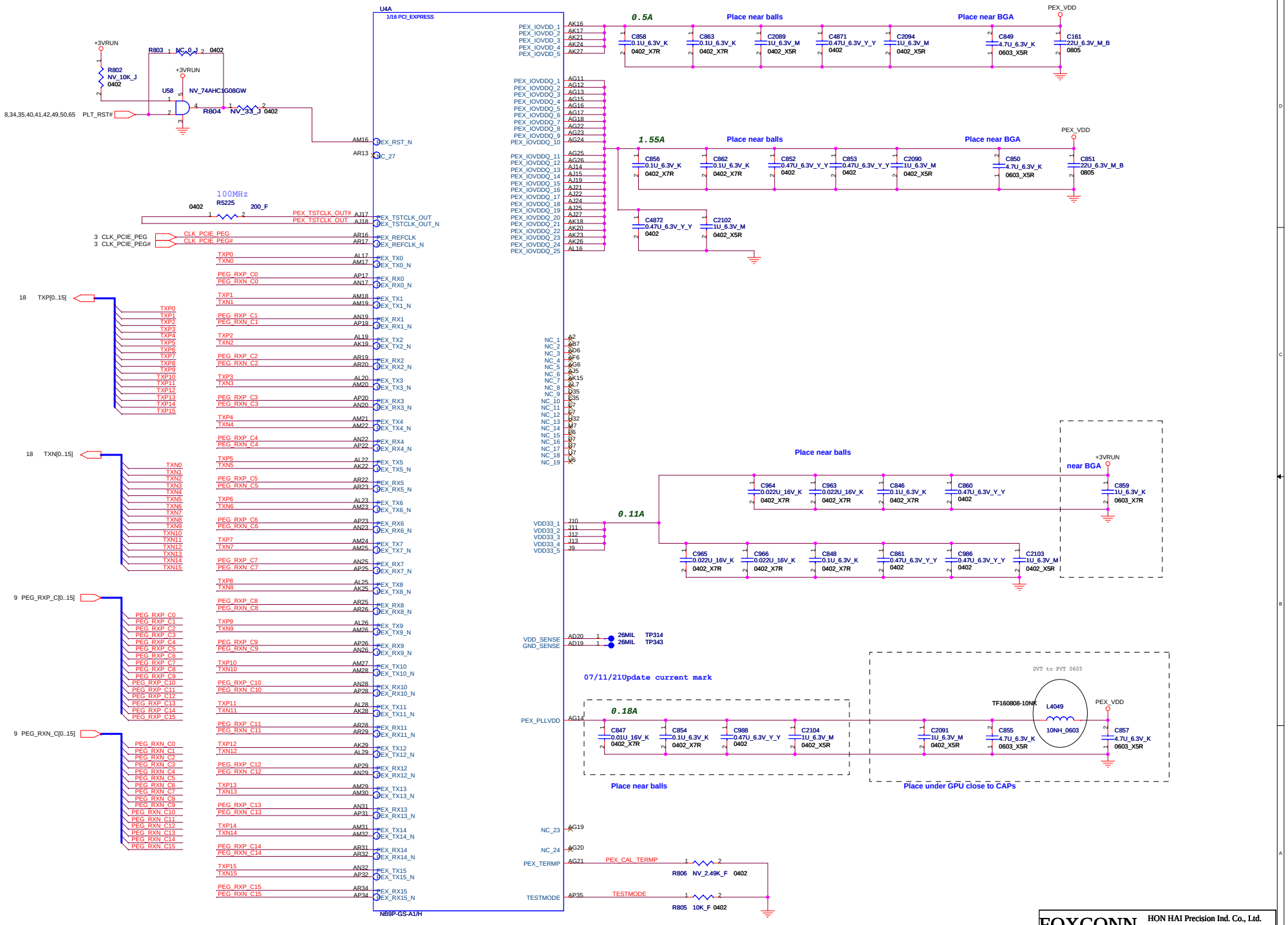

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	VGA (PCI EXPRESS) 1 OF 9	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
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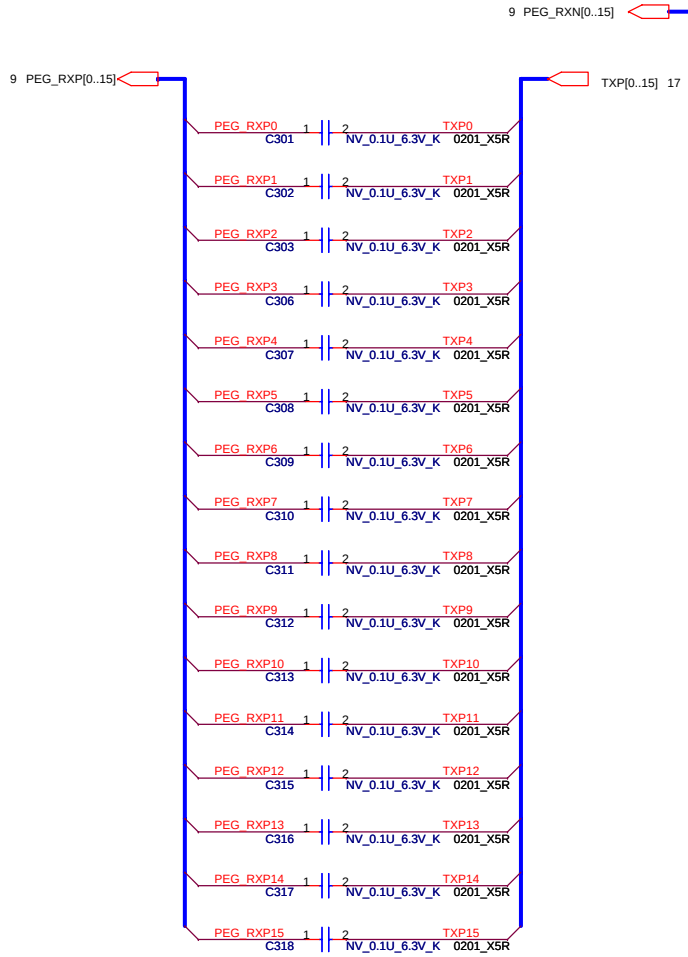
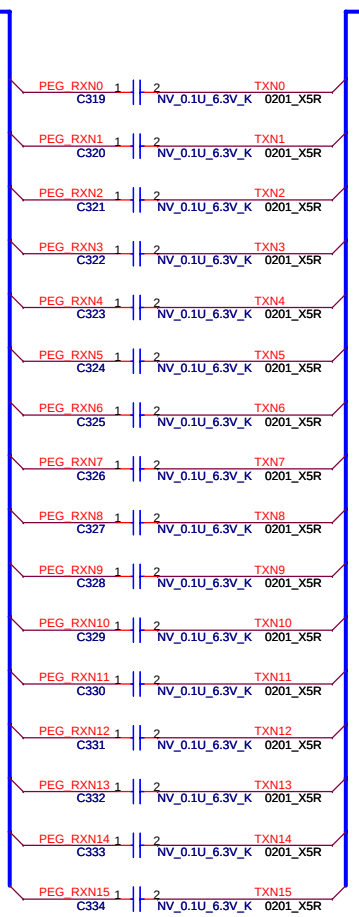




XCLK_277 *0 (Reserved)* *1 (27M Hz)*	
NB9X TVMODE[2:0] *000*	
SUB_VENDOR *0 (No vedio BIOS ROM)* *1 (BIOS ROM is present)*	*ROM_SI (XXXX)*
SLOT_CLK_CFG *0 (GPU and MCH not share a common reference clk)* *1 (GPU and MCH share a common reference clk)*	*ROM_SO (1000)*
PEX_PLL_EN_TERM *0 (Disable)* *1 (Enable)*	*ROM_SCLK (0010)*
USER[3:0] *1000*	*STRAP0 (1111)*
NB9X 3GIO_PADCFG[3:0] *0001*	*STRAP1 (0001)*
NB9X PCI_DEVID[4:0] *NB9P-GS X1001* *NB9M-GS X1001*	*STRAP2 (1001)*

<< ROM_SI Setting condition >>

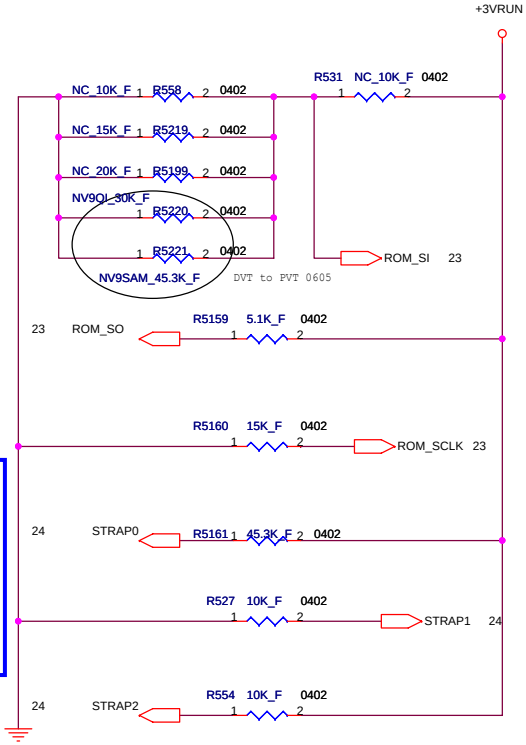
H Model
=> 32Mx32bx4 - 0101 Qimonda - 30K pull Low

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

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

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



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>

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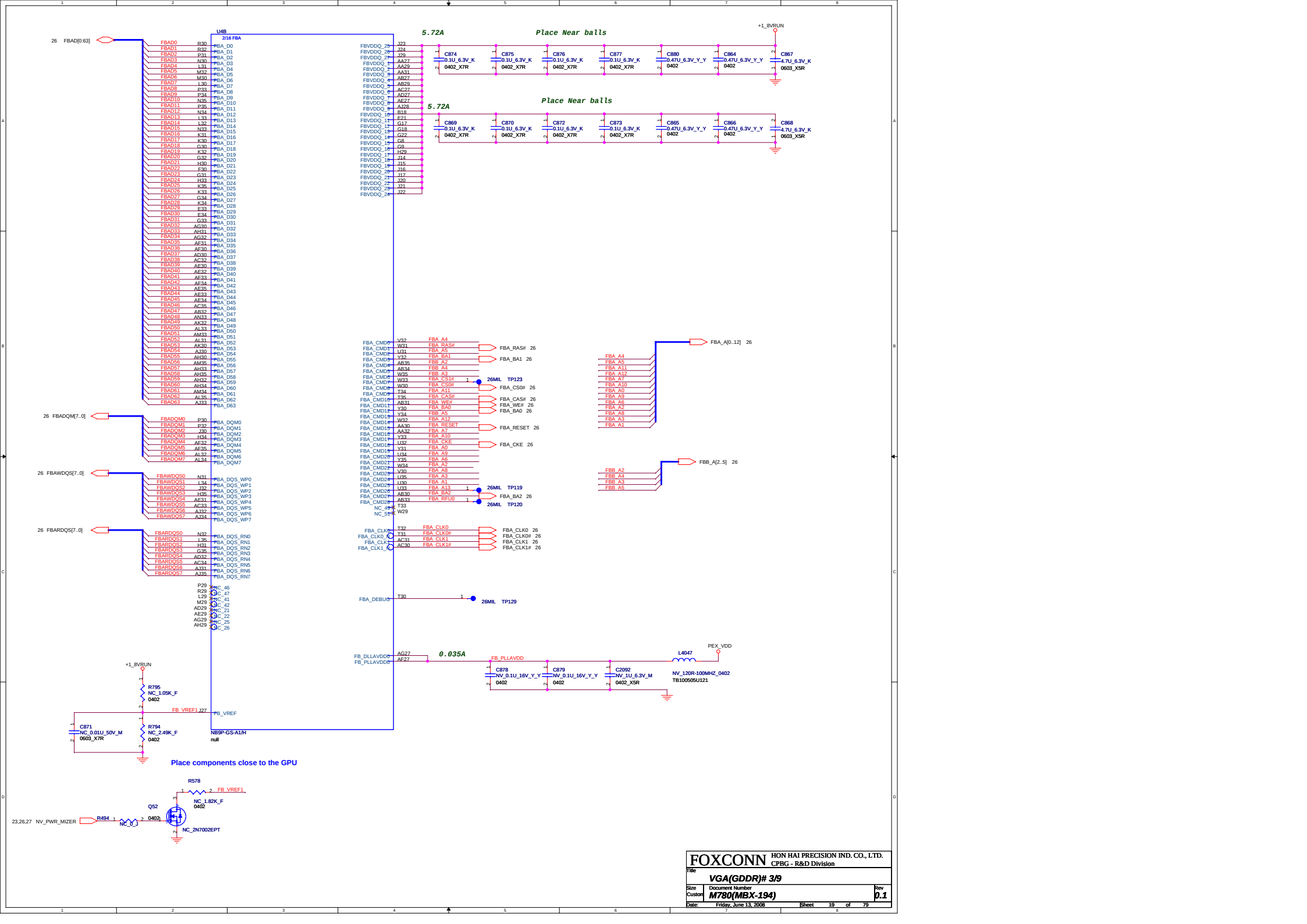
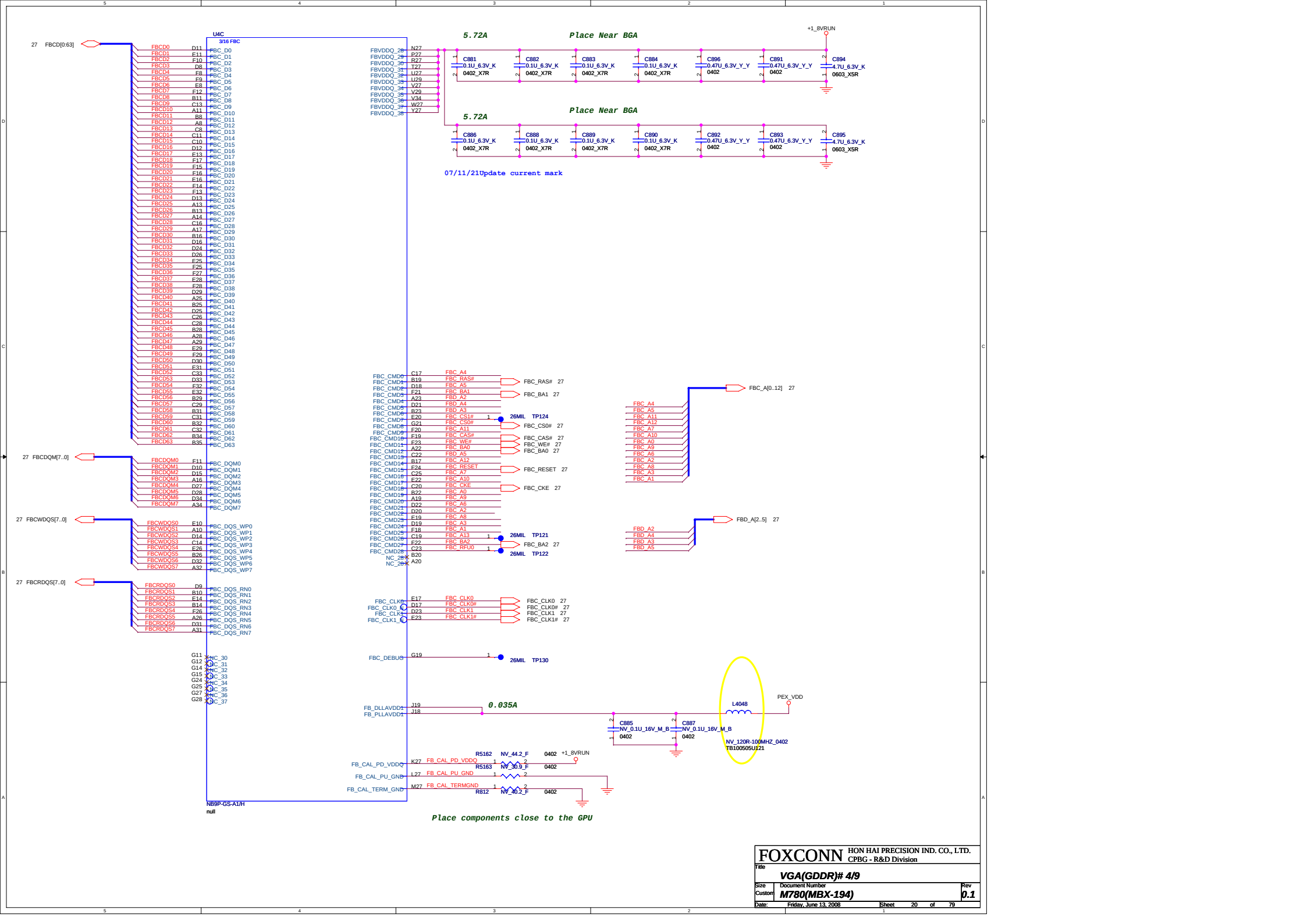
Title: *VGA (PCI-EXPRESS/STRAP) 2 OF 9*

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

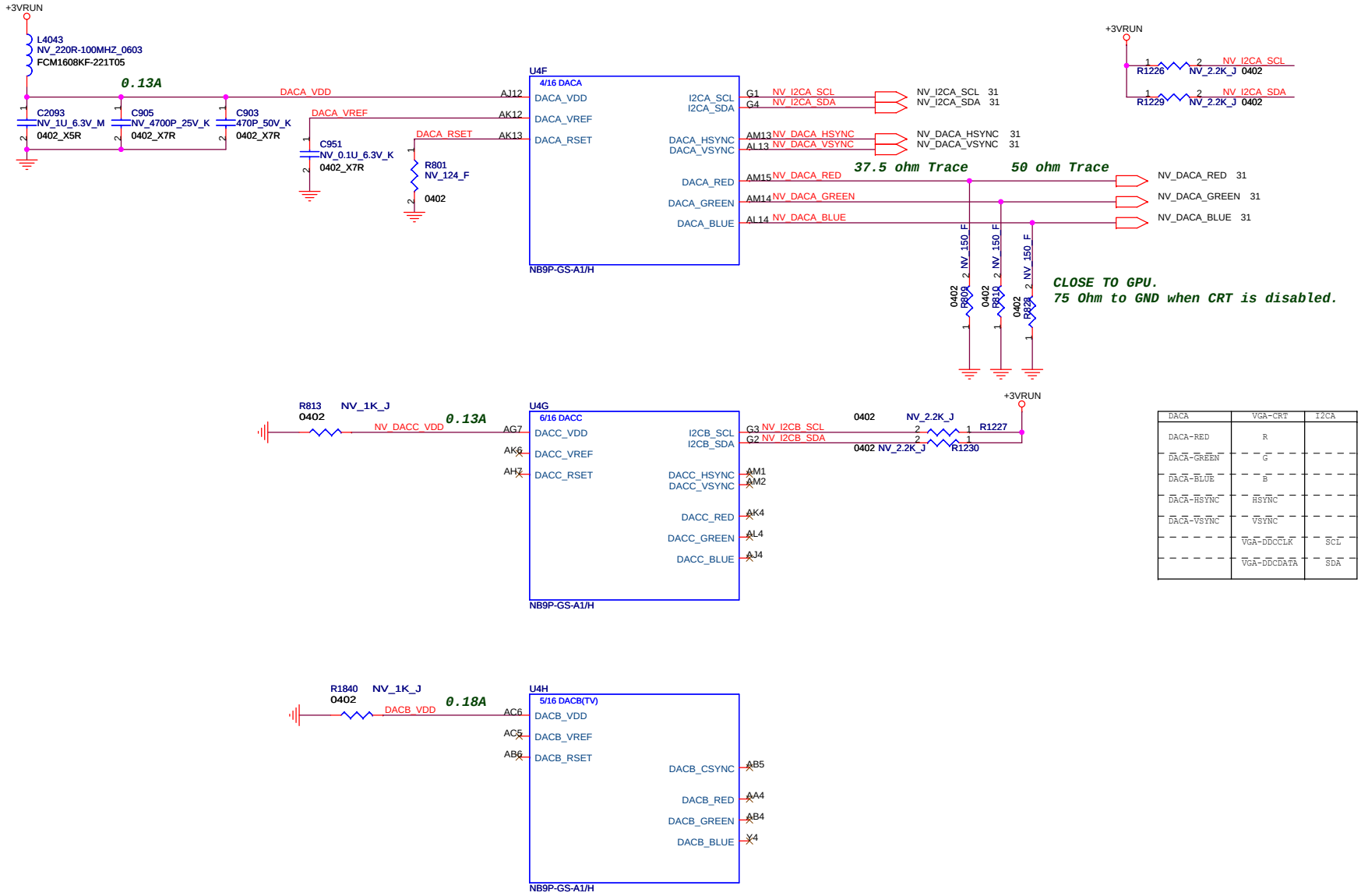
Date: Friday, June 13, 2008 | Sheet 18 of 79



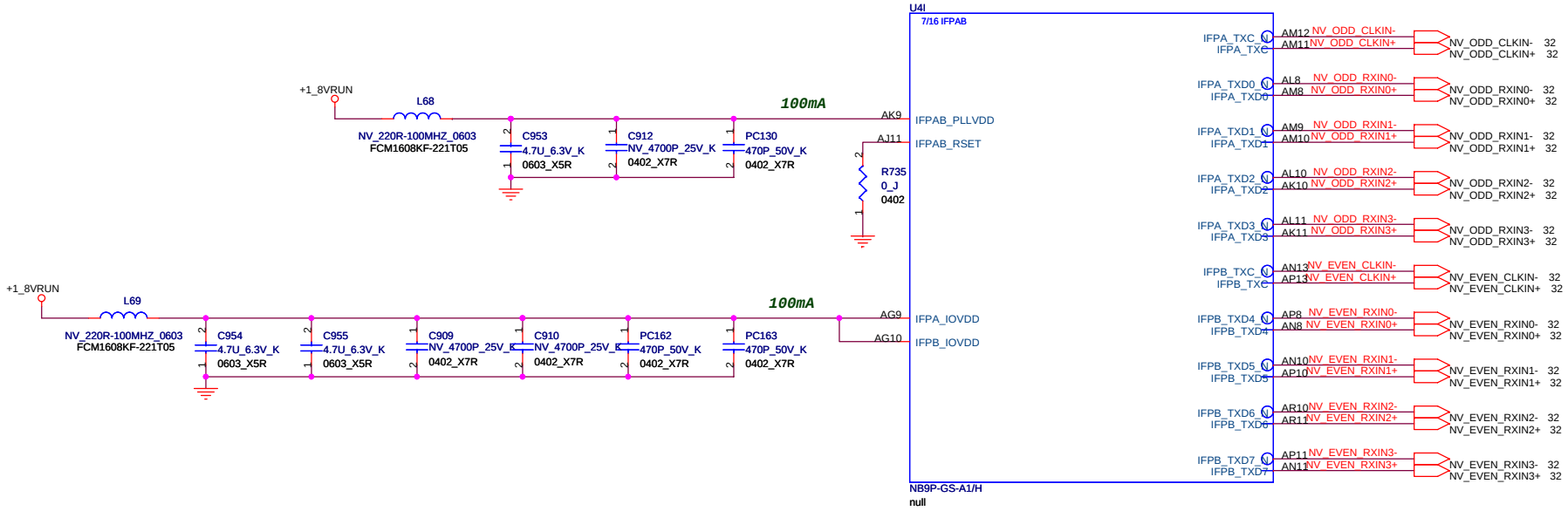
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division		
Title	VGA(GDDR)# 3/9		
Size: Custom	Document Number: M780(MBX-194)		Rev: 0.1
Date: Friday, June 13, 2008	Sheet 19 of 79		

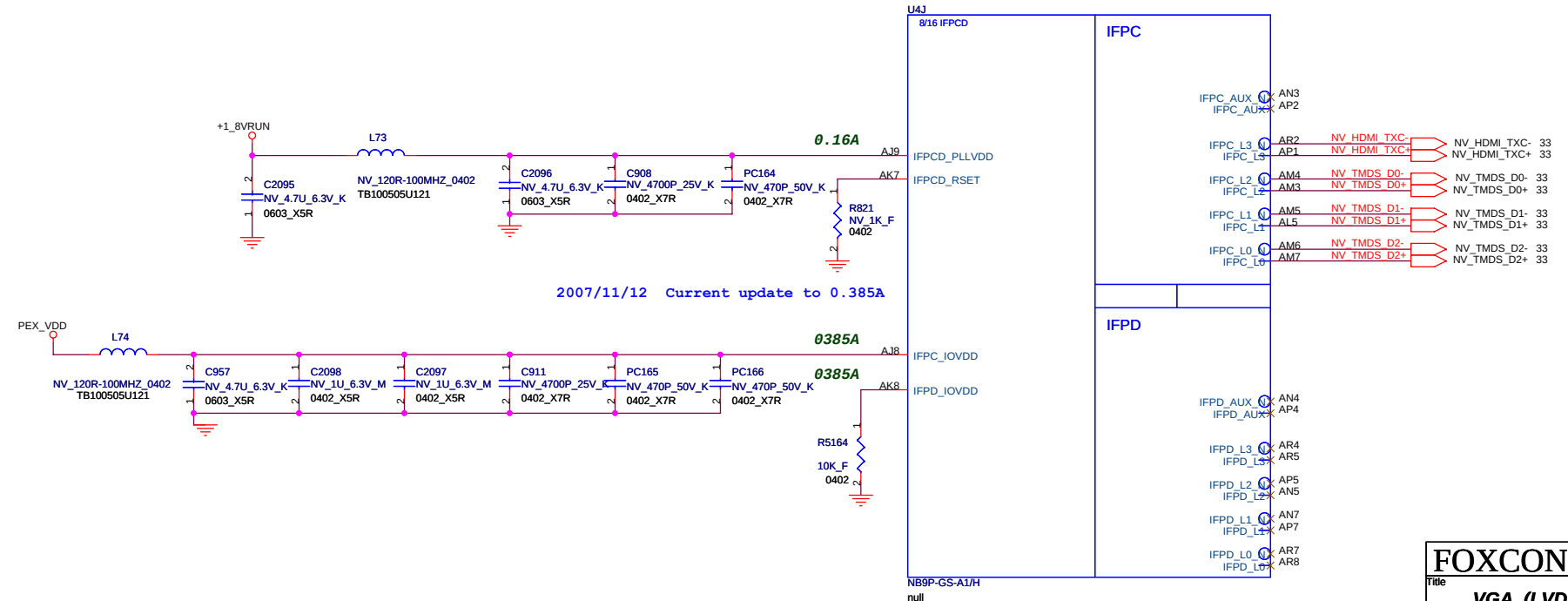


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	VGA(GDDR)# 4/9
Size: Custom	Document Number: M780(MBX-194)
Rev	0.1
Date: Friday, June 13, 2008	Sheet 20 of 79



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	VGA (CRT)5/9
Size: A3	Document Number: M780(MBX-194)
Rev	0.1
Date: Friday, June 13, 2008	Sheet 21 of 79





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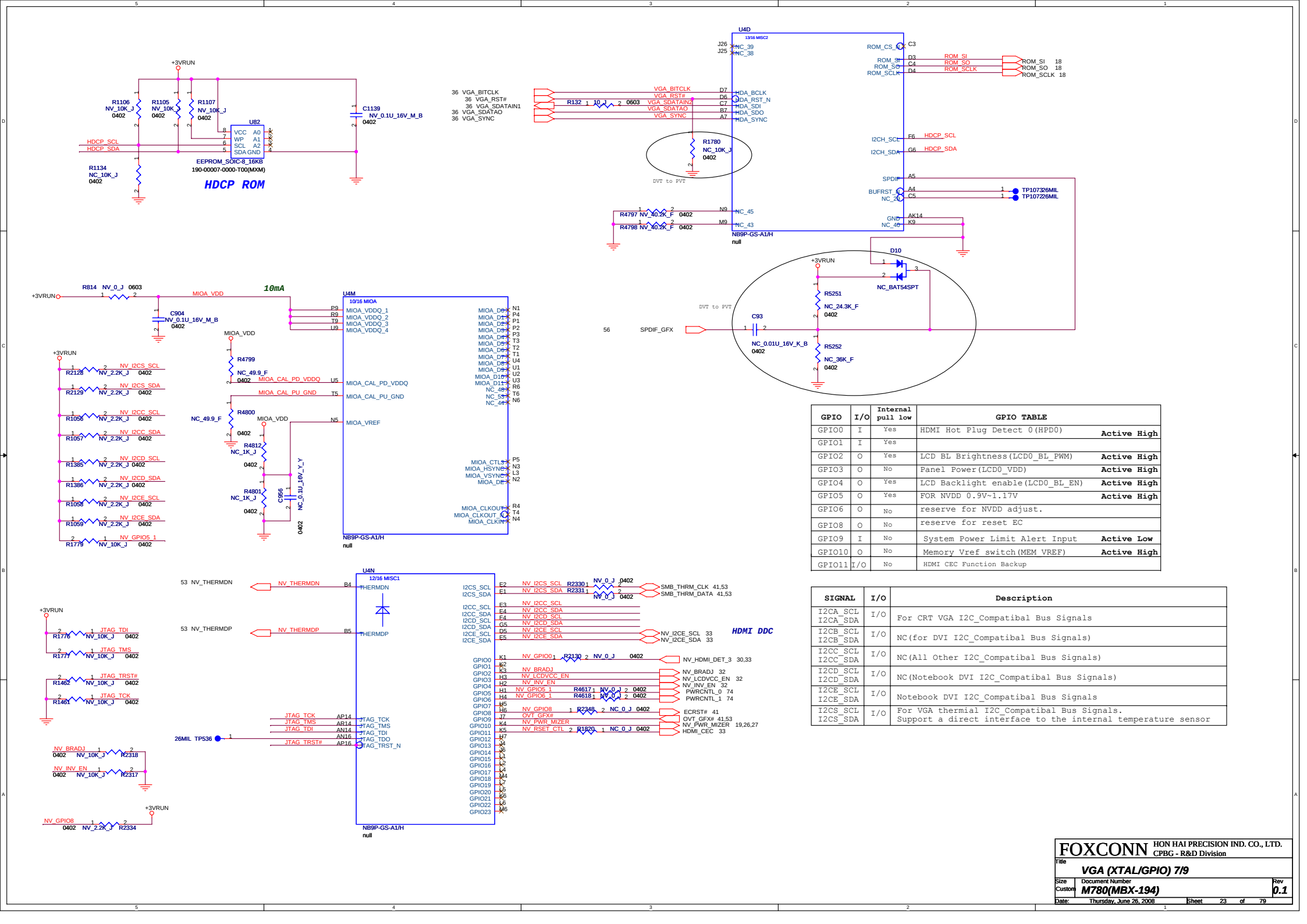
Title: VGA (LVDS/TMDS) 6/9

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

Date: Friday, June 13, 2008 | Sheet 22 of 79



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 thermial I2C_Compatibal Bus Signals. Support a direct interface to the internal temperature sensor

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Title: VGA (XTAL/GPIO) 7/9

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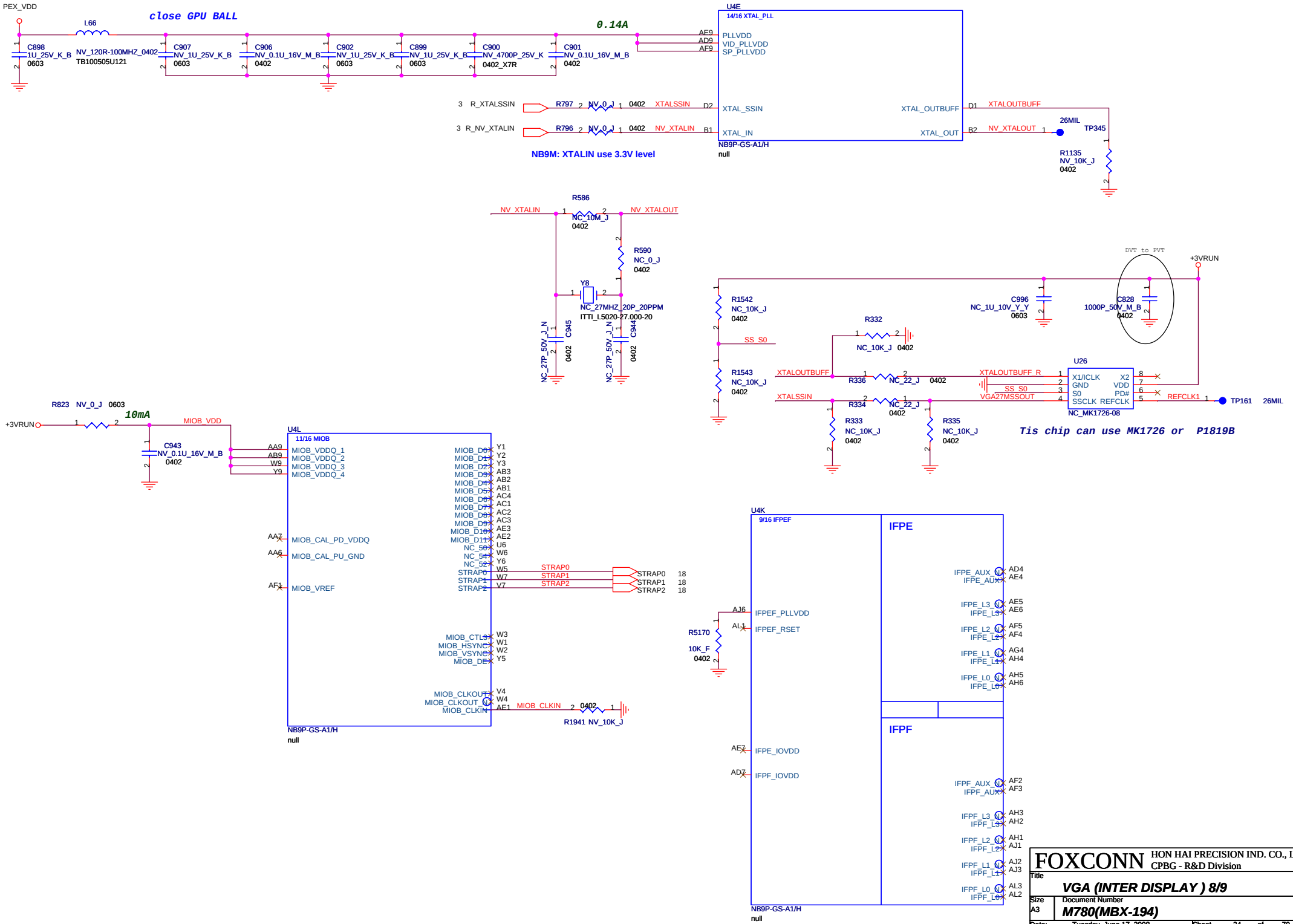
Date: Thursday, June 26, 2008 | Sheet 23 of 79


