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05	Penryn (Power/Gnd) 3/3	1.0	08'07'03	40	LED & T/P & LID	1.0	08'07'03
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Project Code & Schematics Subject:	**M790 Main Board_6L**

PCB P/N:	**1P-0086J01-6010(IRIS)**
U/B P/N:	**1P-1086J02-6010(IRIS)**
P/B P/N:	**1P-1086J03-6010(IRIS)**
R/B P/N:	**1P-1086J01-6010(IRIS)**

P. Leader	Check by	Design by

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Title: **Index Page**

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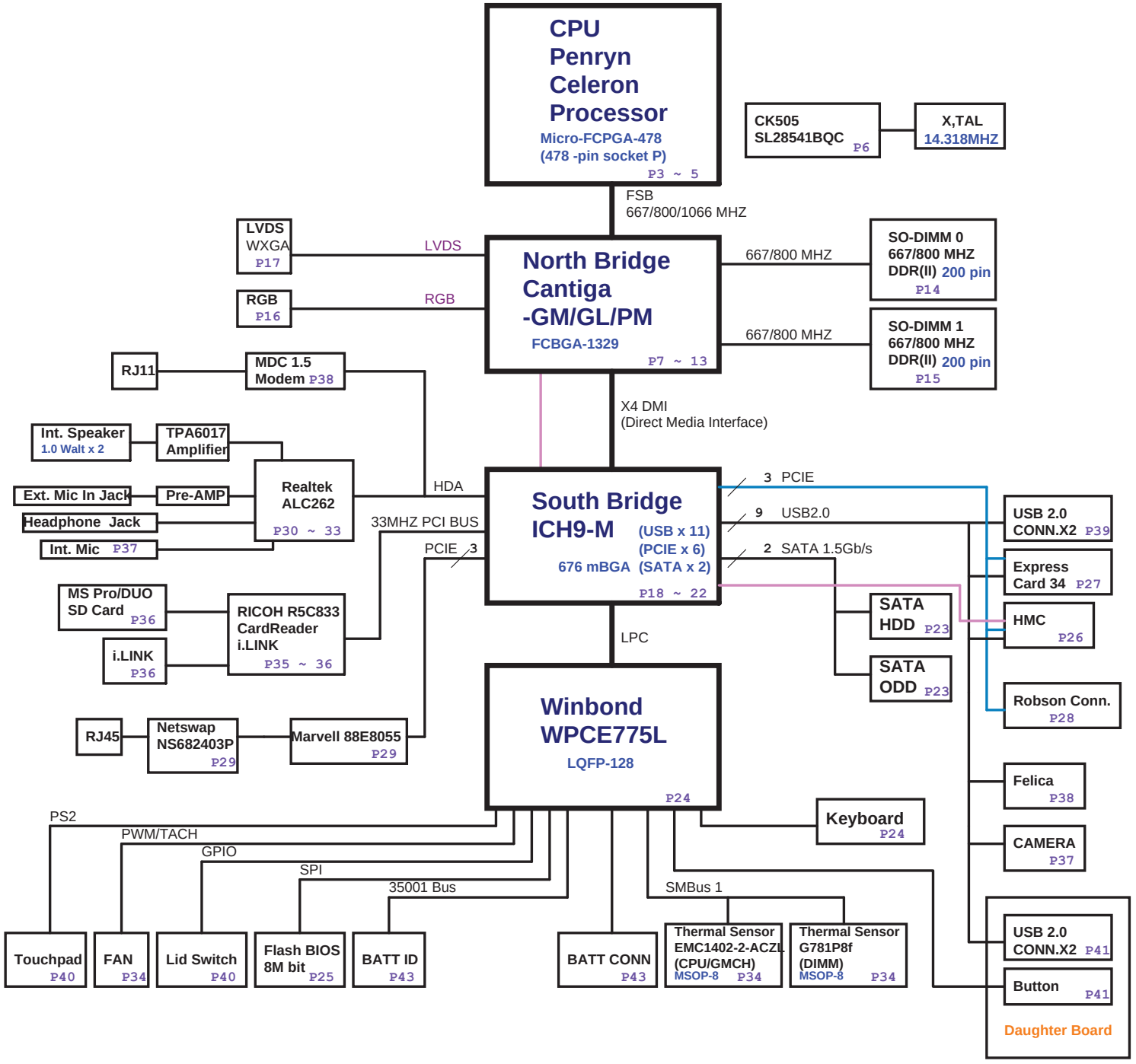
EC+KBC(WPC8763L)

M790(Montevina)



TI CHARGER BQ24751 P.63

INPUTS	OUTPUTS
DC_IN	BT+ DCBATOUT

SYSTEM DC/DC TPS51125RGER P.64

INPUTS	OUTPUTS
DCBATOUT	+5VALW +5VALW_LDO +3VALW +ECVCC +1.5V_ALW

SYSTEM DC/DC SC411 P.65

INPUTS	OUTPUTS
DCBATOUT	+1_5VRUN +1_05VM

SYSTEM DC/DC TPS51116RGER P.66

INPUTS	OUTPUTS
DCBATOUT	+1_8VSUS +0_9VSUS

CPU DC/DC ISL6262A P.67

INPUTS	OUTPUTS
DCBATOUT	VHCORE

SYSTEM DC/DC APL5912 P.70

INPUTS	OUTPUTS
+1_5VRUN	PEX_VDD

SYSTEM DC/DC TPS51117 P.70

INPUTS	OUTPUTS
DCBATOUT	NV_VDD

SYSTEM DC/DC MAX8776 P.71

INPUTS	OUTPUTS
DCBATOUT	+VGFX_CORE

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Title: Block Diagram		
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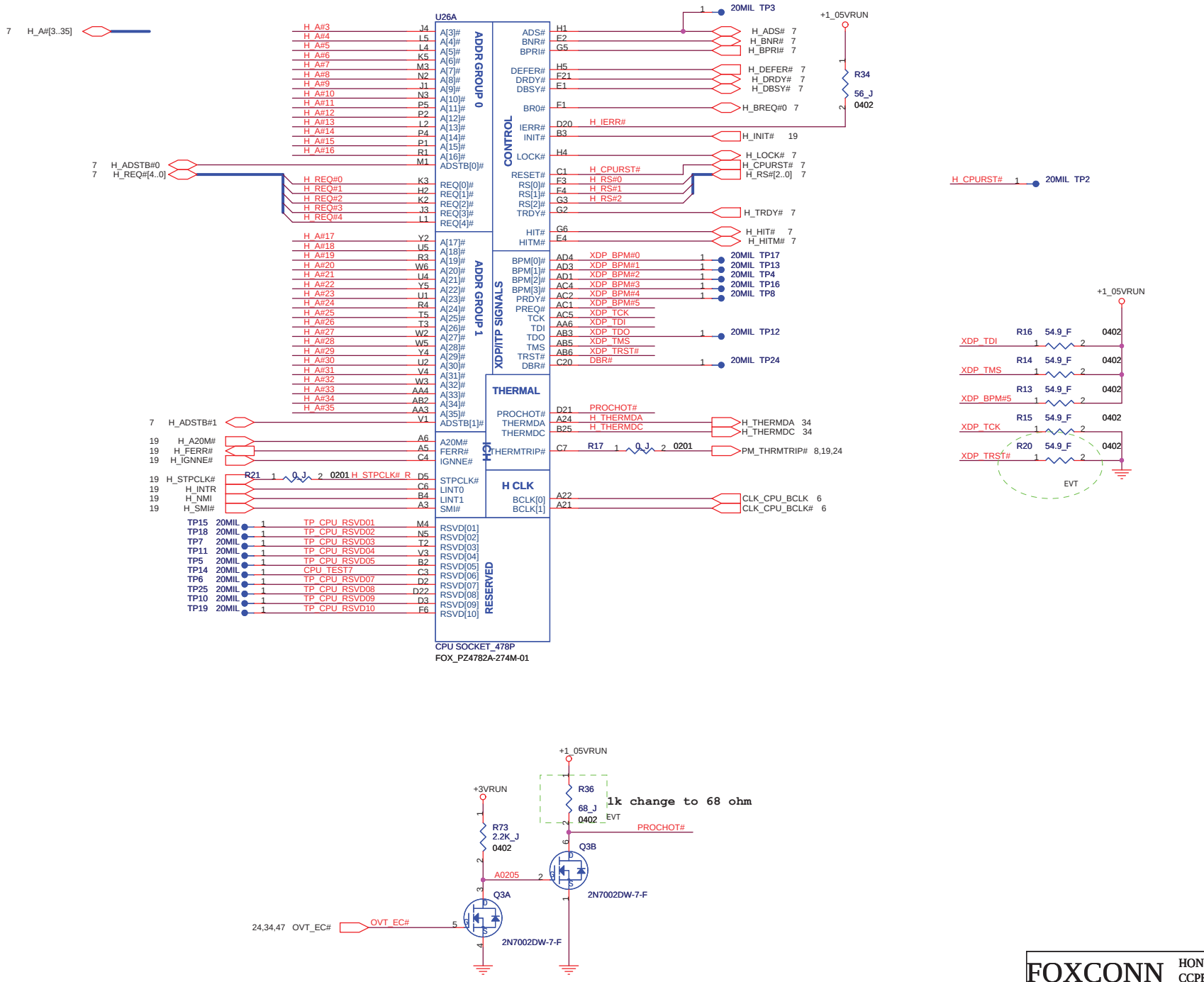

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Title	Penryn (HOST BUS) 1/3	
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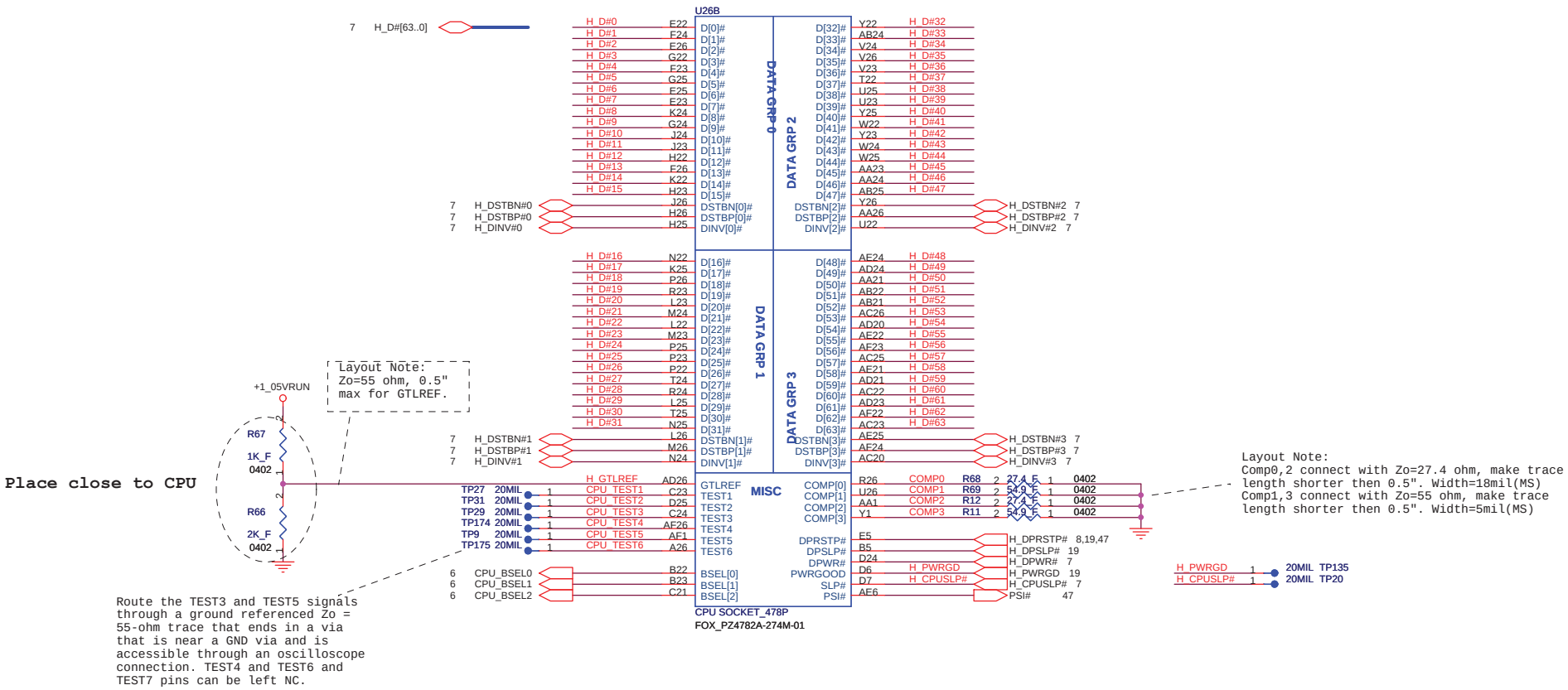

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	Penryn (HOST BUS) 2/3		
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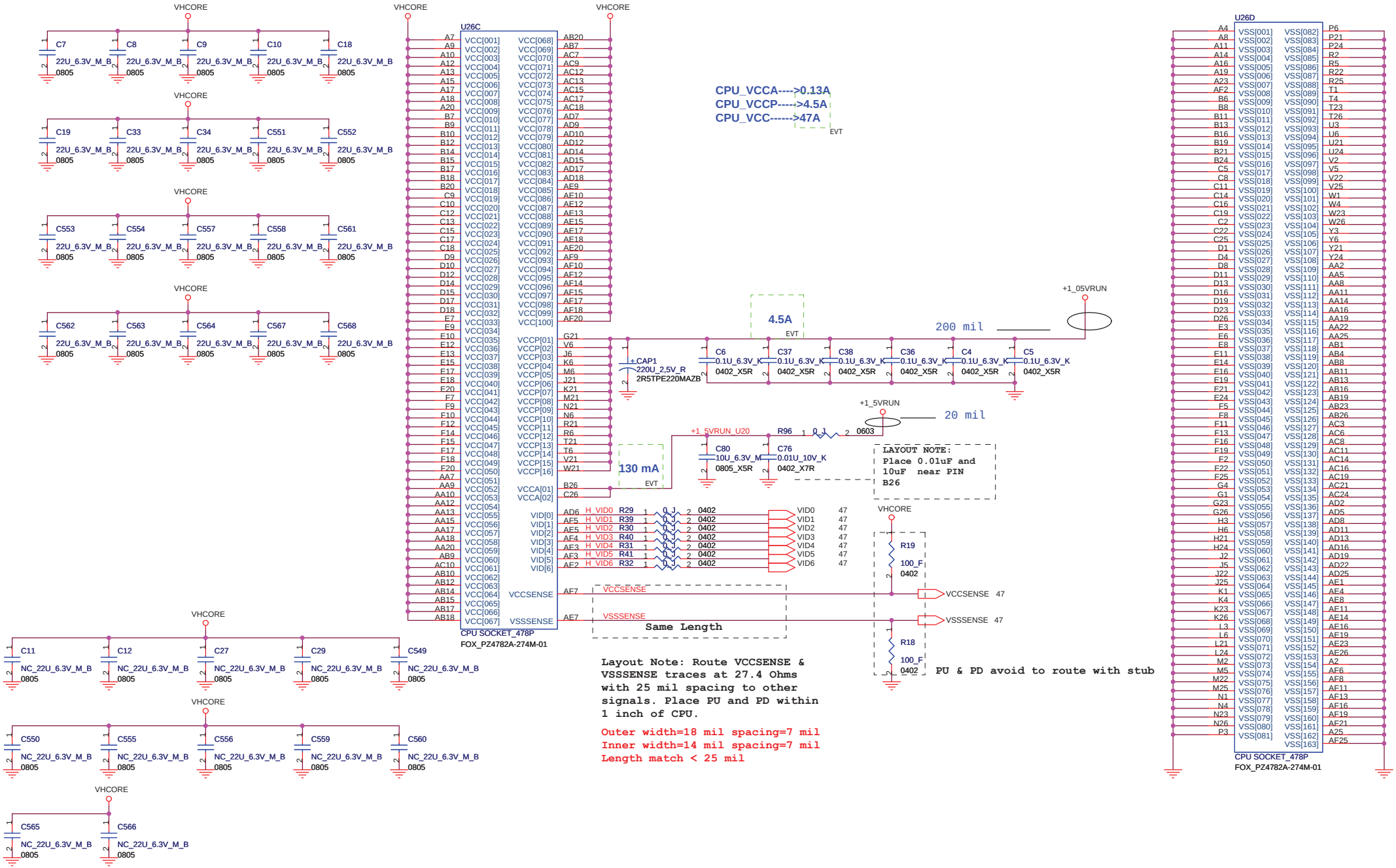

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Title	Penryn (POWER/GROUND) 3/3	
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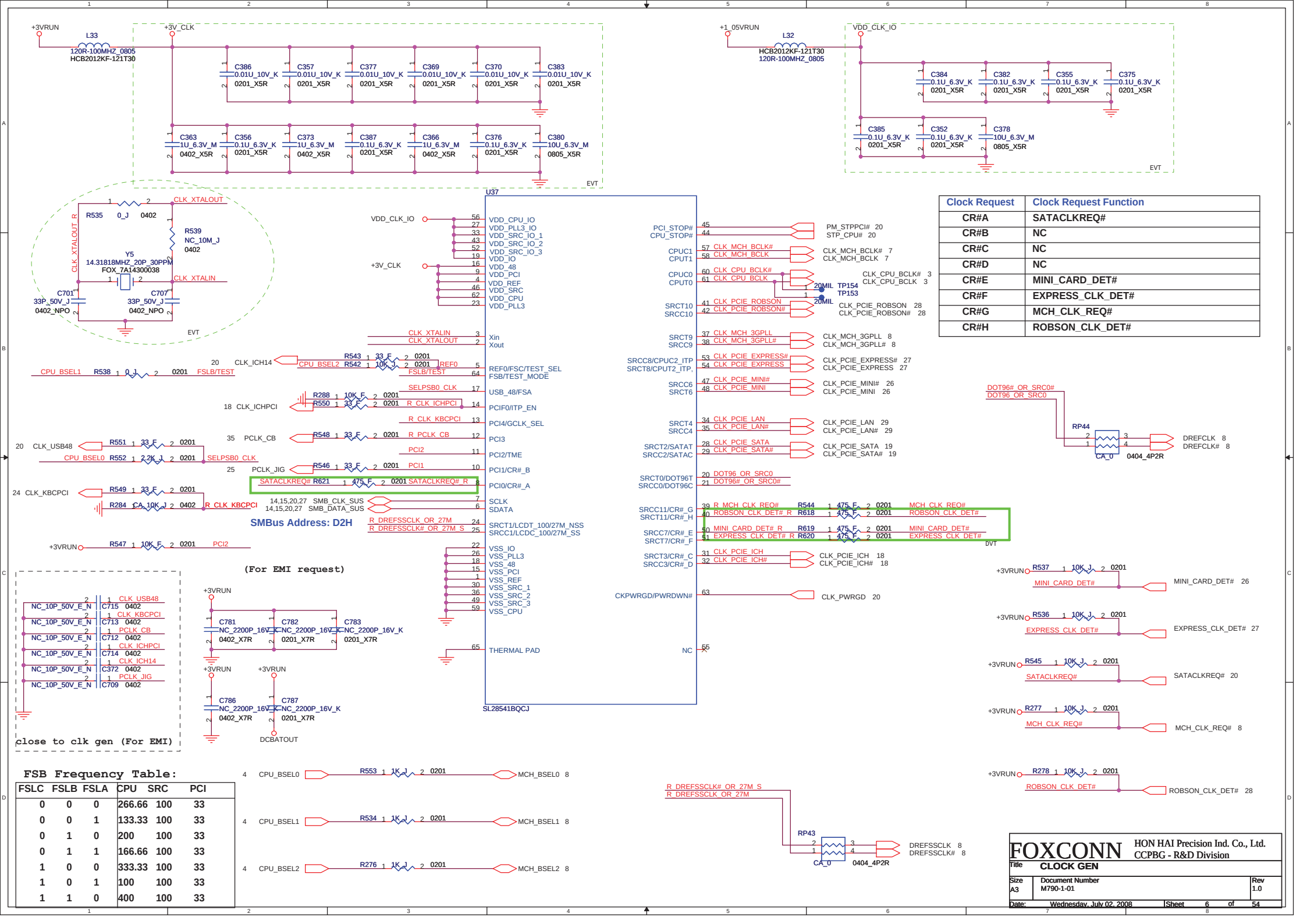

Clock Request	Clock Request Function
CR#A	SATACLKREQ#
CR#B	NC
CR#C	NC
CR#D	NC
CR#E	MINI_CARD_DET#
CR#F	EXPRESS_CLK_DET#
CR#G	MCH_CLK_REQ#
CR#H	ROBSON_CLK_DET#

FSB Frequency Table:

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	
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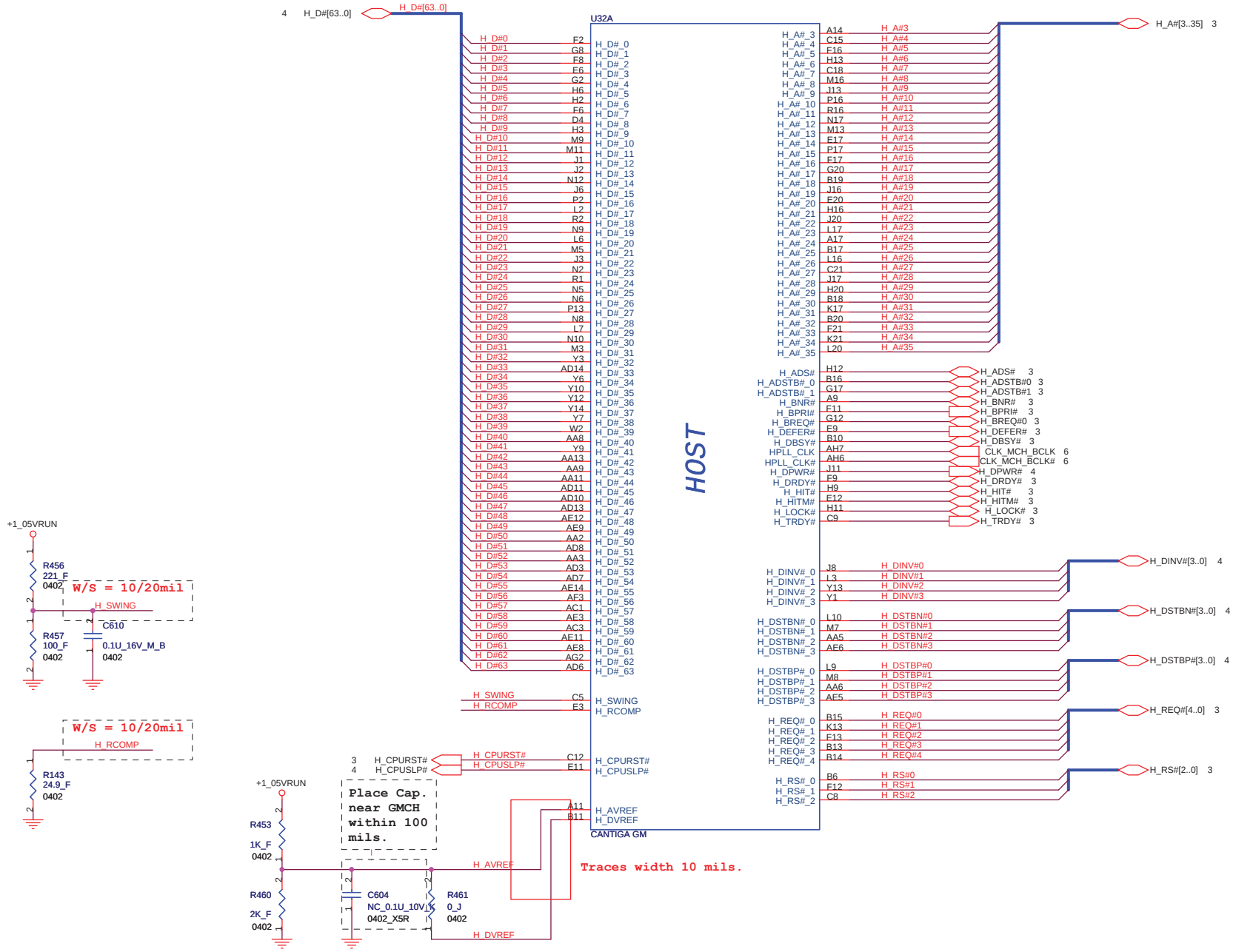

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Cantiga (HOST) 1/7	
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MCH_CFG_0~2 FSB Frequency	000 = FSB1066 ; 010 = FSB800; 011 = FSB667 ; Others = Reserved
MCH_CFG_3~4	Reserved
MCH_CFG_5 DMI X2 Select	Low = DMI X2 High = DMI X4 (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 (default)
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

U32B

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

CANTIGA GM

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
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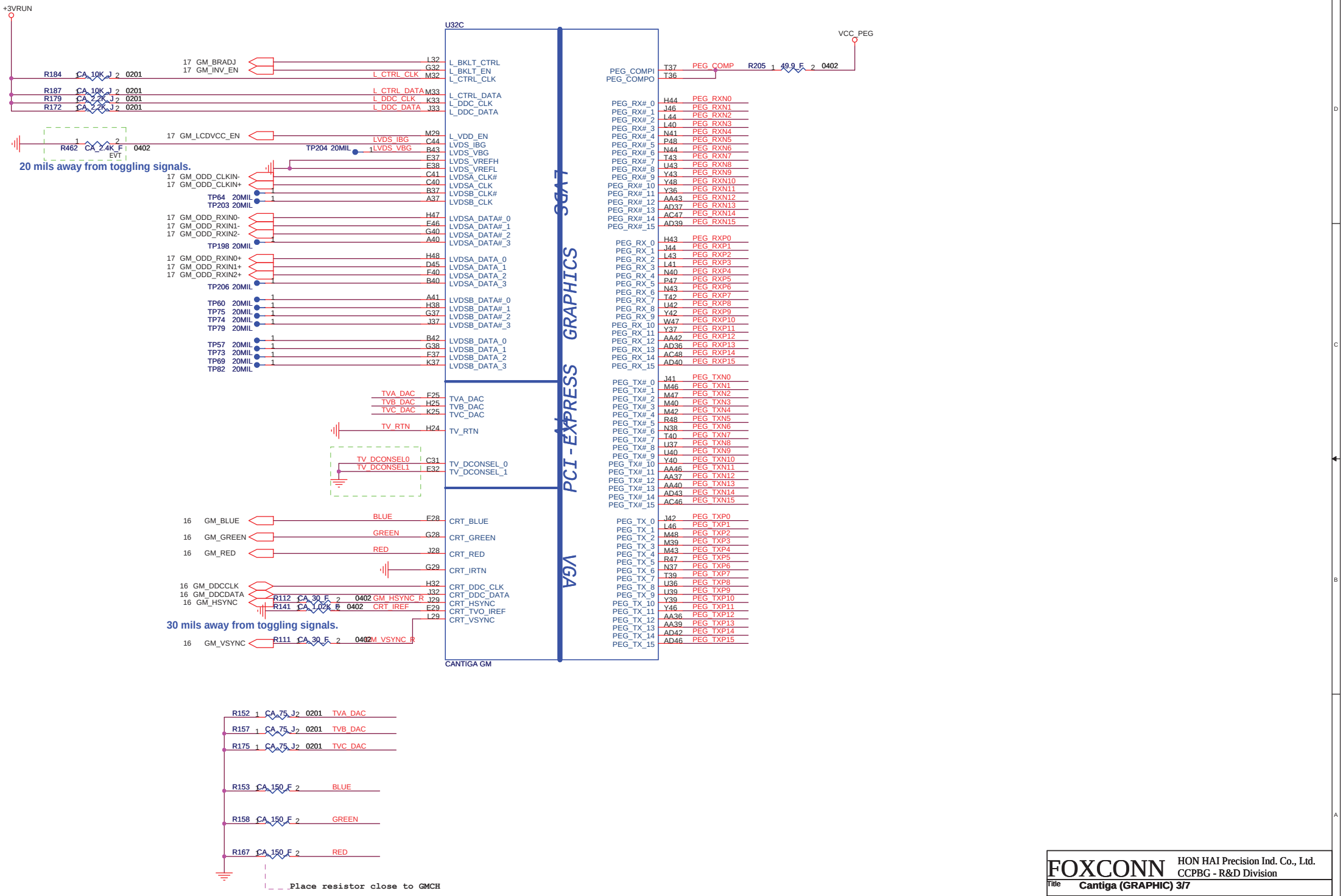

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Title	Cantiga (GRAPHIC) 3/7	
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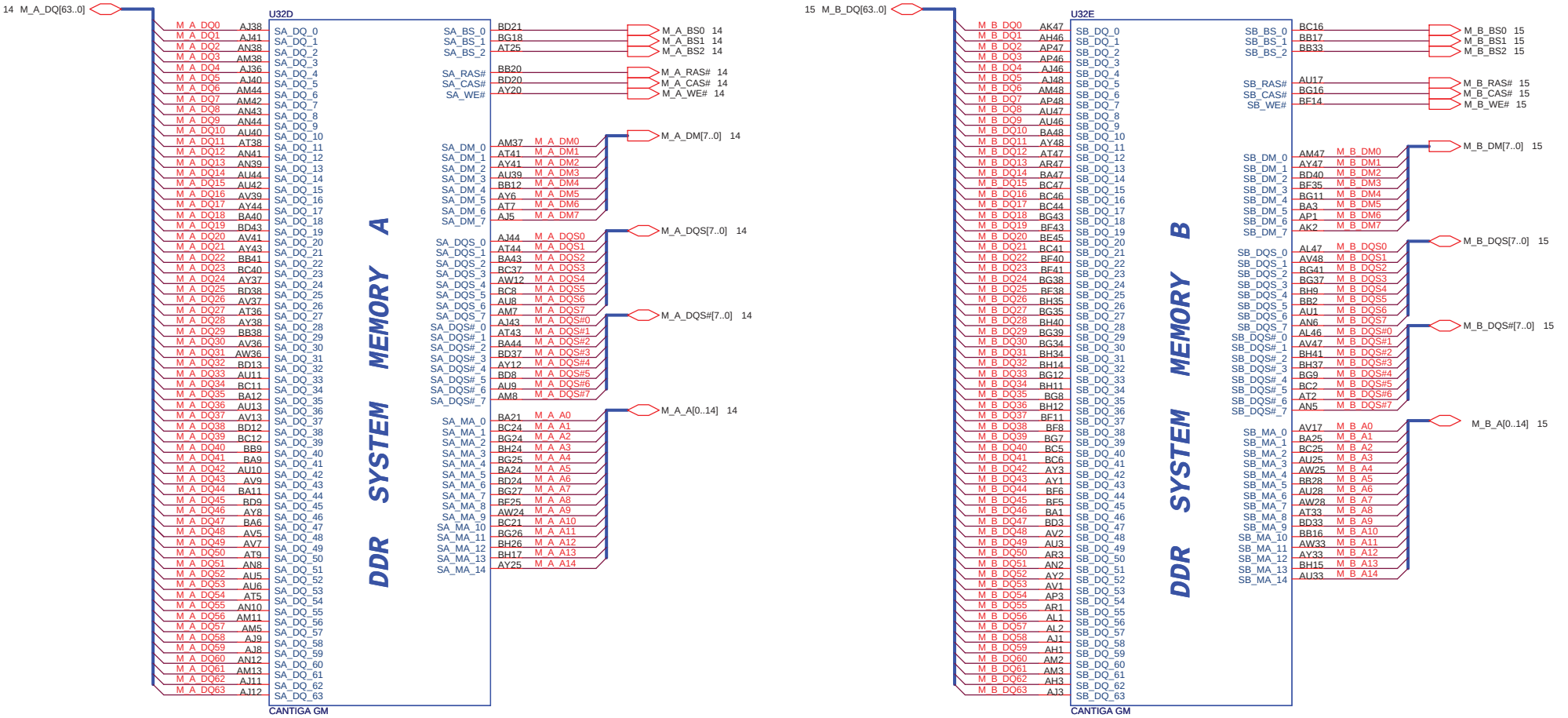

