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BOM Control Table

Value / Prefix	CA_	AT_	DS_	ND_	LND_	HD_
UMA (W/ Dock)	V		V			
UMA (W/O Dock)	V			V	V	
M82 (W/ Dock)		V	V			
M82 (W/O Dock HDMI)		V		V		
M82 (w/dock W/ HDMI)		V	V			V

Project Code & Schematics Subject: M750 Main Board

PCB P/N:

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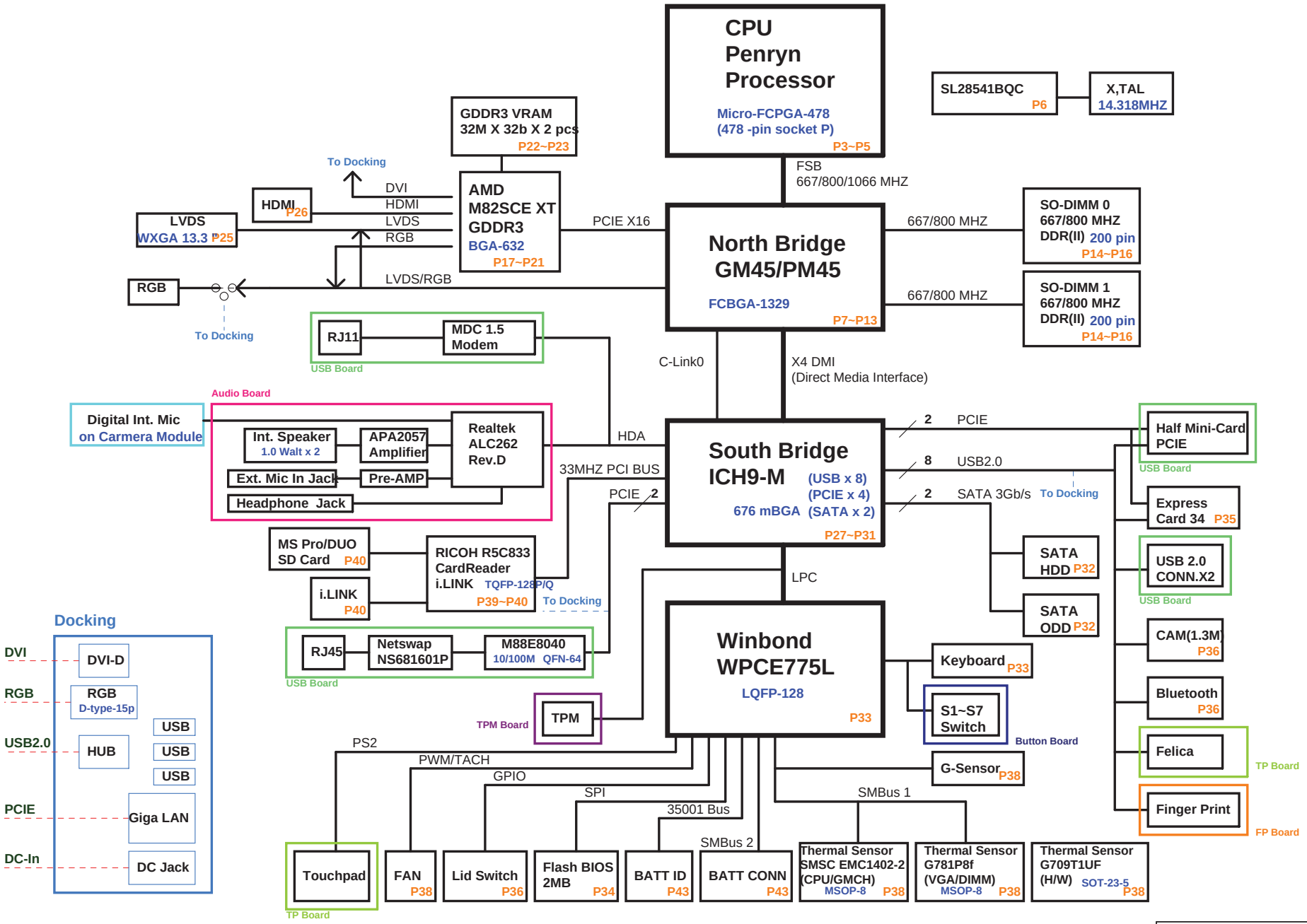
M750 (Montevina + M82SCE XT)



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Title	Block Diagram	
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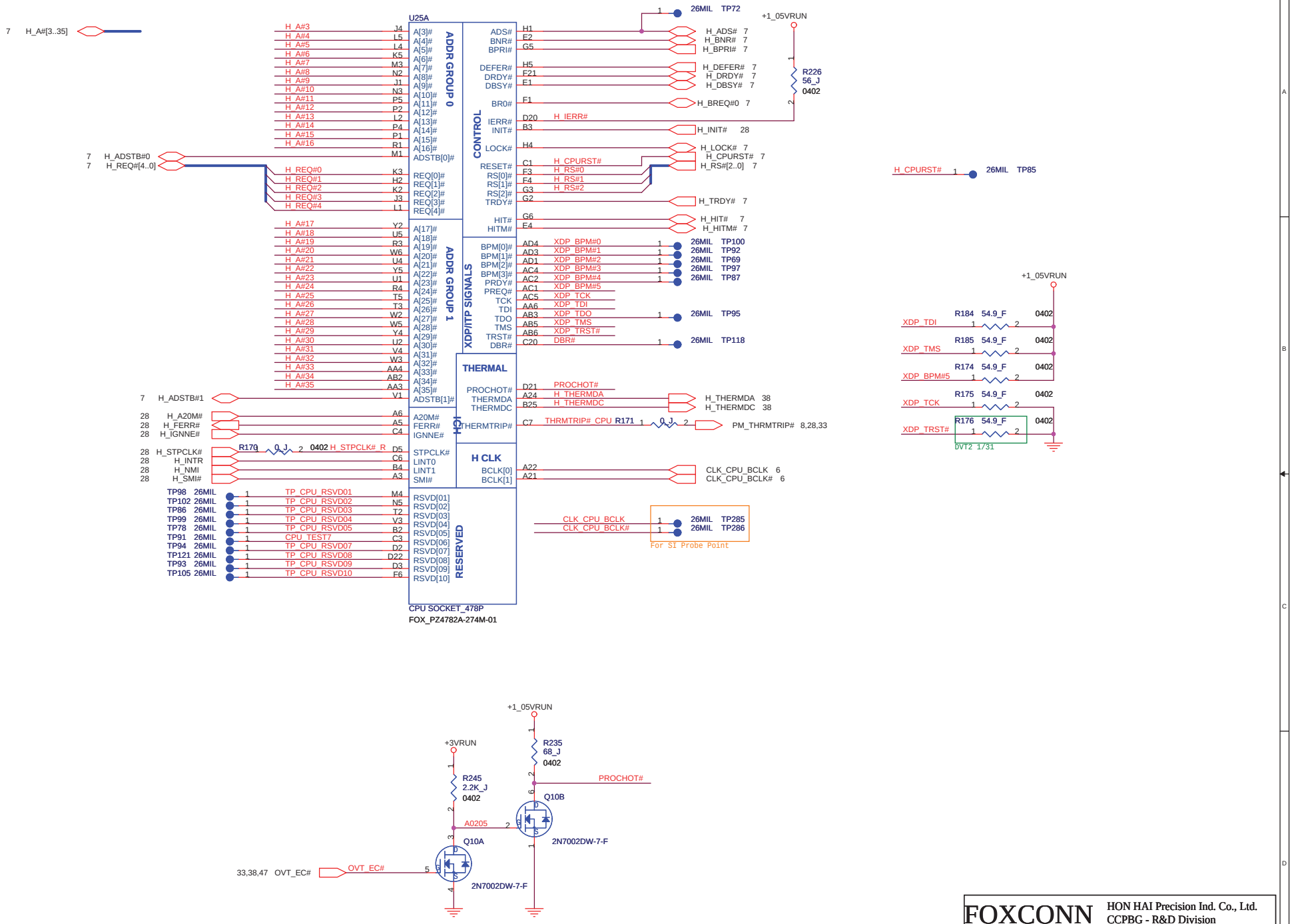

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Title	Penryn (HOST BUS) 1/3
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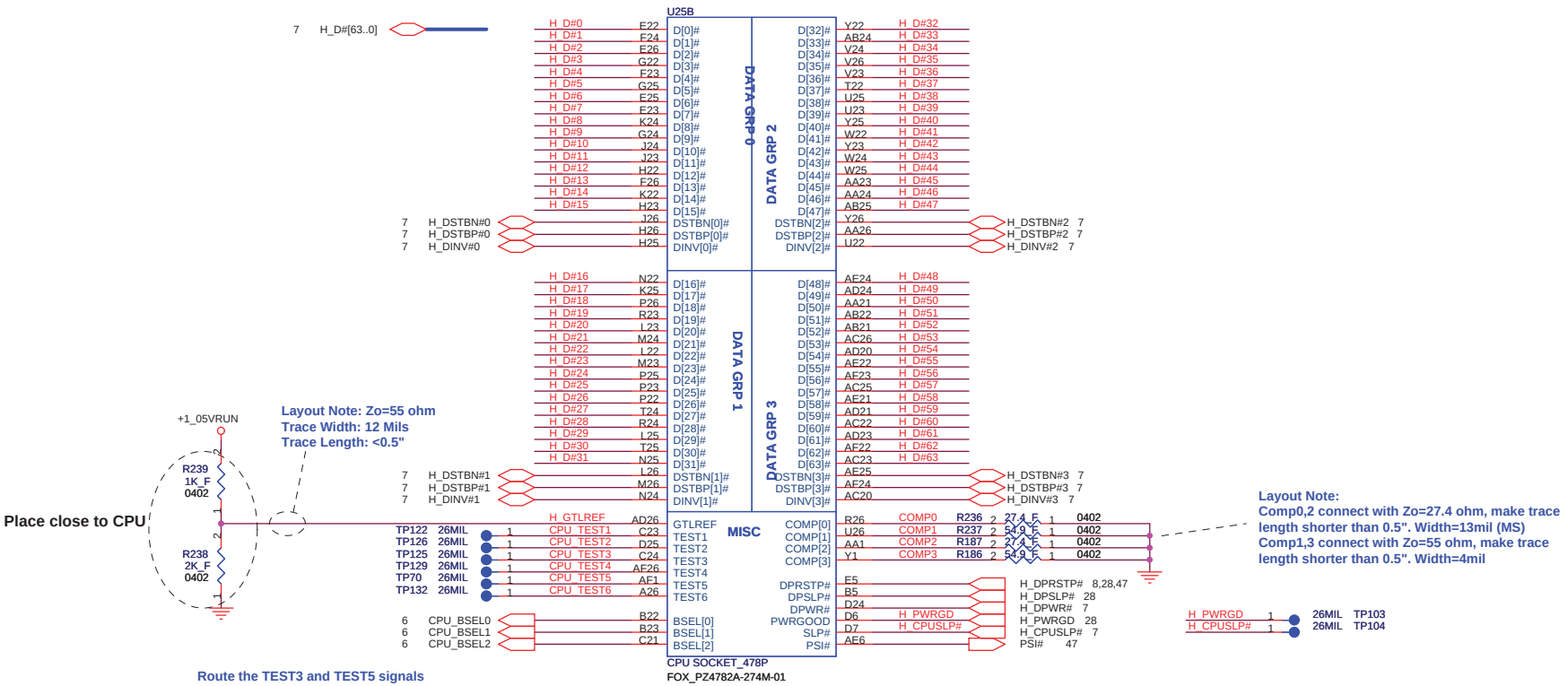

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Title	Penryn (HOST BUS) 2/3	
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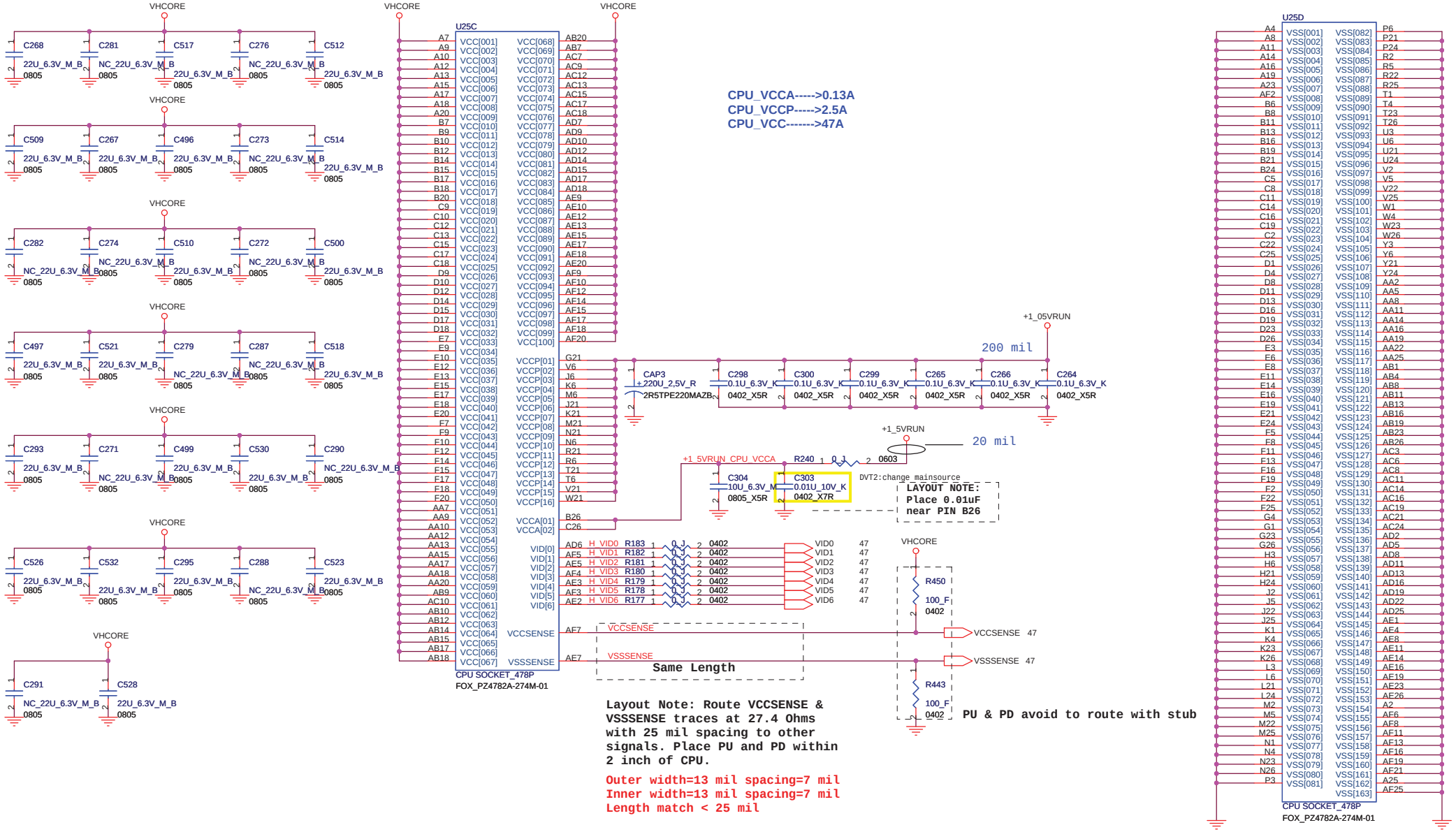

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Title	Penryn (POWER/GROUND) 3/3	
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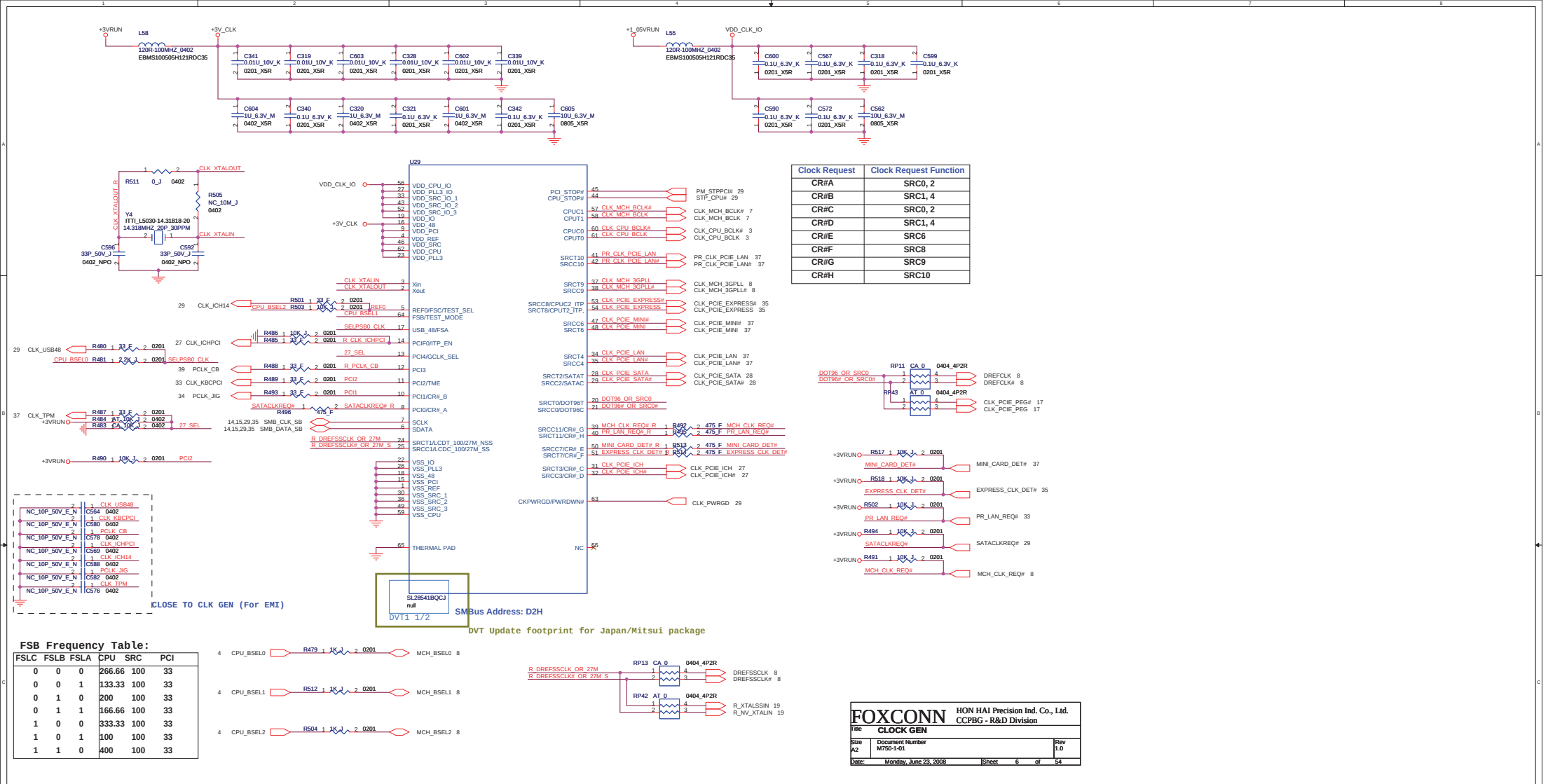

Clock Request	Clock Request Function
CR#A	SRC0, 2
CR#B	SRC1, 4
CR#C	SRC0, 2
CR#D	SRC1, 4
CR#E	SRC6
CR#F	SRC8
CR#G	SRC9
CR#H	SRC10

FSB Frequency Table:

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

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Title: CLOCK GEN			
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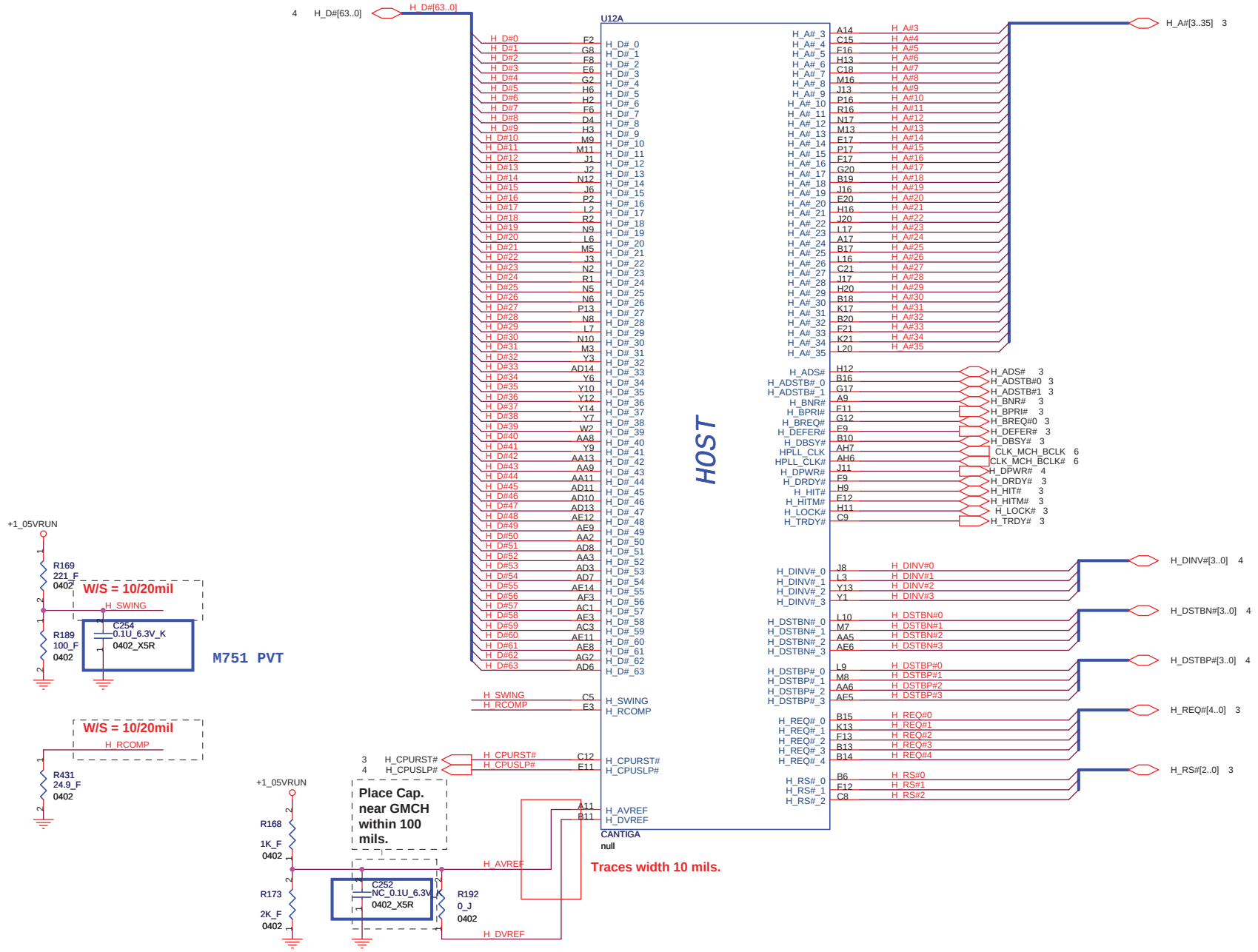

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Title: Cantiga (HOST) 1/7		
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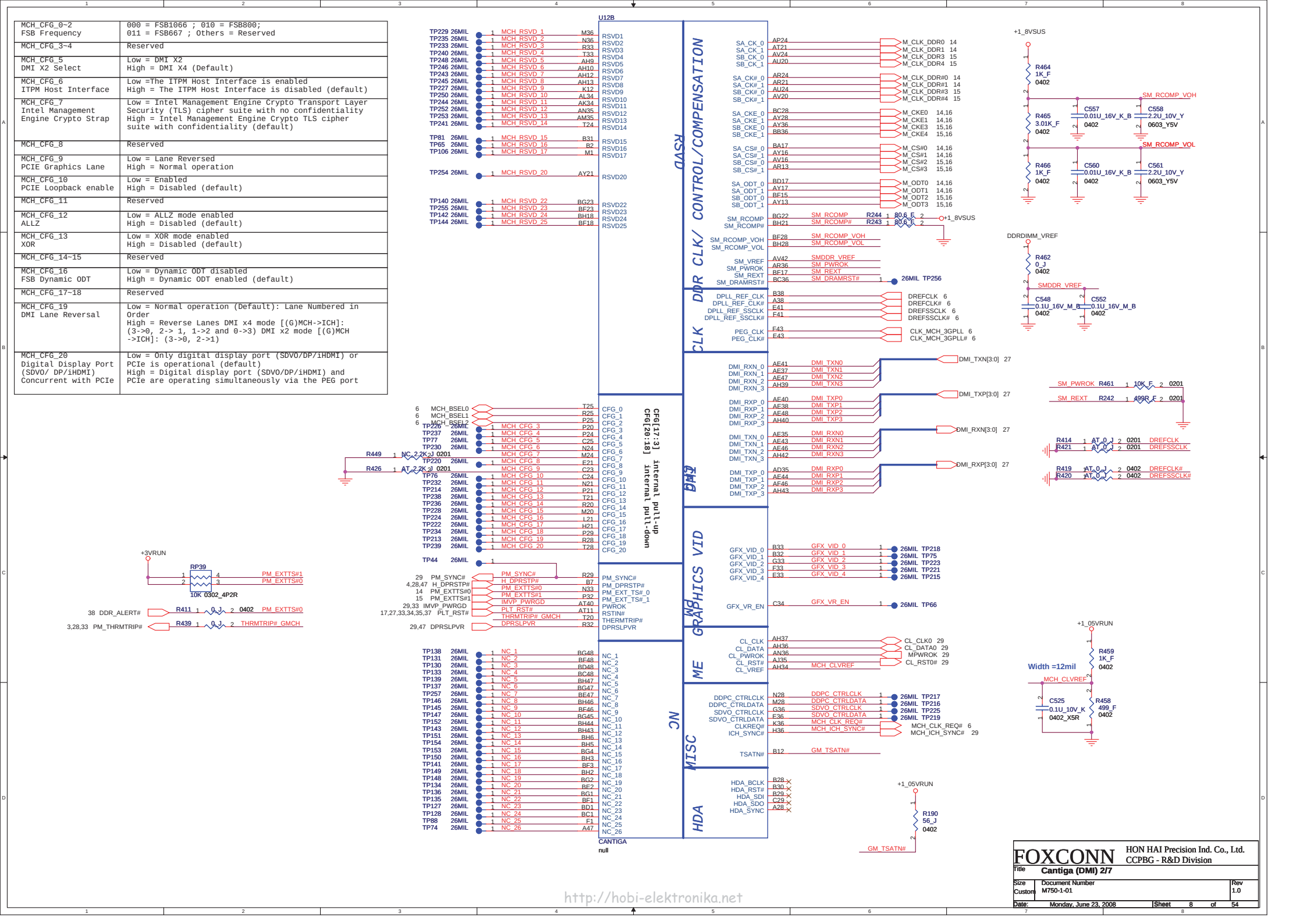
MCH_CFG_0~2 FSB Frequency	000 = FSB1066 ; 010 = FSB800; 011 = FSB667 ; Others = Reserved
MCH_CFG_3~4	Reserved
MCH_CFG_5 DMI X2 Select	Low = DMI X2 High = DMI X4 (Default)
MCH_CFG_6 ITPM Host Interface	Low =The ITPM Host Interface is enabled High = The ITPM Host Interface is disabled (default)
MCH_CFG_7 Intel Management Engine Crypto Strap	Low = Intel Management Engine Crypto Transport Layer Security (TLS) cipher suite with no confidentiality High = Intel Management Engine Crypto TLS cipher suite with confidentiality (default)
MCH_CFG_8	Reserved
MCH_CFG_9 PCIE Graphics Lane	Low = Lane Reversed High = Normal operation
MCH_CFG_10 PCIE Loopback enable	Low = Enabled High = Disabled (default)
MCH_CFG_11	Reserved
MCH_CFG_12 ALLZ	Low = ALLZ mode enabled High = Disabled (default)
MCH_CFG_13 XOR	Low = XOR mode enabled High = Disabled (default)
MCH_CFG_14~15	Reserved
MCH_CFG_16 FSB Dynamic ODT	Low = Dynamic ODT disabled High = Dynamic ODT enabled (default)
MCH_CFG_17~18	Reserved
MCH_CFG_19 DMI Lane Reversal	Low = Normal operation (Default): Lane Numbered in Order High = Reverse Lanes DMI x4 mode [(G)MCH->ICH]: (3->0, 2-> 1, 1->2 and 0->3) DMI x2 mode [(G)MCH ->ICH]: (3->0, 2->1)
MCH_CFG_20 Digital Display Port (SDVO/ DP/iHDMI) Concurrent with PCIe	Low = Only digital display port (SDVO/DP/iHDMI) or PCIe is operational (default) High = Digital display port (SDVO/DP/iHDMI) and PCIe are operating simultaneously via the PEG port

U12B

RSVD
DDR CLK/ CONTROL/COMPENSATION
CLK
DMI
GRAPHICS VID
ME
MISC
HDA
NC

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

CANTIGA
null



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title: Cantiga (DMI) 2/7			
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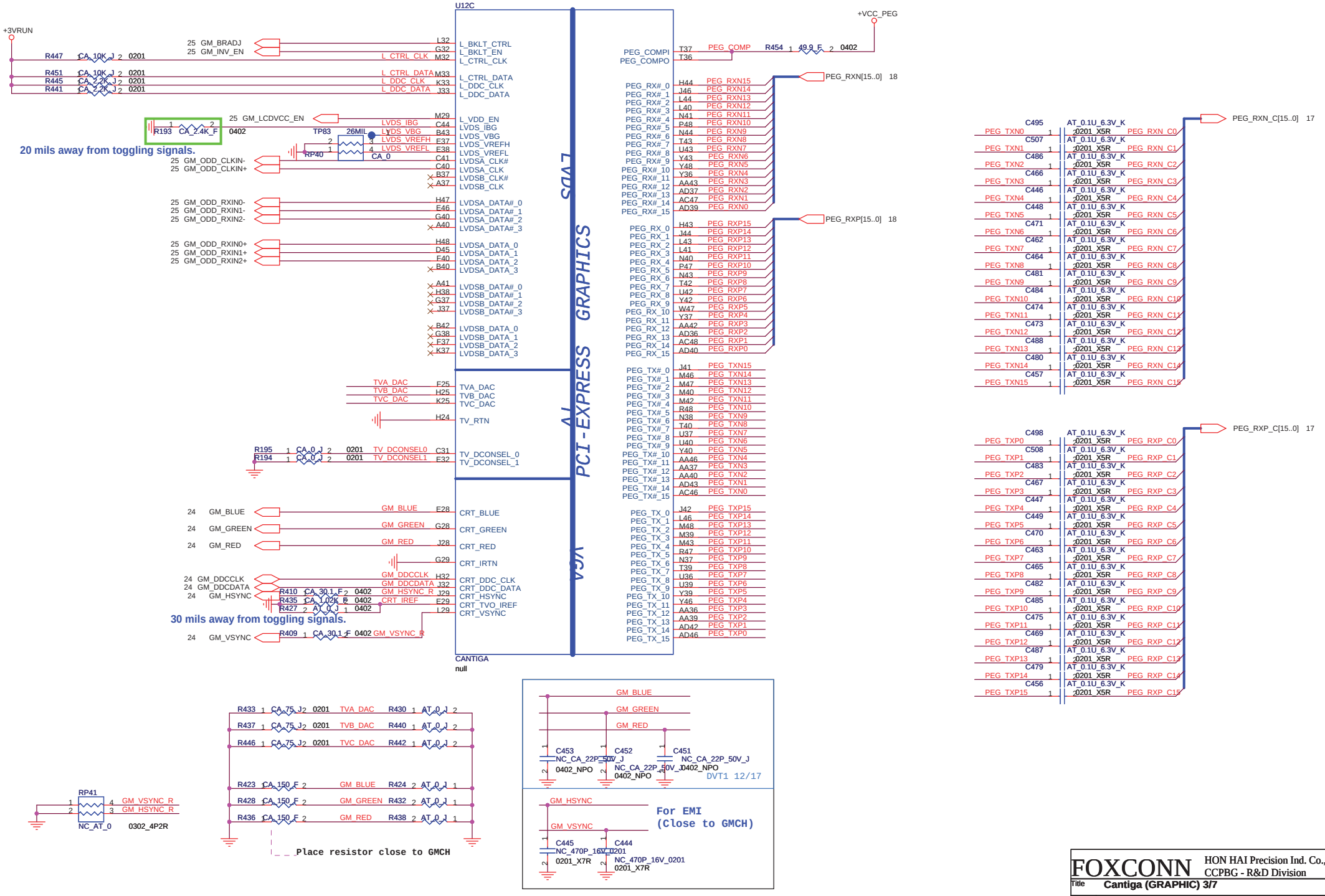

