NOZOMI-3 UMA SVT LOGIC SCHEMATICS

NZM3I-6
VER 6.06
Nov/25/2010

BASE LOGIC :NZM3 UMA SIT
VER 5.11
OCT/15/2010

FLEXComputing

Project Name : H430UI1	Title : TITLE PAGE	
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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

NOZOM-3 UMA SDV: BASE LOGIC NZM3 SWG SDV VER 1.21 04/21/2010
VER.1.22 04/26/2010 APPLIED EC111-113, EC115-117 and assembly options for UMA planar

NOZOMI-3 UMA SDV2 :BASE LOGIC NZM3 UMA SDV VER.1.22 04/26/2010

VER.2.00 04/27/2010 APPLIED NZM3_UMA_SDV2_EC003-007
VER.2.01 04/29/2010 APPLIED NZM3_UMA_SDV2_EC008-018
VER.2.02 05/04/2010 APPLIED NZM3_UMA_SDV2_EC019-036
VER.2.03 05/12/2010 APPLIED NZM3_UMA_SDV2_EC037-038
VER.2.04 05/13/2010 APPLIED NZM3_UMA_SDV2_EC039
VER.2.05 05/21/2010 APPLIED NZM3_UMA_SDV2_EC040, EC041, EC044 and NZM3_UMA_SDV2_ECR001-002
VER.2.06 05/25/2010 APPLIED NZM3_UMA_SDV2_EC045, EC046, EC047, EC050, EC056, EC058, EC059, EC060 and EC062
VER.2.07 06/02/2010 APPLIED NZM3_UMA_SDV2_EC064-EC067
VER.2.08 06/03/2010 APPLIED NZM3_UMA_SDV2_EC068-EC070

NOZOMI-3 UMA FVT2:BASE LOGIC NZM3 UMA SDV2 VER.2.08 06/03/2010

VER.3.00 06/21/2010 APPLIED NZM3_UMA_FVT2_EC001-EC004, EC007-EC014, EC016-EC020, EC022 and EC024
VER.3.01 06/25/2010 APPLIED NZM3_UMA_FVT2_EC026, EC027, EC029, EC030, EC031 and EC033.
VER.3.02 07/02/2010 APPLIED NZM3_UMA_FVT2_EC036, EC037, EC039 and EC042
VER.3.03 07/05/2010 APPLIED NZM3_UMA_FVT2_EC044-EC050, EC052-EC055 and EC057
VER.3.04 07/05/2010 APPLIED NZM3_UMA_FVT2_EC059, EC062-EC065
VER.3.05 07/05/2010 APPLIED NZM3_UMA_FVT2_EC068-EC071
VER.3.06 07/09/2010 APPLIED NZM3_UMA_FVT2_EC072-EC081
VER.3.07 07/19/2010 APPLIED NZM3_UMA_FVT2_EC082-EC084
VER.3.08 07/20/2010 Rename SA_DIMM_VERFDQ as SA_DIMM_VREFDQ
Rename SB_DIMM_VERFDQ as SB_DIMM_VREFDQ
Shift page title 87-99
VER.3.09 07/23/2010 APPLIED NZM3_UMA_FVT2_EC085

NOZOMI-3 UMA MSIT:BASE LOGIC NZM3 UMA FVT2 VER.3.09 07/23/2010
VER.4.00 07/26/2010 APPLIED NZM3_UMA_MSIT_EC001, EC002, EC007 and EC008
VER.4.01 07/29/2010 APPLIED NZM3_UMA_MSIT_EC009-019
VER.4.02 08/02/2010 APPLIED NZM3_UMA_MSIT_EC020, EC023, EC024 and EC025
VER.4.03 08/04/2010 APPLIED NZM3_UMA_MSIT_EC028
VER.4.04 08/09/2010 APPLIED NZM3_UMA_MSIT_EC029-036 and EC039
VER.4.05 08/11/2010 APPLIED NZM3_UMA_MSIT_EC042-044
VER.4.06 08/13/2010 APPLIED NZM3_UMA_MSIT_EC045-048
VER.4.07 08/17/2010 APPLIED NZM3_UMA_MSIT_EC050
VER.4.08 08/23/2010 APPLIED NZM3_UMA_MSIT_EC051

NOZOMI-3 UMA SIT:BASE LOGIC NZM3 UMA MSIT VER.4.08 08/23/2010
VER.5.00 08/31/2010 APPLIED NZM3_UMA_SIT_EC001, EC002 and EC004
VER.5.01 09/03/2010 APPLIED NZM3_UMA_SIT_EC005-EC008
VER.5.02 09/08/2010 APPLIED NZM3_UMA_SIT_EC009-EC013
VER.5.03 09/14/2010 APPLIED NZM3_UMA_SIT_EC014-EC017
VER.5.04 09/20/2010 APPLIED NZM3_UMA_SIT_EC019-EC021 and EC023
VER.5.05 09/23/2010 APPLIED NZM3_UMA_SIT_EC026, EC028, EC029 and EC030
VER.5.06 09/27/2010 APPLIED NZM3_UMA_SIT_EC031-EC037
VER.5.07 09/29/2010 APPLIED NZM3_UMA_SIT_EC040
VER.5.08 10/01/2010 APPLIED NZM3_UMA_SIT_EC041-EC044
VER.5.09 10/04/2010 APPLIED NZM3_UMA_SIT_EC045-EC050
VER.5.10 10/06/2010 Delete NPTH6, Add NUT3 on page 98
VER.5.11 10/15/2010 APPLIED NZM3_UMA_SIT_EC051-EC053

NOZOMI-3 UMA SVT:BASE LOGIC NZM3 UMA SIT VER.5.11 10/15/2010
VER.6.00 10/21/2010 APPLIED NZM3_UMA_SVT_EC001, EC002, EC004, EC005 and EC006
VER.6.01 10/26/2010 APPLIED NZM3_UMA_SVT_EC007, EC008 and EC009
VER.6.02 11/02/2010 APPLIED NZM3_UMA_SVT_EC010, EC011 and EC012
VER.6.03 11/08/2010 APPLIED NZM3_UMA_SVT_EC016 and EC017
VER.6.04 11/12/2010 APPLIED NZM3_UMA_SVT_EC019 and EC020
VER.6.05 11/17/2010 APPLIED NZM3_UMA_SVT_EC022
VER.6.06 11/22/2010 APPLIED NZM3_UMA_SVT_EC023

