

NOZOMI-3 SWG SDV2 LOGIC SCHEMATICS

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NZM3H-2
VER 2.10
JUNE/08/2010

www.qdzbwx.com

BASE LOGIC :NZM3 SWG SDV
VER 1.22
APR/26/2010

- 70.THERMAL SENSOR
- 71.EEPROM/SMBUS SW
- 72.DC-IN
- 73.BATTERY INPUT
- 74.BATTERY CHARGER(BQ24742)
- 75.CHARGE SELECTOR
- 76.BATTERY MONITOR
- 77.POWER SEQUENCE
- 78.DC/DC VCC5M/VCC3M(TPS51220ARSNR)
- 79.DC/DC VCCCPUCORE(VT1316/VT1317)
- 80.BLANK
- 81.DC/DC VCCGFXCORE_I(VT1317)
- 82.VCCCPUCORE DECOUPLING
- 83.DC/DC VCCGFXCORE_D(ADP3211)
- 84.DC/DC VCC1R05B_VTT(VT357)
- 85.DC/DC VCC1R05LAN(VT356)
- 86.DC/DC VCC1R5A(VT357)
- 87.DC/DC VCC0R75B(MAX1510)
- 88.DC/DC VCC1R5VIDEO(BD9139)
- 89.DC/DC VCC1R8B(TPS62290)
- 90.DC/DC VCCSA(VT356)
- 91.DC/DC RINKAN-2
- 92.LOAD SW LAN
- 93.LOAD SW VIDEO
- 94.LOAD SW AMT/ MEPWRG
- 95.LOAD SW B
- 96.LOAD SW VCC5MUBAY
- 97.LOAD SW WAN & WLAN
- 98.PTH FOR SCREW HOLES
- 99.BLANK

EC HISTORY

NOZOMI-3 PRE-DV :BASE LOGIC NZM1 EXT 512MB SIT VER.7.03 12/01/2009

VER.0.01 12/10/2009 APPLIED PDV_EC001
VER.0.02 12/14/2009 APPLIED PDV_EC002-012
VER.0.03 12/15/2009 APPLIED PDV_EC013-025
VER.0.04 12/16/2009 APPLIED PDV_EC026-033
VER.0.05 12/17/2009 APPLIED PDV_EC034-038
VER.0.06 12/18/2009 APPLIED PDV_EC039-041,043-45,047-054
VER.0.07 12/21/2009 APPLIED PDV_EC042,046,055-066
VER.0.08 12/22/2009 APPLIED PDV_EC067-080
VER.0.09 12/24/2009 APPLIED PDV_EC081-085
VER.0.10 12/25/2009 APPLIED PDV_EC086-089
VER.0.11 12/28/2009 APPLIED PDV_EC090-095
VER.0.12 01/06/2010 APPLIED PDV_EC096-112
VER.0.13 01/07/2010 APPLIED PDV_EC113-120
VER.0.14 01/08/2010 APPLIED PDV_EC121
VER.0.15 01/12/2010 APPLIED PDV_EC122
VER.0.16 01/13/2010 APPLIED PDV_EC123-125
VER.0.17 01/14/2010 APPLIED PDV_EC126-128,130
VER.0.18 01/15/2010 APPLIED PDV_EC131-133
VER.0.19 01/18/2010 APPLIED PDV_EC134-137

VER.0.20 01/19/2010 APPLIED PDV_EC138
VER.0.21 01/20/2010 APPLIED PDV_EC139,140
VER.0.22 01/21/2010 APPLIED PDV_EC141-146
VER.0.23 01/22/2010 APPLIED PDV_EC147,148
VER.0.24 01/25/2010 APPLIED PDV_EC149-160
VER.0.25 01/26/2010 APPLIED PDV_EC162-168
VER.0.26 01/27/2010 APPLIED PDV_EC169-176
VER.0.27 01/28/2010 APPLIED PDV_EC177-179
VER.0.28 01/29/2010 APPLIED PDV_EC180
VER.0.29 02/01/2010 APPLIED PDV_EC181-189
VER.0.30 02/02/2010 APPLIED PDV_EC190-193
VER.0.31 02/03/2010 APPLIED PDV_EC194-197
VER.0.32 02/04/2010 APPLIED PDV_EC198-202

NOZOMI-3 SDV :BASE LOGIC NZM3 PRE-DV VER.0.32 02/04/2010

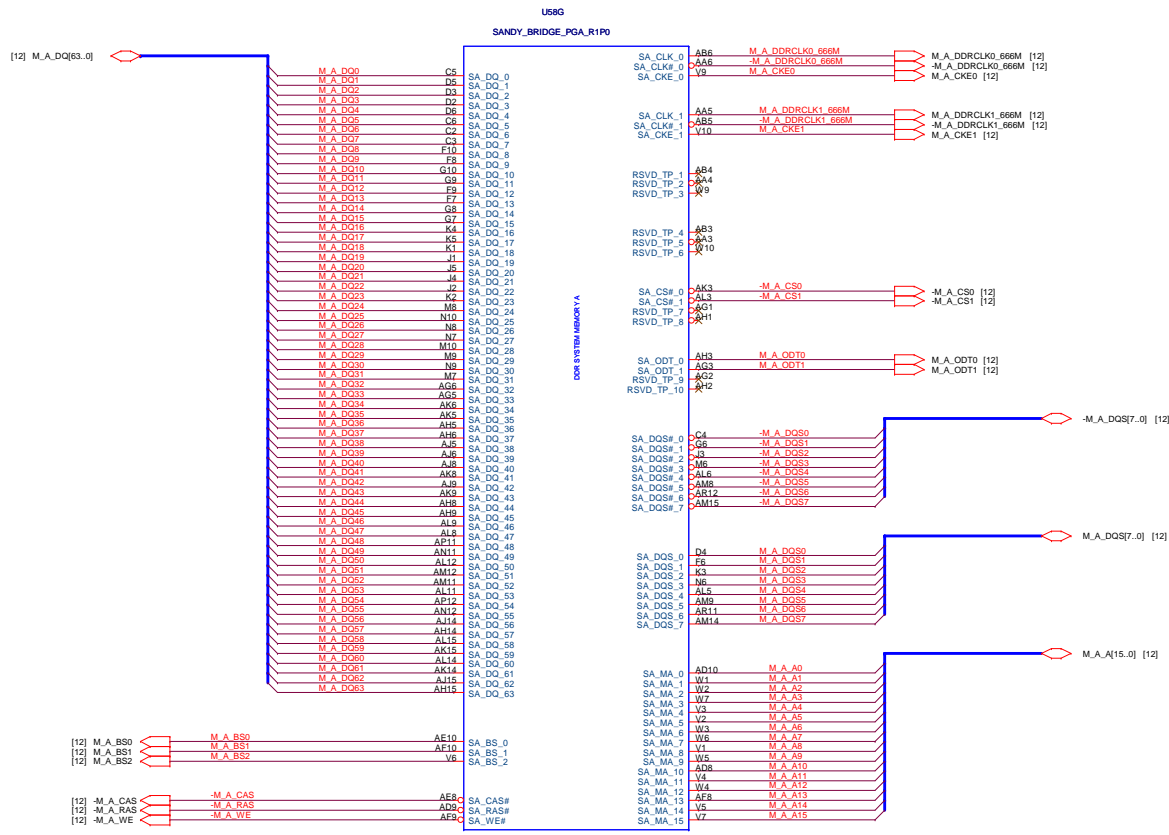
VER.1.00 02/05/2010 APPLIED SDV_EC001-004
VER.1.01 02/08/2010 APPLIED SDV_EC005-007
VER.1.02 02/09/2010 APPLIED SDV_EC010
VER.1.03 02/10/2010 APPLIED SDV_EC011-013
VER.1.04 02/15/2010 APPLIED SDV_EC014
VER.1.05 02/16/2010 APPLIED SDV_EC015-019
VER.1.06 02/17/2010 APPLIED SDV_EC020-022
VER.1.07 02/18/2010 APPLIED SDV_EC024,025,027
VER.1.08 02/19/2010 APPLIED SDV_EC028,030-032
VER.1.09 02/22/2010 APPLIED SDV_EC033-035
VER.1.10 02/23/2010 APPLIED SDV_EC036-038

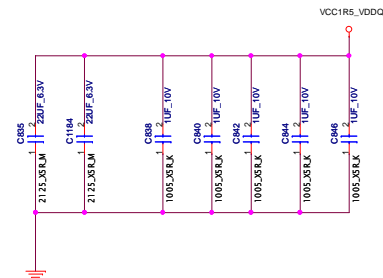
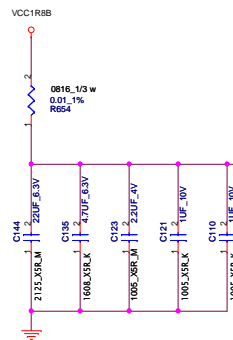
VER.1.11 03/18/2010 APPLIED SDV_EC045,046
VER.1.12 03/19/2010 APPLIED SDV_EC040-043,CNV_EC061-066
VER.1.13 03/22/2010 APPLIED SDV_EC048-052
VER.1.14 03/24/2010 APPLIED SDV_EC053-059, ECR001-003
VER.1.15 03/26/2010 APPLIED SDV_EC061
VER.1.16 04/1/2010 APPLIED SDV_EC065-075, except SDV_EC069, SDV_EC076-079
VER.1.17 04/6/2010 APPLIED SDV_EC080-084, ECR004, ECR008 and ECR009
VER.1.18 04/8/2010 APPLIED SDV_EC085-091, SDV_ECR010-013
VER.1.19 04/13/2010 APPLIED SDV_EC092-094, change PCB footprint of all resistors from xxx to xxx-R, SDV_EC103 and EC047
VER.1.20 04/16/2010 APPLIED SDV_EC105-110 and ECR023, ECR026 and ECR027
VER.1.21 04/21/2010 APPLIED ECR028

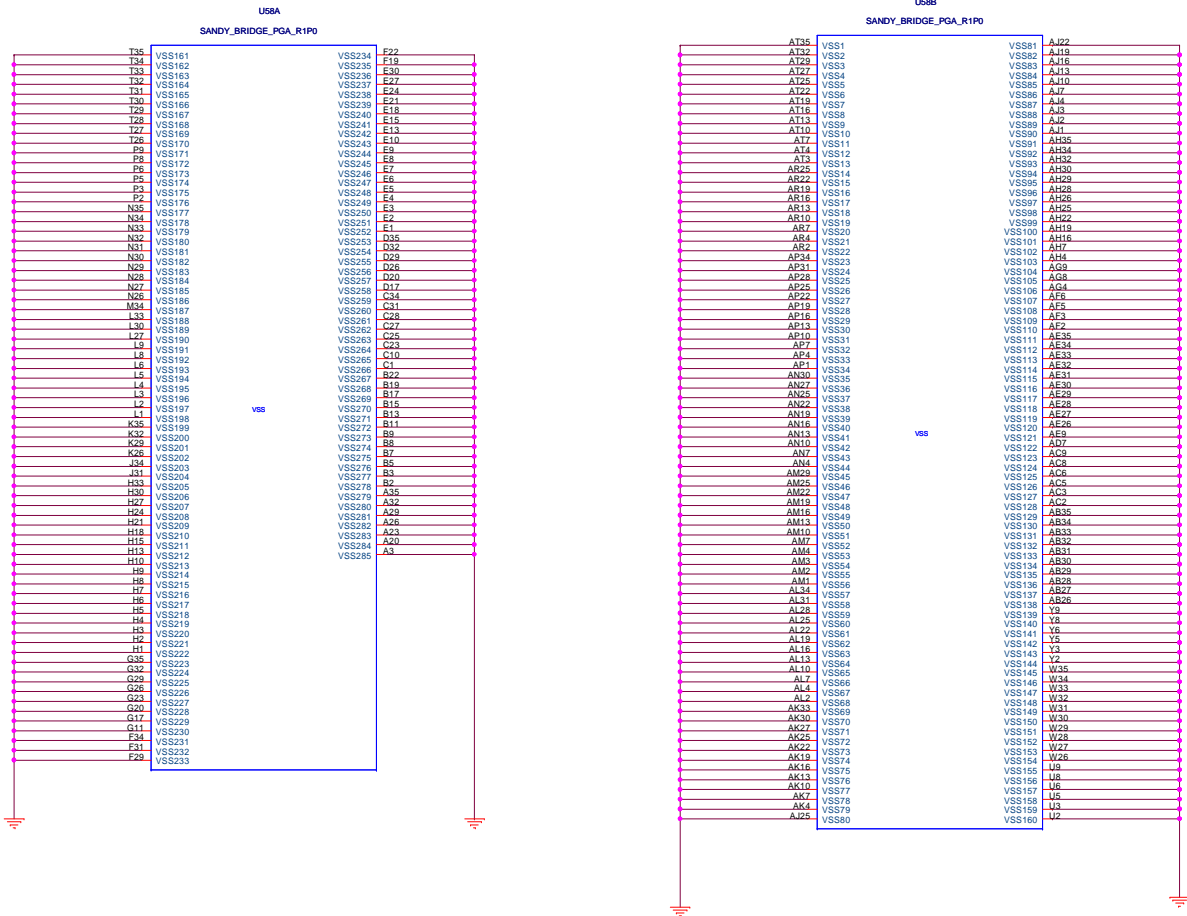
~~VER.1.22 04/26/2010 APPLIED EC111-113, EC115-117~~ NZM3_SWG_SDV2_EC077

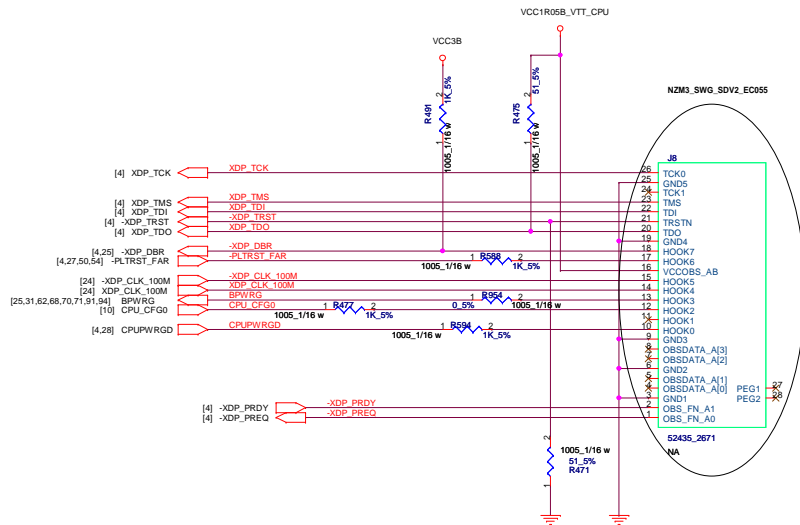
~~NOZOMI-3 SWG SDV2 :BASE LOGIC NZM3 SWG SDV VER1.22 04/26/2010~~ NZM3_SWG_SDV2_EC077

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VER.2.01 04/30/2010 APPLIED NZM3_SWG_SDV2_EC022-033
VER.2.02 05/04/2010 APPLIED NZM3_SWG_SDV2_EC035-061
VER.2.03 05/07/2010 APPLIED NZM3_SWG_SDV2_EC062-065
VER.2.04 05/12/2010 APPLIED NZM3_SWG_SDV2_EC066-071
VER.2.05 05/13/2010 APPLIED NZM3_SWG_SDV2_EC072
VER.2.06 05/21/2010 APPLIED NZM3_SWG_SDV2_EC073, EC076 and NZM3_SWG_SDV2_ECR001-003
VER.2.07 05/25/2010 APPLIED NZM3_SWG_SDV2_EC077,EC078, EC079, EC082, EC083, EC084, EC086, EC087, EC088, EC089 and EC095
VER.2.08 06/02/2010 APPLIED NZM3_SWG_SDV2_EC096-EC100, EC104, EC106 and EC107
VER.2.09 06/03/2010 APPLIED NZM3_SWG_SDV2_EC108-EC110
VER.2.10 06/08/2010 APPLIED NZM3_SWG_SDV2_EC105









CNV_EC062

TABLE NOTE: J8 "ASM" FOR SDV1 ONLY.

SIGNAL	REF DES	ENABLE	DISABLE
TDO	R475	ASM	NO ASM
TRST#	R471	ASM	ASM
DBRST#	R491	ASM	ASM
RESET#	R588	ASM	NO ASM
CFG0	R477	ASM	NO ASM
PWRGD	R594	ASM	NO ASM
BPWRG	R954	ASM	NO ASM
	J8	ASM	NO ASM

LOGIC

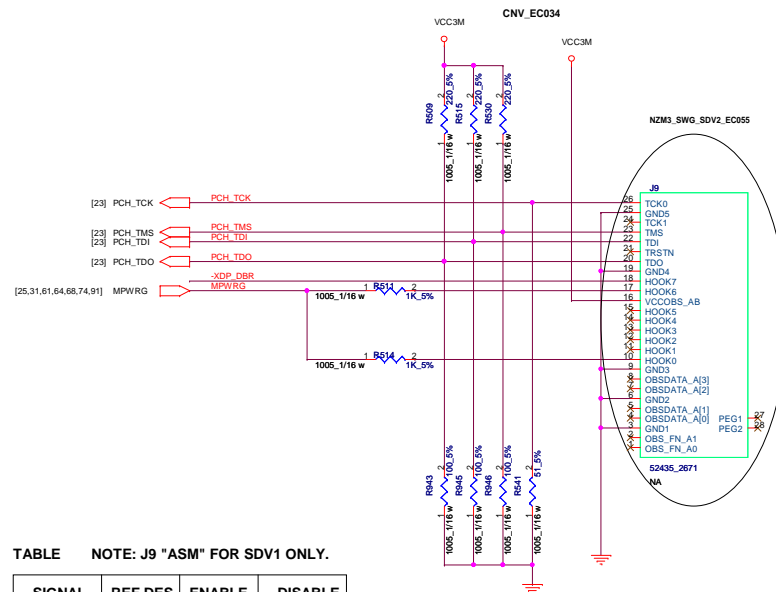
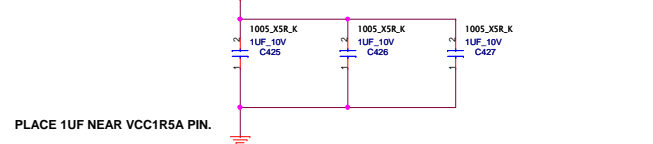
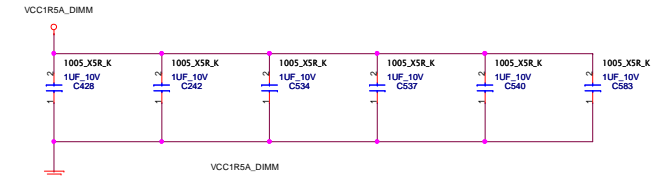
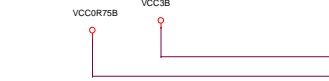
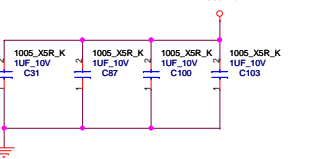
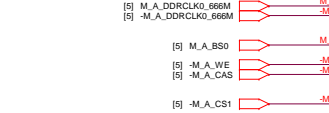
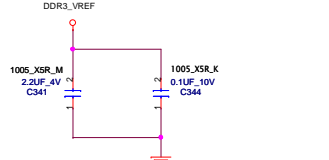
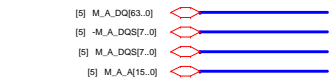


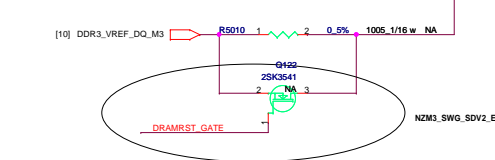
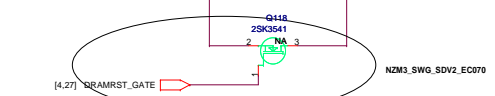
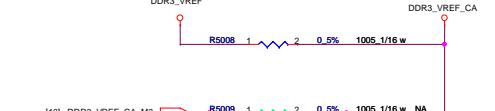
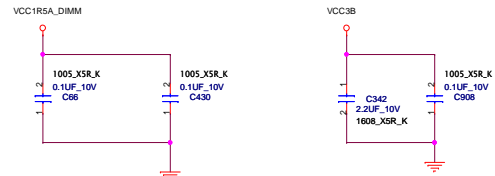
TABLE NOTE: J9 "ASM" FOR SDV1 ONLY.