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Title	Cantiga (DDRII) 4/7	
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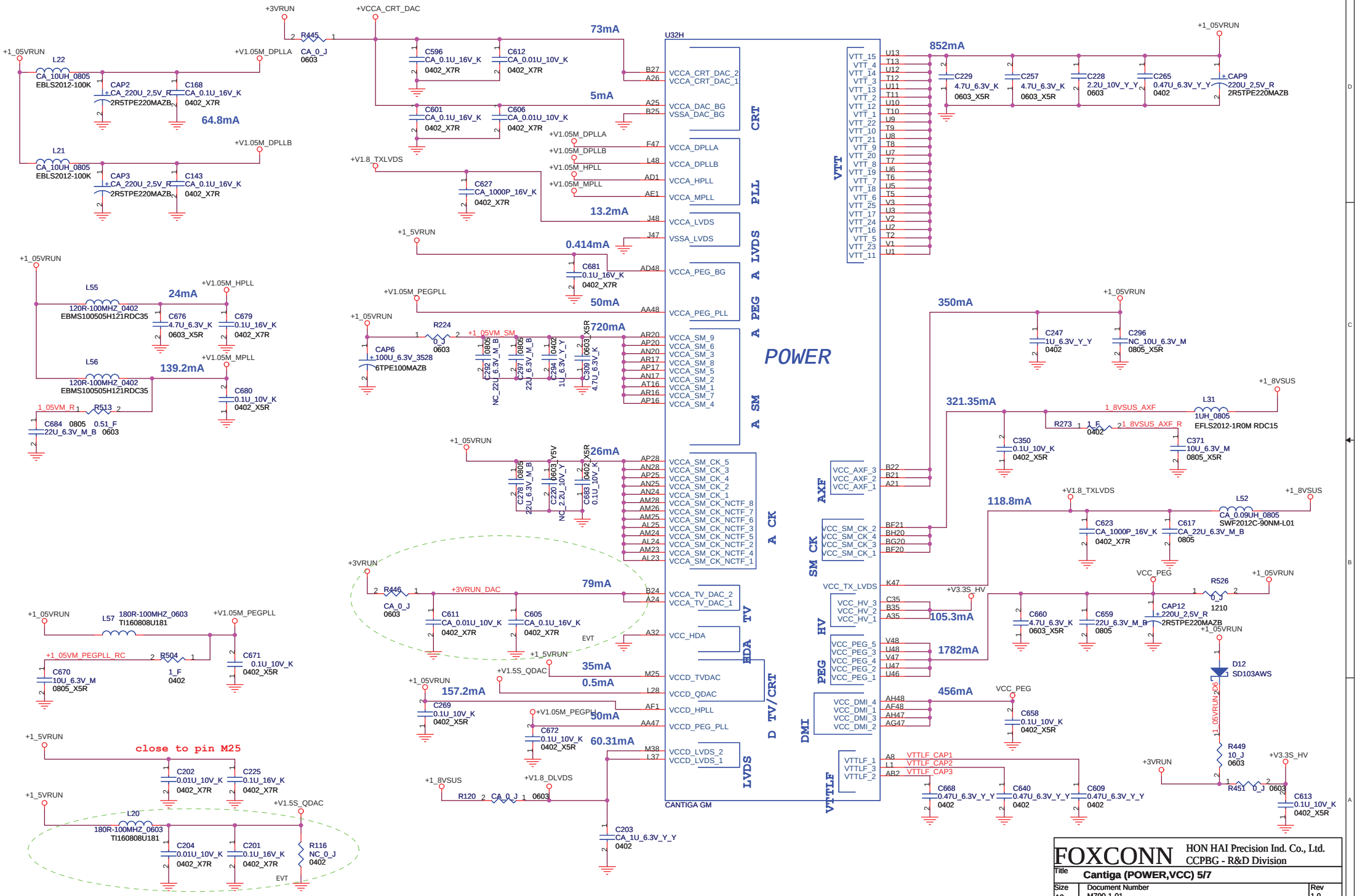
POWER
U32H
CANTIGA GM
CRT
PLL
A LVDS
A PEG
A SM
A CK
TV
HDA
D TV/CRT
LVDS
AXF
SM CK
HV
PEG
DMI
VTTLF
VTT
+3VRUN
+VCCA_CRT_DAC
+1_05VRUN
+1_8VSUS
+1_5VRUN
+V1.05M_DPLLA
+V1.05M_DPLLB
+V1.8_TXLVDS
+V1.05M_HPLL
+V1.05M_MPLL
+V1.05M_PEGPLL
+1_05VM_SM
+3VRUN_DAC
+V1.5S_QDAC
+V1.8_DLVDS
+V3.3S_HV
VCC_PEG
VTTLF_CAP1
VTTLF_CAP2
VTTLF_CAP3
73mA
5mA
64.8mA
13.2mA
0.414mA
50mA
720mA
24mA
139.2mA
26mA
79mA
35mA
0.5mA
157.2mA
50mA
60.31mA
852mA
350mA
321.35mA
118.8mA
105.3mA
1782mA
456mA
close to pin M25
EVT
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HON HAI Precision Ind. Co., Ltd.
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Cantiga (POWER,VCC) 5/7
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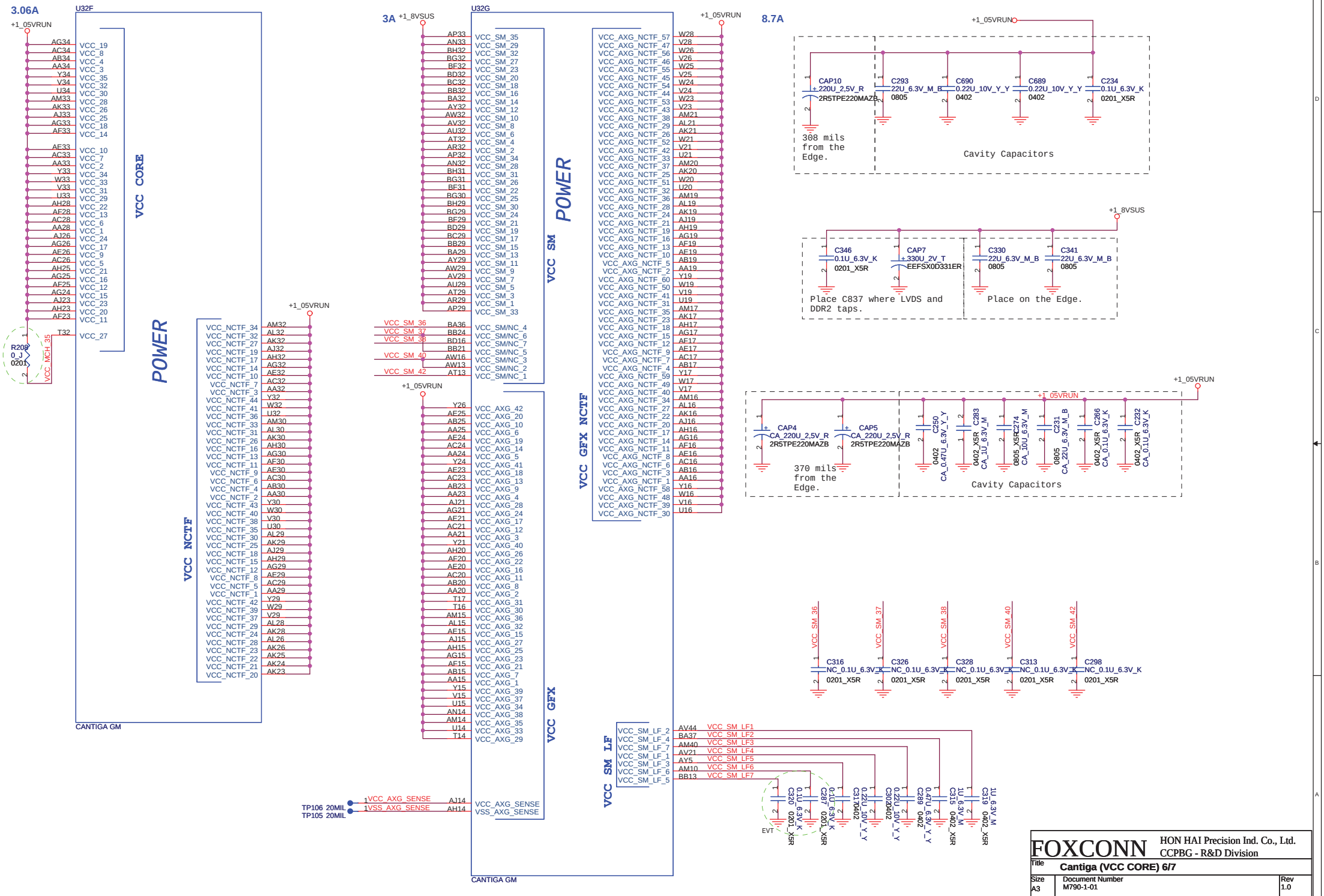
3.06A
U32F
+1_05VRUN
VCC_CORE
POWER
VCC_NCTF
CANTIGA GM
3A
+1_8VSUS
U32G
VCC_SM
VCC_GFX
VCC_SM_LF
VCC_GFX_NCTF
CANTIGA GM
8.7A
CAP10 220U_2_5V_R 2R5TPE220MAZB
C293 22U_6.3V_M_B 0805
C690 0.22U_10V_Y_Y 0402
C689 0.22U_10V_Y_Y 0402
C234 0.1U_6.3V_K 0201_X5R
308 mils from the Edge.
Cavity Capacitors
C346 0.1U_6.3V_K 0201_X5R
CAP7 330U_2V_T EEFSX0D331ER
C330 22U_6.3V_M_B 0805
C341 22U_6.3V_M_B 0805
Place C837 where LVDS and DDR2 taps.
Place on the Edge.
CAP4 CA_220U_2_5V_R 2R5TPE220MAZB
CAP5 CA_220U_2_5V_R 2R5TPE220MAZB
370 mils from the Edge.
Cavity Capacitors
C316 NC_0.1U_6.3V_K 0201_X5R
C326 NC_0.1U_6.3V_K 0201_X5R
C328 NC_0.1U_6.3V_K 0201_X5R
C313 NC_0.1U_6.3V_K 0201_X5R
C298 NC_0.1U_6.3V_K 0201_X5R
R208 0_J 0201
VCC_MCH_35
TP106 20MIL
TP105 20MIL
VCC_AXG_SENSE
VSS_AXG_SENSE
EVT
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Title
Cantiga (VCC CORE) 6/7
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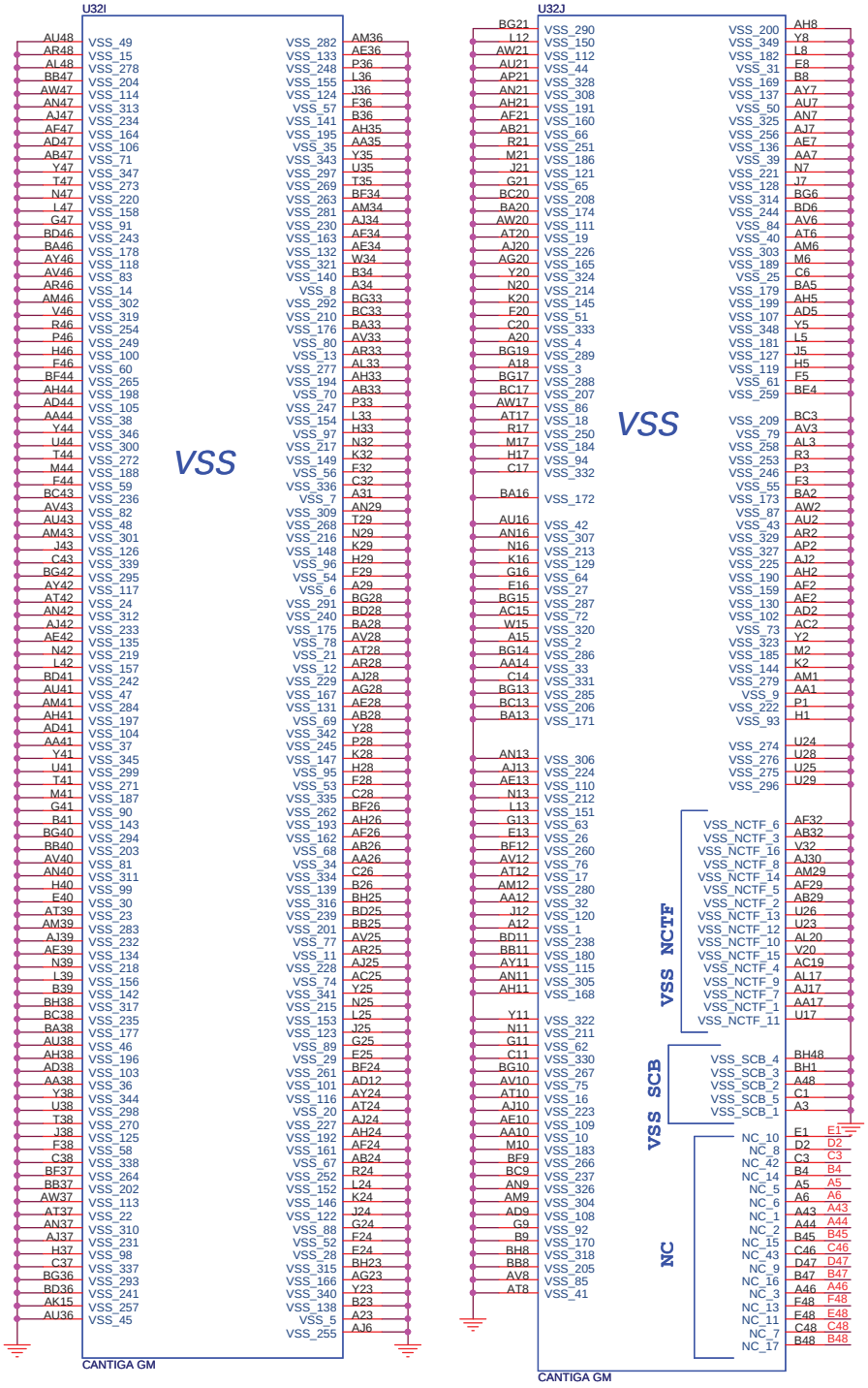

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Cantiga (VSS) 7/7	
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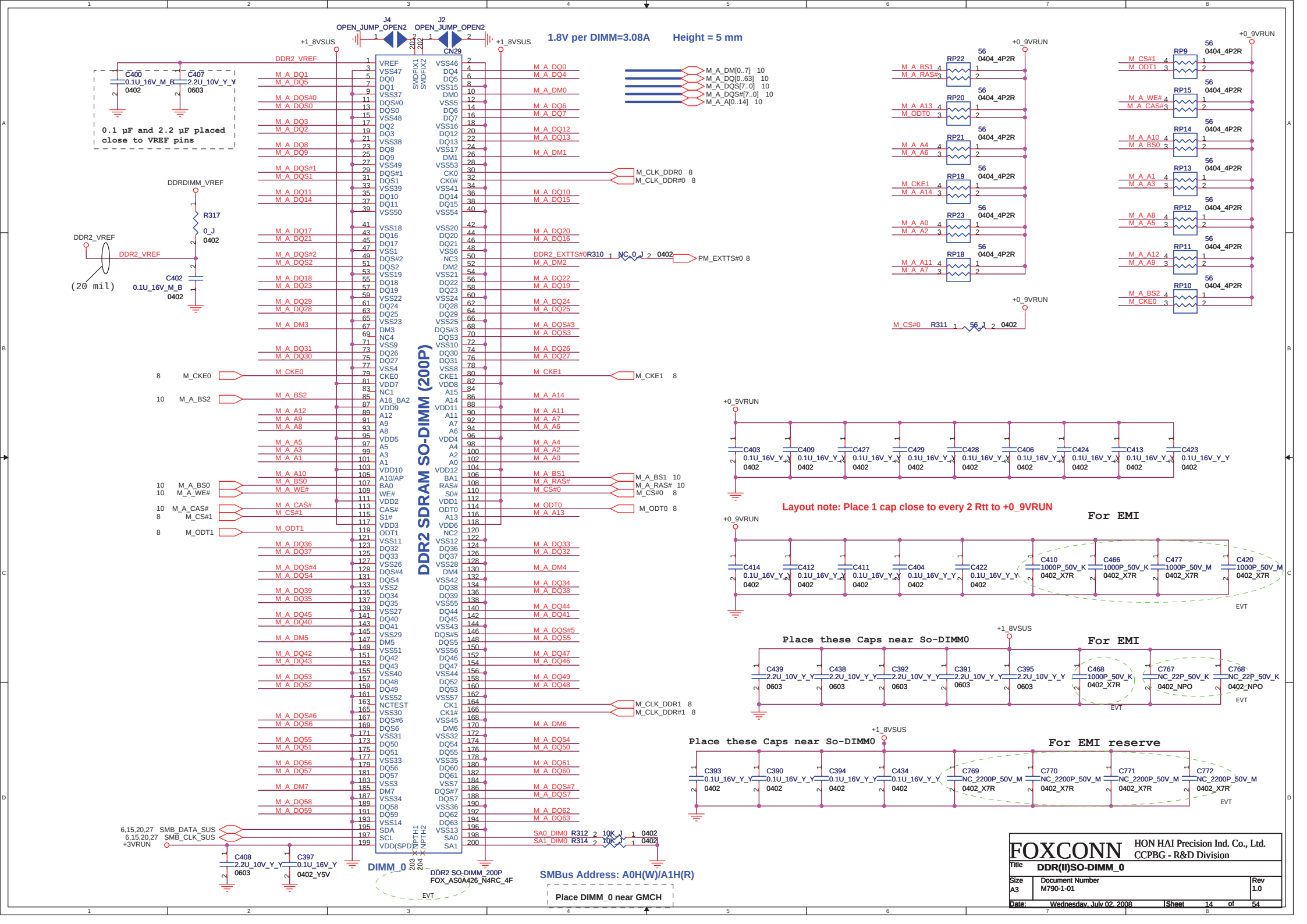
J4 OPEN_JUMP_OPEN2
J2 OPEN_JUMP_OPEN2
CN29
1.8V per DIMM=3.08A
Height = 5 mm
+1_8VSUS
+0_9VRUN
DDR2_VREF
DDRDIMM_VREF
C400 0.1U_16V_M_B 0402
C407 2.2U_10V_Y_Y 0603
0.1 µF and 2.2 µF placed close to VREF pins
R317 0_J 0402
C402 0.1U_16V_M_B 0402
(20 mil)
DDR2 SDRAM SO-DIMM (200P)
M_A_DM[0..7] 10
M_A_DQ[0..63] 10
M_A_DQS#[7..0] 10
M_A_DQS[7..0] 10
M_A_A[0..14] 10
M_CLK_DDR0 8
M_CLK_DDR#0 8
M_CLK_DDR1 8
M_CLK_DDR#1 8
DDR2_EXTTS#0 R310 NC_0_J 0402
PM_EXTTS#0 8
M_CKE0 8
M_CKE1 8
M_A_BS2 10
M_A_BS0 10
M_A_WE# 10
M_A_CAS# 10
M_CS#1 8
M_ODT1 8
M_A_BS1 10
M_A_RAS# 10
M_CS#0 8
M_ODT0 8
6,15,20,27 SMB_DATA_SUS
6,15,20,27 SMB_CLK_SUS
+3VRUN
SA0_DIM0 R312 10K_J 0402
SA1_DIM0 R314 10K_J 0402
C408 2.2U_10V_Y_Y 0603
C397 0.1U_16V_Y 0402_Y5V
DIMM_0
DDR2 SO-DIMM_200P
FOX_AS0A426_N4RC_4F
EVT
SMBus Address: A0H(W)/A1H(R)
Place DIMM_0 near GMCH
RP22 RP20 RP21 RP19 RP23 RP18 RP9 RP15 RP14 RP13 RP12 RP11 RP10
56 0404_4P2R
M_A_BS1 M_A_RAS# M_A_A13 M_ODT0 M_A_A4 M_A_A6 M_CKE1 M_A_A14 M_A_A0 M_A_A2 M_A_A11 M_A_A7
M_CS#1 M_ODT1 M_A_WE# M_A_CAS# M_A_A10 M_A_BS0 M_A_A1 M_A_A3 M_A_A8 M_A_A5 M_A_A12 M_A_A9 M_A_BS2 M_CKE0
M_CS#0 R311 56_J 0402
Layout note: Place 1 cap close to every 2 Rtt to +0_9VRUN
For EMI
C403 C409 C427 C429 C428 C406 C424 C413 C423 0.1U_16V_Y_Y 0402
C414 C412 C411 C404 C422 0.1U_16V_Y_Y 0402
C410 C466 C477 C420 1000P_50V_K 1000P_50V_M 0402_X7R
Place these Caps near So-DIMM0
C439 C438 C392 C391 C395 2.2U_10V_Y_Y 0603
C468 1000P_50V_K 0402_X7R
C767 C768 NC_22P_50V_K 0402_NPO
C393 C390 C394 C434 0.1U_16V_Y_Y 0402
For EMI reserve
C769 C770 C771 C772 NC_2200P_50V_M 0402_X7R
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HON HAI Precision Ind. Co., Ltd.
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Title DDR(II)SO-DIMM_0
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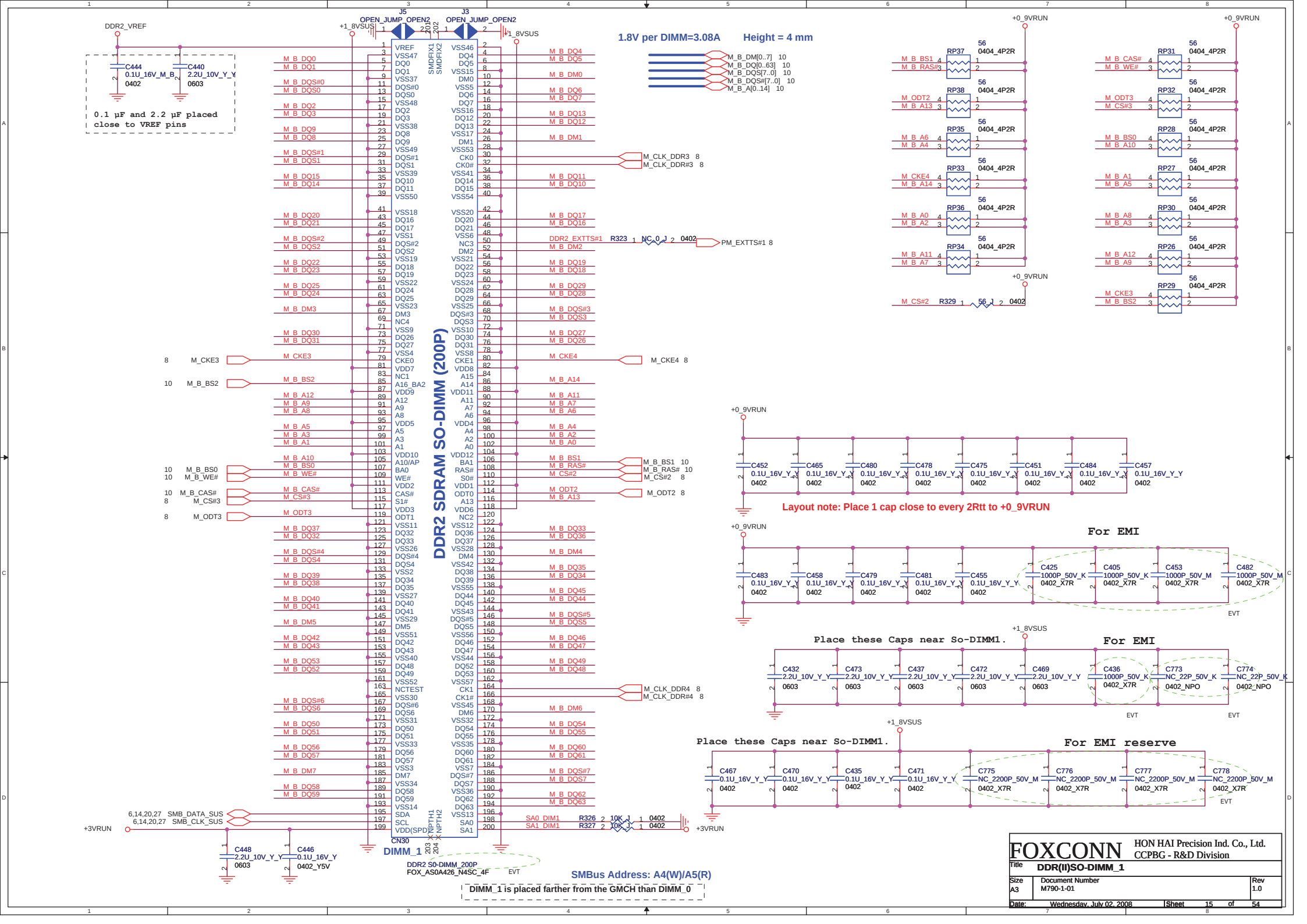
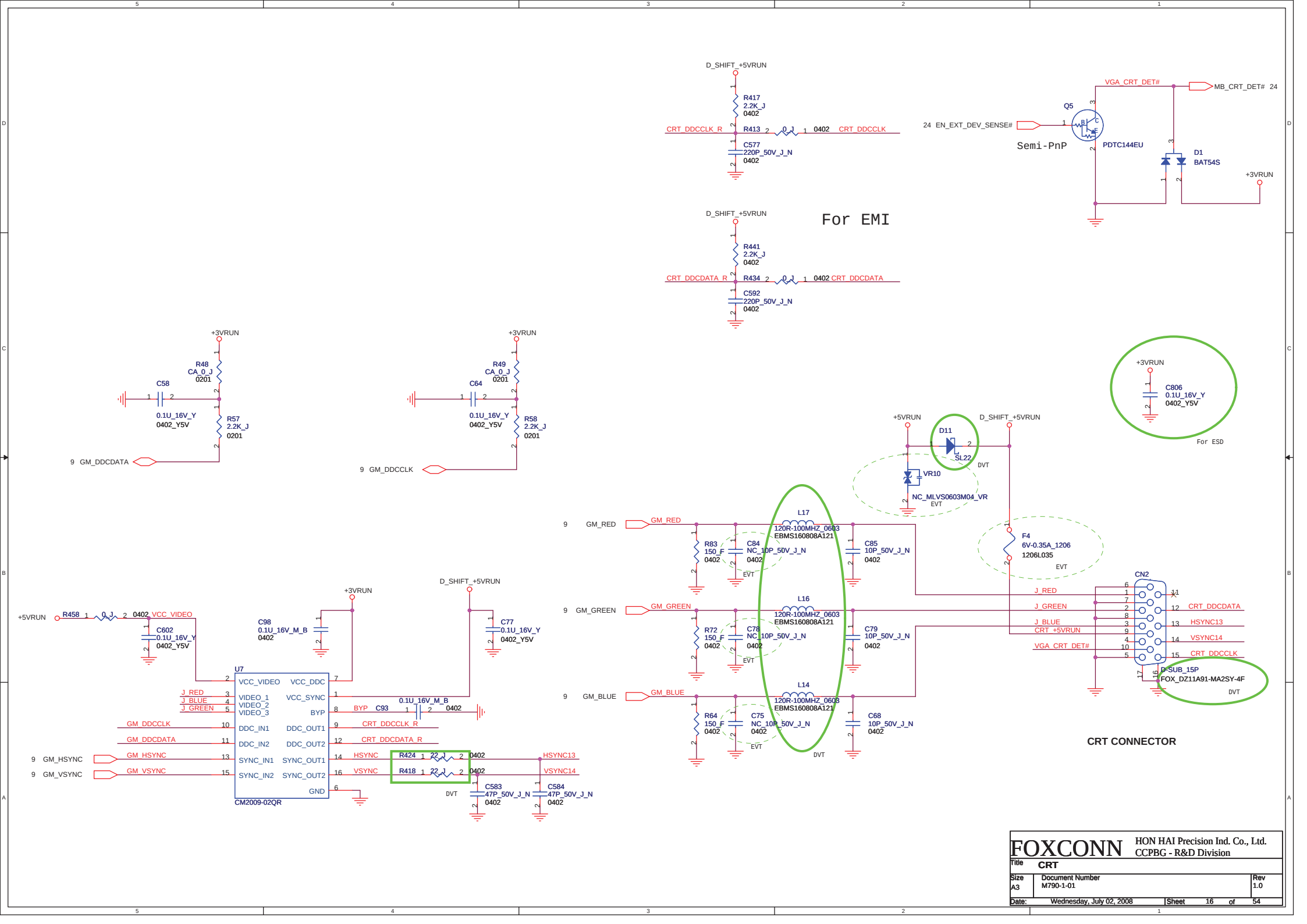

DDR2 SDRAM SO-DIMM (200P)
DIMM_1
CN30
DDR2 S0-DIMM_200P
FOX_AS0A426_N4SC_4F
1.8V per DIMM=3.08A
Height = 4 mm
SMBus Address: A4(W)/A5(R)
DIMM_1 is placed farther from the GMCH than DIMM_0
0.1 µF and 2.2 µF placed close to VREF pins
Layout note: Place 1 cap close to every 2Rtt to +0_9VRUN
Place these Caps near So-DIMM1.
For EMI
For EMI reserve
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
DDR(II)SO-DIMM_1
M790-1-01
Wednesday, July 02, 2008



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	CRT	
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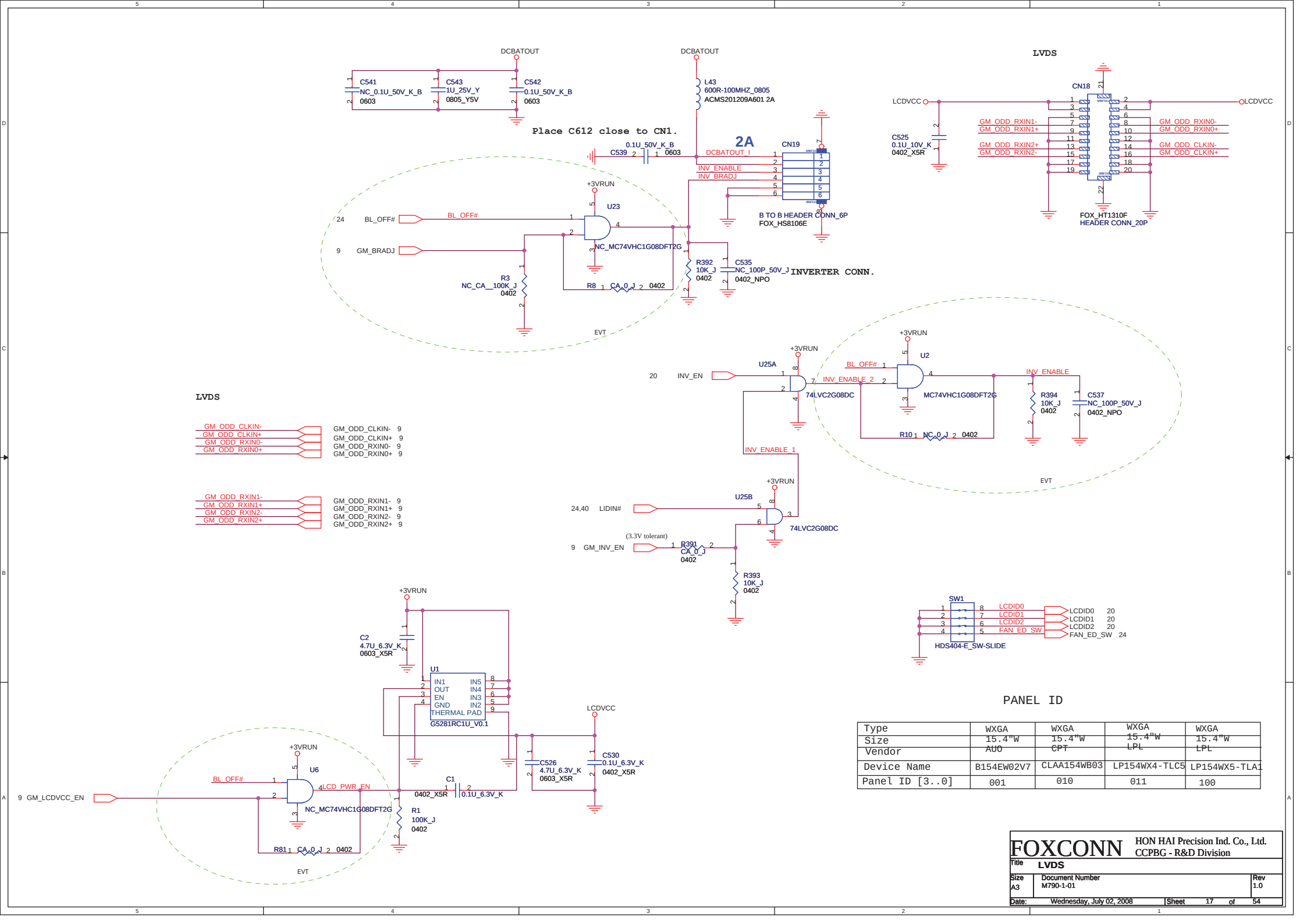

PANEL ID

Type	WXGA	WXGA	WXGA	WXGA
Size	15.4"W	15.4"W	15.4"W	15.4"W
Vendor	AUO	CPT	LPL	LPL
Device Name	B154EW02V7	CLAA154WB03	LP154WX4-TLC5	LP154WX5-TLA1
Panel ID [3..0]	001	010	011	100