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Title	Cantiga (GRAPHIC) 3/7	
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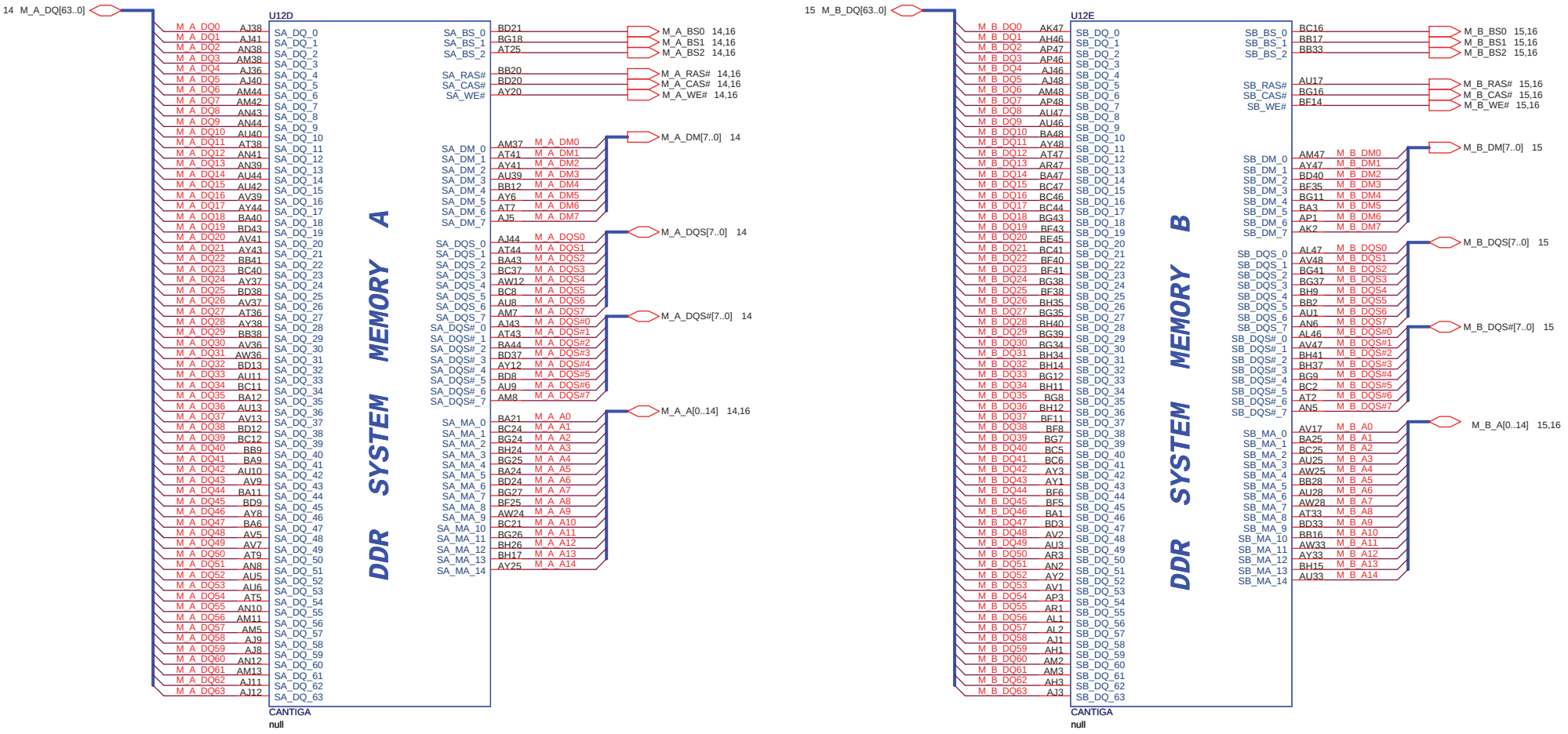

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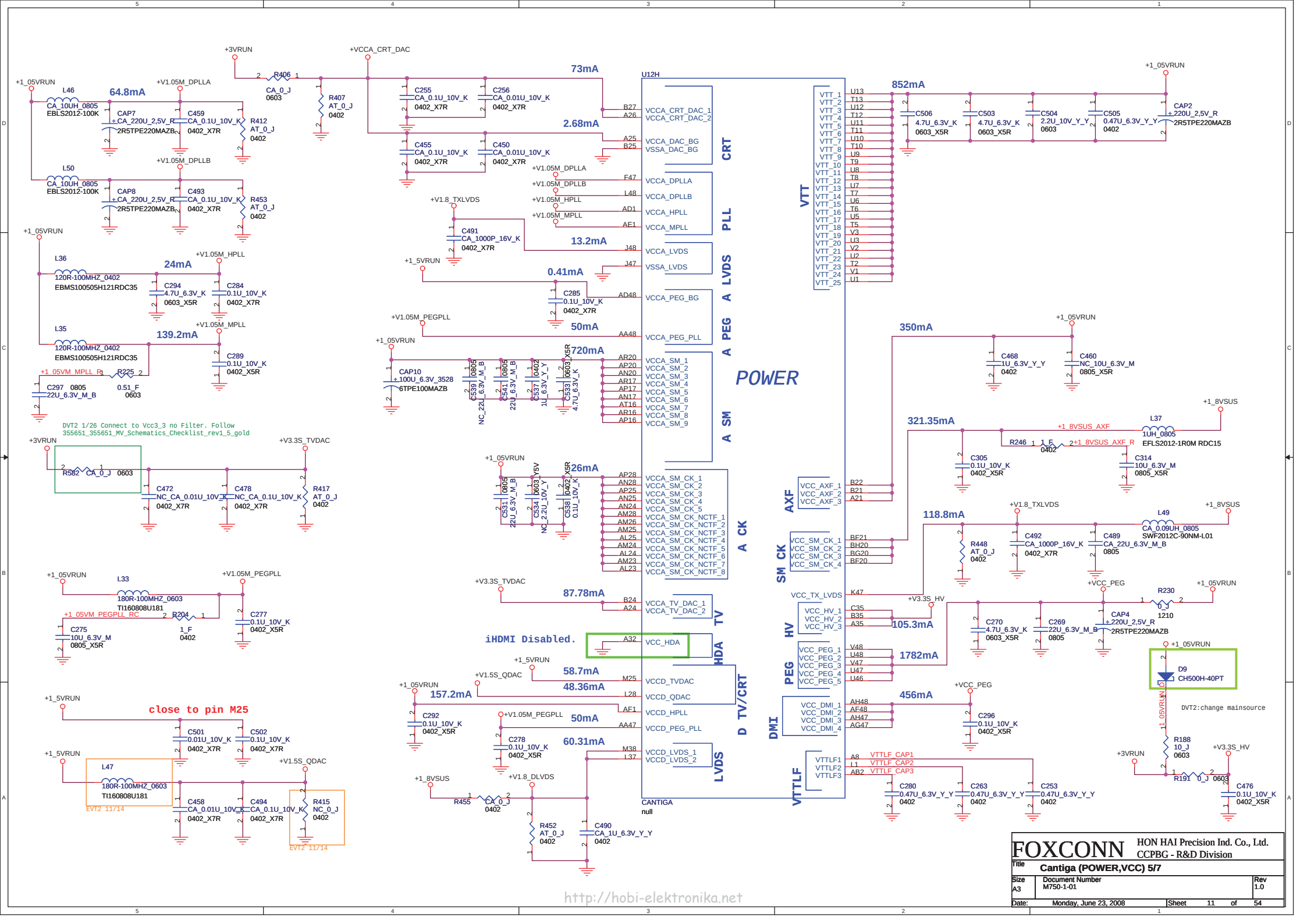
POWER
U12H
CANTIGA
null
CRT
PLL
A LVDS
A PEG
A SM
A CK
TV
HDA
D TV/CRT
LVDS
VTT
AXF
SM CK
HV
PEG
DMI
VTTLF
+3VRUN
+1_05VRUN
+1_8VSUS
+1_5VRUN
+V3.3S_TVDAC
+V1.05M_DPLLA
+V1.05M_DPLLB
+V1.05M_HPLL
+V1.05M_MPLL
+V1.05M_PEGPLL
+V1.8_TXLVDS
+V1.5S_QDAC
+V1.8_DLVDS
+V3.3S_HV
+VCC_PEG
+VCCA_CRT_DAC
64.8mA
73mA
852mA
2.68mA
24mA
13.2mA
0.41mA
139.2mA
50mA
720mA
350mA
321.35mA
26mA
118.8mA
87.78mA
105.3mA
iHDMI Disabled.
58.7mA
48.36mA
1782mA
157.2mA
456mA
60.31mA
close to pin M25
DVT2 1/26 Connect to Vcc3_3 no Filter. Follow 355651_355651_MV_Schematics_Checklist_rev1_5_gold
DVT2:change mainsource
EVT2 11/14
FOXCONN
HON HAI Precision Ind. Co., Ltd.
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Cantiga (POWER,VCC) 5/7
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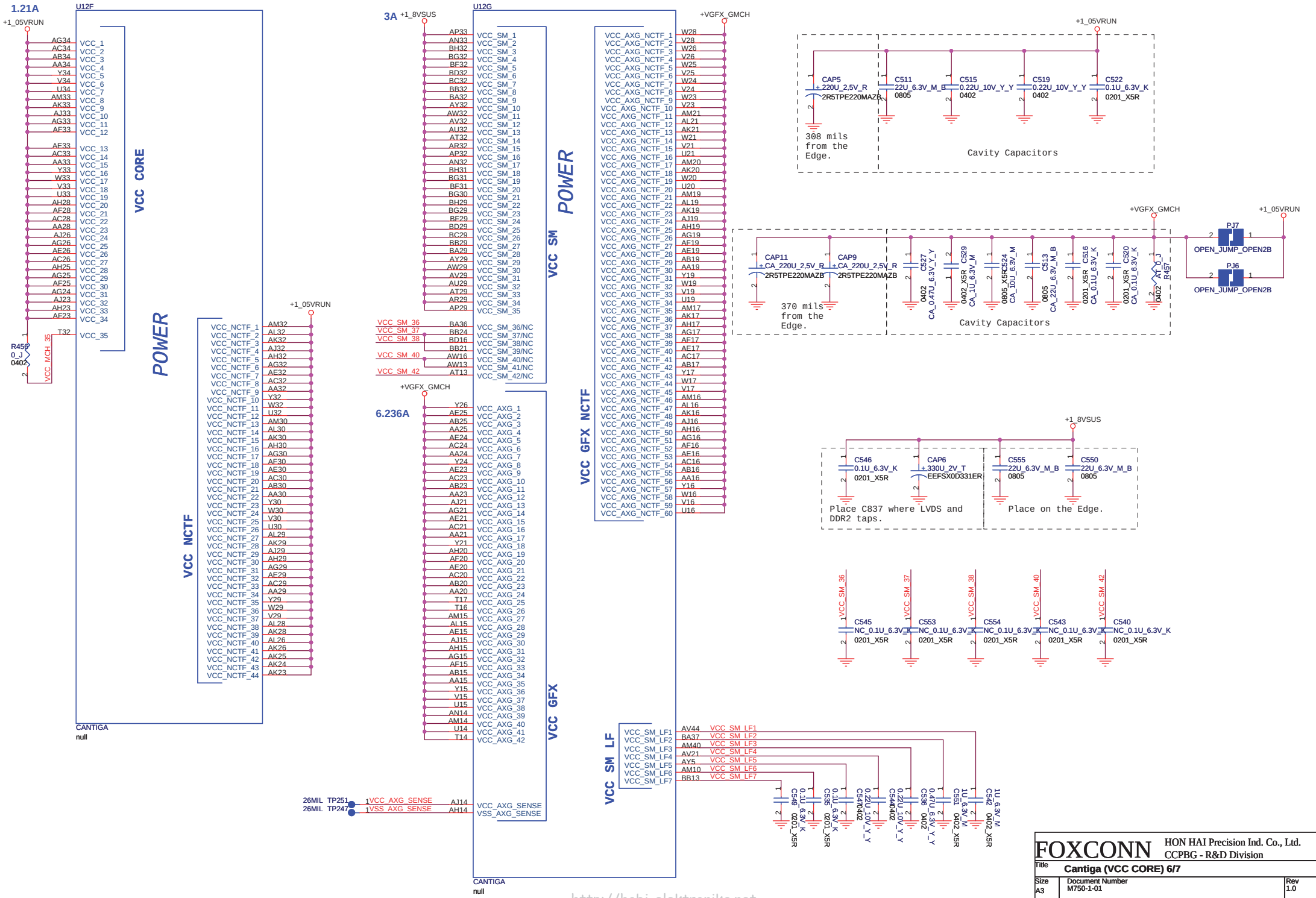
1.21A
U12F
+1_05VRUN
VCC_1
VCC_2
VCC_3
VCC_4
VCC_5
VCC_6
VCC_7
VCC_8
VCC_9
VCC_10
VCC_11
VCC_12
VCC_13
VCC_14
VCC_15
VCC_16
VCC_17
VCC_18
VCC_19
VCC_20
VCC_21
VCC_22
VCC_23
VCC_24
VCC_25
VCC_26
VCC_27
VCC_28
VCC_29
VCC_30
VCC_31
VCC_32
VCC_33
VCC_34
VCC_35
VCC CORE
POWER
R456
0_J
0402
VCC_MCH_35
VCC_NCTF_1
VCC_NCTF_2
VCC_NCTF_3
VCC_NCTF_4
VCC_NCTF_5
VCC_NCTF_6
VCC_NCTF_7
VCC_NCTF_8
VCC_NCTF_9
VCC_NCTF_10
VCC_NCTF_11
VCC_NCTF_12
VCC_NCTF_13
VCC_NCTF_14
VCC_NCTF_15
VCC_NCTF_16
VCC_NCTF_17
VCC_NCTF_18
VCC_NCTF_19
VCC_NCTF_20
VCC_NCTF_21
VCC_NCTF_22
VCC_NCTF_23
VCC_NCTF_24
VCC_NCTF_25
VCC_NCTF_26
VCC_NCTF_27
VCC_NCTF_28
VCC_NCTF_29
VCC_NCTF_30
VCC_NCTF_31
VCC_NCTF_32
VCC_NCTF_33
VCC_NCTF_34
VCC_NCTF_35
VCC_NCTF_36
VCC_NCTF_37
VCC_NCTF_38
VCC_NCTF_39
VCC_NCTF_40
VCC_NCTF_41
VCC_NCTF_42
VCC_NCTF_43
VCC_NCTF_44
VCC NCTF
CANTIGA
null
3A
+1_8VSUS
VCC_SM_1
VCC_SM_2
VCC_SM_3
VCC_SM_4
VCC_SM_5
VCC_SM_6
VCC_SM_7
VCC_SM_8
VCC_SM_9
VCC_SM_10
VCC_SM_11
VCC_SM_12
VCC_SM_13
VCC_SM_14
VCC_SM_15
VCC_SM_16
VCC_SM_17
VCC_SM_18
VCC_SM_19
VCC_SM_20
VCC_SM_21
VCC_SM_22
VCC_SM_23
VCC_SM_24
VCC_SM_25
VCC_SM_26
VCC_SM_27
VCC_SM_28
VCC_SM_29
VCC_SM_30
VCC_SM_31
VCC_SM_32
VCC_SM_33
VCC_SM_34
VCC_SM_35
VCC_SM_36
VCC_SM_37
VCC_SM_38
VCC_SM_40
VCC_SM_42
VCC_SM_36/NC
VCC_SM_37/NC
VCC_SM_38/NC
VCC_SM_39/NC
VCC_SM_40/NC
VCC_SM_41/NC
VCC_SM_42/NC
VCC SM
POWER
+VGFX_GMCH
6.236A
VCC_AXG_1
VCC_AXG_2
VCC_AXG_3
VCC_AXG_4
VCC_AXG_5
VCC_AXG_6
VCC_AXG_7
VCC_AXG_8
VCC_AXG_9
VCC_AXG_10
VCC_AXG_11
VCC_AXG_12
VCC_AXG_13
VCC_AXG_14
VCC_AXG_15
VCC_AXG_16
VCC_AXG_17
VCC_AXG_18
VCC_AXG_19
VCC_AXG_20
VCC_AXG_21
VCC_AXG_22
VCC_AXG_23
VCC_AXG_24
VCC_AXG_25
VCC_AXG_26
VCC_AXG_27
VCC_AXG_28
VCC_AXG_29
VCC_AXG_30
VCC_AXG_31
VCC_AXG_32
VCC_AXG_33
VCC_AXG_34
VCC_AXG_35
VCC_AXG_36
VCC_AXG_37
VCC_AXG_38
VCC_AXG_39
VCC_AXG_40
VCC_AXG_41
VCC_AXG_42
VCC GFX
26MIL TP251
26MIL TP247
VCC_AXG_SENSE
VSS_AXG_SENSE
CANTIGA
null
VCC_AXG_NCTF_1
VCC_AXG_NCTF_2
VCC_AXG_NCTF_3
VCC_AXG_NCTF_4
VCC_AXG_NCTF_5
VCC_AXG_NCTF_6
VCC_AXG_NCTF_7
VCC_AXG_NCTF_8
VCC_AXG_NCTF_9
VCC_AXG_NCTF_10
VCC_AXG_NCTF_11
VCC_AXG_NCTF_12
VCC_AXG_NCTF_13
VCC_AXG_NCTF_14
VCC_AXG_NCTF_15
VCC_AXG_NCTF_16
VCC_AXG_NCTF_17
VCC_AXG_NCTF_18
VCC_AXG_NCTF_19
VCC_AXG_NCTF_20
VCC_AXG_NCTF_21
VCC_AXG_NCTF_22
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VCC_AXG_NCTF_25
VCC_AXG_NCTF_26
VCC_AXG_NCTF_27
VCC_AXG_NCTF_28
VCC_AXG_NCTF_29
VCC_AXG_NCTF_30
VCC_AXG_NCTF_31
VCC_AXG_NCTF_32
VCC_AXG_NCTF_33
VCC_AXG_NCTF_34
VCC_AXG_NCTF_35
VCC_AXG_NCTF_36
VCC_AXG_NCTF_37
VCC_AXG_NCTF_38
VCC_AXG_NCTF_39
VCC_AXG_NCTF_40
VCC_AXG_NCTF_41
VCC_AXG_NCTF_42
VCC_AXG_NCTF_43
VCC_AXG_NCTF_44
VCC_AXG_NCTF_45
VCC_AXG_NCTF_46
VCC_AXG_NCTF_47
VCC_AXG_NCTF_48
VCC_AXG_NCTF_49
VCC_AXG_NCTF_50
VCC_AXG_NCTF_51
VCC_AXG_NCTF_52
VCC_AXG_NCTF_53
VCC_AXG_NCTF_54
VCC_AXG_NCTF_55
VCC_AXG_NCTF_56
VCC_AXG_NCTF_57
VCC_AXG_NCTF_58
VCC_AXG_NCTF_59
VCC_AXG_NCTF_60
VCC GFX NCTF
VCC_SM_LF1
VCC_SM_LF2
VCC_SM_LF3
VCC_SM_LF4
VCC_SM_LF5
VCC_SM_LF6
VCC_SM_LF7
VCC SM LF
+1_05VRUN
CAP5
220U_2_5V_R
2R5TPE220MAZB
C511
22U_6.3V_M_B
0805
C515
0.22U_10V_Y_Y
0402
C519
0.22U_10V_Y_Y
0402
C522
0.1U_6.3V_K
0201_X5R
308 mils
from the
Edge.
Cavity Capacitors
+VGFX_GMCH
+1_05VRUN
CAP11
CA_220U_2_5V_R
2R5TPE220MAZB
CAP9
CA_220U_2_5V_R
2R5TPE220MAZB
370 mils
from the
Edge.
C527
CA_0.47U_6.3V_Y_Y
0402
C529
CA_1U_6.3V_M
0402_X5R
C524
CA_10U_6.3V_M
0805_X5R
C513
CA_22U_6.3V_M_B
0805
C516
CA_0.1U_6.3V_K
0201_X5R
C520
CA_0.1U_6.3V_K
0201_X5R
R457
0_J
0402
Cavity Capacitors
PJ7
OPEN_JUMP_OPEN2B
PJ6
OPEN_JUMP_OPEN2B
+1_8VSUS
C546
0.1U_6.3V_K
0201_X5R
CAP6
330U_2V_T
EEFSX0D331ER
C555
22U_6.3V_M_B
0805
C550
22U_6.3V_M_B
0805
Place C837 where LVDS and
DDR2 taps.
Place on the Edge.
VCC_SM_36
VCC_SM_37
VCC_SM_38
VCC_SM_40
VCC_SM_42
C545
NC_0.1U_6.3V_K
0201_X5R
C553
NC_0.1U_6.3V_K
0201_X5R
C554
NC_0.1U_6.3V_K
0201_X5R
C543
NC_0.1U_6.3V_K
0201_X5R
C540
NC_0.1U_6.3V_K
0201_X5R
C549
0.1U_6.3V_K
0201_X5R
C535
0.1U_6.3V_K
0201_X5R
C547
0.22U_10V_Y_Y
0402
C544
0.22U_10V_Y_Y
0402
C536
0.47U_6.3V_Y_Y
0402
C551
1U_6.3V_M
0402_X5R
C542
1U_6.3V_M
0402_X5R
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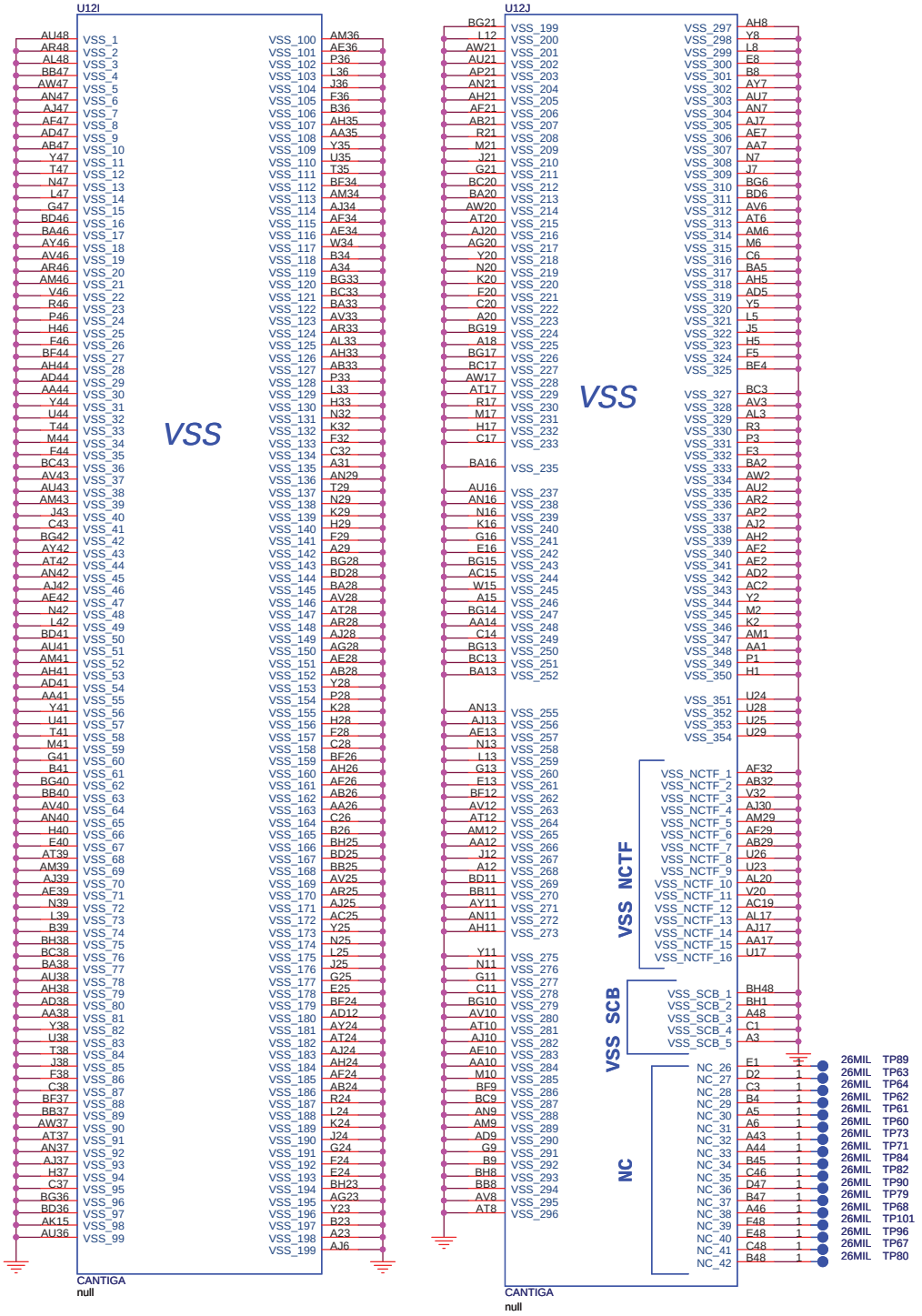

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	Cantiga (VSS) 7/7	
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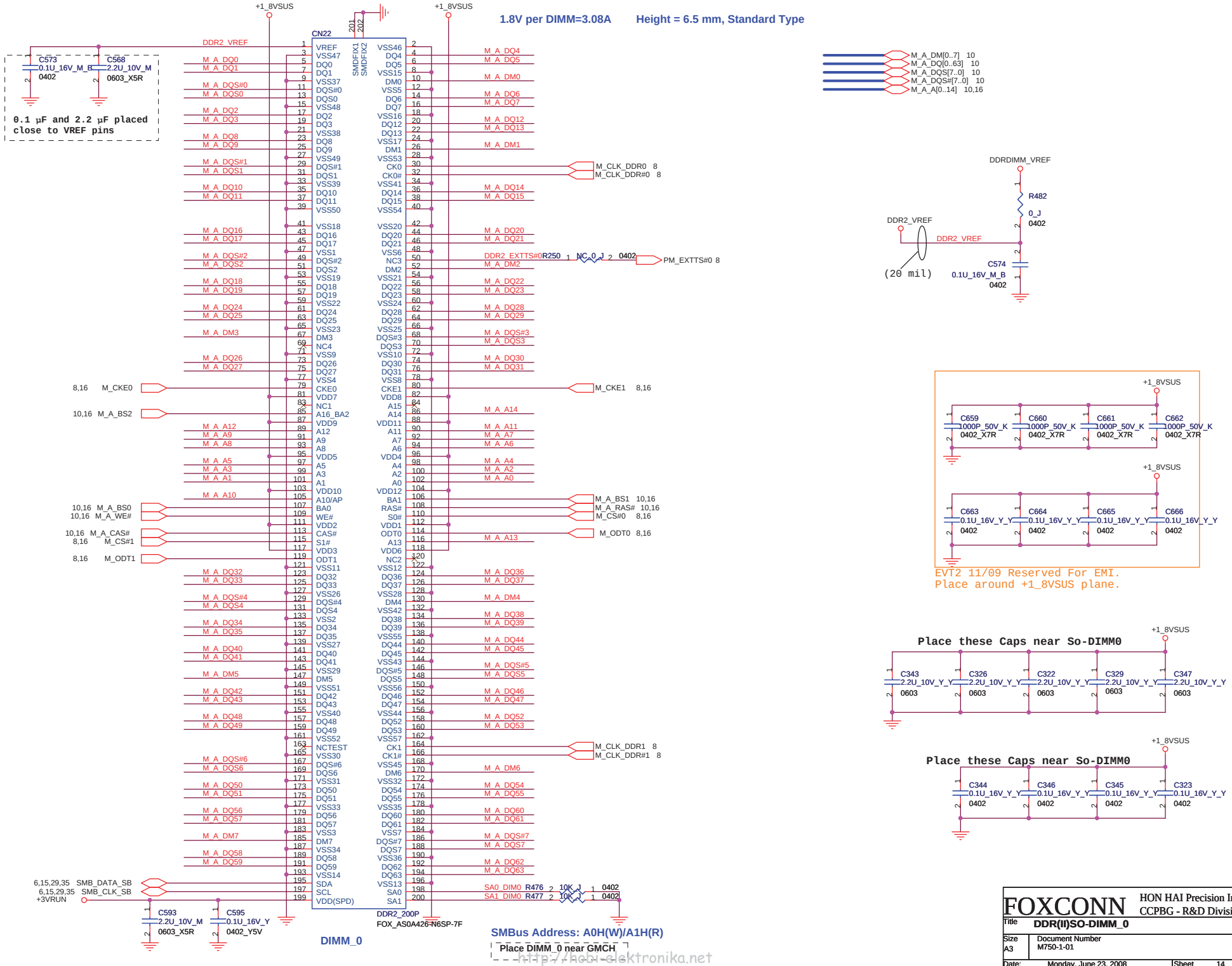