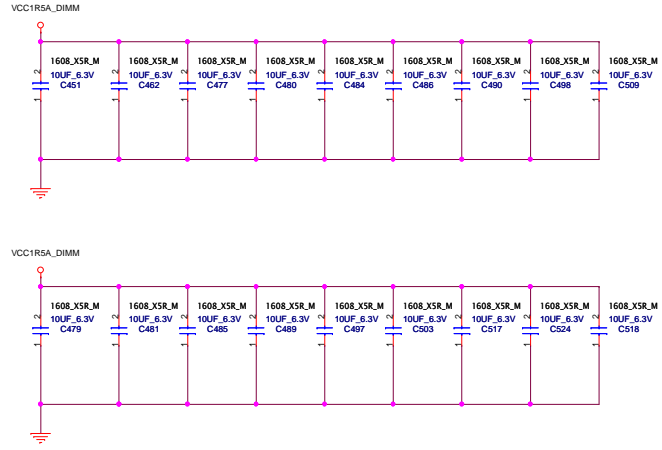
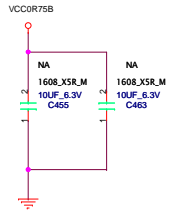
SIGNAL	REF DES	ENABLE	DISABLE
TDO	R509 R943	200 100	NO ASM NO ASM
TMS	R530 R946	220 100	NO ASM NO ASM
TDI	R515 R945	220 100	NO ASM NO ASM
TCK	R541	51	51
MPWRG	R511 R514 J9	ASM ASM ASM	NO ASM NO ASM NO ASM

LOGIC



PLACE 1UF NEAR VCC1R5A PIN.





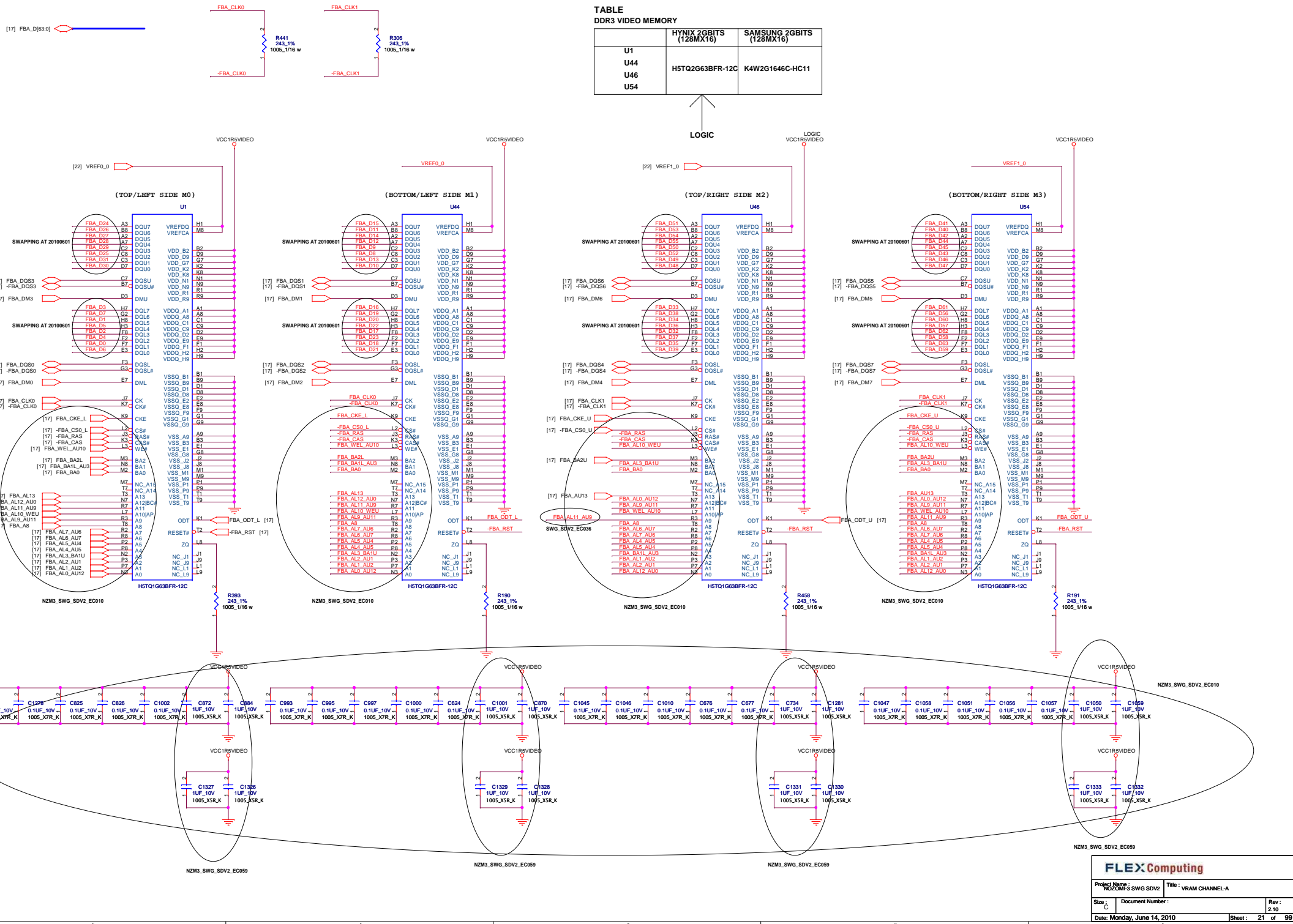
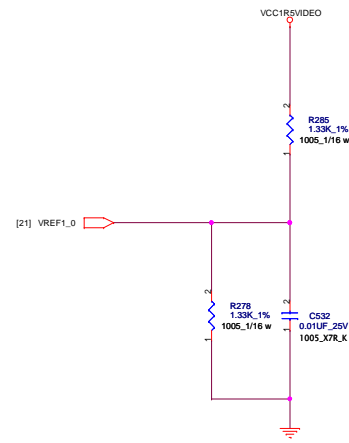
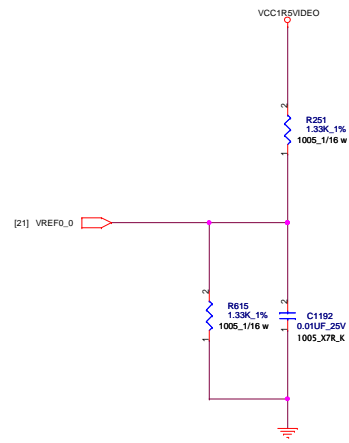


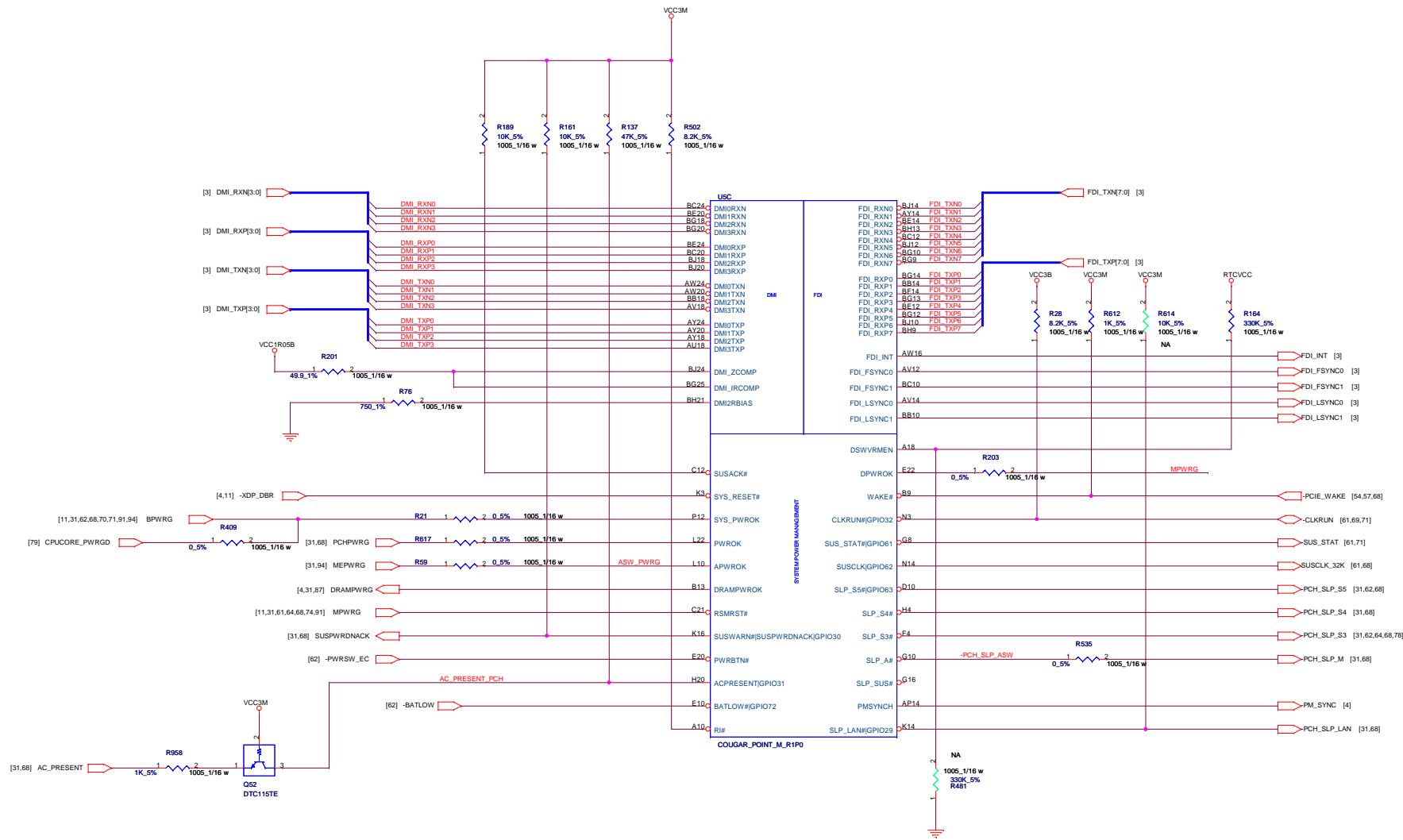
TABLE
DDR3 VIDEO MEMORY

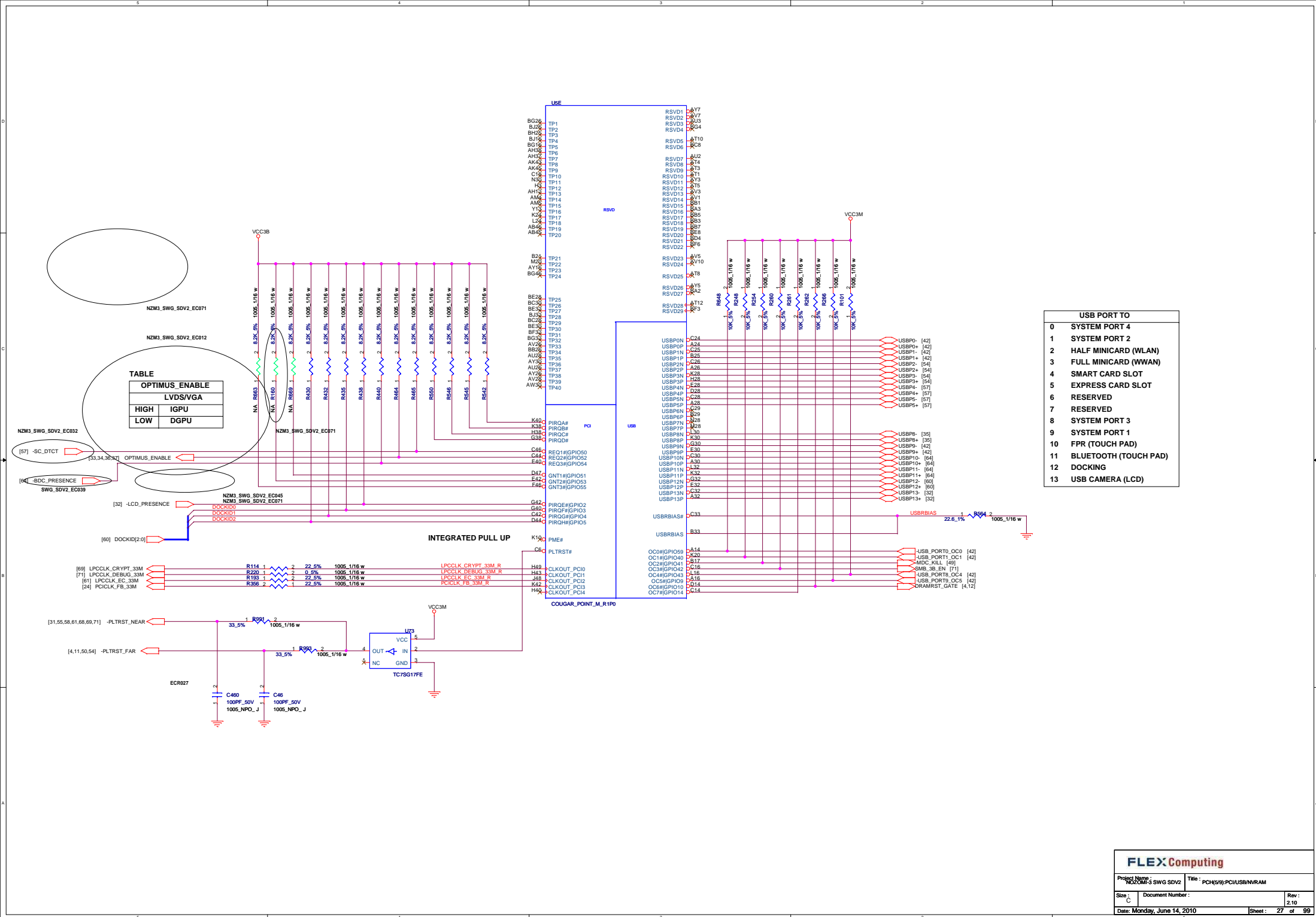
	HYNIX 2GBITS (128MX16)	SAMSUNG 2GBITS (128MX16)
U1		
U44	H5TQ2G63BFR-12C	K4W2G1646C-HC11
U46		
U54		

LOGIC

FLEX Computing







GPIO15	ME CRYPTO STRAP
HIGH	WITH CONFIDENTIALITY
LOW	NO CONFIDENTIALITY

GPIO8	INTEGRATED CLOCKING
HIGH	DISABLED(BTM)
LOW	ENABLED(FCIM)

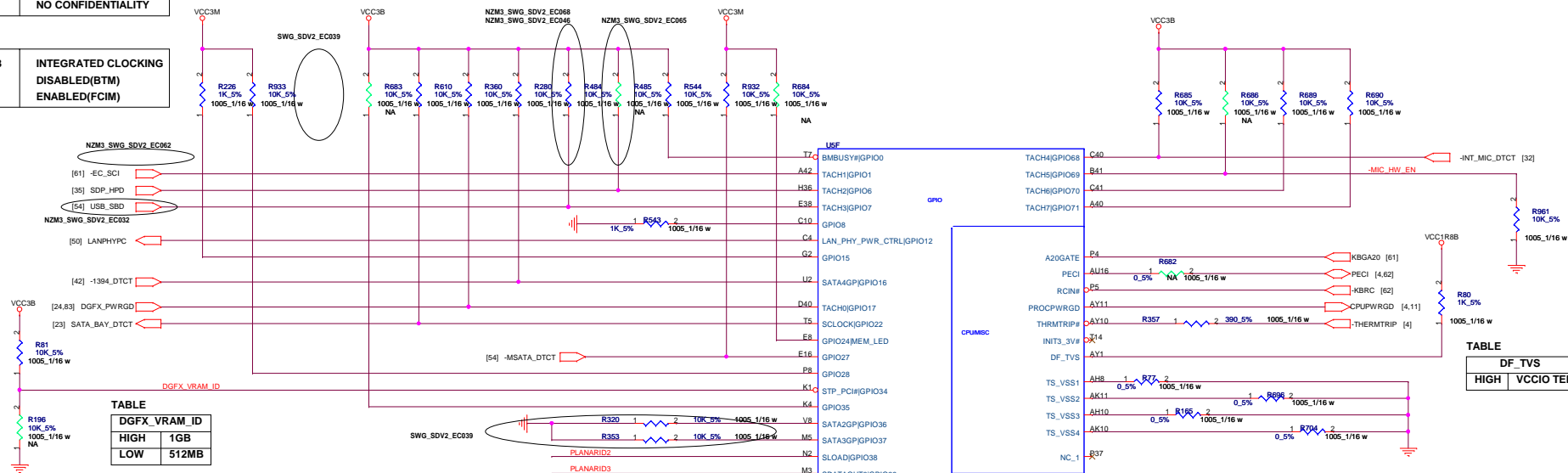
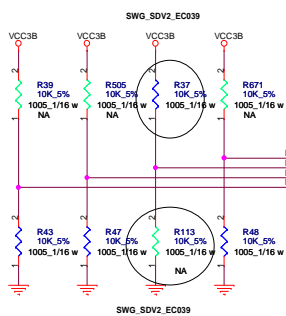


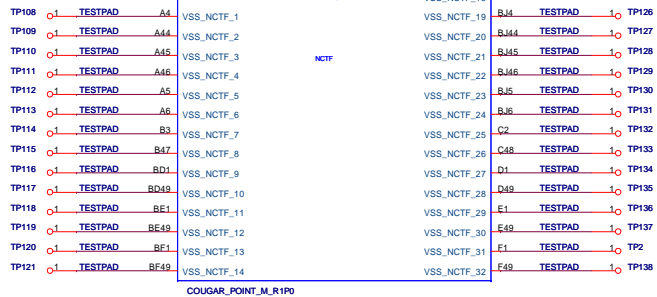
TABLE	
DF_TVS	
HIGH	VCCIO TERMINATION



LEVEL	PLANAR ID			
	3	2	1	0
1	R39	R505	R37	R671
0	R43	R47	R113	R48

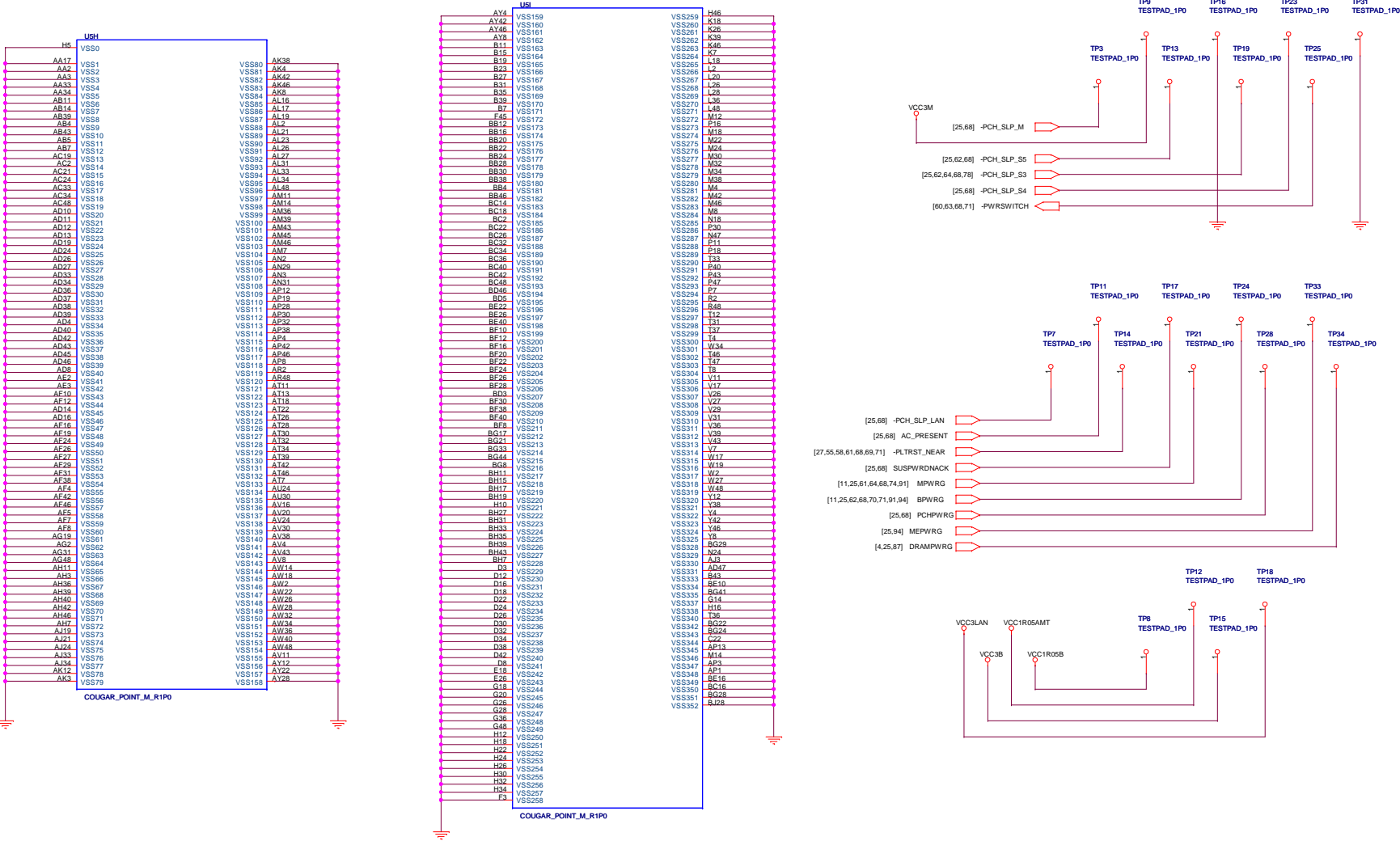
LEVEL	PLANARID[3..0]
PDV	0000B
SDV	0000B/0001B
SDV2	0010B

