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03	Merom(HOST BUS) 1/3	1.0	07'07'17	38	USB2.0	1.0	07'07'17
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05	Merom(Power/Gnd) 3/3	1.0	07'07'17	40	LAN Transformer	1.0	07'07'17
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09	Crestline (GRAPHIC) 3/7	1.0	07'07'17	44	DCIN&Charger	1.0	07'07'17
10	Crestline (DDRII) 4/7	1.0	07'07'17	45	SYS Power (+3_3V/+5V)	1.0	07'07'17
11	Crestline (POWER,VCC) 5/7	1.0	07'07'17	46	SYS Power(+1_5V/+1_05V)	1.0	07'07'17
12	Crestline (VCC CORE) 6/7	1.0	07'07'17	47	DDR2 Power(+1_8V/+0_9V)	1.0	07'07'17
13	Crestline (VSS) 7/7	1.0	07'07'17	48	CPU_Vcore---ISL6262A	1.0	07'07'17
14	DDRII(SO-DIMM_0) 1/3	1.0	07'07'17	49	Others power plane	1.0	07'07'17
15	DDRII(SO-DIMM_1) 2/3	1.0	07'07'17	50	OVP protection	1.0	07'07'17
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18	LVDS	1.0	07'07'17	53	History (1)	1.0	07'07'17
19	ICH8-M(PCI/USB) 1/5	1.0	07'07'17	54	History (2)	1.0	07'07'17
20	ICH8-M(LPC,IDE,SATA)2/5	1.0	07'07'17	55	History (3)	1.0	07'07'17
21	ICH8-M(GPIO) 3/5	1.0	07'07'17	56	History (4)	1.0	07'07'17
22	ICH8-M(POWER) 4/5	1.0	07'07'17	57	History (5)	1.0	07'07'17
23	ICH8-M(GND) 5/5	1.0	07'07'17	58			
24	SATA HDD/CD-ROM	1.0	07'07'17	59			
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31	AUDIO(AMP/HP/SPK) 2/4	1.0	07'07'17	66			
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33	AUDIO(MUTE) 4/4	1.0	07'07'17	68			
34	FAN/Thermal-Sensor	1.0	07'07'17	69			
35	PCI (PCI BUS) 1/3	1.0	07'07'17	70			

M720 Main Board

M/B P/N:	**1P-0076102-6010(FUBAI)** **1P-0076200-6010(NANYA)** **1P-0076502-6010(HANSTAR)** **1P-0076G00-6010(TRIPOD)**
P/B P/N:	**1P-1076105-6010(FUBAI)** **1P-1076200-6010(NANYA)** **1P-1076505-6010(HANSTAR)** **1P-1076G00-6010(TRIPOD)**
U/B P/N:	**1P-1076106-6010(FUBAI)** **1P-1076201-6010(NANYA)** **1P-1076506-6010(HANSTAR)** **1P-1076G01-6010(TRIPOD)**

P. Leader	Check by	Design by

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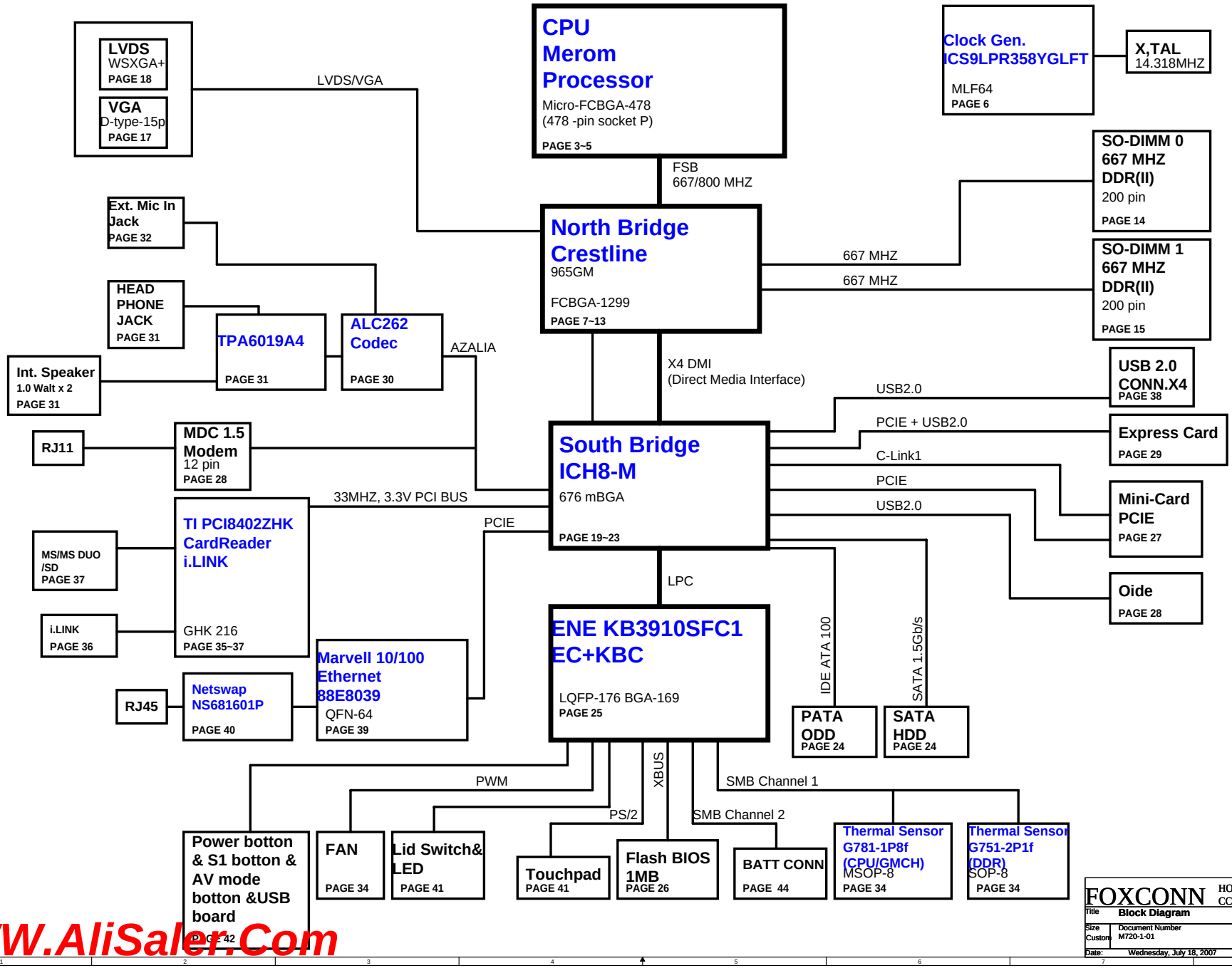
M720(Crestline GM Block Diagram)



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Title	Block Diagram		
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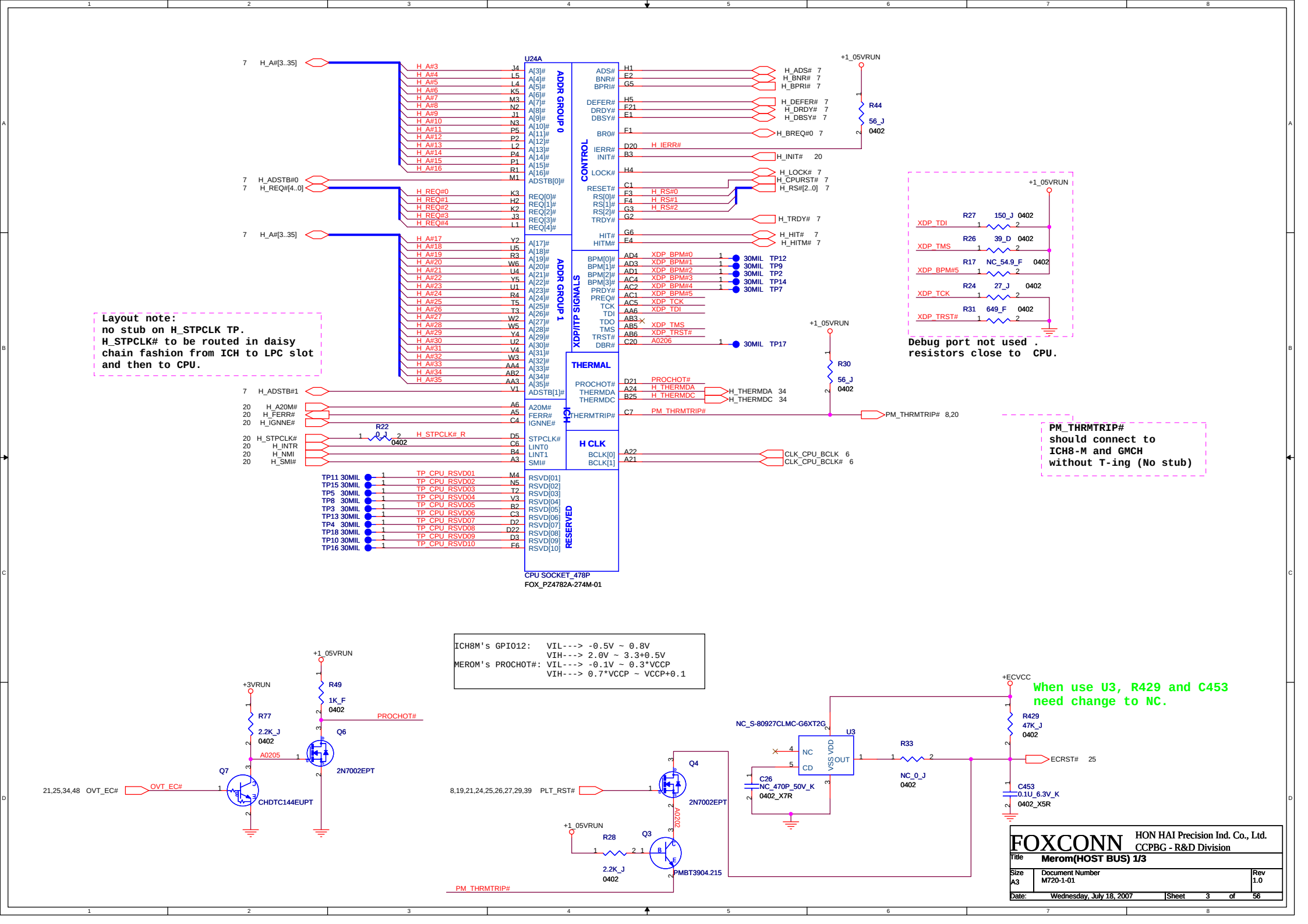
U24A
ADDR GROUP 0
ADDR GROUP 1
CONTROL
XDP/ITP SIGNALS
THERMAL
H CLK
RESERVED
CPU SOCKET_478P
FOX_PZ4782A-274M-01
Layout note:
no stub on H_STPCLK TP.
H_STPCLK# to be routed in daisy chain fashion from ICH to LPC slot and then to CPU.
Debug port not used . resistors close to CPU.
PM_THRMTRIP# should connect to ICH8-M and GMCH without T-ing (No stub)
ICH8M's GPIO12: VIL---> -0.5V ~ 0.8V
VIH---> 2.0V ~ 3.3+0.5V
MEROM's PROCHOT#: VIL---> -0.1V ~ 0.3*VCCP
VIH---> 0.7*VCCP ~ VCCP+0.1
When use U3, R429 and C453 need change to NC.
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Merom(HOST BUS) 1/3
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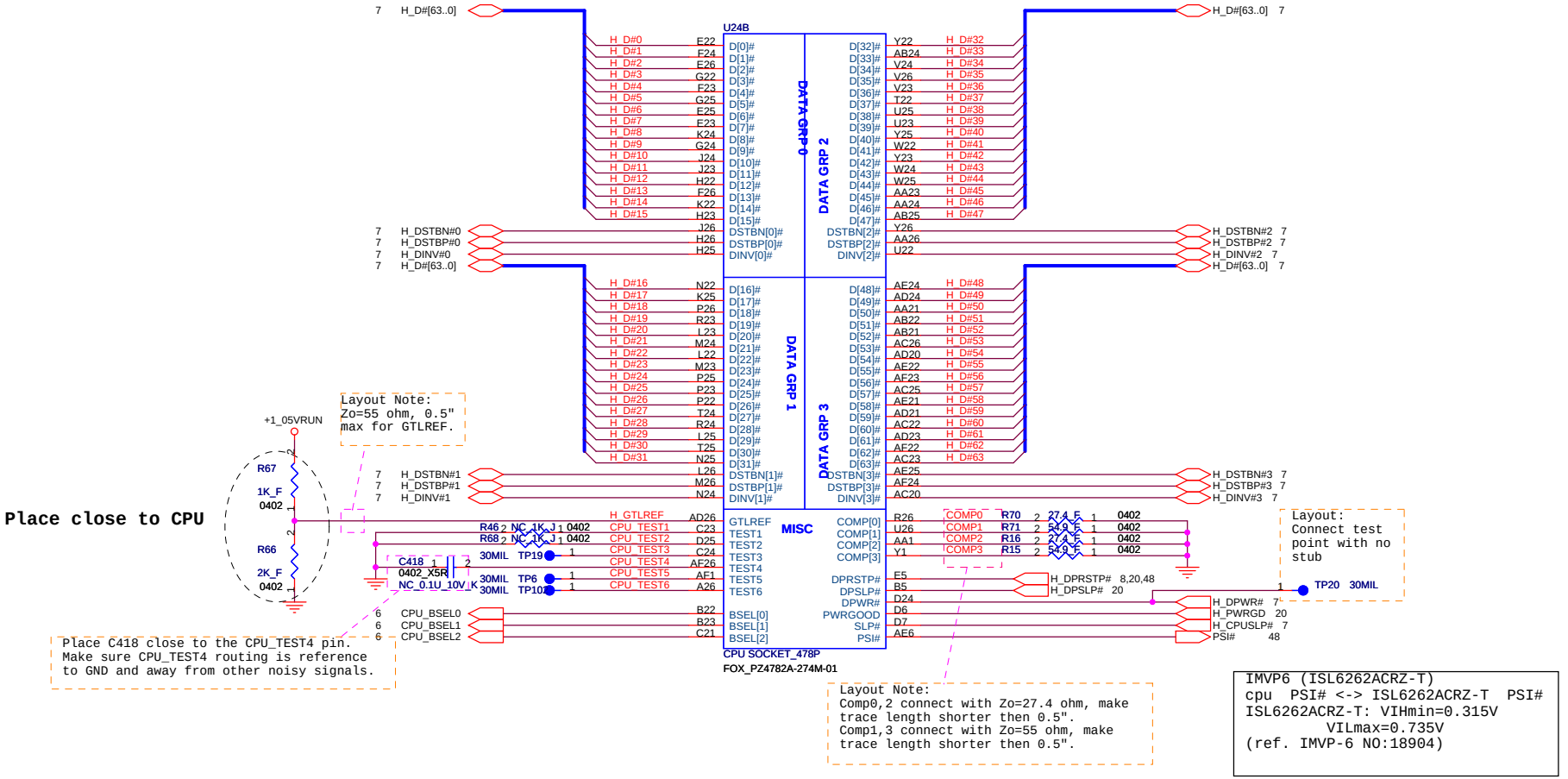

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Title	Merom (HOST BUS) 2/3	
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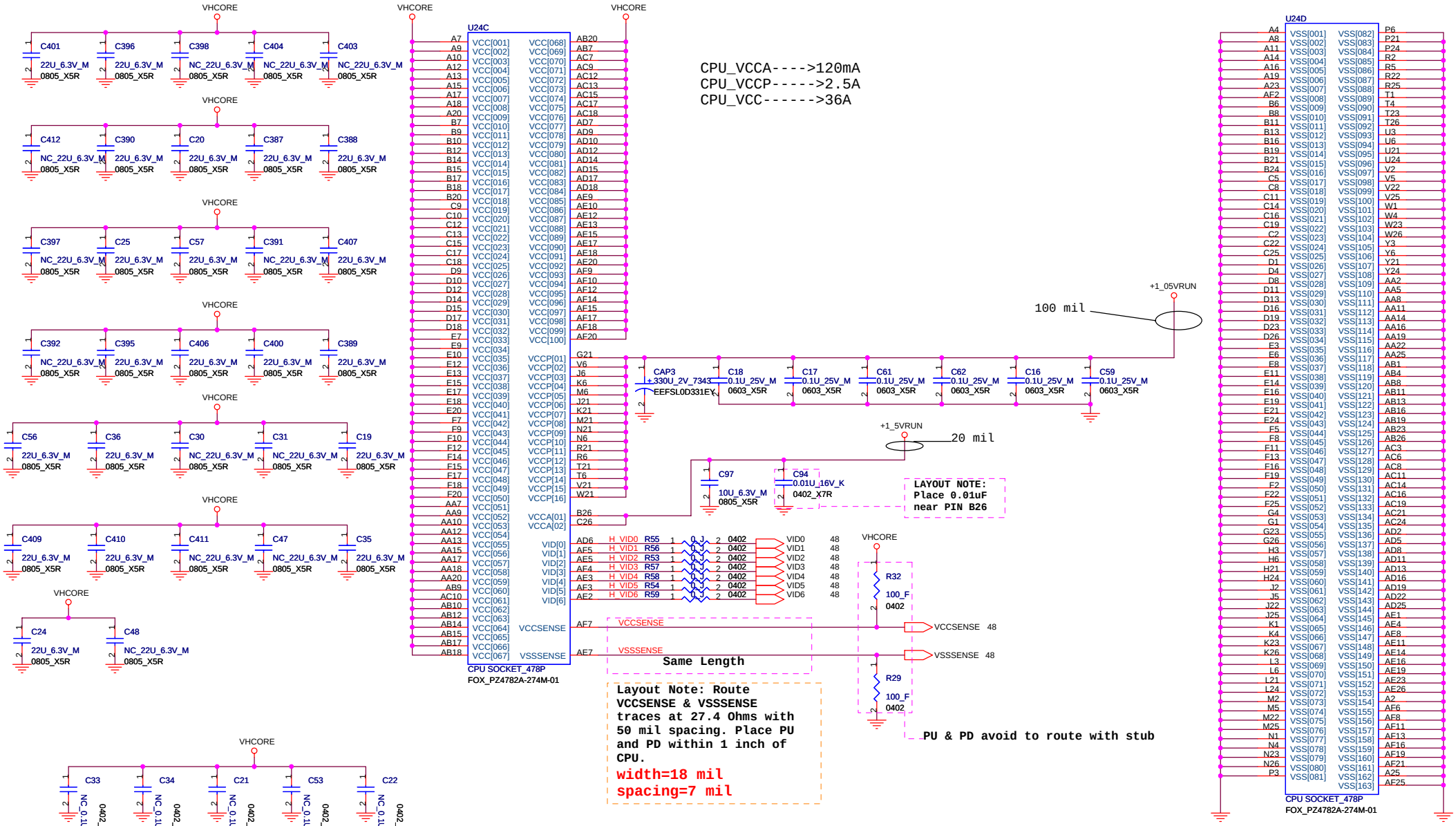

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Merom (POWER/GROUND) 3/3	
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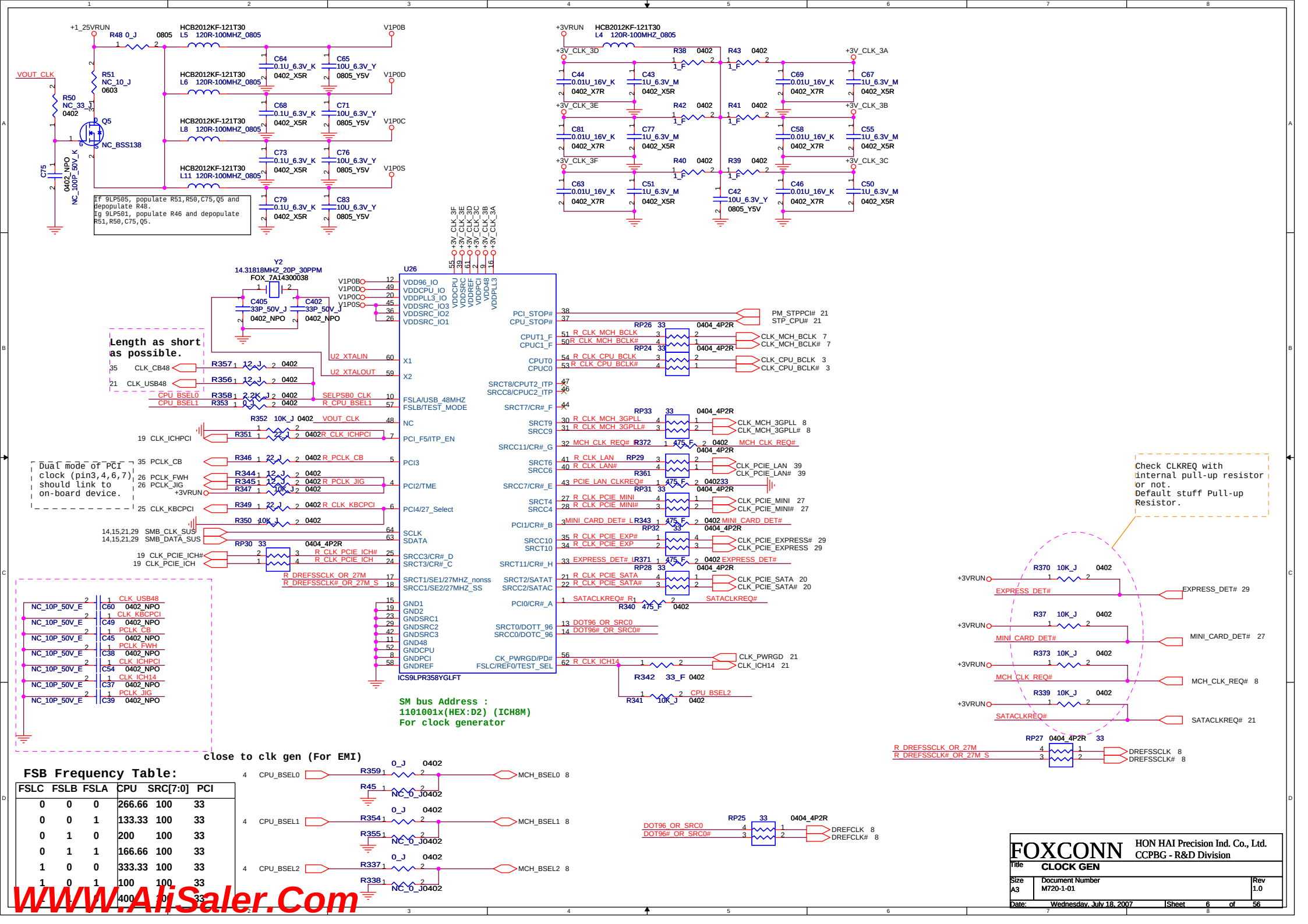

FSB Frequency Table:

FSLC	FSLB	FSLA	CPU	SRC[7:0]	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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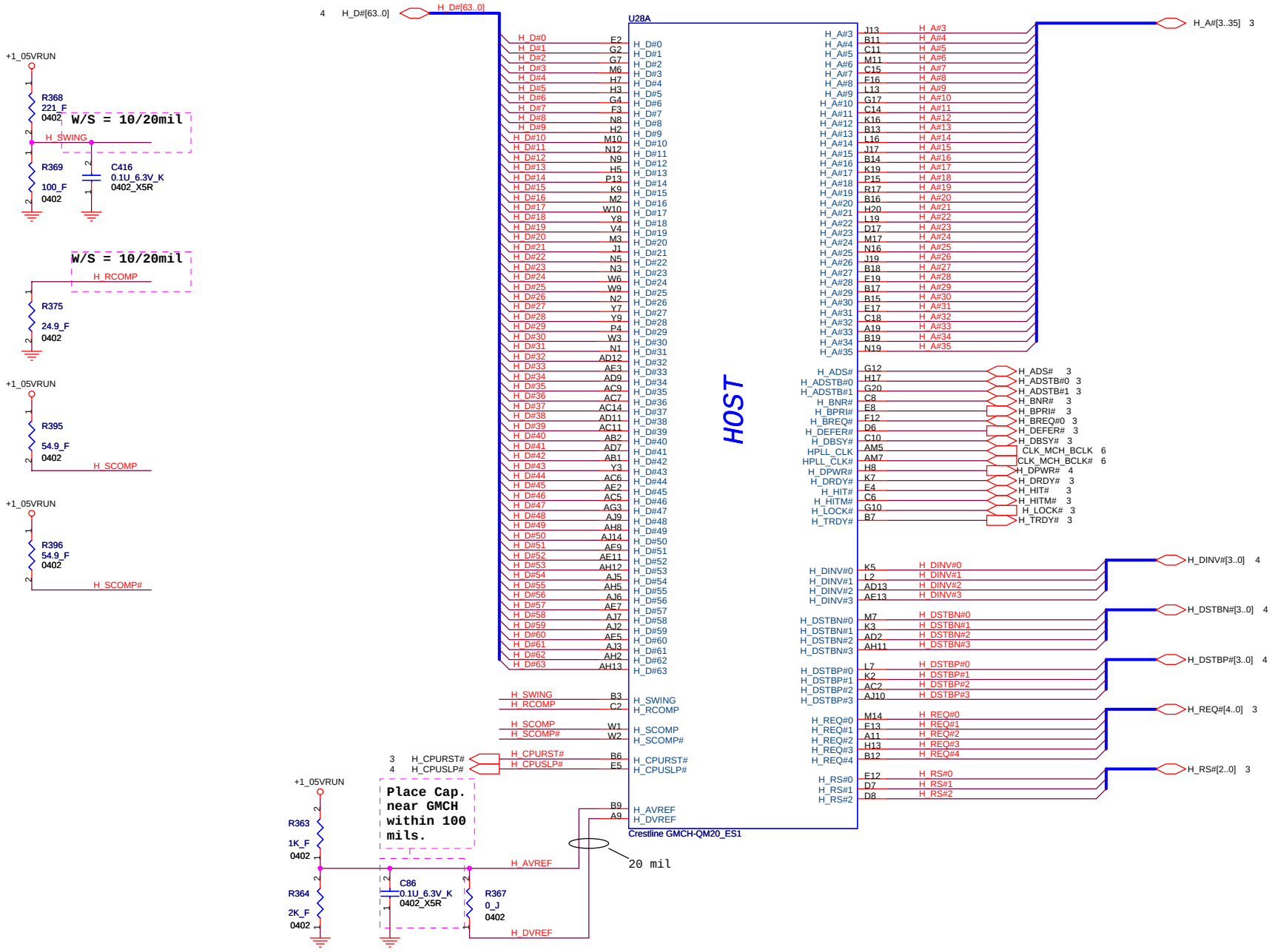

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Crestline (HOST) 1/7	
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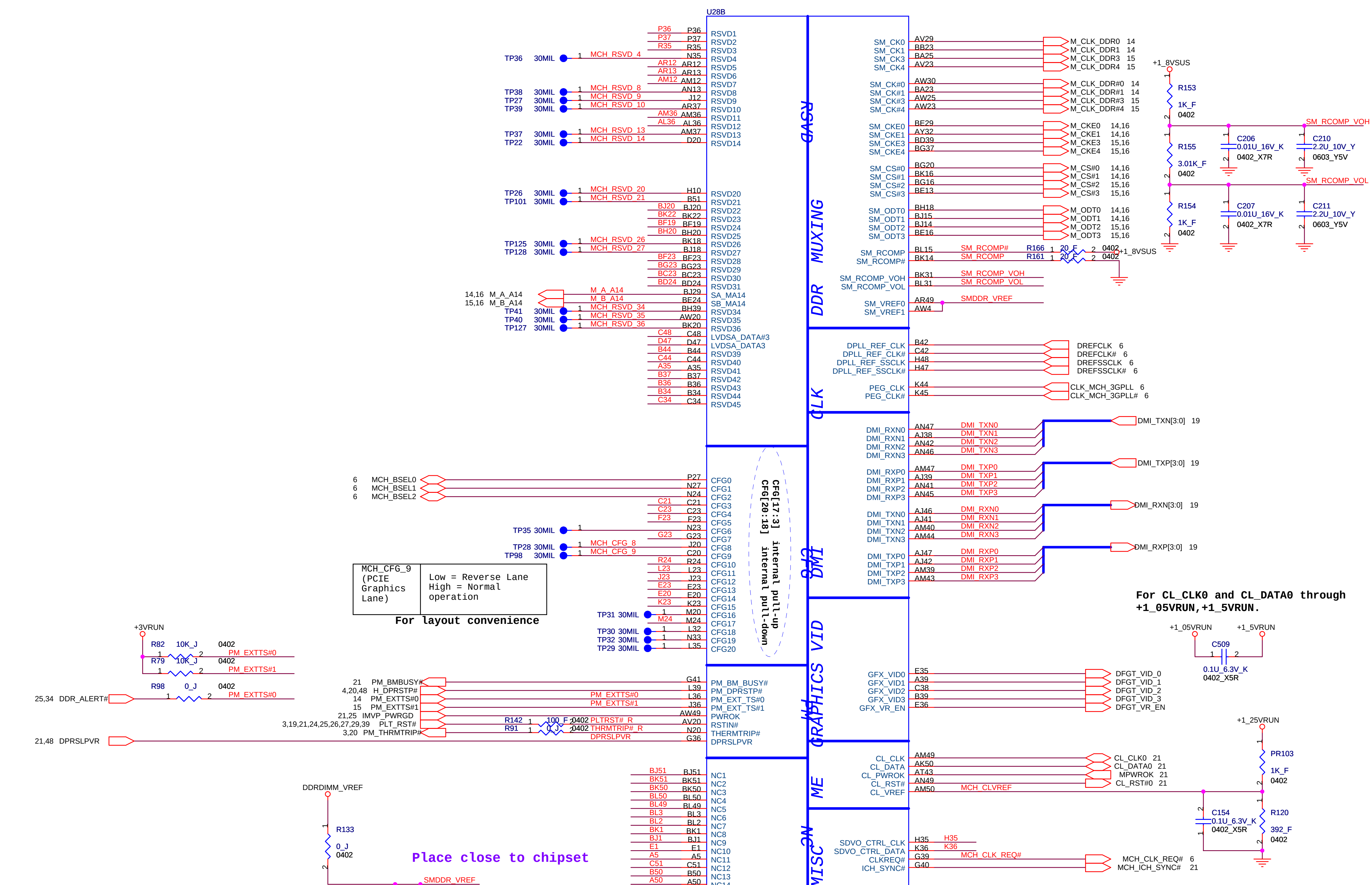