FOXCONN
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Title: LVDS		
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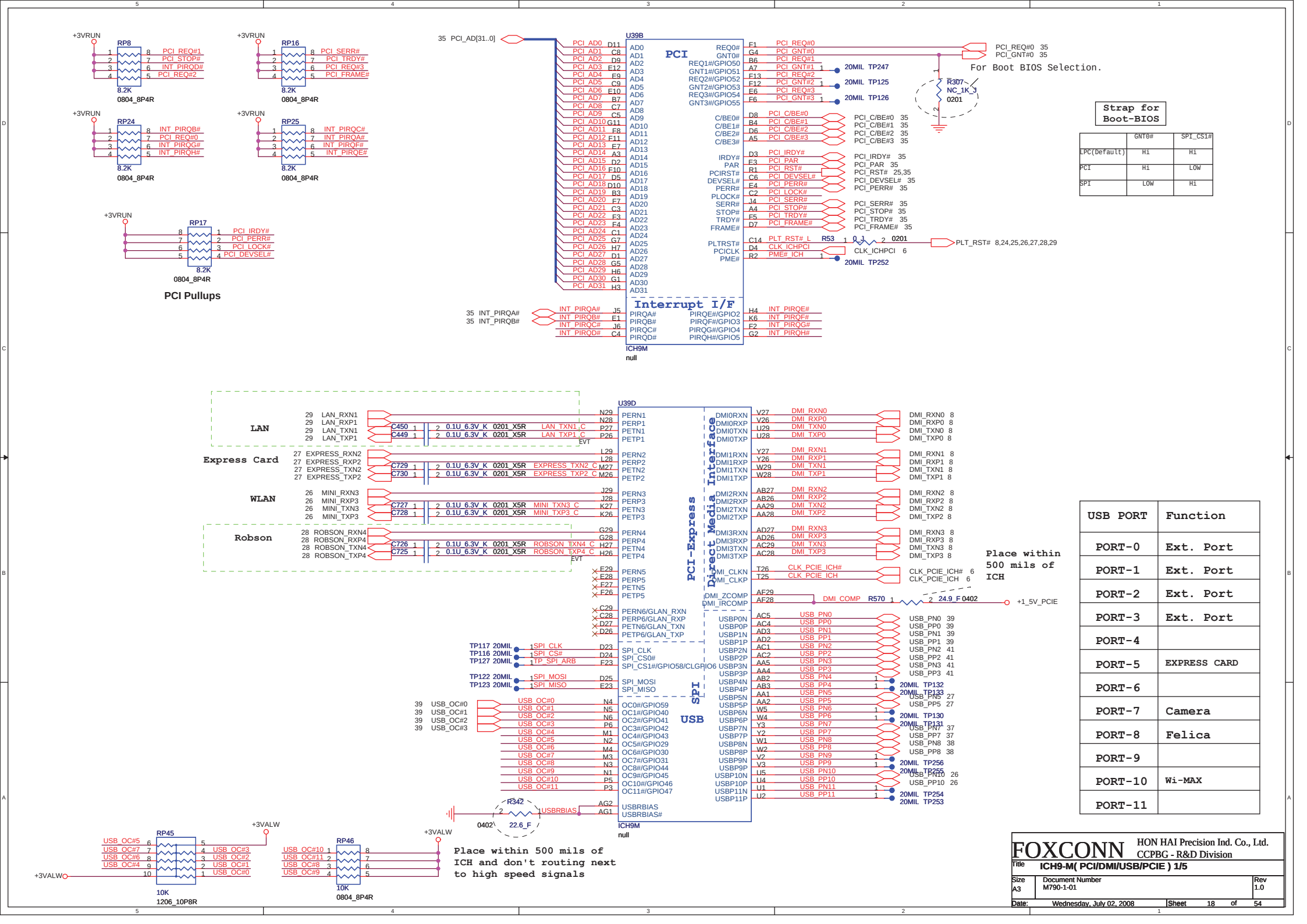
RP8
RP16
RP24
RP25
RP17
8.2K
0804_8P4R
PCI_REQ#1
PCI_STOP#
INT_PIRQD#
PCI_REQ#2
PCI_SERR#
PCI_TRDY#
PCI_REQ#3
PCI_FRAME#
INT_PIRQB#
PCI_REQ#0
INT_PIRQG#
INT_PIRQH#
INT_PIRQC#
INT_PIRQA#
INT_PIRQF#
INT_PIRQE#
PCI_IRDY#
PCI_PERR#
PCI_LOCK#
PCI_DEVSEL#
PCI Pullups
35 PCI_AD[31..0]
U39B
PCI
Interrupt I/F
ICH9M
null
PCI_REQ#0 35
PCI_GNT#0 35
For Boot BIOS Selection.
R307
NC_1K_J
0201
Strap for Boot-BIOS
GNT0#
SPI_CS1#
LPC(Default)
PCI
SPI
PLT_RST# 8,24,25,26,27,28,29
CLK_ICHPCI 6
20MIL TP247
20MIL TP125
20MIL TP126
20MIL TP252
35 INT_PIRQA#
35 INT_PIRQB#
U39D
LAN
Express Card
WLAN
Robson
PCI-Express
Direct Media Interface
SPI
USB
EVT
DMI_COMP R570 24.9_F 0402
+1_5V_PCIE
Place within 500 mils of ICH
Place within 500 mils of ICH and don't routing next to high speed signals
R342
USBRBIAS
22.6_F
RP45
RP46
10K
1206_10P8R
0804_8P4R
+3VRUN
+3VALW
USB PORT
Function
PORT-0
Ext. Port
PORT-1
Ext. Port
PORT-2
Ext. Port
PORT-3
Ext. Port
PORT-4
PORT-5
EXPRESS CARD
PORT-6
PORT-7
Camera
PORT-8
Felica
PORT-9
PORT-10
Wi-MAX
PORT-11
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH9-M(PCI/DMI/USB/PCIE) 1/5
Size
A3
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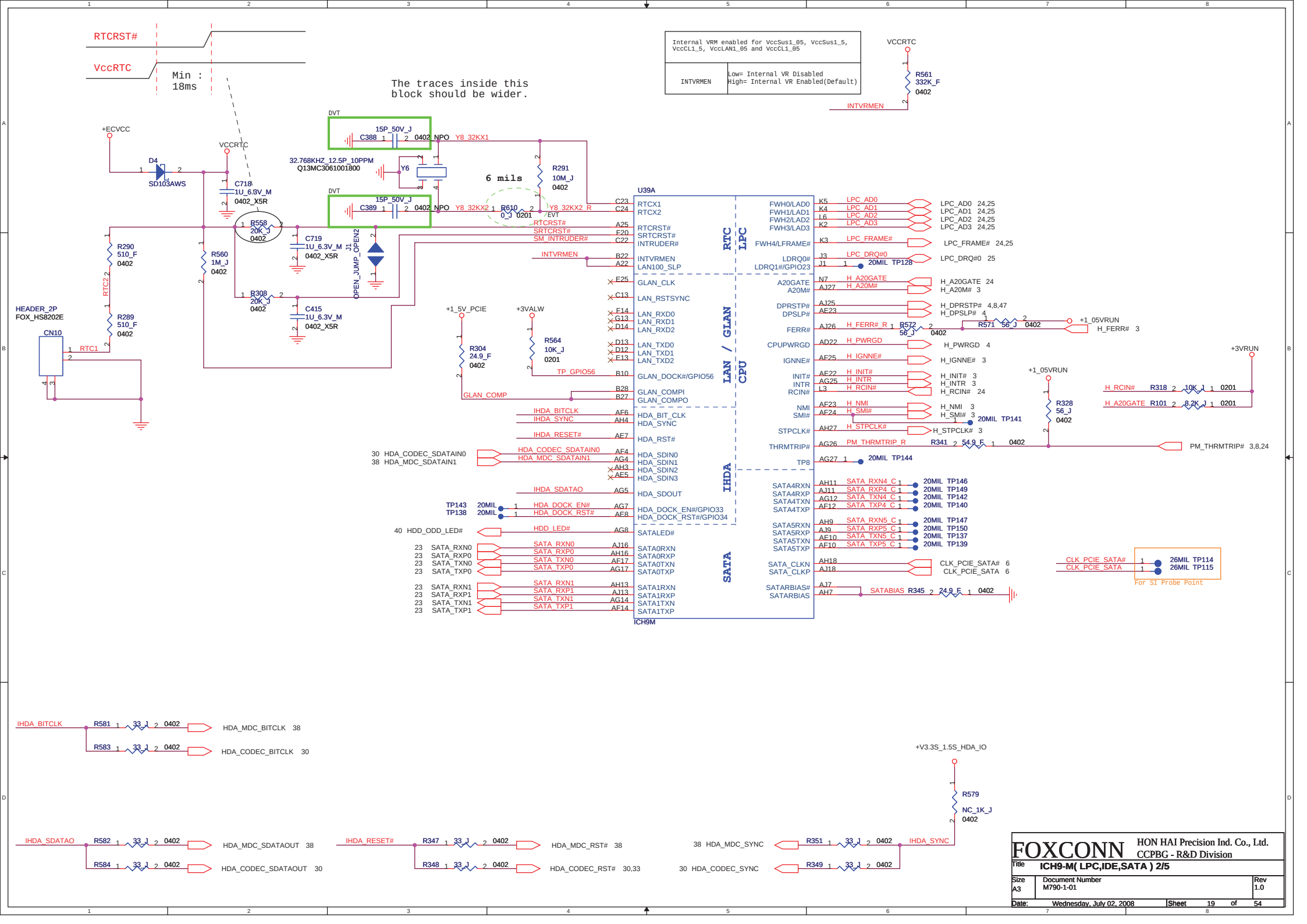
RTCRST#
VccRTC
Min : 18ms
The traces inside this block should be wider.
Internal VRM enabled for VccSus1_05, VccSus1_5, VccCL1_5, VccLAN1_05 and VccCL1_05
INTVRMEN
Low= Internal VR Disabled
High= Internal VR Enabled(Default)
VCCRTC
R561 332K_F 0402
INTVRMEN
+ECVCC
D4 SD103AWS
C718 1U_6.3V_M 0402_X5R
32.768KHZ_12.5P_10PPM Q13MC3061001800
Y6
DVT
C388 15P_50V_J 0402 NPO
C389 15P_50V_J 0402 NPO
Y8_32KX1
Y8_32KX2
R610 0_J 0201 /EVT
R291 10M_J 0402
6 mils
R558 20K_J 0402
R560 1M_J 0402
R290 510_F 0402
R289 510_F 0402
RTC2
C719 1U_6.3V_M 0402_X5R
R308 20K_J 0402
C415 1U_6.3V_M 0402_X5R
J1 OPEN_JUMP_OPEN2
HEADER_2P FOX_HS8202E
CN10
RTC1
U39A
RTCX1
RTCX2
RTCRST#
SRTCRST#
INTRUDER#
INTVRMEN
LAN100_SLP
RTC
GLAN_CLK
LAN_RSTSYNC
LAN_RXD0
LAN_RXD1
LAN_RXD2
LAN_TXD0
LAN_TXD1
LAN_TXD2
GLAN_DOCK#/GPIO56
GLAN_COMPI
GLAN_COMPO
LAN / GLAN
+1_5V_PCIE
+3VALW
R304 24.9_F 0402
R564 10K_J 0201
TP_GPIO56
GLAN_COMP
HDA_BIT_CLK
HDA_SYNC
HDA_RST#
HDA_SDIN0
HDA_SDIN1
HDA_SDIN2
HDA_SDIN3
HDA_SDOUT
HDA_DOCK_EN#/GPIO33
HDA_DOCK_RST#/GPIO34
IHDA
IHDA_BITCLK
IHDA_SYNC
IHDA_RESET#
IHDA_SDATAO
HDA_CODEC_SDATAIN0
HDA_MDC_SDATAIN1
TP143 20MIL
TP138 20MIL
HDA_DOCK_EN#
HDA_DOCK_RST#
HDD_LED#
SATALED#
SATA0RXN
SATA0RXP
SATA0TXN
SATA0TXP
SATA_RXN0
SATA_RXP0
SATA_TXN0
SATA_TXP0
SATA1RXN
SATA1RXP
SATA1TXN
SATA1TXP
SATA_RXN1
SATA_RXP1
SATA_TXN1
SATA_TXP1
SATA
FWH0/LAD0
FWH1/LAD1
FWH2/LAD2
FWH3/LAD3
FWH4/LFRAME#
LDRQ0#
LDRQ1#/GPIO23
LPC
LPC_AD0
LPC_AD1
LPC_AD2
LPC_AD3
LPC_FRAME#
LPC_DRQ#0
20MIL TP128
A20GATE
A20M#
H_A20GATE
H_A20M#
DPRSTP#
DPSLP#
H_DPRSTP# 4,8,47
H_DPSLP# 4
FERR#
H_FERR# R572 56_J 0402
R571 56_J 0402
+1_05VRUN
CPUPWRGD
H_PWRGD
IGNNE#
H_IGNNE#
INIT#
INTR
RCIN#
H_INIT#
H_INTR
H_RCIN#
NMI
SMI#
H_NMI
H_SMI#
20MIL TP141
STPCLK#
H_STPCLK#
THRMTRIP#
PM_THRMTRIP_R
R341 54.9_F 0402
20MIL TP144
TP8
CPU
R328 56_J 0402
+3VRUN
H_RCIN# R318 10K_J 0201
H_A20GATE R101 8.2K_J 0201
PM_THRMTRIP# 3,8,24
SATA4RXN
SATA4RXP
SATA4TXN
SATA4TXP
SATA5RXN
SATA5RXP
SATA5TXN
SATA5TXP
SATA_RXN4_C
SATA_RXP4_C
SATA_TXN4_C
SATA_TXP4_C
SATA_RXN5_C
SATA_RXP5_C
SATA_TXN5_C
SATA_TXP5_C
20MIL TP146
20MIL TP149
20MIL TP142
20MIL TP140
20MIL TP147
20MIL TP150
20MIL TP137
20MIL TP139
SATA_CLKN
SATA_CLKP
CLK_PCIE_SATA# 6
CLK_PCIE_SATA 6
SATABIAS#
SATABIAS
SATABIAS R345 24.9_F 0402
CLK_PCIE_SATA#
CLK_PCIE_SATA
26MIL TP114
26MIL TP115
For SI Probe Point
ICH9M
IHDA_BITCLK R581 33_J 0402 HDA_MDC_BITCLK 38
R583 33_J 0402 HDA_CODEC_BITCLK 30
+V3.3S_1.5S_HDA_IO
R579 NC_1K_J 0402
IHDA_SDATAO R582 33_J 0402 HDA_MDC_SDATAOUT 38
R584 33_J 0402 HDA_CODEC_SDATAOUT 30
IHDA_RESET# R347 33_J 0402 HDA_MDC_RST# 38
R348 33_J 0402 HDA_CODEC_RST# 30,33
38 HDA_MDC_SYNC R351 33_J 0402 IHDA_SYNC
30 HDA_CODEC_SYNC R349 33_J 0402
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title ICH9-M(LPC,IDE,SATA) 2/5
Size A3
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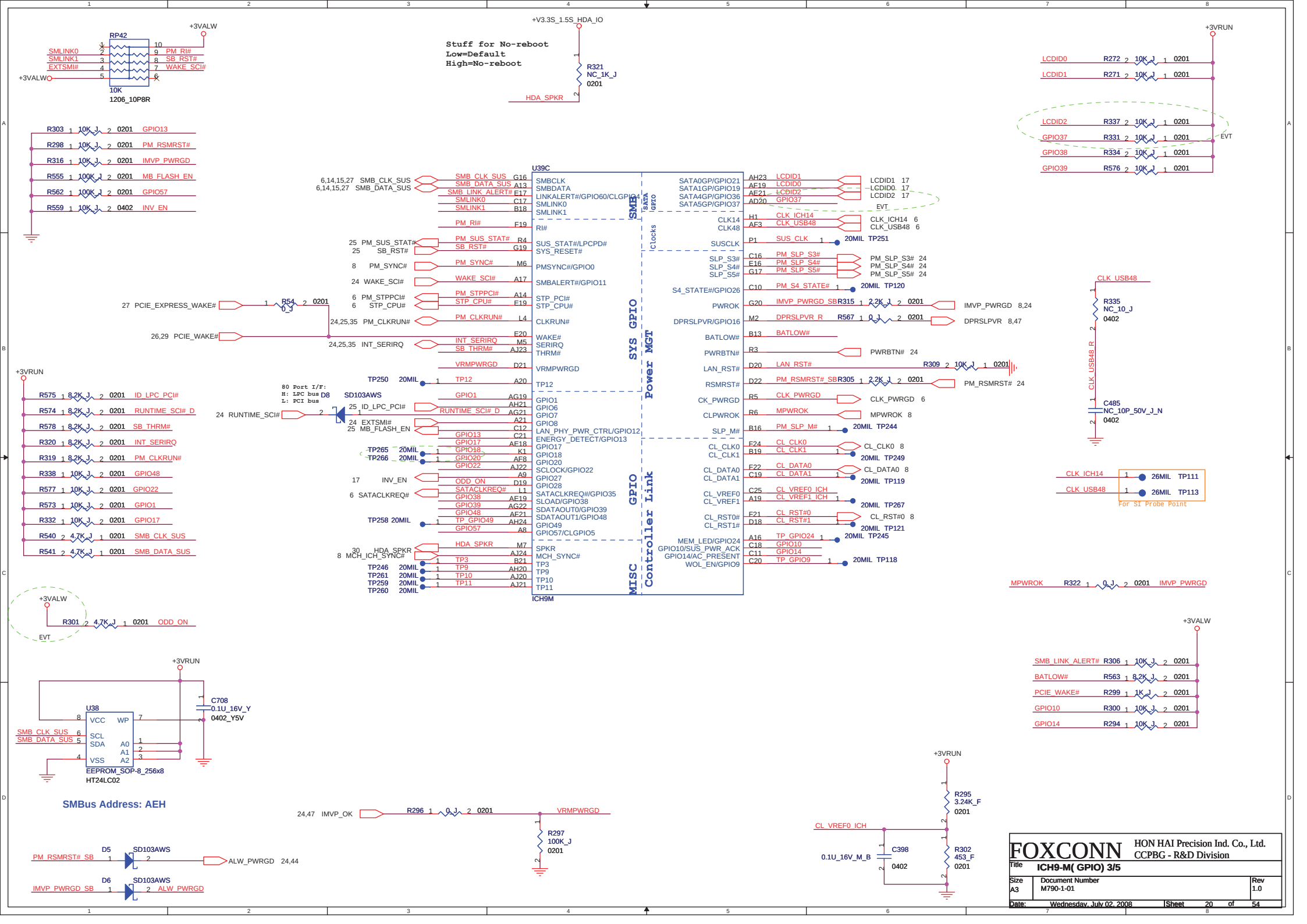
RP42
10K
1206_10P8R
SMLINK0
SMLINK1
EXTSMI#
PM_RI#
SB_RST#
WAKE_SCI#
+3VALW
+V3.3S_1.5S_HDA_IO
Stuff for No-reboot
Low=Default
High=No-reboot
R321
NC_1K_J
0201
HDA_SPKR
+3VRUN
LCDID0
LCDID1
LCDID2
GPIO37
GPIO38
GPIO39
EVT
R303 10K_J 0201 GPIO13
R298 10K_J 0201 PM_RSMRST#
R316 10K_J 0201 IMVP_PWRGD
R555 100K_J 0201 MB_FLASH_EN
R562 100K_J 0201 GPIO57
R559 10K_J 0402 INV_EN
U39C
SMBCLK
SMBDATA
LINKALERT#/GPIO60/CLGPIO4
SMLINK0
SMLINK1
RI#
SUS_STAT#/LPCPD#
SYS_RESET#
PMSYNC#/GPIO0
SMBALERT#/GPIO11
STP_PCI#
STP_CPU#
CLKRUN#
WAKE#
SERIRQ
THRM#
VRMPWRGD
TP12
GPIO1
GPIO6
GPIO7
GPIO8
LAN_PHY_PWR_CTRL/GPIO12
ENERGY_DETECT/GPIO13
GPIO17
GPIO18
GPIO20
SCLOCK/GPIO22
GPIO27
GPIO28
SATACLKREQ#/GPIO35
SLOAD/GPIO38
SDATAOUT0/GPIO39
SDATAOUT1/GPIO48
GPIO49
GPIO57/CLGPIO5
SPKR
MCH_SYNC#
TP3
TP9
TP10
TP11
SMB
SATA GPIO
CLocks
SYS GPIO
Power MGT
GPIO
Controller Link
MISC
ICH9M
SATA0GP/GPIO21
SATA1GP/GPIO19
SATA4GP/GPIO36
SATA5GP/GPIO37
CLK14
CLK48
SUSCLK
SLP_S3#
SLP_S4#
SLP_S5#
S4_STATE#/GPIO26
PWROK
DPRSLPVR/GPIO16
BATLOW#
PWRBTN#
LAN_RST#
RSMRST#
CK_PWRGD
CLPWROK
SLP_M#
CL_CLK0
CL_CLK1
CL_DATA0
CL_DATA1
CL_VREF0
CL_VREF1
CL_RST0#
CL_RST1#
MEM_LED/GPIO24
GPIO10/SUS_PWR_ACK
GPIO14/AC_PRESENT
WOL_EN/GPIO9
6,14,15,27 SMB_CLK_SUS
6,14,15,27 SMB_DATA_SUS
SMB_LINK_ALERT#
PM_SUS_STAT#
SB_RST#
PM_SYNC#
WAKE_SCI#
PM_STPPCI#
STP_CPU#
PM_CLKRUN#
INT_SERIRQ
SB_THRM#
VRMPWRGD
TP12
GPIO1
ID_LPC_PCI#
RUNTIME_SCI#_D
EXTSMI#
MB_FLASH_EN
GPIO13
GPIO17
GPIO18
GPIO20
INV_EN
ODD_ON
SATACLKREQ#
GPIO38
GPIO39
GPIO48
TP_GPIO49
GPIO57
HDA_SPKR
TP3
TP9
TP10
TP11
MCH_ICH_SYNC#
TP246 20MIL
TP261 20MIL
TP259 20MIL
TP260 20MIL
TP258 20MIL
TP265 20MIL
TP266 20MIL
TP250 20MIL
27 PCIE_EXPRESS_WAKE#
R54 0_J 0201
26,29 PCIE_WAKE#
24,25,35 PM_CLKRUN#
24,25,35 INT_SERIRQ
80 Port I/F:
H: LPC bus
L: PCI bus
D8 SD103AWS
24 RUNTIME_SCI#
+3VRUN
R575 8.2K_J 0201 ID_LPC_PCI#
R574 8.2K_J 0201 RUNTIME_SCI#_D
R578 8.2K_J 0201 SB_THRM#
R320 8.2K_J 0201 INT_SERIRQ
R319 8.2K_J 0201 PM_CLKRUN#
R338 10K_J 0201 GPIO48
R577 10K_J 0201 GPIO22
R573 10K_J 0201 GPIO1
R332 10K_J 0201 GPIO17
R540 4.7K_J 0201 SMB_CLK_SUS
R541 4.7K_J 0201 SMB_DATA_SUS
+3VALW
R301 4.7K_J 0201 ODD_ON
EVT
SATA0GP/GPIO21 AH23 LCDID1
SATA1GP/GPIO19 AE19 LCDID0
SATA4GP/GPIO36 AE21 LCDID2
SATA5GP/GPIO37 AD20 GPIO37
CLK14 H1 CLK_ICH14
CLK48 AF3 CLK_USB48
SUSCLK P1 SUS_CLK
SLP_S3# C16 PM_SLP_S3#
SLP_S4# E16 PM_SLP_S4#
SLP_S5# G17 PM_SLP_S5#
S4_STATE#/GPIO26 C10 PM_S4_STATE#
PWROK G20 IMVP_PWRGD_SB
DPRSLPVR/GPIO16 M2 DPRSLPVR_R
BATLOW# B13 BATLOW#
PWRBTN# R3
LAN_RST# D20 LAN_RST#
RSMRST# D22 PM_RSMRST#_SB
CK_PWRGD R5 CLK_PWRGD
CLPWROK R6 MPWROK
SLP_M# B16 PM_SLP_M#
CL_CLK0 F24 CL_CLK0
CL_CLK1 B19 CL_CLK1
CL_DATA0 F22 CL_DATA0
CL_DATA1 C19 CL_DATA1
CL_VREF0 C25 CL_VREF0_ICH
CL_VREF1 A19 CL_VREF1_ICH
CL_RST0# F21 CL_RST#0
CL_RST1# D18 CL_RST#1
MEM_LED/GPIO24 A16 TP_GPIO24
GPIO10/SUS_PWR_ACK C18 GPIO10
GPIO14/AC_PRESENT C11 GPIO14
WOL_EN/GPIO9 C20 TP_GPIO9
20MIL TP251
20MIL TP120
20MIL TP244
20MIL TP249
20MIL TP119
20MIL TP267
20MIL TP121
20MIL TP245
20MIL TP118
IMVP_PWRGD 8,24
DPRSLPVR 8,47
PWRBTN# 24
PM_RSMRST# 24
CLK_PWRGD 6
MPWROK 8
CL_CLK0 8
CL_DATA0 8
CL_RST#0 8
R315 2.2K_J 0201
R567 0_J 0201
R309 10K_J 0201
R305 2.2K_J 0201
CLK_USB48
R335 NC_10_J 0402
CLK_USB48_R
C485 NC_10P_50V_J_N 0402
CLK_ICH14
CLK_USB48
26MIL TP111
26MIL TP113
For SI Probe Point
MPWROK R322 0_J 0201 IMVP_PWRGD
+3VALW
SMB_LINK_ALERT# R306 10K_J 0201
BATLOW# R563 8.2K_J 0201
PCIE_WAKE# R299 1K_J 0201
GPIO10 R300 10K_J 0201
GPIO14 R294 10K_J 0201
+3VRUN
U38
VCC
WP
SCL
SDA
A0
A1
A2
VSS
C708 0.1U_16V_Y 0402_Y5V
SMB_CLK_SUS
SMB_DATA_SUS
EEPROM_SOP-8_256x8
HT24LC02
SMBus Address: AEH
24,47 IMVP_OK
R296 0_J 0201
VRMPWRGD
R297 100K_J 0201
D5 SD103AWS
PM_RSMRST#_SB
ALW_PWRGD 24,44
D6 SD103AWS
IMVP_PWRGD_SB
ALW_PWRGD
+3VRUN
R295 3.24K_F 0201
CL_VREF0_ICH
C398 0.1U_16V_M_B 0402
R302 453_F 0201
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH9-M(GPIO) 3/5
Size A3
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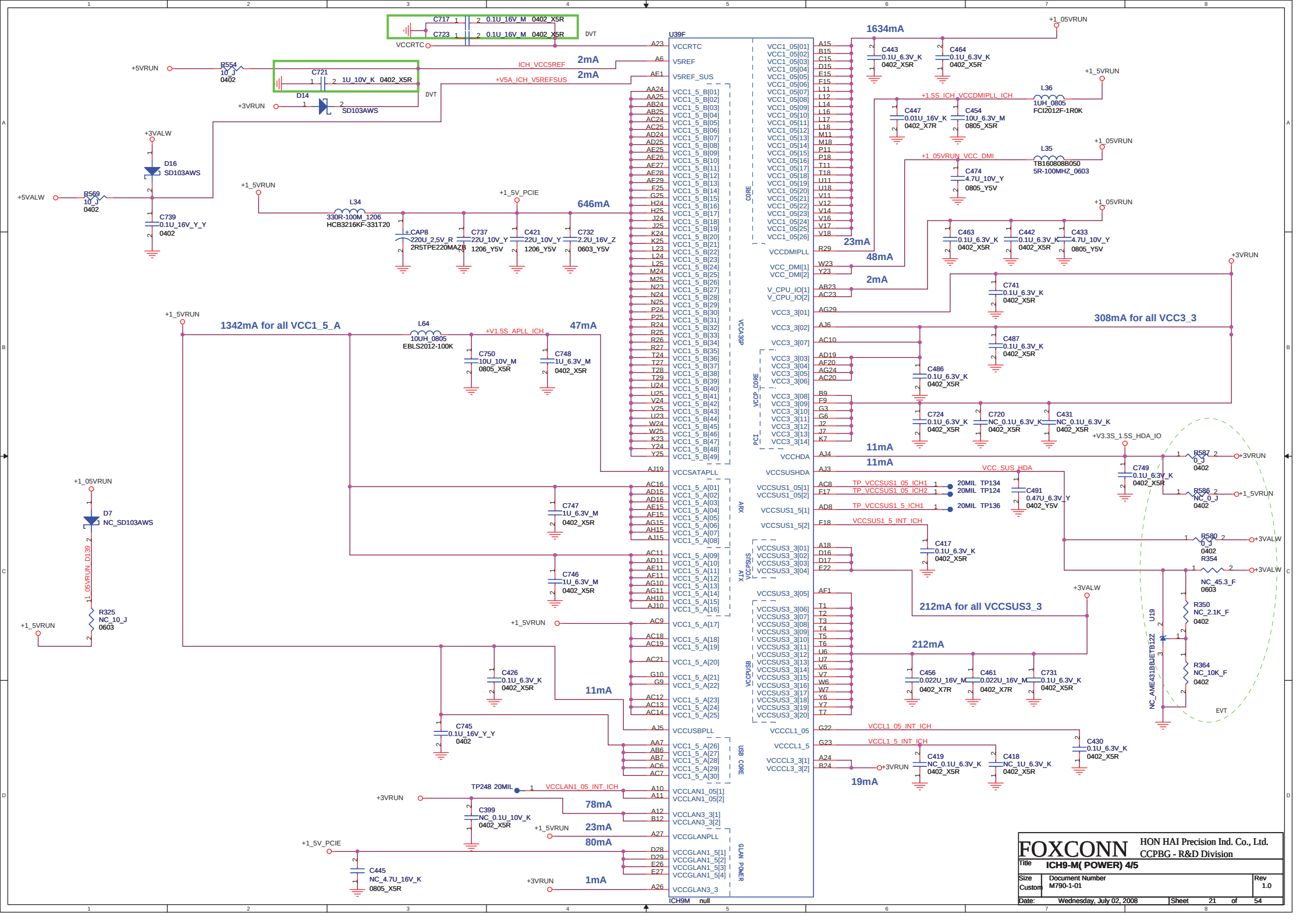
U39F
ICH9M
null
VCCRTC
V5REF
V5REF_SUS
CORE
VCCDMIPLL
VCC_DMI[1]
VCC_DMI[2]
V_CPU_IO[1]
V_CPU_IO[2]
VCC3_3[01]
VCC3_3[02]
VCC3_3[07]
VCCA3GP
VCCP CORE
PCI
VCCHDA
VCCSUSHDA
VCCSUS1_05[1]
VCCSUS1_05[2]
VCCSUS1_5[1]
VCCSUS1_5[2]
VCCSUS3_3[01]
VCCSUS3_3[02]
VCCSUS3_3[03]
VCCSUS3_3[04]
VCCSUS3_3[05]
VCCSUS3_3[06]
VCCSUS3_3[07]
VCCSUS3_3[08]
VCCSUS3_3[09]
VCCSUS3_3[10]
VCCSUS3_3[11]
VCCSUS3_3[12]
VCCSUS3_3[13]
VCCSUS3_3[14]
VCCSUS3_3[15]
VCCSUS3_3[16]
VCCSUS3_3[17]
VCCSUS3_3[18]
VCCSUS3_3[19]
VCCSUS3_3[20]
VCCL1_05
VCCL1_5
VCCL3_3[1]
VCCL3_3[2]
VCCRTC
ICH_VCC5REF
+V5A_ICH_V5REFSUS
VCC1_5_B[01]
VCC1_5_B[02]
VCC1_5_B[03]
VCC1_5_B[04]
VCC1_5_B[05]
VCC1_5_B[06]
VCC1_5_B[07]
VCC1_5_B[08]
VCC1_5_B[09]
VCC1_5_B[10]
VCC1_5_B[11]
VCC1_5_B[12]
VCC1_5_B[13]
VCC1_5_B[14]
VCC1_5_B[15]
VCC1_5_B[16]
VCC1_5_B[17]
VCC1_5_B[18]
VCC1_5_B[19]
VCC1_5_B[20]
VCC1_5_B[21]
VCC1_5_B[22]
VCC1_5_B[23]
VCC1_5_B[24]
VCC1_5_B[25]
VCC1_5_B[26]
VCC1_5_B[27]
VCC1_5_B[28]
VCC1_5_B[29]
VCC1_5_B[30]
VCC1_5_B[31]
VCC1_5_B[32]
VCC1_5_B[33]
VCC1_5_B[34]
VCC1_5_B[35]
VCC1_5_B[36]
VCC1_5_B[37]
VCC1_5_B[38]
VCC1_5_B[39]
VCC1_5_B[40]
VCC1_5_B[41]
VCC1_5_B[42]
VCC1_5_B[43]
VCC1_5_B[44]
VCC1_5_B[45]
VCC1_5_B[46]
VCC1_5_B[47]
VCC1_5_B[48]
VCC1_5_B[49]
VCCSATAPLL
VCC1_5_A[01]
VCC1_5_A[02]
VCC1_5_A[03]
VCC1_5_A[04]
VCC1_5_A[05]
VCC1_5_A[06]
VCC1_5_A[07]
VCC1_5_A[08]
VCC1_5_A[09]
VCC1_5_A[10]
VCC1_5_A[11]
VCC1_5_A[12]
VCC1_5_A[13]
VCC1_5_A[14]
VCC1_5_A[15]
VCC1_5_A[16]
VCC1_5_A[17]
VCC1_5_A[18]
VCC1_5_A[19]
VCC1_5_A[20]
VCC1_5_A[21]
VCC1_5_A[22]
VCC1_5_A[23]
VCC1_5_A[24]
VCC1_5_A[25]
VCCUSBPLL
VCC1_5_A[26]
VCC1_5_A[27]
VCC1_5_A[28]
VCC1_5_A[29]
VCC1_5_A[30]
VCCLAN1_05[1]
VCCLAN1_05[2]
VCCLAN3_3[1]
VCCLAN3_3[2]
VCCGLANPLL
VCCGLAN1_5[1]
VCCGLAN1_5[2]
VCCGLAN1_5[3]
VCCGLAN1_5[4]
VCCGLAN3_3
ARX
XAY
VCCPSUS
USB CORE
GLAN POWER
1634mA
23mA
48mA
2mA
308mA for all VCC3_3
11mA
11mA
212mA for all VCCSUS3_3
212mA
19mA
1342mA for all VCC1_5_A
47mA
11mA
78mA
23mA
80mA
1mA
646mA
2mA
+5VRUN
+3VALW
+1_05VRUN
+1_5VRUN
+3VRUN
+1_5V_PCIE
+5VALW
+V1.5S_APLL_ICH
+V3.3S_1.5S_HDA_IO
+1.5S_ICH_VCCDMIPLL_ICH
+1_05VRUN_VCC_DMI
VCC_SUS_HDA
VCCL1_05_INT_ICH
VCCL1_5_INT_ICH
VCCLAN1_05_INT_ICH
TP_VCCSUS1_05_ICH1
TP_VCCSUS1_05_ICH2
TP_VCCSUS1_5_ICH1
VCCSUS1_5_INT_ICH
TP248 20MIL
TP134
TP124
TP136
R554 10_J 0402
C721 1U_10V_K 0402_X5R
D14 SD103AWS
DVT
D16 SD103AWS
R569 10_J 0402
C739 0.1U_16V_Y_Y 0402
L34 330R-100M_1206 HCB3216KF-331T20
+CAP8 220U_2,5V_R 2R5TPE220MAZB
C737 22U_10V_Y 1206_Y5V
C421 22U_10V_Y 1206_Y5V
C732 2.2U_16V_Z 0603_Y5V
L64 10UH_0805 EBLS2012-100K
C750 10U_10V_M 0805_X5R
C748 1U_6.3V_M 0402_X5R
C747 1U_6.3V_M 0402_X5R
C746 1U_6.3V_M 0402_X5R
C745 0.1U_16V_Y_Y 0402
C426 0.1U_6.3V_K 0402_X5R
C399 NC_0.1U_10V_K 0402_X5R
C445 NC_4.7U_16V_K 0805_X5R
D7 NC_SD103AWS
R325 NC_10_J 0603
C443 0.1U_6.3V_K 0402_X5R
C464 0.1U_6.3V_K 0402_X5R
C447 0.01U_16V_K 0402_X7R
C454 10U_6.3V_M 0805_X5R
L36 1UH_0805 FCI2012F-1R0K
C474 4.7U_10V_Y 0805_Y5V
L35 TB160808B050 5R-100MHZ_0603
C463 0.1U_6.3V_K 0402_X5R
C442 0.1U_6.3V_K 0402_X5R
C433 4.7U_10V_Y 0805_Y5V
C741 0.1U_6.3V_K 0402_X5R
C487 0.1U_6.3V_K 0402_X5R
C486 0.1U_6.3V_K 0402_X5R
C724 0.1U_6.3V_K 0402_X5R
C720 NC_0.1U_6.3V_K 0402_X5R
C431 NC_0.1U_6.3V_K 0402_X5R
C749 0.1U_6.3V_K 0402_X5R
R587 0_J 0402
R586 NC_0_J 0402
C491 0.47U_6.3V_Y 0402_Y5V
C417 0.1U_6.3V_K 0402_X5R
R580 0_J 0402
R354 NC_45.3_F 0603
R350 NC_2.1K_F 0402
R364 NC_10K_F 0402
U19 NC_AME4318BJETB122
C456 0.022U_16V_M 0402_X7R
C461 0.022U_16V_M 0402_X7R
C731 0.1U_6.3V_K 0402_X5R
C430 0.1U_6.3V_K 0402_X5R
C419 NC_0.1U_6.3V_K 0402_X5R
C418 NC_1U_6.3V_K 0402_X5R
EVT
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH9-M(POWER) 4/5
Size
Custom
Document Number
M790-1-01
Rev
1.0
Date:
Wednesday, July 02, 2008
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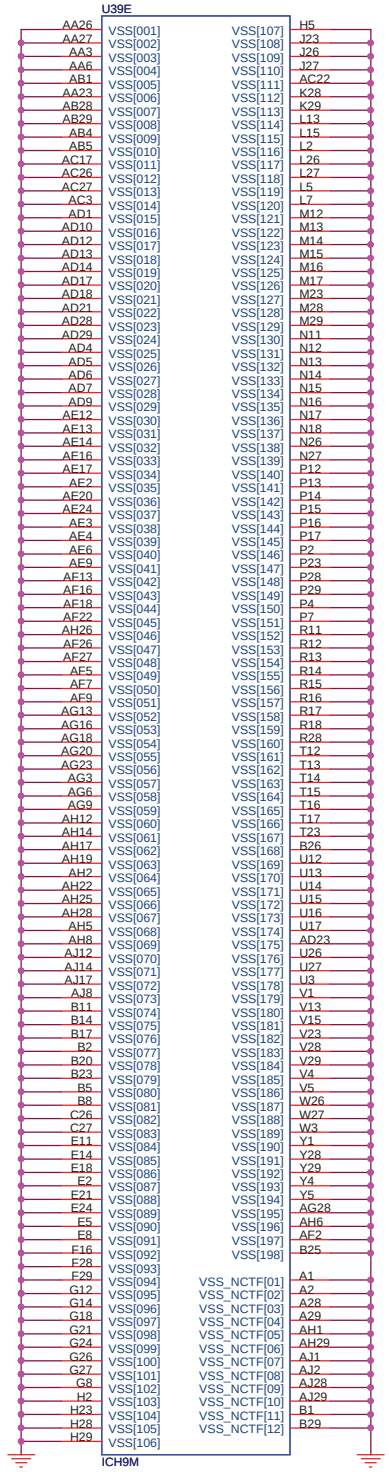
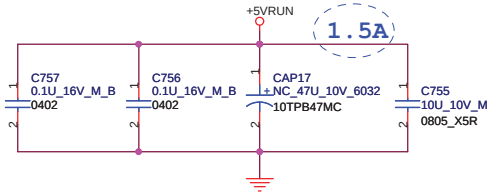
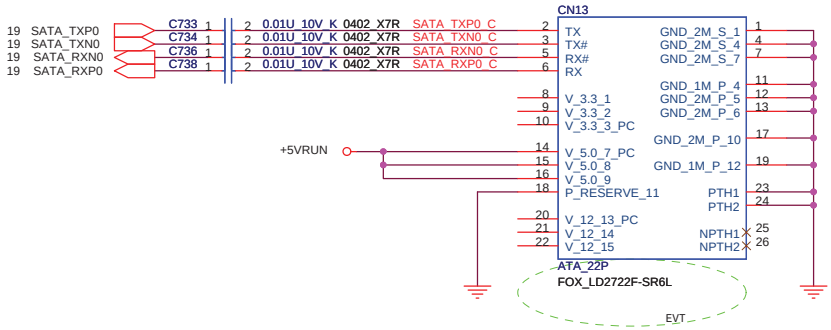
21
of
54

