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P. Leader	Check by	Design by

Project Code & Schematics Subject: **MS70 Main Board**

PCB P/N:
(FUBAI) 1P-0068100-6011
(NAN YA) 1P-0068200-6011
(HANSTAR) 1P-0068500-6011

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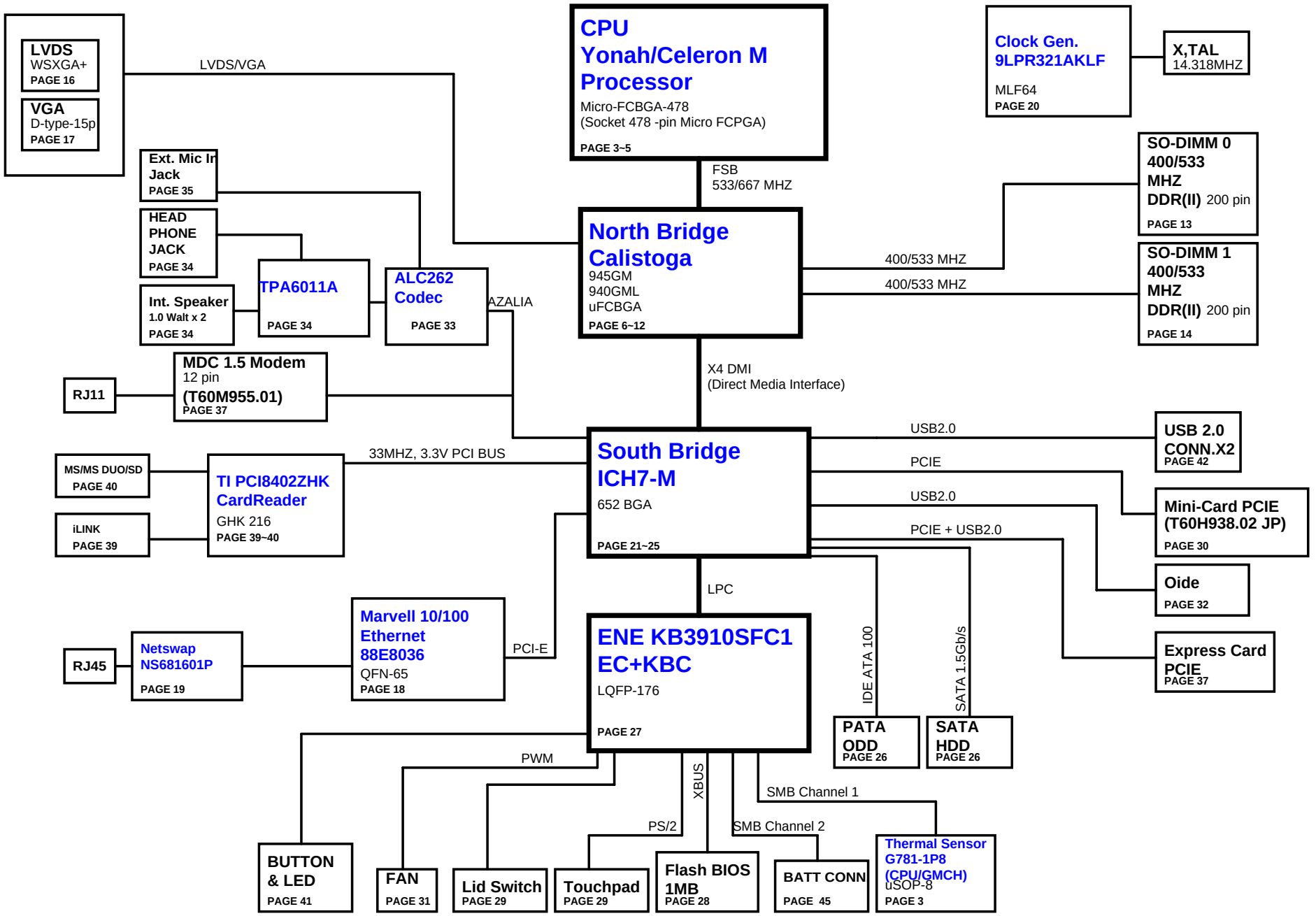
RAPTOR/MS70(CALISTOGA GM/GML Block Diagram)



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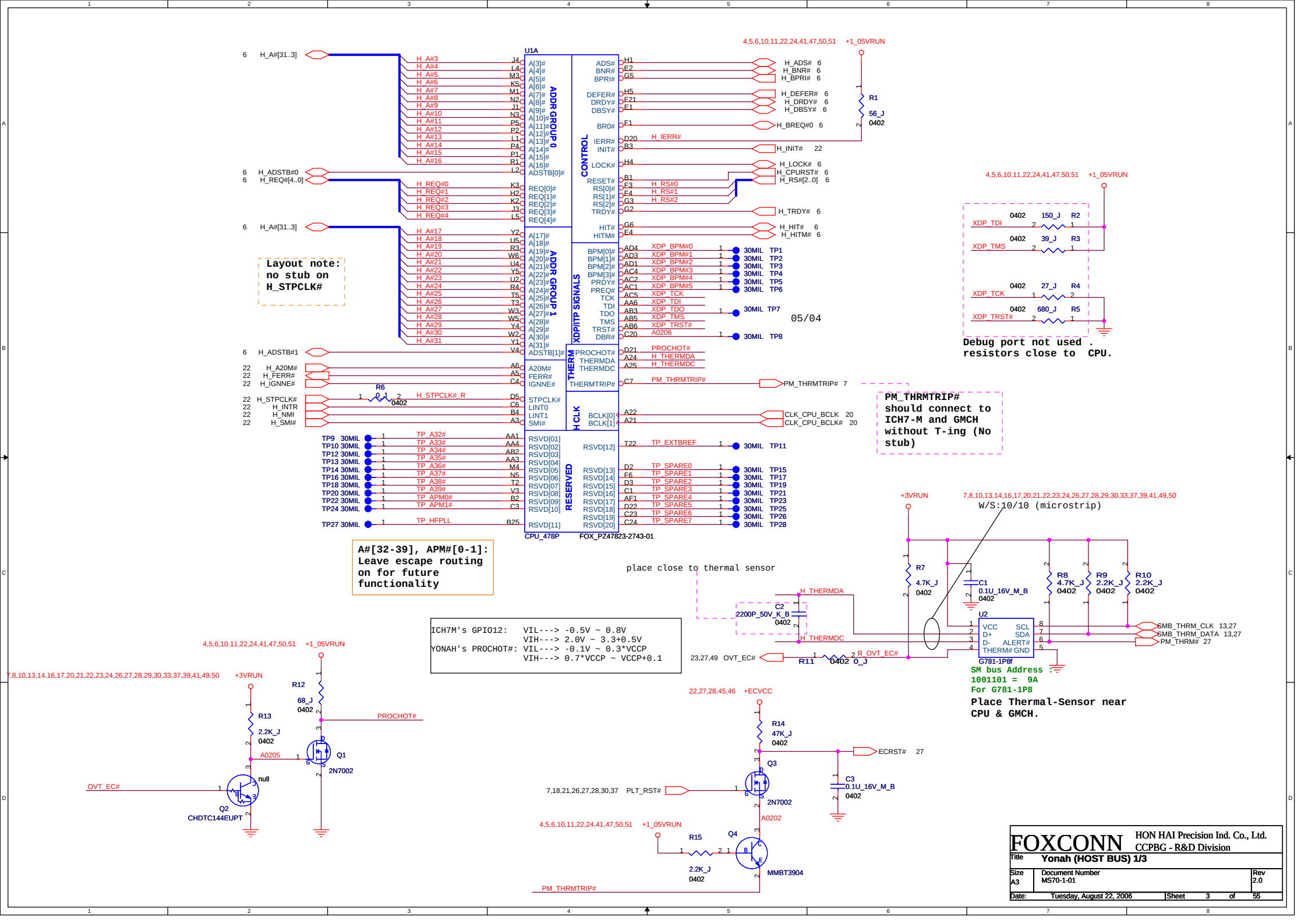
U1A
ADDR GROUP 0
ADDR GROUP 1
CONTROL
XDP/ITP SIGNALS
THERM
H CLK
RESERVED
CPU_478P
FOX_PZ47823-2743-01
Layout note:
no stub on
H_STPCLK#
A#[32-39], APM#[0-1]:
Leave escape routing
on for future
functionality
05/04
Debug port not used .
resistors close to CPU.
PM_THRMTRIP#
should connect to
ICH7-M and GMCH
without T-ing (No
stub)
place close to thermal sensor
W/S:10/10 (microstrip)
ICH7M's GPIO12: VIL---> -0.5V ~ 0.8V
VIH---> 2.0V ~ 3.3+0.5V
YONAH's PROCHOT#: VIL---> -0.1V ~ 0.3*VCCP
VIH---> 0.7*VCCP ~ VCCP+0.1
SM bus Address :
1001101 = 9A
For G781-1P8
Place Thermal-Sensor near
CPU & GMCH.
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Yonah (HOST BUS) 1/3
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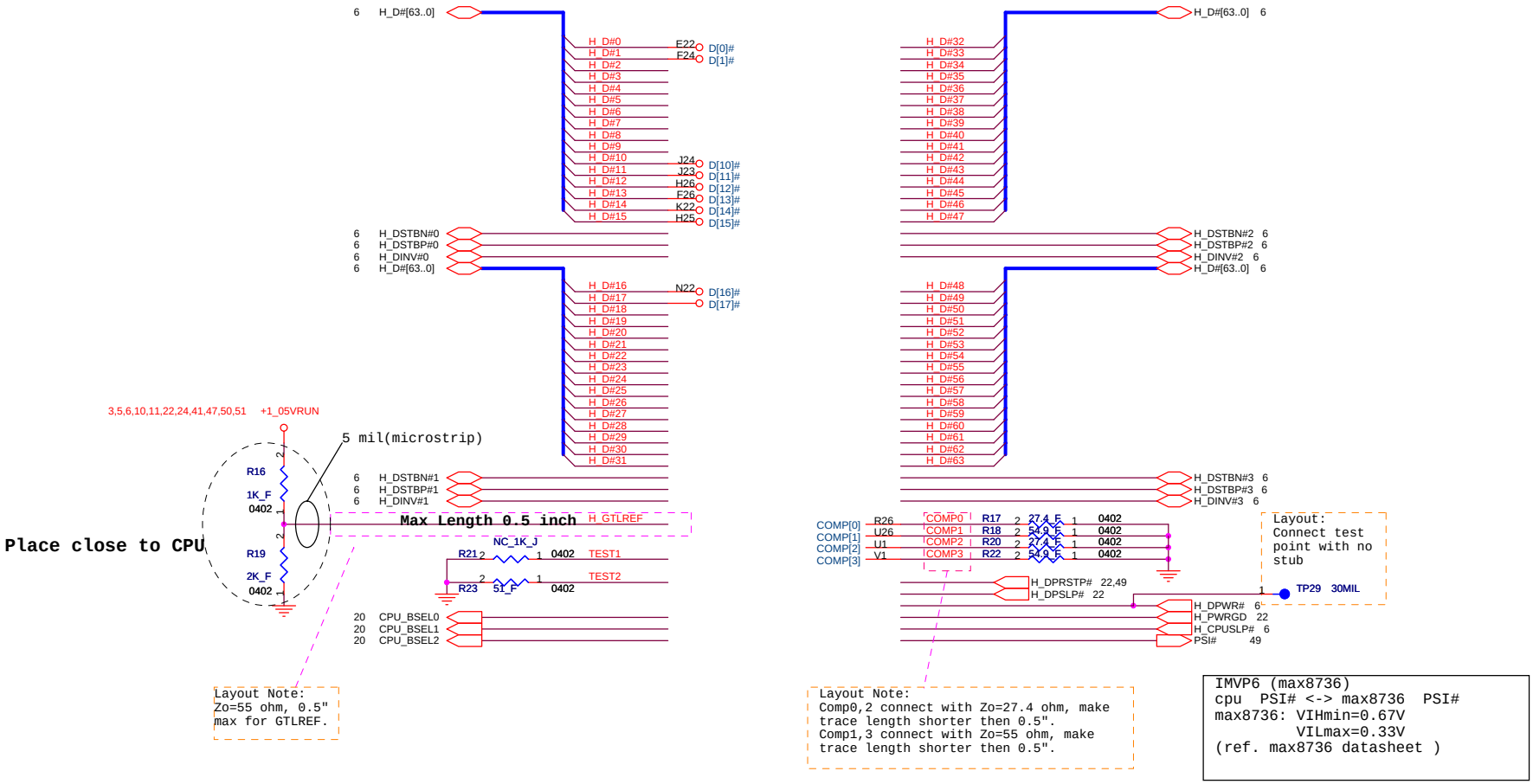

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Title	Yonah (HOST BUS) 2/3	
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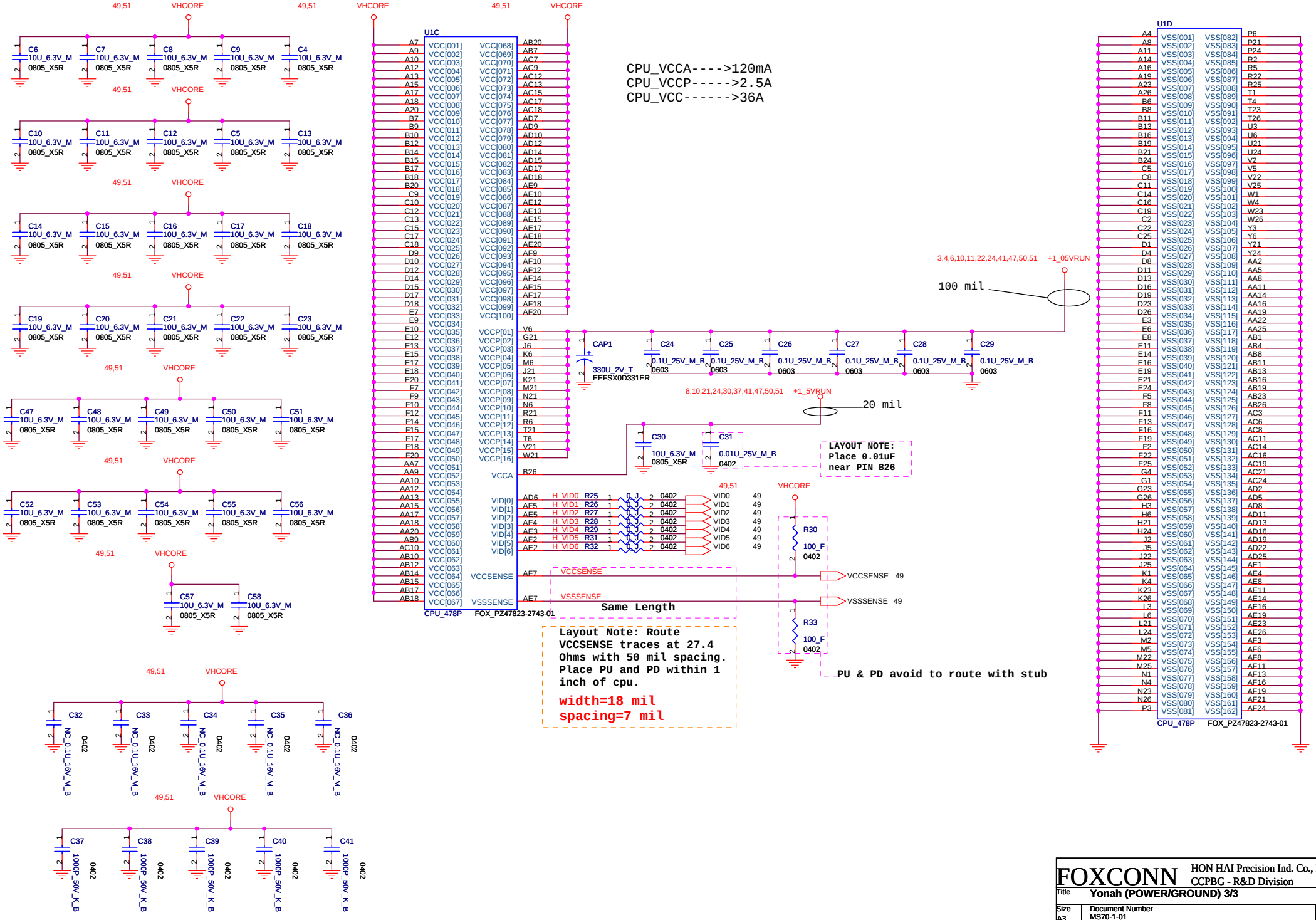
CPU_VCCA---->120mA
CPU_VCCP----->2.5A
CPU_VCC------>36A
U1C
U1D
CPU_478P
FOX_PZ47823-2743-01
VHCORE
+1_05VRUN
+1_5VRUN
100 mil
20 mil
Same Length
LAYOUT NOTE:
Place 0.01uF
near PIN B26
Layout Note: Route
VCCSENSE traces at 27.4
Ohms with 50 mil spacing.
Place PU and PD within 1
inch of cpu.
width=18 mil
spacing=7 mil
PU & PD avoid to route with stub
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Yonah (POWER/GROUND) 3/3
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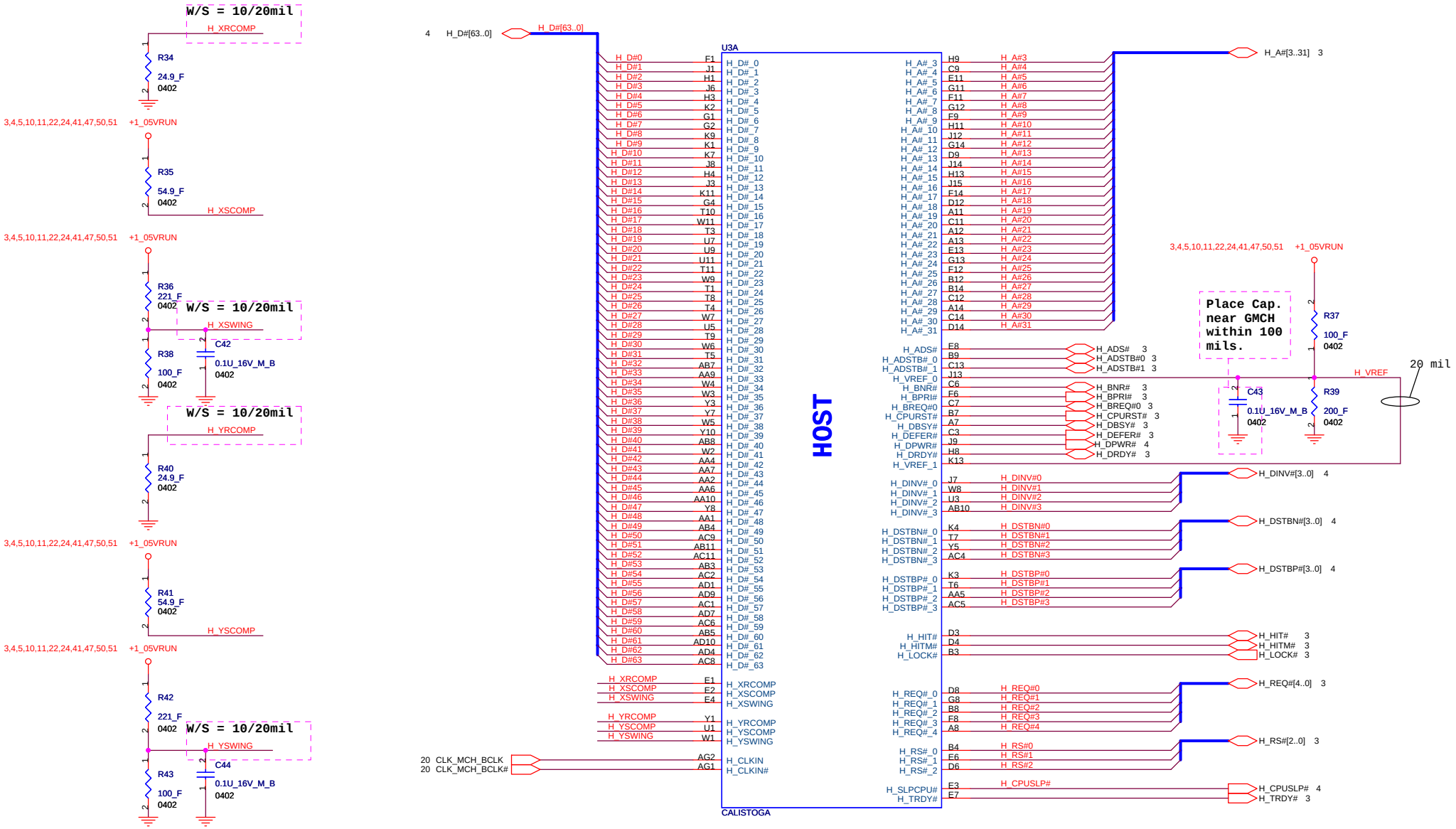

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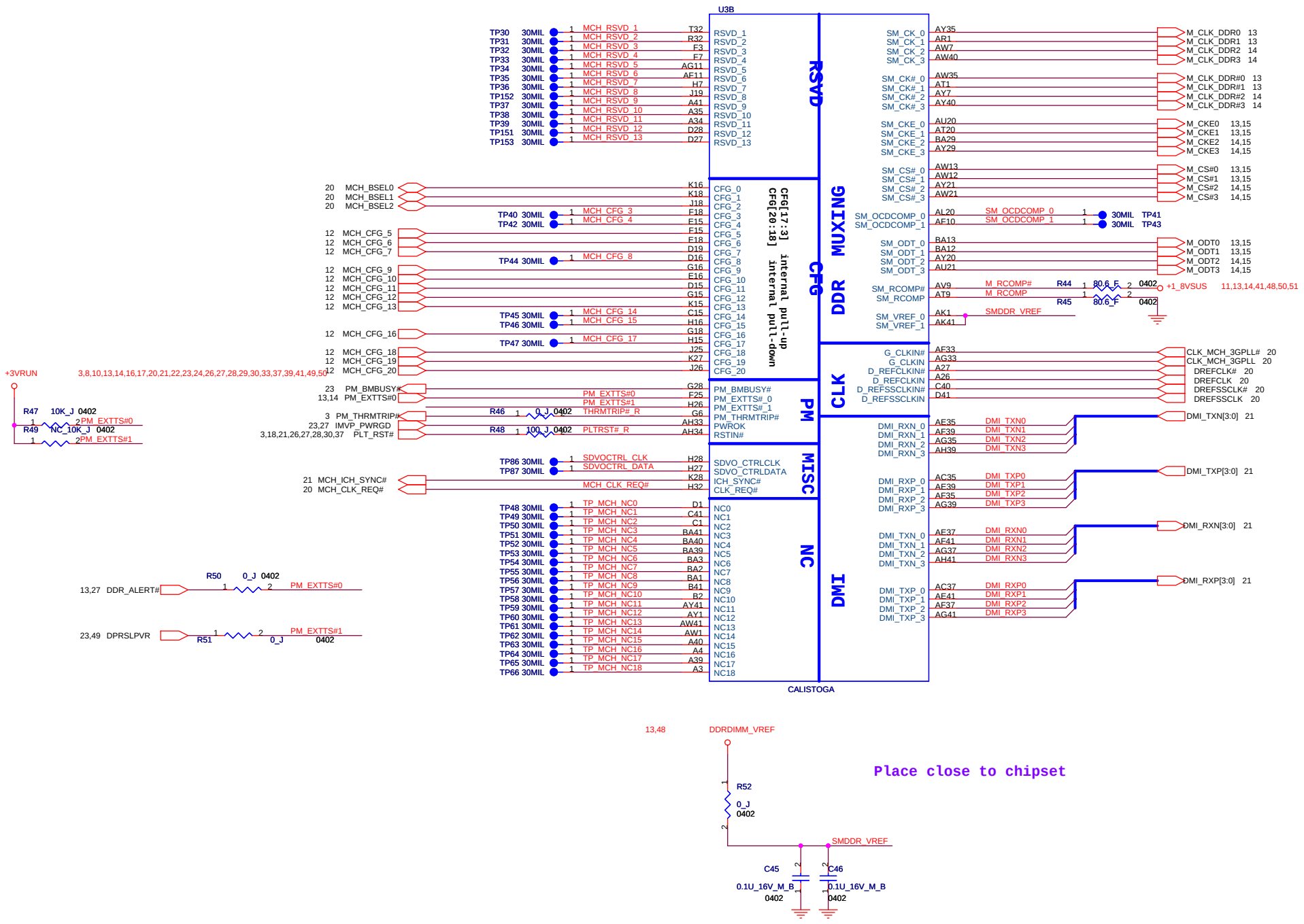
U3B
RSVD
CFG
DDR MUXING
CLK
PM
MISC
NC
DMI
CFG[17:3] internal pull-up
CFG[20:18] internal pull-down
CALISTOGA
Place close to chipset
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Title CALISTOGA (DMI) 2 of 7
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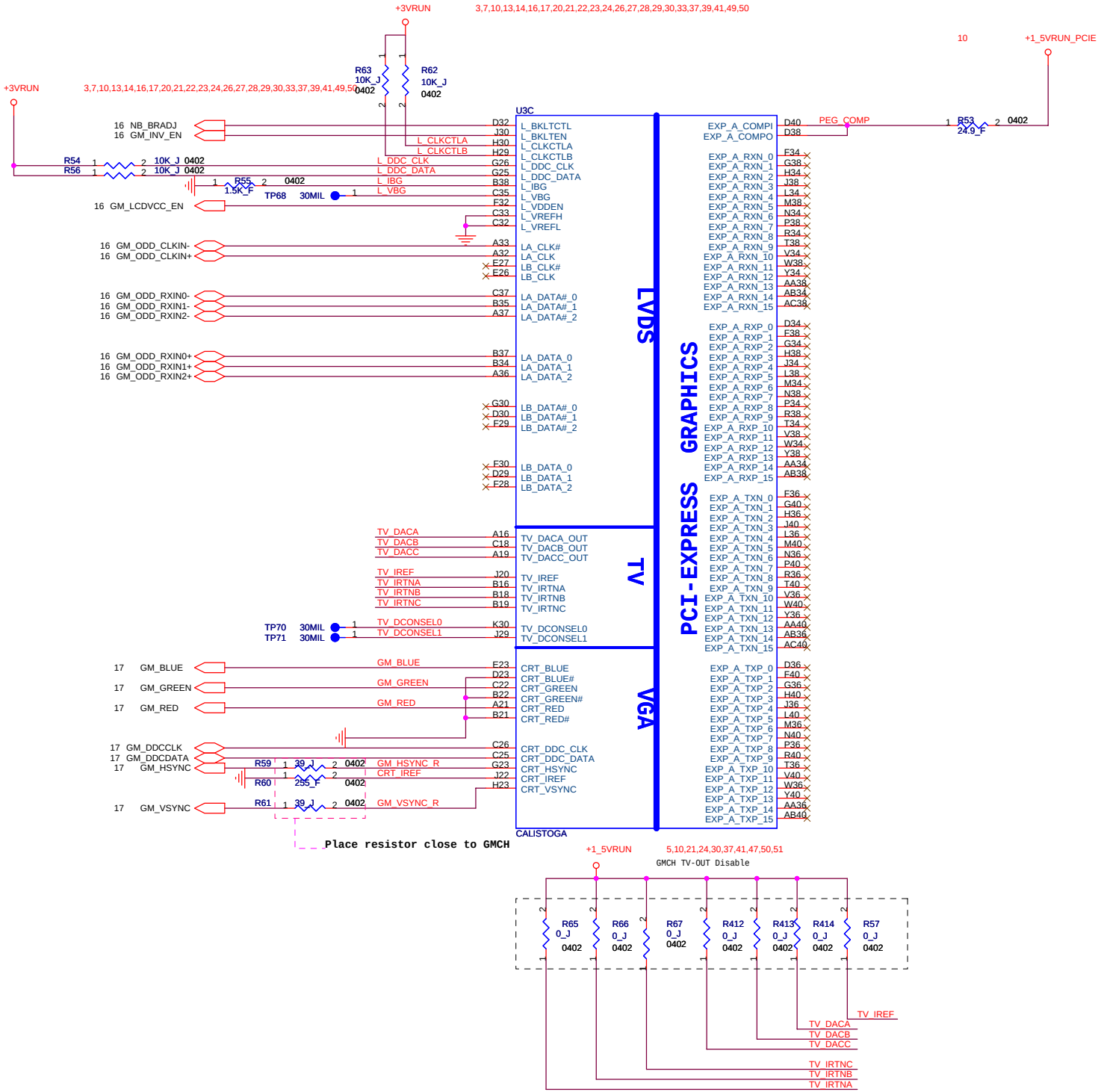