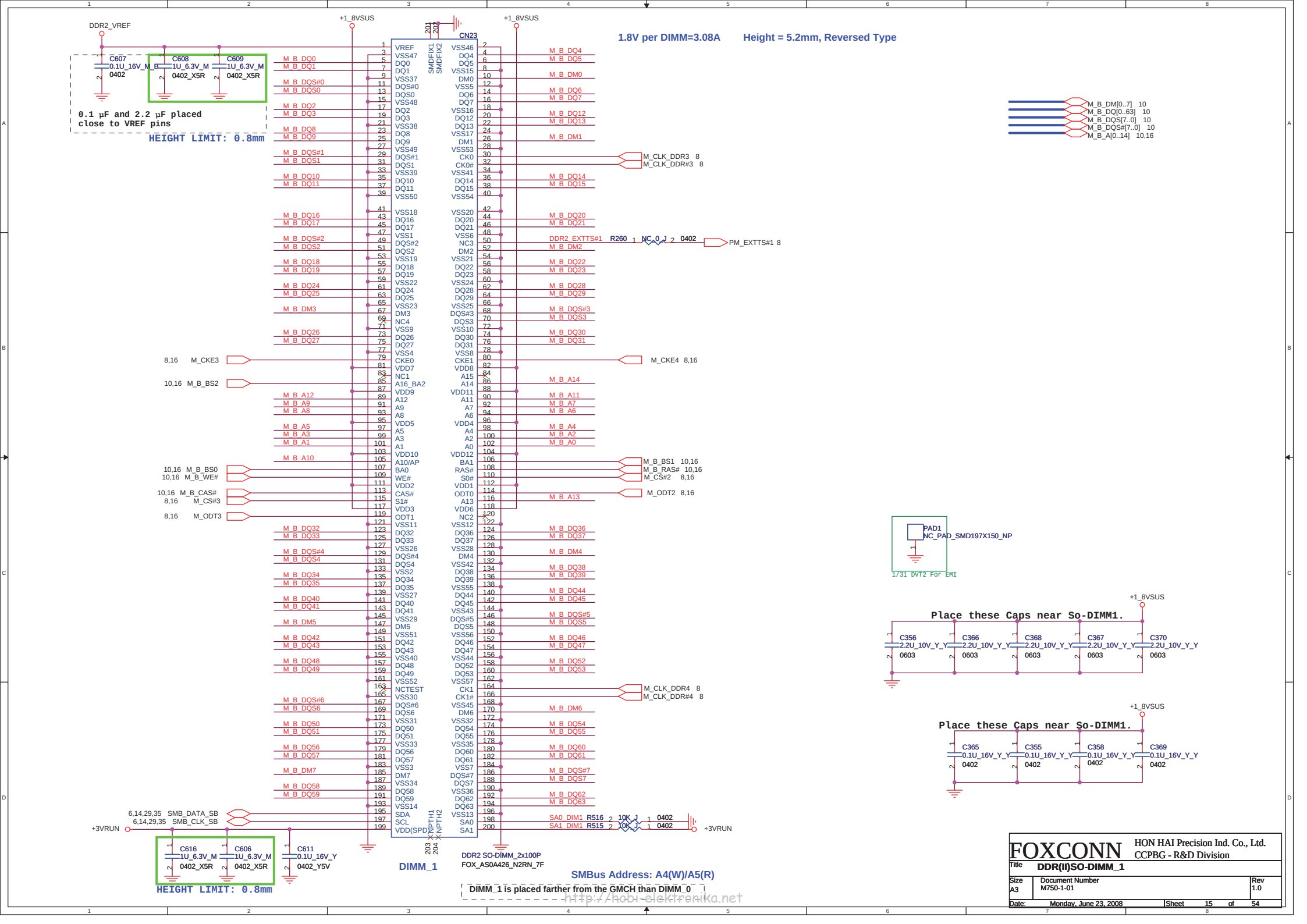
1.8V per DIMM=3.08A
Height = 5.2mm, Reversed Type
DDR2_VREF
+1_8VSUS
+3VRUN
CN23
C607 0.1U_16V_M_B 0402
C608 1U_6.3V_M 0402_X5R
C609 1U_6.3V_M 0402_X5R
0.1 µF and 2.2 µF placed close to VREF pins
HEIGHT LIMIT: 0.8mm
C616 1U_6.3V_M 0402_X5R
C606 1U_6.3V_M 0402_X5R
C611 0.1U_16V_Y 0402_Y5V
HEIGHT LIMIT: 0.8mm
DIMM_1
DDR2 SO-DIMM_2x100P
FOX_AS0A426_N2RN_7F
SMBus Address: A4(W)/A5(R)
DIMM_1 is placed farther from the GMCH than DIMM_0
M_B_DM[0..7] 10
M_B_DQ[0..63] 10
M_B_DQS[7..0] 10
M_B_DQS#[7..0] 10
M_B_A[0..14] 10,16
M_CLK_DDR3 8
M_CLK_DDR#3 8
M_CLK_DDR4 8
M_CLK_DDR#4 8
DDR2_EXTTS#1 R260 NC_0_J 0402
PM_EXTTS#1 8
M_CKE3 8,16
M_CKE4 8,16
M_B_BS2 10,16
M_B_BS0 10,16
M_B_BS1 10,16
M_B_WE# 10,16
M_B_RAS# 10,16
M_B_CAS# 10,16
M_CS#3 8,16
M_CS#2 8,16
M_ODT3 8,16
M_ODT2 8,16
SMB_DATA_SB 6,14,29,35
SMB_CLK_SB 6,14,29,35
SA0_DIM1 R516 10K_J 0402
SA1_DIM1 R515 10K_J 0402
PAD1 NC_PAD_SMD197X150_NP
1/31 DVT2 For EMI
Place these Caps near So-DIMM1.
C356 2.2U_10V_Y_Y 0603
C366 2.2U_10V_Y_Y 0603
C368 2.2U_10V_Y_Y 0603
C367 2.2U_10V_Y_Y 0603
C370 2.2U_10V_Y_Y 0603
Place these Caps near So-DIMM1.
C365 0.1U_16V_Y_Y 0402
C355 0.1U_16V_Y_Y 0402
C358 0.1U_16V_Y_Y 0402
C369 0.1U_16V_Y_Y 0402
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title DDR(II)SO-DIMM_1
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
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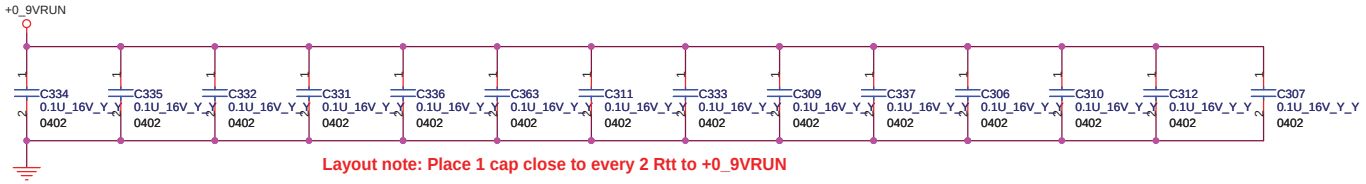
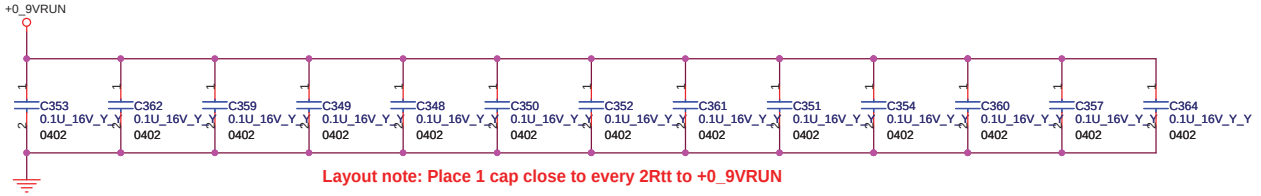
http://hobi-elektronika.net



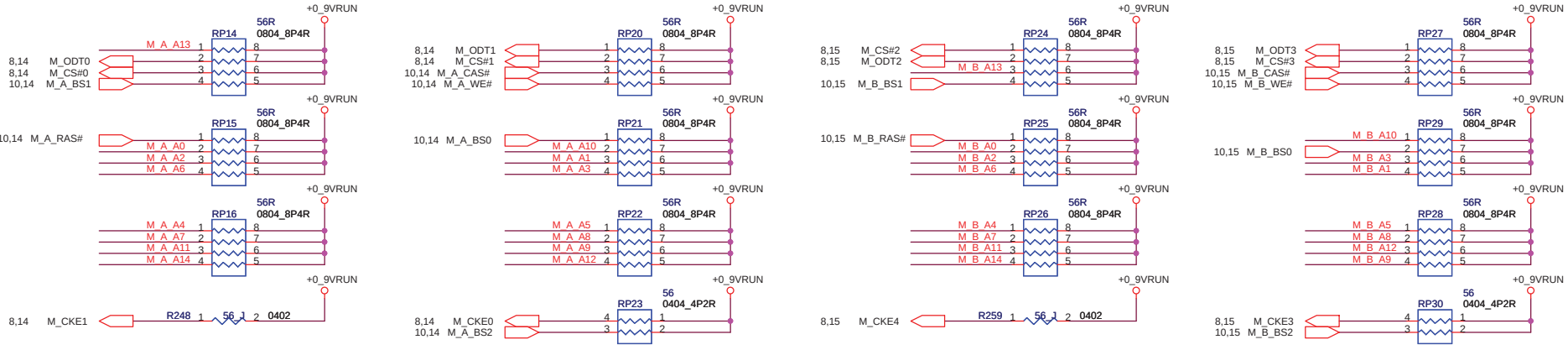
Layout note: Place 1 cap close to every 2 Rtt to +0_9VRUN



Layout note: Place 1 cap close to every 2Rtt to +0_9VRUN

10,14 M_A_A[0..14]

10,15 M_B_A[0..14]

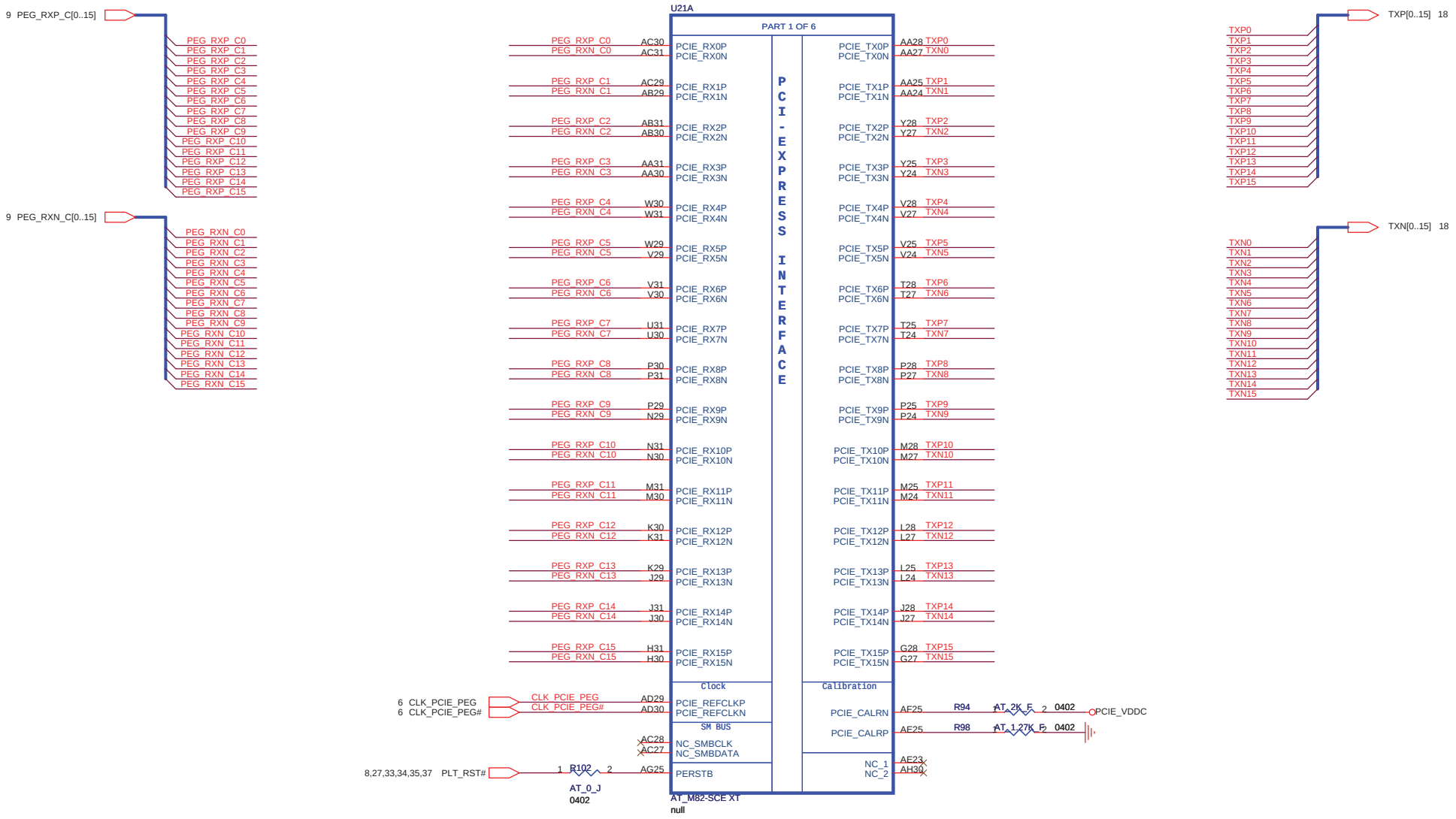


FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

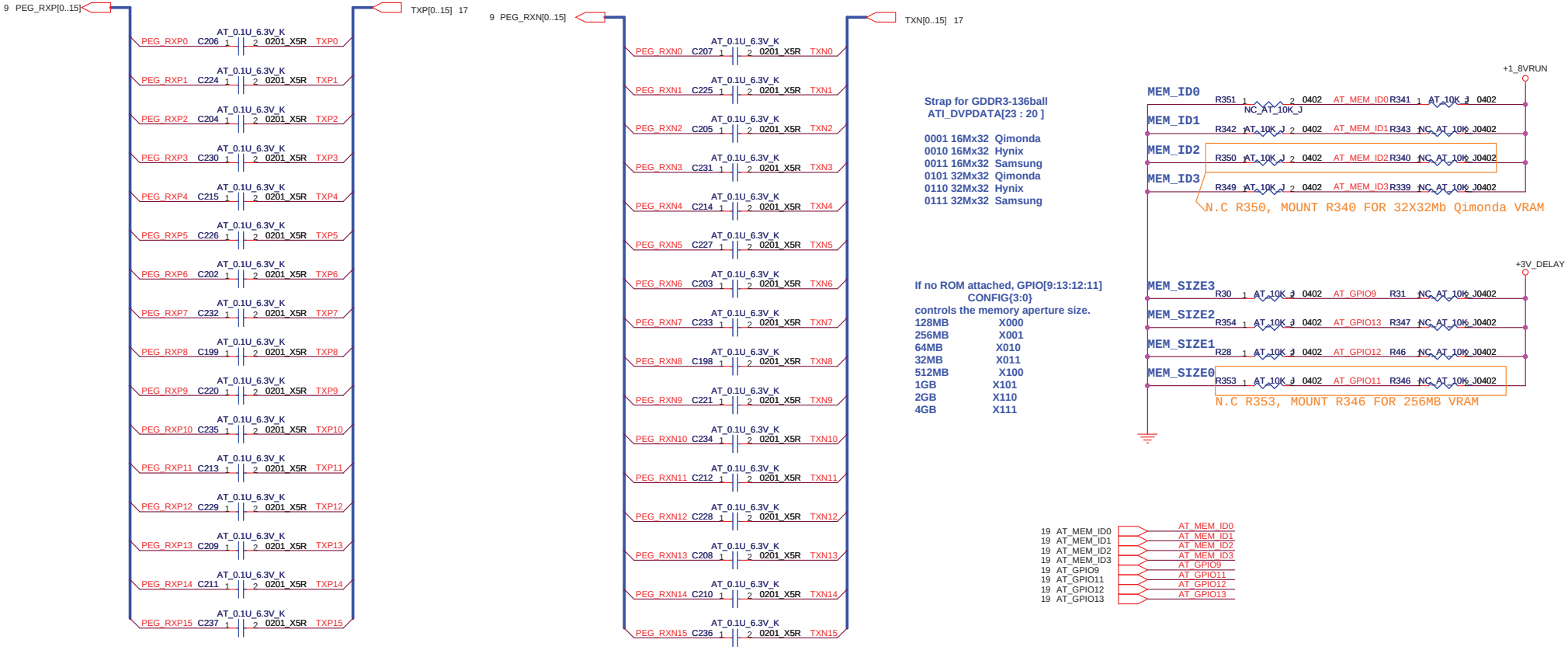
Title: DDR(II)Termination

Size: A3 | Document Number: M750-1-01 | Rev: 1.0

Date: Monday, June 23, 2008 | Sheet 16 of 54



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	VGA (PCI-E) 1/5	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 17 of 54	



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

Title	VGA (STRAP) 2/5	
Size: Custom	Document Number: M750-1-01	Rev: 1.0
Date: Monday, June 23, 2008	Sheet 18 of 54	

Put AC Coupling Cap on Docking Station

DVT1 12/1 Inverse +/- polarity
(Special for AMD M8X GPU)

170mA

EVT2 11/03 Inverse +/- polarity
(Special for AMD M8X GPU)

DVT1 12/17

For EMI
(Close to GMCH)

DVT1 12/24

VGA_DIS PSYNC_NEW
(M82-S) VGA Disable determines whether or not the card will be recognized as the system's VGA controller (via the SUBCLASS field in the PCI configuration space).
0: VGA Controller capacity enabled
1: The device will not be recognized

VREFG VOLTAGE DIVIDER IS
(VREFG = VDDR4,5(1.8V) / 3 = .6V)

PVT NC R388,R393,Y3,C436,C437 for use AMD internal SS 0328

PVT modify R345 value to HD_ for BOM change of 256MB and 128MB
modify R378 to HD_ for BOM change of HDMI disable 0408

PVT NC for use AMD internal SS 0408

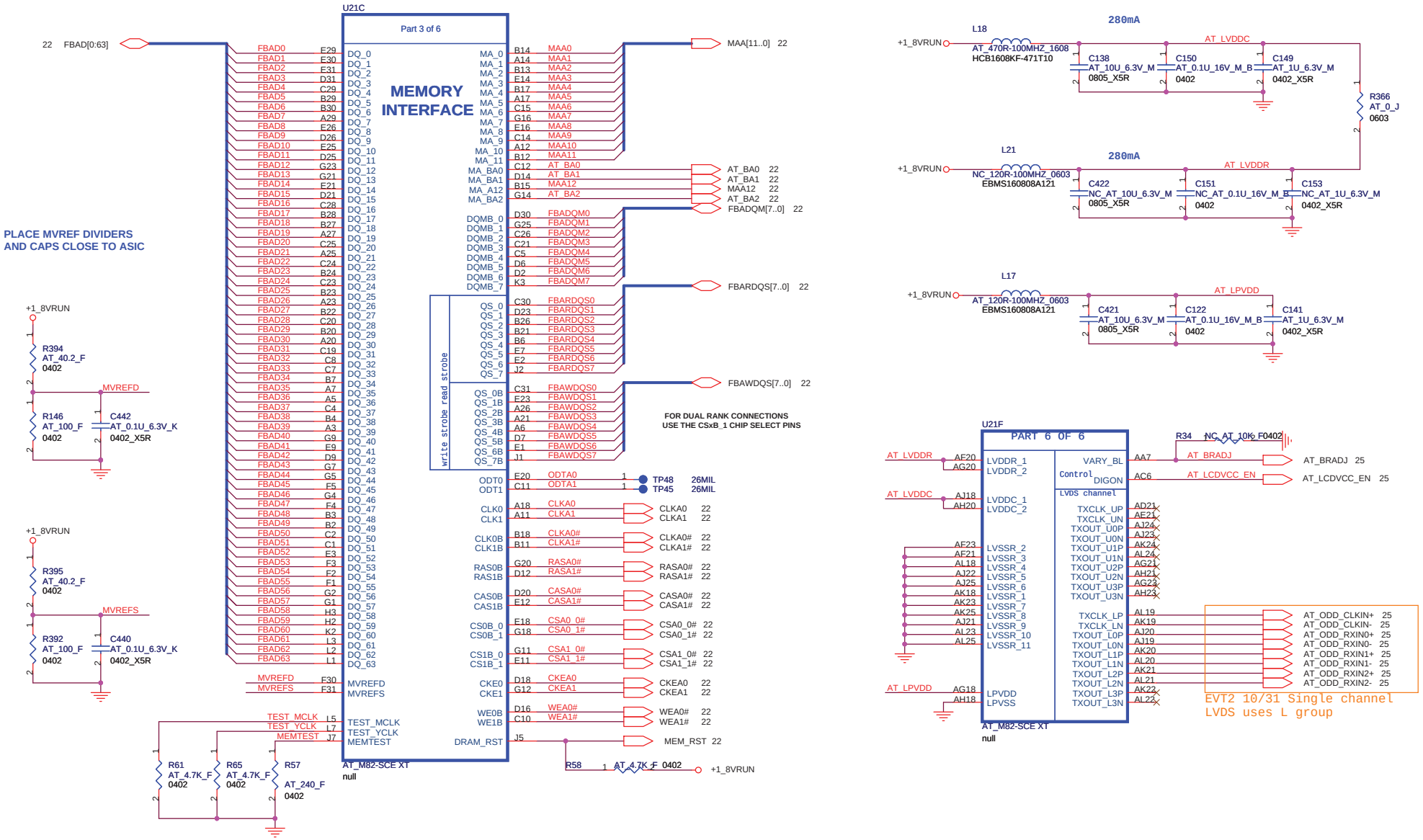
PVT NC R389,R393,Y3,C436,C437 for use AMD internal SS 0328

SPREAD SPECTRUM SETTING FOR MK

S0	SPREAD DIRECTION	Spread Percentage(%)
0	DOWN	-1.8
M	DOWN	-0.6
1	DOWN	-2.5

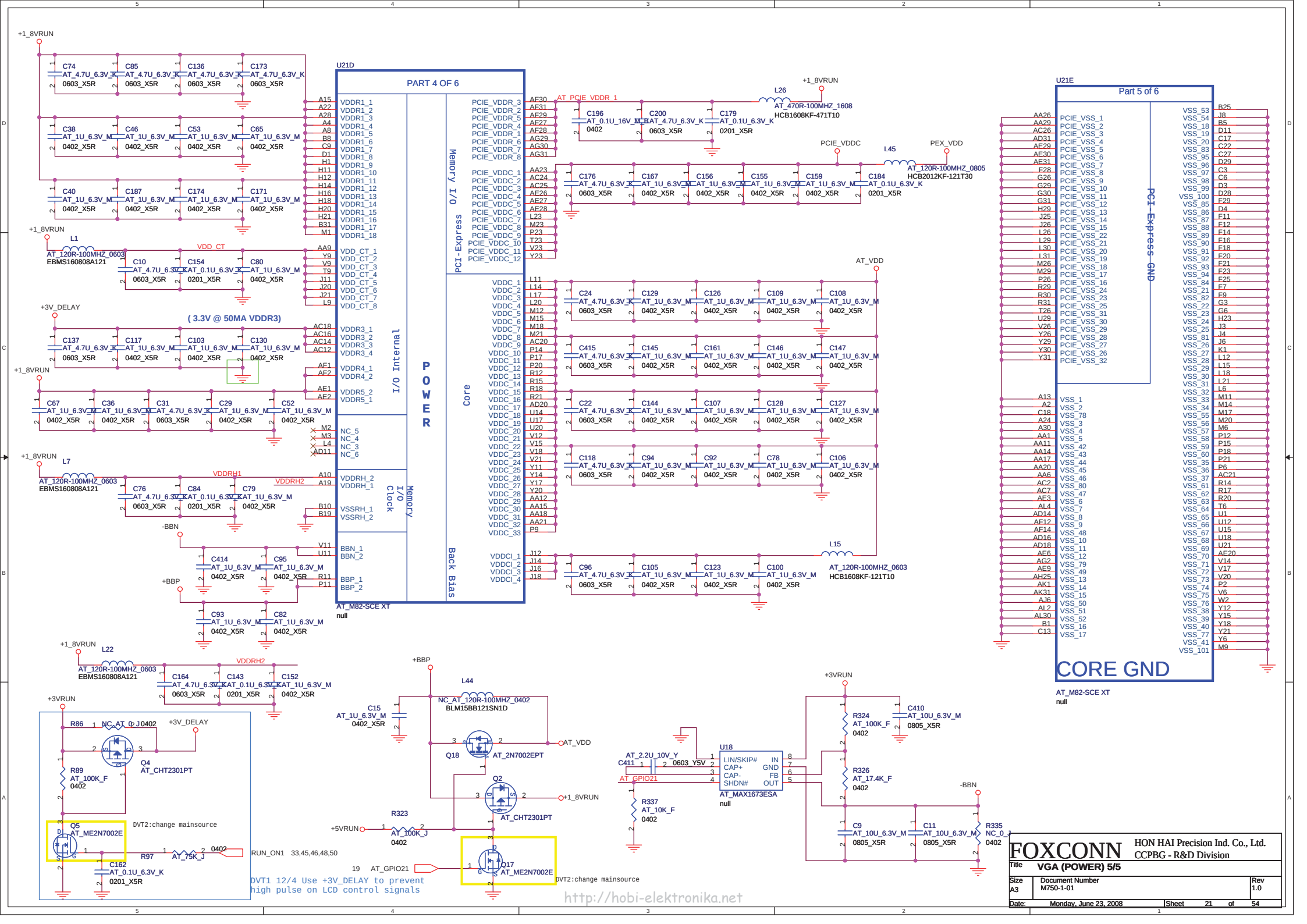
0 = connect to GND
M= unconnected
1 = connect directly to VDD

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
Title	VGA (IO) 3/5
Size: Custom	Document Number: M750-1-01
Rev	1.0
Date:	Monday, June 23, 2008
Sheet	19 of 54



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

Title	VGA (GDDR) 4/5	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 20 of 54	


U21D
PART 4 OF 6
POWER
I/O Internal
Memory I/O
PCI-Express
Core
I/O Clock
Back Bias
AT_M82-SCE XT
null
U21E
Part 5 of 6
PCI_Express_GND
CORE GND
AT_M82-SCE XT
null
+1_8VRUN
+3V_DELAY
(3.3V @ 50MA VDDR3)
VDD_CT
VDDRH1
VDDRH2
-BBN
+BBP
+3VRUN
AT_PCIE_VDDR_1
PCIE_VDDC
PEX_VDD
AT_VDD
L1
L7
L22
L26
L45
L44
L15
AT_120R-100MHZ_0603
EBMS160808A121
AT_120R-100MHZ_0805
HCB2012KF-121T30
AT_470R-100MHZ_1608
HCB1608KF-471T10
AT_120R-100MHZ_0402
BLM15BB121SN1D
AT_120R-100MHZ_0603
HCB1608KF-121T10
Q4
AT_CHT2301PT
Q5
AT_ME2N7002E
Q18
AT_2N7002EPT
Q2
AT_CHT2301PT
Q17
AT_ME2N7002E
U18
AT_MAX1673ESA
null
LIN/SKIP#
CAP+
CAP-
SHDN#
IN
GND
FB
OUT
AT_GPIO21
RUN_ON1 33,45,46,48,50
DVT2:change mainsource
DVT1 12/4 Use +3V_DELAY to prevent high pulse on LCD control signals
http://hobi-elektronika.net
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
VGA (POWER) 5/5
Size
A3
Document Number
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1.0
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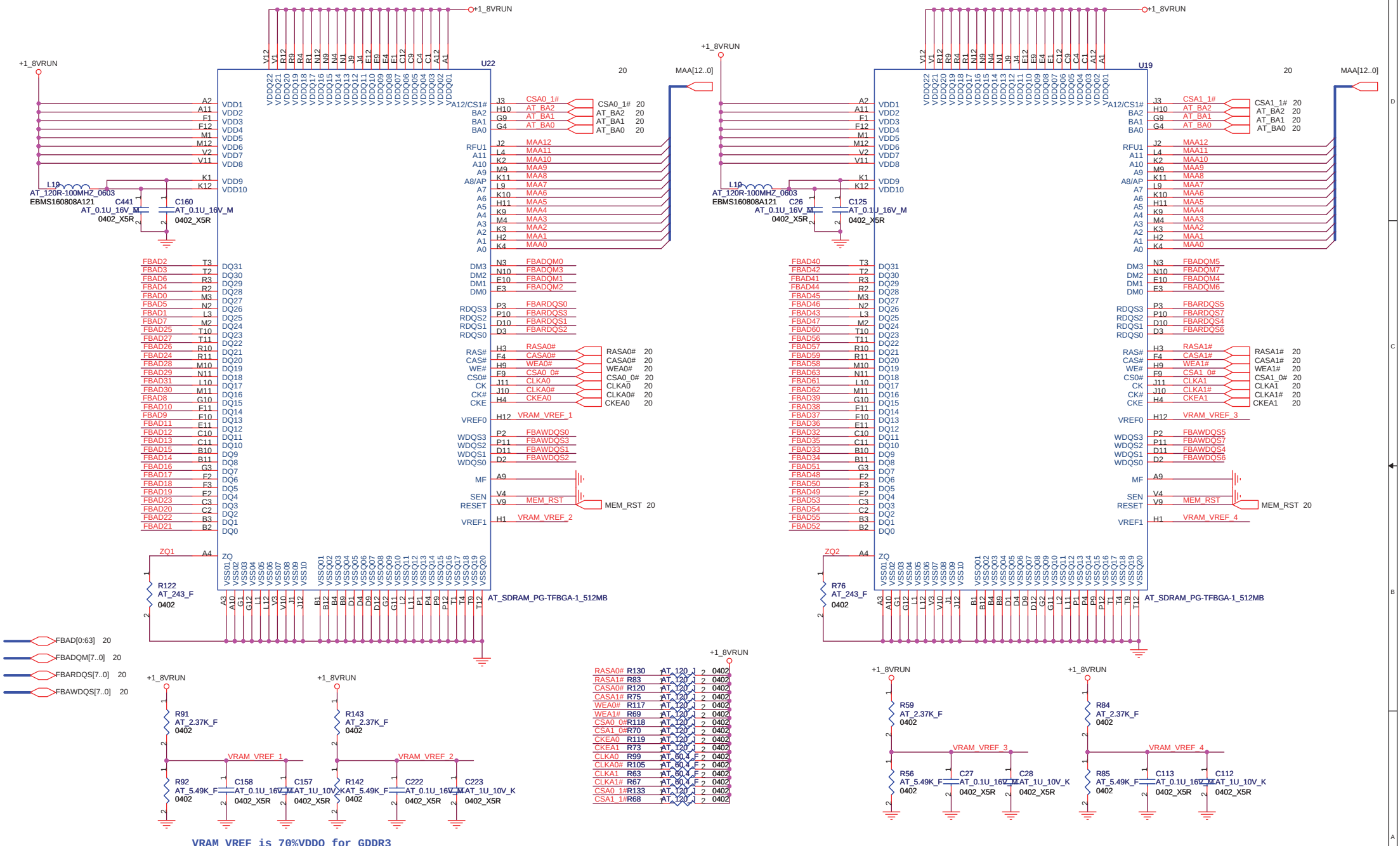
21
of
54