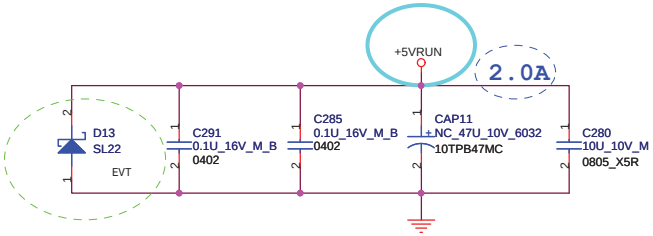


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	ICH9-M(GND) 5/5	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 22 of 54	

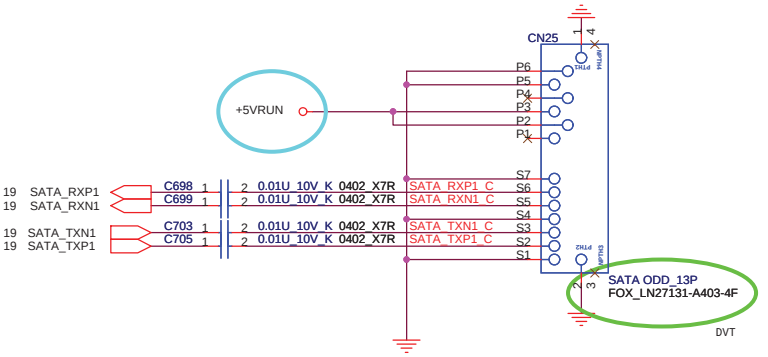
SATA HDD CONN

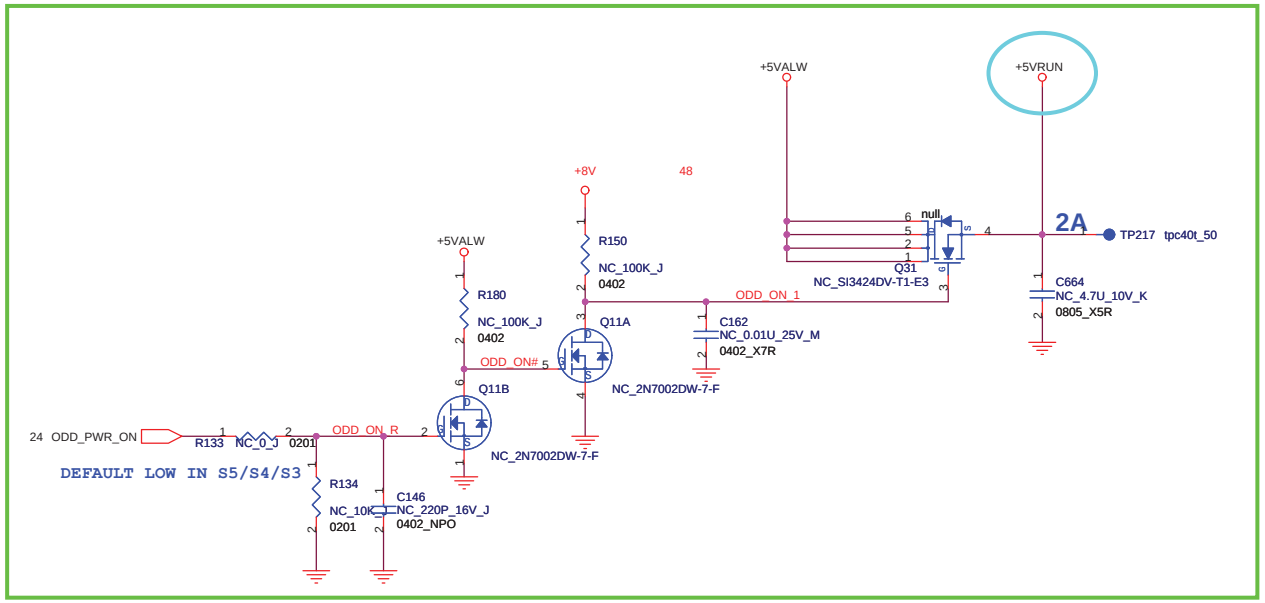




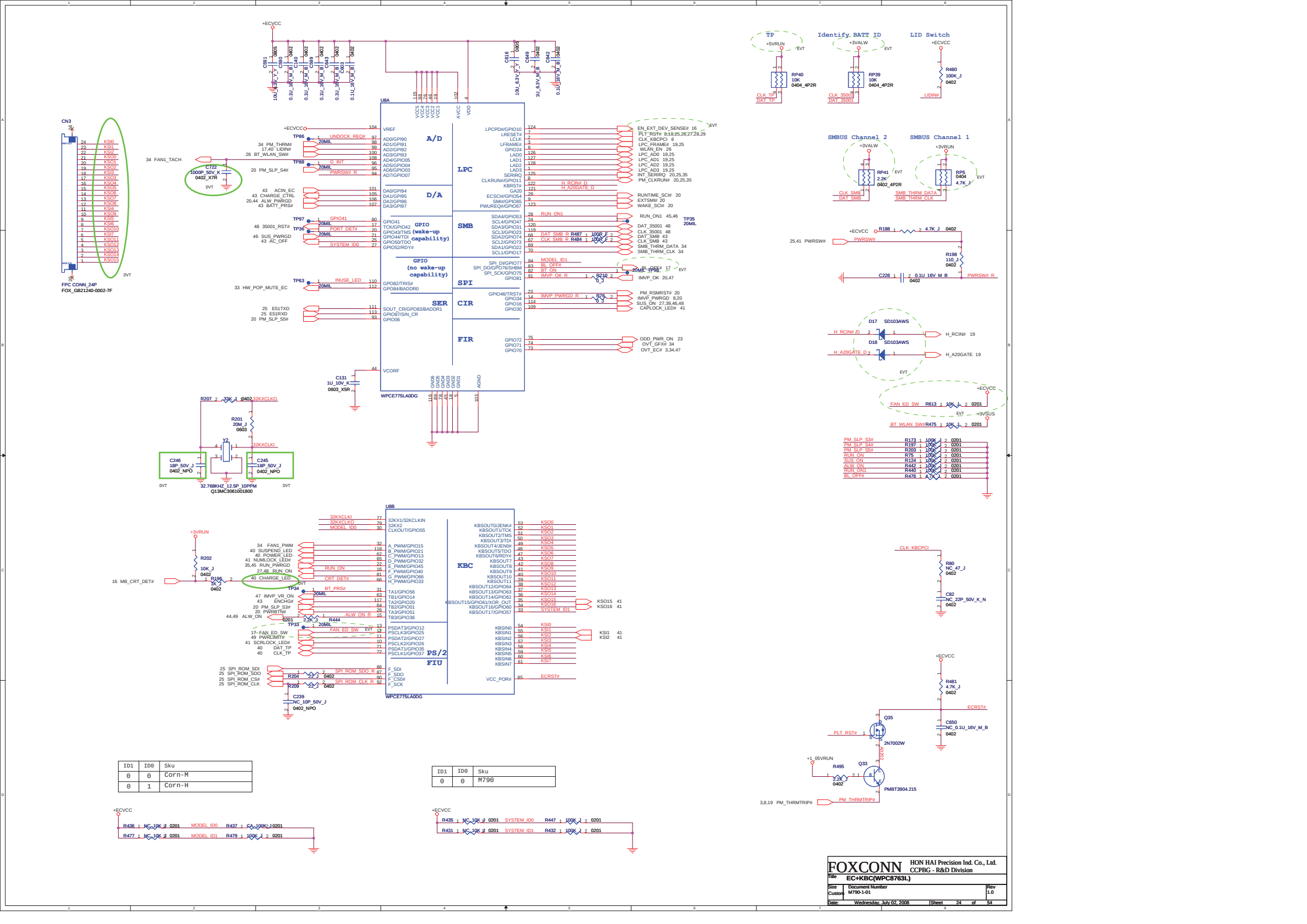


SATA ODD CONN





FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SATA HDD/ODD	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 23 of 54	


+ECVCC
U8A
WPCE775LA0DG
A/D
LPC
D/A
SMB
GPIO (wake-up capability)
GPIO (no wake-up capability)
SPI
SER
CIR
FIR
VREF
VCORF
AVCC
VDD
AGND
LPCPD#/GPIO10
LRESET#
LCLK
LFRAME#
GPIO24
LAD0
LAD1
LAD2
LAD3
SERIRQ
CLKRUN#/GPIO11
KBRST#
GA20
ECSCI#/GPIO54
SMI#/GPIO65
PWUREQ#/GPIO67
SDA4/GPIO53
SCL4/GPIO47
SDA3/GPIO31
SCL3/GPIO23
SDA2/GPIO74
SCL2/GPIO73
SDA1/GPIO22
SCL1/GPIO17
SPI_DI/GPIO77
SPI_DO/GPIO76/SHBM
SPI_SCK/GPIO75
GPIO81
GPIO46/TRST#
GPIO34
GPIO16
GPIO30
GPIO72
GPIO71
GPIO70
EN_EXT_DEV_SENSE# 16
PLT_RST# 8,18,25,26,27,28,29
CLK_KBCPCI 6
LPC_FRAME# 19,25
WLAN_EN 26
LPC_AD0 19,25
LPC_AD1 19,25
LPC_AD2 19,25
LPC_AD3 19,25
INT_SERIRQ 20,25,35
PM_CLKRUN# 20,25,35
RUNTIME_SCI# 20
EXTSMI# 20
WAKE_SCI# 20
RUN_ON1 45,46
DAT_35001 48
CLK_35001 48
DAT_SMB 43
CLK_SMB 43
SMB_THRM_DATA 34
SMB_THRM_CLK 34
BL_OFF# 17
IMVP_OK 20,47
PM_RSMRST# 20
IMVP_PWRGD 8,20
SUS_ON 27,39,46,48
CAPLOCK_LED# 41
ODD_PWR_ON 23
OVT_GFX# 34
OVT_EC# 3,34,47
UNDOCK_REQ#
PM_THRM#
LIDIN#
BT_WLAN_SW#
FAN1_TACH
G_INT
PM_SLP_S4#
PWRSW# R
ACIN_EC
CHARGE_CTRL
ALW_PWRGD
BATT_PRS#
GPIO41
35001_RST#
PORT_DET#
SUS_PWRGD
AC_OFF
SYSTEM_ID0
INUSE_LED
HW_POP_MUTE_EC
E51TXD
E51RXD
PM_SLP_S5#
MODEL_ID1
BL_OFF#
BT_ON
IMVP_OK_R
IMVP_PWRGD_R
TP35
20MIL
CN3
FPC_CONN_24P
FOX_GB21240-0002-7F
KSI0
KSI1
KSI2
KSO0
KSO1
KSO2
KSO3
KSO4
KSO5
KSO6
KSO7
KSO8
KSI4
KSO9
KSI5
KSI6
KSO10
KSI7
KSO11
KSO12
KSO13
KSO14
KSO15
C722
1000P_50V_K
0402_X7R
DVT
C131
1U_10V_K
0603_X5R
R207
33K_J
0402
32KXCLKO
R201
20M_J
0603
Y2
32KXCLKI
C246
18P_50V_J
0402_NPO
C245
18P_50V_J
0402_NPO
32.768KHZ_12.5P_10PPM
Q13MC3061001800
U8B
WPCE775LA0DG
32KX1/32KCLKIN
32KX2
CLKOUT/GPIO55
32KXCLKI
32KXCLKO
MODEL_ID0
KBC
PS/2 FIU
KBSOUT0/JENK#
KBSOUT1/TCK
KBSOUT2/TMS
KBSOUT3/TDI
KBSOUT4/JENI#
KBSOUT5/TDO
KBSOUT6/RDY#
KBSOUT7
KBSOUT8
KBSOUT9
KBSOUT10
KBSOUT11
KBSOUT12/GPIO64
KBSOUT13/GPIO63
KBSOUT14/GPIO62
KBSOUT15/GPIO61/XOR_OUT
KBSOUT16/GPIO60
KBSOUT17/GPIO57
KBSIN0
KBSIN1
KBSIN2
KBSIN3
KBSIN4
KBSIN5
KBSIN6
KBSIN7
VCC_POR#
ECRST#
PSDAT3/GPIO12
PSCLK3/GPIO25
PSDAT2/GPIO27
PSCLK2/GPIO26
PSDAT1/GPIO35
PSCLK1/GPIO37
F_SDI
F_SDO
F_CS0#
F_SCK
A_PWM/GPIO15
B_PWM/GPIO21
C_PWM/GPIO13
D_PWM/GPIO32
E_PWM/GPIO45
F_PWM/GPIO40
G_PWM/GPIO66
H_PWM/GPIO33
TA1/GPIO56
TB1/GPIO14
TA2/GPIO20
TB2/GPIO01
TA3/GPIO51
TB3/GPIO36
FAN1_PWM
SUSPEND_LED
POWER_LED
NUMLOCK_LED#
RUN_PWRGD
RUN_ON
CRT_DET#
CHARGE_LED
IMVP_VR_ON
ENCHG#
PM_SLP_S3#
PWRBTN#
ALW_ON
FAN_ED_SW
PWRLIMIT#
SCRLOCK_LED#
DAT_TP
CLK_TP
SPI_ROM_SDI
SPI_ROM_SDO
SPI_ROM_CS#
SPI_ROM_CLK
SPI_ROM_SDO_R
SPI_ROM_CLK_R
MB_CRT_DET#
BT_PRS#
R202
10K_J
0402
R196
1K_J
0402
R444
2.2K_J
0201
R204
22_J
0402
R209
22_J
0402
C239
NC_10P_50V_J
0402_NPO
TP34
TP33
20MIL
TP
+5VRUN
EVT
RP40
10K
0404_4P2R
CLK_TP
DAT_TP
Identify BATT ID
+3VALW
EVT
RP39
10K
0404_4P2R
CLK_35001
DAT_35001
LID Switch
+ECVCC
R480
100K_J
0402
LIDIN#
SMBUS Channel 2
+3VALW
RP41
2.2K
0402_4P2R
CLK_SMB
DAT_SMB
SMBUS Channel 1
+3VRUN
RP5
0404
4.7K_J
EVT
SMB_THRM_DATA
SMB_THRM_CLK
R188
4.7K_J
0402
PWRSW#
R198
110_J
0402
C226
0.1U_16V_M_B
0402
PWRSW# R
D17
SD103AWS
D18
SD103AWS
H_RCIN# /D
H_A20GATE_D
H_RCIN# 19
H_A20GATE 19
FAN_ED_SW
R613
10K_J
0201
BT_WLAN_SW#
R475
10K_J
0201
PM_SLP_S3#
PM_SLP_S4#
PM_SLP_S5#
RUN_ON
SUS_ON
ALW_ON
RUN_ON1
BL_OFF#
R173
R157
R203
R75
R124
R442
R440
R476
100K_J
0201
CLK_KBCPCI
R80
NC_47_J
0402
C82
NC_22P_50V_K_N
0402
R481
4.7K_J
0402
ECRST#
Q35
2N7002W
C650
NC_0.1U_16V_M_B
0402
PLT_RST#
+1.05VRUN
R495
2.2K_J
0402
Q33
PMBT3904.215
3,8,19 PM_THRMTRIP#
PM_THRMTRIP#
ID1 ID0 Sku
0 0 Corn-M
0 1 Corn-H
ID1 ID0 Sku
0 0 M790
R436 NC_10K_J 0201 MODEL_ID0
R437 CA_100K_J 0201
R477 NC_10K_J 0201 MODEL_ID1
R479 100K_J 0201
R435 NC_10K_J 0201 SYSTEM_ID0
R447 100K_J 0201
R431 NC_10K_J 0201 SYSTEM_ID1
R432 100K_J 0201
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title: EC+KBC(WPC8763L)
Size: Custom
Document Number: M790-1-01
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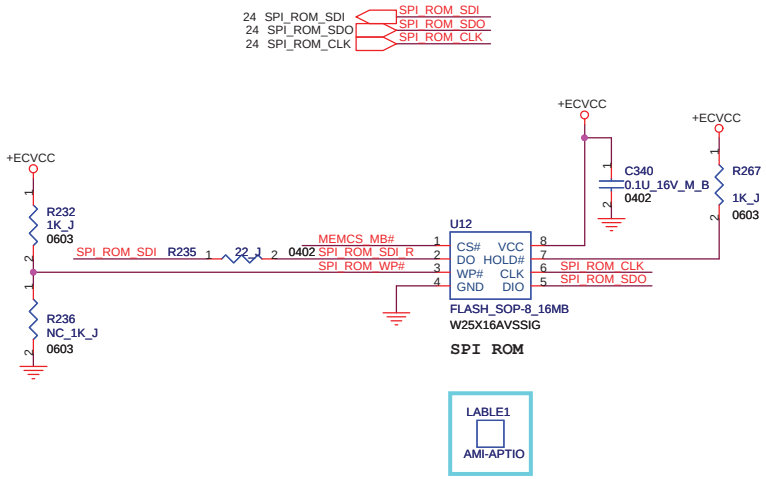
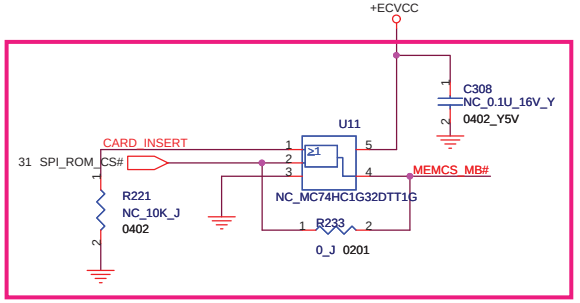
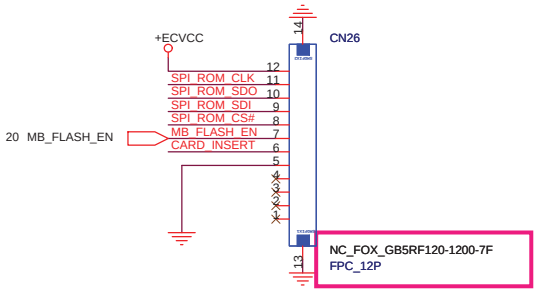
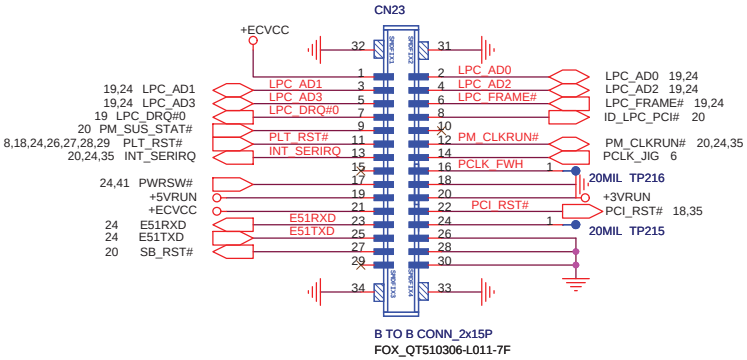
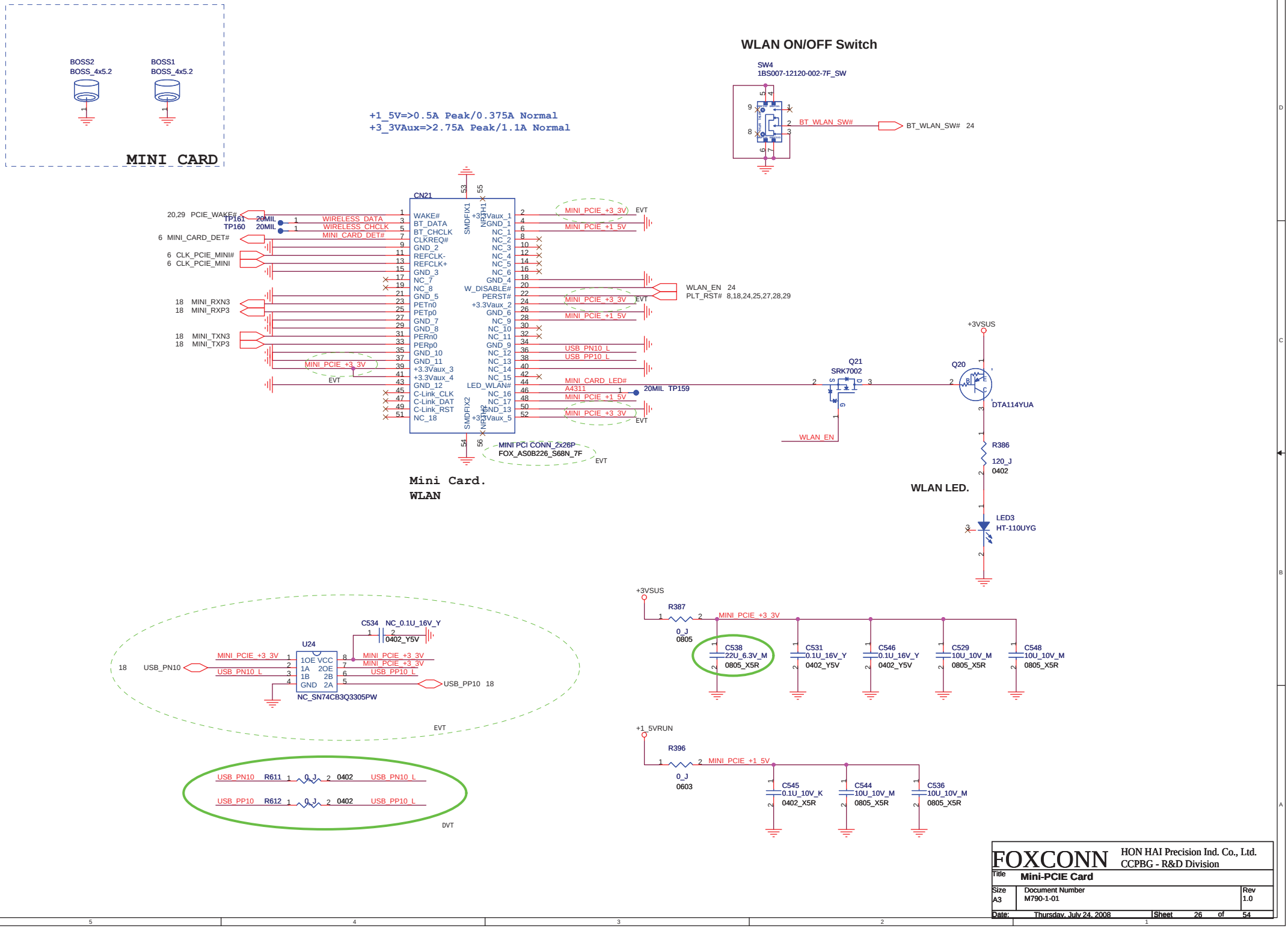








FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: Flash ROM/SPI		
Size: A3	Document Number: M790-1-01	Rev: 1.0
Date: Friday, July 25, 2008	Sheet 25 of 54	


BOSS2
BOSS_4x5.2
BOSS1
BOSS_4x5.2
MINI CARD
+1_5V=>0.5A Peak/0.375A Normal
+3_3VAux=>2.75A Peak/1.1A Normal
WLAN ON/OFF Switch
SW4
1BS007-12120-002-7F_SW
BT_WLAN_SW#
BT_WLAN_SW# 24
CN21
SMDFIX1
SMDFIX2
20,29 PCIE_WAKE#
TP161 20MIL
TP160 20MIL
WIRELESS_DATA
WIRELESS_CHCLK
MINI_CARD_DET#
6 MINI_CARD_DET#
6 CLK_PCIE_MINI#
6 CLK_PCIE_MINI
18 MINI_RXN3
18 MINI_RXP3
18 MINI_TXN3
18 MINI_TXP3
WAKE#
BT_DATA
BT_CHCLK
CLKREQ#
GND_2
REFCLK-
REFCLK+
GND_3
NC_7
NC_8
GND_5
PETn0
PETp0
GND_7
GND_8
PERn0
PERp0
GND_10
GND_11
+3.3Vaux_3
+3.3Vaux_4
GND_12
C-Link_CLK
C-Link_DAT
C-Link_RST
NC_18
+3.3Vaux_1
GND_1
NC_1
NC_2
NC_3
NC_4
NC_5
NC_6
GND_4
W_DISABLE#
PERST#
+3.3Vaux_2
GND_6
NC_9
NC_10
NC_11
GND_9
NC_12
NC_13
NC_14
NC_15
LED_WLAN#
NC_16
NC_17
GND_13
+3.3Vaux_5
MINI_PCIE_+3_3V
MINI_PCIE_+1_5V
EVT
WLAN_EN 24
PLT_RST# 8,18,24,25,27,28,29
USB_PN10_L
USB_PP10_L
MINI_CARD_LED#
A4311
20MIL TP159
MINI PCI CONN_2x26P
FOX_AS0B226_S68N_7F
Mini Card.
WLAN
Q21
SRK7002
WLAN_EN
Q20
DTA114YUA
+3VSUS
R386
120_J
0402
WLAN LED.
LED3
HT-110UYG
U24
NC_SN74CB3Q3305PW
C534 NC_0.1U_16V_Y
0402_Y5V
18 USB_PN10
USB_PP10 18
R611 0_J 0402
R612 0_J 0402
DVT
R387
0_J
0805
C538
22U_6.3V_M
0805_X5R
C531
0.1U_16V_Y
0402_Y5V
C546
0.1U_16V_Y
0402_Y5V
C529
10U_10V_M
0805_X5R
C548
10U_10V_M
0805_X5R
+1_5VRUN
R396
0_J
0603
C545
0.1U_10V_K
0402_X5R
C544
10U_10V_M
0805_X5R
C536
10U_10V_M
0805_X5R
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
Mini-PCIE Card
Size
A3
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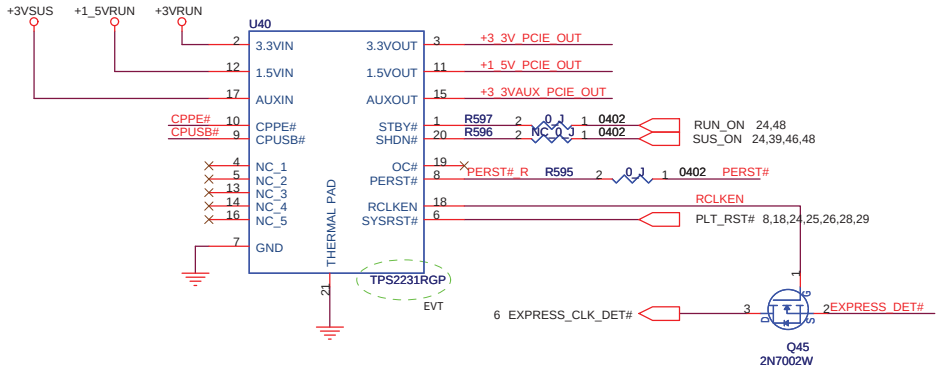
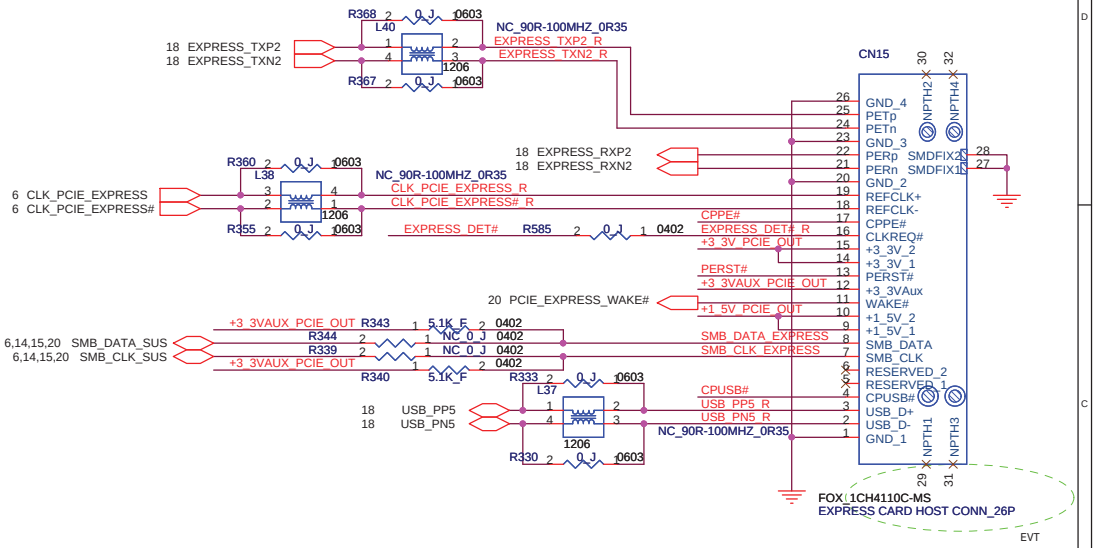
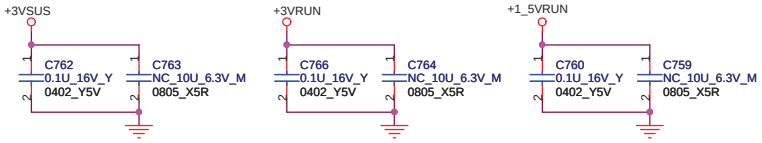
+1_5V=>1.3A
+3_3VAux=>0.6A
+3_3V=>2.5A

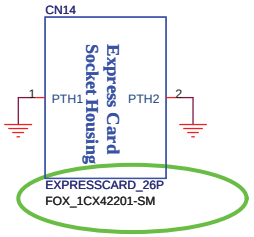
Express Card Power Switch

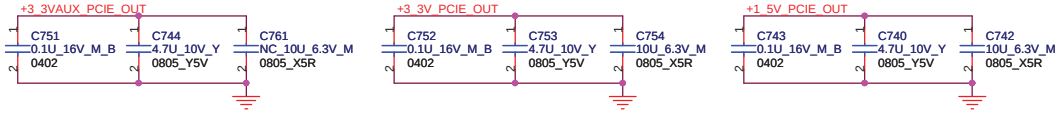




Express Card Slot.







FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: EXPRESS CARD		
Size: A3	Document Number: M790-1-01	Rev: 1.0
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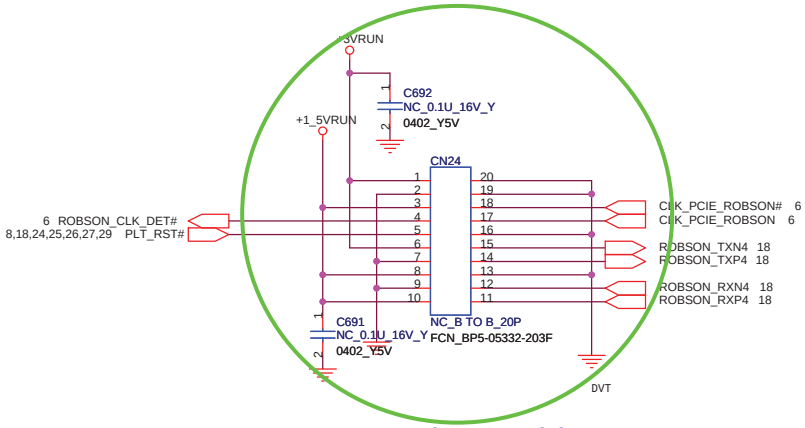
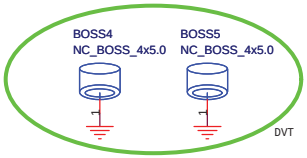


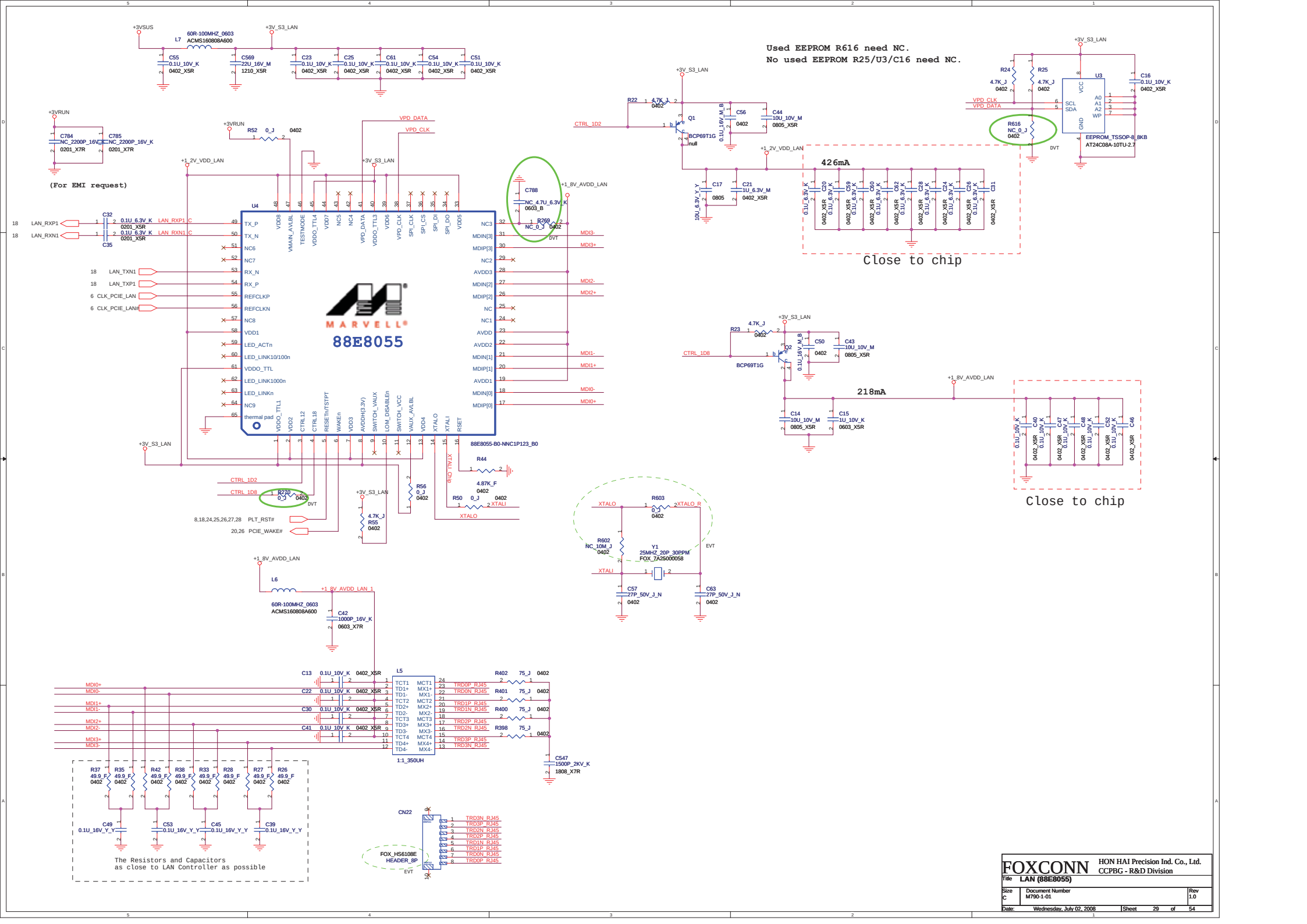
Robson2 Module

EVT2 11/6 Need to update new connector.



ROBSON

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title: ***ROBSON CONNECTOR***		
Size: A3	Document Number: **M790-1-01**	Rev: 1.0
Date: Wednesday, July 02, 2008	Sheet 28 of 54	


Used EEPROM R616 need NC.
No used EEPROM R25/U3/C16 need NC.
(For EMI request)
88E8055
MARVELL
426mA
218mA
Close to chip
Close to chip
The Resistors and Capacitors
as close to LAN Controller as possible
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title LAN (88E8055)
Size C
Document Number M790-1-01
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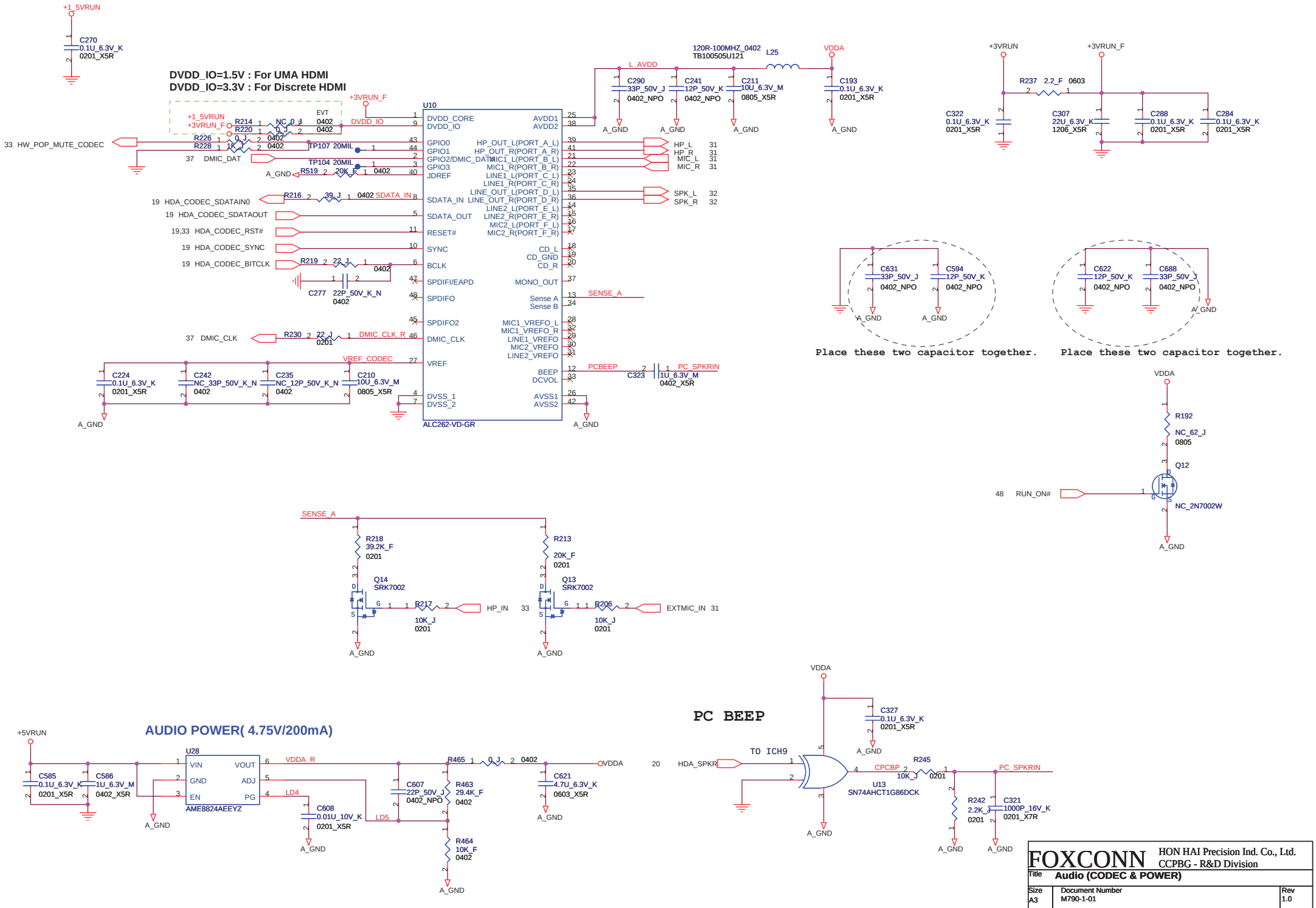
DVDD_IO=1.5V : For UMA HDMI
DVDD_IO=3.3V : For Discrete HDMI
U10
ALC262-VD-GR
Place these two capacitor together.
Place these two capacitor together.
AUDIO POWER(4.75V/200mA)
U28
AME8824AEEYZ
PC BEEP
TO ICH9
U13
SN74AHCT1G86DCK
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
Audio (CODEC & POWER)
Size
A3
Document Number
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1.0
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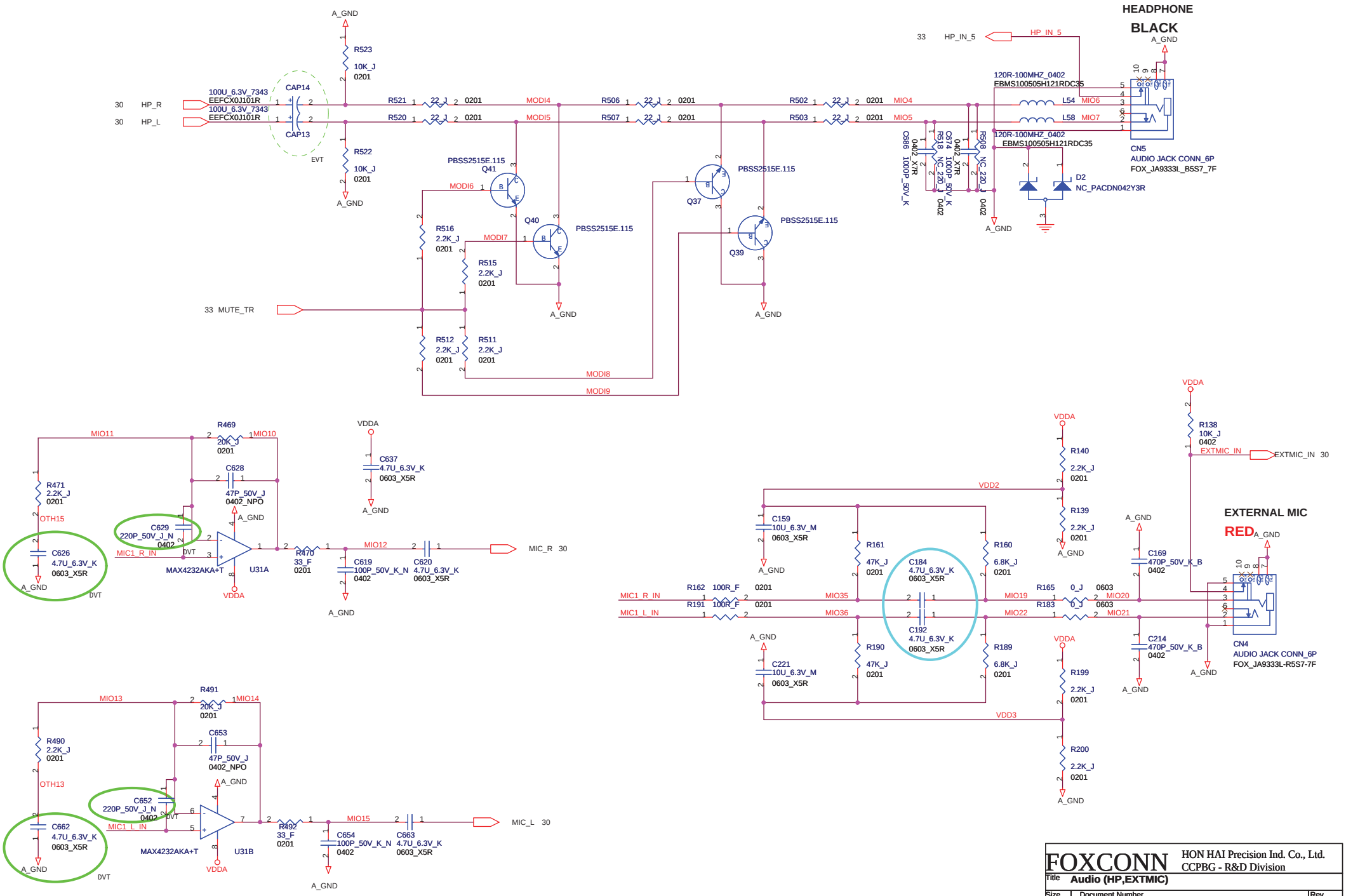

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Audio (HP,EXTMIC)	
Size A3	Document Number M790-1-01	Rev 1.0
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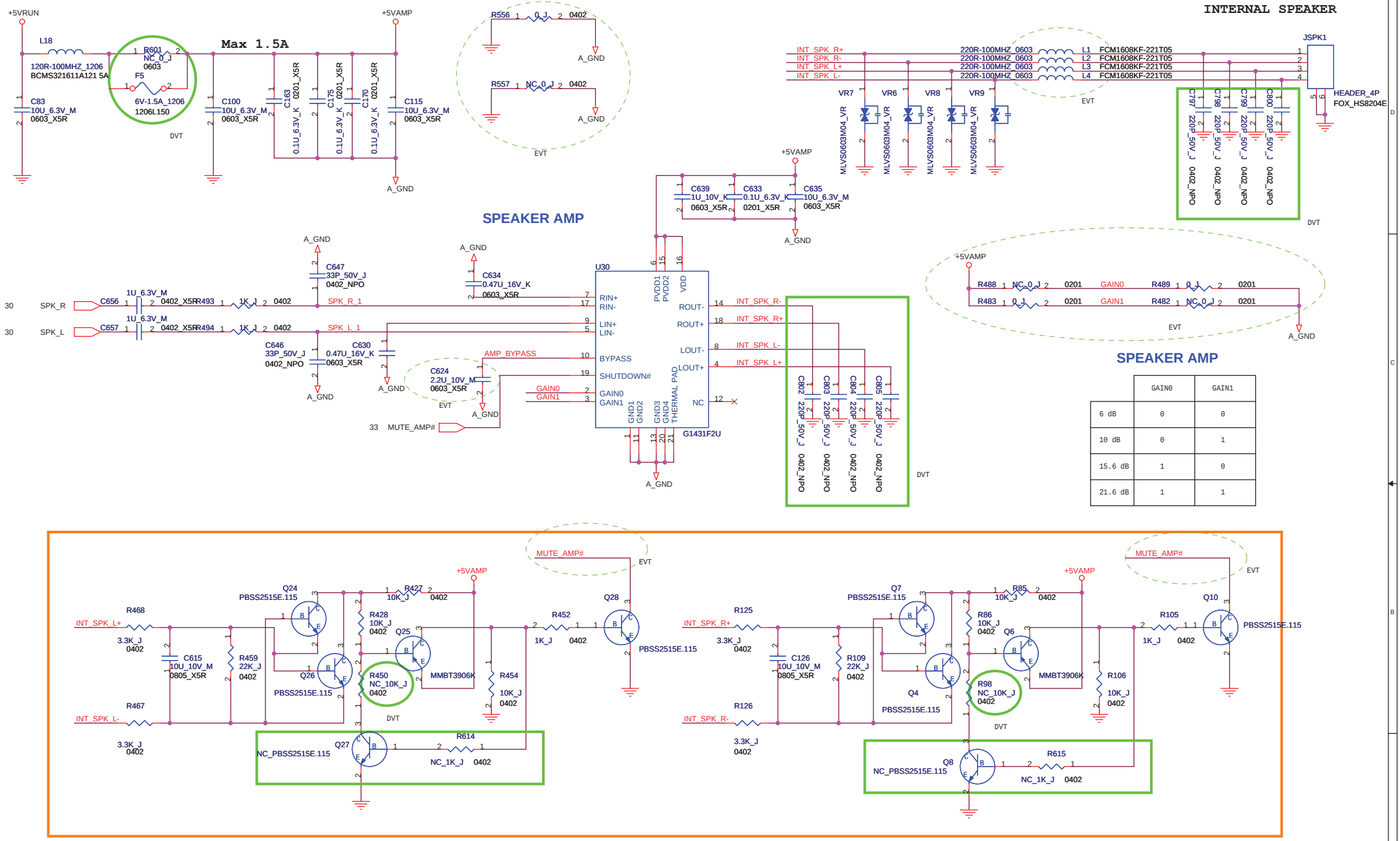
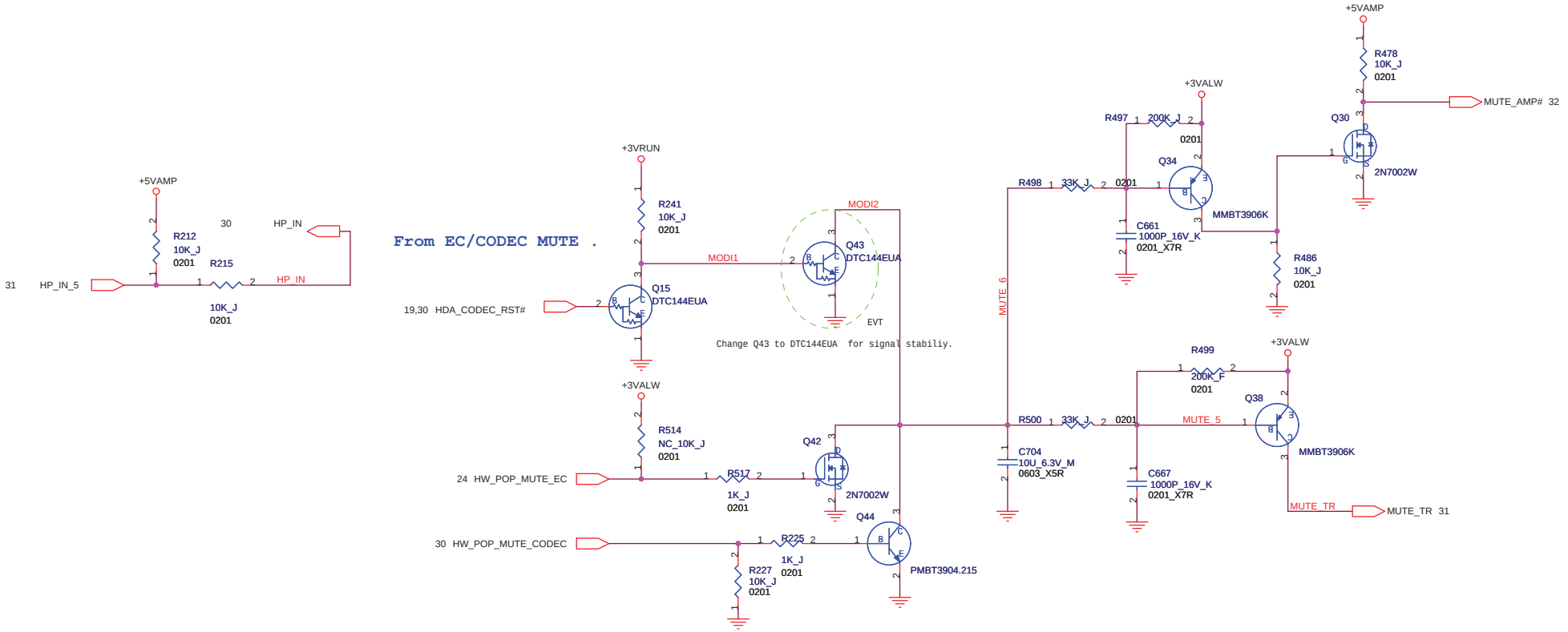
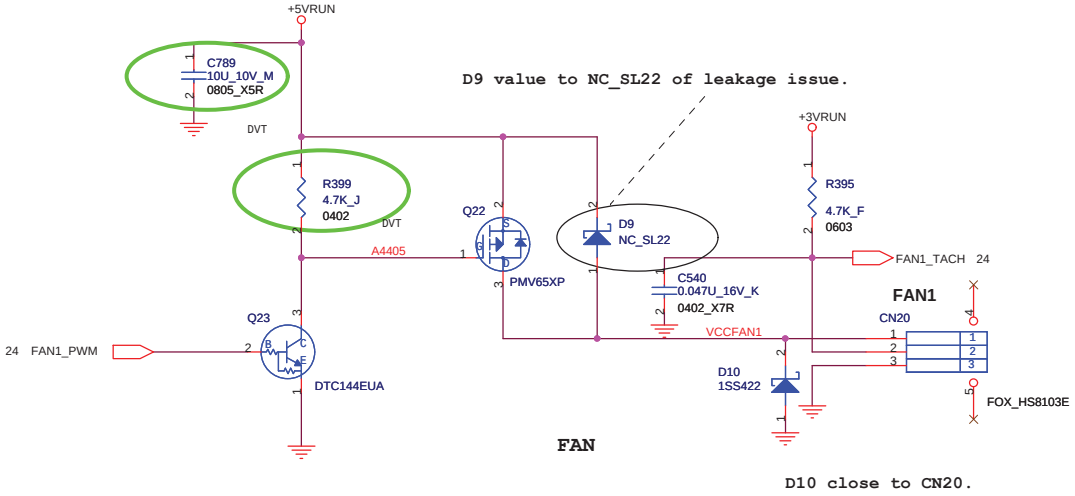
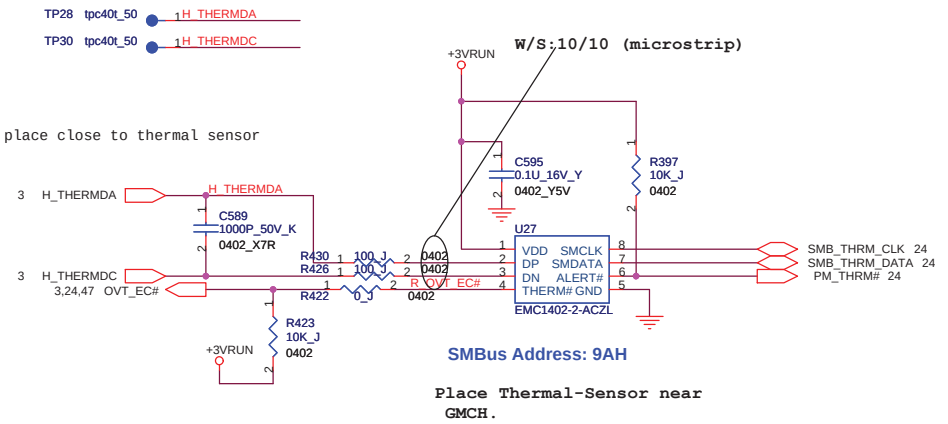

INTERNAL SPEAKER
SPEAKER AMP
SPEAKER AMP
Max 1.5A
+5VRUN
+5VAMP
A_GND
L18
120R-100MHZ_1206
BCMS321611A121 5A
R601
NC_0_J
0603
F5
6V-1.5A_1206
1206L150
DVT
C83
10U_6.3V_M
0603_X5R
C100
10U_6.3V_M
0603_X5R
C163
0.1U_6.3V_K
0201_X5R
C175
0.1U_6.3V_K
0201_X5R
C170
0.1U_6.3V_K
0201_X5R
C115
10U_6.3V_M
0603_X5R
R556
0_J
0402
R557
NC_0_J
0402
EVT
INT_SPK_R+
INT_SPK_R-
INT_SPK_L+
INT_SPK_L-
220R-100MHZ_0603
L1 FCM1608KF-221T05
L2 FCM1608KF-221T05
L3 FCM1608KF-221T05
L4 FCM1608KF-221T05
JSPK1
HEADER_4P
FOX_HS8204E
VR7
VR6
VR8
VR9
MLVS0603M04_VR
C797
C798
C799
C800
220P_50V_J
0402_NPO
C639
1U_10V_K
0603_X5R
C633
0.1U_6.3V_K
0201_X5R
C635
10U_6.3V_M
0603_X5R
U30
RIN+
RIN-
LIN+
LIN-
BYPASS
SHUTDOWN#
GAIN0
GAIN1
PVDD1
PVDD2
VDD
ROUT-
ROUT+
LOUT-
LOUT+
NC
GND1
GND2
GND3
GND4
THERMAL PAD
G1431F2U
SPK_R
SPK_L
C656
C657
1U_6.3V_M
0402_X5R
R493
R494
1K_J
0402
C647
33P_50V_J
0402_NPO
C646
33P_50V_J
0402_NPO
C634
0.47U_16V_K
0603_X5R
C630
0.47U_16V_K
0603_X5R
SPK_R_1
SPK_L_1
AMP_BYPASS
C624
2.2U_10V_M
0603_X5R
MUTE_AMP#
GAIN0
GAIN1
INT_SPK_R-
INT_SPK_R+
INT_SPK_L-
INT_SPK_L+
C802
C803
C804
C805
R488
R489
R483
R482
0_J
0201
GAIN0
GAIN1
GAIN0 GAIN1
0 dB 0 0
10 dB 0 1
15.6 dB 1 0
21.6 dB 1 1
Q24
Q25
Q26
Q27
Q28
PBSS2515E.115
MMBT3906K
NC_PBSS2515E.115
R468
R467
R427
R428
R450
R452
R454
R459
R614
INT_SPK_L+
INT_SPK_L-
3.3K_J
10K_J
1K_J
NC_1K_J
NC_10K_J
22K_J
0402
C615
10U_10V_M
0805_X5R
Q7
Q6
Q4
Q8
Q10
R125
R126
R85
R86
R98
R105
R106
R109
R615
INT_SPK_R+
INT_SPK_R-
C126
10U_10V_M
0805_X5R
For Mor request,add the speaker cable short protection circuit
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
Audio (SPKR & MUTE)
Size
A3
Document Number
M790-1-01
Rev
1.0
Date:
Wednesday, July 02, 2008
Sheet
32
of
54

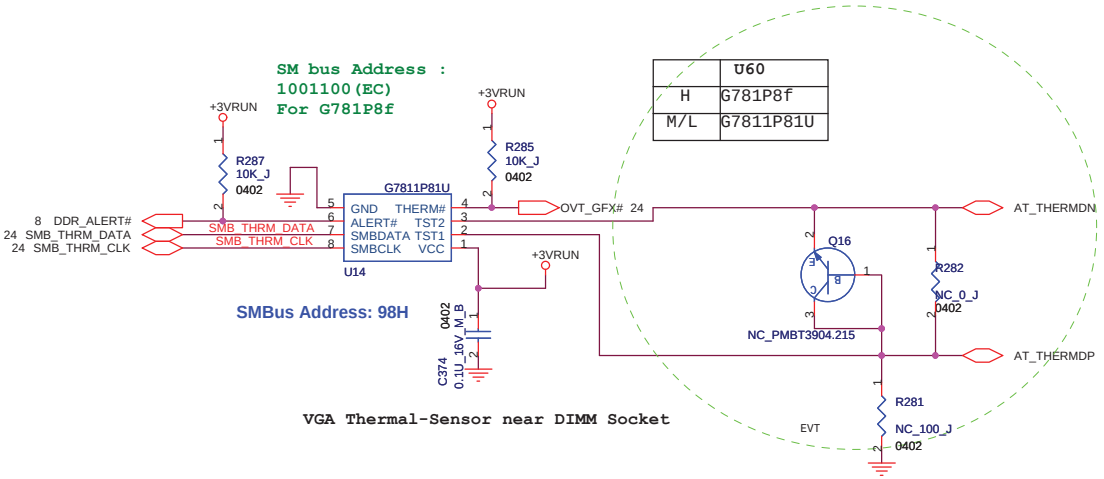


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Audio (SPKR & MUTE)	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 33 of 54	