FLEX Computing

Project Name : H430UI1	Title : EC HISTORY	
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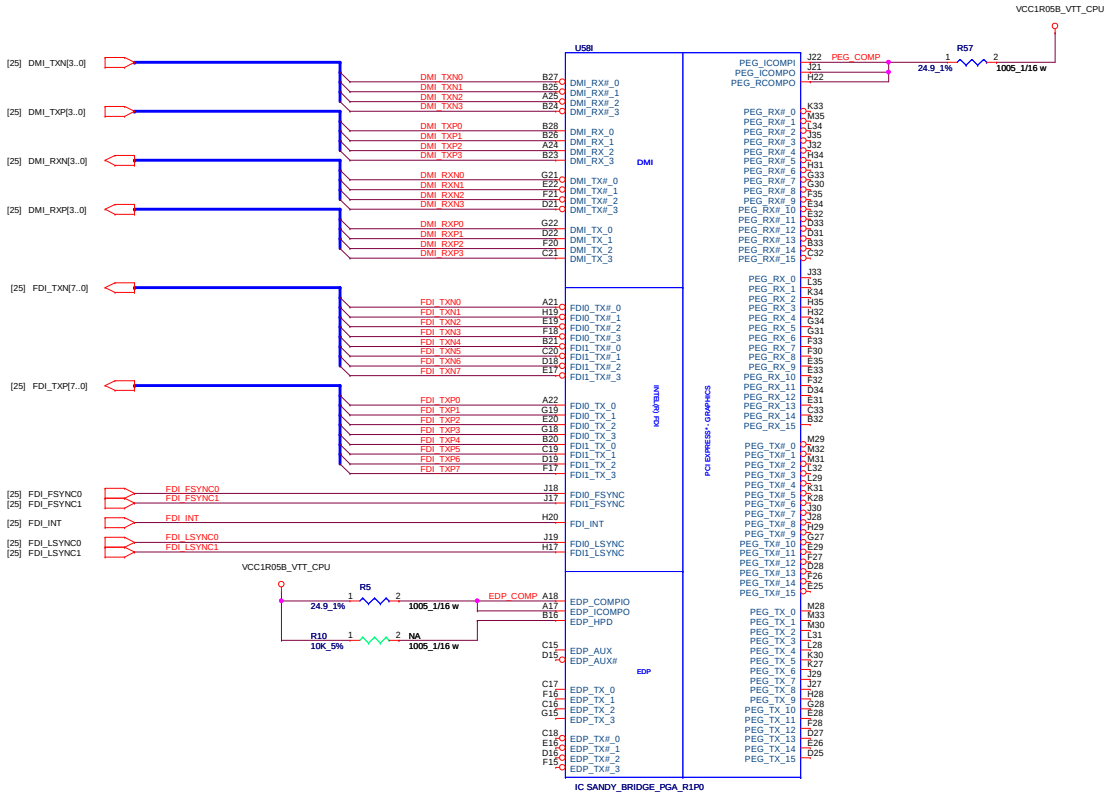
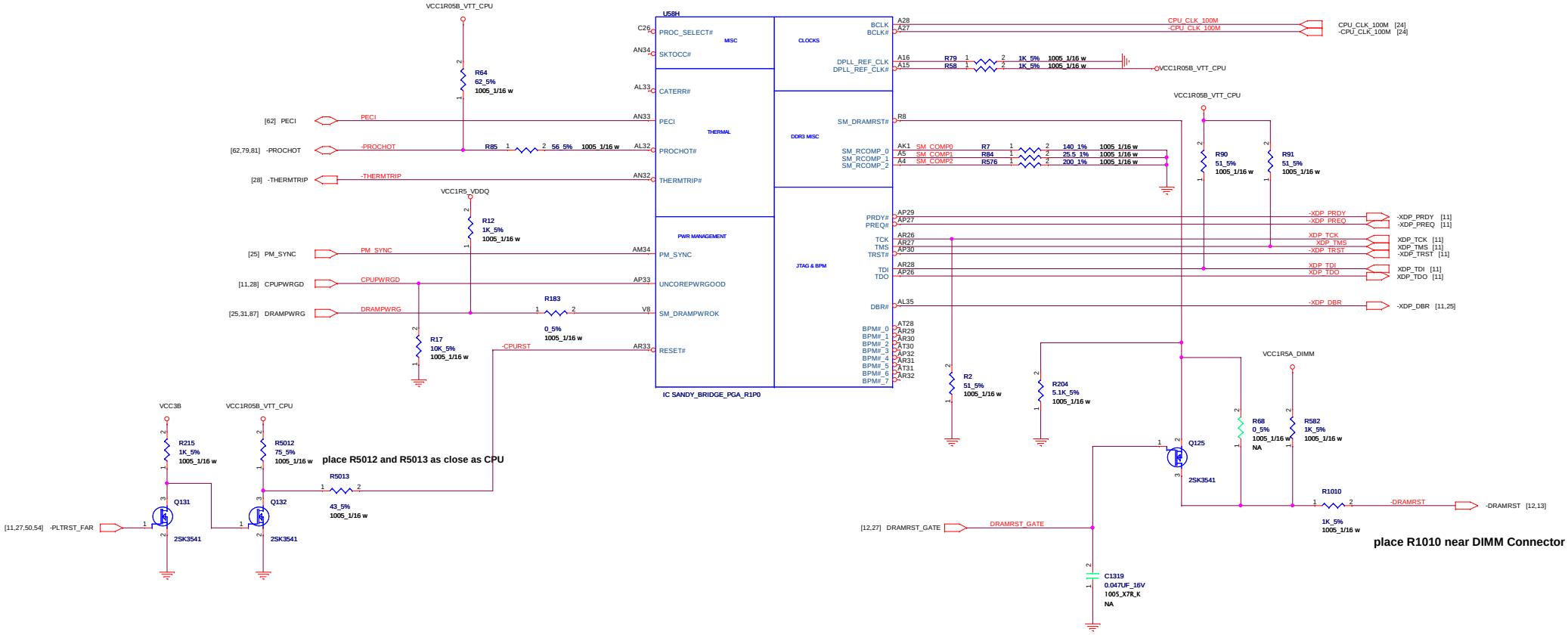
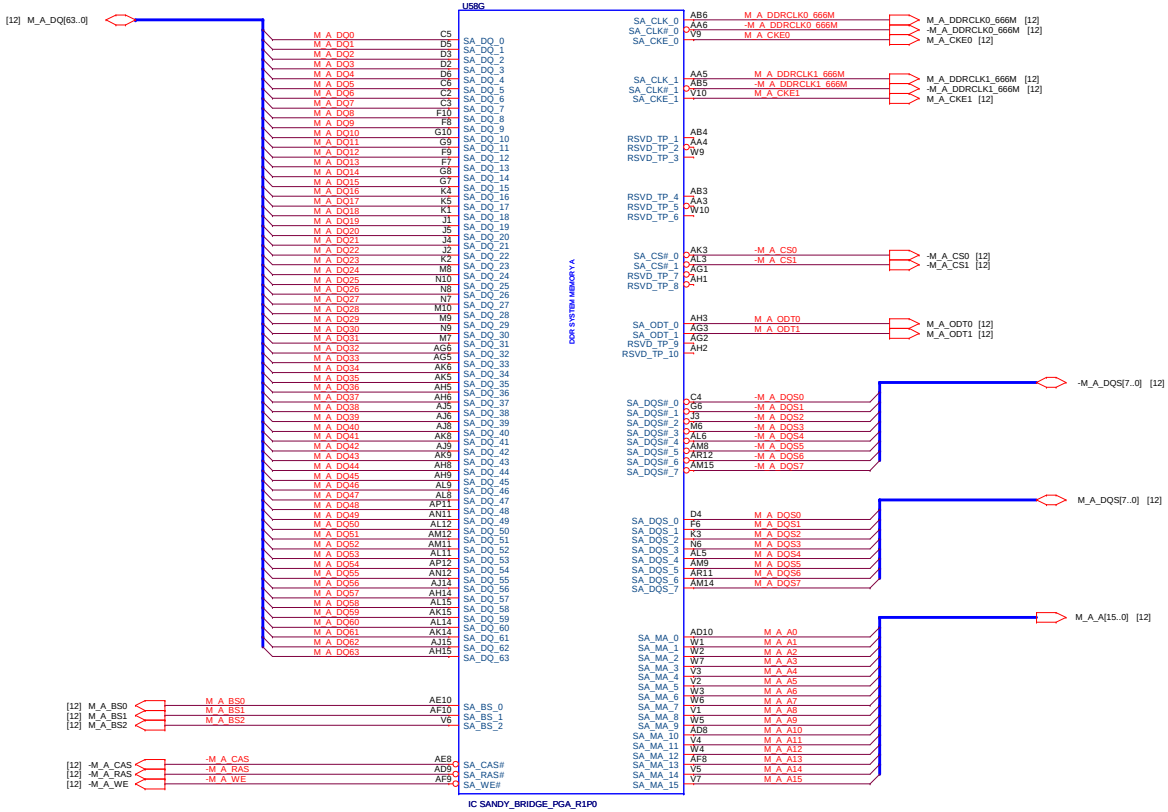


FLEX Computing		
Project Name : H430UI1	Title : CPU(1/8) DMI/EDP/PEG/FDI	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 03 of 99	



FLEXComputing			
Project Name : H430UI1	Title : CPU(2/8) CLK/MISC/JTAG		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 04 of 99	



FLEXComputing

Project Name : H430UI1	Title : CPU(3/8) DDR3 CH- A		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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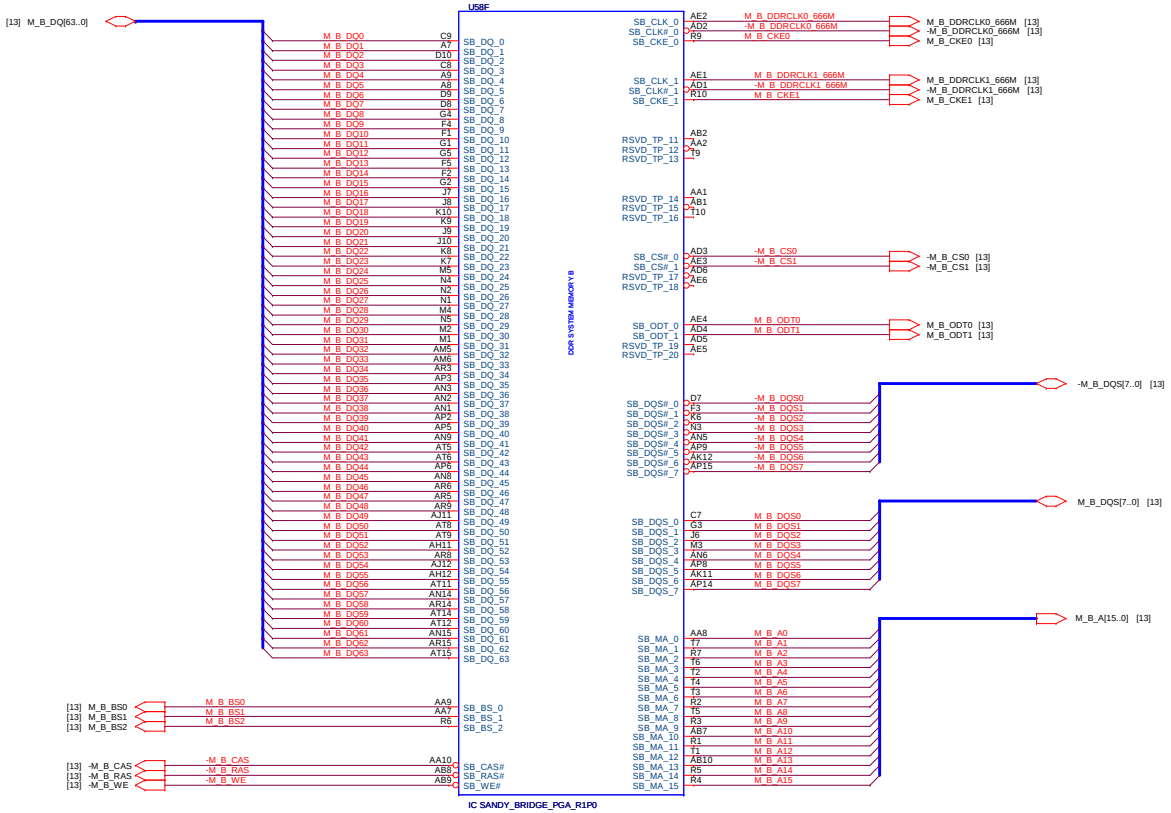
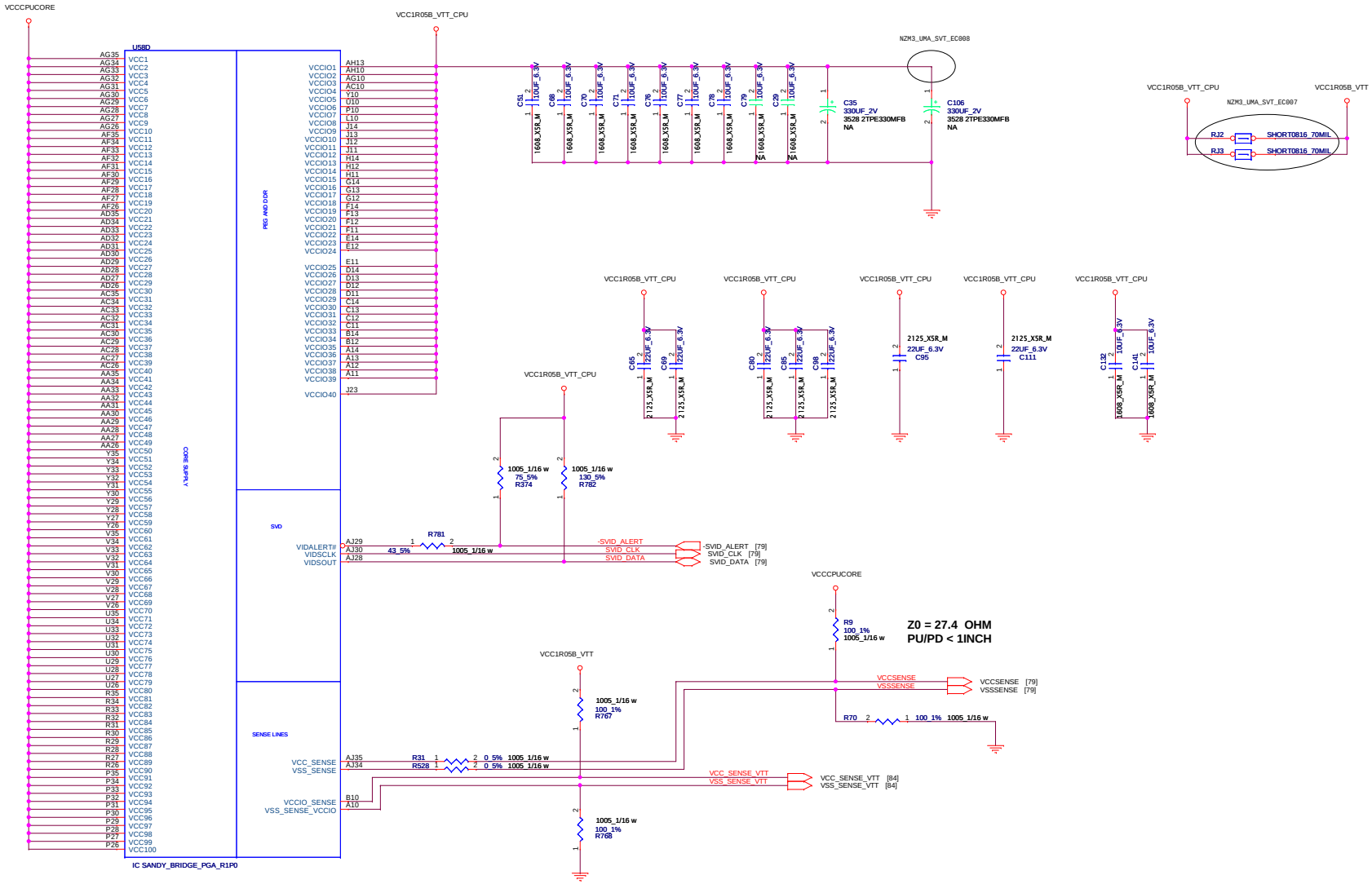