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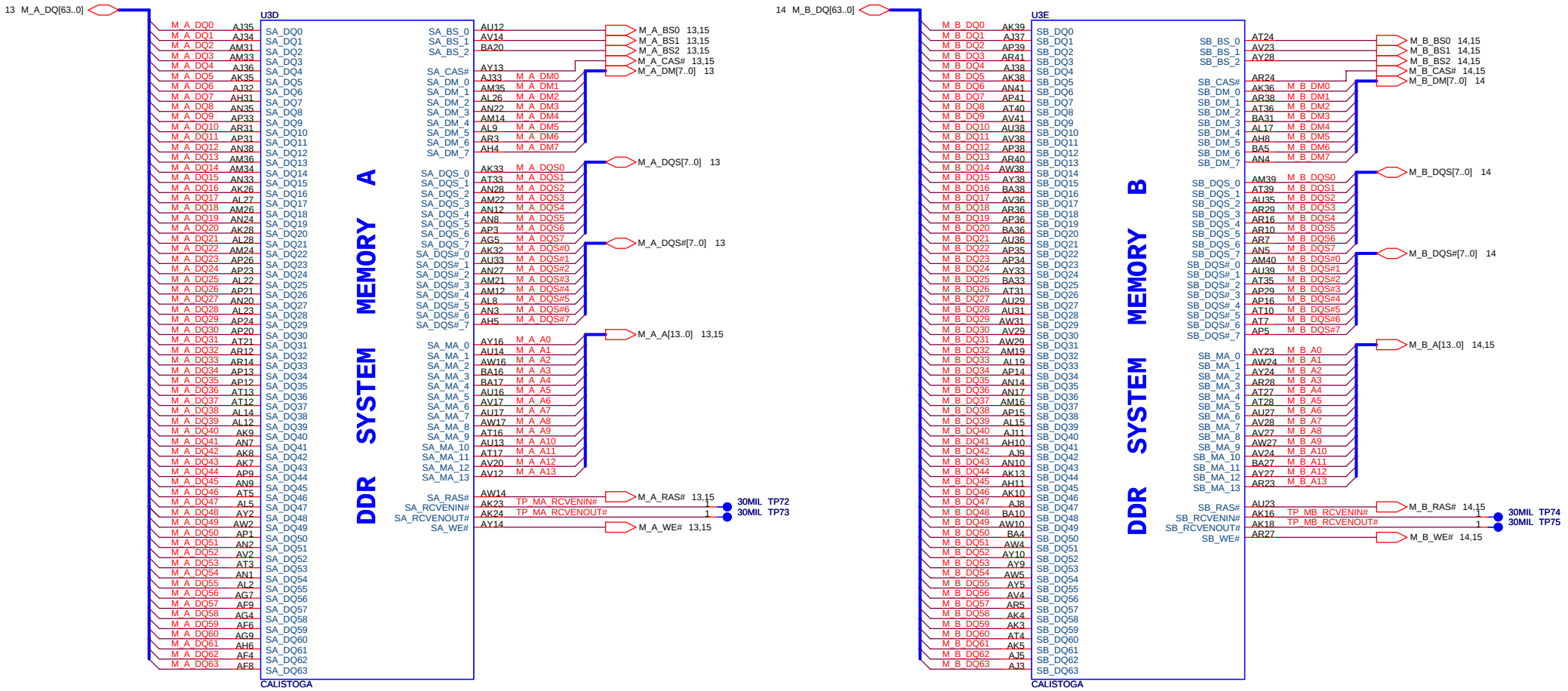

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Title	CALISTOGA (DDRII) 4 of 7	
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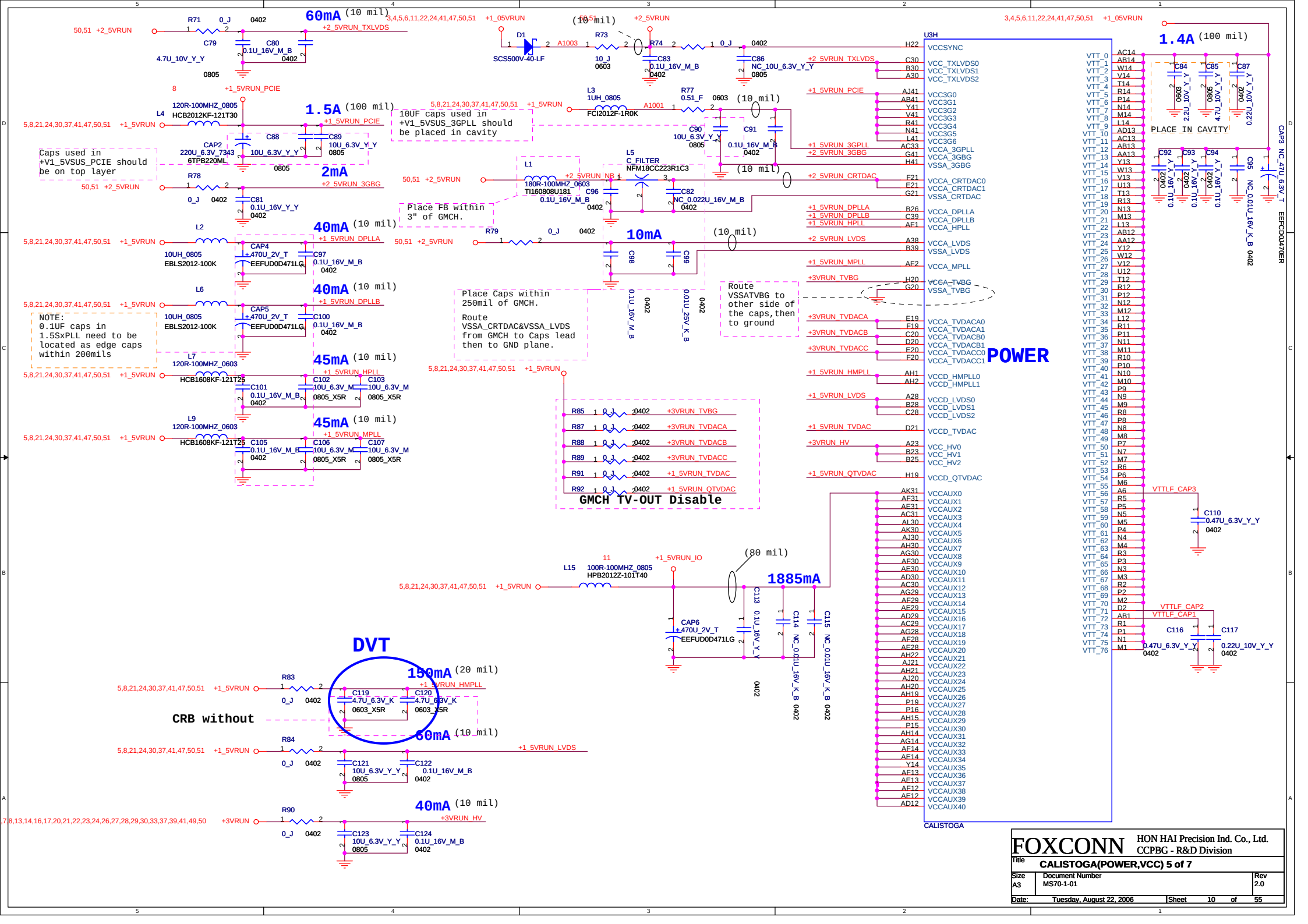
POWER
U3H
CALISTOGA
60mA (10 mil)
1.5A (100 mil)
2mA
40mA (10 mil)
40mA (10 mil)
45mA (10 mil)
45mA (10 mil)
10mA
(10 mil)
1885mA
(80 mil)
1.4A (100 mil)
DVT
150mA (20 mil)
60mA (10 mil)
40mA (10 mil)
CRB without
GMCH TV-OUT Disable
PLACE IN CAVITY
10UF caps used in +V1_5VSUS_3GPLL should be placed in cavity
Caps used in +V1_5VSUS_PCIE should be on top layer
Place FB within 3" of GMCH.
Place Caps within 250mil of GMCH.
Route VSSA_CRTDAC&VSSA_LVDS from GMCH to Caps lead then to GND plane.
Route VSSATVBG to other side of the caps,then to ground
NOTE: 0.1UF caps in 1.5SxPLL need to be located as edge caps within 200mils
VCCSYNC
VCC_TXLVDS0
VCC_TXLVDS1
VCC_TXLVDS2
VCC3G0
VCC3G1
VCC3G2
VCC3G3
VCC3G4
VCC3G5
VCC3G6
VCCA_3GPLL
VCCA_3GBG
VSSA_3GBG
VCCA_CRTDAC0
VCCA_CRTDAC1
VSSA_CRTDAC
VCCA_DPLLA
VCCA_DPLLB
VCCA_HPLL
VCCA_LVDS
VSSA_LVDS
VCCA_MPLL
VCCA_TVBG
VSSA_TVBG
VCCA_TVDACA0
VCCA_TVDACA1
VCCA_TVDACB0
VCCA_TVDACB1
VCCA_TVDACC0
VCCA_TVDACC1
VCCD_HMPLL0
VCCD_HMPLL1
VCCD_LVDS0
VCCD_LVDS1
VCCD_LVDS2
VCCD_TVDAC
VCC_HV0
VCC_HV1
VCC_HV2
VCCD_QTVDAC
VCCAUX0
VCCAUX1
VCCAUX2
VCCAUX3
VCCAUX4
VCCAUX5
VCCAUX6
VCCAUX7
VCCAUX8
VCCAUX9
VCCAUX10
VCCAUX11
VCCAUX12
VCCAUX13
VCCAUX14
VCCAUX15
VCCAUX16
VCCAUX17
VCCAUX18
VCCAUX19
VCCAUX20
VCCAUX21
VCCAUX22
VCCAUX23
VCCAUX24
VCCAUX25
VCCAUX26
VCCAUX27
VCCAUX28
VCCAUX29
VCCAUX30
VCCAUX31
VCCAUX32
VCCAUX33
VCCAUX34
VCCAUX35
VCCAUX36
VCCAUX37
VCCAUX38
VCCAUX39
VCCAUX40
VTT_0
VTT_1
VTT_2
VTT_3
VTT_4
VTT_5
VTT_6
VTT_7
VTT_8
VTT_9
VTT_10
VTT_11
VTT_12
VTT_13
VTT_14
VTT_15
VTT_16
VTT_17
VTT_18
VTT_19
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VTT_66
VTT_67
VTT_68
VTT_69
VTT_70
VTT_71
VTT_72
VTT_73
VTT_74
VTT_75
VTT_76
VTTLF_CAP3
VTTLF_CAP2
VTTLF_CAP1
CAP3 NC_47U_6.3V_T EEFCD0J470ER
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Title
CALISTOGA(POWER,VCC) 5 of 7
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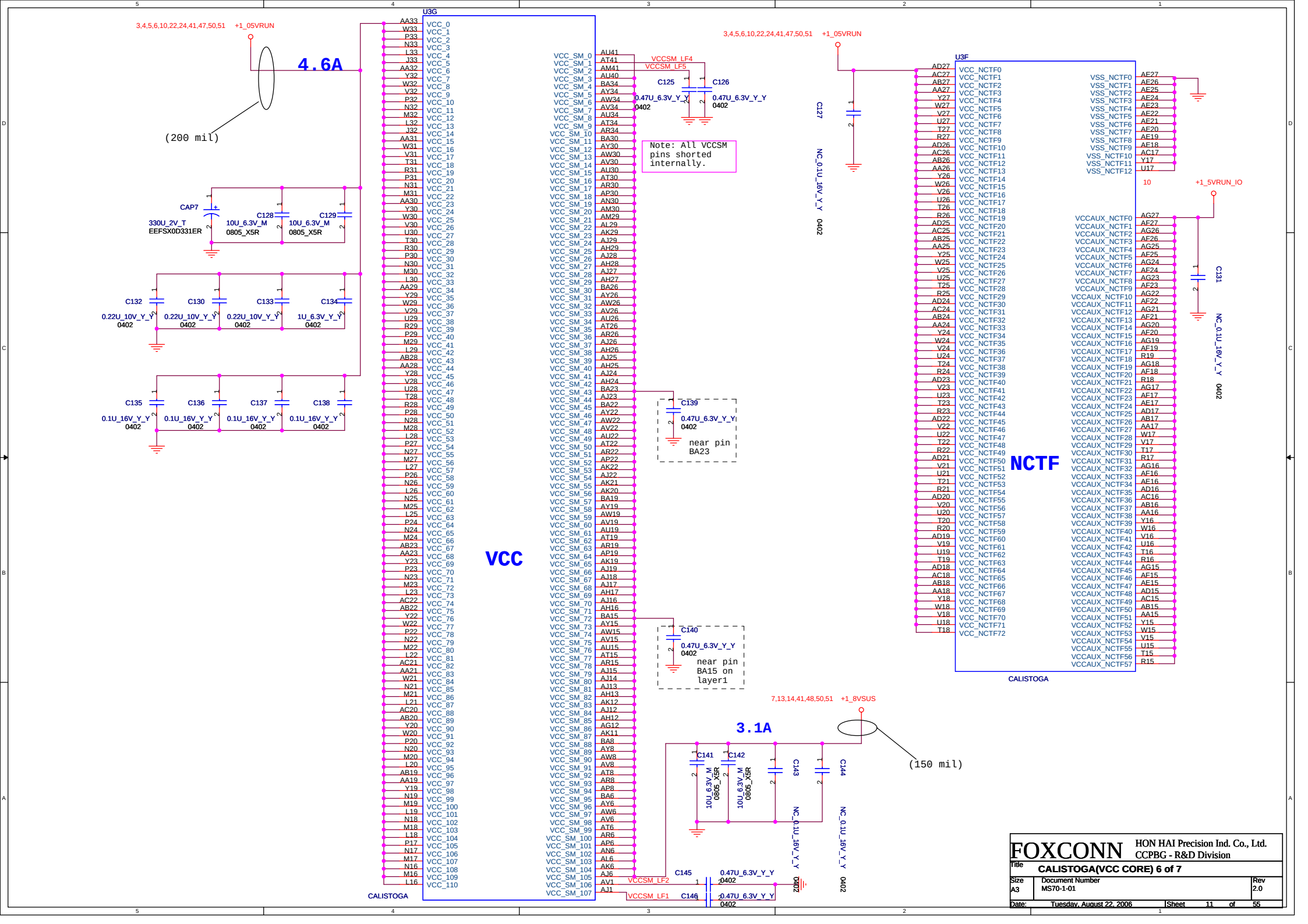

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7 MCH_CFG_5 — 1 — 30MIL TP76

MCH_CFG_5	Low = DMIx2 High = DMIx4

7 MCH_CFG_6 — 1 — 30MIL TP77

MCH_CFG_6	Low = Moby Dick High = Calistoga

DDR2 select (default high)

7 MCH_CFG_7 — 1 — 30MIL TP78

MCH_CFG_7 (CPU Strap)	Low = RSVD High = Mobile Yonah processor

7 MCH_CFG_9 — 1 — 30MIL TP81

MCH_CFG_9 (PCIE Graphics Lane)	Low = Reverse Lane High = Normal operation

For layout convenience

7 MCH_CFG_10 — 1 — 30MIL TP82

MCH_CFG_10 (HOST PLL VCC SELECT)	Low = RESERVED High = MOBILITY

7 MCH_CFG_11

MCH_CFG_11 (PSB 4x CLK ENABLE)	Low = Calistoga High = Reserved

R93 NC_2.2K_J 0402

7 MCH_CFG_12 — 1 — 30MIL TP84
7 MCH_CFG_13 — 1 — 30MIL TP85

MCH_CFG_[13:12] (XOR/ALLZ)	00=Partial Clock Gating Disable 01=XOR Mode Enable 10=All-Z Mode Enable 11=Normal Operation(Default)

7 MCH_CFG_16 — 1 — 30MIL TP160

MCH_CFG_16 (FSB Dynamic ODT)	Low = Dynamic ODT Disabled High = Dynamic ODT Enable

MCH_CFG_18 (VCC_CORE Select)	Low = 1.05V(default) High = 1.5V

7 MCH_CFG_18 — 1 — 30MIL TP79

MCH_CFG_19 (DMI LANE REVERSAL)	Low = Normal(default) High = LANES REVERSED

7 MCH_CFG_19 — 1 — 30MIL TP80

MCH_CFG_20 (PCIe Backward Interpoerability mode)	Low = Only SDVO or PCIE x1 is operational (defaults)) High = SDVO and PCIE x1 are operating simultaneously via the PEG port

7 MCH_CFG_20 — 1 — 30MIL TP83

Layout Noe:
Location of all MCH_CFG strap resistors needs to be close to trace to minimize stub

U3I

AC41 AA41 W41 T41 P41 M41 J41 F41 AV40 AP40 AN40 AK40 AJ40 AH40 AG40 AF40 AE40 B40 AY39 AW39 AV39 AR39 AN39 AJ39 AC39 AB39 AA39 Y39 W39 V39 T39 R39 P39 N39 M39 L39 J39 H39 G39 F39 D39 AT38 AM38 AH38 AG38 AF38 AE38 C38 AK37 AH37 AB37 AA37 Y37 W37 V37 T37 R37 P37 N37 M37 L37 J37 H37 G37 F37 D37 AY36 AW36 AN36 AH36 AG36 AF36 AE36 AC36 C36 B36 BA35 AV35 AR35 AH35 AB35 AA35 Y35 W35 V35 T35 R35 P35 N35 M35 L35 J35 H35 G35 F35 D35 AN34

VSS_0 VSS_1 VSS_2 VSS_3 VSS_4 VSS_5 VSS_6 VSS_7 VSS_8 VSS_9 VSS_10 VSS_11 VSS_12 VSS_13 VSS_14 VSS_15 VSS_16 VSS_17 VSS_18 VSS_19 VSS_20 VSS_21 VSS_22 VSS_23 VSS_24 VSS_25 VSS_26 VSS_27 VSS_28 VSS_29 VSS_30 VSS_31 VSS_32 VSS_33 VSS_34 VSS_35 VSS_36 VSS_37 VSS_38 VSS_39 VSS_40 VSS_41 VSS_42 VSS_43 VSS_44 VSS_45 VSS_46 VSS_47 VSS_48 VSS_49 VSS_50 VSS_51 VSS_52 VSS_53 VSS_54 VSS_55 VSS_56 VSS_57 VSS_58 VSS_59 VSS_60 VSS_61 VSS_62 VSS_63 VSS_64 VSS_65 VSS_66 VSS_67 VSS_68 VSS_69 VSS_70 VSS_71 VSS_72 VSS_73 VSS_74 VSS_75 VSS_76 VSS_77 VSS_78 VSS_79 VSS_80 VSS_81 VSS_82 VSS_83 VSS_84 VSS_85 VSS_86 VSS_87 VSS_88 VSS_89 VSS_90 VSS_91 VSS_92 VSS_93 VSS_94 VSS_95 VSS_96

VSS

VSS_97 VSS_98 VSS_99 VSS_100 VSS_101 VSS_102 VSS_103 VSS_104 VSS_105 VSS_106 VSS_107 VSS_108 VSS_109 VSS_110 VSS_111 VSS_112 VSS_113 VSS_114 VSS_115 VSS_116 VSS_117 VSS_118 VSS_119 VSS_120 VSS_121 VSS_122 VSS_123 VSS_124 VSS_125 VSS_126 VSS_127 VSS_128 VSS_129 VSS_130 VSS_131 VSS_132 VSS_133 VSS_134 VSS_135 VSS_136 VSS_137 VSS_138 VSS_139 VSS_140 VSS_141 VSS_142 VSS_143 VSS_144 VSS_145 VSS_146 VSS_147 VSS_148 VSS_149 VSS_150 VSS_151 VSS_152 VSS_153 VSS_154 VSS_155 VSS_156 VSS_157 VSS_158 VSS_159 VSS_160 VSS_161 VSS_162 VSS_163 VSS_164 VSS_165 VSS_166 VSS_167 VSS_168 VSS_169 VSS_170 VSS_171 VSS_172 VSS_173 VSS_174 VSS_175 VSS_176 VSS_177 VSS_178 VSS_179

AK34 AG34 AF34 AE34 AC34 C34 AW33 AV33 AR33 AE33 AB33 Y33 V33 T33 R33 M33 H33 G33 F33 D33 B33 AH32 AG32 AF32 AE32 AC32 AB32 G32 B32 AY31 AV31 AN31 AJ31 AG31 AB31 Y31 AR30 E30 AT29 AN29 AB29 T29 N29 K29 G29 E29 C29 B29 A29 BA28 AW28 AU28 AP28 AM28 AD28 AC28 W28 J28 F28 AP27 AM27 AK27 J27 G27 F27 C27 B27 AN26 M26 K26 F26 D26 AK25 P25 K25 H25 E25 D25 A25 BA24 AU24 AL24 AW23

CALISTOGA

U3J

AT23 AN23 AM23 AH23 AC23 W23 K23 J23 F23 C23 AA22 K22 G22 F22 E22 D22 A22 BA21 AV21 AR21 AN21 AL21 AB21 Y21 P21 K21 J21 H21 C21 AW20 AR20 AM20 AA20 K20 B20 A20 AN19 AC19 W19 K19 G19 C19 AH18 P18 H18 D18 A18 AY17 AR17 AP17 AM17 AK17 AV16 AN16 AL16 J16 F16 C16 AN15 AM15 AK15 N15 M15 L15 B15 A15 BA14 AT14 AK14 AD14 AA14 U14 K14 H14 E14 AV13 AR13 AN13 AM13 AL13 AG13 P13 F13 D13 B13 AY12 AC12 K12 H12 E12 AD11 AA11 Y11

VSS_180 VSS_181 VSS_182 VSS_183 VSS_184 VSS_185 VSS_186 VSS_187 VSS_188 VSS_189 VSS_190 VSS_191 VSS_192 VSS_193 VSS_194 VSS_195 VSS_196 VSS_197 VSS_198 VSS_199 VSS_200 VSS_201 VSS_202 VSS_203 VSS_204 VSS_205 VSS_206 VSS_207 VSS_208 VSS_209 VSS_210 VSS_211 VSS_212 VSS_213 VSS_214 VSS_215 VSS_216 VSS_217 VSS_218 VSS_219 VSS_220 VSS_221 VSS_222 VSS_223 VSS_224 VSS_225 VSS_226 VSS_227 VSS_228 VSS_229 VSS_230 VSS_231 VSS_232 VSS_233 VSS_234 VSS_235 VSS_236 VSS_237 VSS_238 VSS_239 VSS_240 VSS_241 VSS_242 VSS_243 VSS_244 VSS_245 VSS_246 VSS_247 VSS_248 VSS_249 VSS_250 VSS_251 VSS_252 VSS_253 VSS_254 VSS_255 VSS_256 VSS_257 VSS_258 VSS_259 VSS_260 VSS_261 VSS_262 VSS_263 VSS_264 VSS_265 VSS_266 VSS_267 VSS_268 VSS_269 VSS_270 VSS_271 VSS_272

VSS

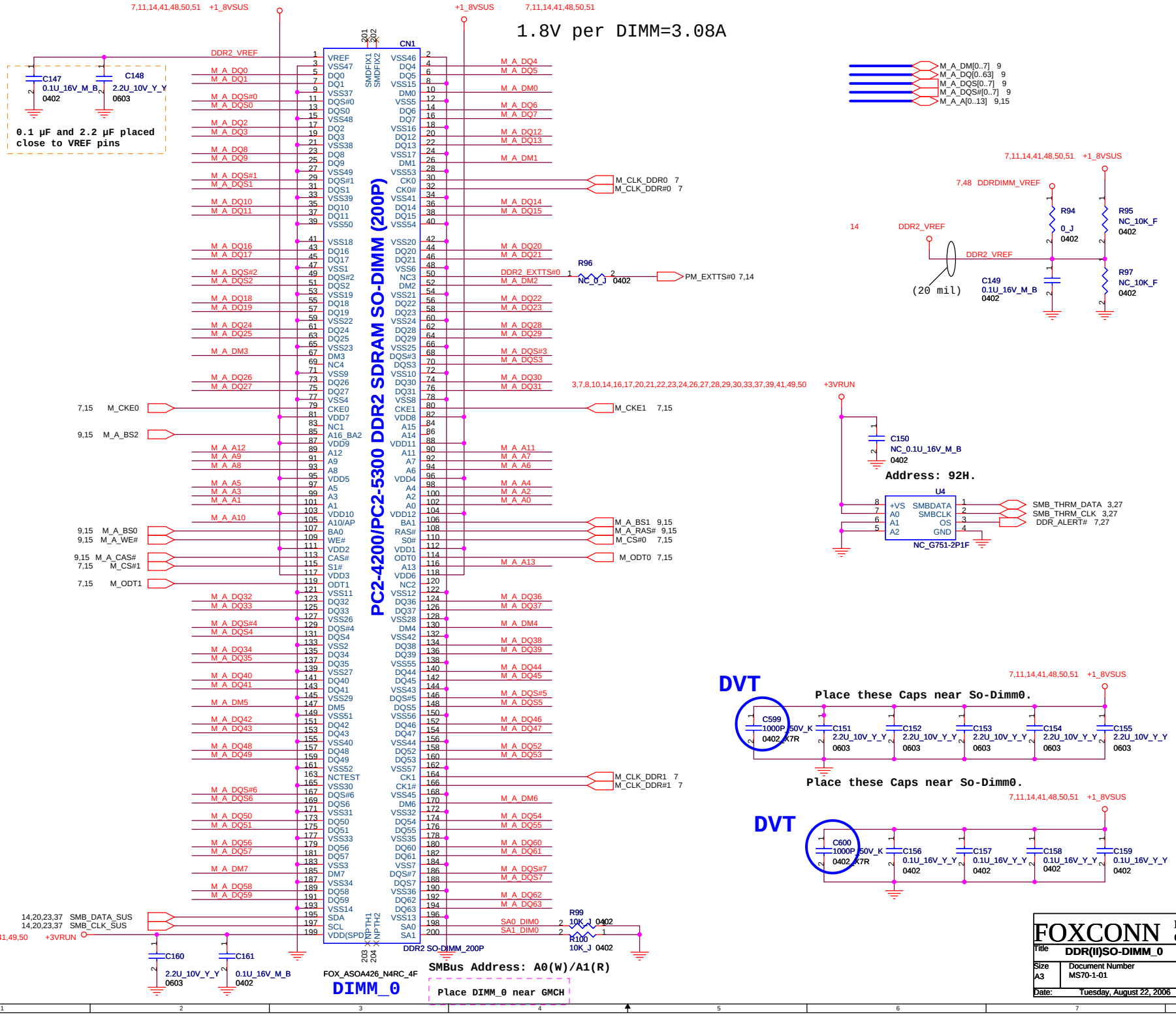
VSS_273 VSS_274 VSS_275 VSS_276 VSS_277 VSS_278 VSS_279 VSS_280 VSS_281 VSS_282 VSS_283 VSS_284 VSS_285 VSS_286 VSS_287 VSS_288 VSS_289 VSS_290 VSS_291 VSS_292 VSS_293 VSS_294 VSS_295 VSS_296 VSS_297 VSS_298 VSS_299 VSS_300 VSS_301 VSS_302 VSS_303 VSS_304 VSS_305 VSS_306 VSS_307 VSS_308 VSS_309 VSS_310 VSS_311 VSS_312 VSS_313 VSS_314 VSS_315 VSS_316 VSS_317 VSS_318 VSS_319 VSS_320 VSS_321 VSS_322 VSS_323 VSS_324 VSS_325 VSS_326 VSS_327 VSS_328 VSS_329 VSS_330 VSS_331 VSS_332 VSS_333 VSS_334 VSS_335 VSS_336 VSS_337 VSS_338 VSS_339 VSS_340 VSS_341 VSS_342 VSS_343 VSS_344 VSS_345 VSS_346 VSS_347 VSS_348 VSS_349 VSS_350 VSS_351 VSS_352 VSS_353 VSS_354 VSS_355 VSS_356 VSS_357 VSS_358 VSS_359 VSS_360

J11 D11 B11 AV10 AP10 AL10 AJ10 AG10 AC10 W10 U10 BA9 AW9 AR9 AH9 AB9 Y9 R9 G9 E9 A9 AG8 AD8 AA8 U8 K8 C8 BA7 AV7 AP7 AL7 AJ7 AH7 AF7 AC7 R7 G7 D7 AG6 AD6 AB6 Y6 U6 N6 K6 H6 B6 AV5 AF5 AD5 AY4 AR4 AP4 AL4 AJ4 Y4 U4 R4 J4 F4 C4 AY3 AW3 AV3 AL3 AH3 AG3 AF3 AD3 AC3 AA3 G3 AT2 AR2 AP2 AK2 AJ2 AD2 AB2 Y2 U2 T2 N2 J2 H2 E2 C2 AL1

CALISTOGA

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	CALISTOGA(VSS) 7 of 7	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 12 of 55	

1.8V per DIMM=3.08A



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
Title	DDR(II)SO-DIMM_0
Size A3	Document Number MS70-1-01 Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 13 of 55

13

DDR2_VREF

7,11,13,41,48,50,51 +1_8VSUS

+1_8VSUS 7,11,13,41,48,50,51

1.8V per DIMM=3.08A

C163 0.1U_16V_M_B 0402

C162 2.2U_10V_Y_Y 0603

0.1 µF and 2.2 µF placed close to VREF pins

CN2

PC2-4200/PC2-5300 DDR2 SDRAM SO-DIMM (200P)

DDR2 S0-DIMM_200P

FOX_ASOA426_N4SC_4F

DIMM_1

M_B_DM[0..7] 9
M_B_DQ[0..63] 9
M_B_DQS[0..7] 9
M_B_DQS#[0..7] 9
M_B_A[0..13] 9,15

M_CLK_DDR3 7
M_CLK_DDR#3 7

R101 NC_0_J 0402 DDR2_EXTTS#1 M_B_DM2 PM_EXTTS#0 7,13

7,15 M_CKE2
9,15 M_B_BS2
9,15 M_B_BS0
9,15 M_B_WE#
9,15 M_B_CAS#
7,15 M_CS#3
7,15 M_ODT3

M_CKE3 7,15
M_B_BS1 9,15
M_B_RAS# 9,15
M_CS#2 7,15
M_ODT2 7,15

M_CLK_DDR2 7
M_CLK_DDR#2 7

13,20,23,37 SMB_DATA_SUS
13,20,23,37 SMB_CLK_SUS

+3VRUN

C173 2.2U_10V_Y_Y 0603

C174 0.1U_16V_M_B 0402

R102 10K_J 0402 SA0_DIM1

R103 10K_J 0402 SA1_DIM1 +3VRUN

SMBus Address: A4(W)/A5(R)

DIMM_1 is placed farther from the GMCH than DIMM_0

DVT

Place these Caps near So-Dimm1.

7,11,13,41,48,50,51 +1_8VSUS

C601 1000P_50V_K 0402_X7R

C164 2.2U_10V_Y_Y 0603

C165 2.2U_10V_Y_Y 0603

C166 2.2U_10V_Y_Y 0603

C167 2.2U_10V_Y_Y 0603

C168 2.2U_10V_Y_Y 0603

DVT

Place these Caps near So-Dimm1.

