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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
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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
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23	ICH8-M(GND) 5/5	1.0	07'07'17	58			
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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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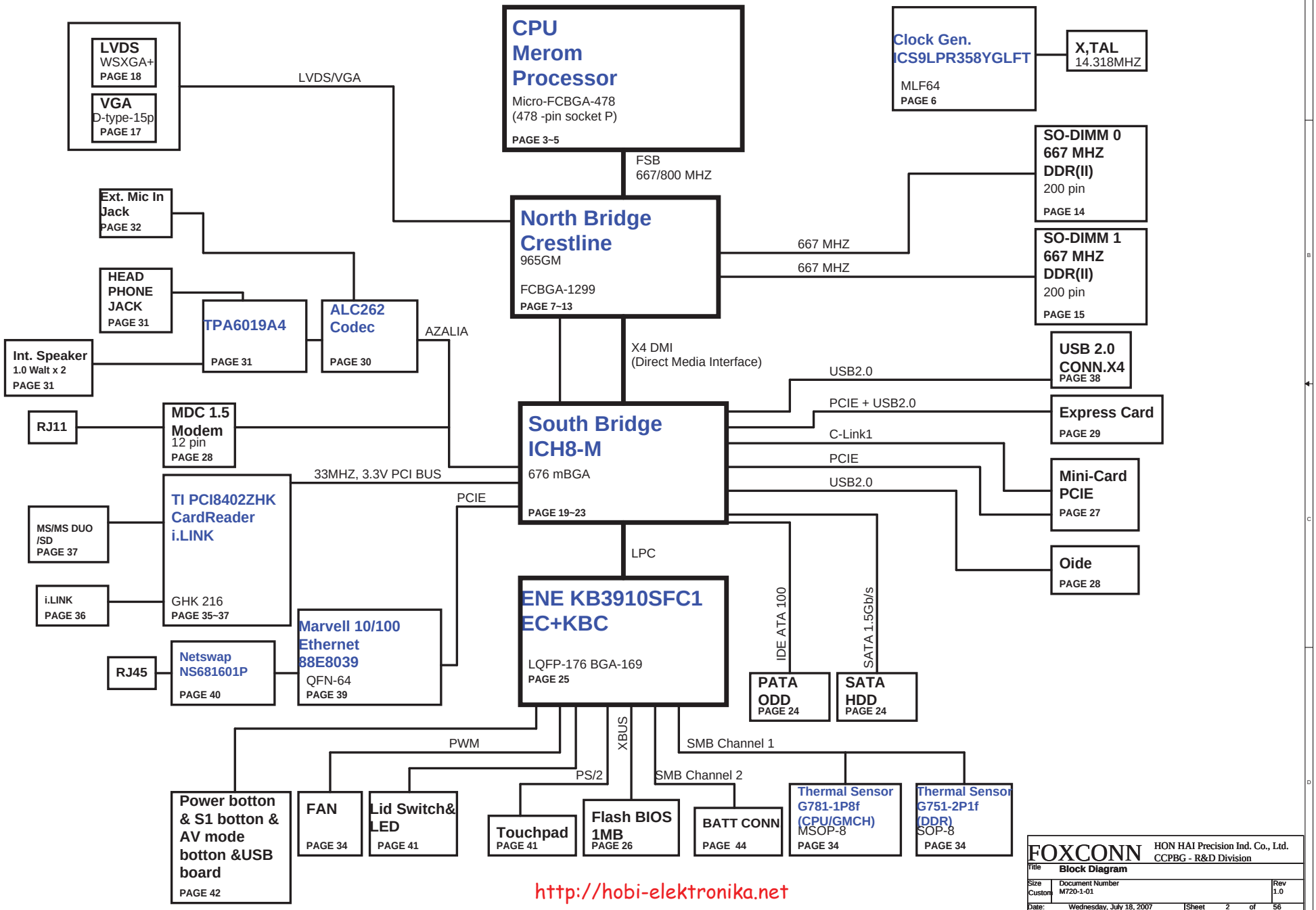
M720(Crestline GM Block Diagram)



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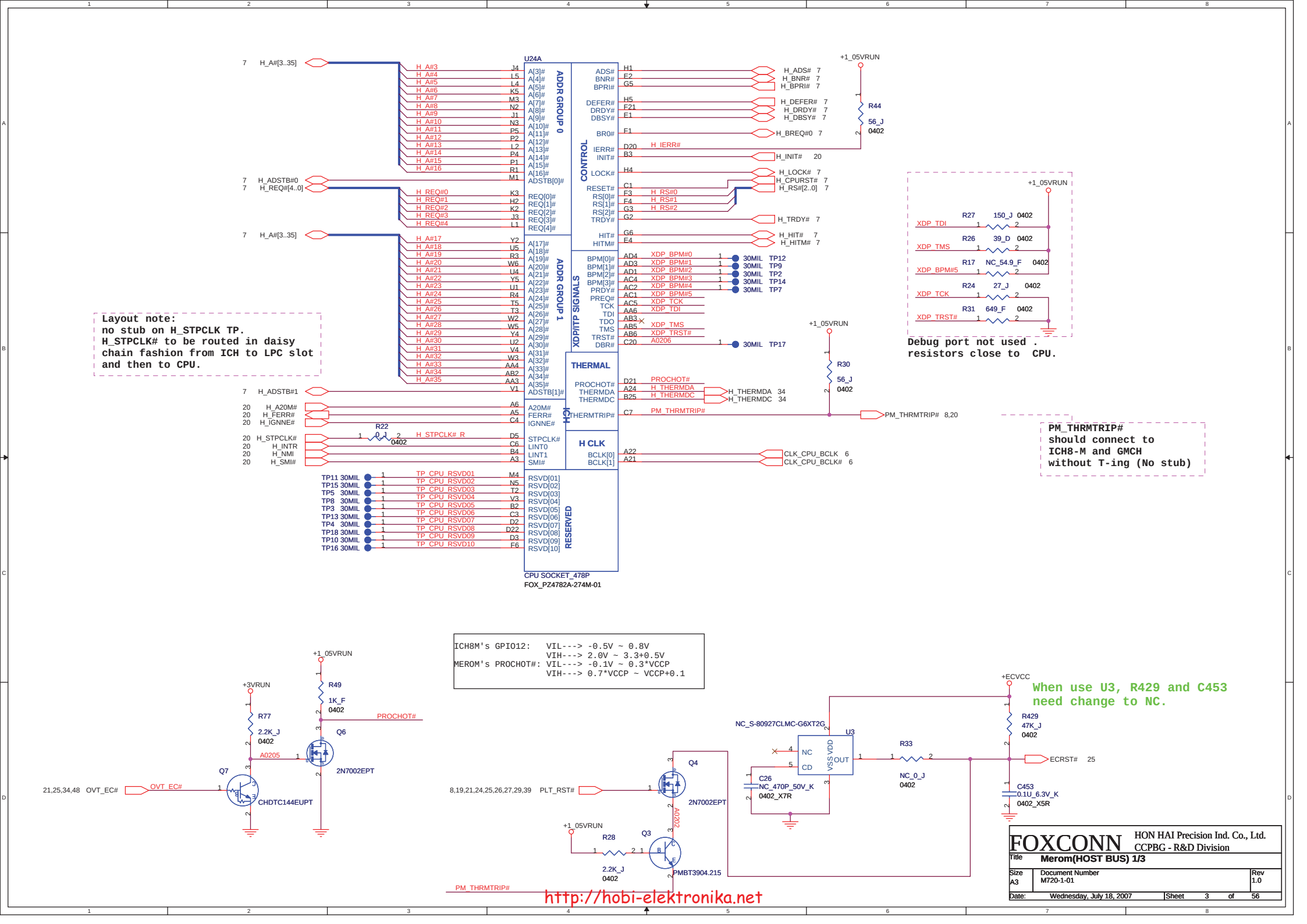
U24A
ADDR GROUP 0
ADDR GROUP 1
CONTROL
XDP/ITP SIGNALS
THERMAL
H CLK
RESERVED
CPU SOCKET_478P
FOX_PZ4782A-274M-01
Layout note:
no stub on H_STPCLK TP.
H_STPCLK# to be routed in daisy chain fashion from ICH to LPC slot and then to CPU.
Debug port not used . resistors close to CPU.
PM_THRMTRIP# should 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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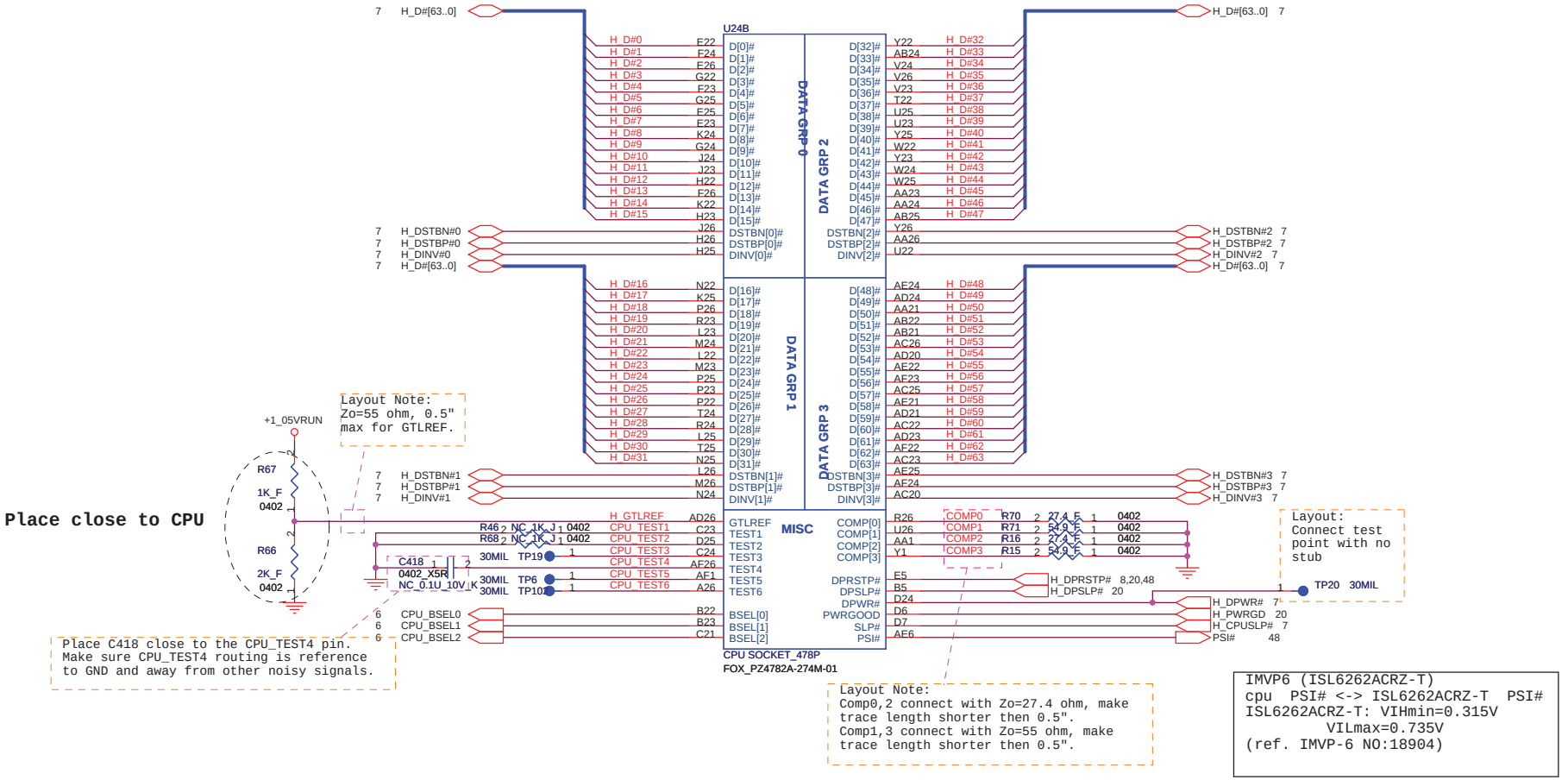

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Merom (HOST BUS) 2/3	
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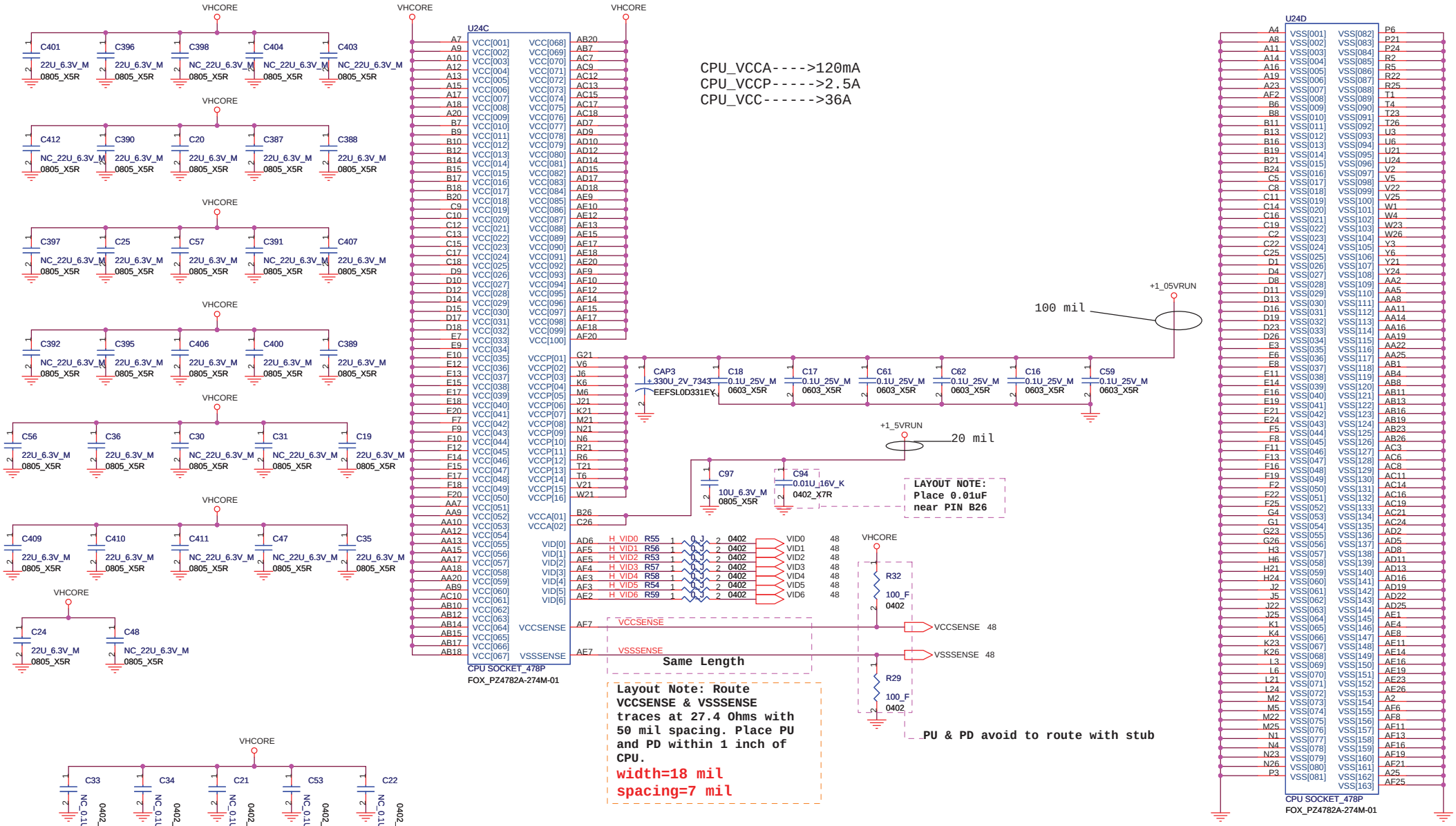

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FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Merom (POWER/GROUND) 3/3	
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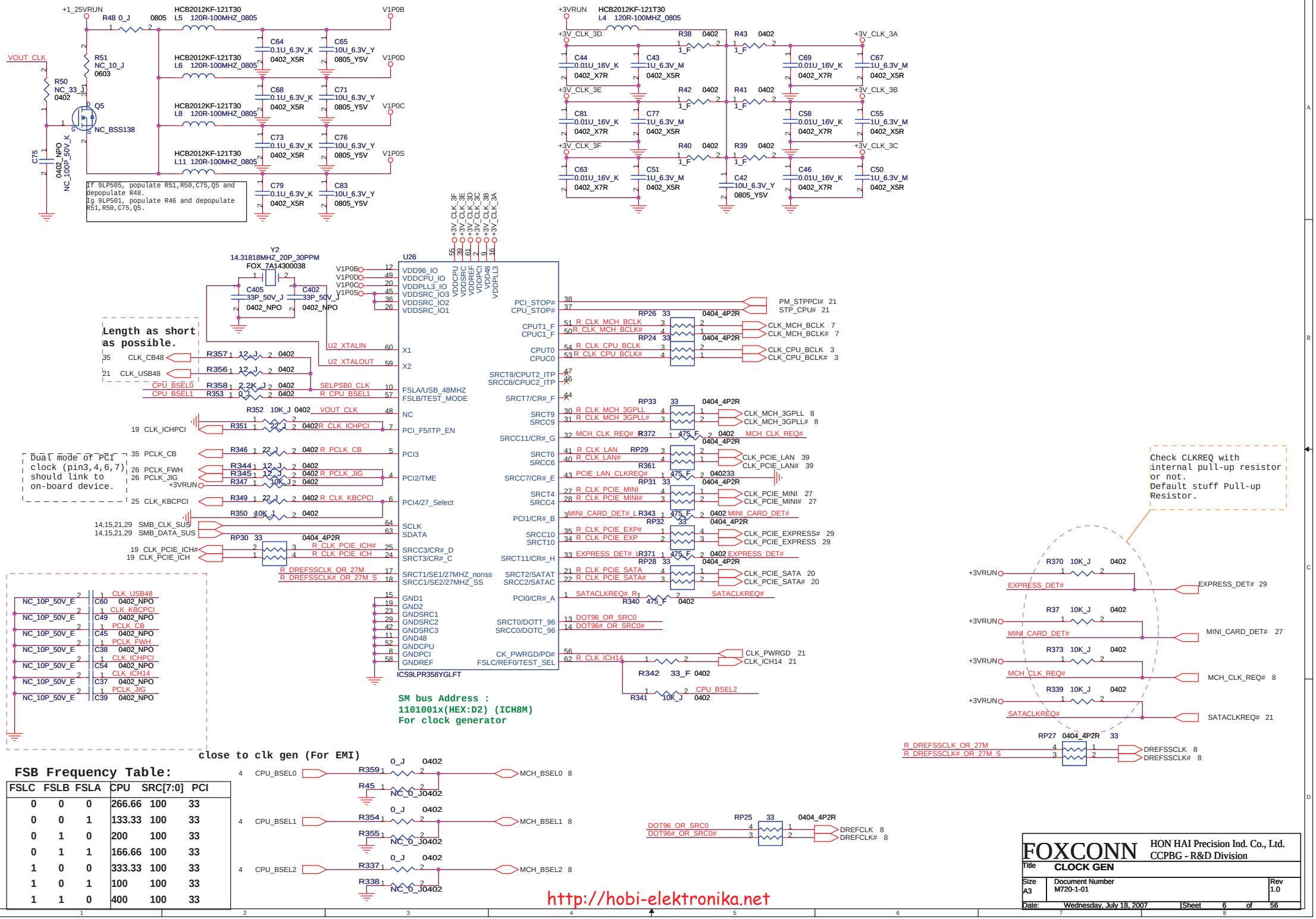

FSB Frequency Table:

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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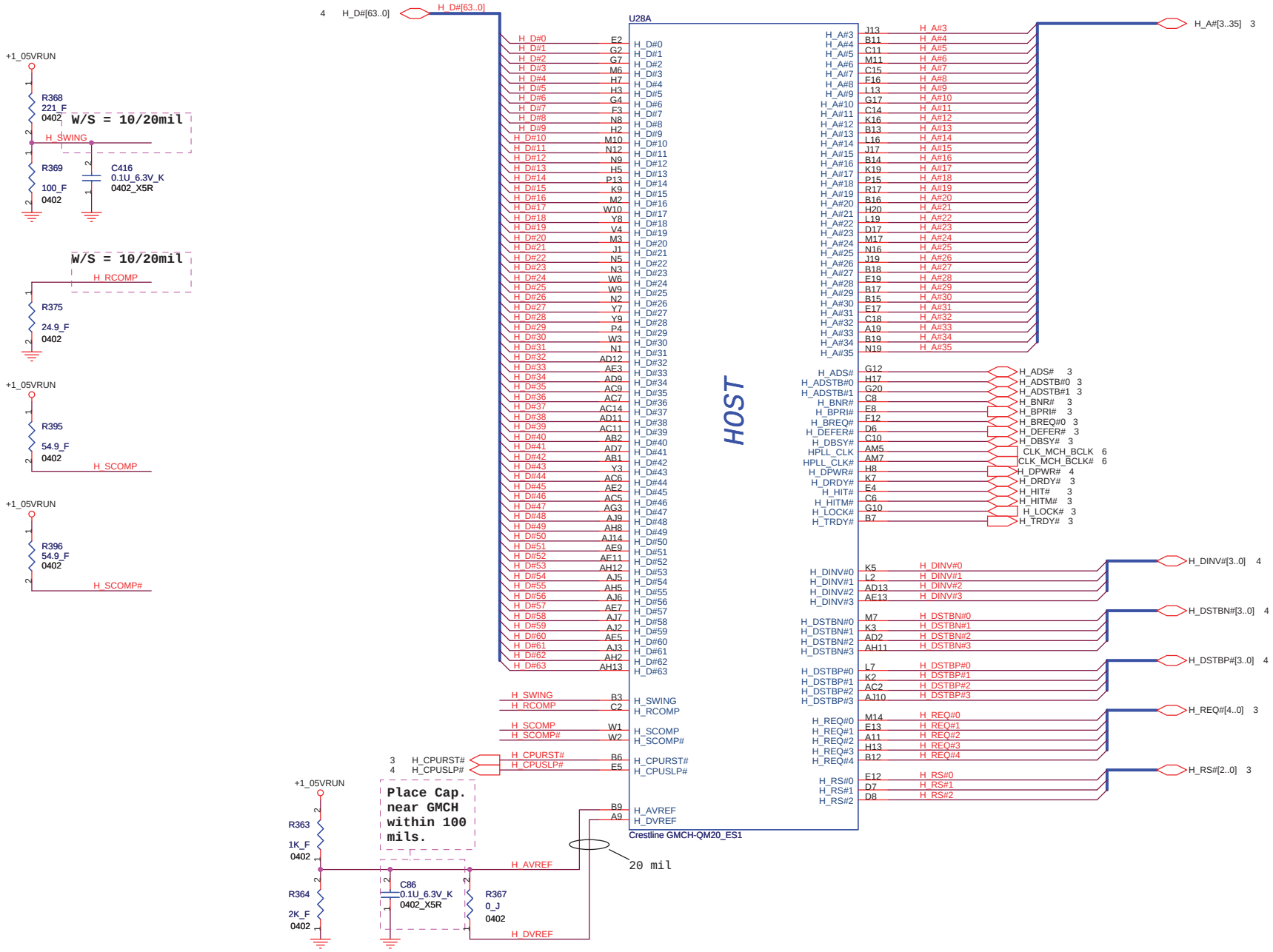