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

Title	VRAM (GDDR3) 1/2	
Size A3	Document Number M750-1-01	Rev 1.0
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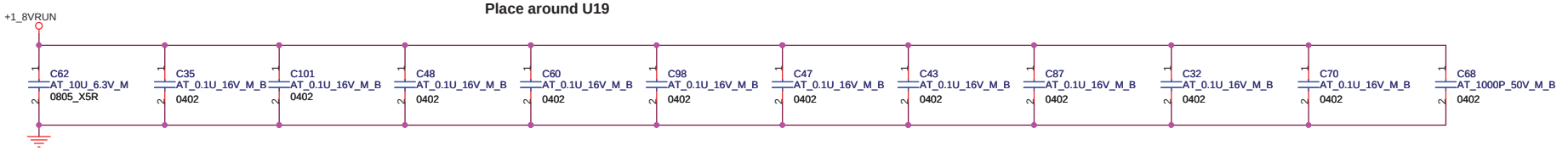
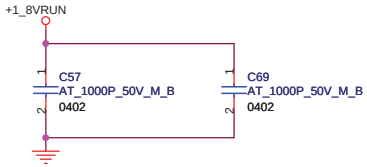
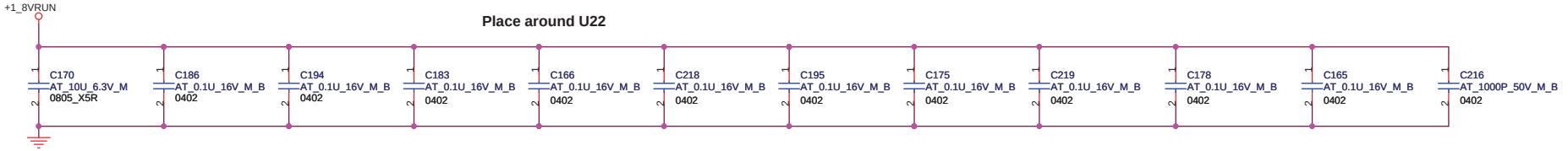
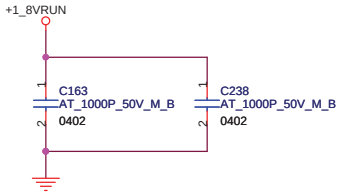
Place around U19



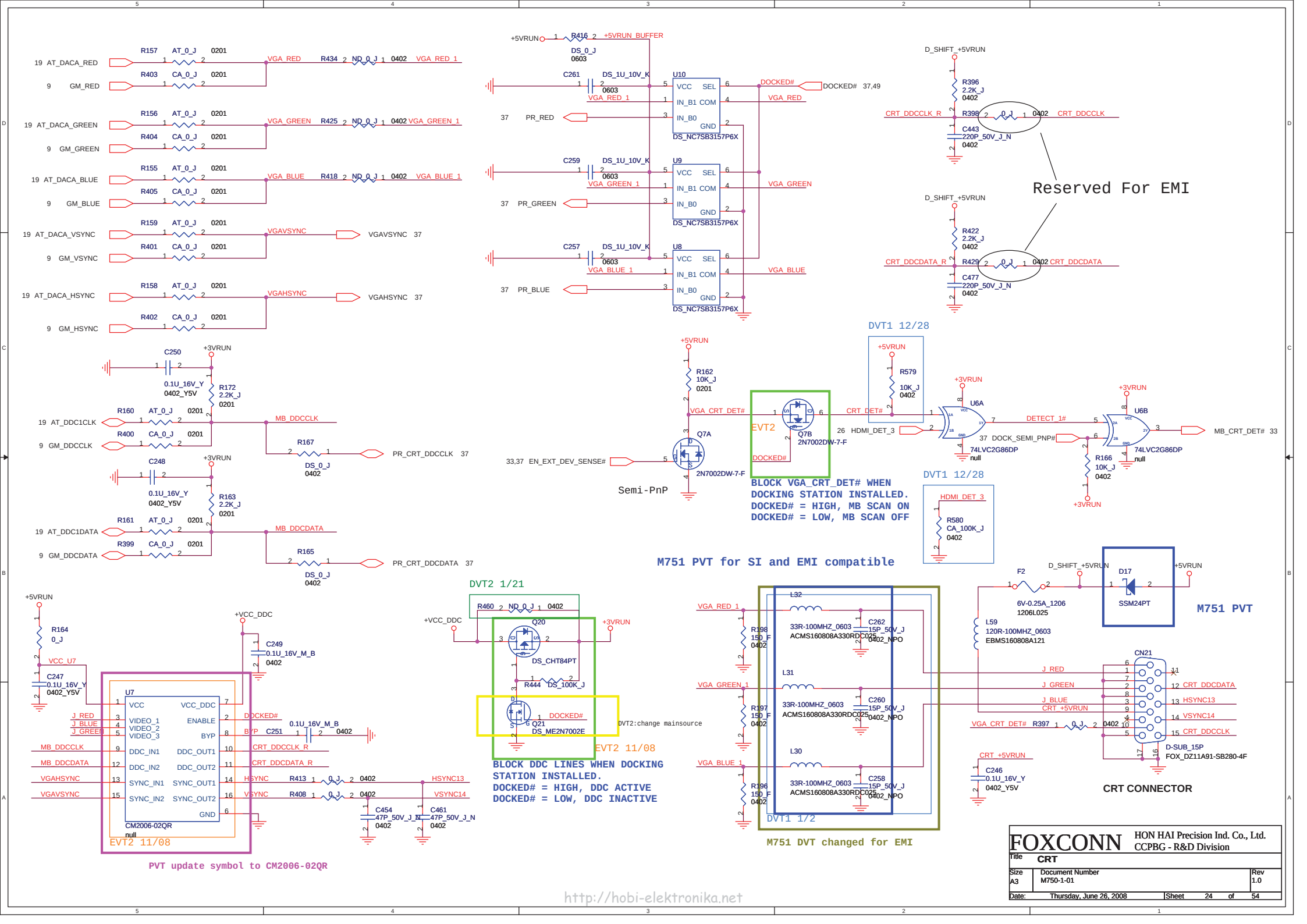


Place around U22



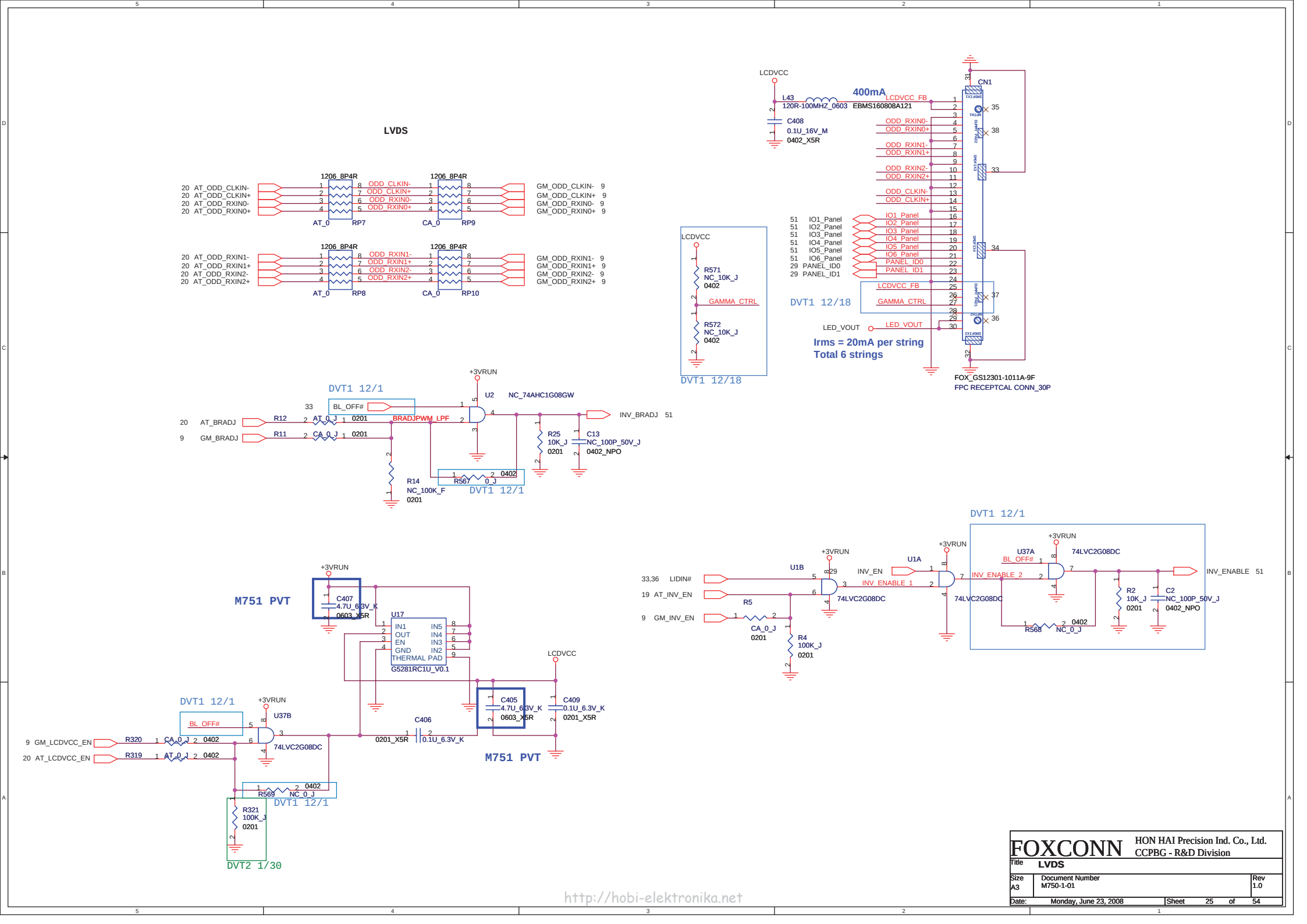


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	VRAM (BYPASS) 2/2	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 23 of 54	



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

Title	CRT		
Size A3	Document Number M750-1-01		Rev 1.0
Date: Thursday, June 26, 2008		Sheet 24 of 54	


LVDS
1206_8P4R
AT_0
RP7
CA_0
RP9
RP8
RP10
ODD_CLKIN-
ODD_CLKIN+
ODD_RXIN0-
ODD_RXIN0+
ODD_RXIN1-
ODD_RXIN1+
ODD_RXIN2-
ODD_RXIN2+
20 AT_ODD_CLKIN-
20 AT_ODD_CLKIN+
20 AT_ODD_RXIN0-
20 AT_ODD_RXIN0+
20 AT_ODD_RXIN1-
20 AT_ODD_RXIN1+
20 AT_ODD_RXIN2-
20 AT_ODD_RXIN2+
GM_ODD_CLKIN- 9
GM_ODD_CLKIN+ 9
GM_ODD_RXIN0- 9
GM_ODD_RXIN0+ 9
GM_ODD_RXIN1- 9
GM_ODD_RXIN1+ 9
GM_ODD_RXIN2- 9
GM_ODD_RXIN2+ 9
LCDVCC
L43
120R-100MHZ_0603
EBMS160808A121
400mA
LCDVCC_FB
C408
0.1U_16V_M
0402_X5R
CN1
IO1_Panel
IO2_Panel
IO3_Panel
IO4_Panel
IO5_Panel
IO6_Panel
PANEL_ID0
PANEL_ID1
GAMMA_CTRL
LED_VOUT
51 IO1_Panel
51 IO2_Panel
51 IO3_Panel
51 IO4_Panel
51 IO5_Panel
51 IO6_Panel
29 PANEL_ID0
29 PANEL_ID1
DVT1 12/18
Irms = 20mA per string
Total 6 strings
FOX_GS12301-1011A-9F
FPC RECEPTCAL CONN_30P
R571
NC_10K_J
0402
R572
NC_10K_J
0402
DVT1 12/1
+3VRUN
U2
NC_74AHC1G08GW
BL_OFF#
BRADJPWM_LPF
AT_BRADJ
GM_BRADJ
R12
R11
0201
R14
NC_100K_F
R567
0_J
0402
R25
10K_J
C13
NC_100P_50V_J
0402_NPO
INV_BRADJ 51
M751 PVT
C407
4.7U_6.3V_K
0603_X5R
U17
IN1
OUT
EN
GND
IN2
IN3
IN4
IN5
THERMAL PAD
G5281RC1U_V0.1
C405
C406
C409
0.1U_6.3V_K
0201_X5R
U37B
74LVC2G08DC
GM_LCDVCC_EN
AT_LCDVCC_EN
R320
R319
R569
NC_0_J
R321
100K_J
DVT2 1/30
U1A
U1B
U37A
33,36 LIDIN#
19 AT_INV_EN
9 GM_INV_EN
INV_EN
INV_ENABLE_1
INV_ENABLE_2
INV_ENABLE 51
R5
CA_0_J
R4
100K_J
R2
10K_J
C2
NC_100P_50V_J
0402_NPO
R568
NC_0_J
http://hobi-elektronika.net
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title LVDS
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
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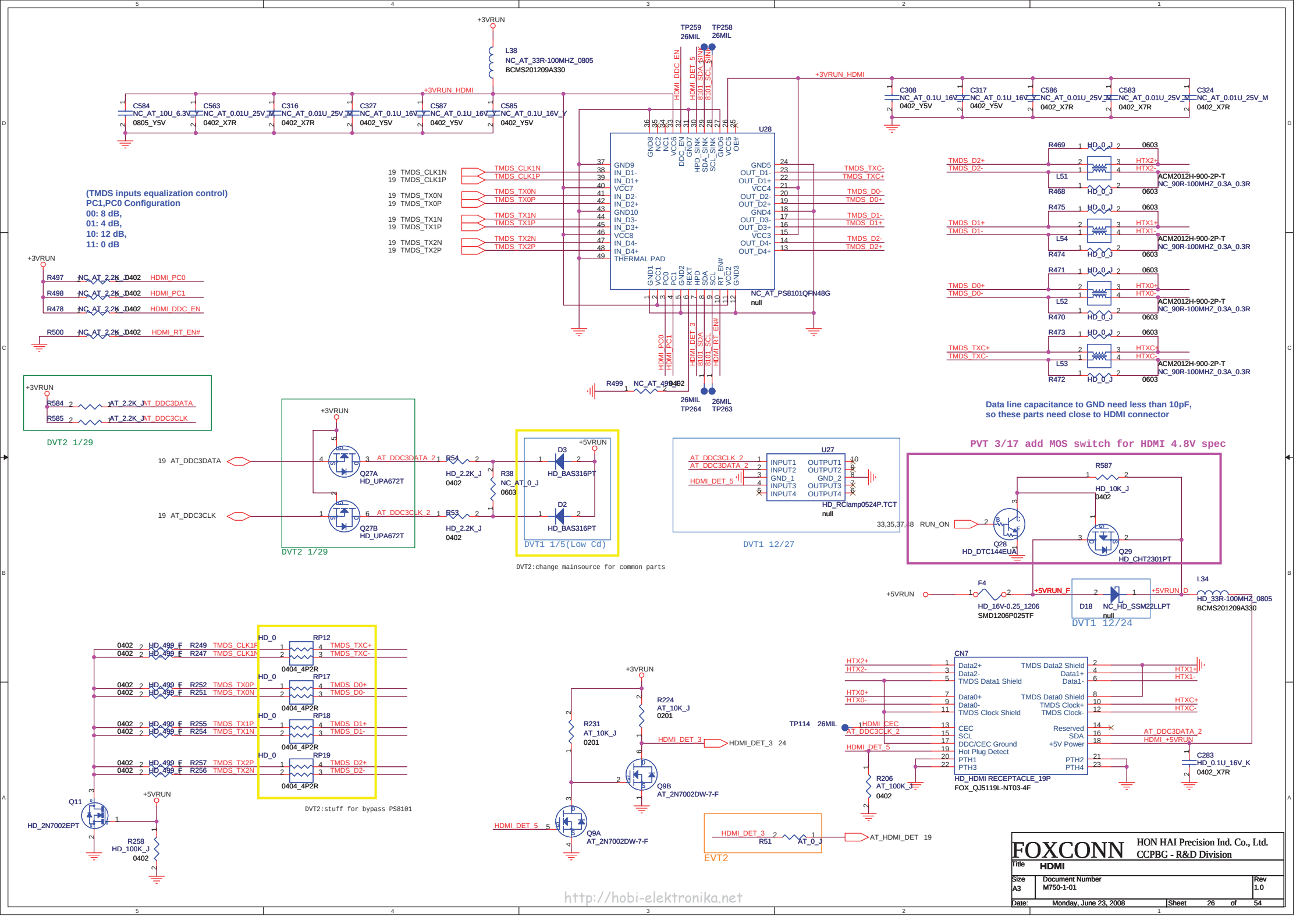
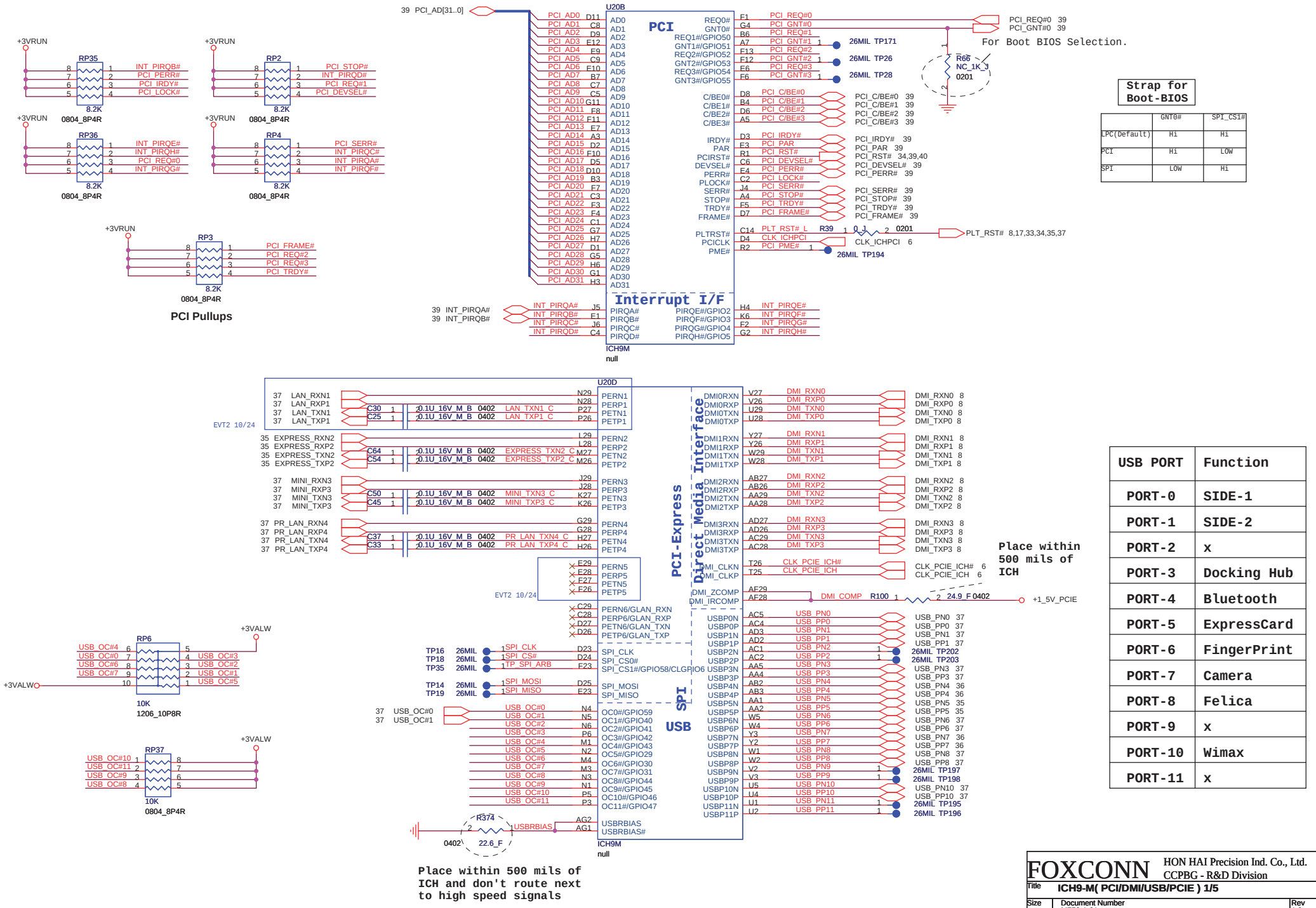
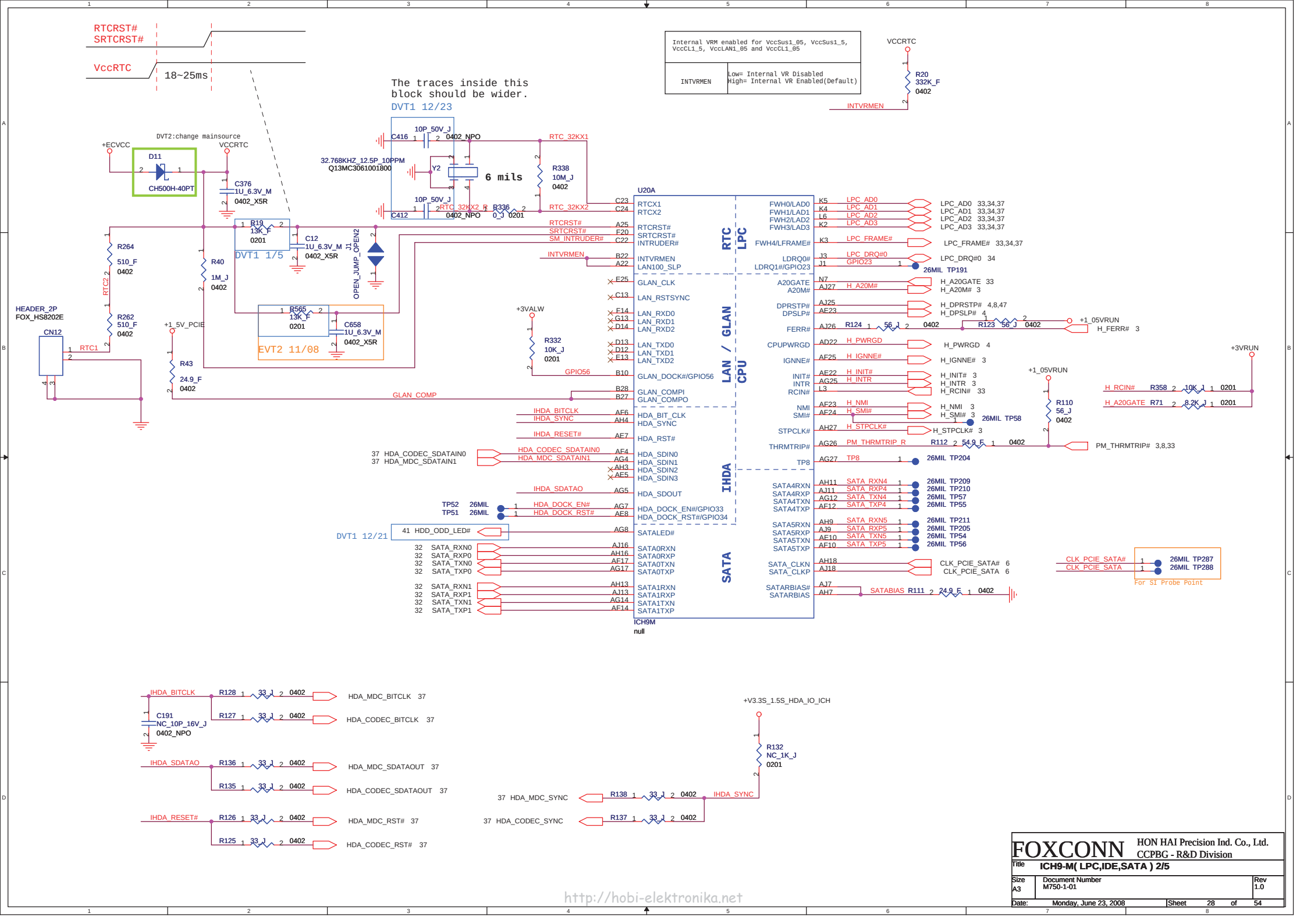
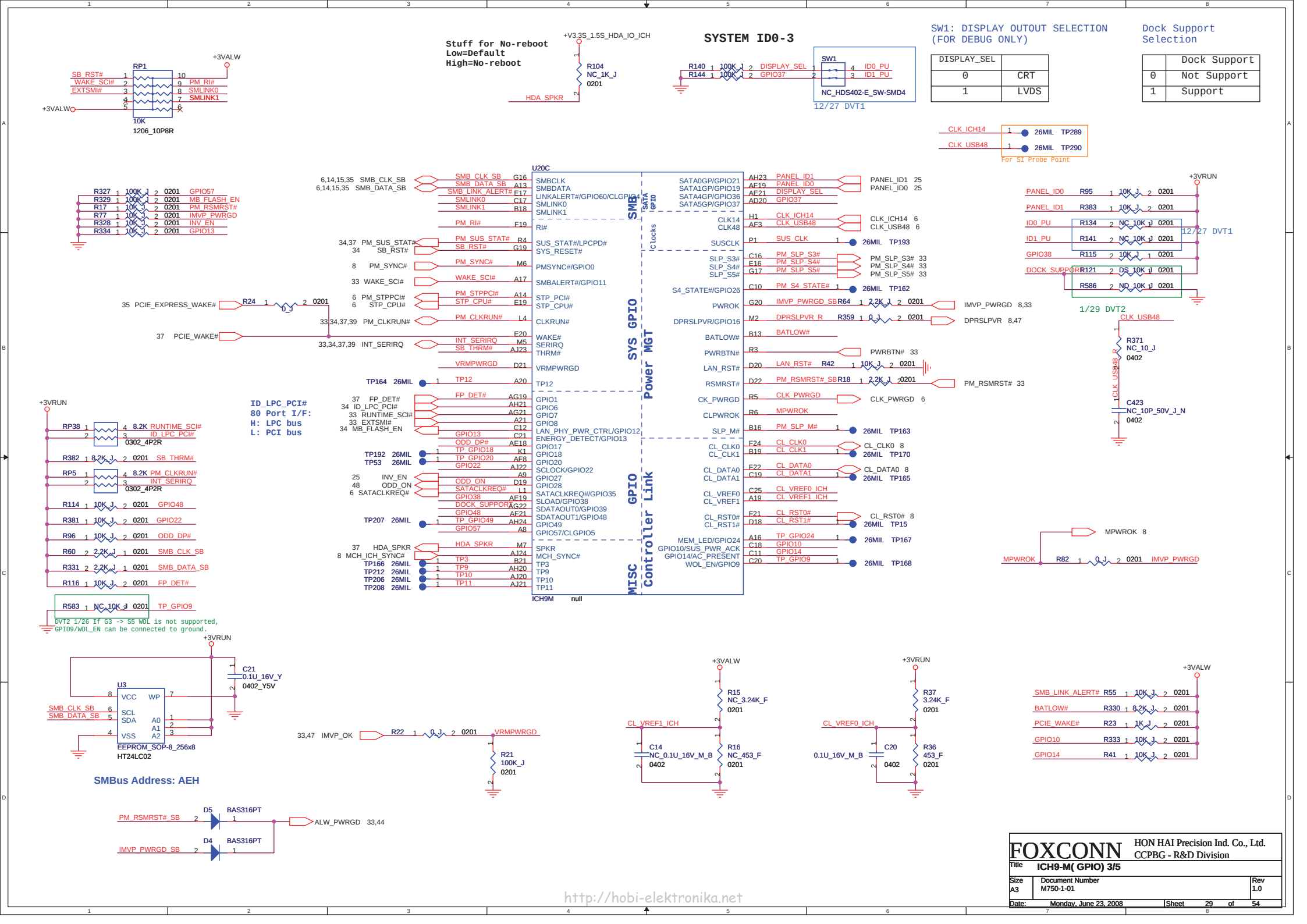

+3VRUN
L38
NC_AT_33R-100MHZ_0805
BCMS201209A330
TP259 26MIL
TP258 26MIL
+3VRUN_HDMI
C584 NC_AT_10U_6.3V_Y 0805_Y5V
C563 NC_AT_0.01U_25V_M 0402_X7R
C316 NC_AT_0.01U_25V_M 0402_X7R
C327 NC_AT_0.1U_16V_Y 0402_Y5V
C587 NC_AT_0.1U_16V_Y 0402_Y5V
C585 NC_AT_0.1U_16V_Y 0402_Y5V
C308 NC_AT_0.1U_16V_Y 0402_Y5V
C317 NC_AT_0.1U_16V_Y 0402_Y5V
C586 NC_AT_0.01U_25V_M 0402_X7R
C583 NC_AT_0.01U_25V_M 0402_X7R
C324 NC_AT_0.01U_25V_M 0402_X7R
U28
GND9 IN_D1- IN_D1+ VCC7 IN_D2- IN_D2+ GND10 IN_D3- IN_D3+ VCC8 IN_D4- IN_D4+ THERMAL PAD
GND5 OUT_D1- OUT_D1+ VCC4 OUT_D2- OUT_D2+ GND4 OUT_D3- OUT_D3+ VCC3 OUT_D4- OUT_D4+
GND1 VCC1 PC0 PC1 GND2 REXT HPD SDA SCL RT_EN# VCC2 GND3
NC_AT_PS8101QFN48G
null
19 TMDS_CLK1N
19 TMDS_CLK1P
19 TMDS_TX0N
19 TMDS_TX0P
19 TMDS_TX1N
19 TMDS_TX1P
19 TMDS_TX2N
19 TMDS_TX2P
TMDS_CLK1N
TMDS_CLK1P
TMDS_TX0N
TMDS_TX0P
TMDS_TX1N
TMDS_TX1P
TMDS_TX2N
TMDS_TX2P
TMDS_TXC-
TMDS_TXC+
TMDS_D0-
TMDS_D0+
TMDS_D1-
TMDS_D1+
TMDS_D2-
TMDS_D2+
HDMI_DDC_EN
HDMI_DET_5
HDMI_PC0
HDMI_PC1
HDMI_RT_EN#
R499 NC_AT_4994_J 0402
26MIL TP264
26MIL TP263
R469 HD_0_J 0603
R468 HD_0_J 0603
L51 ACM2012H-900-2P-T NC_90R-100MHZ_0.3A_0.3R
R475 HD_0_J 0603
R474 HD_0_J 0603
L54 ACM2012H-900-2P-T NC_90R-100MHZ_0.3A_0.3R
R471 HD_0_J 0603
R470 HD_0_J 0603
L52 ACM2012H-900-2P-T NC_90R-100MHZ_0.3A_0.3R
R473 HD_0_J 0603
R472 HD_0_J 0603
L53 ACM2012H-900-2P-T NC_90R-100MHZ_0.3A_0.3R
HTX2+
HTX2-
HTX1+
HTX1-
HTX0+
HTX0-
HTXC+
HTXC-
(TMDS inputs equalization control)
PC1,PC0 Configuration
00: 8 dB,
01: 4 dB,
10: 12 dB,
11: 0 dB
R497 NC_AT_2.2K_J 0402 HDMI_PC0
R498 NC_AT_2.2K_J 0402 HDMI_PC1
R478 NC_AT_2.2K_J 0402 HDMI_DDC_EN
R500 NC_AT_2.2K_J 0402 HDMI_RT_EN#
R584 AT_2.2K_J AT_DDC3DATA
R585 AT_2.2K_J AT_DDC3CLK
DVT2 1/29
Data line capacitance to GND need less than 10pF,
so these parts need close to HDMI connector
PVT 3/17 add MOS switch for HDMI 4.8V spec
19 AT_DDC3DATA
19 AT_DDC3CLK
Q27A HD_UPA672T
Q27B HD_UPA672T
AT_DDC3DATA_2
AT_DDC3CLK_2
R54 HD_2.2K_J 0402
R53 HD_2.2K_J 0402
R38 NC_AT_0_J 0603
D3 HD_BAS316PT
D2 HD_BAS316PT
+5VRUN
DVT1 1/5(Low Cd)
DVT2:change mainsource for common parts
U27
INPUT1 INPUT2 GND_1 INPUT3 INPUT4
OUTPUT1 OUTPUT2 GND_2 OUTPUT3 OUTPUT4
HD_RClamp0524P.TCT
null
AT_DDC3CLK_2
AT_DDC3DATA_2
HDMI_DET_5
33,35,37,38 RUN_ON
DVT1 12/27
R587 HD_10K_J 0402
Q28 HD_DTC144EUA
Q29 HD_CHT2301PT
F4 HD_16V-0.25_1206 SMD1206P025TF
+5VRUN_F
D18 NC_HD_SSM22LLPT null
+5VRUN_D
L34 HD_33R-100MHZ_0805 BCMS201209A330
DVT1 12/24
RP12 RP17 RP18 RP19 0404_4P2R
R249 R247 R252 R251 R255 R254 R257 R256
TMDS_CLK1P TMDS_CLK1N TMDS_TX0P TMDS_TX0N TMDS_TX1P TMDS_TX1N TMDS_TX2P TMDS_TX2N
TMDS_TXC+ TMDS_TXC- TMDS_D0+ TMDS_D0- TMDS_D1+ TMDS_D1- TMDS_D2+ TMDS_D2-
HD_499_F
Q11 HD_2N7002EPT
R258 HD_100K_J 0402
DVT2:stuff for bypass PS8101
R224 AT_10K_J 0201
R231 AT_10K_J 0201
Q9B AT_2N7002DW-7-F
Q9A AT_2N7002DW-7-F
HDMI_DET_3
HDMI_DET_3 24
HDMI_DET_5
TP114 26MIL
CN7
Data2+ Data2- TMDS Data1 Shield
TMDS Data2 Shield Data1+ Data1-
Data0+ Data0- TMDS Clock Shield
TMDS Data0 Shield TMDS Clock+ TMDS Clock-
CEC SCL DDC/CEC Ground Hot Plug Detect PTH1 PTH3
Reserved SDA +5V Power PTH2 PTH4
HDMI_CEC
HD_HDMI RECEPTACLE_19P
FOX_QJ5119L-NT03-4F
R206 AT_100K_J 0402
C283 HD_0.1U_16V_K 0402_X7R
HDMI_+5VRUN
R51 AT_0_J
AT_HDMI_DET 19
EVT2
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title HDMI
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
Sheet 26 of 54
http://hobi-elektronika.net