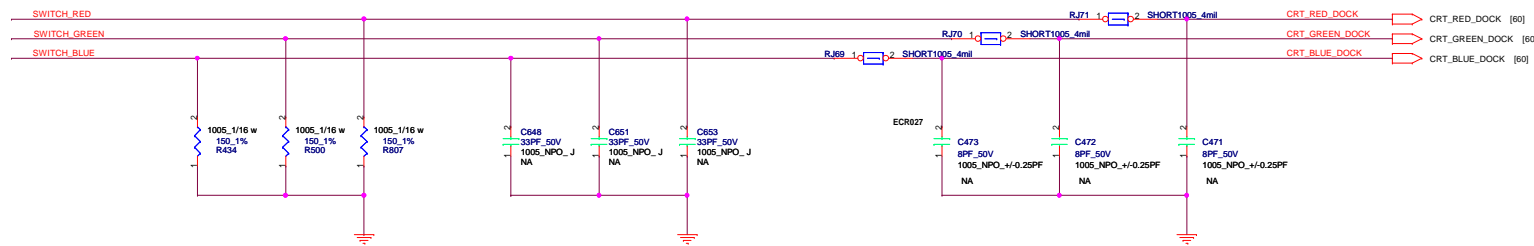
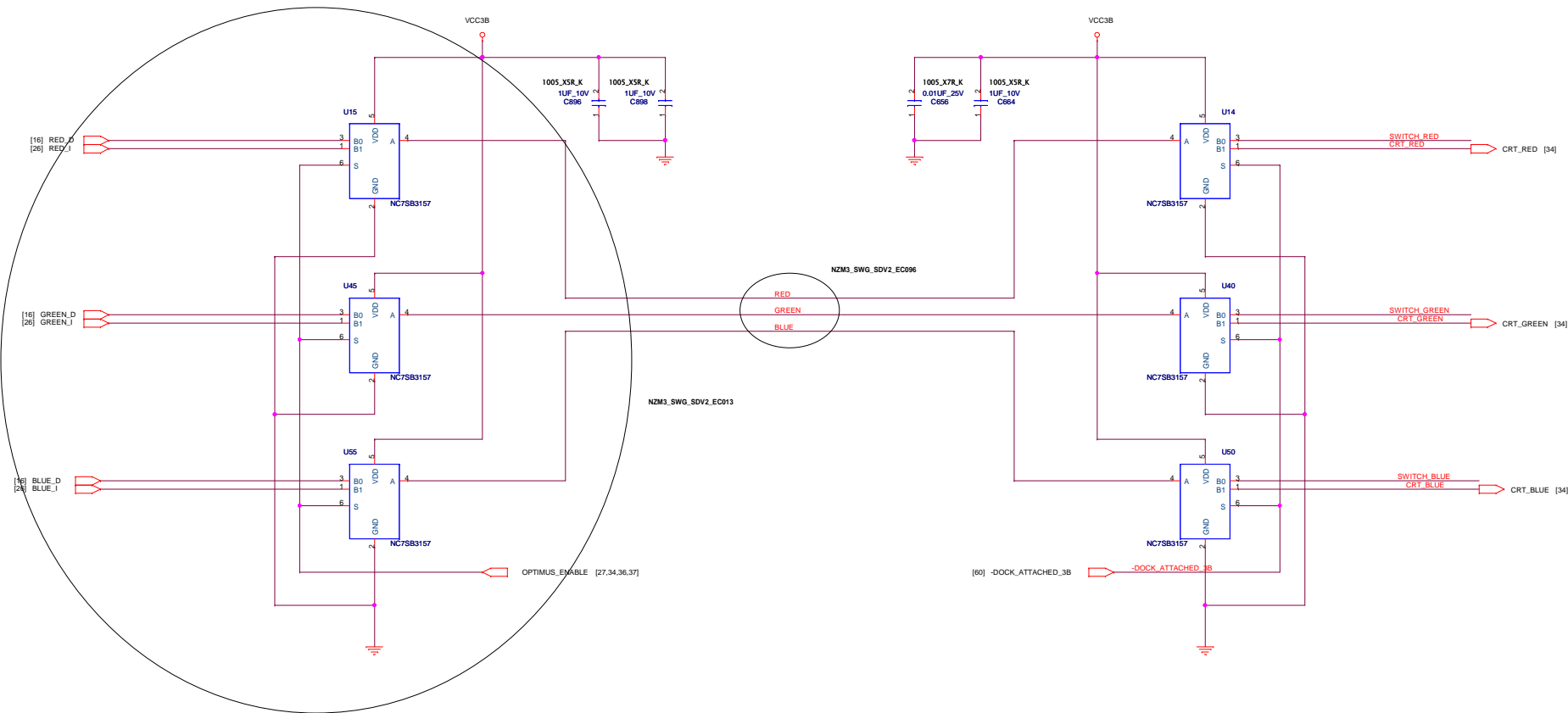
FOR SOLDER CRACK DETECTION

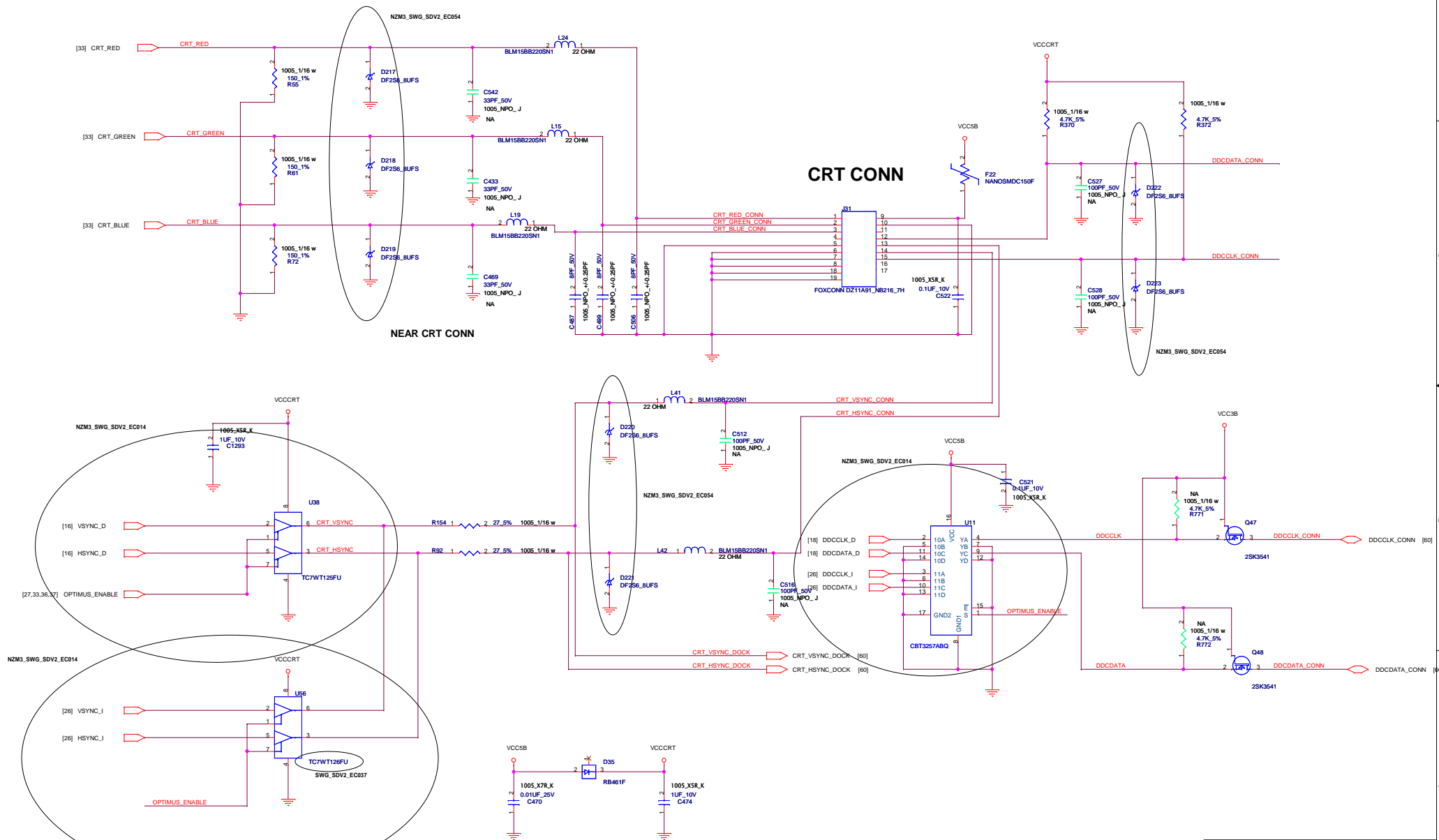


FOR SOLDER CRACK DETECTION

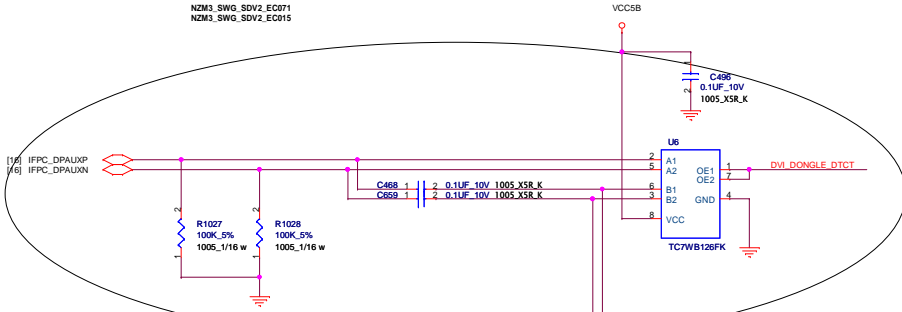
TEST PAD FOR METS/APS



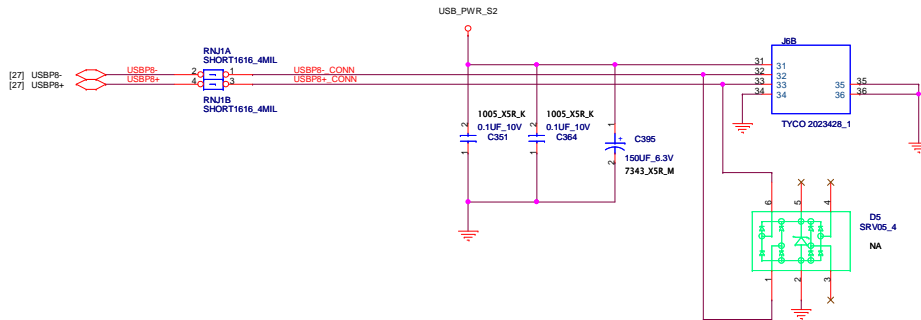
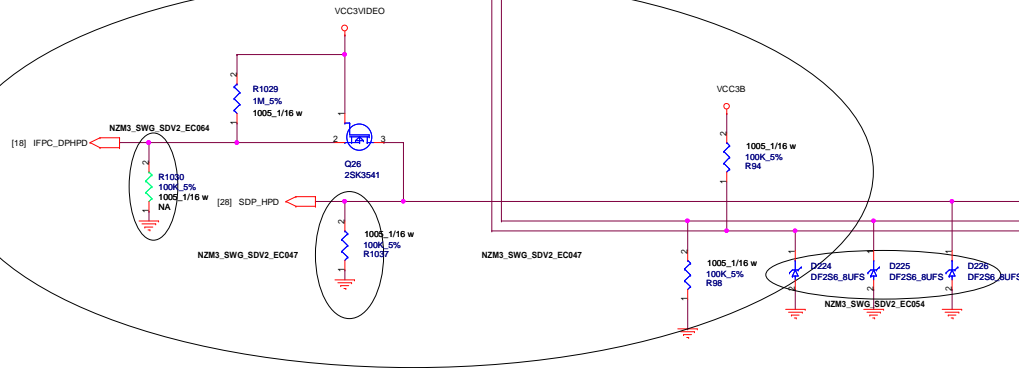




NZM3_SWG_SDV2_EC071
NZM3_SWG_SDV2_EC015

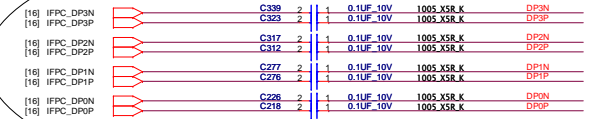


NZM3_SWG_SDV2_EC071

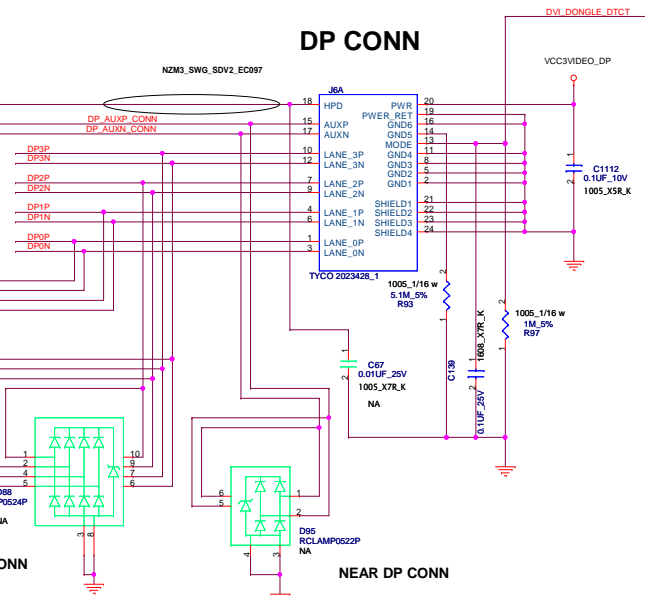


NZM3_SWG_SDV2_EC015
NZM3_SWG_SDV2_EC047
NZM3_SWG_SDV2_EC071

FOR SYSTEM DP NEAR DP CONN

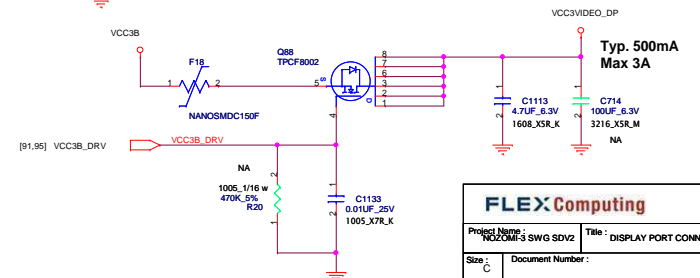


DP CONN



NEAR DP CONN

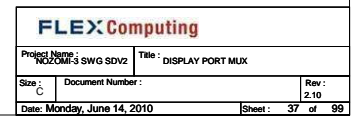
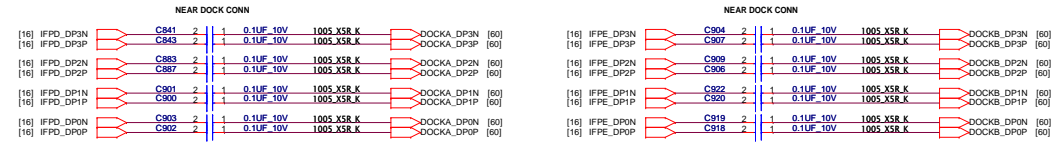
NEAR DP CONN

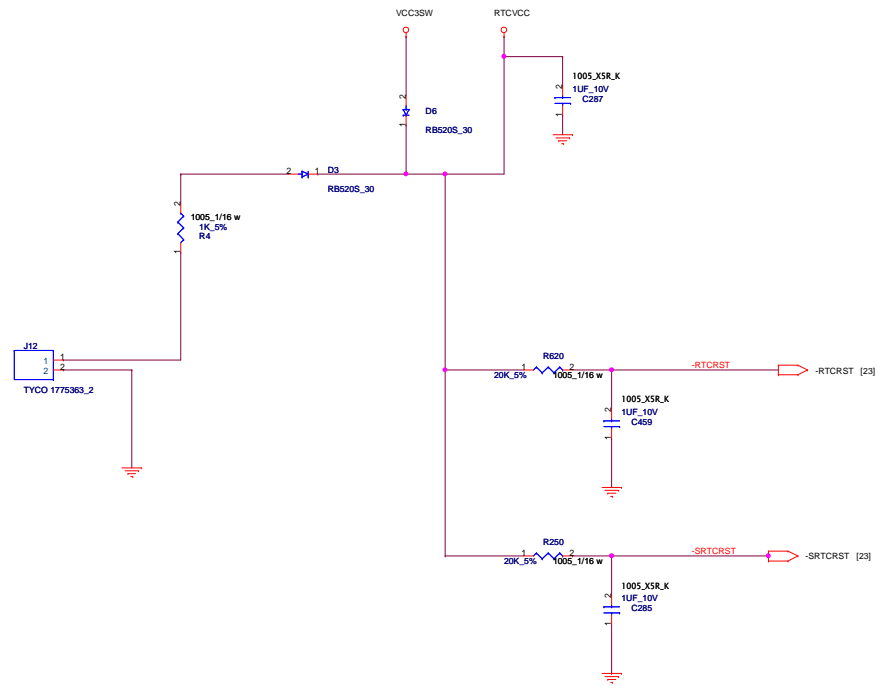


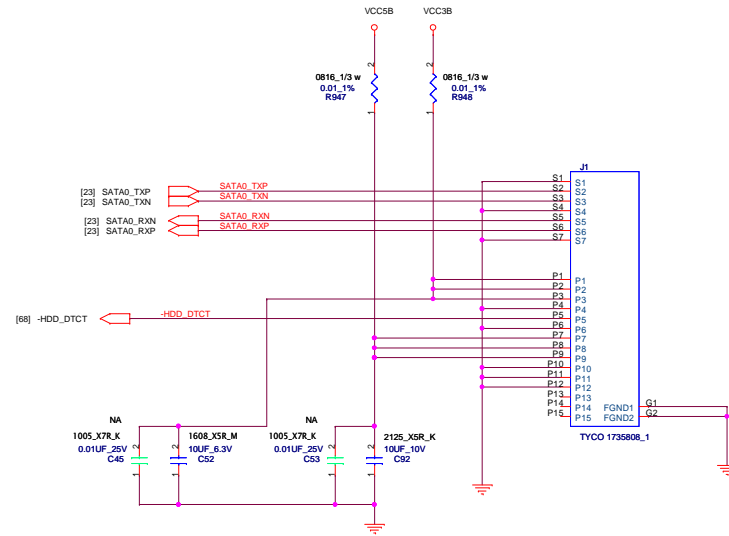
FLEX Computing

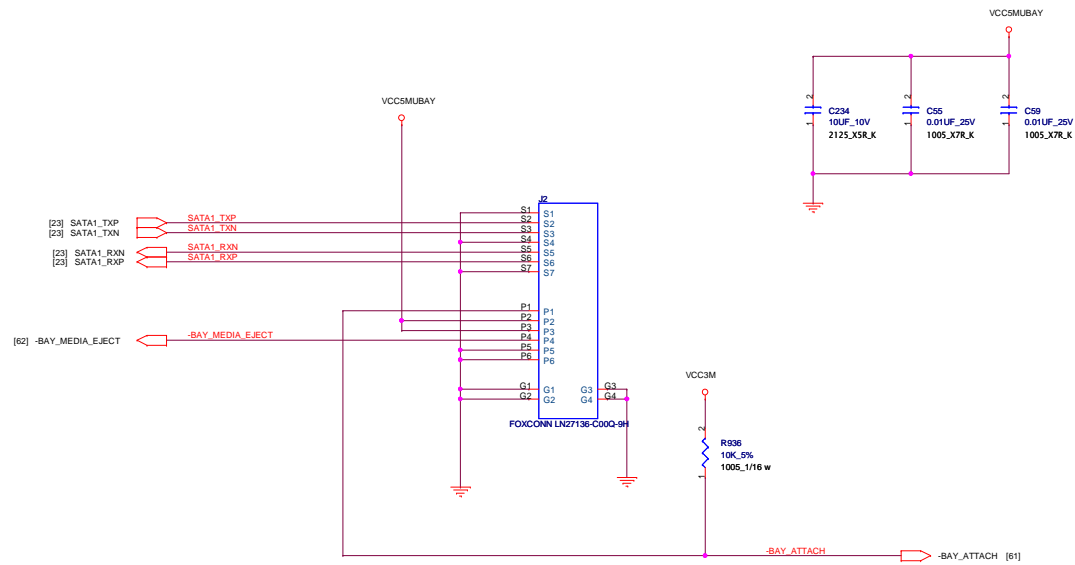
Project Name: NZM3_SWG_SDV2 Title: DISPLAY PORT CONN