FLEXComputing

Project Name : H430UI1	Title : CPU(4/8) DDR3 CH- B		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 06 of 99	


VCCCPUCORE
VCC1R05B_VTT_CPU
U58D
IC SANDY_BRIDGE_PGA_R1P0
CORE SUPPLY
REG AND DDR
SVID
SENSE LINES
NZM3_UMA_SVT_EC008
NZM3_UMA_SVT_EC007
VCC1R05B_VTT
C35 330UF_2V 3528 2TPE330MFB NA
C106 330UF_2V 3528 2TPE330MFB NA
RJ2 SHORT0816_70MIL
RJ3 SHORT0816_70MIL
R781 1005_1/16 w 43_5%
R374 1005_1/16 w 75_5%
R782 1005_1/16 w 130_5%
-SVID_ALERT
SVID_CLK
SVID_DATA
R9 100_1% 1005_1/16 w
Z0 = 27.4 OHM
PU/PD < 1INCH
R767 1005_1/16 w 100_1%
R768 1005_1/16 w 100_1%
R31 0_5% 1005_1/16 w
R528 0_5% 1005_1/16 w
R70 100_1% 1005_1/16 w
VCCSENSE
VSSSENSE
VCC_SENSE_VTT
VSS_SENSE_VTT
VCC_SENSE
VSS_SENSE
VCCIO_SENSE
VSS_SENSE_VCCIO
2125_X5R_M 22UF_6.3V C95
2125_X5R_M 22UF_6.3V C111
FLEXComputing
Project Name : H430UI1
Title : CPU(5/8) PROCESSOR POWER
Size : C
Document Number : LNVH-40GAB5700-F100
Rev : F
Date: Monday, December 13, 2010
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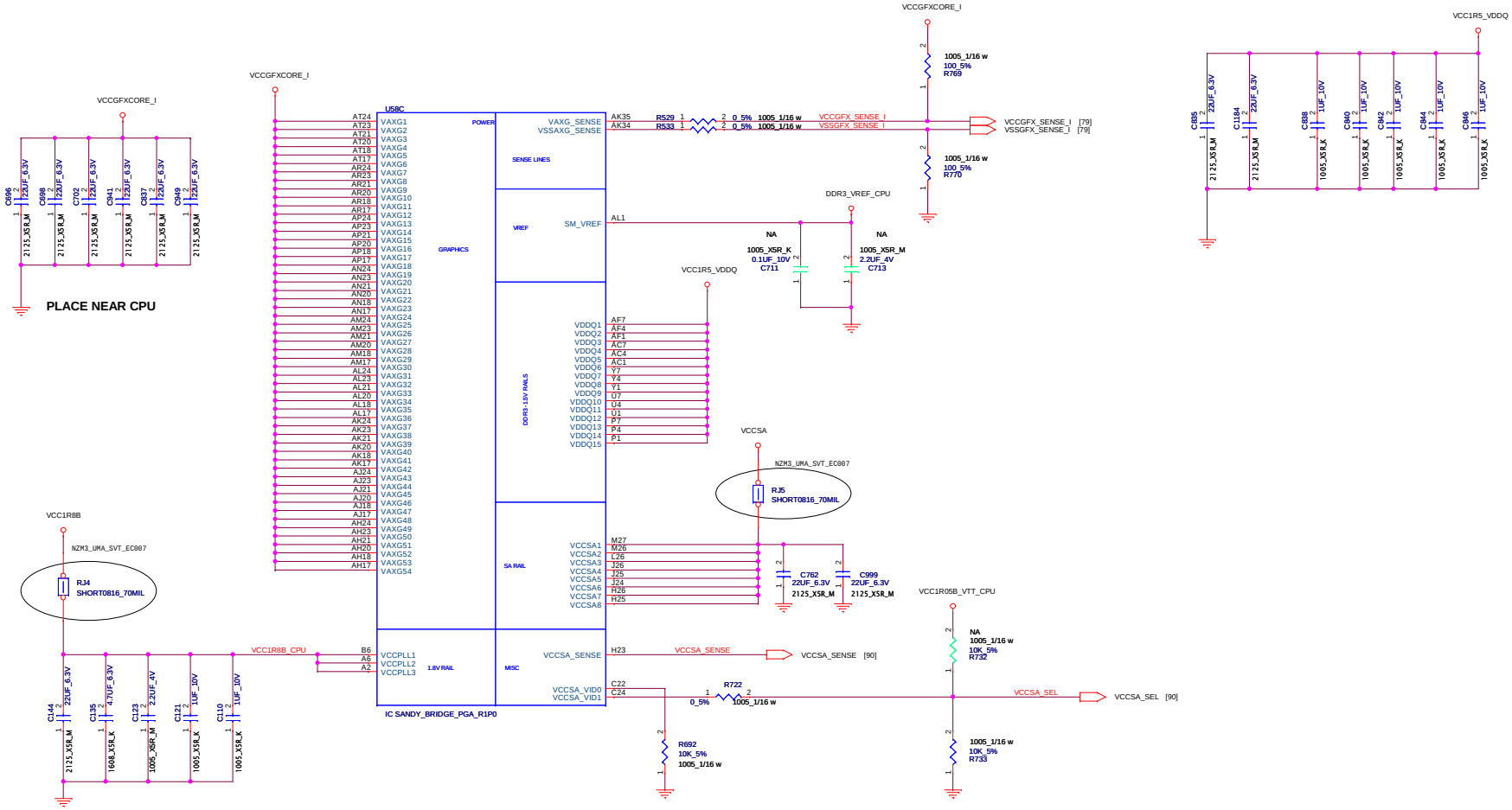

FLEXComputing

Project Name : H430UI1	Title : CPU(6/8) GRAPHICS POWER	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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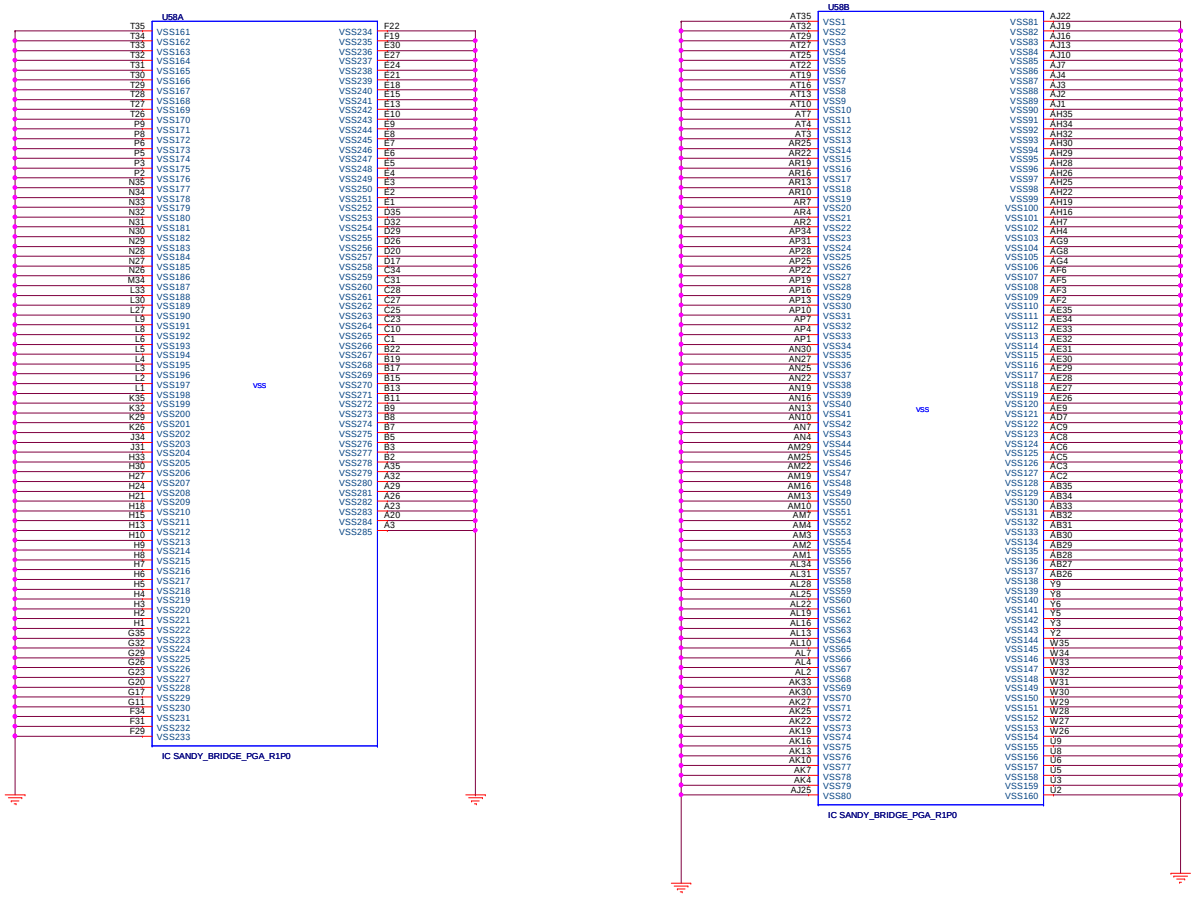