FOXCONN HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division

Title	Crestline (DMI) 2/7		
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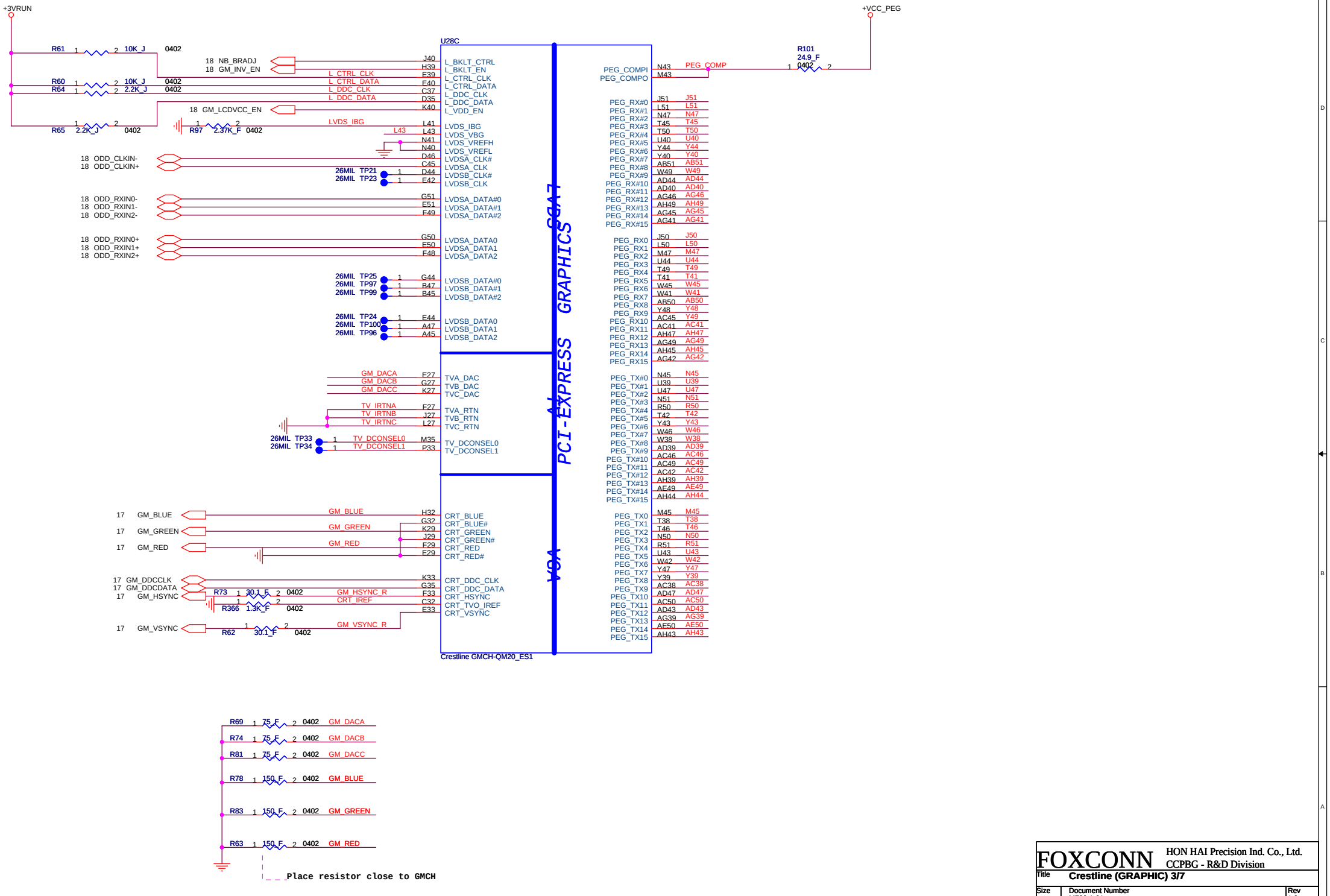

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Title	Crestline (GRAPHIC) 3/7	
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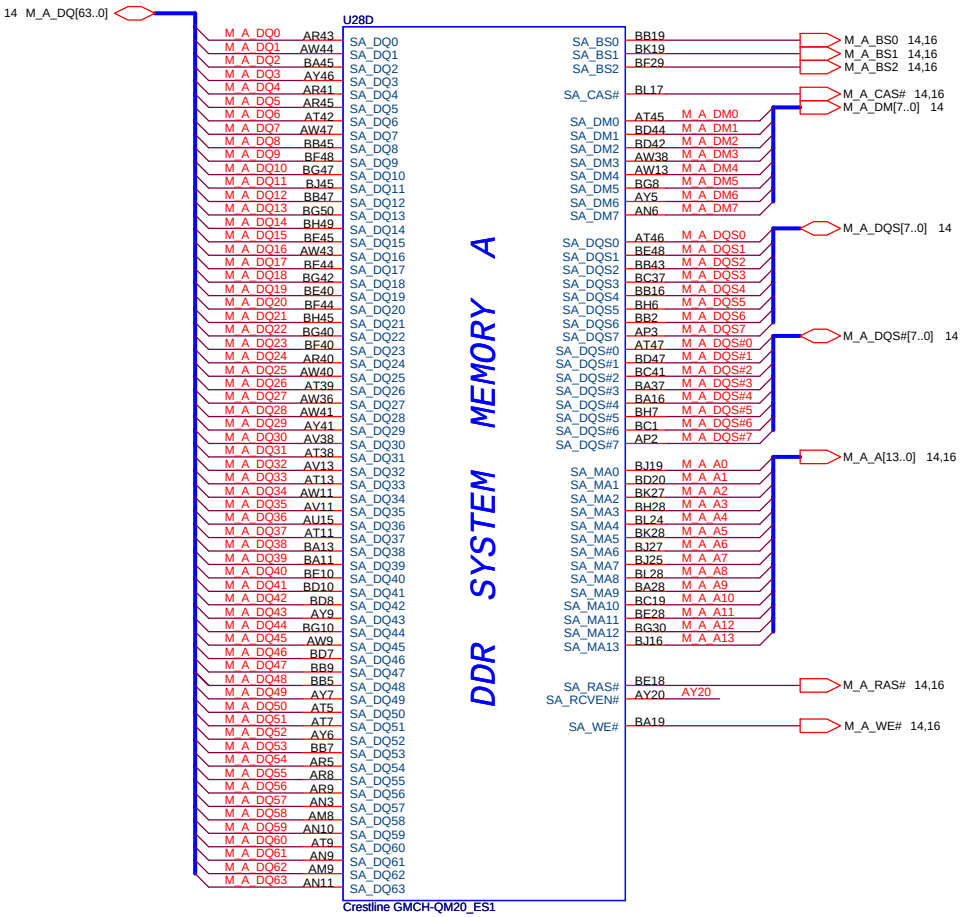

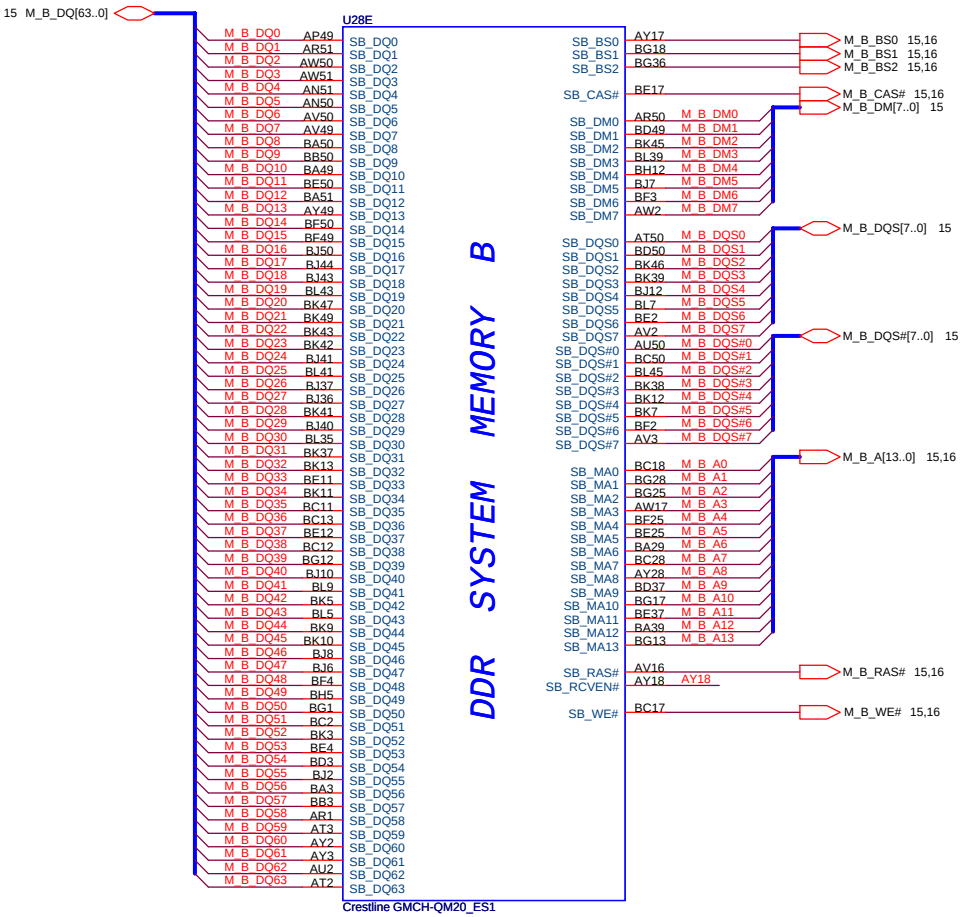

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Title	Crestline (DDRII) 4/7	
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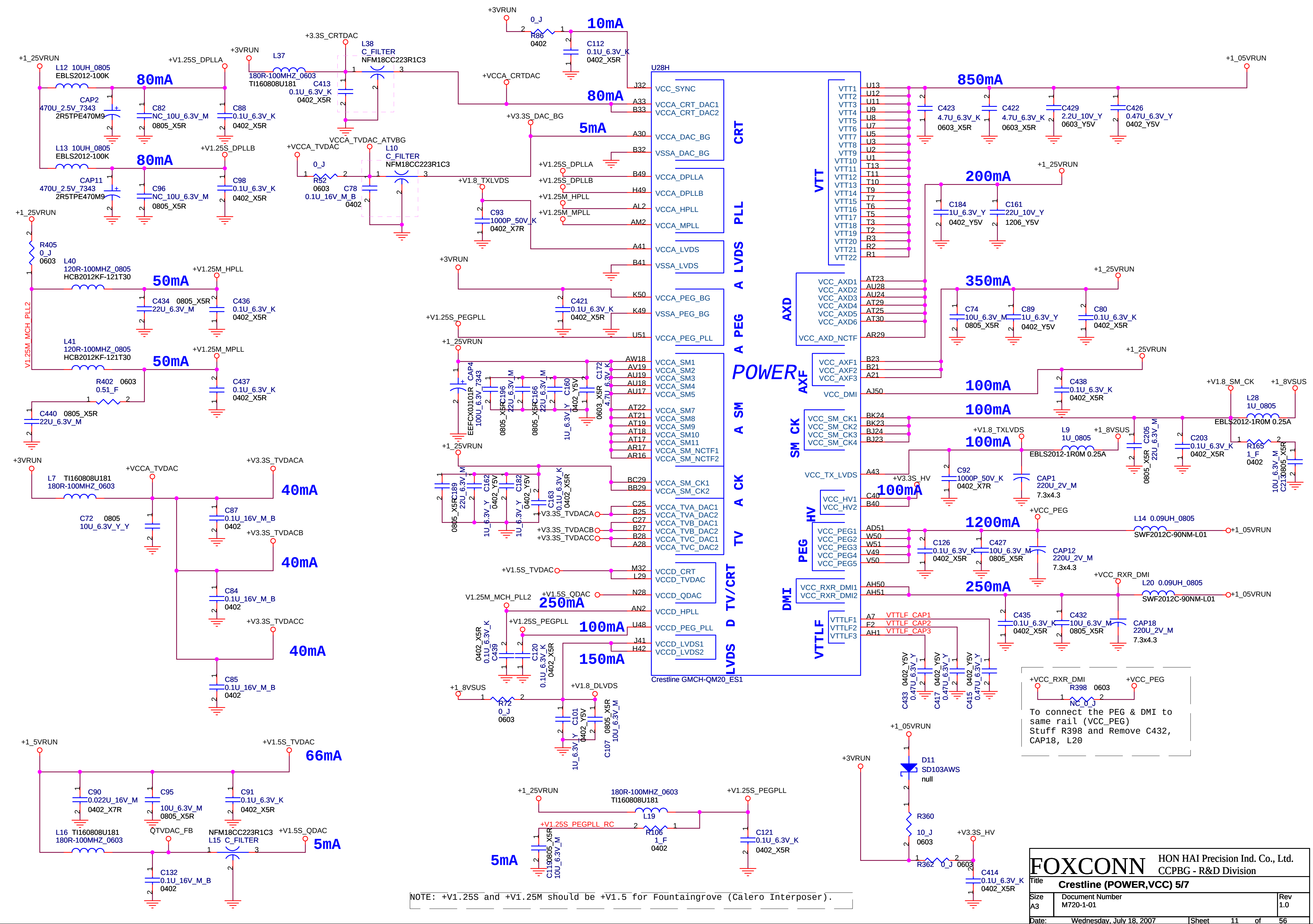
U28H
Crestline GMCH-QM20_ES1
POWER
CRT
PLL
LVDS
A PEG
A SM
A CK
TV
D TV/CRT
D LVDS
VTT
AXD
AXF
SM CK
HV
PEG
DMI
VTTLF
VCC_SYNC
VCCA_CRT_DAC1
VCCA_CRT_DAC2
VCCA_DAC_BG
VSSA_DAC_BG
VCCA_DPLLA
VCCA_DPLLB
VCCA_HPLL
VCCA_MPLL
VCCA_LVDS
VSSA_LVDS
VCCA_PEG_BG
VSSA_PEG_BG
VCCA_PEG_PLL
VCCA_SM1
VCCA_SM2
VCCA_SM3
VCCA_SM4
VCCA_SM5
VCCA_SM7
VCCA_SM8
VCCA_SM9
VCCA_SM10
VCCA_SM11
VCCA_SM_NCTF1
VCCA_SM_NCTF2
VCCA_SM_CK1
VCCA_SM_CK2
VCCA_TVA_DAC1
VCCA_TVA_DAC2
VCCA_TVB_DAC1
VCCA_TVB_DAC2
VCCA_TVC_DAC1
VCCA_TVC_DAC2
VCCD_CRT
VCCD_TVDAC
VCCD_QDAC
VCCD_HPLL
VCCD_PEG_PLL
VCCD_LVDS1
VCCD_LVDS2
VTT1 … VTT22
VCC_AXD1 … VCC_AXD6
VCC_AXD_NCTF
VCC_AXF1
VCC_AXF2
VCC_AXF3
VCC_DMI
VCC_SM_CK1 … VCC_SM_CK4
VCC_TX_LVDS
VCC_HV1
VCC_HV2
VCC_PEG1 … VCC_PEG5
VCC_RXR_DMI1
VCC_RXR_DMI2
VTTLF1
VTTLF2
VTTLF3
VTTLF_CAP1
VTTLF_CAP2
VTTLF_CAP3
10mA
80mA
80mA
80mA
5mA
50mA
50mA
40mA
40mA
40mA
66mA
5mA
5mA
250mA
100mA
150mA
850mA
200mA
350mA
100mA
100mA
100mA
100mA
1200mA
250mA
+3VRUN
+1_25VRUN
+1_05VRUN
+1_5VRUN
+1_8VSUS
+3.3S_CRTDAC
+VCCA_CRTDAC
+V3.3S_DAC_BG
+VCCA_TVDAC
VCCA_TVDAC_ATVBG
+V1.25S_DPLLA
+V1.25S_DPLLB
+V1.25M_HPLL
+V1.25M_MPLL
+V1.8_TXLVDS
+V1.25S_PEGPLL
+V3.3S_TVDACA
+V3.3S_TVDACB
+V3.3S_TVDACC
+V1.5S_TVDAC
+V1.5S_QDAC
V1.25M_MCH_PLL2
+V1.8_DLVDS
+V1.8_SM_CK
+V3.3S_HV
+VCC_PEG
+VCC_RXR_DMI
+V1.25S_PEGPLL_RC
QTVDAC_FB
L12 10UH_0805 EBLS2012-100K
L13 10UH_0805 EBLS2012-100K
CAP2 470U_2.5V_7343 2R5TPE470M9
CAP11 470U_2.5V_7343 2R5TPE470M9
L37 180R-100MHZ_0603 TI160808U181
L38 C_FILTER NFM18CC223R1C3
L10 C_FILTER NFM18CC223R1C3
L40 120R-100MHZ_0805 HCB2012KF-121T30
L41 120R-100MHZ_0805 HCB2012KF-121T30
L7 TI160808U181 180R-100MHZ_0603
L16 TI160808U181 180R-100MHZ_0603
L15 C_FILTER NFM18CC223R1C3
L19 180R-100MHZ_0603 TI160808U181
L9 1U_0805 EBLS2012-1R0M 0.25A
L28 1U_0805 EBLS2012-1R0M 0.25A
L14 0.09UH_0805 SWF2012C-90NM-L01
L20 0.09UH_0805 SWF2012C-90NM-L01
D11 SD103AWS null
R360 10_J 0603
R362 0_J 0603
R398 0603 NC_0_J
V1.25M MCH PLL2
To connect the PEG & DMI to
same rail (VCC_PEG)
Stuff R398 and Remove C432,
CAP18, L20
NOTE: +V1.25S and +V1.25M should be +V1.5 for Fountaingrove (Calero Interposer).
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Title
Crestline (POWER,VCC) 5/7
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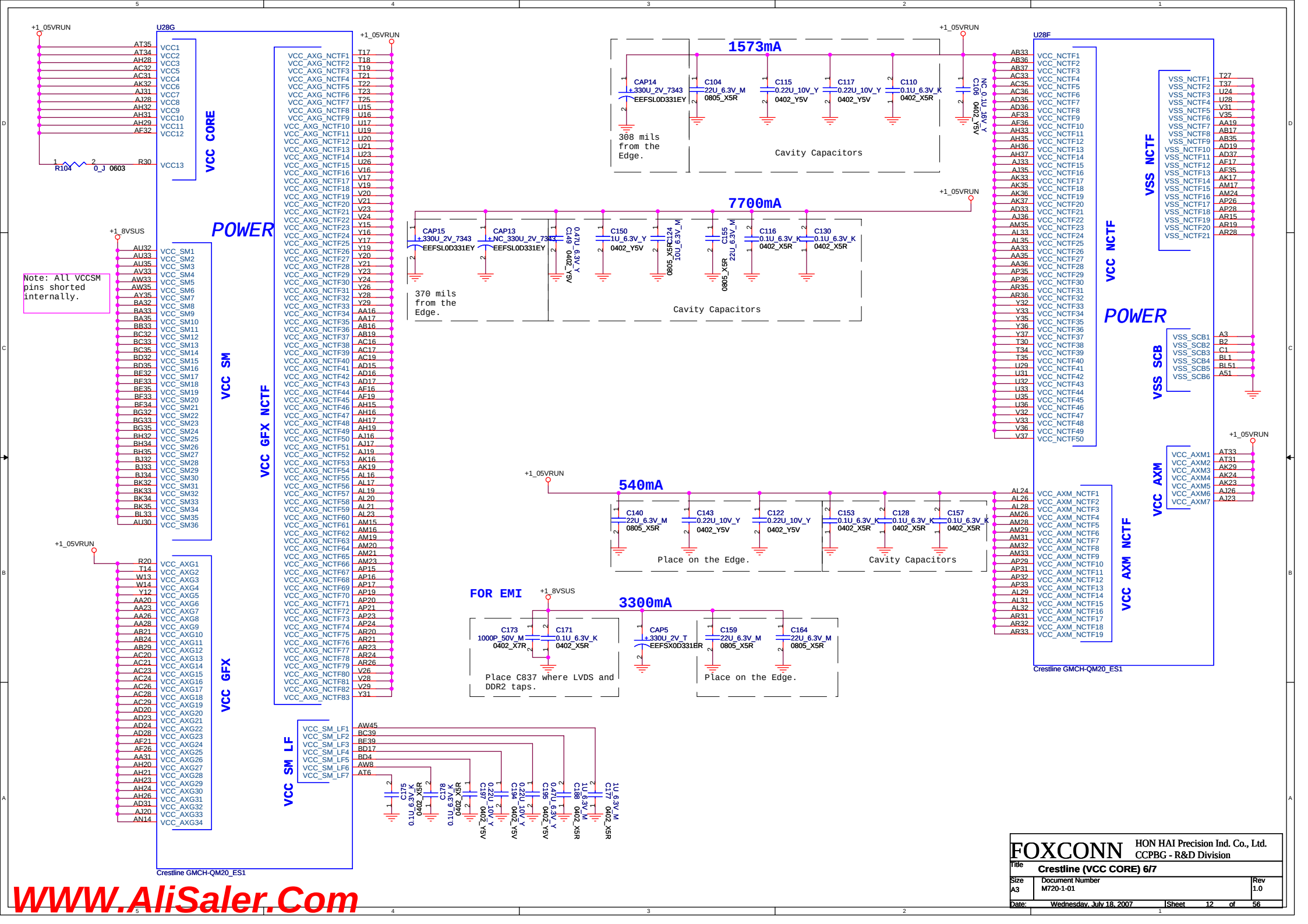

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Title	Crestline (VCC CORE) 6/7	
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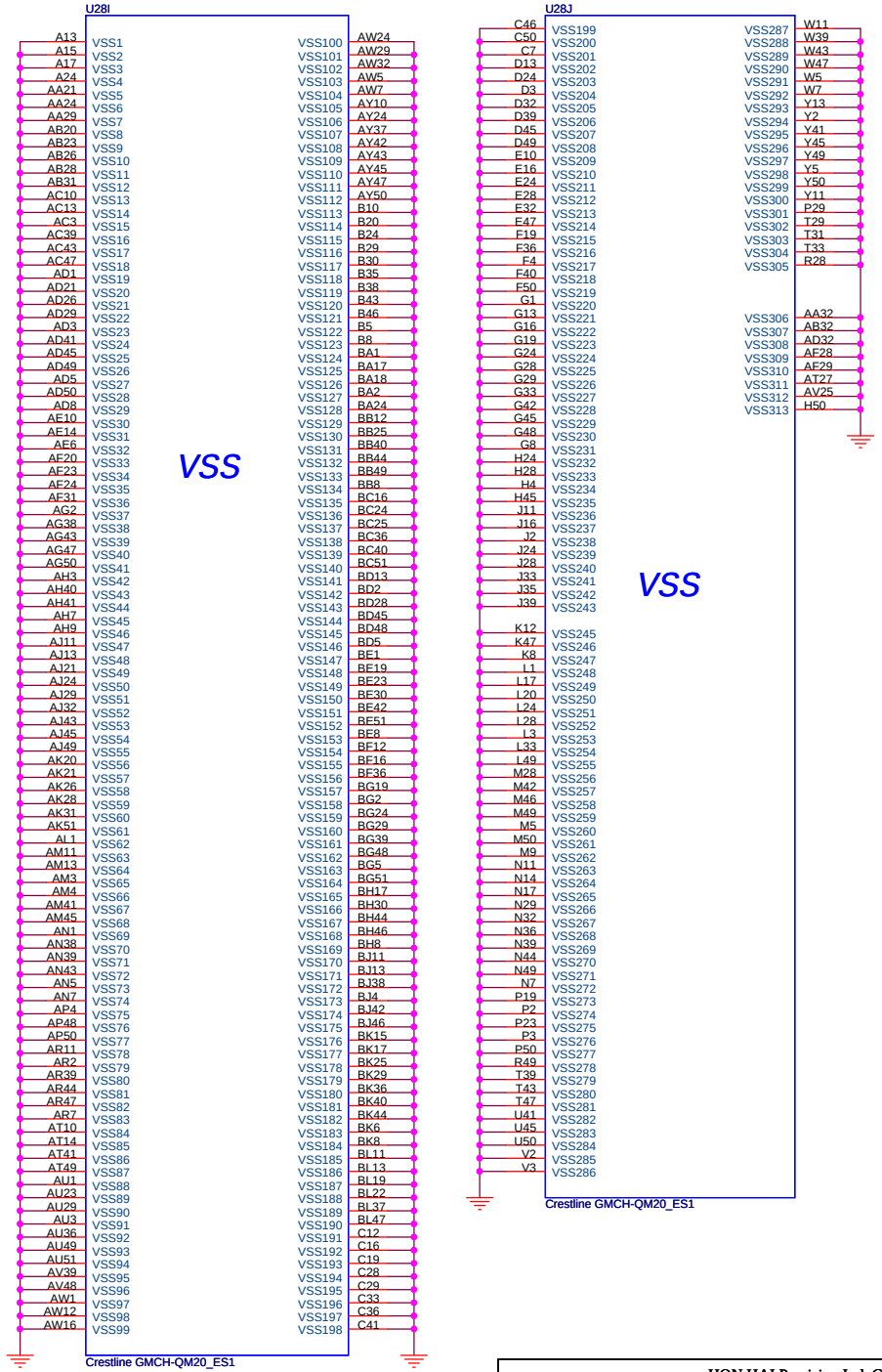

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: Crestline (VSS) 7/7		
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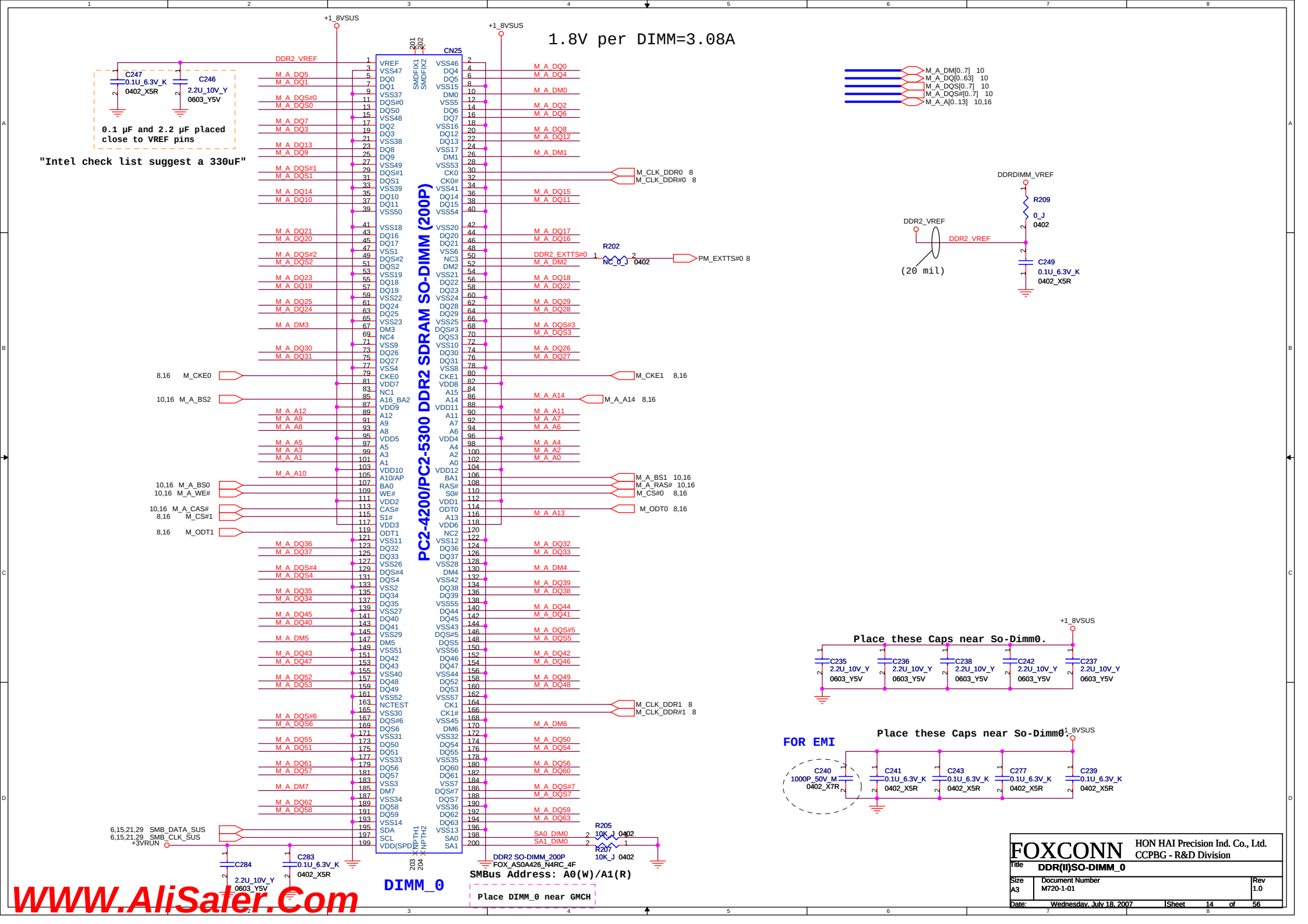