PEX_VDD
close GPU BALL
L66
C898 1U_25V_K_B 0603
NV_120R-100MHZ_0402 TB100505U121
C907 NV_1U_25V_K_B 0603
C906 NV_0.1U_16V_M_B 0402
C902 NV_1U_25V_K_B 0603
C899 NV_1U_25V_K_B 0603
C900 NV_4700P_25V_K 0402_X7R
C901 NV_0.1U_16V_M_B 0402
0.14A
U4E
14/16 XTAL_PLL
AF9 PLLVDD
AD9 VID_PLLVDD
AF9 SP_PLLVDD
R797 NV_0_J 0402 XTALSSIN
R796 NV_0_J 0402 NV_XTALIN
XTAL_SSIN
XTAL_IN
XTAL_OUTBUFF
XTAL_OUT
XTALOUTBUFF
NV_XTALOUT
26MIL
TP345
R1135 NV_10K_J 0402
NB9P-GS-A1/H
null
NB9M: XTALIN use 3.3V level
R586 NC_10M_J 0402
R590 NC_0_J 0402
Y8 NC_27MHZ_20P_20PPM ITTI_L5020-27.000-20
C945 NC_27P_50V_J_N 0402
C944 NC_27P_50V_J_N 0402
DVT to PVT
+3VRUN
R1542 NC_10K_J 0402
R1543 NC_10K_J 0402
SS_S0
R332 NC_10K_J 0402
C996 NC_1U_10V_Y_Y 0603
C828 1000P_50V_M_B 0402
U26
X1/ICLK GND S0 SSCLK
X2 VDD PD# REFCLK
XTALOUTBUFF_R
VGA27MSSOUT
REFCLK1
TP161 26MIL
NC_MK1726-08
R336 NC_22_J 0402
R334 NC_22_J 0402
R333 NC_10K_J 0402
R335 NC_10K_J 0402
Tis chip can use MK1726 or P1819B
R823 NV_0_J 0603
10mA
+3VRUN
MIOB_VDD
C943 NV_0.1U_16V_M_B 0402
U4L
11/16 MIOB
MIOB_VDDQ_1
MIOB_VDDQ_2
MIOB_VDDQ_3
MIOB_VDDQ_4
MIOB_CAL_PD_VDDQ
MIOB_CAL_PU_GND
MIOB_VREF
MIOB_D0 MIOB_D1 MIOB_D2 MIOB_D3 MIOB_D4 MIOB_D5 MIOB_D6 MIOB_D7 MIOB_D8 MIOB_D9 MIOB_D10 MIOB_D11
NC_50 NC_51 NC_52
STRAP0 STRAP1 STRAP2
MIOB_CTL3 MIOB_HSYNC MIOB_VSYNC MIOB_DE
MIOB_CLKOUT MIOB_CLKOUT_N MIOB_CLKIN
MIOB_CLKIN
R1941 NV_10K_J
NB9P-GS-A1/H
null
U4K
9/16 IFPEF
IFPE
IFPE_AUX IFPE_L3 IFPE_L2 IFPE_L1 IFPE_L0
IFPF
IFPF_AUX IFPF_L3 IFPF_L2 IFPF_L1 IFPF_L0
IFPEF_PLLVDD
IFPEF_RSET
R5170 10K_F 0402
IFPE_IOVDD
IFPF_IOVDD
NB9P-GS-A1/H
null
FOXCONN
HON HAI PRECISION IND. CO., LTD.
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Title
VGA (INTER DISPLAY) 8/9
Size A3
Document Number M780(MBX-194)
Rev 0.1
Date: Tuesday, June 17, 2008
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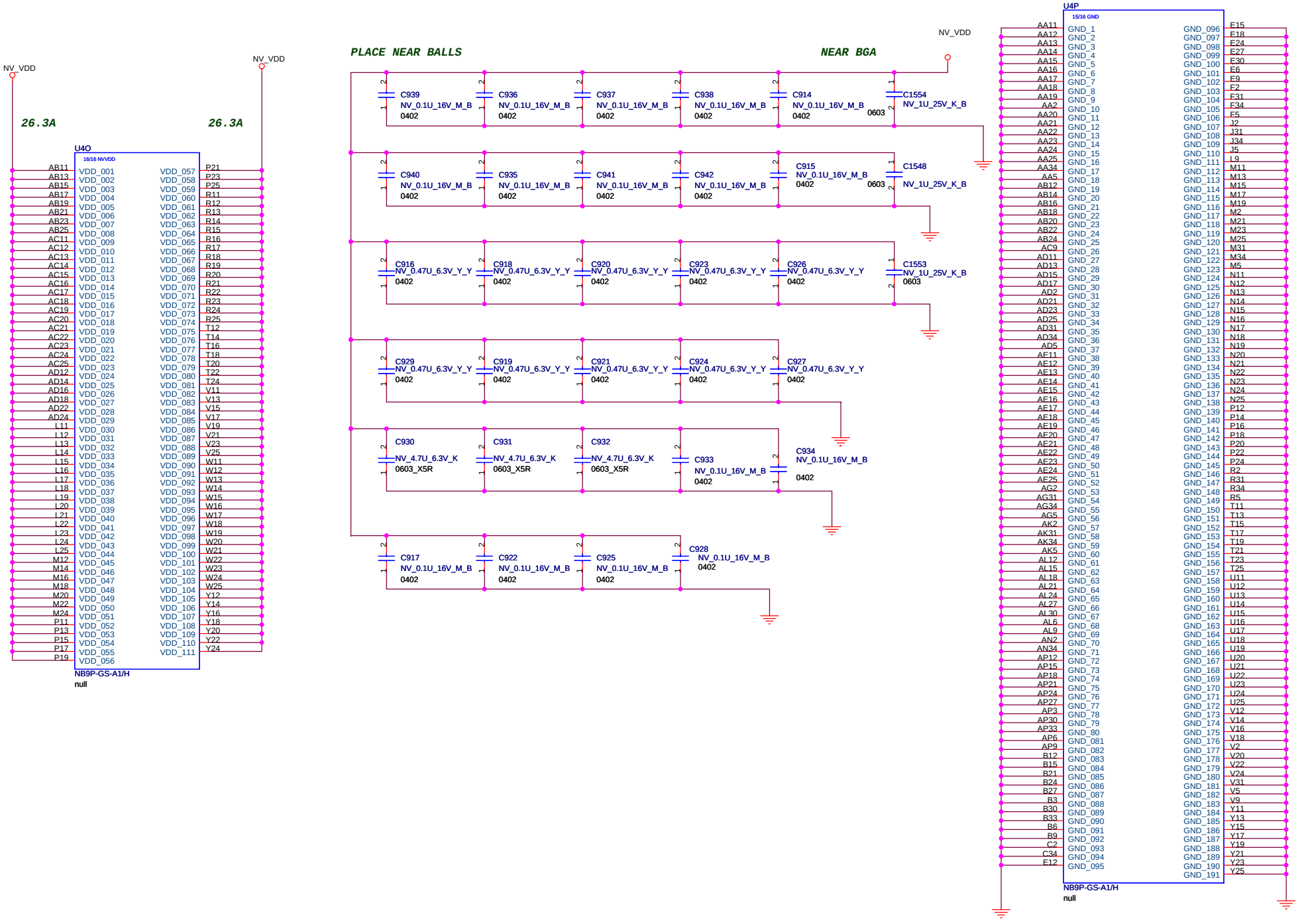
NV_VDD
26.3A
NV_VDD
26.3A
U4O
16/16 NVVDD
VDD_001 VDD_002 VDD_003 VDD_004 VDD_005 VDD_006 VDD_007 VDD_008 VDD_009 VDD_010 VDD_011 VDD_012 VDD_013 VDD_014 VDD_015 VDD_016 VDD_017 VDD_018 VDD_019 VDD_020 VDD_021 VDD_022 VDD_023 VDD_024 VDD_025 VDD_026 VDD_027 VDD_028 VDD_029 VDD_030 VDD_031 VDD_032 VDD_033 VDD_034 VDD_035 VDD_036 VDD_037 VDD_038 VDD_039 VDD_040 VDD_041 VDD_042 VDD_043 VDD_044 VDD_045 VDD_046 VDD_047 VDD_048 VDD_049 VDD_050 VDD_051 VDD_052 VDD_053 VDD_054 VDD_055 VDD_056
VDD_057 VDD_058 VDD_059 VDD_060 VDD_061 VDD_062 VDD_063 VDD_064 VDD_065 VDD_066 VDD_067 VDD_068 VDD_069 VDD_070 VDD_071 VDD_072 VDD_073 VDD_074 VDD_075 VDD_076 VDD_077 VDD_078 VDD_079 VDD_080 VDD_081 VDD_082 VDD_083 VDD_084 VDD_085 VDD_086 VDD_087 VDD_088 VDD_089 VDD_090 VDD_091 VDD_092 VDD_093 VDD_094 VDD_095 VDD_096 VDD_097 VDD_098 VDD_099 VDD_100 VDD_101 VDD_102 VDD_103 VDD_104 VDD_105 VDD_106 VDD_107 VDD_108 VDD_109 VDD_110 VDD_111
NB9P-GS-A1/H
null
PLACE NEAR BALLS
NEAR BGA
NV_VDD
C939 NV_0.1U_16V_M_B 0402
C936 NV_0.1U_16V_M_B 0402
C937 NV_0.1U_16V_M_B 0402
C938 NV_0.1U_16V_M_B 0402
C914 NV_0.1U_16V_M_B 0402
C1554 NV_1U_25V_K_B 0603
C940 NV_0.1U_16V_M_B 0402
C935 NV_0.1U_16V_M_B 0402
C941 NV_0.1U_16V_M_B 0402
C942 NV_0.1U_16V_M_B 0402
C915 NV_0.1U_16V_M_B 0402
C1548 NV_1U_25V_K_B 0603
C916 NV_0.47U_6.3V_Y_Y 0402
C918 NV_0.47U_6.3V_Y_Y 0402
C920 NV_0.47U_6.3V_Y_Y 0402
C923 NV_0.47U_6.3V_Y_Y 0402
C926 NV_0.47U_6.3V_Y_Y 0402
C1553 NV_1U_25V_K_B 0603
C929 NV_0.47U_6.3V_Y_Y 0402
C919 NV_0.47U_6.3V_Y_Y 0402
C921 NV_0.47U_6.3V_Y_Y 0402
C924 NV_0.47U_6.3V_Y_Y 0402
C927 NV_0.47U_6.3V_Y_Y 0402
C930 NV_4.7U_6.3V_K 0603_X5R
C931 NV_4.7U_6.3V_K 0603_X5R
C932 NV_4.7U_6.3V_K 0603_X5R
C933 NV_0.1U_16V_M_B 0402
C934 NV_0.1U_16V_M_B 0402
C917 NV_0.1U_16V_M_B 0402
C922 NV_0.1U_16V_M_B 0402
C925 NV_0.1U_16V_M_B 0402
C928 NV_0.1U_16V_M_B 0402
U4P
15/16 GND
GND_1 GND_2 GND_3 GND_4 GND_5 GND_6 GND_7 GND_8 GND_9 GND_10 GND_11 GND_12 GND_13 GND_14 GND_15 GND_16 GND_17 GND_18 GND_19 GND_20 GND_21 GND_22 GND_23 GND_24 GND_25 GND_26 GND_27 GND_28 GND_29 GND_30 GND_31 GND_32 GND_33 GND_34 GND_35 GND_36 GND_37 GND_38 GND_39 GND_40 GND_41 GND_42 GND_43 GND_44 GND_45 GND_46 GND_47 GND_48 GND_49 GND_50 GND_51 GND_52 GND_53 GND_54 GND_55 GND_56 GND_57 GND_58 GND_59 GND_60 GND_61 GND_62 GND_63 GND_64 GND_65 GND_66 GND_67 GND_68 GND_69 GND_70 GND_71 GND_72 GND_73 GND_74 GND_75 GND_76 GND_77 GND_78 GND_79 GND_80 GND_081 GND_082 GND_083 GND_084 GND_085 GND_086 GND_087 GND_088 GND_089 GND_090 GND_091 GND_092 GND_093 GND_094 GND_095
GND_096 GND_097 GND_098 GND_099 GND_100 GND_101 GND_102 GND_103 GND_104 GND_105 GND_106 GND_107 GND_108 GND_109 GND_110 GND_111 GND_112 GND_113 GND_114 GND_115 GND_116 GND_117 GND_118 GND_119 GND_120 GND_121 GND_122 GND_123 GND_124 GND_125 GND_126 GND_127 GND_128 GND_129 GND_130 GND_131 GND_132 GND_133 GND_134 GND_135 GND_136 GND_137 GND_138 GND_139 GND_140 GND_141 GND_142 GND_143 GND_144 GND_145 GND_146 GND_147 GND_148 GND_149 GND_150 GND_151 GND_152 GND_153 GND_154 GND_155 GND_156 GND_157 GND_158 GND_159 GND_160 GND_161 GND_162 GND_163 GND_164 GND_165 GND_166 GND_167 GND_168 GND_169 GND_170 GND_171 GND_172 GND_173 GND_174 GND_175 GND_176 GND_177 GND_178 GND_179 GND_180 GND_181 GND_182 GND_183 GND_184 GND_185 GND_186 GND_187 GND_188 GND_189 GND_190 GND_191
NB9P-GS-A1/H
null
FOXCONN
HON HAI PRECISION IND. CO., LTD.
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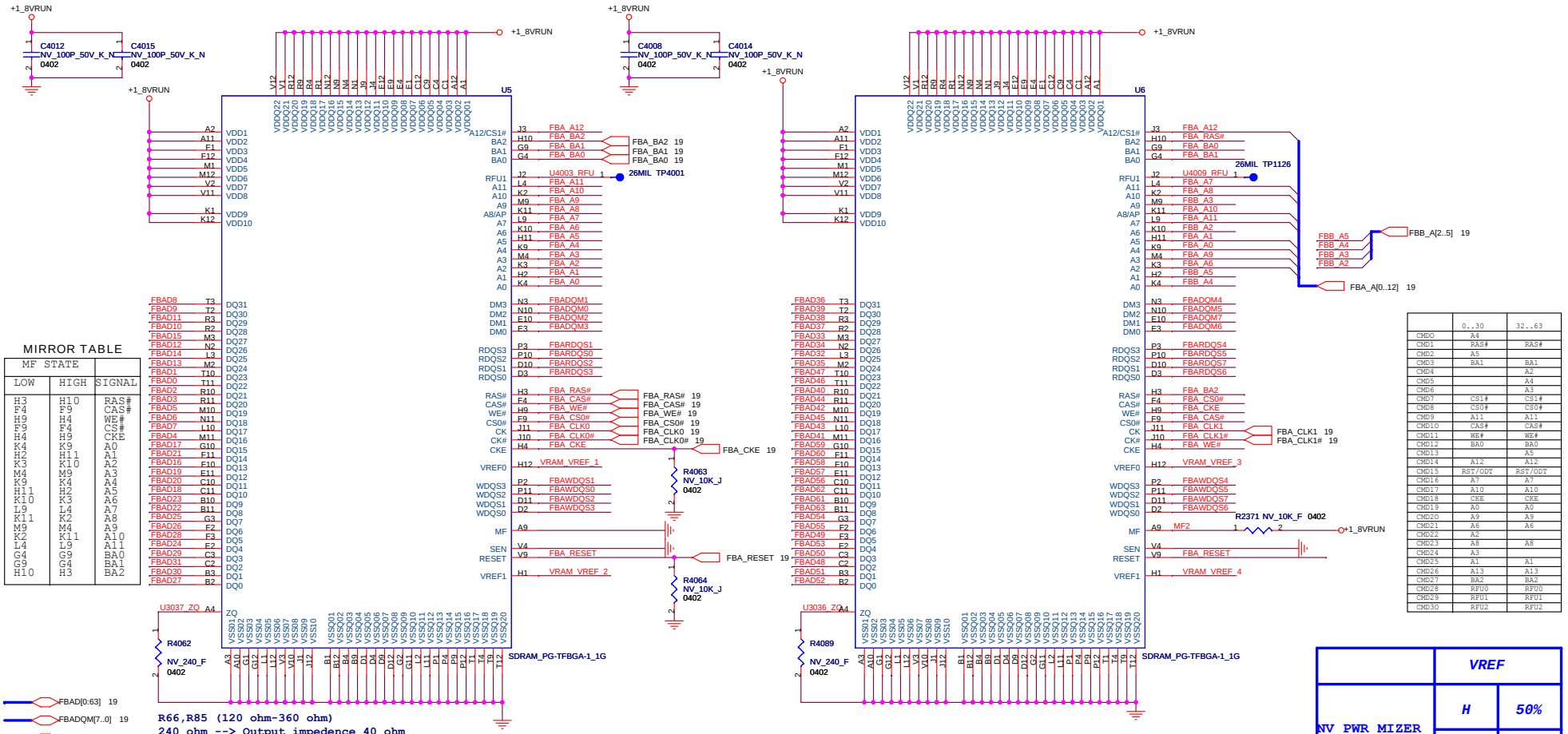
Title
VGA(POWER/GROUND) 9/9
Size A3
Document Number M780(MBX-194)
Rev 0.1
Date: Friday, June 13, 2008
Sheet 25 of 79



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

	0..30	32..63
CMD0	A4	
CMD1	RAS#	RAS#
CMD2	A5	
CMD3	BA1	BA1
CMD4		A2
CMD5		A4
CMD6		A3
CMD7	CS1#	CS1#
CMD8	CS0#	CS0#
CMD9	A11	A11
CMD10	CAS#	CAS#
CMD11	WE#	WE#
CMD12	BA0	BA0
CMD13		A5
CMD14	A12	A12
CMD15	RST/ODT	RST/ODT
CMD16	A7	A7
CMD17	A10	A10
CMD18	CKE	CKE
CMD19	A0	A0
CMD20	A9	A9
CMD21	A6	A6
CMD22	A2	
CMD23	A8	A8
CMD24	A3	
CMD25	A1	A1
CMD26	A13	A13
CMD27	BA2	BA2
CMD28	RFU0	RFU0
CMD29	RFU1	RFU1
CMD30	RFU2	RFU2

NV_PWR_MIZER	VREF	
	H	50%
	L	70%

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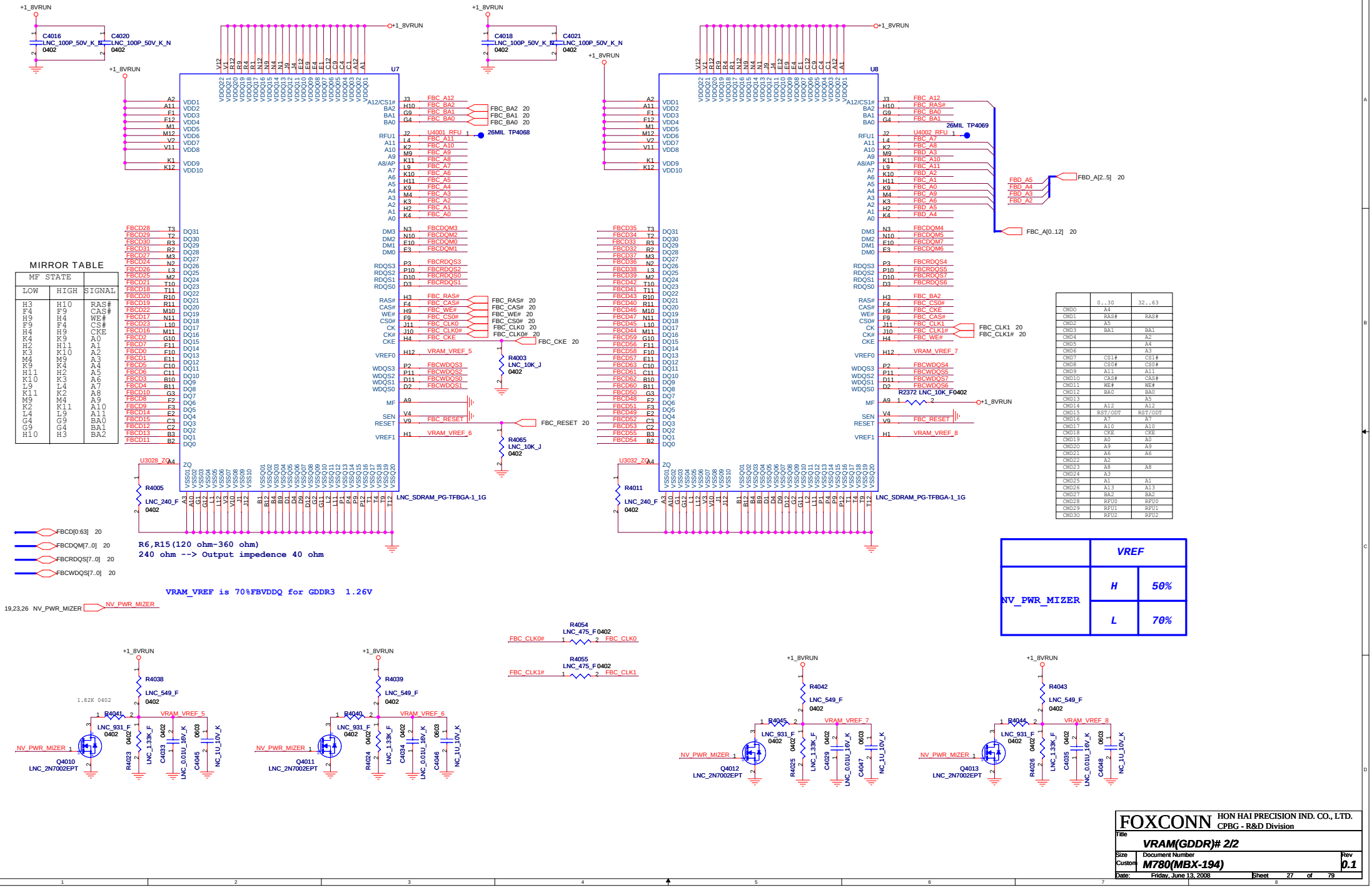
Title: VRAM(GDDR)# 1/2

Size: Custom | Document Number: M780(MBX-194) | Rev: 0.1

Date: Friday, June 13, 2008 | Sheet 26 of 79



MIRROR TABLE

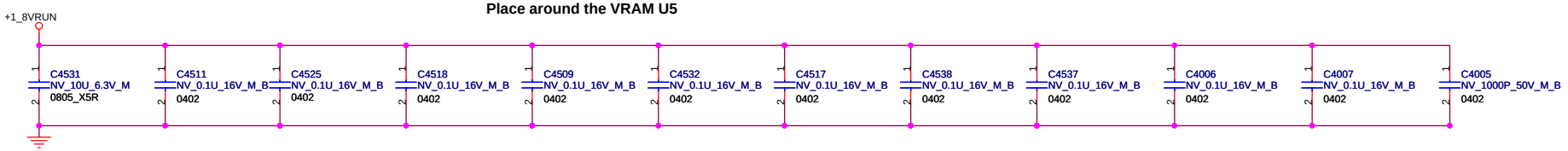
MF STATE		
LOW	HIGH	SIGNAL
H3	H10	RAS#
F4	F9	CAS#
H9	H4	WE#
F9	F4	CS#
H4	H9	CKE
K4	K9	A0
H2	H11	A1
K3	K10	A2
M4	M9	A3
K9	K4	A4
H11	H2	A5
K10	K3	A6
L9	L4	A7
K11	K2	A8
M9	M4	A9
K2	K11	A10
L4	L9	A11
G4	G9	BA0
G9	G4	BA1
H10	H3	BA2

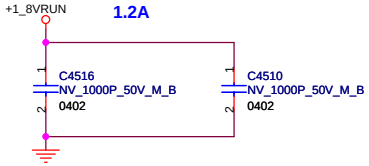
	0..30	32..63
CMD0	A4	
CMD1	RAS#	RAS#
CMD2	A5	
CMD3	BA1	BA1
CMD4		A2
CMD5		A4
CMD6		A3
CMD7	CS1#	CS1#
CMD8	CS0#	CS0#
CMD9	A11	A11
CMD10	CAS#	CAS#
CMD11	WE#	WE#
CMD12	BA0	BA0
CMD13		A5
CMD14	A12	A12
CMD15	RST/ODT	RST/ODT
CMD16	A7	A7
CMD17	A10	A10
CMD18	CKE	CKE
CMD19	A0	A0
CMD20	A9	A9
CMD21	A6	A6
CMD22	A2	
CMD23	A8	A8
CMD24	A3	
CMD25	A1	A1
CMD26	A13	A13
CMD27	BA2	BA2
CMD28	RFU0	RFU0
CMD29	RFU1	RFU1
CMD30	RFU2	RFU2

	VREF	
NV_PWR_MIZER	H	50%
	L	70%

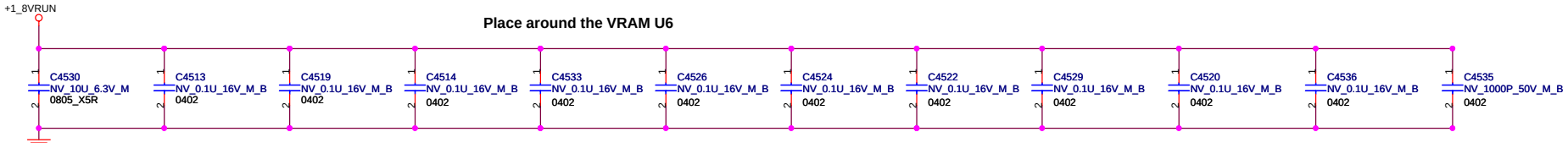
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	VRAM(GDDR)# 2/2	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 27 of 79	

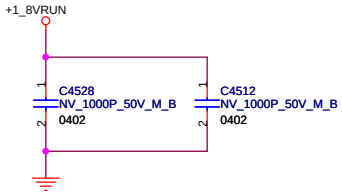
Place around the VRAM U5





Place around the VRAM U6





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Title: *VRAM (POWERBYPASS) 1 OF 2*

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

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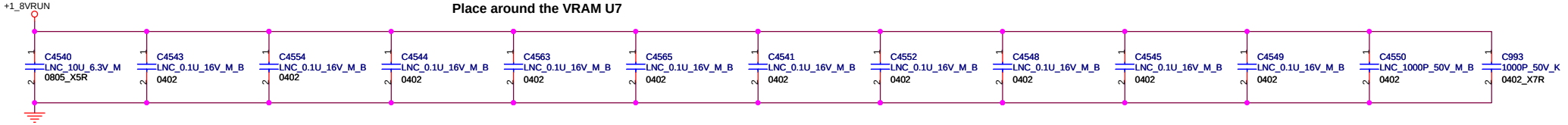
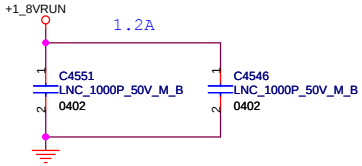
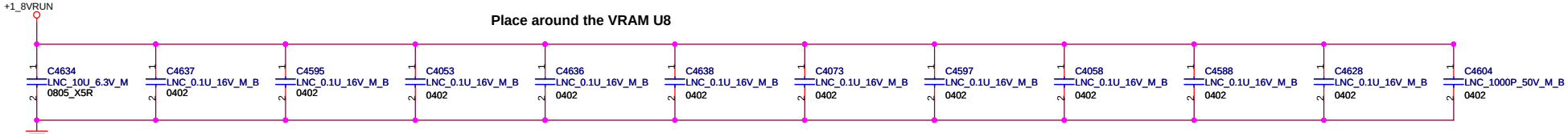
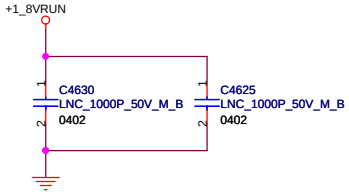
Place around the VRAM U7





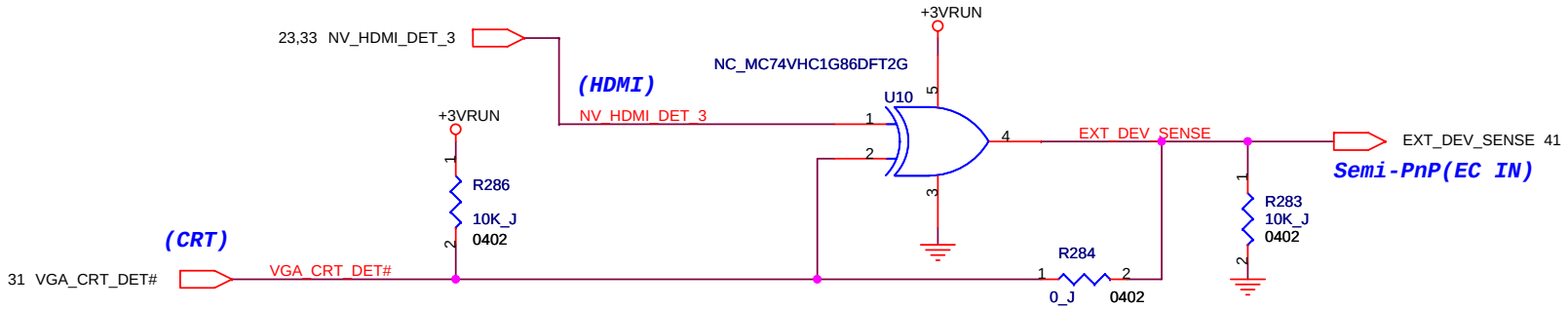
Place around the VRAM U8





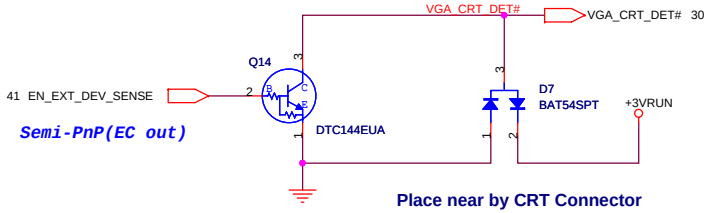
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	***VRAM (POWERBYPASS) 2 OF 2***	
Size A3	Document Number ***M780(MBX-194)***	Rev ***0.1***
Date: Friday, June 13, 2008	Sheet 29 of 79	

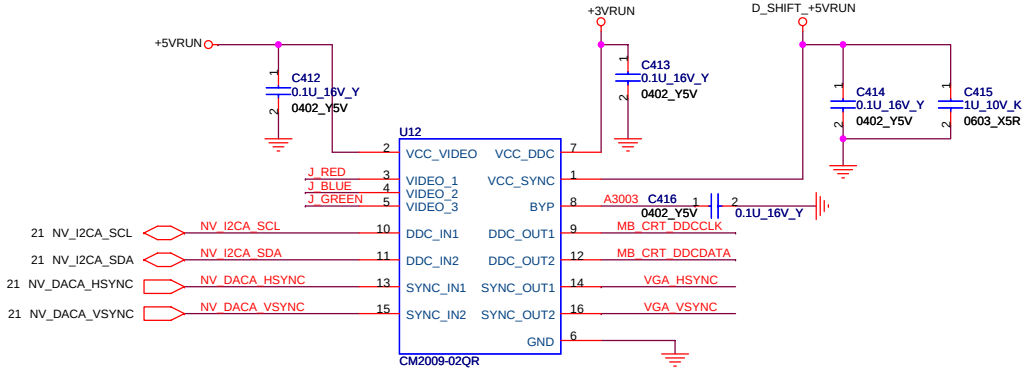
Semi-PnP Circuit

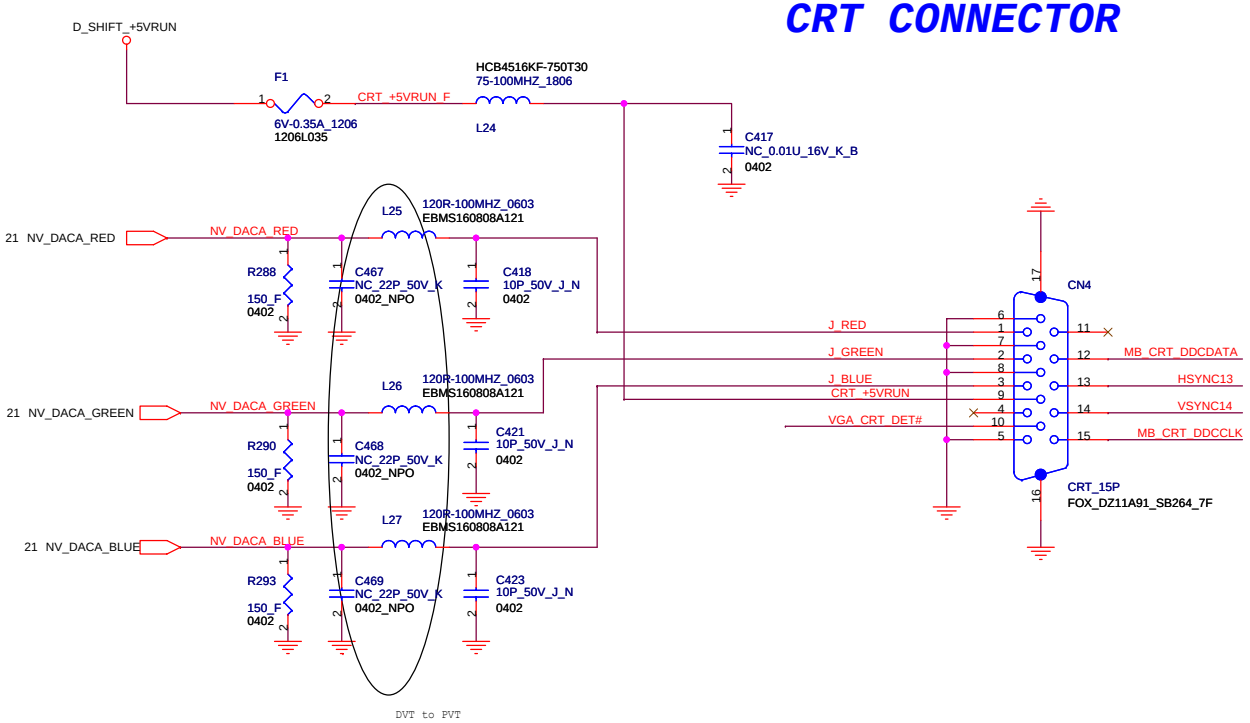


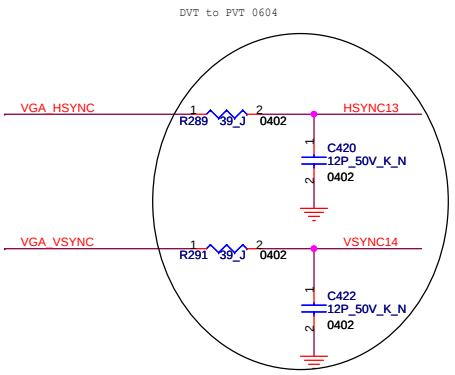
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: Semi-PnP		
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 30 of 79	