FLEXComputing

Project Name : H430UI1	Title : CPU(7/8) GND		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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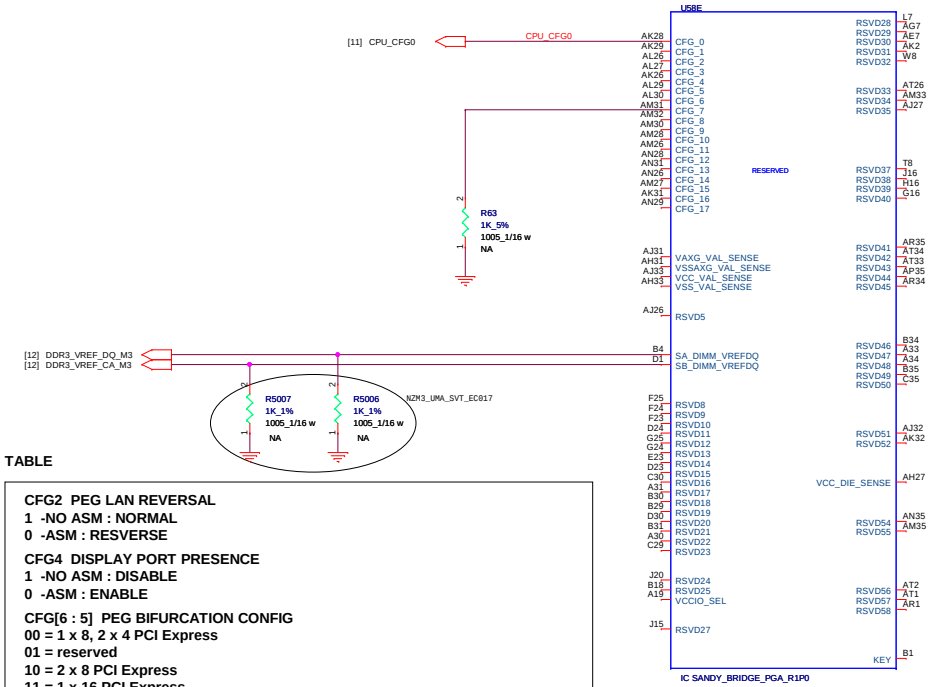

TABLE

CFG2 PEG LAN REVERSAL
1 -NO ASM : NORMAL
0 -ASM : RESVERSE

CFG4 DISPLAY PORT PRESENCE
1 -NO ASM : DISABLE
0 -ASM : ENABLE

CFG[6 : 5] PEG BIFURCATION CONFIG
00 = 1 x 8, 2 x 4 PCI Express
01 = reserved
10 = 2 x 8 PCI Express
11 = 1 x 16 PCI Express

CFG7 PEG DEFER TRAINING
1 -NO ASM :PEG TRAIN IMMEDIATELY FOLLOWING XXRESETB DEASSERTION
0 -ASM : PEG WAIT FOR BIOS FOR TRAINING

FLEXComputing

Project Name : H430UI1		Title : CPU(8/8) CFG/RESERVED	
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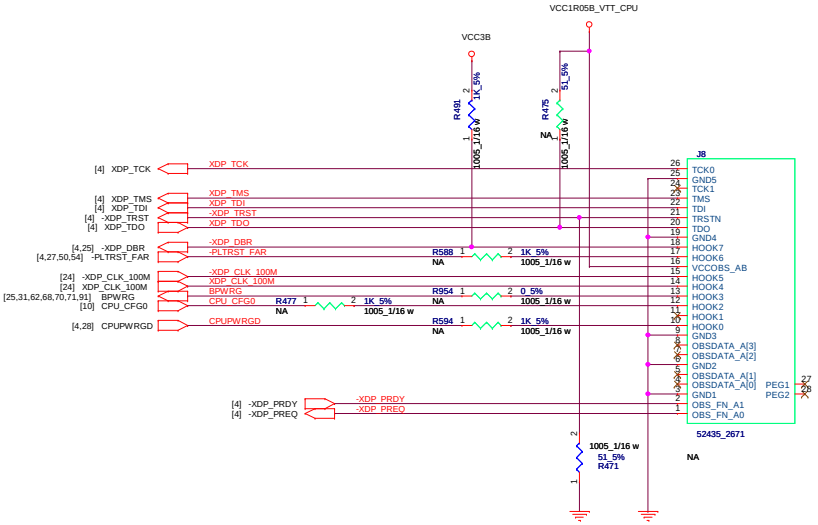

TABLE NOTE: J8 "ASM" FOR SDV1 ONLY.

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

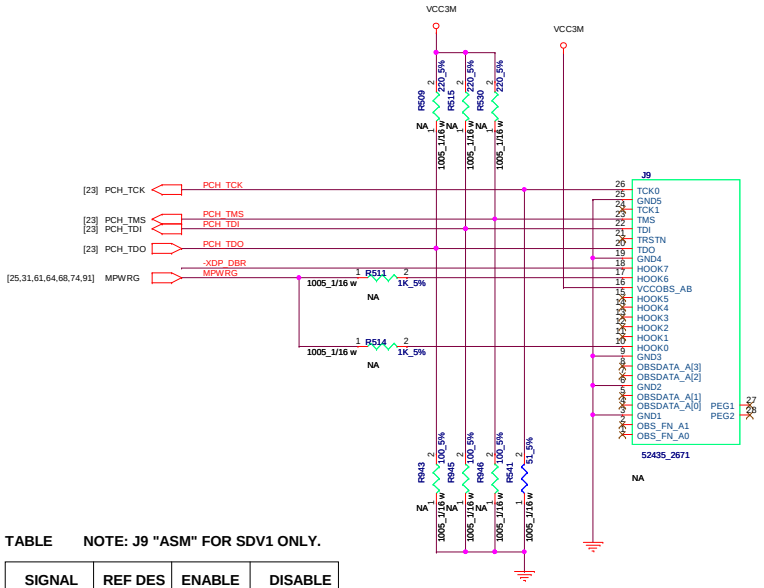

TABLE NOTE: J9 "ASM" FOR SDV1 ONLY.

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

LOGIC

FLEXComputing

Project Name : H430UI1	Title : XDP CONNECTOR		
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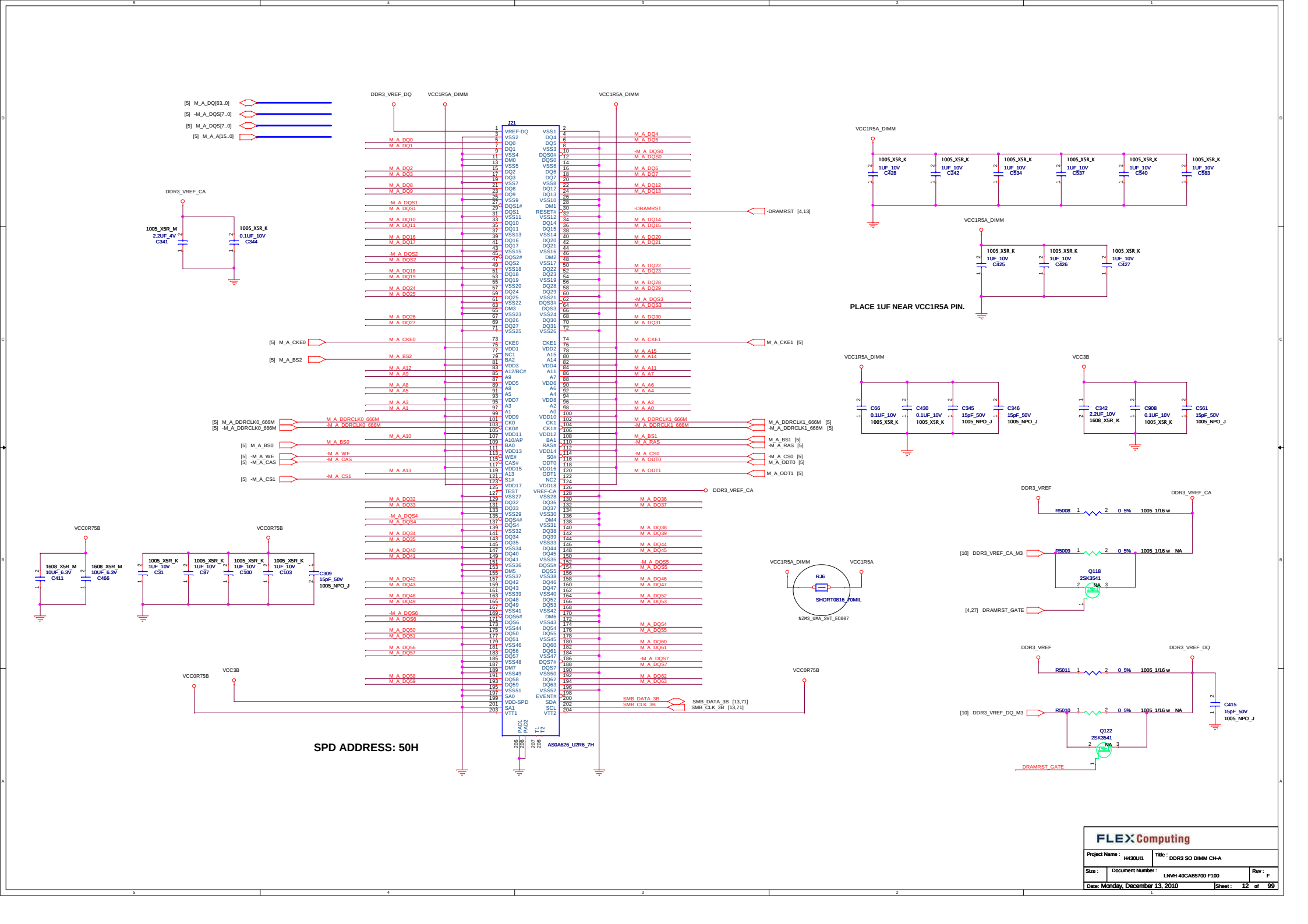