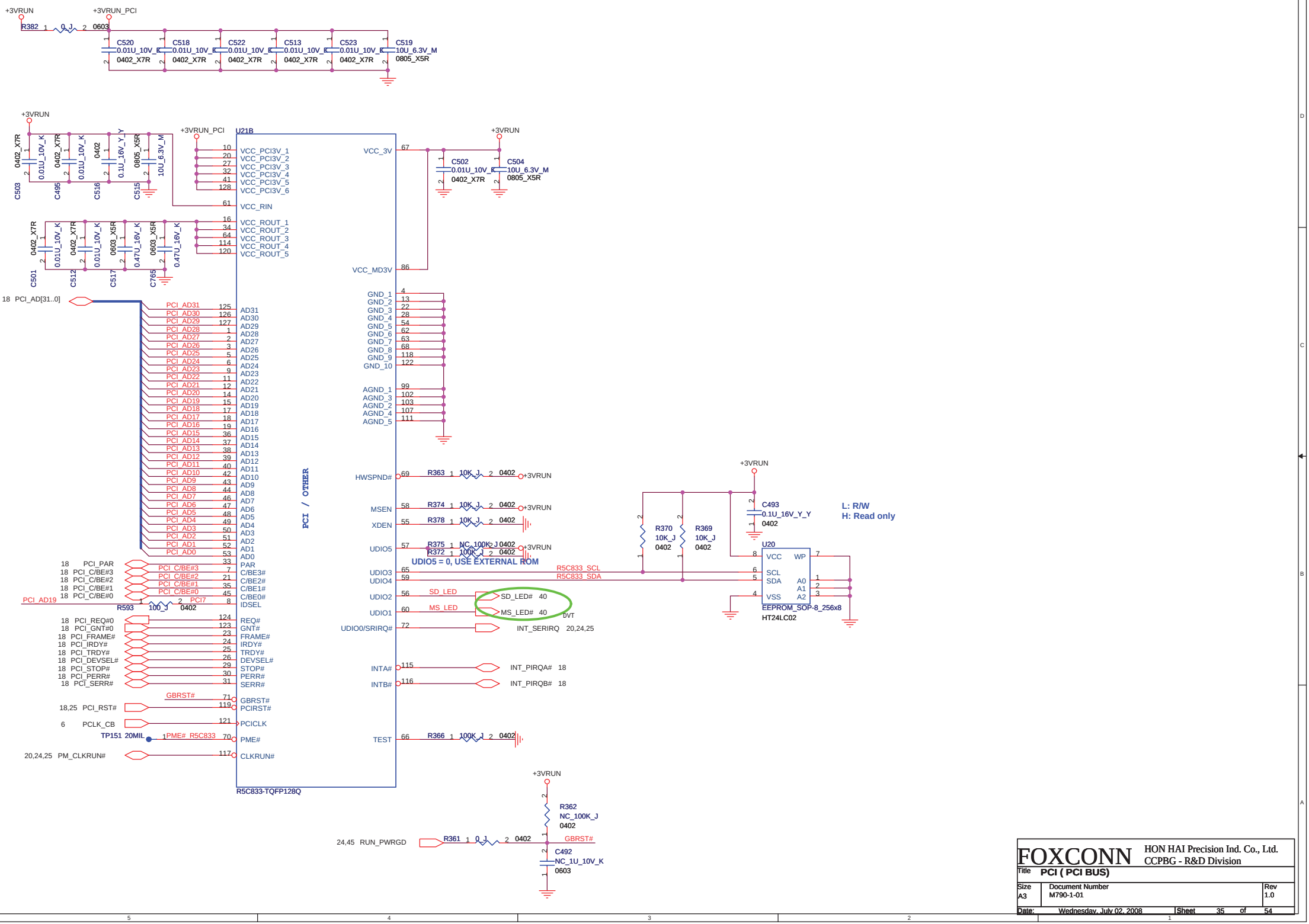


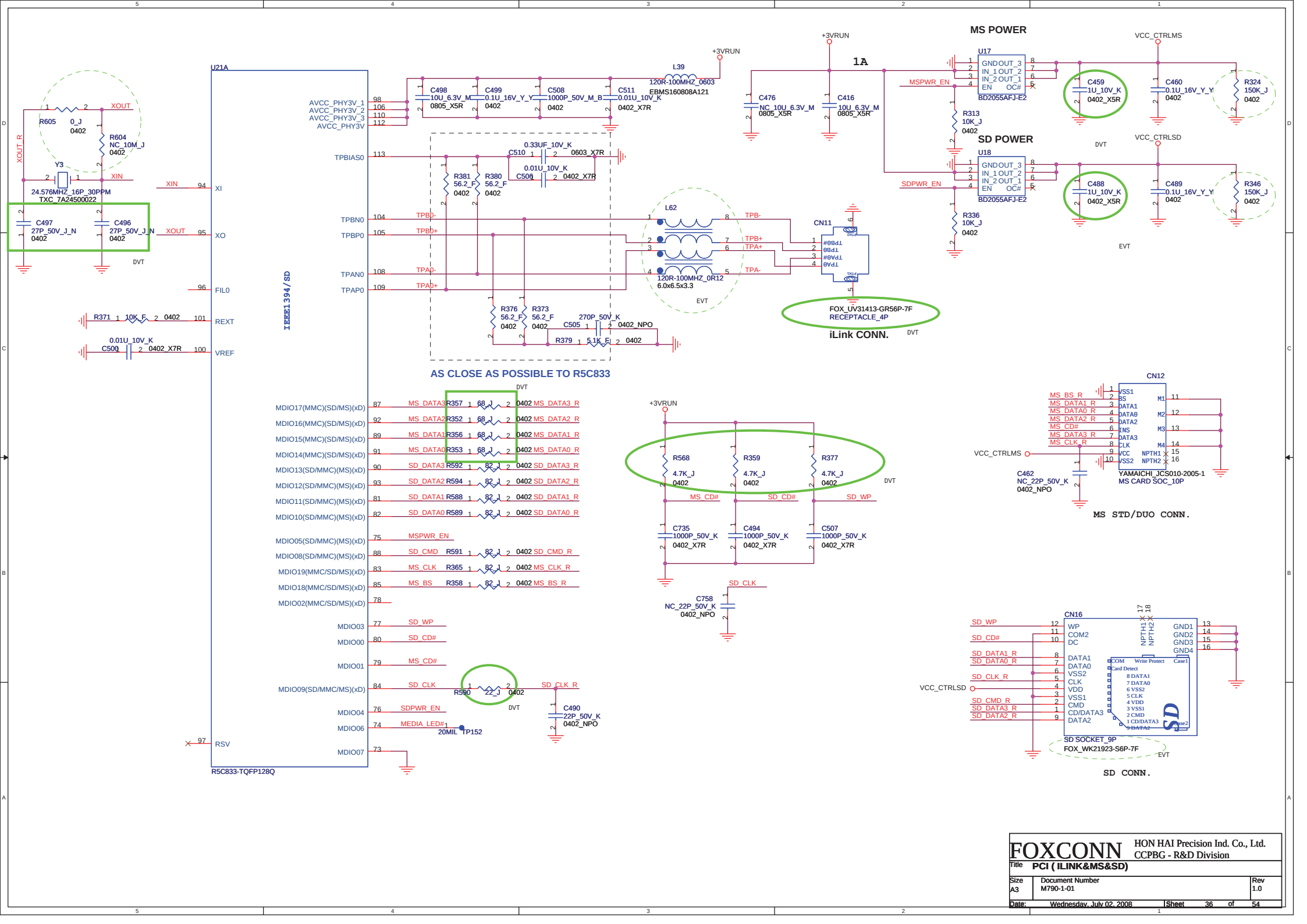
CPU Thermal-Sensor



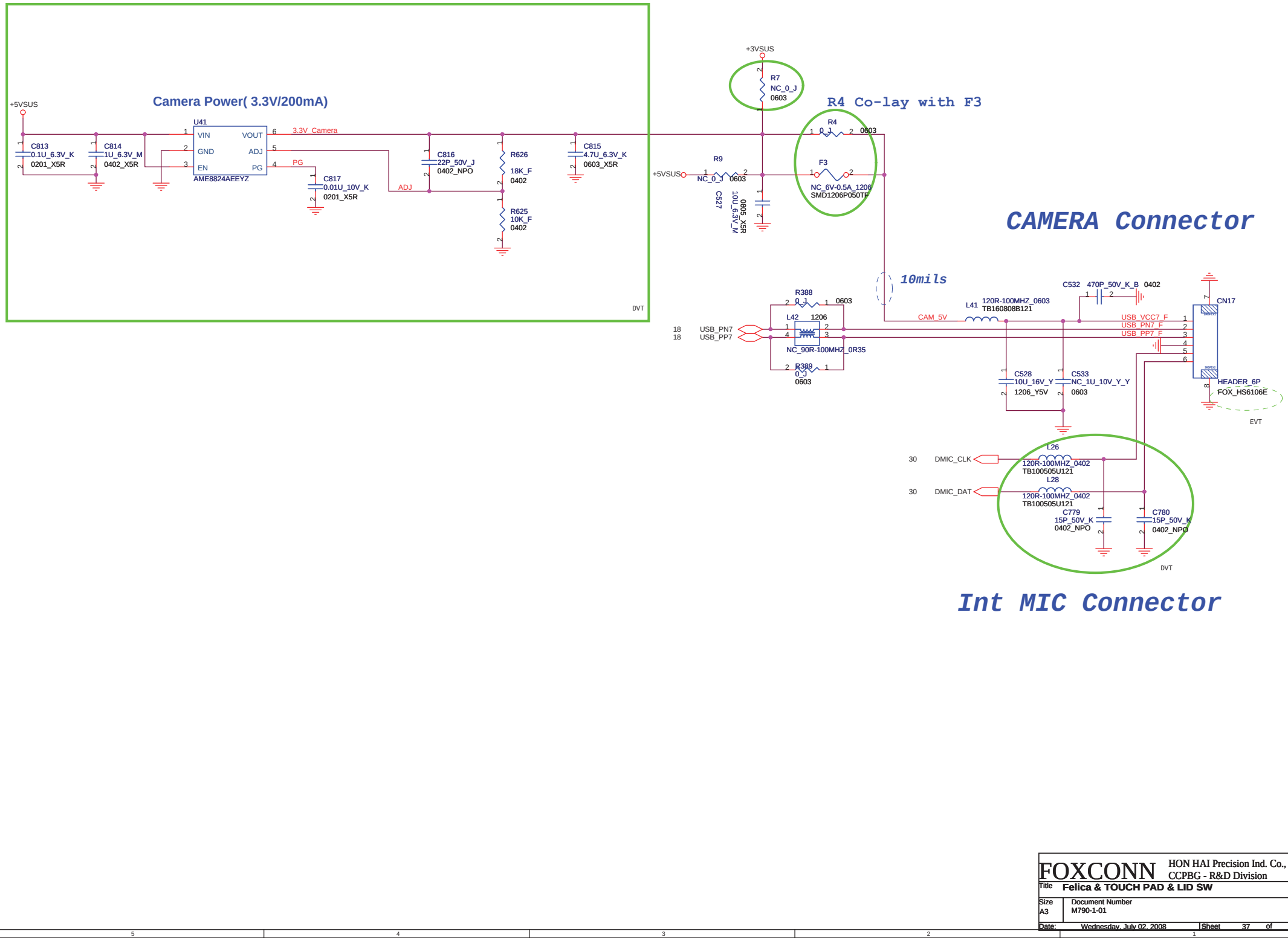
	U60
H	G781P8f
M/L	G7811P81U

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: FAN/Thermal		
Size: A3	Document Number: M790-1-01	Rev: 1.0
Date: Wednesday, July 02, 2008	Sheet 34 of 54	


+3VRUN
+3VRUN_PCI
R382 1 0_J 2 0603
C520 0.01U_10V_K 0402_X7R
C518 0.01U_10V_K 0402_X7R
C522 0.01U_10V_K 0402_X7R
C513 0.01U_10V_K 0402_X7R
C523 0.01U_10V_K 0402_X7R
C519 10U_6.3V_M 0805_X5R
U21B
VCC_PCI3V_1
VCC_PCI3V_2
VCC_PCI3V_3
VCC_PCI3V_4
VCC_PCI3V_5
VCC_PCI3V_6
VCC_RIN
VCC_ROUT_1
VCC_ROUT_2
VCC_ROUT_3
VCC_ROUT_4
VCC_ROUT_5
VCC_3V
VCC_MD3V
C502 0.01U_10V_K 0402_X7R
C504 10U_6.3V_M 0805_X5R
C503 C495 C516 C515
C501 C512 C517 C765
GND_1
GND_2
GND_3
GND_4
GND_5
GND_6
GND_7
GND_8
GND_9
GND_10
AGND_1
AGND_3
AGND_2
AGND_4
AGND_5
18 PCI_AD[31..0]
PCI_AD31
PCI_AD30
PCI_AD29
PCI_AD28
PCI_AD27
PCI_AD26
PCI_AD25
PCI_AD24
PCI_AD23
PCI_AD22
PCI_AD21
PCI_AD20
PCI_AD19
PCI_AD18
PCI_AD17
PCI_AD16
PCI_AD15
PCI_AD14
PCI_AD13
PCI_AD12
PCI_AD11
PCI_AD10
PCI_AD9
PCI_AD8
PCI_AD7
PCI_AD6
PCI_AD5
PCI_AD4
PCI_AD3
PCI_AD2
PCI_AD1
PCI_AD0
PCI / OTHER
18 PCI_PAR
18 PCI_C/BE#3
18 PCI_C/BE#2
18 PCI_C/BE#1
18 PCI_C/BE#0
PCI_AD19
R593 100_J 0402
PCI7
18 PCI_REQ#0
18 PCI_GNT#0
18 PCI_FRAME#
18 PCI_IRDY#
18 PCI_TRDY#
18 PCI_DEVSEL#
18 PCI_STOP#
18 PCI_PERR#
18 PCI_SERR#
GBRST#
18,25 PCI_RST#
6 PCLK_CB
TP151 20MIL
PME#_R5C833
20,24,25 PM_CLKRUN#
HWSPND#
MSEN
XDEN
UDIO5
UDIO3
UDIO4
UDIO2
UDIO1
UDIO0/SRIRQ#
INTA#
INTB#
TEST
R363 10K_J 0402 +3VRUN
R374 10K_J 0402 +3VRUN
R378 10K_J 0402
R375 NC_100K_J 0402 +3VRUN
R372 100K_J 0402
UDIO5 = 0, USE EXTERNAL ROM
SD_LED
MS_LED
SD_LED# 40
MS_LED# 40
DVT
INT_SERIRQ 20,24,25
INT_PIRQA# 18
INT_PIRQB# 18
R366 100K_J 0402
R5C833-TQFP128Q
R370 10K_J 0402
R369 10K_J 0402
C493 0.1U_16V_Y_Y 0402
L: R/W
H: Read only
U20
VCC
WP
SCL
SDA
A0
A1
A2
VSS
R5C833_SCL
R5C833_SDA
EEPROM_SOP-8_256x8
HT24LC02
24,45 RUN_PWRGD
R361 0_J 0402
R362 NC_100K_J 0402
C492 NC_1U_10V_K 0603
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title PCI (PCI BUS)
Size A3
Document Number M790-1-01
Rev 1.0
Date: Wednesday, July 02, 2008
Sheet 35 of 54

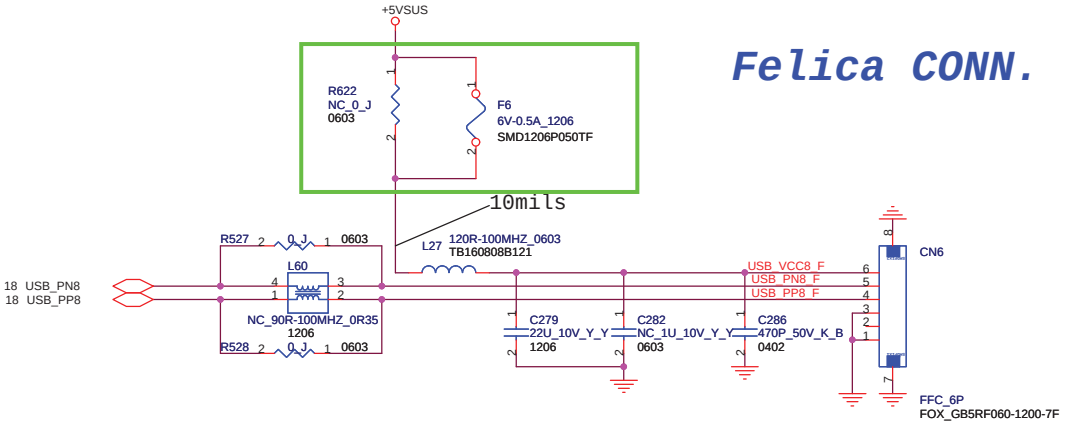


FOXCONN	HON HAI Precision Ind. Co., Ltd.	
	CCPBG - R&D Division	
Title	PCI (ILINK&MS&SD)	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 36 of 54	

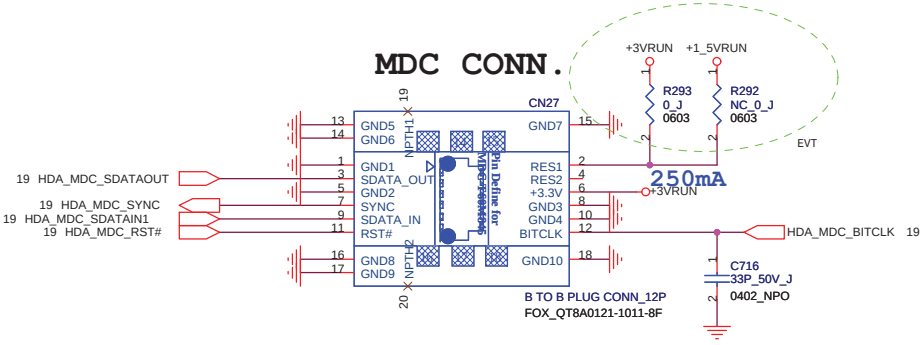


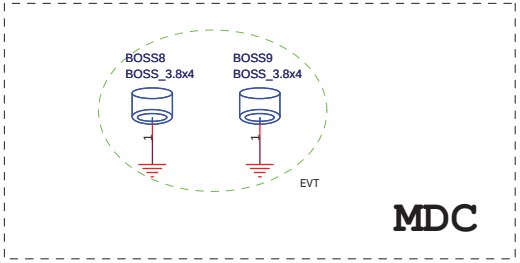
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Felica & TOUCH PAD & LID SW	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 37 of 54	

Felica CONN.

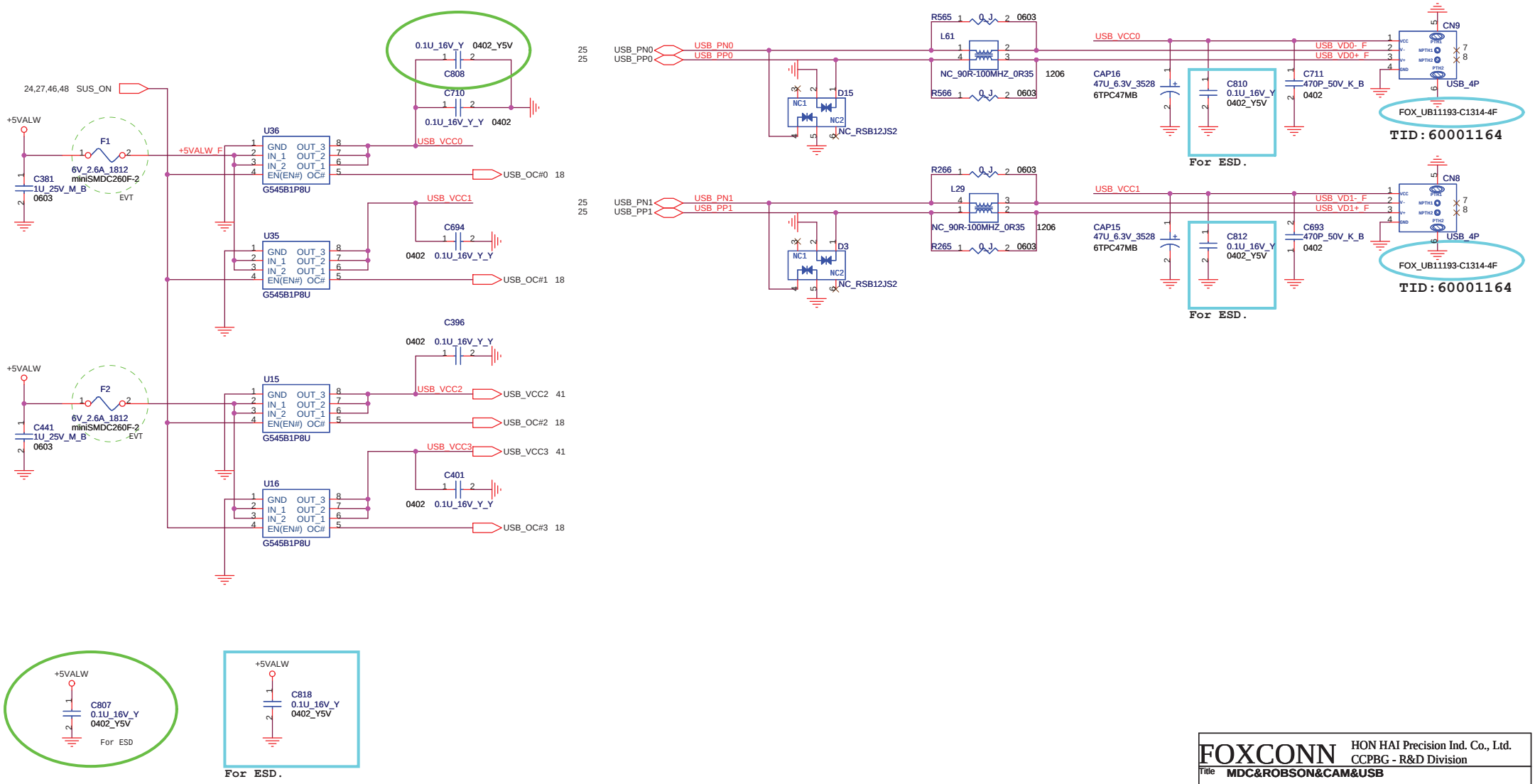


MDC CONN.

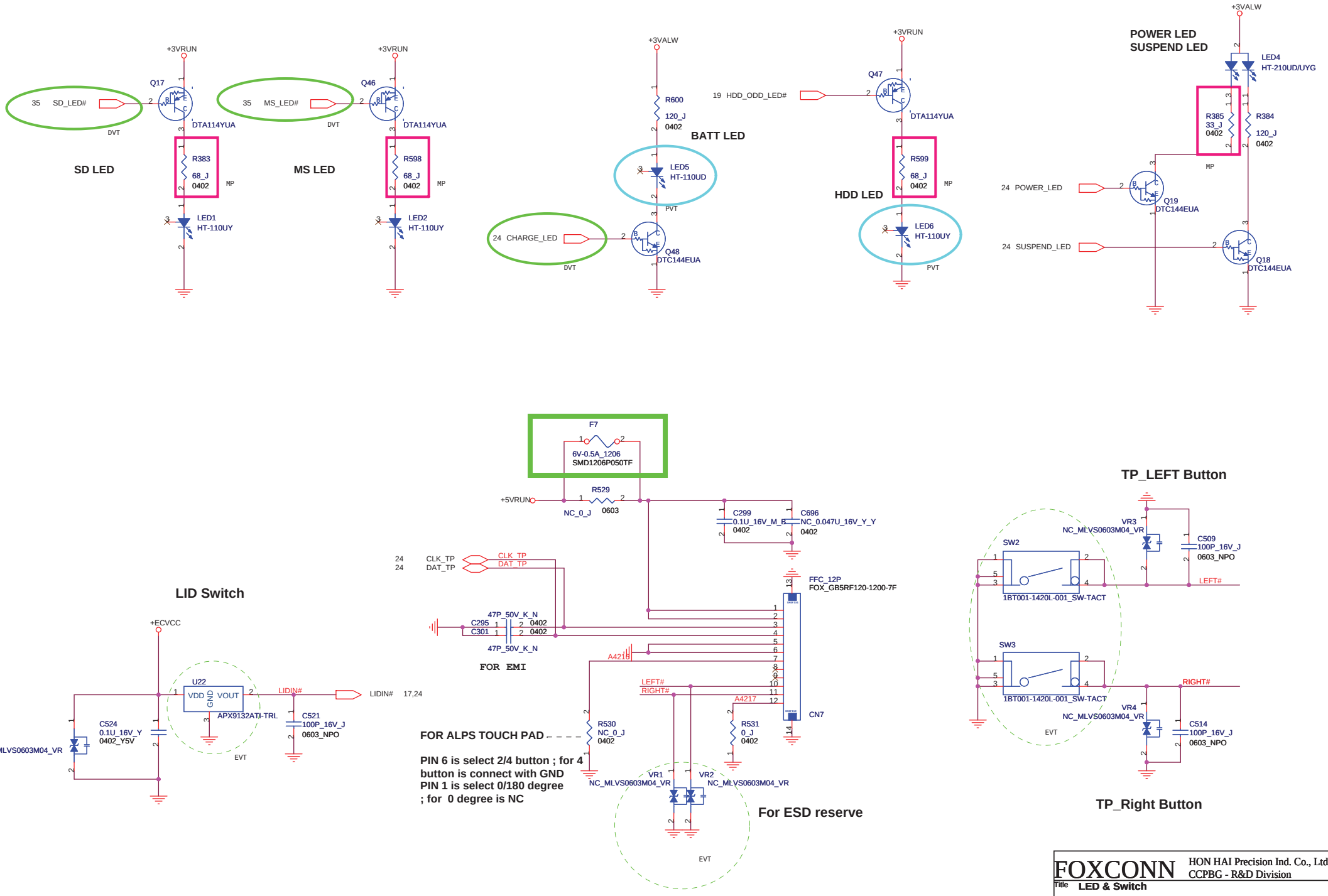




FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Felica & TOUCH PAD & LID SW	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 38 of 54	

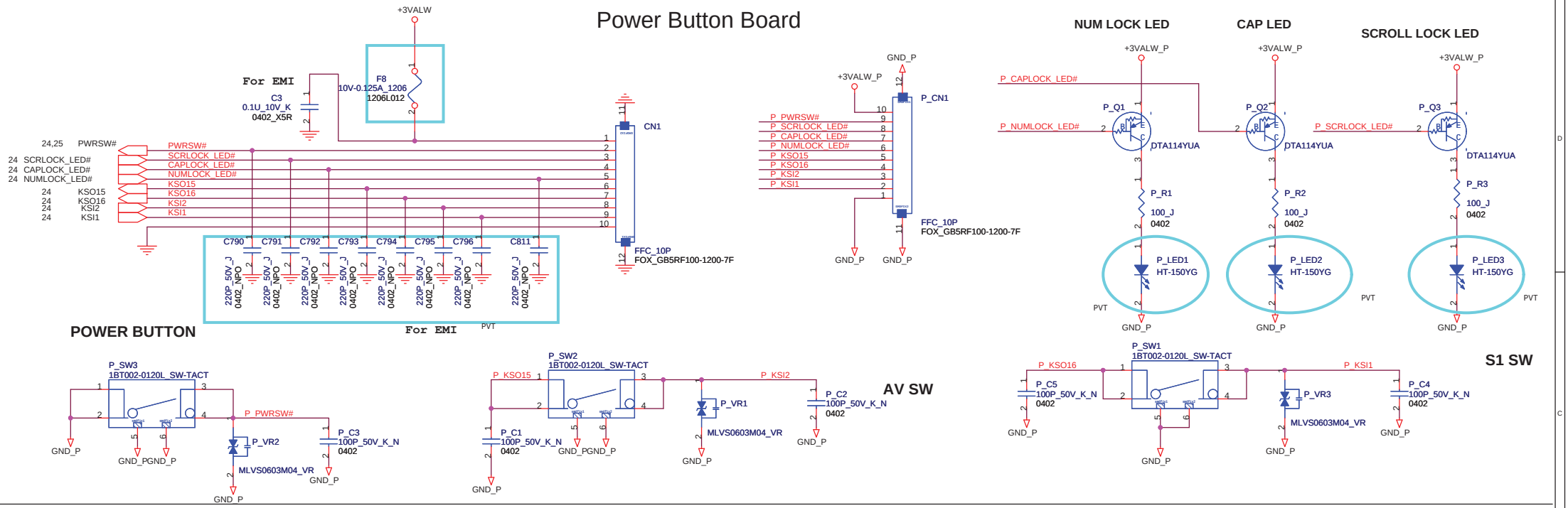


FOXCONN	HON HAI Precision Ind. Co., Ltd.	
	CCPBG - R&D Division	
Title	MDC&ROBSON&CAM&USB	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 39 of 54	

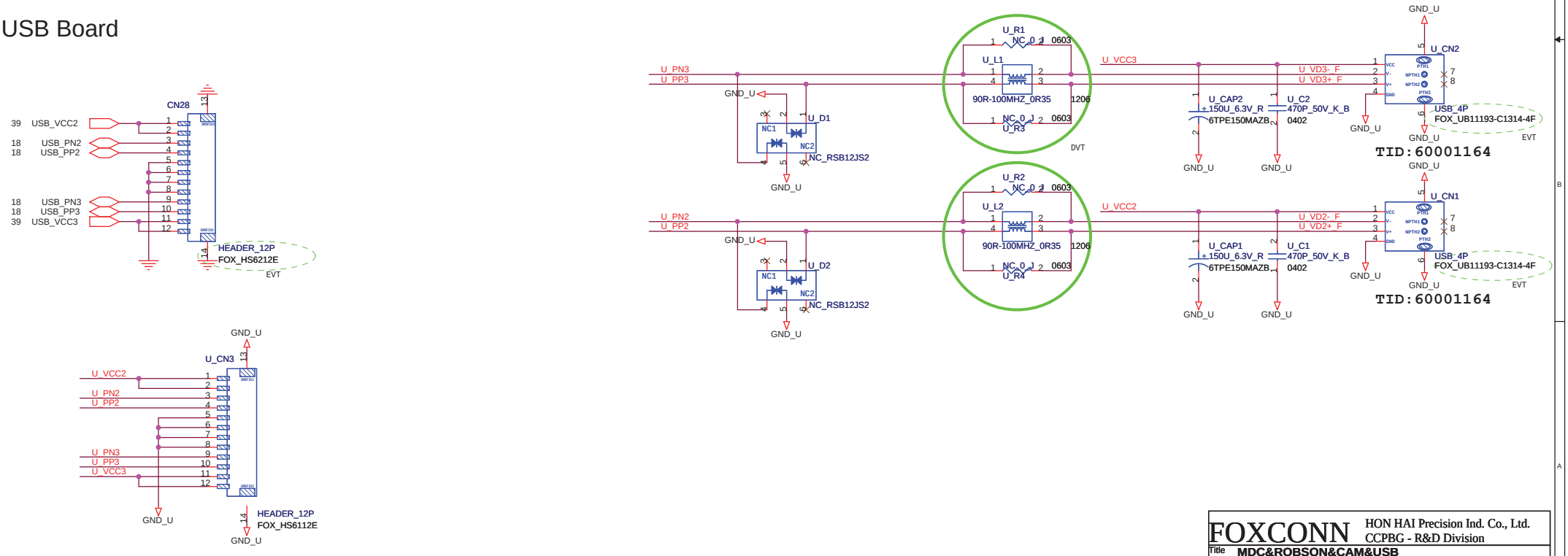


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	LED & Switch	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 23, 2008	Sheet 40 of 54	

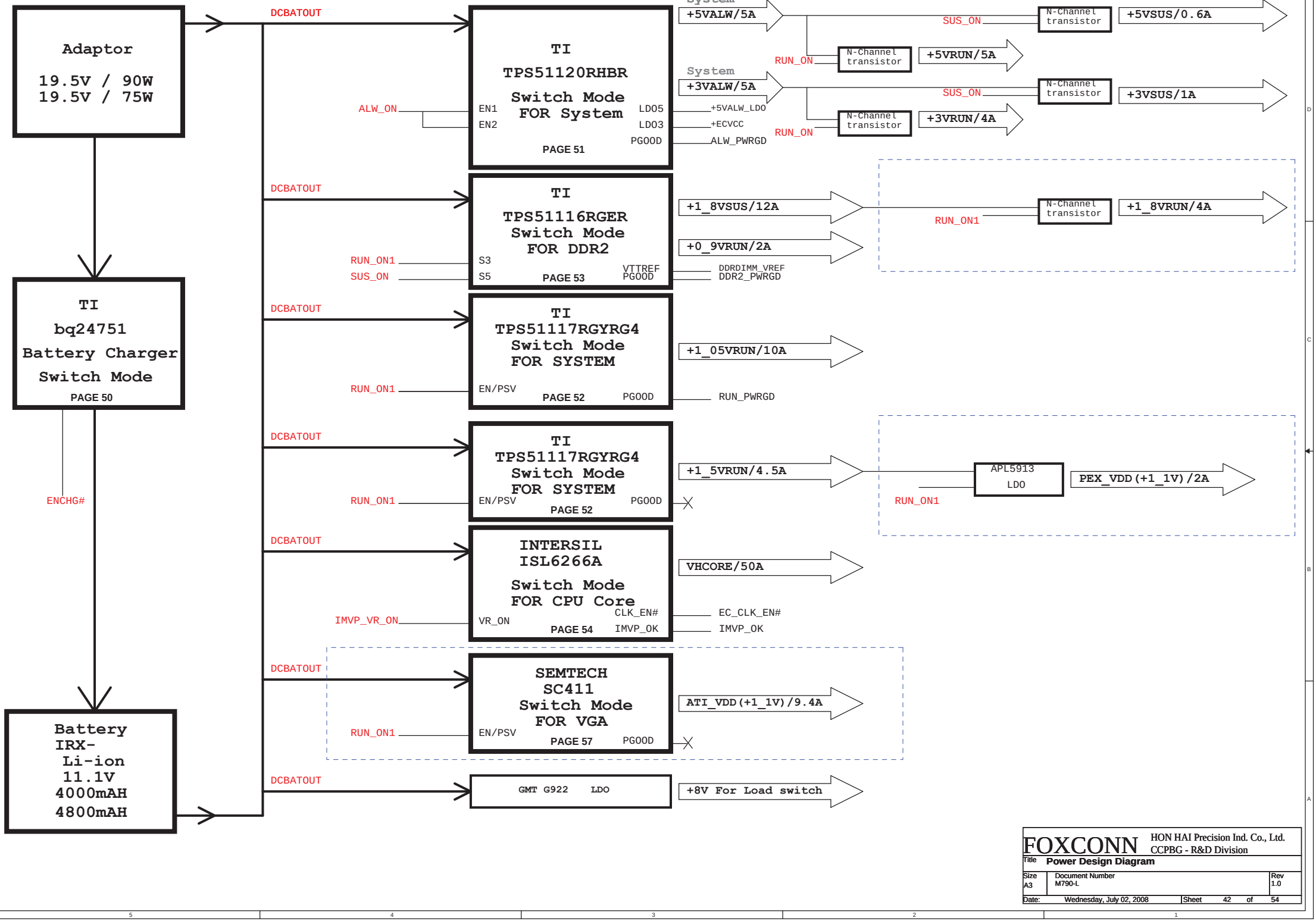
Power Button Board



USB Board



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	MDC&ROBSON&CAM&USB	
Size A3	Document Number M790-1-01	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 41 of 54	