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Crestline (HOST) 1/7	
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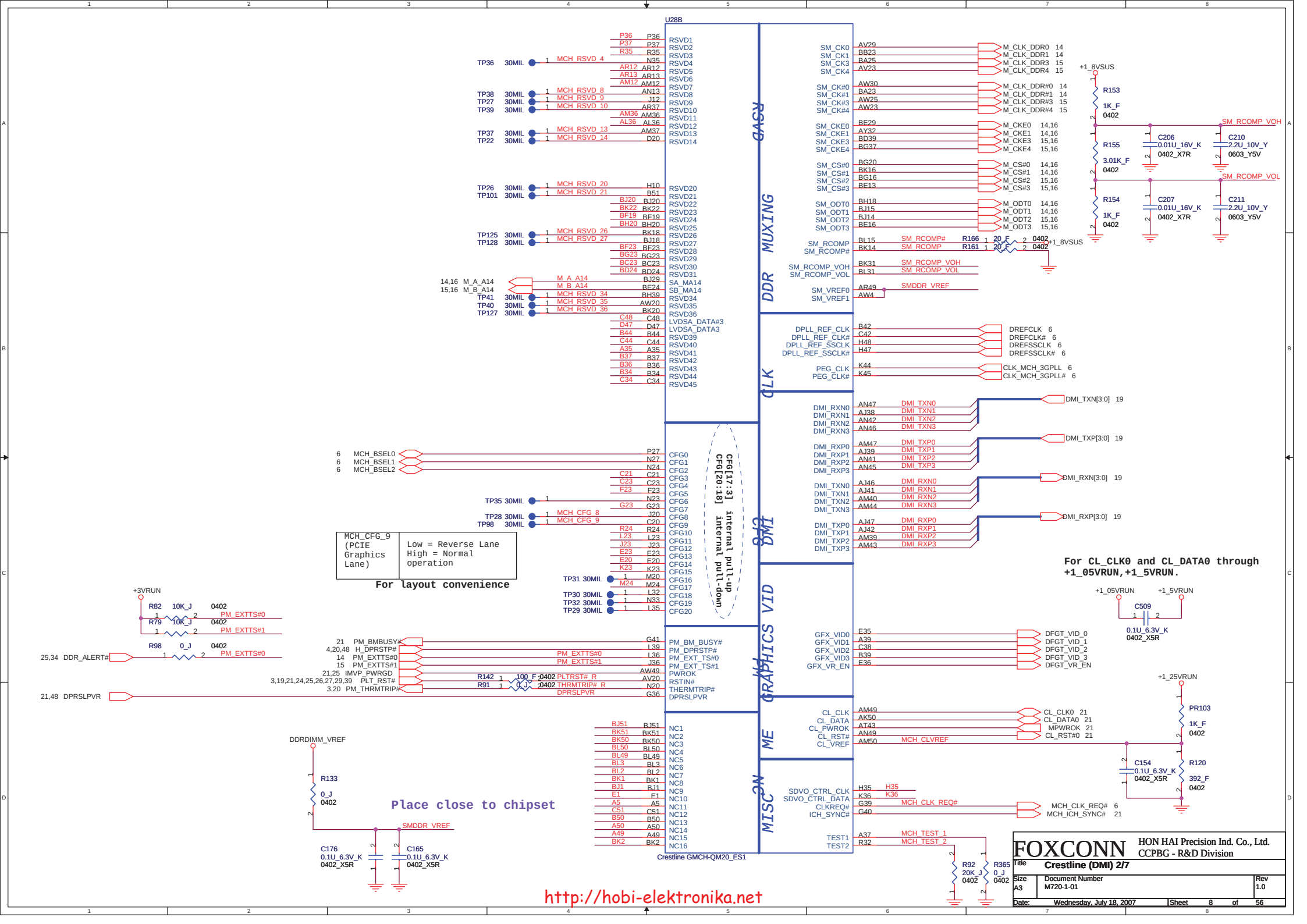
U28B
EASY
DDR MUXING
CLK
DMI
GRAPHICS VID
ME
MISC
Crestline GMCH-QM20_ES1
CFG[17:3] internal pull-up
CFG[20:18] internal pull-down
MCH_CFG_9 (PCIE Graphics Lane)
Low = Reverse Lane
High = Normal operation
For layout convenience
For CL_CLK0 and CL_DATA0 through +1_05VRUN,+1_5VRUN.
Place close to chipset
DDRDIMM_VREF
SMDDR_VREF
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Crestline (DMI) 2/7
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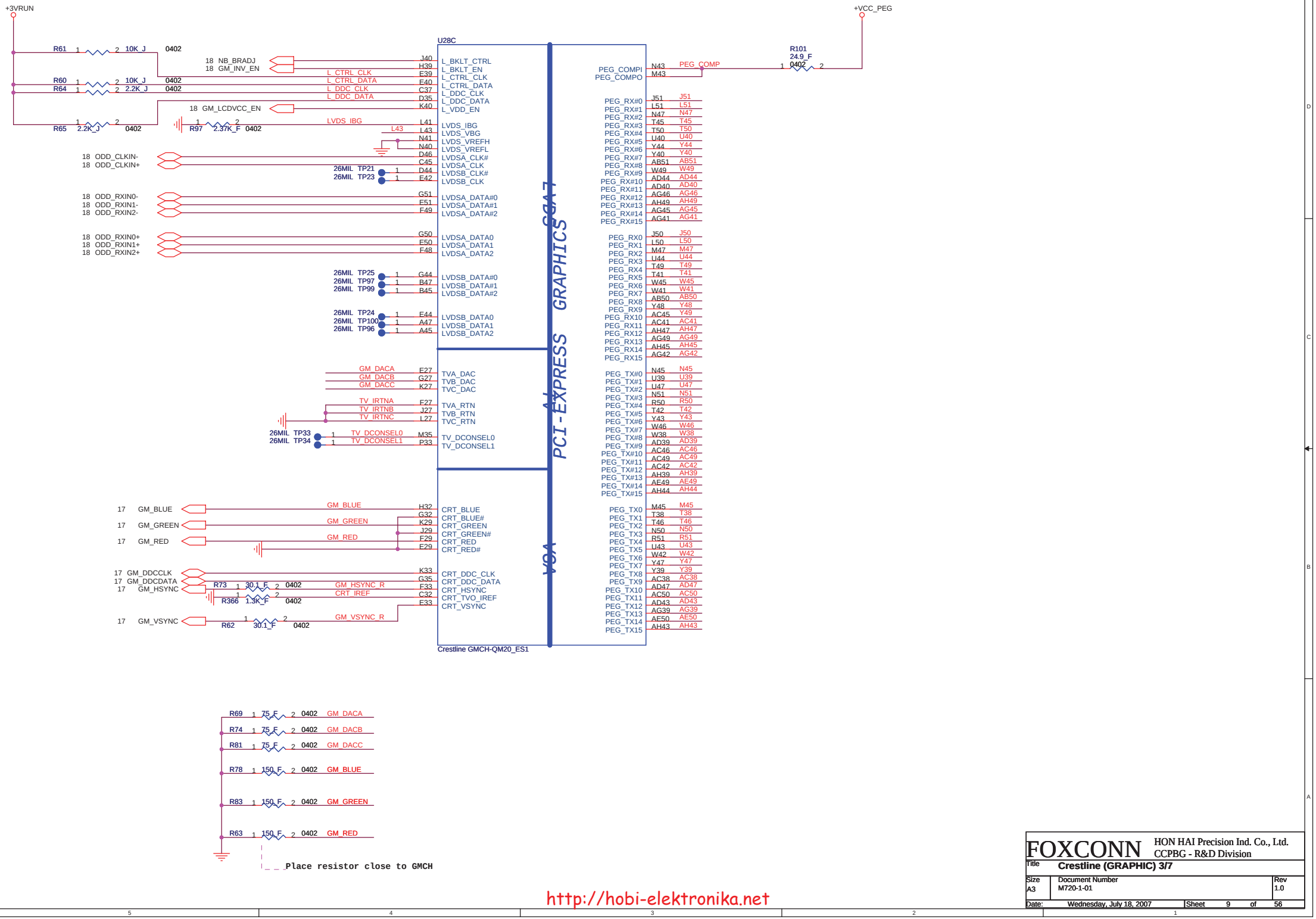
+3VRUN
+VCC_PEG
U28C
PCI-EXPRESS GRAPHICS GMCH
VGA
R61 1 2 10K_J 0402
R60 1 2 10K_J 0402
R64 1 2 2.2K_J 0402
R65 1 2 2.2K_J 0402
R97 1 2 2.37K_F 0402
R101 24.9_F 0402
18 NB_BRADJ
18 GM_INV_EN
18 GM_LCDVCC_EN
L_CTRL_CLK
L_CTRL_DATA
L_DDC_CLK
L_DDC_DATA
LVDS_IBG
18 ODD_CLKIN-
18 ODD_CLKIN+
18 ODD_RXIN0-
18 ODD_RXIN1-
18 ODD_RXIN2-
18 ODD_RXIN0+
18 ODD_RXIN1+
18 ODD_RXIN2+
26MIL TP21
26MIL TP23
26MIL TP25
26MIL TP97
26MIL TP99
26MIL TP24
26MIL TP100
26MIL TP96
26MIL TP33
26MIL TP34
GM_DACA
GM_DACB
GM_DACC
TV_IRTNA
TV_IRTNB
TV_IRTNC
TV_DCONSEL0
TV_DCONSEL1
17 GM_BLUE
17 GM_GREEN
17 GM_RED
17 GM_DDCCLK
17 GM_DDCDATA
17 GM_HSYNC
17 GM_VSYNC
R73 1 30.1_F 2 0402
R366 1 1.3K_F 2 0402
R62 1 30.1_F 2 0402
GM_HSYNC_R
CRT_IREF
GM_VSYNC_R
L_BKLT_CTRL
L_BKLT_EN
L_CTRL_CLK
L_CTRL_DATA
L_DDC_CLK
L_DDC_DATA
L_VDD_EN
LVDS_IBG
LVDS_VBG
LVDS_VREFH
LVDS_VREFL
LVDSA_CLK#
LVDSA_CLK
LVDSB_CLK#
LVDSB_CLK
LVDSA_DATA#0
LVDSA_DATA#1
LVDSA_DATA#2
LVDSA_DATA0
LVDSA_DATA1
LVDSA_DATA2
LVDSB_DATA#0
LVDSB_DATA#1
LVDSB_DATA#2
LVDSB_DATA0
LVDSB_DATA1
LVDSB_DATA2
TVA_DAC
TVB_DAC
TVC_DAC
TVA_RTN
TVB_RTN
TVC_RTN
TV_DCONSEL0
TV_DCONSEL1
CRT_BLUE
CRT_BLUE#
CRT_GREEN
CRT_GREEN#
CRT_RED
CRT_RED#
CRT_DDC_CLK
CRT_DDC_DATA
CRT_HSYNC
CRT_TVO_IREF
CRT_VSYNC
PEG_COMPI
PEG_COMPO
PEG_COMP
PEG_RX#0
PEG_RX#1
PEG_RX#2
PEG_RX#3
PEG_RX#4
PEG_RX#5
PEG_RX#6
PEG_RX#7
PEG_RX#8
PEG_RX#9
PEG_RX#10
PEG_RX#11
PEG_RX#12
PEG_RX#13
PEG_RX#14
PEG_RX#15
PEG_RX0
PEG_RX1
PEG_RX2
PEG_RX3
PEG_RX4
PEG_RX5
PEG_RX6
PEG_RX7
PEG_RX8
PEG_RX9
PEG_RX10
PEG_RX11
PEG_RX12
PEG_RX13
PEG_RX14
PEG_RX15
PEG_TX#0
PEG_TX#1
PEG_TX#2
PEG_TX#3
PEG_TX#4
PEG_TX#5
PEG_TX#6
PEG_TX#7
PEG_TX#8
PEG_TX#9
PEG_TX#10
PEG_TX#11
PEG_TX#12
PEG_TX#13
PEG_TX#14
PEG_TX#15
PEG_TX0
PEG_TX1
PEG_TX2
PEG_TX3
PEG_TX4
PEG_TX5
PEG_TX6
PEG_TX7
PEG_TX8
PEG_TX9
PEG_TX10
PEG_TX11
PEG_TX12
PEG_TX13
PEG_TX14
PEG_TX15
Crestline GMCH-QM20_ES1
R69 1 75_F 2 0402 GM_DACA
R74 1 75_F 2 0402 GM_DACB
R81 1 75_F 2 0402 GM_DACC
R78 1 150_F 2 0402 GM_BLUE
R83 1 150_F 2 0402 GM_GREEN
R63 1 150_F 2 0402 GM_RED
Place resistor close to GMCH
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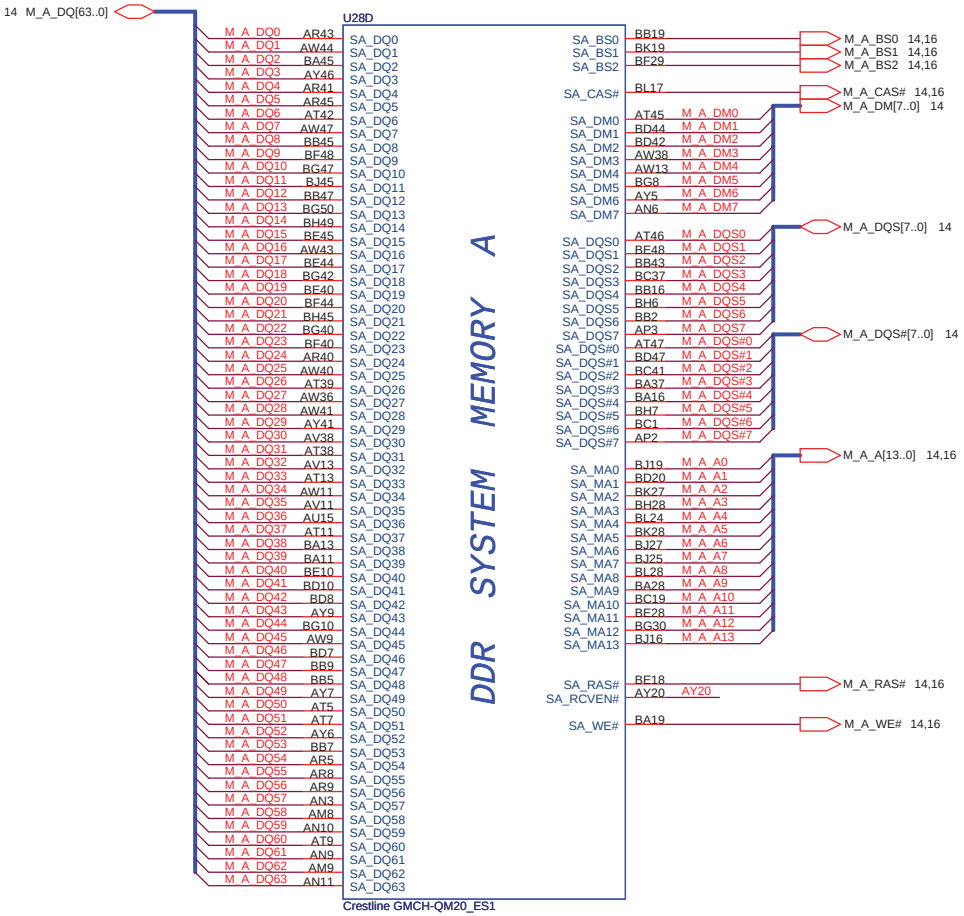

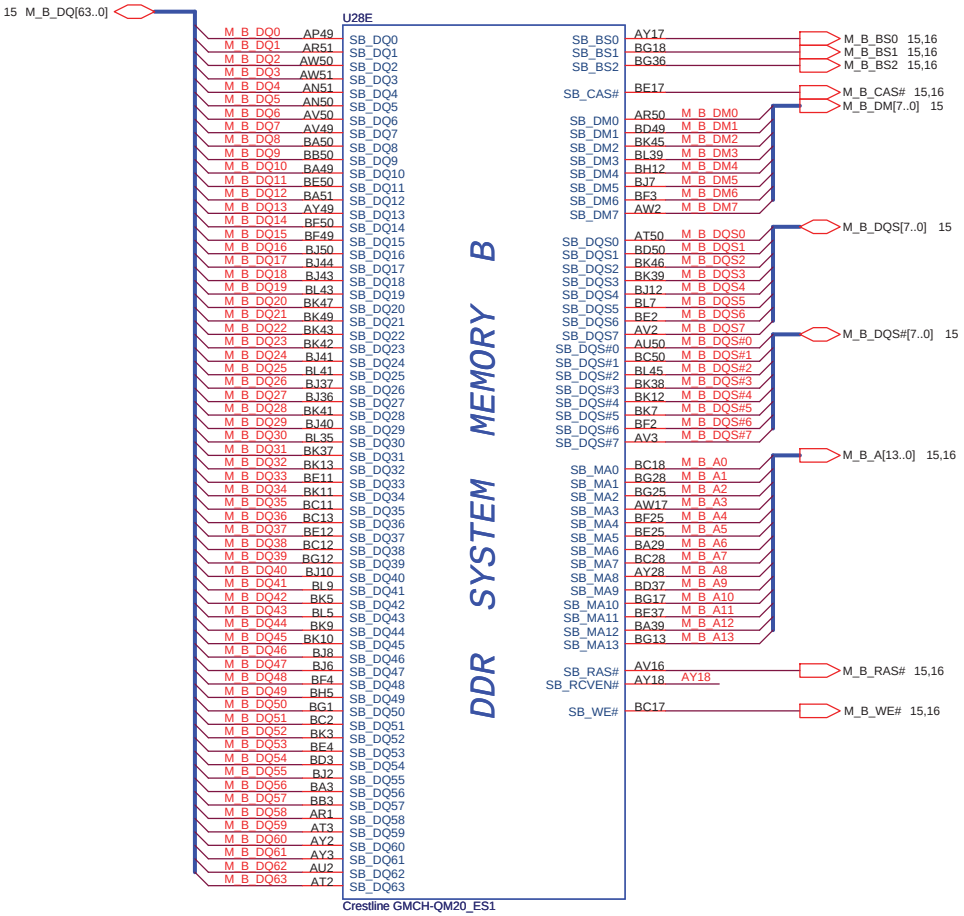

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Title	Crestline (DDRII) 4/7	
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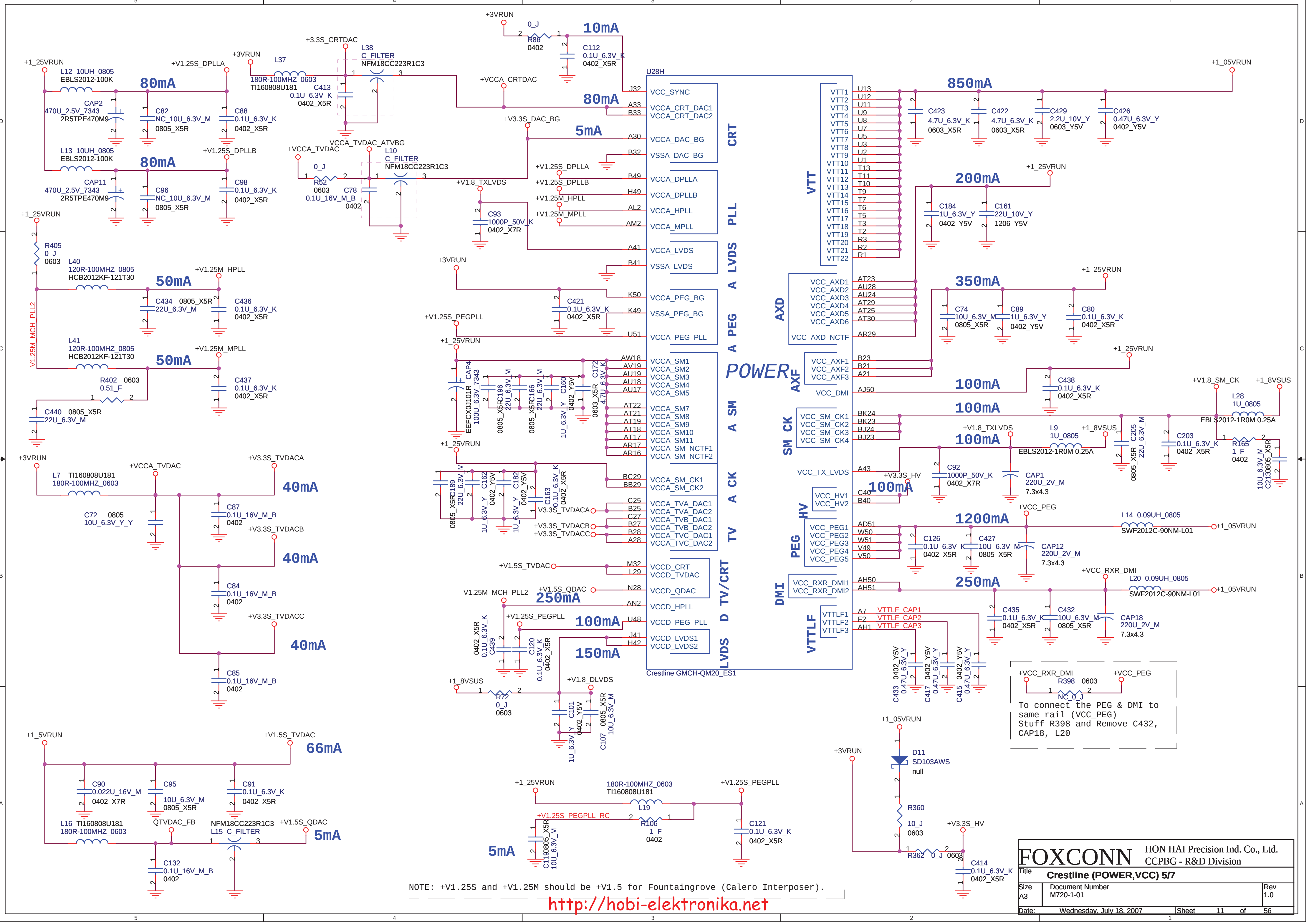

U28H
Crestline GMCH-QM20_ES1
POWER
CRT
PLL
LVDS
A PEG
A SM
A CK
TV
D TV/CRT
D LVDS
VTT
AXD
AXF
SM CK
HV
PEG
DMI
VTTLF
10mA
80mA
5mA
850mA
200mA
350mA
100mA
1200mA
250mA
150mA
50mA
40mA
66mA
To connect the PEG & DMI to
same rail (VCC_PEG)
Stuff R398 and Remove C432,
CAP18, L20
NOTE: +V1.25S and +V1.25M should be +V1.5 for Fountaingrove (Calero Interposer).
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Title
Crestline (POWER,VCC) 5/7
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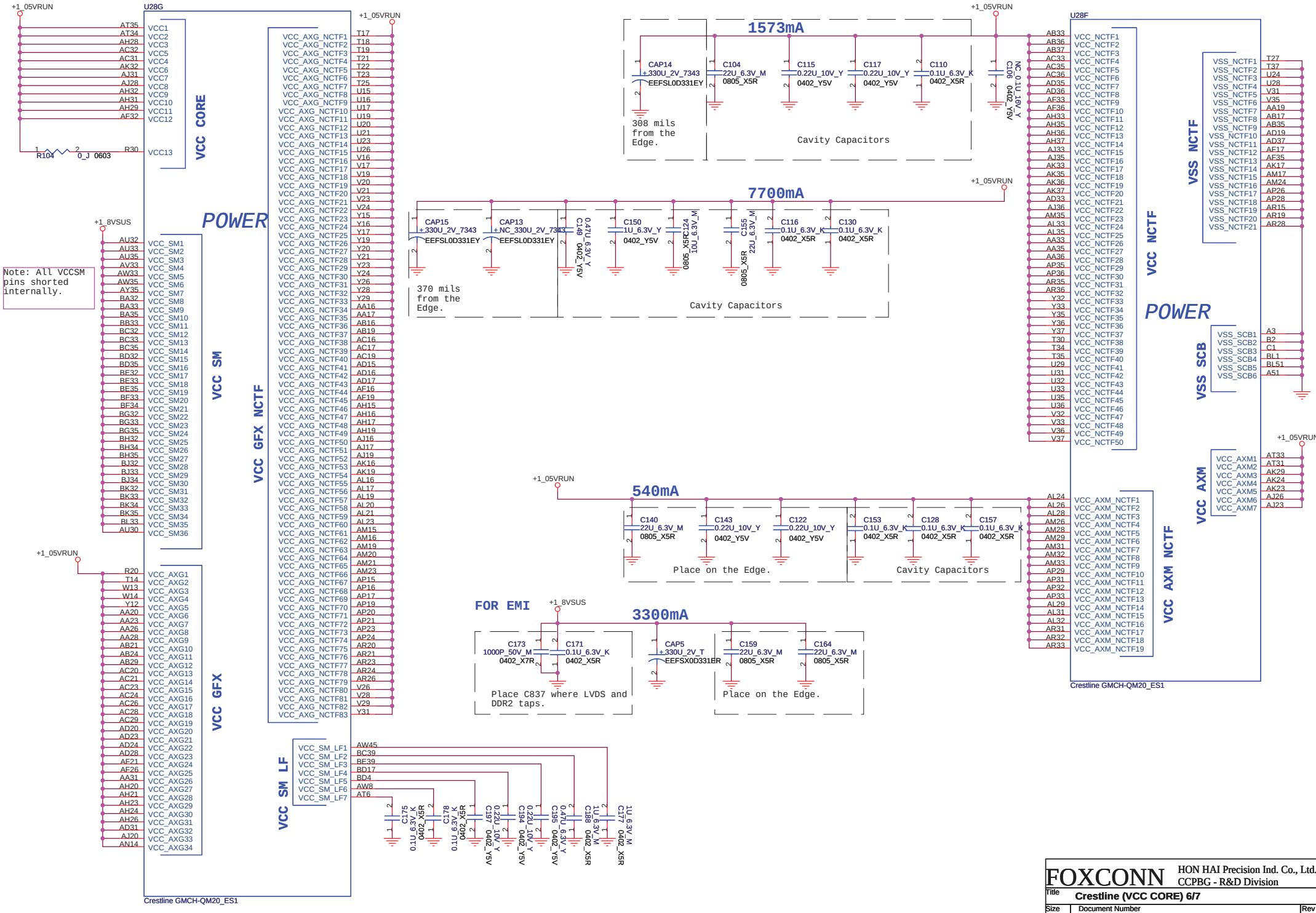
U28G
VCC CORE
VCC GFX NCTF
VCC SM
VCC GFX
VCC SM LF
POWER
Crestline GMCH-QM20_ES1
Note: All VCCSM pins shorted internally.
1573mA
7700mA
540mA
3300mA
FOR EMI
308 mils from the Edge.
370 mils from the Edge.
Cavity Capacitors
Place on the Edge.
Place C837 where LVDS and DDR2 taps.
U28F
VCC NCTF
VSS NCTF
VSS SCB
VCC AXM
VCC AXM NCTF
Crestline GMCH-QM20_ES1
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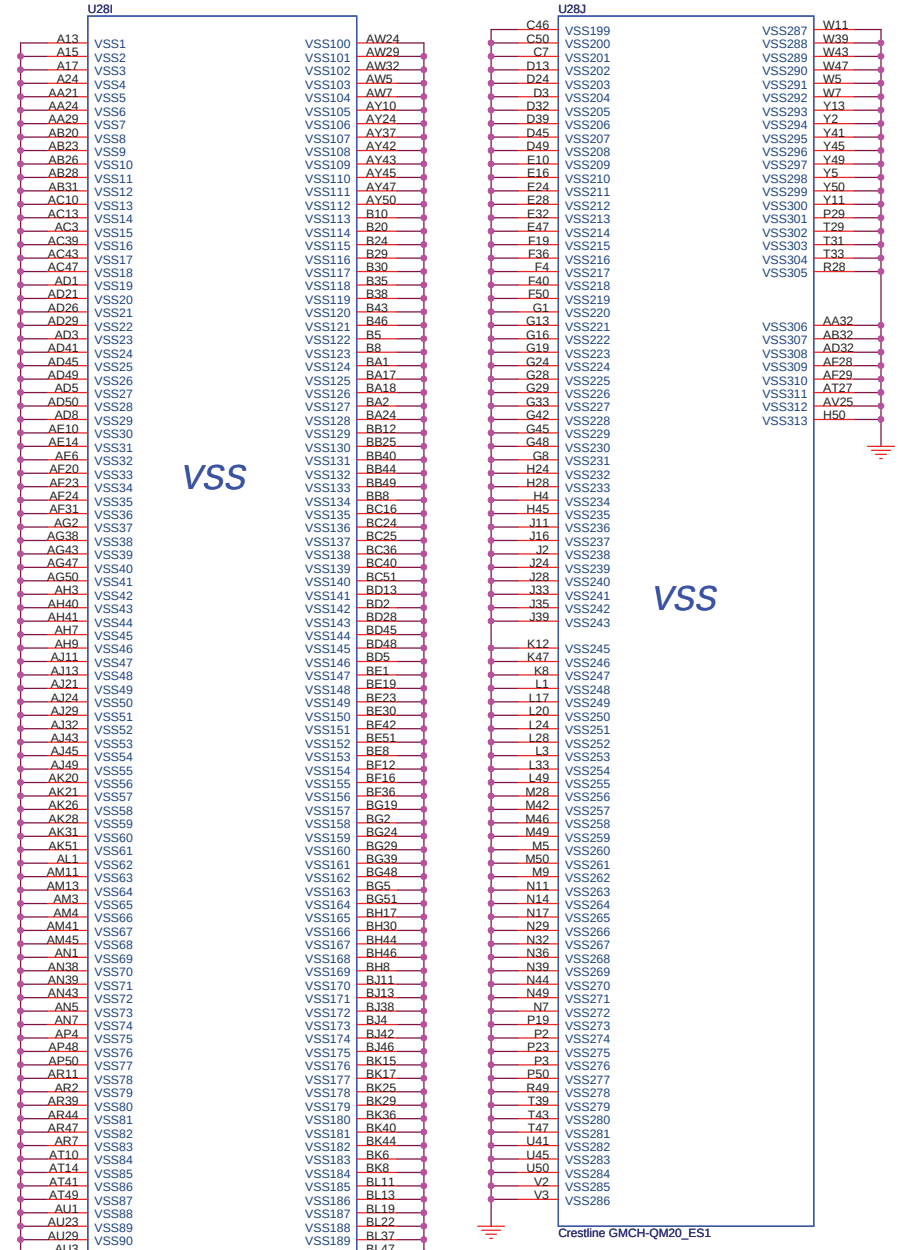