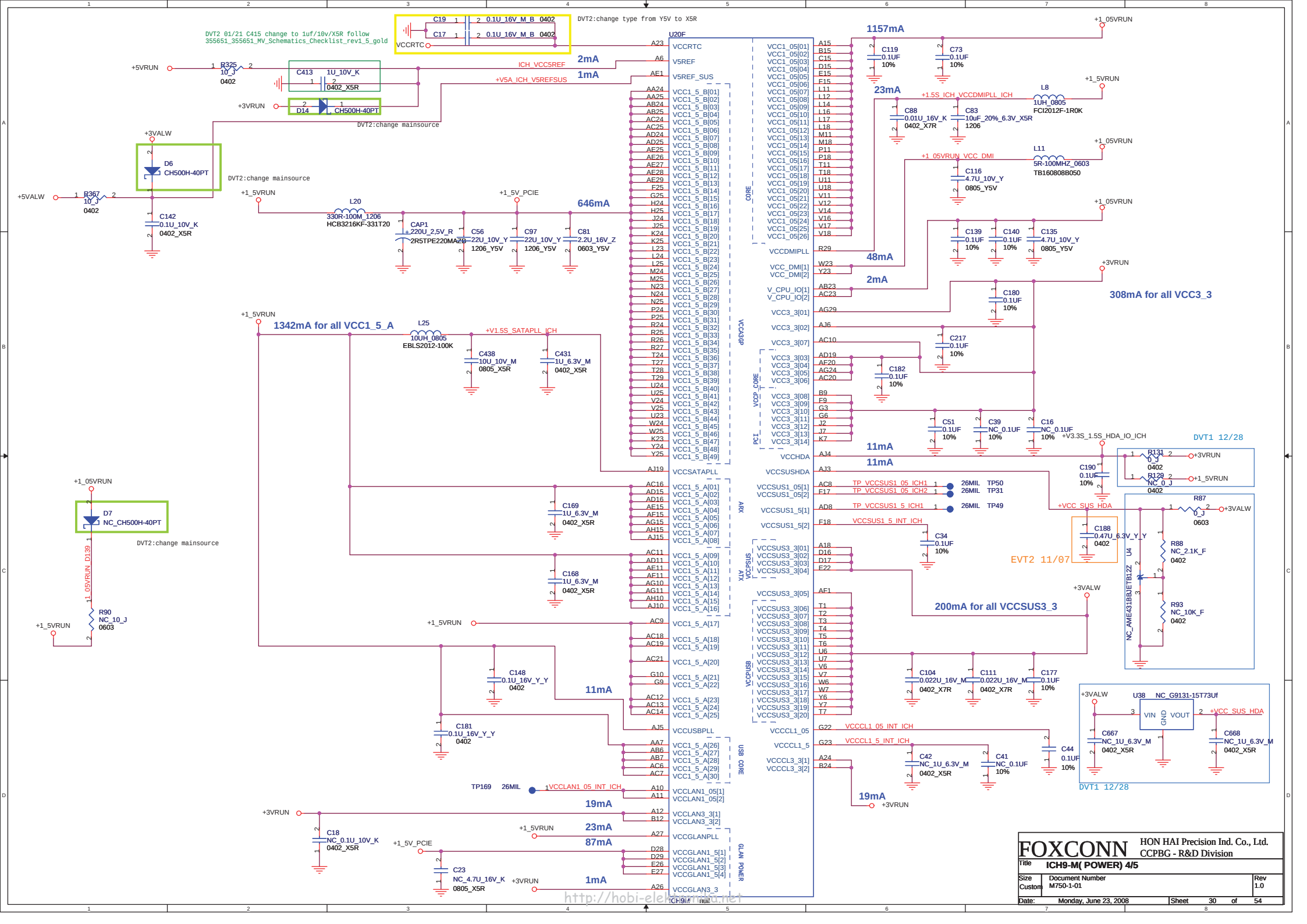


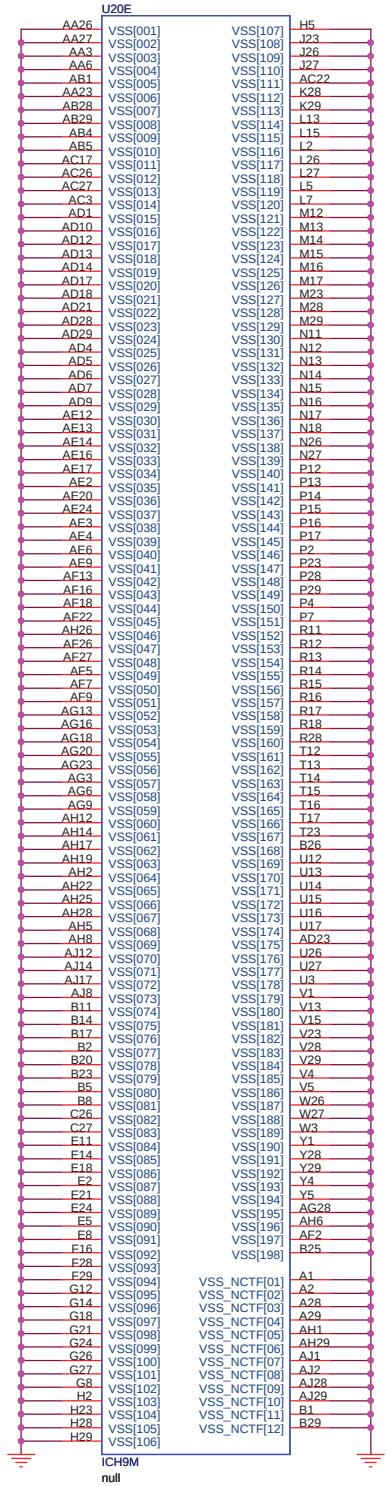
USB PORT	Function
PORT-0	SIDE-1
PORT-1	SIDE-2
PORT-2	x
PORT-3	Docking Hub
PORT-4	Bluetooth
PORT-5	ExpressCard
PORT-6	FingerPrint
PORT-7	Camera
PORT-8	Felica
PORT-9	x
PORT-10	Wimax
PORT-11	x

	GNT0#	SPI_CS1#
LPC(Default)	Hi	Hi
PCI	Hi	LOW
SPI	LOW	Hi

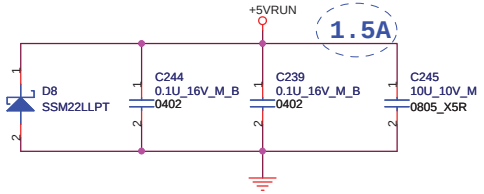

RTCRST#
SRTCRST#
VccRTC
18~25ms
The traces inside this block should be wider.
DVT1 12/23
Internal VRM enabled for VccSus1_05, VccSus1_5, VccCL1_5, VccLAN1_05 and VccCL1_05
INTVRMEN
Low= Internal VR Disabled
High= Internal VR Enabled(Default)
VCCRTC
R20
332K_F
0402
INTVRMEN
DVT2:change mainsource
+ECVCC
VCCRTC
D11
CH500H-40PT
C376
1U_6.3V_M
0402_X5R
32.768KHZ_12.5P_10PPM
Q13MC3061001800
Y2
6 mils
C416
10P_50V_J
0402_NPO
C412
10P_50V_J
0402_NPO
RTC_32KX1
RTC_32KX2_R
R336
0_J
0201
RTC_32KX2
R338
10M_J
0402
U20A
RTCX1
RTCX2
RTCRST#
SRTCRST#
INTRUDER#
INTVRMEN
LAN100_SLP
GLAN_CLK
LAN_RSTSYNC
LAN_RXD0
LAN_RXD1
LAN_RXD2
LAN_TXD0
LAN_TXD1
LAN_TXD2
GLAN_DOCK#/GPIO56
GLAN_COMPI
GLAN_COMPO
HDA_BIT_CLK
HDA_SYNC
HDA_RST#
HDA_SDIN0
HDA_SDIN1
HDA_SDIN2
HDA_SDIN3
HDA_SDOUT
HDA_DOCK_EN#/GPIO33
HDA_DOCK_RST#/GPIO34
SATALED#
SATA0RXN
SATA0RXP
SATA0TXN
SATA0TXP
SATA1RXN
SATA1RXP
SATA1TXN
SATA1TXP
RTC
LPC
LAN / GLAN
CPU
IHDA
SATA
FWH0/LAD0
FWH1/LAD1
FWH2/LAD2
FWH3/LAD3
FWH4/LFRAME#
LDRQ0#
LDRQ1#/GPIO23
A20GATE
A20M#
DPRSTP#
DPSLP#
FERR#
CPUPWRGD
IGNNE#
INIT#
INTR
RCIN#
NMI
SMI#
STPCLK#
THRMTRIP#
TP8
SATA4RXN
SATA4RXP
SATA4TXN
SATA4TXP
SATA5RXN
SATA5RXP
SATA5TXN
SATA5TXP
SATA_CLKN
SATA_CLKP
SATARBIAS#
SATARBIAS
ICH9M
null
LPC_AD0 33,34,37
LPC_AD1 33,34,37
LPC_AD2 33,34,37
LPC_AD3 33,34,37
LPC_FRAME# 33,34,37
LPC_DRQ#0 34
26MIL TP191
H_A20GATE 33
H_A20M# 3
H_DPRSTP# 4,8,47
H_DPSLP# 4
R124 56_J 0402
R123 56_J 0402
+1_05VRUN
H_FERR# 3
H_PWRGD 4
H_IGNNE# 3
H_INIT# 3
H_INTR 3
H_RCIN# 33
H_NMI 3
H_SMI# 3
26MIL TP58
H_STPCLK# 3
PM_THRMTRIP# 3,8,33
R112 54.9_F 0402
TP8
26MIL TP204
SATA_RXN4
SATA_RXP4
SATA_TXN4
SATA_TXP4
26MIL TP209
26MIL TP210
26MIL TP57
26MIL TP55
SATA_RXN5
SATA_RXP5
SATA_TXN5
SATA_TXP5
26MIL TP211
26MIL TP205
26MIL TP54
26MIL TP56
CLK_PCIE_SATA# 6
CLK_PCIE_SATA 6
SATABIAS R111 24.9_F 0402
R110
56_J
0402
+3VRUN
H_RCIN# R358 10K_J 0201
H_A20GATE R71 8.2K_J 0201
CLK_PCIE_SATA#
CLK_PCIE_SATA
26MIL TP287
26MIL TP288
For SI Probe Point
R264
510_F
0402
R262
510_F
0402
RTC2
RTC1
HEADER_2P
FOX_HS8202E
CN12
R40
1M_J
0402
R19
13K_F
0201
DVT1 1/5
C12
1U_6.3V_M
0402_X5R
J1
OPEN_JUMP_OPEN2
R565
13K_F
0201
C658
1U_6.3V_M
0402_X5R
EVT2 11/08
+1_5V_PCIE
R43
24.9_F
0402
+3VALW
R332
10K_J
0201
GLAN_COMP
GPIO56
IHDA_BITCLK
IHDA_SYNC
IHDA_RESET#
IHDA_SDATAO
HDA_CODEC_SDATAIN0
HDA_MDC_SDATAIN1
TP52 26MIL
TP51 26MIL
HDA_DOCK_EN#
HDA_DOCK_RST#
DVT1 12/21
41 HDD_ODD_LED#
32 SATA_RXN0
32 SATA_RXP0
32 SATA_TXN0
32 SATA_TXP0
32 SATA_RXN1
32 SATA_RXP1
32 SATA_TXN1
32 SATA_TXP1
IHDA_BITCLK
R128 33_J 0402
HDA_MDC_BITCLK 37
C191
NC_10P_16V_J
0402_NPO
R127 33_J 0402
HDA_CODEC_BITCLK 37
IHDA_SDATAO
R136 33_J 0402
HDA_MDC_SDATAOUT 37
R135 33_J 0402
HDA_CODEC_SDATAOUT 37
IHDA_RESET#
R126 33_J 0402
HDA_MDC_RST# 37
R125 33_J 0402
HDA_CODEC_RST# 37
+V3.3S_1.5S_HDA_IO_ICH
R132
NC_1K_J
0201
37 HDA_MDC_SYNC
R138 33_J 0402
IHDA_SYNC
37 HDA_CODEC_SYNC
R137 33_J 0402
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH9-M(LPC,IDE,SATA) 2/5
Size
A3
Document Number
M750-1-01
Rev
1.0
Date:
Monday, June 23, 2008
Sheet
28
of
54
http://hobi-elektronika.net

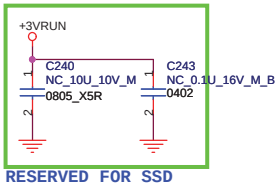

Stuff for No-reboot
Low=Default
High=No-reboot
SYSTEM ID0-3
SW1: DISPLAY OUTOUT SELECTION
(FOR DEBUG ONLY)
DISPLAY_SEL
0 CRT
1 LVDS
Dock Support Selection
Dock Support
0 Not Support
1 Support
12/27 DVT1
1/29 DVT2
U20C
SMB
SATA GPIO
I2C locks
SYS GPIO
Power MGT
GPIO
Controller Link
MISC
ICH9M
null
ID_LPC_PCI#
80 Port I/F:
H: LPC bus
L: PCI bus
SMBus Address: AEH
DVT2 1/26 If G3 -> S5 WOL is not supported,
GPIO9/WOL_EN can be be connected to ground.
EEPROM_SOP-8_256x8
HT24LC02
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title ICH9-M(GPIO) 3/5
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
Sheet 29 of 54
http://hobi-elektronika.net

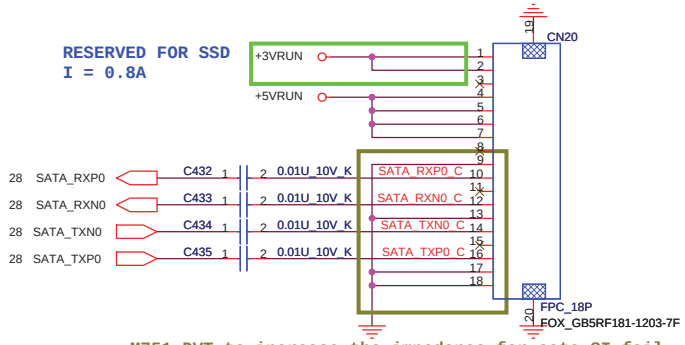

DVT2 01/21 C415 change to 1uf/10v/X5R follow 355651_355651_MV_Schematics_Checklist_rev1_5_gold
DVT2:change type from Y5V to X5R
DVT2:change mainsource
DVT2:change mainsource
DVT2:change mainsource
U20F
CORE
VCCP_CORE
PCI
VCCSUS3_3
VCCPSUS
USB CORE
GLAN POWER
1157mA
23mA
48mA
2mA
308mA for all VCC3_3
1342mA for all VCC1_5_A
646mA
2mA
1mA
11mA
11mA
200mA for all VCCSUS3_3
11mA
19mA
23mA
87mA
1mA
19mA
EVT2 11/07
DVT1 12/28
DVT1 12/28
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
ICH9-M(POWER) 4/5
M750-1-01
Monday, June 23, 2008
30
54
http://hobi-elektronika.net



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	ICH9-M(GND) 5/5	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 31 of 54	

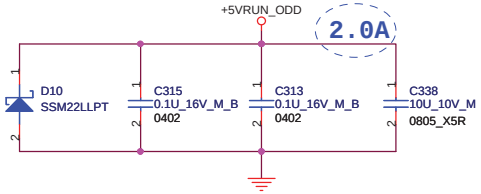


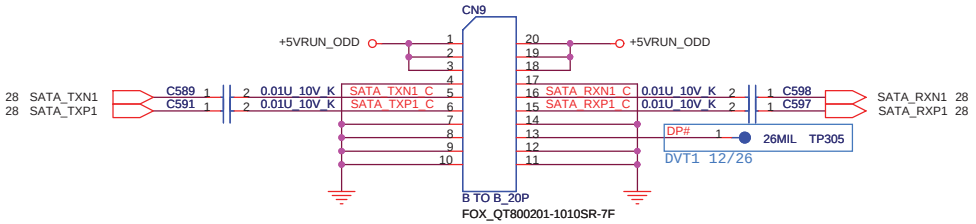




M751 DVT to increase the impedance for sata SI fail

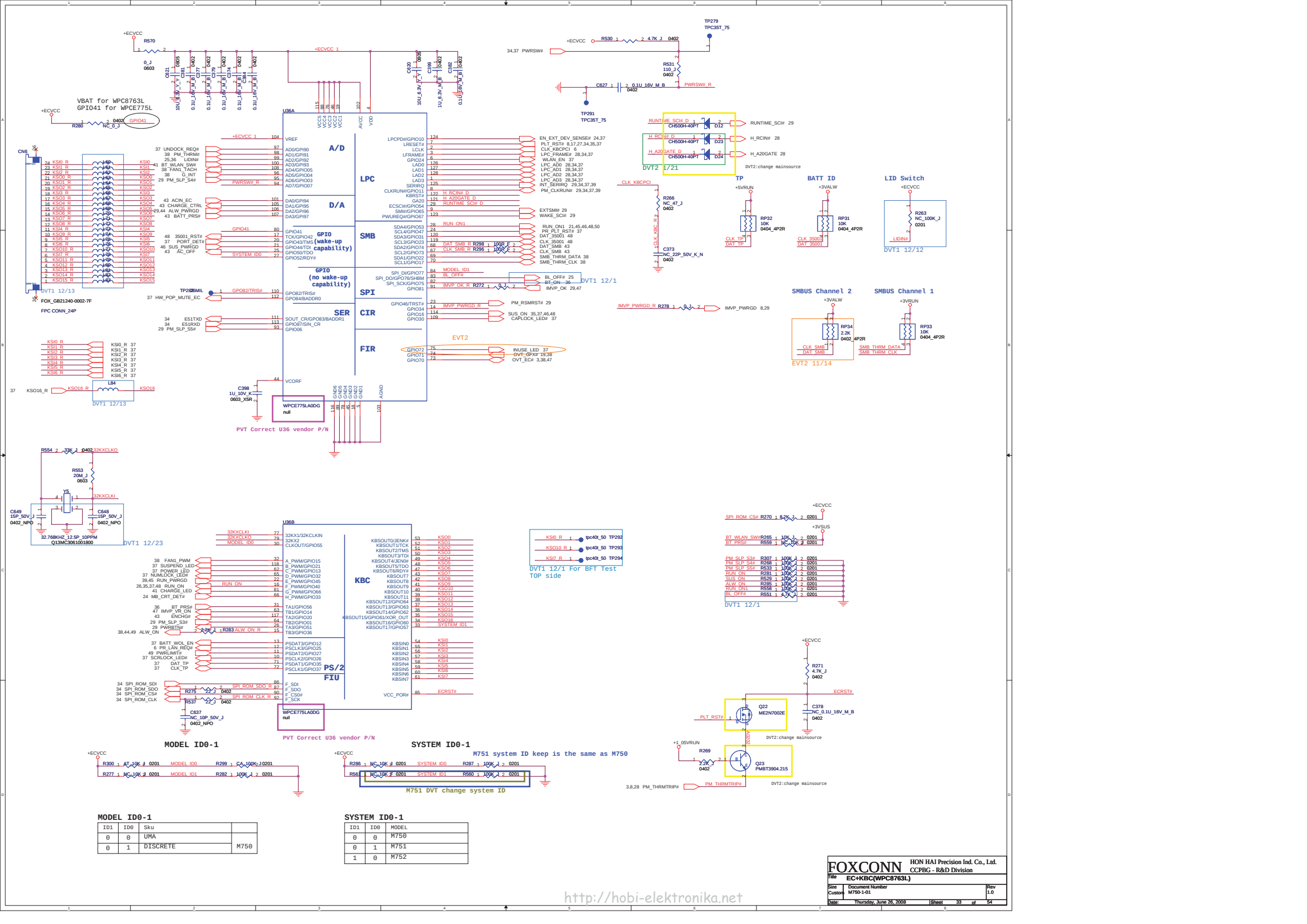
SATA HDD CONN





SATA ODD CONN

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: SATA HDD/ODD		
Size: A3	Document Number: M750-1-01	Rev: 1.0
Date: Monday, June 23, 2008	Sheet 32 of 54	



MODEL ID0-1			
ID1	ID0	Sku	
0	0	UMA	M750
0	1	DISCRETE	

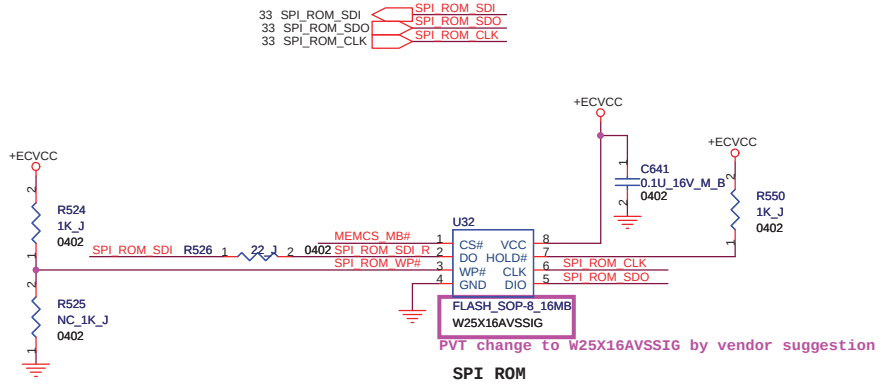
SYSTEM ID0-1		
ID1	ID0	MODEL
0	0	M750
0	1	M751
1	0	M752

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

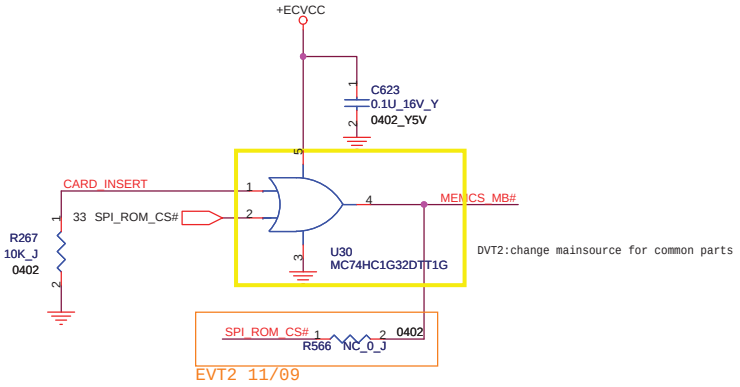
Title: EC+KBC(WPC8763L)

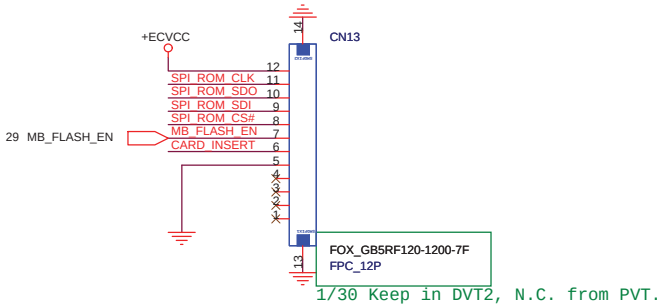
Size: Custom | Document Number: M750-1-01 | Rev: 1.0

Date: Thursday, June 26, 2008 | Sheet 33 of 54

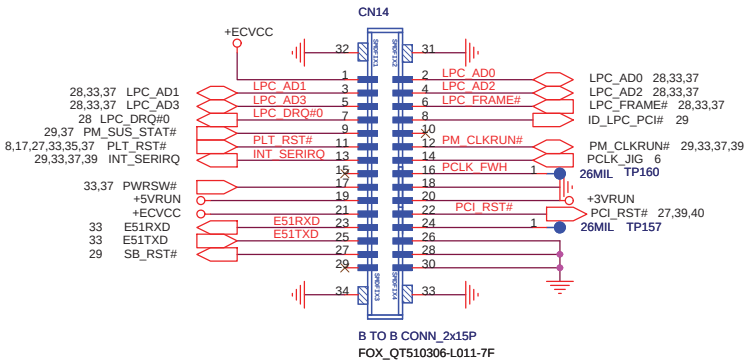


SPI ROM





EXTERNAL SPI ROM INTERFACE

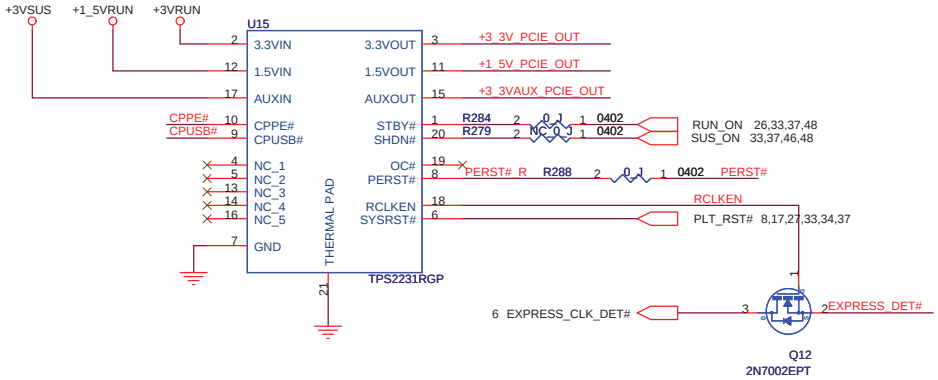


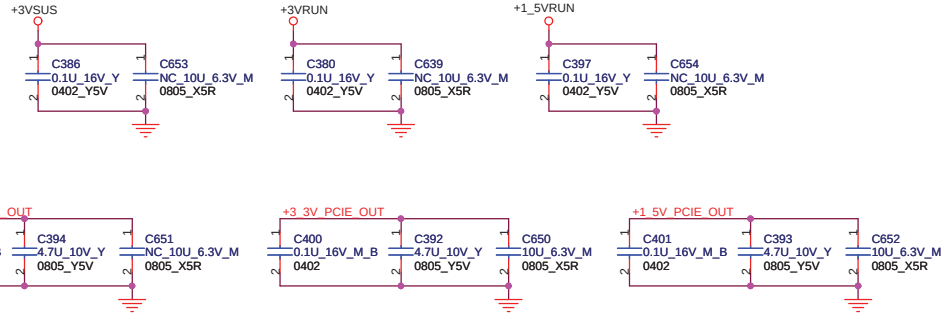
JIG-120

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	BIOS ROM/DEBUG PORT	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 34 of 54	

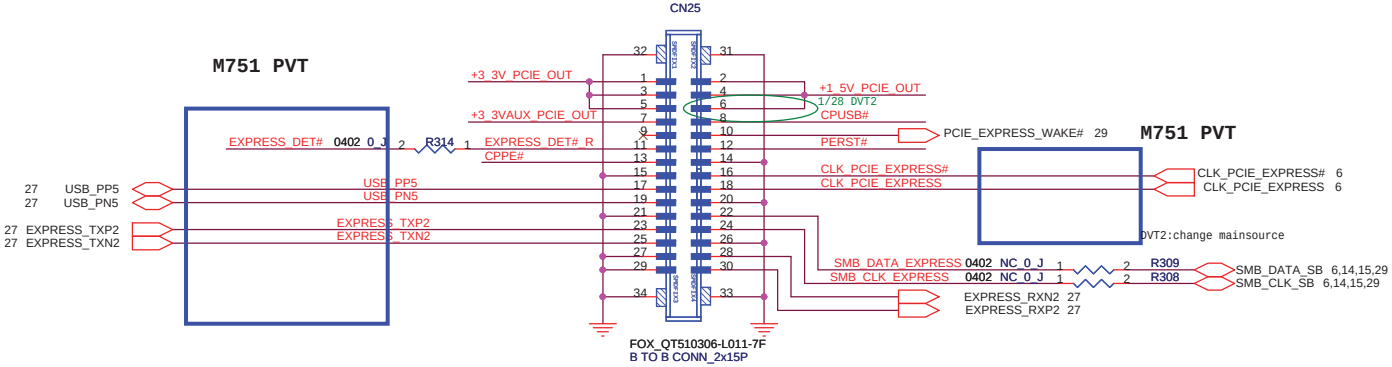
+1_5V=>0.65A
+3_3VAux=>0.275A
+3_3V=>1.3A

Express Card Power Switch





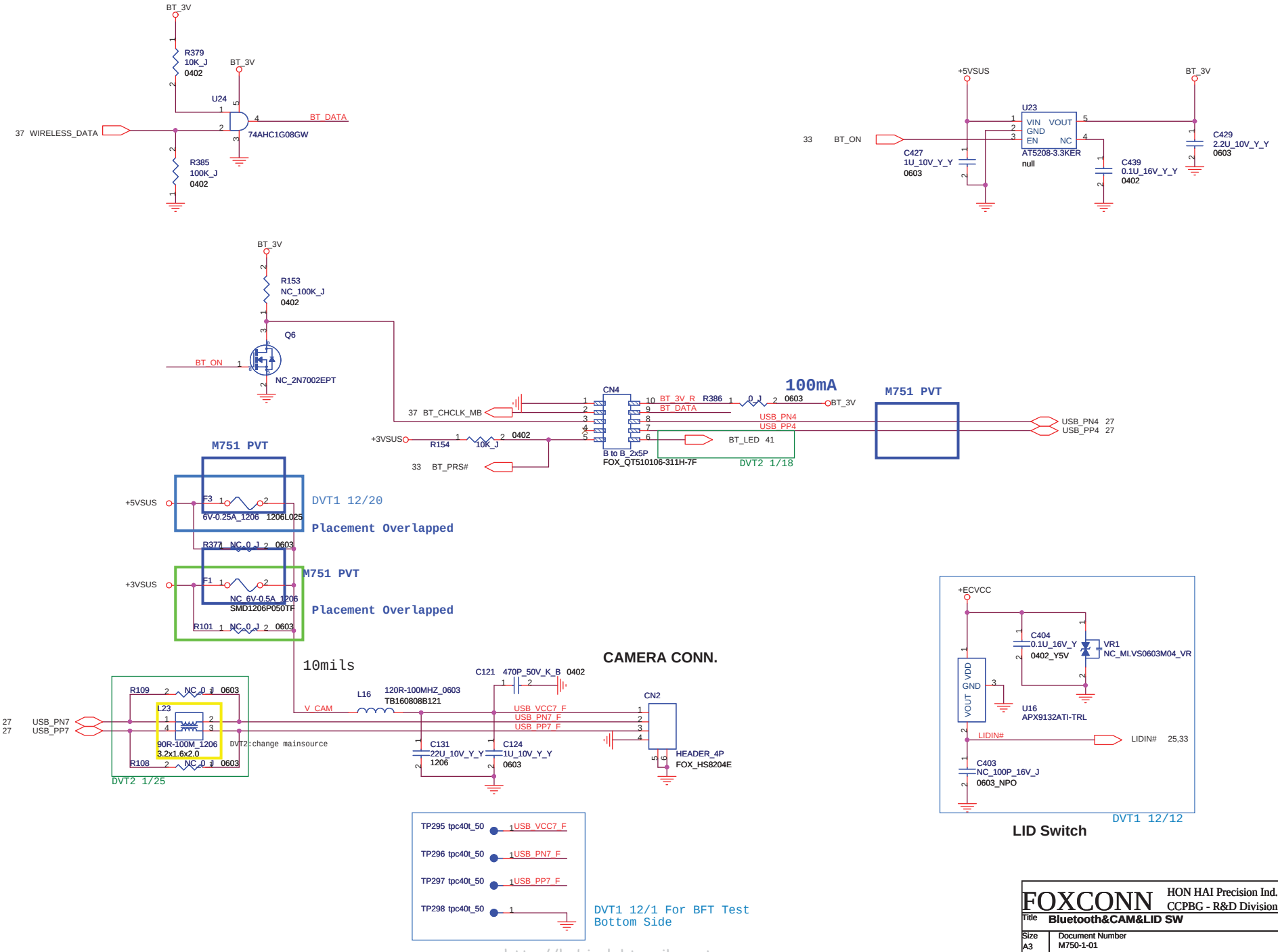
M751 PVT



Express Card FPC.