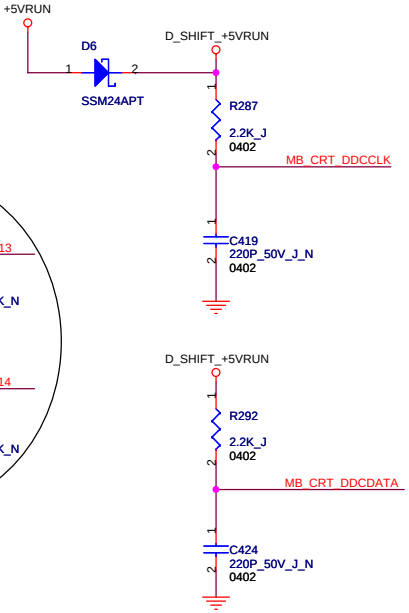
CRT CONNECTOR







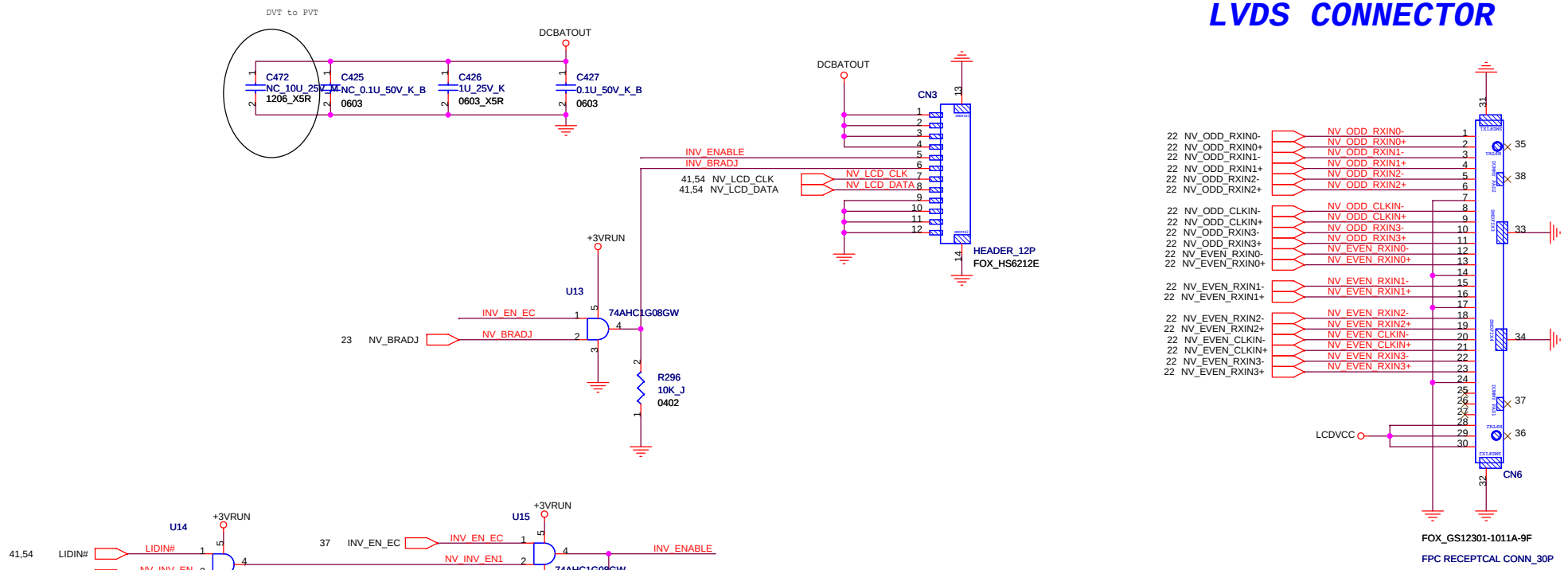




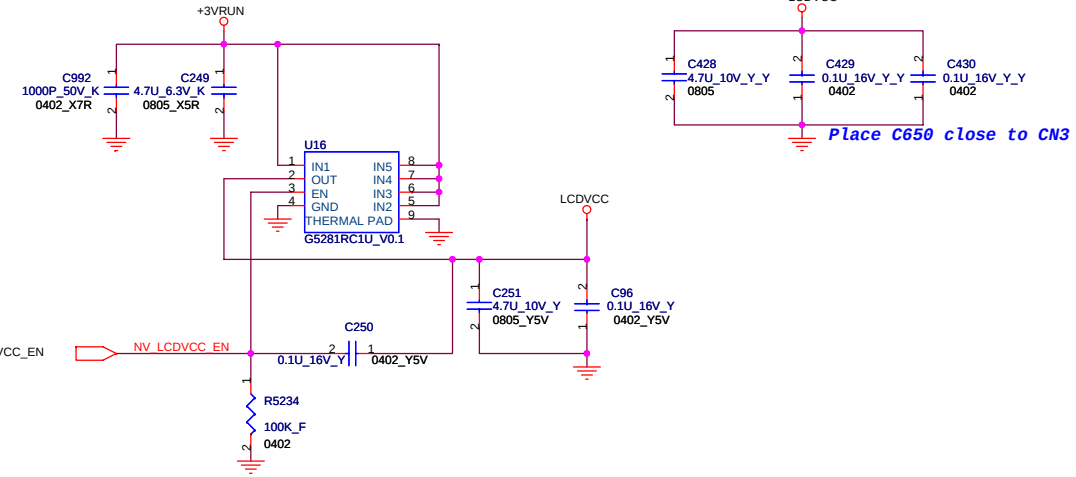
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: CRT		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Thursday, June 26, 2008	Sheet 31 of 79	

BLU CONNECTOR

LVDS CONNECTOR

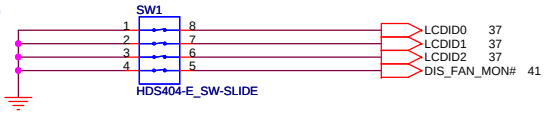


Current limit is from 1.1A to 2.1A.



Place C650 close to CN3

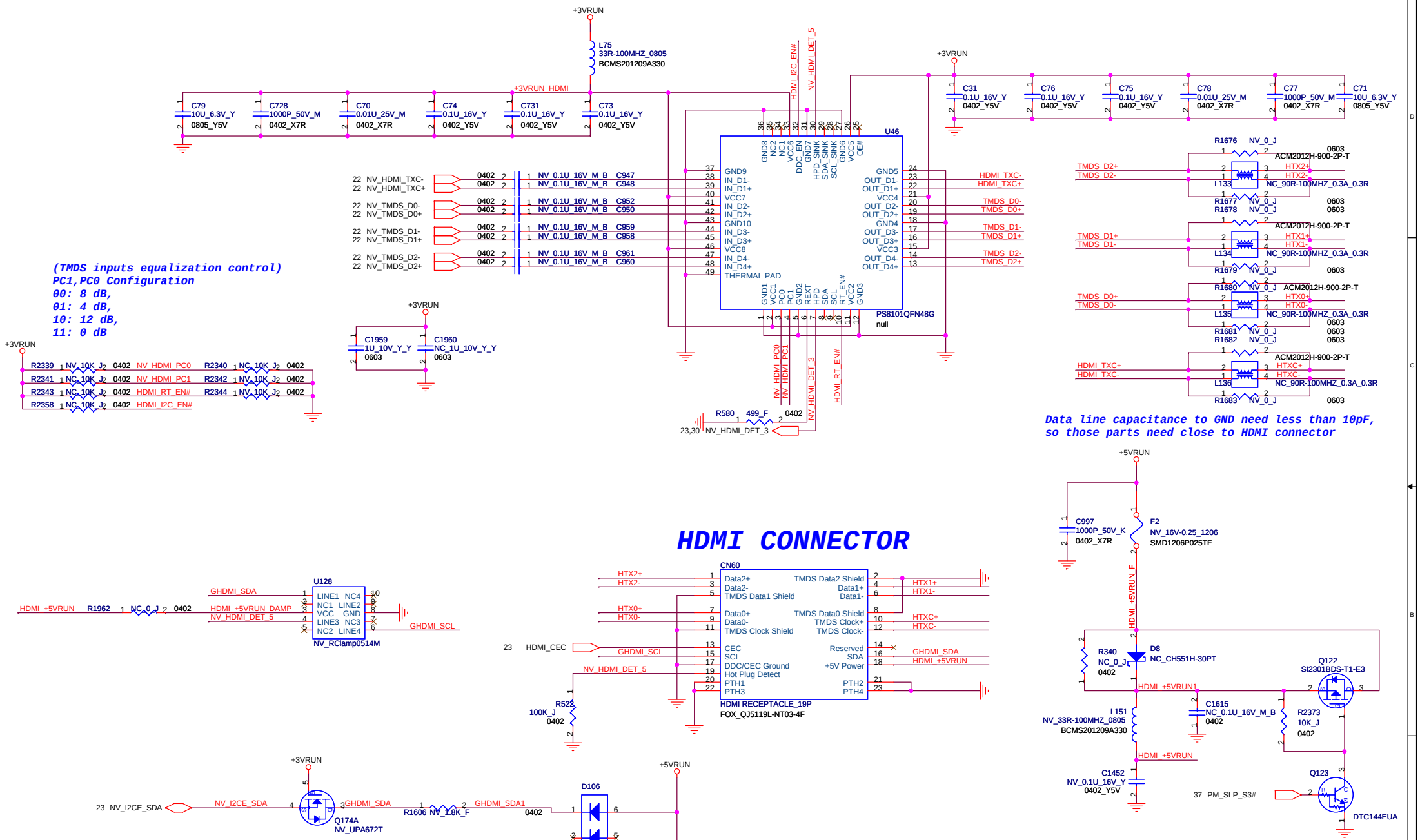
PANEL ID



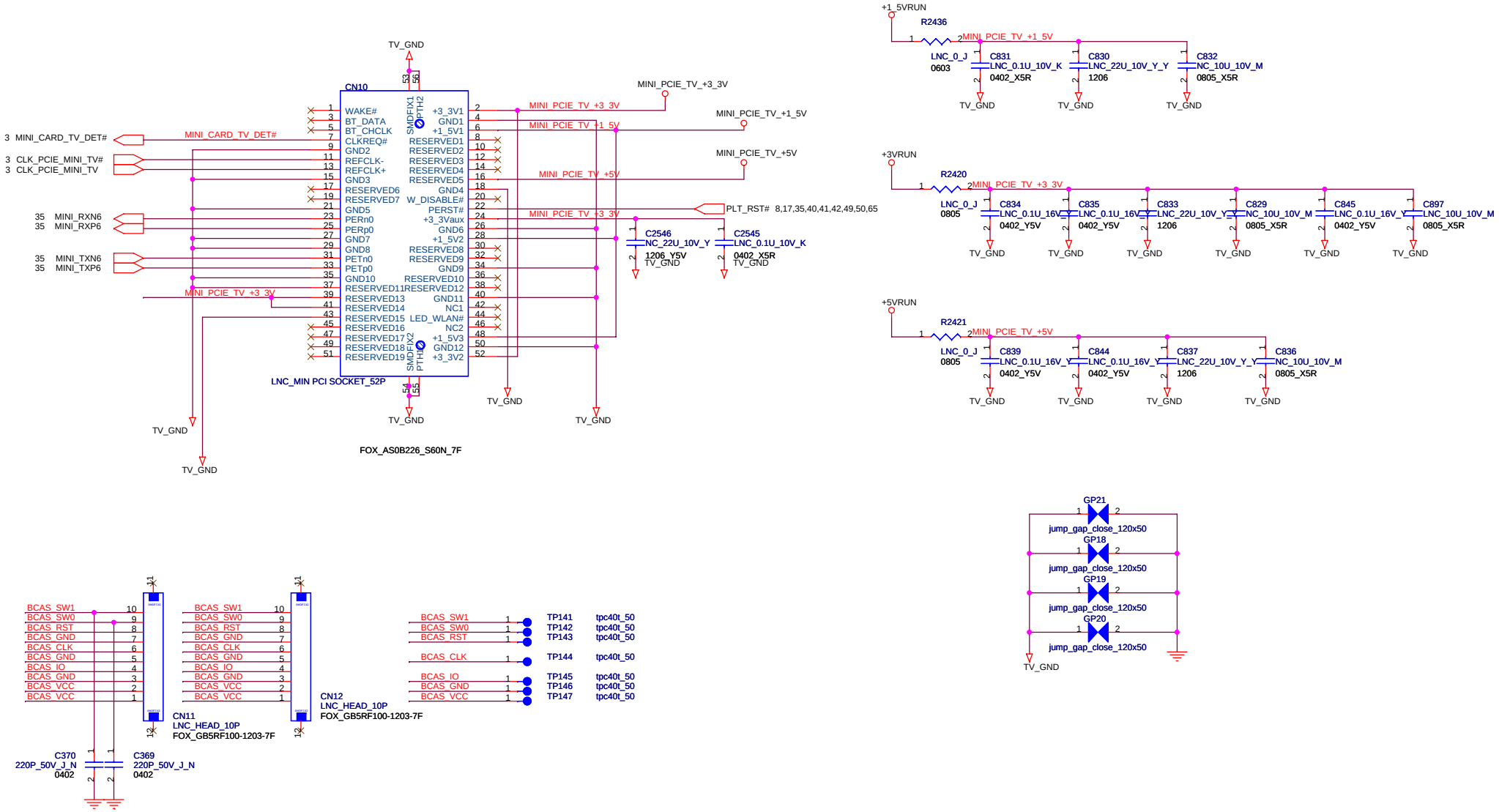
	DIS_FAN_MON#	LCDID2	LCDID1	LCDID0
Eagle1	1	0	0	1
Eagle2	1	0	1	0
Eagle3	1	0	1	1
DISABLE FAN LOCK FUNCTION	1	X	X	X

ON:0 , OFF:1

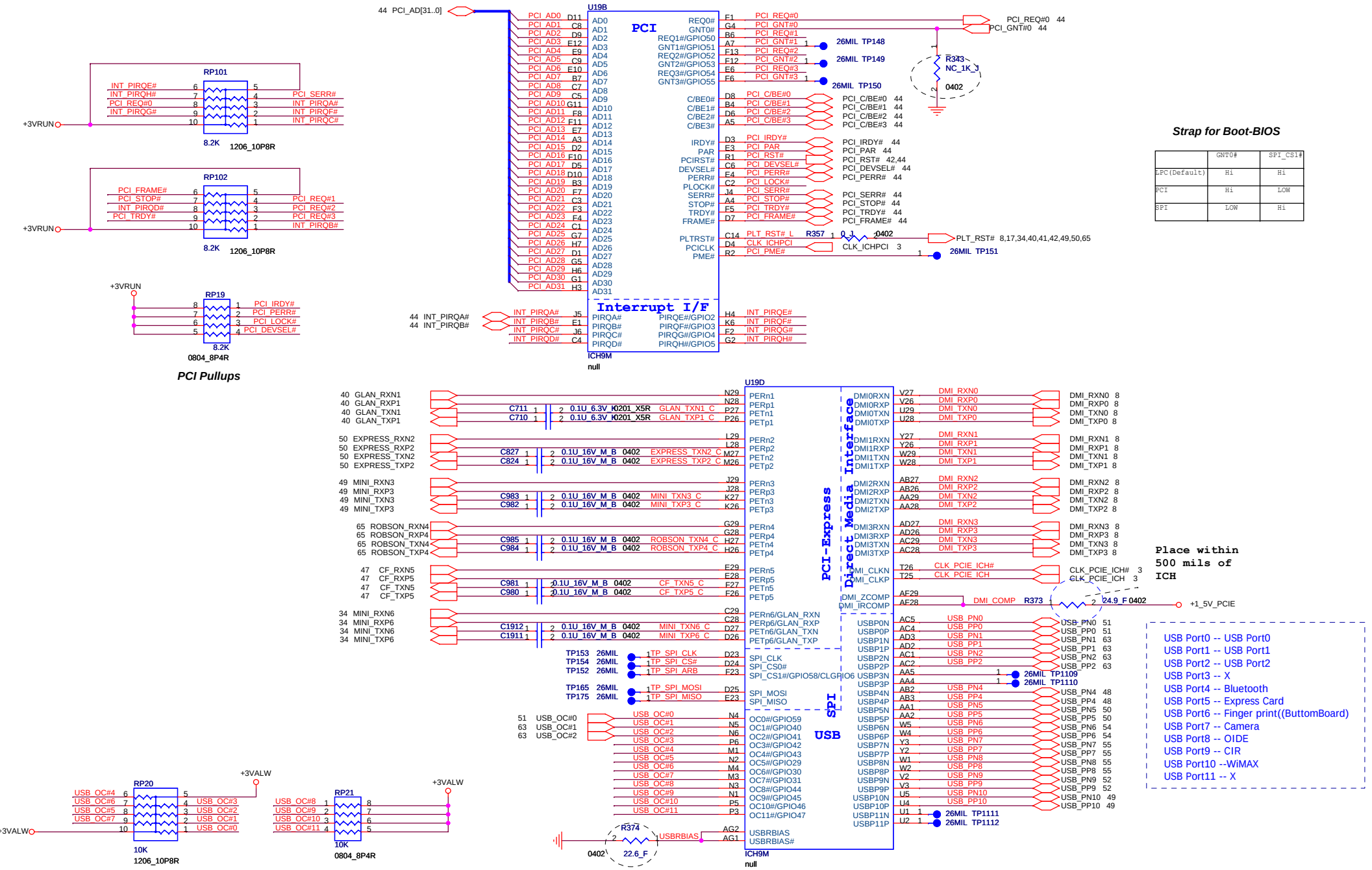
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	LVDS	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Tuesday, July 01, 2008	Sheet 32 of 79	



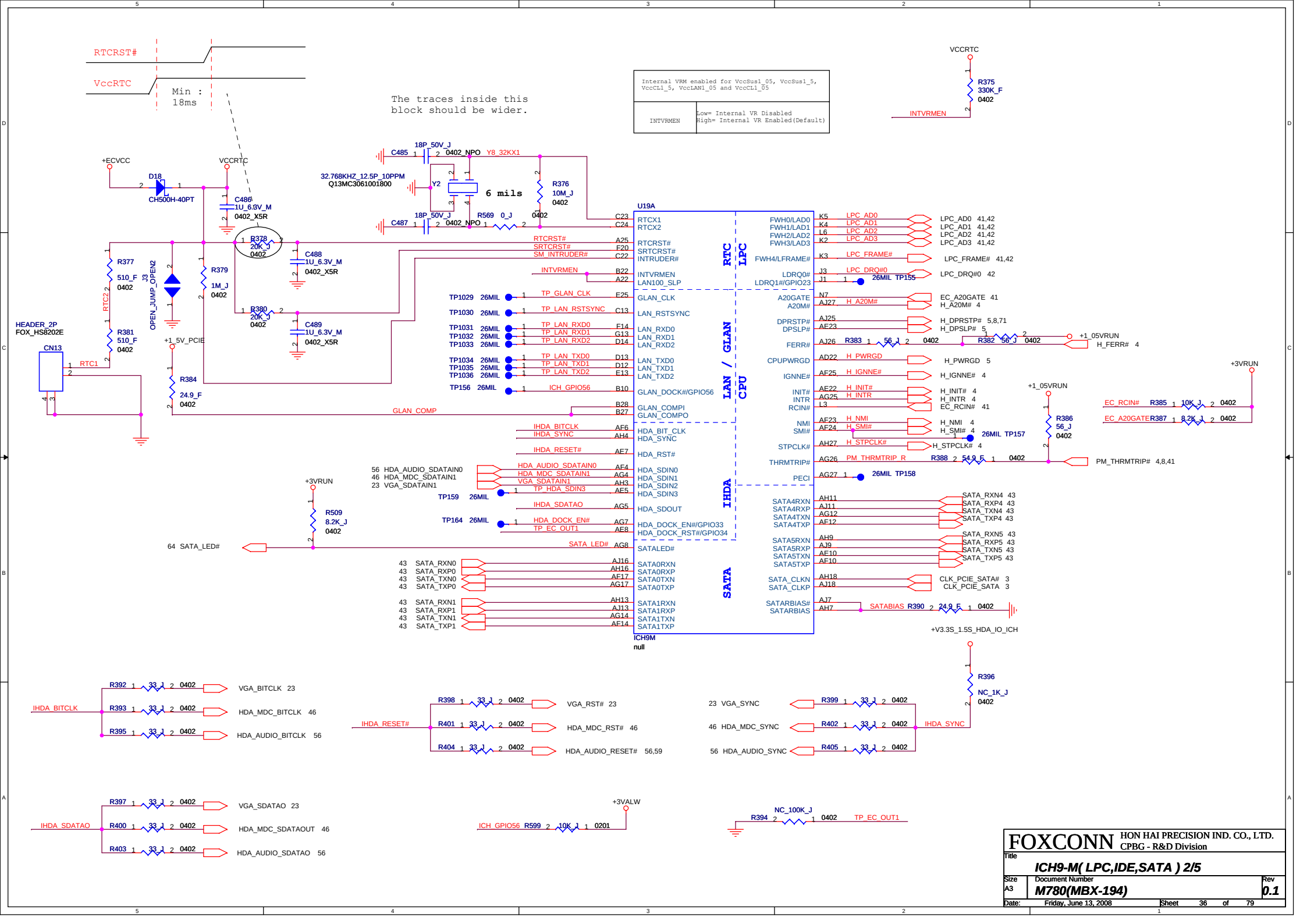
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	HDMI	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 33 of 79	



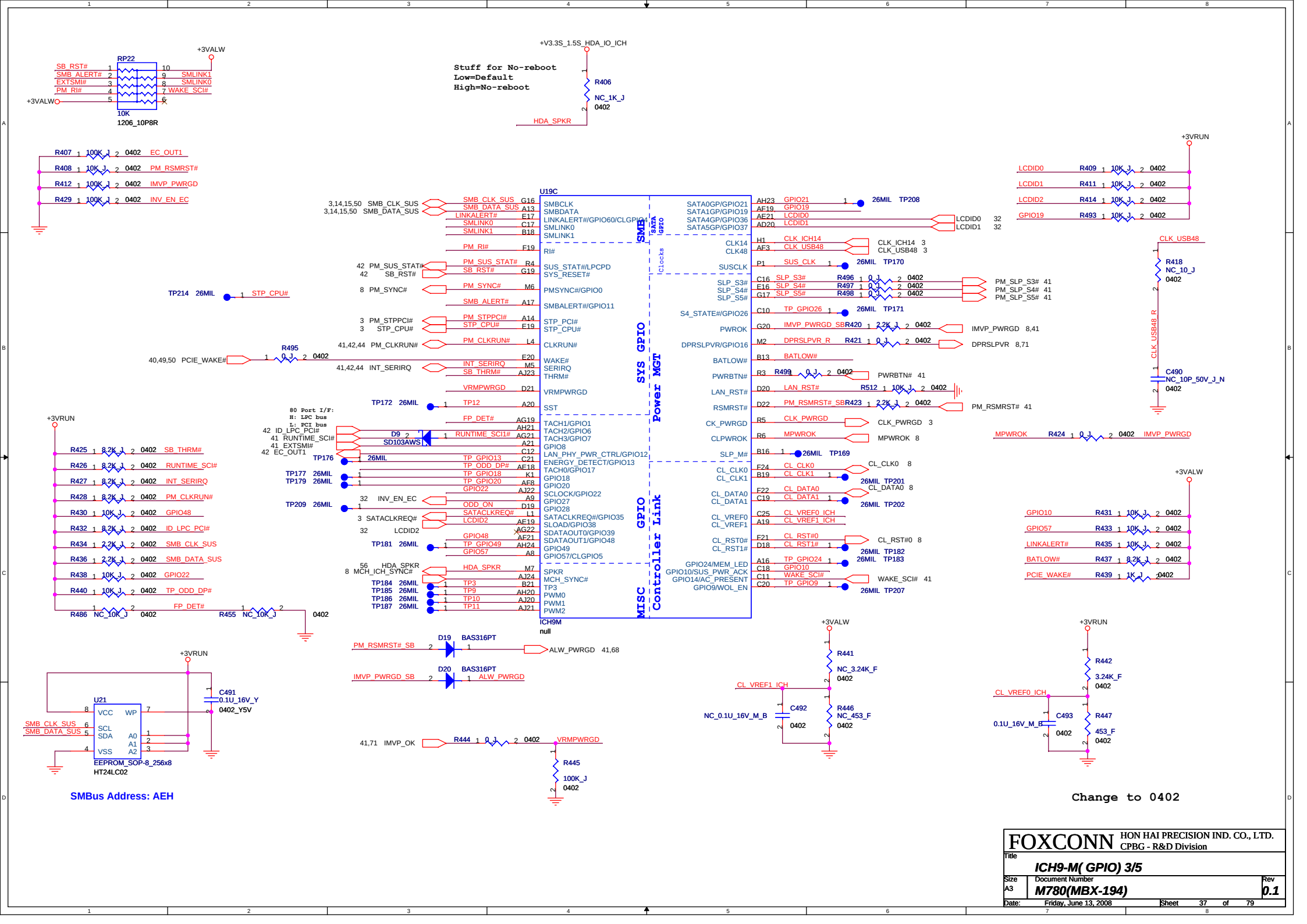
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division		
Title	MINI-PCIE CONN(TV)		
Size A3	Document Number M780(MBX-194)		Rev 0.1
Date: Friday, June 13, 2008	Sheet 34 of 79		



Title		
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
ICH9-M(PCI/DMI/USB/PCIE) 1/5		
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 35 of 79	



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	ICH9-M(LPC,IDE,SATA) 2/5
Size: A3	Document Number: M780(MBX-194)
Rev	0.1
Date: Friday, June 13, 2008	Sheet 36 of 79



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	ICH9-M(GPIO) 3/5
Size	A3
Document Number	M780(MBX-194)
Rev	0.1
Date:	Friday, June 13, 2008
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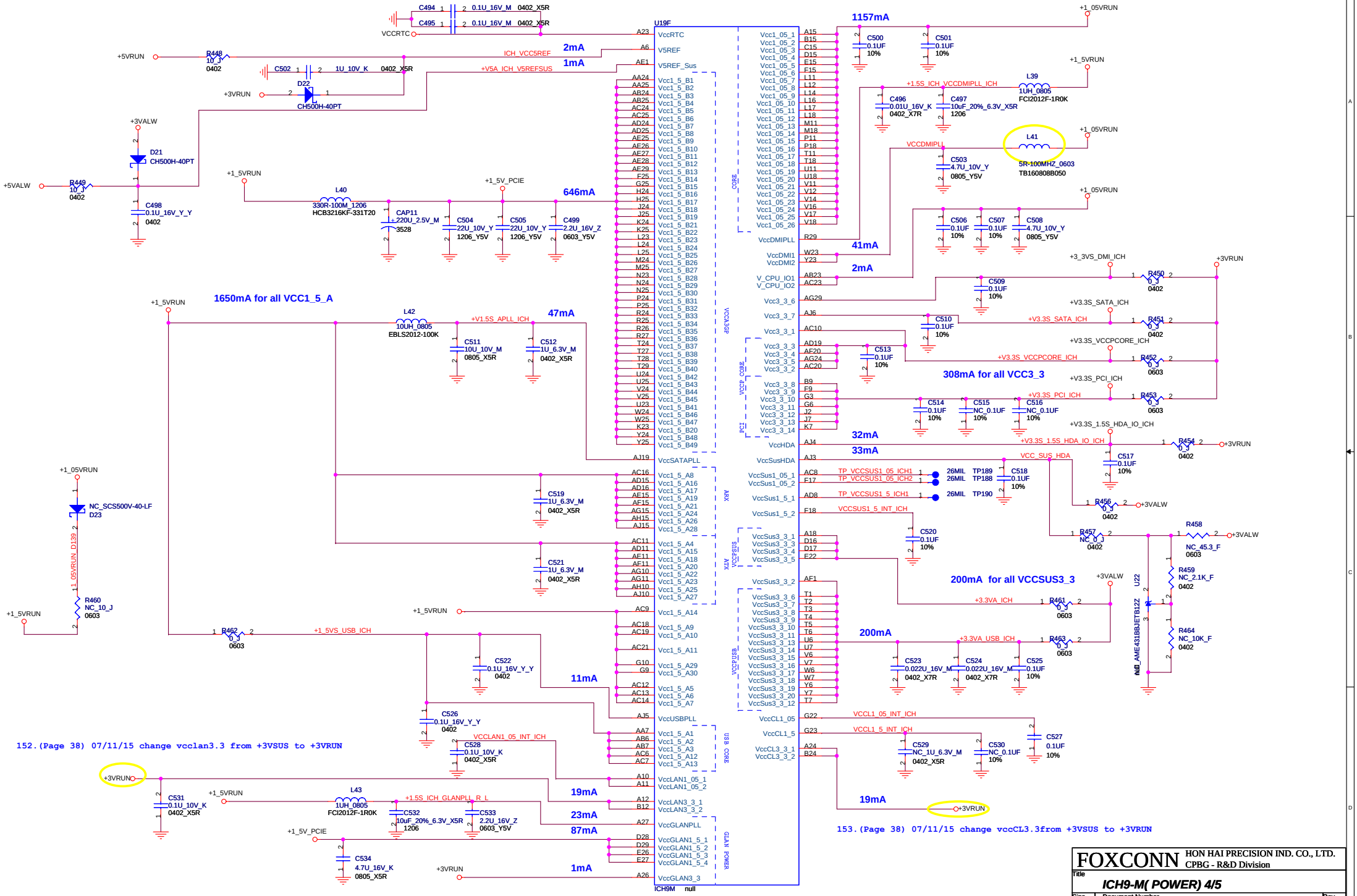
1650mA for all VCC1_5_A
1157mA
308mA for all VCC3_3
200mA for all VCCSUS3_3
152.(Page 38) 07/11/15 change vcclan3.3 from +3VSUS to +3VRUN
153.(Page 38) 07/11/15 change vccCL3.3from +3VSUS to +3VRUN
FOXCONN
HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division
ICH9-M(POWER) 4/5
M780(MBX-194)
0.1
Friday, June 13, 2008
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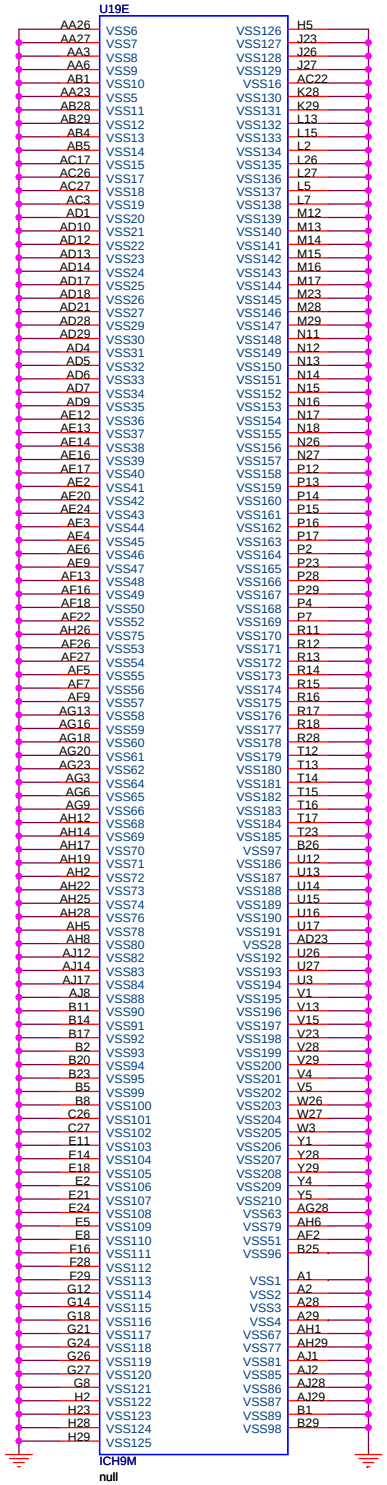
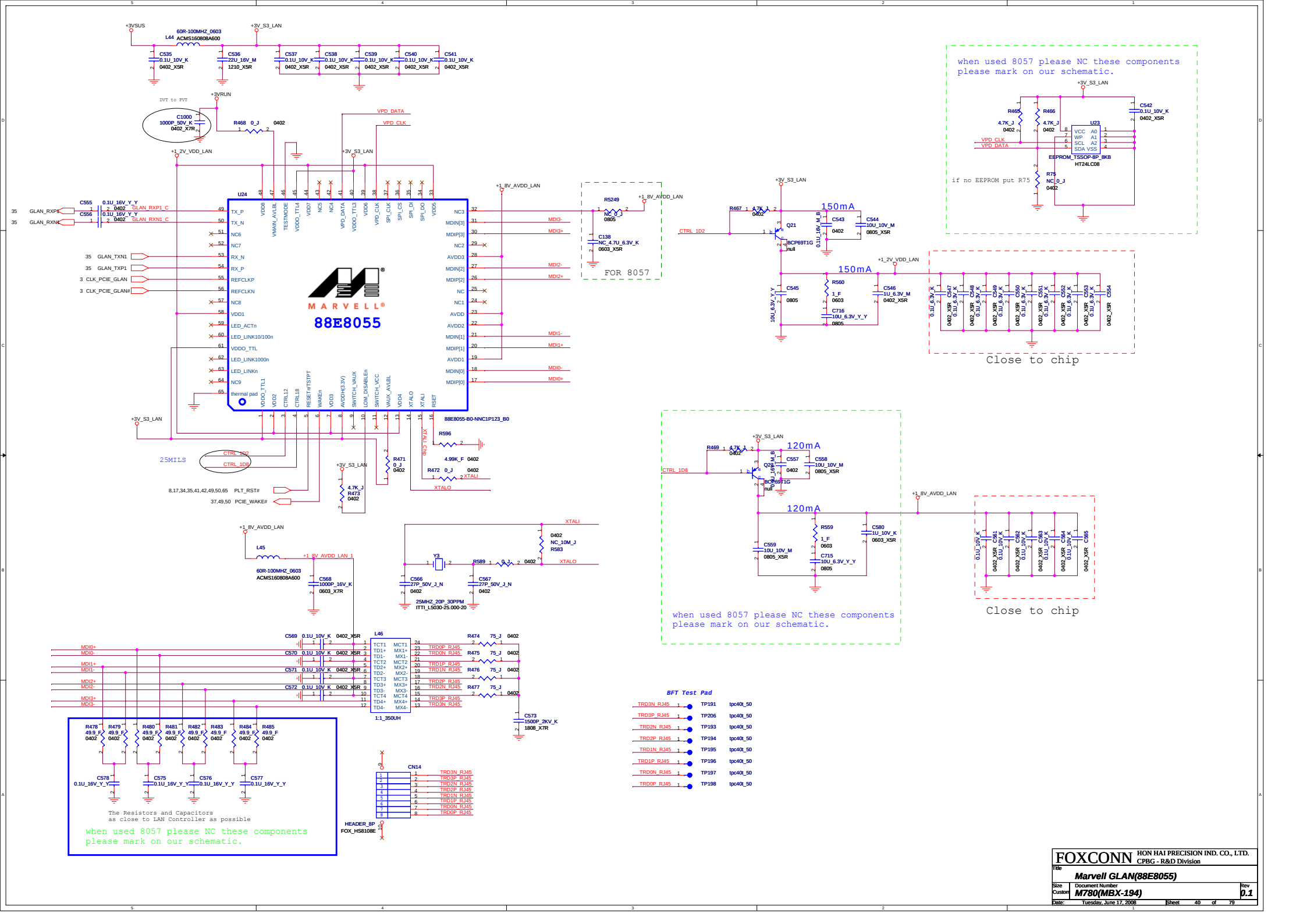