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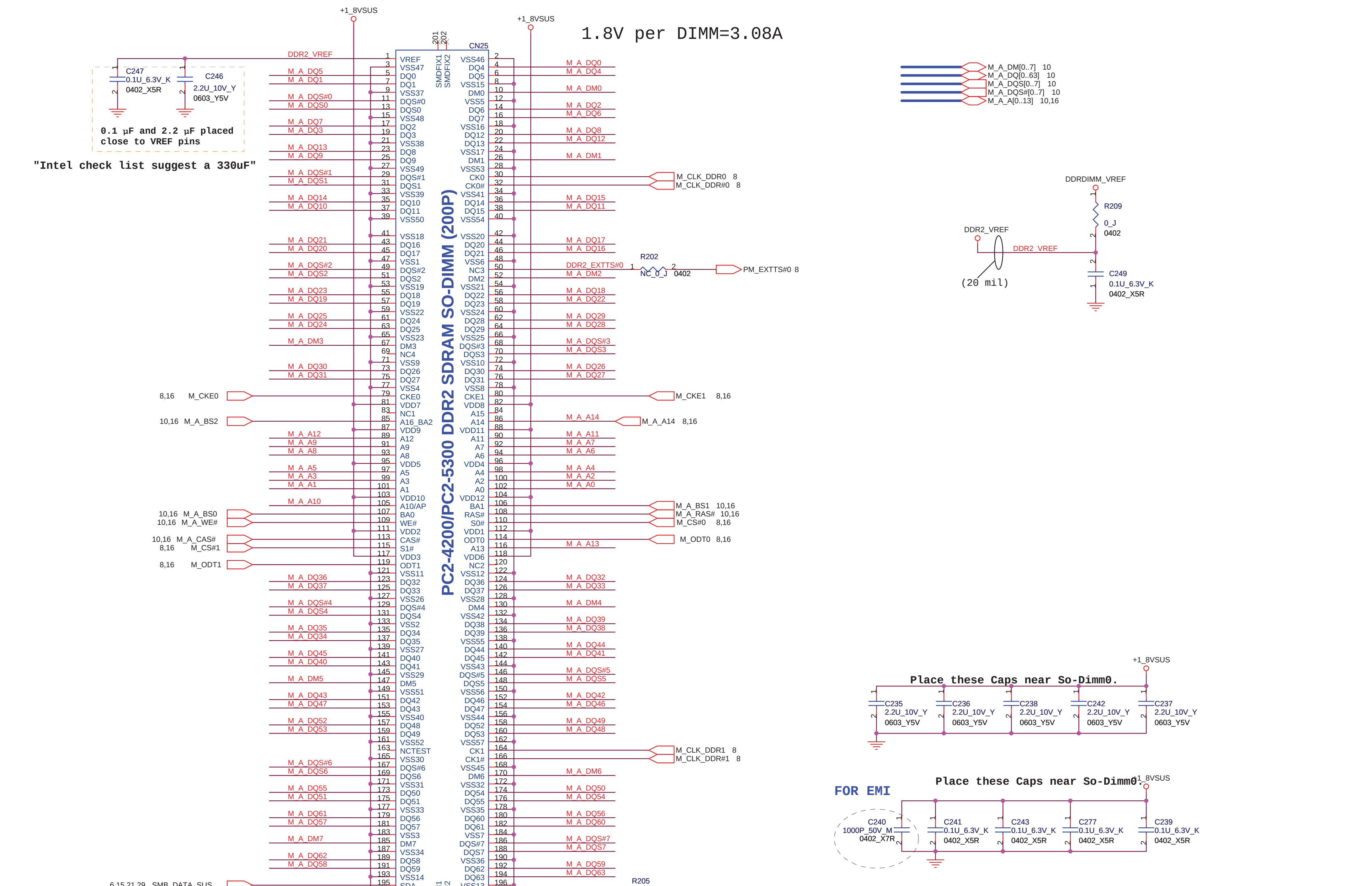

FOXCONN HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division

Title: DDR(II)SO-DIMM_0

Size	Document Number	Rev
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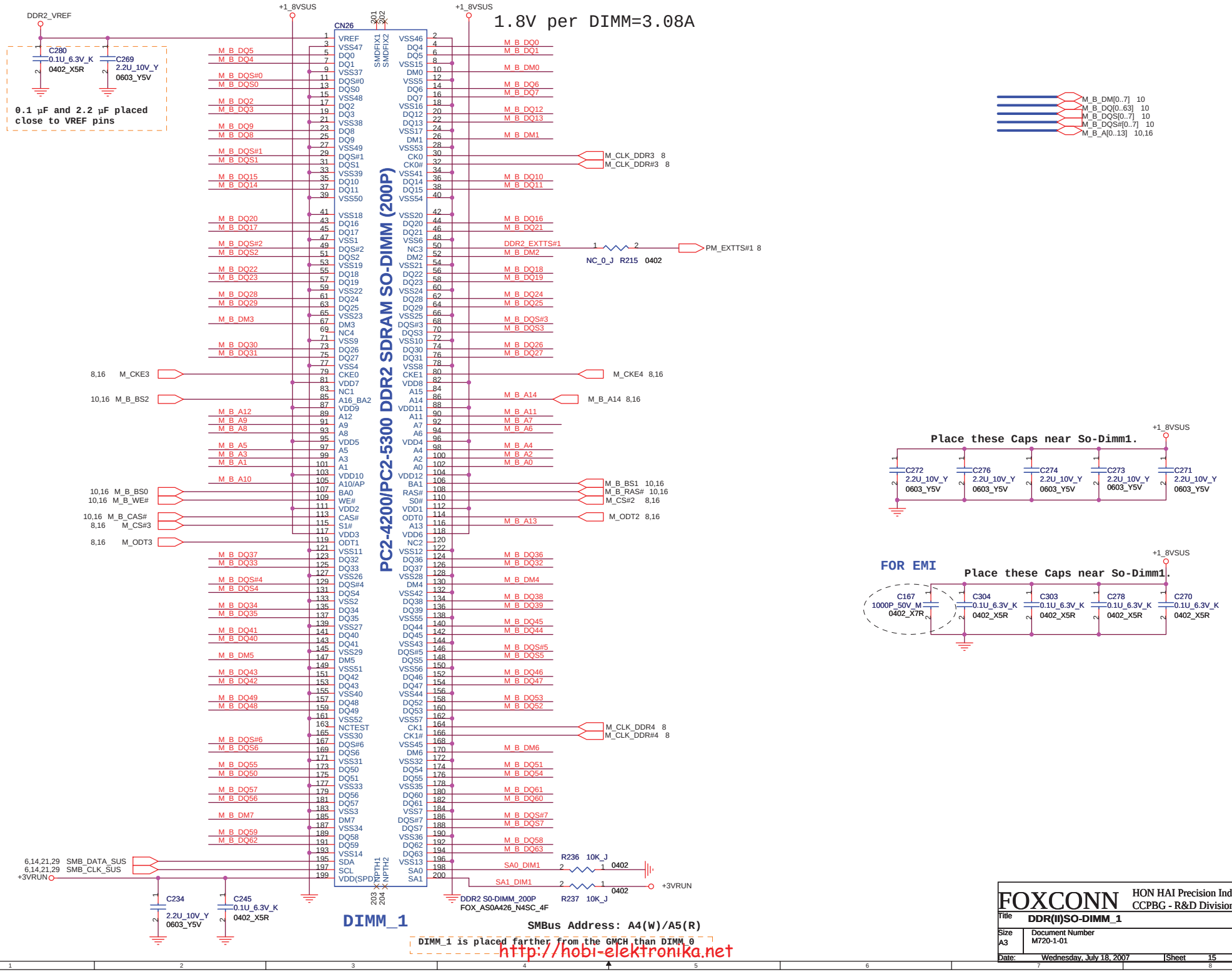

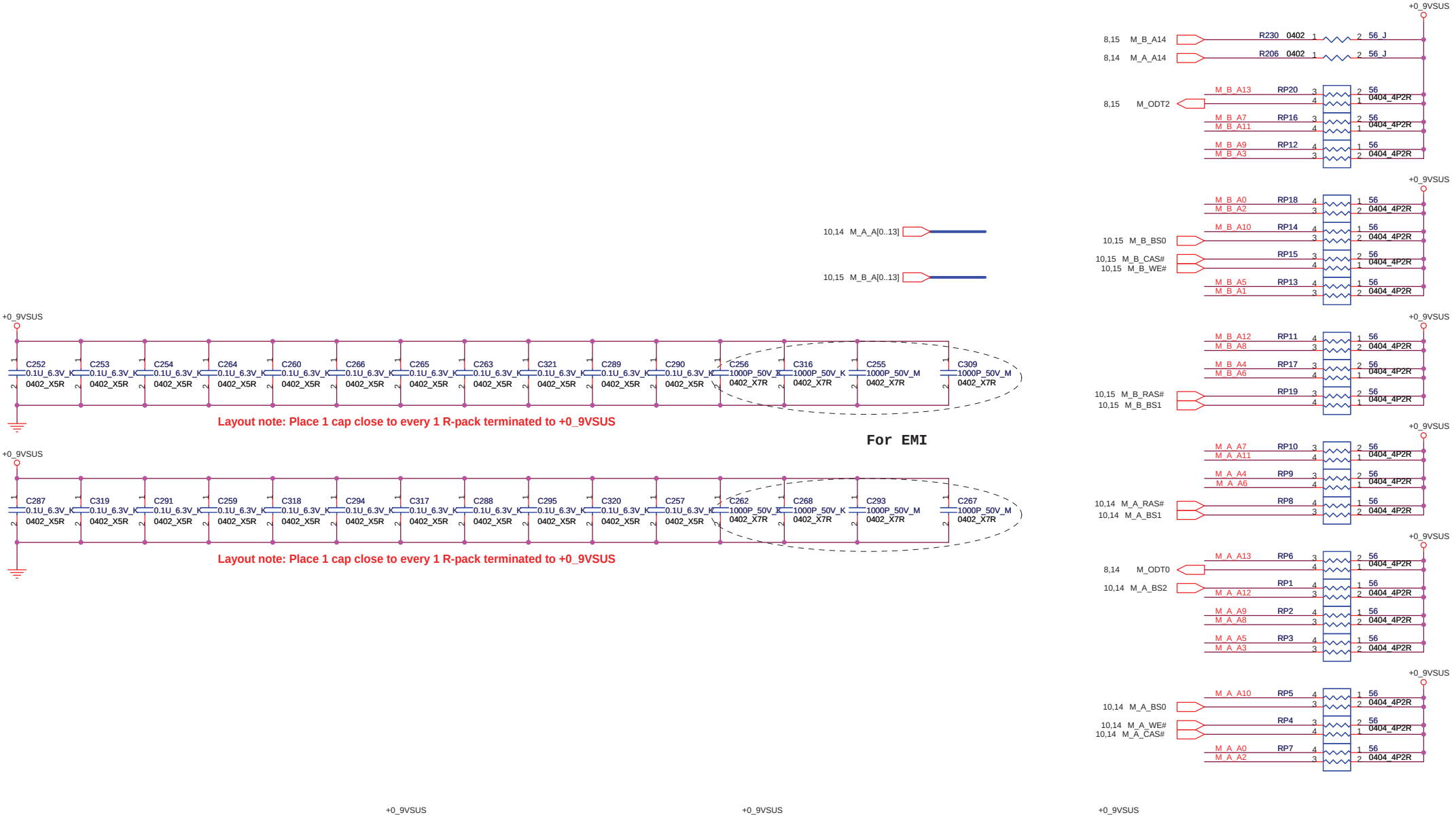

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: DDR(II)Termination		
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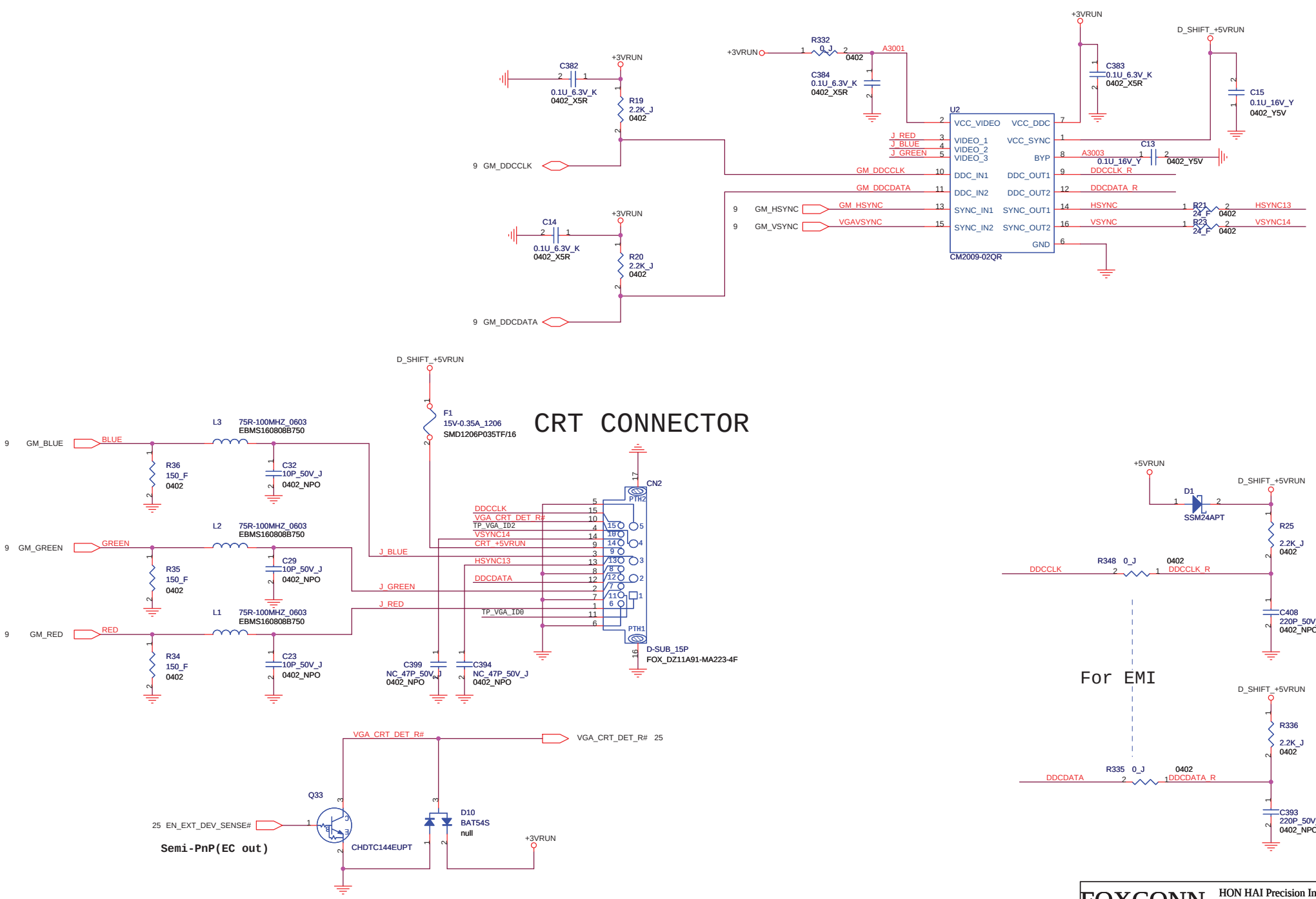
CRT CONNECTOR



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

ODD_CLKIN- 9
ODD_CLKIN+ 9

ODD_RXIN0- 9
ODD_RXIN0+ 9

ODD_RXIN1- 9
ODD_RXIN1+ 9

ODD_RXIN2- 9
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

Place C375 close to CN14.

C375 0.1U_50V_K 0603_X7R

2A

CN14

DCBATOUT_1
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

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

C380 0.1U_10V_K 0402_X5R

FOX_HT1310F HEADER CONN_20P

U1 74AHC1G08GW

+3VRUN

21 INV_EN_EC

INV_ENABLE

INV_ENABLE_1

U22 74AHC1G08GW

+3VRUN

25,41 LIDIN#
9 GM_INV_EN

R328 100K_J 0402

SW1 HDS404-E_SW-SLIDE

LCDID0 21
LCDID1 21
LCDID2 21
LCDID3 21

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

U23 G5281RC1U_V0.1

IN1 IN5
OUT IN4
EN IN3
GND IN2
THERMAL PAD

C378 4.7U_6.3V_K 0805_X5R

9 GM_LCDVCC_EN

2A

R329 100K_J 0402

LCDVCC

C381 4.7U_10V_K 0805_X5R
C379 0.1U_16V_Y 0402_Y5V

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

Title: LVDS

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

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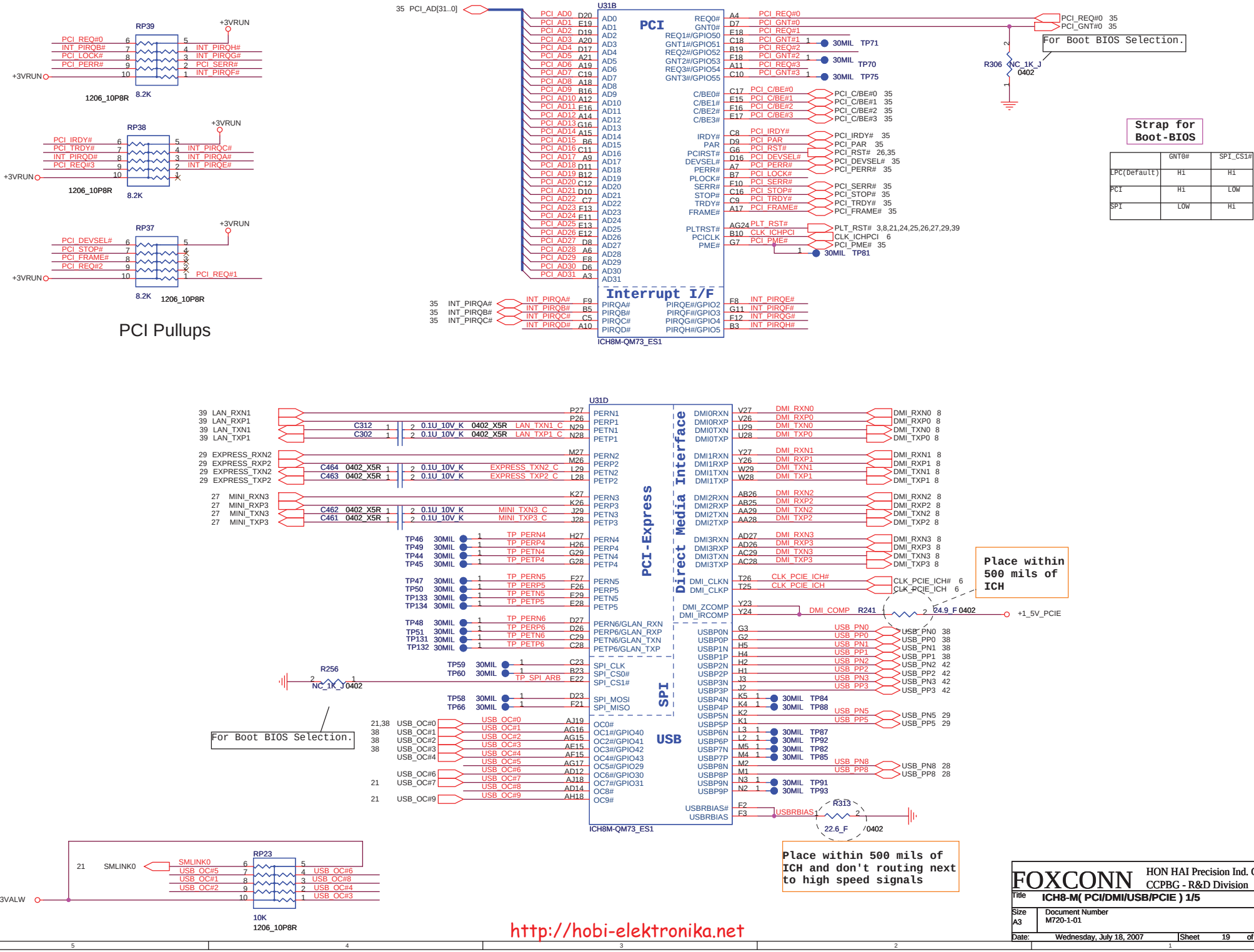
RP39
PCI_REQ#0
INT_PIRQB#
PCI_LOCK#
PCI_PERR#
INT_PIRQH#
INT_PIRQG#
PCI_SERR#
INT_PIRQF#
+3VRUN
1206_10P8R
8.2K
RP38
PCI_IRDY#
PCI_TRDY#
INT_PIRQD#
PCI_REQ#3
INT_PIRQC#
INT_PIRQA#
INT_PIRQE#
RP37
PCI_DEVSEL#
PCI_STOP#
PCI_FRAME#
PCI_REQ#2
PCI_REQ#1
PCI Pullups
35 PCI_AD[31..0]
U31B
PCI
Interrupt I/F
ICH8M-QM73_ES1
REQ0#
GNT0#
REQ1#/GPIO50
GNT1#/GPIO51
REQ2#/GPIO52
GNT2#/GPIO53
REQ3#/GPIO54
GNT3#/GPIO55
PCI_REQ#0
PCI_GNT#0
PCI_REQ#1
PCI_GNT#1
PCI_REQ#2
PCI_GNT#2
PCI_REQ#3
PCI_GNT#3
30MIL TP71
30MIL TP70
30MIL TP75
PCI_REQ#0 35
PCI_GNT#0 35
For Boot BIOS Selection.
R306
NC_1K_J
0402
C/BE0#
C/BE1#
C/BE2#
C/BE3#
PCI_C/BE#0
PCI_C/BE#1
PCI_C/BE#2
PCI_C/BE#3
IRDY#
PAR
PCIRST#
DEVSEL#
PERR#
PLOCK#
SERR#
STOP#
TRDY#
FRAME#
PCI_IRDY#
PCI_PAR
PCI_RST#
PCI_DEVSEL#
PCI_PERR#
PCI_LOCK#
PCI_SERR#
PCI_STOP#
PCI_TRDY#
PCI_FRAME#
PLTRST#
PCICLK
PME#
PLT_RST#
CLK_ICHPCI
PCI_PME#
PLT_RST# 3,8,21,24,25,26,27,29,39
CLK_ICHPCI 6
PCI_PME# 35
30MIL TP81
Strap for Boot-BIOS
GNT0#
SPI_CS1#
LPC(Default)
PCI
SPI
H1
LOW
35 INT_PIRQA#
35 INT_PIRQB#
35 INT_PIRQC#
PIRQA#
PIRQB#
PIRQC#
PIRQD#
PIRQE#/GPIO2
PIRQF#/GPIO3
PIRQG#/GPIO4
PIRQH#/GPIO5
U31D
PCI-Express
Direct Media Interface
SPI
USB
ICH8M-QM73_ES1
39 LAN_RXN1
39 LAN_RXP1
39 LAN_TXN1
39 LAN_TXP1
C312
C302
0.1U_10V_K
0402_X5R
LAN_TXN1_C
LAN_TXP1_C
29 EXPRESS_RXN2
29 EXPRESS_RXP2
29 EXPRESS_TXN2
29 EXPRESS_TXP2
C464
C463
EXPRESS_TXN2_C
EXPRESS_TXP2_C
27 MINI_RXN3
27 MINI_RXP3
27 MINI_TXN3
27 MINI_TXP3
C462
C461
MINI_TXN3_C
MINI_TXP3_C
TP46 TP49 TP44 TP45
TP47 TP50 TP133 TP134
TP48 TP51 TP131 TP132
TP_PERN4
TP_PERP4
TP_PETN4
TP_PETP4
TP_PERN5
TP_PERP5
TP_PETN5
TP_PETP5
TP_PERN6
TP_PERP6
TP_PETN6
TP_PETP6
R256
NC_1K_J
0402
TP59 TP60
TP_SPI_ARB
TP58 TP66
For Boot BIOS Selection.
21,38 USB_OC#0
38 USB_OC#1
38 USB_OC#2
38 USB_OC#3
USB_OC#4
USB_OC#5
USB_OC#6
21 USB_OC#7
USB_OC#8
21 USB_OC#9
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
DMI0RXN
DMI0RXP
DMI0TXN
DMI0TXP
DMI1RXN
DMI1RXP
DMI1TXN
DMI1TXP
DMI2RXN
DMI2RXP
DMI2TXN
DMI2TXP
DMI3RXN
DMI3RXP
DMI3TXN
DMI3TXP
DMI_RXN0
DMI_RXP0
DMI_TXN0
DMI_TXP0
DMI_RXN1
DMI_RXP1
DMI_TXN1
DMI_TXP1
DMI_RXN2
DMI_RXP2
DMI_TXN2
DMI_TXP2
DMI_RXN3
DMI_RXP3
DMI_TXN3
DMI_TXP3
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
DMI_CLKN
DMI_CLKP
CLK_PCIE_ICH#
CLK_PCIE_ICH
CLK_PCIE_ICH# 6
CLK_PCIE_ICH 6
Place within 500 mils of ICH
DMI_ZCOMP
DMI_IRCOMP
DMI_COMP
R241
24.9_F
0402
+1_5V_PCIE
USBP0N
USBP0P
USBP1N
USBP1P
USBP2N
USBP2P
USBP3N
USBP3P
USBP4N
USBP4P
USBP5N
USBP5P
USBP6N
USBP6P
USBP7N
USBP7P
USBP8N
USBP8P
USBP9N
USBP9P
USB_PN0
USB_PP0
USB_PN1
USB_PP1
USB_PN2
USB_PP2
USB_PN3
USB_PP3
USB_PN5
USB_PP5
USB_PN8
USB_PP8
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
30MIL TP84
30MIL TP88
30MIL TP87
30MIL TP92
30MIL TP82
30MIL TP85
30MIL TP91
30MIL TP93
USBRBIAS#
USBRBIAS
R313
22.6_F
0402
Place within 500 mils of ICH and don't routing next to high speed signals
21 SMLINK0
SMLINK0
USB_OC#5
USB_OC#1
USB_OC#2
USB_OC#6
USB_OC#8
USB_OC#4
USB_OC#3
RP23
10K
1206_10P8R
+3VALW
http://hobi-elektronika.net
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH8-M(PCI/DMI/USB/PCIE) 1/5
Size
A3
Document Number
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1.0
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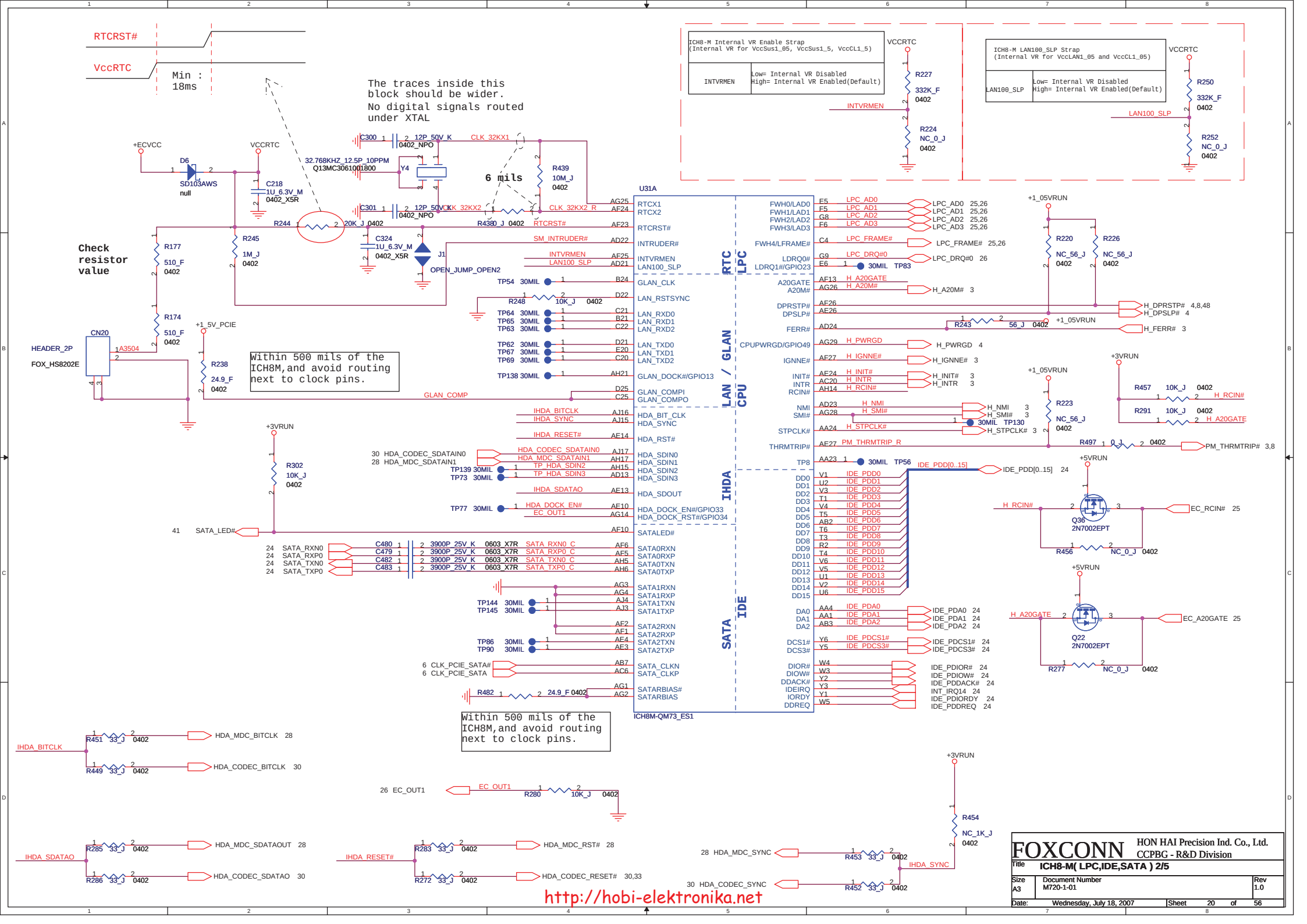
RTCRST#
VccRTC
Min : 18ms
The traces inside this block should be wider.
No digital signals routed under XTAL
ICH8-M Internal VR Enable Strap (Internal VR for VccSus1_05, VccSus1_5, VccCL1_5)
INTVRMEN
Low= Internal VR Disabled
High= Internal VR Enabled(Default)
ICH8-M LAN100_SLP Strap (Internal VR for VccLAN1_05 and VccCL1_05)
LAN100_SLP
Low= Internal VR Disabled
High= Internal VR Enabled(Default)
Check resistor value
6 mils
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.
U31A
ICH8M-QM73_ES1
RTC
LPC
LAN / GLAN
CPU
IHDA
SATA
IDE
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title ICH8-M(LPC,IDE,SATA) 2/5
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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