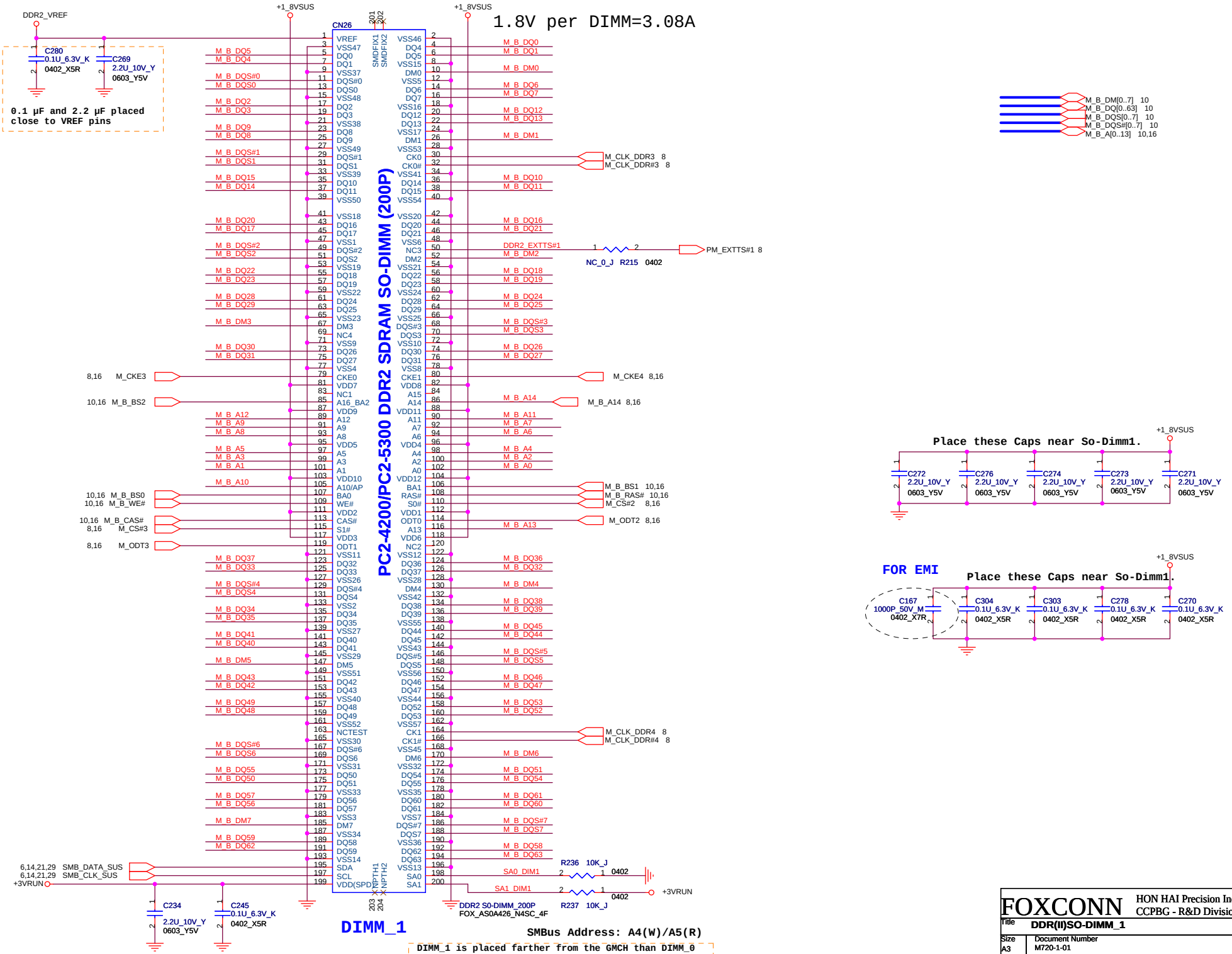

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
Title	DDR(II)SO-DIMM_1
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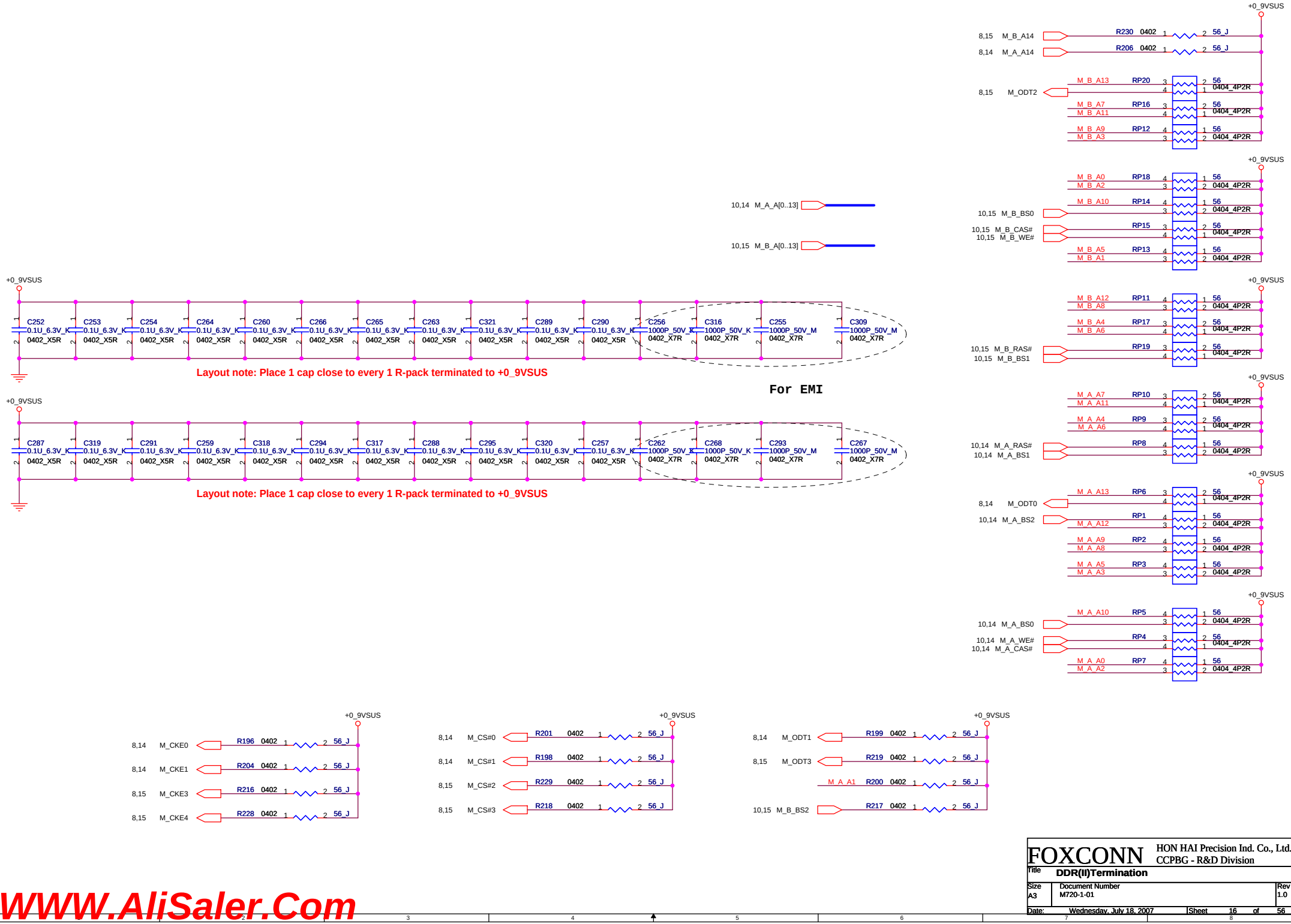

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Title	DDR(II)Termination	
Size A3	Document Number M720-1-01	Rev 1.0
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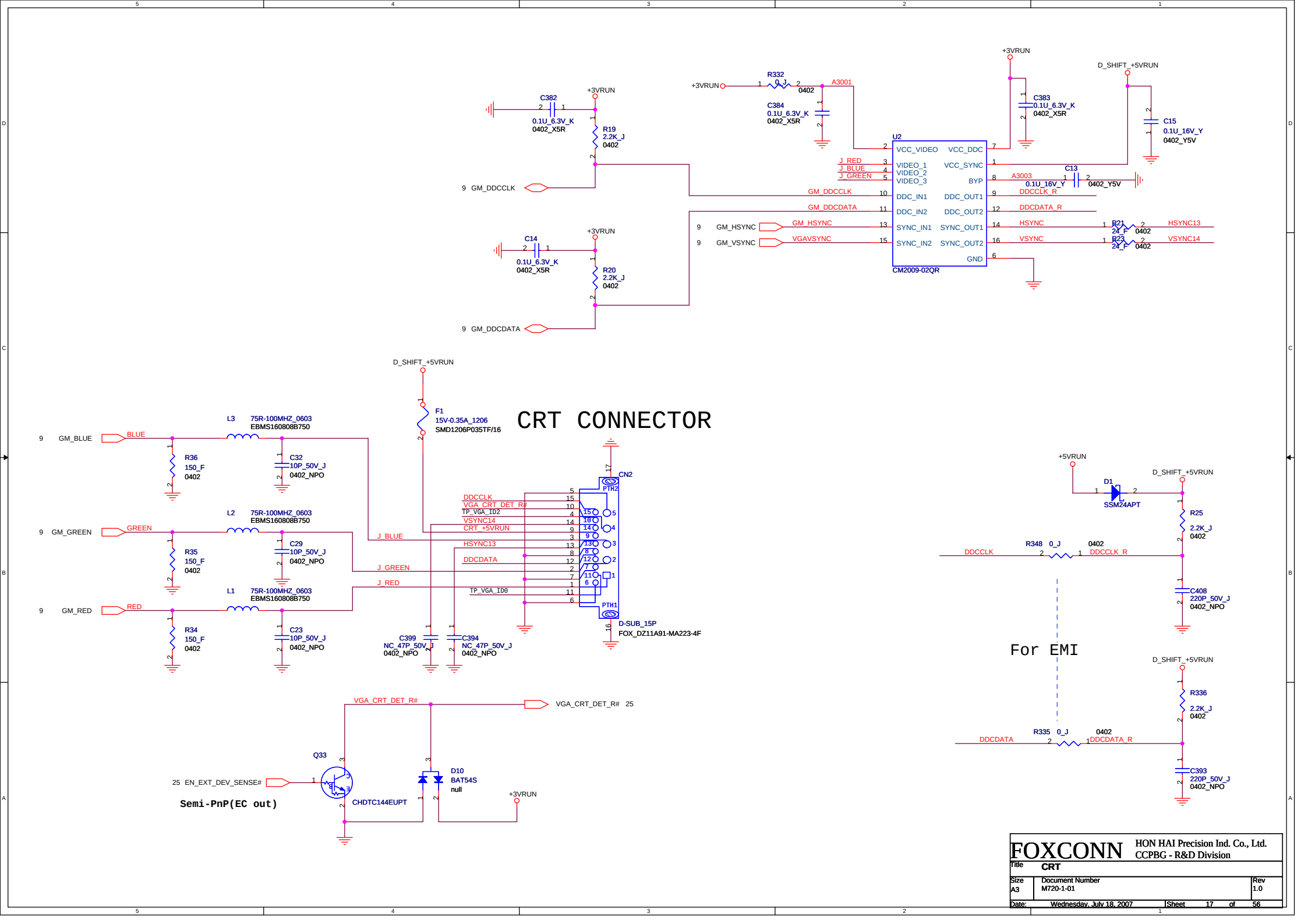
CRT CONNECTOR
+3VRUN
D_SHIFT_+5VRUN
R332 0_J 0402
A3001
C382 0.1U_6.3V_K 0402_X5R
R19 2.2K_J 0402
C384 0.1U_6.3V_K 0402_X5R
C383 0.1U_6.3V_K 0402_X5R
C15 0.1U_16V_Y 0402_Y5V
U2
VCC_VIDEO
VCC_DDC
VIDEO_1
VIDEO_2
VIDEO_3
VCC_SYNC
BYP
DDC_IN1
DDC_IN2
SYNC_IN1
SYNC_IN2
DDC_OUT1
DDC_OUT2
SYNC_OUT1
SYNC_OUT2
GND
CM2009-02QR
J_RED
J_BLUE
J_GREEN
C13 0.1U_16V_Y 0402_Y5V
A3003
GM_DDCCLK
GM_DDCDATA
GM_HSYNC
GM_VSYNC
VGAVSYNC
DDCCLK_R
DDCDATA_R
HSYNC
VSYNC
R21 24_F 0402
R23 24_F 0402
HSYNC13
VSYNC14
C14 0.1U_6.3V_K 0402_X5R
R20 2.2K_J 0402
9 GM_DDCCLK
9 GM_DDCDATA
9 GM_HSYNC
9 GM_VSYNC
F1 15V-0.35A_1206 SMD1206P035TF/16
D_SHIFT_+5VRUN
L3 75R-100MHZ_0603 EBMS160808B750
L2 75R-100MHZ_0603 EBMS160808B750
L1 75R-100MHZ_0603 EBMS160808B750
9 GM_BLUE
9 GM_GREEN
9 GM_RED
BLUE
GREEN
RED
R36 150_F 0402
R35 150_F 0402
R34 150_F 0402
C32 10P_50V_J 0402_NPO
C29 10P_50V_J 0402_NPO
C23 10P_50V_J 0402_NPO
J_BLUE
J_GREEN
J_RED
HSYNC13
DDCDATA
DDCCLK
VGA_CRT_DET_R#
TP_VGA_ID2
VSYNC14
CRT_+5VRUN
TP_VGA_ID0
CN2
PTH2
PTH1
D-SUB_15P
FOX_DZ11A91-MA223-4F
C399 NC_47P_50V_J 0402_NPO
C394 NC_47P_50V_J 0402_NPO
VGA_CRT_DET_R# 25
Q33
CHDTC144EUPT
25 EN_EXT_DEV_SENSE#
Semi-PnP(EC out)
D10 BAT54S null
+3VRUN
+5VRUN
D1 SSM24APT
R25 2.2K_J 0402
R348 0_J 0402
DDCCLK_R
C408 220P_50V_J 0402_NPO
For EMI
R336 2.2K_J 0402
R335 0_J 0402
DDCDATA_R
C393 220P_50V_J 0402_NPO
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
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LVDS

ODD_CLKIN- ODD_CLKIN- 9
ODD_CLKIN+ ODD_CLKIN+ 9

ODD_RXIN0- ODD_RXIN0- 9
ODD_RXIN0+ ODD_RXIN0+ 9

ODD_RXIN1- ODD_RXIN1- 9
ODD_RXIN1+ ODD_RXIN1+ 9

ODD_RXIN2- ODD_RXIN2- 9
ODD_RXIN2+ ODD_RXIN2+ 9

For EMI mount.

DCBATOUT

C376 0.1U_50V_K 0603_X7R
C373 1U_25V_Y 0805_Y5V
C377 0.1U_50V_K 0603_X7R

DCBATOUT

L46 600R-100MHZ_0805 ACMS201209A601 2A

2A

Place C375 close to CN14.

C375 0.1U_50V_K 0603_X7R

CN14

DCBATOUT_I
INV_ENABLE
INV_BRADJ

9 NB_BRADJ

R3 10K_J 0402
R326 10K_J 0402

B TO B HEADER CONN_6P FOX_HS8106E

INVERTER CONN.

CN18

LCDVCC
LCDVCC

C380 0.1U_10V_K 0402_X5R

ODD_RXIN1-
ODD_RXIN1+
ODD_RXIN2+
ODD_RXIN2-
ODD_RXIN0-
ODD_RXIN0+
ODD_CLKIN-
ODD_CLKIN+

FOX_HT1310F HEADER CONN_20P

U1 +3VRUN 74AHC1G08GW

21 INV_EN_EC
INV_ENABLE
INV_ENABLE_1

U22 +3VRUN

25,41 LIDIN#
9 GM_INV_EN

74AHC1G08GW

R328 100K_J 0402

SW1

LCDID0 21
LCDID1 21
LCDID2 21
LCDID3 21

HDS404-E_SW-SLIDE

PANEL ID

Type	WXGA	WXGA	WXGA
Size	15.4"W	15.4"W	15.4"W
Vender	LPL	CPT	AUO
Device Name			
	LP154WX4	CLAA154WB05AN	B154EW02V7
Panel ID Check[3..0]	X001	X010	X001

+3VRUN +3VRUN

U23

IN1 IN5
OUT IN4
EN IN3
GND IN2
THERMAL PAD

G5281RC1U_V0.1

C378 4.7U_6.3V_K 0805_X5R

2A

9 GM_LCDVCC_EN

R329 100K_J 0402

C381 4.7U_10V_K 0805_X5R
C379 0.1U_16V_Y 0402_Y5V

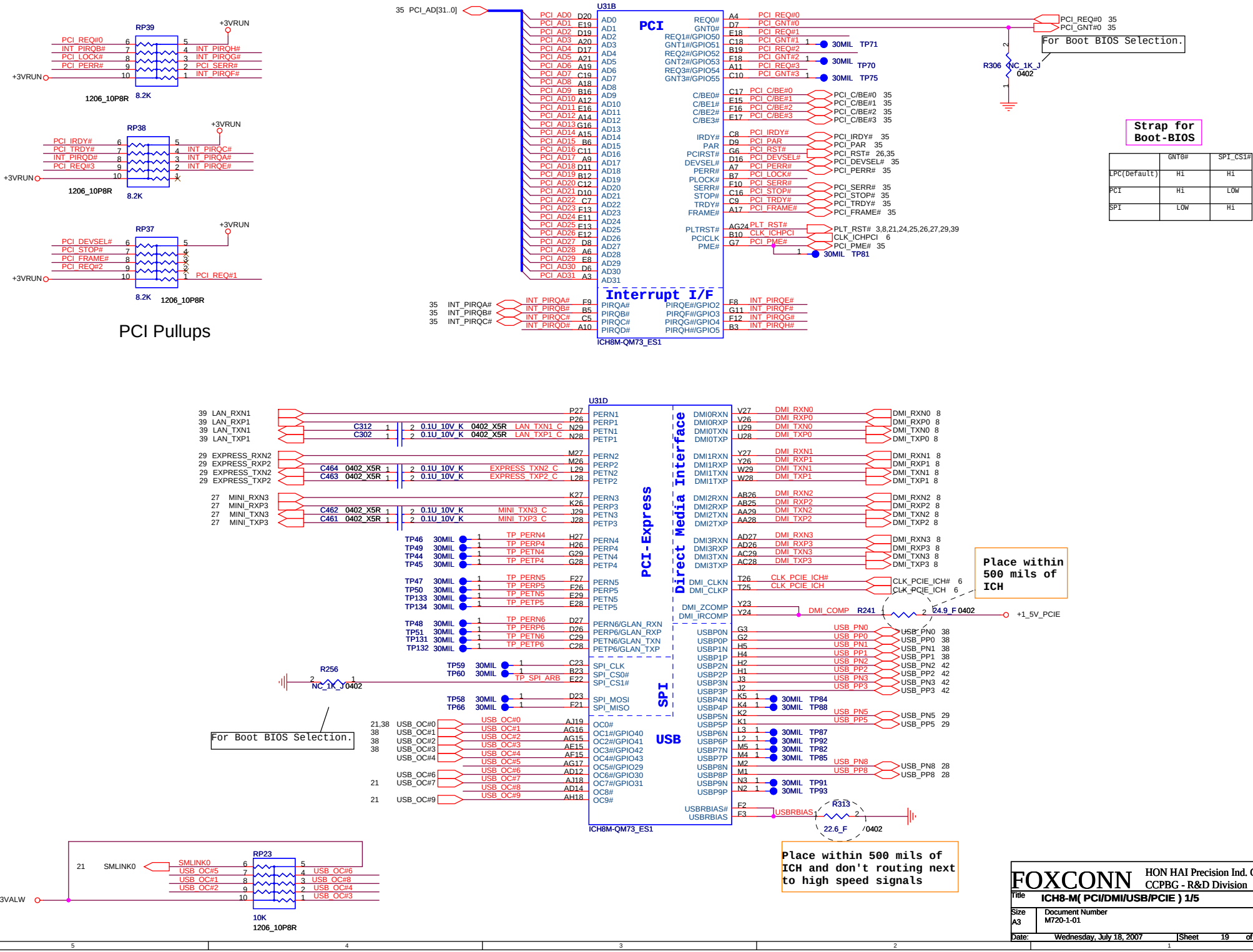
LCDVCC

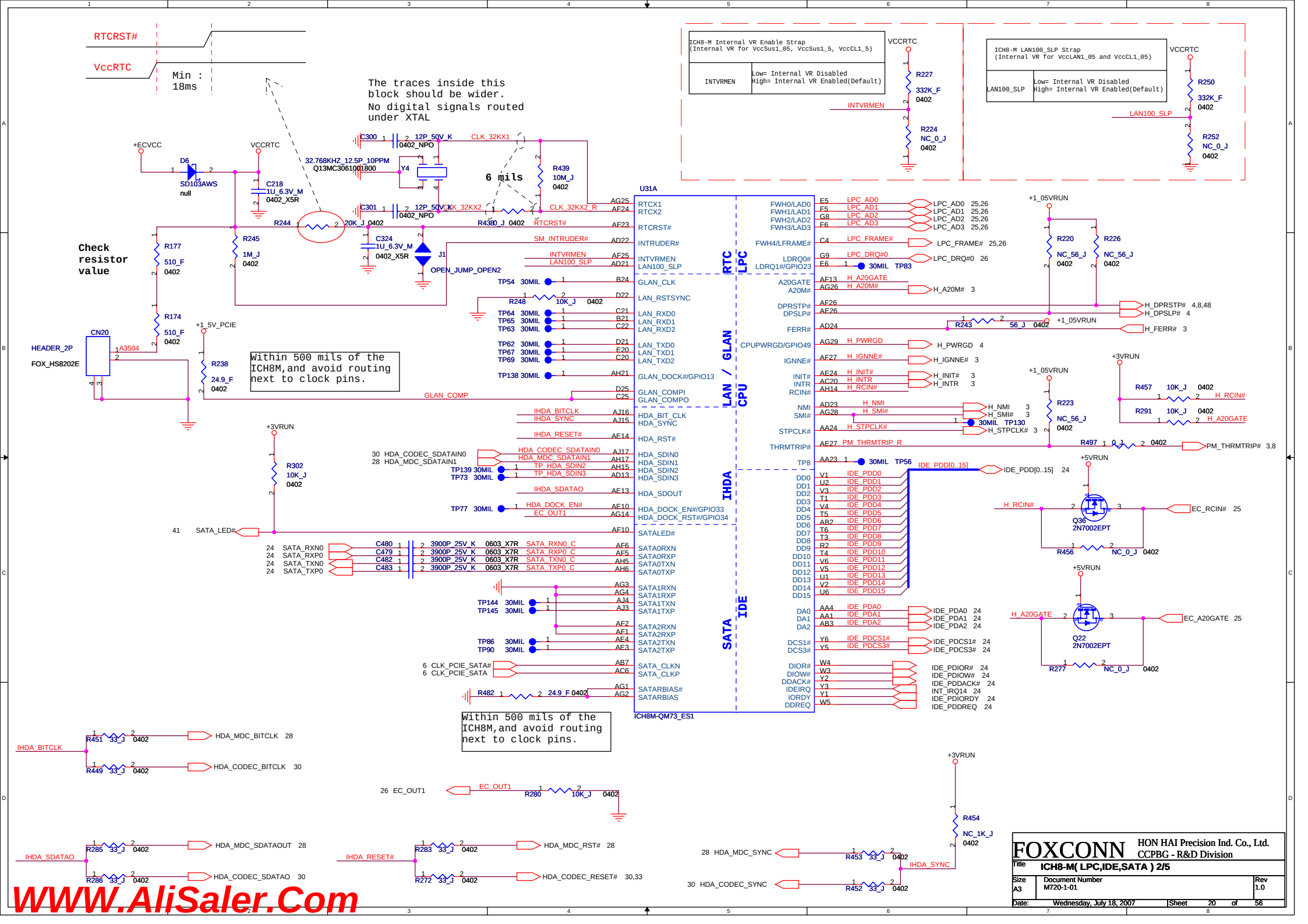
FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

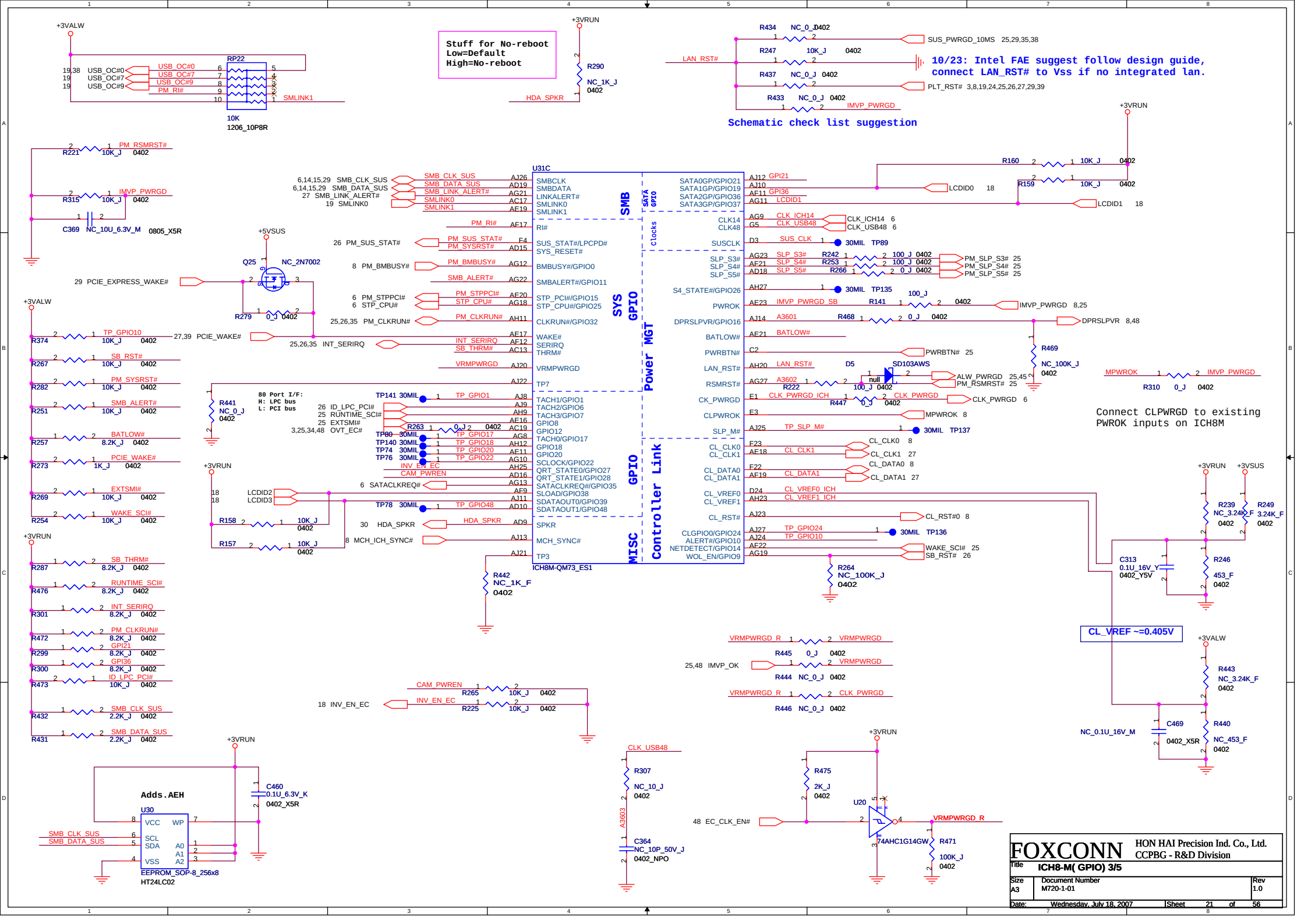
Title: LVDS

Size: A3 | Document Number: M720-1-01 | Rev: 1.0

Date: Wednesday, July 18, 2007 | Sheet 18 of 56


RP39
PCI_REQ#0
INT_PIRQB#
PCI_LOCK#
PCI_PERR#
+3VRUN
INT_PIRQH#
INT_PIRQG#
PCI_SERR#
INT_PIRQF#
1206_10P8R
8.2K
RP38
PCI_IRDY#
PCI_TRDY#
INT_PIRQD#
PCI_REQ#3
INT_PIRQC#
INT_PIRQA#
INT_PIRQE#
RP37
PCI_DEVSEL#
PCI_STOP#
PCI_FRAME#
PCI_REQ#2
PCI_REQ#1
PCI Pullups
35 PCI_AD[31..0]
U31B
PCI
Interrupt I/F
ICH8M-QM73_ES1
REQ0#
GNT0#
REQ1#/GPIO50
GNT1#/GPIO51
REQ2#/GPIO52
GNT2#/GPIO53
REQ3#/GPIO54
GNT3#/GPIO55
C/BE0#
C/BE1#
C/BE2#
C/BE3#
IRDY#
PAR
PCIRST#
DEVSEL#
PERR#
PLOCK#
SERR#
STOP#
TRDY#
FRAME#
PLTRST#
PCICLK
PME#
PCI_REQ#0 35
PCI_GNT#0 35
For Boot BIOS Selection.
R306
NC_1K_J
0402
30MIL TP71
30MIL TP70
30MIL TP75
30MIL TP81
Strap for Boot-BIOS
GNT0#
SPI_CS1#
LPC(Default)
PCI
SPI
U31D
PCI-Express
Direct Media Interface
SPI
USB
ICH8M-QM73_ES1
LAN_RXN1
LAN_RXP1
LAN_TXN1
LAN_TXP1
C312
C302
0.1U_10V_K
0402_X5R
LAN_TXN1_C
LAN_TXP1_C
EXPRESS_RXN2
EXPRESS_RXP2
EXPRESS_TXN2
EXPRESS_TXP2
C464
C463
EXPRESS_TXN2_C
EXPRESS_TXP2_C
MINI_RXN3
MINI_RXP3
MINI_TXN3
MINI_TXP3
C462
C461
MINI_TXN3_C
MINI_TXP3_C
TP46 TP49 TP44 TP45
TP_PERN4
TP_PERP4
TP_PETN4
TP_PETP4
TP47 TP50 TP133 TP134
TP_PERN5
TP_PERP5
TP_PETN5
TP_PETP5
TP48 TP51 TP131 TP132
TP_PERN6
TP_PERP6
TP_PETN6
TP_PETP6
TP59 TP60
TP_SPI_ARB
TP58 TP66
R256
NC_1K_J
0402
For Boot BIOS Selection.
DMI_RXN0 8
DMI_RXP0 8
DMI_TXN0 8
DMI_TXP0 8
DMI_RXN1 8
DMI_RXP1 8
DMI_TXN1 8
DMI_TXP1 8
DMI_RXN2 8
DMI_RXP2 8
DMI_TXN2 8
DMI_TXP2 8
DMI_RXN3 8
DMI_RXP3 8
DMI_TXN3 8
DMI_TXP3 8
CLK_PCIE_ICH# 6
CLK_PCIE_ICH 6
Place within 500 mils of ICH
DMI_COMP
R241
24.9_F
0402
+1_5V_PCIE
USB_PN0 38
USB_PP0 38
USB_PN1 38
USB_PP1 38
USB_PN2 42
USB_PP2 42
USB_PN3 42
USB_PP3 42
USB_PN5 29
USB_PP5 29
USB_PN8 28
USB_PP8 28
TP84 TP88 TP87 TP92 TP82 TP85 TP91 TP93
USB_OC#0
USB_OC#1
USB_OC#2
USB_OC#3
USB_OC#4
USB_OC#5
USB_OC#6
USB_OC#7
USB_OC#8
USB_OC#9
R313
22.6_F
0402
Place within 500 mils of ICH and don't routing next to high speed signals
RP23
SMLINK0
USB_OC#5
USB_OC#1
USB_OC#2
USB_OC#6
USB_OC#8
USB_OC#4
USB_OC#3
+3VALW
10K
1206_10P8R
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH8-M(PCI/DMI/USB/PCIE) 1/5
Size
A3
Document Number
M720-1-01
Rev
1.0
Date:
Wednesday, July 18, 2007
Sheet
19
of
56