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	ICH9-M(GND) 5/5	
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 39 of 79	

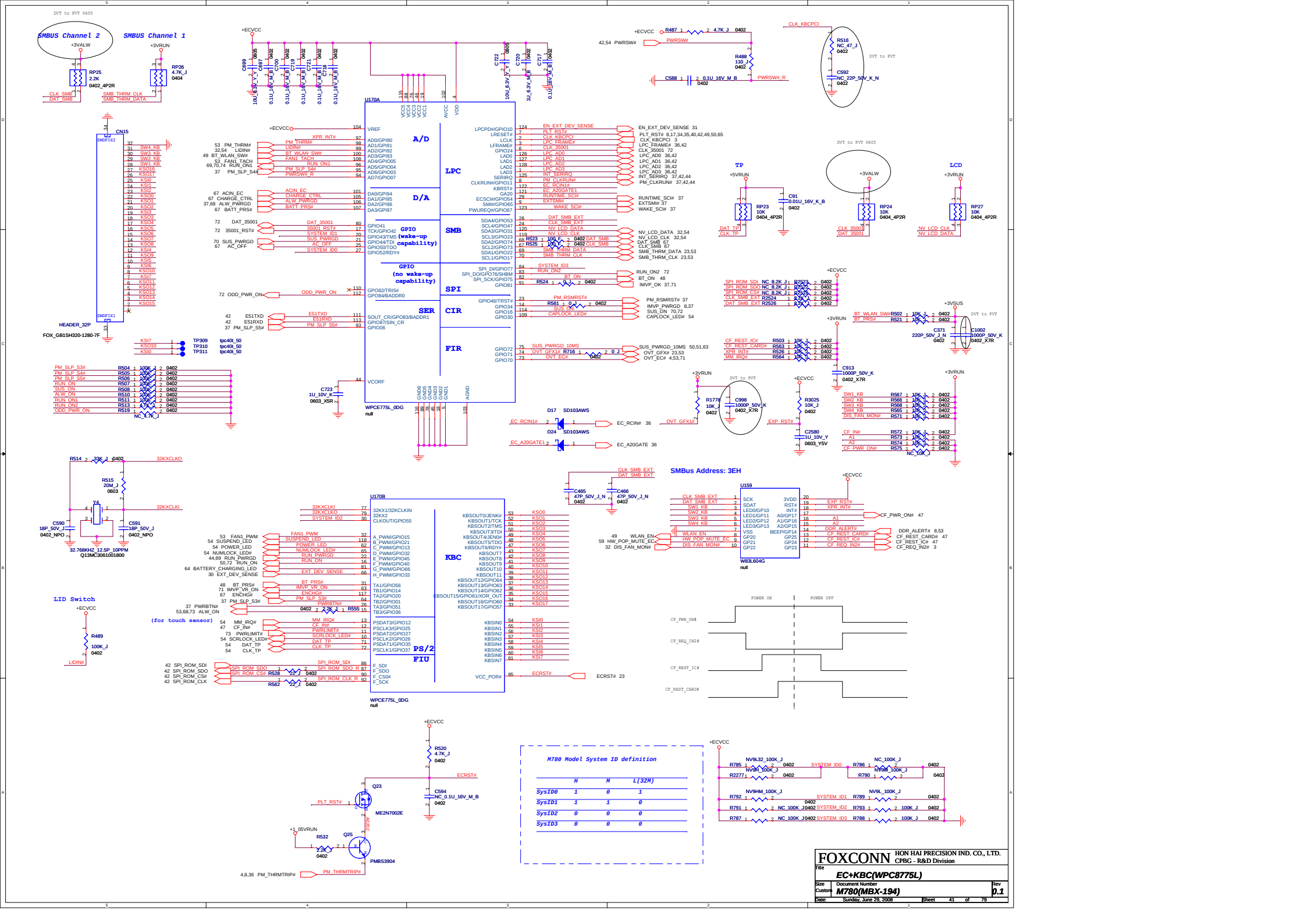


FOXCONN HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division

Title: *Marvell GLAN(88E8055)*

Size: Custom | Document Number: *M780(MBX-194)* | Rev: *0.1*

Date: Tuesday, June 17, 2008 | Sheet 40 of 79


SMBUS Channel 2
SMBUS Channel 1
U170A
WPCE775L_0DG
null
A/D
LPC
D/A
SMB
GPIO
(no wake-up capability)
SPI
SER
CIR
FIR
U170B
KBC
PS/2
FIU
WPCE775L_0DG
null
U159
W83L604G
null
SMBus Address: 3EH
LID Switch
(for touch sensor)
M780 Model System ID definition
SysID0 1 0 1
SysID1 1 1 0
SysID2 0 0 0
SysID3 0 0 0
TP
LCD
POWER ON
POWER OFF
FOXCONN
HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division
EC+KBC(WPC8775L)
M780(MBX-194)
0.1
Sunday, June 29, 2008
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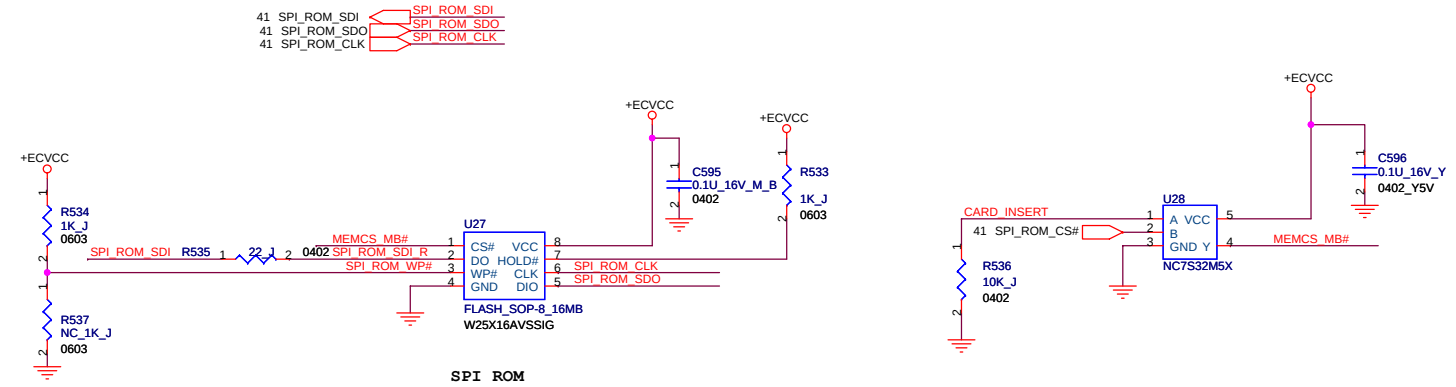
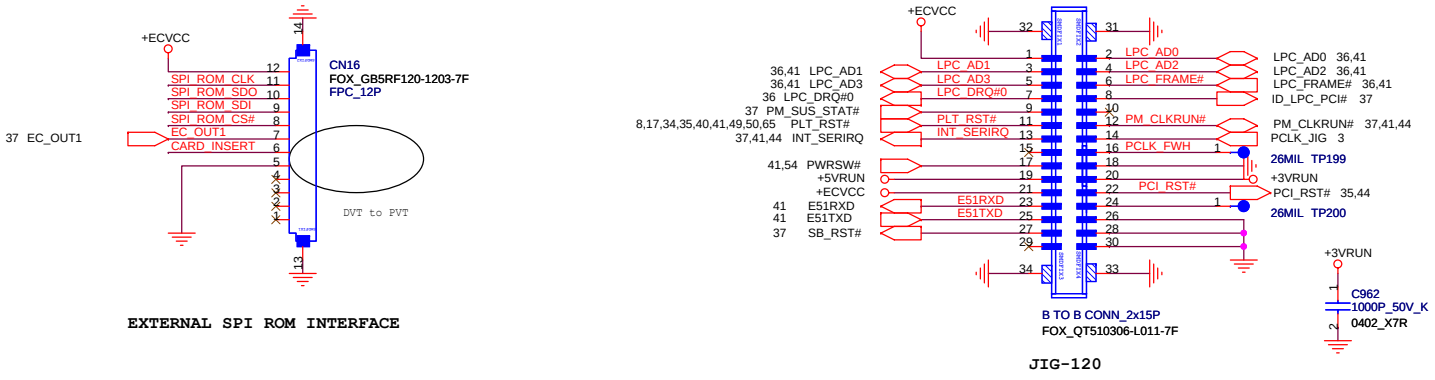
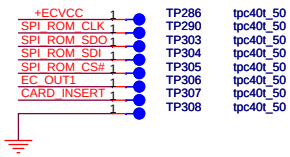
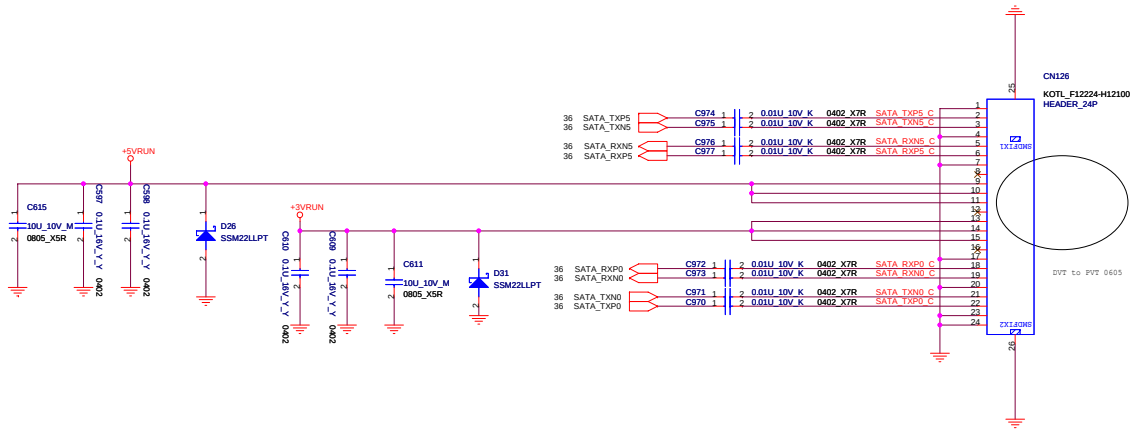




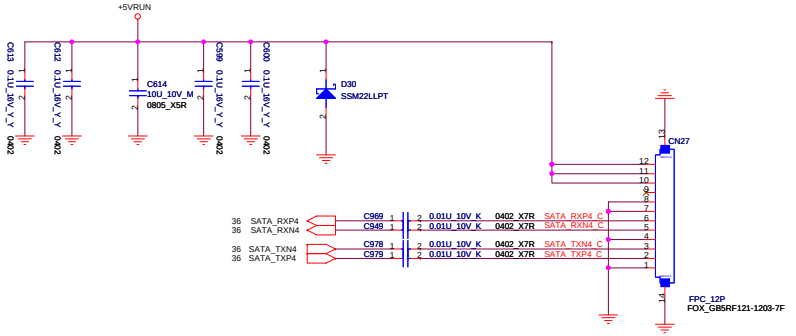


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	*Flash ROM/SPI*	
Size A3	Document Number *M780(MBX-194)*	Rev *0.1*
Date: Wednesday, June 25, 2008	Sheet 42 of 79	

SATA HDD CONN(FPC)

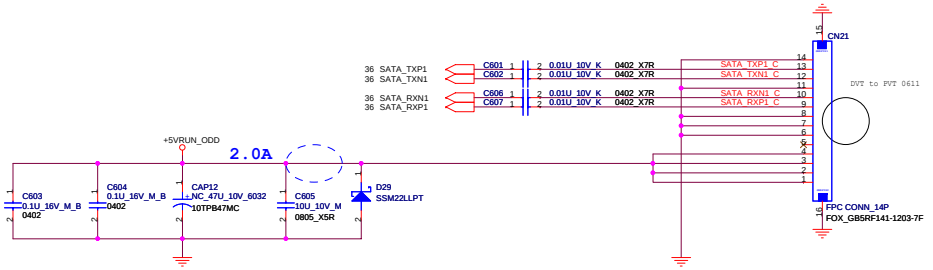


SATA HDD CONN1(FPC)



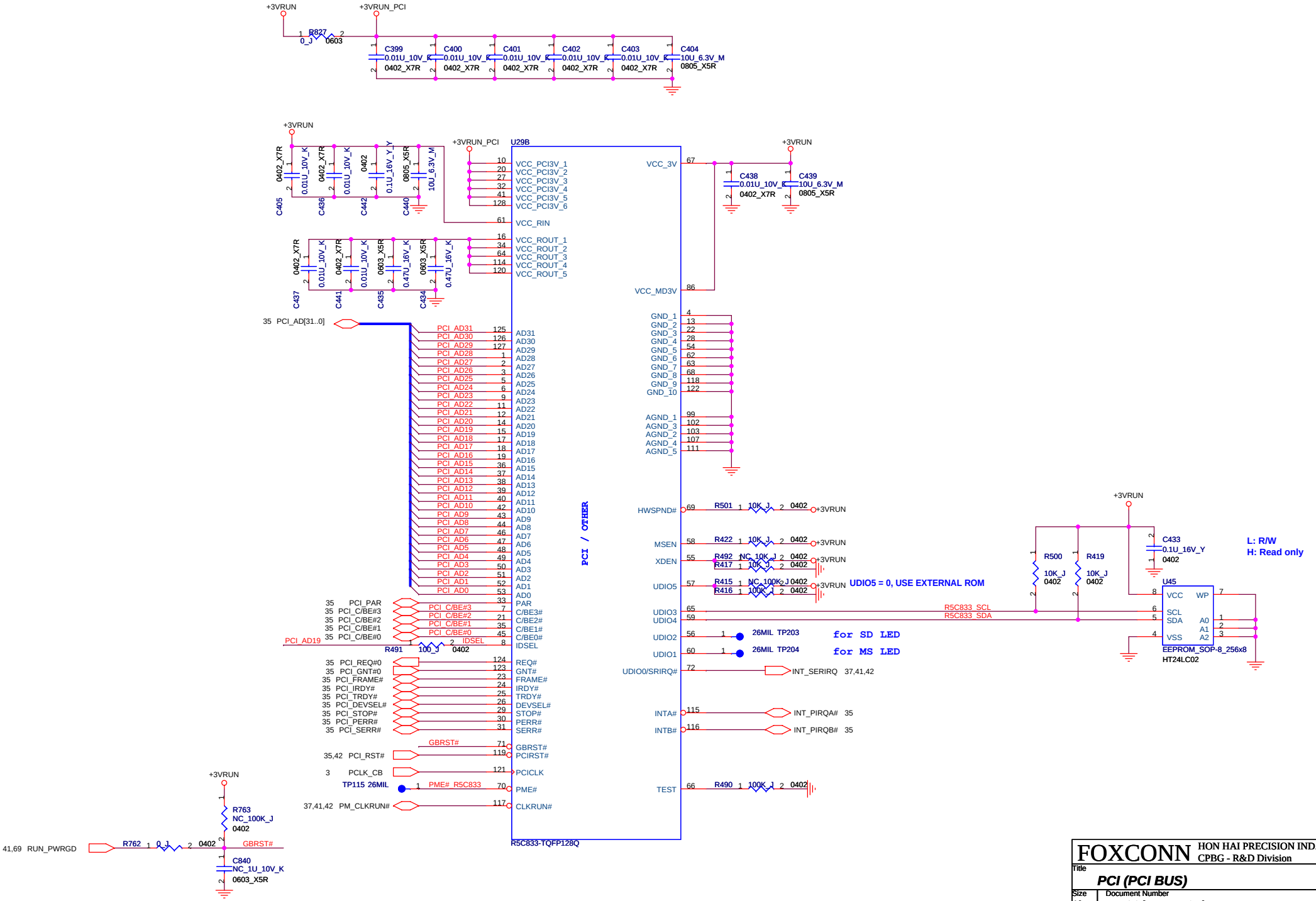
SATA0 : HDD or SSD (just connect to 24 Pin connector)
SATA1 : ODD (fixed)
SATA4 : HDD.(fixed for Single HDD connector)
SATA5 : SSD.(just connect to 24 Pin connector)

SATA ODD CONN(FPC)

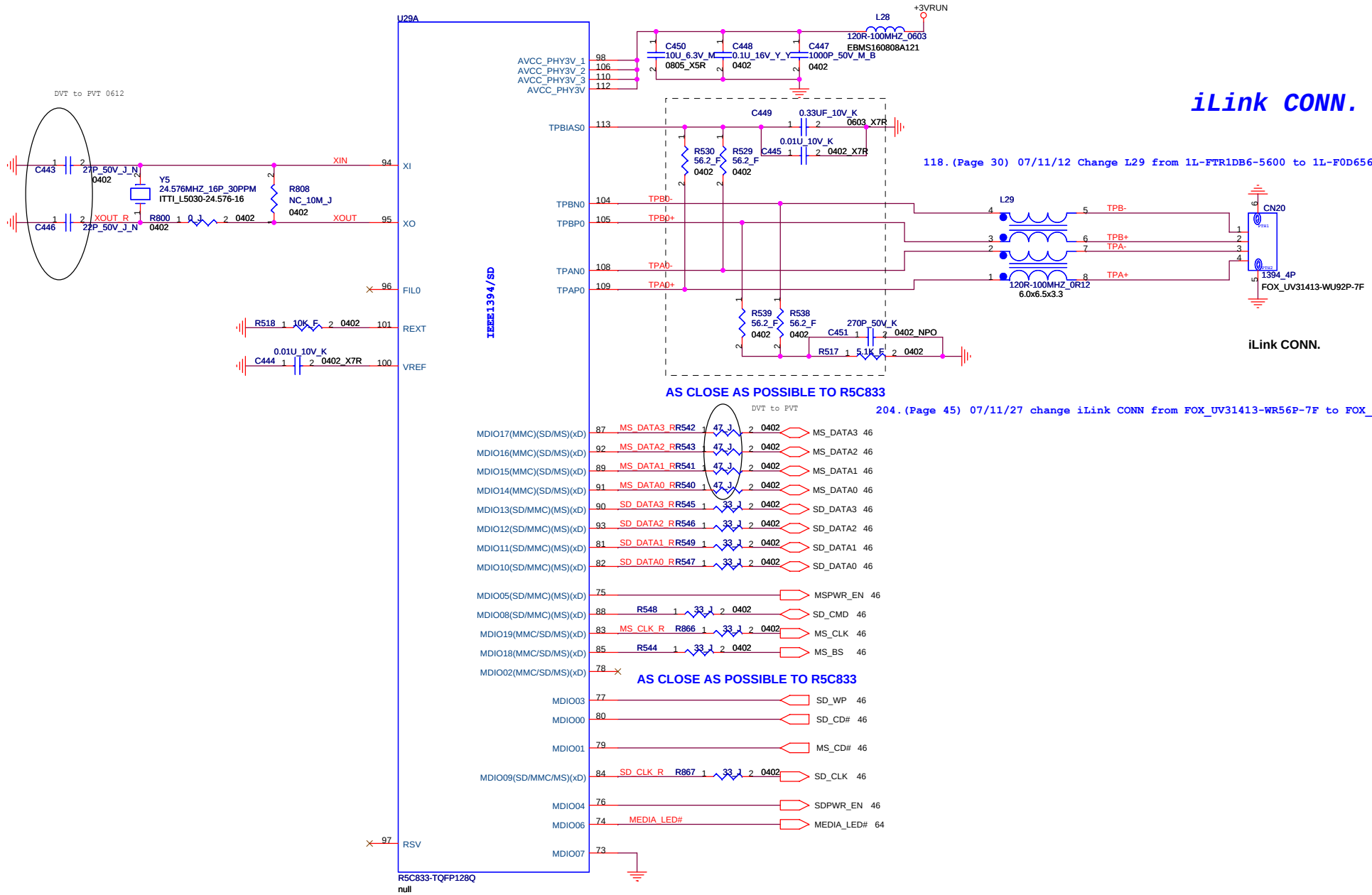


FOXCONN HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division

Title	SATA HDD/CD-ROM	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 43 of 79	



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	PCI (PCI BUS)	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 44 of 79	



iLink CONN.

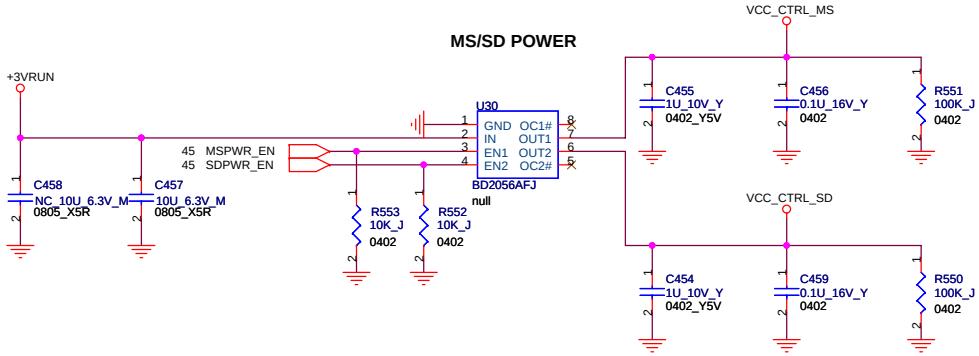
118.(Page 30) 07/11/12 Change L29 from 1L-FTR1DB6-5600 to 1L-F0D6560-TE00.

iLink CONN.

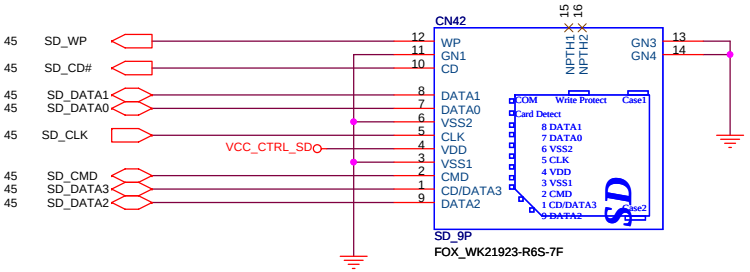
204.(Page 45) 07/11/27 change iLink CONN from FOX_UV31413-WR56P-7F to FOX_UV31413-WZ03P-7F.

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: PCI (ILINK)		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Sunday, June 29, 2008	Sheet 45 of 79	

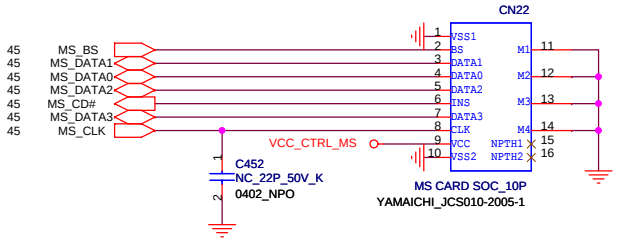
MS/SD POWER

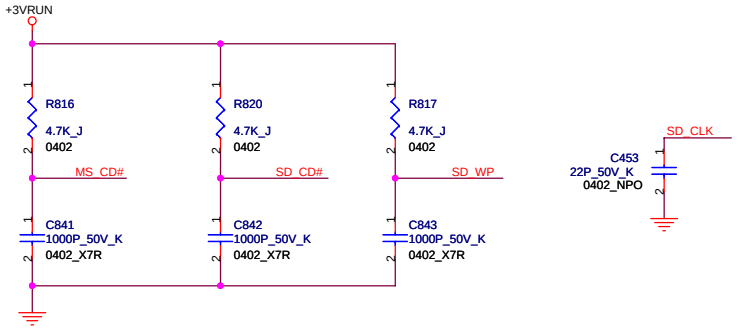


SD CONN.

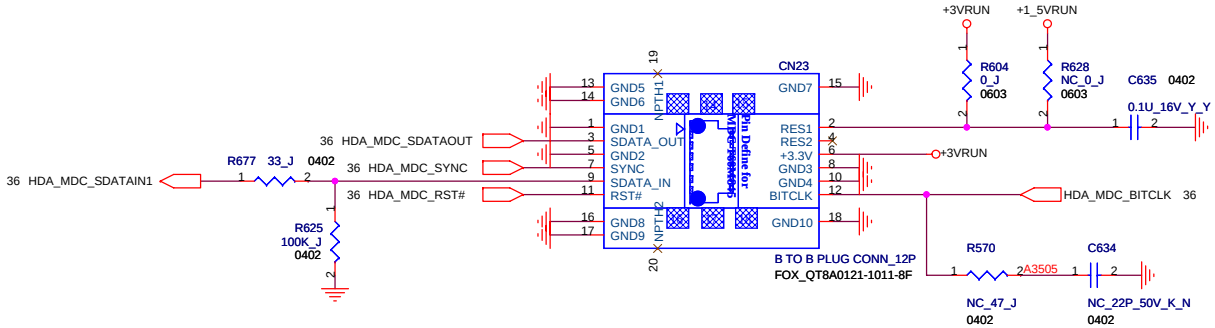


MS STD/DUO CONN.

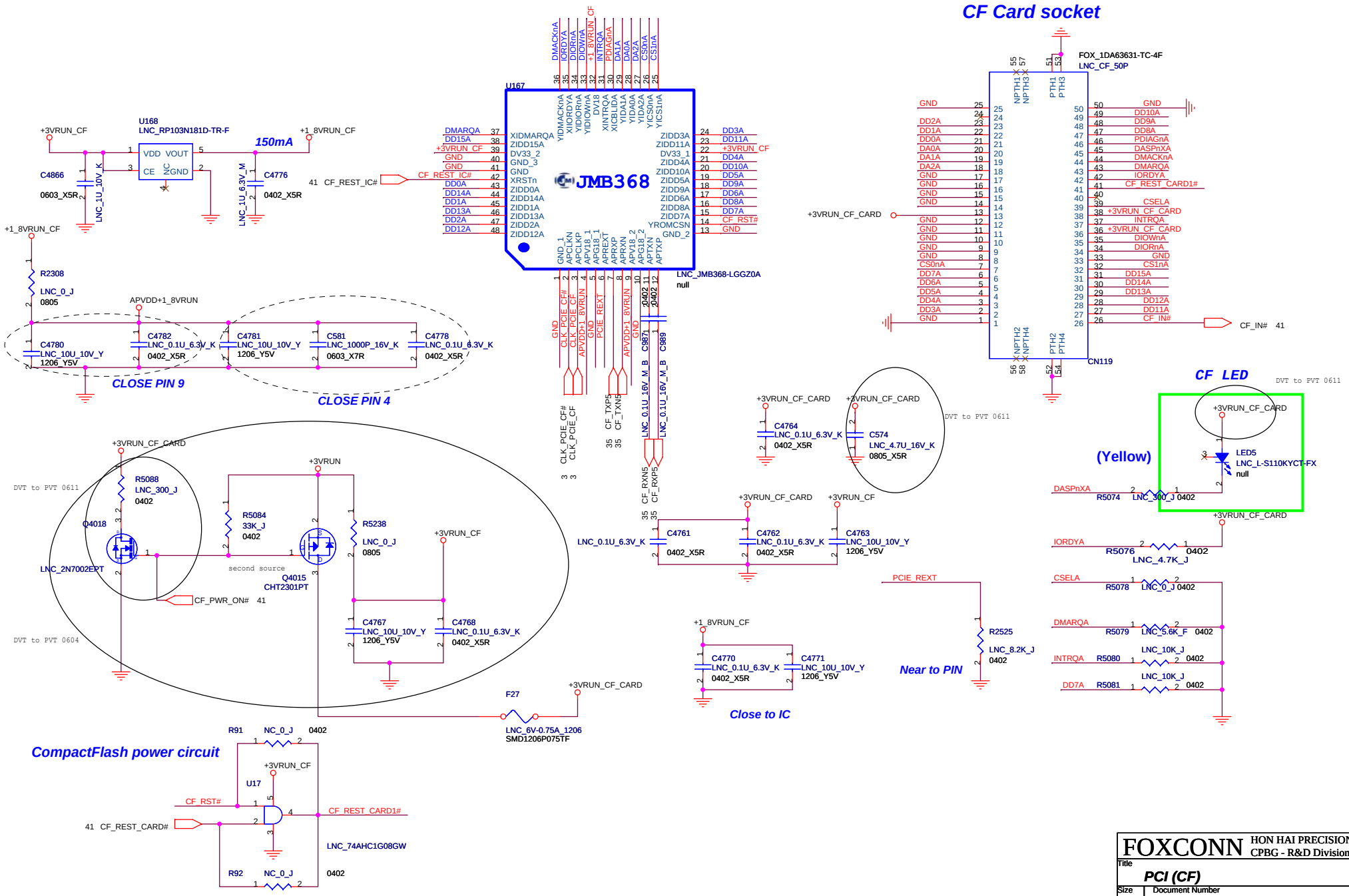




MDC CONN.

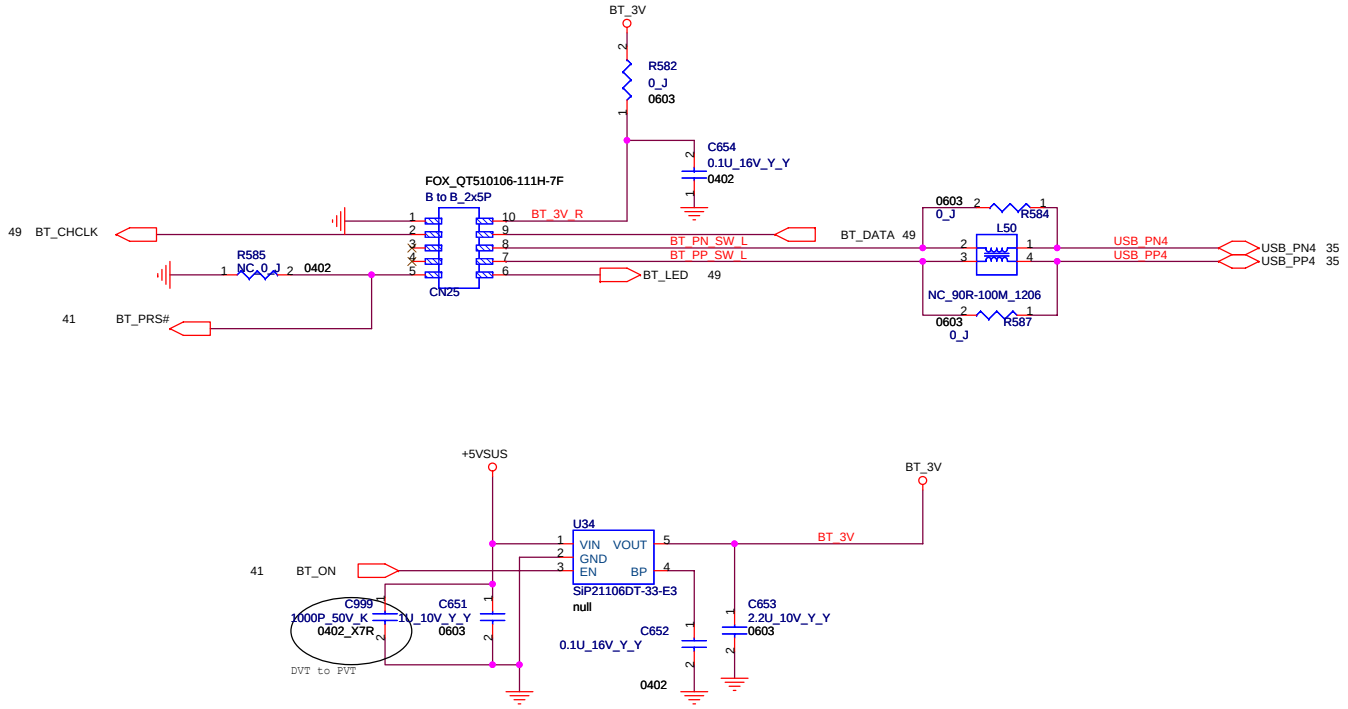


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	PCI (MS-DUO/MDC)	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 27, 2008	Sheet 46 of 79	



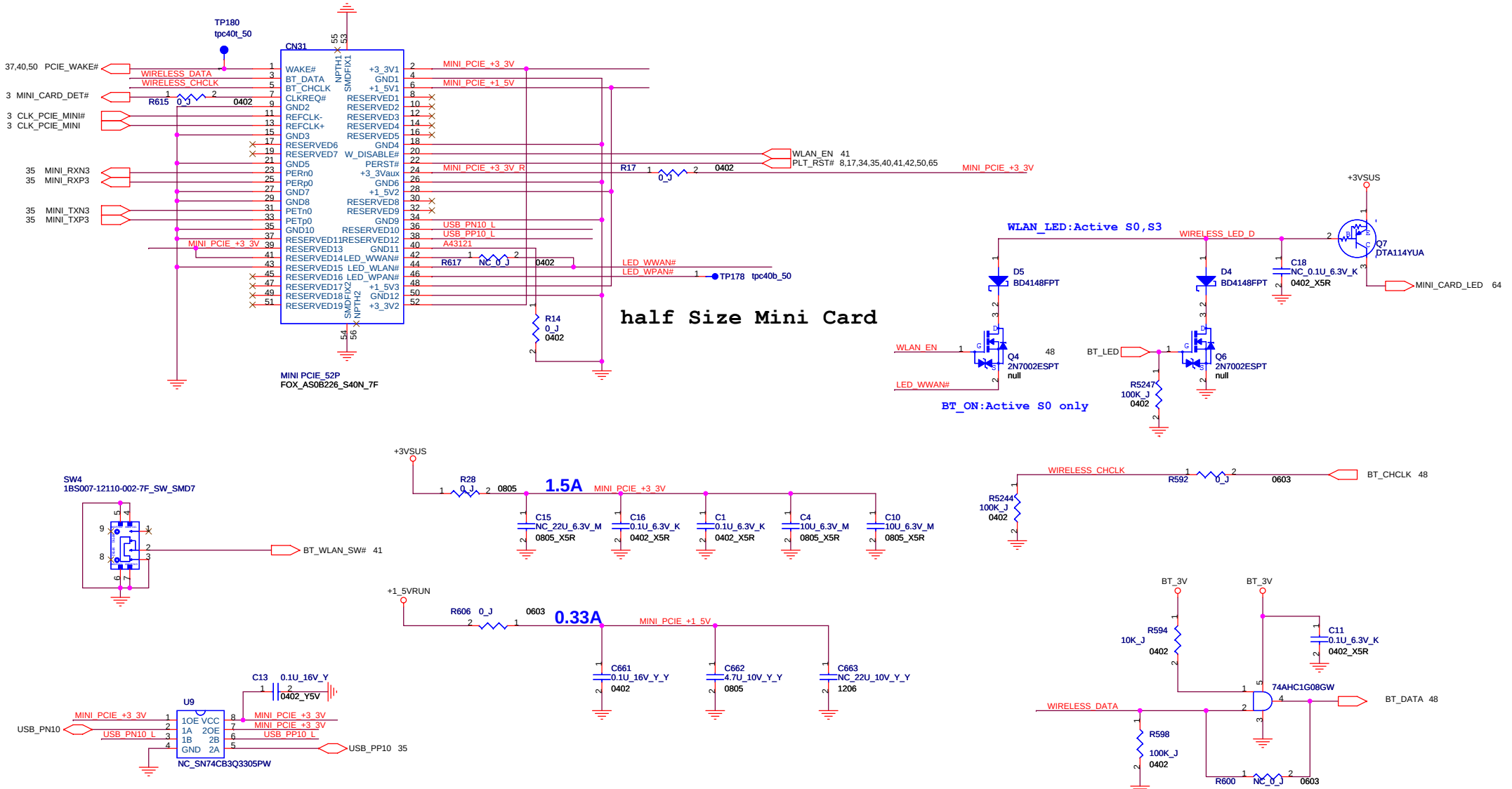
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	PCI (CF)	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 47 of 79	