7,11,13,41,48,50,51 +1_8VSUS

C602 1000P_50V_K 0402_X7R

C169 0.1U_16V_Y_Y 0402

C170 0.1U_16V_Y_Y 0402

C171 0.1U_16V_Y_Y 0402

C172 0.1U_16V_Y_Y 0402

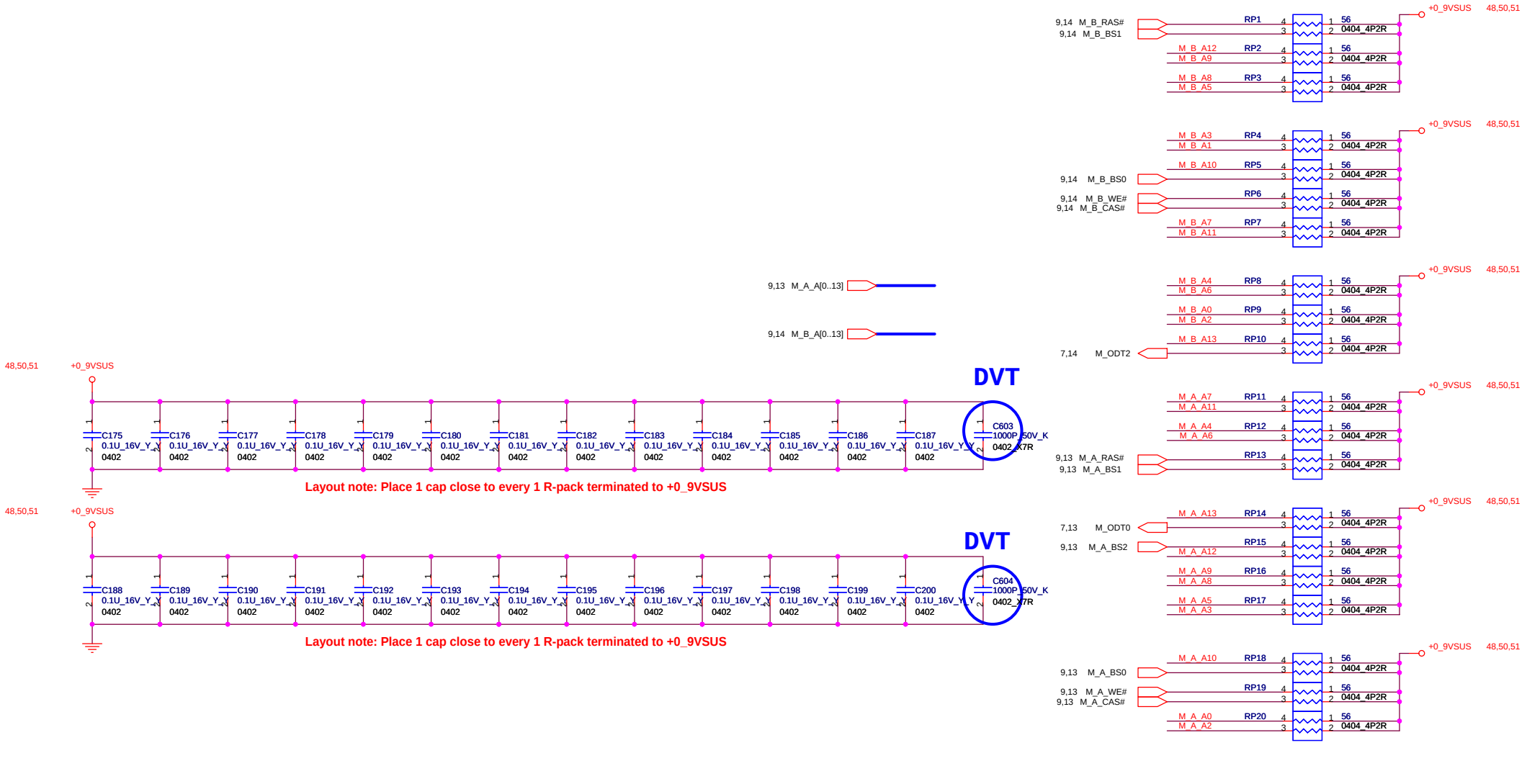
FOXCONN

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

Title: DDR(II)SO-DIMM_1

Size: A3 | Document Number: MS70-1-01 | Rev: 2.0

Date: Tuesday, August 22, 2006 | Sheet 14 of 55



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: DDR(II)Termination		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
Date: Tuesday, August 22, 2006	Sheet 15 of 55	

LVDS

ODD_CLKIN- → GM_ODD_CLKIN- 8
ODD_CLKIN+ → GM_ODD_CLKIN+ 8

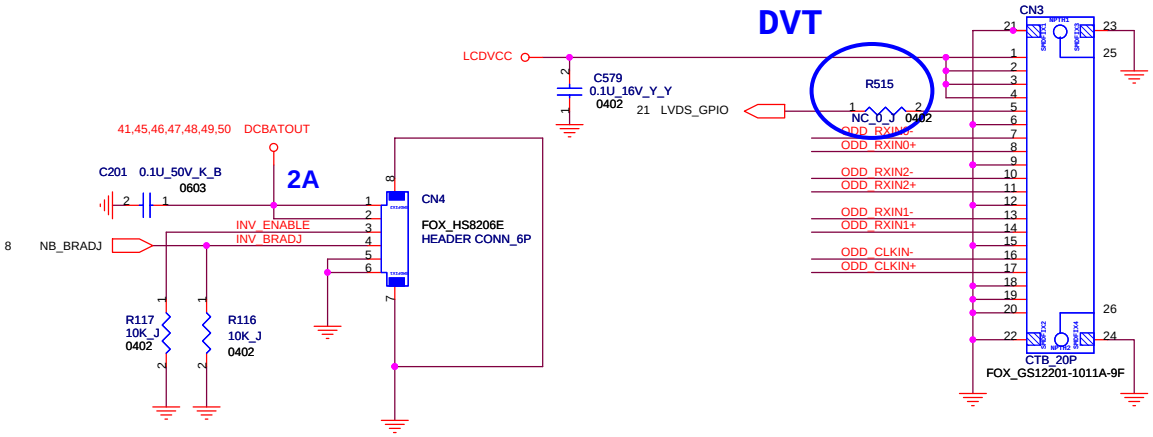
ODD_RXIN0- → GM_ODD_RXIN0- 8
ODD_RXIN0+ → GM_ODD_RXIN0+ 8

ODD_RXIN1- → GM_ODD_RXIN1- 8
ODD_RXIN1+ → GM_ODD_RXIN1+ 8

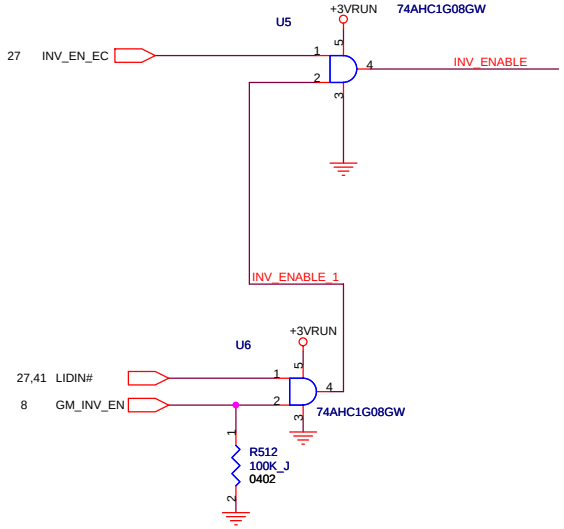
ODD_RXIN2- → GM_ODD_RXIN2- 8
ODD_RXIN2+ → GM_ODD_RXIN2+ 8

LVDS CONNECTOR

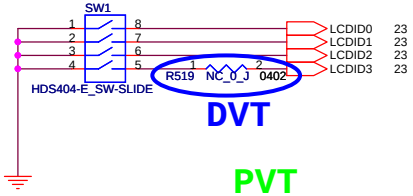
DVT



INVERTER CONNECTOR



PANEL ID

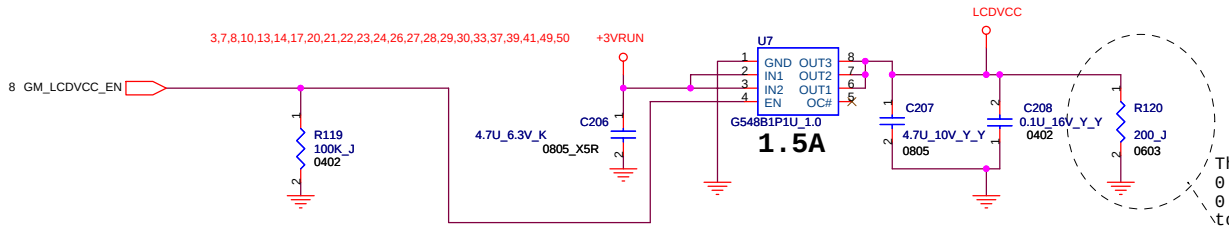


DVT

PVT

Type	WXGA	WXGA	WSXGA
Size	15.4" wide	15.4" wide	15.4" wide
Vender	CPT	QDI	InnoLux
Device Name	CLAA154WA05AN	QDI15TL0703	TBD
Panel ID Check[3..0]	1001	1010	1011

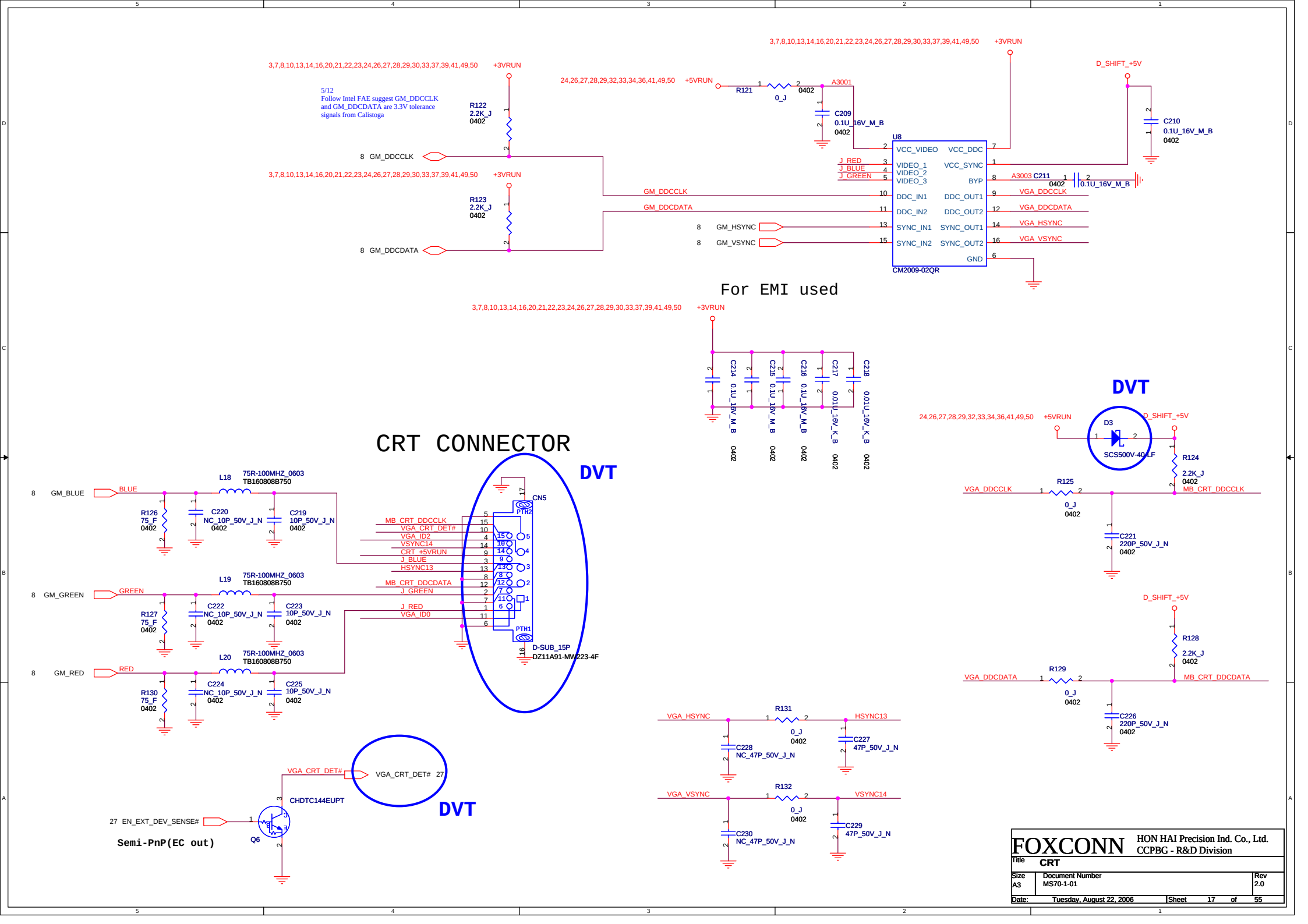
ON=0

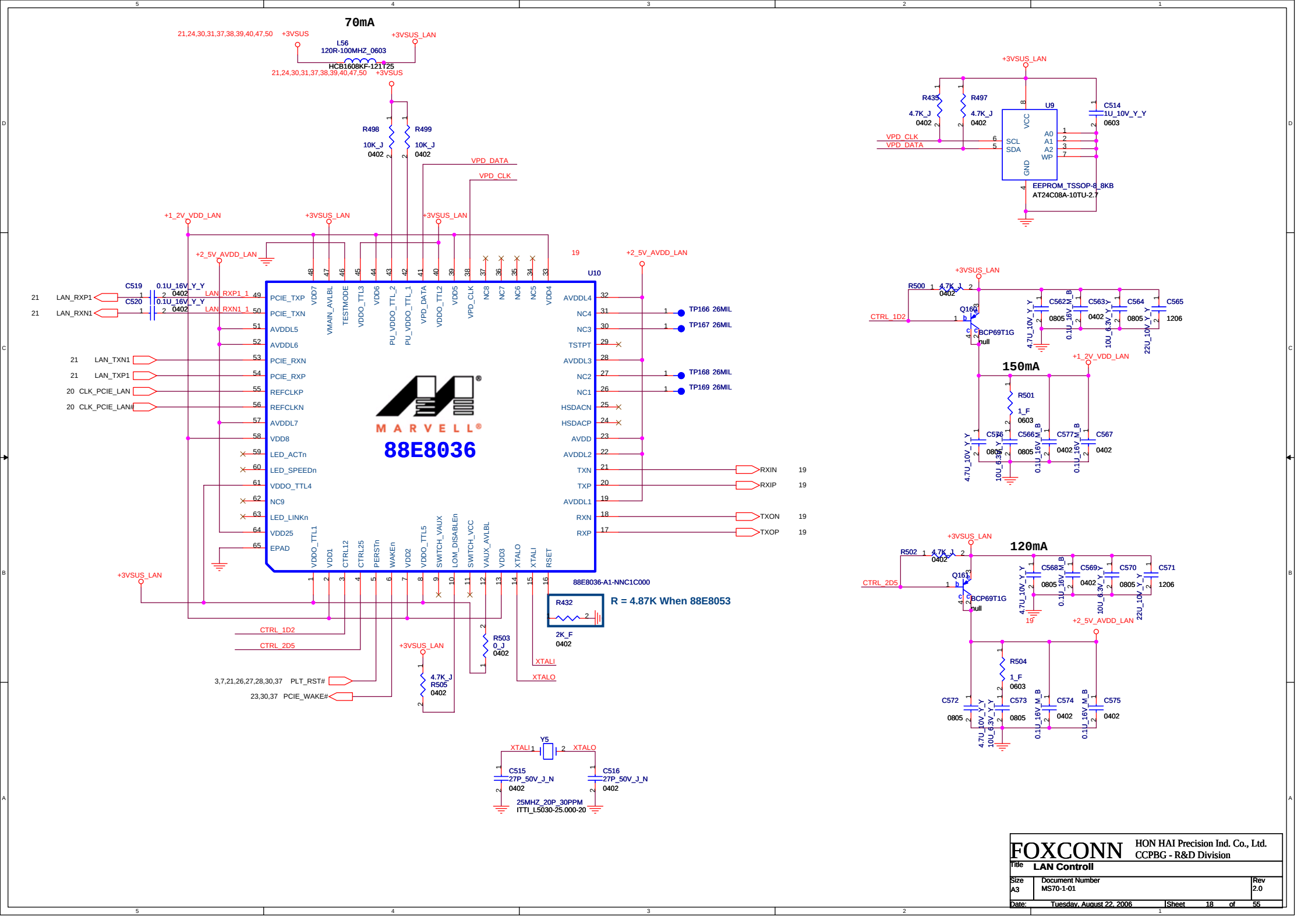


DISCHARGE

The R461 will consume about 0.054 Watt (3.3x3.3/200 = 0.054W). We changed resistor to 0603 size (1/8 Watt)

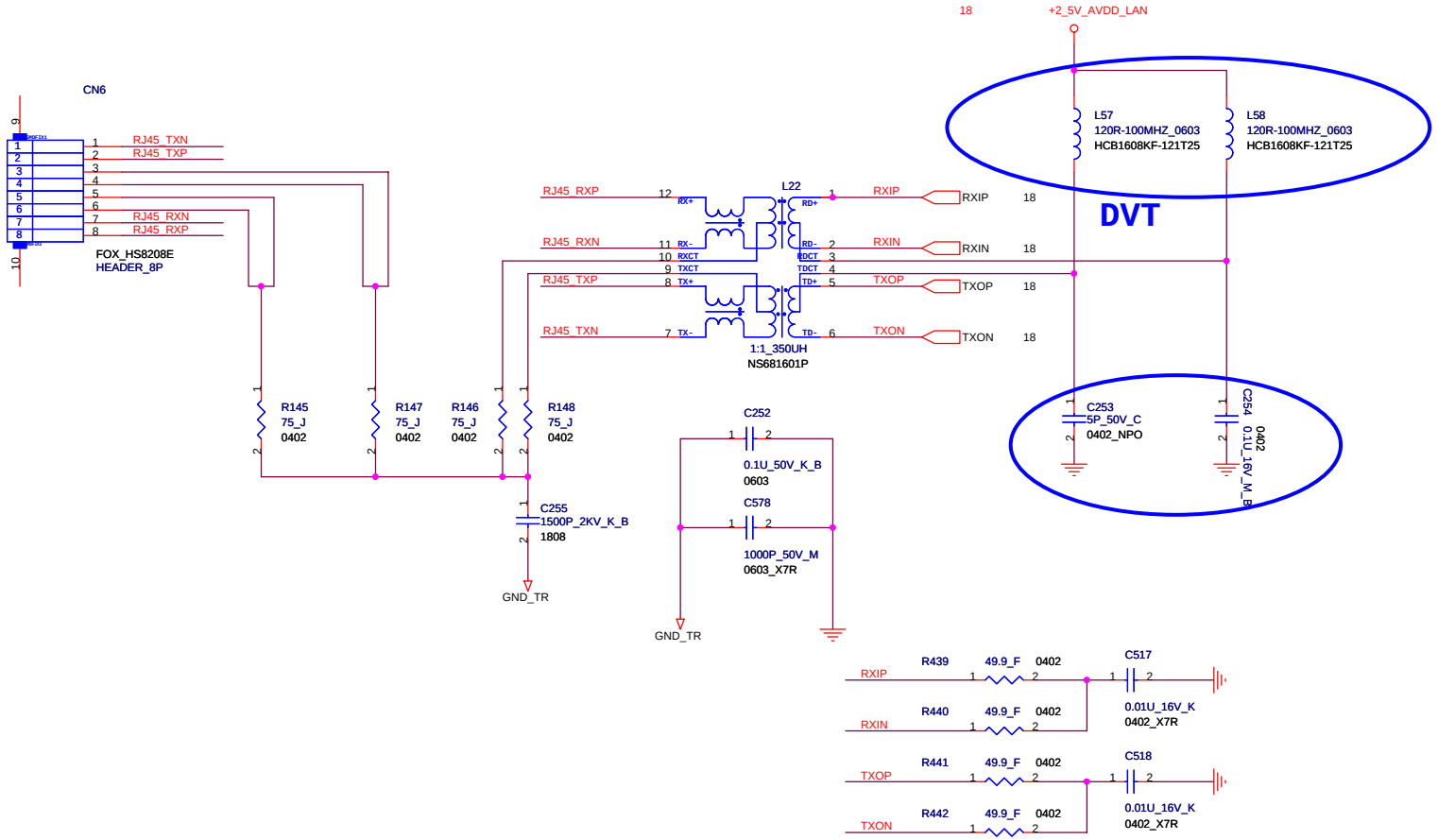
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: LVDS		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
Date: Tuesday, August 22, 2006	Sheet 16 of 55	


3,7,8,10,13,14,16,20,21,22,23,24,26,27,28,29,30,33,37,39,41,49,50
+3VRUN
5/12
Follow Intel FAE suggest GM_DDCCLK and GM_DDCDATA are 3.3V tolerance signals from Calistoga
R122 2.2K_J 0402
8 GM_DDCCLK
R123 2.2K_J 0402
8 GM_DDCDATA
24,26,27,28,29,32,33,34,36,41,49,50
+5VRUN
R121 0_J 0402
A3001
C209 0.1U_16V_M_B 0402
D_SHIFT_+5V
C210 0.1U_16V_M_B 0402
U8
VCC_VIDEO
VCC_DDC
J_RED
J_BLUE
J_GREEN
VIDEO_1
VIDEO_2
VIDEO_3
VCC_SYNC
BYP
A3003 C211 0402 0.1U_16V_M_B
GM_DDCCLK
GM_DDCDATA
8 GM_HSYNC
8 GM_VSYNC
DDC_IN1
DDC_IN2
SYNC_IN1
SYNC_IN2
DDC_OUT1
DDC_OUT2
SYNC_OUT1
SYNC_OUT2
GND
VGA_DDCCLK
VGA_DDCDATA
VGA_HSYNC
VGA_VSYNC
CM2009-02QR
For EMI used
C214 0.1U_16V_M_B 0402
C215 0.1U_16V_M_B 0402
C216 0.1U_16V_M_B 0402
C217 0.01U_16V_K_B 0402
C218 0.01U_16V_K_B 0402
CRT CONNECTOR
DVT
8 GM_BLUE
BLUE
L18 75R-100MHZ_0603 TB160808B750
R126 75_F 0402
C220 NC_10P_50V_J_N 0402
C219 10P_50V_J_N 0402
8 GM_GREEN
GREEN
L19 75R-100MHZ_0603 TB160808B750
R127 75_F 0402
C222 NC_10P_50V_J_N 0402
C223 10P_50V_J_N 0402
8 GM_RED
RED
L20 75R-100MHZ_0603 TB160808B750
R130 75_F 0402
C224 NC_10P_50V_J_N 0402
C225 10P_50V_J_N 0402
MB_CRT_DDCCLK
VGA_CRT_DET#
VGA_ID2
VSYNC14
CRT_+5VRUN
J_BLUE
HSYNC13
MB_CRT_DDCDATA
J_GREEN
J_RED
VGA_ID0
CN5
PTH2
PTH1
D-SUB_15P
DZ11A91-MW223-4F
VGA_CRT_DET#
VGA_CRT_DET# 27
CHDTC144EUPT
27 EN_EXT_DEV_SENSE#
Q6
Semi-PnP(EC out)
DVT
24,26,27,28,29,32,33,34,36,41,49,50
+5VRUN
D3
SCS500V-40_LF
D_SHIFT_+5V
R124 2.2K_J 0402
R125 0_J 0402
VGA_DDCCLK
MB_CRT_DDCCLK
C221 220P_50V_J_N 0402
R128 2.2K_J 0402
R129 0_J 0402
VGA_DDCDATA
MB_CRT_DDCDATA
C226 220P_50V_J_N 0402
VGA_HSYNC
R131 0_J 0402
HSYNC13
C228 NC_47P_50V_J_N
C227 47P_50V_J_N
VGA_VSYNC
R132 0_J 0402
VSYNC14
C230 NC_47P_50V_J_N
C229 47P_50V_J_N
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title CRT
Size A3
Document Number MS70-1-01
Rev 2.0
Date: Tuesday, August 22, 2006
Sheet 17 of 55



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

Title	LAN Controll	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 18 of 55	



FOXCONN	HON HAI Precision Ind. Co., Ltd.	
	CCPBG - R&D Division	
Title	LAN Transformer	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 19 of 55	

close to clk gen (For EMI)

Length as short as possible.

CALISTOGA Chip HOST CPU

DVT

ICH7M SATA

CALISTOGA SSCK

CALISTOGA DOT96

ICH7 DMI

SM bus Address 1101001 (ICH7)
For clock generator

Pin Straps
Pin 53/59/60/64 100K ohm pull-up

pin53	pin 11/12
0	SRCCLK0 27MHz (v)
1	
pin59	**pin 15/16**
0	SRCCLK0 SATA (v)
1	
pin60	**pin 37/38**
0	SRCCLK8 (v)
1	CPU_2_ITP
pin64	**pin 13/14**
0	LCDCLK_SS (CA)
1	SRCCLK1 (NV)

06/16
pin53/59/60/64 with internal pull-up resistor
No Stuff Pull-up Resistor

06/09
CLKREQ with internal pull-up resistor
No Stuff Pull-up Resistor

06/17
CLK_PCIE_ICH changed to SRCCLK7
CLK_DOCK_LAN changed to SRCCLK8
SW Note: datasheet page13 Byte8.1 => SRCCLK7
should be configured as "Not Controlled"

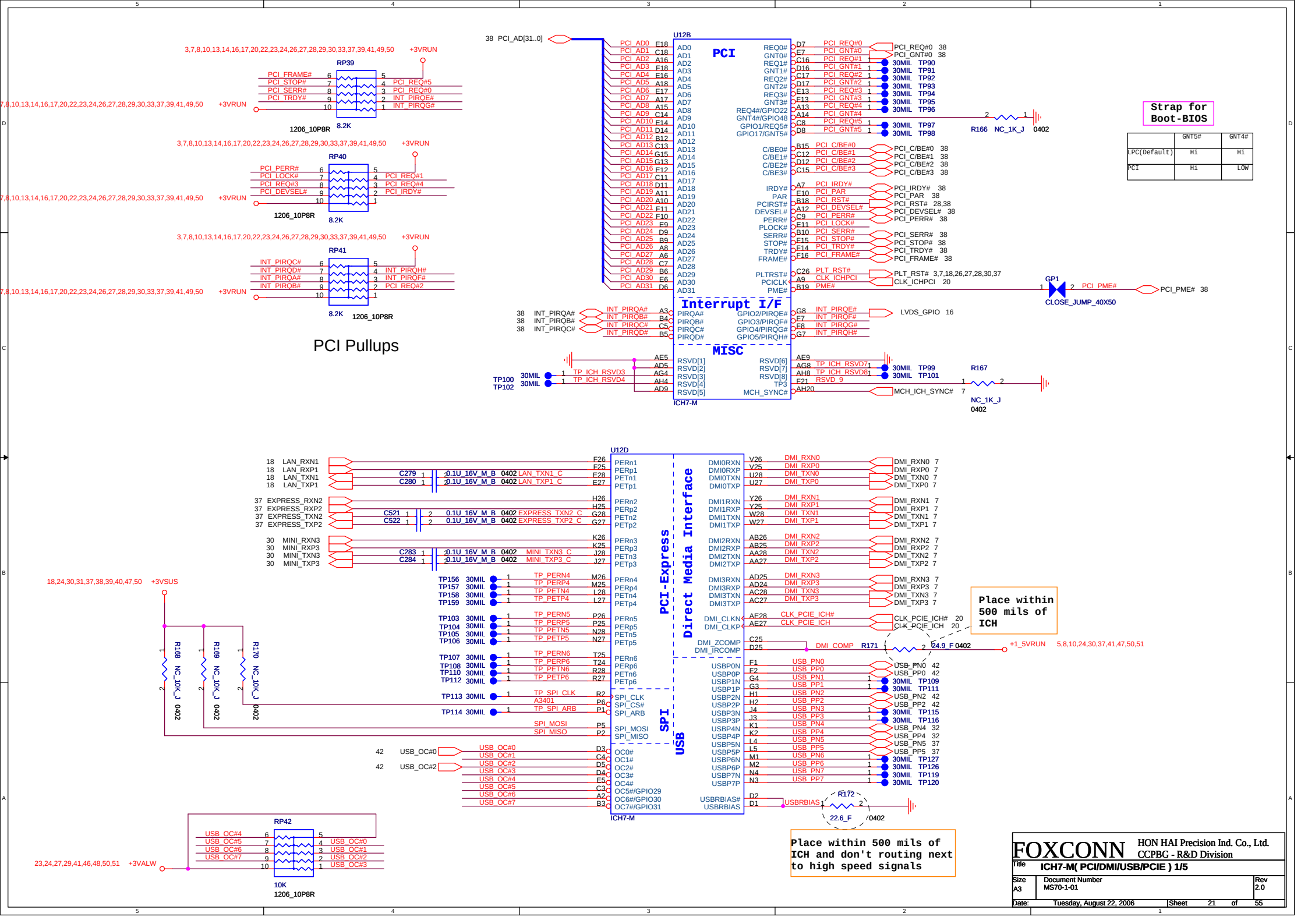
06/09
DEL pull-up resistor R80~82
pull-down resistor R85,R88
Del R84,R87,R90

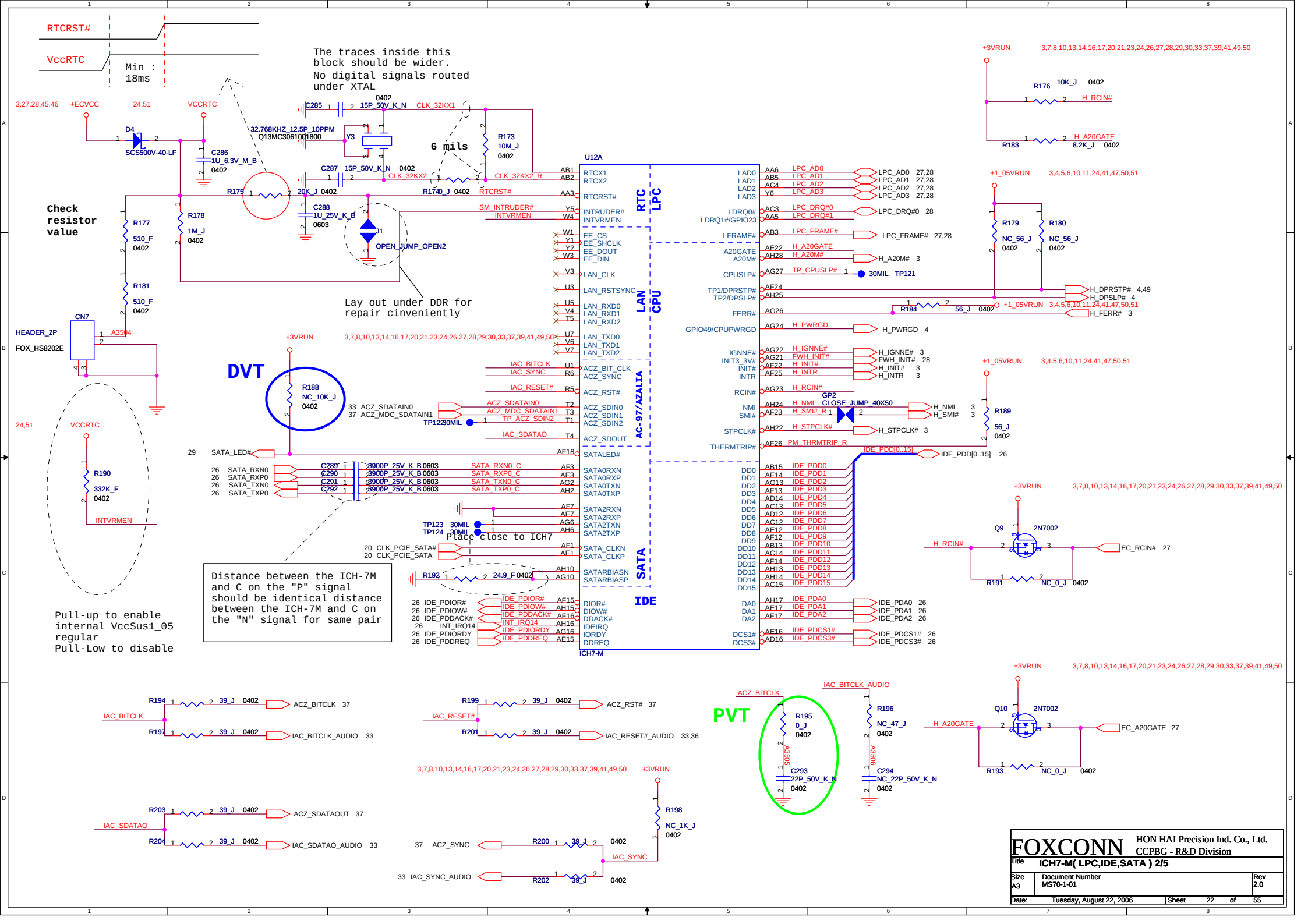
06/16
ICS have recognized, FSLA/FSLB setting is different from CK410M spec.But MS10 will not use 100MHz, For test purpose, please move R91 from MCH_BSEL2 to MCH_BSEL0, and mount R89.