RTCRST#
VccRTC
Min : 18ms
The traces inside this block should be wider.
No digital signals routed under XTAL
6 mils
Check resistor value
Within 500 mils of the ICH8M,and avoid routing next to clock pins.
Within 500 mils of the ICH8M,and avoid routing next to clock pins.
ICH8-M Internal VR Enable Strap (Internal VR for VccSus1_05, VccSus1_5, VccCL1_5)
INTVRMEN
Low= Internal VR Disabled
High= Internal VR Enabled(Default)
ICH8-M LAN100_SLP Strap (Internal VR for VccLAN1_05 and VccCL1_05)
LAN100_SLP
Low= Internal VR Disabled
High= Internal VR Enabled(Default)
U31A
ICH8M-QM73_ES1
RTC
LPC
LAN / GLAN
CPU
IHDA
SATA
IDE
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
ICH8-M(LPC,IDE,SATA) 2/5
Document Number M720-1-01
Rev 1.0
Wednesday, July 18, 2007
Sheet 20 of 56
WWW.AliSaler.Com


Stuff for No-reboot
Low=Default
High=No-reboot
10/23: Intel FAE suggest follow design guide, connect LAN_RST# to Vss if no integrated lan.
Schematic check list suggestion
U31C
ICH8M-QM73_ES1
SMB
SATA GPIO
Clocks
SYS GPIO
Power MGT
GPIO
Controller Link
MISC
Connect CLPWRGD to existing PWROK inputs on ICH8M
CL_VREF ~=0.405V
Adds.AEH
EEPROM_SOP-8_256x8
HT24LC02
74AHC1G14GW
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
ICH8-M(GPIO) 3/5
Document Number M720-1-01
Rev 1.0
Wednesday, July 18, 2007
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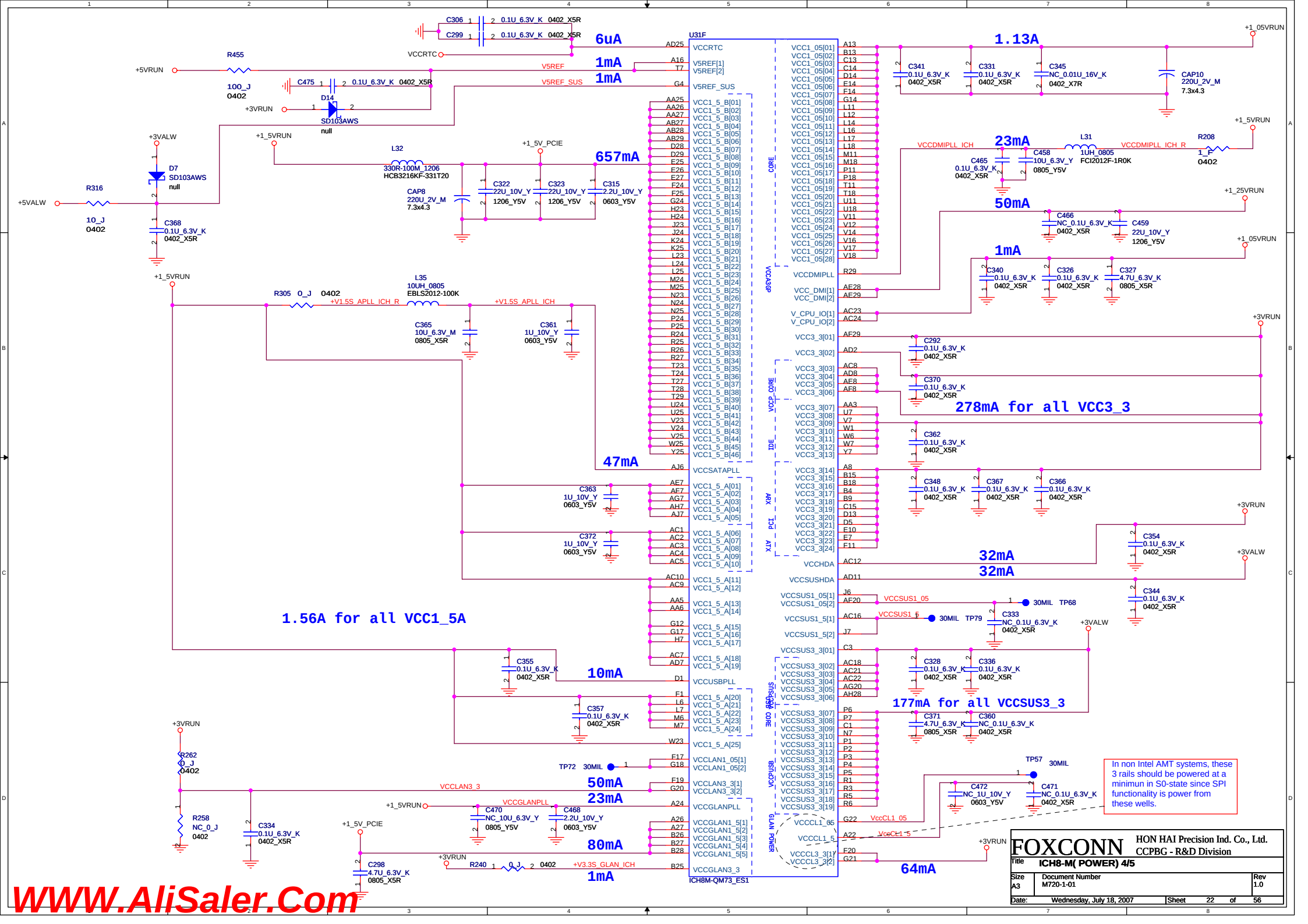
1.56A for all VCC1_5A
278mA for all VCC3_3
177mA for all VCCSUS3_3
1.13A
657mA
6uA
1mA
1mA
23mA
50mA
1mA
47mA
10mA
50mA
23mA
80mA
1mA
32mA
32mA
64mA
U31F
ICH8M-QM73_ES1
In non Intel AMT systems, these 3 rails should be powered at a minimun in S0-state since SPI functionality is power from these wells.
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title ICH8-M(POWER) 4/5
Size A3
Document Number M720-1-01
Rev 1.0
Date: Wednesday, July 18, 2007
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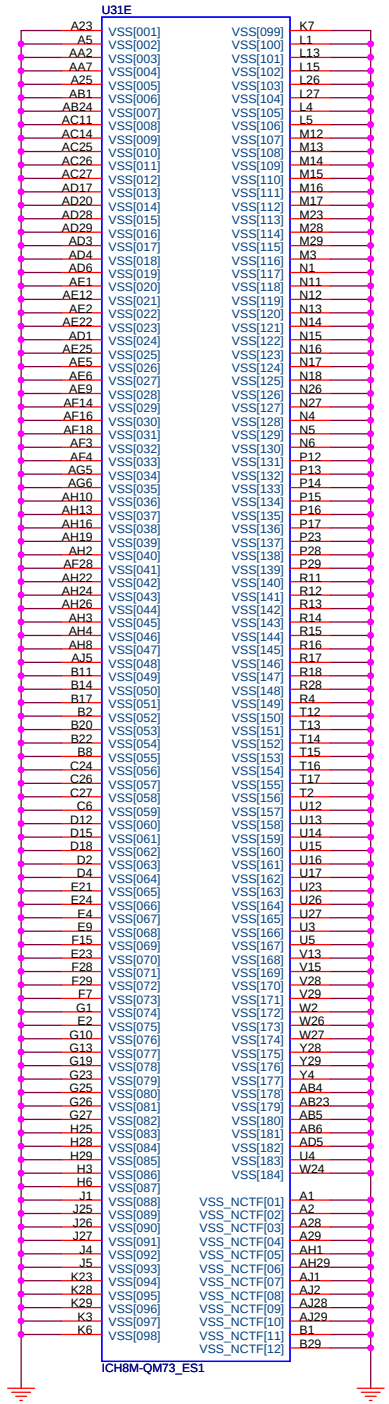
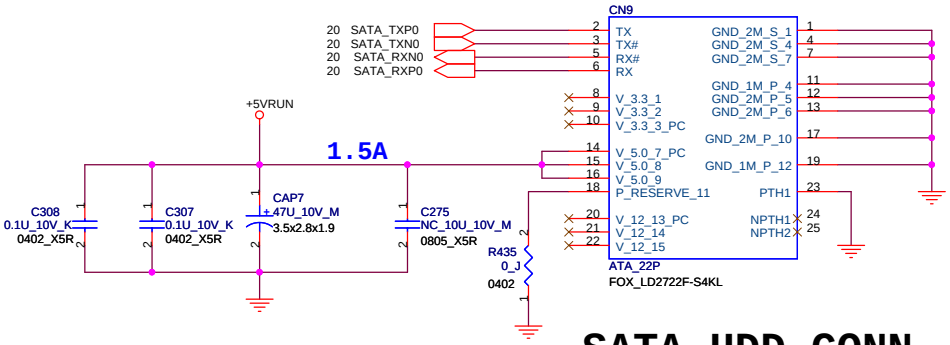
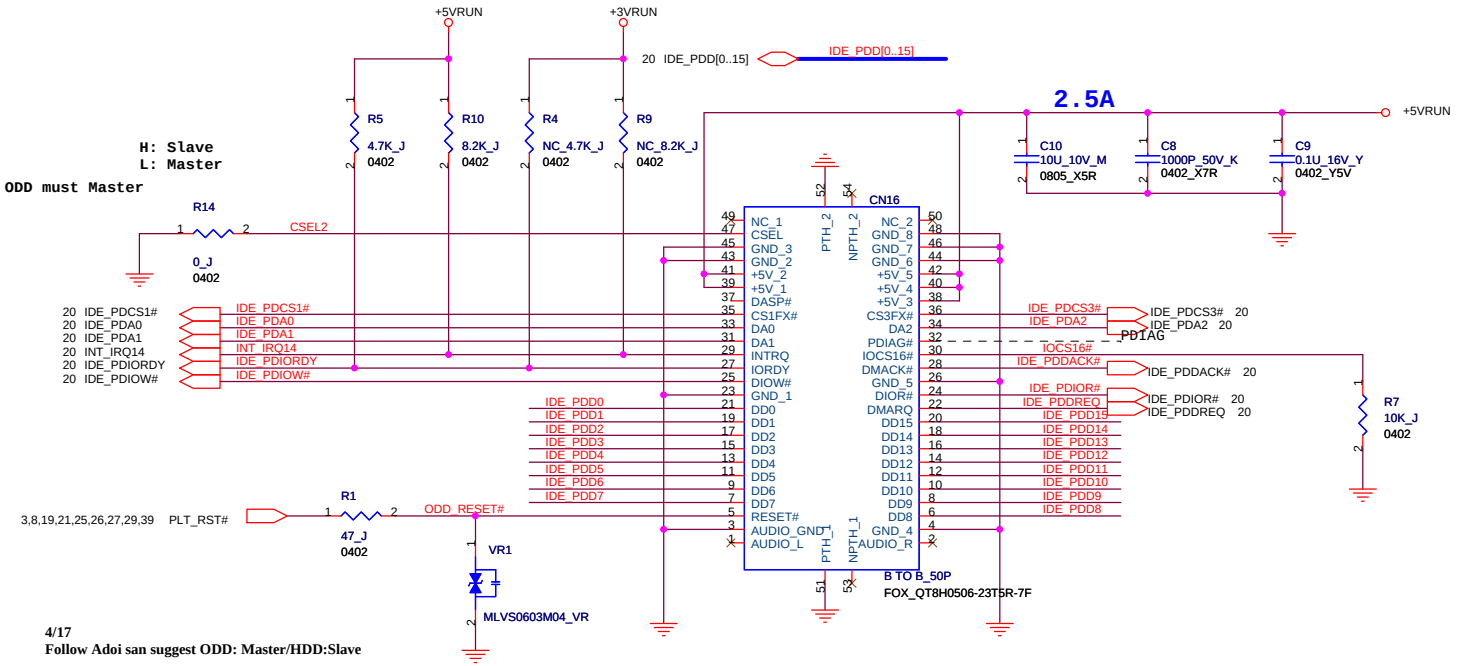


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	ICH8-M(GND) 5/5	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 23 of 56	



SATA HDD CONN

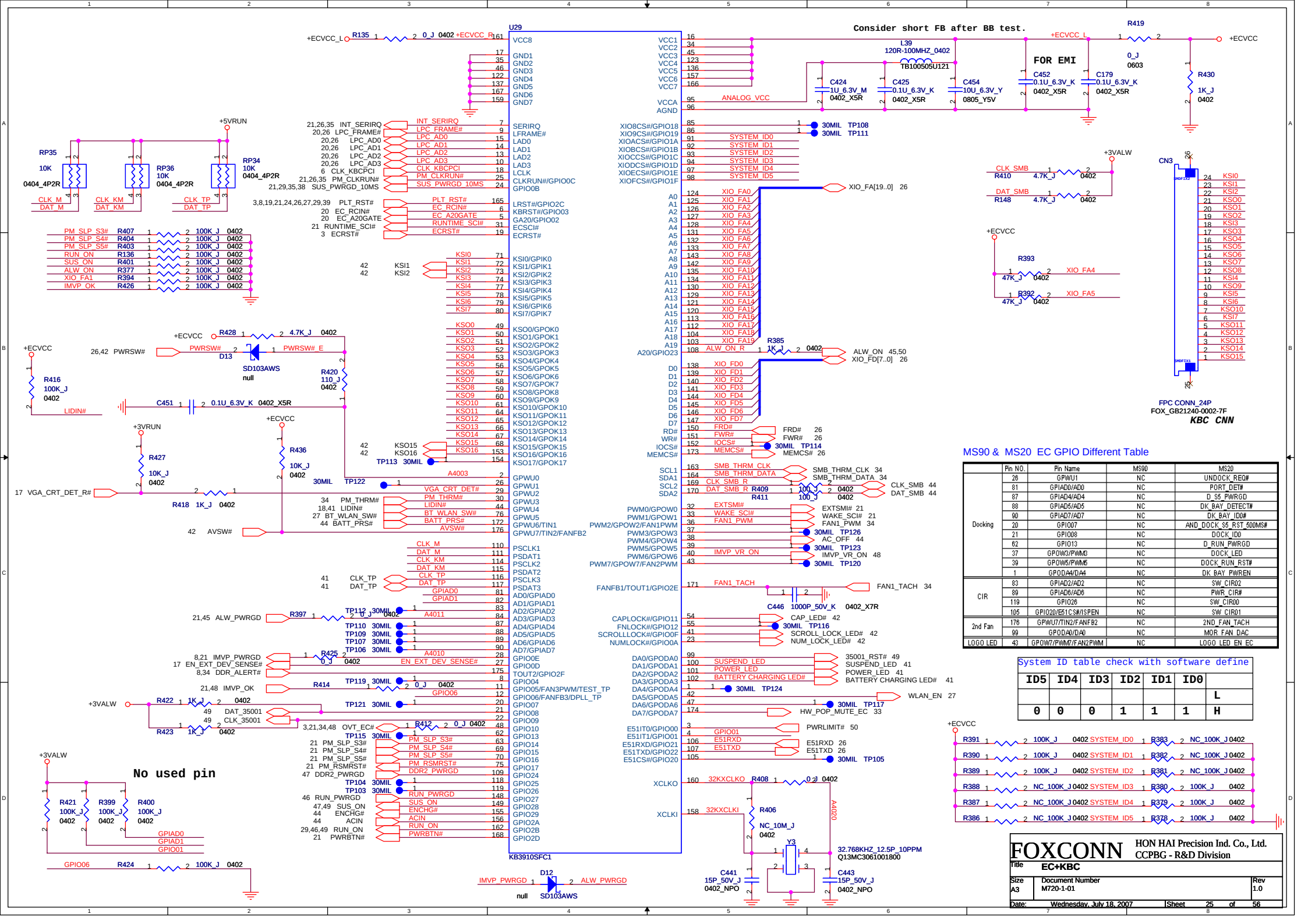


4/17
Follow Adoi san suggest ODD: Master/HDD:Slave

For ESD.

CD-ROM CONN

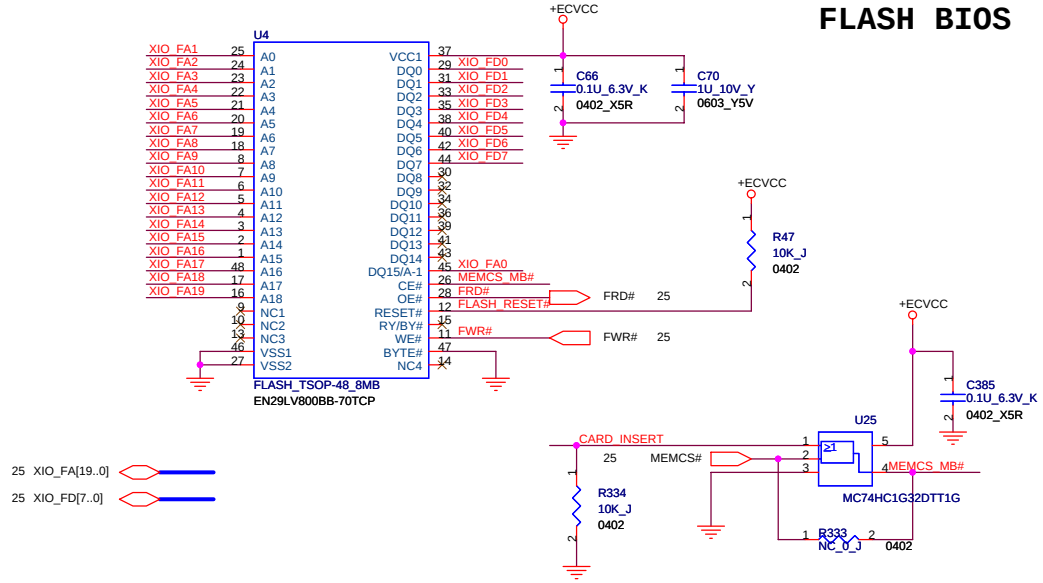
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SATA HDD/CD-ROM	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 24 of 56	



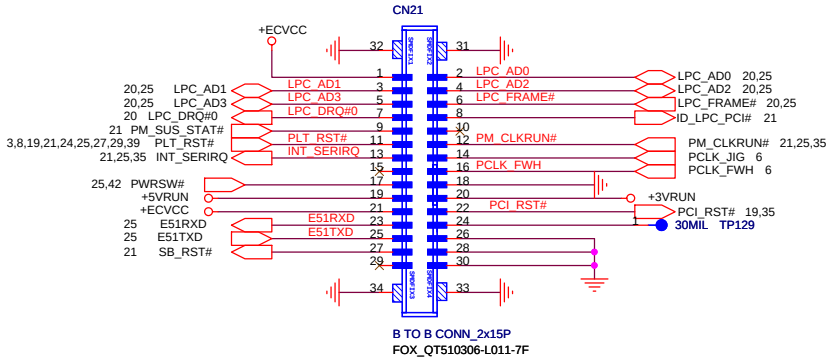
	Pin NO.	Pin Name	MS90	MS20
Docking	26	GPIWU1	NC	UNDOCK_REQ#
	81	GPIAD0/AD0	NC	PORT_DET#
	87	GPIAD4/AD4	NC	D_S5_PWRGD
	88	GPIAD5/AD5	NC	DK_BAY_DETECT#
	90	GPIAD7/AD7	NC	DK_BAY_ID0#
	20	GPIO07	NC	AND_DOCK_S5_RST_50DMS#
	21	GPIO08	NC	DOCK_ID0
	62	GPIO13	NC	D_RUN_PWRGD
	37	GPOW3/PWM3	NC	DOCK_LED
	39	GPOW5/PWM5	NC	DOCK_RUN_RST#
	1	GPODA4/DA4	NC	DK_BAY_PWREN
CIR	83	GPIAD2/AD2	NC	SW_CIR02
	89	GPIAD6/AD6	NC	PWR_CIR#
	119	GPIO26	NC	SW_CIR00
	105	GPIO20/E51CS#/ISPEN	NC	SW_CIR01
2nd Fan	176	GPWU7/TIN2/FANFB2	NC	2ND_FAN_TACH
	99	GPODA0/DA0	NC	MOR_FAN_DAC
LOGO LED	43	GPOW7/PWM7/FAN2PWM	NC	LOGO_LED_EN_EC

ID5	ID4	ID3	ID2	ID1	ID0	
						L
0	0	0	1	1	1	H

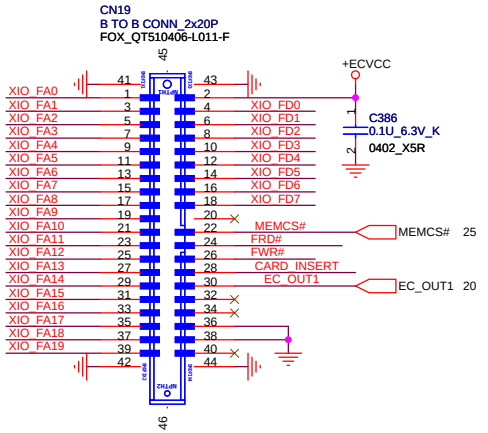
FLASH BIOS



JIG-120

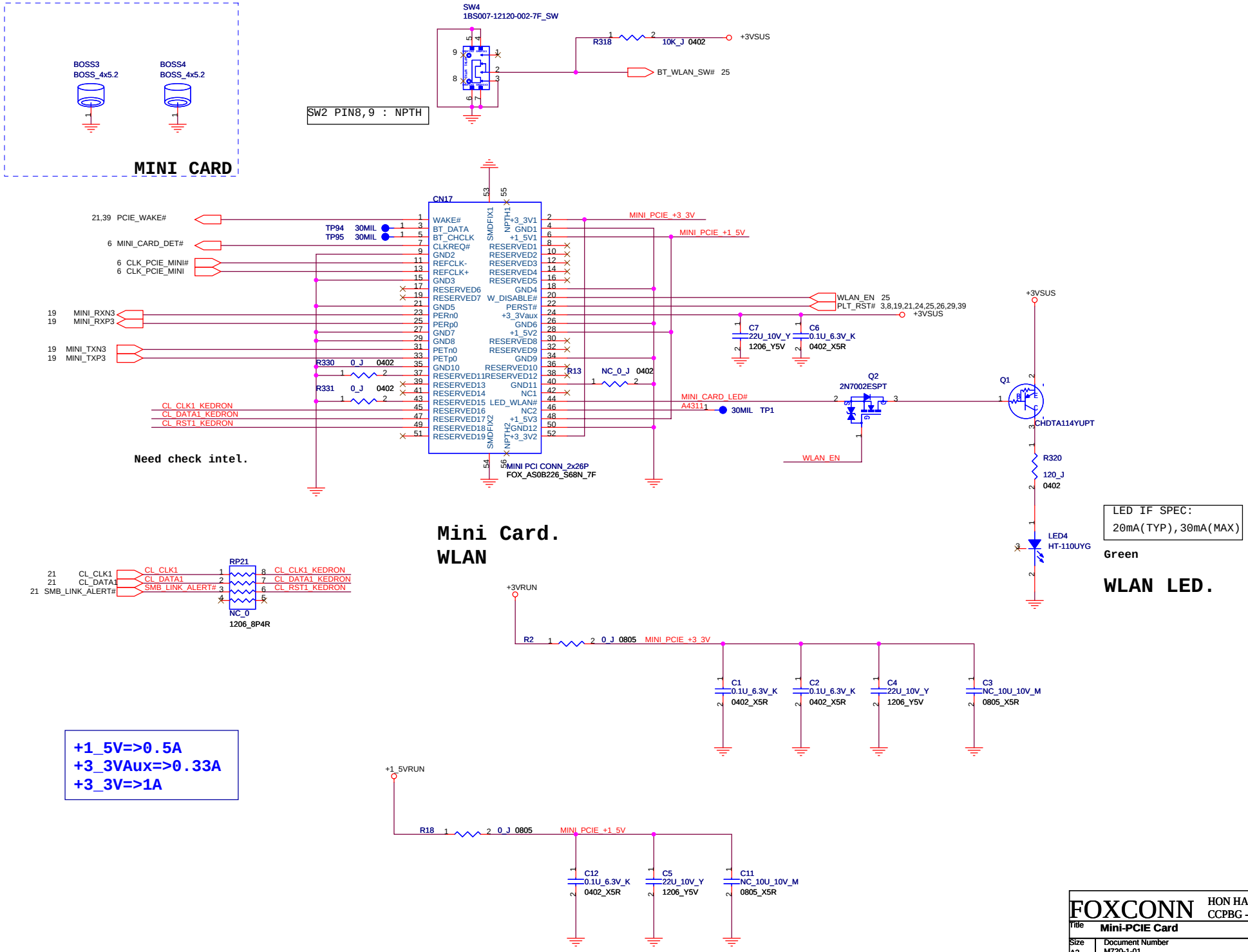


Pin 18 of JIG-120 is useless in debug board, so we let pin 18 NC.



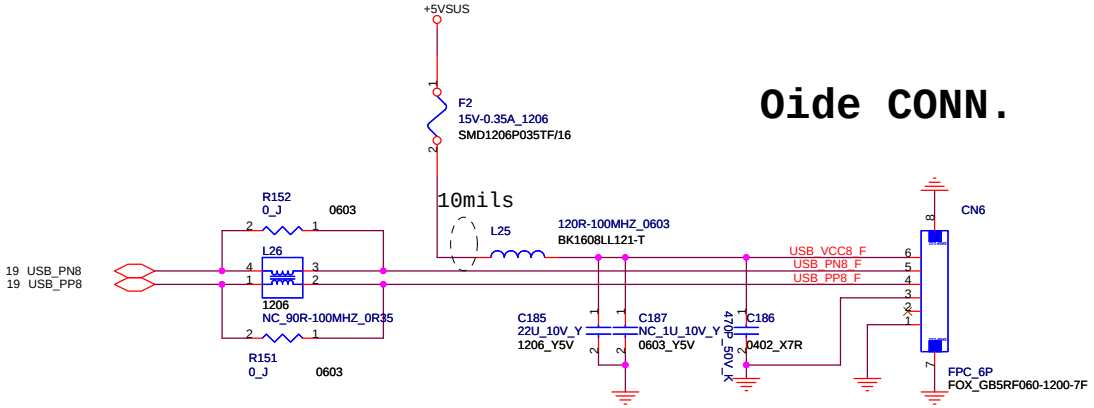
X-BUS

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	Flash ROM/X-Bus CONN		
Size A3	Document Number M720-1-01		Rev 1.0
Date:	Wednesday, July 18, 2007	Sheet 26 of 56	



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Mini-PCIE Card	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 27 of 56	

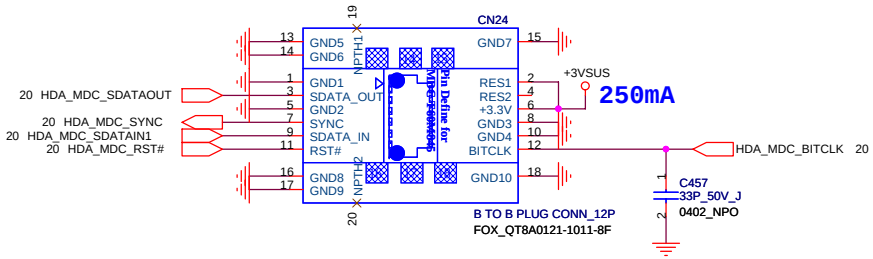
Oide CONN.



BOM Notice: OIDE_

W/ Oide SKU	R151,R152,L25,C185,C186,F2,CN6	stuff
W/O Oide SKU	R151,R152,L25,C185,C186,F2,CN6	no stuff

MDC CONN.



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

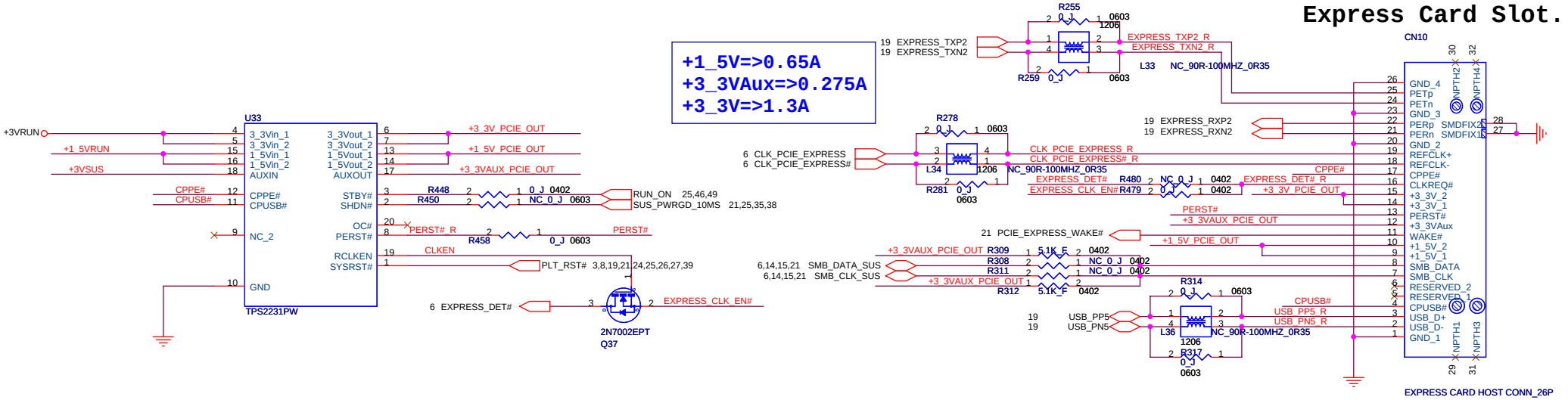
Title: Bluetooth/CAM/OIDE

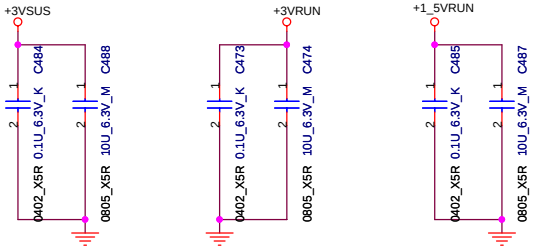
Size: A3 | Document Number: M720-1-01 | Rev: 1.0

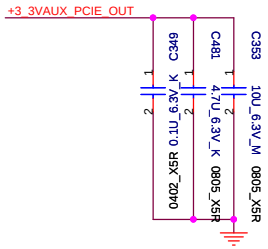
Date: Wednesday, July 18, 2007 | Sheet 28 of 56

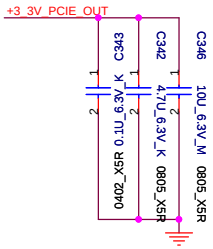
Express Card Slot.