Bluetooth connector



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: Bluetooth		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Tuesday, June 17, 2008	Sheet 48 of 79	

Mini-PCIE Card connector(WLA)

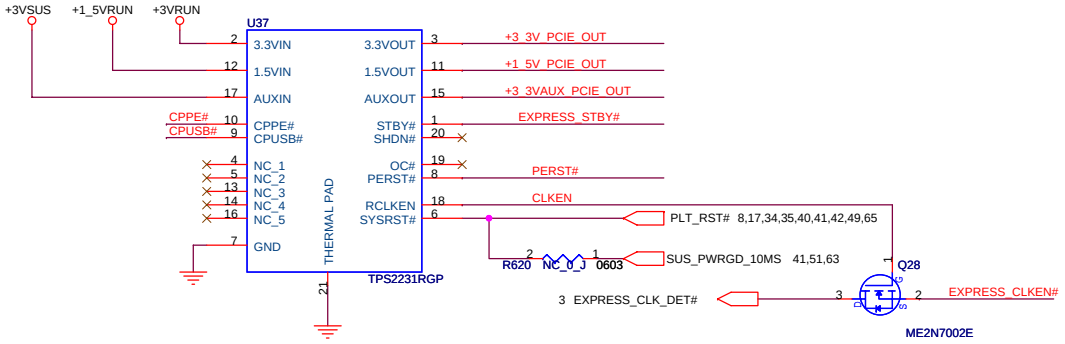


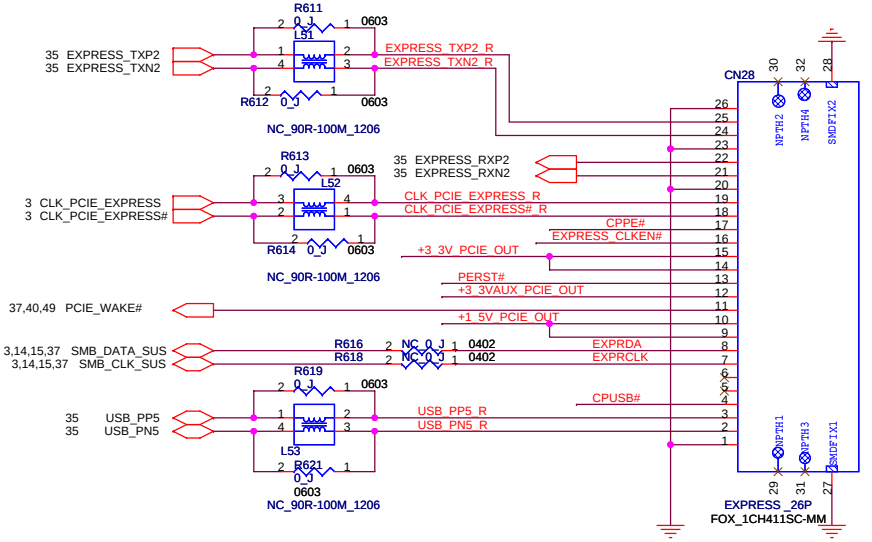
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	Mini-PCIE Card(WLA)	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 49 of 79	

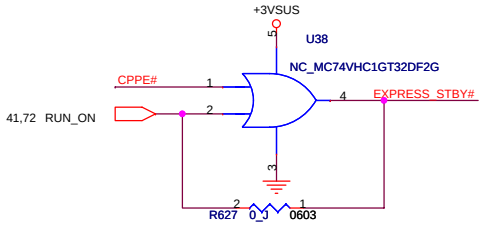
EXPRESS Card Slot

VOLTAGE INPUTS(1)			LOGIC INPUTS			VOLTAGE OUTPUTS(2)			MODE(3)
AUXIN	3.3VIN	1.5VIN	$\overline{SHDN}$	$\overline{STBY}$	$\overline{CP}$ (4)	AUXOUT	3.3VOUT	1.5VOUT	
Off	x	x	x	x	x	Off	Off	Off	OFF
On	x	x	0	x	x	GND	GND	GND	Shutdown
On	x	x	1	x	1	GND	GND	GND	No Card
On	On	On	1	0	0	On	Off	Off	Standby
On	On	On	1	1	0	On	On	On	Card Inserted

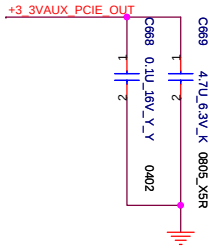
+1_5V=>0.65A
+3_3VAux=>0.275A
+3_3V=>1.3A



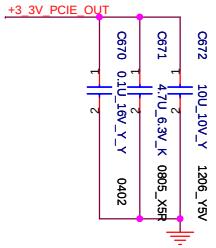




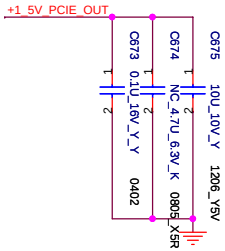
Supply Max 275mA

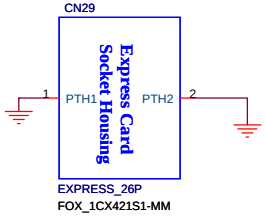


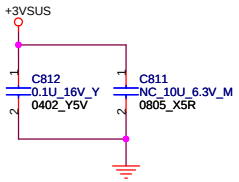
Supply Max 1300mA

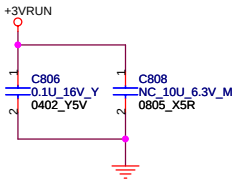


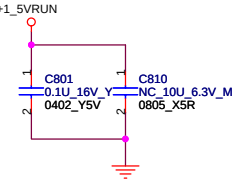
Supply Max 650mA











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

Title: EXPRESS CARD

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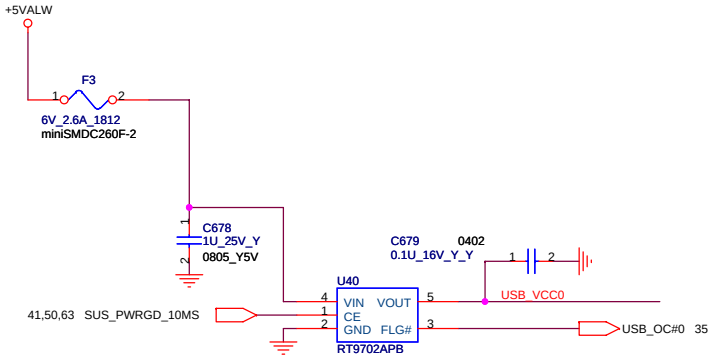
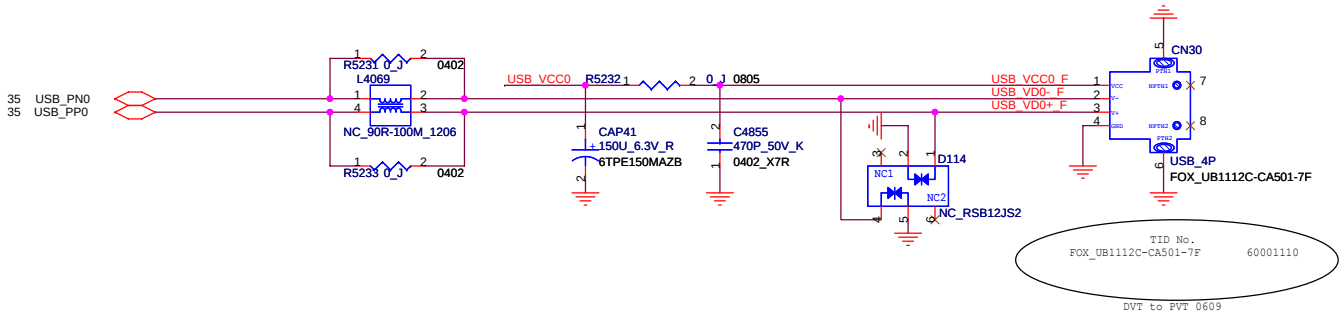
USB connector *1



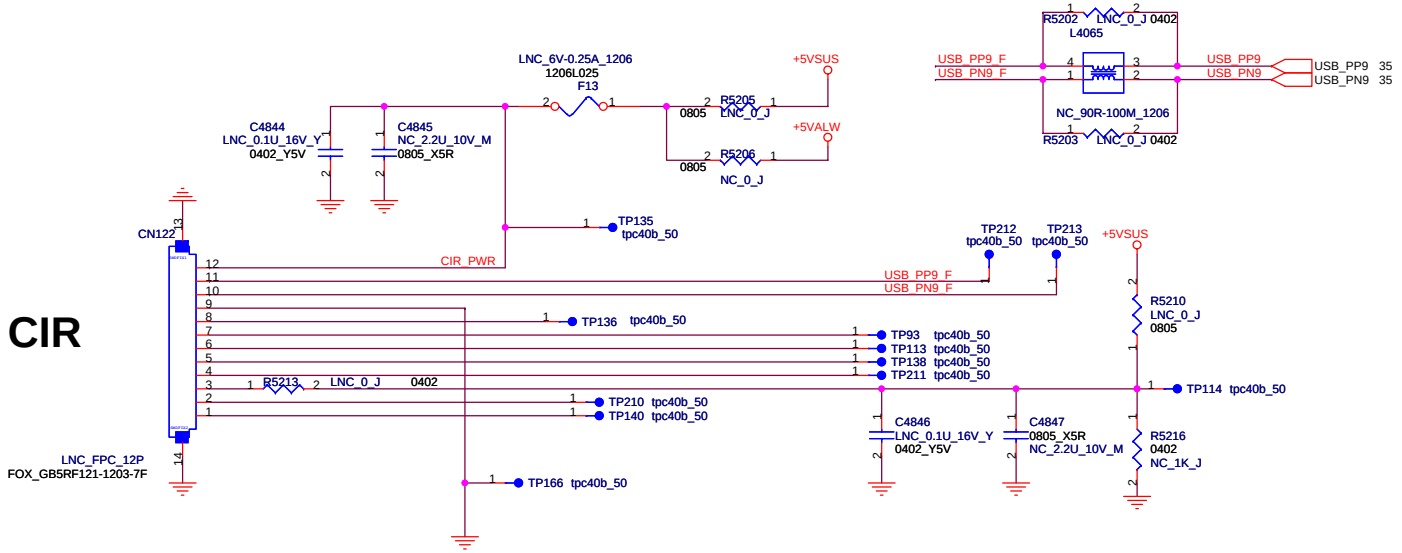


135.(Page 51) 07/11/12 remove U41 power switch to 41 pag.

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: USB2.0		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Monday, June 16, 2008	Sheet 51 of 79	

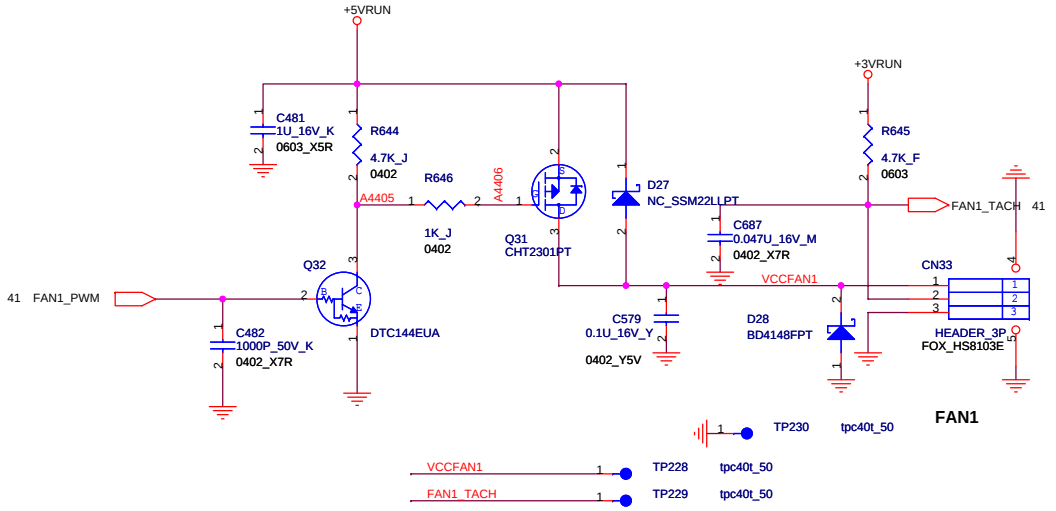
IR Rreceiver connector

CIR

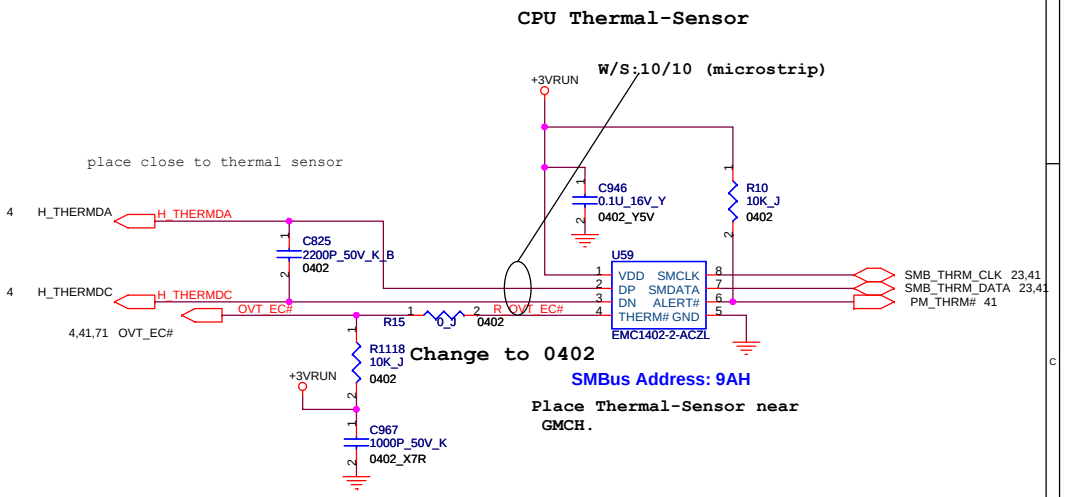


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: CIR Reciver		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 52 of 79	

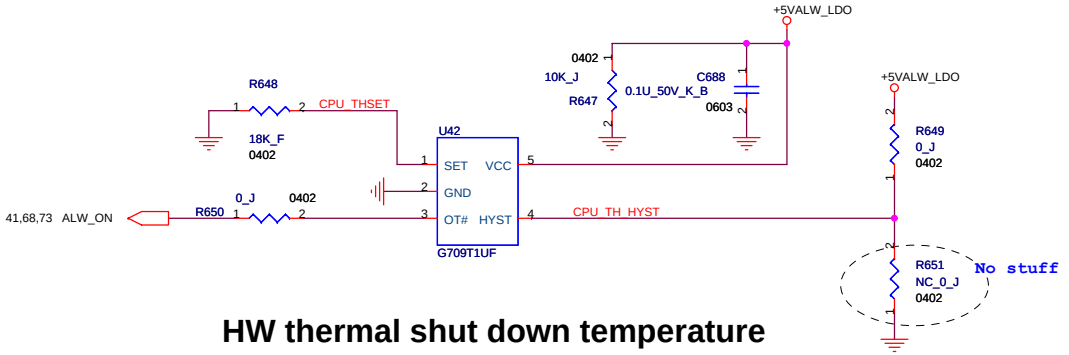
FAN circuit



CPU Thermal-Sensor

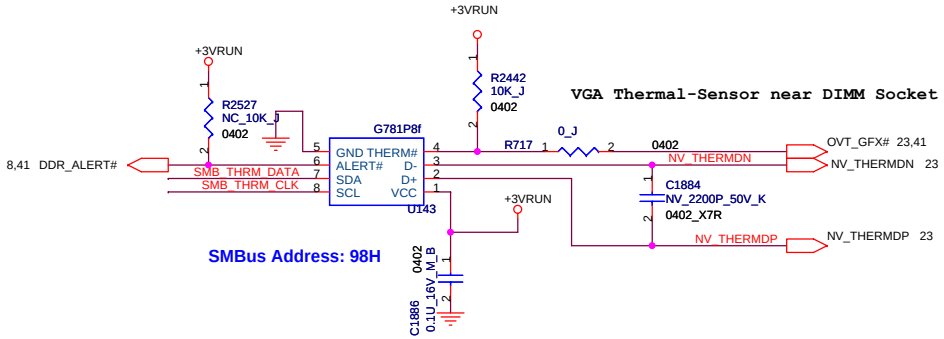


HW THERMAL PROTECTION



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

VGA Thermal-Sensor



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

Title: FAN / HW THERMAL PROTECTION

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

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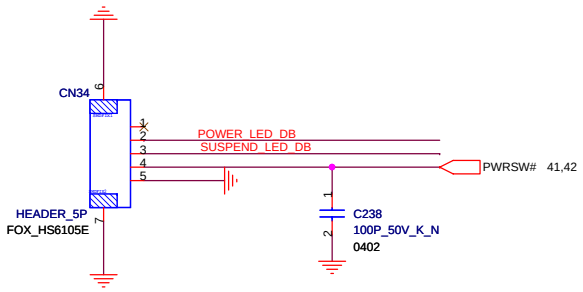
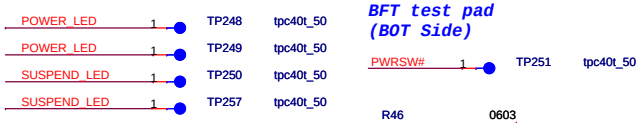
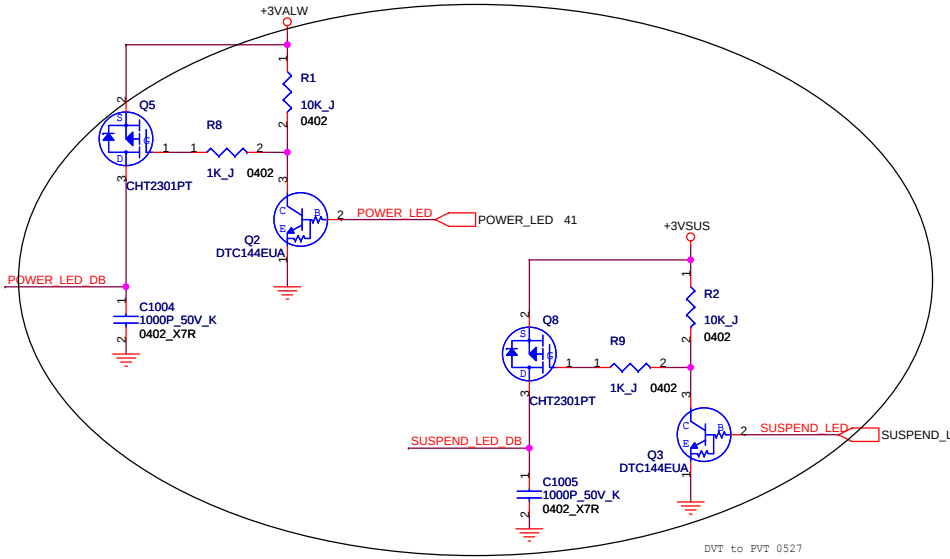
To Power Button Board Connector



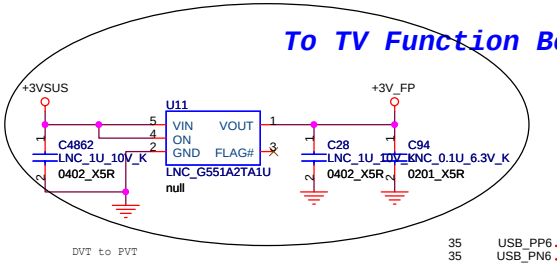
BFT test pad (TOP Side)

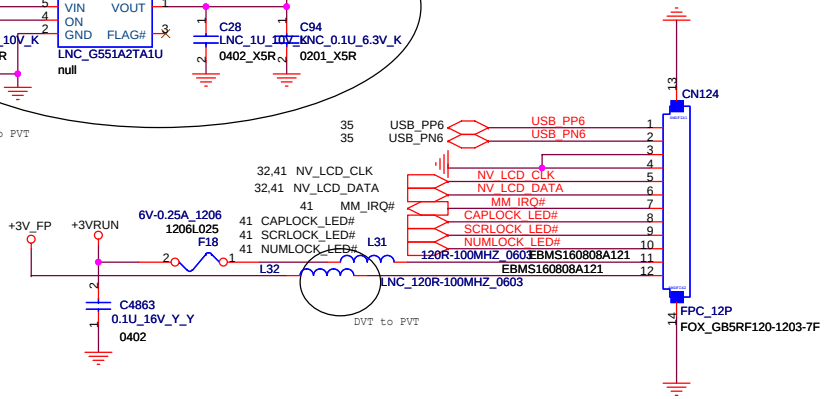
BFT test pad (BOT Side)



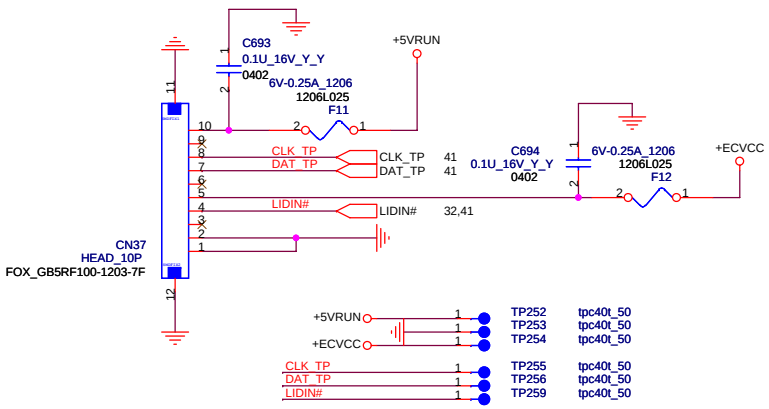


To TV Function Board Connector (FFC)





To Touch Pad Board Connector (FFC)



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

Title: **POWER+ FP+ T/P+LED CONNECTOR**

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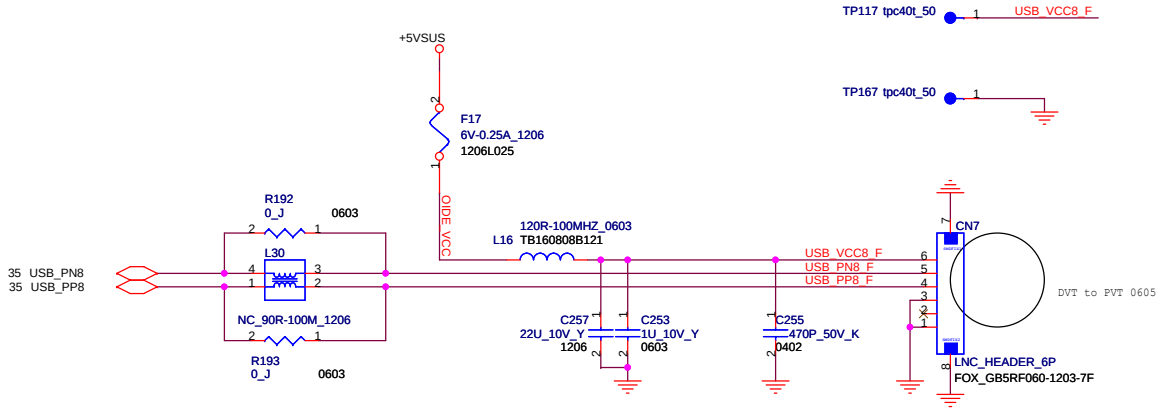
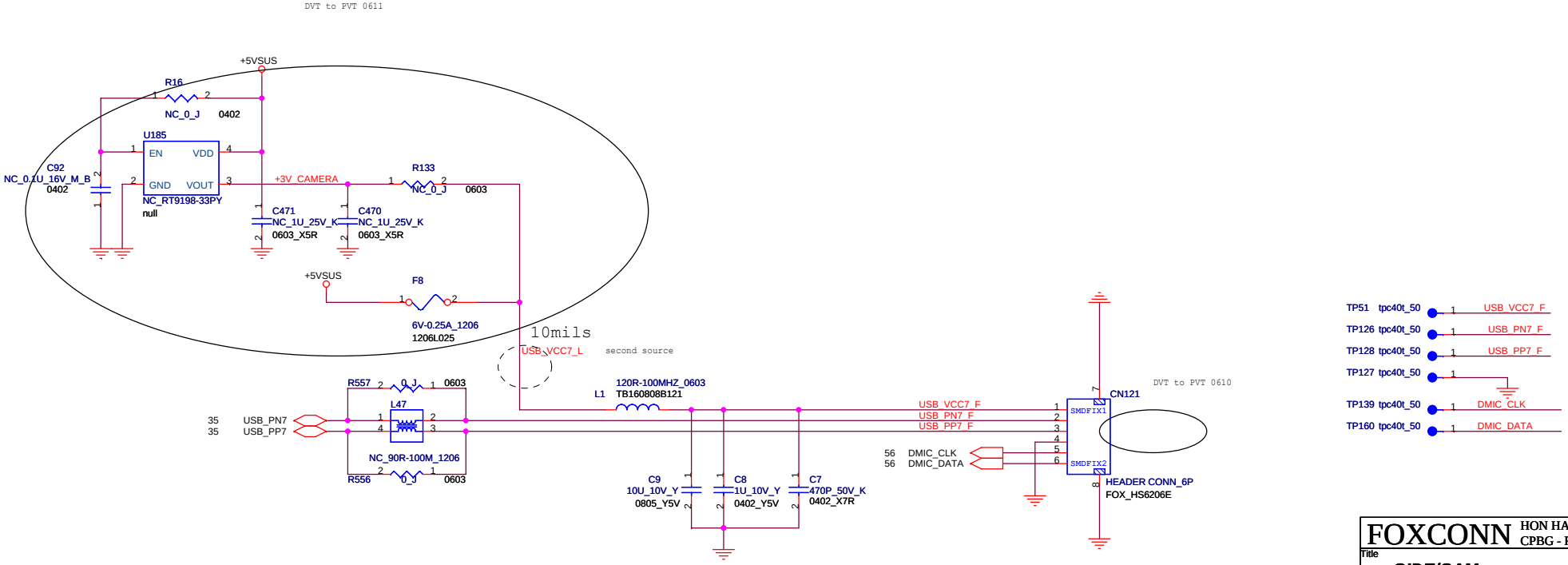
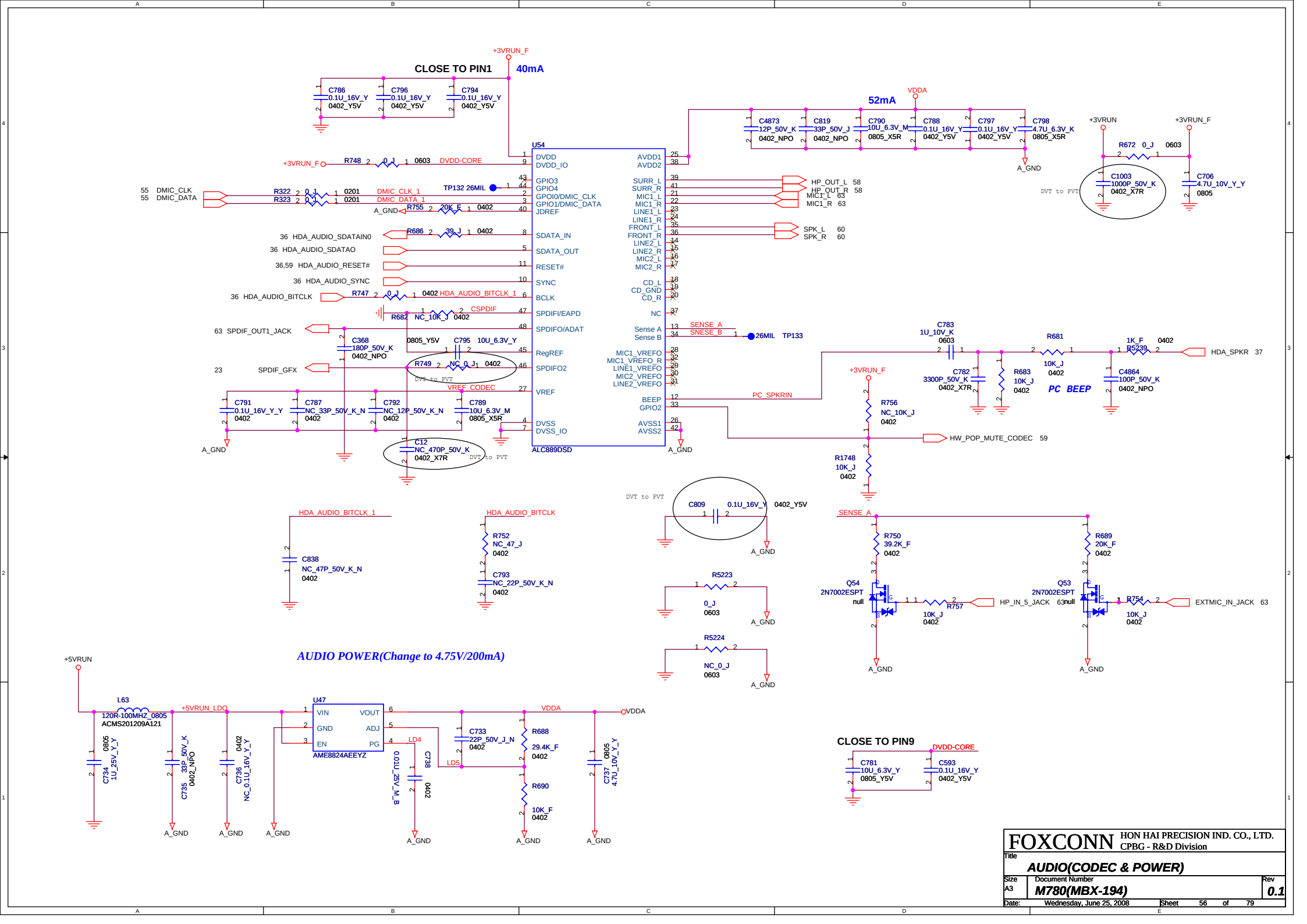
OIDE Connector



CAMERA +MIC CONN.