FSB Frequency Table:

FSLB	FSLA	CPU	SRC[7:0]	PCI
0	0	100	100	33
0	1	133	100	33
1	0	200	100	33
1	1	166	100	33

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division
Title	CLOCK GEN
Size A3	Document Number MS70-1-01 Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 20 of 55


RP39
RP40
RP41
RP42
1206_10P8R
8.2K
10K
PCI Pullups
U12B
PCI
Interrupt I/F
MISC
ICH7-M
Strap for Boot-BIOS
GP1
CLOSE_JUMP_40X50
U12D
PCI-Express
Direct Media Interface
SPI
USB
Place within 500 mils of ICH
Place within 500 mils of ICH and don't routing next to high speed signals
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
ICH7-M(PCI/DMI/USB/PCIE) 1/5
Document Number MS70-1-01
Rev 2.0
Tuesday, August 22, 2006
Sheet 21 of 55


RTCRST#
VccRTC
Min : 18ms
The traces inside this block should be wider.
No digital signals routed under XTAL
Check resistor value
Lay out under DDR for repair cinveniently
DVT
PVT
Place close to ICH7
Distance between the ICH-7M and C on the "P" signal should be identical distance between the ICH-7M and C on the "N" signal for same pair
Pull-up to enable internal VccSus1_05 regular
Pull-Low to disable
6 mils
U12A
RTC
LPC
LAN
CPU
AC-97/AZALIA
SATA
IDE
ICH7-M
D4
SCS500V-40-LF
Y3
32.768KHZ_12.5P_10PPM
Q13MC3061001800
OPEN_JUMP_OPEN2
CN7
HEADER_2P
FOX_HS8202E
GP2
CLOSE_JUMP_40X50
Q9
Q10
2N7002
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH7-M(LPC,IDE,SATA) 2/5
Size
A3
Document Number
MS70-1-01
Rev
2.0
Date:
Tuesday, August 22, 2006
Sheet
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of
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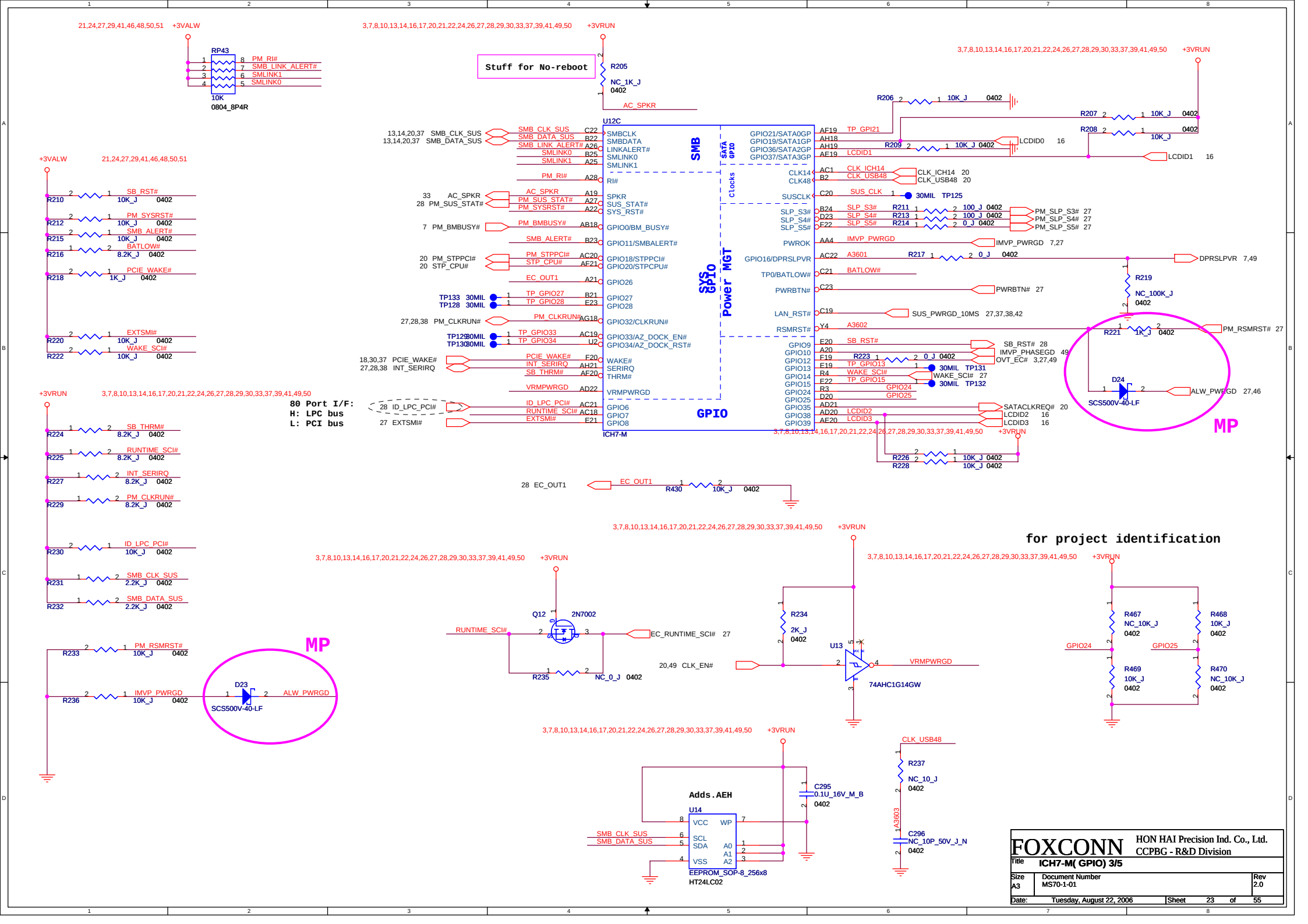
21,24,27,29,41,46,48,50,51 +3VALW
RP43
PM_RI#
SMB_LINK_ALERT#
SMLINK1
SMLINK0
10K
0804_8P4R
3,7,8,10,13,14,16,17,20,21,22,24,26,27,28,29,30,33,37,39,41,49,50 +3VRUN
Stuff for No-reboot
R205
NC_1K_J
0402
AC_SPKR
U12C
SMB
SATA GPIO
Clocks
SYS GPIO
Power MGT
GPIO
ICH7-M
SMBCLK
SMBDATA
LINKALERT#
SMLINK0
SMLINK1
RI#
SPKR
SUS_STAT#
SYS_RST#
GPIO0/BM_BUSY#
GPIO11/SMBALERT#
GPIO18/STPPCI#
GPIO20/STPCPU#
GPIO26
GPIO27
GPIO28
GPIO32/CLKRUN#
GPIO33/AZ_DOCK_EN#
GPIO34/AZ_DOCK_RST#
WAKE#
SERIRQ
THRM#
VRMPWRGD
GPIO6
GPIO7
GPIO8
GPIO21/SATA0GP
GPIO19/SATA1GP
GPIO36/SATA2GP
GPIO37/SATA3GP
CLK14
CLK48
SUSCLK
SLP_S3#
SLP_S4#
SLP_S5#
PWROK
GPIO16/DPRSLPVR
TP0/BATLOW#
PWRBTN#
LAN_RST#
RSMRST#
GPIO9
GPIO10
GPIO12
GPIO13
GPIO14
GPIO15
GPIO24
GPIO25
GPIO35
GPIO38
GPIO39
TP_GPI21
CLK_ICH14
CLK_USB48
SUS_CLK
SLP_S3#
SLP_S4#
SLP_S5#
IMVP_PWRGD
A3601
BATLOW#
PWRBTN#
SUS_PWRGD_10MS 27,37,38,42
A3602
SB_RST#
TP_GPIO13
WAKE_SCI#
TP_GPIO15
GPIO24
GPIO25
SATACLKREQ# 20
LCDID2 16
LCDID3 16
LCDID0 16
LCDID1 16
PM_SLP_S3# 27
PM_SLP_S4# 27
PM_SLP_S5# 27
DPRSLPVR 7,49
PM_RSMRST# 27
ALW_PWRGD 27,46
SB_RST# 28
IMVP_PHASEGD 49
OVT_EC# 3,27,49
SCS500V-40-LF
MP
+3VALW 21,24,27,29,41,46,48,50,51
SB_RST#
PM_SYSRST#
SMB_ALERT#
BATLOW#
PCIE_WAKE#
EXTSMI#
WAKE_SCI#
+3VRUN 3,7,8,10,13,14,16,17,20,21,22,24,26,27,28,29,30,33,37,39,41,49,50
SB_THRM#
RUNTIME_SCI#
INT_SERIRQ
PM_CLKRUN#
ID_LPC_PCI#
SMB_CLK_SUS
SMB_DATA_SUS
80 Port I/F:
H: LPC bus
L: PCI bus
PM_RSMRST#
IMVP_PWRGD
ALW_PWRGD
SCS500V-40-LF
MP
EC_OUT1
R430
10K_J 0402
Q12
2N7002
RUNTIME_SCI#
EC_RUNTIME_SCI# 27
R235
NC_0_J 0402
R234
2K_J
0402
U13
74AHC1G14GW
20,49 CLK_EN#
VRMPWRGD
for project identification
R467
NC_10K_J
0402
R468
10K_J
0402
R469
10K_J
0402
R470
NC_10K_J
0402
GPIO24
GPIO25
Adds.AEH
U14
VCC
WP
SCL
SDA
A0
A1
A2
VSS
EEPROM_SOP-8_256x8
HT24LC02
C295
0.1U_16V_M_B
0402
C296
NC_10P_50V_J_N
0402
R237
NC_10_J
0402
A3603
CLK_USB48
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title
ICH7-M(GPIO) 3/5
Size
A3
Document Number
MS70-1-01
Rev
2.0
Date:
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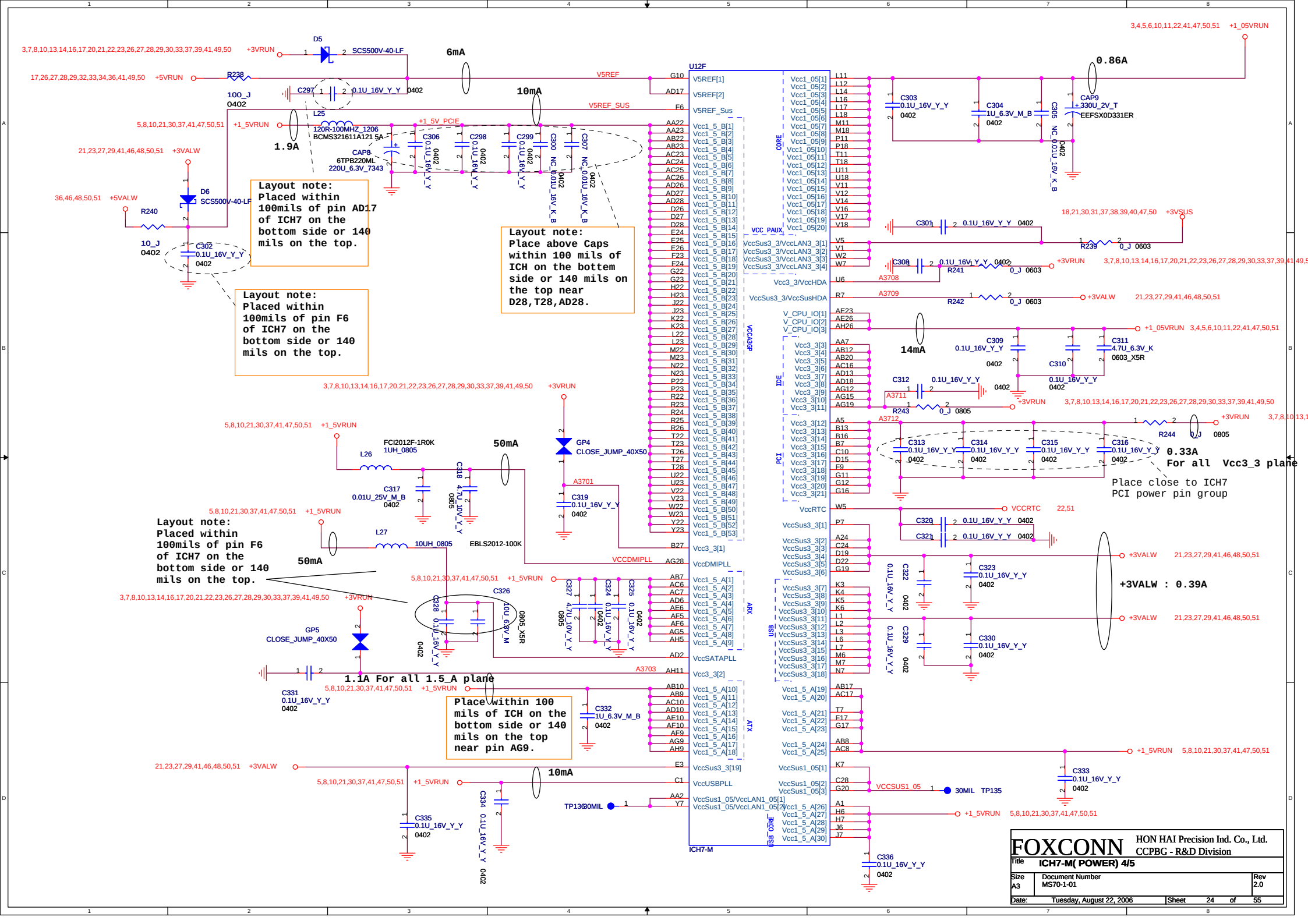
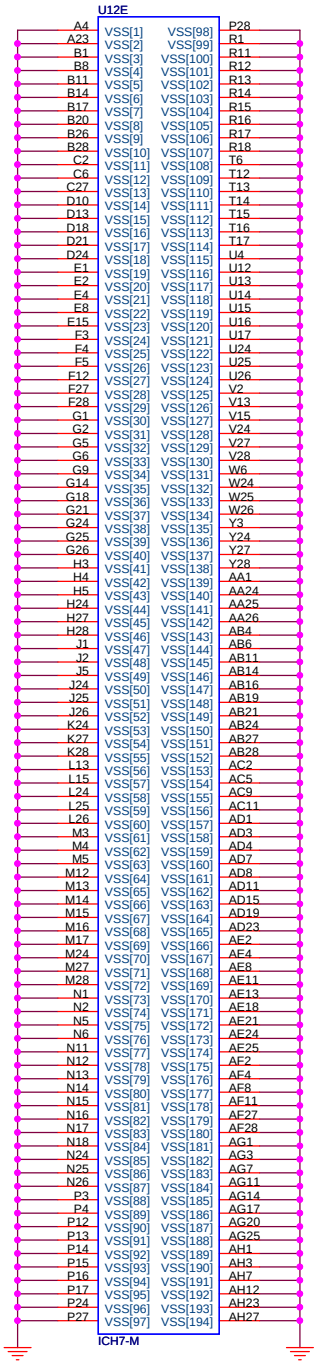

U12F
ICH7-M
Layout note: Placed within 100mils of pin AD17 of ICH7 on the bottom side or 140 mils on the top.
Layout note: Place above Caps within 100 mils of ICH on the bottem side or 140 mils on the top near D28,T28,AD28.
Layout note: Placed within 100mils of pin F6 of ICH7 on the bottom side or 140 mils on the top.
Layout note: Placed within 100mils of pin F6 of ICH7 on the bottom side or 140 mils on the top.
Place within 100 mils of ICH on the bottom side or 140 mils on the top near pin AG9.
Place close to ICH7 PCI power pin group
0.86A
14mA
0.33A For all Vcc3_3 plane
+3VALW : 0.39A
1.1A For all 1.5_A plane
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title ICH7-M(POWER) 4/5
Size A3
Document Number MS70-1-01
Rev 2.0
Date: Tuesday, August 22, 2006
Sheet 24 of 55

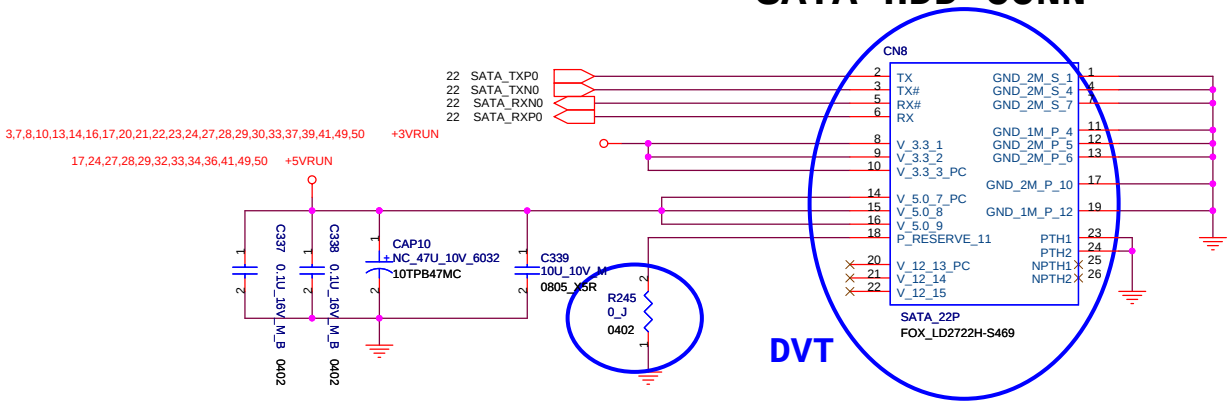


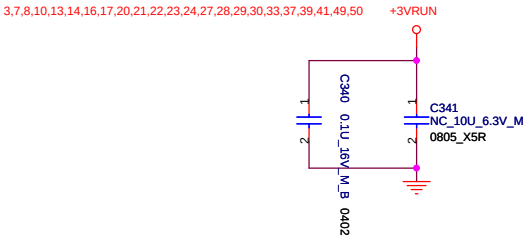
FOXCONN

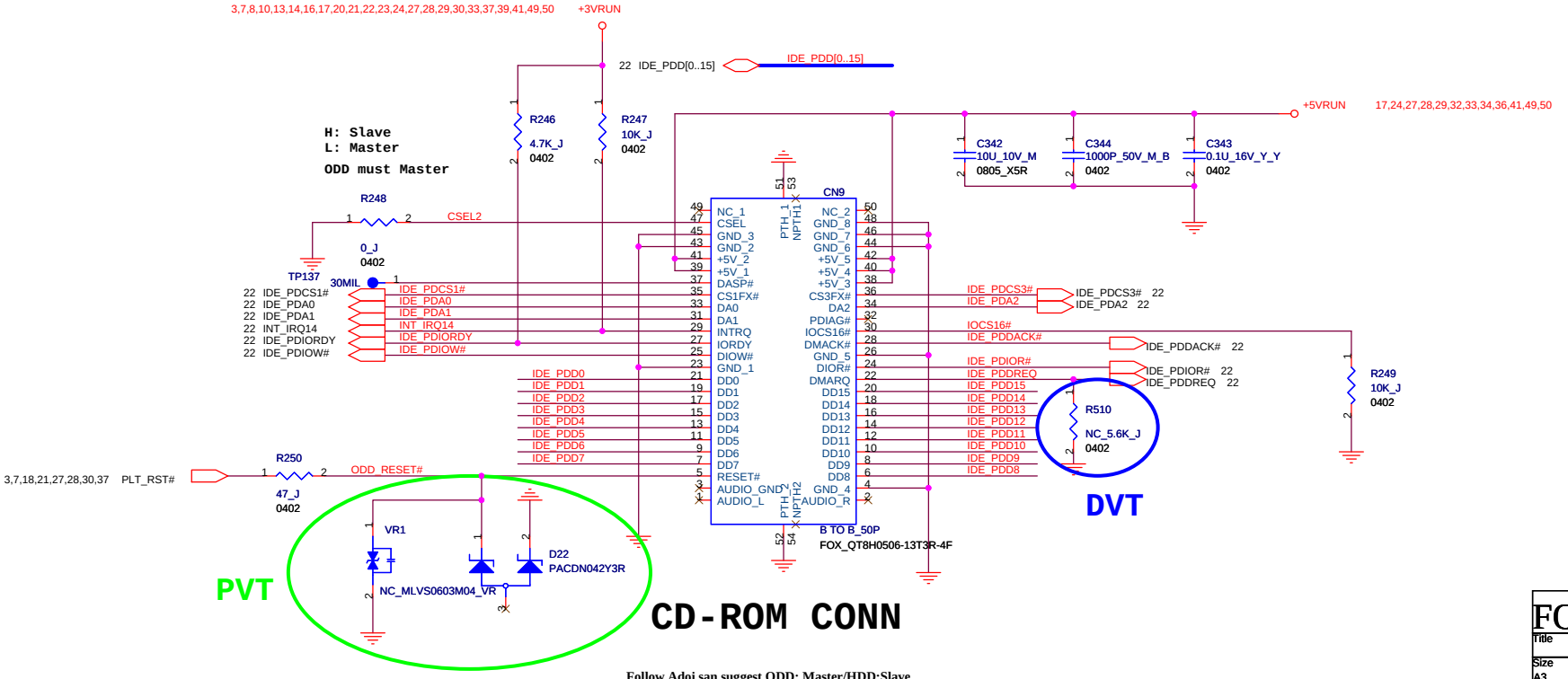
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	ICH7-M(GND) 5/5	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 25 of 55	

SATA HDD CONN







CD-ROM CONN

Follow Adoi san suggest ODD: Master/HDD:Slave

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	SATA HDD/CD-ROM	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 26 of 55	

Consider short FB after BB test.

FOR EMI

PVT

DVT

DVT

DVT

KBC CNN

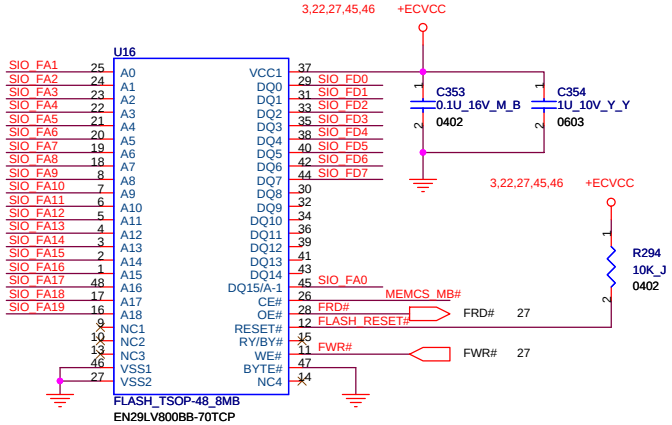
	ID
945	111111
940	111101

CLOSE TO CHIP

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

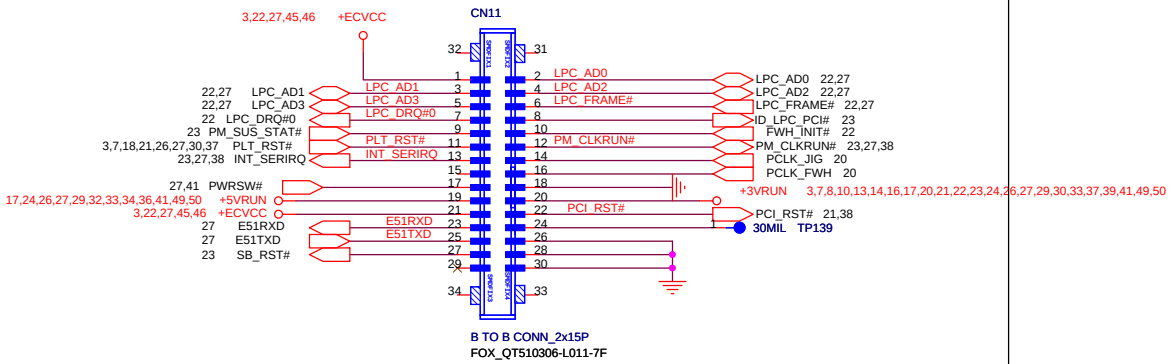
Title: EC+KBC
Size: A3
Document Number: MS70-1-01
Rev: 2.0
Date: Tuesday, August 22, 2006
Sheet 27 of 55