Connect CLPWRGD to existing PWROK inputs on ICH8M

CL_VREF ~=0.405V

Adds.AEH

U31C
ICH8M-QM73_ES1

SMB
SATA GPIO
Clocks
SYS GPIO
Power MGT
GPIO
Controller Link
MISC

U30
EEPROM_SOP-8_256x8
HT24LC02

U20
74AHC1G14GW

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Title: ICH8-M(GPIO) 3/5
Size: A3
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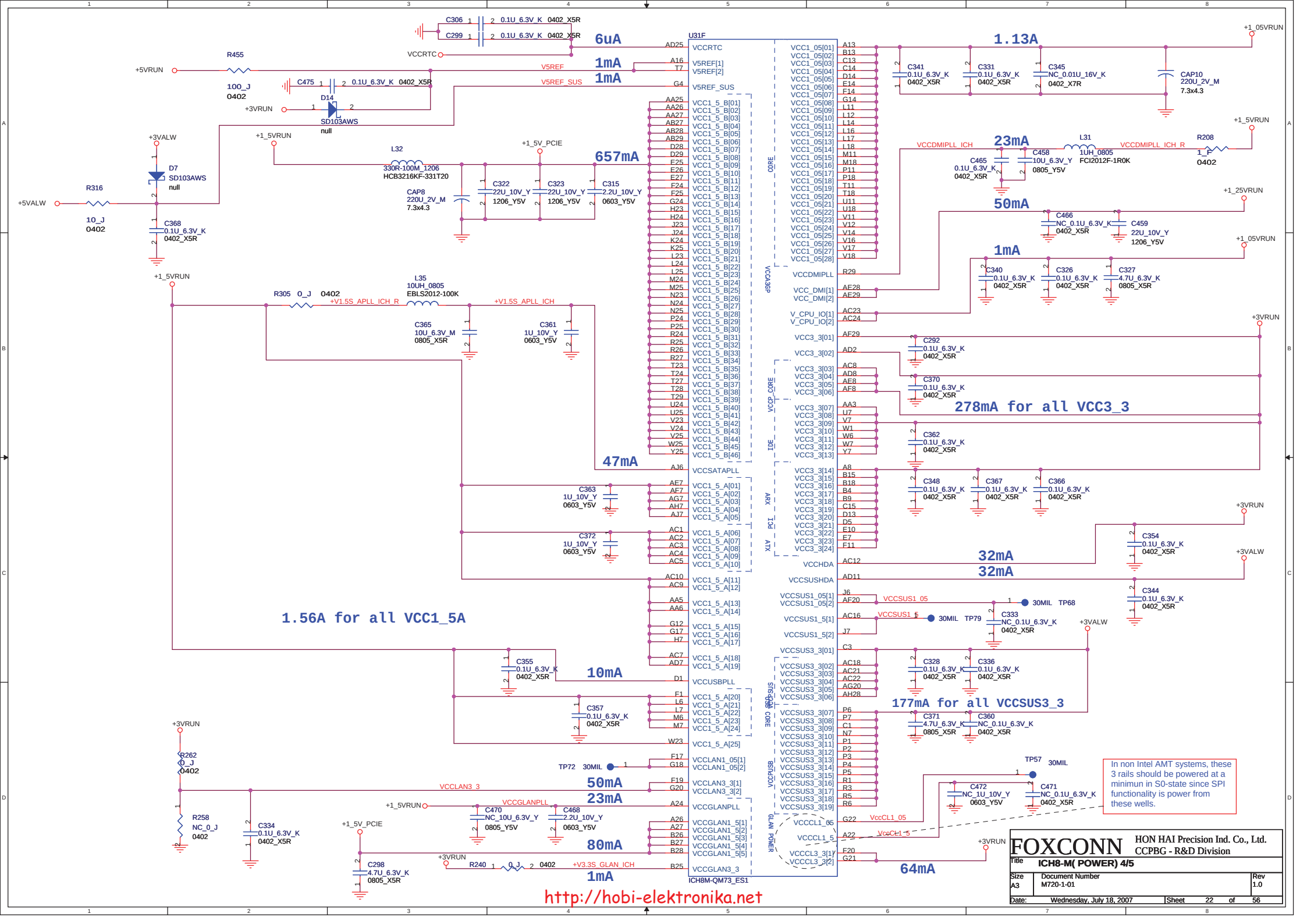
U31F
ICH8M-QM73_ES1
1.56A for all VCC1_5A
278mA for all VCC3_3
177mA for all VCCSUS3_3
1.13A
657mA
6uA
1mA
1mA
47mA
10mA
50mA
23mA
80mA
1mA
50mA
1mA
32mA
32mA
64mA
23mA
In non Intel AMT systems, these 3 rails should be powered at a minimun in S0-state since SPI functionality is power from these wells.
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HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
ICH8-M(POWER) 4/5
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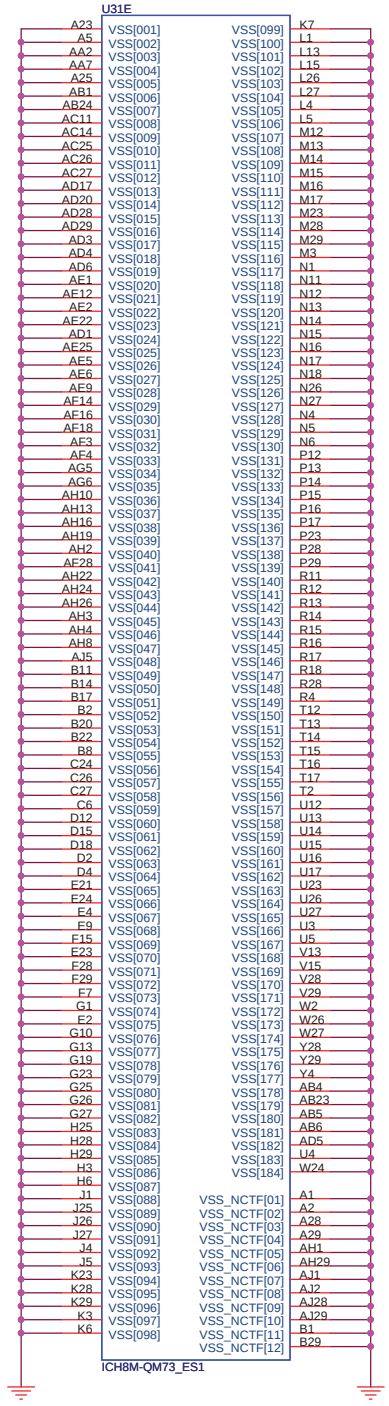

FOXCONN
HON HAI Precision Ind. Co., Ltd.
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Title	ICH8-M(GND) 5/5	
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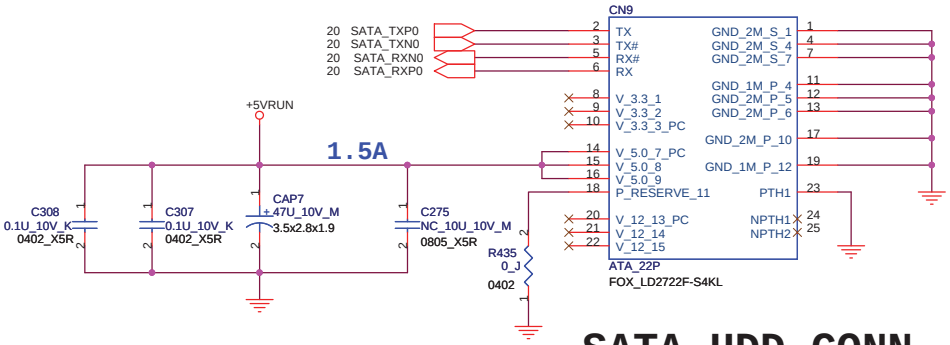
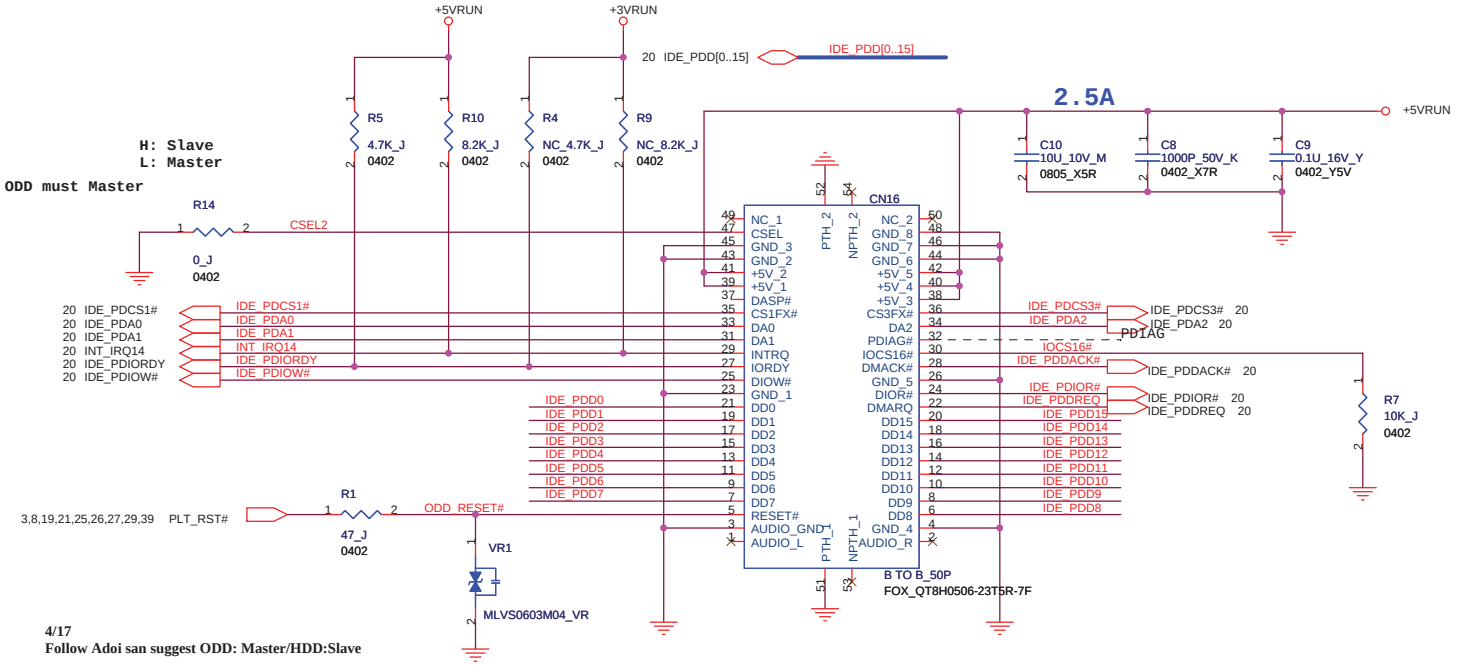
Date: Wednesday, July 18, 2007	Sheet 23 of 56	



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
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Consider short FB after BB test.

U29

KB3910SFC1

FOR EMI

L39 120R-100MHZ_0402 TB100505U121

C424 1U_6.3V_M 0402_X5R

C425 0.1U_6.3V_K 0402_X5R

C454 10U_6.3V_Y 0805_Y5V

C452 0.1U_6.3V_K 0402_X5R

C179 0.1U_6.3V_K 0402_X5R

R419 0_J 0603

R430 1K_J 0402

CN3 FPC CONN_24P FOX_GB21240-0002-7F

KBC CNN

MS90 & MS20 EC GPIO Different Table

	Pin NO.	Pin Name	MS90	MS20
Docking	26	GPIW1	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_500MS#
	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

System ID table check with software define

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

No used pin

FOXCONN

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

Title: EC+KBC

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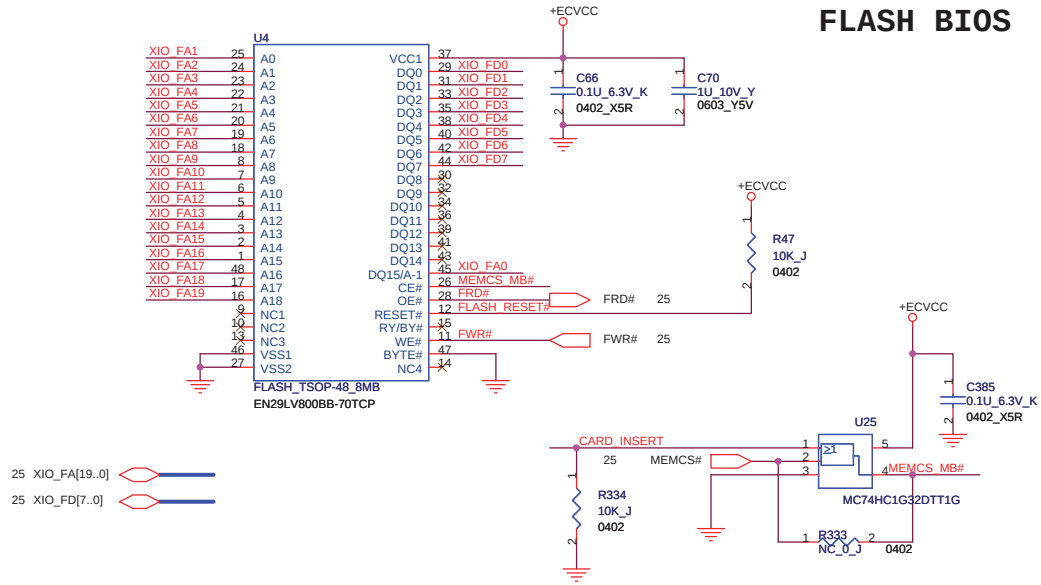
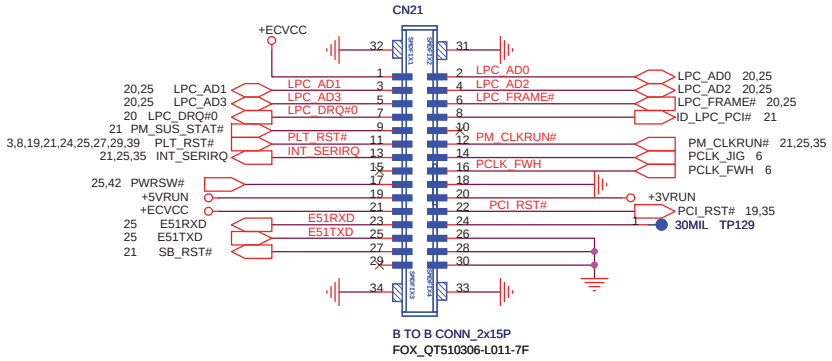
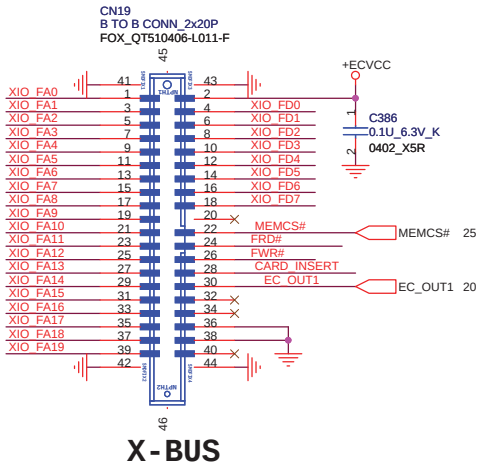




JIG-120

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
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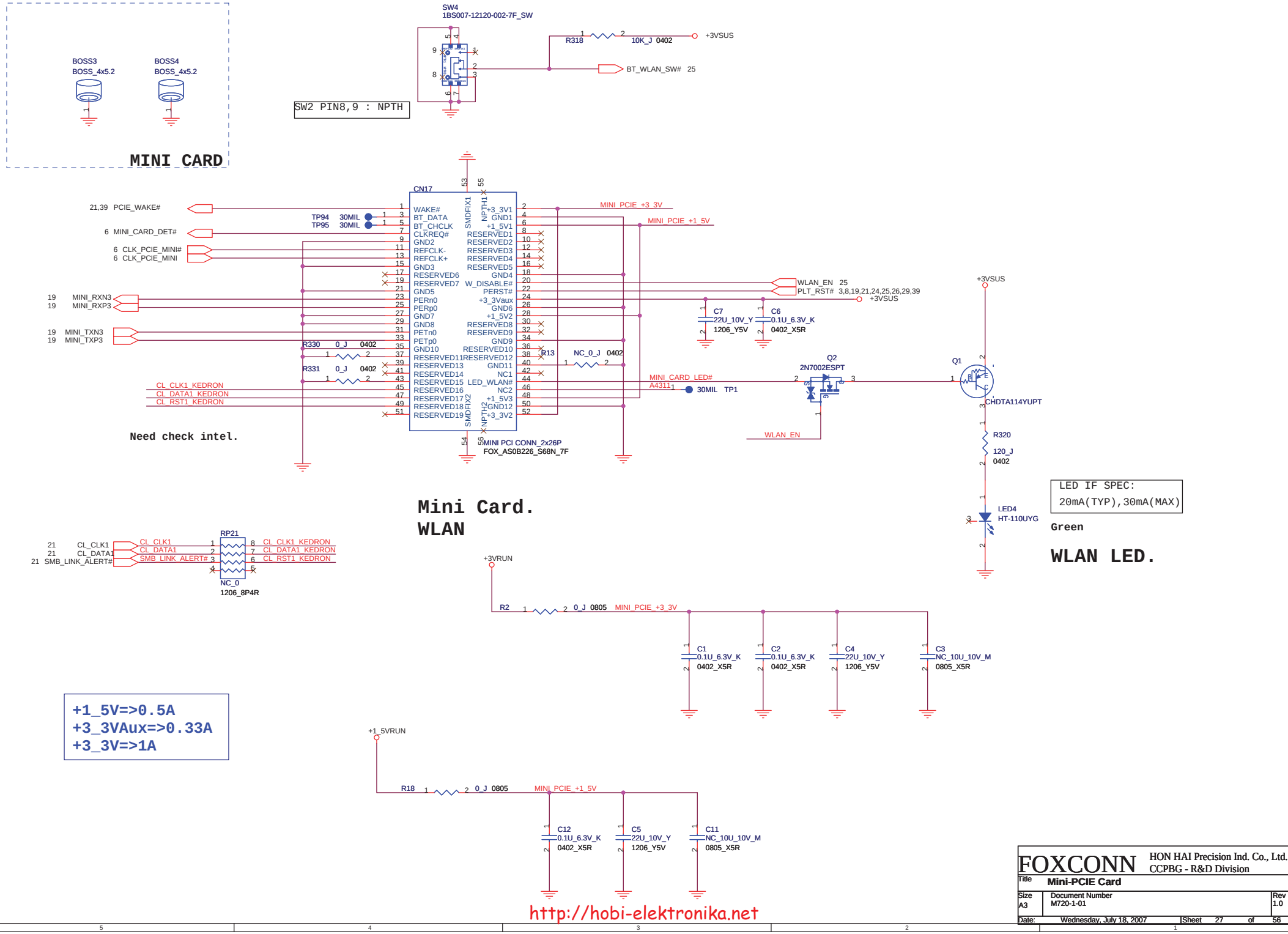
MINI CARD
BOSS3
BOSS_4x5.2
BOSS4
BOSS_4x5.2
SW4
1BS007-12120-002-7F_SW
SW2 PIN8,9 : NPTH
R318
10K_J 0402
+3VSUS
BT_WLAN_SW# 25
CN17
MINI PCI CONN_2x26P
FOX_AS0B226_S68N_7F
21,39 PCIE_WAKE#
6 MINI_CARD_DET#
6 CLK_PCIE_MINI#
6 CLK_PCIE_MINI
19 MINI_RXN3
19 MINI_RXP3
19 MINI_TXN3
19 MINI_TXP3
TP94 30MIL
TP95 30MIL
R330 0_J 0402
R331 0_J 0402
R13 NC_0_J 0402
CL_CLK1_KEDRON
CL_DATA1_KEDRON
CL_RST1_KEDRON
MINI_PCIE_+3_3V
MINI_PCIE_+1_5V
WLAN_EN 25
PLT_RST# 3,8,19,21,24,25,26,29,39
+3VSUS
C7 22U_10V_Y 1206_Y5V
C6 0.1U_6.3V_K 0402_X5R
MINI_CARD_LED#
A4311
30MIL TP1
Q2
2N7002ESPT
Q1
CHDTA114YUPT
WLAN_EN
R320
120_J
0402
LED4
HT-110UYG
Green
LED IF SPEC:
20mA(TYP),30mA(MAX)
Need check intel.
Mini Card.
WLAN
WLAN LED.
RP21
21 CL_CLK1
21 CL_DATA1
21 SMB_LINK_ALERT#
CL_CLK1
CL_DATA1
SMB_LINK_ALERT#
CL_CLK1_KEDRON
CL_DATA1_KEDRON
CL_RST1_KEDRON
NC_0
1206_8P4R
+3VRUN
R2 0_J 0805
MINI_PCIE_+3_3V
C1 0.1U_6.3V_K 0402_X5R
C2 0.1U_6.3V_K 0402_X5R
C4 22U_10V_Y 1206_Y5V
C3 NC_10U_10V_M 0805_X5R
+1_5V=>0.5A
+3_3VAux=>0.33A
+3_3V=>1A
+1_5VRUN
R18 0_J 0805
MINI_PCIE_+1_5V
C12 0.1U_6.3V_K 0402_X5R
C5 22U_10V_Y 1206_Y5V
C11 NC_10U_10V_M 0805_X5R
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FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
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Mini-PCIE Card
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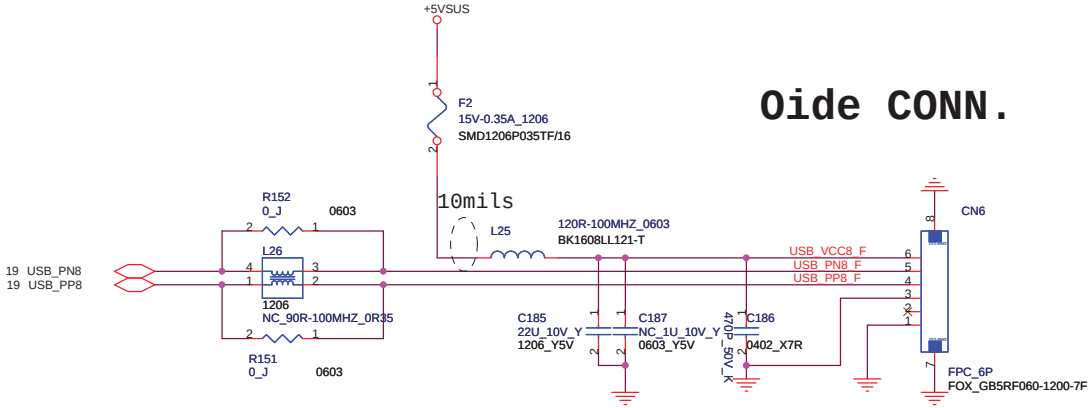
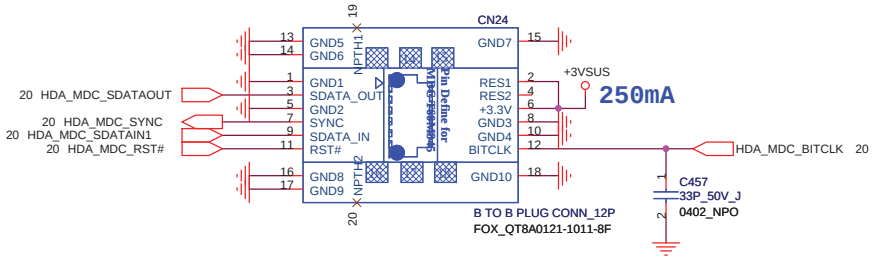
Oide CONN.