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	OIDE/CAM	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 55 of 79	


+3VRUN_F
CLOSE TO PIN1
40mA
C786 0.1U_16V_Y 0402_Y5V
C796 0.1U_16V_Y 0402_Y5V
C794 0.1U_16V_Y 0402_Y5V
U54
ALC889DSD
DVDD
DVDD_IO
GPIO3
GPIO4
GPOI0/DMIC_CLK
GPIO1/DMIC_DATA
JDREF
SDATA_IN
SDATA_OUT
RESET#
SYNC
BCLK
SPDIFI/EAPD
SPDIFO/ADAT
RegREF
SPDIFO2
VREF
DVSS
DVSS_IO
AVDD1
AVDD2
SURR_L
SURR_R
MIC1_L
MIC1_R
LINE1_L
LINE1_R
FRONT_L
FRONT_R
LINE2_L
LINE2_R
MIC2_L
MIC2_R
CD_L
CD_GND
CD_R
NC
Sense A
Sense B
MIC1_VREFO
MIC1_VREFO_R
LINE1_VREFO
MIC2_VREFO
LINE2_VREFO
BEEP
GPIO2
AVSS1
AVSS2
A_GND
VDDA
52mA
C4873 12P_50V_K 0402_NPO
C819 33P_50V_J 0402_NPO
C790 10U_6.3V_M 0805_X5R
C788 0.1U_16V_Y 0402_Y5V
C797 0.1U_16V_Y 0402_Y5V
C798 4.7U_6.3V_K 0805_X5R
+3VRUN
+3VRUN_F
R672 0_J 0603
C1003 1000P_50V_K 0402_X7R
C706 4.7U_10V_Y_Y 0805
DVT to PVT
R748 0_J 0603 DVDD-CORE
TP132 26MIL
55 DMIC_CLK
55 DMIC_DATA
R322 0_J 0201 DMIC_CLK_1
R323 0_J 0201 DMIC_DATA_1
R755 20K_F 0402
HP_OUT_L 58
HP_OUT_R 58
MIC1_L 63
MIC1_R 63
SPK_L 60
SPK_R 60
36 HDA_AUDIO_SDATAIN0
R686 39_J 0402
36 HDA_AUDIO_SDATAO
36,59 HDA_AUDIO_RESET#
36 HDA_AUDIO_SYNC
36 HDA_AUDIO_BITCLK
R747 0_J 0402 HDA_AUDIO_BITCLK_1
R682 NC_10K_J 0402 CSPDIF
63 SPDIF_OUT1_JACK
C368 180P_50V_K 0402_NPO
C795 10U_6.3V_Y 0805_Y5V
23 SPDIF_GFX
R749 NC_0_J 0402
VREF_CODEC
C791 0.1U_16V_Y_Y 0402
C787 NC_33P_50V_K_N 0402
C792 NC_12P_50V_K_N 0402
C789 10U_6.3V_M 0805_X5R
C12 NC_470P_50V_K 0402_X7R
SENSE_A
SNESE_B
26MIL TP133
PC_SPKRIN
C783 1U_10V_K 0603
R681 10K_J 0402
1K_F 0402 R5239
HDA_SPKR 37
C782 3300P_50V_K 0402_X7R
R683 10K_J 0402
PC BEEP
C4864 100P_50V_K 0402_NPO
R756 NC_10K_J 0402
HW_POP_MUTE_CODEC 59
R1748 10K_J 0402
C809 0.1U_16V_Y 0402_Y5V
HDA_AUDIO_BITCLK_1
HDA_AUDIO_BITCLK
C838 NC_47P_50V_K_N 0402
R752 NC_47_J 0402
C793 NC_22P_50V_K_N 0402
R5223 0_J 0603
R5224 NC_0_J 0603
SENSE_A
R750 39.2K_F 0402
R689 20K_F 0402
Q54 2N7002ESPT
Q53 2N7002ESPT
R757 10K_J 0402
HP_IN_5_JACK 63
R754 10K_J 0402
EXTMIC_IN_JACK 63
AUDIO POWER(Change to 4.75V/200mA)
+5VRUN
L63 120R-100MHZ_0805 ACMS201209A121
+5VRUN_LDO
U47 AME8824AEEYZ
VIN
VOUT
GND
ADJ
EN
PG
LD4
LD5
C734 1U_25V_Y_Y 0805
C735 33P_50V_K 0402_NPO
C736 NC_0.1U_16V_Y_Y 0402
C738 0.01U_25V_M_B 0402
C733 22P_50V_J_N 0402
R688 29.4K_F 0402
R690 10K_F 0402
C737 4.7U_10V_Y_Y 0805
CLOSE TO PIN9
DVDD-CORE
C781 10U_6.3V_Y 0805_Y5V
C593 0.1U_16V_Y 0402_Y5V
FOXCONN
HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division
Title
AUDIO(CODEC & POWER)
Size A3
Document Number M780(MBX-194)
Rev 0.1
Date: Wednesday, June 25, 2008
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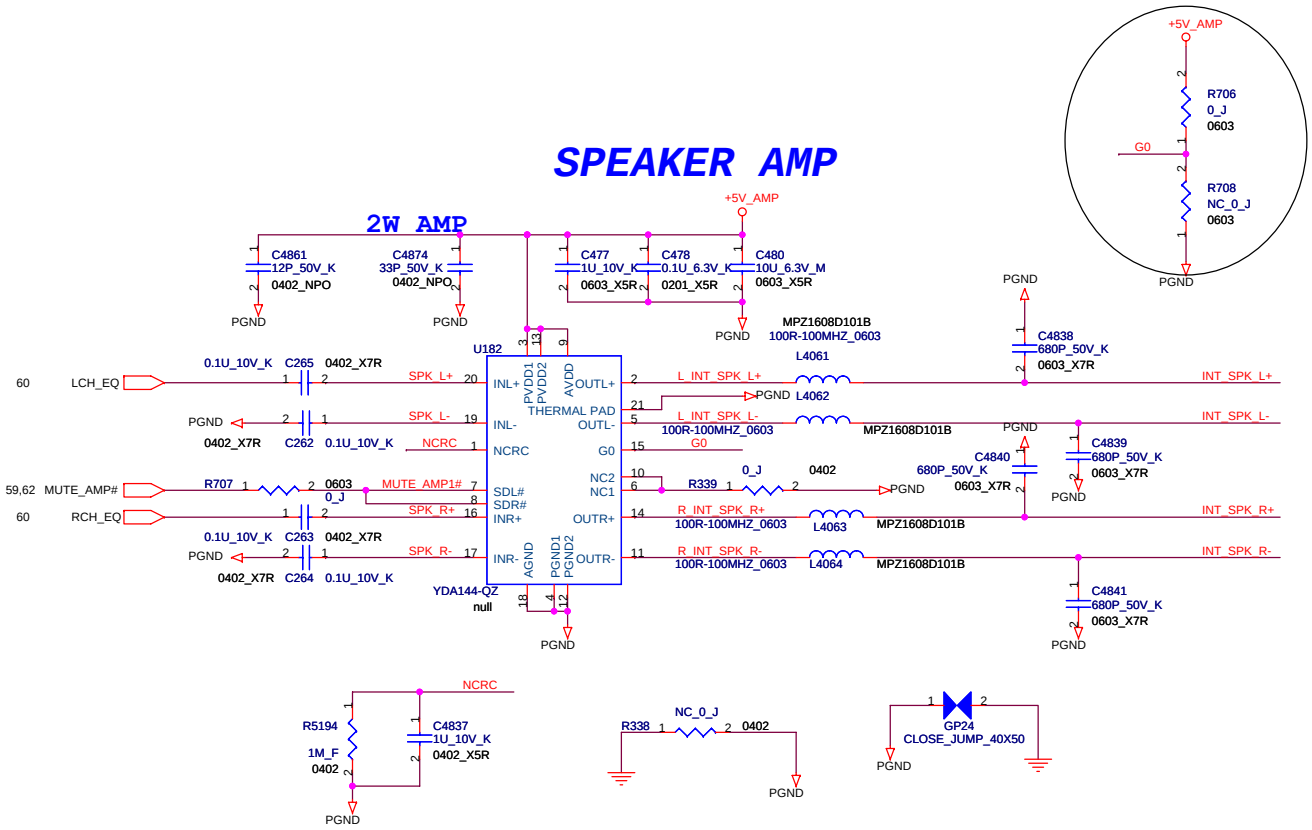
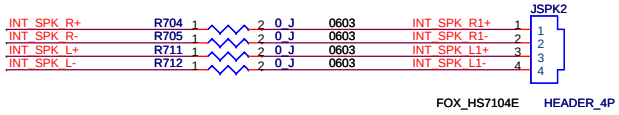
SPEAKER AMP



INTERNAL SPEAKER Connector

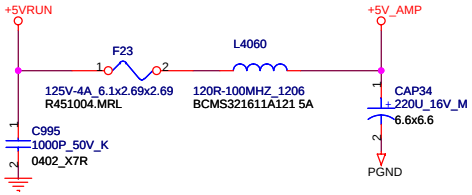


(20mil) **BFT Test Pad**

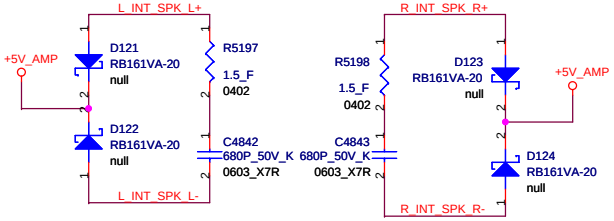
GAIN

External adjustable	Adjustable range from 12db to 18db
Fixed	Pull high=18db Pull low=12db

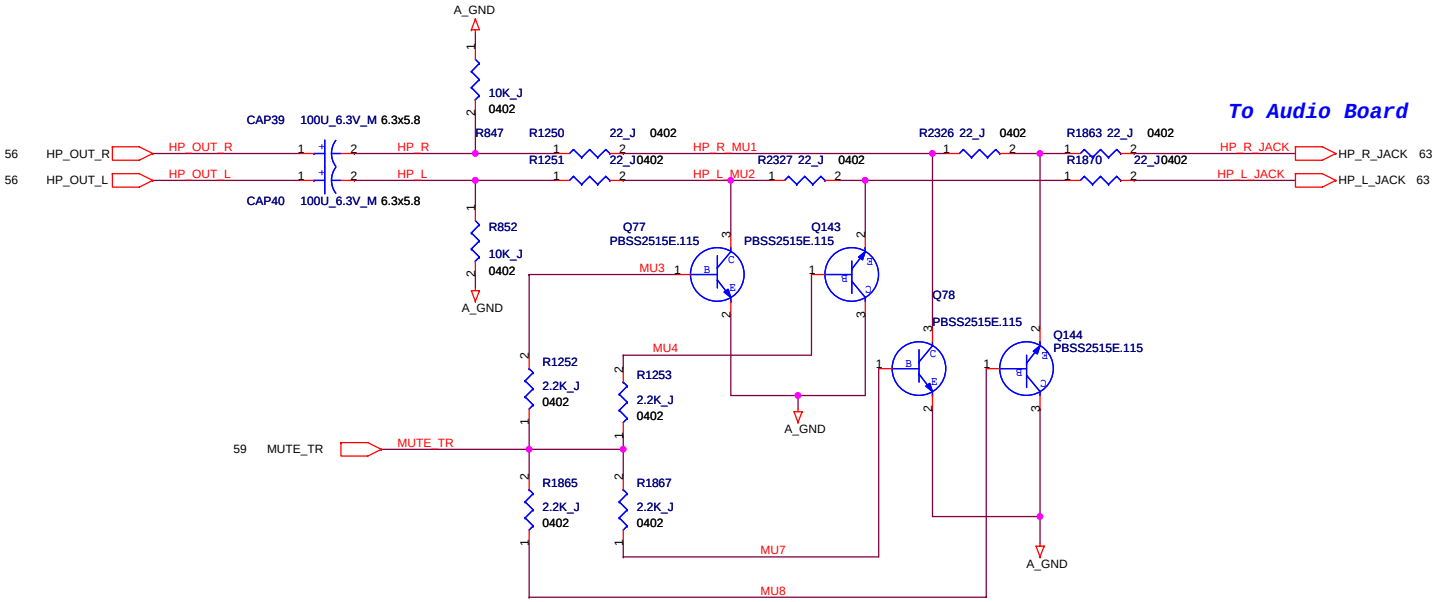
SPEAKER POWER



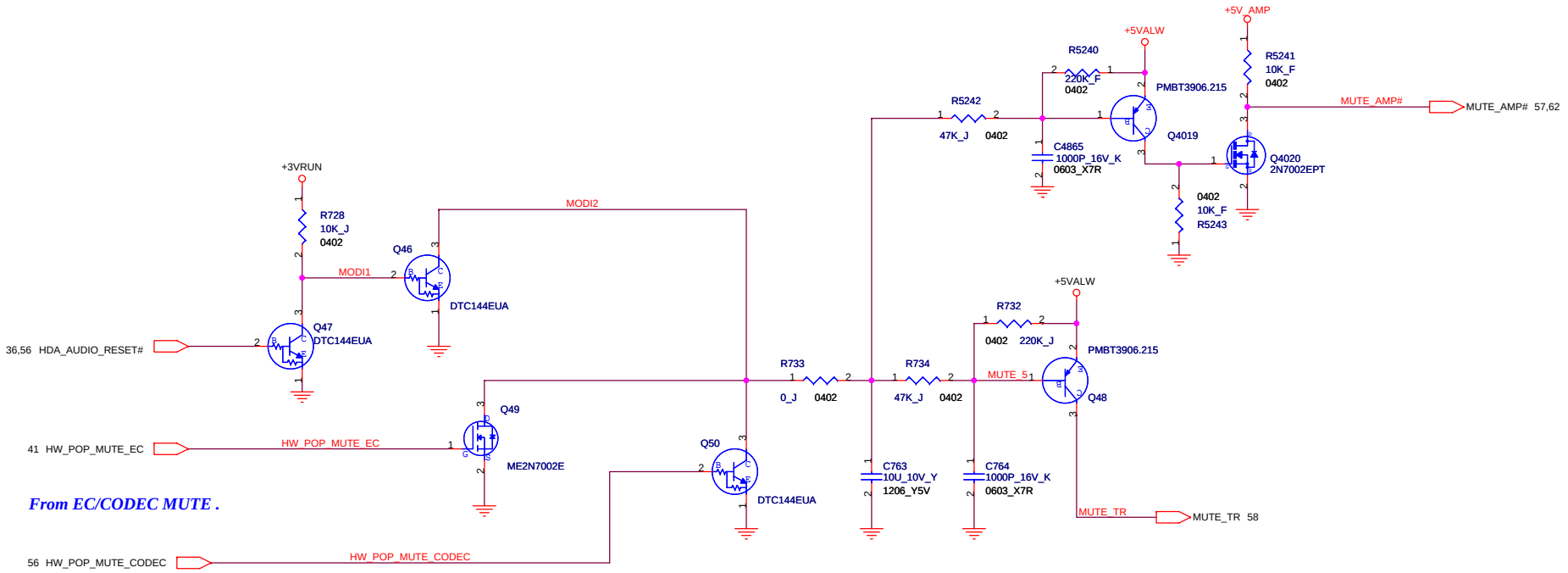
Close to Amp



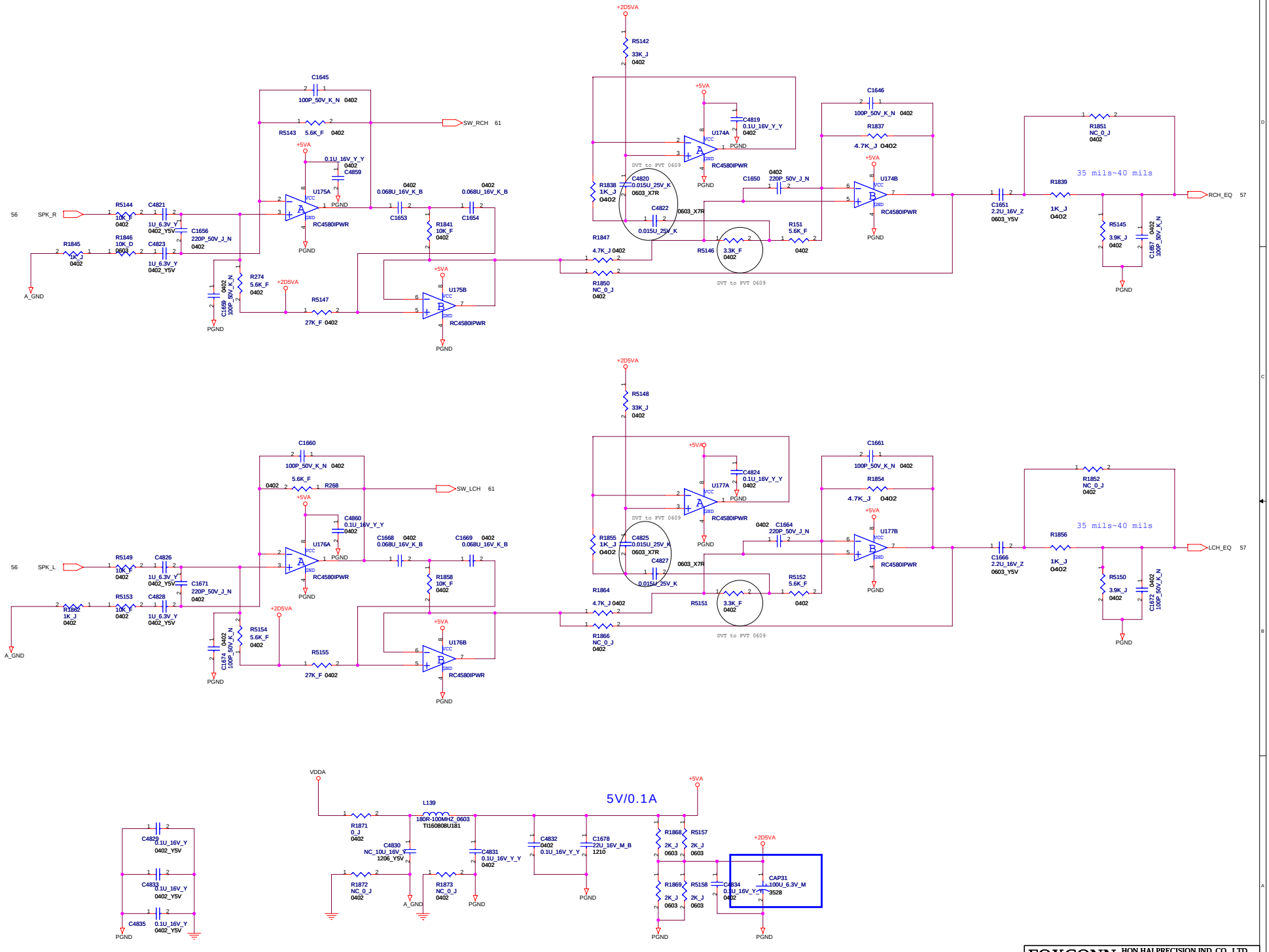
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division		
Title	AUDIO(AMP & SPK)		
Size A3	Document Number M780(MBX-194)		Rev 0.1
Date: Friday, June 13, 2008	Sheet 57 of 79		



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: AUDIO (HP)		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 58 of 79	



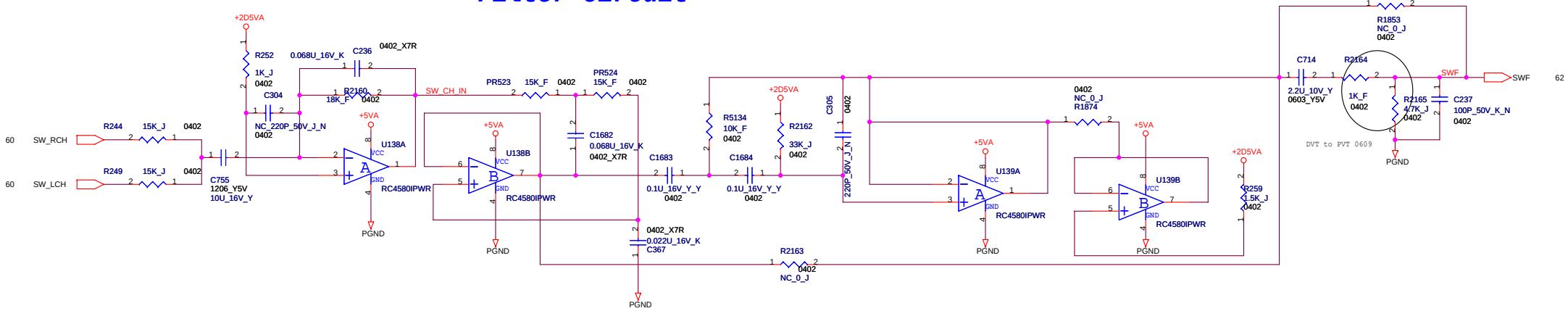
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: AUDIO (MUTE)		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 59 of 79	



FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	AUDIO(EQ)
Size: Custom	Document Number: M780(MBX-194)
Rev	0.1
Date: Friday, June 13, 2008	Sheet 60 of 79

Vendor recommendation not use for
1) Input impedance
As described in the datasheet (P5),match input impedance at IN+ and IN-.
We are afraid of pop noise on this board.
Current SWF impedance is too big, so we recommend to reduce SWF output impedance.
Does R2164,R2165 and C237 Circuit need?

Filter Circuit

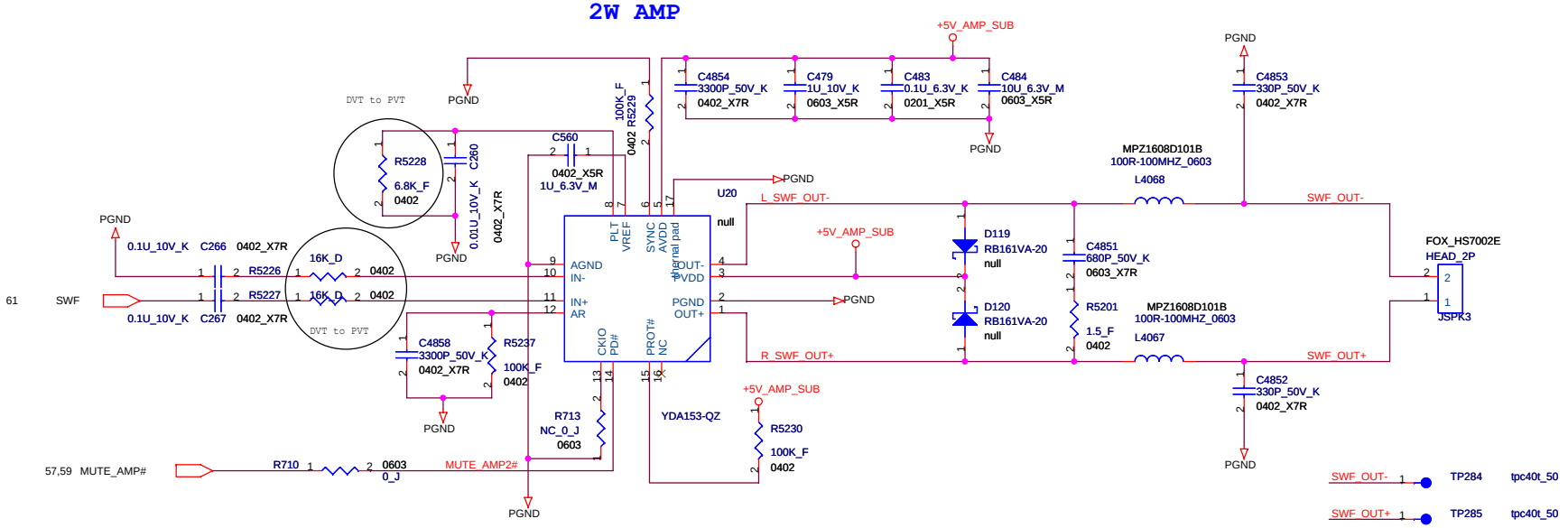


FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: Filter Circuit		
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 61 of 79	

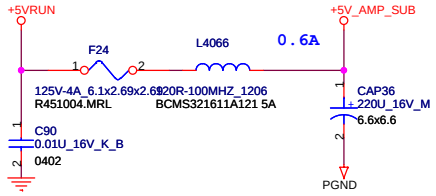
SUB_WOOFER AMP

C479,C484
Locate them close to PVDD pin

2W AMP

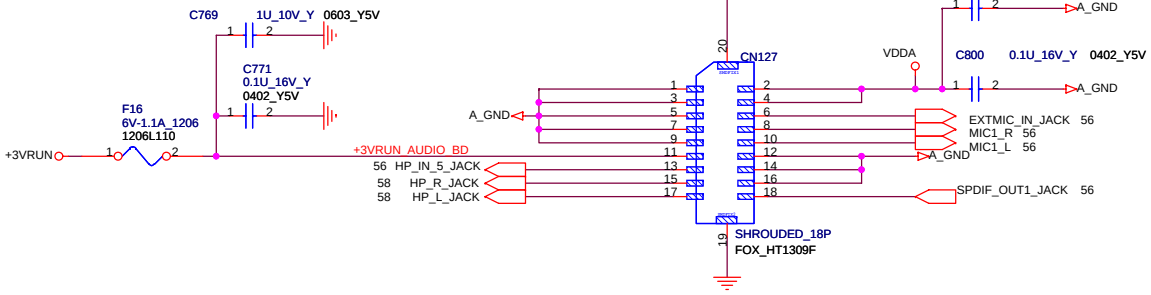


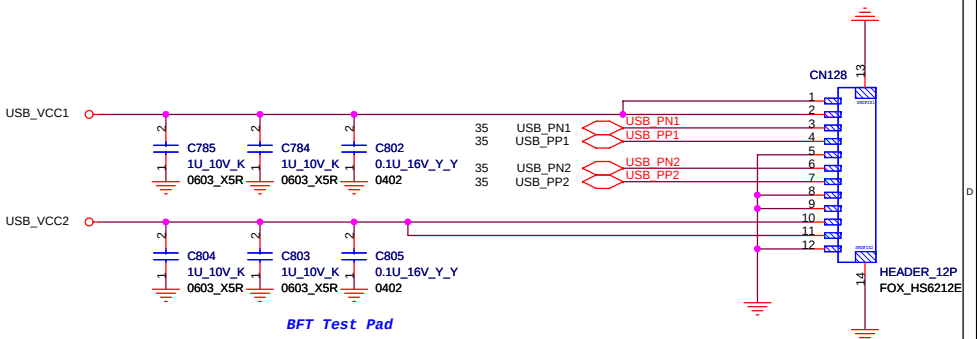
SUB_WOOFER POWER

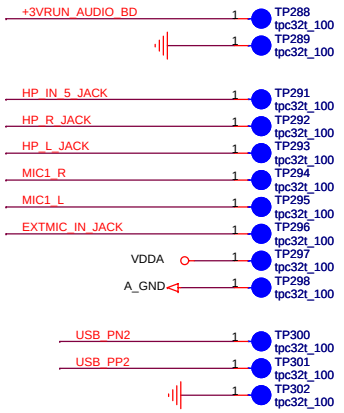


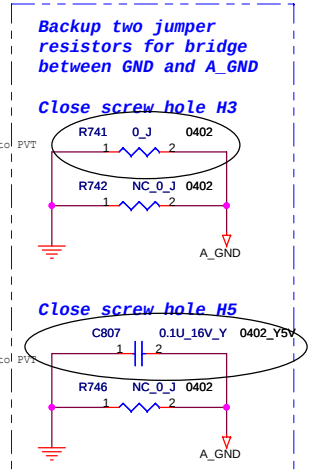
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division		
Title	AUDIO(Subwoofer AMP)		
Size A3	Document Number M780(MBX-194)		Rev 0.1
Date: Friday, June 27, 2008	Sheet 62 of 79		

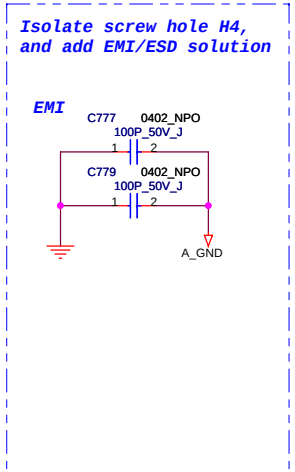
Audio Board connector

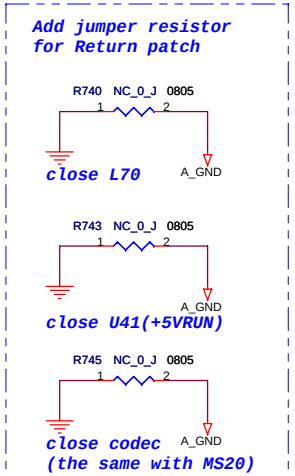


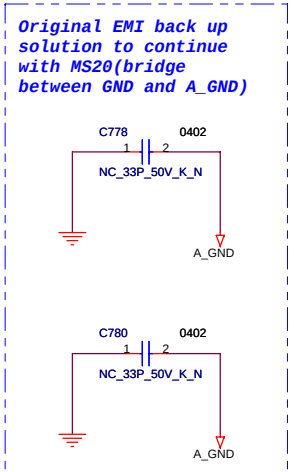


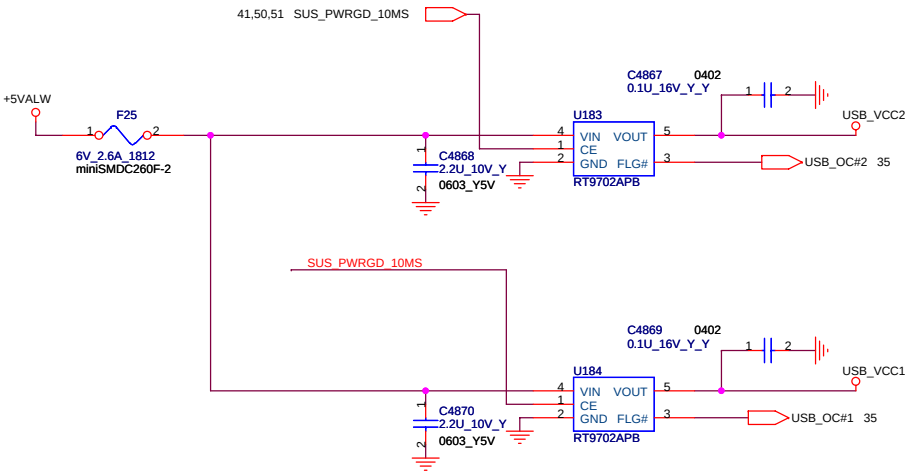








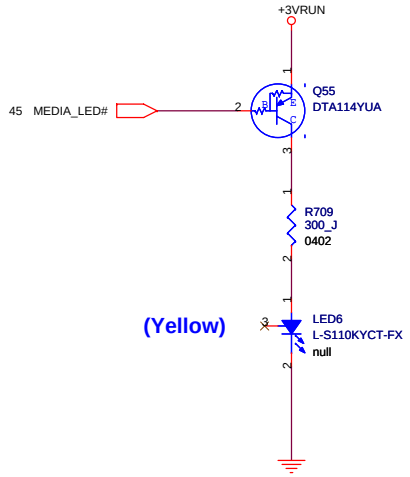




FOXCONN HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division

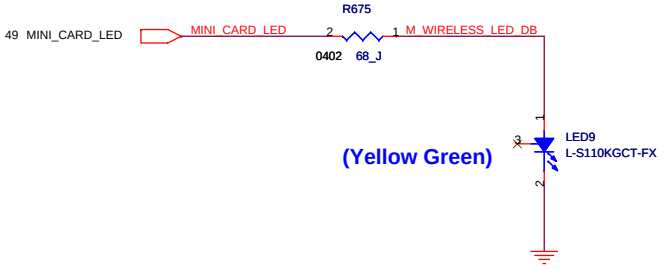
Title: Audio Board conn		
Size: A3	Document Number: M780(MBX-194)	Rev: 0.1
Date: Wednesday, June 25, 2008	Sheet 63 of 79	

MS/SD LED



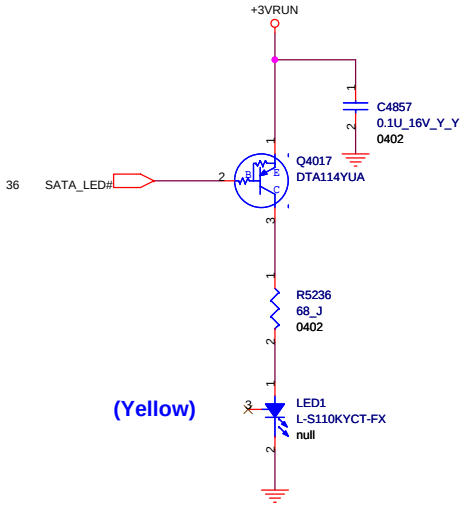
230.(Page 64) 07/12/05 Change MS/SD LED control signal share one LED

WLAN/BLUETOOTH LED

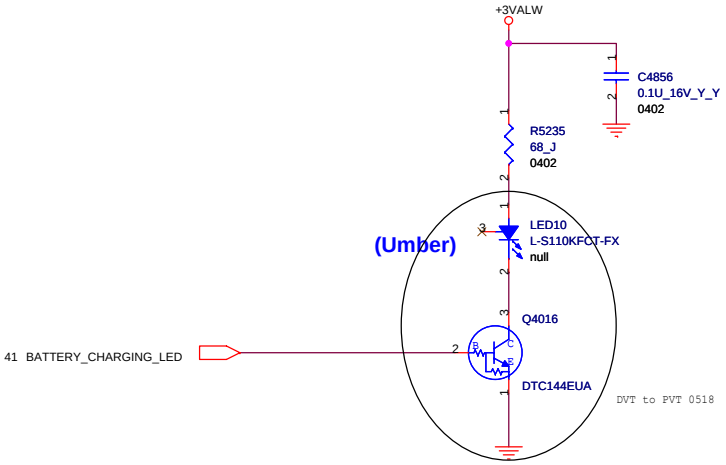


232.(Page 64) 07/12/05 Change Wirless/BluetoothLED control signal share one LED

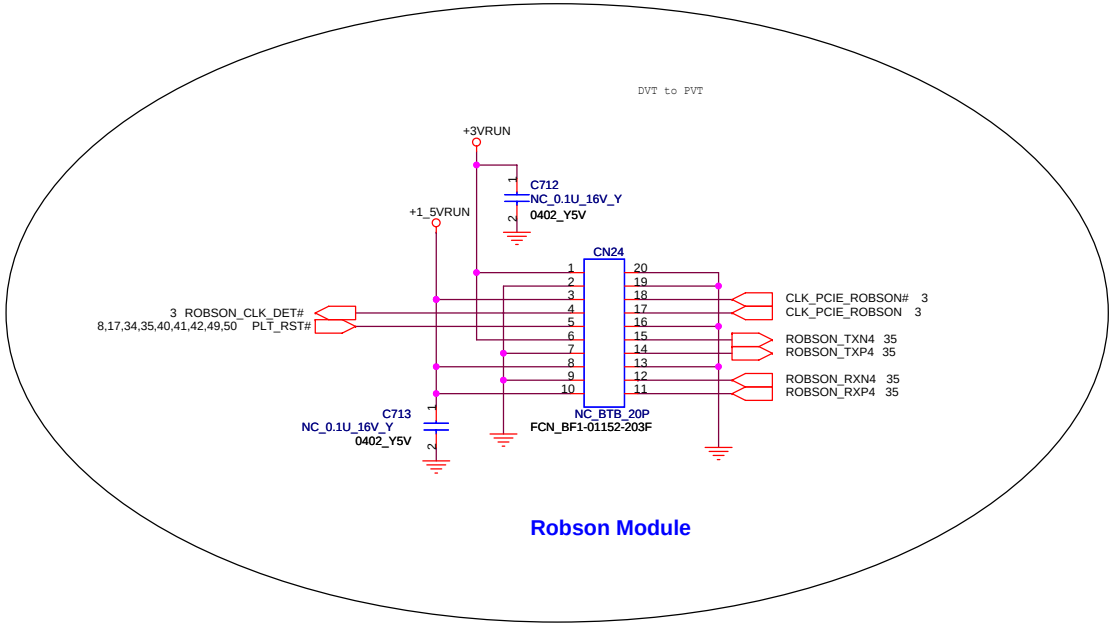
HDD/ODD LED



Charge LED

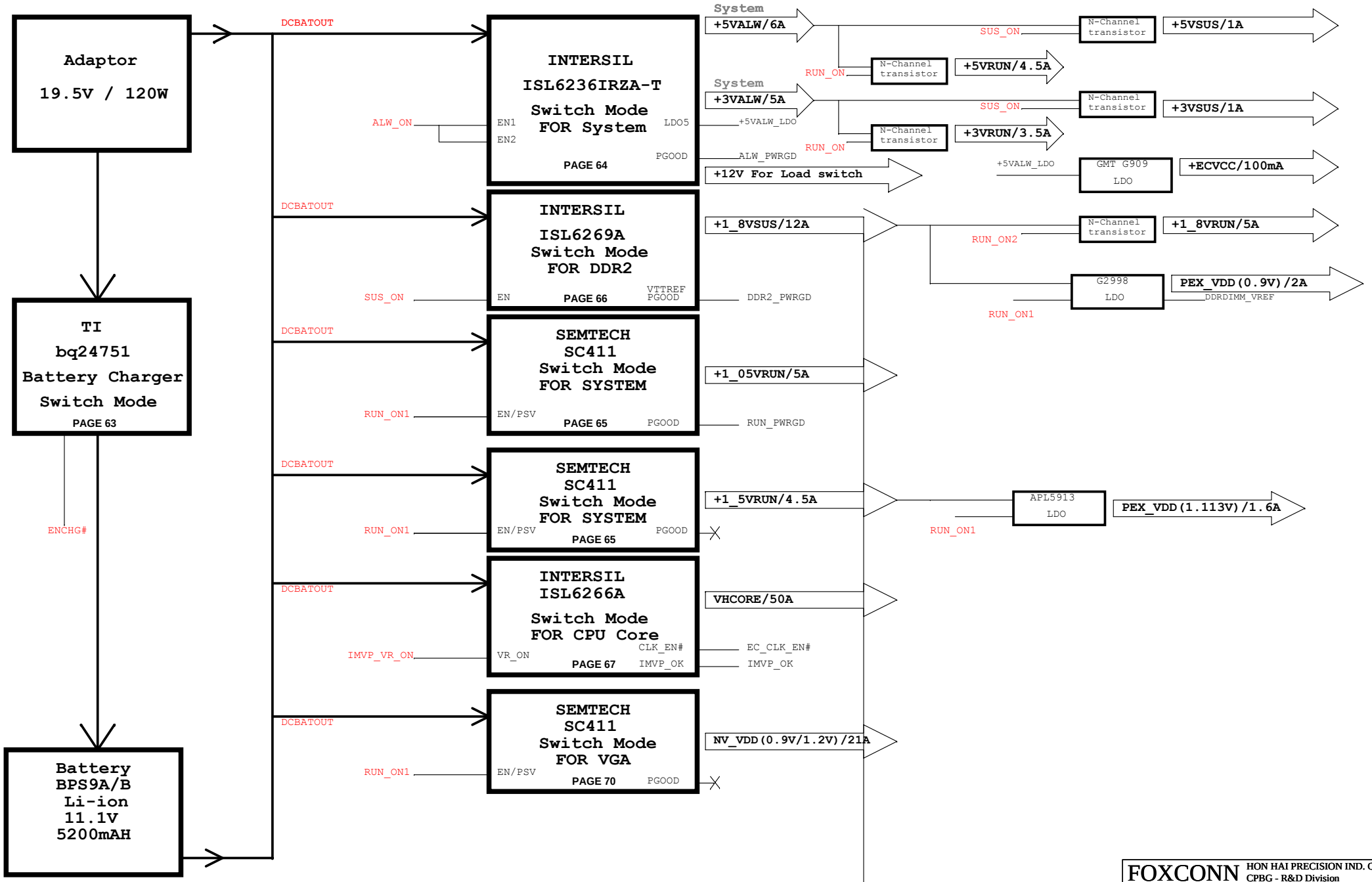


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	LED status	
Size A3	Document Number M780(MBX-194)	Rev 0.1
Date: Friday, June 13, 2008	Sheet 64 of 79	