Size: C Document Number: Rev: 2.10 Date: Monday, June 14, 2010 Sheet: 35 of 99









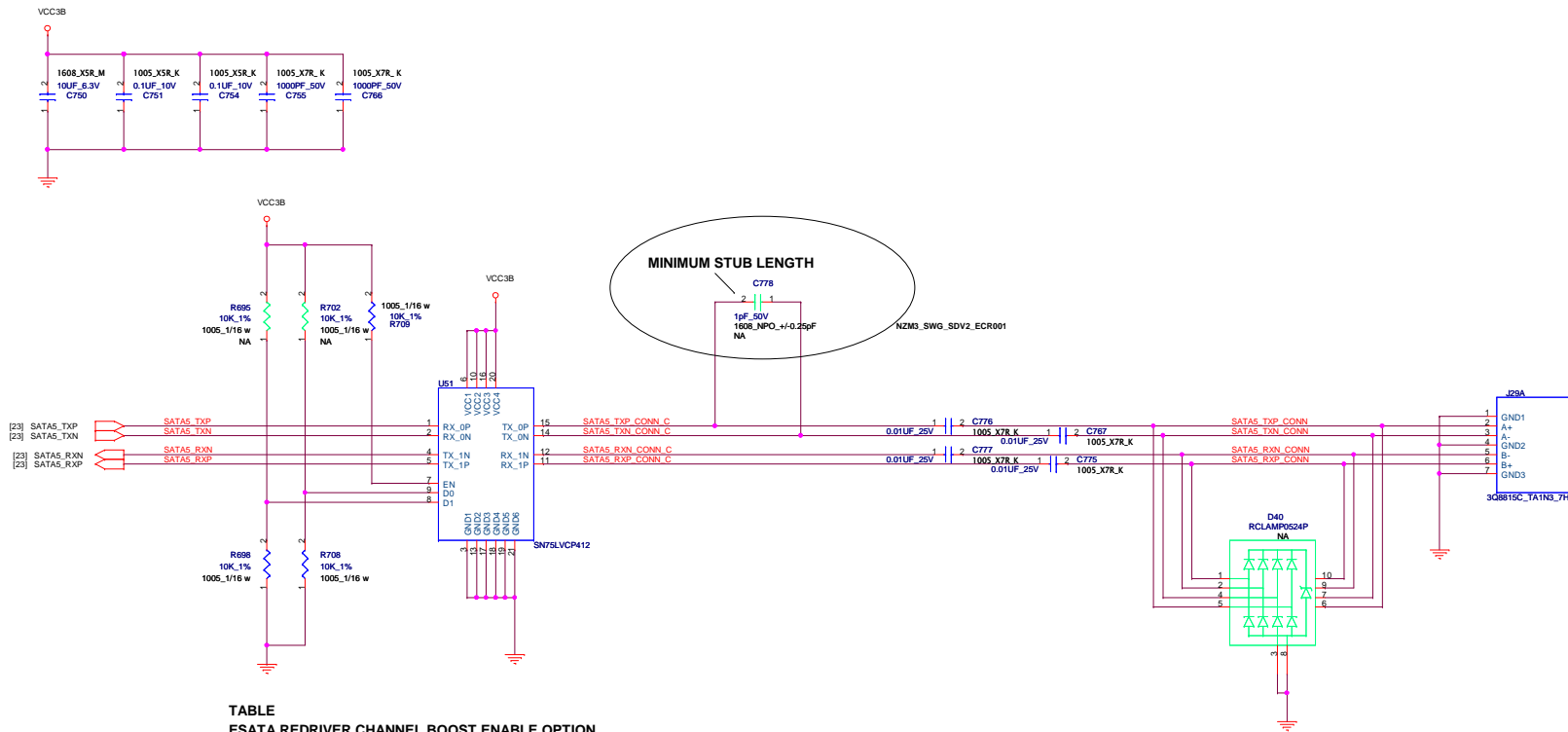


TABLE
ESATA REDRIVER CHANNEL BOOST ENABLE OPTION

EN	D0	D1	CH-0	CH-1
0	X	X	STANDBY	STANDBY
1	0	0	STANDARD	STANDARD
1	1	0	BOOST	STANDARD
1	0	1	STANDARD	BOOST
1	1	1	BOOST	BOOST

← LOGIC

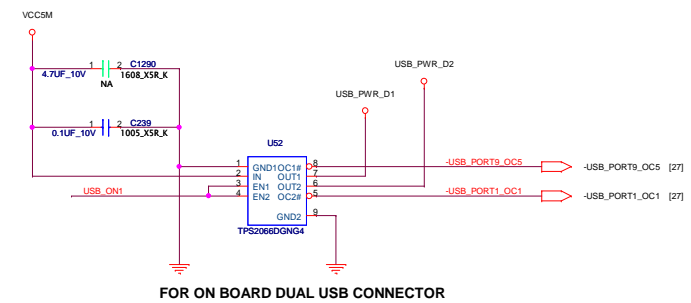
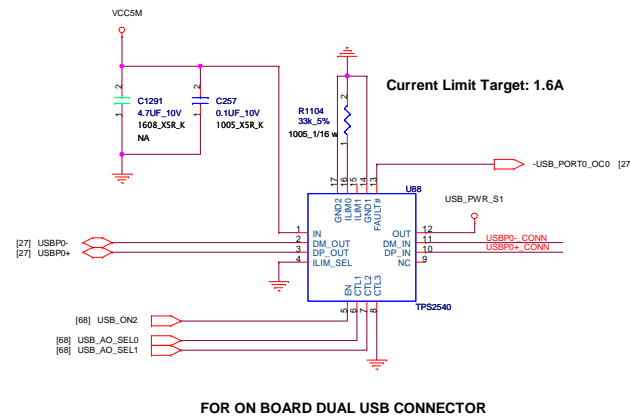
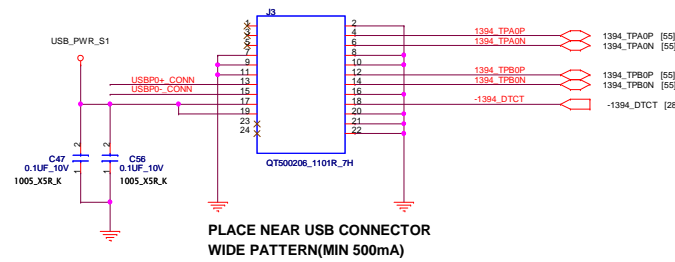
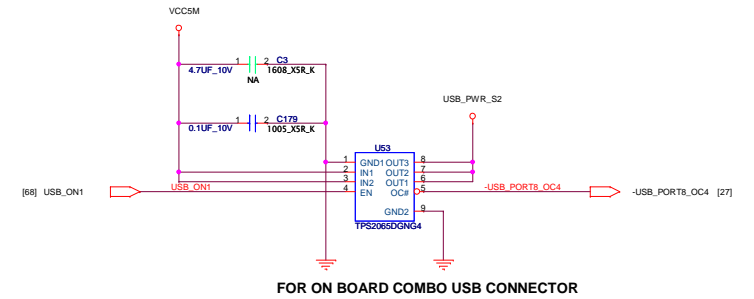
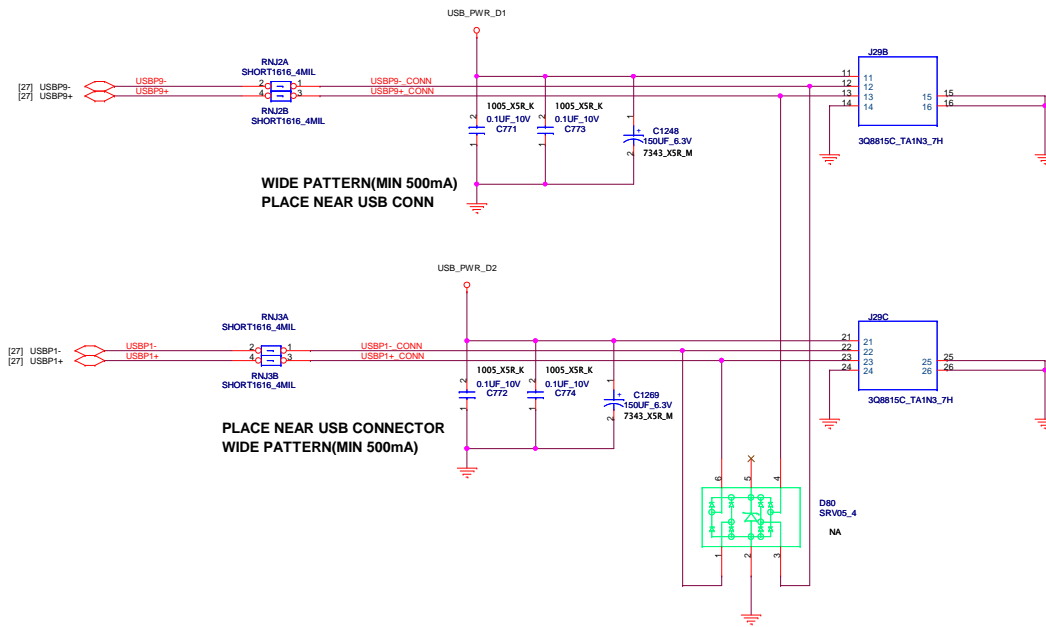
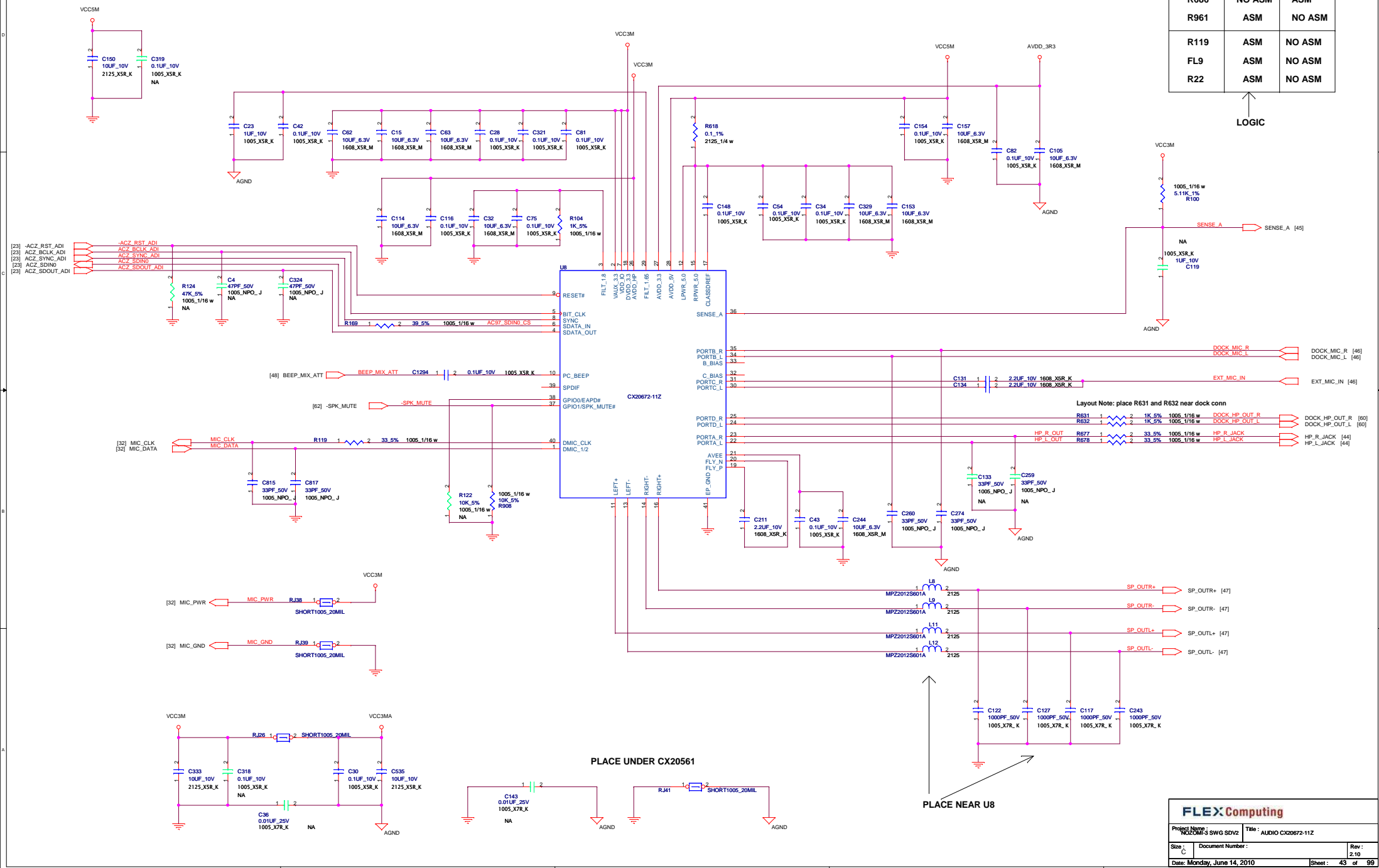
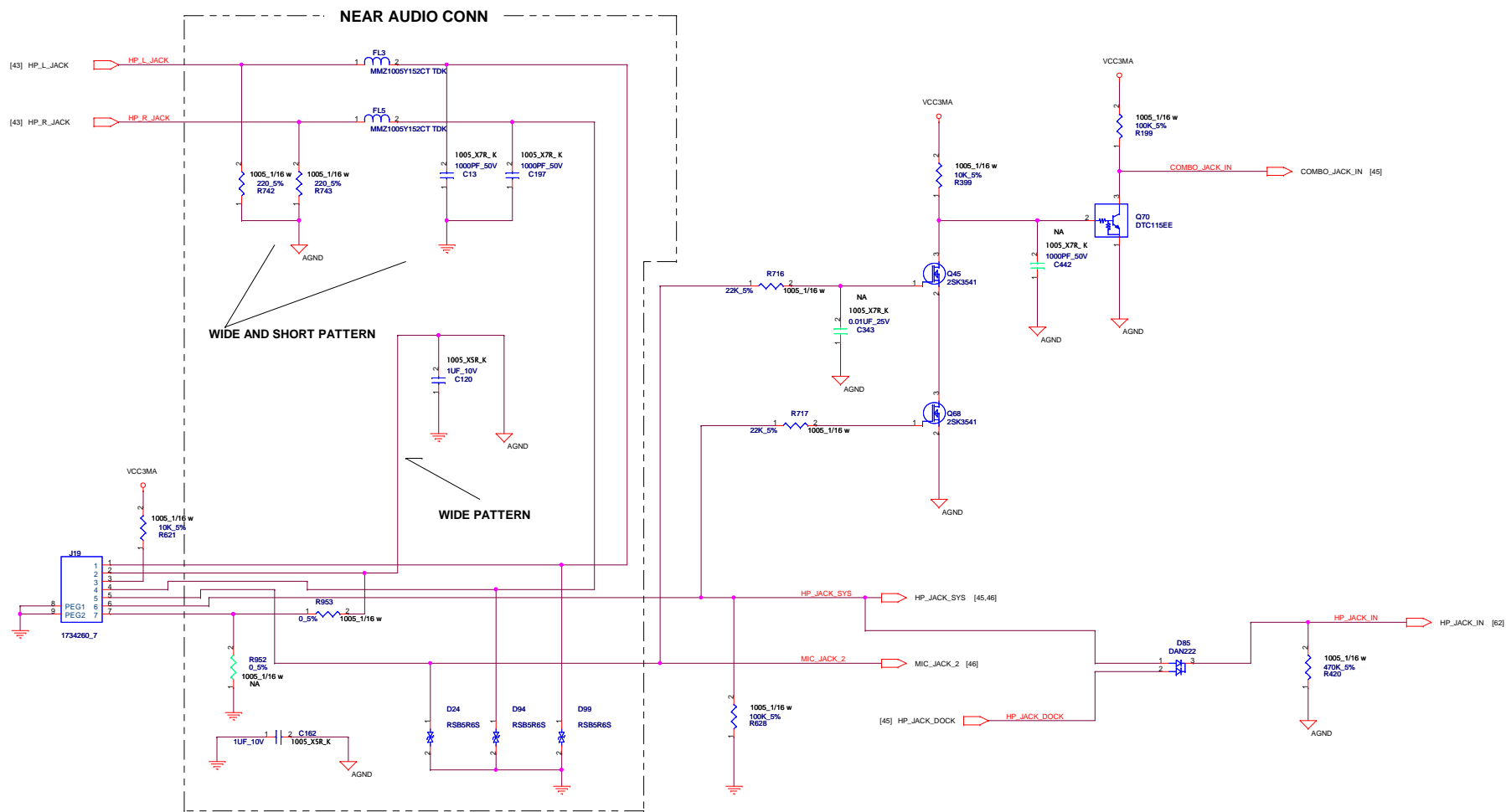


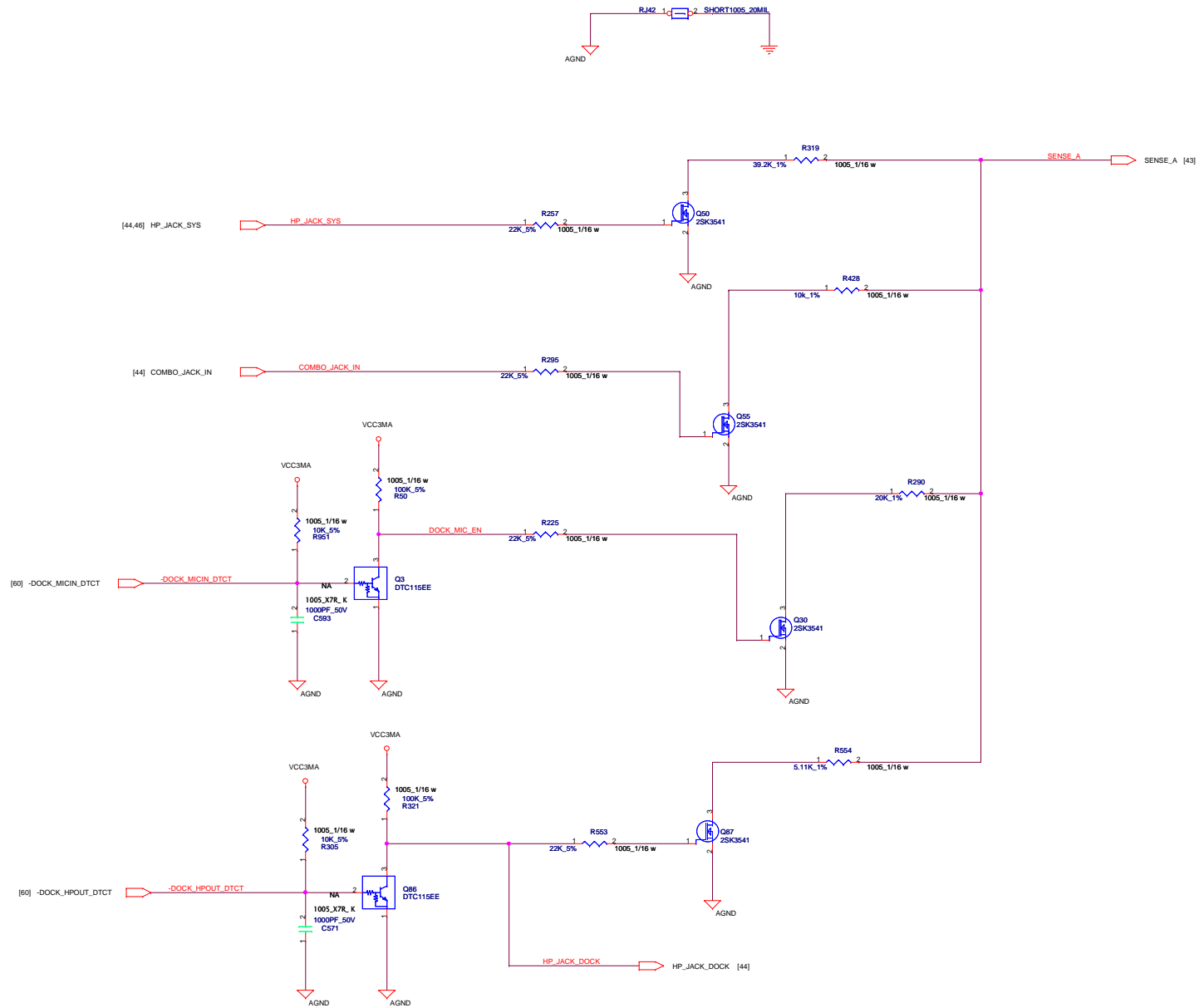
TABLE MIC HW ENABLE/DISABLE

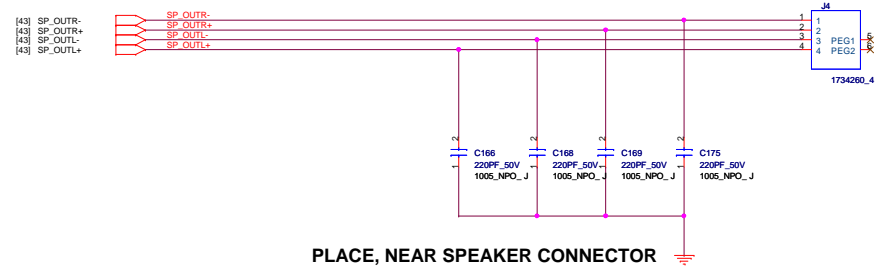
	ENABLE	DISABLE
R686	NO ASM	ASM
R961	ASM	NO ASM
R119	ASM	NO ASM
FL9	ASM	NO ASM
R22	ASM	NO ASM