27 SIO_FA[19..0]
27 SIO_FD[7..0]

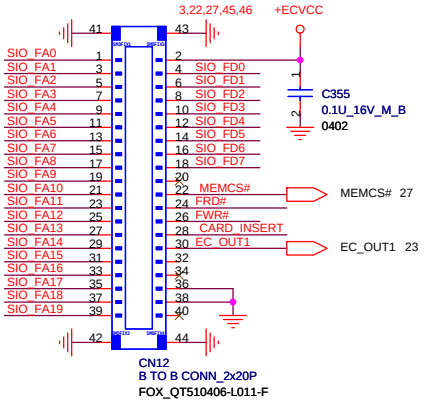


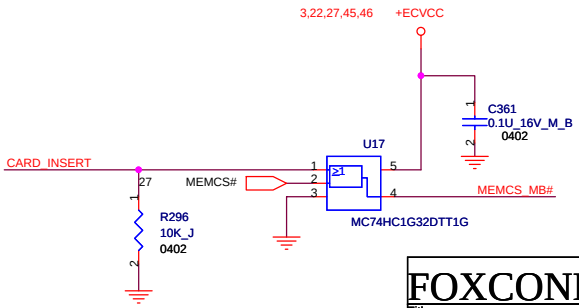
FLASH BIOS

JIG-120



X-BUS

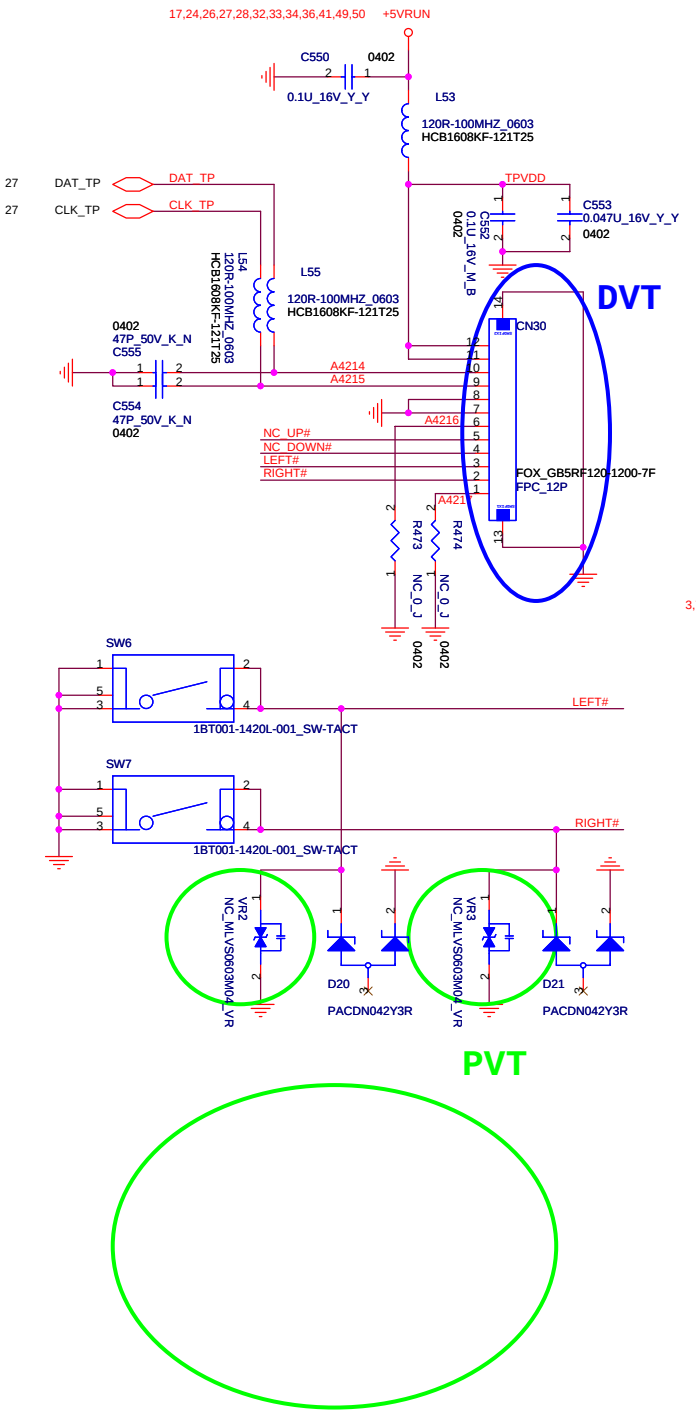




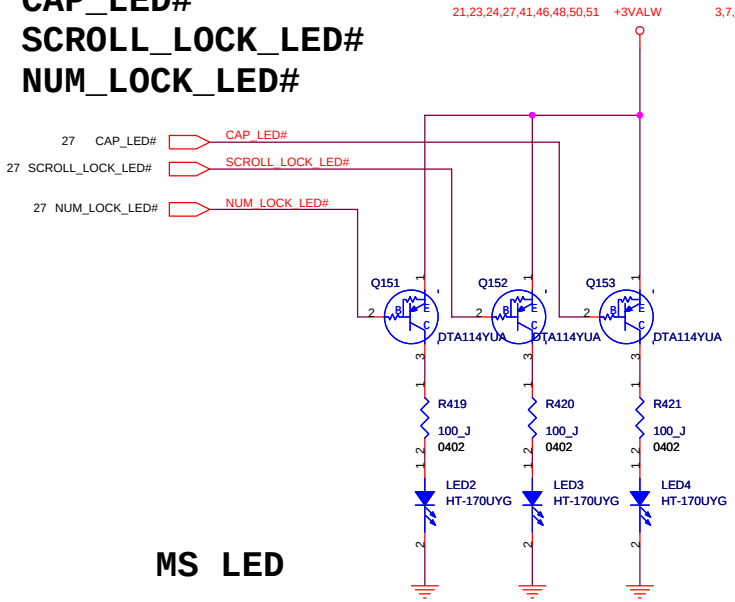
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	Flash ROM/X-Bus/LID SW#	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 28 of 55	

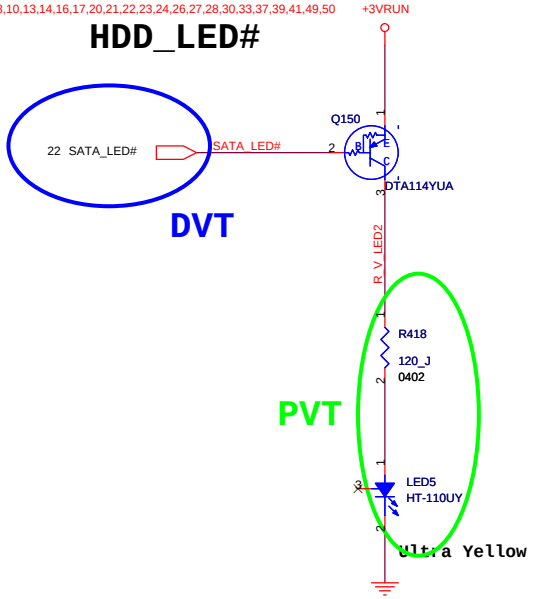
Touch Pad Board



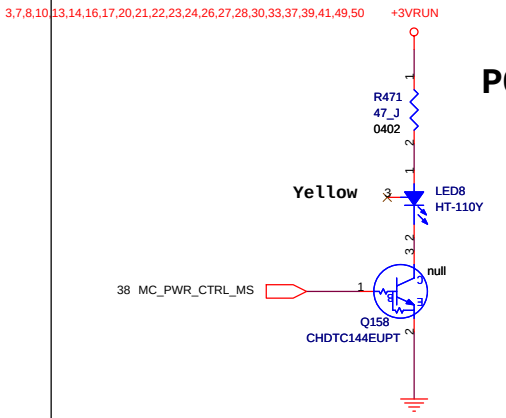
CAP_LED#
SCROLL_LOCK_LED#
NUM_LOCK_LED#



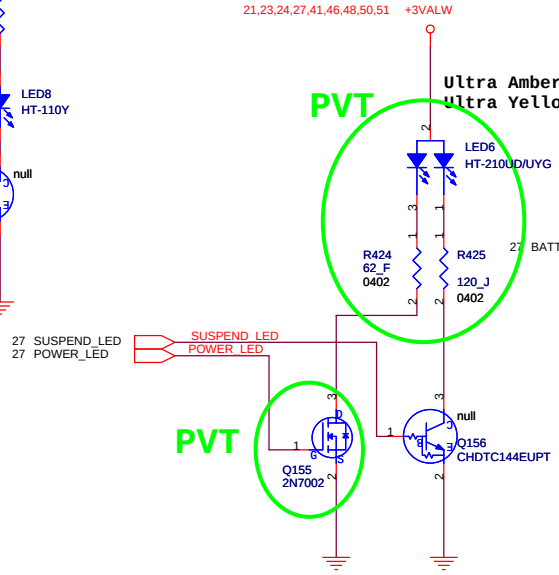
HDD_LED#



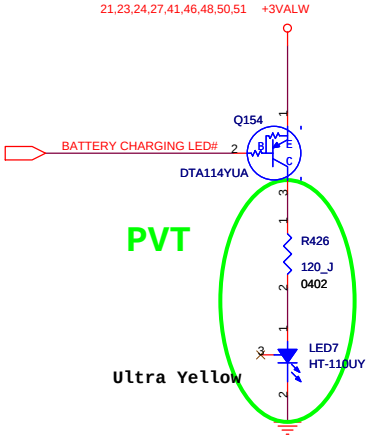
MS LED



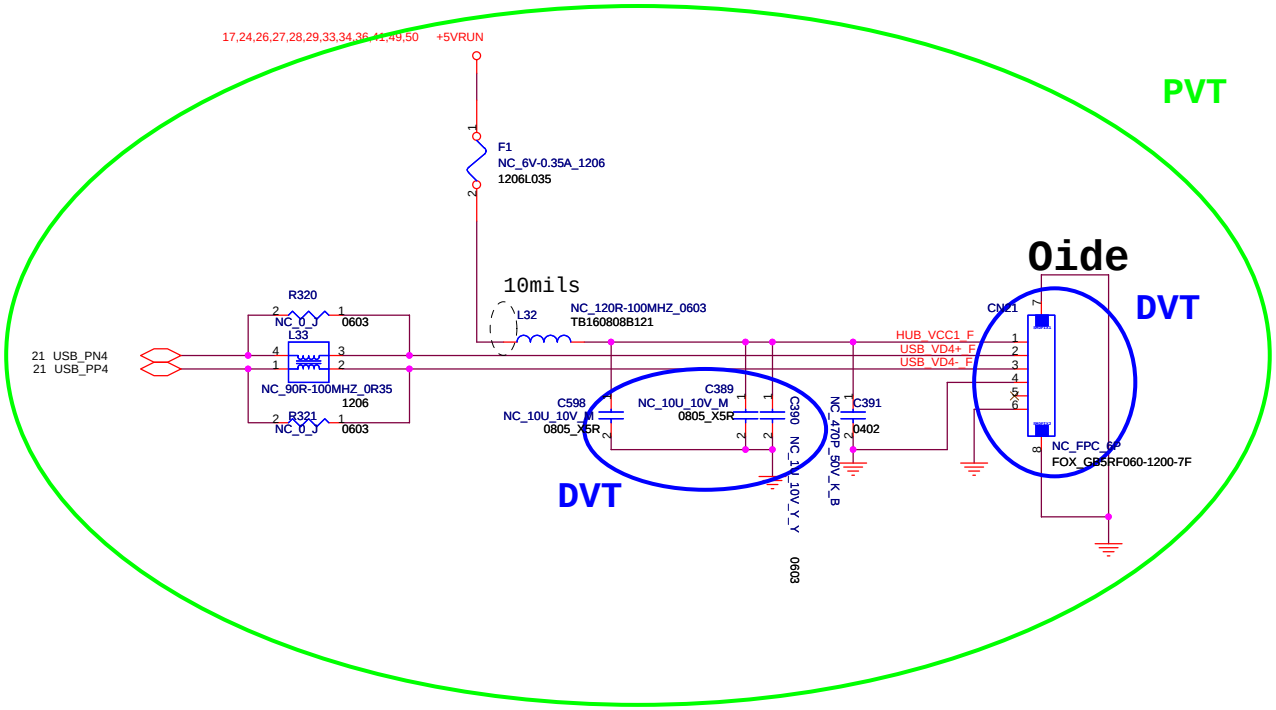
POWER/SUSPEND LED



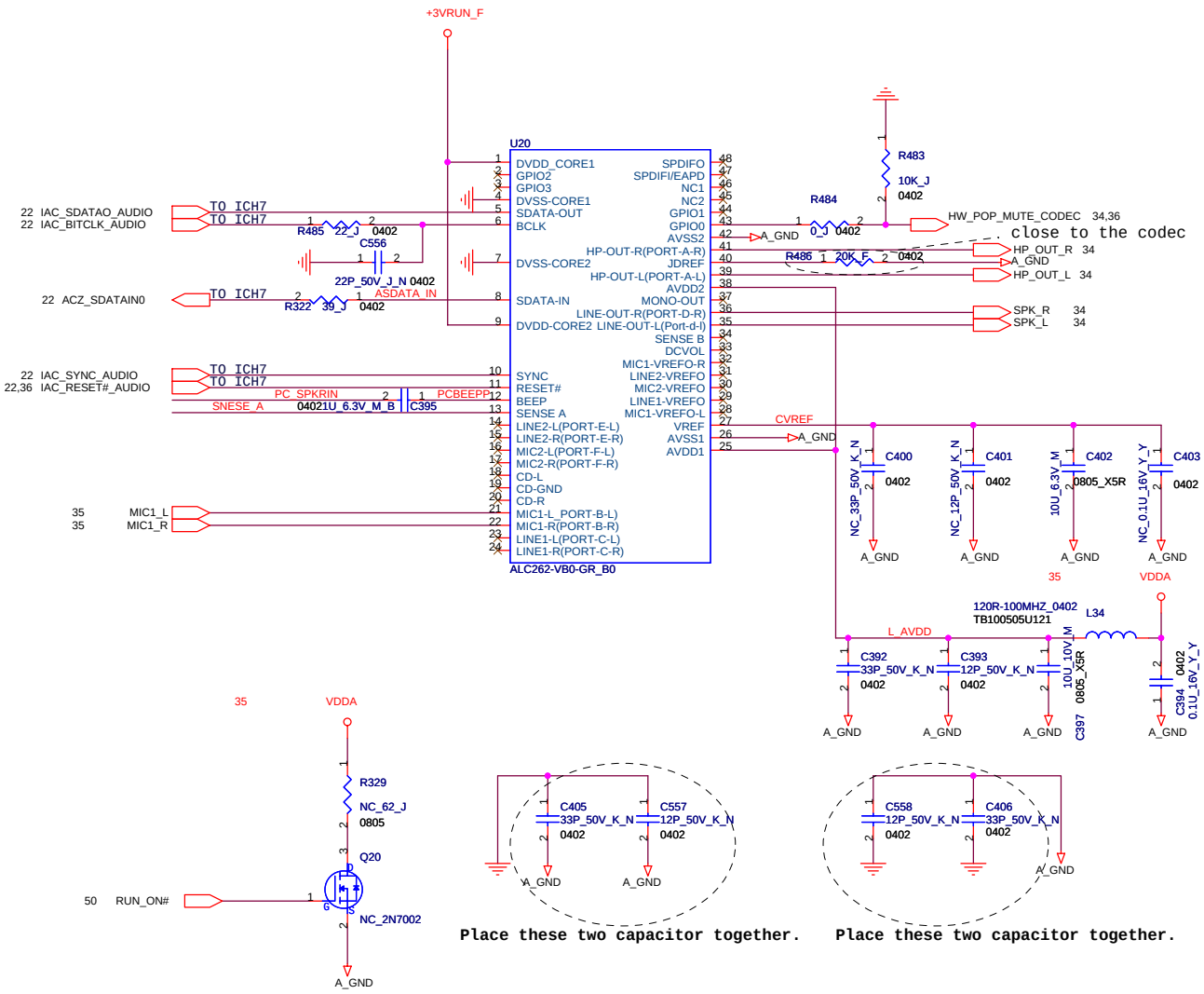
BATTERY CHARGING LED#



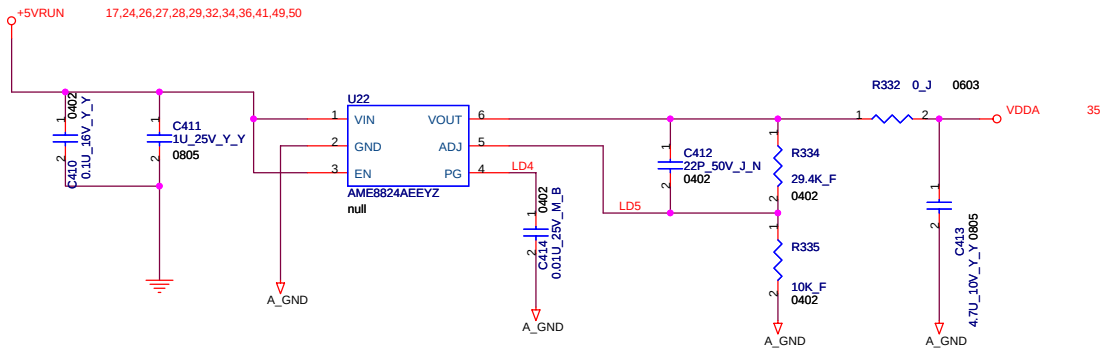
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: LED/Touch PAD		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
Date: Tuesday, August 22, 2006	Sheet 29 of 55	

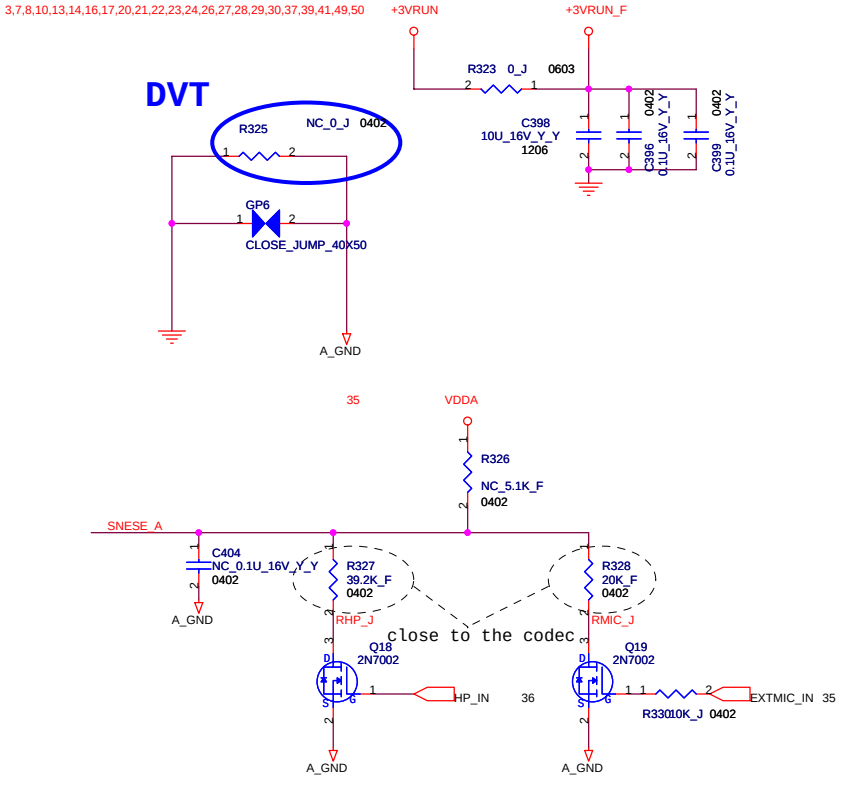


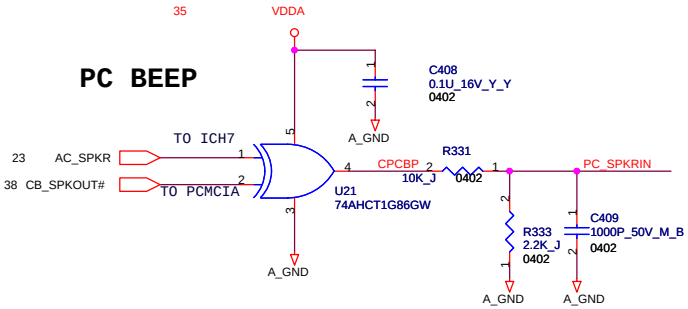
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: OIDE		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
Date: Tuesday, August 22, 2006	Sheet 32 of 55	



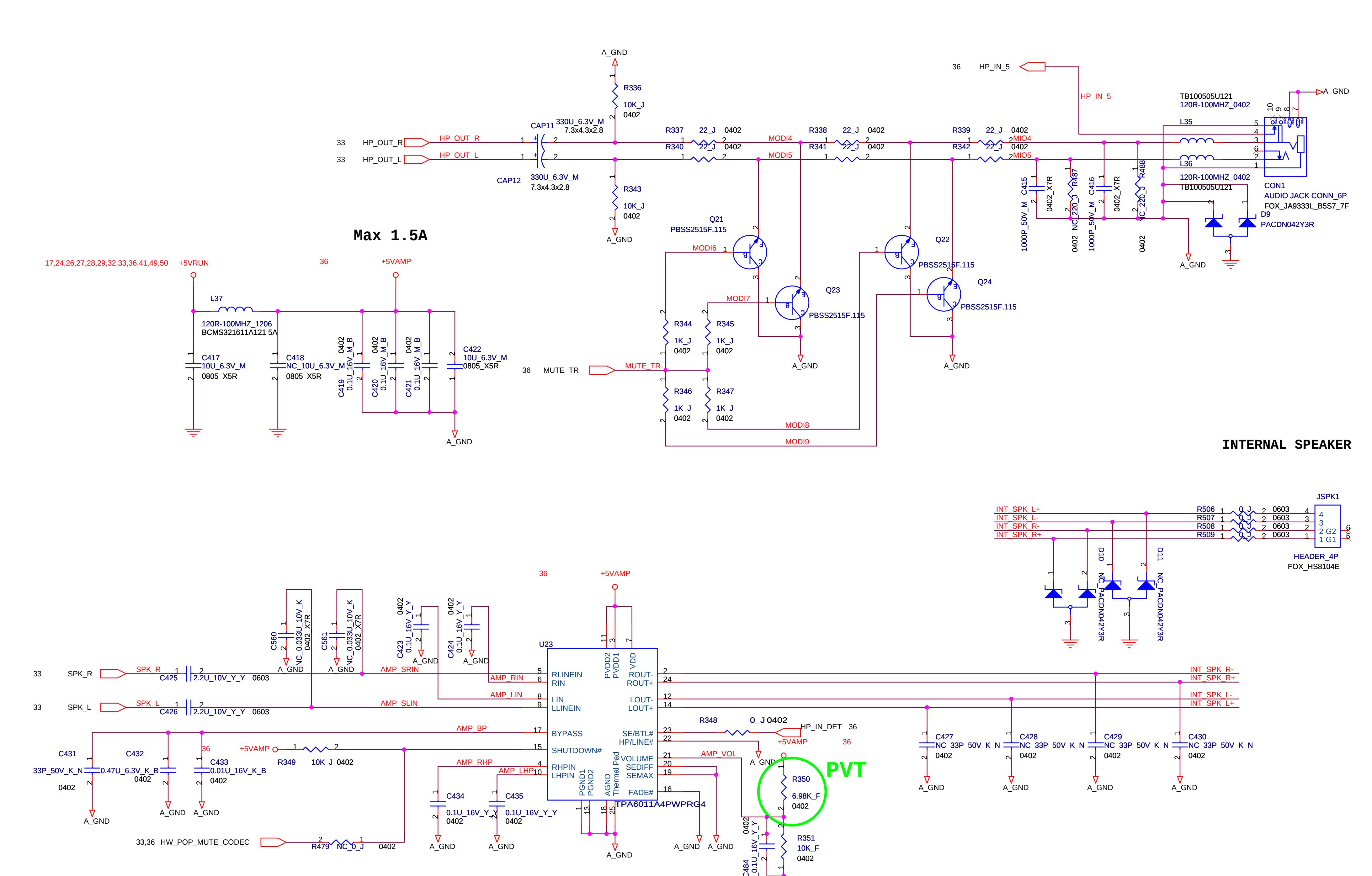
AUDIO POWER(Change to 4.75V/200mA)







FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	AUDIO(CODEC/POWER) 1/4		
Size A3	Document Number MS70-1-01		Rev 2.0
Date: Tuesday, August 22, 2006		Sheet 33 of 55	

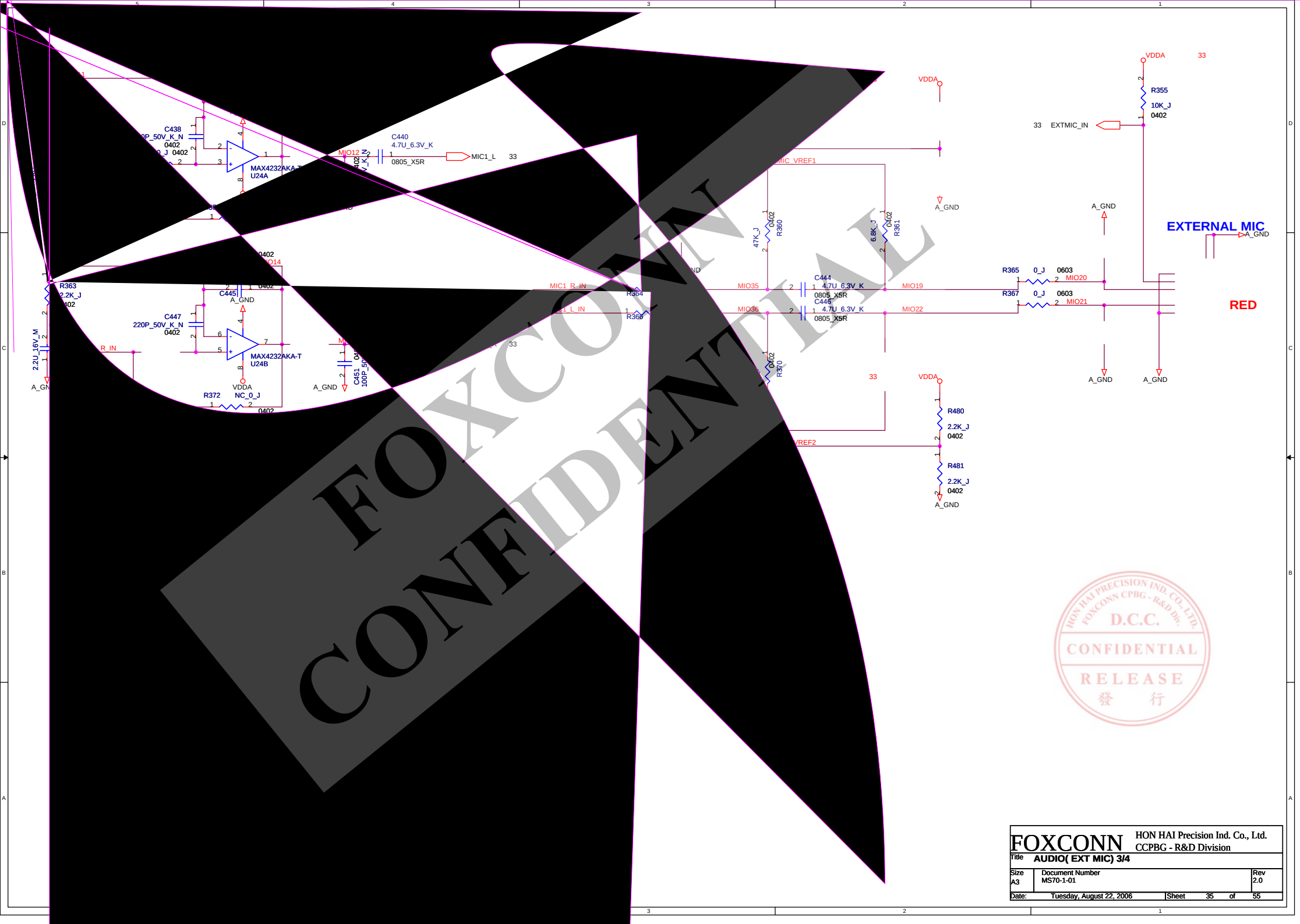


FOXCONN HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division

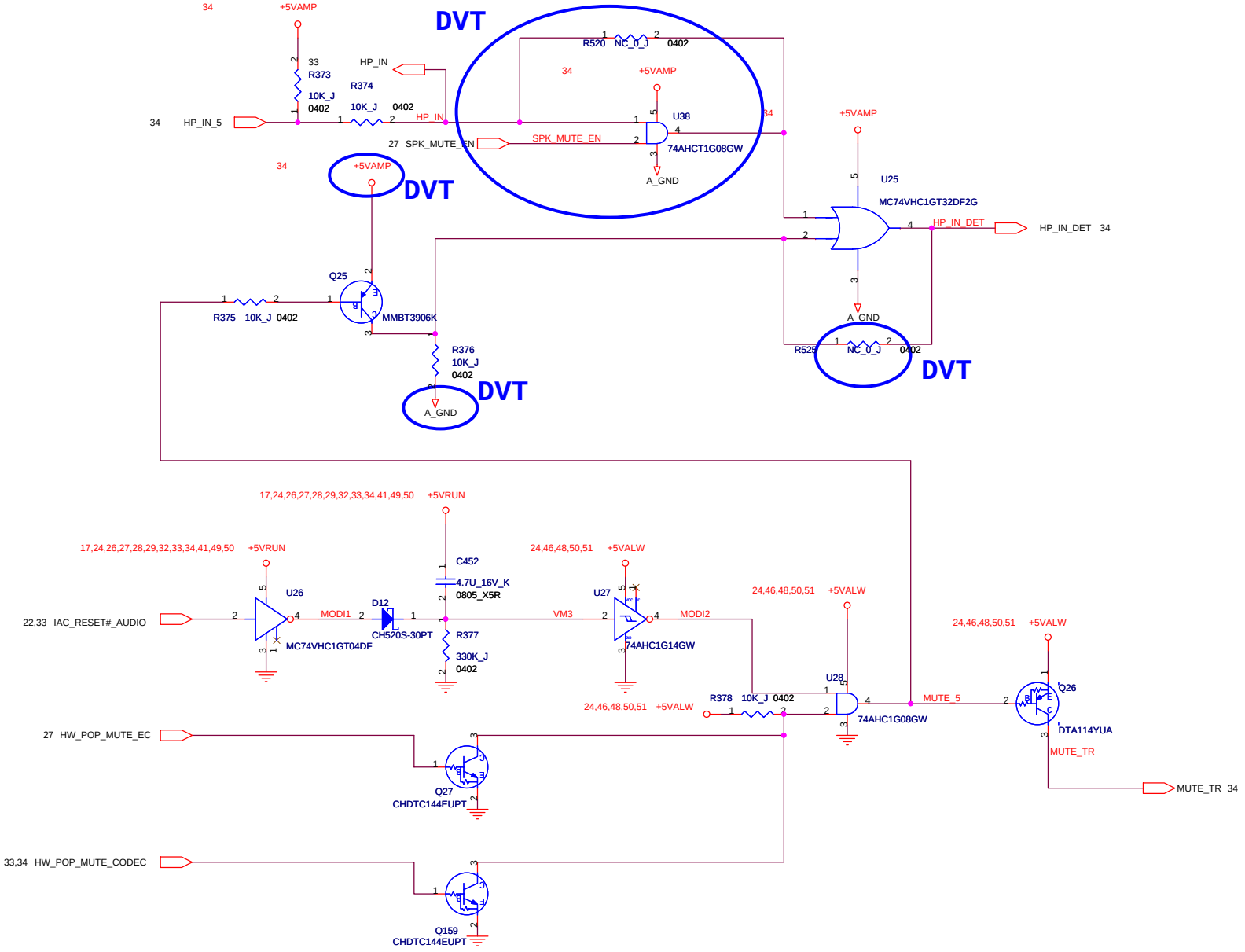
Title: AUDIO(AMP & HP & SPK)