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

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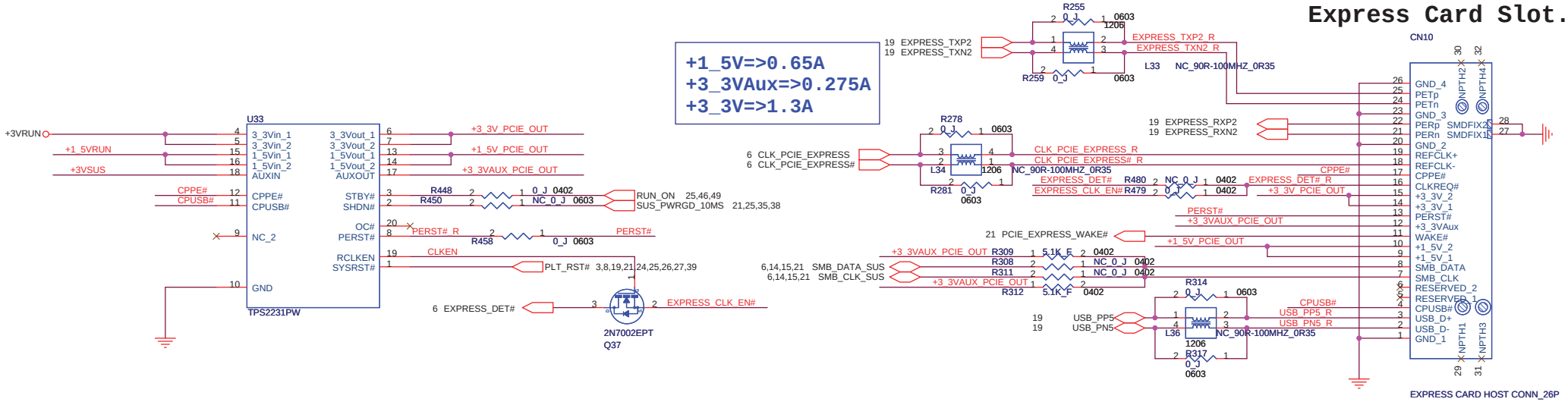
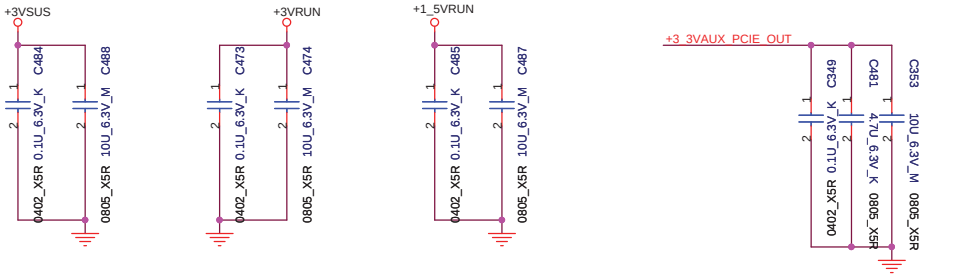
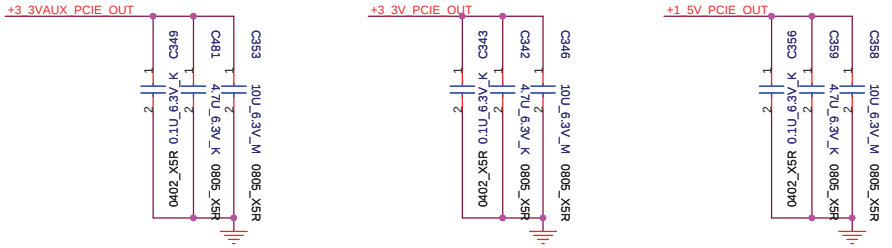
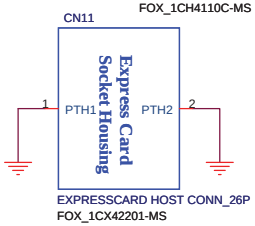
Express Card Slot.

+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
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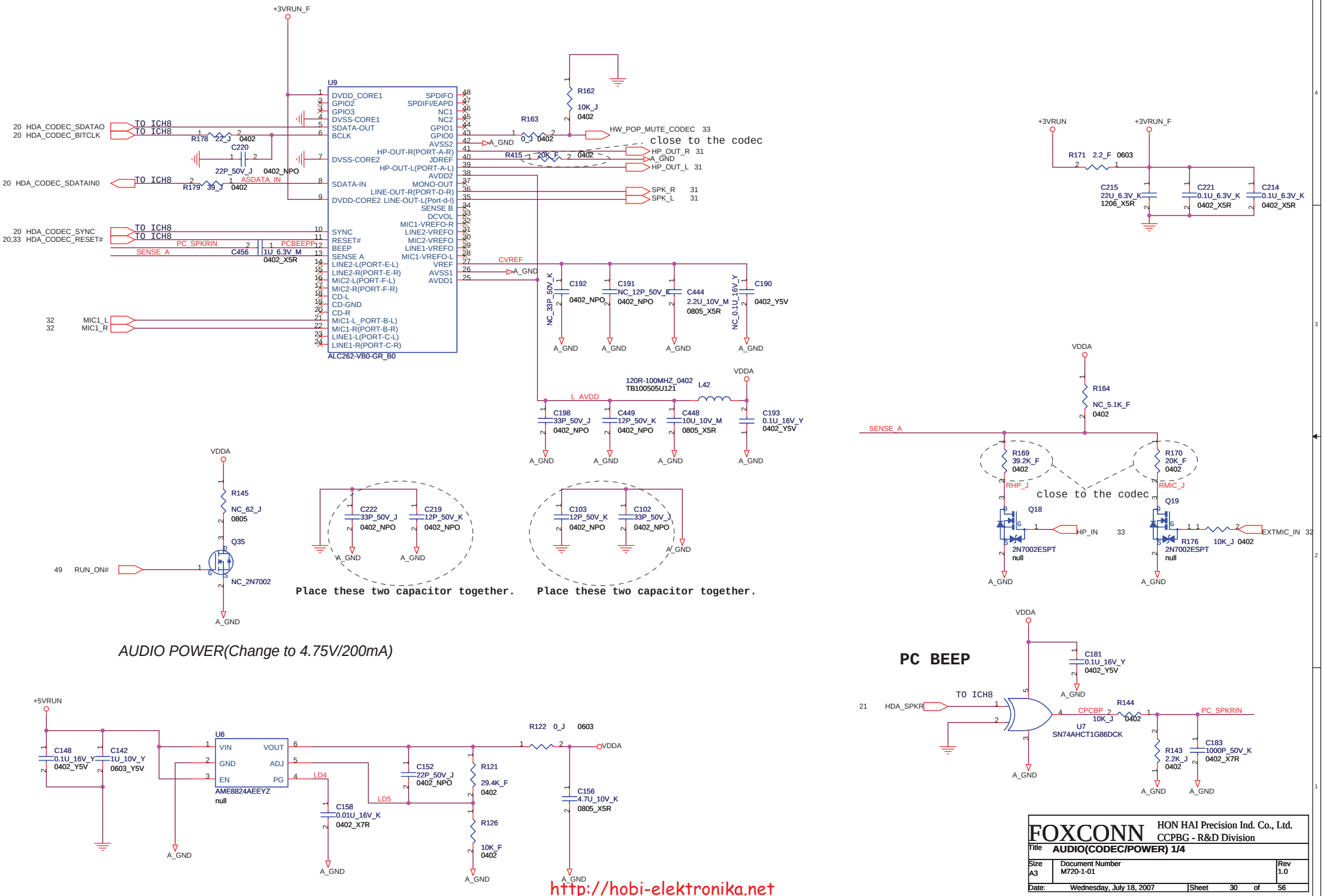
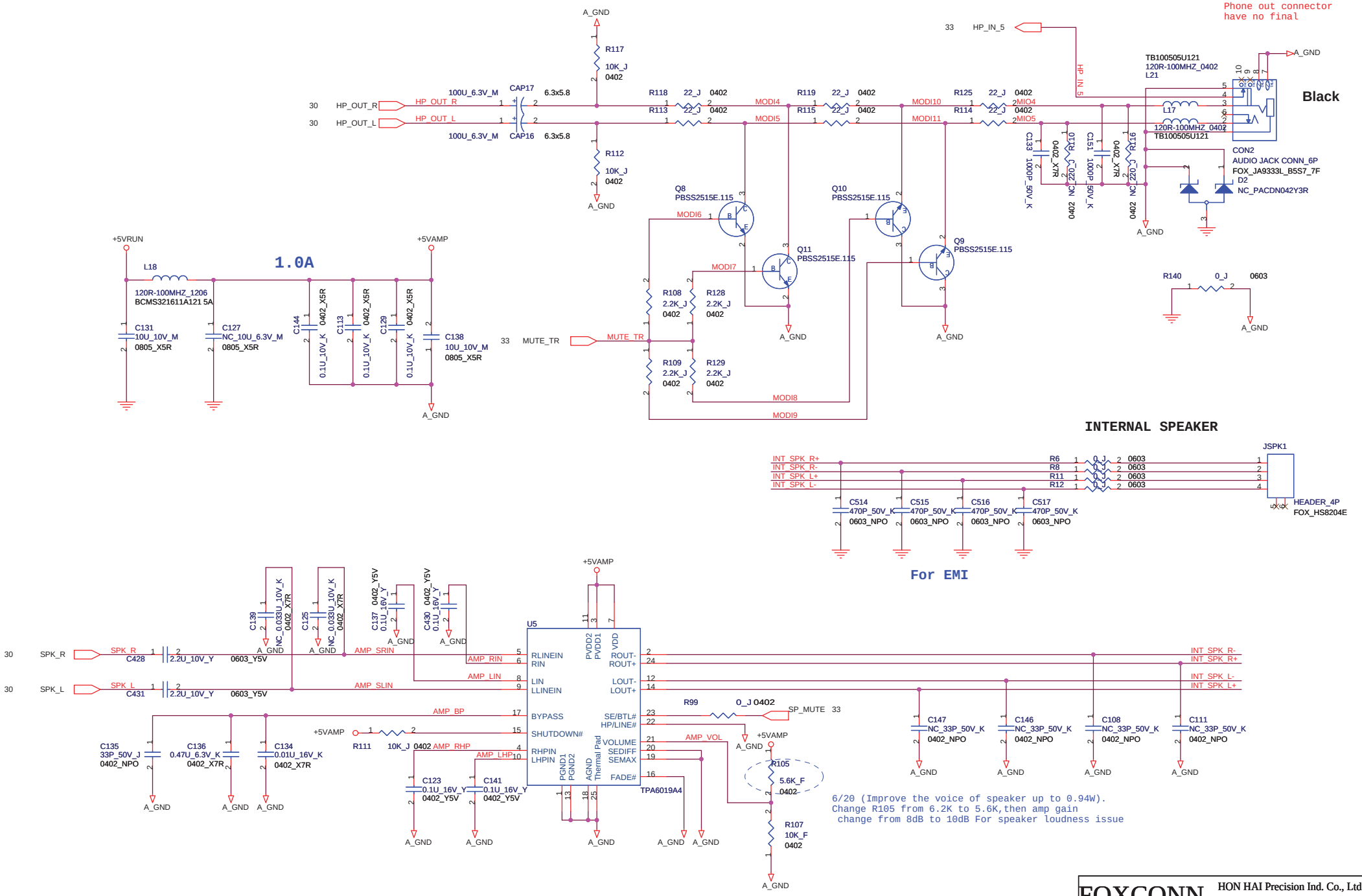
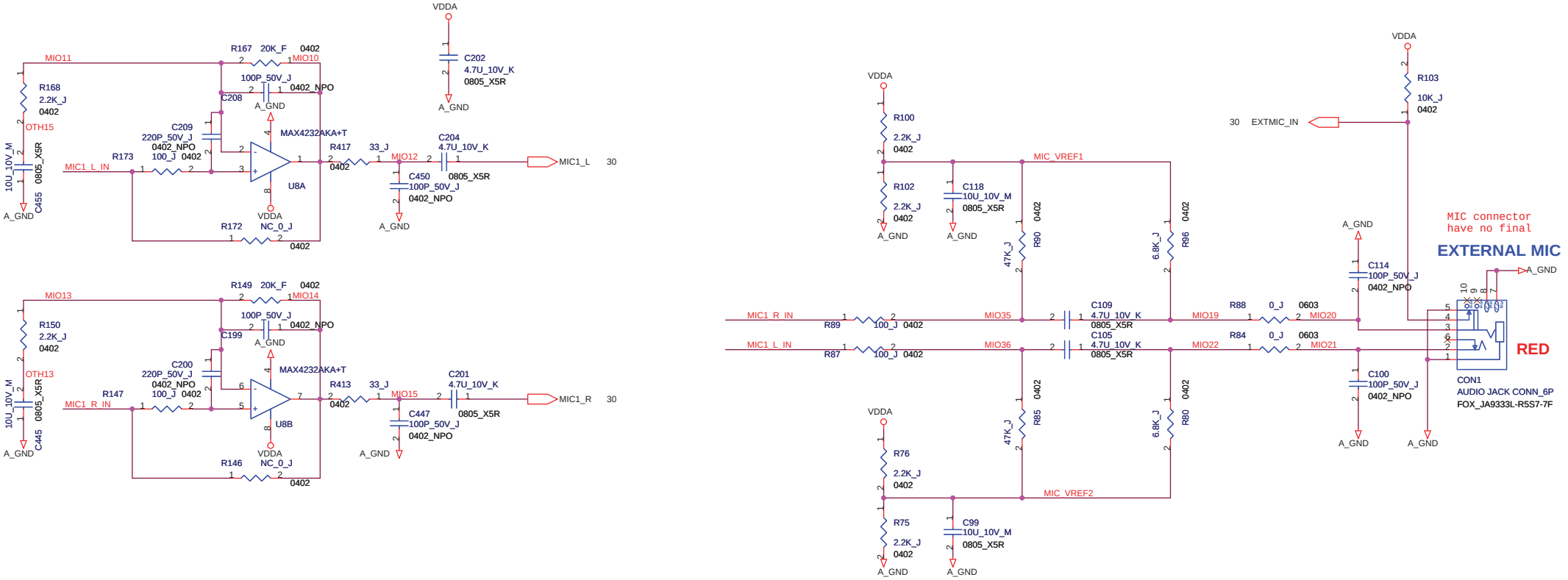


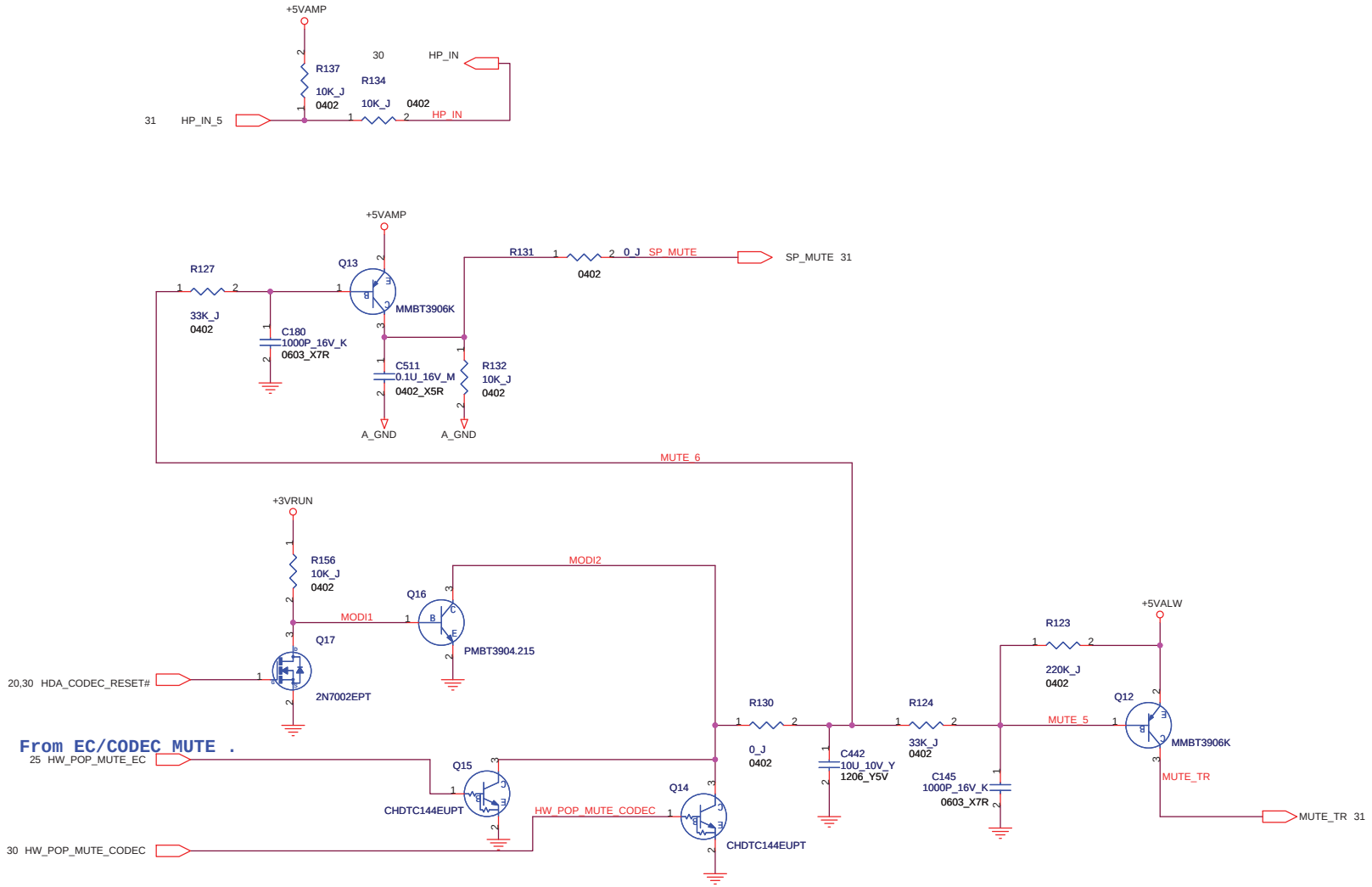


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	AUDIO(AMP & HP & SPK)		
Size A3	Document Number M720-1-01		Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 31 of 56		

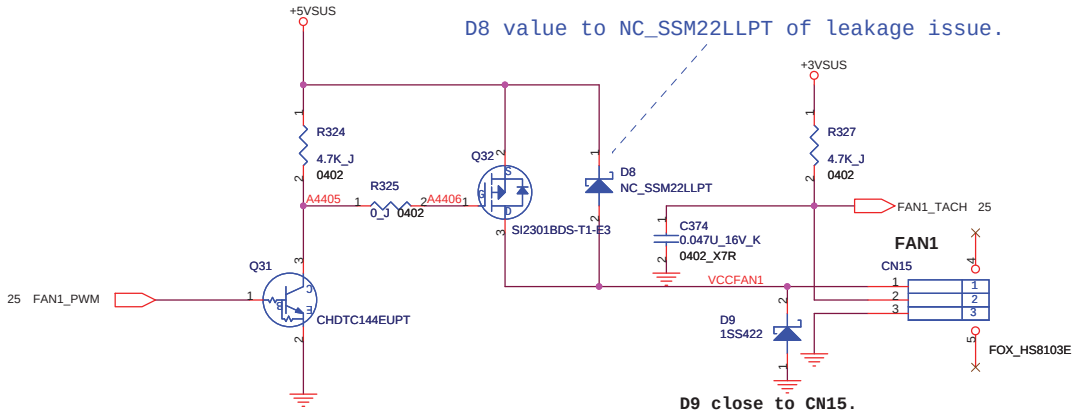


FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

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	

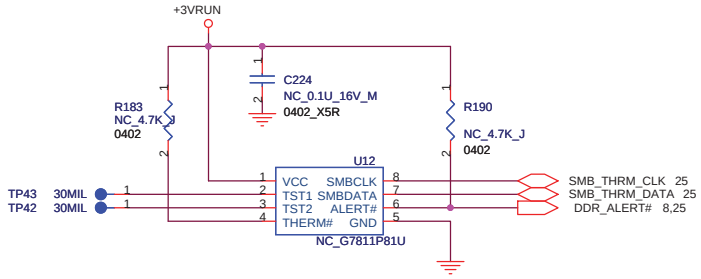


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	AUDIO (MUTE & INTMIC)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 33 of 56	