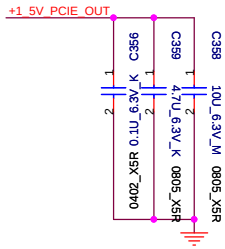
+1_5V=>0.65A
+3_3VAux=>0.275A
+3_3V=>1.3A

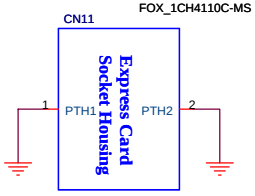






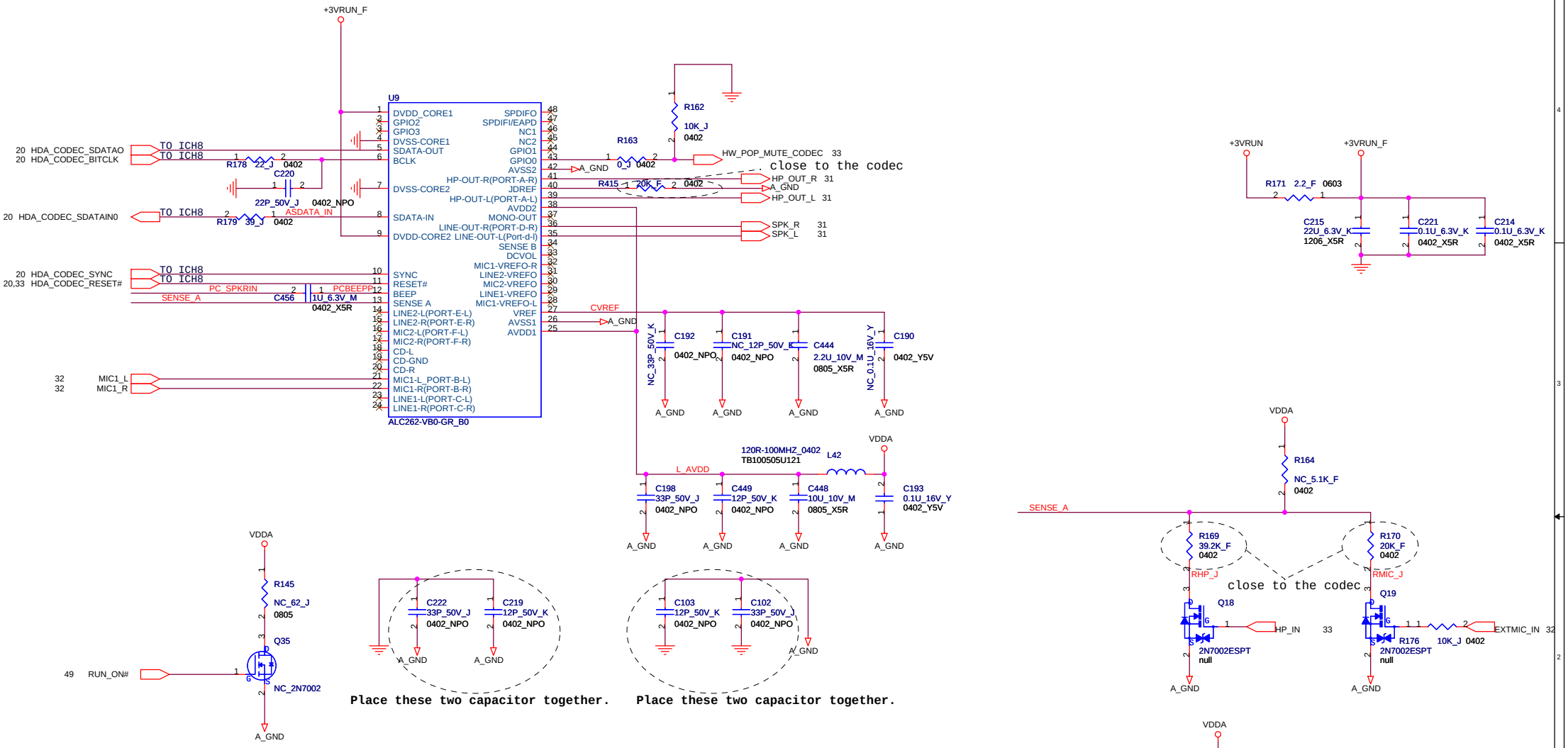






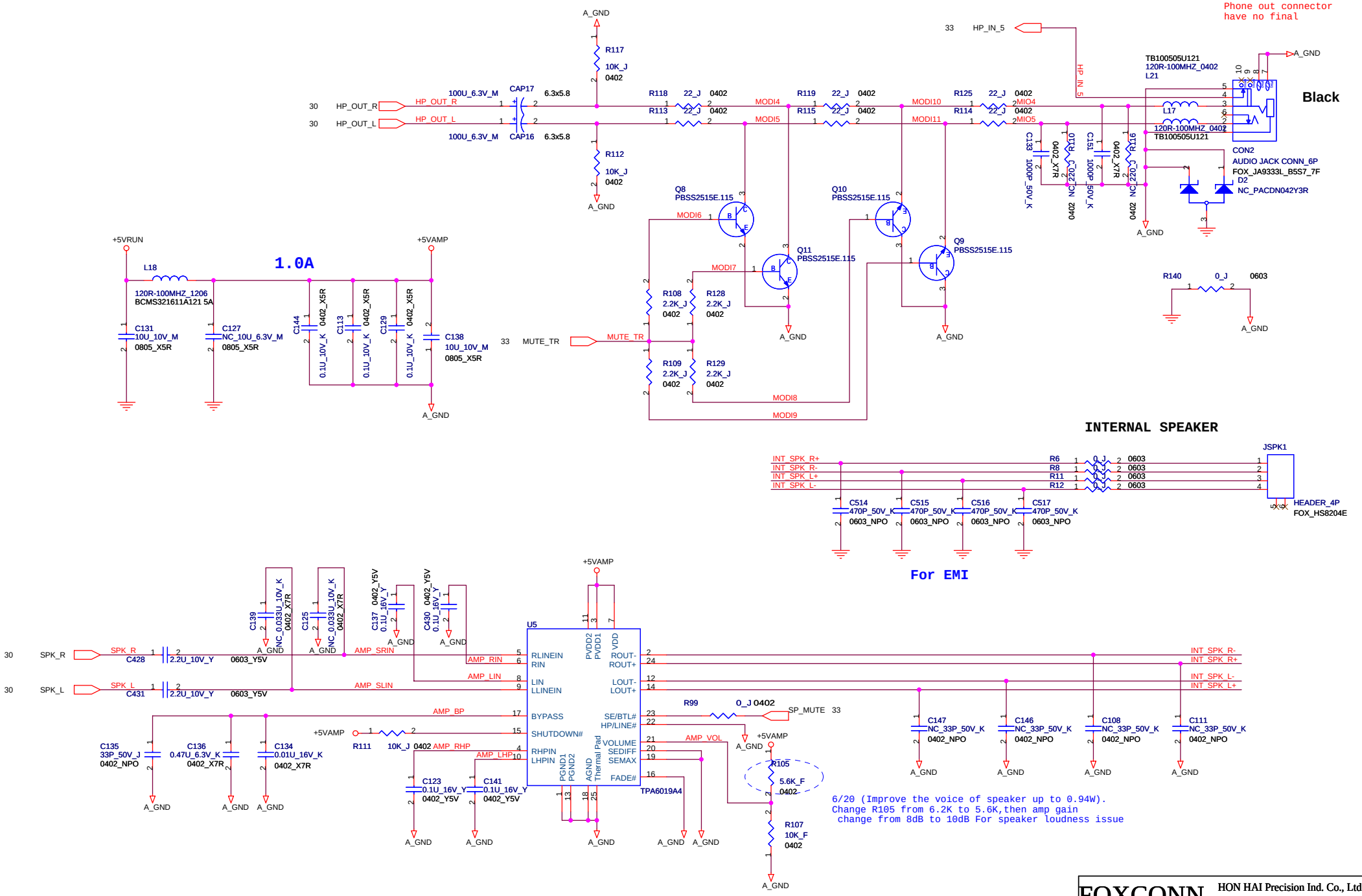
Express Card Housing.

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	EXPRESS	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 29 of 56	



AUDIO POWER(Change to 4.75V/200mA)

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
Title	AUDIO(CODEC/POWER) 1/4
Size A3	Document Number M720-1-01 Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 30 of 56


Phone out connector
have no final
Black
1.0A
INTERNAL SPEAKER
For EMI
6/20 (Improve the voice of speaker up to 0.94W).
Change R105 from 6.2K to 5.6K,then amp gain
change from 8dB to 10dB For speaker loudness issue
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title AUDIO(AMP & HP & SPK)
Size A3
Document Number M720-1-01
Rev 1.0
Date: Wednesday, July 18, 2007
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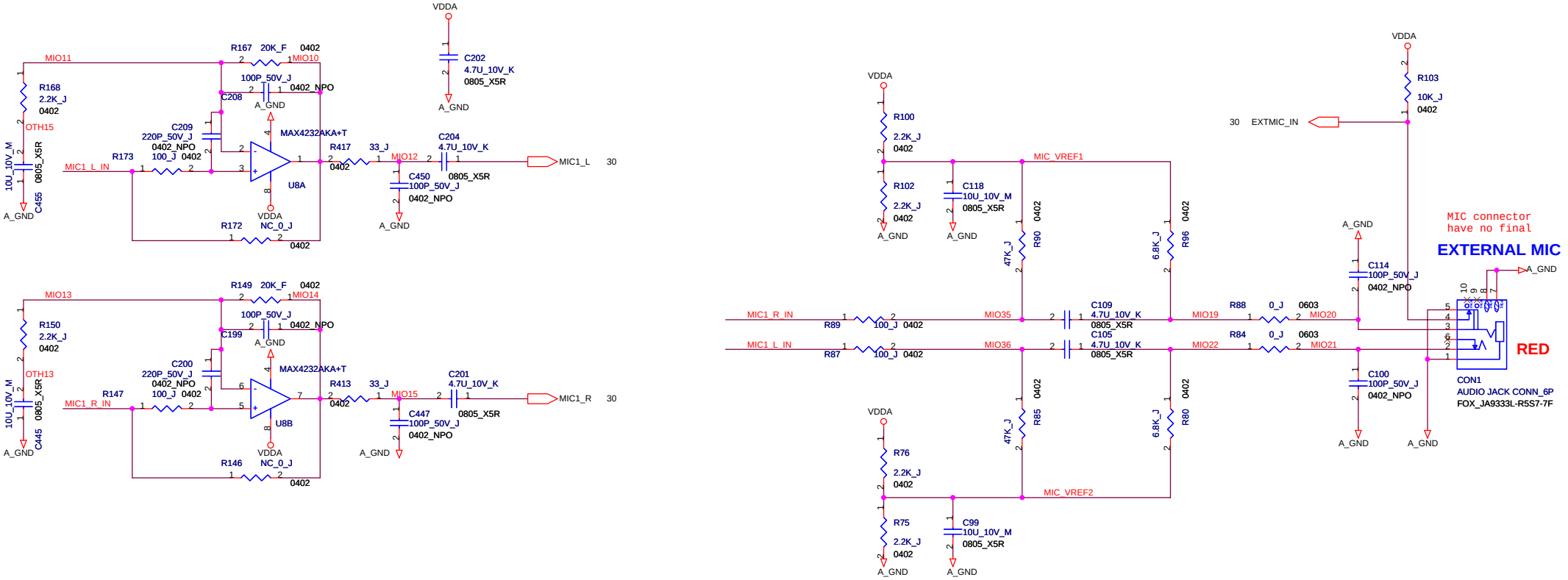
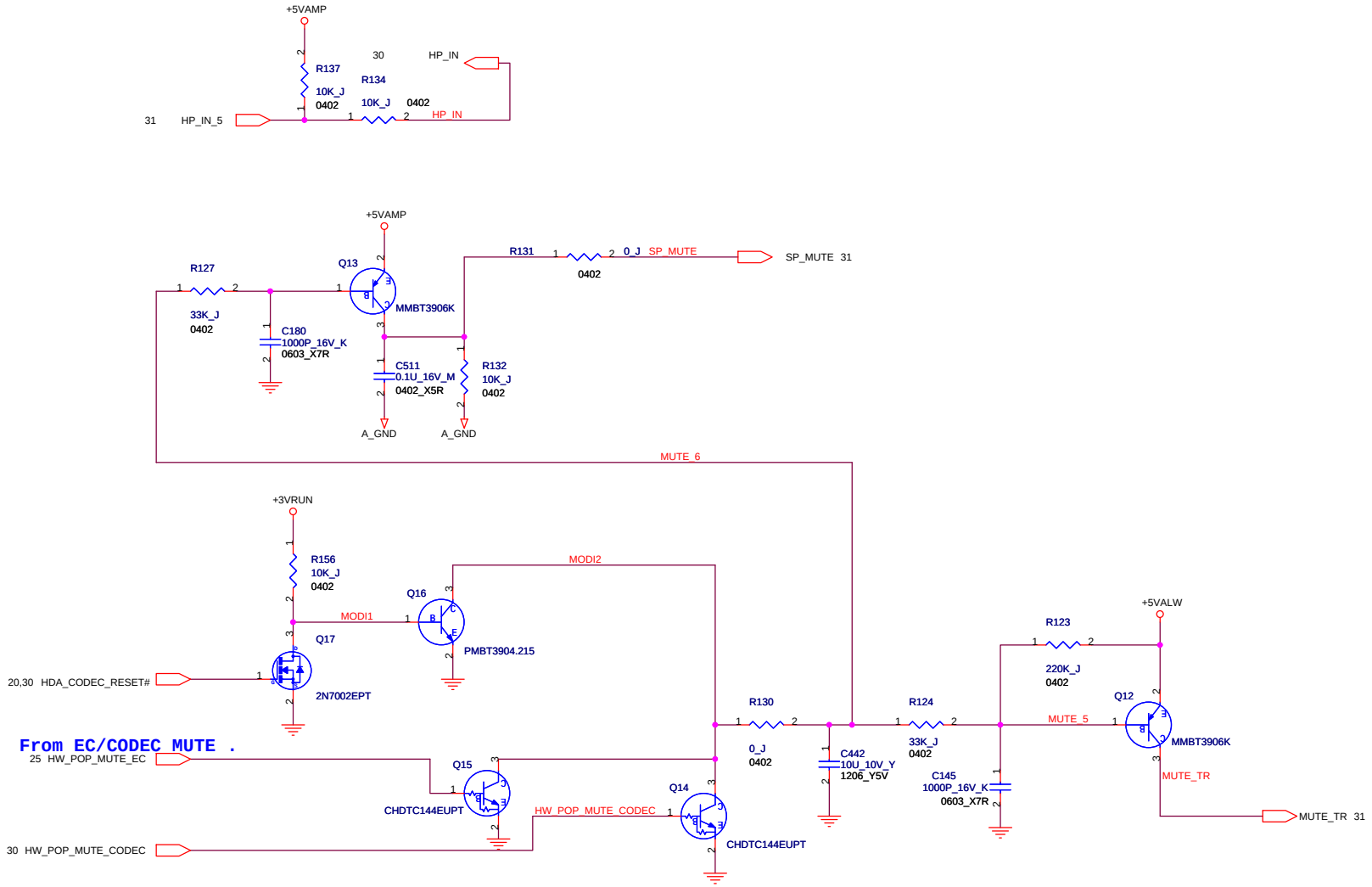
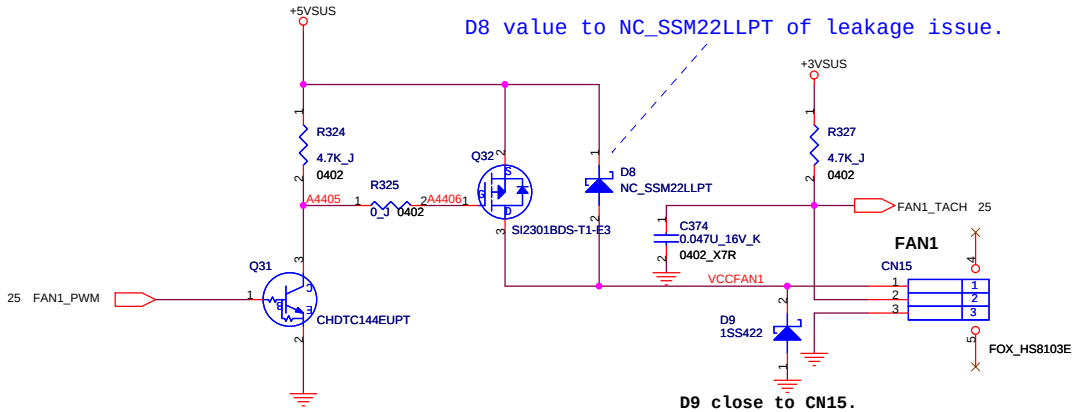


FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	AUDIO(EXT MIC & PHONE OUT)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 32 of 56	



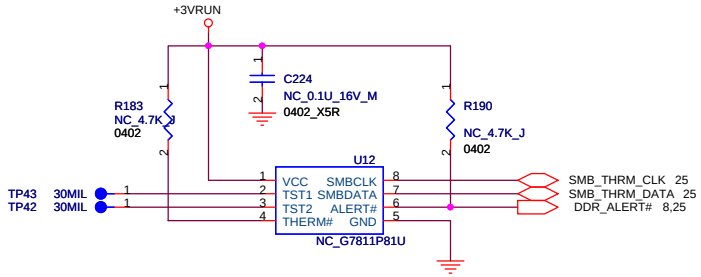
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	AUDIO (MUTE & INTMIC)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 33 of 56	



D9 close to CN15.
for inverse current

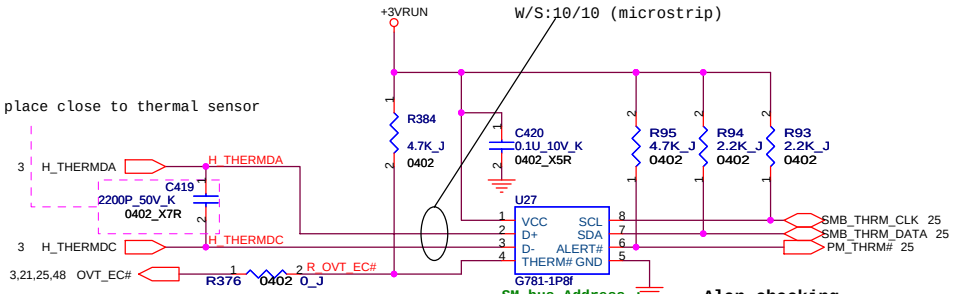
FAN

Memory Thermal-Sensor



Close to CN25

CPU Thermal-Sensor

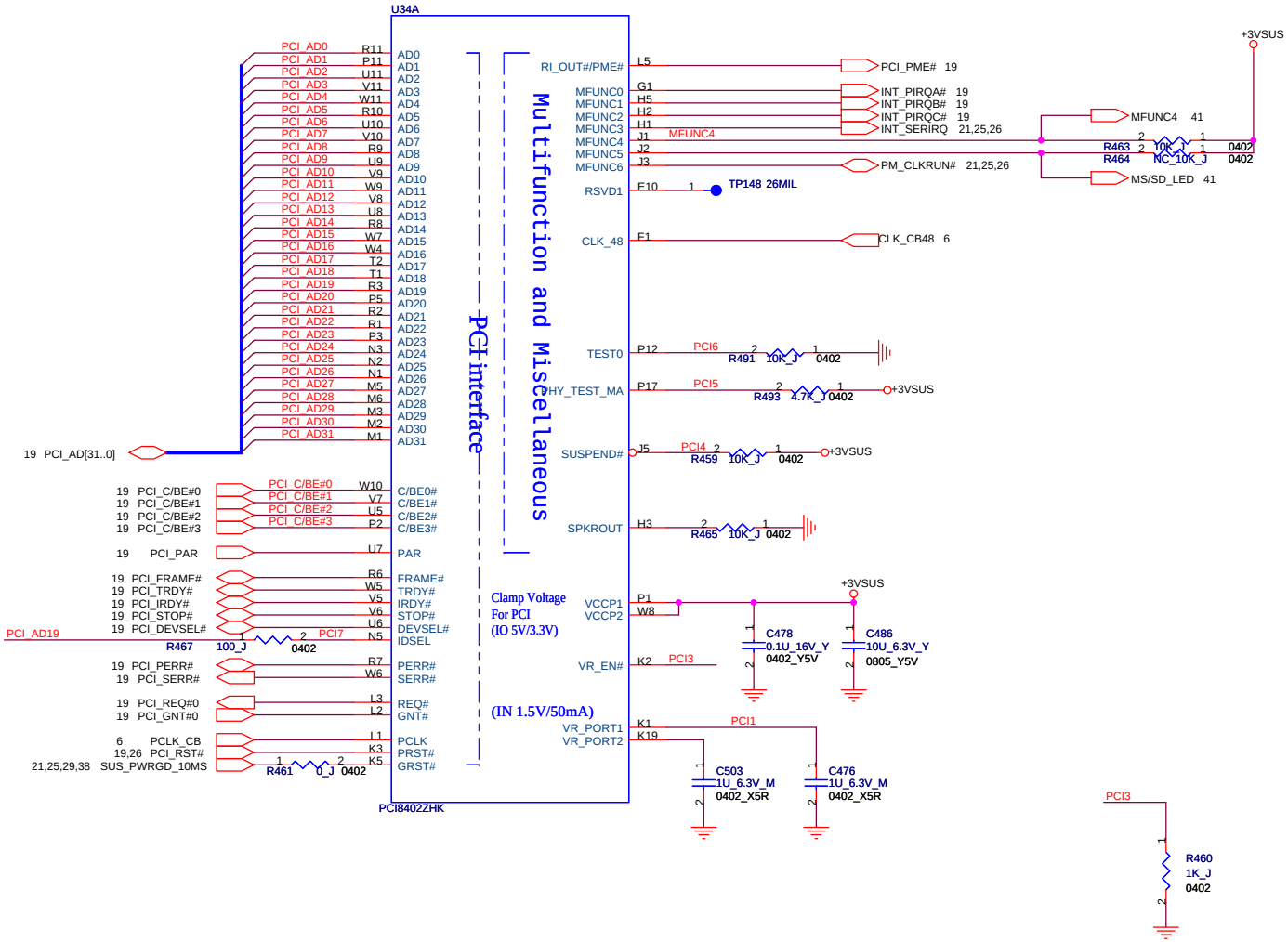


Place Thermal-Sensor near
CPU & GMCH.

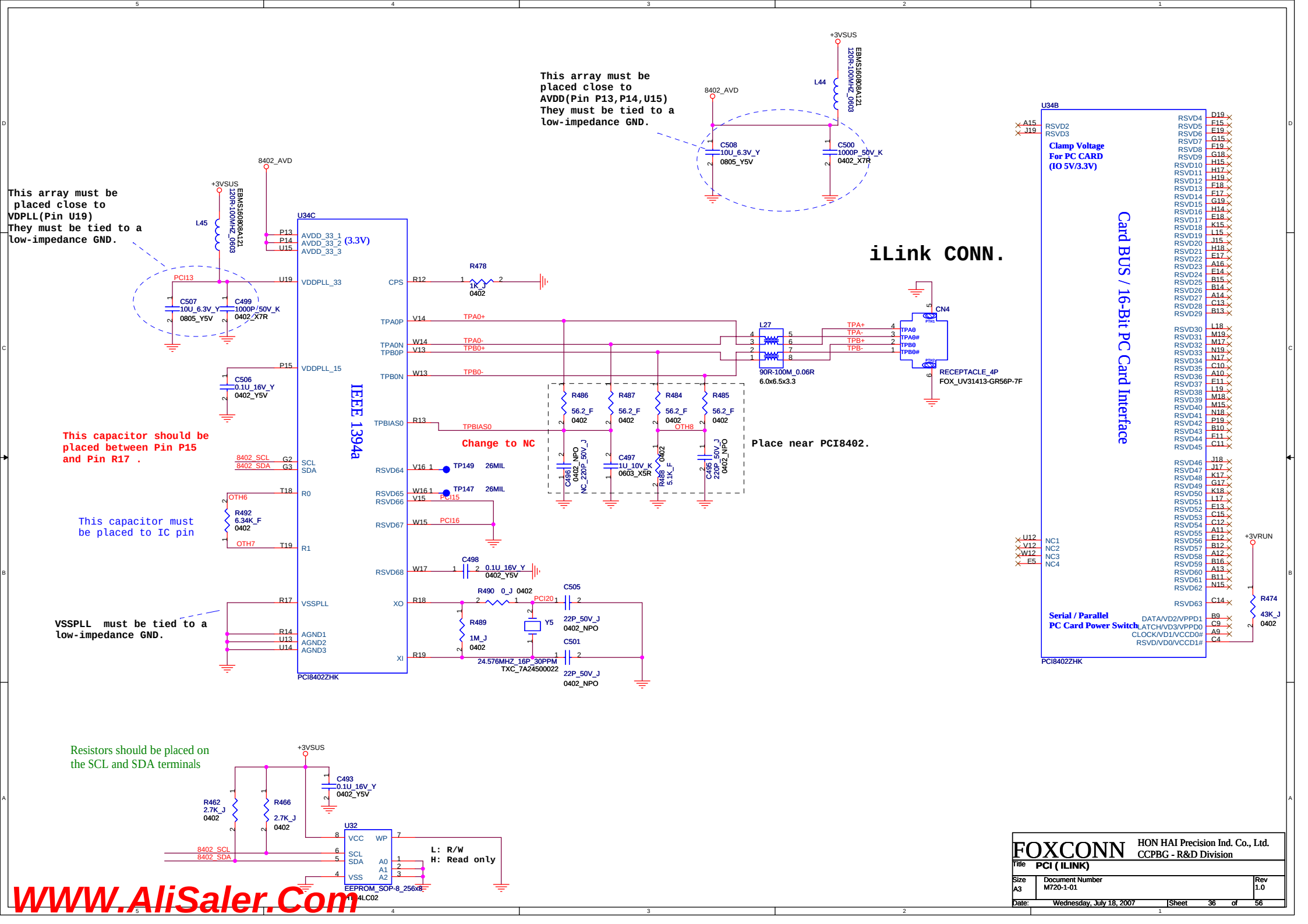
Close to U24

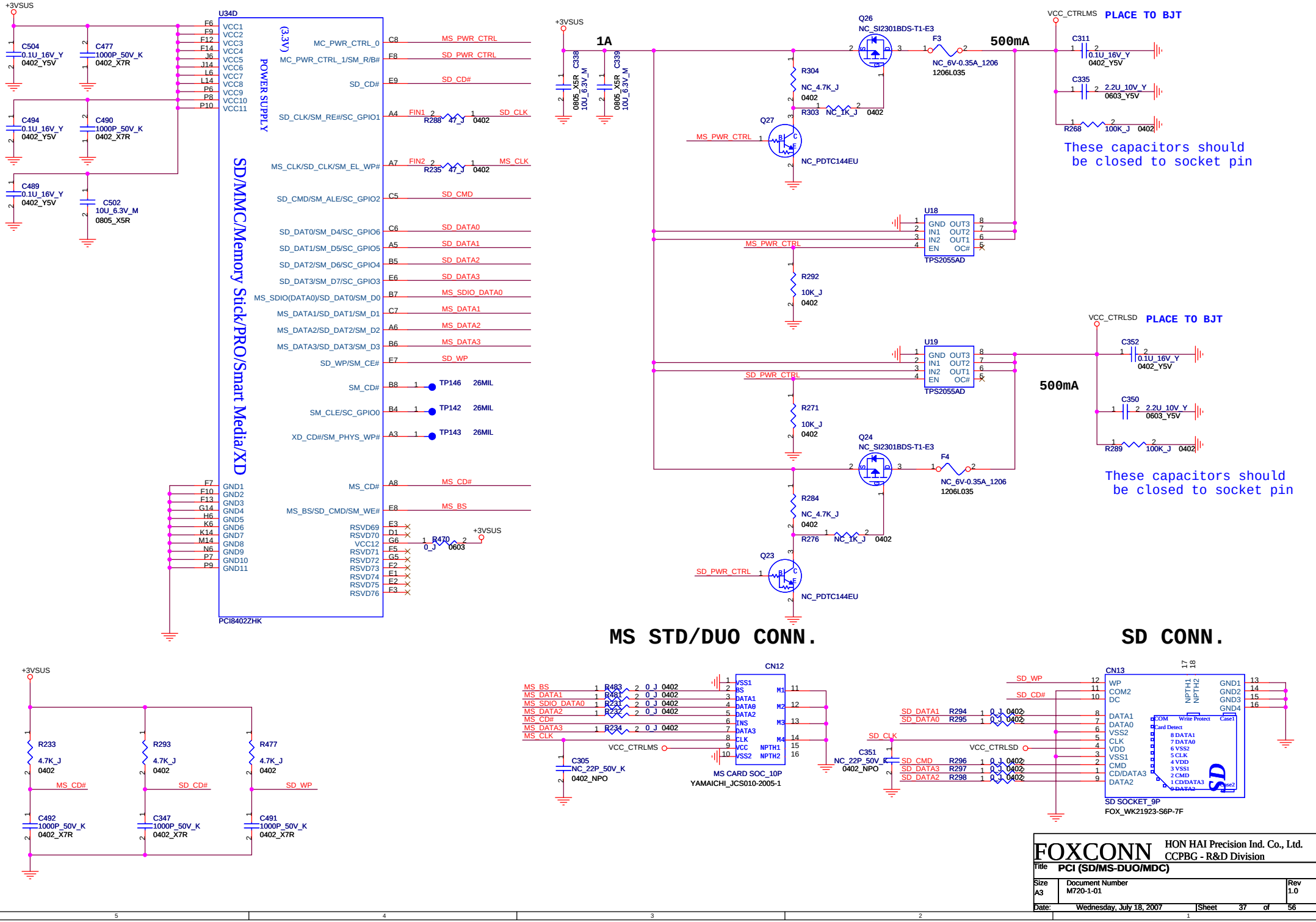
FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	FAN/Thermal-Sensor	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 34 of 56	