FLEXComputing			
Project Name : H430UI1	Title : DDR3 SO DIMM CH-A		
Size :	Document Number : LNVH-40GAB5700-F100	Rev : F	
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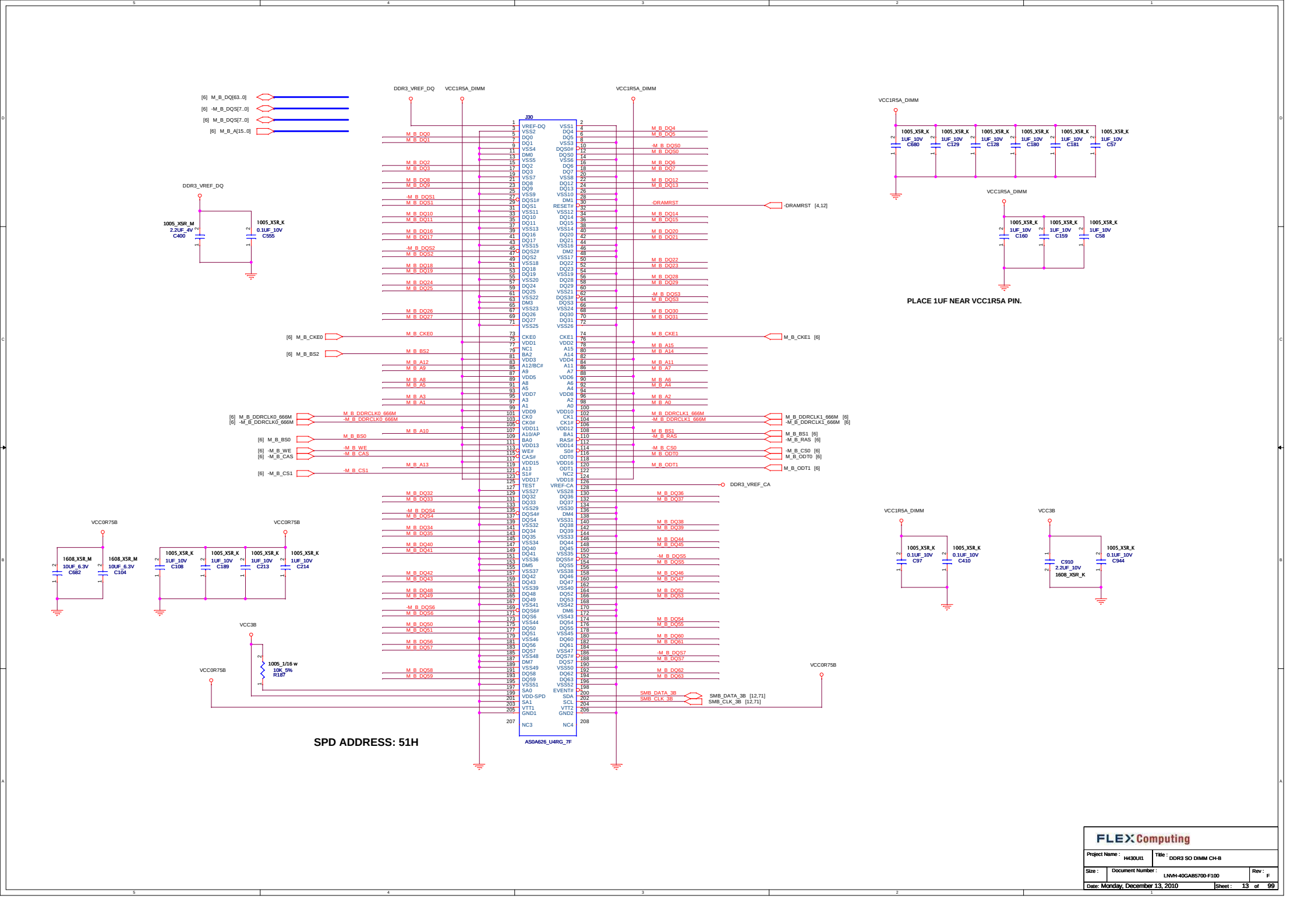

FLEXComputing

Project Name : H430UI1	Title : DDR3 SO DIMM CH-B		
Size :	Document Number : LNVH-40GAB5700-F100	Rev : F	
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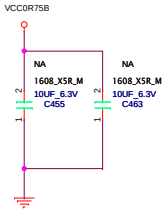

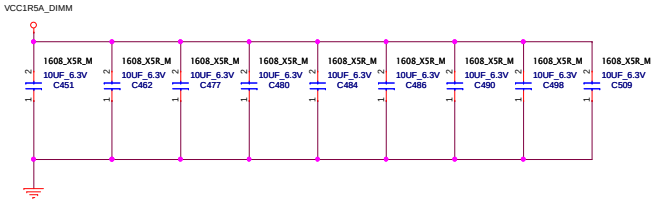

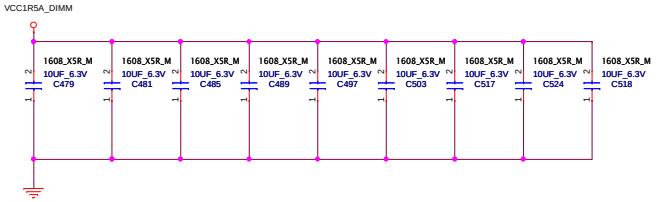

FLEXComputing

Project Name : H430UI1	Title : DDR3 DECOUPLING		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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FLEX Computing

Project Name : H430UI1	Title : BLANK	
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FLEX Computing

Project Name : H430UI1	Title : BLANK	
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FLEX Computing

Project Name : H430UI1	Title : BLANK	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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Project Name : H430UI1	Title : BLANK	
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Project Name : H430UI1	Title : BLANK	
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TABLE

AMT	YES	NO	NO
RPAT	YES	YES	NO
U5	QM67	HM67	HM65

LOGIC

P/N 41U6143
KDS DST310S-32.768KHz-20PPM-9PF
RIVER TFX-02-32.768KJ80862

C348 10PF_50V 1005_NPO_ J
C326 10PF_50V 1005_NPO_ J
Y6 DST310S_32R768K
R351 10M_5% 1005_1/16 w
RTCX1
RTCX2
[38] -RTCRST
[38] -SRTCRST
-INTRUDER

R1009 1K_5% 1005_1/16 w
R408 330K_5% 1005_1/16 w
R646 1M_5% 1005_1/16 w
R65 1K_5% 1005_1/16 w NA

TABLE

SPKR	TCO TIMER SYSTEM REBOOT
HIGH	DISABLED (NO REBOOT)
LOW	ENABLED

R860 8.2K_5% 1005_1/16 w

U5A

RTC: A20 RTCX1, C20 RTCX2, D20 RTCRST#, G22 SRTCRST#, K22 INTRUDER#, C17 INTVRMEN

HDA: N34 HDA_BCLK, L34 HDA_SYNC, T10 SPKR, K34 HDA_RST#, E34 HDA_SDIN0, G34 HDA_SDIN1, C34 HDA_SDIN2, A34 HDA_SDIN3, A36 HDA_SDO, C36 HDA_DOCK_EN#/GPIO33, N32 HDA_DOCK_RST#/GPIO13

JTAG: J3 JTAG_TCK, H7 JTAG_TMS, K5 JTAG_TDI, H1 JTAG_TDO

SPI: T3 SPI_CLK, Y14 SPI_CS0#, T1 SPI_CS1#, V4 SPI_MOSI, U3 SPI_MISO

LPC: C38 FWH0|LAD0 LPC_AD0, A38 FWH1|LAD1 LPC_AD1, B37 FWH2|LAD2 LPC_AD2, C37 FWH3|LAD3 LPC_AD3, D36 FWH4|LFRAME# -LPC_FRAME [61,69,71], E36 LDRQ0# -LPC_DREQ0 [71], K36 LDRQ1#/GPIO23, V5 SERIRQ IRQSER [61,69,71]

SATA: AM3 SATA0RXN, AM1 SATA0RXP, AP7 SATA0TXN, AP5 SATA0TXP; AM10 SATA1RXN, AM8 SATA1RXP, AP11 SATA1TXN, AP10 SATA1TXP; AD7 SATA2RXN, AD5 SATA2RXP, AH5 SATA2TXN, AH4 SATA2TXP; AB8 SATA3RXN, AB10 SATA3RXP, AF3 SATA3TXN, AF1 SATA3TXP; Y7 SATA4RXN, Y5 SATA4RXP, AD3 SATA4TXN, AD1 SATA4TXP; Y3 SATA5RXN, Y1 SATA5RXP, AB3 SATA5TXN, AB1 SATA5TXP; Y11 SATAICOMPO, Y10 SATAICOMPI, AB12 SATA3RCOMPO, AB13 SATA3COMPI, AH1 SATA3RBIAS, P3 SATALED#, V14 SATA0GP|GPIO21, P1 SATA1GP|GPIO19

SATA AC: C803 SATA0_RXN_C, C804 SATA0_RXP_C, C805 SATA0_TXN_C, C827 SATA0_TXP_C; C272 SATA1_RXN_C, C280 SATA1_RXP_C, C284 SATA1_TXN_C, C374 SATA1_TXP_C; C794 SATA2_RXN_C, C784 SATA2_RXP_C, C770 SATA2_TXN_C, C765 SATA2_TXP_C; C747 SATA3_RXN_C, C744 SATA3_RXP_C, C743 SATA3_TXN_C, C732 SATA3_TXP_C; C893 SATA4_TXN_C, C892 SATA4_TXP_C — 0.01UF_25V 1005_X7R_K

SATA0_RXN [39], SATA0_RXP [39], SATA0_TXN [39], SATA0_TXP [39]
SATA1_RXN [40], SATA1_RXP [40], SATA1_TXN [40], SATA1_TXP [40]
SATA2_RXN [54], SATA2_RXP [54], SATA2_TXN [54], SATA2_TXP [54]
SATA3_RXN [41], SATA3_RXP [41], SATA3_TXN [41], SATA3_TXP [41]
SATA4_RXN [60], SATA4_RXP [60], SATA4_TXN [60], SATA4_TXP [60]

SATAICOMP 37.4_1% R602 1005_1/16 w
SATA3RCOMP 49.9_1% R604 1005_1/16 w
R116 750_1% 1005_1/16 w
VCC1R05B
R996 10K_5% 1005_1/16 w
R99 100K_5% 1005_1/16 w
-DASPHDD [68]
-DISCRETE_PRESENCE
SATA_BAY_DTCT [28]