EVT2 10/24 Change to BTB

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	EXPRESS CARD	
Size A3	Document Number M750-1-01	Rev 0.1
Date: Monday, June 23, 2008	Sheet 35 of 54	



DVT2 1/28

PVT add for power short FFC smoke

Button Board FUNCTION TBD

PVT add for power short FFC smoke

Audio Board Connector

DVT1 12/23 For EMI

USB board connector

EVT2 10/24 Change to BTB

Power LED (GREEN)
Suspend LED (Amber)

DVT1 12/1 For BFT Test
Bottom Side

PVT add for power short FFC smoke

DVT1 12/17

DVT2 change to TB160808B100 for cost down

M751 DVT changed for EMI

DVT1 12/23 For EMI

TPM Connector

EVT2 10/24 Change to BTB

Reserved For EMI

PVT add for power short FFC smoke

EVT2 10/24

EVT2 11/08

DVT2 1/26, for pin material match.

Touch Pad Board Connector

DVT1 12/07, TPM Nut

Reserved For EMI

DVT1 12/27

Docking Station Connector

EVT2

DVT2:change mainsource

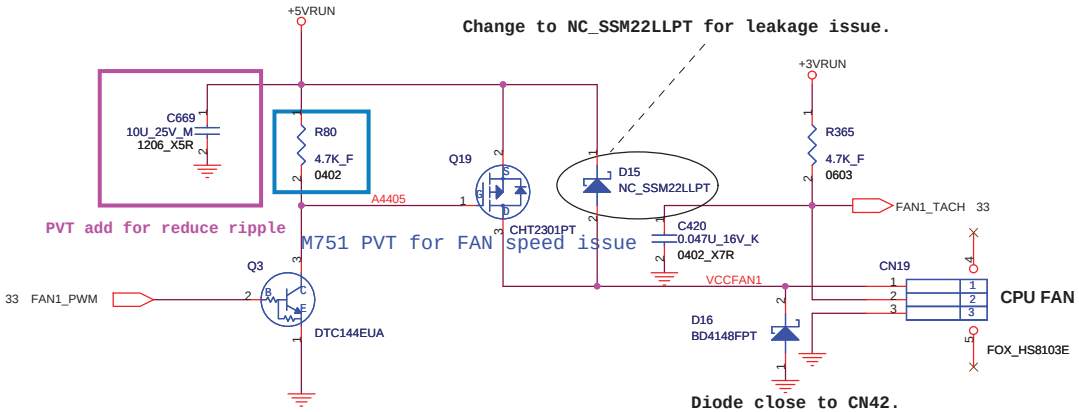
FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title: DB connector & Docking

Size: A3 | Document Number: M750-1-01 | Rev: 1.0

Date: Monday, June 23, 2008 | Sheet 37 of 54

HW THERMAL PROTECTION

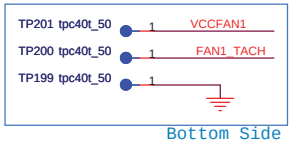


Change to NC_SSM22LLPT for leakage issue.

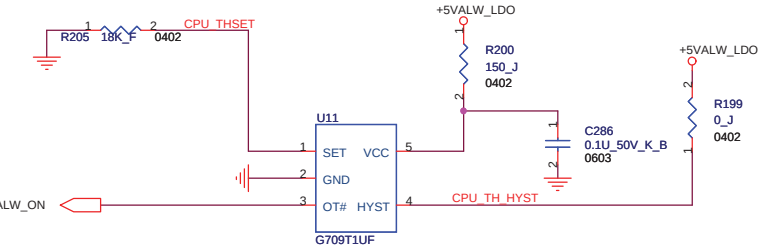
PVT add for reduce ripple

M751 PVT for FAN speed issue

Diode close to CN42.



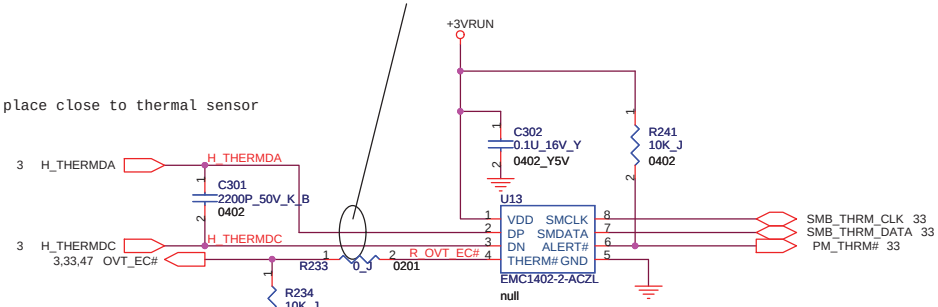
Bottom Side



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

W/S:10/10 (microstrip)

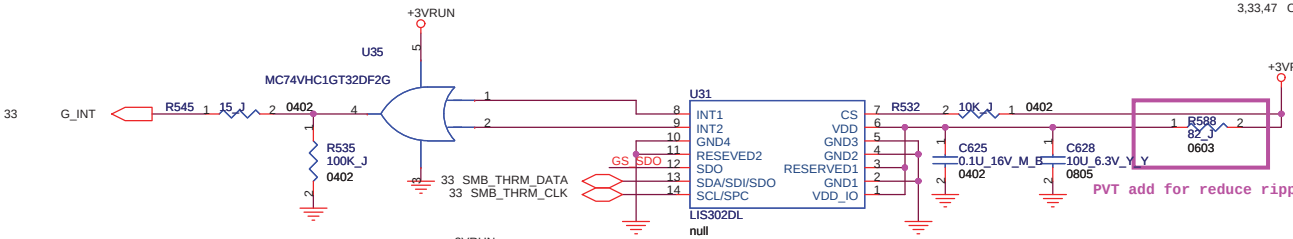
place close to thermal sensor



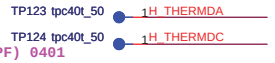
SMBus Address: 9AH

CPU Thermal-Sensor

Place Thermal-Sensor near GMCH.

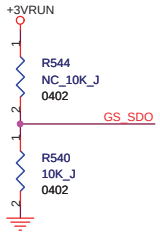


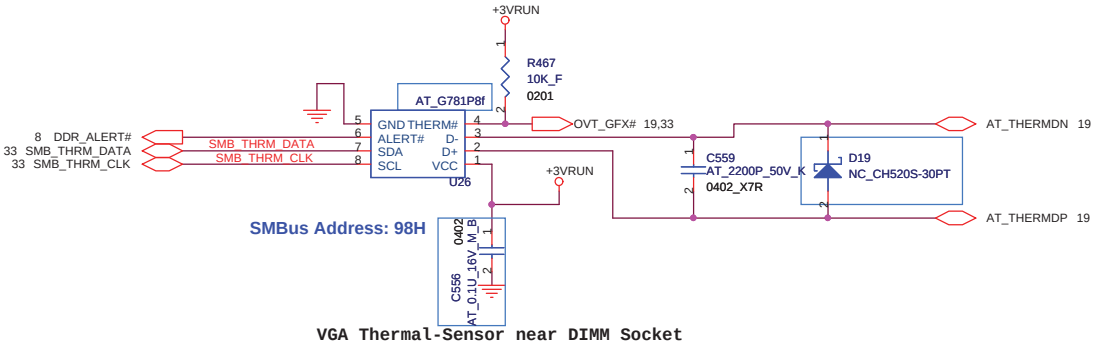
PVT add for reduce ripple(LPF) 0401



G-Sensor

SMBus Address: 38H



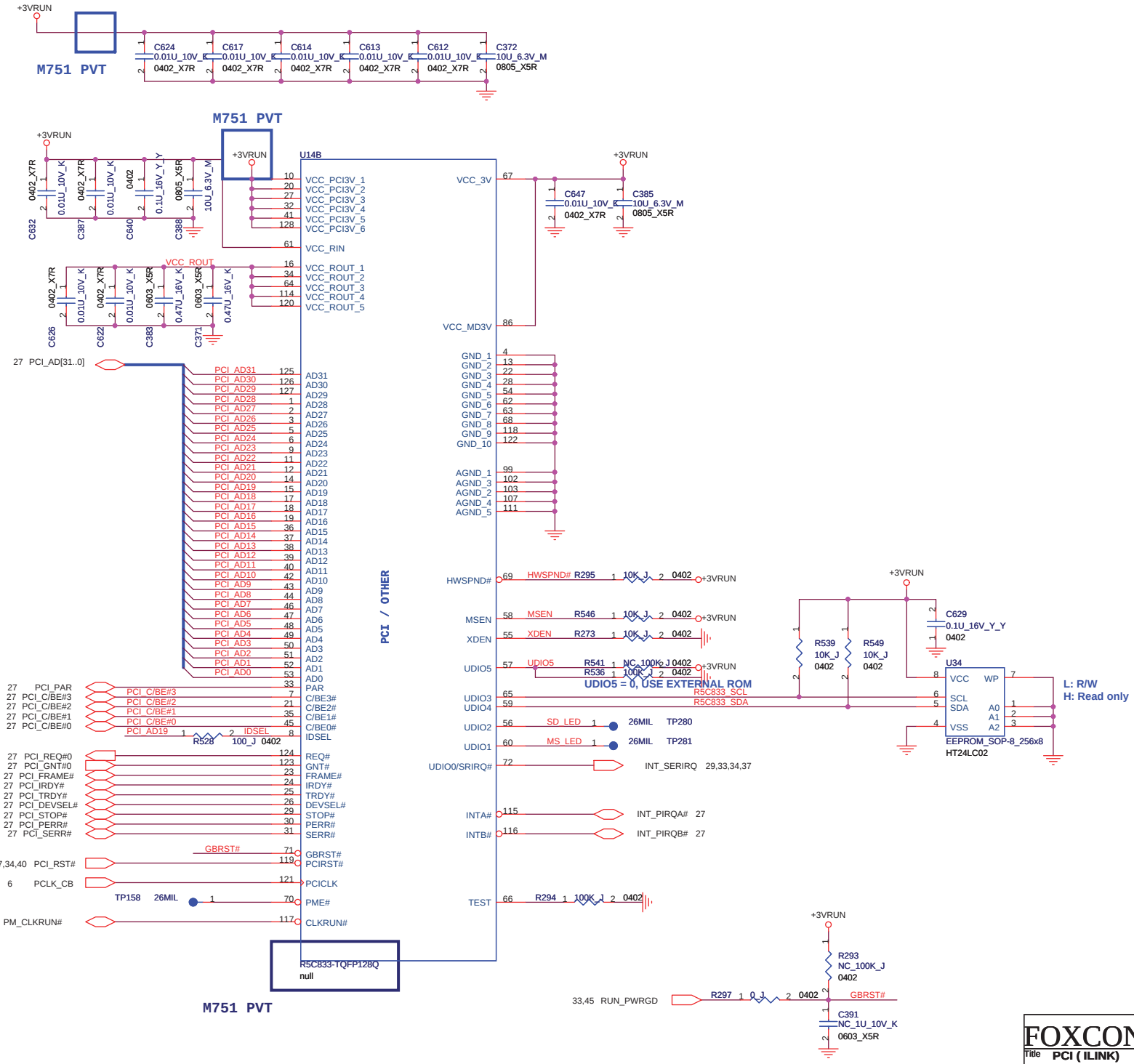


SMBus Address: 98H

VGA Thermal-Sensor near DIMM Socket

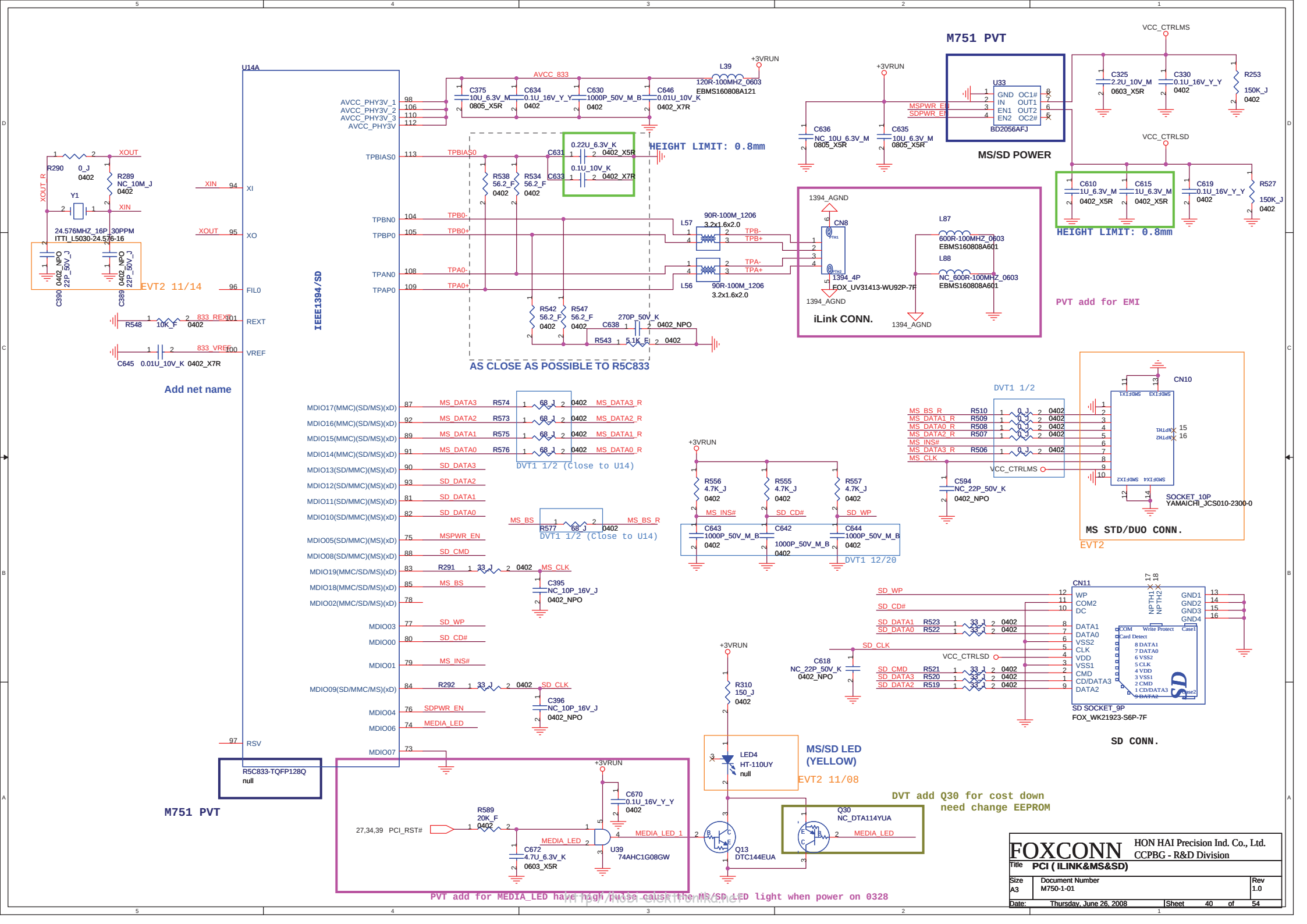
FOXCONN HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

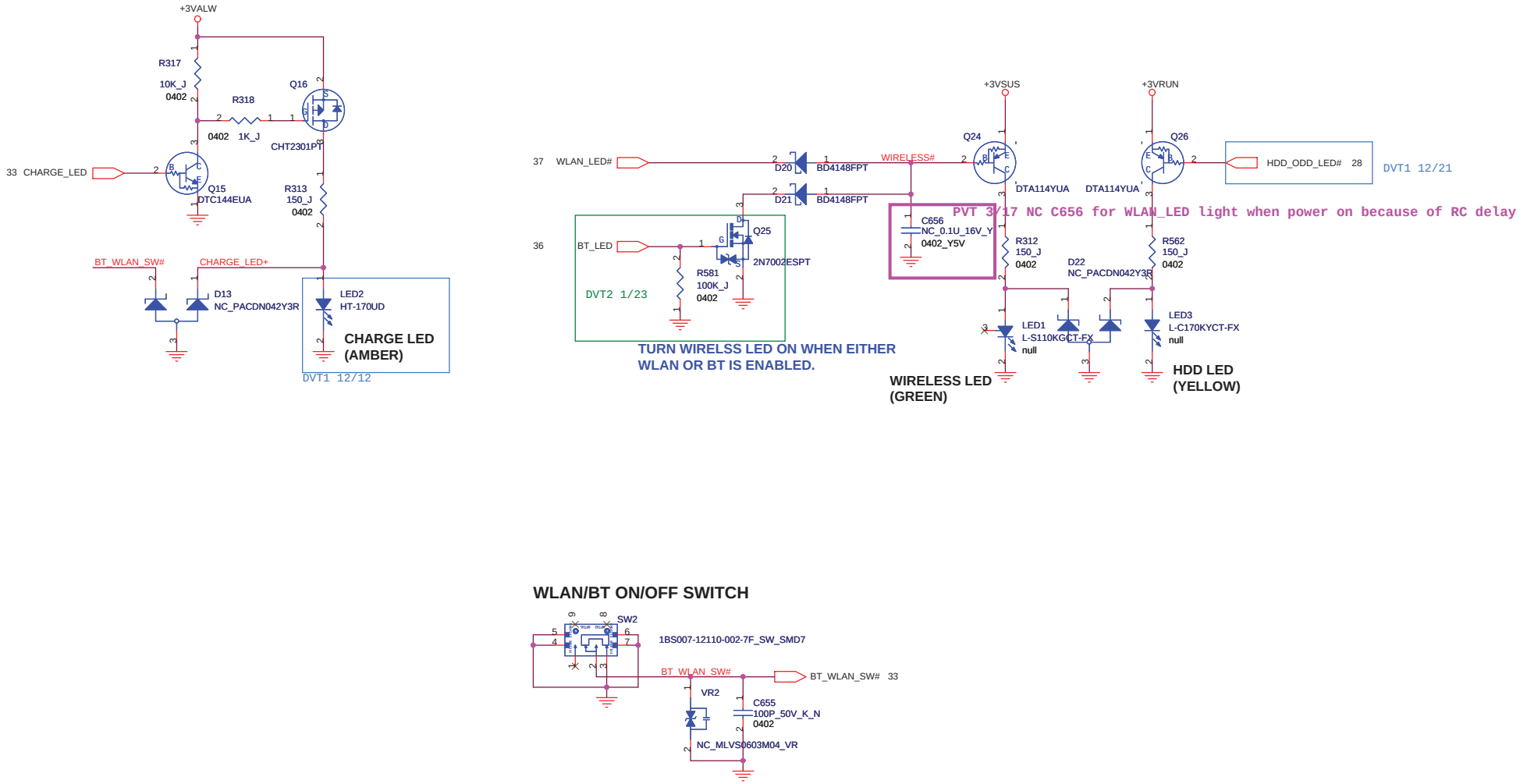
Title	FAN/Thermal & G-Sensor	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Thursday, June 26, 2008	Sheet 38 of 54	



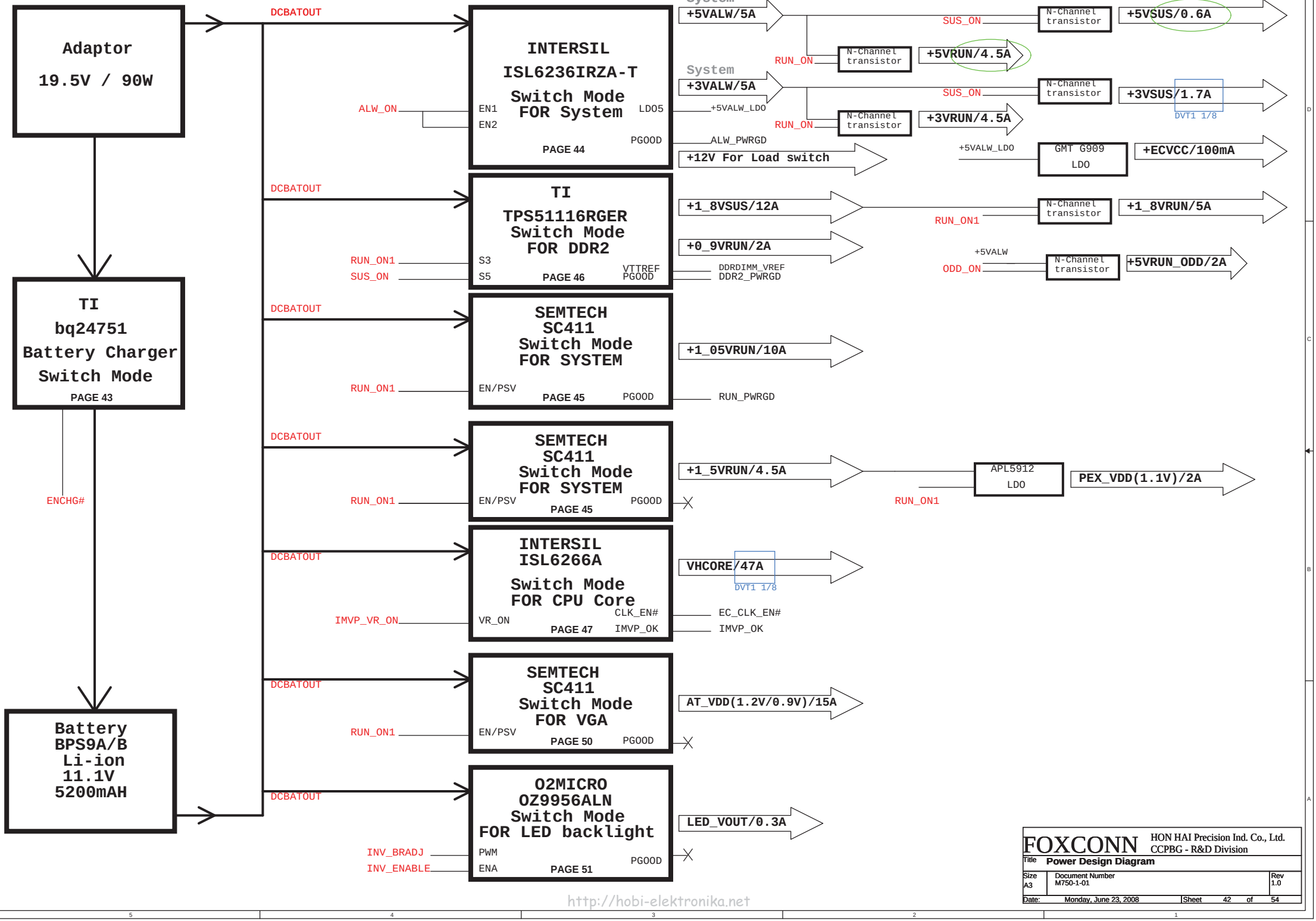
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	PCI (ILINK)	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Tuesday, June 24, 2008	Sheet 39 of 54	


M751 PVT
U14A
IEEE1394/SD
R5C833-TQFP128Q
null
M751 PVT
Add net name
EVT2 11/14
24.576MHZ_16P_30PPM
ITTI_L5030-24.576-16
HEIGHT LIMIT: 0.8mm
AS CLOSE AS POSSIBLE TO R5C833
iLink CONN.
1394_4P
FOX_UV31413-WU92P-7F
PVT add for EMI
MS/SD POWER
BD2056AFJ
HEIGHT LIMIT: 0.8mm
DVT1 1/2 (Close to U14)
DVT1 12/20
MS STD/DUO CONN.
EVT2
SOCKET_10P
YAMAICHI_JCS010-2300-0
SD SOCKET_9P
FOX_WK21923-S6P-7F
SD CONN.
MS/SD LED
(YELLOW)
EVT2 11/08
LED4
HT-110UY
DVT add Q30 for cost down
need change EEPROM
Q30
NC_DTA114YUA
Q13
DTC144EUA
U39
74AHC1G08GW
PVT add for MEDIA_LED have high pulse cause the MS/SD LED light when power on 0328
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
PCI (ILINK&MS&SD)
Size A3
Document Number M750-1-01
Rev 1.0
Date: Thursday, June 26, 2008
Sheet 40 of 54

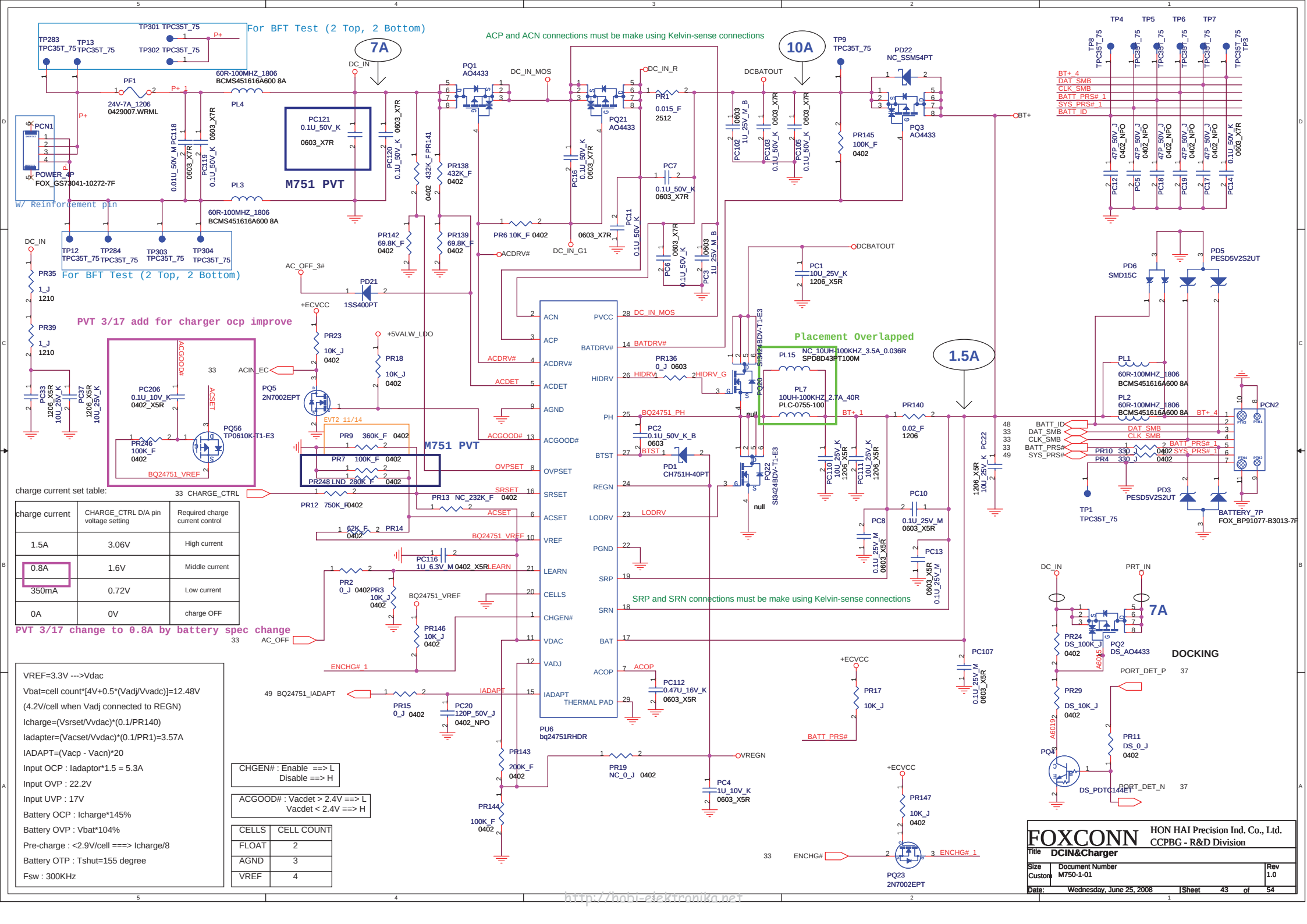


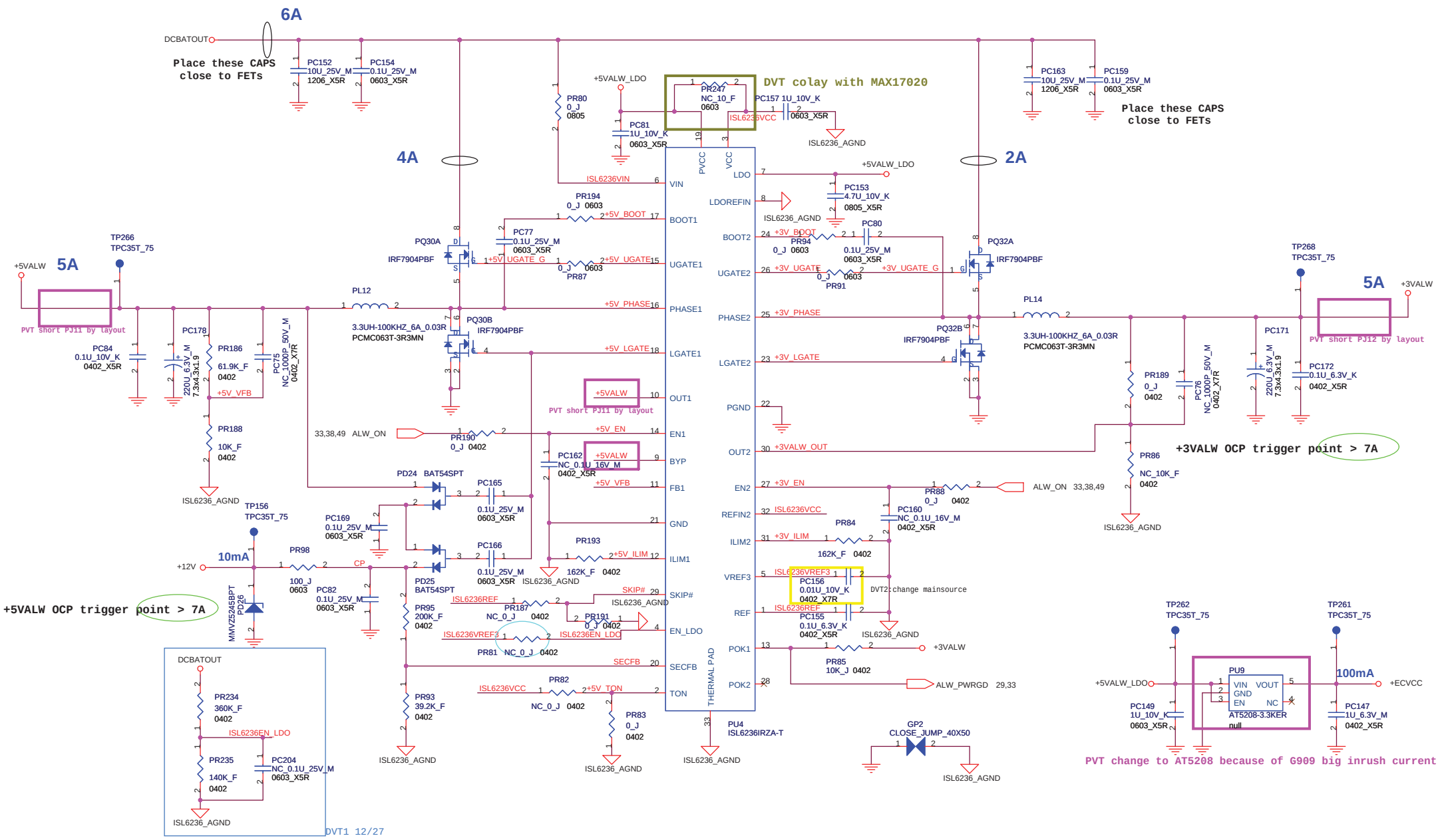
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	LED & Switch	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 41 of 54	