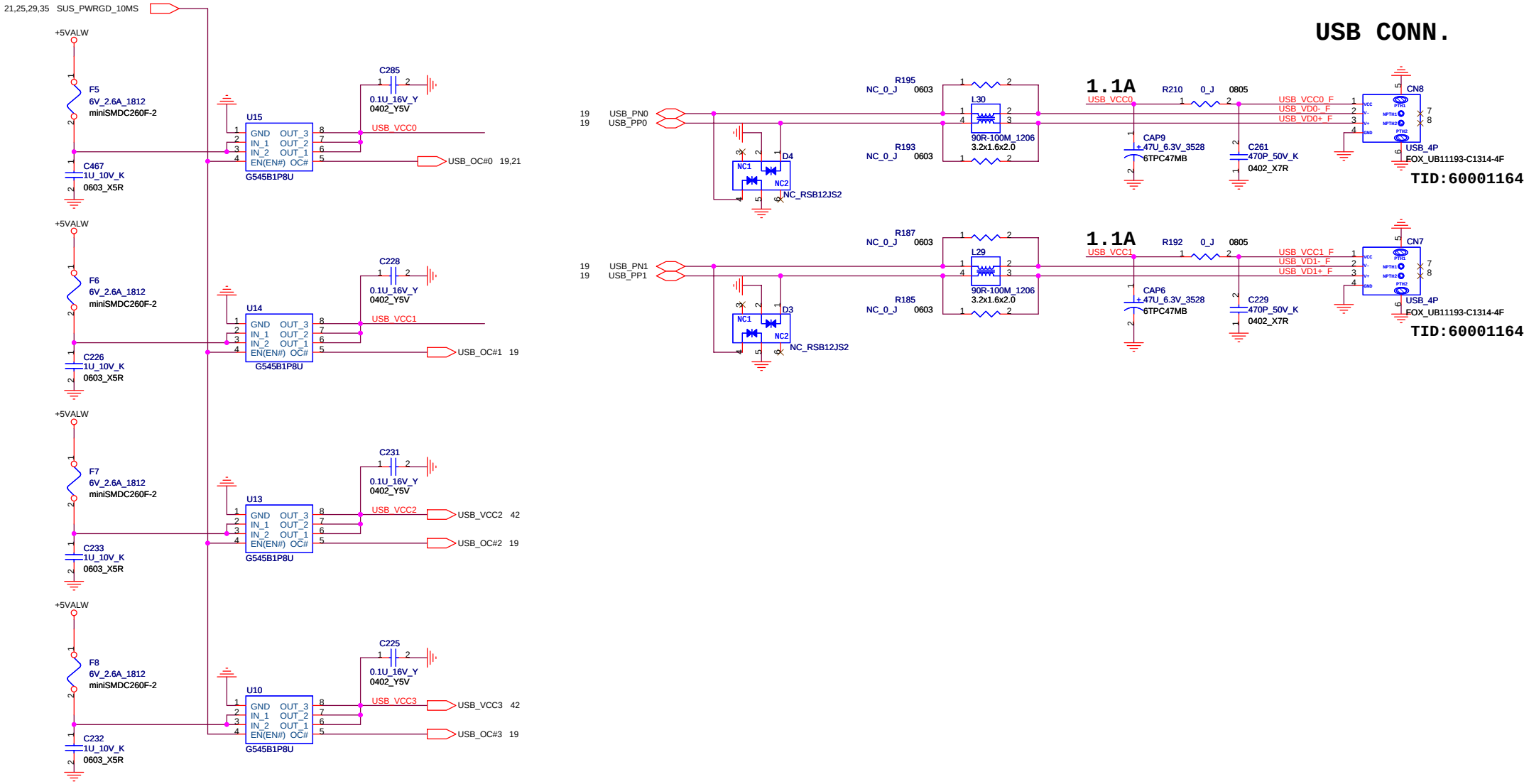


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	PCI (PCI BUS)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 35 of 56	

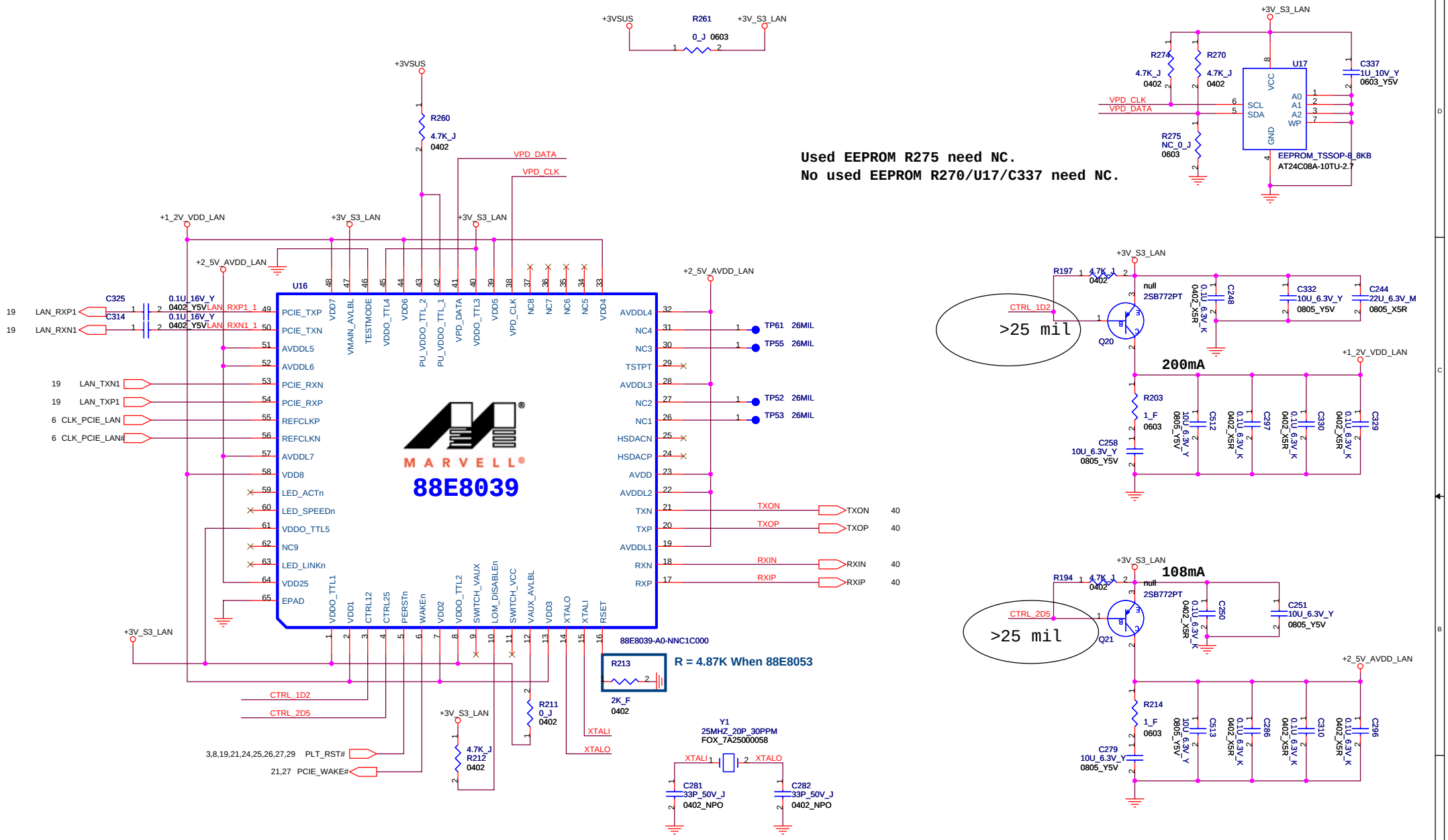

This array must be placed close to AVDD(Pin P13,P14,U15) They must be tied to a low-impedance GND.
8402_AVD
+3VSUS
L44
EBMS160808A121 120R-100MHZ_0603
C508 10U_6.3V_Y 0805_Y5V
C500 1000P_50V_K 0402_X7R
This array must be placed close to VDPLL(Pin U19) They must be tied to a low-impedance GND.
L45
C507 10U_6.3V_Y 0805_Y5V
C499 1000P_50V_K 0402_X7R
C506 0.1U_16V_Y 0402_Y5V
U34C
IEEE 1394a
AVDD_33_1
AVDD_33_2
AVDD_33_3
(3.3V)
VDDPLL_33
VDDPLL_15
CPS
TPA0P
TPA0N
TPB0P
TPB0N
TPBIAS0
RSVD64
RSVD65
RSVD66
RSVD67
RSVD68
XO
XI
R478 1K_J 0402
TPA0+
TPA0-
TPB0+
TPB0-
TPBIAS0
Change to NC
R486 56.2_F 0402
R487 56.2_F 0402
R484 56.2_F 0402
R485 56.2_F 0402
C496 0402_NPO NC_220P_50V_J
C497 1U_10V_K 0603_X5R
R488 0402 5.1K_F
C495 220P_50V_J 0402_NPO
Place near PCI8402.
L27
90R-100M_0.06R 6.0x6.5x3.3
CN4
RECEPTACLE_4P FOX_UV31413-GR56P-7F
iLink CONN.
This capacitor should be placed between Pin P15 and Pin R17 .
This capacitor must be placed to IC pin
8402_SCL
8402_SDA
SCL
SDA
R0
R1
R492 6.34K_F 0402
TP149 26MIL
TP147 26MIL
PCI15
PCI16
C498 0.1U_16V_Y 0402_Y5V
R490 0_J 0402
R489 1M_J 0402
C505 22P_50V_J 0402_NPO
C501 22P_50V_J 0402_NPO
Y5
24.576MHZ_16P_30PPM TXC_7A24500022
VSSPLL must be tied to a low-impedance GND.
VSSPLL
AGND1
AGND2
AGND3
PCI8402ZHK
U34B
Card BUS / 16-Bit PC Card Interface
Clamp Voltage For PC CARD (IO 5V/3.3V)
RSVD2
RSVD3
RSVD4 RSVD5 RSVD6 RSVD7 RSVD8 RSVD9 RSVD10 RSVD11 RSVD12 RSVD13 RSVD14 RSVD15 RSVD16 RSVD17 RSVD18 RSVD19 RSVD20 RSVD21 RSVD22 RSVD23 RSVD24 RSVD25 RSVD26 RSVD27 RSVD28 RSVD29
RSVD30 RSVD31 RSVD32 RSVD33 RSVD34 RSVD35 RSVD36 RSVD37 RSVD38 RSVD39 RSVD40 RSVD41 RSVD42 RSVD43 RSVD44 RSVD45
RSVD46 RSVD47 RSVD48 RSVD49 RSVD50 RSVD51 RSVD52 RSVD53 RSVD54 RSVD55 RSVD56 RSVD57 RSVD58 RSVD59 RSVD60 RSVD61 RSVD62
RSVD63
NC1
NC2
NC3
NC4
Serial / Parallel PC Card Power Switch
DATA/VD2/VPPD1
LATCH/VD3/VPPD0
CLOCK/VD1/VCCD0#
RSVD/VD0/VCCD1#
+3VRUN
R474 43K_J 0402
Resistors should be placed on the SCL and SDA terminals
R462 2.7K_J 0402
R466 2.7K_J 0402
C493 0.1U_16V_Y 0402_Y5V
U32
VCC
WP
SCL
SDA
A0
A1
A2
VSS
EEPROM_SOP-8_256x8
24LC02
L: R/W
H: Read only
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title PCI (ILINK)
Size A3
Document Number M720-1-01
Rev 1.0
Date: Wednesday, July 18, 2007
Sheet 36 of 56
WWW.AliSaler.Com


U34D
PCI8402ZHK
SD/MMC/Memory Stick/PRO/Smart Media/XD
POWER SUPPLY
(3.3V)
+3VSUS
C504 0.1U_16V_Y 0402_Y5V
C477 1000P_50V_K 0402_X7R
C494 0.1U_16V_Y 0402_Y5V
C490 1000P_50V_K 0402_X7R
C489 0.1U_16V_Y 0402_Y5V
C502 10U_6.3V_M 0805_X5R
MC_PWR_CTRL_0
MC_PWR_CTRL_1/SM_R/B#
SD_CD#
SD_CLK/SM_RE#/SC_GPIO1
MS_CLK/SD_CLK/SM_EL_WP#
SD_CMD/SM_ALE/SC_GPIO2
SD_DAT0/SM_D4/SC_GPIO6
SD_DAT1/SM_D5/SC_GPIO5
SD_DAT2/SM_D6/SC_GPIO4
SD_DAT3/SM_D7/SC_GPIO3
MS_SDIO(DATA0)/SD_DAT0/SM_D0
MS_DATA1/SD_DAT1/SM_D1
MS_DATA2/SD_DAT2/SM_D2
MS_DATA3/SD_DAT3/SM_D3
SD_WP/SM_CE#
SM_CD#
SM_CLE/SC_GPIO0
XD_CD#/SM_PHYS_WP#
MS_CD#
MS_BS/SD_CMD/SM_WE#
MS_PWR_CTRL
SD_CLK
MS_CLK
SD_CMD
SD_DATA0
SD_DATA1
SD_DATA2
SD_DATA3
MS_SDIO_DATA0
MS_DATA1
MS_DATA2
MS_DATA3
SD_WP
MS_BS
TP146 26MIL
TP142 26MIL
TP143 26MIL
R288 47_J 0402
R235 47_J 0402
R470 0_J 0603
+3VSUS
1A
C338 0805_X5R 10U_6.3V_M
C339 0805_X5R 10U_6.3V_M
Q26 NC_SI2301BDS-T1-E3
F3 NC_6V-0.35A_1206 1206L035
500mA
R304 NC_4.7K_J 0402
R303 NC_1K_J 0402
Q27 NC_PDTC144EU
U18 TPS2055AD
R292 10K_J 0402
VCC_CTRLMS
PLACE TO BJT
C311 0.1U_16V_Y 0402_Y5V
C335 2.2U_10V_Y 0603_Y5V
R268 100K_J 0402
These capacitors should be closed to socket pin
U19 TPS2055AD
R271 10K_J 0402
Q24 NC_SI2301BDS-T1-E3
F4 NC_6V-0.35A_1206 1206L035
R284 NC_4.7K_J 0402
R276 NC_1K_J 0402
Q23 NC_PDTC144EU
VCC_CTRLSD
C352 0.1U_16V_Y 0402_Y5V
C350 2.2U_10V_Y 0603_Y5V
R289 100K_J 0402
These capacitors should be closed to socket pin
MS STD/DUO CONN.
CN12
MS CARD SOC_10P
YAMAICHI_JCS010-2005-1
C305 NC_22P_50V_K 0402_NPO
C351 NC_22P_50V_K 0402_NPO
SD CONN.
CN13
SD SOCKET_9P
FOX_WK21923-S6P-7F
R233 4.7K_J 0402
R293 4.7K_J 0402
R477 4.7K_J 0402
C492 1000P_50V_K 0402_X7R
C347 1000P_50V_K 0402_X7R
C491 1000P_50V_K 0402_X7R
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title PCI (SD/MS-DUO/MDC)
Size A3
Document Number M720-1-01
Rev 1.0
Date: Wednesday, July 18, 2007
Sheet 37 of 56

USB CONN.

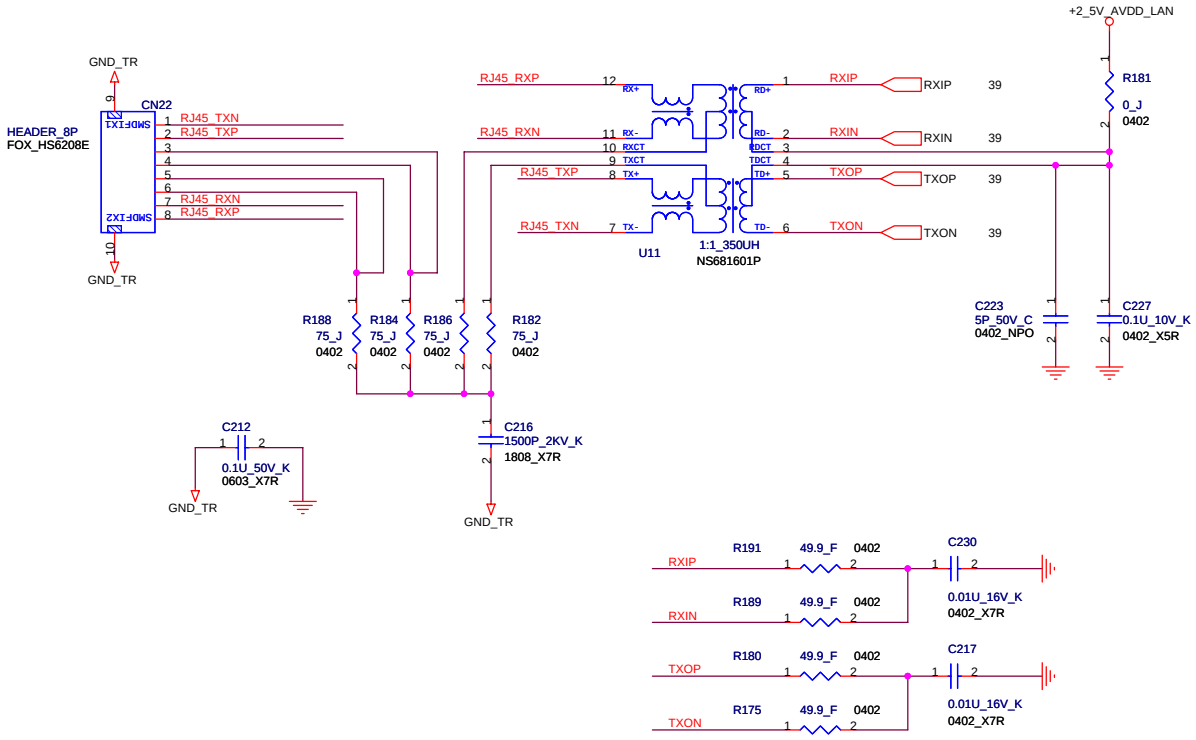


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	USB2.0	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 38 of 56	



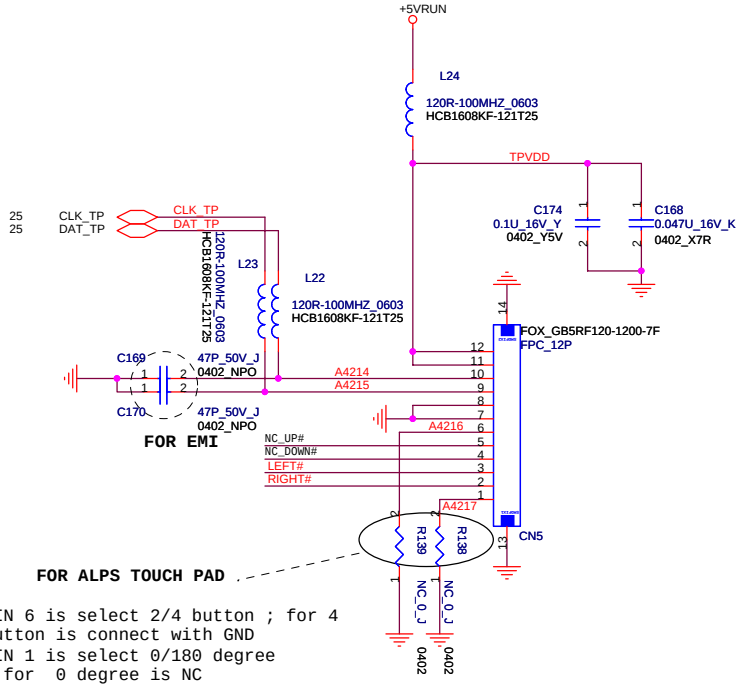
Used EEPROM R275 need NC.
No used EEPROM R270/U17/C337 need NC.

FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division	
Title	LAN (88E8036)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 39 of 56	



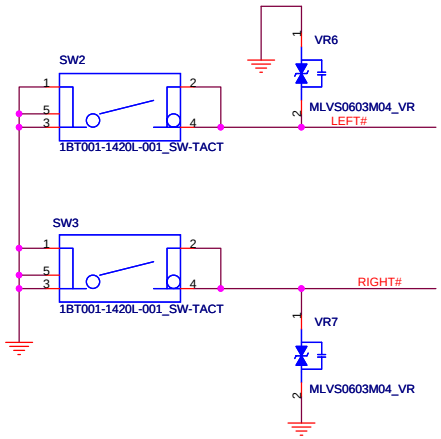
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	LAN Transformer	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 40 of 56	

Touch Pad CONN.

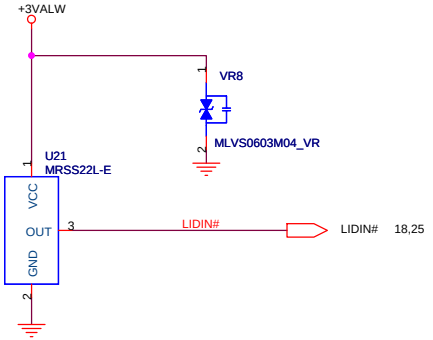


PIN 6 is select 2/4 button ; for 4 button is connect with GND
PIN 1 is select 0/180 degree ; for 0 degree is NC

TP_LEFT Button

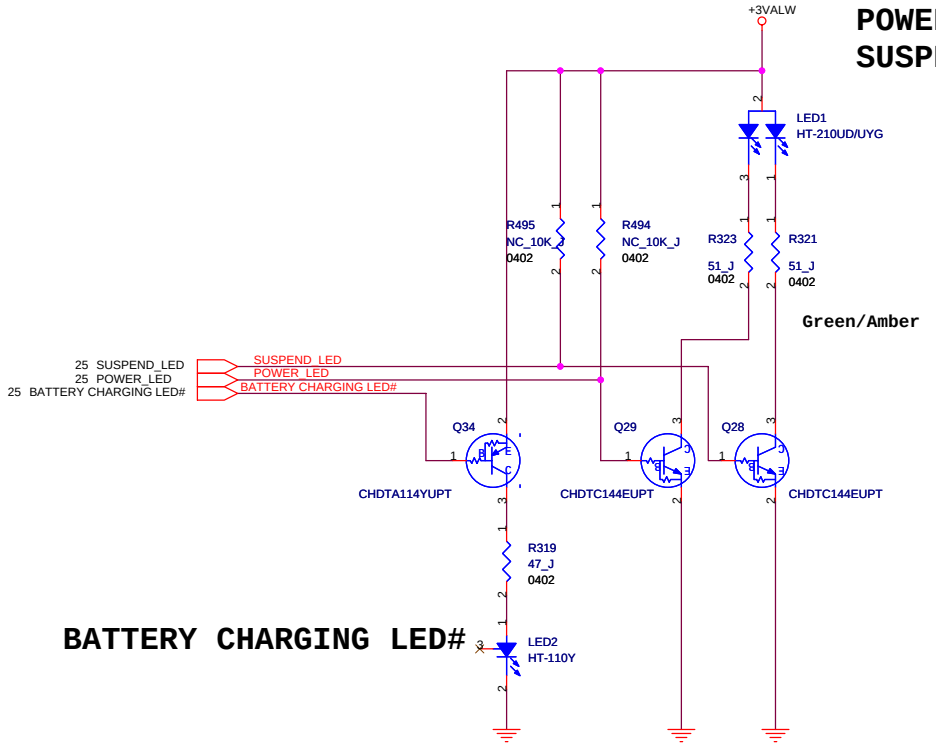


LID Switch



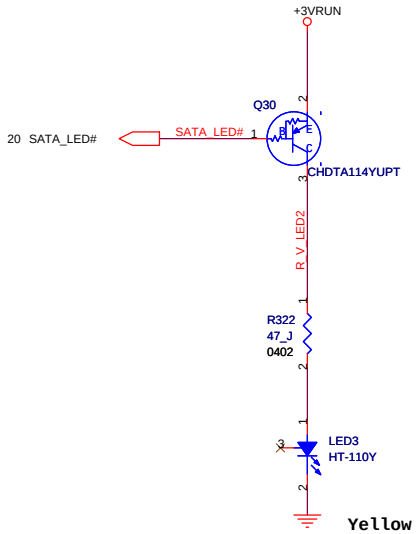
TP_Right Button

POWER_LED
SUSPEND_LED

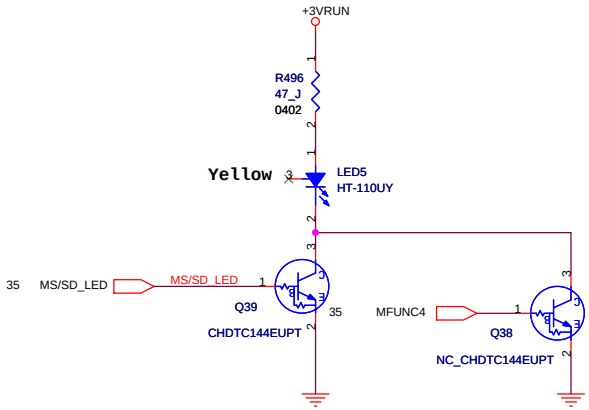


BATTERY CHARGING LED#

SATA_LED#

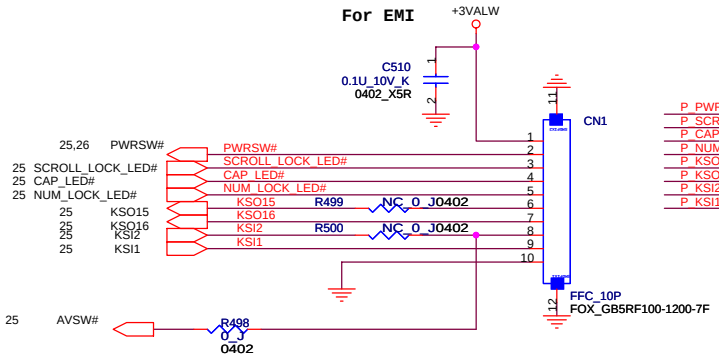


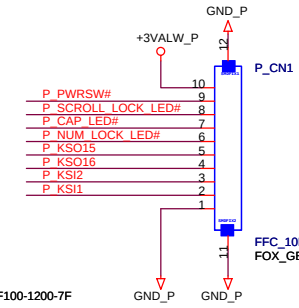
MS/SD LED

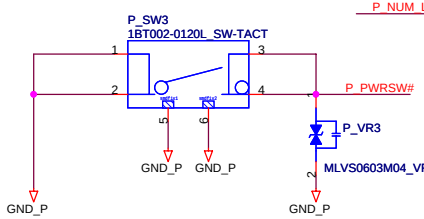


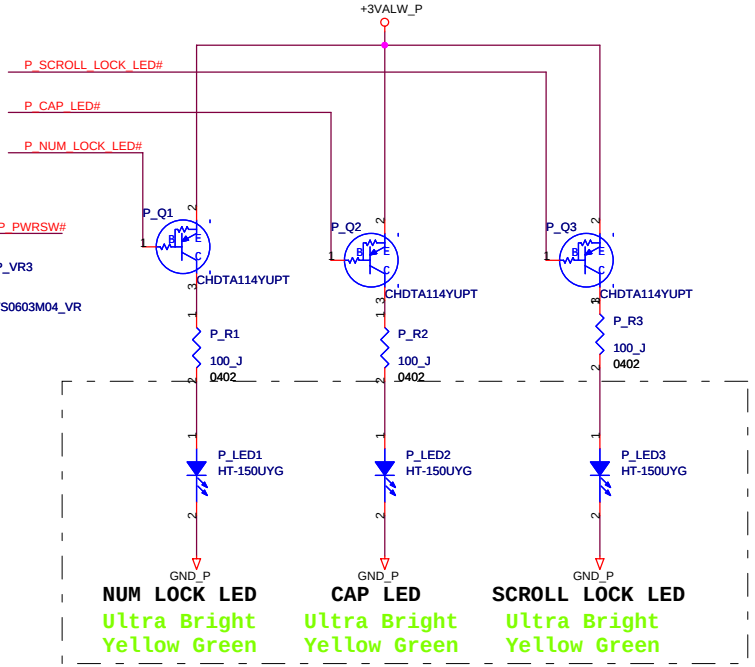
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	LED/Touch/Lid	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 41 of 56	