TABLE

WWAN mSATA	YES	NO
C794	ASM	NO_ASM
C784	ASM	NO_ASM
C770	ASM	NO_ASM
C765	ASM	NO_ASM

LOGIC

[49] ACZ_BCLK_MDC / [43] ACZ_BCLK_ADI — R144 / R60 33_5% 1005_1/16 w
[49] ACZ_SYNC_MDC / [43] ACZ_SYNC_ADI — R148 / R423 33_5% 1005_1/16 w
[48] PCH_SPKR
[49] -ACZ_RST_MDC / [43] -ACZ_RST_ADI — R223 / R456 33_5% 1005_1/16 w
[43] ACZ_SDIN0
[49] ACZ_SDIN1
[49] ACZ_SDOUT_MDC / [43] ACZ_SDOUT_ADI — R241 / R74 33_5% 1005_1/16 w

R846 1K_5% 1005_1/16 w
R566 NA 0_5% 2125_1/8 w
PLACE ON TOP SIDE
TP901 TESTPAD_1P0
TP900 TESTPAD_1P0

[28] SATA_DOCK_DTCT
[61] -EC_WAKE

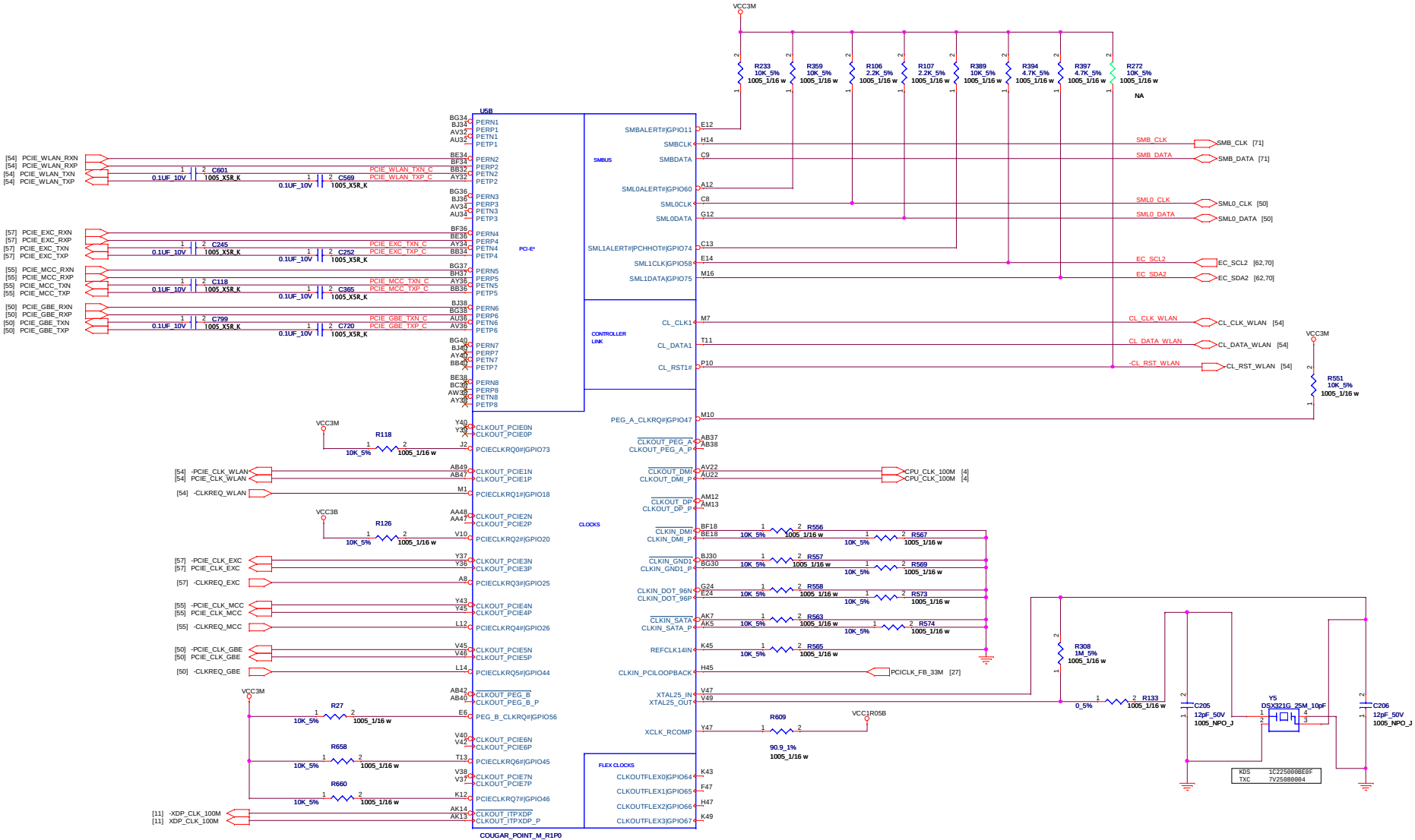
TEST PAD
BOTTOM SIDE
DO NOT MOVE AFTER FIX

[11] PCH_TCK
[11] PCH_TMS
[11] PCH_TDI
[11] PCH_TDO
[59] SPI_CLK
[59] -SPI_CS0
[59] SPI_MOSI
[59] SPI_MISO

COUGAR_POINT_M_R1P0

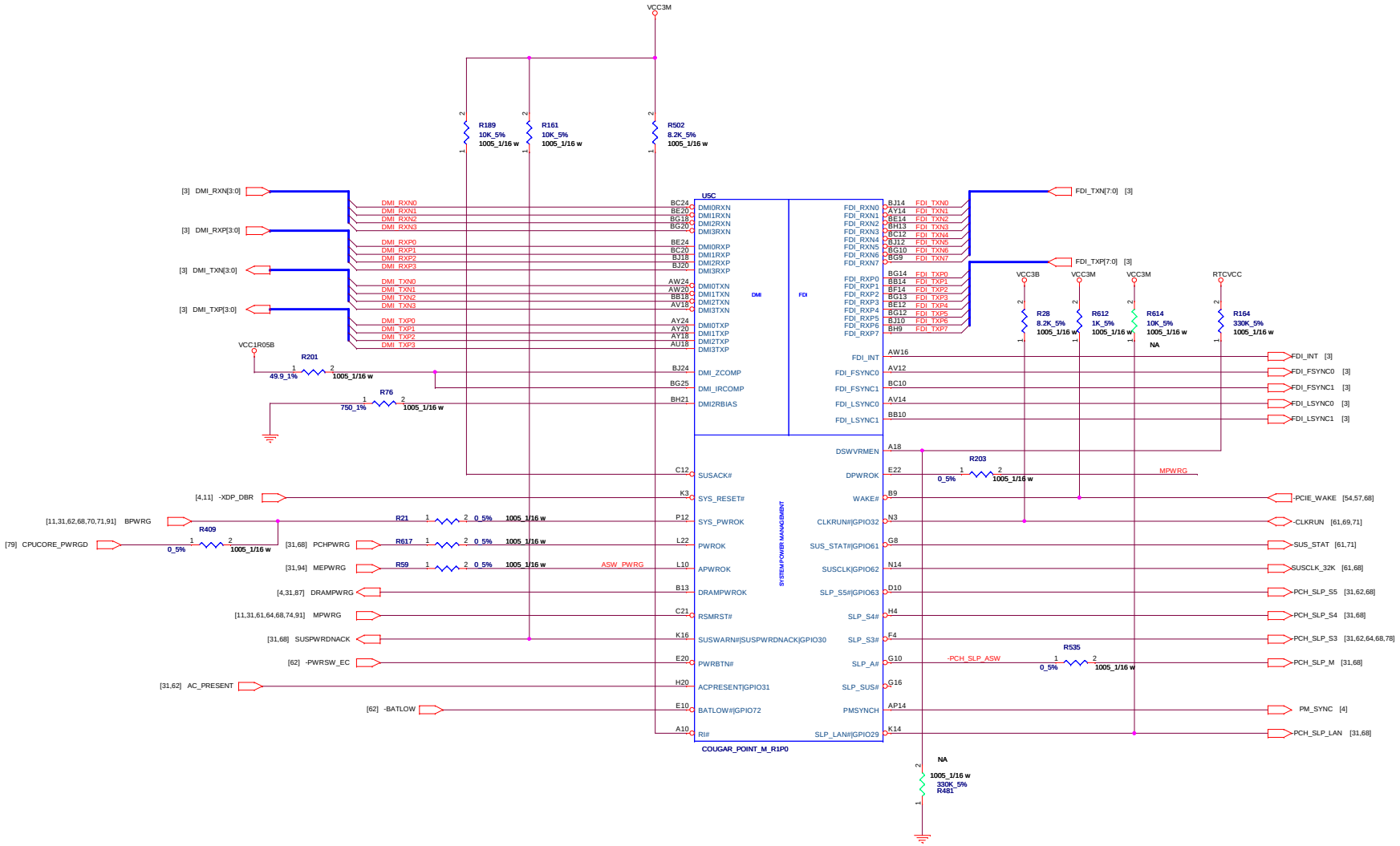
FLEXComputing

Project Name : H430UI1	Title : PCH(1/9):HDA/JTAG/SPI/SATA	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 23 of 99	