Size	Document Number	Rev
A3	MS70-1-01	2.0

Date: Tuesday, August 22, 2006 Sheet 34 of 55

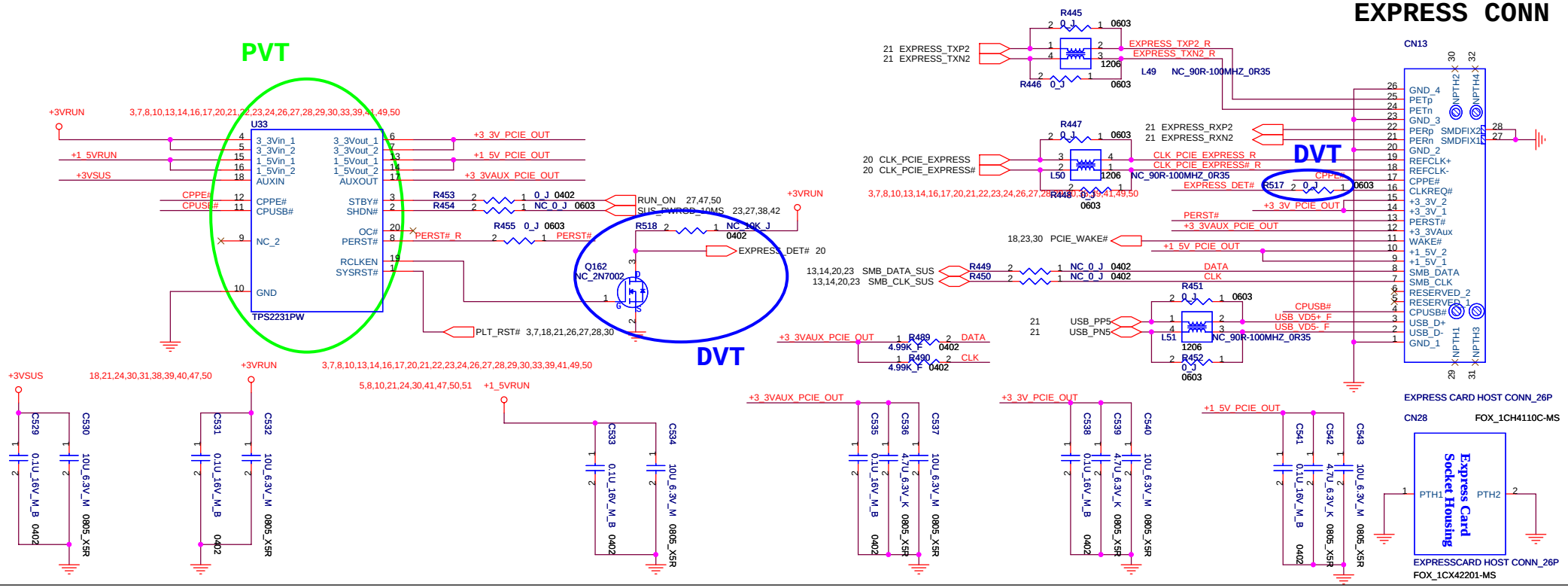


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	AUDIO(EXT MIC) 3/4	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 35 of 55	

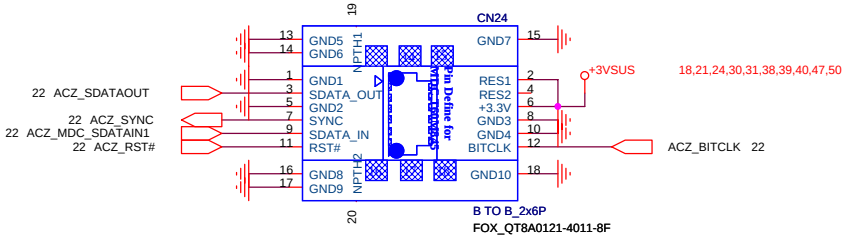


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	AUDIO (MUTE) 4/4	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 36 of 55	

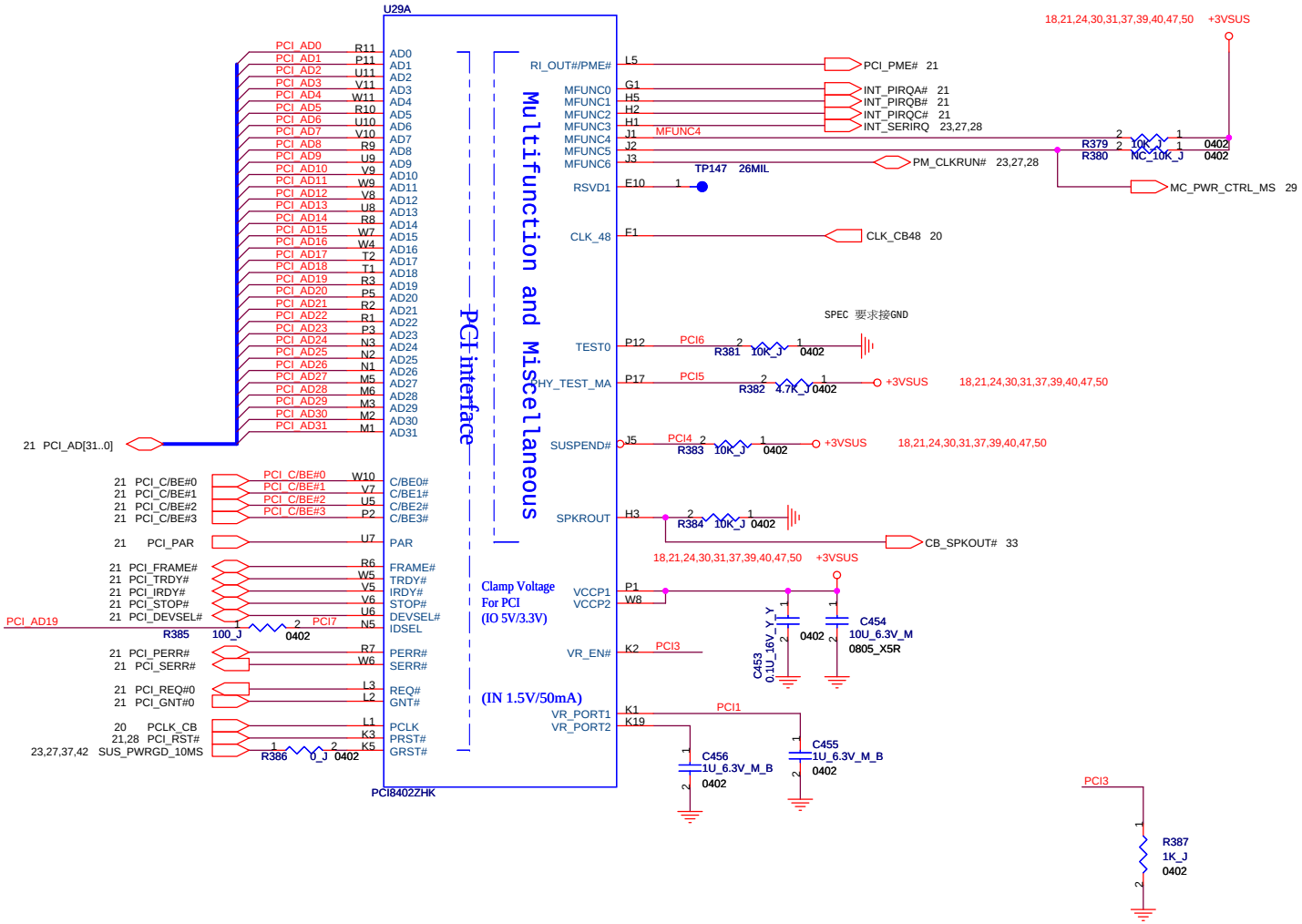
EXPRESS CONN



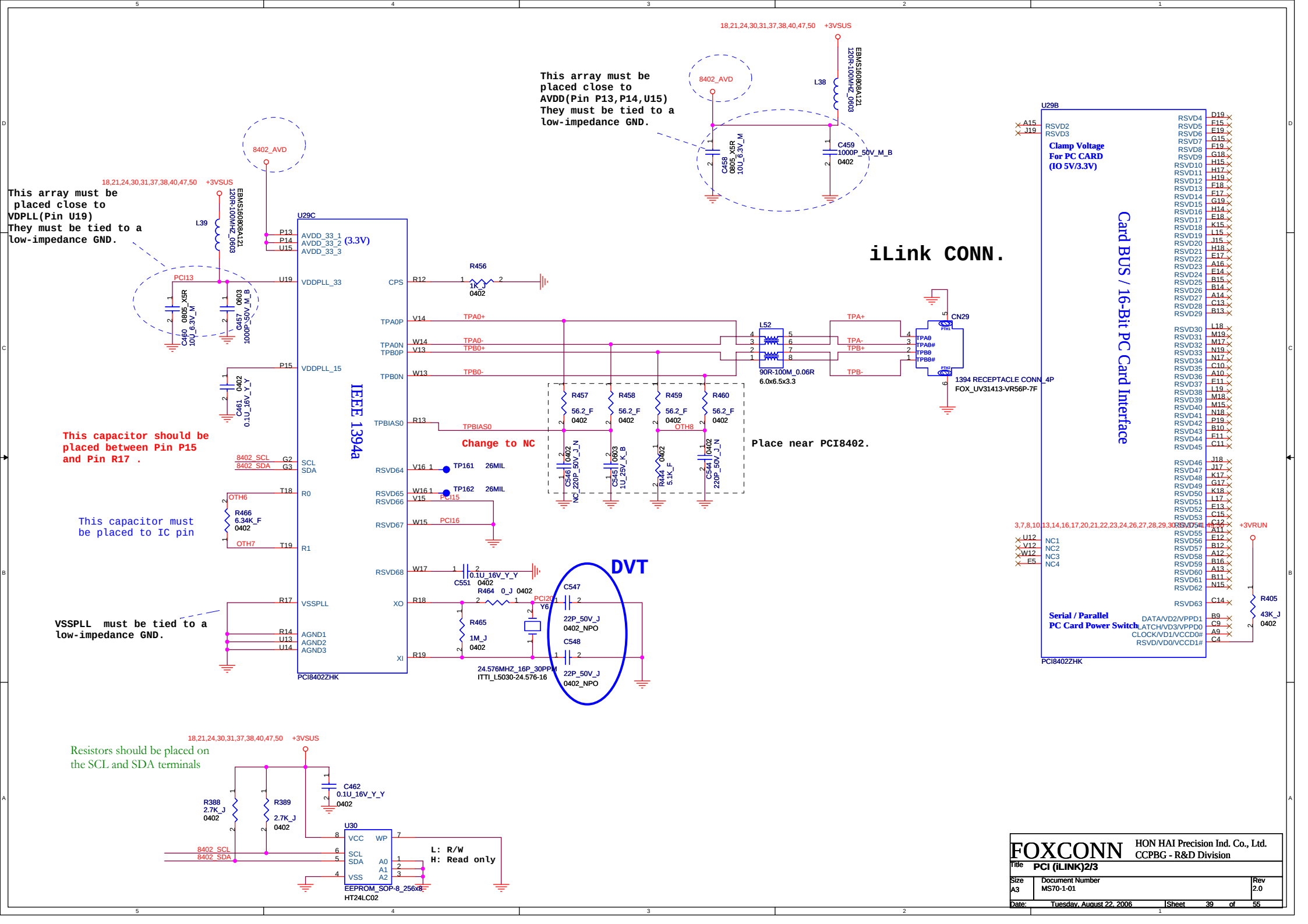
MDC CONN.



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: EXPRESS CARD		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
Date: Tuesday, August 22, 2006	Sheet 37 of 55	



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	PCI (PCI BUS) 1/3	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 38 of 55	


18,21,24,30,31,37,38,40,47,50 +3VSUS
8402_AVD
This array must be placed close to AVDD(Pin P13,P14,U15) They must be tied to a low-impedance GND.
L38
EBMS160808A121 120R-100MHZ_0603
C458 0805_X5R 10U_6.3V_M
C459 1000P_50V_M_B 0402
This array must be placed close to VDPLL(Pin U19) They must be tied to a low-impedance GND.
L39
EBMS160808A121 120R-100MHZ_0603
C460 0805_X5R 10U_6.3V_M
C457 0603 1000P_50V_M_B
C461 0402 0.1U_16V_Y_Y
U29C
IEEE 1394a
P13 AVDD_33_1
P14 AVDD_33_2 (3.3V)
U15 AVDD_33_3
U19 VDDPLL_33
P15 VDDPLL_15
CPS R12
R456 1K_J 0402
TPA0P V14
TPA0N W14
TPB0P V13
TPB0N W13
TPA0+
TPA0-
TPB0+
TPB0-
TPBIAS0 R13
TPBIAS0
Change to NC
R457 56.2_F 0402
R458 56.2_F 0402
R459 56.2_F 0402
R460 56.2_F 0402
C546 0402 220P_50V_J_N NC
C545 0603 1U_25V_K_B
R444 0402 5.1K_F
C544 0402 220P_50V_J_N
Place near PCI8402.
L52
90R-100M_0.06R
6.0x6.5x3.3
CN29
1394 RECEPTACLE CONN_4P
FOX_UV31413-VR56P-7F
iLink CONN.
This capacitor should be placed between Pin P15 and Pin R17 .
This capacitor must be placed to IC pin
8402_SCL G2
8402_SDA G3
SCL
SDA
T18 R0
R466 6.34K_F 0402
T19 R1
R17 VSSPLL
VSSPLL must be tied to a low-impedance GND.
R14 AGND1
U13 AGND2
U14 AGND3
RSVD64 V16
RSVD65 W16
RSVD66 V15
RSVD67 W15
TP161 26MIL
TP162 26MIL
PCI15
PCI16
RSVD68 W17
C551 0402 0.1U_16V_Y_Y
XO R18
XI R19
R464 0_J 0402
R465 1M_J 0402
PCI20
Y6
24.576MHZ_16P_30PPM ITTI_L5030-24.576-16
DVT
C547 22P_50V_J 0402_NPO
C548 22P_50V_J 0402_NPO
PCI8402ZHK
U29B
Card BUS / 16-Bit PC Card Interface
Clamp Voltage For PC CARD (IO 5V/3.3V)
A15 RSVD2
J19 RSVD3
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 E18
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
3,7,8,10,13,14,16,17,20,21,22,23,24,26,27,28,29,30,45 +3VRUN
U12 NC1
V12 NC2
W12 NC3
E5 NC4
R405 43K_J 0402
Serial / Parallel PC Card Power Switch
DATA/VD2/VPPD1
LATCH/VD3/VPPD0
CLOCK/VD1/VCCD0#
RSVD/VD0/VCCD1#
PCI8402ZHK
Resistors should be placed on the SCL and SDA terminals
R388 2.7K_J 0402
R389 2.7K_J 0402
C462 0.1U_16V_Y_Y 0402
U30
VCC WP
SCL
SDA A0
A1
A2
VSS
8402_SCL
8402_SDA
L: R/W
H: Read only
EEPROM_SOP-8_256x8
HT24LC02
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title PCI (iLINK)2/3
Size A3
Document Number MS70-1-01
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Date: Tuesday, August 22, 2006
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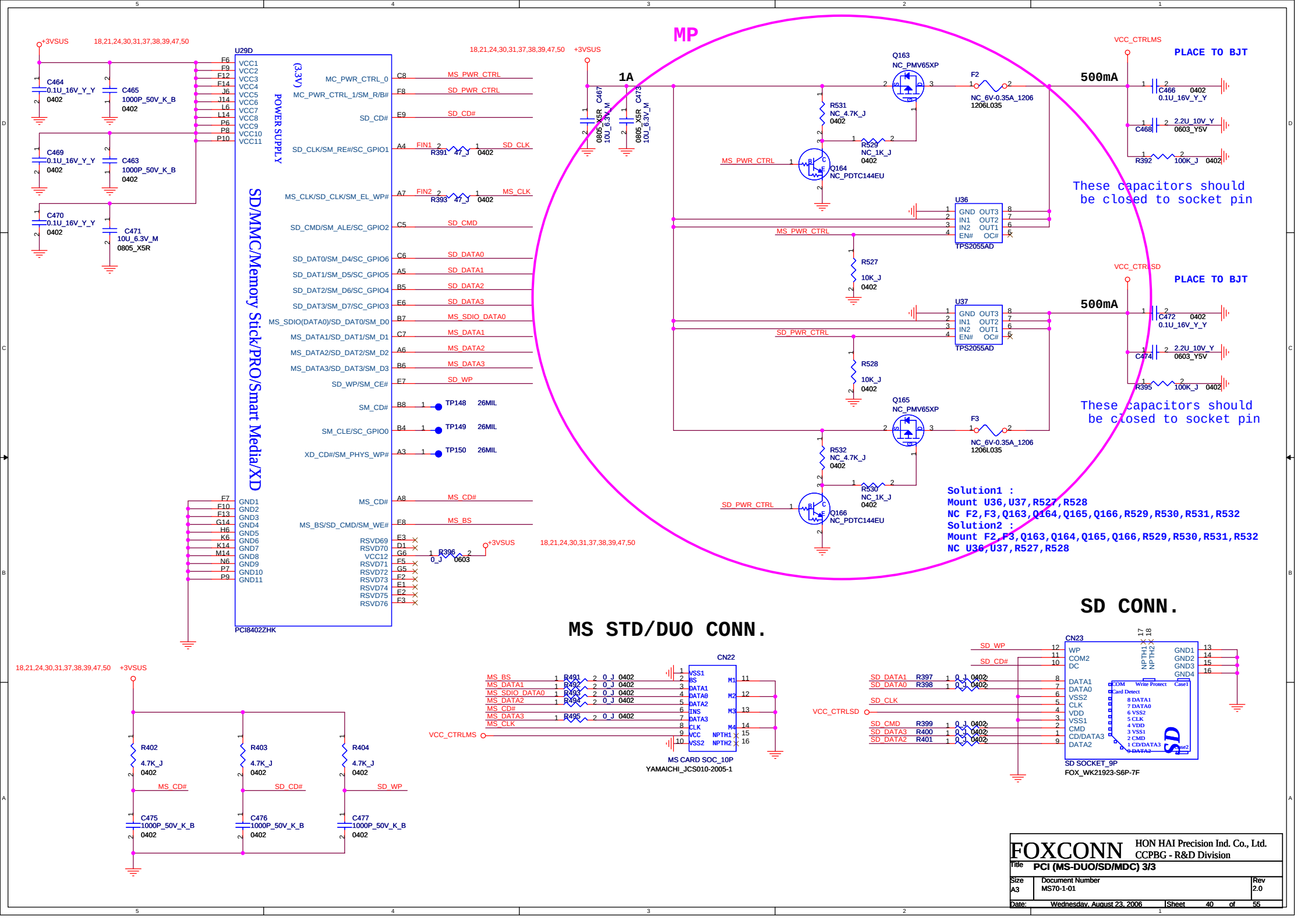
MP
U29D
PCI8402ZHK
SD/MMC/Memory Stick/PRO/Smart Media/XD
POWER SUPPLY
(3.3V)
+3VSUS
18,21,24,30,31,37,38,39,47,50
C464 0.1U_16V_Y_Y 0402
C465 1000P_50V_K_B 0402
C469 0.1U_16V_Y_Y 0402
C463 1000P_50V_K_B 0402
C470 0.1U_16V_Y_Y 0402
C471 10U_6.3V_M 0805_X5R
C467 0805_X5R 10U_6.3V_M
C478 0805_X5R 10U_6.3V_M
1A
Q163 NC_PMV65XP
Q164 NC_PDTC144EU
Q165 NC_PMV65XP
Q166 NC_PDTC144EU
R531 NC_4.7K_J 0402
R529 NC_1K_J 0402
R527 10K_J 0402
R532 NC_4.7K_J 0402
R530 NC_1K_J 0402
R528 10K_J 0402
F2 NC_6V-0.35A_1206 1206L035
F3 NC_6V-0.35A_1206 1206L035
500mA
U36 TPS2055AD
U37 TPS2055AD
VCC_CTRLMS
VCC_CTRLSD
PLACE TO BJT
C466 0402 0.1U_16V_Y_Y
C468 2.2U_10V_Y 0603_Y5V
R392 100K_J 0402
C472 0402 0.1U_16V_Y_Y
C474 2.2U_10V_Y 0603_Y5V
R395 100K_J 0402
These capacitors should be closed to socket pin
Solution1 :
Mount U36,U37,R527,R528
NC F2,F3,Q163,Q164,Q165,Q166,R529,R530,R531,R532
Solution2 :
Mount F2,F3,Q163,Q164,Q165,Q166,R529,R530,R531,R532
NC U36,U37,R527,R528
MS_PWR_CTRL
SD_PWR_CTRL
MS_CLK
SD_CLK
SD_CMD
SD_DAT0
SD_DAT1
SD_DAT2
SD_DAT3
MS_SDIO_DATA0
MS_DATA1
MS_DATA2
MS_DATA3
SD_WP
SM_CD#
SM_CLE/SC_GPIO0
XD_CD#/SM_PHYS_WP#
MS_CD#
MS_BS
TP148 26MIL
TP149 26MIL
TP150 26MIL
R396 0_J 0603
MS STD/DUO CONN.
CN22
MS CARD SOC_10P
YAMAICHI_JCS010-2005-1
SD CONN.
CN23
SD SOCKET_9P
FOX_WK21923-S6P-7F
R402 4.7K_J 0402
R403 4.7K_J 0402
R404 4.7K_J 0402
C475 1000P_50V_K_B 0402
C476 1000P_50V_K_B 0402
C477 1000P_50V_K_B 0402
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title PCI (MS-DUO/SD/MDC) 3/3
Size A3
Document Number MS70-1-01
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Date: Wednesday, August 23, 2006
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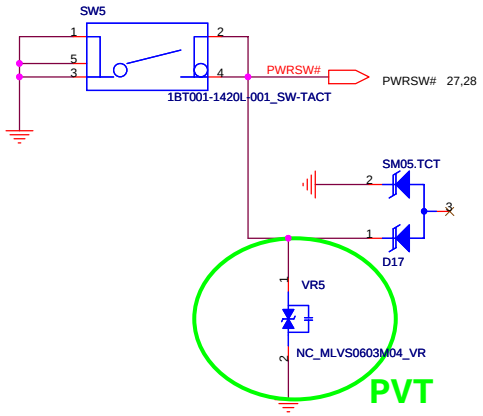
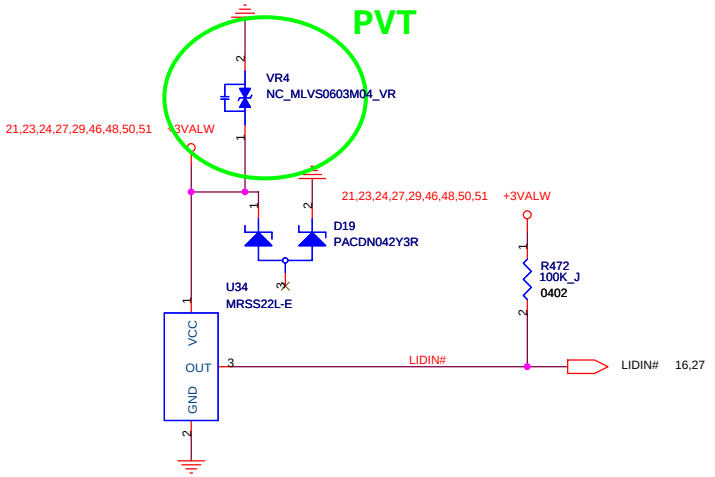
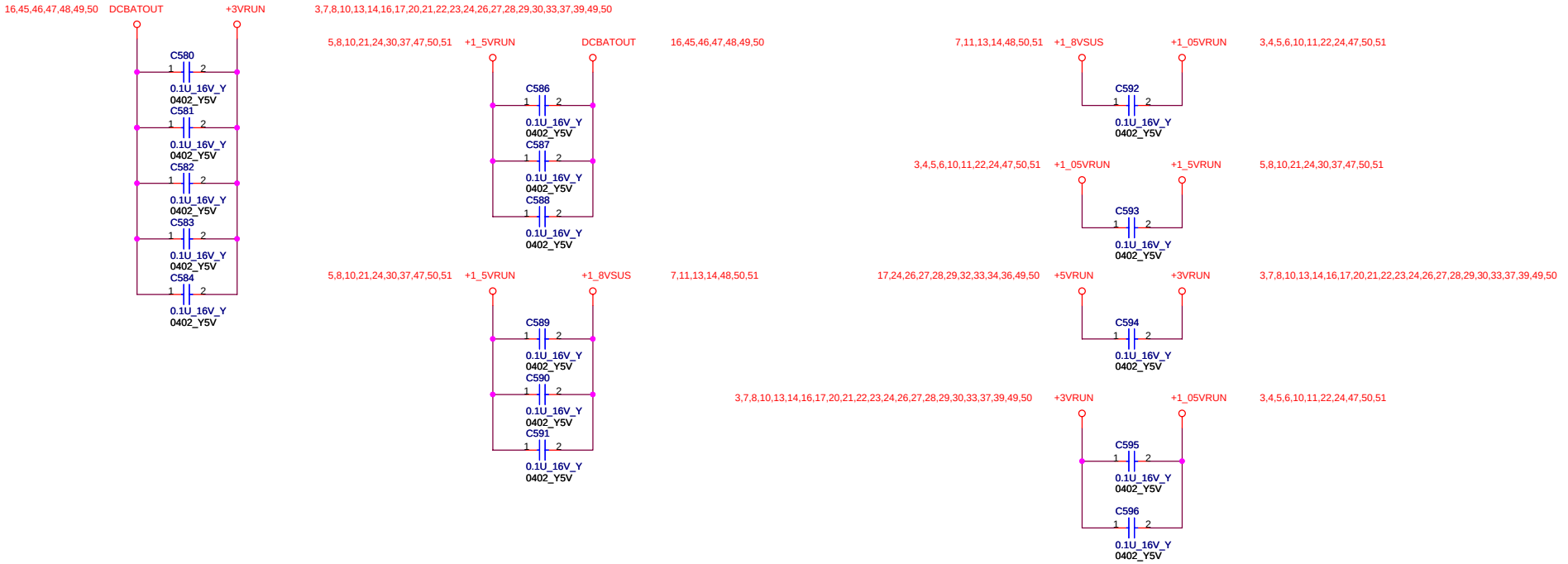
POWER BUTTON





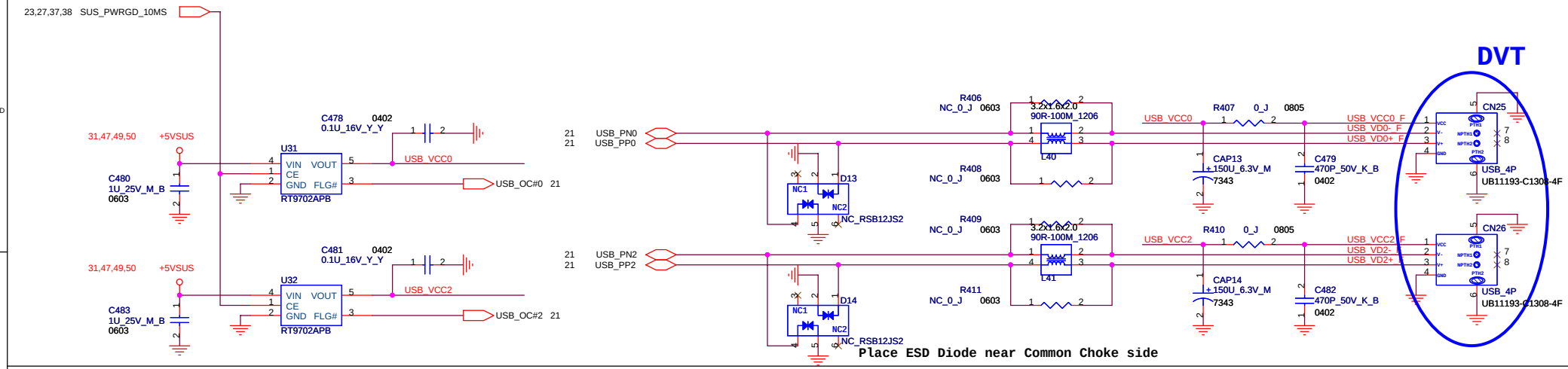
LID Switch

EMI CAP

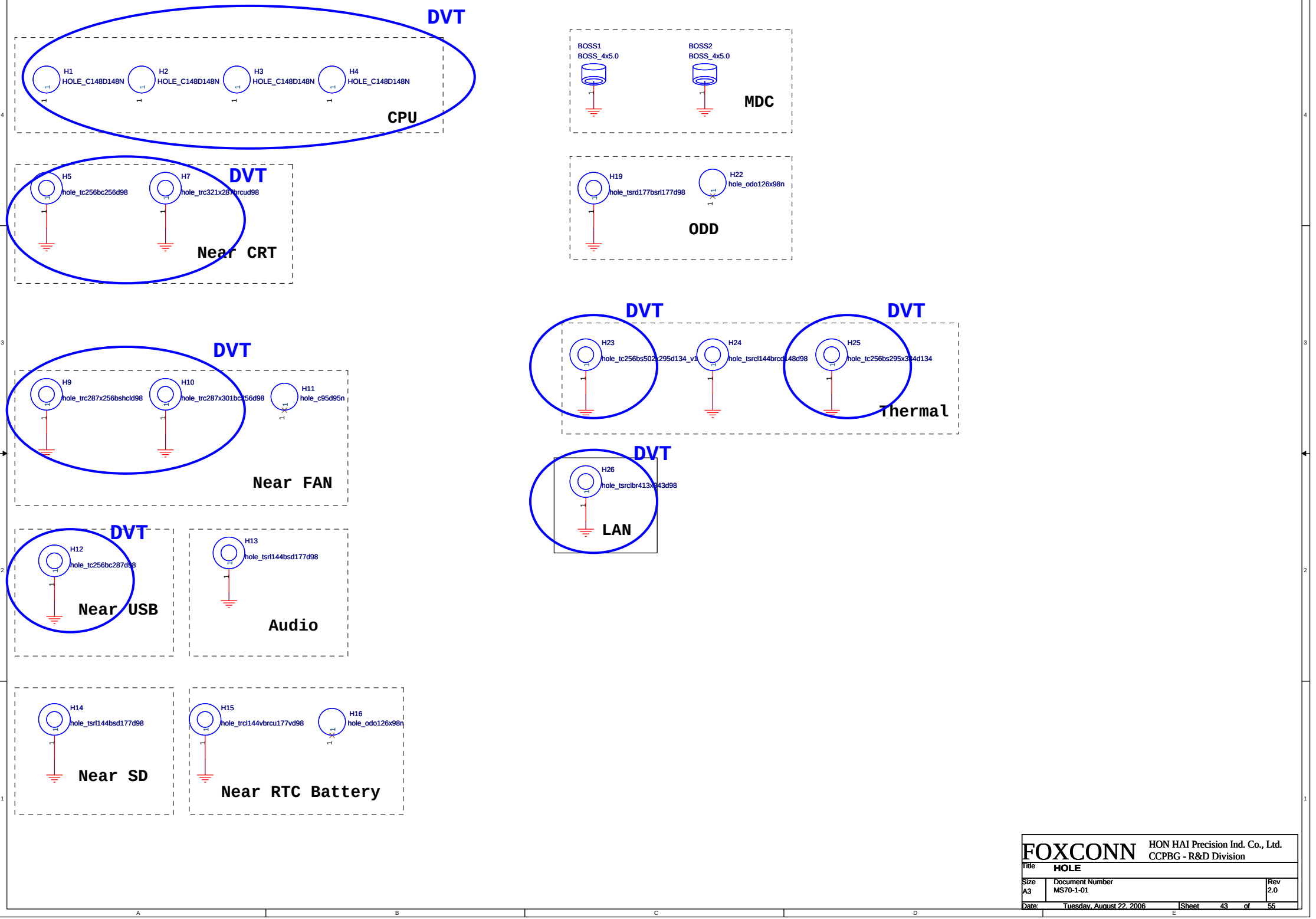


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division		
Title	Button/LID Switch/EMI CAP		
Size A3	Document Number MS70-1-01		Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 41 of 55		