Power Button Board

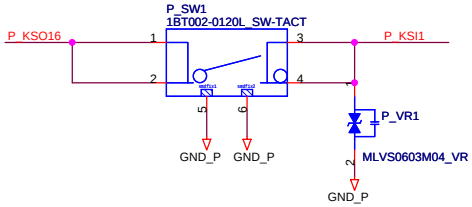




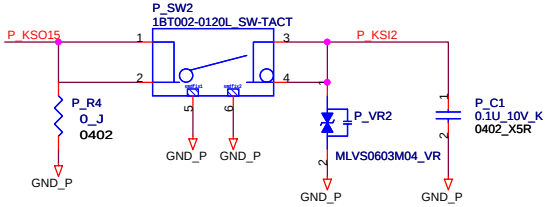




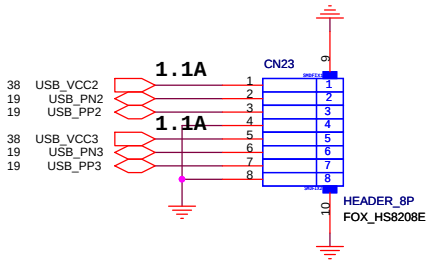
S1 Button

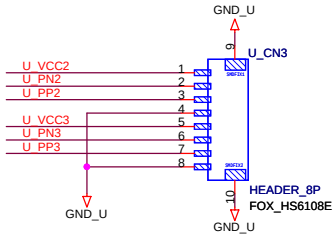


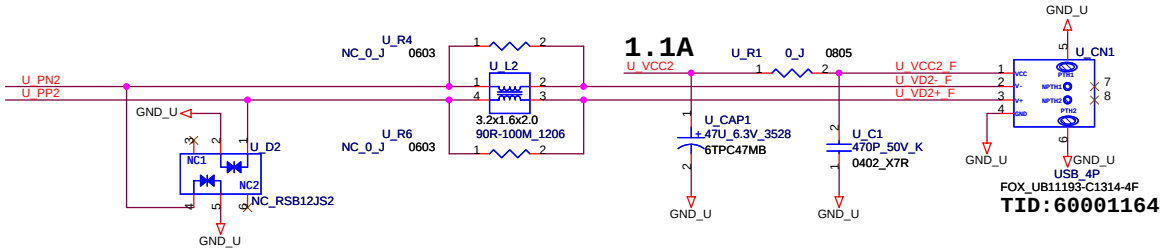
AV Mode Button

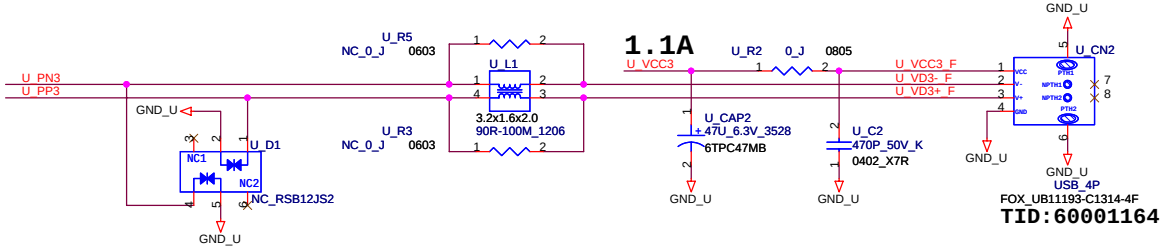


USB Board

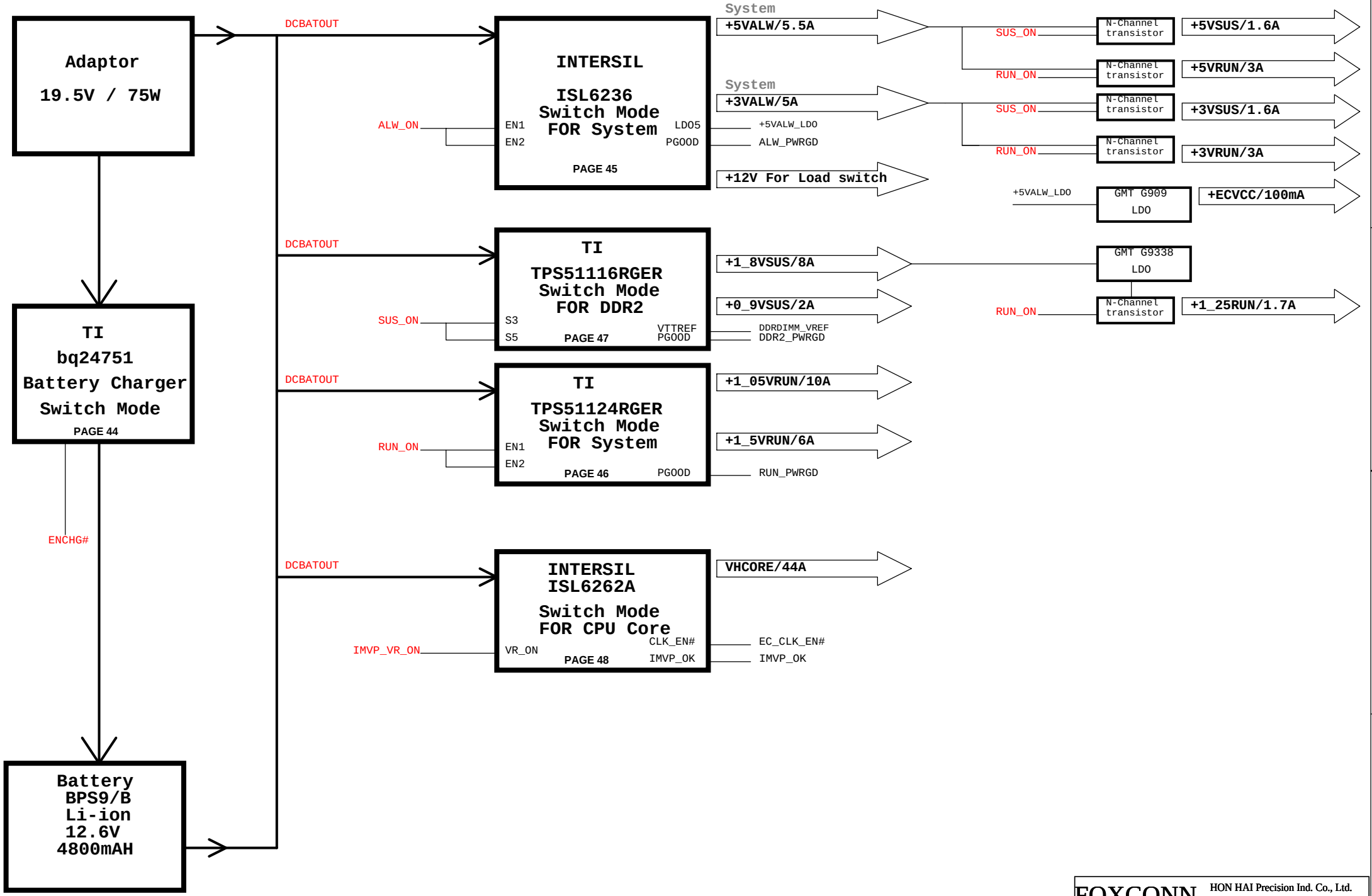






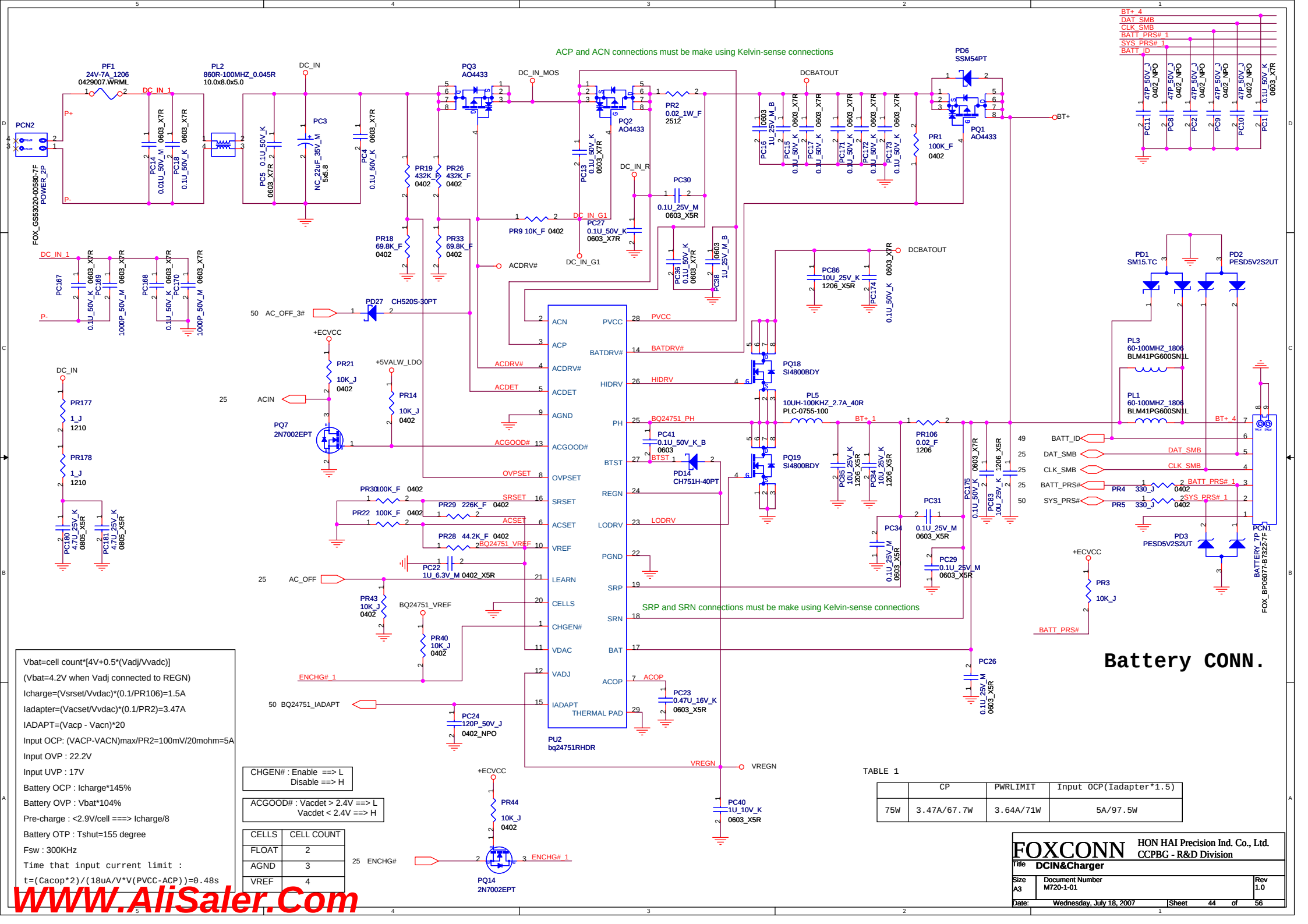


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	KEYBOARD LED & Power SW	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 42 of 56	



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

Title	Power Design Diagram	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 43 of 56	


ACP and ACN connections must be make using Kelvin-sense connections
SRP and SRN connections must be make using Kelvin-sense connections
PU2
bq24751RHDR
Battery CONN.
Vbat=cell count*[4V+0.5*(Vadj/Vvadc)]
(Vbat=4.2V when Vadj connected to REGN)
Icharge=(Vsrset/Vvdac)*(0.1/PR106)=1.5A
Iadapter=(Vacset/Vvdac)*(0.1/PR2)=3.47A
IADAPT=(Vacp - Vacn)*20
Input OCP: (VACP-VACN)max/PR2=100mV/20mohm=5A
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
CHGEN# : 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 | 3.47A/67.7W | 3.64A/71W | 5A/97.5W
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title DCIN&Charger
Size A3
Document Number M720-1-01
Rev 1.0
Date: Wednesday, July 18, 2007
Sheet 44 of 56
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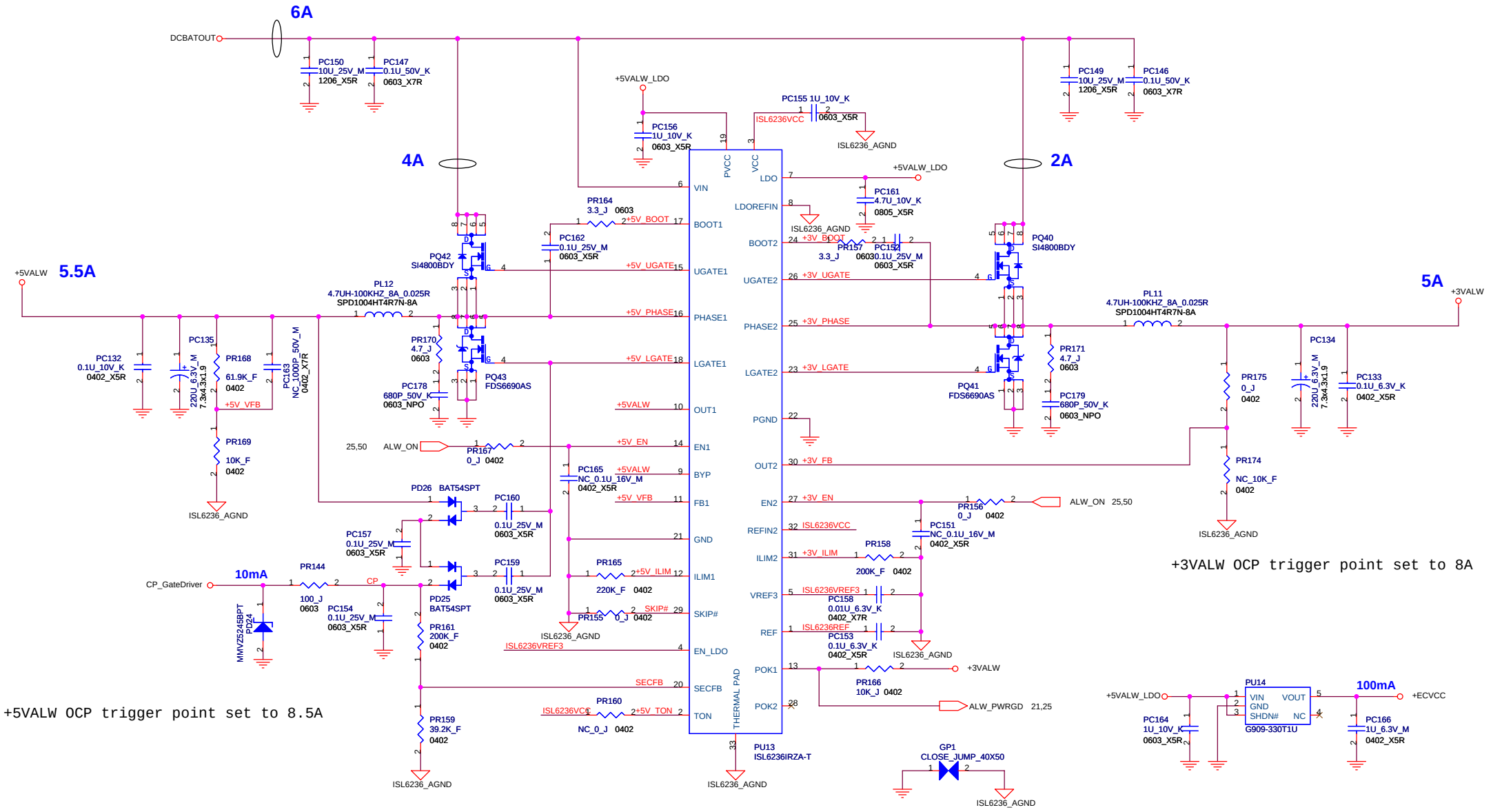


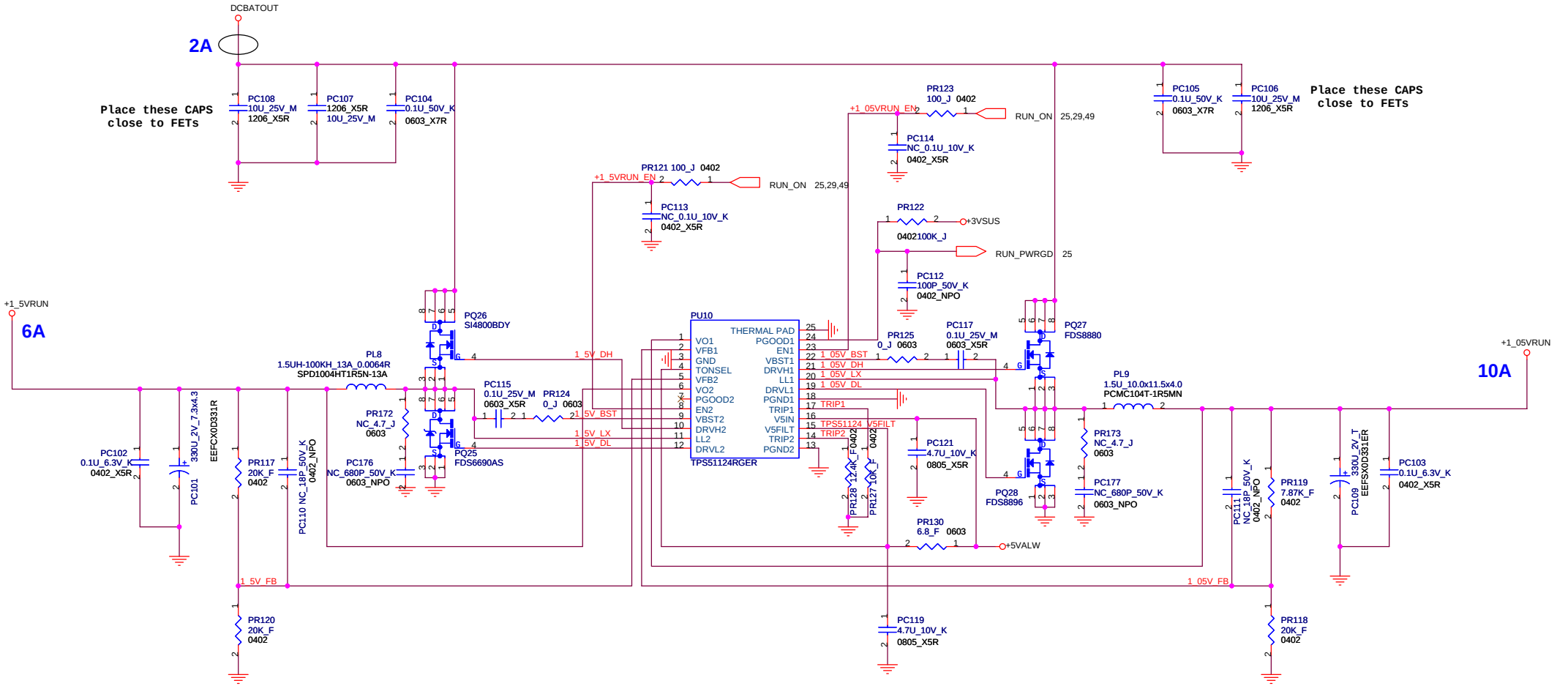
TON	Operating Frequence (+5VALW/+3VALW)
VCC	200KHz/300KHz
REF(OPEN)	400KHz/300KHz
GND	400KHz/500KHz

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

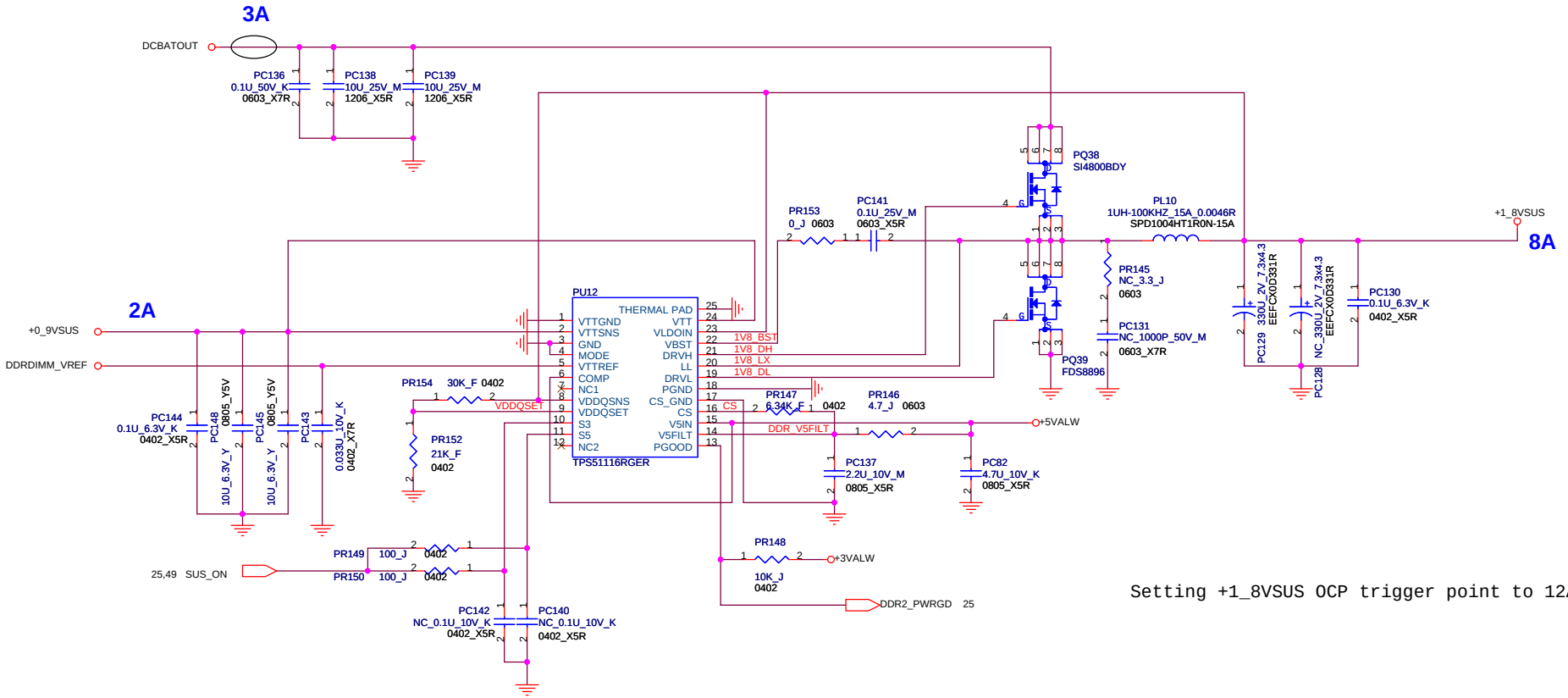
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SYS Power (+3_3V/+5V)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 45 of 56	



Setting +1_5VRUN OCP trigger point to 10.6A

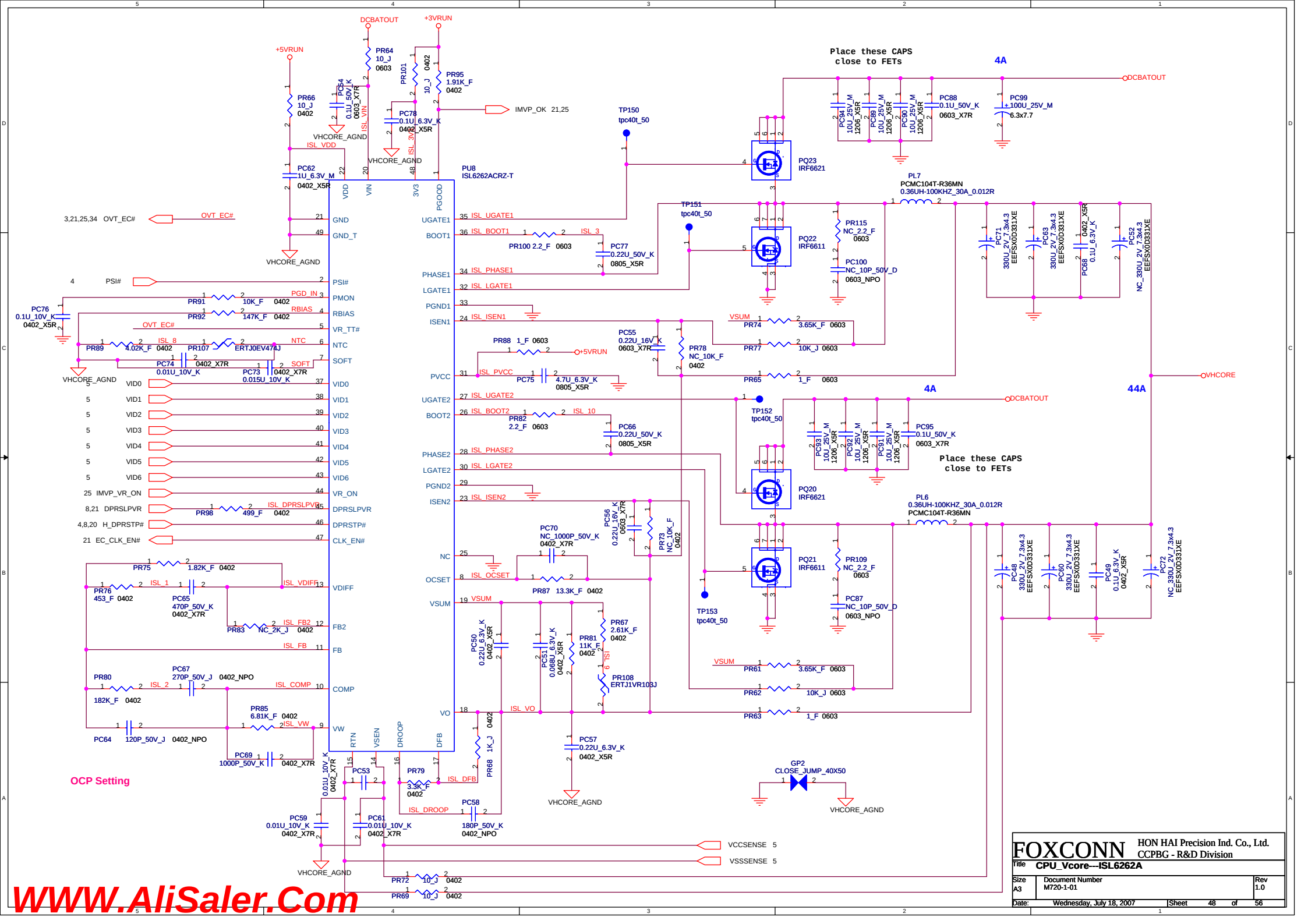
Setting +1_05VRUN OCP trigger point to 14.2A

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SYS Power(+1_5V/+1_05V)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 46 of 56	



Setting +1_8VSUS OCP trigger point to 12A

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	DDR2 Power(+1_8V/+0_9V)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 47 of 56	