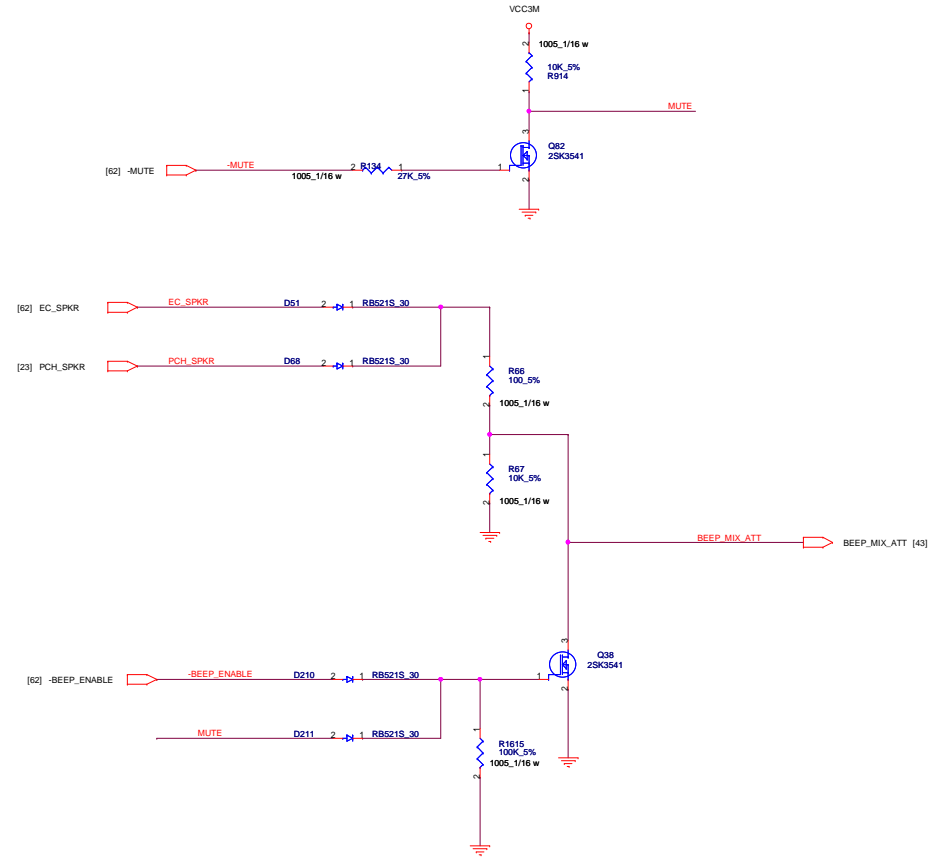
LOGIC

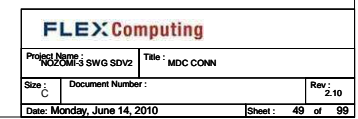


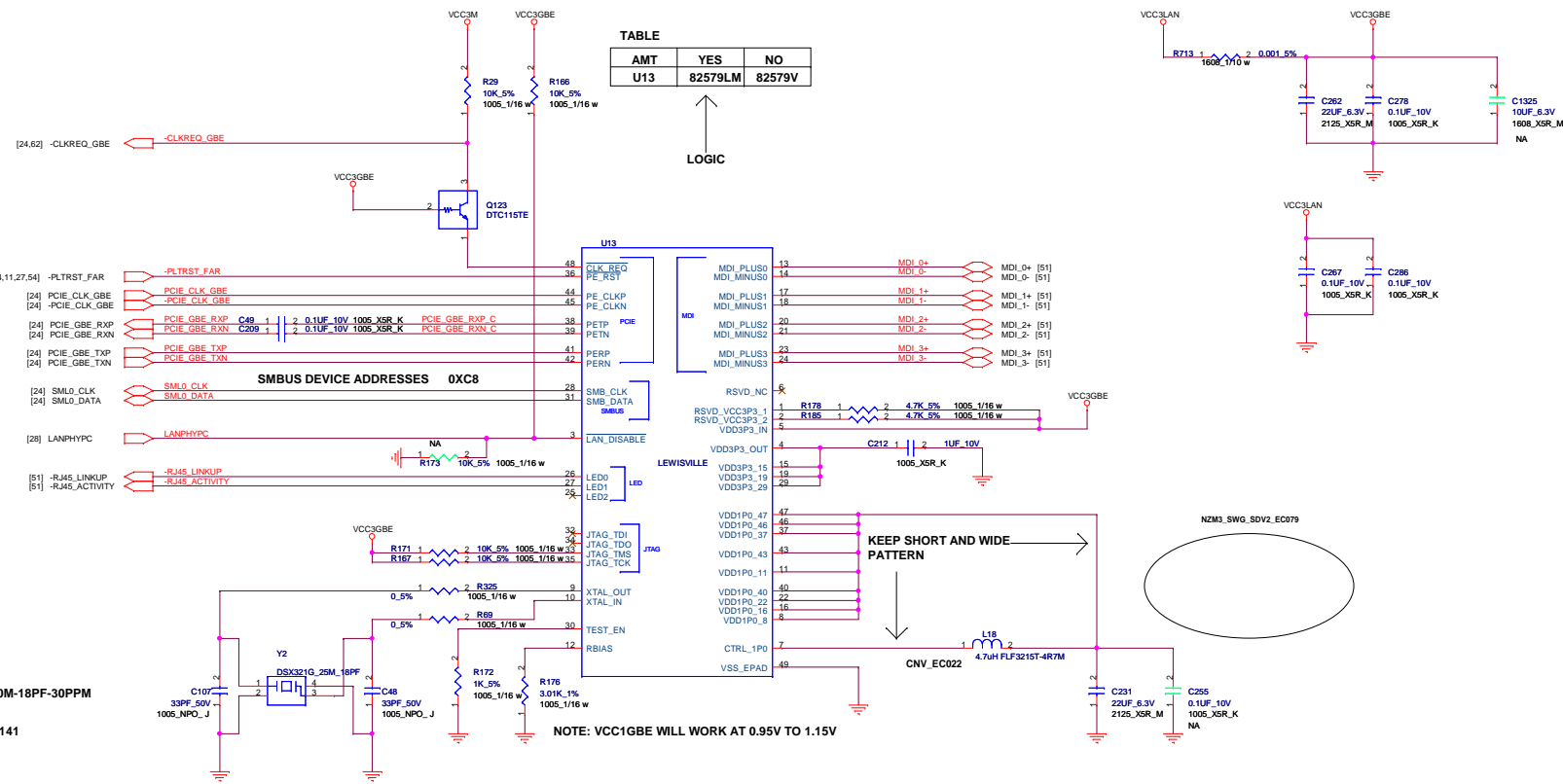






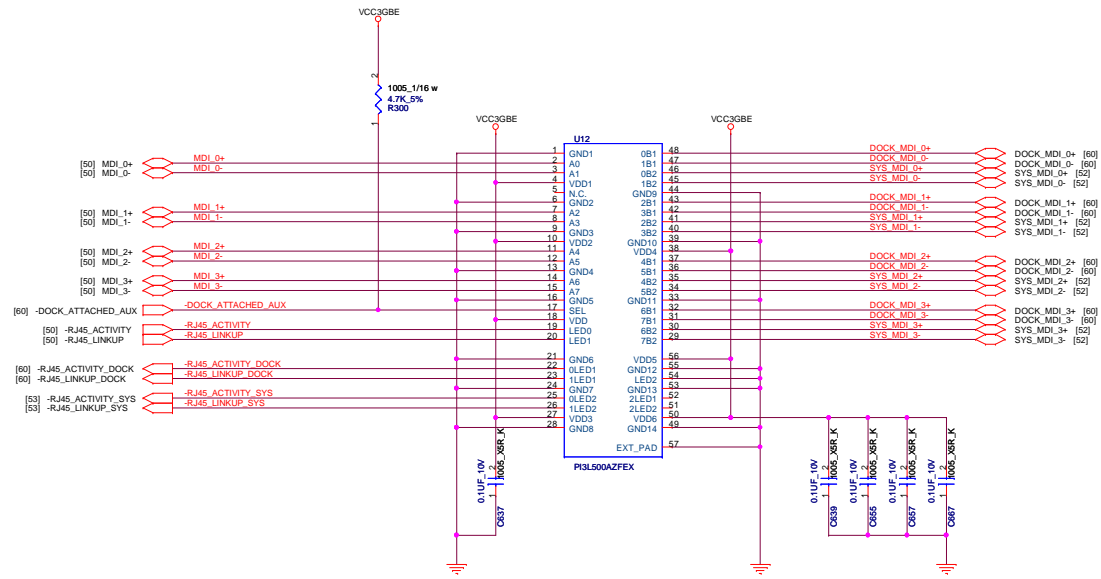






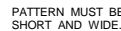
P/N 41U6141
KDS DSX321G-25.000M-18PF-30PPM
TXC 7V25020001
RIVER FCX-04-25MJ90141

NOTE: VCC1GBE WILL WORK AT 0.95V TO 1.15V

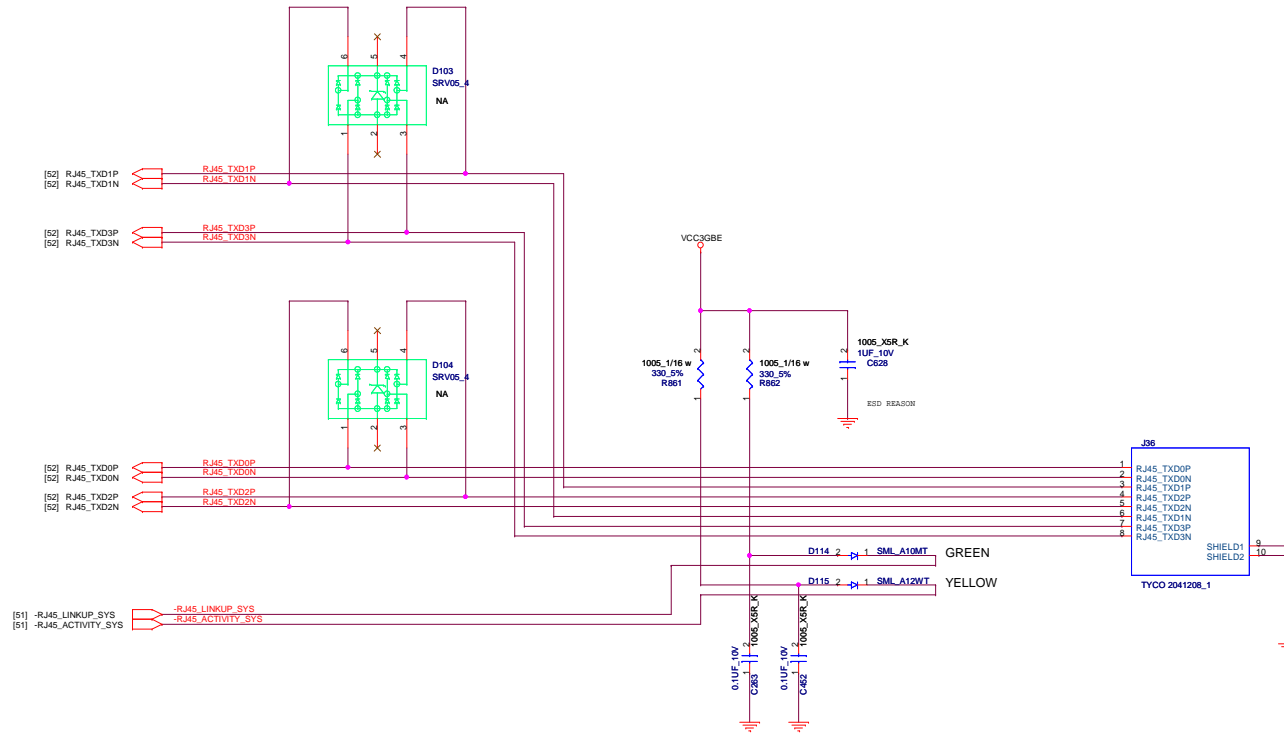




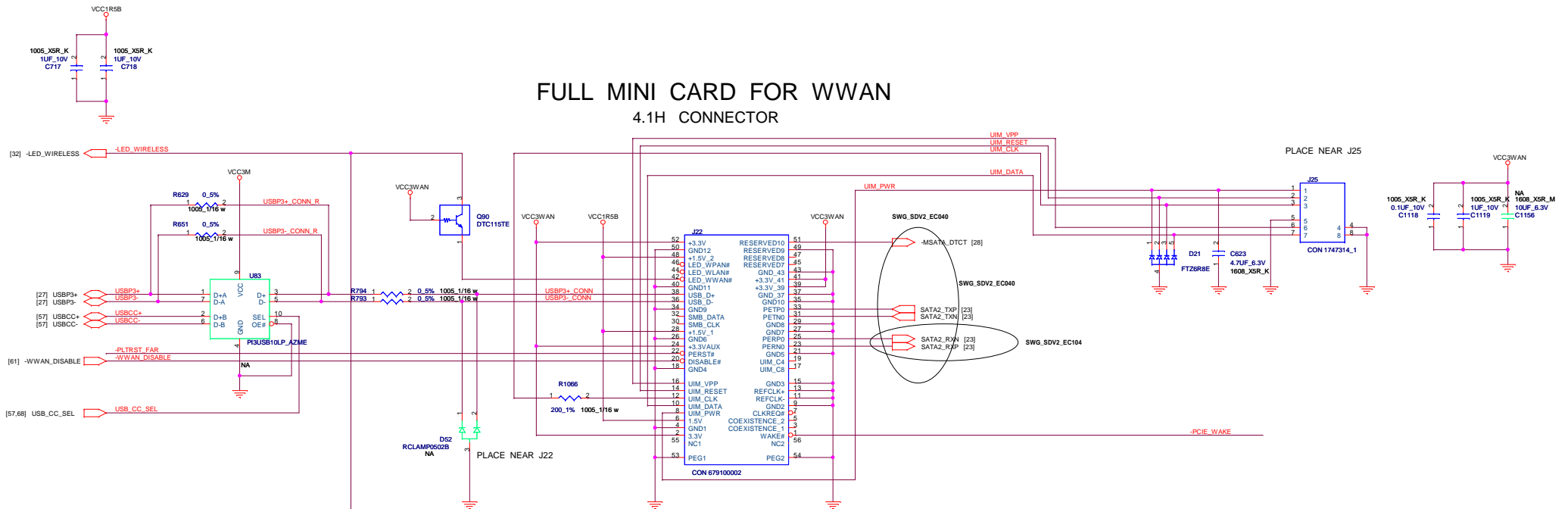
ESD REASON



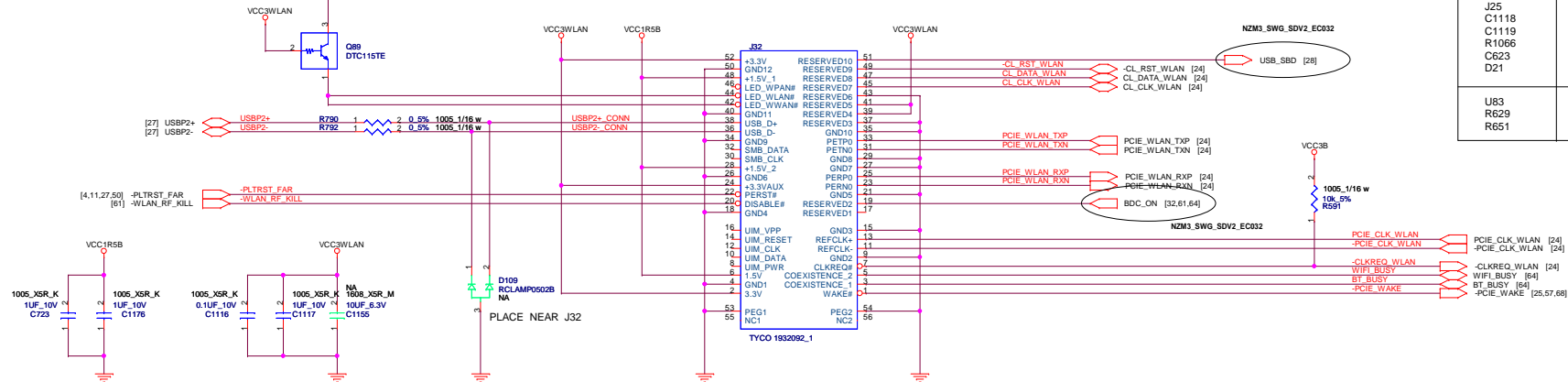
20_X5R_K
100PF_2000V

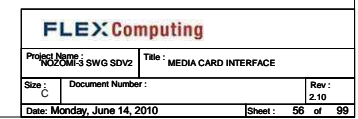


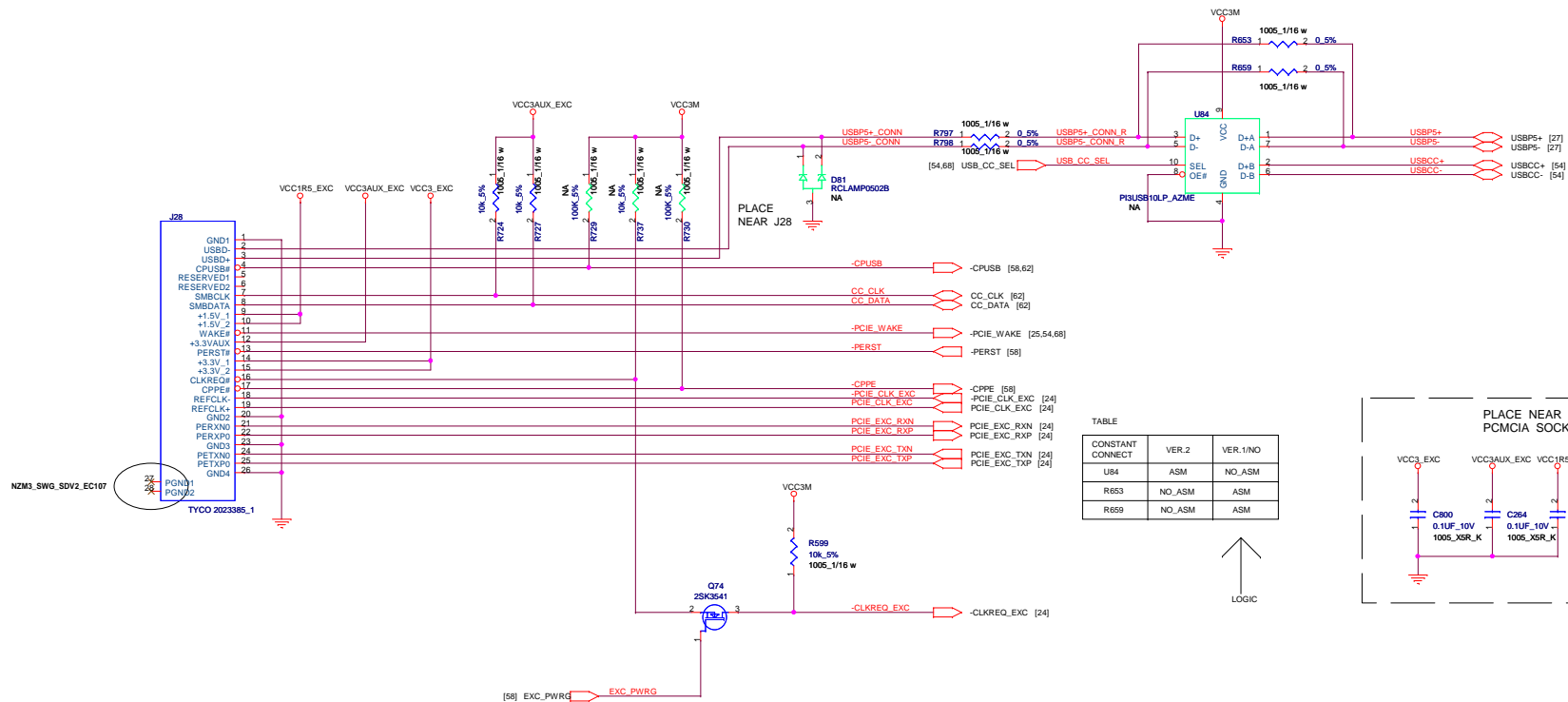
FULL MINI CARD FOR WWAN 4.1H CONNECTOR



FULL MINI CARD FOR WLAN 7.0H CONNECTOR

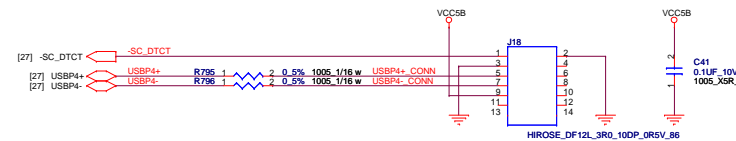
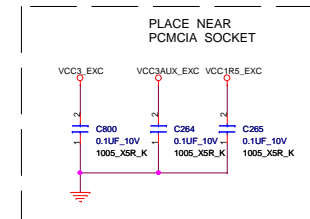