Adaptor
19.5V / 90W
19.5V / 75W
TI
bq24751
Battery Charger
Switch Mode
PAGE 50
ENCHG#
Battery
IRX-
Li-ion
11.1V
4000mAH
4800mAH
DCBATOUT
TI
TPS51120RHBR
Switch Mode
FOR System
PAGE 51
ALW_ON
EN1
EN2
LDO5
LDO3
PGOOD
+5VALW_LDO
+ECVCC
ALW_PWRGD
System
+5VALW/5A
SUS_ON
N-Channel transistor
+5VSUS/0.6A
RUN_ON
N-Channel transistor
+5VRUN/5A
System
+3VALW/5A
SUS_ON
N-Channel transistor
+3VSUS/1A
RUN_ON
N-Channel transistor
+3VRUN/4A
TI
TPS51116RGER
Switch Mode
FOR DDR2
PAGE 53
RUN_ON1
SUS_ON
S3
S5
VTTREF
PGOOD
DDRDIMM_VREF
DDR2_PWRGD
+1_8VSUS/12A
+0_9VRUN/2A
RUN_ON1
N-Channel transistor
+1_8VRUN/4A
TI
TPS51117RGYRG4
Switch Mode
FOR SYSTEM
PAGE 52
RUN_ON1
EN/PSV
PGOOD
RUN_PWRGD
+1_05VRUN/10A
TI
TPS51117RGYRG4
Switch Mode
FOR SYSTEM
PAGE 52
RUN_ON1
EN/PSV
PGOOD
+1_5VRUN/4.5A
APL5913
LDO
PEX_VDD(+1_1V)/2A
RUN_ON1
INTERSIL
ISL6266A
Switch Mode
FOR CPU Core
PAGE 54
IMVP_VR_ON
VR_ON
CLK_EN#
IMVP_OK
EC_CLK_EN#
IMVP_OK
VHCORE/50A
SEMTECH
SC411
Switch Mode
FOR VGA
PAGE 57
RUN_ON1
EN/PSV
PGOOD
ATI_VDD(+1_1V)/9.4A
GMT G922 LDO
+8V For Load switch
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
Power Design Diagram
Size
A3
Document Number
M790-L
Rev
1.0
Date:
Wednesday, July 02, 2008
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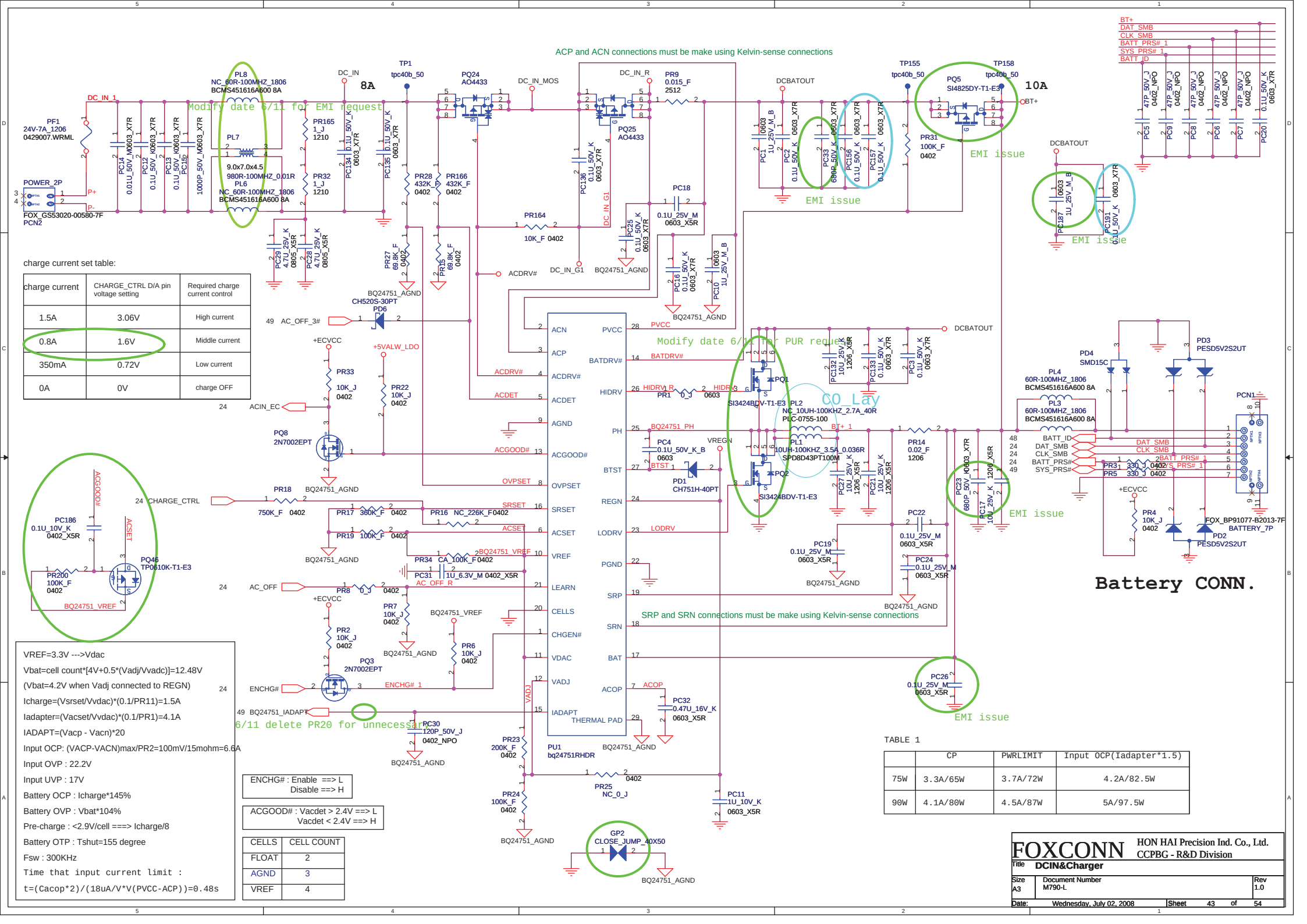
ACP and ACN connections must be make using Kelvin-sense connections
Modify date 6/11 for EMI request
Modify date 6/11 for PUR request
SRP and SRN connections must be make using Kelvin-sense connections
6/11 delete PR20 for unnecessary
EMI issue
Battery CONN.
CO_Lay
DC_IN
8A
10A
DCBATOUT
BQ24751_AGND
BQ24751_VREF
BQ24751_IADAPT
BQ24751_PH
ACDRV#
ACDET
ACGOOD#
OVPSET
SRSET
ACSET
LODRV
ENCHG#
AC_OFF
ACIN_EC
CHARGE_CTRL
PU1 bq24751RHDR
PF1 24V-7A_1206 0429007.WRML
PCN2 FOX_GS53020-00580-7F
PCN1 FOX_BP91077-B2013-7F BATTERY_7P
PQ1 SI3424BDV-T1-E3
PQ2 SI3424BDV-T1-E3
PQ3 2N7002EPT
PQ4 TP0610K-T1-E3
PQ5 SI4825DY-T1-E3
PQ8 2N7002EPT
PD1 CH751H-40PT
PD2 PESD5V2S2UT
PD3 PESD5V2S2UT
PD4 SMD15C
PD6 CH520S-30PT
PL1 10UH-100KHZ_3.5A_0.036R SPD8D43PT100M
PL2 NC_10UH-100KHZ_2.7A_40R PLC-0755-100
PL3 60R-100MHZ_1806 BCMS451616A600 8A
PL4 60R-100MHZ_1806 BCMS451616A600 8A
PL6 NC_60R-100MHZ_1806 BCMS451616A600 8A
PL7 9.0x7.0x4.5 980R-100MHZ_0.01R
PL8 NC_60R-100MHZ_1806 BCMS451616A600 8A
TP1 tpc40b_50
TP155 tpc40b_50
TP158 tpc40b_50
GP2 CLOSE_JUMP_40X50
BT+
DAT_SMB
CLK_SMB
BATT_PRS# 1
SYS_PRS# 1
BATT_ID
BATT_PRS#
SYS_PRS#
DC_IN_1
DC_IN_MOS
DC_IN_R
DC_IN_G1
POWER_2P
P+
P-
ACN
ACP
PVCC
BATDRV#
HIDRV
PH
BTST
REGN
LODRV
PGND
SRP
SRN
BAT
ACOP
CELLS
CHGEN#
VDAC
VADJ
LEARN
VREF
IADAPT
THERMAL PAD
AGND
VREGN
HIDRV_R
BT+_1
AC_OFF_R
ENCHG# 1
VADJ
charge current set table:
charge current
CHARGE_CTRL D/A pin voltage setting
Required charge current control
1.5A
3.06V
High current
0.8A
1.6V
Middle current
350mA
0.72V
Low current
0A
0V
charge OFF
VREF=3.3V --->Vdac
Vbat=cell count*[4V+0.5*(Vadj/Vvadc)]=12.48V
(Vbat=4.2V when Vadj connected to REGN)
Icharge=(Vsrset/Vvdac)*(0.1/PR11)=1.5A
Iadapter=(Vacset/Vvdac)*(0.1/PR1)=4.1A
IADAPT=(Vacp - Vacn)*20
Input OCP: (VACP-VACN)max/PR2=100mV/15mohm=6.6A
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))=0.48s
ENCHG# : Enable ==> L
Disable ==> H
ACGOOD# : Vacdet > 2.4V ==> L
Vacdet < 2.4V ==> H
CELLS
CELL COUNT
FLOAT
2
AGND
3
VREF
4
TABLE 1
CP
PWRLIMIT
Input OCP(Iadapter*1.5)
75W
3.3A/65W
3.7A/72W
4.2A/82.5W
90W
4.1A/80W
4.5A/87W
5A/97.5W
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
DCIN&Charger
Size
A3
Document Number
M790-L
Rev
1.0
Date:
Wednesday, July 02, 2008
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of
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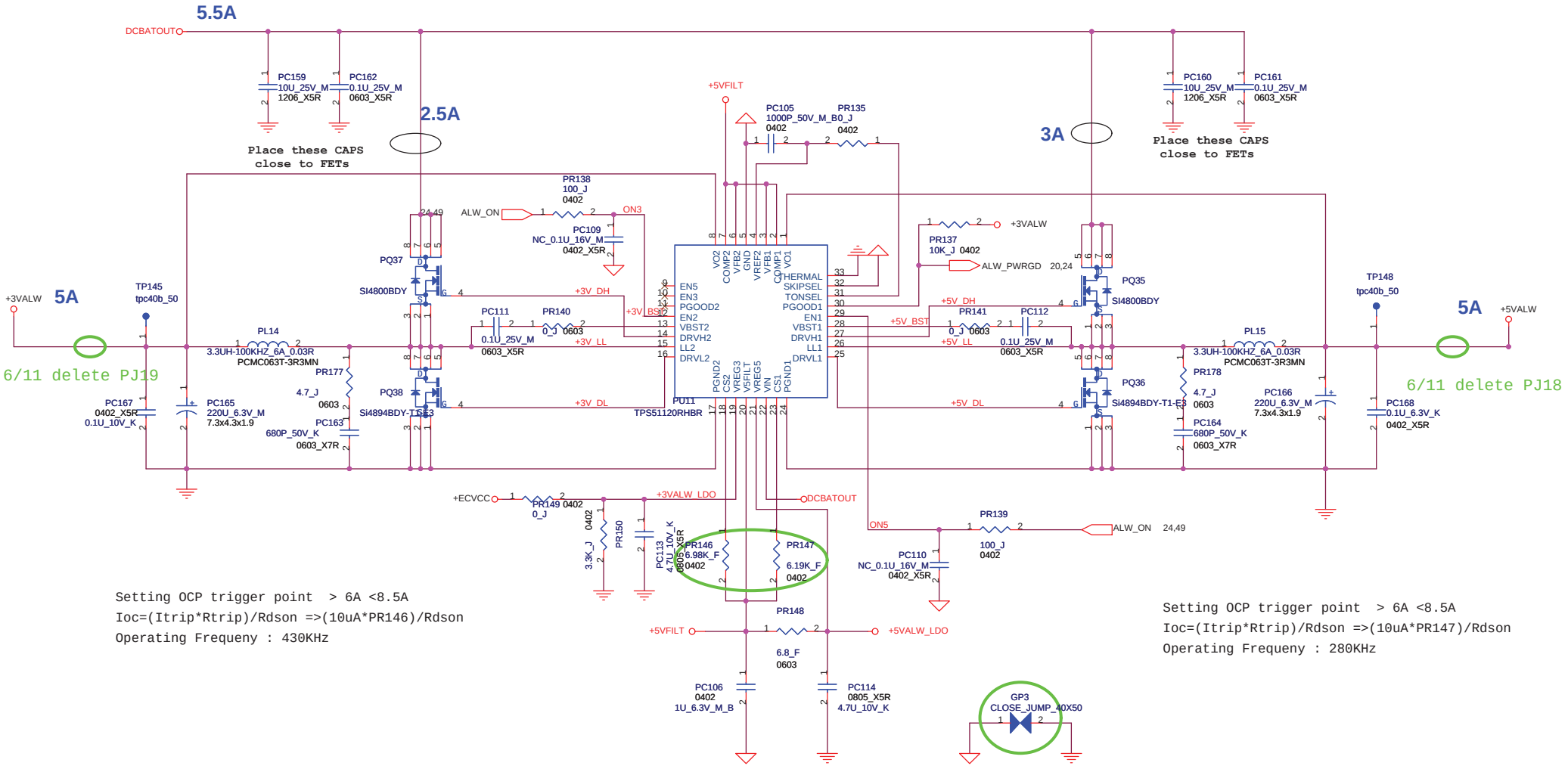
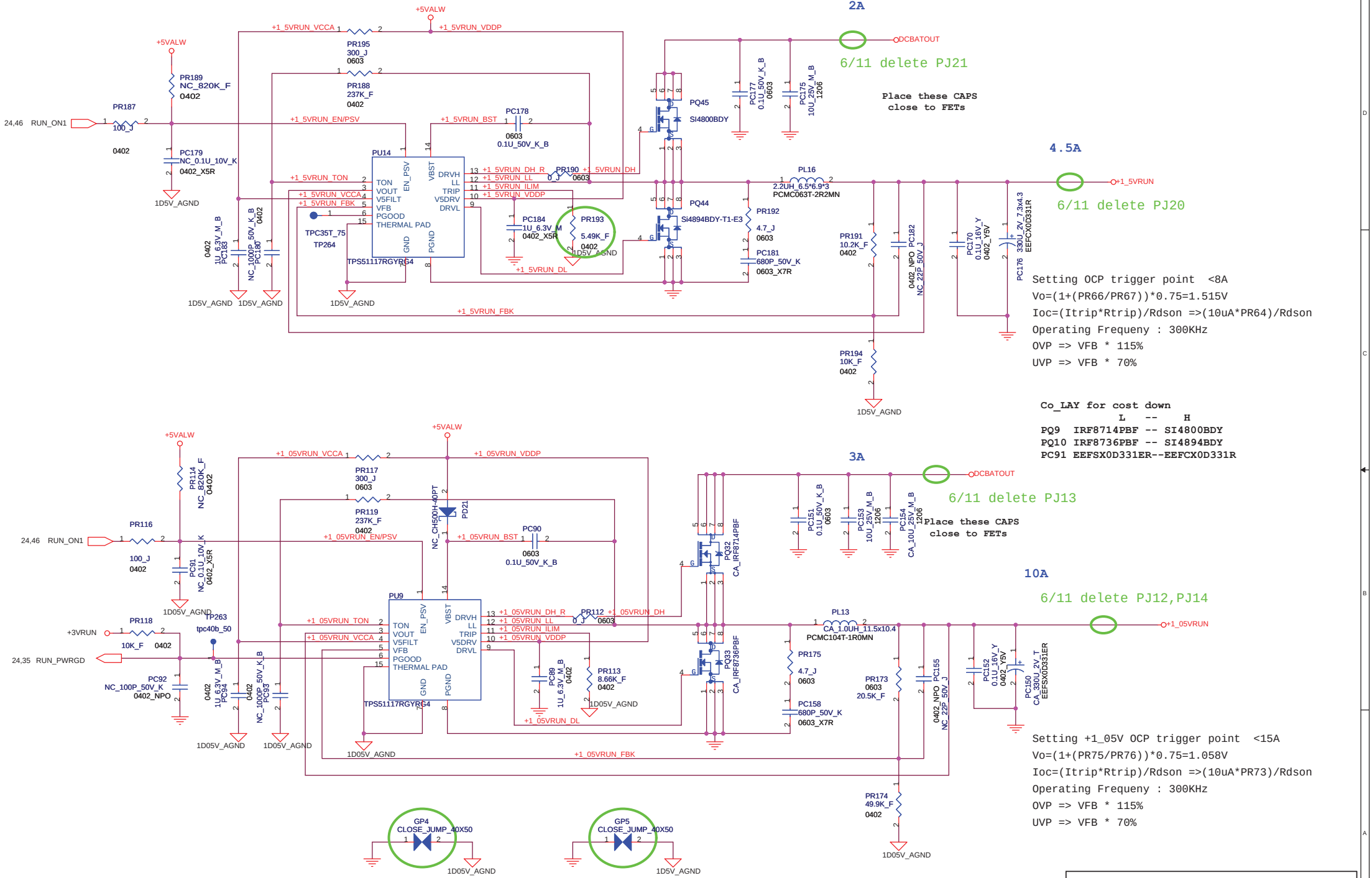
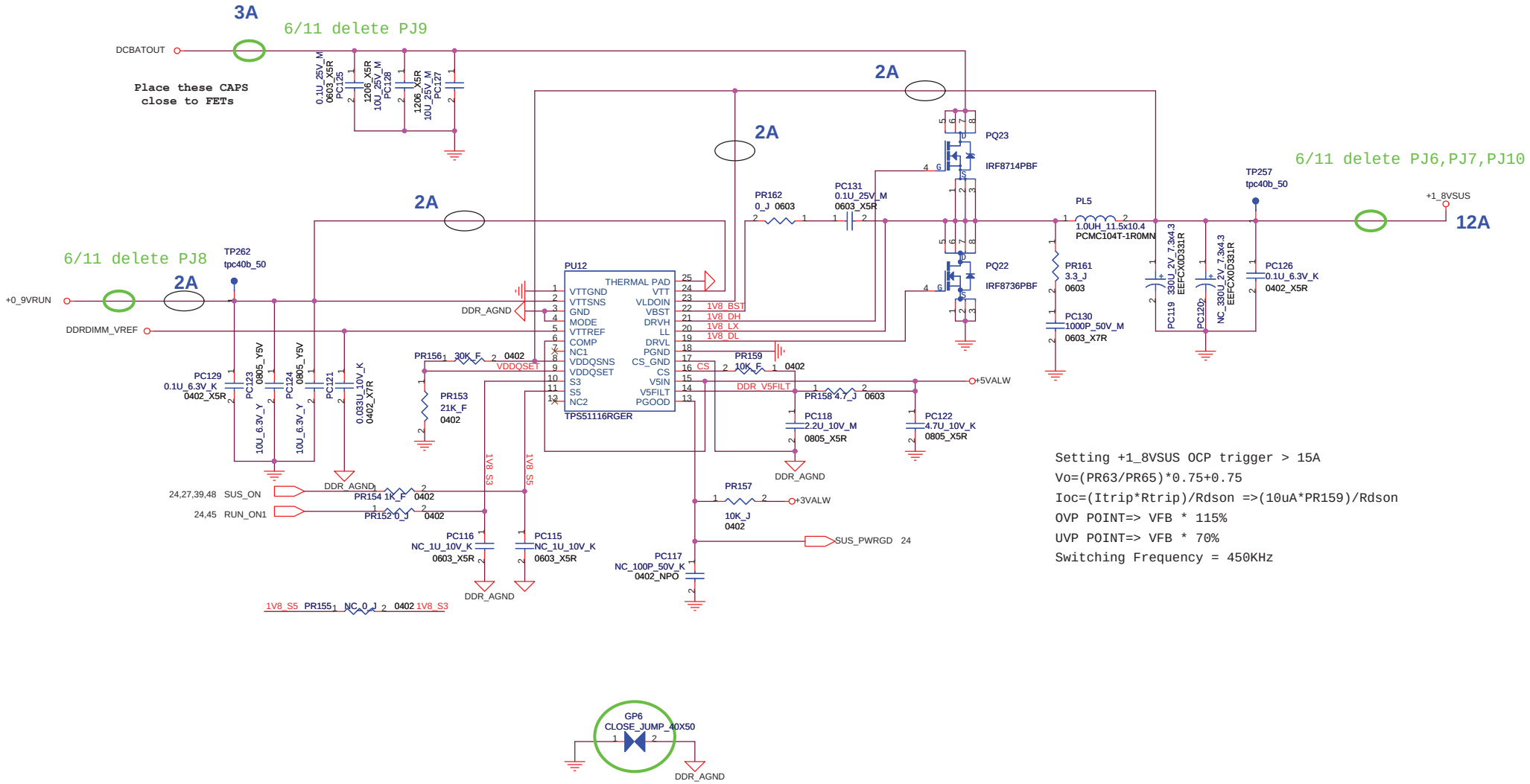


FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

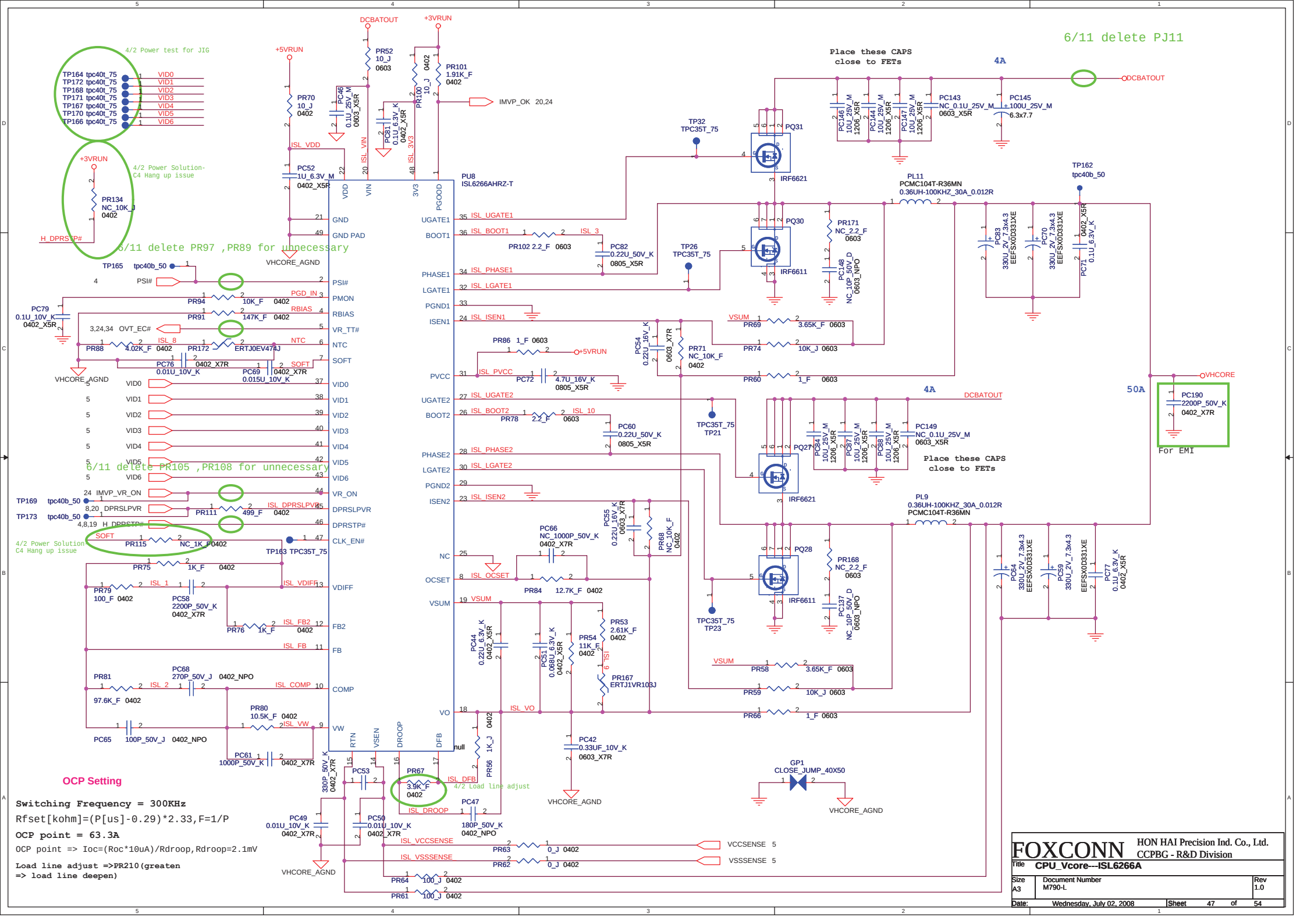
Title	SYS Power (+3_3V/+5V)	
Size A3	Document Number M790-L	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 44 of 54	



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	SYS Power(+1_5V/+1_05V)		
Size A3	Document Number M790-L		Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 45 of 54		



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	DDR2 Power(+1_8V/+0_9V)	
Size A3	Document Number M790-L	Rev 1.0
Date: Wednesday, July 02, 2008	Sheet 46 of 54	


6/11 delete PJ11
4/2 Power test for JIG
TP164 tpc40t_75
TP172 tpc40t_75
TP168 tpc40t_75
TP171 tpc40t_75
TP167 tpc40t_75
TP170 tpc40t_75
TP166 tpc40t_75
VID0
VID1
VID2
VID3
VID4
VID5
VID6
+3VRUN
4/2 Power Solution-
C4 Hang up issue
PR134
NC_10K_J
0402
H_DPRSTP#
DCBATOUT
+3VRUN
+5VRUN
PR52
10_J
0603
PR101
1.91K_F
0402
IMVP_OK 20,24
PR70
10_J
0402
PC46
0.1U_25V_M
0603_X5R
PC81
0.1U_6.3V_K
0402_X5R
ISL_VDD
ISL_VIN
ISL_3V3
PC52
1U_6.3V_M
0402_X5R
PU8
ISL6266AHRZ-T
VDD
VIN
3V3
PGOOD
GND
GND PAD
VHCORE_AGND
6/11 delete PR97 ,PR89 for unnecessary
TP165 tpc40b_50
PSI#
PR94
10K_F 0402
PGD_IN
RBIAS
PR91
147K_F 0402
3,24,34 OVT_EC#
PR88
4.02K_F 0402
ISL_8
PR172
ERTJ0EV474J
NTC
PC76
0.01U_10V_K
0402_X7R
PC69
0.015U_10V_K
0402_X7R
SOFT
PC79
0.1U_10V_K
0402_X5R
VID0
VID1
VID2
VID3
VID4
VID5
VID6
6/11 delete PR105 ,PR108 for unnecessary
24 IMVP_VR_ON
TP169 tpc40b_50
TP173 tpc40b_50
8,20 DPRSLPVR
4,8,19 H_DPRSTP#
PR111
499_F 0402
ISL_DPRSLPVR
4/2 Power Solution-
C4 Hang up issue
SOFT
PR115
NC_1K_F 0402
TP163 TPC35T_75
PR75
1K_F 0402
PR79
100_F 0402
ISL_1
PC58
2200P_50V_K
0402_X7R
ISL_VDIFF
PR76
1K_F
ISL_FB2
ISL_FB
PC68
270P_50V_J 0402_NPO
PR81
97.6K_F 0402
ISL_2
ISL_COMP
PR80
10.5K_F 0402
ISL_VW
PC65
100P_50V_J 0402_NPO
PC61
1000P_50V_K
0402_X7R
330P_50V_K
0402_X7R
PC53
PR67
3.9K_F
0402
4/2 Load line adjust
ISL_DFB
ISL_DROOP
PC47
180P_50V_K
0402_NPO
PC49
0.01U_10V_K
0402_X7R
PC50
0.01U_10V_K
0402_X7R
ISL_VCCSENSE
ISL_VSSSENSE
PR63
0_J 0402
PR62
0_J 0402
VCCSENSE 5
VSSSENSE 5
PR64
100_J 0402
PR61
100_J 0402
RTN
VSEN
DROOP
DFB
null
PR56
1K_J 0402
PC42
0.33UF_10V_K
0603_X7R
VHCORE_AGND
OCP Setting
Switching Frequency = 300KHz
Rfset[kohm]=(P[us]-0.29)*2.33,F=1/P
OCP point = 63.3A
OCP point => Ioc=(Roc*10uA)/Rdroop,Rdroop=2.1mV
Load line adjust =>PR210(greaten
=> load line deepen)
Place these CAPS
close to FETs
4A
DCBATOUT
PC146
10U_25V_M
1206_X5R
PC144
10U_25V_M
1206_X5R
PC147
10U_25V_M
1206_X5R
PC143
NC_0.1U_25V_M
0603_X5R
PC145
100U_25V_M
6.3x7.7
TP32
TPC35T_75
PQ31
IRF6621
TP162
tpc40b_50
PL11
PCMC104T-R36MN
0.36UH-100KHZ_30A_0.012R
PR171
NC_2.2_F
0603
PQ30
IRF6611
TP26
TPC35T_75
PC148
NC_10P_50V_D
0603_NPO
PC83
330U_2V_7.3x4.3
EEFSX0D331XE
PC70
330U_2V_7.3x4.3
EEFSX0D331XE
PC71
0.1U_6.3V_K
0402_X5R
ISL_UGATE1
ISL_BOOT1
PR102 2.2_F 0603
ISL_3
PC82
0.22U_50V_K
0805_X5R
ISL_PHASE1
ISL_LGATE1
PGND1
ISEN1
ISL_ISEN1
PR86 1_F 0603
+5VRUN
PC54
0.22U_16V_K
0603_X7R
PR71
NC_10K_F
0402
VSUM
PR69
3.65K_F 0603
PR74
10K_J 0603
PR60
1_F 0603
PVCC
ISL_PVCC
PC72
4.7U_16V_K
0805_X5R
VHCORE
50A
PC190
2200P_50V_K
0402_X7R
For EMI
4A
DCBATOUT
TPC35T_75
TP21
PC84
10U_25V_M
1206_X5R
PC87
10U_25V_M
1206_X5R
PC88
10U_25V_M
1206_X5R
PC149
NC_0.1U_25V_M
0603_X5R
PQ27
IRF6621
Place these CAPS
close to FETs
ISL_UGATE2
ISL_BOOT2
PR78
2.2_F
ISL_10
PC60
0.22U_50V_K
0805_X5R
ISL_PHASE2
ISL_LGATE2
PGND2
ISEN2
ISL_ISEN2
PC55
0.22U_16V_K
0603_X7R
PR68
NC_10K_F
0402
PL9
0.36UH-100KHZ_30A_0.012R
PCMC104T-R36MN
PC66
NC_1000P_50V_K
0402_X7R
NC
OCSET
ISL_OCSET
PR84
12.7K_F 0402
PQ28
IRF6611
PR168
NC_2.2_F
0603
PC137
NC_10P_50V_D
0603_NPO
TPC35T_75
TP23
PC64
330U_2V_7.3x4.3
EEFSX0D331XE
PC59
330U_2V_7.3x4.3
EEFSX0D331XE
PC77
0.1U_6.3V_K
0402_X5R
VSUM
PC44
0.22U_6.3V_K
0402_X5R
PC51
0.068U_6.3V_K
0402_X5R
PR54
11K_F
0402
PR53
2.61K_F
0402
PR167
ERTJ1VR103J
ISL_VO
PR58
3.65K_F 0603
PR59
10K_J 0603
PR66
1_F 0603
GP1
CLOSE_JUMP_40X50
VHCORE_AGND
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
CPU_Vcore---ISL6266A
Size
A3
Document Number
M790-L
Rev
1.0
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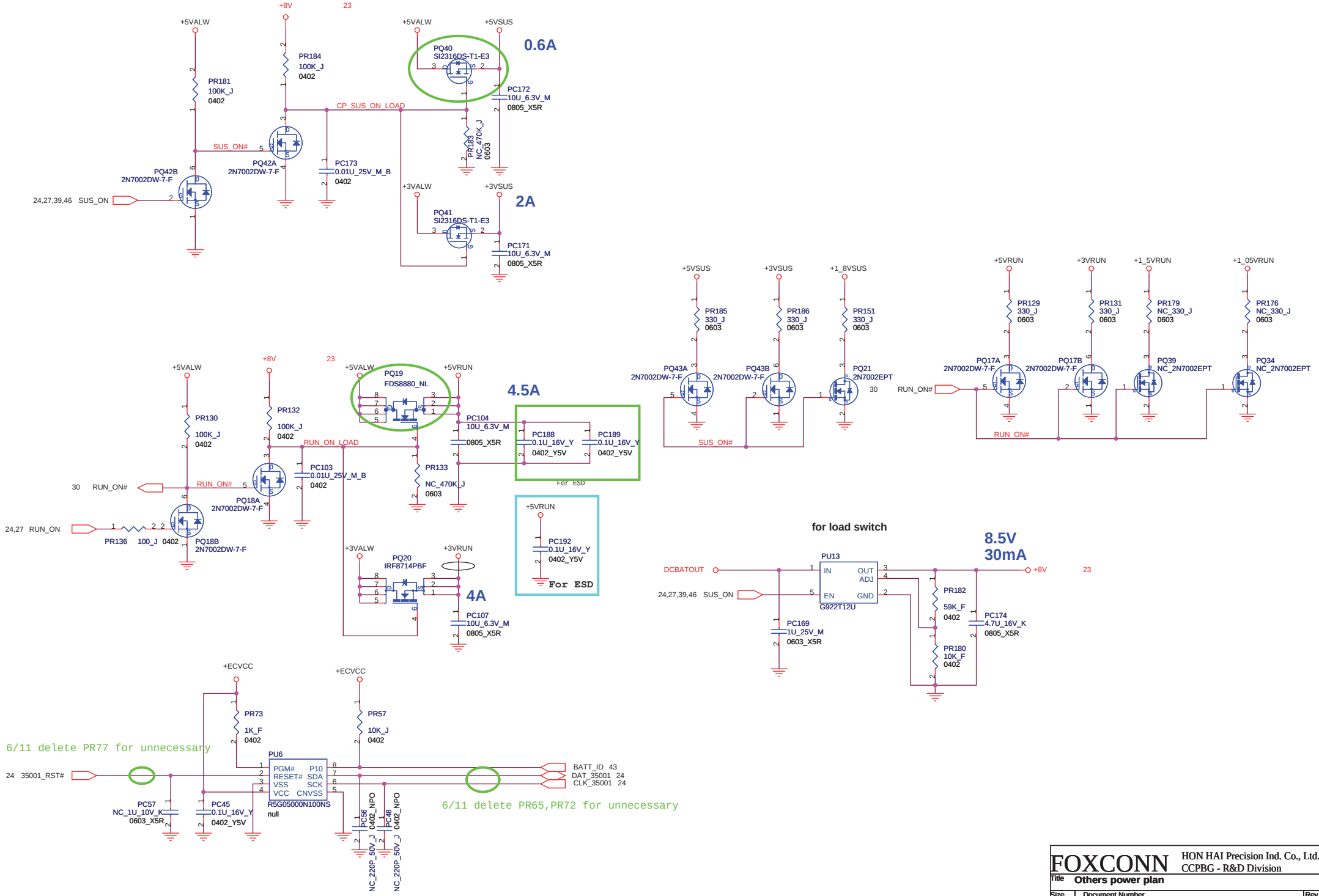
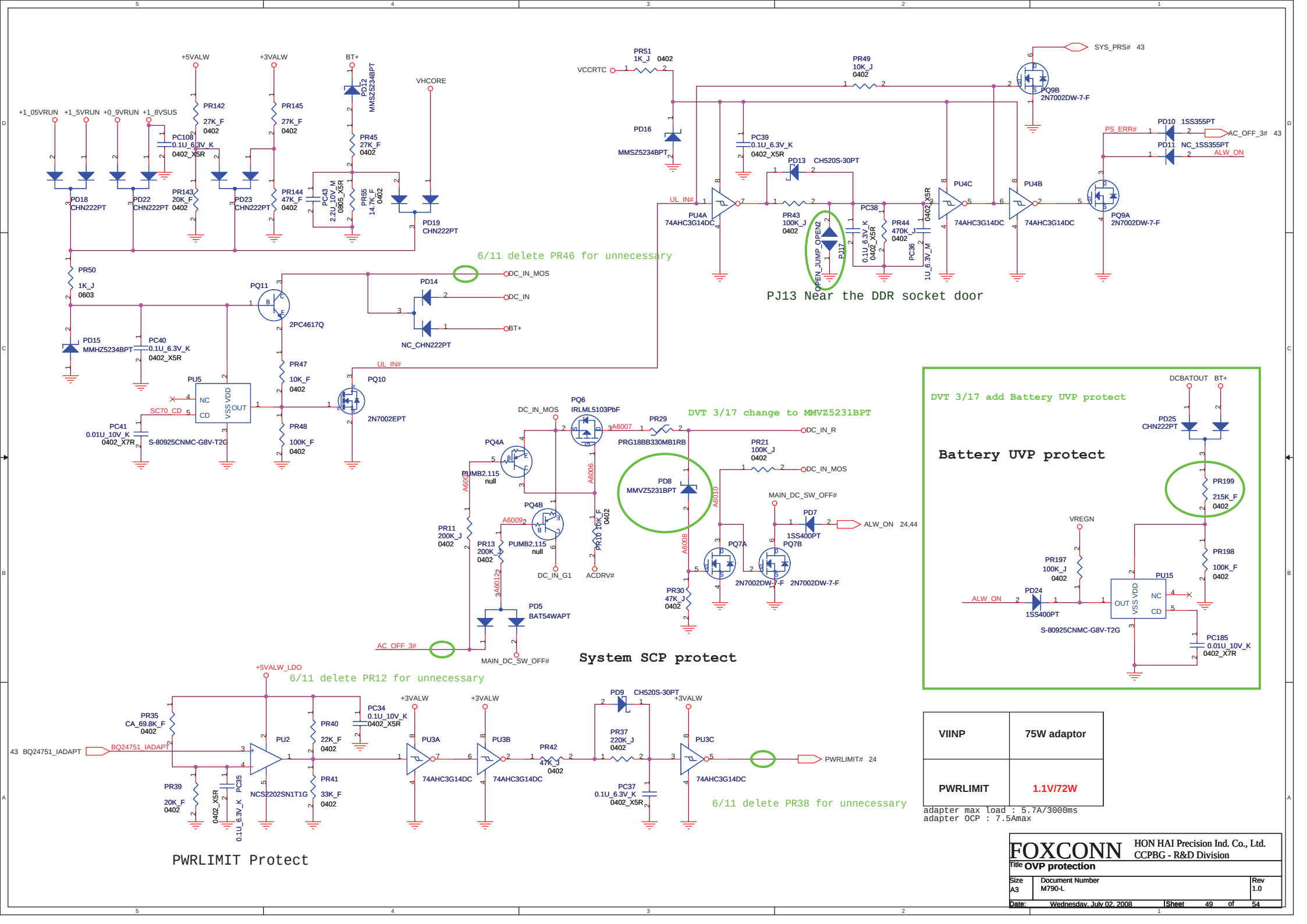