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

Title	Power Design Diagram	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 42 of 54	


For BFT Test (2 Top, 2 Bottom)
ACP and ACN connections must be make using Kelvin-sense connections
7A
10A
1.5A
M751 PVT
PVT 3/17 add for charger ocp improve
Placement Overlapped
SRP and SRN connections must be make using Kelvin-sense connections
PVT 3/17 change to 0.8A by battery spec change
DOCKING
charge current set table:
charge current | CHARGE_CTRL D/A pin voltage setting | Required charge current control
1.5A | 3.06V | High current
0.8A | 1.6V | Middle current
350mA | 0.72V | Low current
0A | 0V | charge OFF
VREF=3.3V ---->Vdac
Vbat=cell count*[4V+0.5*(Vadj/Vvadc)]=12.48V
(4.2V/cell when Vadj connected to REGN)
Icharge=(Vsrset/Vvdac)*(0.1/PR140)
Iadapter=(Vacset/Vvdac)*(0.1/PR1)=3.57A
IADAPT=(Vacp - Vacn)*20
Input OCP : Iadaptor*1.5 = 5.3A
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
CHGEN# : Enable ==> L
Disable ==> H
ACGOOD# : Vacdet > 2.4V ==> L
Vacdet < 2.4V ==> H
CELLS | CELL COUNT
FLOAT | 2
AGND | 3
VREF | 4
PU6 bq24751RHDR
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title DCIN&Charger
Size Custom
Document Number M750-1-01
Rev 1.0
Date: Wednesday, June 25, 2008
Sheet 43 of 54
http://hobi-elektronika.net



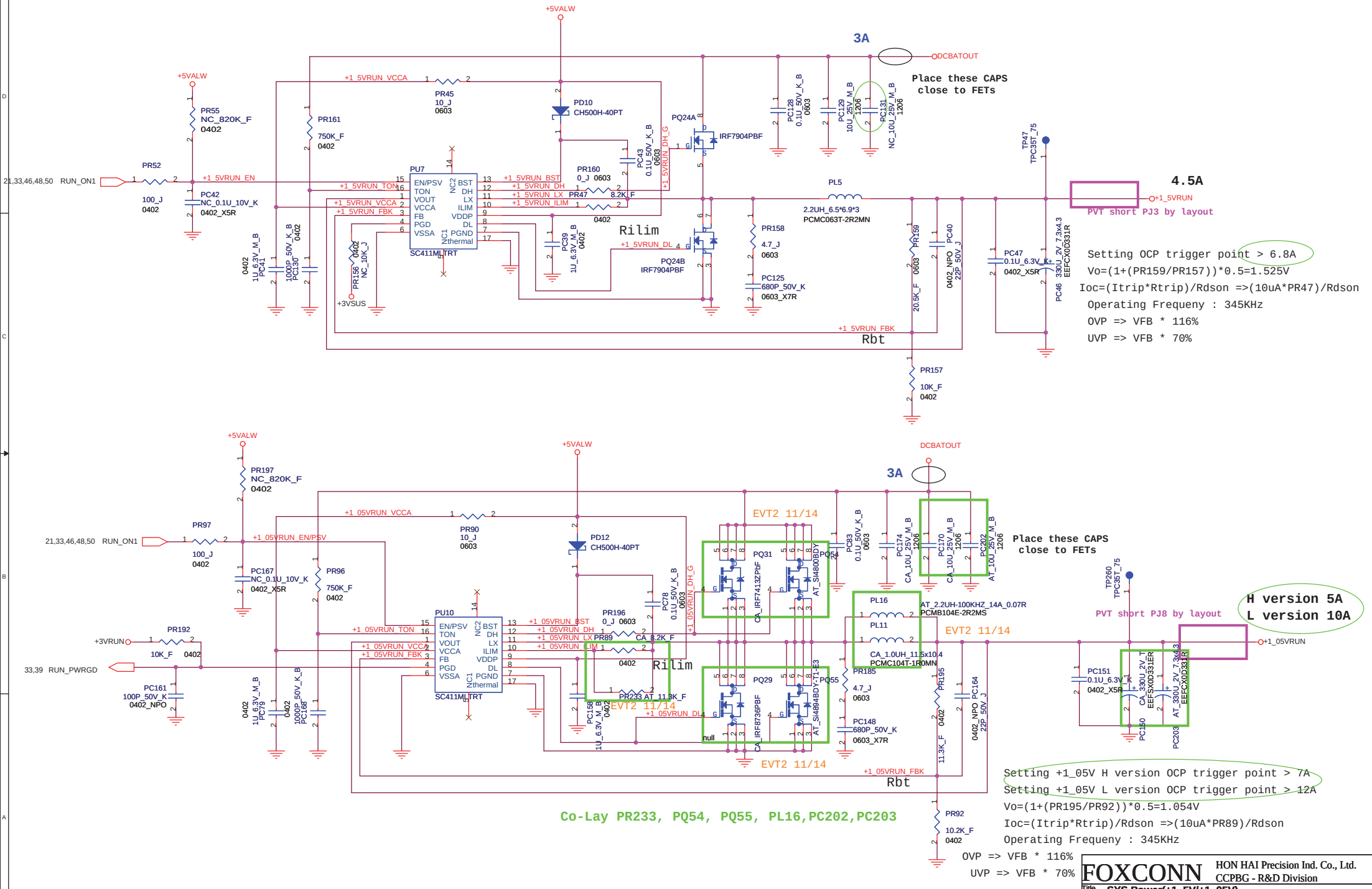
TON	Operating Frequence (+5VALW/+3VALW)
VCC	200KHz/300KHz
REF(OPEN)	400KHz/300KHz
GND	400KHz/500KHz

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

L=VOUT(VIN-VOUT)/(VIN*f*LIR*ILOAD(MAX))
Rocp=(Iocp-Iripple/2)*(10*Rds(on))/5u
+5VALW=((PR186/PR188)+1)*VFB1

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

Title	SYS Power (+3_3V/+5V)	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 44 of 54	


3A
DCBATOUT
Place these CAPS close to FETs
4.5A
+1_5VRUN
PVT short PJ3 by layout
Setting OCP trigger point > 6.8A
Vo=(1+(PR159/PR157))*0.5=1.525V
Ioc=(Itrip*Rtrip)/Rdson =>(10uA*PR47)/Rdson
Operating Frequeny : 345KHz
OVP => VFB * 116%
UVP => VFB * 70%
Rilim
Rbt
SC411MLTRT
PU7
PR52
PR55 NC_820K_F 0402
PR161 750K_F 0402
PR45 10_J 0603
PD10 CH500H-40PT
PQ24A IRF7904PBF
PQ24B IRF7904PBF
PL5 2.2UH_6.5*6.9*3 PCMC063T-2R2MN
PR47 8.2K_F 0402
PR160 0_J 0603
PR158 4.7_J 0603
PR159 20.5K_F 0603
PR157 10K_F 0402
PC42 NC_0.1U_10V_K 0402_X5R
PC125 680P_50V_K 0603_X7R
PC47 0.1U_6.3V_K 0402_X5R
PC46 330U_2V_7.3x4.3 EEFCX0D331R
TP47 TPC35T_75
+5VALW
+3VSUS
21,33,46,48,50 RUN_ON1
+1_5VRUN_EN
+1_5VRUN_VCCA
+1_5VRUN_FBK
+1_5VRUN_TON
+1_5VRUN_BST
+1_5VRUN_DH
+1_5VRUN_LX
+1_5VRUN_ILIM
+1_5VRUN_DL
EVT2 11/14
H version 5A
L version 10A
PU10
PR197 NC_820K_F 0402
PR97 100_J 0402
PR96 750K_F 0402
PR90 10_J 0603
PD12 CH500H-40PT
PR89 CA_8.2K_F 0402
PR196 0_J 0603
PR233 AT_11.3K_F 0402
PR185 4.7_J 0603
PR195 11.3K_F 0402
PR92 10.2K_F 0402
PR192 10K_F 0402
PR161 100P_50V_K 0402_NPO
PC167 NC_0.1U_10V_K 0402_X5R
PC148 680P_50V_K 0603_X7R
PC151 0.1U_6.3V_K 0402_X5R
PQ31 PQ54 PQ29 PQ55
CA_IRF7413ZPbF
AT_SI4800BDY
CA_IRF8736PBF
AT_SI4894BDY-T1-E3
PL16 AT_2.2UH-100KHZ_14A_0.07R PCMB104E-2R2MS
PL11 CA_1.0UH_11.5x10.4 PCMC104T-1R0MN
PC83 0.1U_50V_K_B 0603
PC174 CA_10U_25V_M_B 1206
PC170 CA_10U_25V_M_B 1206
PC202 AT_10U_25V_M_B 1206
PC78 0.1U_50V_K_B 0603
PC158 1U_6.3V_M_B 0402
PC150 CA_330U_2V_T EEFSX0D331ER
PC203 AT_330U_2V_7.3x4.3 EEFCX0D331R
TP260 TPC35T_75
+3VRUN
33,39 RUN_PWRGD
+1_05VRUN_VCCA
+1_05VRUN_FBK
+1_05VRUN_TON
+1_05VRUN_BST
+1_05VRUN_DH
+1_05VRUN_LX
+1_05VRUN_LIM
+1_05VRUN_DL
+1_05VRUN_EN/PSV
+1_05VRUN
PVT short PJ8 by layout
Setting +1_05V H version OCP trigger point > 7A
Setting +1_05V L version OCP trigger point > 12A
Vo=(1+(PR195/PR92))*0.5=1.054V
Ioc=(Itrip*Rtrip)/Rdson =>(10uA*PR89)/Rdson
Operating Frequeny : 345KHz
OVP => VFB * 116%
UVP => VFB * 70%
Co-Lay PR233, PQ54, PQ55, PL16,PC202,PC203
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title SYS Power(+1_5V/+1_05V)
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
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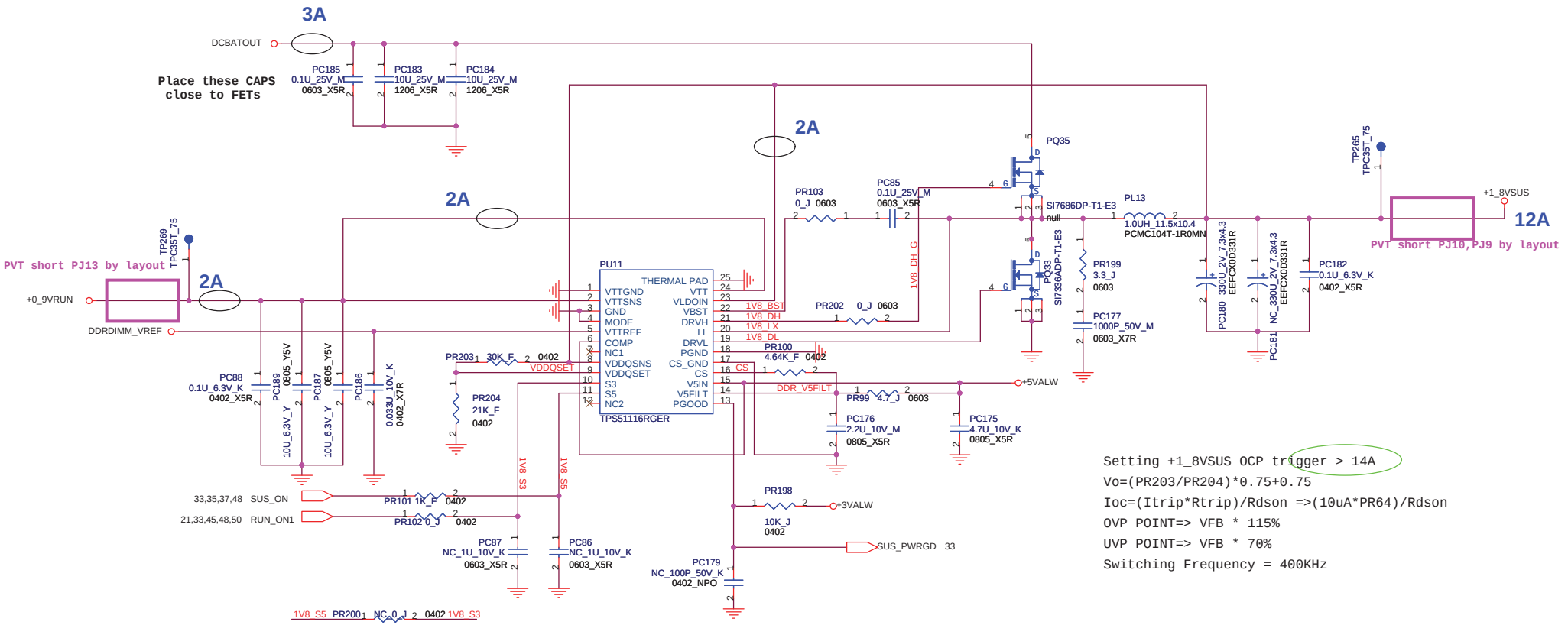
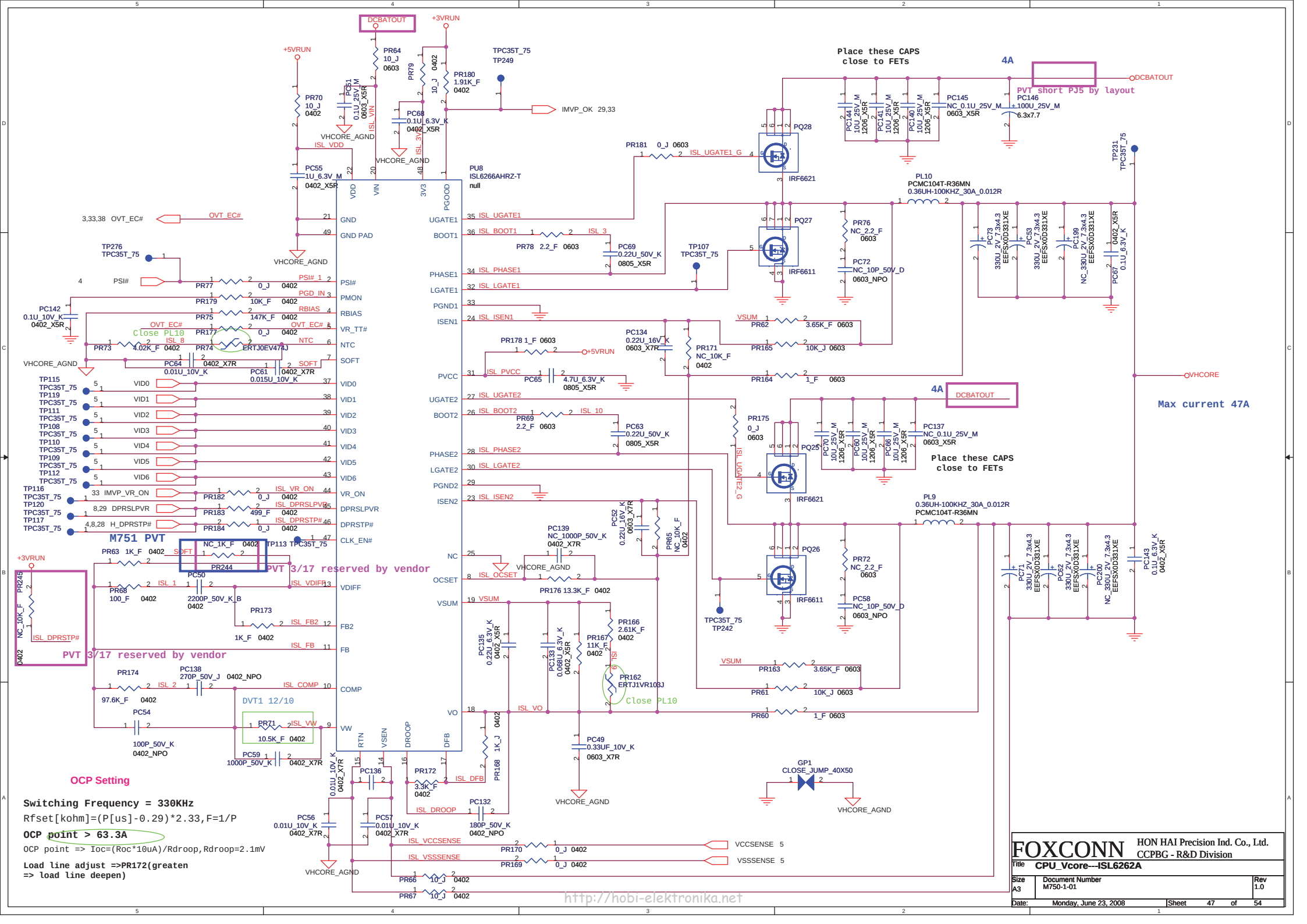
http://hobi-elektronika.net



Setting +1_8VSUS OCP trigger > 14A
Vo=(PR203/PR204)*0.75+0.75
Ioc=(Itrip*Rtrip)/Rdson =>(10uA*PR64)/Rdson
OVP POINT=> VFB * 115%
UVP POINT=> VFB * 70%
Switching Frequency = 400KHz

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	DDR2 Power(+1_8V/+0_9V)	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 46 of 54	