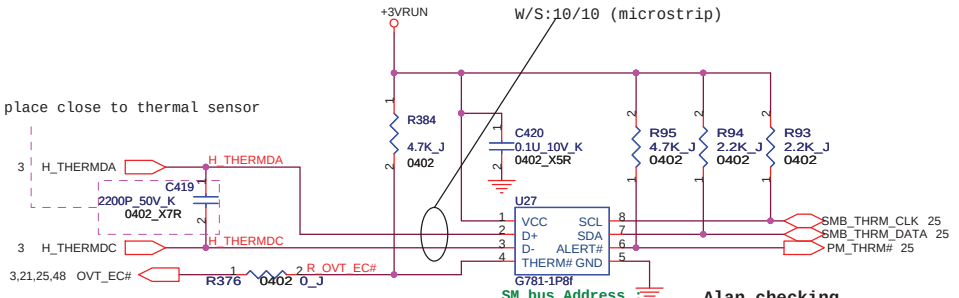
FAN

Memory Thermal-Sensor



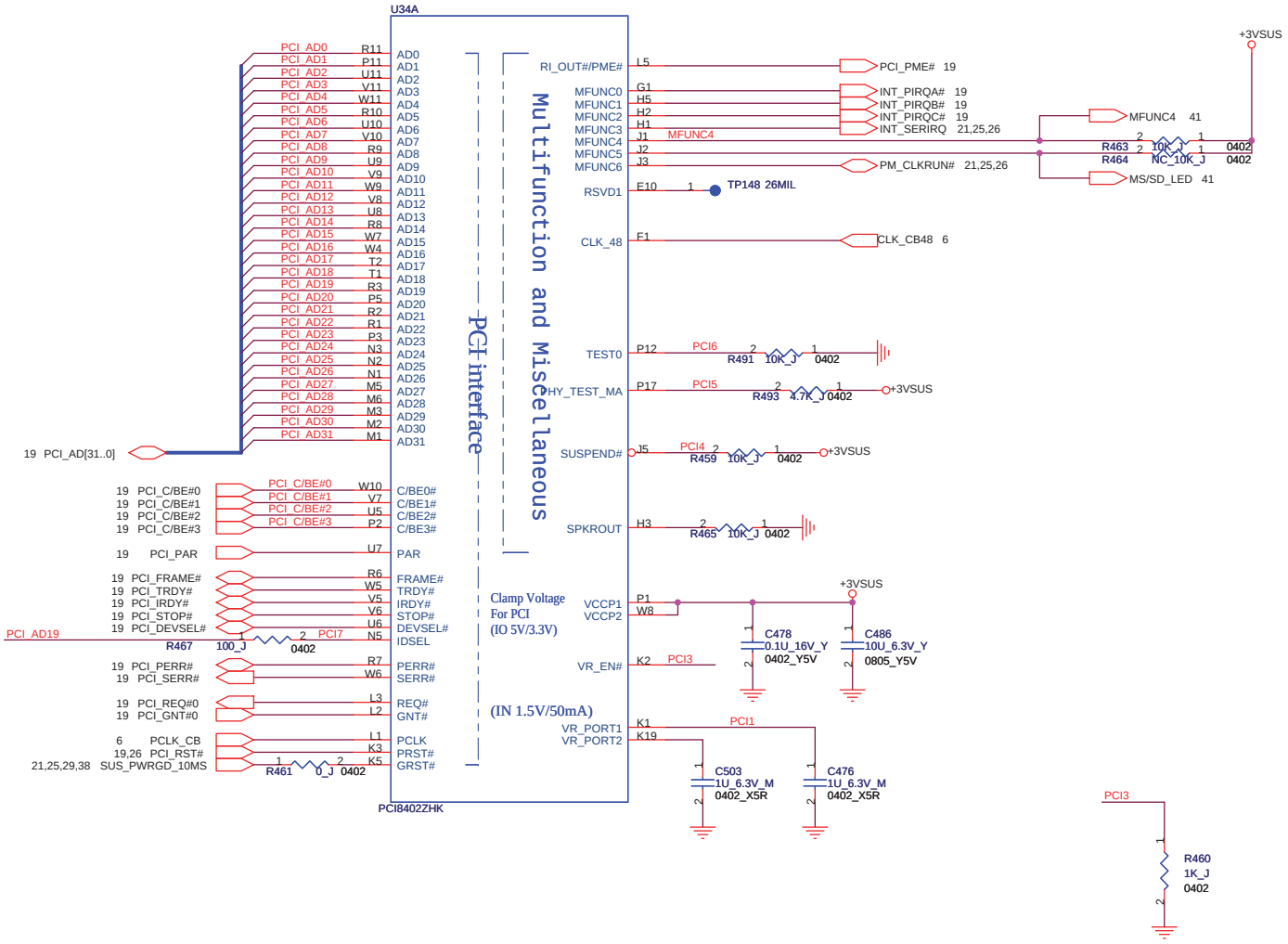
Close to CN25

CPU Thermal-Sensor

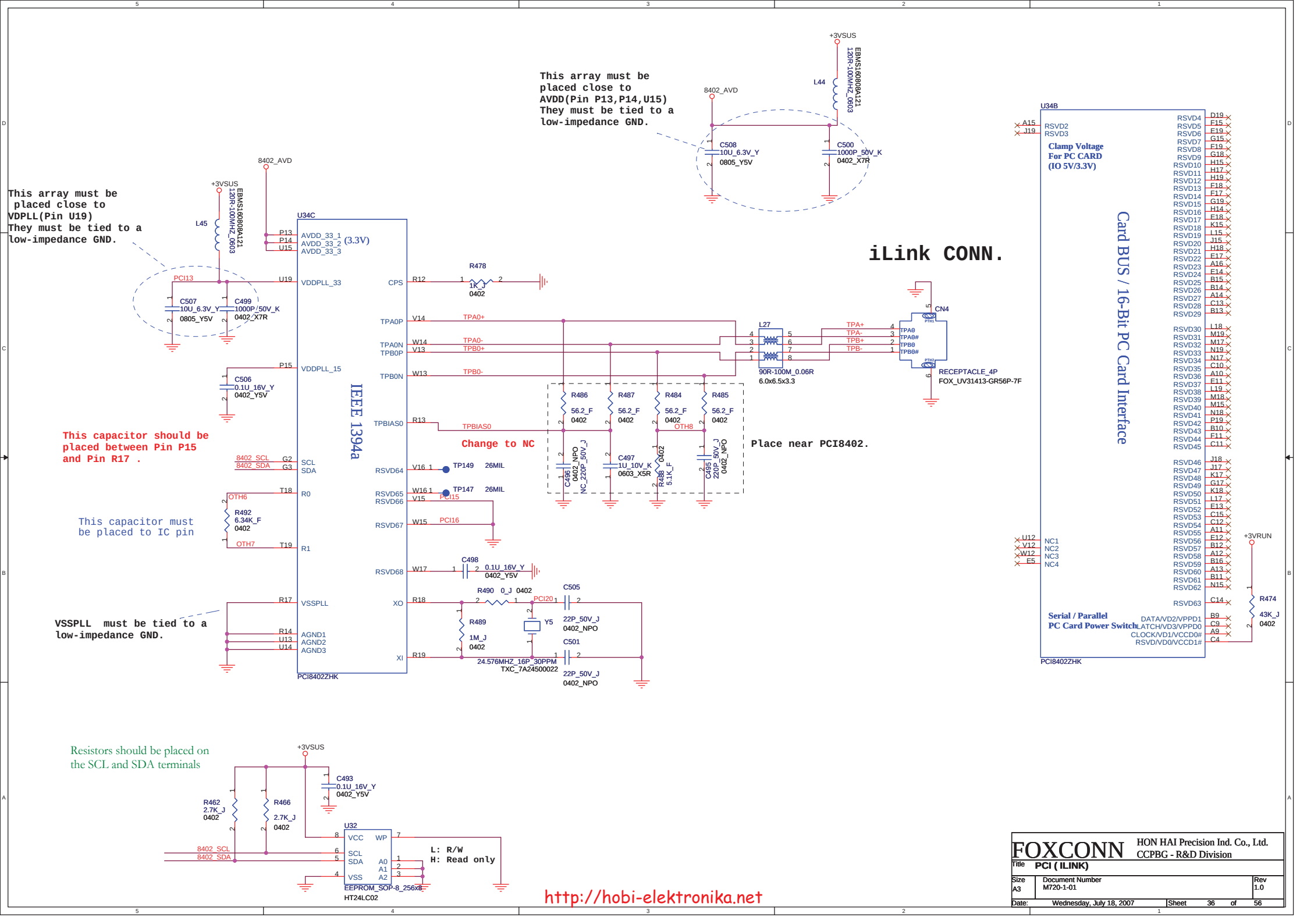


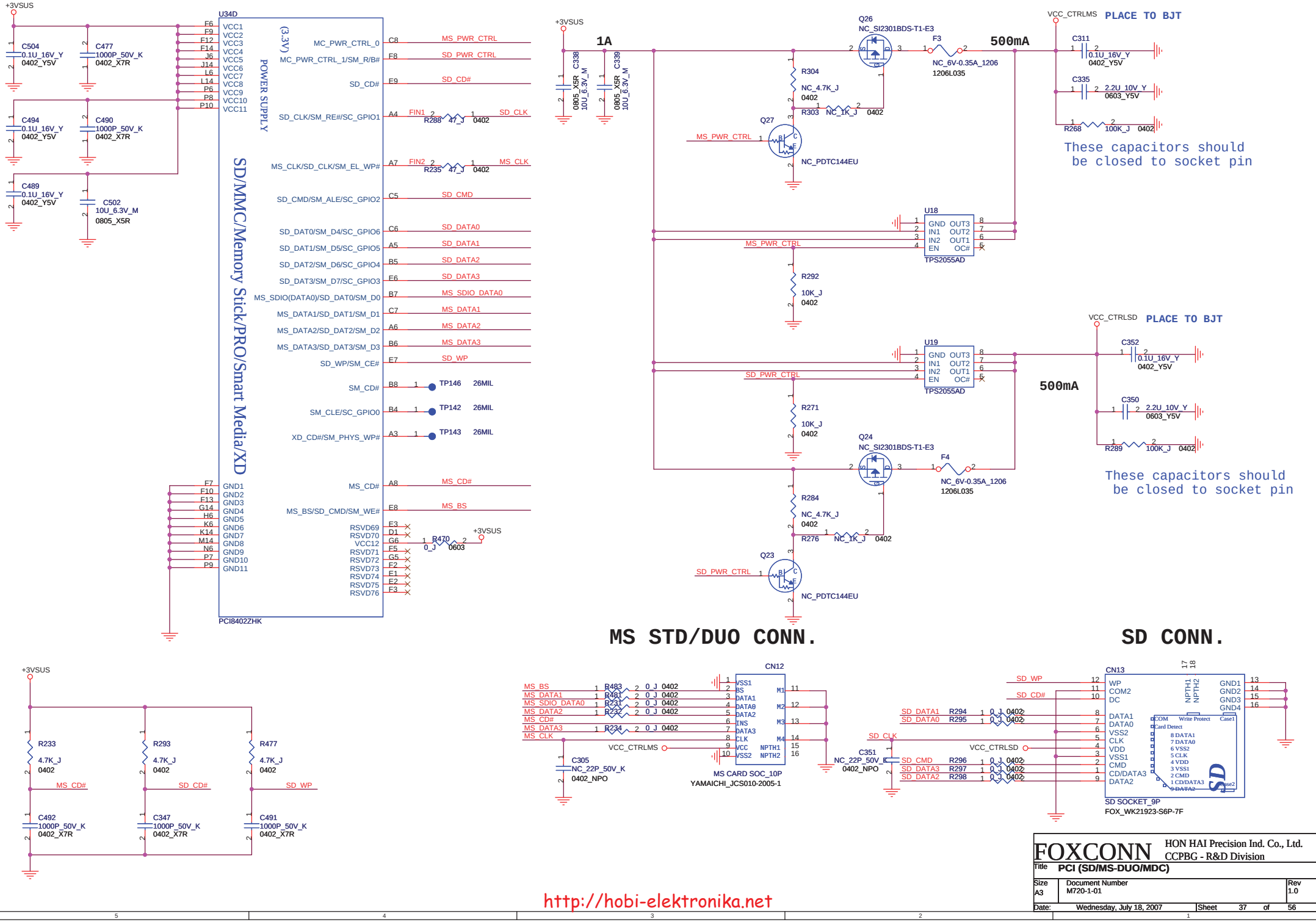
Close to U24

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	

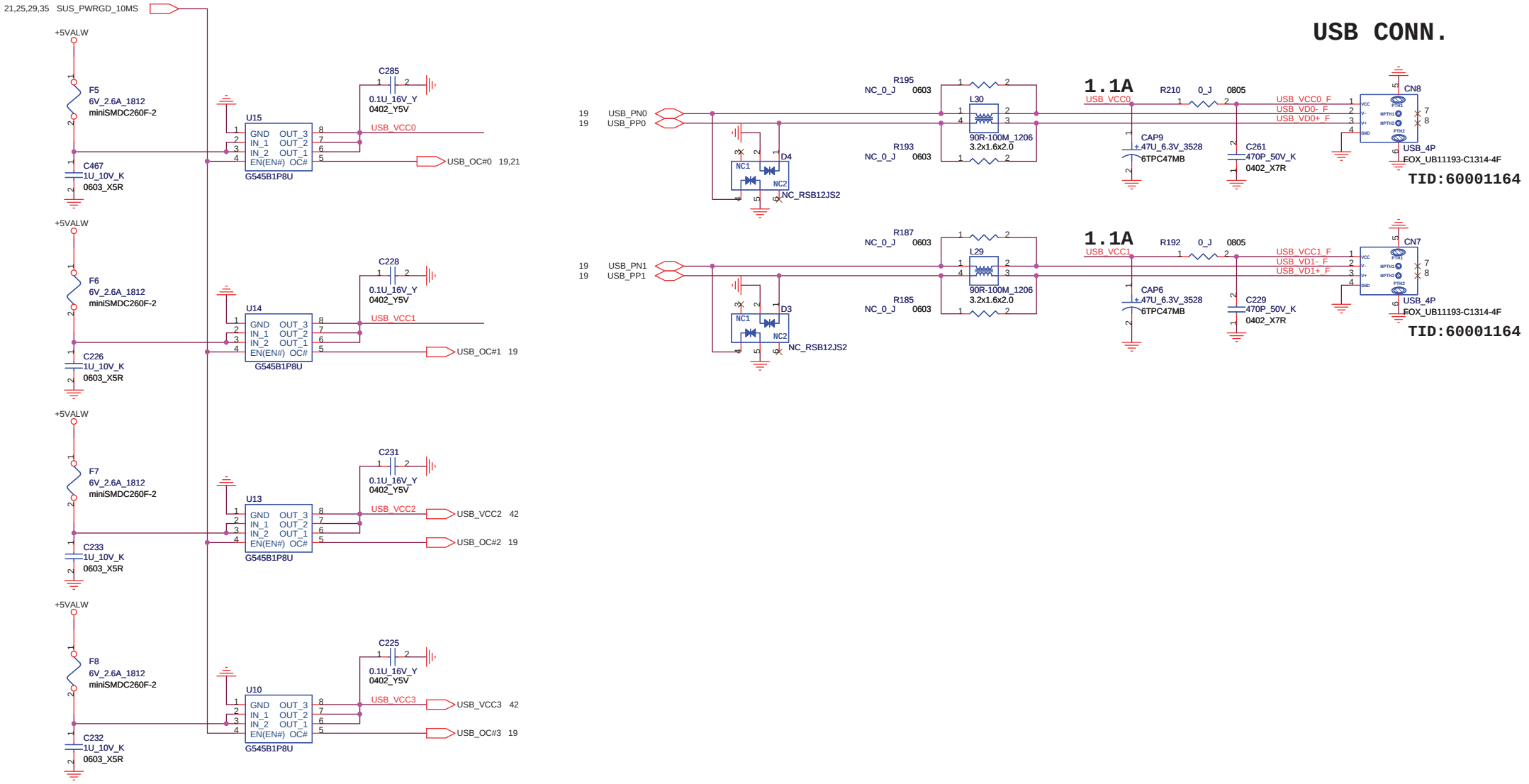

This array must be placed close to AVDD(Pin P13,P14,U15) They must be tied to a low-impedance GND.
8402_AVD
+3VSUS
L44
EBMS160808A121 120R-100MHZ_0603
C508 10U_6.3V_Y 0805_Y5V
C500 1000P_50V_K 0402_X7R
This array must be placed close to VDPLL(Pin U19) They must be tied to a low-impedance GND.
L45
EBMS160808A121 120R-100MHZ_0603
PCI13
C507 10U_6.3V_Y 0805_Y5V
C499 1000P_50V_K 0402_X7R
C506 0.1U_16V_Y 0402_Y5V
U34C
P13 AVDD_33_1
P14 AVDD_33_2
U15 AVDD_33_3
(3.3V)
U19 VDDPLL_33
P15 VDDPLL_15
IEEE 1394a
CPS R12
R478 1K_J 0402
TPA0P V14 TPA0+
TPA0N W14 TPA0-
TPB0P V13 TPB0+
TPB0N W13 TPB0-
TPBIAS0 R13 TPBIAS0
Change to NC
RSVD64 V16 TP149 26MIL
RSVD65 W16 TP147 26MIL
RSVD66 V15 PCI15
RSVD67 W15 PCI16
RSVD68 W17
C498 0.1U_16V_Y 0402_Y5V
XO R18
XI R19
R490 0_J 0402
R489 1M_J 0402
PCI20
Y5
C505 22P_50V_J 0402_NPO
C501 22P_50V_J 0402_NPO
24.576MHZ_16P_30PPM TXC_7A24500022
R486 56.2_F 0402
R487 56.2_F 0402
R484 56.2_F 0402
R485 56.2_F 0402
OTH8
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.
This capacitor should be placed between Pin P15 and Pin R17 .
8402_SCL G2
8402_SDA G3
SCL
SDA
T18 R0
OTH6
R492 6.34K_F 0402
OTH7 T19 R1
This capacitor must be placed to IC pin
R17 VSSPLL
VSSPLL must be tied to a low-impedance GND.
R14 AGND1
U13 AGND2
U14 AGND3
PCI8402ZHK
iLink CONN.
L27
90R-100M_0.06R
6.0x6.5x3.3
TPA+
TPA-
TPB+
TPB-
CN4
TPA0
TPA0#
TPB0
TPB0#
RECEPTACLE_4P
FOX_UV31413-GR56P-7F
U34B
A15 RSVD2
J19 RSVD3
Clamp Voltage For PC CARD (IO 5V/3.3V)
Card BUS / 16-Bit PC Card Interface
RSVD4 D19
RSVD5 F15
RSVD6 E19
RSVD7 G15
RSVD8 F19
RSVD9 G18
RSVD10 H15
RSVD11 H17
RSVD12 H19
RSVD13 F18
RSVD14 F17
RSVD15 G19
RSVD16 H14
RSVD17 F18
RSVD18 K15
RSVD19 L15
RSVD20 J15
RSVD21 H18
RSVD22 E17
RSVD23 A16
RSVD24 E14
RSVD25 B15
RSVD26 B14
RSVD27 A14
RSVD28 C13
RSVD29 B13
RSVD30 L18
RSVD31 M19
RSVD32 M17
RSVD33 N19
RSVD34 N17
RSVD35 C10
RSVD36 A10
RSVD37 E11
RSVD38 L19
RSVD39 M18
RSVD40 M15
RSVD41 N18
RSVD42 P19
RSVD43 B10
RSVD44 F11
RSVD45 C11
RSVD46 J18
RSVD47 J17
RSVD48 K17
RSVD49 G17
RSVD50 K18
RSVD51 L17
RSVD52 E13
RSVD53 C15
RSVD54 C12
RSVD55 A11
RSVD56 E12
RSVD57 B12
RSVD58 A12
RSVD59 B16
RSVD60 A13
RSVD61 B11
RSVD62 N15
RSVD63 C14
U12 NC1
V12 NC2
W12 NC3
E5 NC4
Serial / Parallel PC Card Power Switch
DATA/VD2/VPPD1 B9
LATCH/VD3/VPPD0 C9
CLOCK/VD1/VCCD0# A9
RSVD/VD0/VCCD1# C4
+3VRUN
R474 43K_J 0402
PCI8402ZHK
Resistors should be placed on the SCL and SDA terminals
+3VSUS
C493 0.1U_16V_Y 0402_Y5V
R462 2.7K_J 0402
R466 2.7K_J 0402
U32
VCC WP
SCL
SDA A0
A1
VSS A2
8402_SCL
8402_SDA
L: R/W
H: Read only
EEPROM_SOP-8_256x8
HT24LC02
http://hobi-elektronika.net
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



http://hobi-elektronika.net

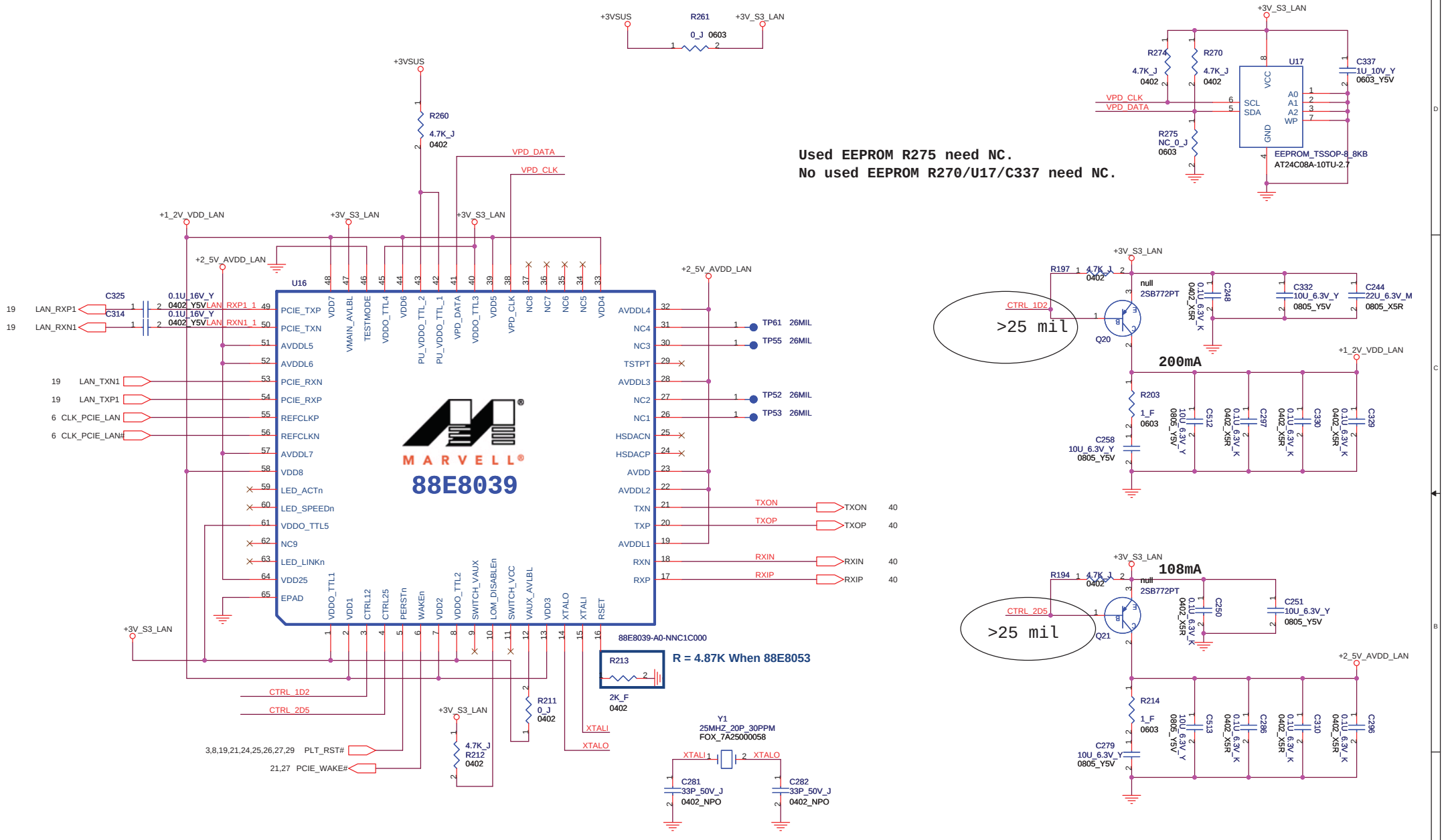
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	PCI (SD/MS-DUO/MDC)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 37 of 56	

USB CONN.

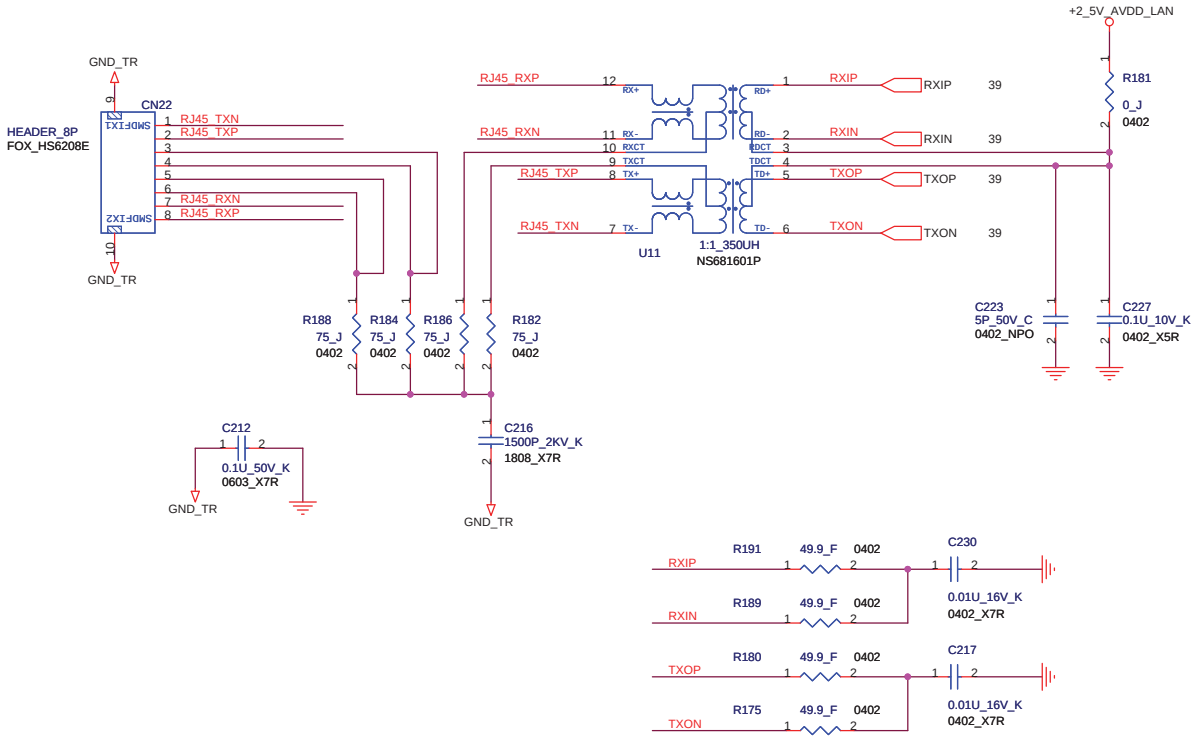


FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	USB2.0	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 38 of 56	



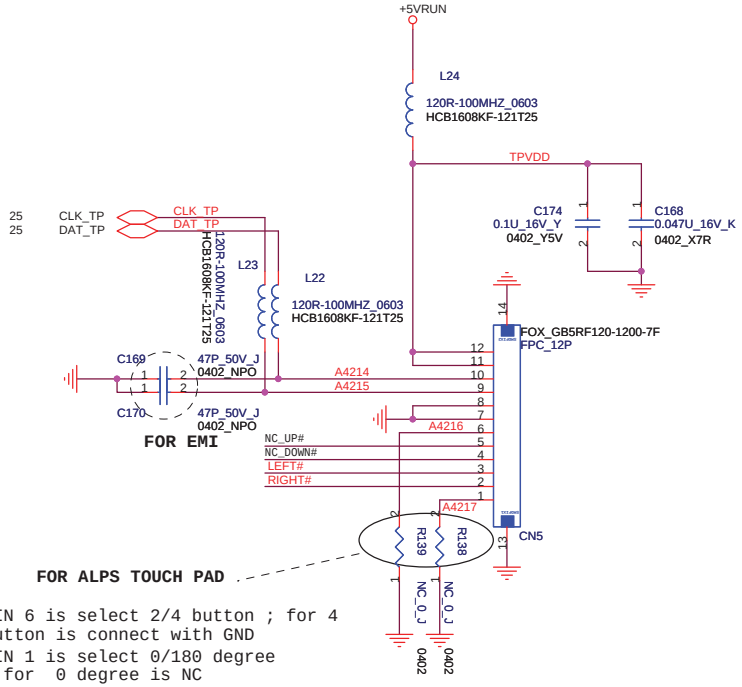
FOXCONN	HON HAI PRECISION IND. CO., LTD. CPBG - R&D Division
Title	LAN (88E8036)
Size A3	Document Number M720-1-01 Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 39 of 56



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

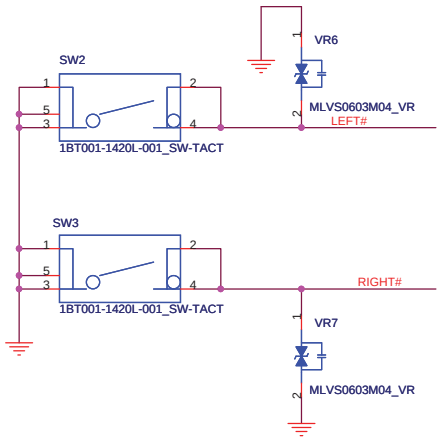
Title	LAN Transformer	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 40 of 56	

Touch Pad CONN.