TABLE

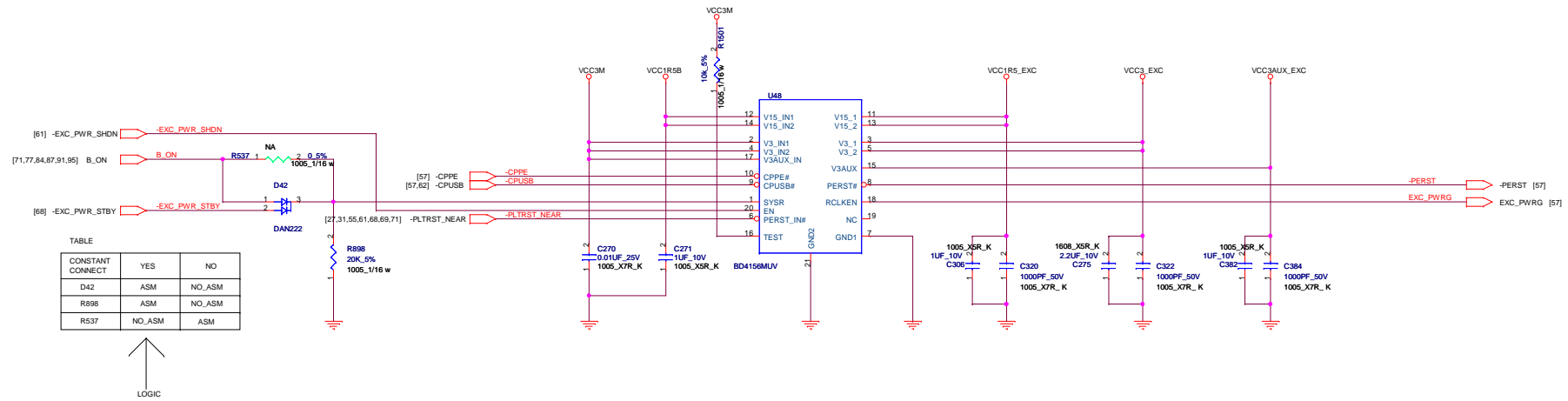
CONSTANT CONNECT	VER.2	VER.1/NO
U4	ASM	NO_ASM
R653	NO_ASM	ASM
R659	NO_ASM	ASM

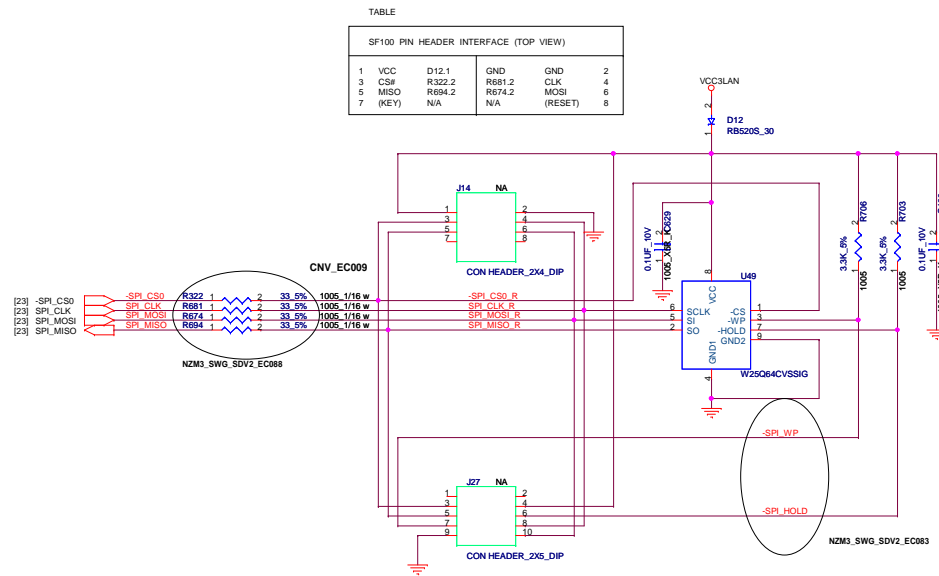


TABLE

CONSTANT CONNECT	VER.2/VER.1	NO
U48	BD4156MUV TPS2231MRGPR-3	TPS2231MRGPR BD4156MUV W83L351YG
R1501	ASM	NO_ASM

LOGIC





TABLE

SF100 PIN HEADER INTERFACE (TOP VIEW)							
1	VCC	D12.1	GND	GND	2		
3	CS#	R322.2	R681.2	CLK	4		
5	MISO	R694.2	R674.2	MOSI	6		
7	(KEY)	N/A	N/A	(RESET)	8		

TABLE

EM100 PIN HEADER INTERFACE (TOP VIEW)									
1	(HOLD1#)	(CS1#)	2						
3	CS0#	VCC	4						
5	MISO	HOLD0#	6						
7	WP0#	CLK	8						
9	GND	MOSI	10						

TABLE

AMT RPAT	YES YES	NO YES	NO NO
U49	8MB	8MB	4MB

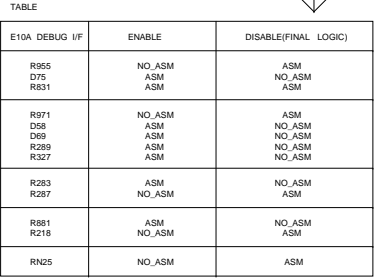
LOGIC

8MB SOIC8
MACRONIX MX25L6436EM2I-10G
WINBOND W25Q64BVSSIG
WINBOND W25Q64CVSSIG

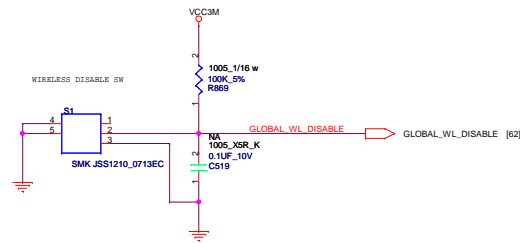
8MB WSON8
NUMONYX M25PX64-VMD6TG

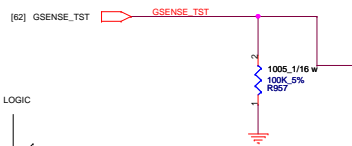
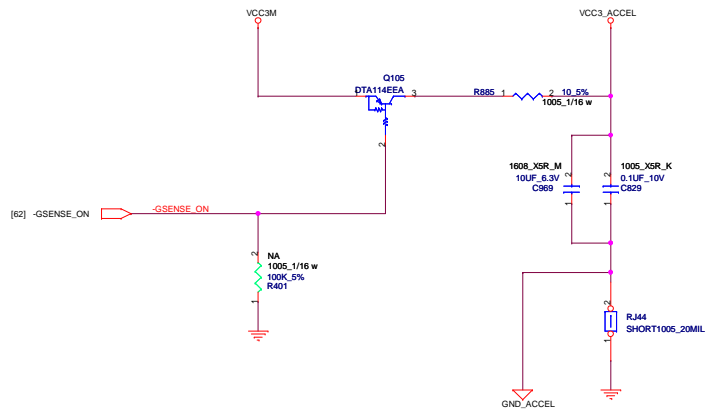
4MB SOIC8
MACRONIX MX25L3236DM2I-10G
WINBOND W25Q32BVSSIG
NUMONYX M25PX32-VMW6F

NEAR H8S2112
SHORT PATTERN.
NO PATTERN UNDER
THIS AREA.





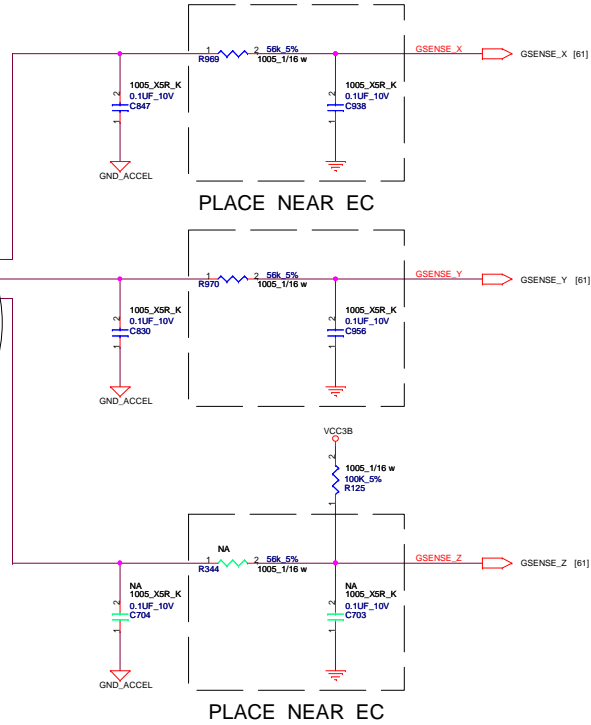
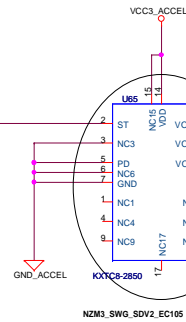


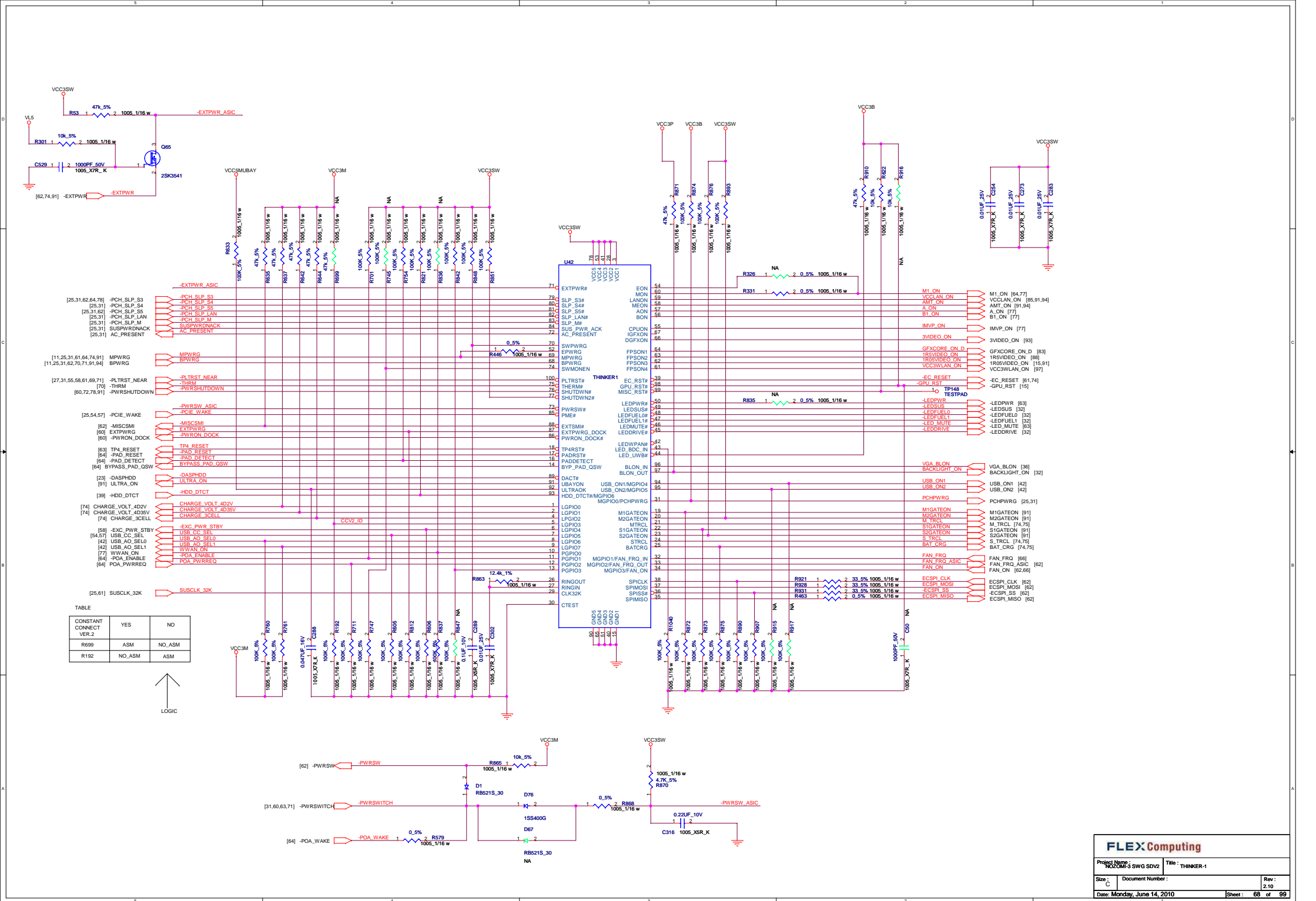


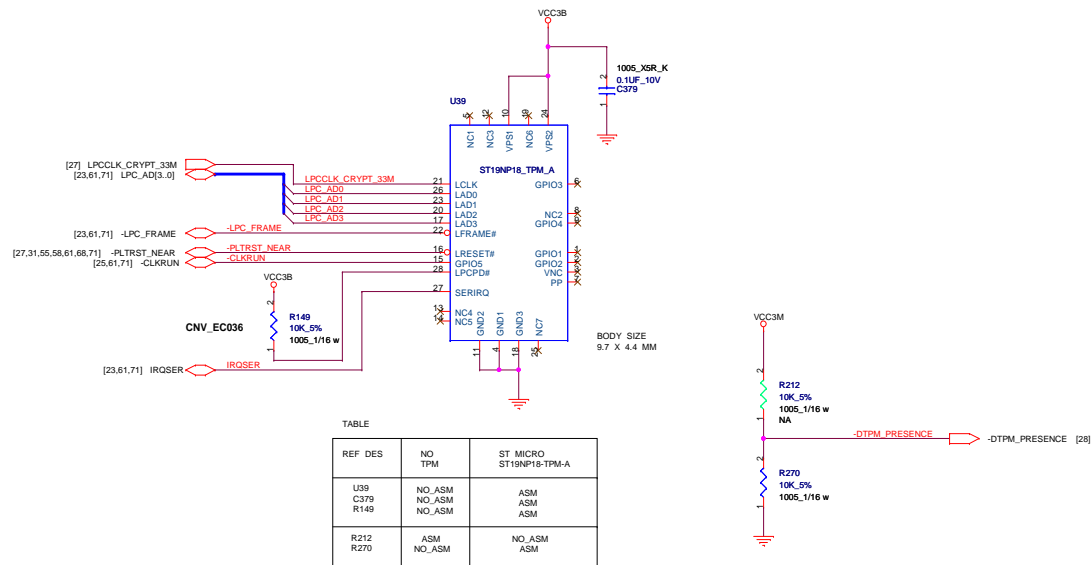
TABLE

	LIS244AL LIS344AL	NO ACC.
R401 R957	NO_ASM ASM	ASM ASM
U65 Q105	ASM ASM	NO_ASM NO_ASM
R885 C829 C969	10-OHM ASM ASM	NO_ASM NO_ASM NO_ASM
C830 C847	ASM ASM	NO_ASM NO_ASM
R969 C938 R970 C956	56K ASM 56K ASM	NO_ASM NO_ASM NO_ASM NO_ASM
C704 R344 C703	NO_ASM NO_ASM NO_ASM	NO_ASM NO_ASM NO_ASM
R125	ASM	ASM