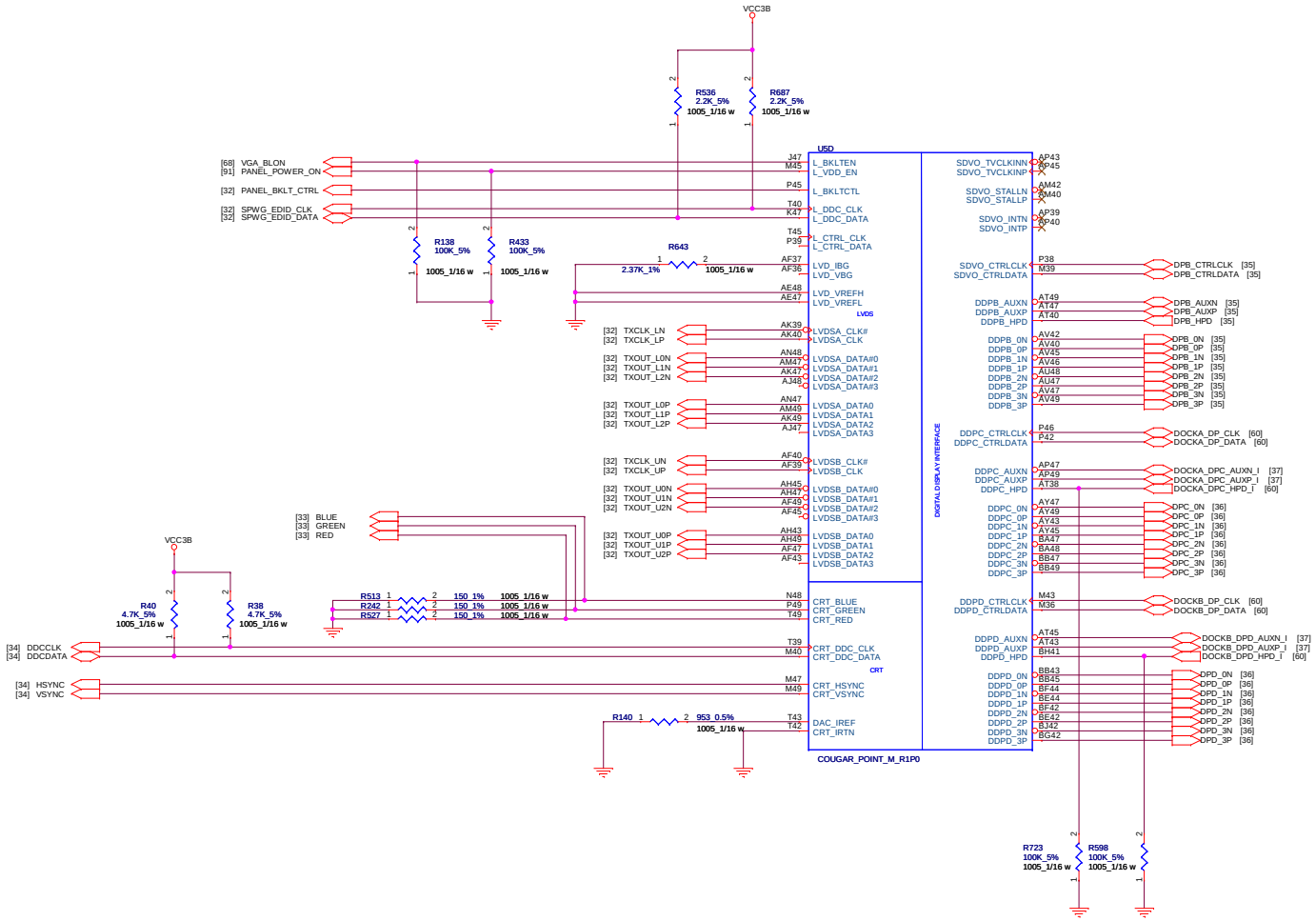
FLEXComputing

Project Name : H430UI1	Title : PCH(2/9):PCI-E/SMBUS/CLK		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010	Sheet : 24 of 99		



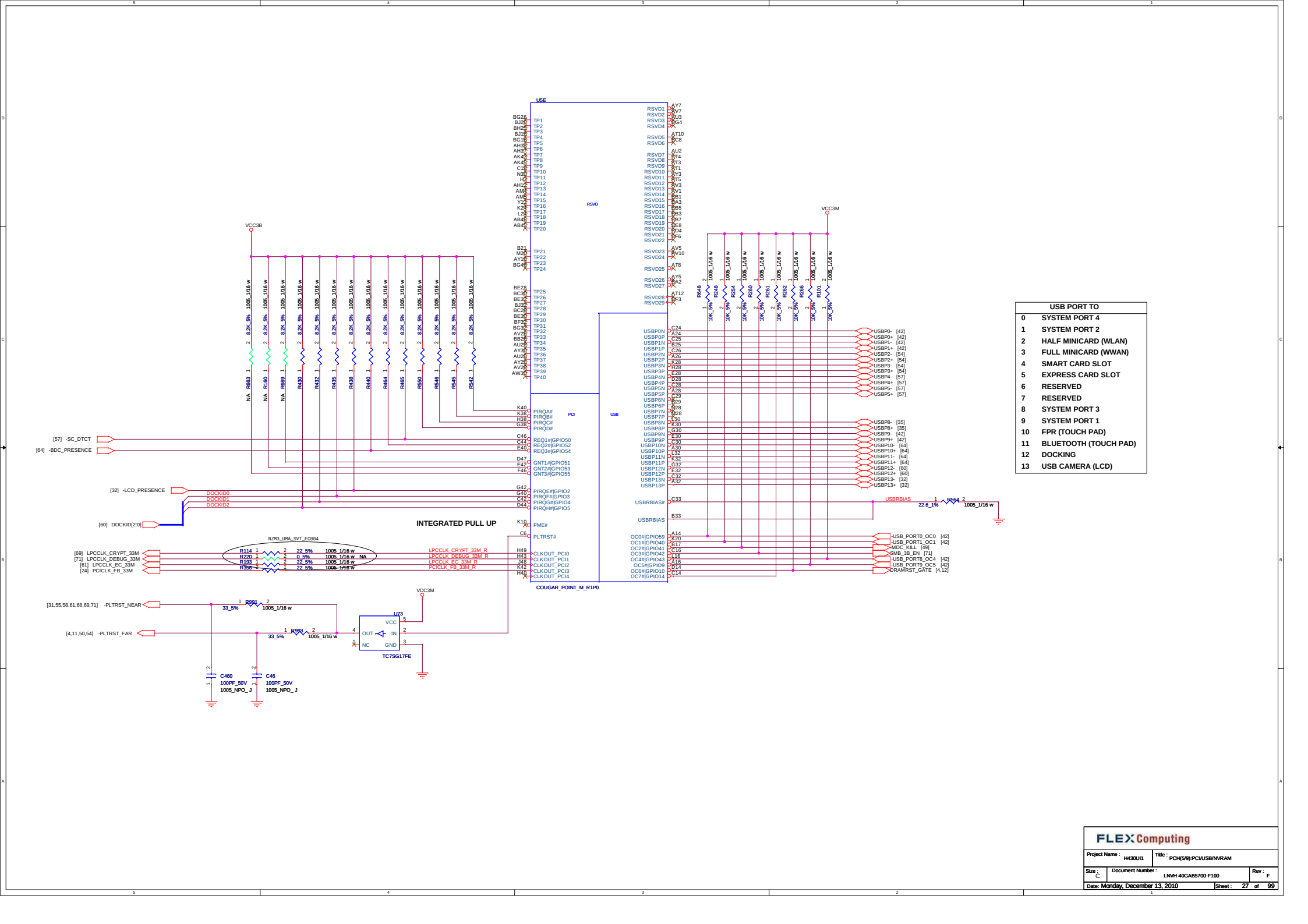
FLEXComputing

Project Name : H430UI1	Title : PCH(3/9):DMI/FDI/PM		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 25 of 99	



FLEXComputing

Project Name : H430UI1	Title : PCH(4/9):LVDS/CRT/DDI	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 26 of 99	



USB PORT TO	
0	SYSTEM PORT 4
1	SYSTEM PORT 2
2	HALF MINICARD (WLAN)
3	FULL MINICARD (WWAN)
4	SMART CARD SLOT
5	EXPRESS CARD SLOT
6	RESERVED
7	RESERVED
8	SYSTEM PORT 3
9	SYSTEM PORT 1
10	FPR (TOUCH PAD)
11	BLUETOOTH (TOUCH MINICARD)
12	DOCKING
13	USB CAMERA (LCD)

FLEXComputing

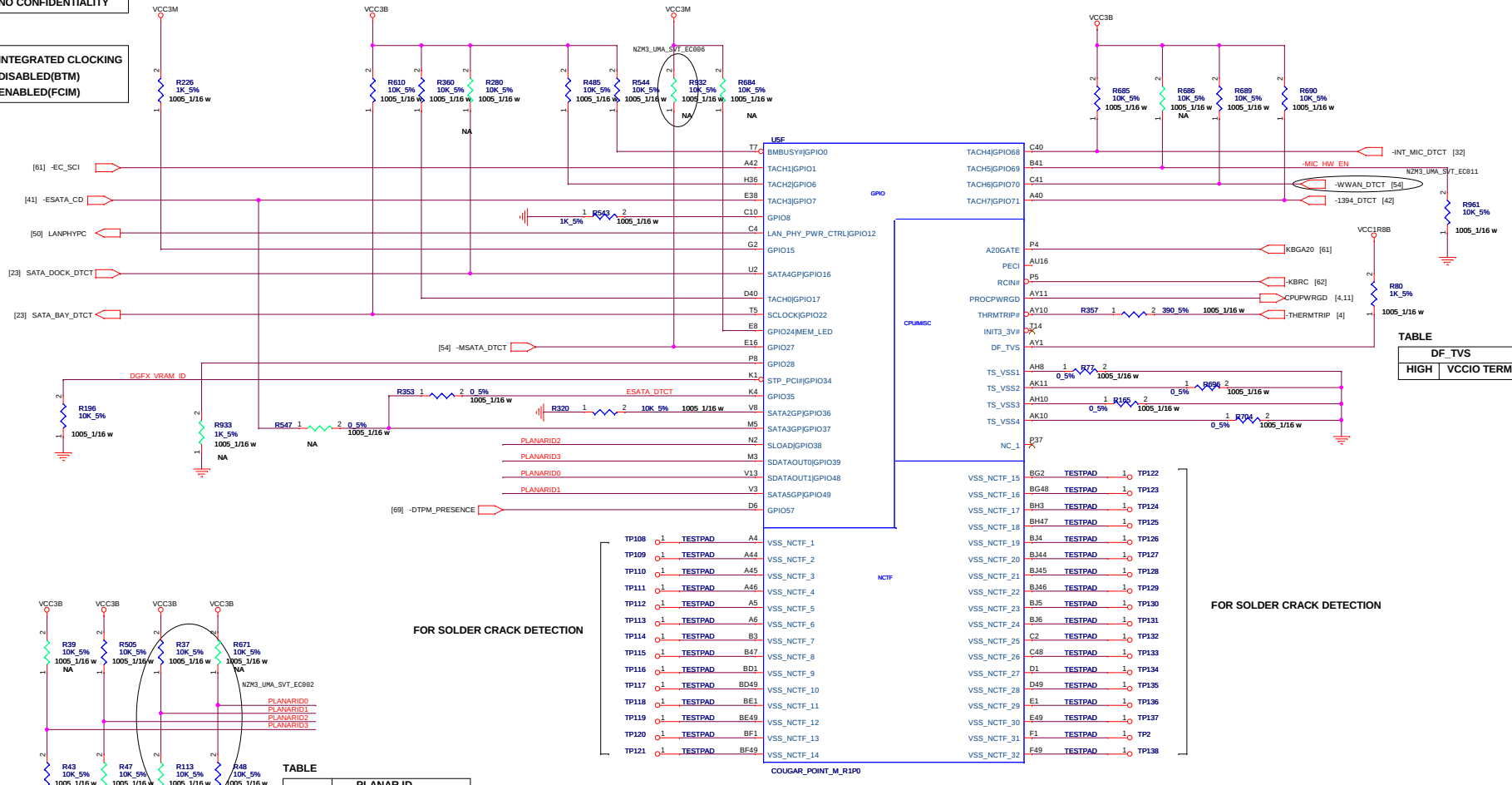
Project Name : H430UI1	Title : PCH(5/9):PCI/USB/NVRAM		
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F	
Date: Monday, December 13, 2010	Sheet : 27 of 99		