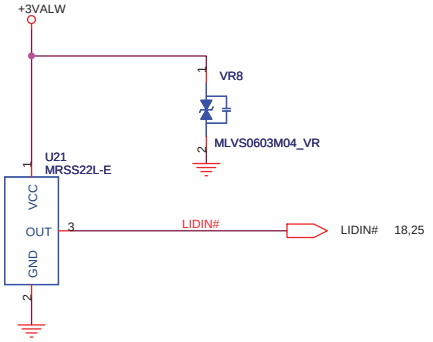


PIN 6 is select 2/4 button ; for 4 button is connect with GND
PIN 1 is select 0/180 degree ; for 0 degree is NC

TP_LEFT Button

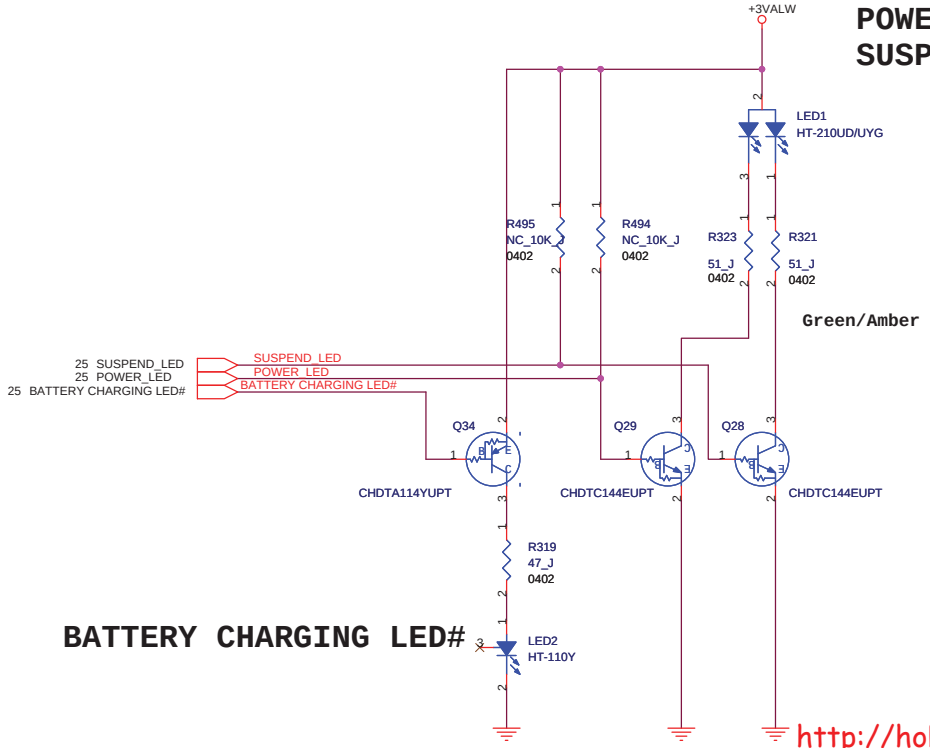


LID Switch



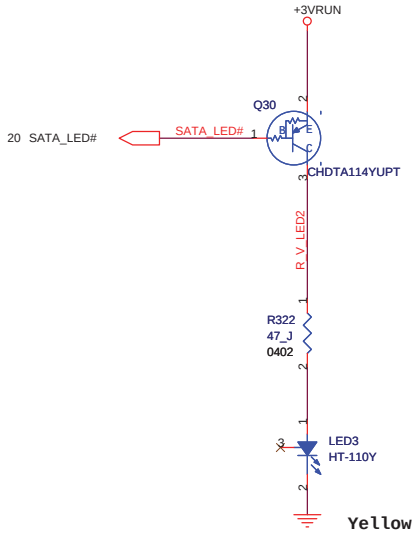
TP_Right Button

POWER_LED
SUSPEND_LED

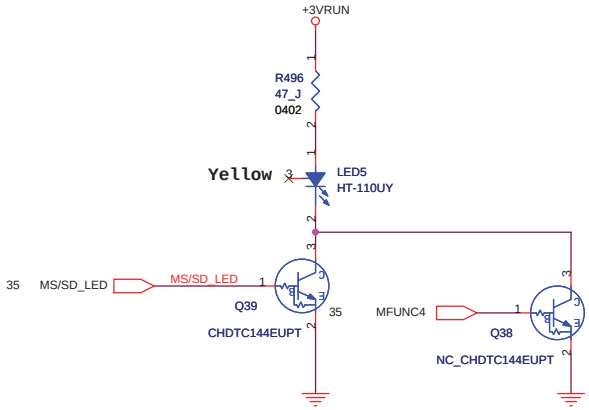


BATTERY CHARGING LED#

SATA_LED#



MS/SD LED



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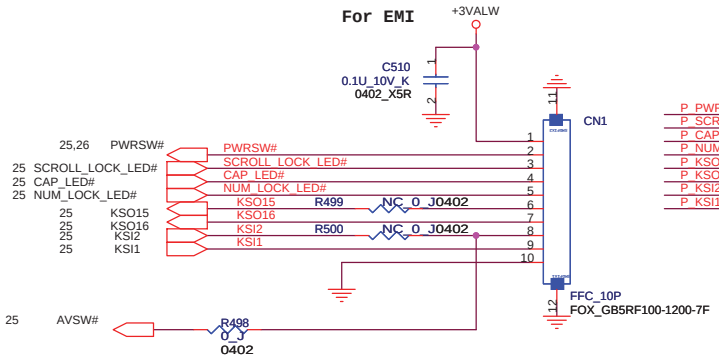
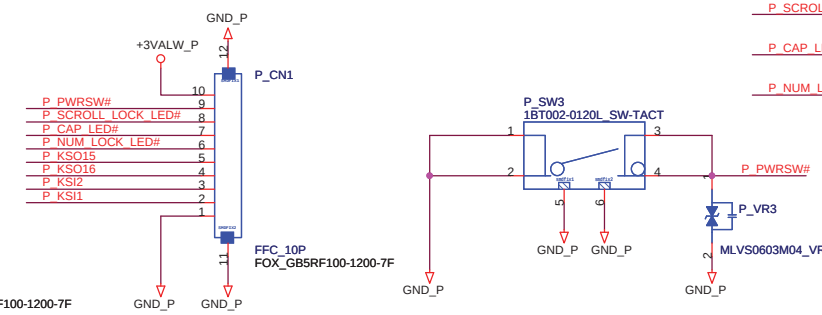
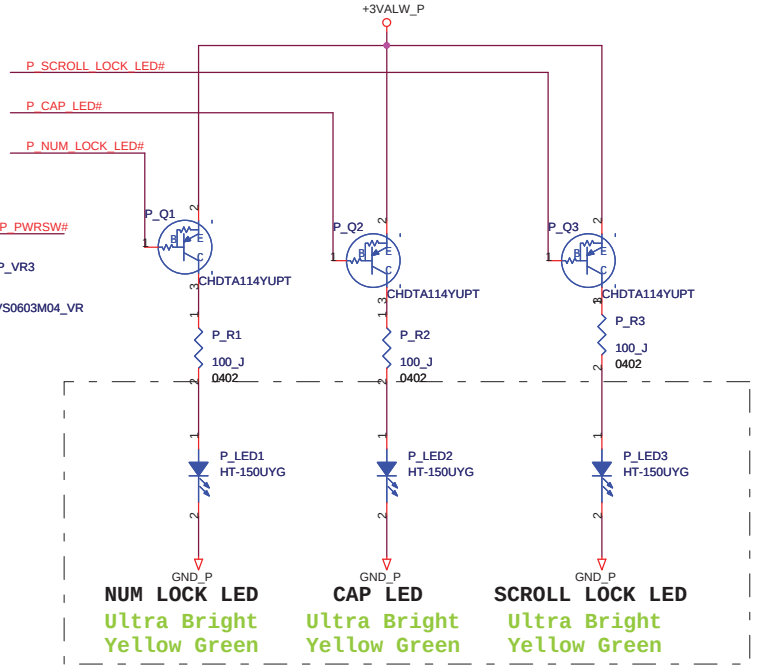
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	LED/Touch/Lid	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 41 of 56	

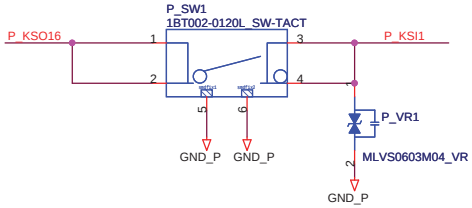
Power Button Board



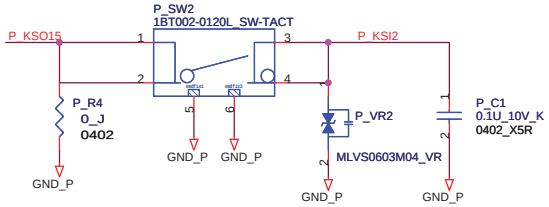




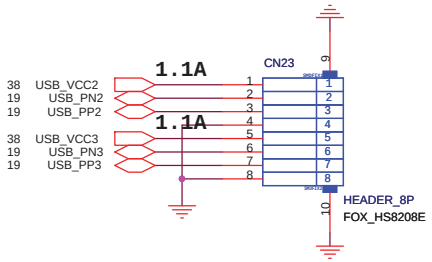
S1 Button

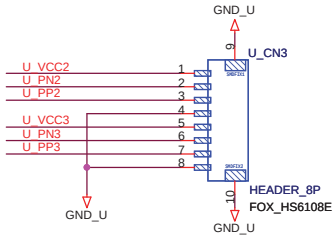


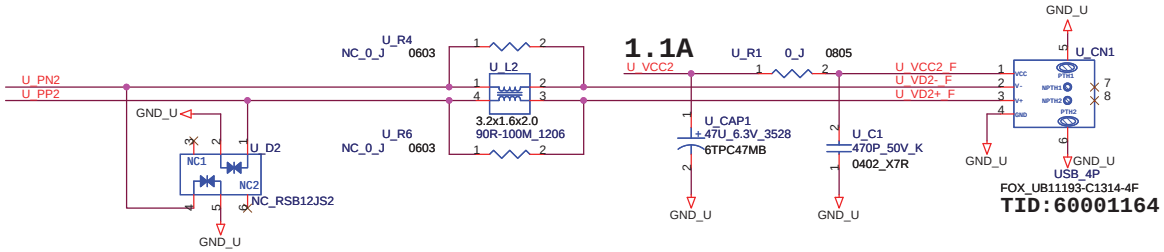
AV Mode Button

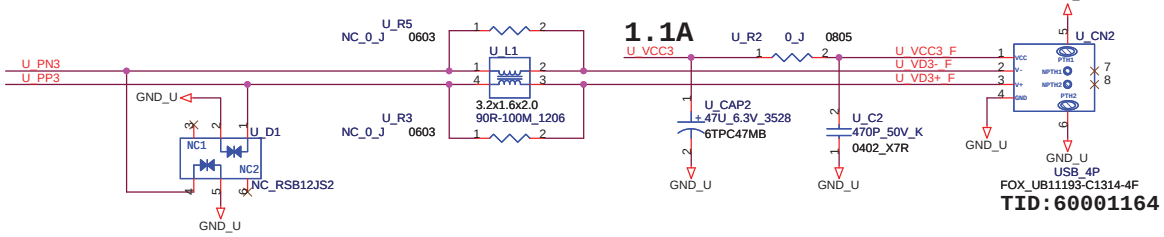


USB Board

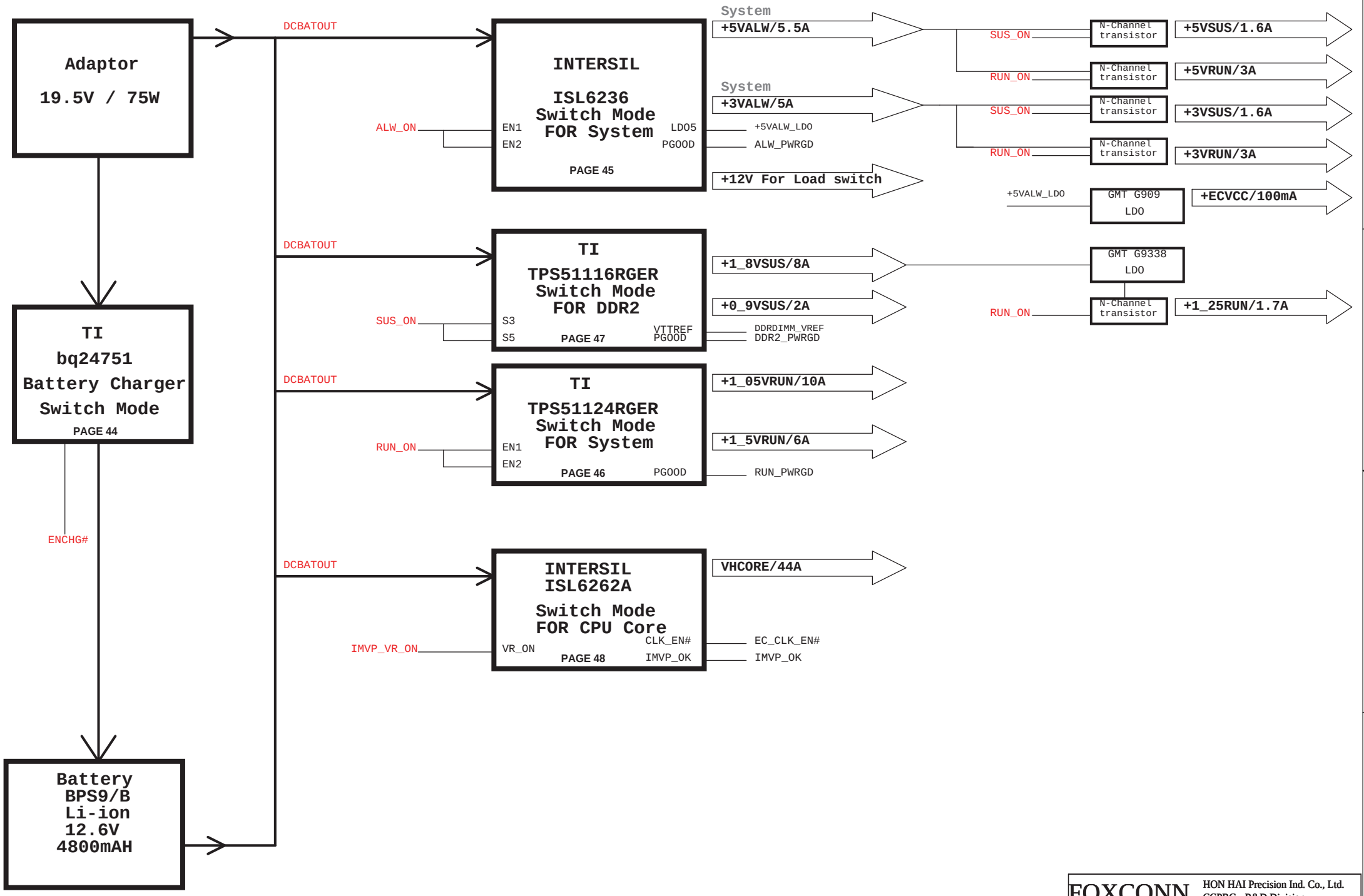






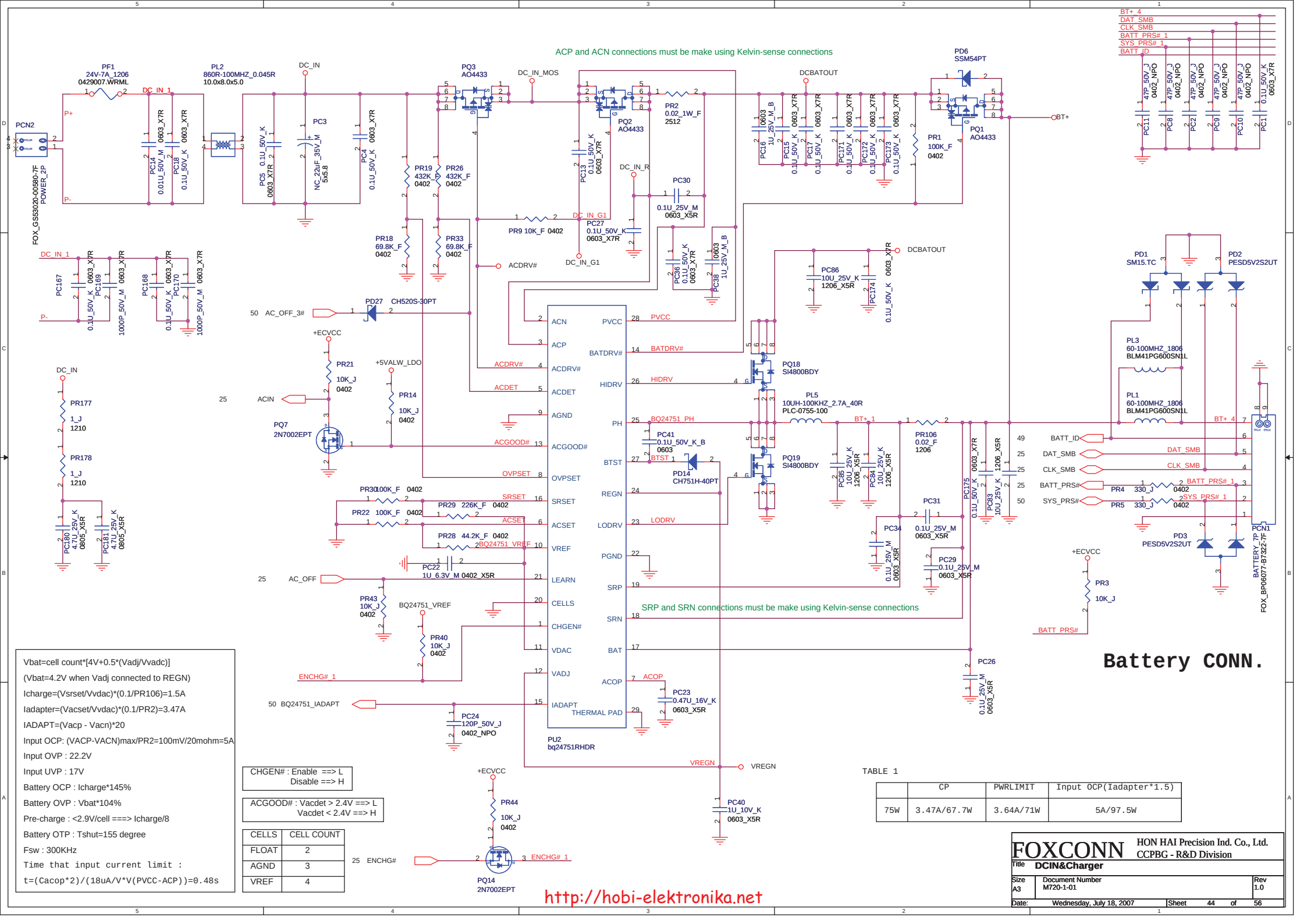


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	KEYBOARD LED & Power SW	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 42 of 56	



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	



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

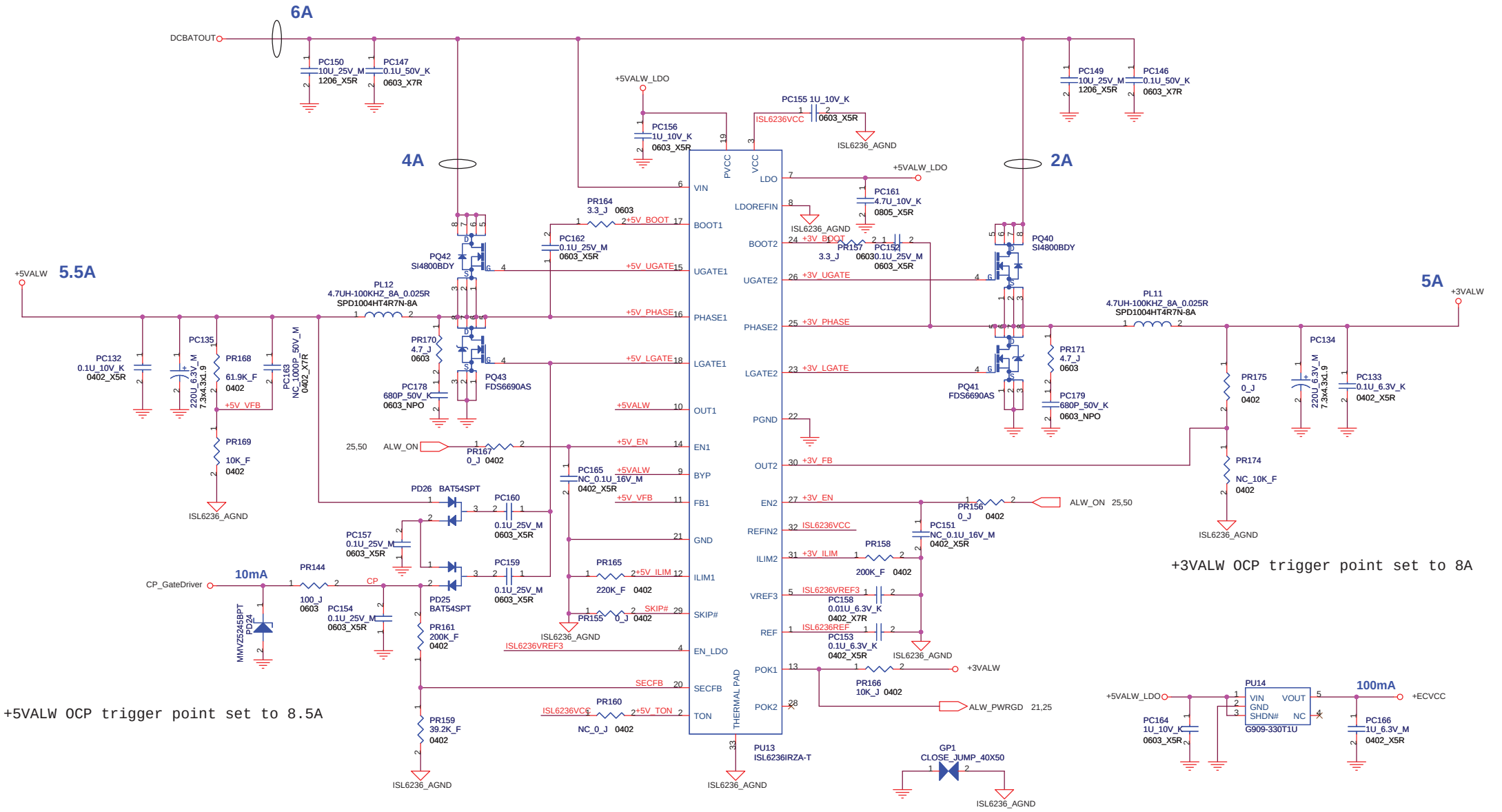
	CP	PWRLIMIT	Input OCP(Iadapter*1.5)
75W	3.47A/67.7W	3.64A/71W	5A/97.5W

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



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))