Robson Module

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: ***Robson1.6 Connector***		
Size: A3	Document Number: ***M780(MBX-194)***	Rev: ***0.1***
Date: Wednesday, June 25, 2008	Sheet 65 of 79	

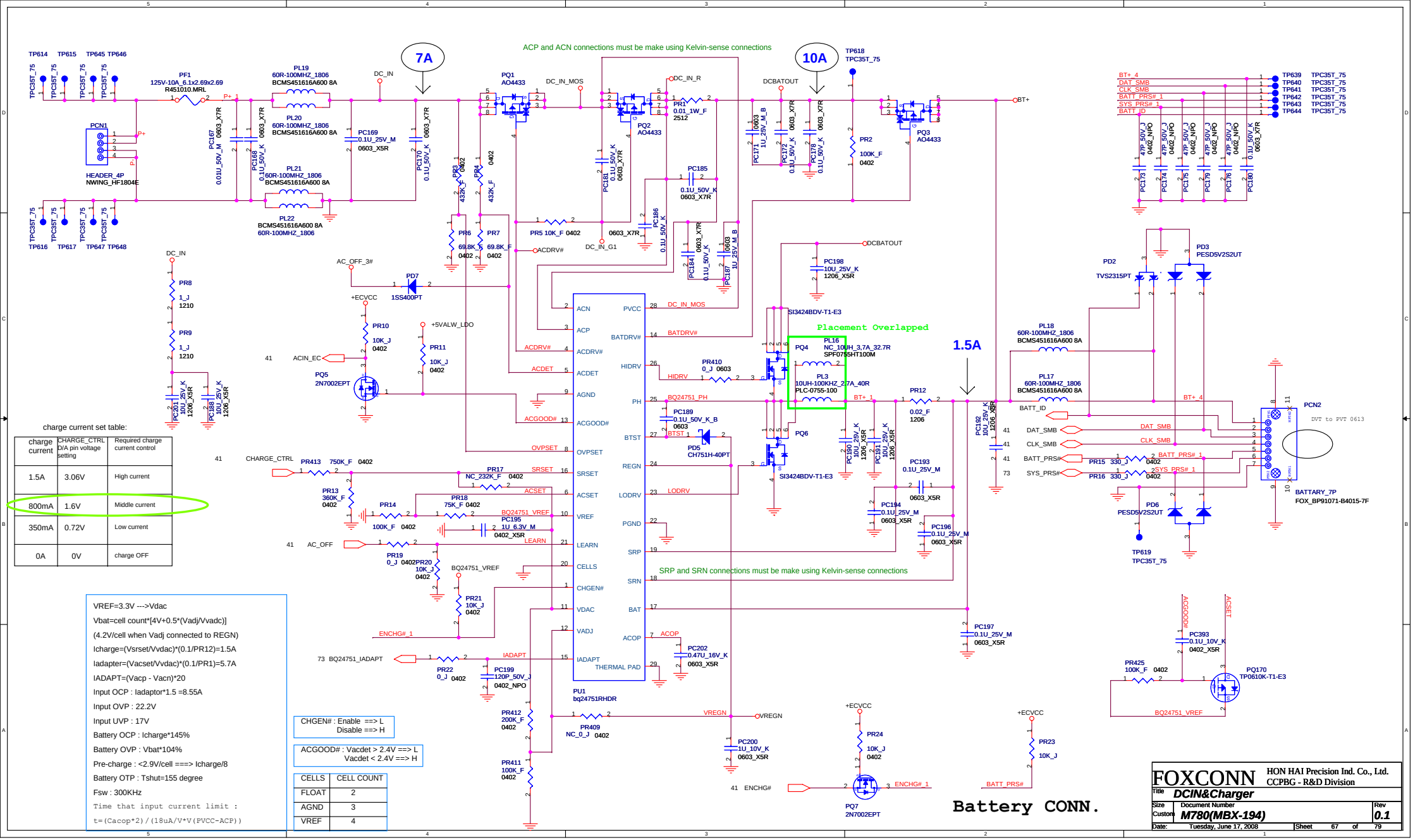


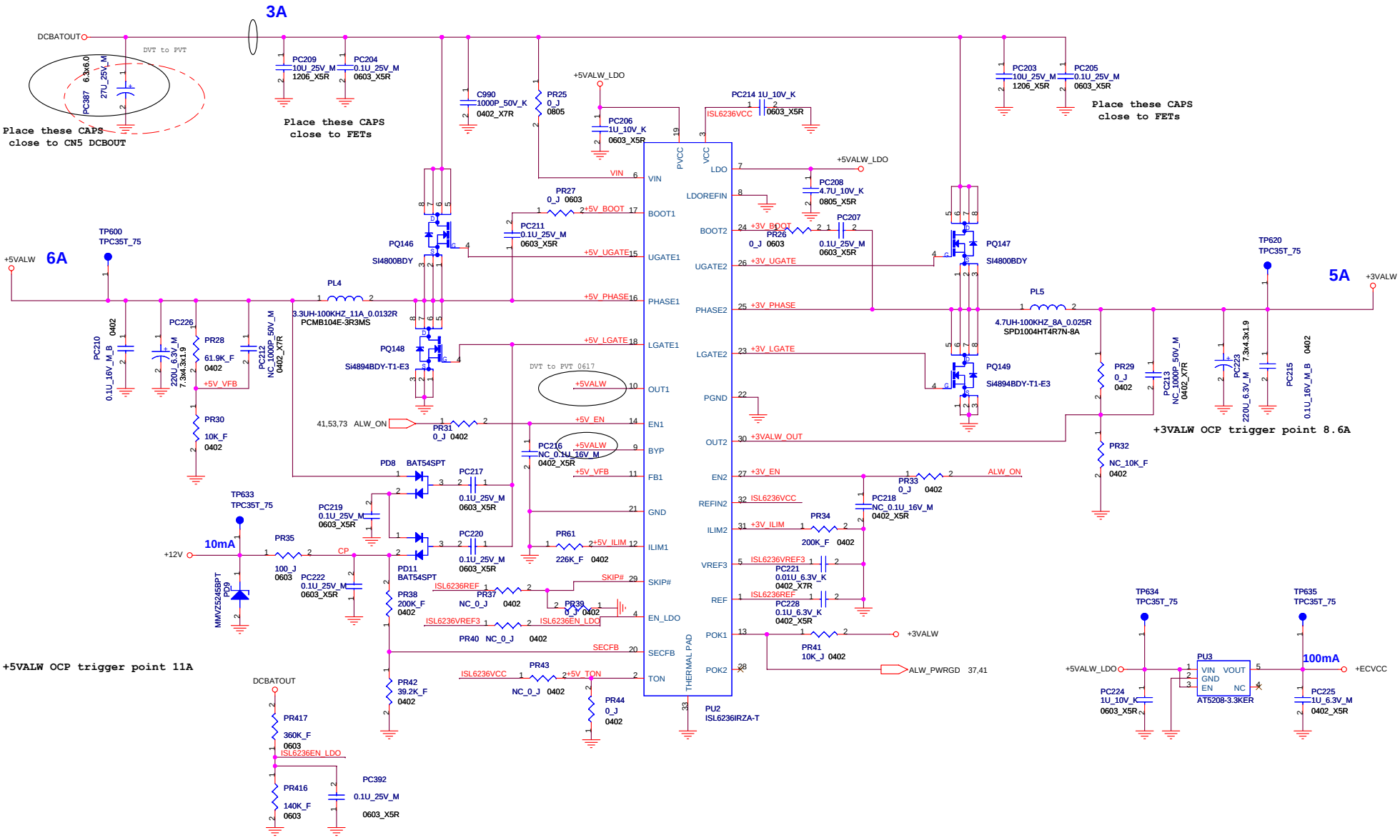
FOXCONN HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division

Title: *Power Design Diagram*

Size	Document Number	Rev
Custom	*M780(MBX-194)*	*0.1*

Date: Friday, June 13, 2008 Sheet 66 of 79


ACP and ACN connections must be make using Kelvin-sense connections
7A
10A
1.5A
Placement Overlapped
SRP and SRN connections must be make using Kelvin-sense connections
PU1
bq24751RHDR
ACN
ACP
ACDRV#
ACDET
AGND
ACGOOD#
OVPSET
SRSET
ACSET
VREF
LEARN
CELLS
CHGEN#
VDAC
VADJ
IADAPT
THERMAL PAD
PVCC
BATDRV#
HIDRV
PH
BTST
REGN
LODRV
PGND
SRP
SRN
BAT
ACOP
PF1
125V-10A_6.1x2.69x2.69
R451010.MRL
PCN1
HEADER_4P
NWING_HF1804E
PL19
PL20
PL21
PL22
60R-100MHZ_1806
BCMS451616A600 8A
PQ1
PQ2
PQ3
AO4433
PR1
0.01_1W_F
2512
PR2
100K_F
0402
PR3
PR4
432K_F
0402
PR5 10K_F 0402
PR6
PR7
69.8K_F
0402
PR8
PR9
1_J
1210
PR10
10K_J
0402
PR11
PR12
0.02_F
1206
PR13
360K_F
0402
PR14
100K_F 0402
PR15
330_J
0402
PR16
330_J
0402
PR17
NC_232K_F 0402
PR18
75K_F 0402
PR19
0_J 0402
PR20
10K_J
0402
PR21
10K_J
0402
PR22
0_J 0402
PR23
10K_J
PR24
10K_J
0402
PR409
NC_0_J 0402
PR410
0_J 0603
PR412
200K_F
0402
PR411
100K_F
0402
PR413 750K_F 0402
PC167
0.01U_50V_M 0603_X7R
PC168
0.1U_50V_K
PC169
0.1U_25V_M
0603_X5R
PC170
0.1U_50V_K 0603_X7R
PC171
1U_25V_M_B
PC172
0.1U_50V_K
PC173
47P_50V_J
0402_NPO
PC174
PC175
PC176
PC178
0.1U_50V_K
PC179
PC180
0.1U_50V_K
0603_X7R
PC181
0.1U_50V_K
0603_X7R
PC184
0.1U_50V_K
PC185
0.1U_50V_K
0603_X7R
PC186
0.1U_50V_K
PC187
1U_25V_M_B
PC188
PC189
0.1U_50V_K_B
0603
PC191
10U_25V_K
1206_X5R
PC192
10U_25V_K
1206_X5R
PC193
0.1U_25V_M
0603_X5R
PC194
0.1U_25V_M
0603_X5R
PC195
1U_6.3V_M
0402_X5R
PC196
0.1U_25V_M
0603_X5R
PC197
0.1U_25V_M
0603_X5R
PC198
10U_25V_K
1206_X5R
PC199
120P_50V_J
0402_NPO
PC200
1U_10V_K
0603_X5R
PC201
10U_25V_K
1206_X5R
PC202
0.47U_16V_K
0603_X5R
PC393
0.1U_10V_K
0402_X5R
PL3
10UH-100KHZ_2.7A_40R
PLC-0755-100
PL16
NC_10UH_3.7A_32.7R
SPF0755HT100M
PL17
PL18
PQ4
PQ6
SI3424BDV-T1-E3
PQ5
2N7002EPT
PQ7
2N7002EPT
PQ170
TP0610K-T1-E3
PD1
1SS400PT
PD2
TVS2315PT
PD3
PESD5V2S2UT
PD5
CH751H-40PT
PD6
PESD5V2S2UT
PCN2
DVT to PVT 0613
BATTARY_7P
FOX_BP91071-B4015-7F
TP614 TP615 TP645 TP646
TP616 TP617 TP647 TP648
TP618
TPC35T_75
TP619
TP639 TP640 TP641 TP642 TP643 TP644
BT+
DCBATOUT
DC_IN
DC_IN_MOS
DC_IN_R
DC_IN_G1
ACDRV#
ACDET
ACGOOD#
OVPSET
SRSET
ACSET
BQ24751_VREF
LEARN
CHARGE_CTRL
AC_OFF
AC_OFF_3#
ACIN_EC
+ECVCC
+5VALW_LDO
BQ24751_PH
BQ24751_IADAPT
IADAPT
VREGN
ENCHG#
ENCHG#_1
BATBDRV#
HIDRV
LODRV
BATT_ID
DAT_SMB
CLK_SMB
BATT_PRS#
SYS_PRS#
BATT_PRS#_1
SYS_PRS#_1
BT+_4
charge current set table:
charge current
CHARGE_CTRL D/A pin voltage setting
Required charge current control
1.5A 3.06V High current
800mA 1.6V Middle current
350mA 0.72V Low current
0A 0V charge OFF
VREF=3.3V ---> Vdac
Vbat=cell count*[4V+0.5*(Vadj/Vvadc)]
(4.2V/cell when Vadj connected to REGN)
Icharge=(Vsrset/Vvdac)*(0.1/PR12)=1.5A
Iadapter=(Vacset/Vvdac)*(0.1/PR1)=5.7A
IADAPT=(Vacp - Vacn)*20
Input OCP : Iadaptor*1.5 =8.55A
Input OVP : 22.2V
Input UVP : 17V
Battery OCP : Icharge*145%
Battery OVP : Vbat*104%
Pre-charge : <2.9V/cell ===> Icharge/8
Battery OTP : Tshut=155 degree
Fsw : 300KHz
Time that input current limit :
t=(Cacop*2)/(18uA/V*V(PVCC-ACP))
CHGEN# : Enable ==> L
Disable ==> H
ACGOOD# : Vacdet > 2.4V ==> L
Vacdet < 2.4V ==> H
CELLS CELL COUNT
FLOAT 2
AGND 3
VREF 4
Battery CONN.
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title DCIN&Charger
Size Custom
Document Number M780(MBX-194)
Rev 0.1
Date: Tuesday, June 17, 2008
Sheet 67 of 79



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

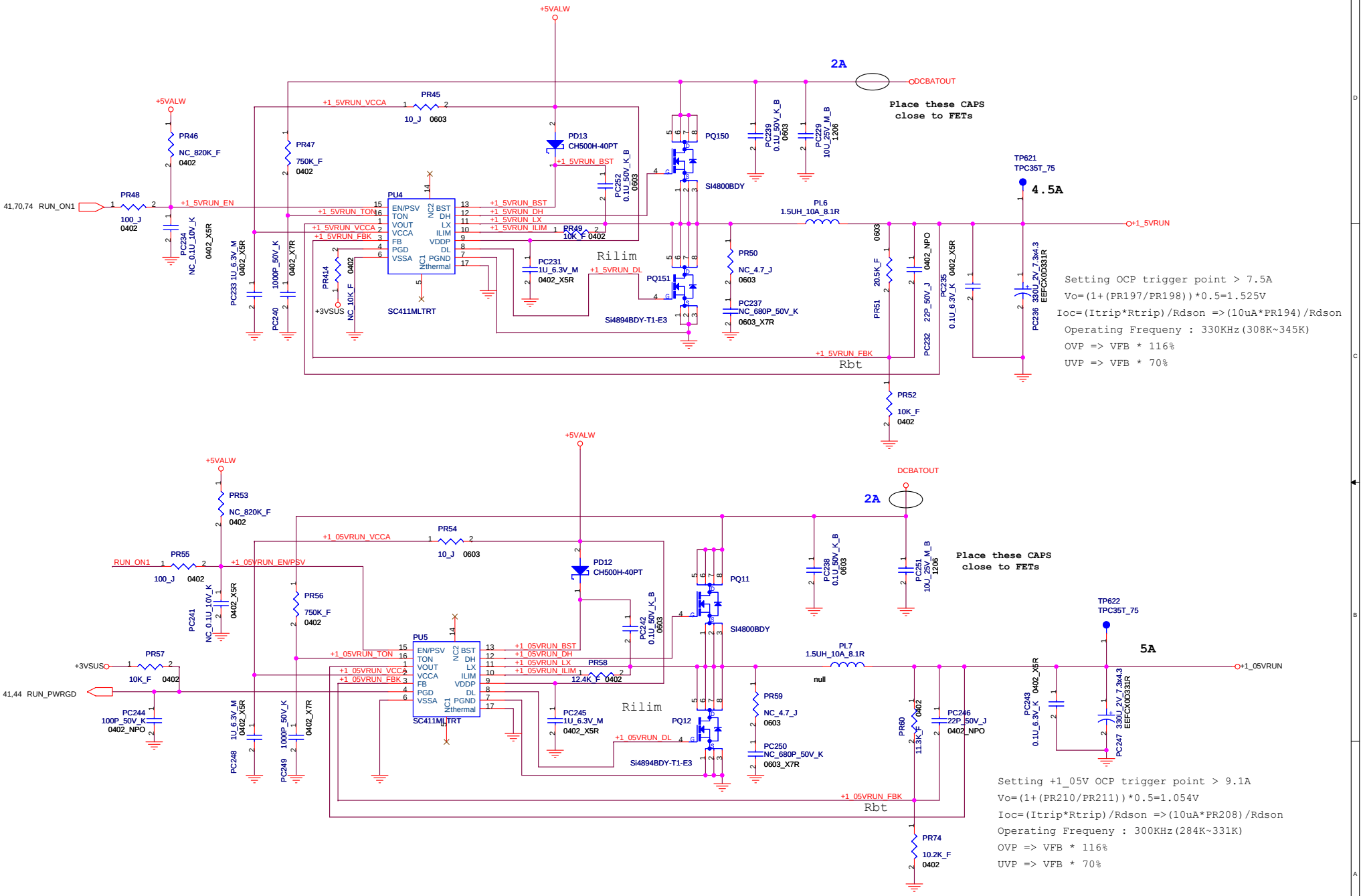
SKIP#	Operating Mode
GND	Pulse-Skipping
REF	Ultrasonic-Skip
VCC	PWM

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

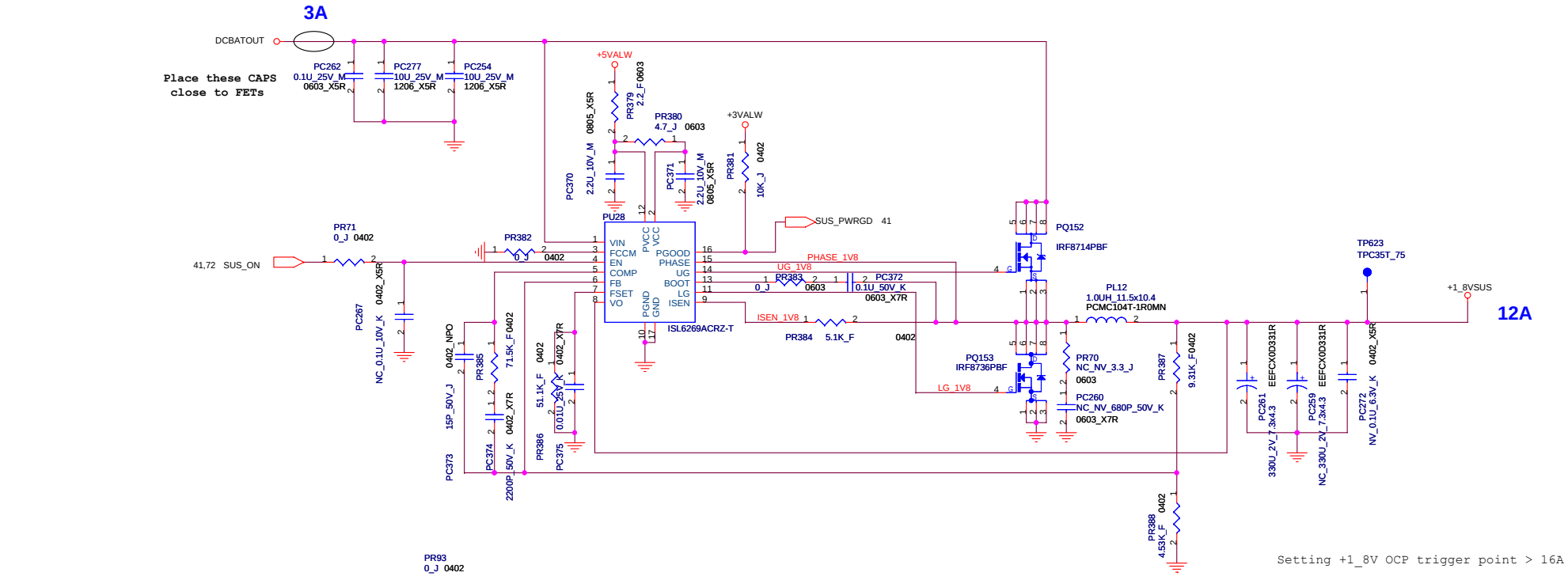
Rocp=(Iocp-Iripple/2)*(10*Rds(on))/5u

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

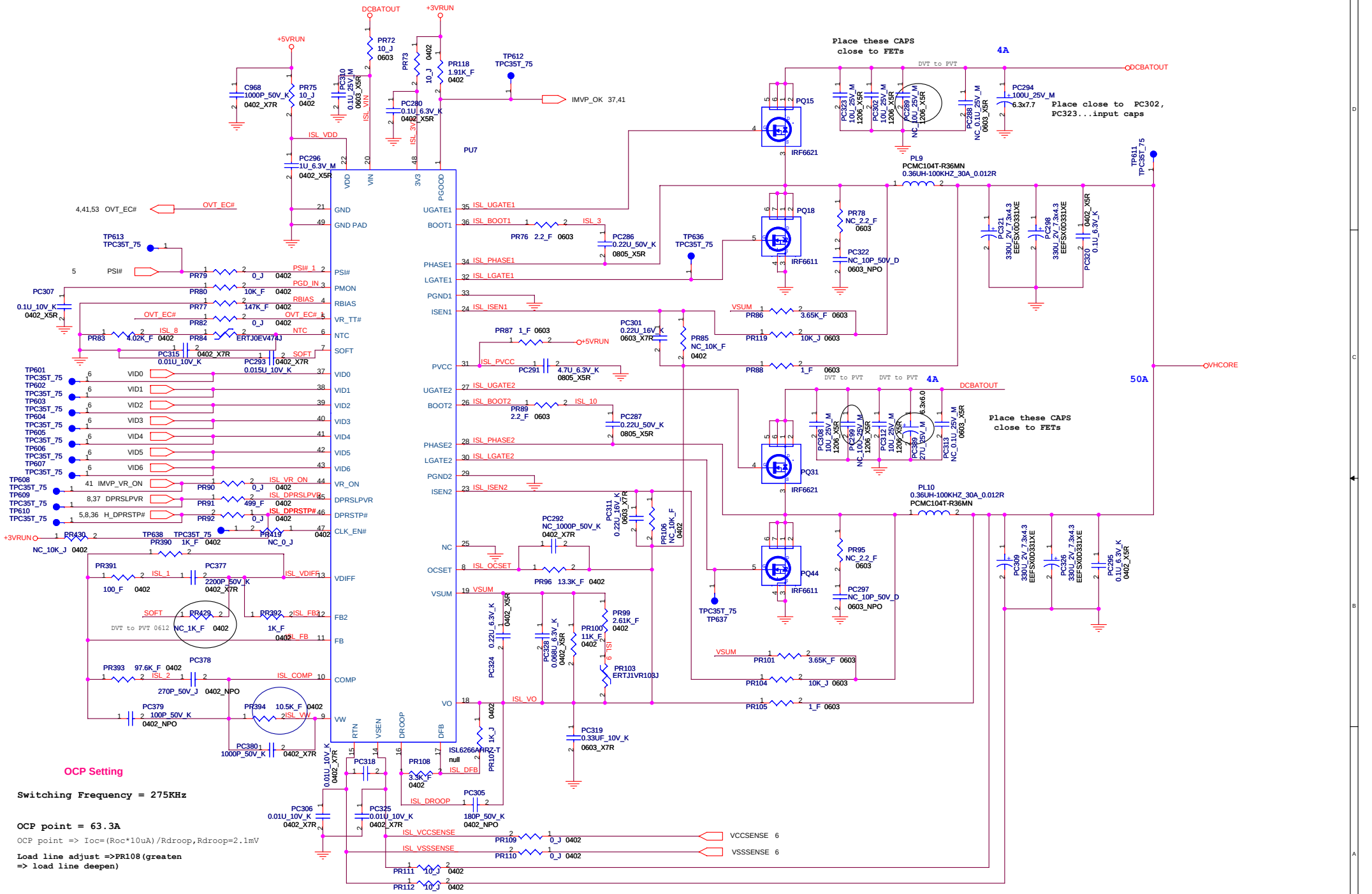
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	SYS Power (+3_3V/+5V)		
Size: Custom	Document Number: M780(MBX-194)		Rev: 0.1
Date: Tuesday, July 01, 2008	Sheet 68 of 79		



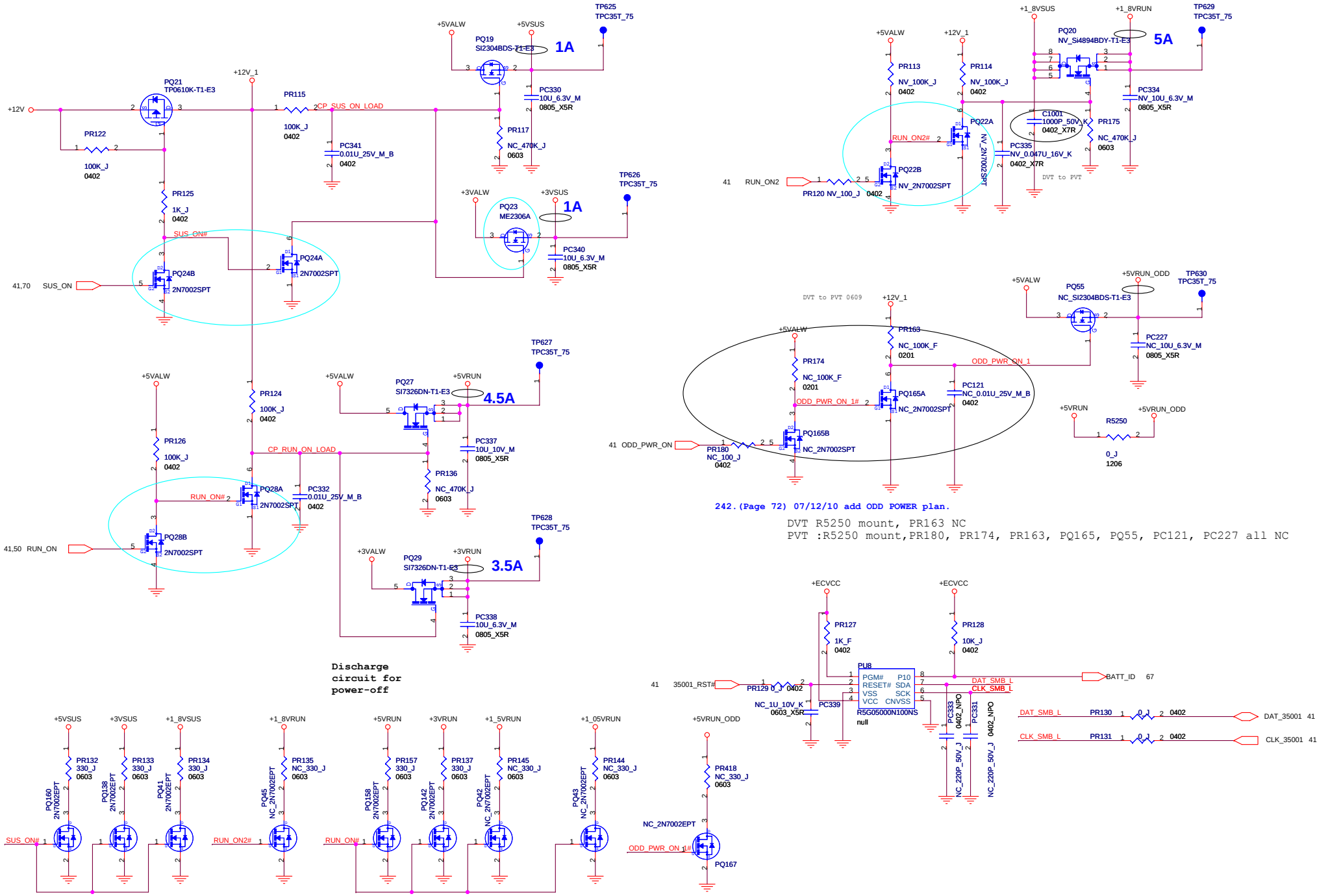
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SYS Power(+1_5V/+1_05V)	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Tuesday, June 17, 2008	Sheet 69 of 79	



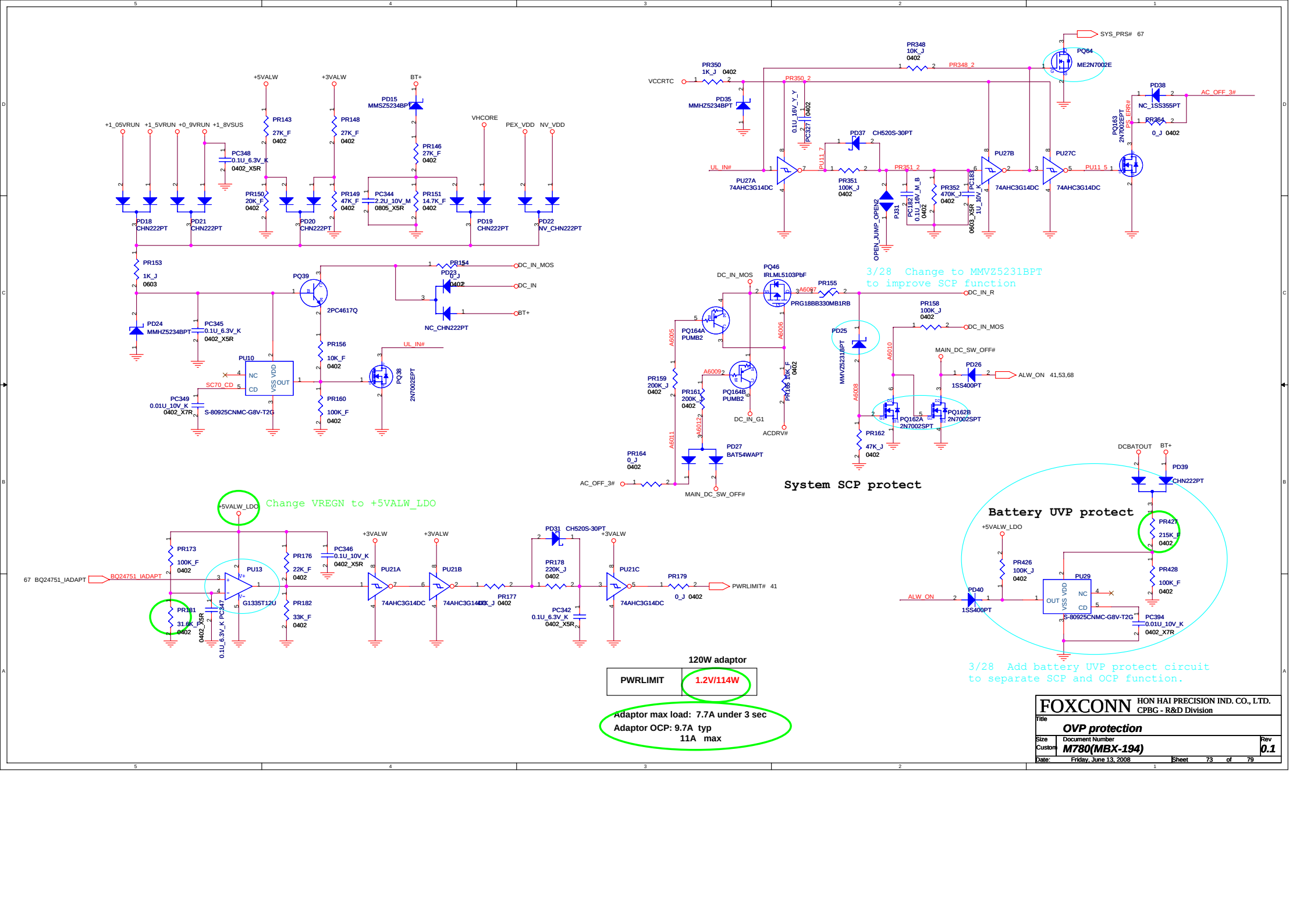
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	DDR2 Power(+1_8V/+0_9V)	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Friday, June 13, 2008	Sheet 70 of 79	



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	CPU_Vcore---ISL6266A	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Tuesday, July 01, 2008	Sheet 71 of 79	



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Others power plan	
Size: Custom	Document Number: M780(MBX-194)	Rev: 0.1
Date: Tuesday, June 17, 2008	Sheet 72 of 79	