DCBATOUT
+3VRUN
+5VRUN
PR64 10_J 0603
PR79 10_J 0402
PR180 1.91K_F 0402
TPC35T_75 TP249
IMVP_OK 29,33
PR70 10_J 0402
PC51 0.1U_25V_M 0603_X5R
ISL_VIN
PC68 0.1U_6.3V_K 0402_X5R
ISL_3V3
VHCORE_AGND
ISL_VDD
PC55 1U_6.3V_M 0402_X5R
PU8 ISL6266AHRZ-T null
VDD
VIN
3V3
PGOOD
3,33,38 OVT_EC#
OVT_EC#
GND
GND PAD
TP276 TPC35T_75
PSI#
PR77 0_J 0402
PSI# 1
PSI#
PGD_IN
PMON
PC142 0.1U_10V_K 0402_X5R
RBIAS
PR179 10K_F 0402
PR75 147K_F 0402
OVT_EC#
Close PL10
PR177 0_J 0402
OVT_EC# 5
VR_TT#
ISL_8
PR73 4.02K_F 0402
PR74 ERTJ0EV474J
NTC
PC64 0.01U_10V_K
PC61 0.015U_10V_K
SOFT
TP115 TPC35T_75
TP119 TPC35T_75
TP111 TPC35T_75
TP108 TPC35T_75
TP110 TPC35T_75
TP109 TPC35T_75
TP112 TPC35T_75
VID0
VID1
VID2
VID3
VID4
VID5
VID6
TP116 TPC35T_75
TP120 TPC35T_75
TP117 TPC35T_75
33 IMVP_VR_ON
8,29 DPRSLPVR
4,8,28 H_DPRSTP#
PR182 0_J 0402
ISL_VR_ON
PR183 499_F 0402
ISL_DPRSLPVR
PR184 0_J 0402
ISL_DPRSTP#
VR_ON
DPRSLPVR
DPRSTP#
CLK_EN#
M751 PVT
PR63 1K_F 0402
SOFT
NC_1K_F 0402
TP113 TPC35T_75
PR244
PVT 3/17 reserved by vendor
PC50 2200P_50V_K_B 0402
PR68 100_F 0402
ISL_1
ISL_VDIFF
VDIFF
PR173 1K_F 0402
ISL_FB2
FB2
ISL_FB
FB
PR174 97.6K_F 0402
ISL_2
PC138 270P_50V_J 0402_NPO
ISL_COMP
COMP
DVT1 12/10
PC54 100P_50V_K 0402_NPO
PR71 10.5K_F 0402
ISL_VW
VW
PC59 1000P_50V_K 0402_X7R
RTN
VSEN
DROOP
DFB
PC136
PR172 3.3K_F 0402
ISL_DFB
ISL_DROOP
PC132 180P_50V_K 0402_NPO
PR168 1K_J 0402
PC56 0.01U_10V_K 0402_X7R
PC57 0.01U_10V_K 0402_X7R
ISL_VCCSENSE
ISL_VSSSENSE
PR170 0_J 0402
PR169 0_J 0402
VCCSENSE 5
VSSSENSE 5
PR66 10_J 0402
PR67 10_J 0402
OCP Setting
Switching Frequency = 330KHz
Rfset[kohm]=(P[us]-0.29)*2.33,F=1/P
OCP point > 63.3A
OCP point => Ioc=(Roc*10uA)/Rdroop,Rdroop=2.1mV
Load line adjust =>PR172(greaten
=> load line deepen)
UGATE1
BOOT1
PHASE1
LGATE1
PGND1
ISEN1
PVCC
UGATE2
BOOT2
PHASE2
LGATE2
PGND2
ISEN2
NC
OCSET
VSUM
ISL_UGATE1
ISL_BOOT1
ISL_PHASE1
ISL_LGATE1
ISL_ISEN1
ISL_PVCC
ISL_UGATE2
ISL_BOOT2
ISL_PHASE2
ISL_LGATE2
ISL_ISEN2
ISL_OCSET
ISL_VO
PR78 2.2_F 0603
PC69 0.22U_50V_K 0805_X5R
PR69 2.2_F 0603
PC63 0.22U_50V_K 0805_X5R
PR178 1_F 0603
PC65 4.7U_6.3V_K 0805_X5R
PC134 0.22U_16V_K 0603_X7R
PR171 NC_10K_F 0402
PR62 3.65K_F 0603
PR165 10K_J 0603
PR164 1_F 0603
PC52 0.22U_16V_K 0603_X7R
PR65 NC_10K_F 0402
PC139 NC_1000P_50V_K 0402_X7R
PR176 13.3K_F 0402
PC135 0.22U_6.3V_K 0402_X5R
PC133 0.068U_6.3V_K 0402_X5R
PR167 11K_F 0402
PR166 2.61K_F 0402
PR162 ERTJ1VR103J
Close PL10
PC49 0.33UF_10V_K 0603_X7R
PR163 3.65K_F 0603
PR61 10K_J 0603
PR60 1_F 0603
GP1 CLOSE_JUMP_40X50
Place these CAPS close to FETs
4A
PVT short PJ5 by layout
PC144 10U_25V_M 1206_X5R
PC141 10U_25V_M 1206_X5R
PC140 10U_25V_M 1206_X5R
PC145 NC_0.1U_25V_M 0603_X5R
PC146 100U_25V_M 6.3x7.7
PQ28
IRF6621
PR181 0_J 0603
ISL_UGATE1_G
PQ27
IRF6611
PR76 NC_2.2_F 0603
PC72 NC_10P_50V_D 0603_NPO
PL10 PCMC104T-R36MN 0.36UH-100KHZ_30A_0.012R
PC73 330U_2V_7.3x4.3 EEFSX0D331XE
PC53 330U_2V_7.3x4.3 EEFSX0D331XE
PC139 NC_330U_2V_7.3x4.3 EEFSX0D331XE
PC67 0.1U_6.3V_K 0402_X5R
TP231 TPC35T_75
TP107 TPC35T_75
VSUM
VHCORE
Max current 47A
PR175 0_J 0603
ISL_UGATE2_G
PQ25
PQ26
IRF6621
IRF6611
PC70 10U_25V_M 1206_X5R
PC60 10U_25V_M 1206_X5R
PC66 10U_25V_M 1206_X5R
PC137 NC_0.1U_25V_M 0603_X5R
PR72 NC_2.2_F 0603
PC58 NC_10P_50V_D 0603_NPO
TPC35T_75 TP242
PL9 0.36UH-100KHZ_30A_0.012R PCMC104T-R36MN
PC71 330U_2V_7.3x4.3 EEFSX0D331XE
PC62 330U_2V_7.3x4.3 EEFSX0D331XE
PC200 NC_330U_2V_7.3x4.3 EEFSX0D331XE
PC143 0.1U_6.3V_K 0402_X5R
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title CPU_Vcore---ISL6262A
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
Sheet 47 of 54
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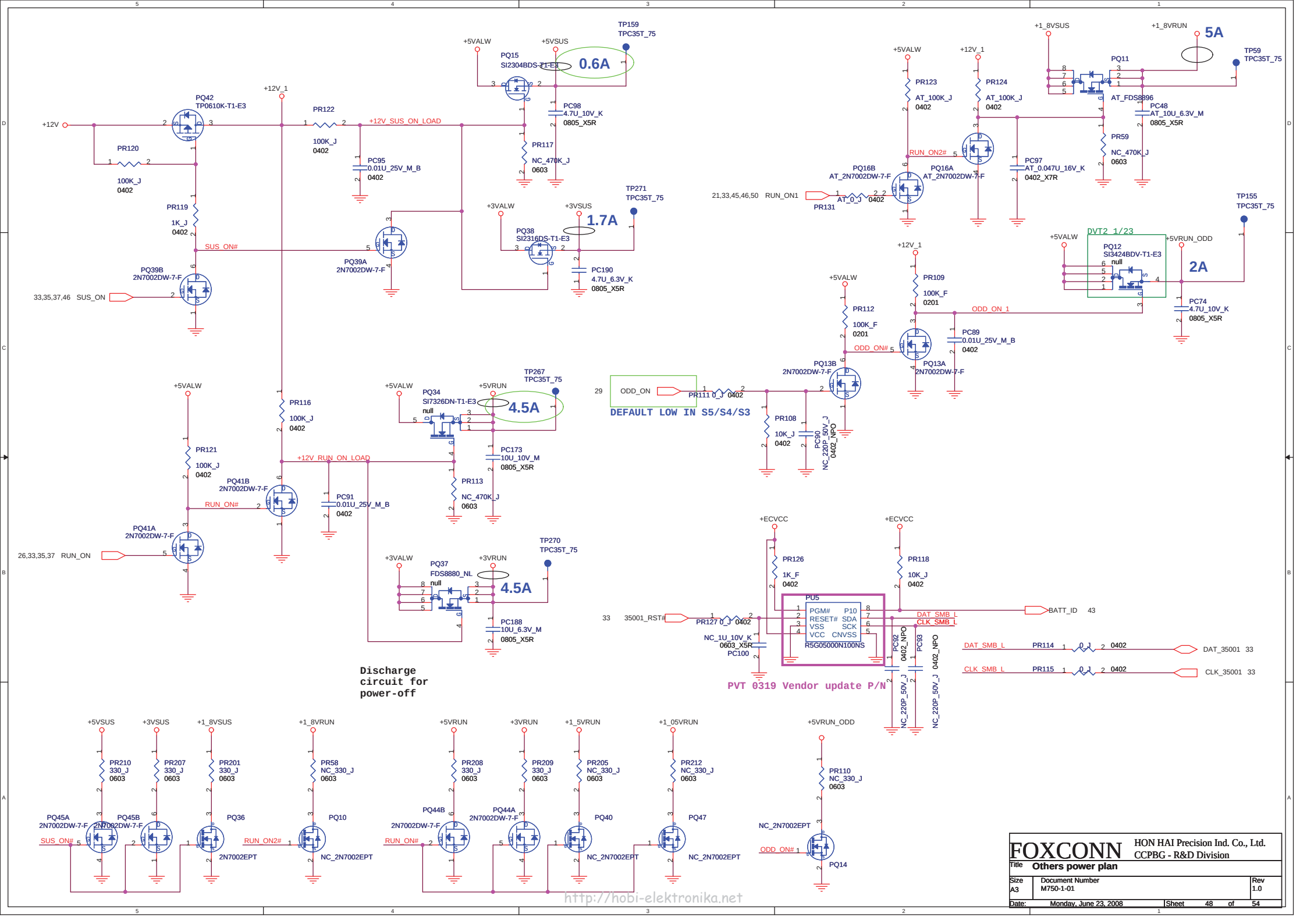
+12V
PQ42 TP0610K-T1-E3
PR120 100K_J 0402
PR119 1K_J 0402
SUS_ON#
PQ39B 2N7002DW-7-F
33,35,37,46 SUS_ON
+12V_1
PR122 100K_J 0402
+12V_SUS_ON_LOAD
PC95 0.01U_25V_M_B 0402
PQ39A 2N7002DW-7-F
+5VALW
+5VSUS
PQ15 SI2304BDS-T1-E3
0.6A
TP159 TPC35T_75
PC98 4.7U_10V_K 0805_X5R
PR117 NC_470K_J 0603
+3VALW
+3VSUS
PQ38 SI2316DS-T1-E3
1.7A
TP271 TPC35T_75
PC190 4.7U_6.3V_K 0805_X5R
+5VALW
PR121 100K_J 0402
PQ41B 2N7002DW-7-F
RUN_ON#
PQ41A 2N7002DW-7-F
26,33,35,37 RUN_ON
PR116 100K_J 0402
+12V_RUN_ON_LOAD
PC91 0.01U_25V_M_B 0402
+5VALW
+5VRUN
PQ34 SI7326DN-T1-E3 null
4.5A
TP267 TPC35T_75
PC173 10U_10V_M 0805_X5R
PR113 NC_470K_J 0603
+3VALW
+3VRUN
PQ37 FDS8880_NL null
4.5A
TP270 TPC35T_75
PC188 10U_6.3V_M 0805_X5R
Discharge circuit for power-off
+1_8VSUS
+1_8VRUN
5A
TP59 TPC35T_75
PQ11 AT_FDS8896
PC48 AT_10U_6.3V_M 0805_X5R
PR59 NC_470K_J 0603
+5VALW
+12V_1
PR123 AT_100K_J 0402
PR124 AT_100K_J 0402
RUN_ON2#
PQ16B AT_2N7002DW-7-F
PQ16A AT_2N7002DW-7-F
21,33,45,46,50 RUN_ON1
PR131 AT_0_J 0402
PC97 AT_0.047U_16V_K 0402_X7R
TP155 TPC35T_75
+5VALW
DVT2 1/23
PQ12 SI3424BDV-T1-E3 null
+5VRUN_ODD
2A
PC74 4.7U_10V_K 0805_X5R
+12V_1
PR109 100K_F 0201
ODD_ON_1
+5VALW
PR112 100K_F 0201
ODD_ON#
PC89 0.01U_25V_M_B 0402
PQ13B 2N7002DW-7-F
PQ13A 2N7002DW-7-F
29 ODD_ON
PR111 0_J 0402
DEFAULT LOW IN S5/S4/S3
PR108 10K_J 0402
PC90 NC_220P_50V_J 0402_NPO
+ECVCC
+ECVCC
PR126 1K_F 0402
PR118 10K_J 0402
PU5
PGM# P10
RESET# SDA
VSS SCK
VCC CNVSS
R5G05000N100NS
33 35001_RST#
PR127 0_J 0402
NC_1U_10V_K 0603_X5R PC100
BATT_ID 43
DAT_SMB_L
CLK_SMB_L
PC92 NC_220P_50V_J 0402_NPO
PC93 NC_220P_50V_J 0402_NPO
DAT_SMB_L PR114 0_J 0402 DAT_35001 33
CLK_SMB_L PR115 0_J 0402 CLK_35001 33
PVT 0319 Vendor update P/N
+5VSUS
+3VSUS
+1_8VSUS
+1_8VRUN
PR210 330_J 0603
PR207 330_J 0603
PR201 330_J 0603
PR58 NC_330_J 0603
PQ45A 2N7002DW-7-F
PQ45B 2N7002DW-7-F
PQ36
PQ10
SUS_ON#
RUN_ON2#
2N7002EPT
NC_2N7002EPT
+5VRUN
+3VRUN
+1_5VRUN
+1_05VRUN
PR208 330_J 0603
PR209 330_J 0603
PR205 NC_330_J 0603
PR212 NC_330_J 0603
PQ44B 2N7002DW-7-F
PQ44A 2N7002DW-7-F
PQ40
PQ47
RUN_ON#
NC_2N7002EPT
+5VRUN_ODD
PR110 NC_330_J 0603
NC_2N7002EPT
ODD_ON# 1
PQ14
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title Others power plan
Size A3
Document Number M750-1-01
Rev 1.0
Date: Monday, June 23, 2008
Sheet 48 of 54
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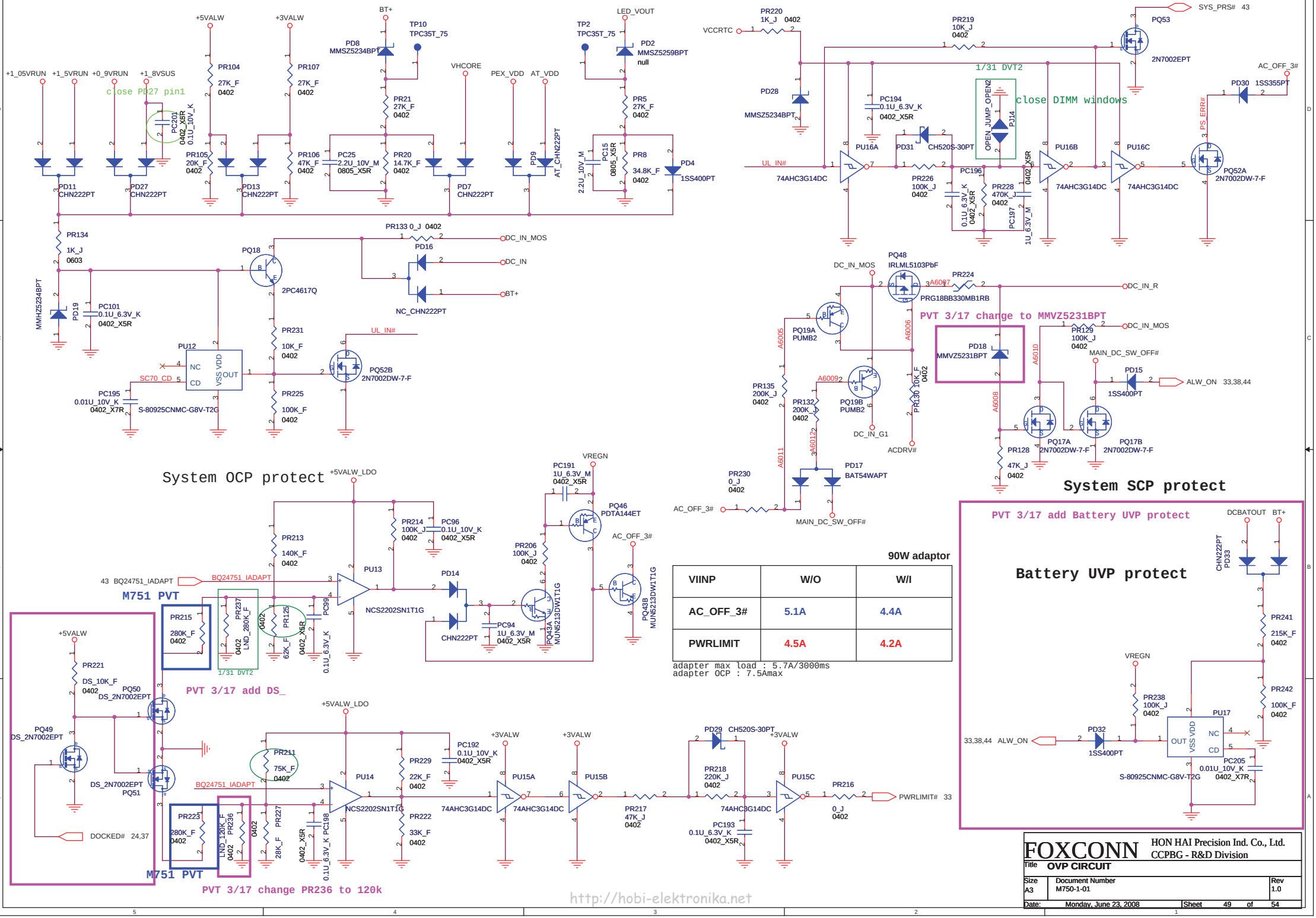
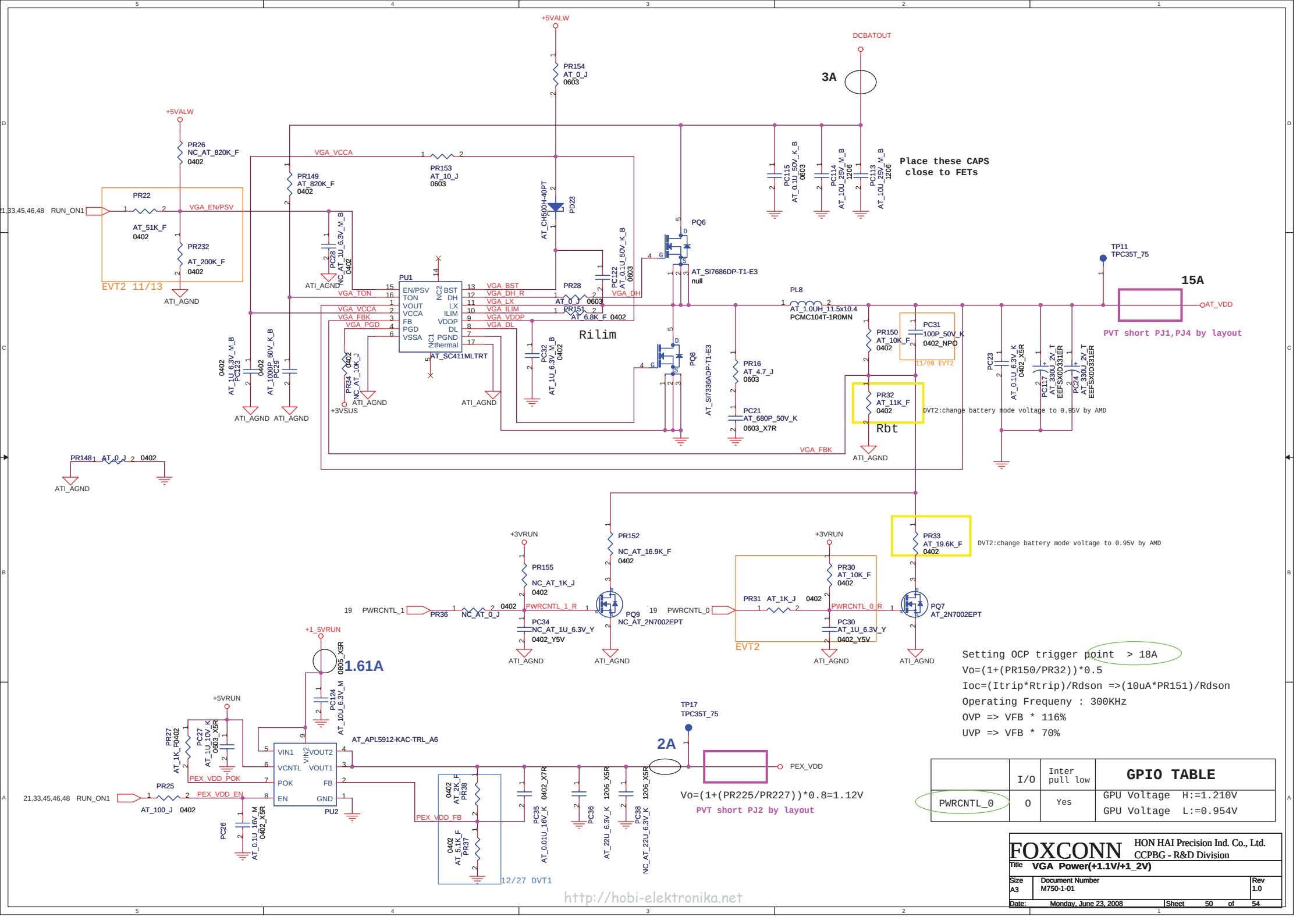
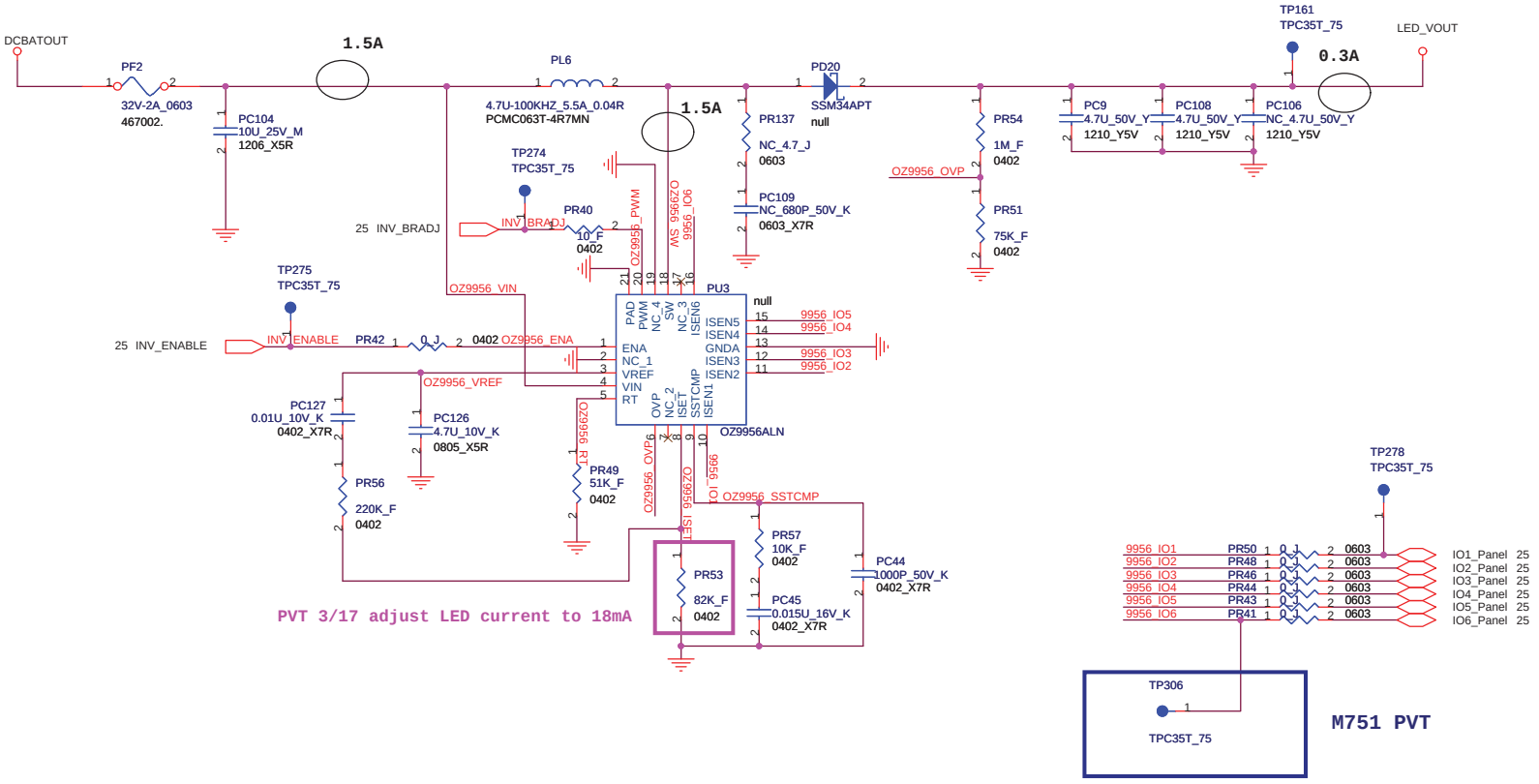


FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	OVP CIRCUIT	
Size A3	Document Number M750-1-01	Rev 1.0
Date: Monday, June 23, 2008	Sheet 49 of 54	





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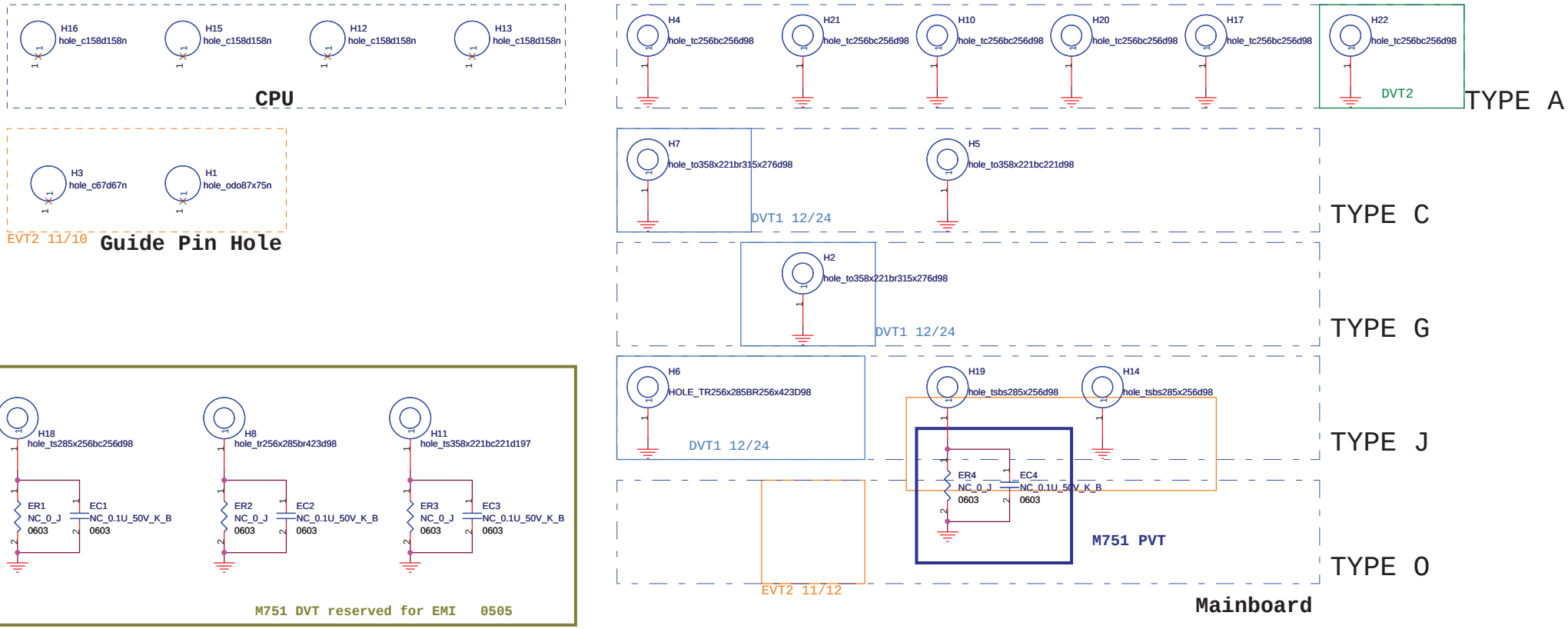

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	HOLE	
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10/12
Change color of MS/SD/HDD LED.
Mount R419, R414, R420, R421.
10/13
SYSTEM_ID, MODEL_ID definition update.
10/20
CPU 22uF CAP N.C. parts location change.
N.C. R101 For EVT2 (Use +5V type camera module)
10/24
Move PCI Express pair of LAN from port5 to port1.
10/29
Change PR9 to 422K.
Add PL15 and PL7 co-lay.
Modify charge current setting table.
Mount PR83.
PL11 change to 1uH.
Add TP276 test point.
Add PC201 0.1uF and close to PD27 pin1.
Change PL6 to 4.7uH and add TP274,TP275 test points.
10/30
Refer to PUR sugguestoin to change component source.
Add NC_PR232
Change PR30 to 10K and PR31 to 1K.
Mount PC30
Add TP278 test point.
10/31
Refer to PUR sugguestoin to change component source.
Swap LVDS group of ATI M82.
11/02
Change "#" to net "EN_EXT_DEV_SENSE" for low active.
Modify MB Semi-PNP circuit.
11/03
Inverse HDMI pairs polarity(DVI pairs inversed on docking side).
11/04
Change USB board connector.
Combine MS/SD LED to one(MEDIA_LED).
11/05
N.C. R377, Mount F3.
Change INUSE_LED to GPIO72.
Change MS slot to YAMAICHI JCS010-2300-0.
11/06
Change part of CN16/CN26.(Height Change)
Change netname of "SD_WP#" to "SD_WP".
Change PR143 to 200Kohm.
Update charge current setting table.
Reserve BATT_WOL_EN for LAN wake up enable/disable in battery mode.
11/07
C453, C452, C451,C426, C425, C424 change size to 0402.
Mount PR158, PC125 and PR185, PC148 and PR199, PC177 and PR16, PC21.
N.C. PR36.
Change C188 from 0.1uF to 0.47uF.
11/08
Swap USB_PP8/PN8 for ease of routing.
Change button board connector to WBF31326-F04TR.
Change MS/SD LED to side view, yellow color.
Change U7 from CM2009 to CM2006.
Update VCC_DDC power isolation circuit.
Add R565,C658 for SRTCRST#.
11/09
Change PC31 from 22p to 100p.
Reserve R566 for removal of Ext. SPI Conn on DVT.
Reverse Button Brd CN pin assignment.
Add EMI Cap C659~C666 on +1_8VSUS.
11/10
Delete guide pin hole H9, H22.
N.C. F3, mount F1. (Use +3VSUS for camera power on EVT2).
11/11
Change pin assignment of Express CN.

11/12
Change PTH hole size. (H11)
Add TP283,TP284.
Change net name "ISL_VSSSENSE_" to "ISL_VSSSENSE".
11/13
Add TP285~290 for SI probe point.
Change type of H14,H19.
Change PR22=51K, PR232=200k.
11/14
Tune crystal accuracy, change C390/C389/C416/C412 to 22PF,C648/C649 to 18PF.
Change PR6=360K.(Charge Current Control)
Co-Lay PR233, PQ54, PQ55, PL16.
Change RP34 to 2.2K for SI.
N.C. R415, mount L47 on H model.
11/19
N.C. R559 (Double pull up on BT_PRS#)
11/23
Change camera power to +5VSUS.
DVT1 12/01
Swap DVI bus polarity.
Route RUN_ON to docking station CN.
Add logic gate(U37) to prevent panel flash when boot up.
Add R567, bypass brightness control signal.
Use +3V_DELAY(Q4) to prevent M82 high pulse on LCD control signals.
12/07
Change DC-IN CN(PCN1, With Reinforcement Pin).
Add TPM Nut (BOSS1).
Change Button Board CN (CN3) to 15 pin.
Add R570 for power consumption measurement.
12/12
Change U6 from Quad to Dual XOR gate.
Change EMI Caps C424~C426, C451~453 to 10pF.
Change color of LED2(Charge LED) to Amber.
Change U16 from MR-sensor to Hall-sensor. (N.C. R263)
12/13
Change damping resistors of keyboard matrix to 120ohm ferrite bead.(For EMI)
12/17
Change C451,C452,C453,C424,C425,C451 to 22pF. (For EMI)
Add one more +3VSUS (CN26) for WLAN module to cover 1500mA(peak)/1100mA(normal) requirement.
12/18
Add one more LCDVCC pin (CN1) for panel to improve voltage drop.
Add optional resistors(R571,R572) for gamma control.
Reduce LED_VOUT from 6 pins to 2 pins.
12/20
Change net "BL_OFF" to "BL_OFF#".
Add R573-577 to improve MS signal overshoot/undershoot.
Mount C642-644.
Change F3 to 0.25A.
12/21
Change Net "HDD_LED#" to "HDD_ODD_LED#"
12/23
Change C412/C416 from 22pF to 10pF.
Change C648,C649 from 18pF to 15pF.
Mount U26(VGA Thermal Sensor) on H model only.
Add 75 ohm bead, 10pF capacitor on HDA_MDC_BITCLK/HDA_CODEC_BITCLK for EMI.
12/24
Update H2/H6/H7/H8 footprint.
Delete R563, R564 (CRT_GND).
Change D17, D18 to SSM22 to reduce voltage drop.
Change pull up voltage of R360/R361 to +3VRUN. (Only Strap/GPIO pin connected to +3V_DELAY)
N.C. C403 (Not necessary for ESD)
12/26
Delete ODD_DP# connection to ICH9M.

12/27
Add PC204 for noise filtering.
Add R578 for protection.
Change U27 from RClamp0514 to RClamp0524.
N.C. SW1, R134,R141
Change PR38 to 2K, PR37 to 5.1K.
12/28
N.C. U4 shunt regulator to reduce S4 consumption.
Mount R131, N.C. R129.
Reserve LDO (U38) for 1.5V type VCCSUSHDA.
Add R579,R580 to avoid floating on input pin.
1/2
N.C. C451~453, C424~426.
N.C. PC204.
Add prefix AT_ on R322, R51.
Change damping resistor value of MS card.
(R573~577 from 33 to 68 ohm)
(R506~510 from 33 to 0 ohm)
Change L30~32 to 27nH inductor.
Change C258,260,262 to 2.2pF.
Change revision of clock generator(U29) to Rev.B
1/5
Change D2/D3 to low capacitance type.
Fine tune delay timiing. Change R19/R565 to 13K.
1/8
Update power design spec.
VCore: 47A, +3VSUS: 1.7A.
DVT2
1/15
Update power budget of VCCHDA,VCCSUSHDA,VCCDMI,VCC1_5_A
Add GND pin on C130.2
1/18
Add BT_LED on CN4.6
Update WIRELESS LED circuit. Page41.
1/21
Add screw hole H22.
Add D23, D24 for leakage issue when EC initialization.
Add R460 for Non-Dock Sku.
1/23
PQ12 change to SI3424BDV-T1-E3.
PR125 change to 62Kohm
PR215 change to 205Kohm
PR211 change to 75Kohm
PR223 change to 154Kohm
Add PR237 ND_280Kohm , PR236 ND_154Kohm for Non-Dock sku.
Add pull down resistor (R581) on BT_LED.
1/25
Mount L23, N.C. R108, R109 for EMI.
Change L86 from 75R to 10R for SI.
For Docking sku, add prefix DS_ on value of C257,C259,C261,CN16 D1,PQ2,PQ4,PR11,PR24,PR29,Q1,Q20,Q21,R6,R9,R10,R165,R167,R416 R444,R578,U8,U9,U10.
1/26
Change R176 from 54.9 to 649 Ohm.
Del L48, Add R582. R583 (N.C.)
Change C413 from 0.1uf to 1uF.
Change CN5 from Gold plated to TIN plated.
1/28
Mount R555, R556, R557.
Add +1_5V_PCIE_OUT on CN25.6 to reduce voltage drop.
Change CN3 from WBF31526-F04TR to GB5RF151-1093-7F.
(Vender naming rule change, same part.
layout footprint pin reversed)
1/29
Add R584, R585, Q27 to solve DDC capacitance issue.
Add R586 for identification of Dock support.
1/30
Change L86 back to 75R, change L85 from 75R to 10R.
Mount CN13 for software debug on DVT2.
N.C. R572.
Move R321 to U37B.6
1/31
Move PJ14 to PR226.2
Change R176 back to 54.9 ohm.
Add prefix LND on PR236,PR237 for Non-Dock skue for LOW model.
Add PAD1 for EMI Grounding.

0218
M750

change U30 from NC7S32M5X(14-NC7S32M-5X00) to MC74HC1G32DTT1G(14-MC74HC1-G300)
change D2,D3 from BAS316(16-BAS3160-0000) to BAS316PT(16-BAS316P-T000) for common parts
chage D6,D7,D9,D11,D12,D14,D23,D24 from 16-SCS500V-4000 to CH500H-40PT(16-CH500H4-0P00) for common parts
change Q1.Q5,Q17,Q21,Q22 from 17-2N7002P-T000 to ME2N7002E(17-ME2N700-2E00) for common parts
change Q23 from 17-MMBT390-4001 to PMBT3904.215(17-PMBT390-4200) for commonn parts
change C303,PC156 from 0.01U_6.3V_K(1C-2B20103-K100) to 0.01U_10V_K(1C-2B20103-K200) for commonn parts
change L23,L28,L40,L41,L42 from 90R-100MHZ_0R35(1L-FDLW31S-N900) to 90R-100M_1206(1L-FWCM321-6F00) for commonn parts

change C19,C17 from Y5V to X5R tolerence
change PR32 to 11K, PR33 to 19.6k to set the battery mode voltage to 0.95V by AMD for battery mode dual display

0318 PVT

NC C656 for WLAN_LED light when power on because of RC delay
update battery identify IC(PU5) P/N to R5G05000N100NS by vendor
update U7 symbol to CM2006-02QR
modify R345 value to HD_ for BOM change of disable HDaudio in 128MB SKU
remove PJ11,PJ12,PJ3,PJ8,PJ10,PJ9,PJ13,PJ5 and short by layout
correct U36 vendor P/N to WPCE775LA0DG
change U32 to W25X16AVSSIG by vendor suggestion
add PQ56,PC206,PR246 for charger ocp improve by M760 battery OCP issue
modify P43 charge current table ,middle current change from 1A to 0.8A
add PR244 and PR245(dummy directly) for intersil ISL6266A found C4 hang at the other company
change PD18 to MMVZ5231BPT for SCP circuit
add UVP circuit (PU17,PR238,PD32,PC205,PR242,PR241,PD33)
change PR236 to 120Kohm for power limit point improved
change PQ50,PQ51,PQ49,PR221 value title to DS_
change PR53 to 82Kohm for LED backlight current modify
add R587,Q28,Q29 for improve HDMI voltage drop

0326
Short PJ1,PJ2,PJ4 by layout
add C669 for reduce fan power source ripple
add L87,L88 for EMI
add U39,C670 for MS/SD abnormal behavior

0327
change PU9 to AT5208 because of G909 big inrush current

0328
NC R389,R393,Y3,C436,C437,C241,C242,L29,U5,R152 for use AMD internal SS
add R589,C672 for MS/SD led abnormal when power on

NC R389,R393,Y3,C436,C437,C241,C242,L29,U5,R152 for use AMD internal SS
add R589,C672 for MS/SD led abnormal when power on
reserve R588 for reduce G-sensor power ripple

0402
add F5~F11 for power short

0403
change PR241 from 232K to 215K for UVP circuit improve

0408
NC R348,R356,R357 for using AMD internal SS
change R378 value to HD_ for HDMI disable

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M751 DVT

0505
Reserve EC1,EC2,EC3, ER1,ER2,ER3 for Hynix 1GB EMI
change HDD sata CN20 pin define to increase the impedance for SATA SI

0506
reserve PR247 for colay with MAX17020
Update U29 footprint for Japan/Mitsui package
change L85 to 60ohm for EMI
NC C5 for EMI

0508
add Q30 for MS/SD LED cost down

M751 PVT

0618
Page 24:Change L30,L31,L32 to 33ohm and change C258,C260,C262 to 15PF for SI issue
Page 25:chang C405 C407 to 1C-2B30475-K100 for PUR request
Page 33:NC R561,Mount R560 ,keep system ID the same as M750
Page 36:NC F1 ,mount F3,for 5v Camera moudle
Page 38:Change R80 to 4.7k from 10k , for FAN speed issue
Page 40 :NC Q30 ,Mount U39 Q13 C672 C670 R589 for mor Request
Page 47:NC PR244 ,Vendor suggestion and it is related with DC4
Page 43,49:1.PR14 change to 62Kohm , co-lay PR248 LND_86.6Kohm with PR7.
2.PR215 205Kohm change to 280Kohm
3.PR223 154Kohm change to 280Kohm
Page 24: change D17 to 16-SSM24AP-T000' for leakage issue
Page 7;Change C254,C252 rating to 6.3v for cost down
Page 35:del R301,R302,R303,R304,R305,R306,L40,L41,L42 for cost down
Page36:del R147 R150 L28 for cost down
Page 39:del R261 for cost down,change U14 version
Page 33:Change CN6 to 1N-0024000-F1T0 for pur request
Page 52:add ER4 EC4 for EMI Issue

0625

Page 43:.PC121 change from 0.1uF/25V to 0.1uF/50V(1C-2B30104-K000)
Page 52 : change ER4 EC4 to 0603 for EMI request
Page 40:modify the U33 P/N to 15-BD2056A-FJ00 for CE update component library
Page 35:resume CN6 main source 1N-0024000-M1T0,for 2nd source layout issue
Page 24:change D17 to 16-SSM24PT-0000 For design change
Page 51:add one test point in PR41 pin1.

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