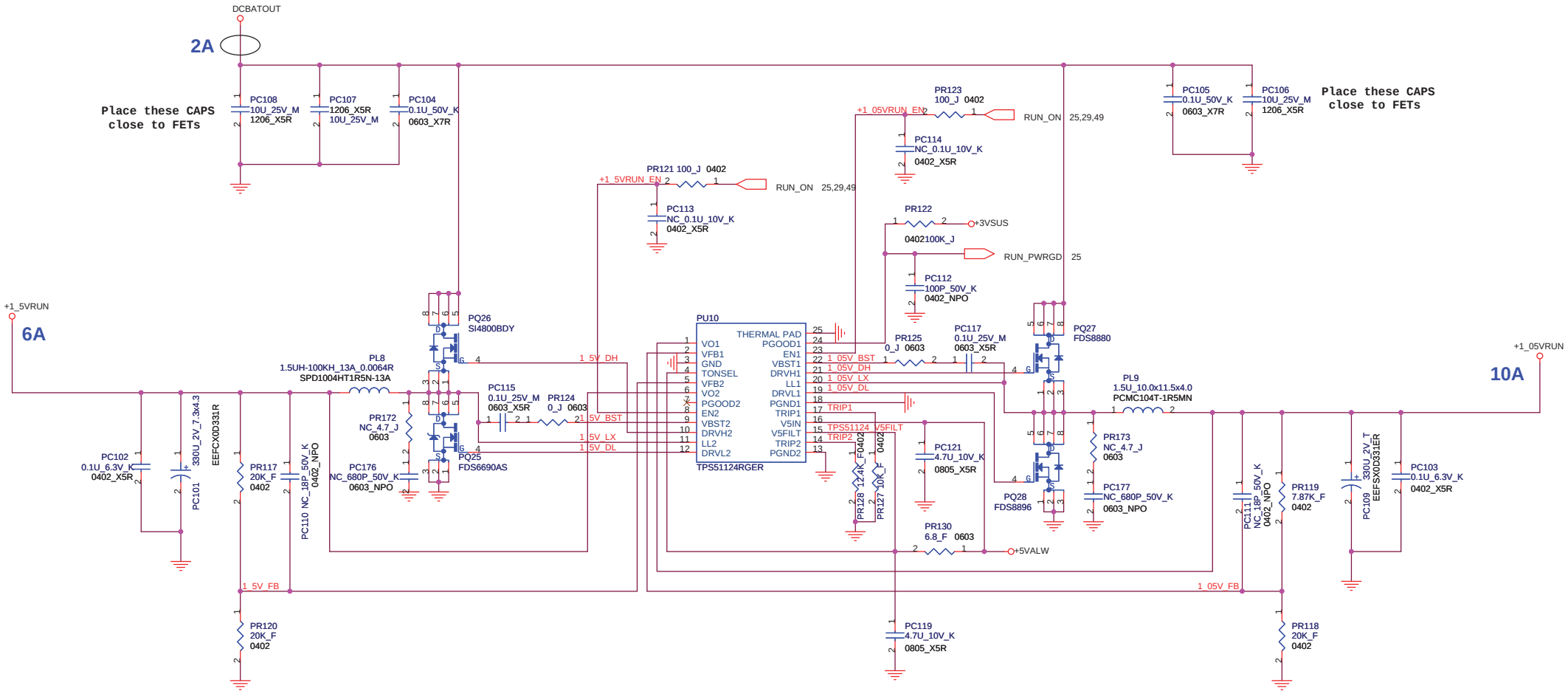
Rocp=(Iocp-Iripple/2)*(10*Rds(on))/5u

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

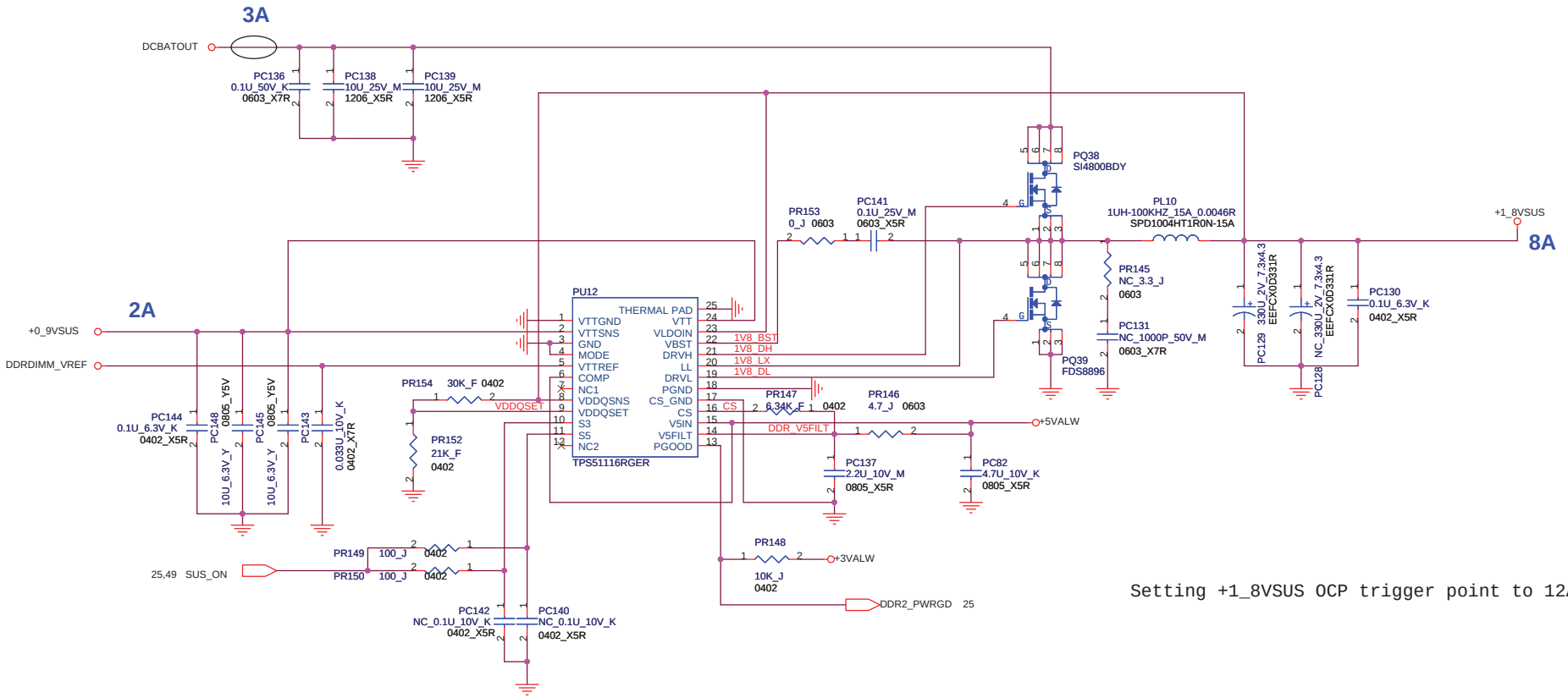
Date: Wednesday, July 18, 2007 | Sheet 45 of 56



Setting +1_5VRUN OCP trigger point to 10.6A

Setting +1_05VRUN OCP trigger point to 14.2A

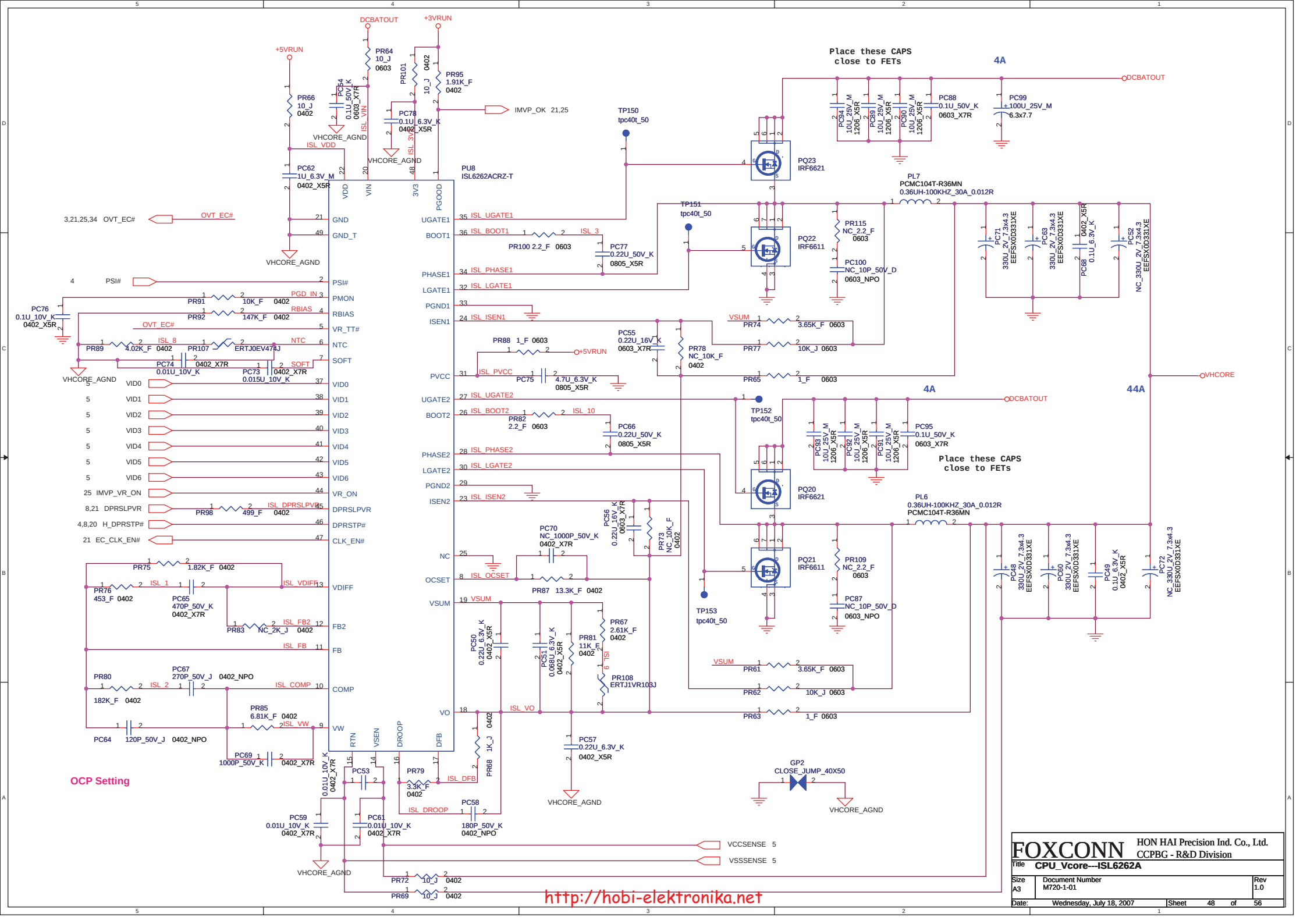
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SYS Power(+1_5V/+1_05V)	
Size A3	Document Number M720-1-01	Rev 1.0
Date: Wednesday, July 18, 2007	Sheet 46 of 56	



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
PR66 10_J 0402
PC54 0.1U_50V_K 0603_X7R
PC78 0.1U_6.3V_K 0402_X5R
IMVP_OK 21,25
VHCORE_AGND
ISL_VDD
ISL_VIN
ISL_3V3
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#
PGD_IN
RBIAS
OVT_EC#
NTC
SOFT
VID0
VID1
VID2
VID3
VID4
VID5
VID6
IMVP_VR_ON
DPRSLPVR
H_DPRSTP#
EC_CLK_EN#
PR91 10K_F 0402
PR92 147K_F 0402
PR89 4.02K_F 0402
PR107 ERTJ0EV474J
PC74 0.01U_10V_K 0402_X7R
PC73 0.015U_10V_K 0402_X7R
PC76 0.1U_10V_K 0402_X5R
PR98 499_F 0402
ISL_DPRSLPVR
PR88 1_F 0603
PC55 0.22U_16V_K 0603_X7R
PR78 NC_10K_F 0402
PR74 3.65K_F 0603
PR77 10K_J 0603
PR65 1_F 0603
PC75 4.7U_6.3V_K 0805_X5R
TP152 tpc40t_50
PQ20 IRF6621
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
PL6 0.36UH-100KHZ_30A_0.012R PCMC104T-R36MN
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
PC66 0.22U_50V_K 0805_X5R
PC56 0.22U_16V_K 0603_X7R
PR73 NC_10K_F 0402
PC70 NC_1000P_50V_K 0402_X7R
PR87 13.3K_F 0402
TP153 tpc40t_50
PQ21 IRF6611
PR109 NC_2.2_F 0603
PC87 NC_10P_50V_D 0603_NPO
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
PR72 10_J 0402
PR69 10_J 0402
GP2 CLOSE_JUMP_40X50
VCCSENSE 5
VSSSENSE 5
OCP Setting
http://hobi-elektronika.net
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title CPU_Vcore---ISL6262A
Size A3
Document Number M720-1-01
Rev 1.0
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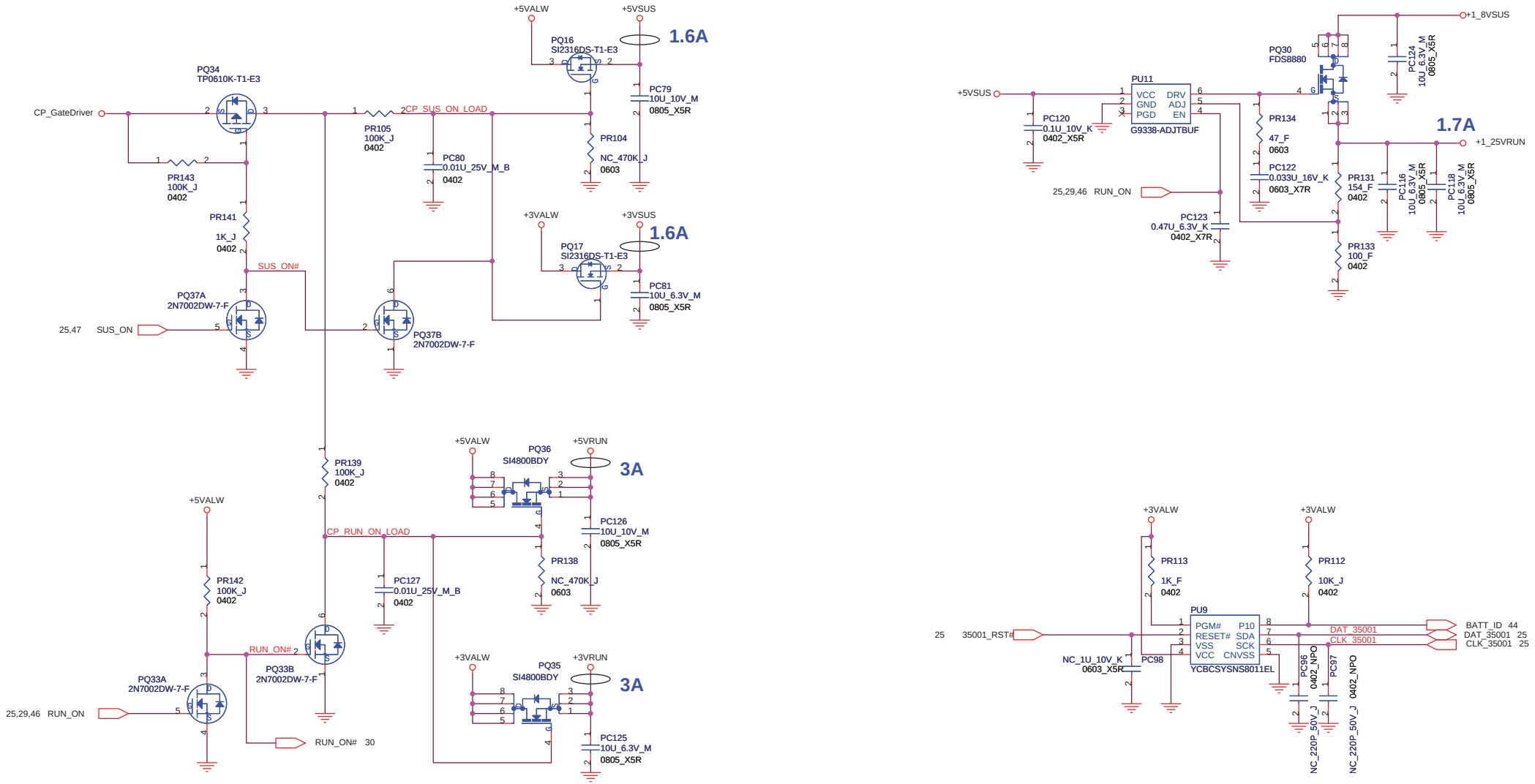

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CCPBG - R&D Division

Title: Others power plan		
Size: A3	Document Number: M720-1-01	Rev: 1.0
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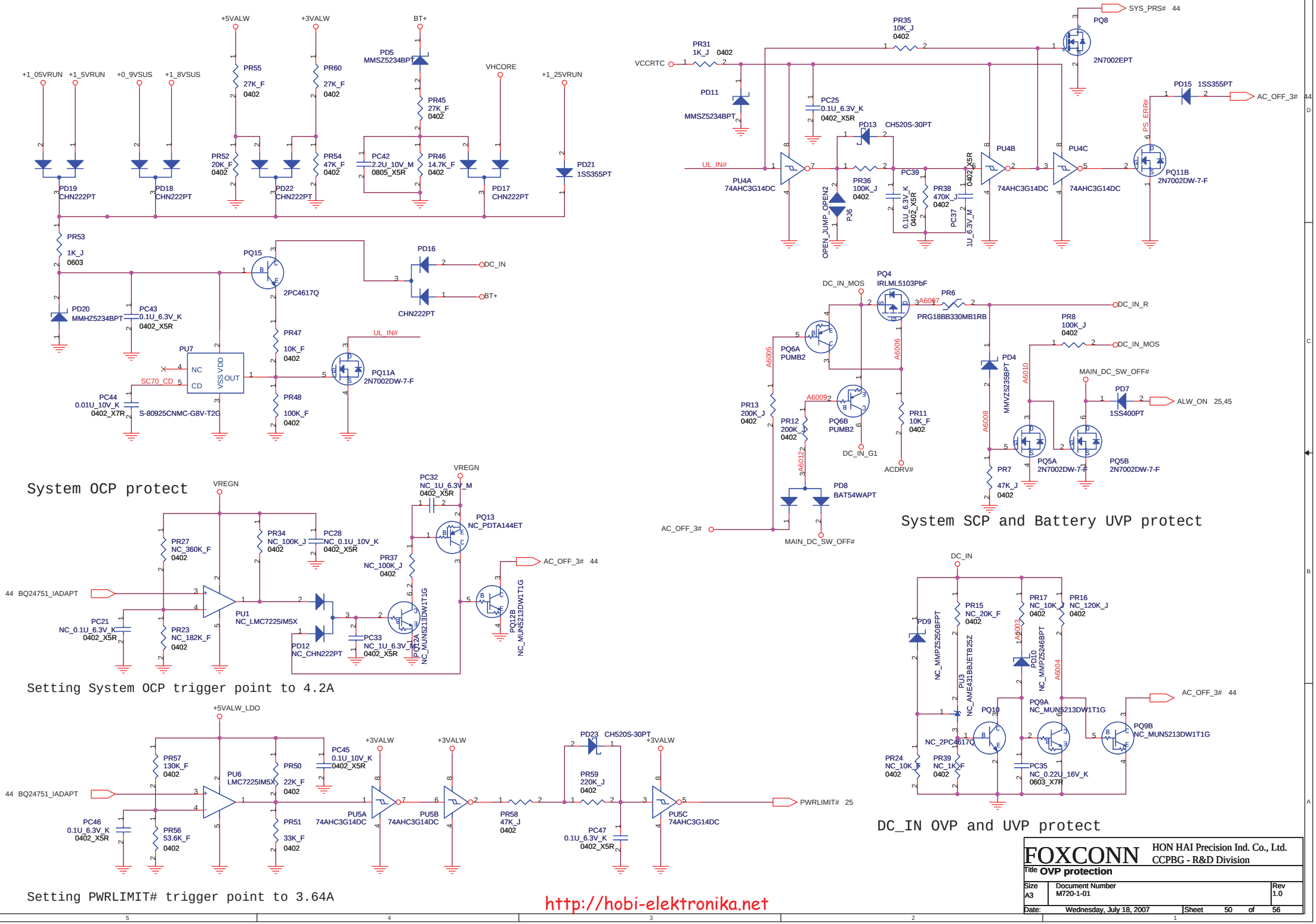
+1_05VRUN
+1_5VRUN
+0_9VSUS
+1_8VSUS
+5VALW
+3VALW
BT+
VHCORE
+1_25VRUN
PD19 CHN222PT
PD18 CHN222PT
PD22 CHN222PT
PD17 CHN222PT
PD21 1SS355PT
PD5 MMSZ5234BPT
PR55 27K_F 0402
PR60 27K_F 0402
PR45 27K_F 0402
PR52 20K_F 0402
PR54 47K_F 0402
PR46 14.7K_F 0402
PC42 2.2U_10V_M 0805_X5R
PR53 1K_J 0603
PD20 MMHZ5234BPT
PC43 0.1U_6.3V_K 0402_X5R
PQ15 2PC4617Q
PD16 CHN222PT
DC_IN
BT+
PR47 10K_F 0402
PR48 100K_F 0402
PU7
NC
CD
VSS
VDD
OUT
SC70_CD
PC44 0.01U_10V_K 0402_X7R
S-80925CNMC-G8V-T2G
UL_IN#
PQ11A 2N7002DW-7-F
System OCP protect
VREGN
PR27 NC_360K_F 0402
PR34 NC_100K_J 0402
PC28 NC_0.1U_10V_K 0402_X5R
PC32 NC_1U_6.3V_M 0402_X5R
PQ13 NC_PDTA144ET
PR37 NC_100K_J 0402
AC_OFF_3# 44
44 BQ24751_IADAPT
PU1 NC_LMC7225IM5X
PC21 NC_0.1U_6.3V_K 0402_X5R
PR23 NC_182K_F 0402
PD12 NC_CHN222PT
PC33 NC_1U_6.3V_M 0402_X5R
PQ12A NC_MUN5213DW1T1G
PQ12B NC_MUN5213DW1T1G
Setting System OCP trigger point to 4.2A
+5VALW_LDO
PR57 130K_F 0402
PU6 LMC7225IM5X
PR50 22K_F 0402
PC45 0.1U_10V_K 0402_X5R
PR56 53.6K_F 0402
PR51 33K_F 0402
PC46 0.1U_6.3V_K 0402_X5R
PU5A 74AHC3G14DC
PU5B 74AHC3G14DC
PR58 47K_J 0402
PD23 CH520S-30PT
PR59 220K_J 0402
PC47 0.1U_6.3V_K 0402_X5R
PU5C 74AHC3G14DC
PWRLIMIT# 25
Setting PWRLIMIT# trigger point to 3.64A
VCCRTC
PR31 1K_J 0402
PD11 MMSZ5234BPT
PR35 10K_J 0402
PQ8 2N7002EPT
SYS_PRS# 44
PC25 0.1U_6.3V_K 0402_X5R
PD13 CH520S-30PT
UL_IN#
PU4A 74AHC3G14DC
PR36 100K_J 0402
OPEN_JUMP_OPEN2
PJ6
PC39 0.1U_6.3V_K 0402_X5R
PR38 470K_J 0402
PC37 1U_6.3V_M 0402_X5R
PU4B 74AHC3G14DC
PU4C 74AHC3G14DC
PD15 1SS355PT
AC_OFF_3# 44
PS_ERR#
PQ11B 2N7002DW-7-F
DC_IN_MOS
PQ4 IRLML5103PbF
PR6 PRG18BB330MB1RB
DC_IN_R
PR8 100K_J 0402
DC_IN_MOS
PD4 MMVZ5235BPT
MAIN_DC_SW_OFF#
PD7 1SS400PT
ALW_ON 25,45
A6005
PQ6A PUMB2
A6006
A6007
A6008
A6010
PR13 200K_J 0402
A6009
PQ6B PUMB2
PR12 200K_J 0402
PR11 10K_F 0402
DC_IN_G1
ACDRV#
A6012
PD8 BAT54WAPT
PR7 47K_J 0402
PQ5A 2N7002DW-7-F
PQ5B 2N7002DW-7-F
AC_OFF_3#
MAIN_DC_SW_OFF#
System SCP and Battery UVP protect
DC_IN
PR15 NC_20K_F 0402
PR17 NC_10K_J 0402
PR16 NC_120K_J 0402
PD9 NC_MMPZ5250BFPT
PU3 NC_AME431BBJETB25Z
A6003
PD10 NC_MMPZ5246BPT
A6004
PQ9A NC_MUN5213DW1T1G
PQ10 NC_2PC4617Q
PQ9B NC_MUN5213DW1T1G
AC_OFF_3# 44
PR24 NC_10K_F 0402
PR39 NC_1K_F 0402
PC35 NC_0.22U_16V_K 0603_X7R
DC_IN OVP and UVP protect
FOXCONN
HON HAI Precision Ind. Co., Ltd.
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Title OVP protection
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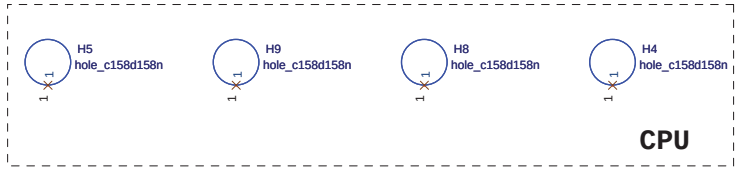

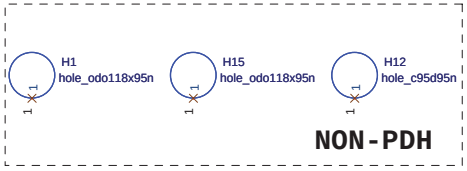

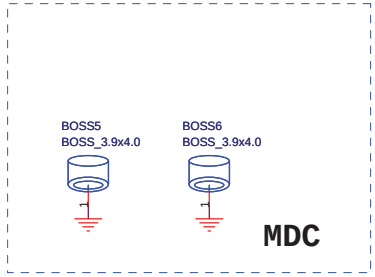

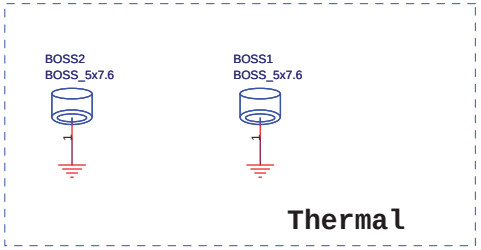

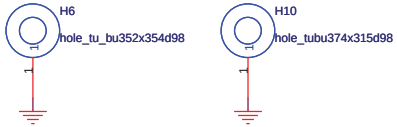

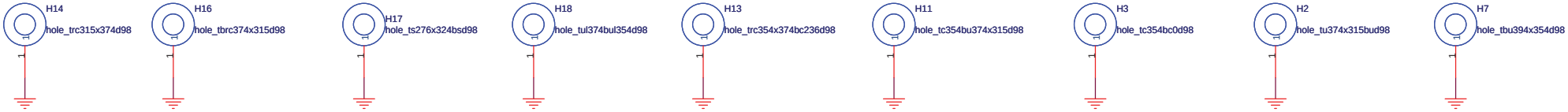

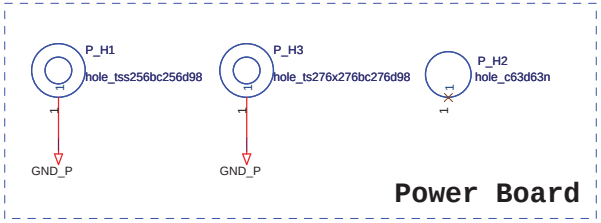

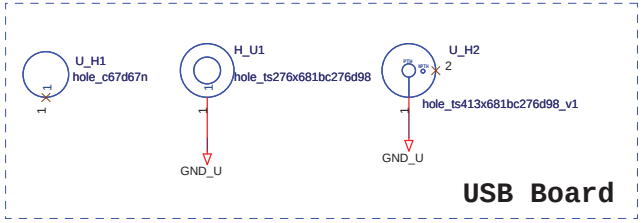

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M720 EVT

(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.45 Change PR177,PR178 to 1/3W for PUR issue.

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