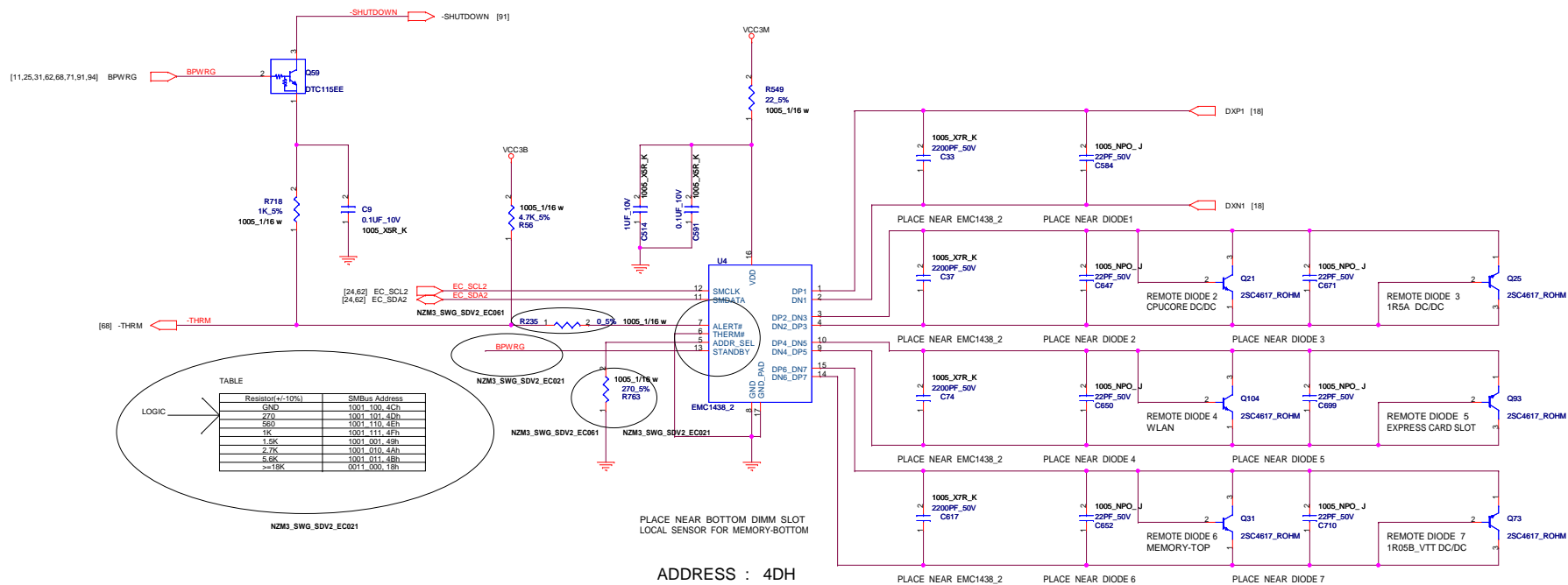
NZM3_SWG_SDV2_EC073

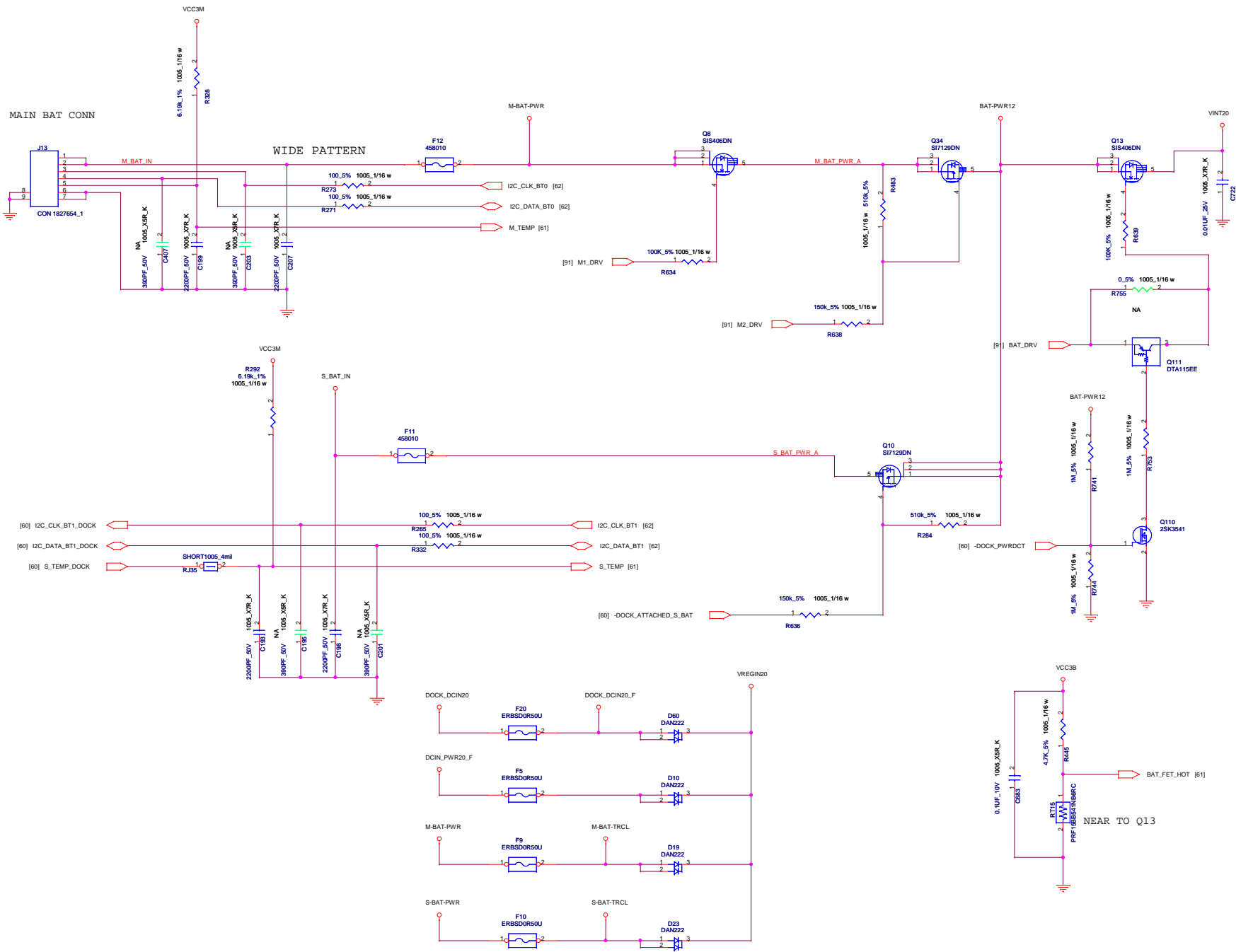


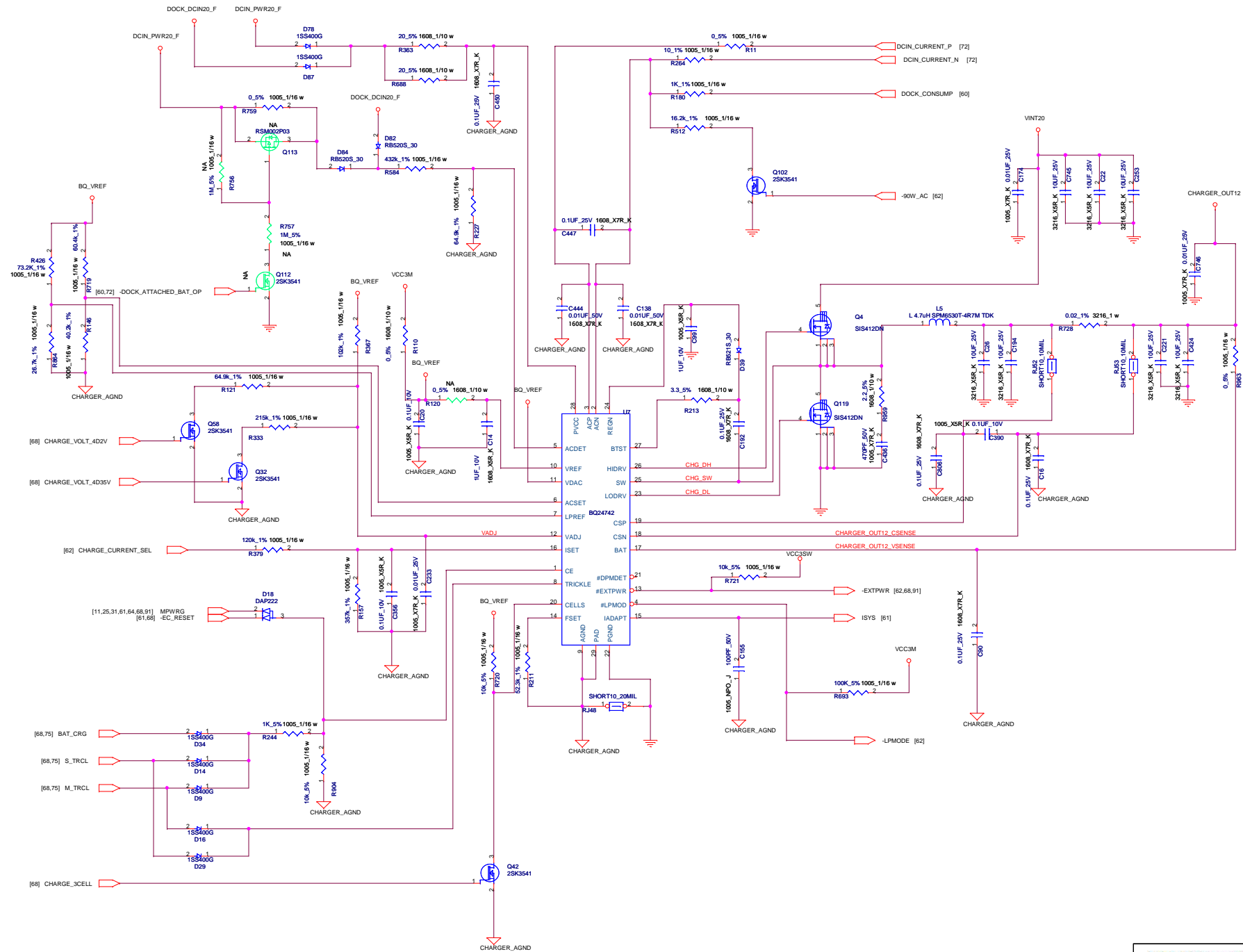


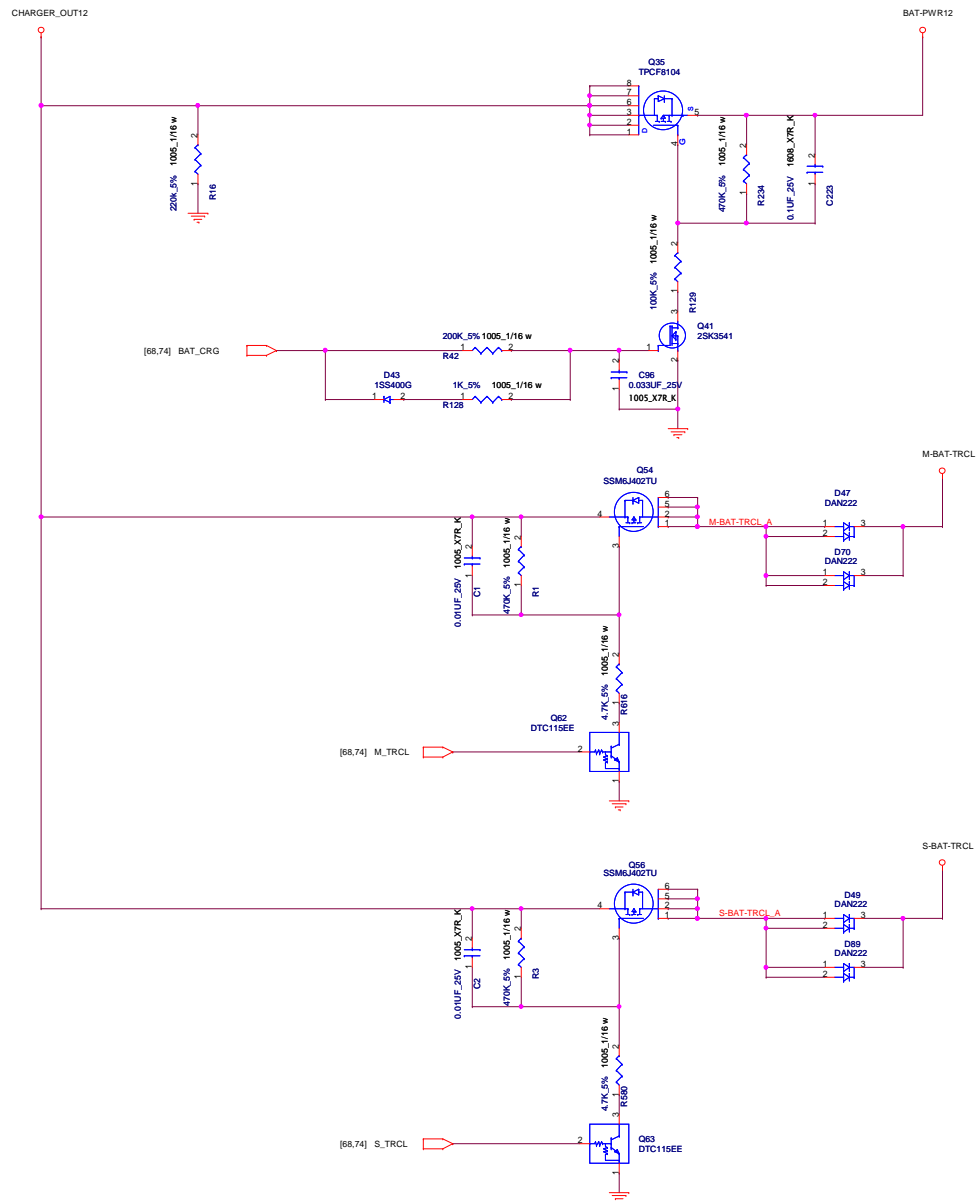


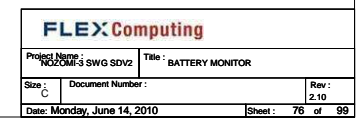
LOGIC

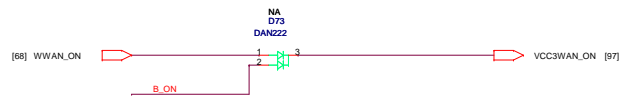
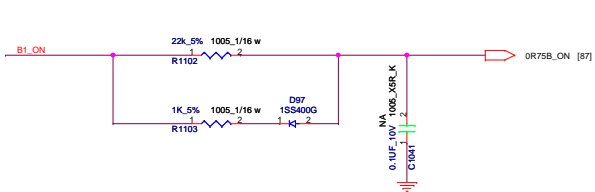
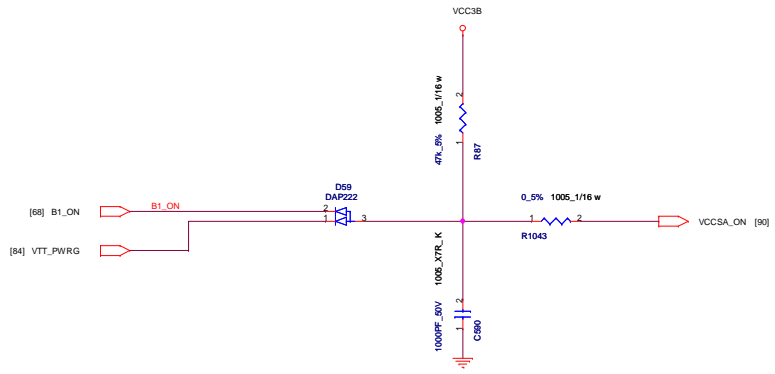
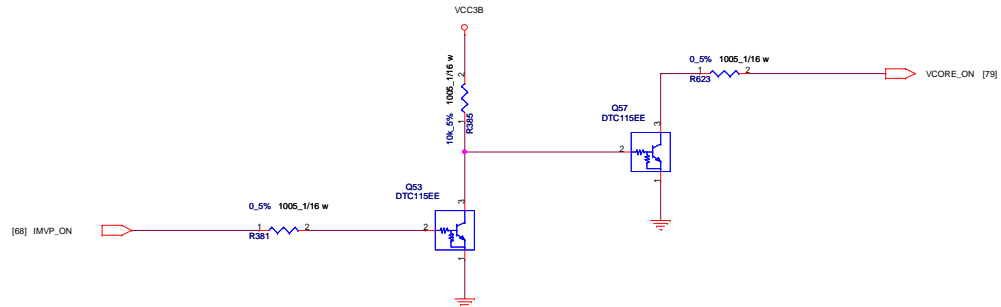
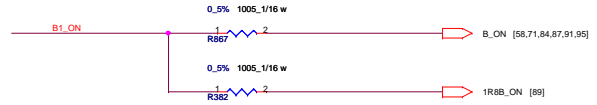
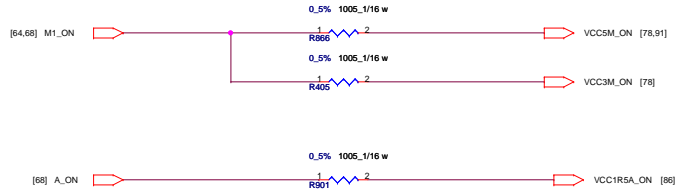








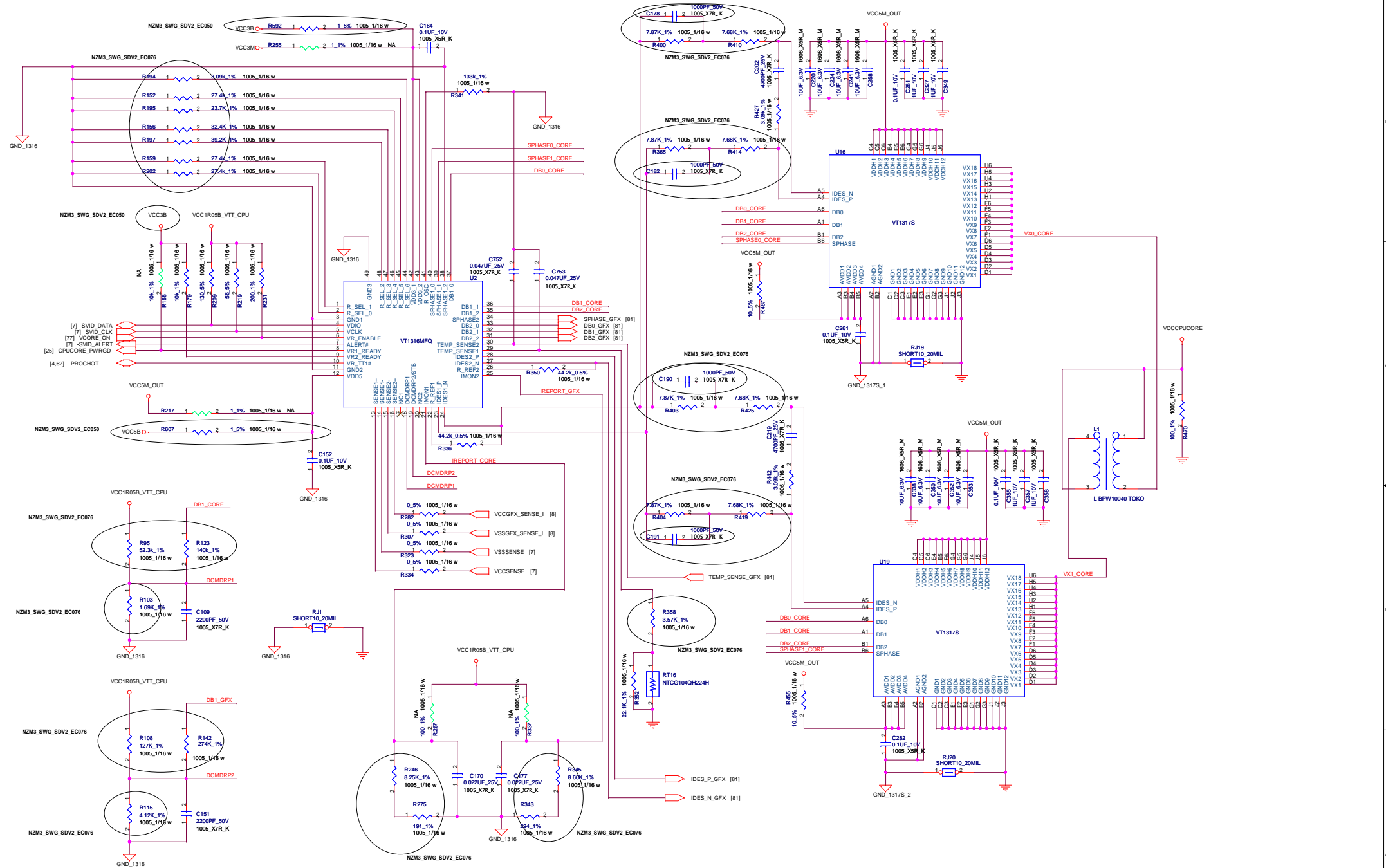


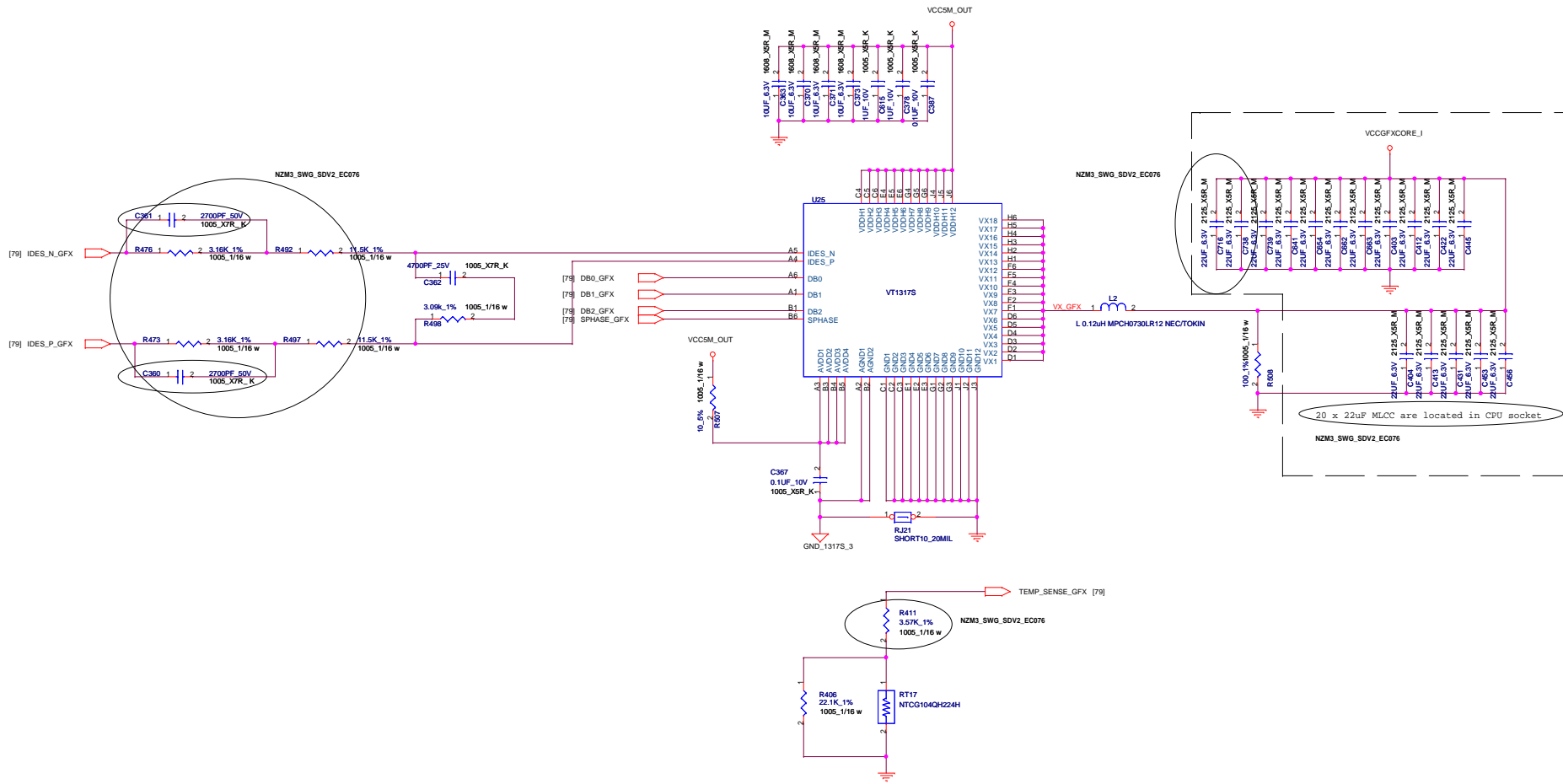


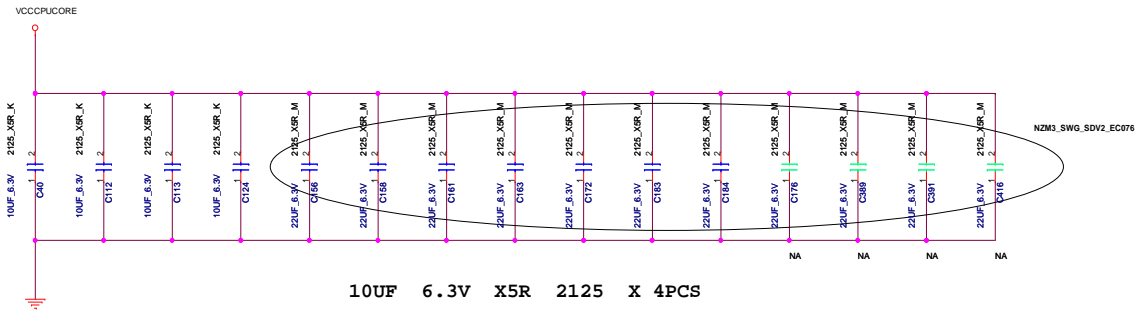
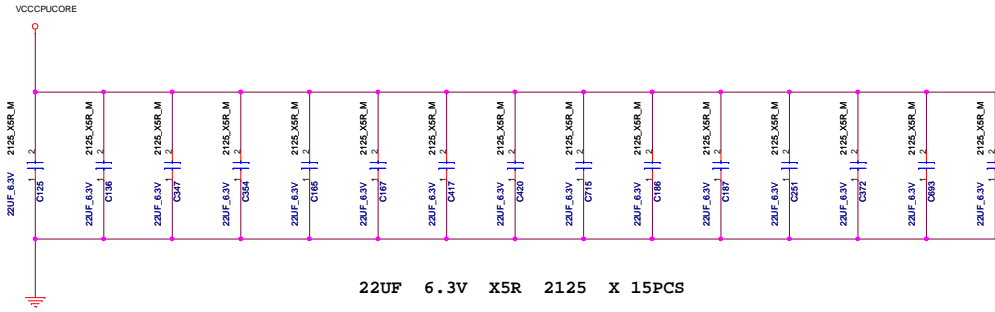
TABLE