DCBATOUT
+3VRUN
+5VRUN
PR64 10_J 0603
PR101 10_J 0402
PR95 1.91K_F 0402
IMVP_OK 21,25
PC54 0.1U_50V_K 0603_X7R
PC78 0.1U_6.3V_K 0402_X5R
VHCORE_AGND
ISL_VDD
ISL_VIN
ISL_3VS
PC62 1U_6.3V_M 0402_X5R
PU8 ISL6262ACRZ-T
VDD
VIN
3V3
PGOOD
Place these CAPS close to FETs
4A
PC94 10U_25V_M 1206_X5R
PC89 10U_25V_M 1206_X5R
PC90 10U_25V_M 1206_X5R
PC88 0.1U_50V_K 0603_X7R
PC99 100U_25V_M 6.3x7.7
TP150 tpc40t_50
PQ23 IRF6621
PL7 PCMC104T-R36MN 0.36UH-100KHZ_30A_0.012R
TP151 tpc40t_50
PQ22 IRF6611
PR115 NC_2.2_F 0603
PC100 NC_10P_50V_D 0603_NPO
PC71 330U_2V_7.3x4.3 EEFSX0D331XE
PC63 330U_2V_7.3x4.3 EEFSX0D331XE
PC68 0.1U_6.3V_K 0402_X5R
PC52 NC_330U_2V_7.3x4.3 EEFSX0D331XE
VHCORE
3,21,25,34 OVT_EC#
PSI#
PR91 10K_F 0402
PR92 147K_F 0402
PGD_IN
RBIAS
PC76 0.1U_10V_K 0402_X5R
PR89 4.02K_F 0402
PR107 ERTJ0EV474J
NTC
PC74 0.01U_10V_K 0402_X7R
PC73 0.015U_10V_K 0402_X7R
SOFT
VID0
VID1
VID2
VID3
VID4
VID5
VID6
25 IMVP_VR_ON
8,21 DPRSLPVR
PR98 499_F 0402
ISL_DPRSLPVR
4,8,20 H_DPRSTP#
21 EC_CLK_EN#
PR88 1_F 0603
PC55 0.22U_16V_K 0603_X7R
PR78 NC_10K_F 0402
VSUM
PR74 3.65K_F 0603
PR77 10K_J 0603
PC75 4.7U_6.3V_K 0805_X5R
PR65 1_F 0603
PC66 0.22U_50V_K 0805_X5R
PR82 2.2_F 0603
TP152 tpc40t_50
PC93 10U_25V_M 1206_X5R
PC92 10U_25V_M 1206_X5R
PC91 10U_25V_M 1206_X5R
PC95 0.1U_50V_K 0603_X7R
Place these CAPS close to FETs
PQ20 IRF6621
PL6 0.36UH-100KHZ_30A_0.012R PCMC104T-R36MN
PC56 0.22U_16V_K 0603_X7R
PR73 NC_10K_F 0402
PC70 NC_1000P_50V_K 0402_X7R
PR87 13.3K_F 0402
PQ21 IRF6611
PR109 NC_2.2_F 0603
PC87 NC_10P_50V_D 0603_NPO
TP153 tpc40t_50
PC48 330U_2V_7.3x4.3 EEFSX0D331XE
PC60 330U_2V_7.3x4.3 EEFSX0D331XE
PC49 0.1U_6.3V_K 0402_X5R
PC72 NC_330U_2V_7.3x4.3 EEFSX0D331XE
PR75 1.82K_F 0402
PR76 453_F 0402
PC65 470P_50V_K 0402_X7R
PR83 NC_2K_J 0402
PC67 270P_50V_J 0402_NPO
PR80 182K_F 0402
PR85 6.81K_F 0402
PC64 120P_50V_J 0402_NPO
PC69 1000P_50V_K 0402_X7R
PC50 0.22U_6.3V_K 0402_X5R
PC51 0.068U_6.3V_K 0402_X5R
PR81 11K_F 0402
PR67 2.61K_F 0402
PR108 ERTJ1VR103J
PR61 3.65K_F 0603
PR62 10K_J 0603
PR63 1_F 0603
PC57 0.22U_6.3V_K 0402_X5R
PR68 1K_J 0402
PR79 3.3K_F 0402
PC53 0.01U_10V_K 0402_X7R
PC58 180P_50V_K 0402_NPO
PC59 0.01U_10V_K 0402_X7R
PC61 0.01U_10V_K 0402_X7R
GP2 CLOSE_JUMP_40X50
VCCSENSE 5
VSSSENSE 5
PR72 10_J 0402
PR69 10_J 0402
OCP Setting
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
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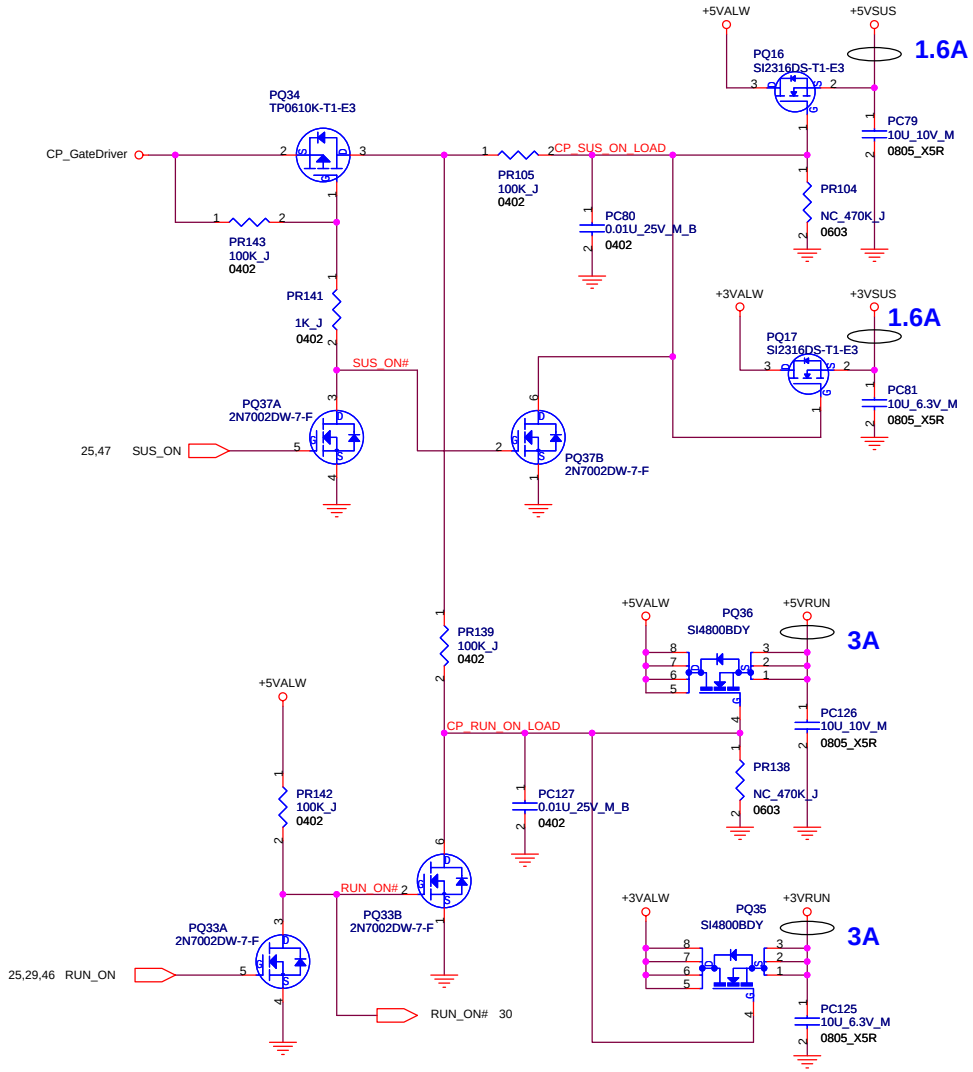
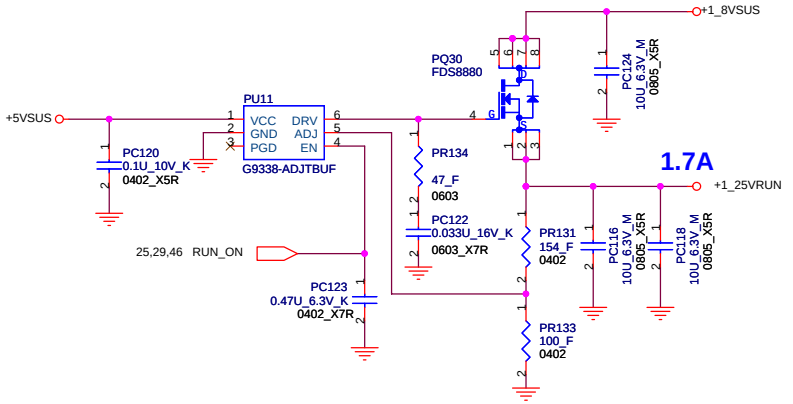
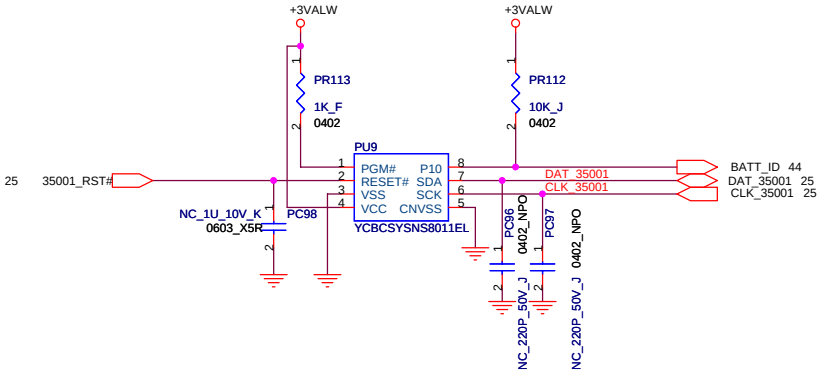
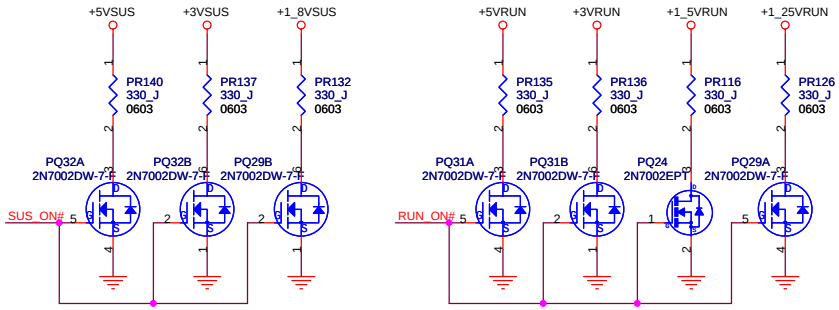






Discharge circuit for power-off



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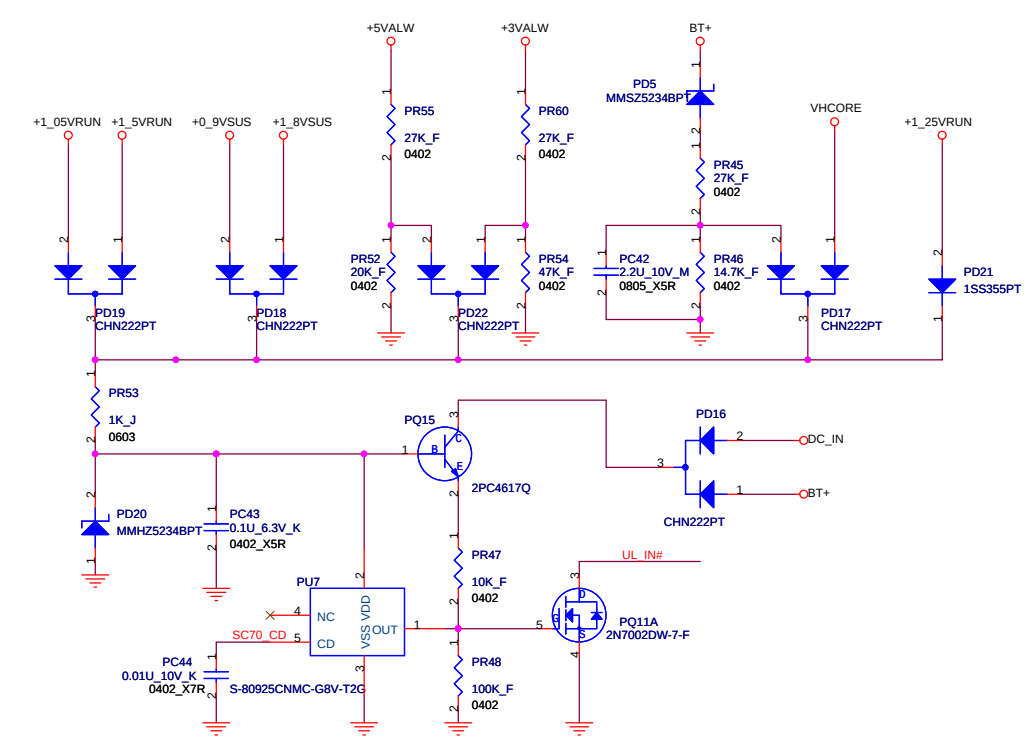
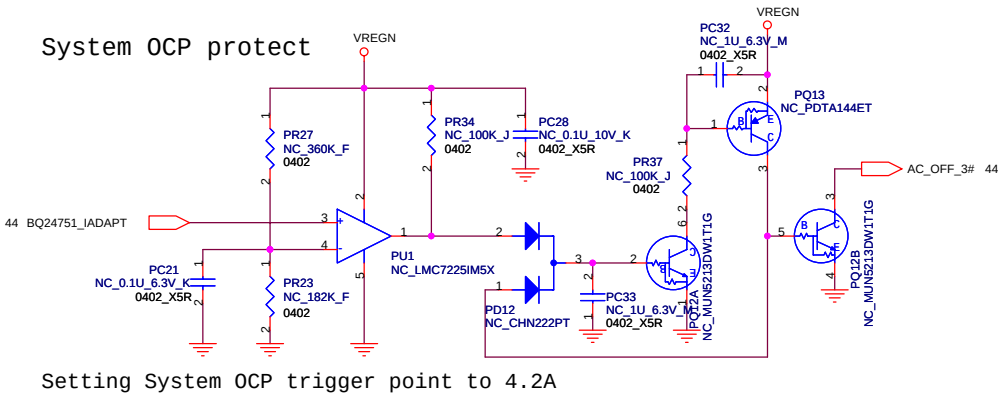
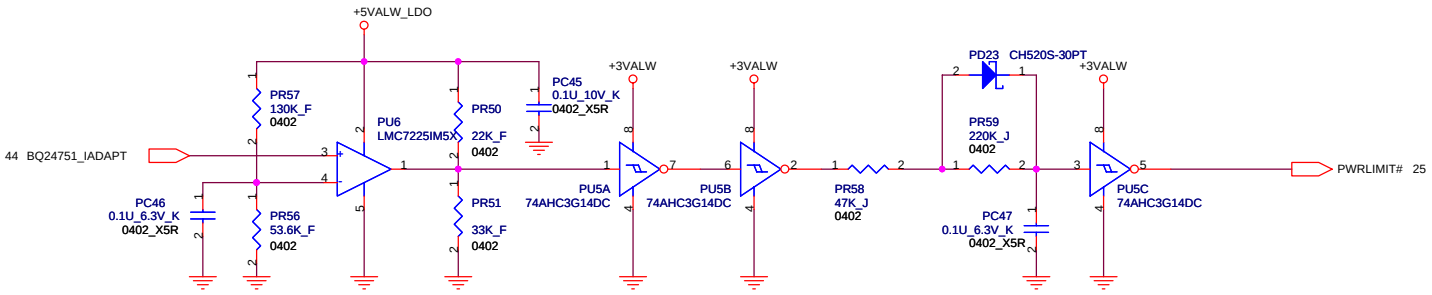


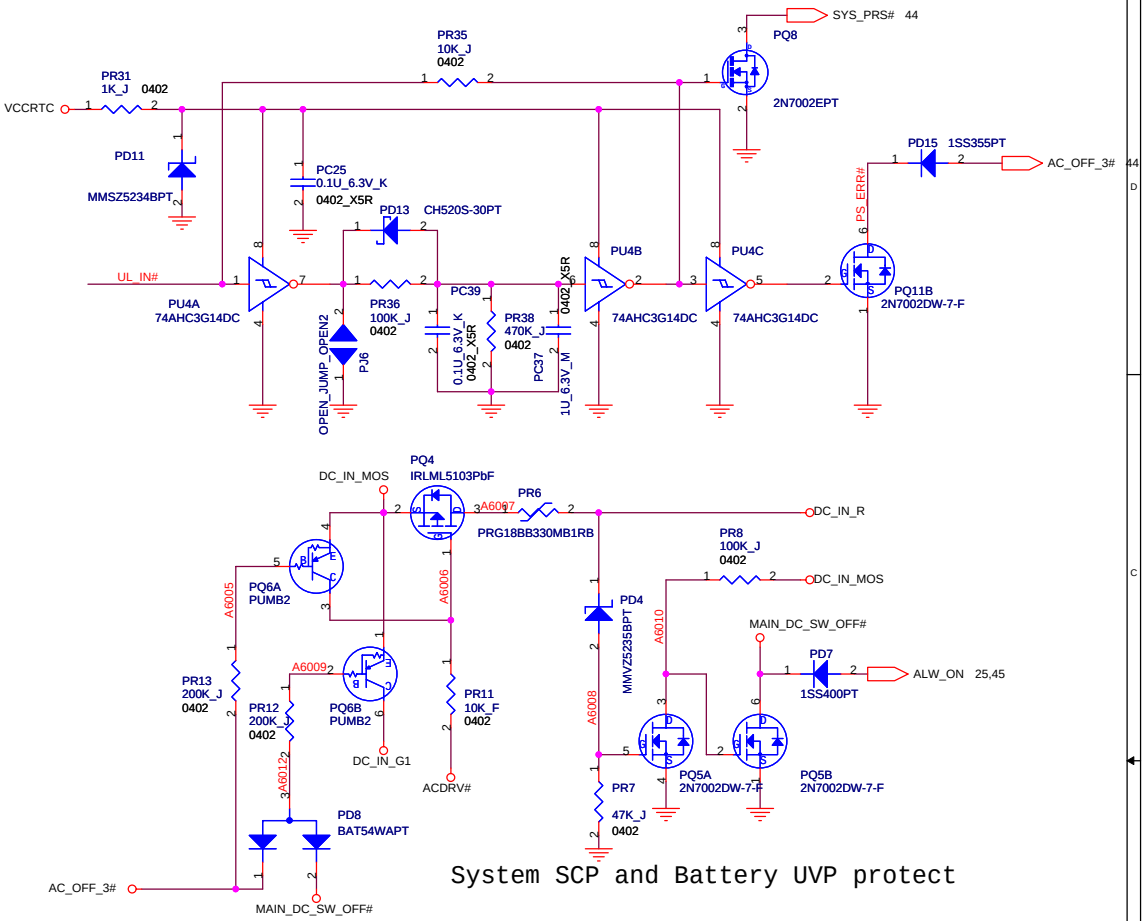
System OCP protect



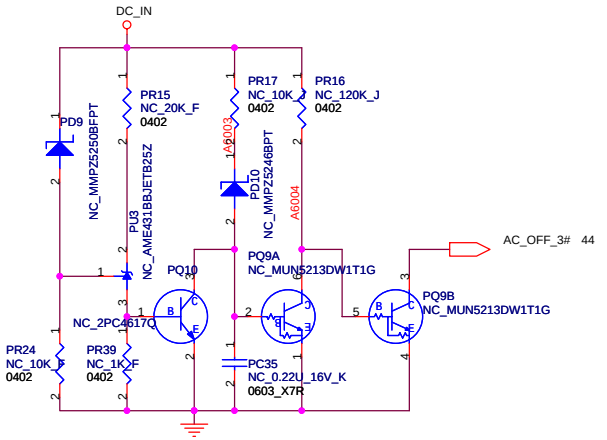
Setting System OCP trigger point to 4.2A



Setting PWRLIMIT# trigger point to 3.64A



System SCP and Battery UVP protect



DC_IN OVP and UVP protect

FOXCONN
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CCPBG - R&D Division

Title: OVP protection

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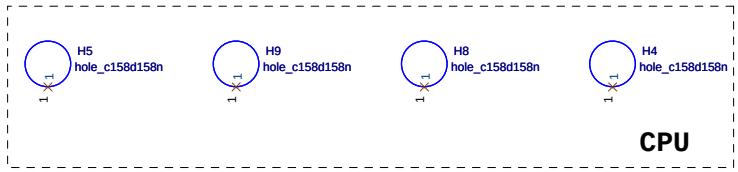

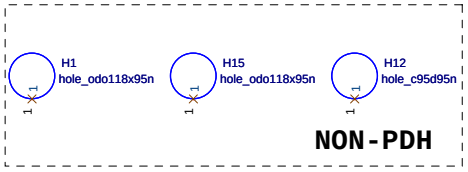

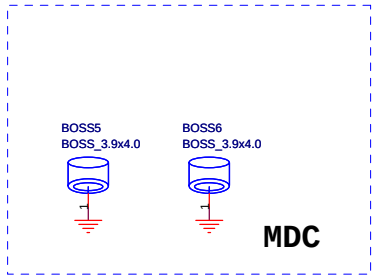

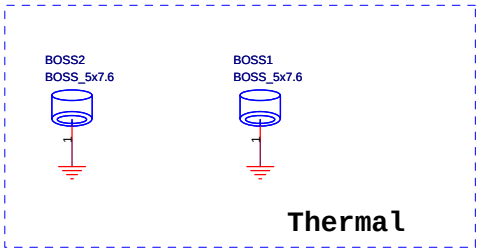

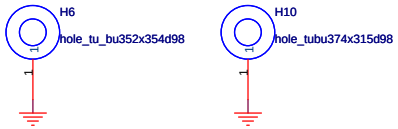

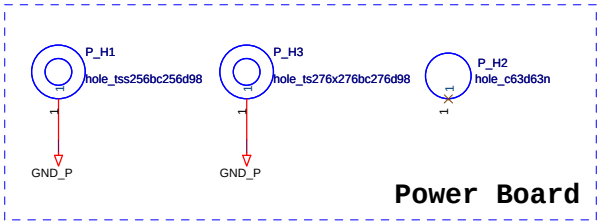

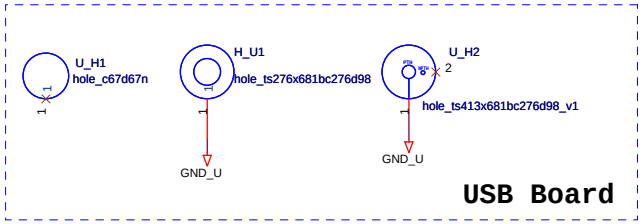

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M720 EVT

(2007/02/14)

P.27 Change Q104 for DTC144 to 2N7002,delete R2217
P.38 Change U64,U65,U66,U69 from G5250 to G545

(2007/02/26)

P.41 Add Q158 for MS/SD LED.

(2007/02/27)

P.49 Add PC147 and PC149 0.01uF_25V 0402 for soft start circuit.
P.50 Add DC_IN OVP, DC_IN UVP, System_OCP and System_SCP protection circuit.
P.50 Change PR270 from 33K_F 0402 to 53.6K_F 0402 for Setting PWRLIMIT# trigger point to 3.64A

(2007/02/28)

Delete GMCH power
P.12 Delete PJ13 for +VGFX_CORE power change to +1_05VRUN.
P.20 Delete TP263,add R1790 pull down for LAN_RST function on intel ICH8M request.
P.49 Delete PR243~PR245,PQ8 for GMCH power IC delete.
P.50 PD21 from CHN222PT change to 1SS355PT for GMCH power IC delete.

(2007/03/05)

P.50 Chenge DC_IN OVP, DC_IN UVP, System_OCP and System _SCP protection circuit to no mount.

(2007/03/06)

For layout request swap L69,L75,L80,LVDS signal.
P.44 Chenge PF1.
P.48 Chenge PU8 pin25 from VHCORE_AGND to GND for layout convenient

(2007/03/07)

For layout request swap U_L1,U_L2 signal.

(2007/03/08)

Update LED tepe for ID.
P.25 Update system ID table.
P.42 Add S1/S2 function,Change CN22,P_CN1 to 10pin.
P.44 Add PR7 10K_F 0402 and PC38 0.1uF_50V 0603 X7R for DC_IN soft start circuit.
P.46 Change PL11 from MPO104-1R5 to PCMC104T-1R5MN
P.49 Add PR220 1K_J 0603 for soft start circuit.
P.50 Mount System SCP circuit.

(2007/03/12)

Battery/LVDS/RJ45/USB board connector,change new type,Touch pad/Wlan switch change new type.
P.44 Change PC20 from 0.01U_25V 0402 to 0.01U_50V 0603.
P.44 Change PR10 from 40.2K_F 0402 to 226K_F 0402 for setting charger current to 1.5A.
P.44 Change PR13 from 24.9K_F 0402 to 44.2K_F 0402 for setting constant power to 3.47A.
P.46 Change +1_05VRUN power rating to 10A.
P.48 Add PR361, PR362, PR363 and PR364 0_J 0603 for testing.
P.51 Update Screw pad size.

(2007/03/13)

P.11 Add L98,C1089,L22,R678,C155,L89,L21,C168,Change +V1.5S_CRT to +V1.5S_TVDAC,Change +VCC_DMI to +VCC_RXR_DMI.

P.17 Delete R1145,R1146,Change F6 to 1206L035,R1148,R1149 to 24ohm,D7 to SSM24APT.

P.18 Delete R457,R1272,ODD_RXIN3-,ODD_RXIN3+ signal.

(2007/03/14)

P.9 Add R124,R125,R126
P.11 Delete R149
P.18 Delete R461

(2007/03/15)

P.11 Delete L92,L94,L96,L97
P.18 Delete R1268,R2225.
P.27 Delete CN39
P.52 Update Power /USB board screw pad.Change H28,H29 to Boss5,Boss6,Delete H3,H4,H6,H7,H10,H19~H22,Add Boss3.Boss4 for Mini-PCI-E

(2007/03/16)

P.17 Change D7 to SSM24APT
P.18 Update LVDS connector pin define.
P.44 Delete close jump GP1 and change PU3 bq24751_AGND to GND for layout convenient

(2007/03/19)

SWAP RP9,RP10,RP12,RP13,RP17,RP20,RP22,RP23,RP25,RP30 for layout.
CON1/CON2 pin7,pin8 connector to D_GND
P.51 Update Power /USB board screw pad GND.

(2007/03/20)

P.27 Change Q104 to 2N7002ESPT,Add R2225.
P.44 Change PR2 from NC_4.7_J 0805 to 1_J 0805.
Change PC24 from NC_4.7U_25V 0805 to 10U_25V 1206
Add PC39 10U_25V 1206
Change PC6 from 0.1U_50V to no mount
Change PC8 from 10U_25V_K to no mount
Delete PC2 and PC3 10U_25V
Above change are for damping input inrush voltage from TI application note.
P.44 Change PC29 from 10U_25V_K to no mount for TI application note.
P.45 Add PR139 0_J 0402 for testing
P.46 Delete GP3 Close_Jump for TI application note.
P.47 Delete GP4 Close_Jump for TI application note.
P.49 Change PQ70 from 2N7002EPT to 2N7002DW-7-F
Change PR220 from 1K_J 0603 to 100K_J 0402
These change are for load switch slow ON and fast OFF.
P.51 Update H18,P_H1,P_H2,U_H2,U_H3,Add P_H3

(2007/03/21)

P.19 SWAP RP92~RP94 for Layout.
P.24 Update ODD/HDD connector.

(2007/03/22)

P.16 SWAP RP21 for Layout.
P.31 SWAP JSPK1 for Layout.

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(2007/03/23)

P.8 Delete R1929,R1930.
P.9 Change R124~R127 to 75ohm.
P.25 Delete R2029,Add TP322.
P.27 Delete R2225.
P.30 Delete C1840.Change SNESE_A to SENSE_A.
P.31 Change R2153,R2154,R2156,R2157 to 2.2Kohm.HP_IN_DET to SP_MUTE.
P.32 Change C1811,C1819 to 100P,C1814,C1824,C1810 tp 4.7uF/10V.
P.33 Delete R2185,U146,U147,Change HP_IN_DET to SP_MUTE.
P.48 Delete PJ7 for layout convenient.
P.42 Change netname of U_D1.2 and U_D2.2 from GND to GND_U.
P.51 Delete U_H1.1 net for U_H1 is N-PTH.

(2007/03/26)

Add C1858~C1860 for EMI request.
P.46 Change PC67 to mount for +1_05VRUN 10A loading.

(2007/03/27)

Add C1861~C1864_NC for EMI request.
P.41 Change LED12 to HT-110Y for MOR request.

(2007/03/28)

Rename location.
P.8 U8 nc pin add net for repair. Add C509 for CL_CLK0 and CL_DATA0 through +1_05VRUN,+1_5VRUN.
P.9 U8 nc pin add net for repair.
P.42 Add C510 for EMI request.

(2007/03/29)

P.29 Change Q37,R479 to mount,R480 to NC.

DVT

(2007/04/11)

P.25 Add KSIO15/KSI2 for AV mode function.
P.42 Update CN1,P_CN1 pin define for AV mode functin,Mirror P_CN1 for M/E easy a'ssy.

(2007/04/12)

P.34 Mirror U12 SMBUS_CLK and SMBUS_DATA signal.
P.44 ACGOOD# pull high voltage chenge from BQ24751_VREF to +5VALW_LDO for charger LED abnormal issue.
P.44 PR32 0 ohm change to PD27 CH520S-30PT Schottky Diode for PU2 OVP issue.

(2007/04/20)

P.20 Add PM_THRMTRIP# signal and R497 connect to N.B and CPU.
P.41 Change LED5 to HT-110UY for MS/SD LED brightness issue.

(2007/04/24)

P.19/39 Change Express LAN interface to port5 for S/W issue.
P.44 Delete PL4 BCMS451616A600 8A
P.44 Change PL2 from BCMS451616A600 8A to SMH 100805-4T for EMI request

(2007/04/30)

P.22 Delete R436,L43,NC C470 for Intel D.G.(2.0).

(2007/05/08)

P.41 Change SW2/SW3 botton switch for MOR request.

(2007/05/10)

P.27 Change SW4 WLAN switch.

(2007/05/11)

P.20 Change C300/C301 to 12pF.
P.39 Change C281/C282 to 33pF.

(2007/05/15)

P.16 Mount C255,C267,C293,C309 for EMI.
P.18 Mount C376 for EMI.
P.44 Add PC167~PC175 for EMI.
P.45 Change PR157,PR164 to 3.3ohm,Add PC178,PC179(680pF), PR170,PR171(4.7ohm) to mount for EMI.
P.46 Add PC176,PC177(680pF),PR172,PR173 no mount for EMI.
P.48 Change PC88,PC95 to mount for EMI.

(2007/05/17)

P.44 PC84 change from NC to mount for reducing charger ripple/noise.
P.44 PC23 change from 0.47U_16V_M 20% to 0.47U_16V_K 10% for Purchase difficult.
P.45 Add PR174 NC_10K_F 0402 and PR175 0_J 0402 for reserving +3VALW output adjustable.
P.49 Change PQ30 from VISHAY SI4800BDY to FAIRCHILD FDS8880 for more safety power rating.

(2007/05/18)

P.30 Change C444 from 10uF to 2.2uF,add C511 for Audio POP issue.
P.20 Change R223 to no mount.

(2007/05/21)

P.44 Delete PC6, PC7 and PC12 for layout space.
P.44 Delete PR10, PC19, PC20
Change PC3 from 10uF_25V_1206 to 22uF_35V EC CAP
Change PC38 from 1uF_25V_0603 to 4.7uF_25V_0805
Add PR176 10_J_0805
These change are for DC_IN damping circuit.
P.44 Change PU2 pin28 net-name from DC_IN_MOS to PVCC
P.44 Change PR2 from 0.02_F_1206 to 0.02_F_2512 for more safety power rating.

(2007/05/22)

P.19 Back PCI-E from port5 to port1.

(2007/05/24)

P.38 Add F5~F8 for MOR request.
P.44 Change PL2 from SMH 100805-4T to 860R-100MHZ_0.045R for purchase difficult.
P.50 Change PU1 and PQ13 supply voltage from +5VALW_LDO to VREGN for application modification.
P.51 Change BOSS1 and BOSS2 for Thermal request.

(2007/05/25)

P.34 Change U12,R183,R190,C224 to no mount for DDR thrermal disable..

(2007/05/26)

P.25 Add R436 for AV mode botton function.
P.41 Add R498~R500 P_R4,P_C1 for AV mode botton function.

(2007/05/28)

P.25 Change GPWU1 to GPWU7 for AV botton.

(2007/05/29)

P.30 Change R171 to 22ohm,C215 to 22uf.
P.33 Change C201,C202,C204 to X5R.

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PVT

(2007/06/25)

P.24 Change CAP7 to mount, and C275 to no mount for HDD noise issue.
P.28 Update OIDE pin define foe A'SSY issue.
P.39 Add C512,C513 for LAN noise issue
P.51 Update H17 screw hole pad.

(2007/06/27)

P.44 Change PR2 vendor from YAGEO to CYNTEC for purchase difficult.
P.44 Change PC24 from 120pF 10% to 120pF 5% for purchase difficult.
P.44 Delete PR25, PR41 and PR42 0ohm for application note.
P.45 Delete PR162 and PR163 0ohm for application note.
P.45 Delete PJ4 and PJ5 for application note.
P.46 Delete PR129 0ohm for application note.
P.46 Delete PJ1 and PJ2 for application note.
P.47 Delete PR151 0ohm for application note.
P.47 Delete PJ3 for application note.
P.48 Change PC67 from 270pF 10% to 270pF 5% for purchase difficult.
P.48 Delete PR70, PR71, PR84, PR86, PR90, PR93, PR94, PR96, PR97, PR99 and PR102 0ohm for application note.
P.48 Add TP150, TP151, TP152 and TP153 test pin for application note.
P.49 Delete PR110, PR111 and PR114 0ohm for application note.
P.50 Delete PR20 and PR49 0ohm for application note.
P.51 Update H14 screw hole pad.

(2007/06/29)

P.45 Change PU13 pin9,10 net name to +5VALW.

(2007/07/02)

P.27 Change LED4 to HT-110YG for LED issue.
P.41 Change R321,R323 to 51ohm,LED2,LED3 to HT-110Y for LED issue.

(2007/07/03)

P.38 Change F5~F8 to 2.6A poly-switch for USB loading and noise issue.
P.42 Change CN23 to HS-8208E.

(2007/07/04)

P.44 Change PC3 from mount to dummy for application note.
P.44 Change PC38 from 4.7uF_25V 0805 to 1uF_25V 0603 for application note.
P.44 Remove PR176 10_J for application note.
P.44 Add PR177, PR178 1_J 1206 and PC180, PC181 4.7uF_25V 0805 for DC_IN RC snubber circuit.

(2007/07/09)

P.11 Change L9,L28 to 250mA for component spec. issue.
P.44 Change PR177, PR178 from 1_J 1206 to 1_J 1210 for power rating safety.

(2007/07/12)

P.18 Add L46 for EMI issue.
P.31 Add C514~C517 for EMI issue.

(2007/07/16)

P.32 Change C455,C445 to 10uF,R167,R149 to 20 Kohm for MIC. THD+N issue.

(2007/07/17)

P.27 Change LED4 to HT-110UYG for MOR request.
P.44 Change PR177,PR178 to 1/3W for PUR issue.

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