USB CONN X 2

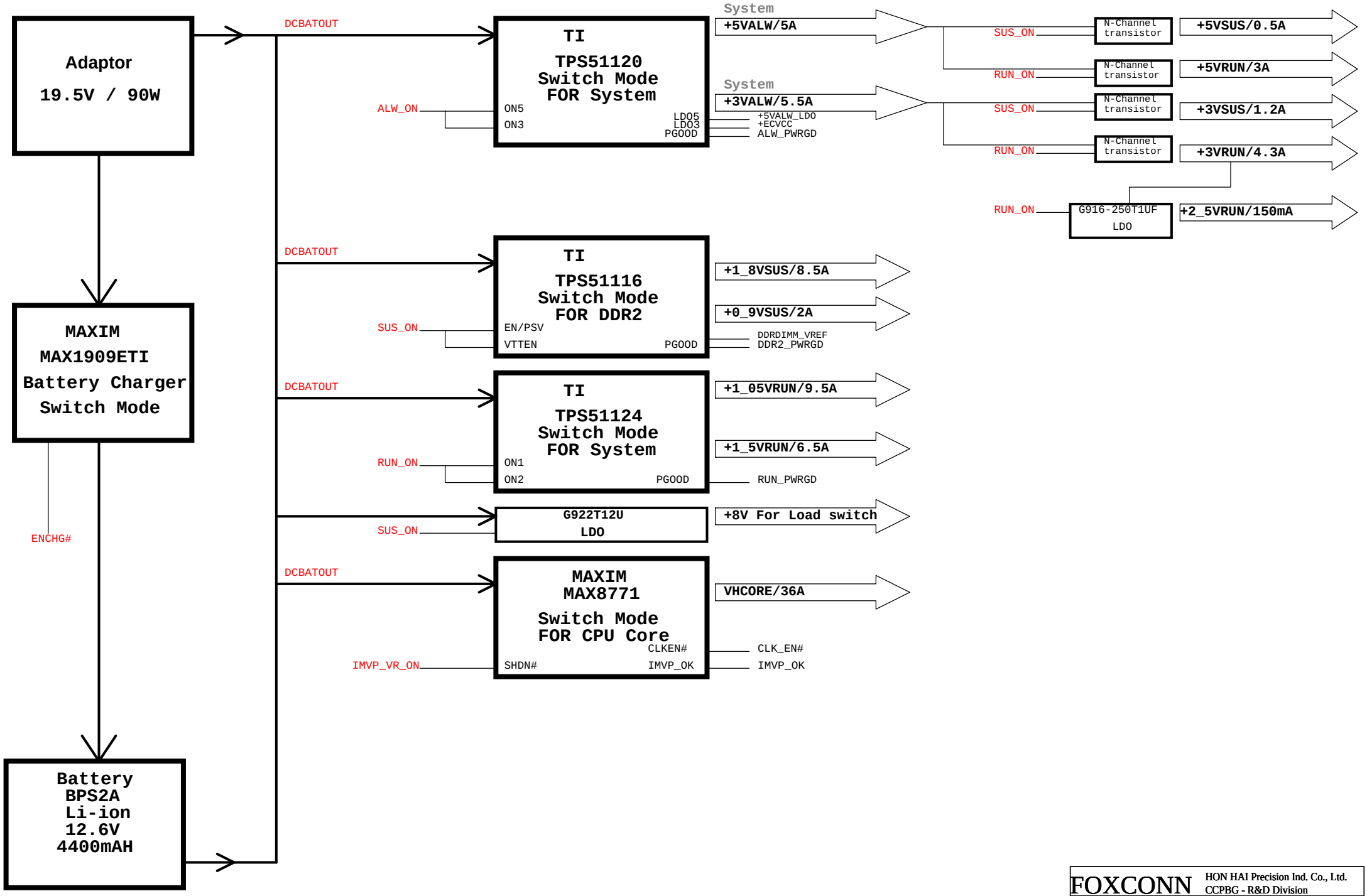


FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: USB2.0		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
Date: Tuesday, August 22, 2006	Sheet 42 of 55	



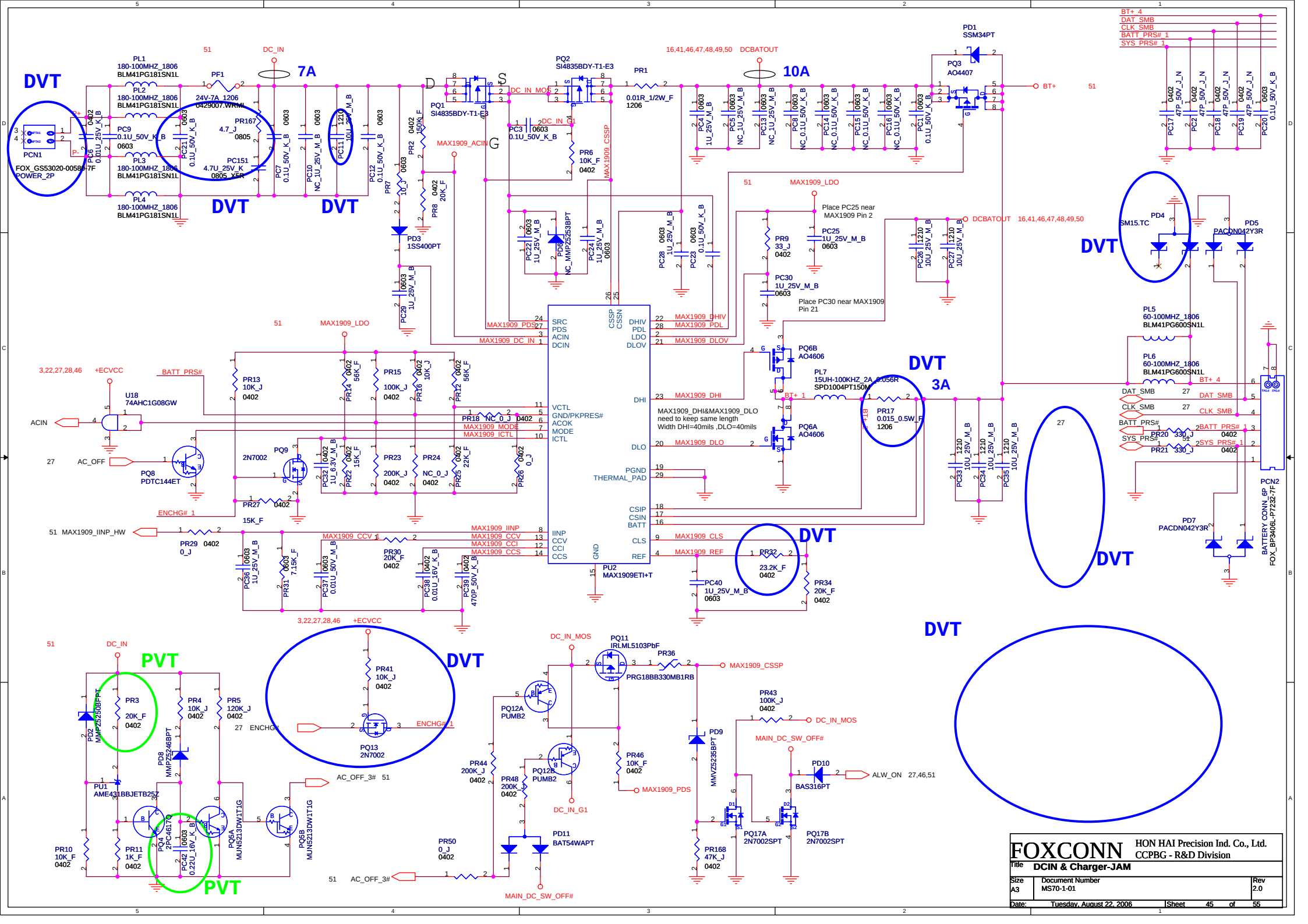
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division

Title	HOLE	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 43 of 55	



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

Title	Power Design Diagram-ZG	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 44 of 55	


DVT
PVT
7A
10A
3A
PCN1
FOX_GS53020-0058-7F
POWER_2P
PL1
180-100MHZ_1806
BLM41PG181SN1L
PL2
PL3
PL4
PF1
24V-7A_1206
0429007.WRML
DC_IN
PQ1
SI4835BDY-T1-E3
PQ2
PR1
0.01R_1/2W_F
1206
PD1
SSM34PT
PQ3
AO4407
BT+
DCBATOUT
16,41,46,47,48,49,50
MAX1909_ACIN
MAX1909_CSSP
MAX1909_LDO
PD3
1SS400PT
PD4
SM15.TC
PD5
PACDN042Y3R
PC25
1U_25V_M_B
0603
Place PC25 near
MAX1909 Pin 2
PC30
Place PC30 near MAX1909
Pin 21
PR9
33_J
0402
PQ6B
AO4606
PQ6A
PL5
60-100MHZ_1806
BLM41PG600SN1L
PL6
PL7
15UH-100KHZ_2A_0.056R
SPD1004PT150M
PR17
0.015_0.5W_F
1206
PU2
MAX1909ETI+T
SRC
PDS
ACIN
DCIN
CSSP
CSSN
DHIV
PDL
LDO
DLOV
VCTL
GND/PKPRES#
ACOK
MODE
ICTL
DHI
DLO
PGND
THERMAL_PAD
CSIP
CSIN
BATT
CLS
REF
IINP
CCV
CCI
CCS
GND
MAX1909_DHI&MAX1909_DLO
need to keep same length
Width DHI=40mils ,DLO=40mils
U18
74AHC1G08GW
PQ8
PDTC144ET
PQ9
2N7002
PR18 NC_0_J 0402
PR27 15K_F
PR29 0_J
PR30 20K_F
PR32 23.2K_F
PC40 1U_25V_M_B
0603
PR34 20K_F
PCN2
BATTERY CONN_6P
FOX_BP3406L-PT232-7F
PR41 10K_J
PQ13 2N7002
PQ11 IRLML5103PbF
PRG18BB330MB1RB
PR36
PQ12A PUMB2
PQ12B PUMB2
PR43 100K_J
PR44 200K_J
PR46 10K_F
PR48 200K_J
PR50 0_J
PD9 MMVZ5235BPT
PD10 BAS316PT
PD11 BAT54WAPT
PQ17A 2N7002SPT
PQ17B 2N7002SPT
PR168 47K_J
PD2 MMPZ5250BPT
PD8 MMPZ5246BPT
PU1 AME431BBJETB25Z
PQ4 2PC4617
PQ5A MUN5213DW1T1G
PQ5B MUN5213DW1T1G
PR3 20K_F
PR4 10K_J
PR5 120K_J
PR10 10K_F
PR11 1K_F
PC42 0.22U_16V_K_B
ALW_ON 27,46,51
AC_OFF_3# 51
MAIN_DC_SW_OFF#
DC_IN_MOS
DC_IN_G1
ENCHG# 1
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title DCIN & Charger-JAM
Size A3
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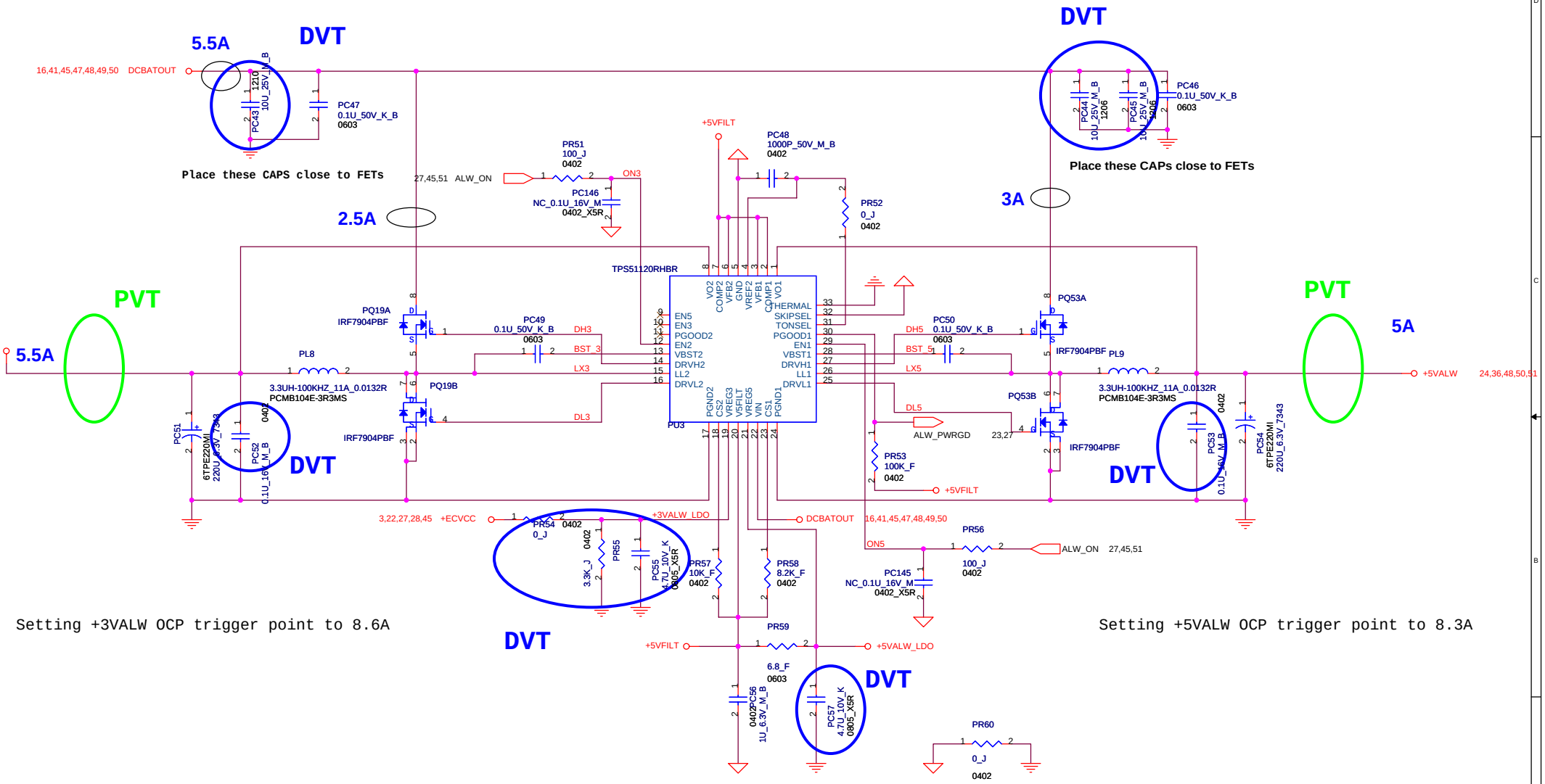
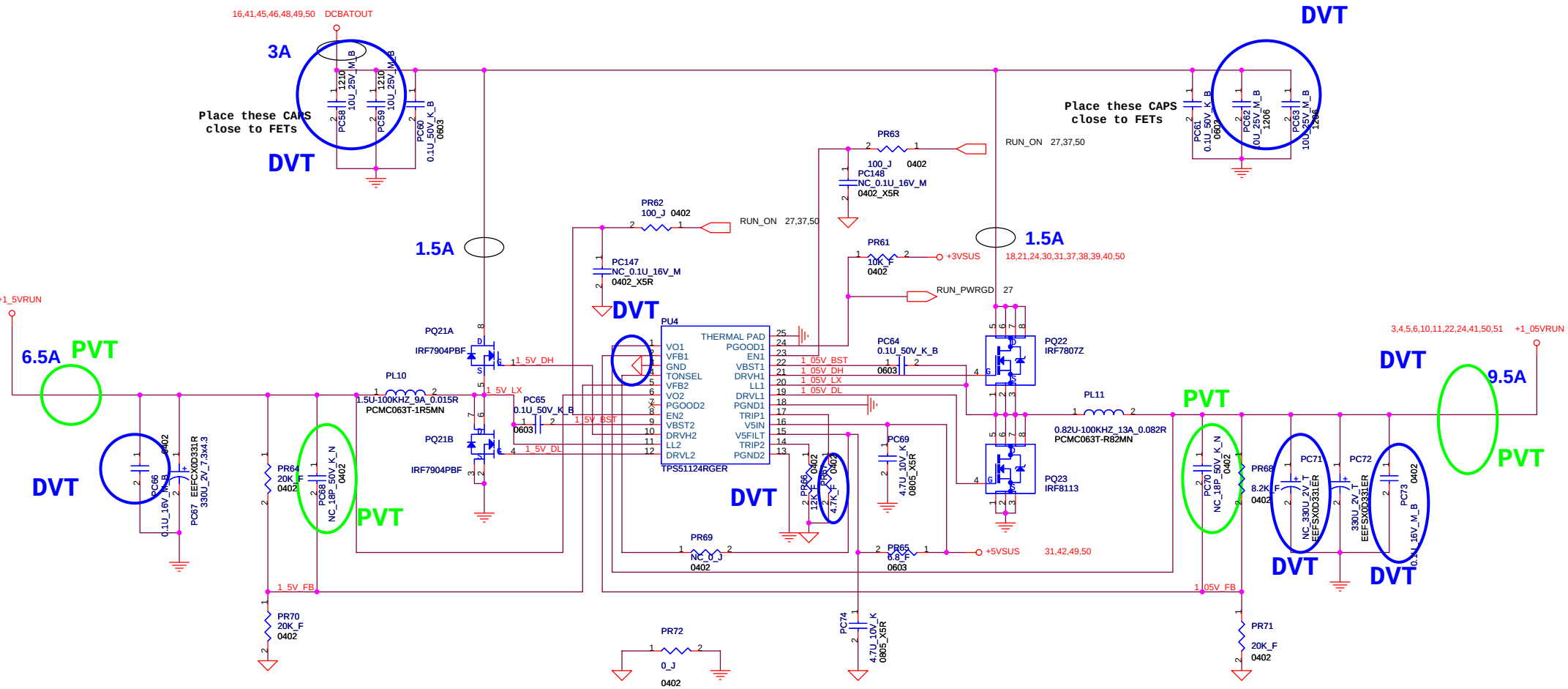


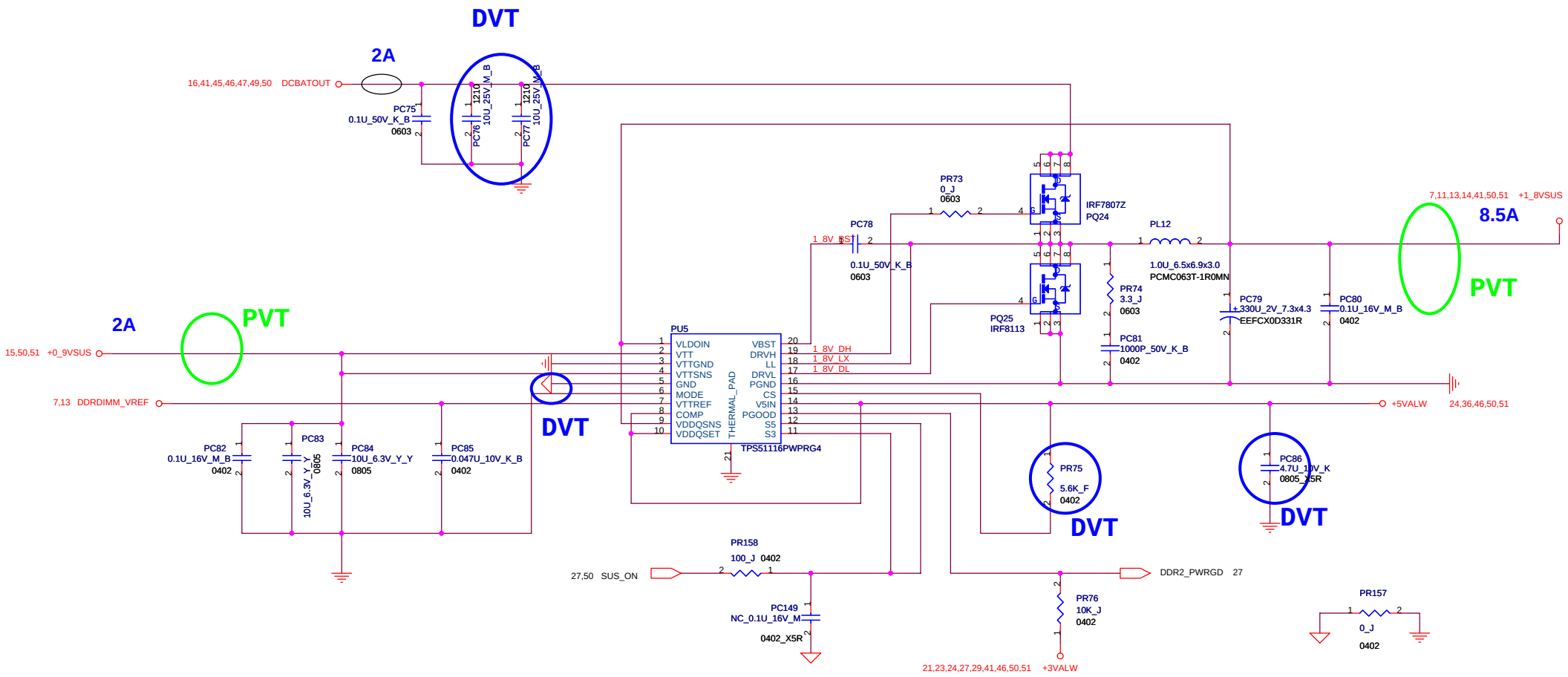
FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	D/D Power-JAM	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 46 of 55	



Setting +1_5VRUN OCP trigger point to 10.5A

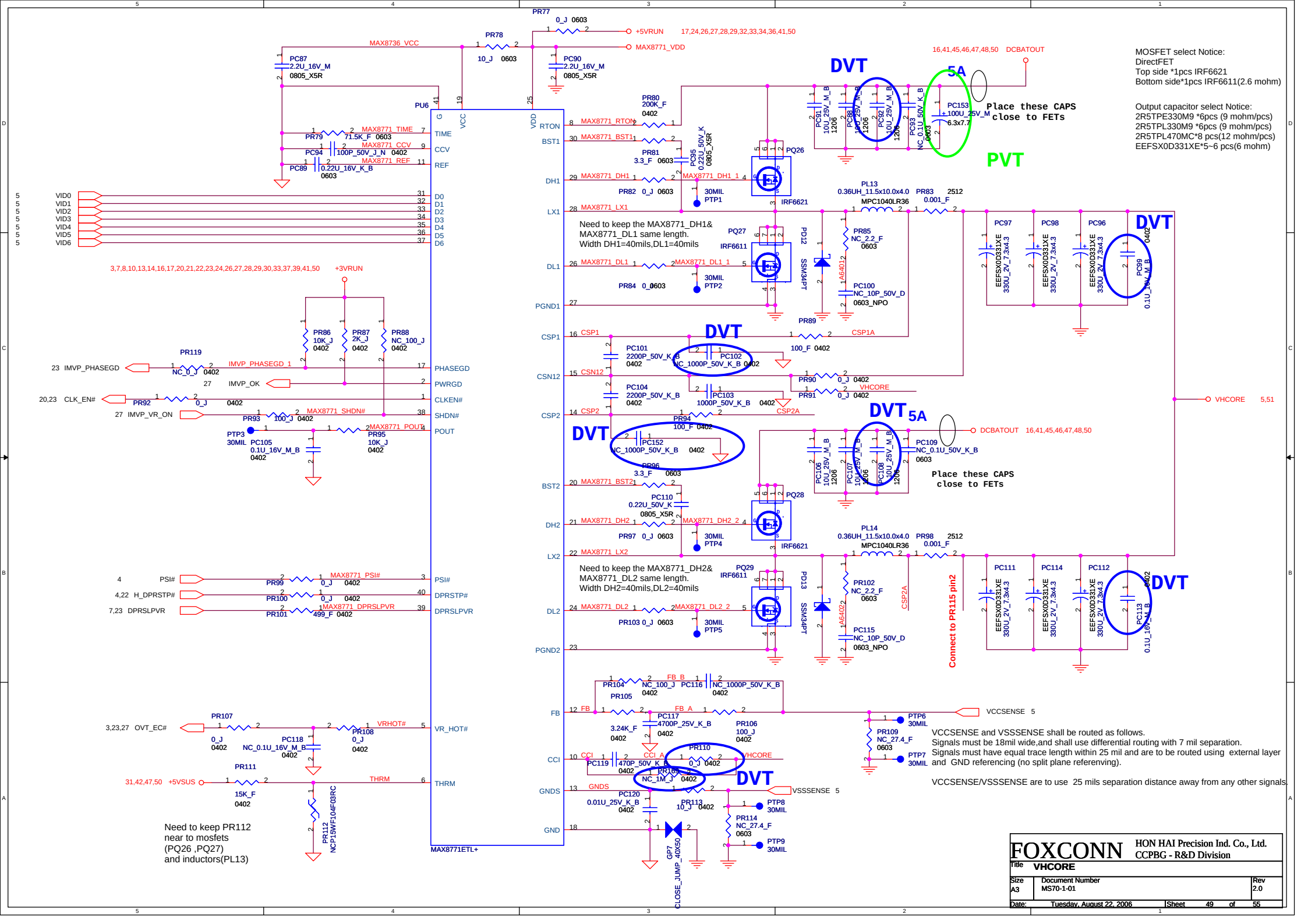
Setting +1_05VRUN OCP trigger point to 12.8A

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	1.5V/1.05V-JAM	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 47 of 55	



Setting +1_8VSUS OCP trigger point to 11.6A

FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title	1.8V/0.9V-CWK	
Size A3	Document Number MS70-1-01	Rev 2.0
Date: Tuesday, August 22, 2006	Sheet 48 of 55	