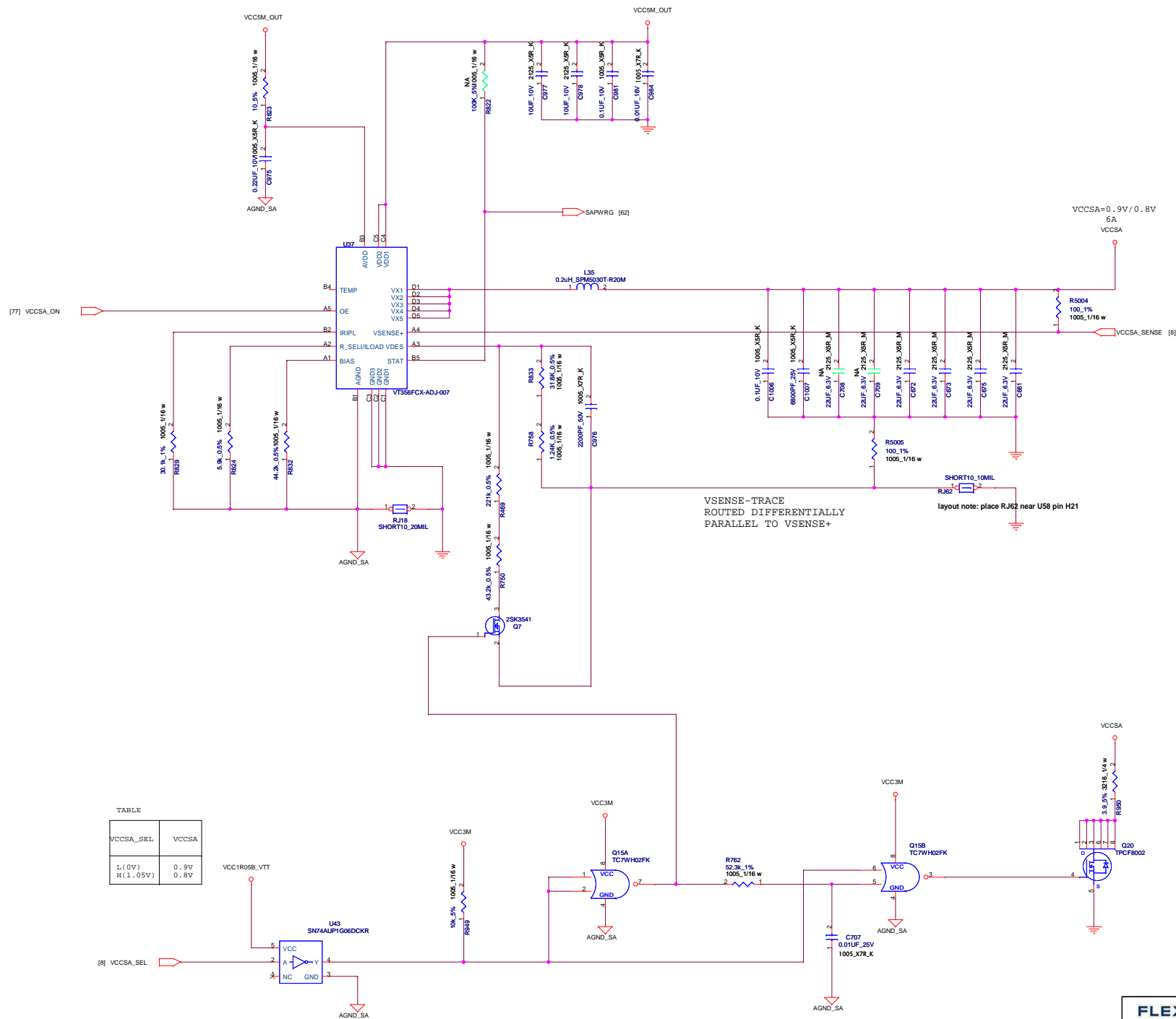
CONSTANT CONNECT	VER . 2	VER . 1 / NO
D73	ASM	NO-ASM

↑
LOGIC

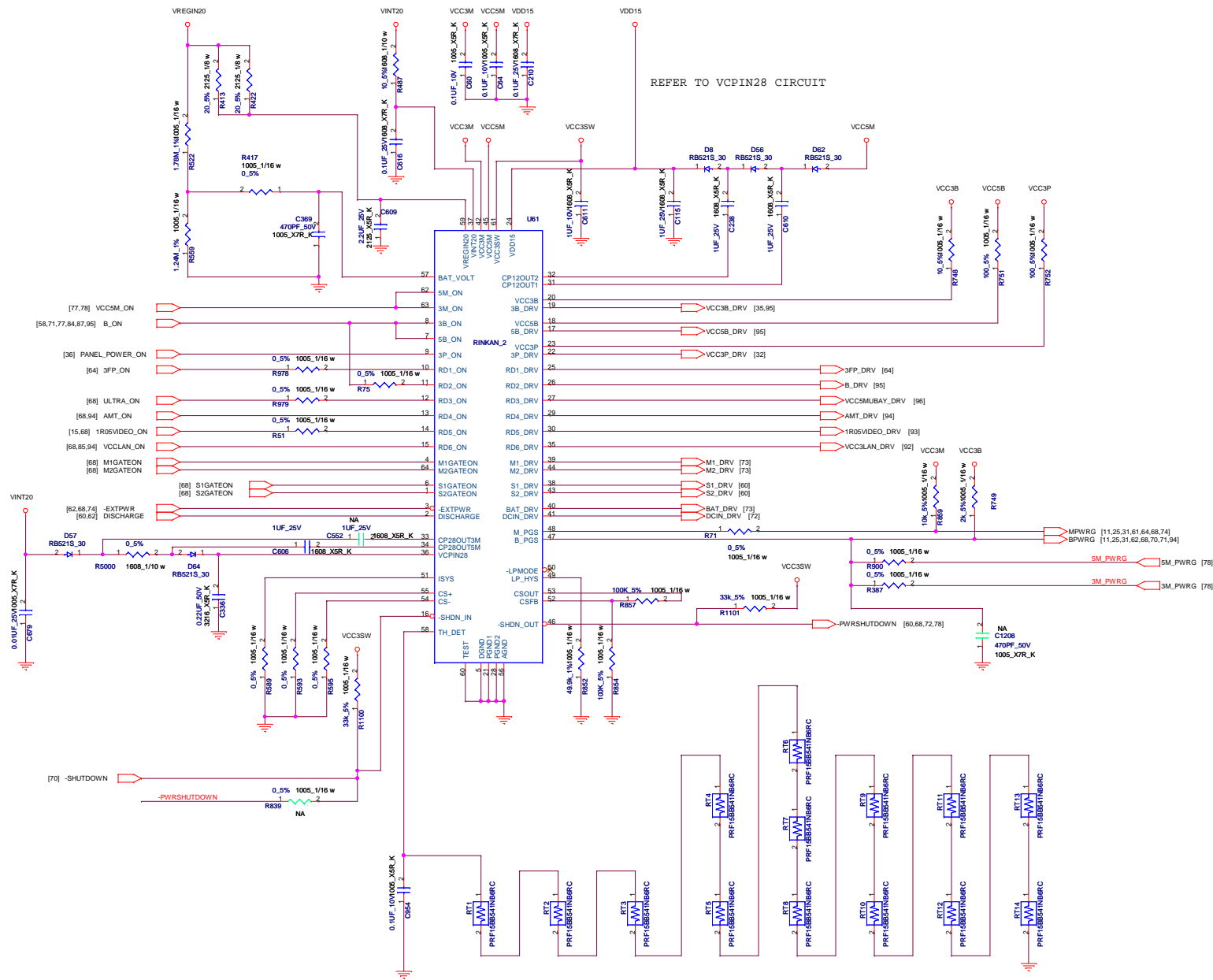


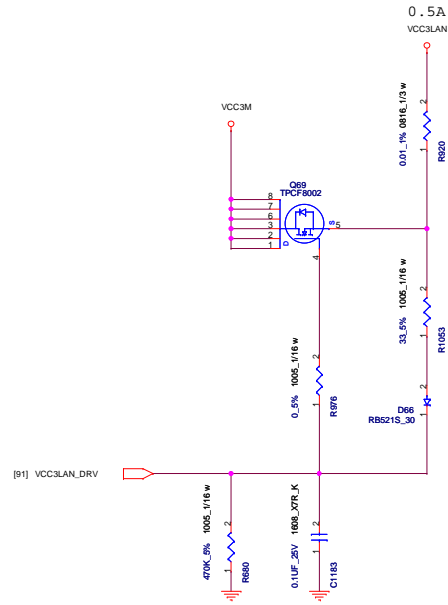


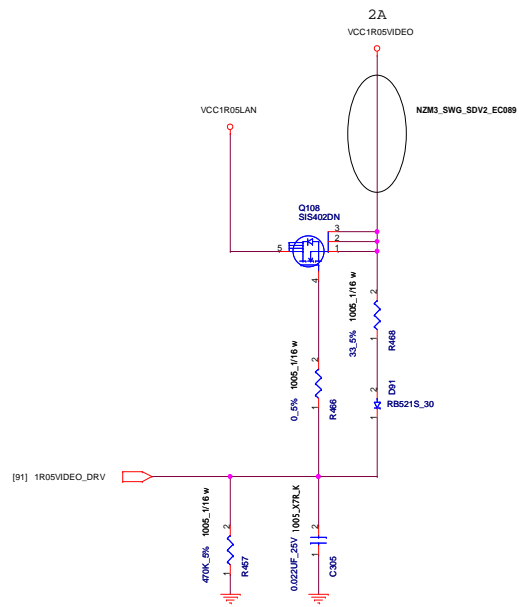




VCCSA_SEL	VCCSA
L(0V)	0.9V
H(1.05V)	0.8V



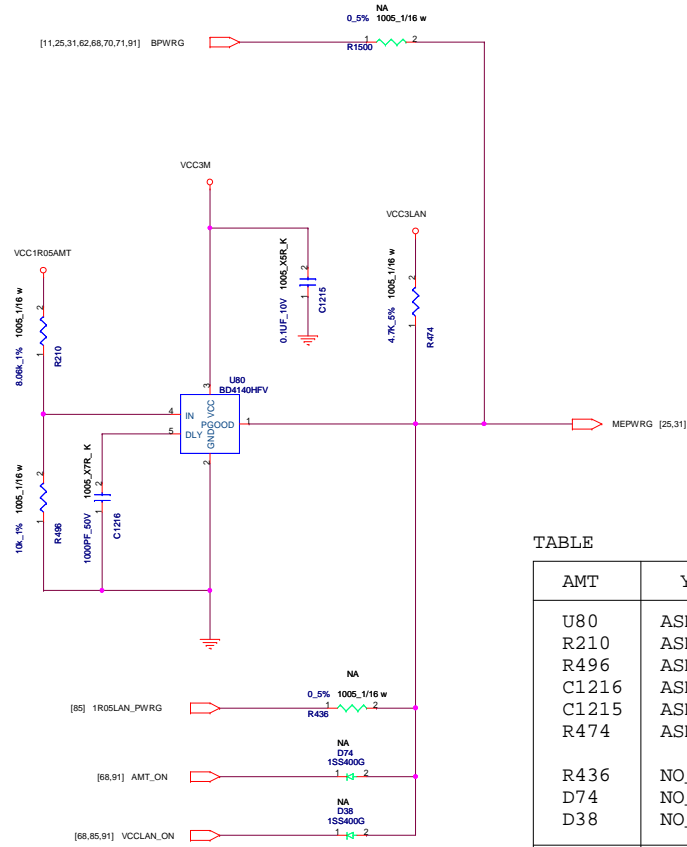
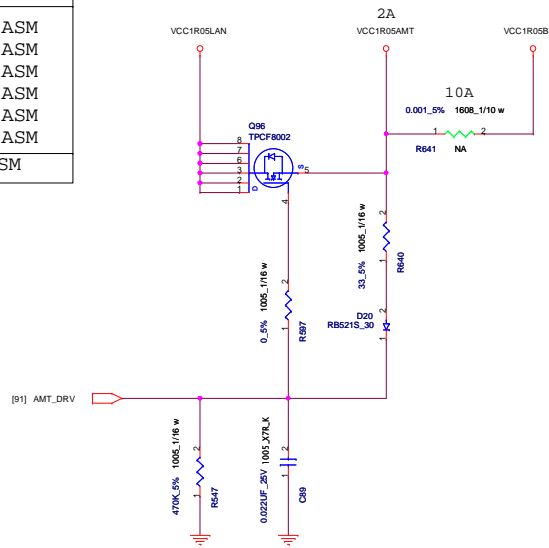




TABLE

AMT	YES	NO
Q96	ASM	NO-ASM
R597	ASM	NO-ASM
R640	ASM	NO-ASM
D20	ASM	NO-ASM
R547	ASM	NO-ASM
C89	ASM	NO-ASM
R641	NO_ASM	ASM

↑
LOGIC



TABLE

AMT	YES	NO
U80	ASM	NO-ASM
R210	ASM	NO-ASM
R496	ASM	NO-ASM
C1216	ASM	NO-ASM
C1215	ASM	NO-ASM
R474	ASM	NO-ASM
R436	NO_ASM	NO_ASM
D74	NO_ASM	NO_ASM
D38	NO_ASM	NO_ASM
R1500	NO_ASM	ASM

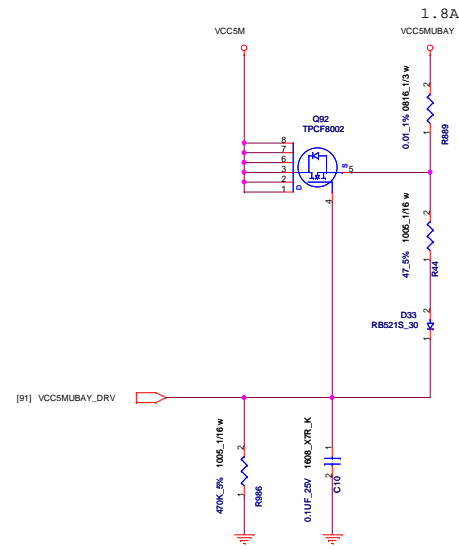
↑
LOGIC

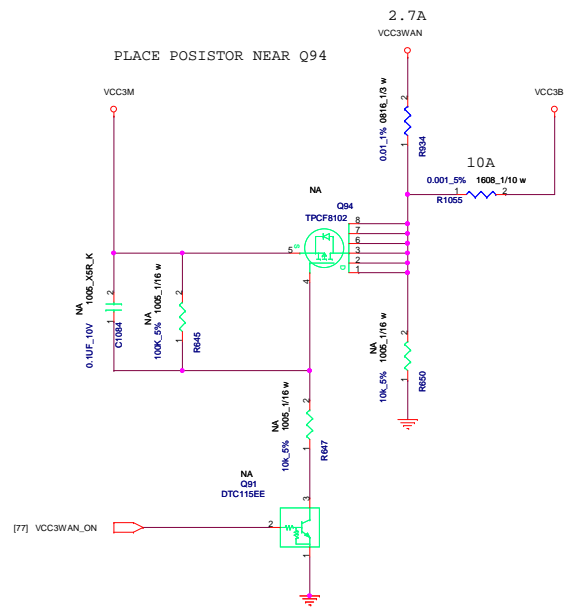
FLEX Computing

Project Name : WCCM-S SWG SDV2 Title : LOAD SW AMTMEPWRG

Size : C Document Number : Rev : 2.10

Date : Monday, June 14, 2010 Sheet : 94 of 99

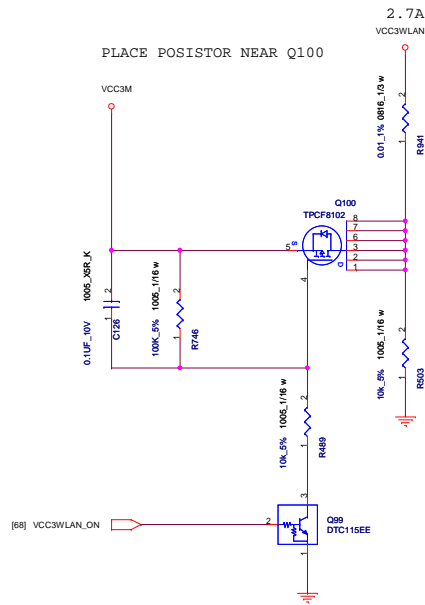




TABLE

CONSTANT CONNECT	VER. 2	VER. 1 / NO
R1055	NO_ASM	ASM
Q94	ASM	NO-ASM
R650	ASM	NO-ASM
R645	ASM	NO-ASM
C1084	ASM	NO-ASM
R647	ASM	NO-ASM
Q91	ASM	NO-ASM

↑
LOGIC



PTH FOR SCREW HOLE

TP4
TESTPIN_2P6

TP5
TESTPIN_2P6

TP6
TESTPIN_2P6

TP50
TESTPIN_2P8

TP52
TESTPIN_2P8

TP48
TESTPIN_2P8

TP51
TESTPIN_2P8

TP54
TESTPIN_2P8

TP56
TESTPIN_2P8

TP61
TESTPIN_2P8

TP27
TESTPIN_2P8

TP68
TESTPIN_2P8

TP71
TESTPIN_2P8

TP73
TESTPIN_2P8

TP26
TESTPIN_2P8

TP29
TESTPIN_3P4

TP52
TESTPIN_3P4

TP57
TESTPIN_3P4

TP63
TESTPIN_3P4

NUT1
M2_H2R6_DS

NUT2
STANDOFF_OD4_HSR9

NPTH

NPTH1
BBH478

NPTH2
BBH478

NPTH3
BBH478

NPTH4
BBH478

NPTH5
NPTH213

NPTH6
NPTH213

NPTH7
H-R197X276D107X276N

FID

Board Area

FD1

⊗ NC, NO CONNECT TO ANY.

FD2

⊗ NC, NO CONNECT TO ANY.

FD3

⊗ NC, NO CONNECT TO ANY.

FD4

⊗ NC, NO CONNECT TO ANY.

FD5

⊗ NC, NO CONNECT TO ANY.

FD6

⊗ NC, NO CONNECT TO ANY.

LAYER_MARK1

10_LAYERS

LAYER_1-10

FID

Component Area

CF1

⊗ NC, NO CONNECT TO ANY.

CF2

⊗ NC, NO CONNECT TO ANY.

CF3

⊗ NC, NO CONNECT TO ANY.

CF4

⊗ NC, NO CONNECT TO ANY.

CF5

⊗ NC, NO CONNECT TO ANY.

CF6

⊗ NC, NO CONNECT TO ANY.

CF7

⊗ NC, NO CONNECT TO ANY.

CF8

⊗ NC, NO CONNECT TO ANY.

CF9

⊗ NC, NO CONNECT TO ANY.

CF10

⊗ NC, NO CONNECT TO ANY.

CF11

⊗ NC, NO CONNECT TO ANY.

CF12

⊗ NC, NO CONNECT TO ANY.

CF13

⊗ NC, NO CONNECT TO ANY.

CF14

⊗ NC, NO CONNECT TO ANY.

CF15

⊗ NC, NO CONNECT TO ANY.

CF16

⊗ NC, NO CONNECT TO ANY.

CF17

⊗ NC, NO CONNECT TO ANY.

CF18

⊗ NC, NO CONNECT TO ANY.