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

Title: **OVP protection**

Size: Custom | Document Number: **M780(MBX-194)** | Rev: **0.1**

Date: Friday, June 13, 2008 | Sheet 73 of 79

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	

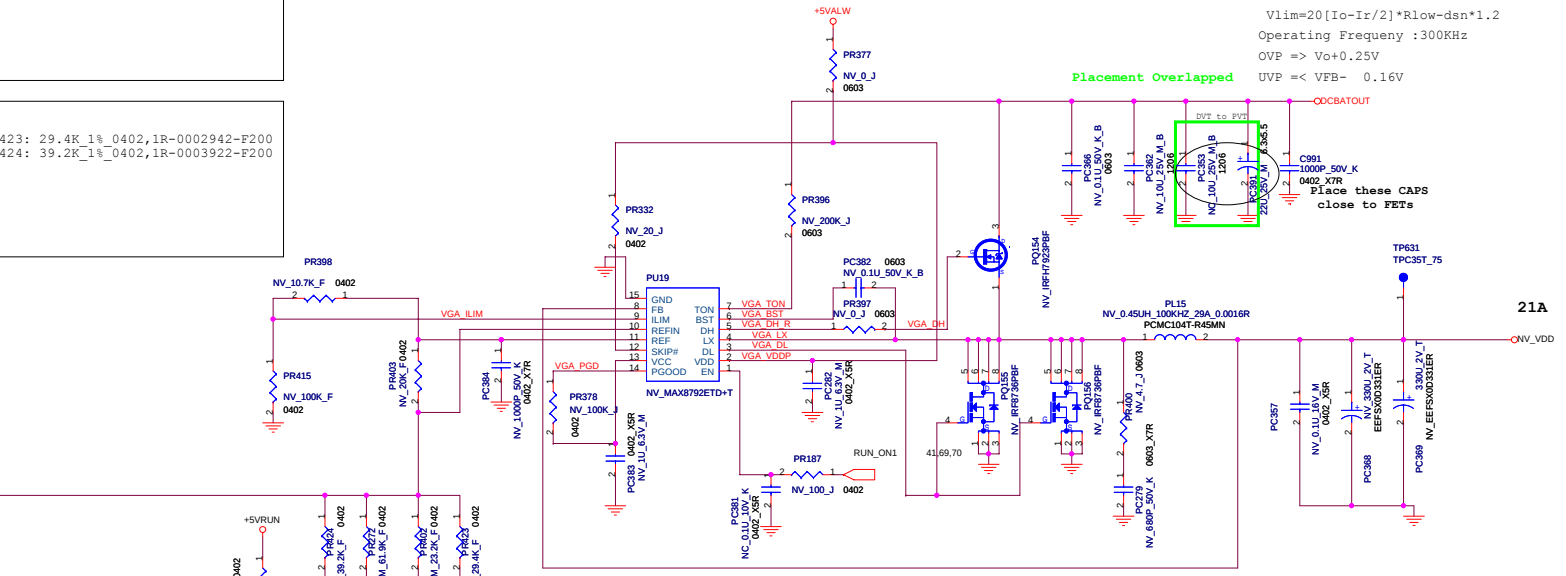
Setting current limit trigger point >25A
Vo=Vf; Vf=((PR272+PR402)/(PR403+PR272+PR402))*2
Vlim=20[Io-Ir/2]*Rlow-dsn*1.2
Operating Frequeny :300KHz
OVP => Vo+0.25V
UVP =< VFB- 0.16V

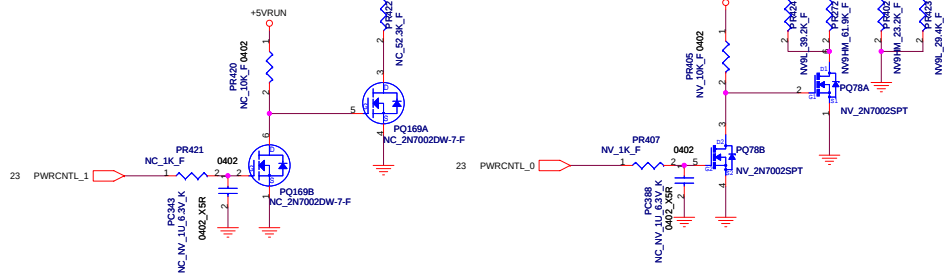
Placement Overlapped

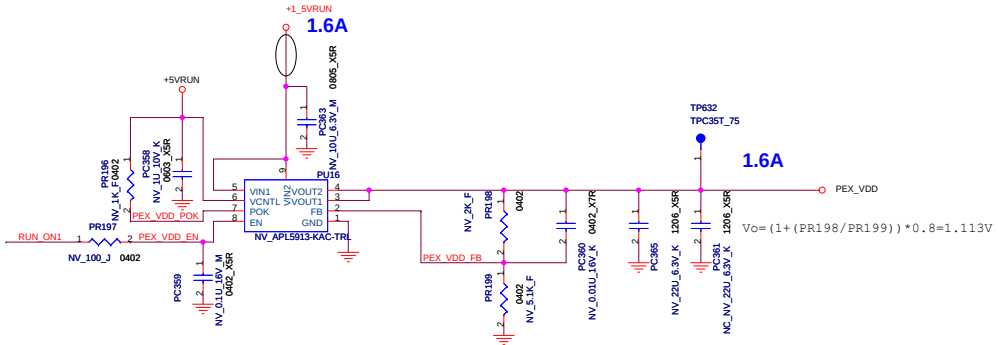
DVT to PVT

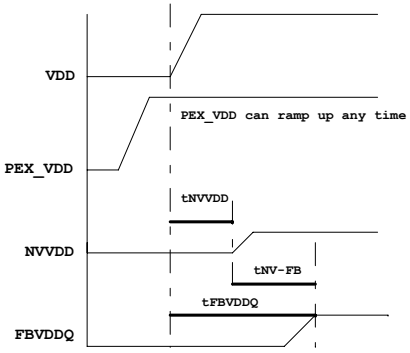
Place these CAPS close to FETs

21A









Recommended Power sequencing order

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

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	VGA Power(+1.1V/+1_2V)		
Size: Custom	Document Number: M780(MBX-194)		Rev: 0.1
Date: Tuesday, July 01, 2008	Sheet 74 of 79		

HOLE(TOP SIDE)

Type 1

K

H35 hole_tbrc413x354d98

H36 hole_tbr492x354d98n

H37 hole_tbr492x354d98

Type 2

H32 hole_tbsh354x453d98

H33 hole_shape_tbr492x354d98

H34 hole_tbr492x354d98

Type 2

H28 hole_tc217bc217d47

H29 hole_tc217bc217d47

H30 hole_tc217bc217d47

TV_GND

H31 hole_tc217bc217d47

TV_GND

Type 3

H27 hole_tr492x354bc354d98

DVT to PVT 0617

PAD1 pad_smdc236

PAD2 pad_smdc236

Type 4

H25 hole_tc354bc354d98

H26 hole_tc354bc354d98

Type 5

H24 hole_t315x472b413x354d98

Robason Hole

H51 hole_tc217bc217d130_bp

H50 hole_tc217bc217d130_bp

Type 6

H22 hole_c98d98n

DVT to PVT

PAD3 pad_smd1299x79

DVT to PVT 0518

LABLE1

AMI-APTIO

HOLE(BUTTOM SIDE)

Type 2

H41 hole_tc217bc217d130

H42 hole_tc217bc217d130

Type 3

H43 hole_tc236bc236d126

H44 hole_tc236bc236d126

Type 4

E

H45 hole_tc236bc315d98

Type CPU

H7 hole_c158d158n

H8 hole_c158d158n

H9 hole_c158d158n

H10 hole_c158d158n

H52 hole_odo98x118n

H53 hole_odo98x118n

H46 hole_tc217bc217d47

H47 hole_tc217bc217d47

H48 hole_tc217bc217d130

DVT to PVT 0611

H49 hole_shape_tbr492x354d98

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

M780 EVT Change History

1.(Page 37) 07/08/21 As ICH9 LAN_RST# need to pull low to GND,Add 10K to GND.
2.(Page 41) 07/08/21 Change EC Ping38(RUN ON2) pull low value from 100K to 4.7k.
3.(Page 38) 07/08/29 Dut 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 (UPEK cost down)
5.(Page 57) 07/09/07 Change Codec from CXD9872AKDNBEC3XR to ALC889S for Audio solution.
6.(Page 57) 07/09/07 Change resistor of codec BEEP (R683) to 10k depend on W(V^2/R).
7.(Page 57) 07/09/15 Change thermal sensor(U59) to 15-EMC1402-0000.
8.(Page2) 07/09/19 Lid interface mark "PS2" change to placed at T/P 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 WPC8763L to WPCE775L for EMI issue.
13.(Page 48) 07/09/26 Change BT Power switch from SI9183DT-33-T1-E3 to SiP21106DT-33-E3 for EOL.
14.(Page 44-47) 07/09/26 Change PCI Card reader from PCI8412 to R5C833 for CF card soultion.

POWER Change History

15.(Page 64) 07/09/28 Change PQ6 IR7904 to PQ146/PQ148:SI4800B/SI4894 ==>component cost down
16.(Page 64) 07/09/28 Change PL4 from 3.3U(CY) to 4.7U(AOL)==>component cost down
17.(Page 64) 07/09/28 Change PQ9 IR7904 to PQ147/PQ149:SI4800B/SI4894==>component cost down
18.(Page 64) 07/09/28 Change PL5 from 3.3U(CY) to 4.7U(AOL)==>component cost down
19.(Page 64) 07/09/28 Change PU2 AGND to PGND
20.(Page 65) 07/09/28 Change PQ10 IR7904 to PQ150/PQ151:SI4800B/SI4894==>component cost down
21.(Page 65) 07/09/28 Change PL7 from 1.0U(CY) to 1.5U(CY) for improve efficiency
22.(Page 65) 07/09/28 Change Pc247 from 330U(EEFSX) to 330U(EEFCX) ==>component cost down
23.(Page 65) 07/09/28 delete PC230==> cost down
24.(Page 65) 07/09/28 Change PU4,PU5 from AGND to PGND
25.(Page 66) 07/09/28 Change DDR solution FROM TPS5116 to ISL6269A+G2998F11U ==>cost down
26.(Page 67) 07/09/28 Change CPU PWM IC PU7 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,PC379from 120P to 100P,PR394 from6.81k to 8.25k.
27.(Page 67) 07/09/28 Change PU7 AGND to PGND
28.(Page 68) 07/09/28 Change PQ27 SI4800B to SI7362DN
29.(Page 70) 07/09/28 Change PU15 TPS5117 to PU19 SC411 solution for TPS5117 light loading bug
30.(Page 70) 07/09/28 Change PU16 from APL5912 to APL5913==> cost down
31.(Page 65) 07/09/29 Change PL6 from 1.5U(CY) to 1.5U(AOL)==>component cost down
32.(Page 64/65/66/70) 07/09/29 Change PC210/PC215/PC235/PC243/PC256/PC357 from 0.1U_0402_Y5V to 0.1U_0402_X5R_6.3V due to power regulator output filter cap temperature chateractor 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_0603,reserve for EMI.
36.(Page 63) 07/09/29 channge to program charger voltage ; add PR412: 191K, PR411: 100k ,reserve PR409
35.(Page 63) 07/09/29 channge charger current setting to DAC input ; add PR413:750K,change PR13 from 100k to 499k,delete PR17: 232K
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 +3Vsus ==>design issue
39.(Page 65) 07/10/03 delete PC253==> cost down
40.(Page 65) 07/10/03 Change PQ11/PQ12 FDS8880/FDS8896 to SI4800B/SI4894==>component cost down
41.(Page 65) 07/10/03 Change PL7 from 1.5U(CY) to 1.5U(DELTA)==>component cost down
42.(Page 65) 07/10/03 Change PL6 from 1.5U(AOL) to 1.5U(DELTA)==>component cost down
43.(Page 68) 07/10/03 Change PQ29 FDS8880 to SI7362DN
44.(Page 68) 07/10/03 Change PQ20 FDS8896 to SI4894
45.(Page 63) 07/10/03 Change PD2 from PESD15VS2UT to SMD15C because PESD15VS2UT have shortage issue
46.(Page 51) 07/10/05 Change USB Power Plane from +5VSUS to +5VALW.
47.(Page 3) 07/10/05 Update R2087 Pull High to +3VRUN.
48.(Page 3) 07/10/05 Change resistor(1947) to unstuff.
49.(Page 64) 07/09/29 reserve PC387:ECCAP:100U(NC);PC388POSCAP:15U(NC) near CN5 DCBOUTfor NOISE debug
50.(Page 3) 07/10/08 Change CLK gen from ICS9LPRS365 to ICS9LPRS392.
51.(Page 3) 07/10/24 Change CLK gen from ICS9LPRS392 to SL28648LFXC for cost down.
52.(Page 60) 07/10/24 Add Subwooder circuit for MOR side request.
53.(Page 60) 07/10/24 Add Robson2 circuit for MOR side request.
54.(Page 41) 07/10/24 Change GPIO Expander from W83L603G to IW83L604G.
55.(Page 41) 07/10/24 Update EC(Pin define)for M760 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_REQ_IN1#,CF_REST) controll reset (JMB368 and CF Card) for CF time request.
59.(Page 18) 07/10/26 updated the circuit Strapping portion for NVDIA.
60.(Page 23) 07/10/26 updated the circuit Strapping portion for NVDIA.
61.(Page 24) 07/10/26 updated the circuit Strapping portion for NVDIA.
62.(Page 3) 07/10/26 updated BLOCK DIAGRAM for AUDIO function.
63.(Page 32) 07/10/29 updated 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 ICH9 USB Port.
67.(Page 34) 07/10/30 delete USB_PN11,USB_PN11 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_RXIN3-,NV_ODD_RXIN3+,NV_EVEN_RXIN3-,NV_EVEN_RXIN3+,for LVDS Pin define.
70.(Page 42) 07/10/31 Change U27 Flash ROM from 13-W25X80V-7000(8M) to 13-W25X16V-7000(16M).
71.(Page 30) 07/11/1 Remove S-OUT Circuit according to MOR side information.
72.(Page 18) 07/11/06 Update VGA Portion.
ROM_SI should follow below memory strap setting
RAM_CFG[3:0] Config FB Bus Width Definitions
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
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
73.(Page 18) 07/11/06 Change ROM_SO to 5Kohm pull up to 3.3V
74.(Page 18) 07/11/06 Change ROM_SCLK to 15Kohm pull down to GND.
75.(Page 18) 07/11/06 Change Strap0 to 5K pull ulp to 3.3V
76.(Page 19) 07/11/06 Change Components for FBVref switch can be NC(R794,R795,C871,R578,R494 and Q52)
77.(Page 19) 07/11/06 FBA_Debug just reserve a TP.
78.(Page 20) 07/11/06 FBC_Debug just reserve a TP.
79.(Page 20) 07/11/06 According to PUM update for FBCAL_PD_VDDQ is 44.2Ω, FBCAL_PU_GND is 30.9Ω, FB_CAL_TERM_GND is 40Ω
80.(Page 22) 07/11/06 delete bead L70 for IFPAB_PLLVDD.
81.(Page 22) 07/11/06 delete bead L71 for IFPAB_IOVDD.
82.(Page 22) 07/11/06 delete bL72 for IFPCD_PLLVDD.
83.(Page 22) 07/11/06 add 10Kohm pull to GND for IFPD_IOVDD.
84.(Page 23) 07/11/06 Change R4799,R4800,R4812,R4801 and C956 to NC.
85.(Page 23) 07/11/06 delete R1775,R815 for VGA portion.
86.(Page 24) 07/11/06 Add IFPEF_PLLVDD to 10Kohm pull to GND.
87.(Page 24) 07/11/06 delete R4808,R4809,R4810,R4811 and C958 are not required.
88.(Page 24) 07/11/06 Change R4799,R4800,R4812,R4801 to NC.
89.(Page 26) 07/11/06 Change R4052 and R4103 to 475 ohm.
90.(Page 27) 07/11/06 Change R4594 and R4580 to 475 ohm.
91.(Page 41) 07/11/06 add GPIO PIN LVDS_CLK,LVDS_DATA,for LCD information.
92.(Page 55) 07/11/06 combined Camera & D-MIC for MOR requestion.
93.(Page 47) 07/11/06 add GPIO PIN CF_REST_IC#,CF_REST_CARD# for CF timeing.
94.(Page 34) 07/11/06 delete Mini Streo Jack,S-Video IN for MOR requestion.
95.(Page 41) 07/11/06 updated EC GPIO pin table for EC team requestion.
96.(Page 12) 07/11/06 updated VCC Power portion for yellow mark.
97.(Page 32) 07/11/07 Change U16 from GS48B2P1U to GS281RC1U by the comment from MOR side.
98.(Page 1) 07/11/12 updated Index page.
99.(Page 2) 07/11/12 updated Block diagram for HDMI and HDD mark.
100.(Page 3) 07/11/12 change CLK gen Power Plan.
101.(Page 3) 07/11/12 delete Clk gen damp resistor PR27~PR35.
101.(Page 3) 07/11/12 delete Clk gen damp resistor PR27~PR35.
102.(Page 8) 07/11/12 Change R206 from 511 ohm to 499 ohm for CRB.
103.(Page 8) 07/11/12 Change R5217 from 200 ohm 1%
104.(Page 18) 07/11/12 Add R5219 and R5221 for Hinex Strap.
105.(Page 22) 07/11/12 Change IFPAB_RSET to NC for NVIDA .
106.(Page 22) 07/11/12 2007/11/12 Update IFPC_IOVDD 0.385A
107.(Page 23) 07/11/12 2007/11/12 Update GPIO Table for NVDD 1.15V~1.2V.
107.(Page 23) 07/11/12 2007/11/12 Update I2C_ present status.
108.(Page 23) 07/11/12 Change GPIO1,GPIO7 and GPIO12~23 to NC for NVIDA .
109.(Page 30) 07/11/12 Change U10 from NC to populate.
110.(Page 30) 07/11/12 Change R284 from populateto NC
111.(Page 33) 07/11/12 Delete R2193,R2194 R1940,C1616,U136 for Cost down evaluation
112.(Page 34) 07/11/12 Change Ground from TV_GND1 to TV_GND.
113.(Page 40) 07/11/12 Add R559,R560,C715,C716 and Marvell.
114.(Page 40) 07/11/12 Change R596 from 4.86k to 4.99k
115.(Page 43) 07/11/12 Add C611 and D26 for STAT Power setting.
116.(Page 44) 07/11/12 Change R492 from populate to NC.
117.(Page 44) 07/11/12 Change R417 from NC to populate.
118.(Page 45) 07/11/12 Change L29 from 1L-FTR1DB6-5600 to 1L-F0D6560-TE00.
119.(Page 46) 07/11/12 Change R816,R820,R817 from populate to NC.
120.(Page 46) 07/11/12 Add R625 to Ground for design spec.
121.(Page 46) 07/11/12 Reverse +1_5VRUN Power plane for HDA Spec.
122.(Page 47) 07/11/12 Change R2525 from 8.2k to 6.8k
123.(Page 48) 07/11/12 Delete R601,Q26,R588,R597
124.(Page 49) 07/11/12 Add CN1 connector for full size Mini Card.
125.(Page 49) 07/11/12 Update pin define for wirless card spec.
126.(Page 49) 07/11/12 Change R593 from populate to NC.
127.(Page 49) 07/11/12 Add U9 for wriless and usb power switch.
128.(Page 49) 07/11/12 delete +3V_RUN power.
129.(Page 49) 07/11/12 delete R597.
130.(Page 49) 07/11/12 Add C10.
131.(Page 50) 07/11/12 Change U37 from TPS2231PW to TPS2231RGP for Cost down.
132.(Page 50) 07/11/12 delete R622,R630,R623,R629,C664,C665.
133.(Page 50) 07/11/12 Update power plan.
134.(Page 50) 07/11/12 delete Constant-voltage +1_5VSUS Circuit.
135.(Page 51) 07/11/12 remove U41 power switch to Function board.
136.(Page 53) 07/11/12 Add C481,C482,C579 for stable voltage.
137.(Page 53) 07/11/12 Change Q31 from MMC2301 to CHT2301PT.
138.(Page 53) 07/11/12 Change D27 from populate to NC.
139.(Page 57) 07/11/12 delete C732 for doulb part.
140.(Page 57) 07/11/12 Change C785,C784,C705 to R5222,R5223,R5224.
141.(Page 47) 07/11/12 Delete U169 (flash)for CF solution.
142.(Page 62) 07/11/13 Change sub_woofer amp to YAMAHA(YDA153A)
143.(Page 47) 07/11/13 Update HP circuit
144.(Page 47) 07/11/14 Add Audio Power(+12VRUN)PU6 for EQ power.
145.(Page 41) 07/11/14 Add GPIO pin (RUN_ON_A) for AUDIO power(EQ circuit) require.
146.(Page 41) 07/11/14 Change GPIO pin Net(EN_EXT_DEV_SENSE,BT_PRS#) for EC team require.
147.(Page 11) 07/11/14 Change R133 from populate to NC for system hang up soon when system boot up.
148.(Page 11) 07/11/14 Connect VCCD_QDAC to 1.5V RUN for Intel require.
149.(Page 32) 07/11/15 Change Net(NV_LCDVCC_EN#) to NV_LCDVCC_EN
150.(Page 36) 07/11/15 Add Net(ICH_GPIO56) pull high(10K ohm) to +3VALW.
151.(Page 36) 07/11/15 Change R375 from 332k to 330k.
152.(Page 38) 07/11/15 change vcclan3.3 from +3VSUS to +3VRUN
153.(Page 38) 07/11/15 change vccCL3.3from +3VSUS to +3VRUN
154.(Page 54) 07/11/15 Change EXPRESS CARD Connector(CN28),(CN29) for design require.
155.(Page 54) 07/11/16 Add CN123,CN124 for Design require
156.(Page 47) 07/11/16 Change U168 from GMT to RICOH
157.(Page 34) 07/11/19 Change Ground TV power sequence.
158.(Page 58) 07/11/19 Change CAP34 from 100u to 220u for Mor request.
159.(Page 62) 07/11/19 Change CAP35 from 100u to 220u for MOR request.
160.(Page 57) 07/11/20 Change Net(HP_IN) to HP_IN#.
161.(Page 26) 07/11/20 Change R4030,R4031,R4032,R4036,change from"1.05K"to"549 ohm"for NVIDA CRB.
162.(Page 27) 07/11/20 Change R4038,R4039,R4042,R4043 change from"1.05K" to "549 ohm" for NVIDA CRB.
163.(Page 26) 07/11/20 Change R4033,R4034,R4035,R4037,change from"1.82K"to"931 ohm" for NVIDA CRB.
164.(Page 27) 07/11/20 Change R4041,R4040,R4045,R4044 change from"1.82K" to "931 ohm" for NVIDA CRB.
165.(Page 26) 07/11/20 Change R4019,R4020,R4021,R4022, change from"2.49K"to"1.33K" for NVIDA CRB.
166.(Page 26) 07/11/20 Change R4019,R4020,R4021,R4022, change from"2.49K" to "1.33K" for NVIDA CRB.
167.(Page 61) 07/11/20 Change EQ Circuit Power plane .
168.(Page 61) 07/11/20 Delete U178 for MOR side require.
169.(Page 61) 07/11/20 Add filter circuit on SW_RCH and SW_LCH for MOR side require.
170.(Page 63) 07/11/20 DDelete SW_LCH signal to PGND for Mor side require.
171.(Page 57) 07/11/20 Delete SNESE_B (Cap to AGND) for Vendor suggestion
172.(Page 57) 07/11/20 Delete Cap and keep in NC for Keep floating .
173.(Page 57) 07/11/20 Add 10uF to Digital GND for Vendor suggestion.
174.(Page 57) 07/11/21 Change Net(HP_IN) to HP_5_JACK for Audio portion.
175.(Page 60) 07/11/21 Add U181 for logic accuracy.
176.(Page 32) 07/11/21 Change CN5 from FOX_HS8106E to HS8212 for MOR request.
177.(Page 48) 07/11/21 Delete Bus switch(U35) for MOR side request.
178.(Page 49) 07/11/21 Delete Controll Link bus to ICH9 side for MOR side request.
179.(Page 49) 07/11/21 Add C4784(10u) for MOR side request.
180.(Page 49) 07/11/21 delete R597,R595 for MOR side request.
181.(Page 49) 07/11/21 delete CN27 for MOR side request.
182.(Page 60) 07/11/23 Update Mute circuit for time not synchronize from vendor suggestion.
183.(Page 46) 07/11/23 Chang R816,R820,R817 from NC to populate for MOR request.

POWER Change History

184.(Page 68) 7/11/22 change PR13 from 499K to 360K for charge current set table change.
185.(Page 68) 07/11/22 change PR412 from 191K to 200K for charge voltage set .
186.(Page 68) 07/11/22 delete PD4 200K for leakage current issue .
187.(Page 68) 07/11/22 add 2nd source SPF0755H.
188.(Page 69) 07/11/22 delete PR44 because the 3V/5V pwm F change from 400k/500k to 400k/300k
189.(Page 72) 07/11/22 change PC319 from 0.22u to 0.33u
190.(Page 75) 07/11/22 change PR187 from 100 to 51K,add PR415: 200K, for setting PU19 only working in PWM mode.
191.(Page 75) 07/11/22 delete reserve schematic:PR403,PR405,PC385,PQ156,PR402
192.(Page 75) 07/11/22 change PR404 from NC to 10K,PR406 from 0 to 1k ,PC386 from NC to 1u for NV_VDD softstart
193.(Page 75) 07/11/22 change PC290 from22P to 100P for NV_VDD change smoothly
194.(Page 69) 07/11/22 change PL4 from4.7U to 3.3U ,PR61 from 162k to 300K for increasing +5v power burger and OCP setting to 11A.
195.(Page 69) 07/11/22 change PR34 from 162k to 255K for OCP setting to 8.9A.
196.(Page 70) 07/11/22 change PR58 from 8.2k to 16.2K for OCP setting to 9.1A.
197.(Page 70) 07/11/22 change PR49 from 8.2k to 12.7K for OCP setting to 7.5A.
198.(Page 71) 07/11/22 change PQ152 from fds8880 to IRF8714,PQ153 from FDS8896 to IRF8736 for increasing power efficiency.
199.(Page 75) 07/11/22 change PQ154 from SI7686DP to IR7923,PQ155 from SI7336 to IRF8736,add PQ156:IRF8736 ,change PL15 from 1.0UH to 0.56UH for NB9P power budget upgrad to 21A

EE Change History

200.(Page 41) 07/11/27 change Power plane from +5VSUS to +5VRUN
201.(Page 51) 07/11/27 change Power plane from +5VSUS to +5VALW
202.(Page 64) 07/11/27 change Power plane from +5VSUS to +5VALW
203.(Page 53) 07/11/27 change Power plane from +5VSUS to +5VRUN
204.(Page 45) 07/11/27 change iLink CONN from FOX_UV31413-WR56P-7F to FOX_UV31413-WZ03P-7F.
205.(Page 31) 07/11/27 change CRT CONN from DS11A91-WR205-4F to FOX_DS11A91-SR281-4F.
206.(Page 14) 07/11/27 change DDR2 CONN(CN1) from FOX_AS0A426-N5SN-7F to FOX_AS0A426_N2RN_7F
207.(Page 15) 07/11/27 change DDR2 CONN(CN2) from FOX_AS0A426_N4RC_4F to FOX_AS0A426_NARN_7F
208.(Page 43) 07/11/27 change ODD CONN(CN21) from FOX_LN27137-D001-9F to FOX_GB5RF120-1200-7F
209.(Page 34) 07/11/27 change TV CONN(CN10) from FOXCONN_AS0B226-S52N-7F to FOX_AS0B226_S60N_7F
210.(Page 53) 07/11/27 change FAN CONN(CN33) from FOX_HS8104E to FOX_HS8103E
211.(Page 32) 07/11/27 change FAN CONN(CN33) from FOX_HS8212Eto FOX_HS8112E
212.(Page 56) 07/11/27 delete logo LED circuit.
213.(Page 32) 07/11/27 add pull low resistor 100k to ground.
214.(Page 9) 07/11/28 Change PCIE Capactior size from 0402 to 0201
215.(Page 18) 07/11/28 Change PCIE Capactior size from 0402 to 0201
216.(Page 64) 07/11/28 delete CAPLOCK_LED#,SCRLOCK_LED#,NUMLOCK_LED# and remove to LED BOARD.
217.(Page 43) 07/11/28 Add STAT HDD Connector for ME request.
218.(Page 43) 07/11/28 Change STAT HDD Connector for ME request.
219.(Page 41) 07/11/28 Add Expander SMBus Pull H to +ECVCC.
220.(Page 41) 07/11/28 Add Net (NV_LCD_CLK/DAT) Pull H to +3VRUN
221.(Page 41) 07/11/28 Change R2523,R2522,R2518 to NC.
222.(Page 41) 07/11/28 Change SYSTEM ID Pull H to +ECVCC.
223.(Page 41) 07/11/28 Remove SYSTEMID0 for Logo LED removing.
224.(Page 59) 07/11/28 All plane chage to ALW.
225.(Page 59) 07/11/29 Change Q47,Q49 due to the BJT internal resistor and EC outpout level concern.
for the purpose to avoid system hang up when Boot and abnoraml RST.plz change Q47 & Q49 to the same components as M760.
226.(Page 75) 07/11/30 Add PC391 25V_27U reserve PC362/PC353 for decreasing Audio noise.
227.(Page 69) 07/11/30 Change PC387 to 25V_27U.
228.(Page 63) 07/12/05 Change CN123 from FOX_QT510206-2001-9F to FOX_HT1215F.
229.(Page 52) 07/12/05 Change CN122 from FOX_QT510206-2001-9F to FOX_GB5RF120-1200-7F.
230.(Page 64) 07/12/05 Change MS/SD LED control signal share one LED
231.(Page 64) 07/12/05 Change HDD/ODD LED control signal share one LED
232.(Page 64) 07/12/05 Change Wirless/BluetoothLED control signal share one LED
233.(Page 64) 07/12/05 Delete bluetooth Net BT_PIO#.
234.(Page 43) 07/12/05 Delete ODD Net ODD_DP#.
235.(Page 53) 07/12/06 Change thermal sensior U59 to G7801P81U.
236.(Page 49) 07/12/06 Change W1A Conn CN31 to FOX_AS0B226_S40N_7F.
237.(Page 50) 07/12/07 Change EXPRESSConn CN29 to FOX_1CX421S1-MM.
238.(Page 57) 07/12/07 Change Audio Conn JSPK1 to FOX_HS7108E.
239.(Page 62) 07/12/07 Change Audio Conn JSPK3 to FOX_HS7102E.
240.(Page 50) 07/12/10 Change EXPRESSConn CN28 to FOX_1CH411SC-MM.
241.(Page 33) 07/12/10 Change HDMIConn CN60 to FOX_QJ5119L-NT03-4F.
242.(Page 72) 07/12/10 add ODD POWER plan.
243.(Page 47) 07/12/12 add R5238 for MOR side request.
244.(Page 47) 07/12/12 Change Net CF_PWR to CF_IN# for timing issue.
245.(Page 52) 07/12/14 Reverse Power Plan for MOR side request.
246.(Page 67) 07/12/21 ADD PL17,PL18 8A bead for BATT
247.(Page 59) 07/12/21 Change Q46 to PDTC144EU for MOR side require.
248.(Page 59) 07/12/21 change from +3VALW to +3VRUN.
249.(Page 60) 07/12/21 delete R1848 for MOR side require.
250.(Page 60) 07/12/21 delete R1849 for MOR side require.
251.(Page 43) 07/12/21 Add R5208 ,R5207 for SSD power .
252.(Page 60) 07/12/21 delete R5156 for MOR side require.
253.(Page 60) 07/12/21 Change R5143 to 5.6k for MOR side require.
254.(Page 60) 07/12/21 Change R274 to 5.6k for MOR side require.
255.(Page 60) 07/12/21 Change R268 to 5.6k for MOR side require.
256.(Page 60) 07/12/21 Change R5154 to 5.6k for MOR side require.
257.(Page 60) 07/12/21 change C4820,C4822,C4825,C4827 from 0.047u to 0.068u/50V.
258.(Page 60) 07/12/21 delete +5VRUN ,and change R1871 from NC to 0 ohm.
259.(Page 61) 07/12/21 change R252 from 10k ohm to 1k ohm.
260.(Page 61) 07/12/21 change C236 from 0.1u/16V to 0.068u/16V.
261.(Page 61) 07/12/21 change C1682 from 0.22u/10V to 0.068u/16V.
262.(Page 61) 07/12/21 change C1683 from 0.22u/10V to 0.1u/16V.
263.(Page 61) 07/12/21 change change C367 from 0.068u/16V to 0.047u/16V.
264.(Page 61) 07/12/21 change R2162 from 39k ohm to 33k ohm.
265.(Page 61) 07/12/21 change C1684 from 0.22u/10V to 0.1u/16V.
266.(Page 61) 07/12/21 change R2164 from 3.3k ohm to 1k ohm.
267.(Page 61) 07/12/21 change L4068,L4067 from PBY201209T to MPZ1608D101B(TDK).
268.(Page 61) 07/12/21 change U138,U139 from NJM4565V to RC4580IPWR.
269.(Page 63) 07/12/23 Add fuse F16
270.(Page 74) 07/12/24 Change PC391 from 27u_25V to 22u_25V ,add PC362 MLCC10U_25V for decreasing input ESR
271.(Page 69) 07/12/24 Change PR49 from 12.7K to 12.4K ,add PR58 from 16.2k to 15.4k for cutting in 2nd source in DVT
272.(Page 61) 07/12/25 add R5239,C4864 for mor side require.
273.(Page 59) 07/12/25 add Mute_AMP# circuit modification for mor side require.
274.(Page 23) 07/12/25 Change L66,L73,L74 to TB100505U121
275.(Page 67) 07/12/25 Delete common choke to 4*BEAD PL19,PL20,PL21,PL22 because height limit
276.(Page 40) 07/12/25 Change Connection from GND_TR to normal Ground.
277.(Page 40) 07/12/25 Delet C574 and R486
278.(Page 59) 07/12/25 Change R5240 to 220k
279.(Page 74) 08/01/04 FOR NB9P: PR403 to 20k,PR402:23.2K,PR272=61.9K
280.(Page 74) 08/01/04 FOR NB8M: PR403 to 20k,PR402:29.4K,PR272=160K
281.(Page 74) 08/01/04 FOR NB8M/9P: ADD PQ78,PQ169,PR422:52.3K_0402_1%,PR420:10K_0402,PR421:1K_0402
282.(Page 70) 08/01/04 CHANGE PR384 to 5.1k for OCP margin
283.(Page 70) 08/01/05 CHANGE PU3 from G909-330T1U to AT5208 for decreasing inrushing current
284.(Page 68) 08/01/05 ADD PC392 :0.1U_25V
285.(Page 67) 08/01/05 ADD delete (reserve PD4)
286.(Page 74) 08/01/05 For NB9M MV voltage modified,change PR402 to 29.4k_1%_0402,PR272_1%_0402 to 39.2k_1%_0402 ,PR420/PR422/PQ168/PR
287.(Page 63) 08/01/08 Please remove these 2 fuses.F25 & U183/184 are enough for USB VBus current limiting.

FOXCONN HON HAI PRECISION IND. CO., LTD.
CPBG - R&D Division
File: History(EVT to MP)
Size: Custom | Document Number: M780(MBX-194) | Rev: 0.1
Date: Friday, June 13, 2008 | Sheet 76 of 79

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_OUT1 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(+1_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 prodution 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

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