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: Others power plan		
Size: A3	Document Number: M790-L	Rev: 1.0
Date: Wednesday, July 02, 2008	Sheet 48 of 54	



VIINP	75W adaptor
PWRLIMIT	1.1V/72W

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

FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title: OVP protection

Size	Document Number	Rev
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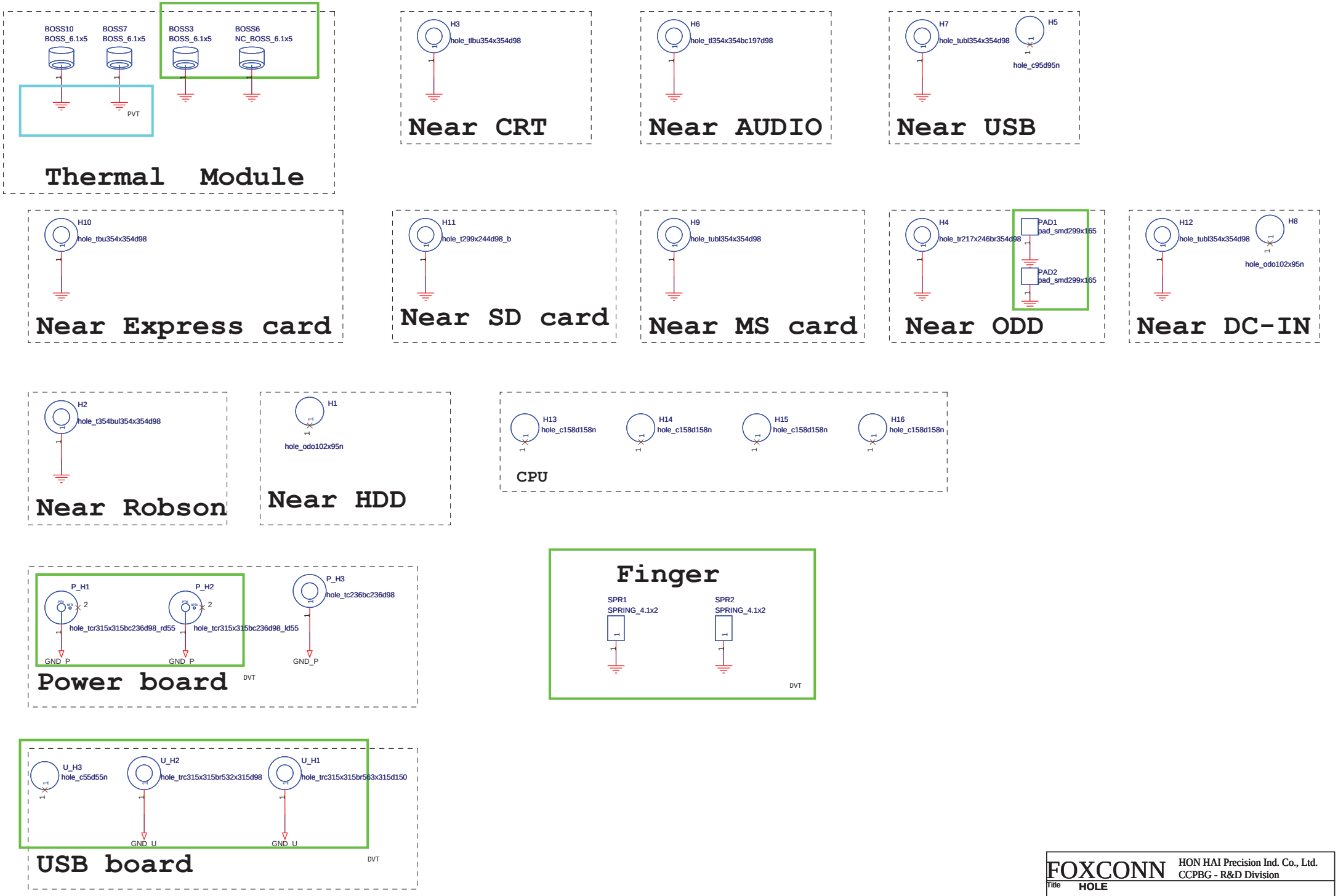

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	HOLE	
Size A3	Document Number M790-1-01	Rev 1.0
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LAYOUT NOTE:
Place as close as possible
to AVDDL pins of Diamond Lake

LAYOUT NOTE:
Place as close as possible
to AVDDT pins of Diamond Lake

LAYOUT NOTE:
Place as close as possible
to AVDD pins of Diamond Lake

LAYOUT NOTE:
Place as close as possible
to VDD_1.2V pins of Diamond Lake

+1_5VRUN_R — R_L1 NC_75R-100MHZ_0603 EBMS160808B750 — different — AVDDL
R_C3 NC_0.1U_10V_K 0402_X5R
R_C5 NC_0.01U_25V_K 0402_X7R
R_C4 NC_0.1U_10V_K 0402_X5R
R_C6 NC_1U_6.3V_M 0402_X5R
GND_R

+1_5VRUN_R — R_L2 NC_75R-100MHZ_0603 EBMS160808B750 — different — AVDDT
R_C8 NC_0.1U_10V_K 0402_X5R
R_C10 NC_0.01U_25V_K 0402_X7R
R_C9 NC_0.1U_10V_K 0402_X5R
R_C11 NC_1U_6.3V_M 0402_X5R
GND_R

+3VRUN_R — R_L3 NC_75R-100MHZ_0603 EBMS160808B750 — different — AVDD
R_C12 NC_0.1U_10V_K 0402_X5R
R_C14 NC_0.01U_25V_K 0402_X7R
R_C13 NC_0.1U_10V_K 0402_X5R
R_C15 NC_1U_6.3V_M 0402_X5R
GND_R

VDD_1.2V
R_C30 NC_1U_6.3V_M 0402_X5R
R_C29 NC_0.1U_10V_K 0402_X5R
R_C23 NC_0.1U_10V_K 0402_X5R
R_C22 NC_0.01U_25V_K 0402_X7R
GND_R

Intel sch use 70ohm /100MHZ

+3VRUN_R
R_C31 NC_0.1U_10V_K 0402_X5R
R_C7 NC_0.01U_25V_K 0402_X7R
R_C21 NC_0.1U_10V_K 0402_X5R
R_C2 NC_0.1U_10V_K 0402_X5R
GND_R

change

LAYOUT NOTE:
Place as close as possible
to +3VRUN pins of Diamond Lake

+3VRUN_R
R_R28 NC_1K_F 0402

LAYOUT NOTE:
Close to NAND Flash

AVDDL AVDDT AVDD VDD_1.2V

R_U2

18	AVDD	VDD1	3
24	AVDDT	VDD2	8
27	AVDDL	VDD3	13
		VDD4	41
2	VDDO1	VDD5	45
15	VDDO2	VDD6	47
38	VDDO3		
52	VDDO4	VDDR1	46
61	VDDO5	VDDR2	48
69	GND_PAD	DIS_REG12	44

Power

54	NF_WE0#	NF_IO0	57
55	NF_WE1#	NF_IO1	59
		NF_IO2	62
39	NF_RE0#	NF_IO3	64
40	NF_RE1#	NF_IO4	66
		NF_IO5	68
42	NF_CE0#	NF_IO6	4
43	NF_CE1#	NF_IO7	6
49	NF_CE2#	NF_IO8	58
50	NF_CE3#	NF_IO9	60
		NF_IO10	63
51	NF_CLE	NF_IO11	65
53	NF_ALE	NF_IO12	67
56	NF_WP#	NF_IO13	1
37	NF_RB	NF_IO14	5
33	BUSY	NF_IO15	7

NAND Interface

9	RSVD02	RSVD07	31
10	RSVD03	RSVD08	32
11	RSVD04		
12	RSVD05	RSVD09	28
14	RSVD06	RSVD10	21
		RSVD11	20
19	ISET	RSVD12	24

Reserved

30	CLKP	RSVD00	16
29	CLKN	RSVD01	17

CLOCK

26	RXP	TXP	23
25	RXN	TXN	22
35	CLKREQ#		
36	PERST#		

MiniPCIe Interface

NC_Diamond Lake

52 WE#[0] — R_R14 NC_33_J 0402 — WE#[0]_L
52 RE#[0] — R_R13 NC_33_J 0402 — RE#[0]_L
52 CE#[0] — R_R12 NC_33_J 0402 — CE#[0]_L
52 CE#[1] — CE#[1]_L
52 CLE — R_R11 NC_33_J 0402 — CLE_L
52 ALE — R_R9 NC_33_J 0402 — ALE_L
52 WP# — R_R15 NC_33_J 0402 — WP#_L
52 READY_BUSY — R_R16 NC_330_J 0402 — READY_BUSY_L

NF_IO0 … NF_IO15 52

+1_5VRUN_R
R_C25 NC_0.1U_10V_K 0402_X5R
R_C24 NC_1U_6.3V_M 0402_X5R
GND_R

LAYOUT NOTE:
Place as close as possible
to VDDR1 and VDDR2 pins
of Diamond Lake

LAYOUT NOTE:
Close to Diamond Lake

52 CLK_PCIE_ROBSON_R
52 CLK_PCIE_ROBSON#_R
52 ROBSON_TXP4_R
52 ROBSON_TXN4_R
52 ROBSON_DET#_R
52 PLT_RST#_R

R_C27 NC_0.1U_10V_K 0402_X5R — ROBSON_RXP4_R 52
R_C28 NC_0.1U_10V_K 0402_X5R — NF_IO0_L 52

R_R10 NC_1K_F 0402
R_R26 NC_10K_J 0402
GND_R

R_LED1 NC_HT-110Y
R_R29 NC_6.04K_F 0402
Ultra Bright
Yellow Green
GND_R

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	Diamond Lake		
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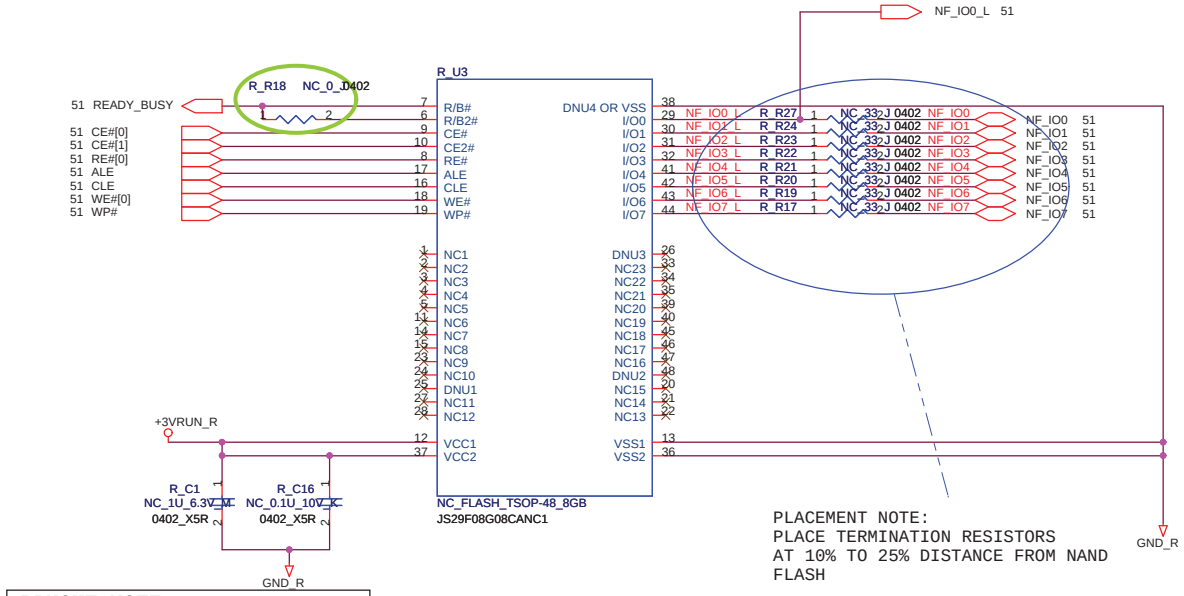
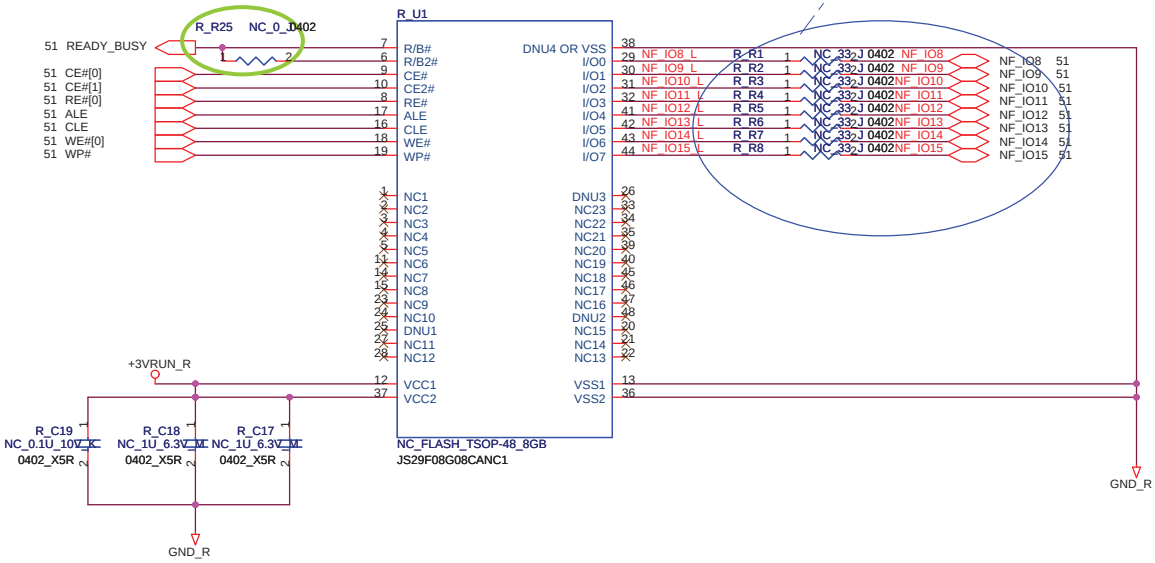


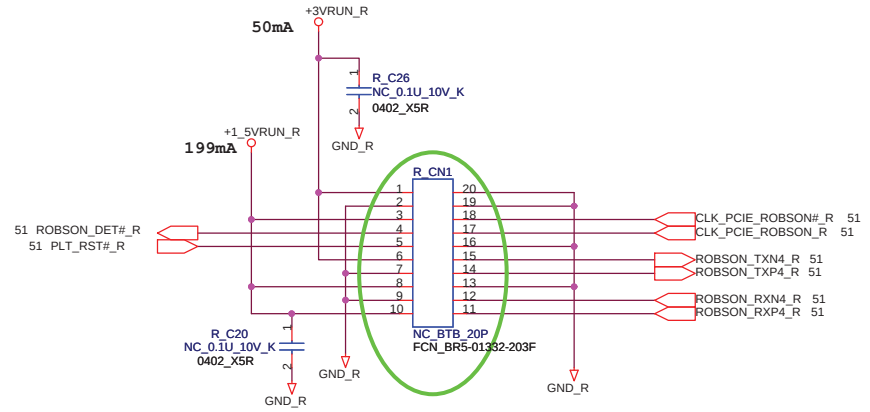
PLACEMENT NOTE:
PLACE TERMINATION RESISTORS
AT 10% TO 25% DISTANCE FROM NAND
FLASH

LAYOUT NOTE:
Place as close as possible to +3VRUN pins of R_U3



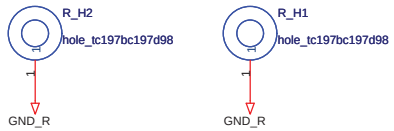
LAYOUT NOTE:
Place as close as possible to +3VRUN pins of R_U1

LAYOUT NOTE:
ANY VIA ADDED BENEATH THE NAND
FLASH NEEDS TO HAVE A SOLDERMASK
ON IT



will change the connector type to bluetooth connector

ROBSON Board CONN



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	NAND Flash	
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M790 EVT

(2008/01/23)
Update 8Layer H/L versio to 6Layer L version.

(2008/01/24)
Page 6. Change Clock to B version.
Page 25. Change SPI rom to new version.
Page 36. Change L62,delete L63 same as M760.

(2008/01/28)
Page 14/15. Add C767~C778 for EMI reserve.
Page 19. Add R610 damping resistor for adjustment for MOR request.
Page 20. Change GPIO18,20 to GPIO36,37 and delete R269,R270.
Page 23. Change D13 to mount.
Page 24. Change RP39,RP41 to +3VALW.Add D17,D18 for EC leakage current issue.
Page 29. Add R602,R603 damping resistor for adjustment for MOR request.
Page 32. Add R601 for MOR request.
Page 36. Add R604,R605 damping resistor for adjustment for MOR request.
Page 37. Add R611,R612,C779,C780 for EMI reserve.
Page 48. Change PQ40 from SI2304BDS-T1-E3 to SI2316DS-T1-E3 and Change PQ19 from IRF8714PBF to FDS8880_NL for MOR request.

(2008/01/29)
Page 50. Add H13~H16,P_H3.

(2008/01/30)
Page 50. Update H4,U_H1,U_H2.

(2008/01/31)
Page 20. Not AMT support,so delete R556, R557 and C722.
Page 32. Change GP2,GP3 to R556,R557.
Page 33. Change R486 connect to D_GND.
Page 50. Add Boss10.

(2008/02/01)
Page 49. Change PJ17 from PD13 pin1 to pin2.

(2008/02/02)
Page 17/24. Add FAN error detect function in panel switch pin4.
Page 32. Change C624 to 2.2uF for pop noise issue.

(2008/02/14)
Update some error discription for MOR request.

(2008/02/18)
Page 32. Mount Audio cable short components for EVT test.

(2008/02/20)
Page 32. Change U30 from TI(TPA6017) to GMT(G1431F2U) for pop noise issue.

(2008/02/21)
Page 17. Update Panel ID table.
Page 24. Update R447 CA to Mount,R437 Mount to CA.
Page 46. Add PJ10.
Page 14/15.Add J2/J3 for EMI request.
Page 6. Add resverve C781,C782,C783 for EMI request.
Page 29. Add resverve C784,C785 for EMI request.

(2008/02/22)
Page 14/15.Add J4/J5 for EMI request.
Page 6. Add resverve C786,C787 for EMI request.

(2008/02/26)
Page 5. Change C76 from 6.3V to 10V for PUR request.
Page 11. Change C201,C225,C679,C681,C143,C168,C596,C601,C605 from 10V to 16V for PUR request.
Page 18/29. Change C32,C35,C449,C450,C725,C726,C727,C728,C729,C730 to 0.1uF,6.3V,10% for PUR request.
Page 31. Change R202 for PUR request.
Page 31. Change Q37,Q39,Q40,Q41 to PBSS2515E.115 for PUR request.
Page 32/33. Change Q6,Q25,Q34,Q38 to MMBT3906K for PUR request.
Page 33. Change Q33/Q44 to MMBT3904 for PUR request.

M790 DVT

(2008/02/28)
Page 33. Change Q33/Q44 to PMBT3904.215 for PUR request.

(2008/03/03)
Page 52. Change R_U1,R_U3 to 8Gbit size and change R_R11,R_R18,R_R25 to mount.

(2008/03/05)
Page 24. Mirror CN3 for Int. keyboard issue.

(2008/03/06)
Page 38. Mirror CN6 for easy A'ssy.
Page 44. Change PR146 to 6.8K,PR147 to 5.49K for OCP current adjust.
Page 45. Change PR193 to 5.49K for OCP current adjust.

(2008/03/24)
For PUR request change C624 2.2uF(1.25mm) to (0.8mm),C510/PC42 0.33uF(X5R) to (X7R).
Page 38. SWAP L60 for CN6 mirror issue.
Page 24/40. Change CHARGE_LED# low enable to H enabe same as M750/M760.

(2008/03/28)
Page 24. Add C722(1000pF) for FAN speed stable.

(2008/04/02)
Page 28/51/52. Change Robson function to no mount.

(2008/04/07)
Page 23. Del PJ4 Change PJ3 type for JIG.
Page 43. Add for charger ocp improve.
Page 43~46,48. A_GND and P_GND change to GP2~6.
Page 47. Add PR134,PR115 for Power Solution- C4 Hang up issue.
Page 47. tpc40b_50 Change to tpc40t_75 power point part for JIG.
Page 49. Add Battery UVP protect for power issue.

(2008/04/08)
Page 29. Add C733,R269,R270/R616(no mount),Change R44 to 4.99Kohm and NC CTRL_1D8 circuit for 88E8057.
Page 32. Change R98,R450,Q8,Q27 to NC and Add R614,R615 no mount for speaker cable short protection circuit.
Page 35/40. Change MS/SD LED to Low active.

(2008/04/11)
Page 31. Change C182,C194 to 0.1uF for MIC THD+N issue
Page 49.Change PR199 to 215Kohm for Battery UVP adjust.

(2008/04/14)
Page 31. Change C626,C662 to 4.7uF for MIC FSIV isssue.
Page 29. Design for 88E8055.

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(2008/04/14)
Page 16. Change L14,L16,L17 to 120ohm/100Mhz bead for CRT EMI issue.
Page 32. Add C797~C800(220pF)for Speaker EMI issue.
Page 37. Change R611,R612 to L26,L28 120ohm/100Mhz bead and C779,C780 to 15pF for Camera EMI issue.
Page 41. Add C790~C79(2200pF)for power board EMI issue.

(2008/04/15)
Page 50. Change Boss7 pin2 connect to RC for EMI reserve and Add Finger SPR1,SPR2 for EMI issue.
Page 32. Add C802~C805(220pF)for Speaker EMI issue.

(2008/04/18)
Page 23. Update ODD connector for MOR request.
Page 26. Add R611,R612 and Change U24,C534 to no mount for MOR request.

(2008/04/21)
Page 19. Change C388,C389 to 15pF for Y6 test fail.
Page 24. Change C245,C246 to 18pF for Y2 test fail.
Page 31. Change C629,C652 to 220pF same as M760.
Page 36. Change C496,C497 to 27pF for Y3 test fail.Change R352,R353,R356,R357 to 100ohm,R590 to 33ohm for MS/SD fail items.

(2008/04/23)
Page 16. Update CN2 VGA connector type.

(2008/04/24)
Page 41. Change U_R1~R4 to NC,U_L1,L2 to mount.
Page 43. Add PC187,and Change PC23,PC33 to 680P for EMI request.

(2008/04/25)
Page 16. Update D11 to SL22 for CRT ripple noise.

(2008/04/28)
Add C806~C808,PC188,PC189(0.1uF) for ESD solution.
Page 27. Change CN14 to FOX_1CX42201-SM for ME requset.
Page 36. Change CN11 to Gray color,C459,C488 to X5R and R568,R359,R377 to mount for MOR request.

(2008/04/29)
Page 21. Change C717,C723 to X5R.

(2008/04/30)
Page 26. Change C538 to mount for ripple noise.
Page 37. Change R7/F3 to mount,R9/R4 to NC for 3.3V Camera.
Page 50. Change BOSS3,6,7,10 to 1M-1F50M20-5000 and NC BOSS6.

(2008/05/02)
For MOR request,add F5,F6,F7.
Page 6. Add R618~R621 475ohm for CR# issue.
Page 21. Change C721 to 1uF for Intel design change.

(2008/05/06)
Page 16. Change R418,R424 to 30 ohm for Graphic test fail item.
Page 50. Update PAD1,2 size.

(2008/05/07)
Page 36. Change R590 to 22ohm for SD card clock issue.
Page 37. Add resver regulater IC for Camera power.
Page 41. Add C811 for ESD issue.
Page 50. Add resver C812,R623 for EMI issue.
Page 43. Change PQ5 from AO4433 to SI4825DY-T1-E3 for EMI issue.
Page 47. Add PC190 for EMI issue.

(2008/05/08)
Page 6. Add TP153,TP154 for FSB easy measure.

BOM Change
Change CN25 to LN27131-A403-4F.
Change R352,R353,R356,R357 to 68ohm.
Change R601 to mount,F5 to NC.
Change U41,C813~C817,R626,R625,R4 to mount,R7,F3 to NC.

(2008/05/14)
Page 16. Change R418,R424 to 22ohm for CRT issue.
Page 43. Change PL6,PL8 to no mount,Change PL7 to 1000R-100MHZ_0.015R for EMI issue.
Page 47. Change PR115 to no mount.

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(2008/06/03)
Page 25. Add lable1 for BIOS.
Page 39. Change CN8,CN9 to grey color.

(2008/06/11)
Page 23. Delete PJ3 for unnecessary
Page 43. Change PL7 to 1L-FPWC090-7H01 for EMI request.
Page 43. Change PQ1,PQ2 from17-S134240-VT00 to 17-S13424B-DV00 for PUR request.
Page 43. Delete PR20 for unnecessary
Page 44. Delete PJ18,PJ19 for unnecessary
Page 45. Delete PJ12,PJ13,PJ14,PJ20 ,PJ21for unnecessary
Page 46. Delete PJ6,PJ7,PJ8,PJ9 ,PJ10 for unnecessary
Page 47. Delete PJ11,PR97,PR89,PR105,PR108 for unnecessary
Page 48. Delete PR77,PR72,PR65 for unnecessary
Page 49. Delete PR12,PR38,PR46 for unnecessary

(2008/06/16)
Page 32. Change F5 to 1.5A and to mount for MOR request.

(2008/06/23)
Page 41. Change C790~C796,C811 to 220pF for EMI and Hotkey issue.
Page 41. Add Fuse(F8) in power source on power board for short test.
Page 43. Mount PC156,PC157 and Add PC191 for EMI issue.
Page 50. Change BOSS7,10 connect to GND.

(2008/06/24)
Page 40. Change LED1,LED2,LED6 to HT-110UY,LED5 to HT-110UD.R383,R598 to 120ohm for MOR request.
Page 41. Change P_LED1~P_LED3 to HT-150YG.P_R1~P_R3 to 100 ohm for MOR request.

(2008/07/02)
Page 31. Change C184,C192 to 4.7uf 0603 for MIC THD+N issue this change same as M761.
Add ESD solution C810,C812,C818,PC192(0.1uF).

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(2008/07/24)
Page 25. Change CN26,U11,C308,R221 to no mount,R233 to mount.
Page 40. Change R385 to 33ohm,R383,R598,R599 to 68ohm for LED bright issue.

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