PR77 0_J 0603
+5VRUN 17,24,26,27,28,29,32,33,34,36,41,50
MAX8736_VCC
PR78 10_J 0603
MAX8771_VDD
PC87 2.2U_16V_M 0805_X5R
PC90 2.2U_16V_M 0805_X5R
PU6
MAX8771ETL+
PR79 71.5K_F 0603 MAX8771_TIME
PC94 100P_50V_J_N 0402 MAX8771_CCV
PC89 0.22U_16V_K_B 0603 MAX8771_REF
TIME
CCV
REF
VID0
VID1
VID2
VID3
VID4
VID5
VID6
D0
D1
D2
D3
D4
D5
D6
3,7,8,10,13,14,16,17,20,21,22,23,24,26,27,28,29,30,33,37,39,41,50 +3VRUN
PR86 10K_J 0402
PR87 2K_J 0402
PR88 NC_100_J 0402
PR119
23 IMVP_PHASEGD
NC_0_J 0402
IMVP_PHASEGD_1
PHASEGD
27 IMVP_OK
PWRGD
20,23 CLK_EN#
PR92 0_J 0402
CLKEN#
27 IMVP_VR_ON
PR93 100_J 0402 MAX8771_SHDN#
SHDN#
PTP3 30MIL
PC105 0.1U_16V_M_B 0402
PR95 10K_J 0402 MAX8771_POUT
POUT
4 PSI#
PR99 0_J 0402 MAX8771_PSI#
PSI#
4,22 H_DPRSTP#
PR100 0_J 0402
DPRSTP#
7,23 DPRSLPVR
PR101 499_F 0402 MAX8771_DPRSLPVR
DPRSLPVR
3,23,27 OVT_EC#
PR107 0_J 0402
PC118 NC_0.1U_16V_M_B 0402
PR108 0_J 0402 VRHOT#
VR_HOT#
PR111
31,42,47,50 +5VSUS
15K_F 0402
THRM
PR112 NCP15WF104F03RC
Need to keep PR112 near to mosfets (PQ26 ,PQ27) and inductors(PL13)
PR80 200K_F 0402
PR81 3.3_F 0603
PC95 0.22U_50V_K 0805_X5R
RTON
BST1
DH1
LX1
PGND1
DL1
CSP1
CSN12
CSP2
BST2
DH2
LX2
DL2
PGND2
FB
CCI
GNDS
GND
PR82 0_J 0603 MAX8771_DH1_1
30MIL PTP1
PQ26 IRF6621
PR84 0_0603 MAX8771_DL1_1
30MIL PTP2
PQ27 IRF6611
PR89
PR97 0_J 0603 MAX8771_DH2_2
30MIL PTP4
PQ28 IRF6621
PR103 0_J 0603 MAX8771_DL2_2
30MIL PTP5
PQ29 IRF6611
PD12 SSM34PT
PD13 SSM34PT
A64402
Need to keep the MAX8771_DH1& MAX8771_DL1 same length. Width DH1=40mils,DL1=40mils
Need to keep the MAX8771_DH2& MAX8771_DL2 same length. Width DH2=40mils,DL2=40mils
DVT
PVT
5A
16,41,45,46,47,48,50 DCBATOUT
PC91 10U_25V_M_B 1206
PC88 10U_25V_M_B 1206
PC92 10U_25V_M_B 1206
PC93 NC_0.1U_50V_K_B 0603
PC153 +100U_25V_M 6.3x7.7
Place these CAPS close to FETs
PL13 0.36UH_11.5x10.0x4.0 MPC1040LR36
PR83 2512 0.001_F
PR85 NC_2.2_F 0603
PC100 NC_10P_50V_D 0603_NPO
PC97 EEFSX0D331XE 330U_2V_7.3x4.3
PC98 EEFSX0D331XE 330U_2V_7.3x4.3
PC96 EEFSX0D331XE 330U_2V_7.3x4.3
PC99 0.1U_16V_M_B 0402
PC101 2200P_50V_K_B 0402
PC102 NC_1000P_50V_K_B 0402
PC104 2200P_50V_K_B 0402
PC103 1000P_50V_K_B 0402
PR90 0_J 0402
PR91 0_J 0402
VHCORE
CSP1A
CSP2A
100_F 0402
PR94 100_F 0402
PC152 NC_1000P_50V_K_B 0402
PR96 3.3_F 0603
PC106 10U_25V_M_B 1206
PC107 10U_25V_M_B 1206
PC108 10U_25V_M_B 1206
PC109 NC_0.1U_50V_K_B 0603
Place these CAPS close to FETs
PC110 0.22U_50V_K 0805_X5R
PL14 0.36UH_11.5x10.0x4.0 MPC1040LR36
PR98 2512 0.001_F
PR102 NC_2.2_F 0603
PC115 NC_10P_50V_D 0603_NPO
Connect to PR115 pin2
PC111 EEFSX0D331XE 330U_2V_7.3x4.3
PC114 EEFSX0D331XE 330U_2V_7.3x4.3
PC112 EEFSX0D331XE 330U_2V_7.3x4.3
PC113 0.1U_16V_M_B 0402
VHCORE 5,51
PR104 NC_100_J 0402
FB_B
PC116 NC_1000P_50V_K_B 0402
PR105
FB_A
PC117 4700P_25V_K_B 0402
3.24K_F 0402
PR106 100_J 0402
PR110 0_J 0402
PR116 NC_1M_J 0402
PC119 470P_50V_K_B 0402
PC120 0.01U_25V_K_B 0402
PR113 10_J 0402
PR114 NC_27.4_F 0603
PR109 NC_27.4_F 0603
PTP6 30MIL
PTP7 30MIL
PTP8 30MIL
PTP9 30MIL
VCCSENSE 5
VSSSENSE 5
GP7 CLOSE_JUMP_40X50
MOSFET select Notice:
DirectFET
Top side *1pcs IRF6621
Bottom side*1pcs IRF6611(2.6 mohm)
Output capacitor select Notice:
2R5TPE330M9 *6pcs (9 mohm/pcs)
2R5TPL330M9 *6pcs (9 mohm/pcs)
2R5TPL470MC*8 pcs(12 mohm/pcs)
EEFSX0D331XE*5~6 pcs(6 mohm)
VCCSENSE and VSSSENSE shall be routed as follows.
Signals must be 18mil wide,and shall use differential routing with 7 mil separation.
Signals must have equal trace length within 25 mil and are to be routed using external layer and GND referencing (no split plane referenving).
VCCSENSE/VSSSENSE are to use 25 mils separation distance away from any other signals.
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
Title VHCORE
Size A3
Document Number MS70-1-01
Rev 2.0
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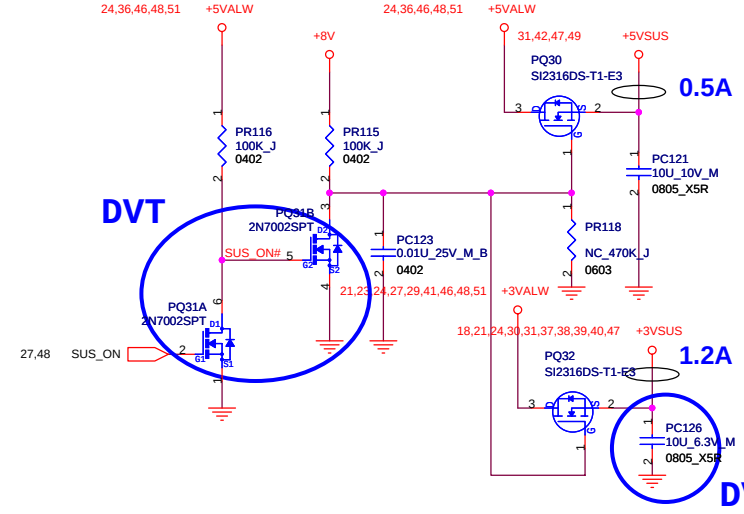
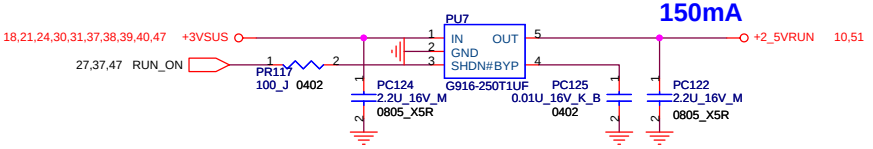
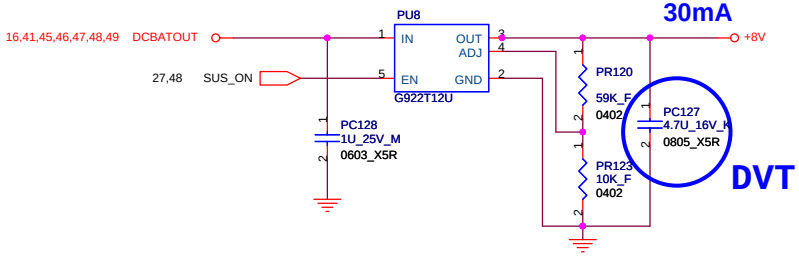
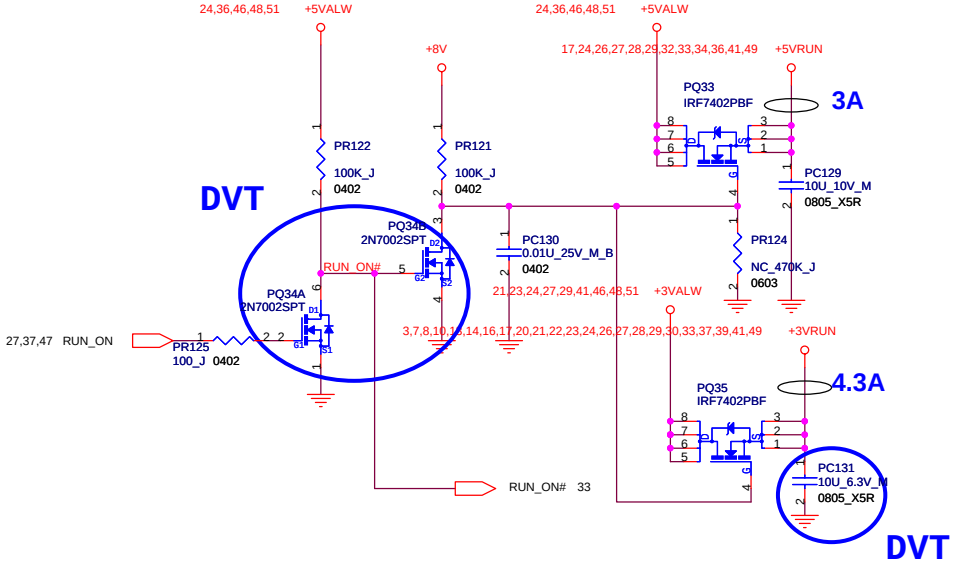


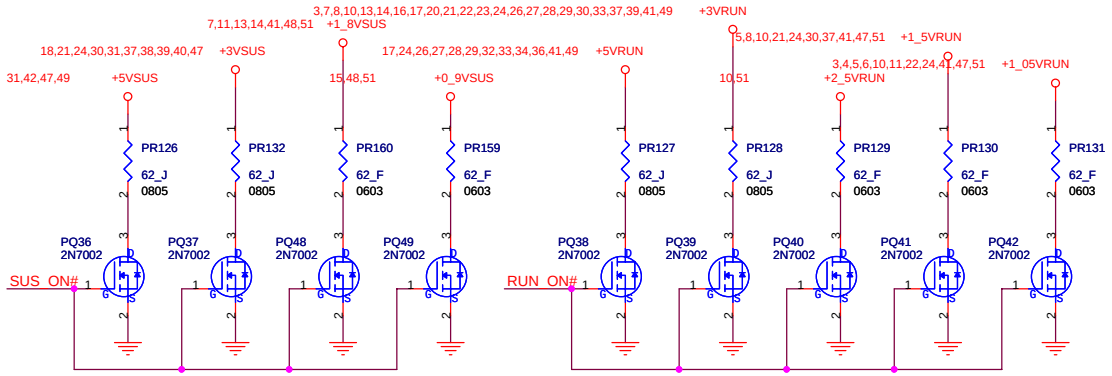


for load switch





Discharge circuit for power-off



FOXCONN	HON HAI Precision Ind. Co., Ltd. CCPBG - R&D Division	
Title: Other power plan-ZG		
Size: A3	Document Number: MS70-1-01	Rev: 2.0
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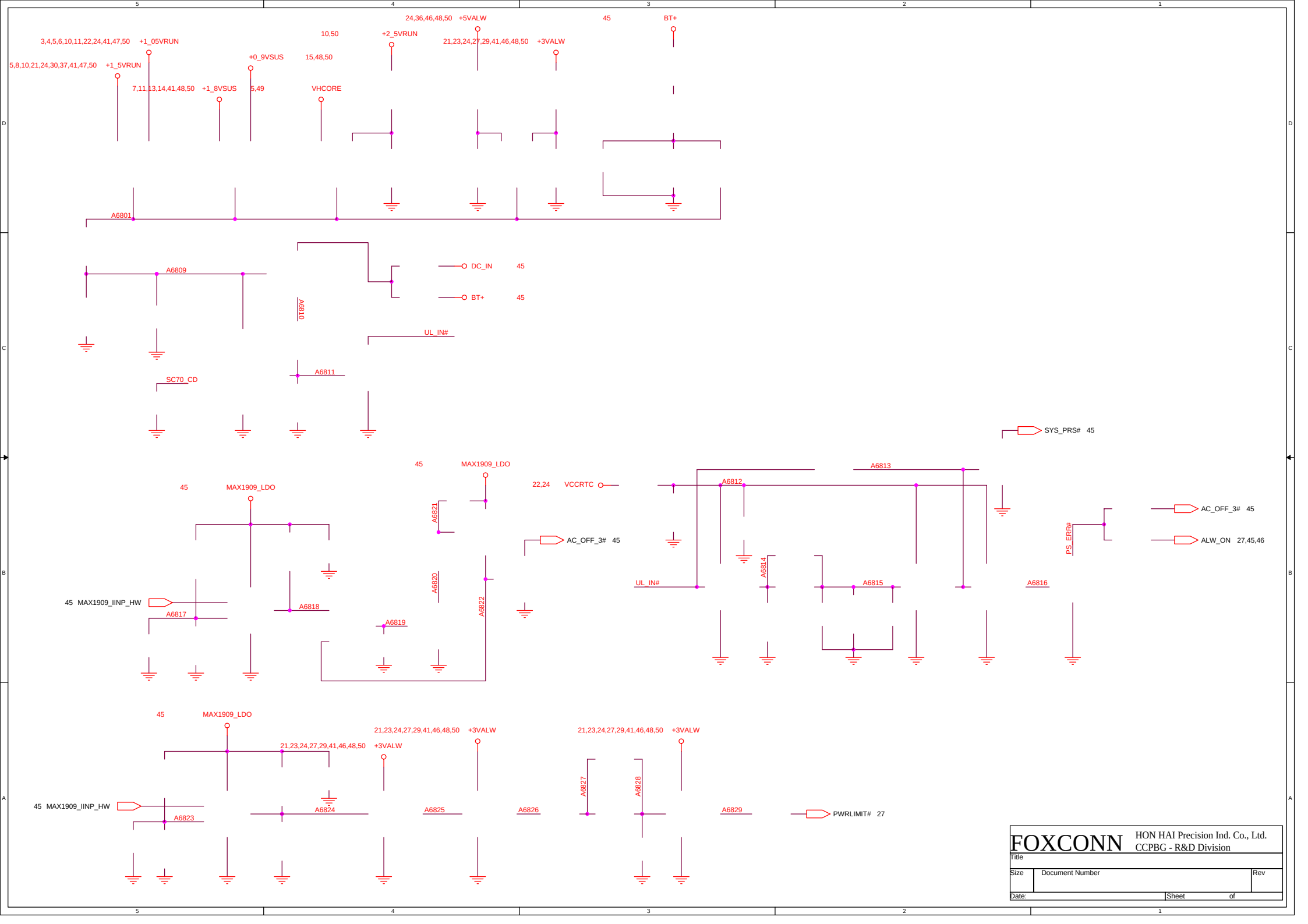
3,4,5,6,10,11,22,24,41,47,50
+1_05VRUN
5,8,10,21,24,30,37,41,47,50
+1_5VRUN
7,11,13,14,41,48,50
+1_8VSUS
+0_9VSUS
5,49
15,48,50
VHCORE
10,50
+2_5VRUN
24,36,46,48,50
+5VALW
21,23,24,27,29,41,46,48,50
+3VALW
45
BT+
A6801
A6809
A6810
DC_IN
45
BT+
45
UL_IN#
A6811
SC70_CD
SYS_PRS# 45
45
MAX1909_LDO
A6821
22,24
VCCRTC
AC_OFF_3# 45
A6812
A6813
A6814
A6815
A6816
PS_ERR#
AC_OFF_3# 45
ALW_ON 27,45,46
45 MAX1909_IINP_HW
A6817
A6818
A6819
A6820
A6822
UL_IN#
45
MAX1909_LDO
21,23,24,27,29,41,46,48,50
+3VALW
45 MAX1909_IINP_HW
A6823
A6824
A6825
A6826
A6827
A6828
A6829
PWRLIMIT# 27
FOXCONN
HON HAI Precision Ind. Co., Ltd.
CCPBG - R&D Division
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Document Number
Rev
Date:
Sheet
of

HISTORY (1)

(2006/04/25)

P.16 CN3 pin5 Add R515 0ohm for QDI LCD Panel doesn't support gamma correction issue.
P.17 Add VGA_CRT_DET# connect to U15 pin29 for Semi-PnP function fail issue.
P.20 U11 pin57 add R516 10Kohm pull down for LAN can't be recognized issue.
P.27 U15 pin29 add R513 10Kohm pull up for Semi-PnP function fail issue.
P.27 U15 pin12 add R514 100Kohm pull down for EC hardware strap pin.
P.27 U15 pin171 add C597 1000pF to ground for FAN can't be controlled issue.
P.31 R304 change from 4.7k to 10k for FAN can't be controlled issue.

(2006/05/03)

P.49 Add netname(IMVP_PHASEGD_1) on the right side of PR119 for application modification.
P.45 PC11, PC21, PC151, PR167 change from DNI to mount for DC_IN spike issue
P.45 PD4 pin1 and pin3 exchange for application modification
P.46 PR54 change from 100 ohm to 0 ohm for PU3 output abnormal issue
P.46 PR55 change from DNI to mount for can't boot up issue
P.47 PU4 pin3 change from GND to GND_SIGNAL_1D5V for application modification
P.48 PU5 pin5 change from GND to GND_SIGNAL_1D8V for application modification
P.49 Add PR169 NC_1M ohm for MAX8771 CCI issue
P.49 PC96, PC97, PC98, PC111, PC112, PC114 chenge from SANYO 2R5TPL330M9 to Panasonic EEFSX0D331XE for purchase difficult

(2006/05/04)

P.37 Add Q162(NC), R517, R518(NC) for Express card power sequence issue

(2006/05/15)

P.45 PR32 change from 22K_F to 23.2K_F for ACIN Vcls function trigger point correct to 3.4A
P.47 PR67 change from 8.2K_F to 4.7K_F for +1_05VRUN OCP trigger point correct to 12.8A
P.48 PR75 change from 6.8K_F to 5.6K_F for +1_8VSUS OCP trigger point correct to 11.6A
P.51 PR146 change from 51K_F to 46.4K_F for DCBATOUT OCP trigger point correct to 4.2A
P.51 PR150 change from 62K_F to 56K for PWRLIMIT# function trigger point correct to 3.6A
P.46 Delete PJ1, PJ2
P.47 Delete PJ3, PJ4, PJ5, PJ6
P.48 Delete PJ7, PJ8, PJ9

(2006/05/17)

P.45 Add PR41 10K_J_0402 and PQ13 2N7002 for preventing leakage current
P.45 PR17 change from 0.015_J 0805 to 0.015_F 1206 for application modification
P.46 PR55 change from 1K_J to 3.3K_J and PC55, PC57 change from 10u_25V X5R 1206 to 4.7u_10V X5R 0805 for reducing +ECVCC static current
P.47 PC71 change from mount to DNI for application modification
P.49 PR110 change from 20K_J to 0_J and PC102 change from DNI to mount for MAX8771 CCI issue
P.45 Delete PR19, PR28, PR33, PR35, PR37, PR38, PR39, PR40, PC31, PQ7, PQ10, PQ14, PQ16 For +ECVCC needed to work in battery only mode
P.51 Delete PD36, PD37 for +ECVCC needed to work in battery only mode
P.51 The net of VSOURCE (PQ43 pin3) change to DCBATOUT for +ECVCC needed to work in battery only mode
P.51 The net of BATT_EN (PD38 pin2) change to ALW_ON for +ECVCC needed to work in battery only mode

(2006/05/19)

P.13 C155 change from 2.2U_10V_Y_Y to 1000P_16V_K ; C159 change from 0.1U_16V_Y_Y to 1000P_50V_K for EMC DDR2 solution
P.14 C168 change from 2.2U_10V_Y_Y to 1000P_16V_K ; C172 change from 0.1U_16V_Y_Y to 1000P_50V_K for EMC DDR2 solution
P.15 C177,C179,C181,C191,C192,C196 change from 0.1U_16V_Y_Y to 1000P_50V_K for EMC DDR2 solution
P.39 C547,C548 change from 18P_50V_J_N to 22P_50V_J for PCI8402's Crystal issue
P.30 LED1 change from HT-110Y to HT-110UYG for LED color requirement
P.45 PCN1 change from MOLEX_53259-0229 to FOX_GS53020-00580-7F
P.45 PC11 change from 10U_25V_M_1206 to 10U_25V_M_B_1210 for purchase convenient
P.46 PC43,PC44,PC45 change from 10U_25V_M_B_1206 to 10U_25V_M_B_1210 for purchase convenient
P.47 PC58,PC59,PC62,PC63 change from 10U_25V_M_B_1206 to 10U_25V_M_B_1210 for purchase convenient
P.48 PC76,PC77 change from 10U_25V_M_B_1206 to 10U_25V_M_B_1210 for purchase convenient
P.48 PC86 change from 4.7U_10V_K_B_1206 to 4.7U_10V_K_0805 for purchase convenient
P.50 PC126,PC131 change from 10U_10V_M to 10U_6.3V_M for purchase convenient
P.50 PC127 change from 4.7U_25V_K_B_1206 to 4.7U_16V_K_0805 for purchase convenient

(2006/05/22)

P.32 CN21 change from FOXCONN_GB11060_0221_7F to FOXCONN_GB5RF060_1200_7F for ME's requirement
P.29 CN30,CN31 change from foxconn_gb11120_0221_7f to FOXCONN_GB5RF120_1200_7F for ME's requirement
P.29 CN31 change from mount to DNI for ME's requirement
P.50 PQ31,PQ34 change from DIODES,2N7002DW-7-F to CHENMKO,2N7002SPT for purchase convenient
P.51 PQ45 change from DIODES,2N7002DW-7-F to CHENMKO,2N7002SPT for purchase convenient
P.27 Q149 change from DIODES,2N7002DW-7-F to CHENMKO,2N7002SPT for purchase convenient

(2006/05/23)

P.47 PC62,PC63 change from 10U_25V_M_B_1210 to 10U_25V_M_B_1206 for ME limit of height
P.46 PC44,PC45 change from 10U_25V_M_B_1210 to 10U_25V_M_B_1206 for ME limit of height
P.46 Add PJ1,PJ2 for test request
P.47 Add PJ3,PJ4 for test request
P.48 Add PJ7,PJ9 for test request

(2006/05/24)

P.42 CN25,CN26(USB CONN) change from FOX_UB11193_C1301_4F to UB11193-C1308-4F for ME's requirement
P.17 CN5(VGA CONN) change from FOX_DZ11A91_MB221_4F to DZ11A91-MW223-4F for ME's requirement

(2006/05/25)

P.47 Add PJ6 for test request
P.26 CN8 footprint change from FOXCONN_LD2722H_S469 to FOXCONN_LD2722H_S469_MS70 for ME PAD request
P.32 C389 change from 22U_10V_Y_Y_1206 to 10U_10V_M_0805 and add C598 10U_10V_M_0805 for limit of ME
P.43 H1,H2,H3,H4 change from hole_c158d158n to HOLE_C148D148N for ME request
P.43 H7 change from hole_tsru144bsru177d98 to hole_trc321x287brcud98 for ME request
P.43 H26 change from hole_c120d100 to hole_tsrclbr413x343d98 for ME request
P.43 H23 change from hole_tc256brcld295d98_v1 to hole_tc256bs502x295d134_v1 for ME request
P.43 H25 change from hole_tc256brcu148d98 to hole_tc256bs295x384d134 for ME request
P.43 H5 change from hole_tc256bc315d98 to hole_tc256bc256d98 for ME request
P.43 H10 change from hole_tshrd144bc315d98 to hole_trc287x301bc256d98 for ME request
P.43 H9 change from hole_trcd144brcl177d98 to hole_trc287x321brcd98 for ME request
P.43 H12 change from hole_tc256bsrcu144d98 to hole_tc256bc287d98 for ME request

(2006/05/26)

P.42 CN25,CN26 change from FOXCONN_UB11193_C1308_4F to FOXCONN_UB11193_C1308_4F_HM for solder issue
P.43 H9 change from hole_trc287x321brcd98 to hole_trc287x256bshcld98 for ME request
P.17 D3 change from 16-CH500H4-0P00 to 16-SCS500V-4000 for purchase convenient
P.10 C119 change from 1C-2B30105-K000 to 1C-2B30475-K100 ;
C120 change from 1C-2B20103-K001(0402) to 1C-2B30475-K100(0603)
for +1_5VRUN_HMPLL noise issue
P.48 Add PJ8 for test request

(2006/06/01)

P.16 Add R519(0ohm 0402) for desinger set "LCDID3" to "0" by mistake.
P.49 PC102 change from mount to NC for application modification
P.46 PC52,PC53 change from 0.1U_16V_Y_Y(Y5V) to 0.1U_16V_M_B(X5R) for application modification
P.47 PC66,PC73 change from 0.1U_16V_Y_Y(Y5V) to 0.1U_16V_M_B(X5R) for application modification
P.49 PC99,PC113 change from 0.1U_16V_Y_Y(Y5V) to 0.1U_16V_M_B(X5R) for application modification
P.36 Q25 pin2 netname change from +5VRUN to +5VAMP
P.36 R376 pin2 netname change from GND to A_GND
P.36 Add U38,R520(NC) for SPK_MUTE_EN for Vista requirement
P.36 Add NET "SPK_MUTE_EN" from U38 pin2 to U15 pin99 for Vista requirement
P.40 Change U36,U37 from RT9702 to RT9703, Add R521~R524.
P.27 Delete Q149.

(2006/06/02)

P.16 R515,R519 change from mount to NC
P.36 Add R525(NC) for Audio mute option
P.49 Add PC152 for application modification
P.26 R510 change from mount to NC for application modification
P.22 R188 change from mount to NC for application modification

(2006/06/05)

P.49 PC92,PC108 change from NC to mount for design rating
P.40 U36,U37 change from RT9703 to RT9702, Del R521~R524 for RT9703 phase out issue
P.49 Add PC153 for solving audible noise
P.19 Add R526 for LAN application modification

(2006/06/06)

P.13 Add C599,C600(1000P_50V_K) ; C155 change from 1000P_16V_K to 2.2U_10V_Y_Y ; C159 change from 1000P_50V_K to 0.1U_16V_Y_Y for EMC solution
P.14 Add C601,C602(1000P_50V_K) ; C168 change from 1000P_16V_K to 2.2U_10V_Y_Y ; C172 change from 1000P_50V_K to 0.1U_16V_Y_Y for EMC solution
P.15 Add C603,C604(1000P_50V_K) ; C177,C179,C181,C191,C192,C196 change from 1000P_50V_K to 0.1U_16V_Y_Y for EMC solution
P.51 Add PD36,PD37 for application modification
P.19 C253 change form 0.1U_16V_M_B to 5P_50V_C ; C254 change from 5P_50V_C to 0.1U_16V_M_B ; Add L58 ; Del R526 for LAN application modification

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HISTORY (2)

(2006/06/07)
P.26 R245 change from NC to mount for application modification

(2006/06/13)
P.33 R325 change from mount to NC for acoustic noise.
P.36 U38 change from 74AHC1G08GW to 74AHCT1G08GW for Vih can't meet EC spec.

PVT

(2006/07/12)
P.47 Change PC68, PC70 from mount to NC for TPS51124 OVP issue.
P.27 Add R526 (1K ohm) series on ALW_ON net to prevent EC damage issue.
P.46 Delete PJ1, PJ2
P.47 Delete PJ3, PJ4, PJ6
P.48 Delete PJ7, PJ8, PJ9
P.32 F1,R320,R321,L32,C598,C389,C390,C391,CN21 change from mount to NC for cancel Oide function
P.37 U33 change from 15-TPS2231-0000(24pin) to 15-TPS2231-0002(20pin) for purchase convenient
P.40 U36,U37 change from 15-RT9702A-0000 to 15-TPS2055-0000 ;
Add R527,R528 for MS_PWR_CTRL and SD_PWR_CTRL are recognized to be high level by accident

(2006/07/20)
P.26 CN9 vendor part number change from QT8H0506-13T3R-7F to QT8H0506-13T3R-4F
for packing type change.
P.49 PC153 change from 1C-10X0107-M403 to 1C-1XX0107-M400 for purchase convenient.
P.29 Delete CN31 for touch pad application modification.
P.22 R195 change from 47ohm to 0ohm ; C293 change from NC to mount for EMI solution.
P.29 LED6 change from 16-HT210DY-G000 to 16-HT210UD-UY00 for ME brightness issue.
LED5,LED7 change from 16-HT110Y0-0000 to 16-HT110UY-0000 for ME brightness issue.

(2006/07/21)
P.26 Add D22(NC) for ESD solution
P.30 R301 change from 120ohm to 47ohm for ME brightness issue

(2006/07/25)
P.30 C365 change from NC to mount for WLAN power ripple noise issue
P.26 Add VR1 for ESD solution
P.29 Add VR2,VR3(NC) for ESD solution
P.41 Add VR4,VR5(NC) for ESD solution

(2006/07/28)
P.29 Q155 change from 17-CHDTC14-4E01 to 17-2N70020-0000 for ME brightness issue.

(2006/07/31)
P.30 R301 change from 47ohm to 120ohm (LED1 is 10mA) for ME brightness issue
P.29 R418 change from 47ohm to 62ohm (LED5 is 18.75mA) for ME brightness issue
P.29 R424 change from 47ohm to 62ohm (LED6 is 19.5mA)
R425 change from 47ohm to 120ohm (LED6 is 10mA)for ME brightness issue
P.29 R426 change from 47ohm to 62ohm (LED7 is 18.9mA)

(2006/08/01)
P.31 Q17 change from 17-ME2301T-1000 to 17-S12301B-DS00 for Fan rotational speed issue

PVT schematic released

(2006/08/07)
P.45 PC42 change from 1C-2B30104-K000(0.1u) to 1C-2B30224-K000(0.22u)
and mount PC42 for solving AC_OFF_3# abnormal issue
P.34 R350 change from 6.2kohm to 6.98kohm for adjust the gain of speaker amp
P.26 VR1 change from mount to NC ; D22 change from NC to mount for purchase convenient.
P.29 R418,R426 change from 62ohm to 120ohm for LED brightness issue

(2006/08/13)
P.45 PR3 change from 1kohm to 20kohm for power circuit design improvement plan
which is DC_IN OVP circuit.

PVT SMT

MP

(2006/08/16)
P.23 Add D23 from IMVP_PWRGD to ALW_PWRGD for RTC stop issue backup (D23 is NC)
Add D24 from PM_RSMRST#(A3602) to ALW_PWRGD for RTC stop issue backup (D24 is NC)

(2006/08/17)
P.40 Add Q163,Q164,R529,F2(MS_PWR) for purchase convenient
Add Q165,Q166,R530,F3(SD_PWR) for purchase convenient

(2006/08/18)
P.40 R392,R395 change from 1Mohm to 100Kohm
F2,F3 move to pin3 side of Q163,Q165
P.40 Q163,Q165 change from PMBT2907A(PNP) to SI2301BDS-T1-E3(P-MOS)
R529,R530 change from 1.5kohm to 1kohm
Add R531,R532 4.7kohm
P.23 R221 change from 100ohm to 1kohm
D23,D24 change from BAS316PT to SCS500V-40-LF
D23,D24 change from NC to mount for RTC stop issue

(2006/08/23)
P.40 Q163,Q165 change from VISHAY_SI2301BDS-T1-E3 to Philips_PMV65XP for purchase convenient.