TABLE

GPIO15	ME CRYPTO STRAP
HIGH	WITH CONFIDENTIALITY
LOW	NO CONFIDENTIALITY

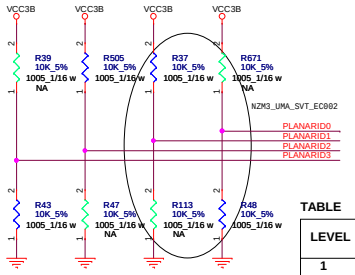
TABLE

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



TABLE

DF_TVS	
HIGH	VCCIO TERMINATION



FOR SOLDER CRACK DETECTION

FOR SOLDER CRACK DETECTION

TABLE

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

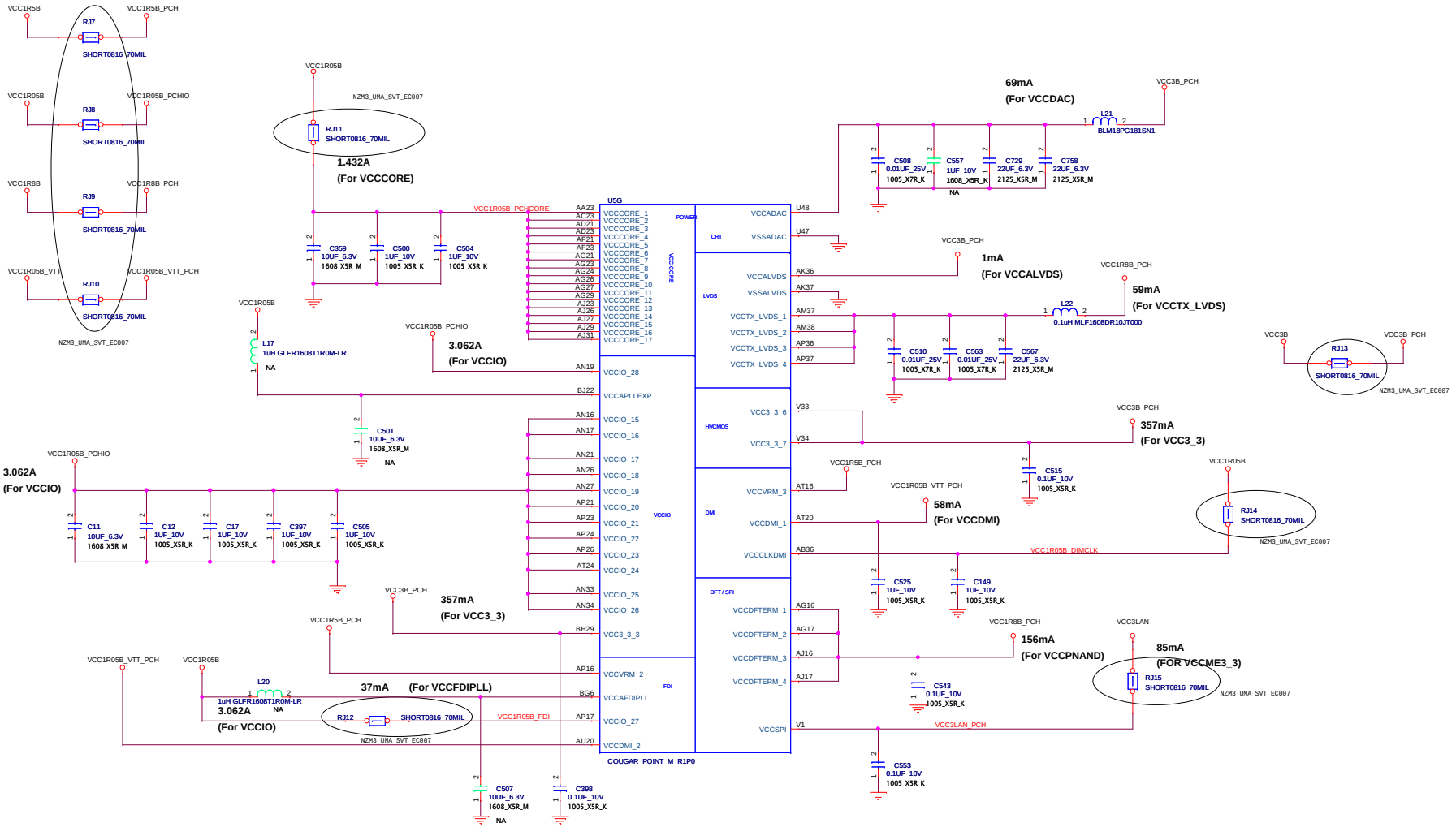
TABLE

LEVEL	PLANARID[3..0]
PDV	0000B
SDV	0000B/0001B
SDV2	0010B
FVT2	0011B
MSIT	0100B
SIT	0101B
SVT	0110B

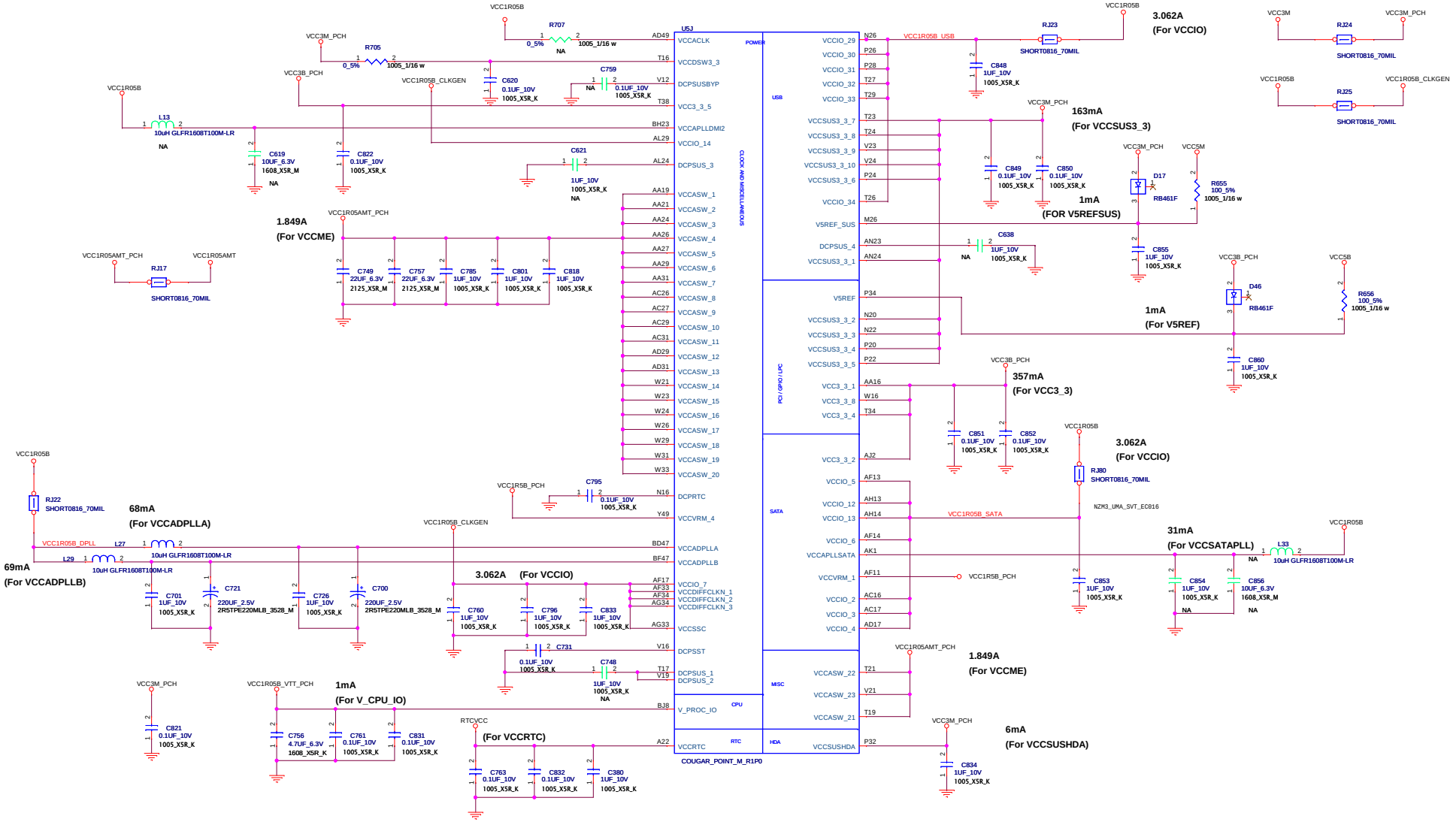
NZM3_UMA_SVT_EC002

FLEXComputing

Project Name : H430UI1	Title : PCH(6/9):GPIO/NCTF/RSVD	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 28 of 99	

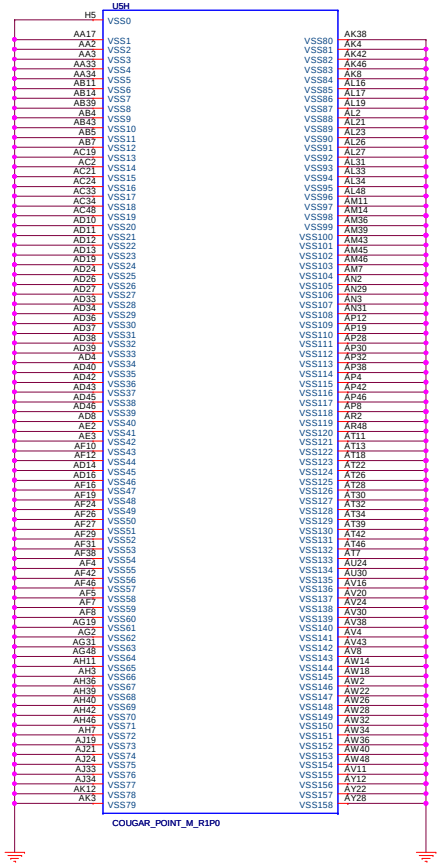


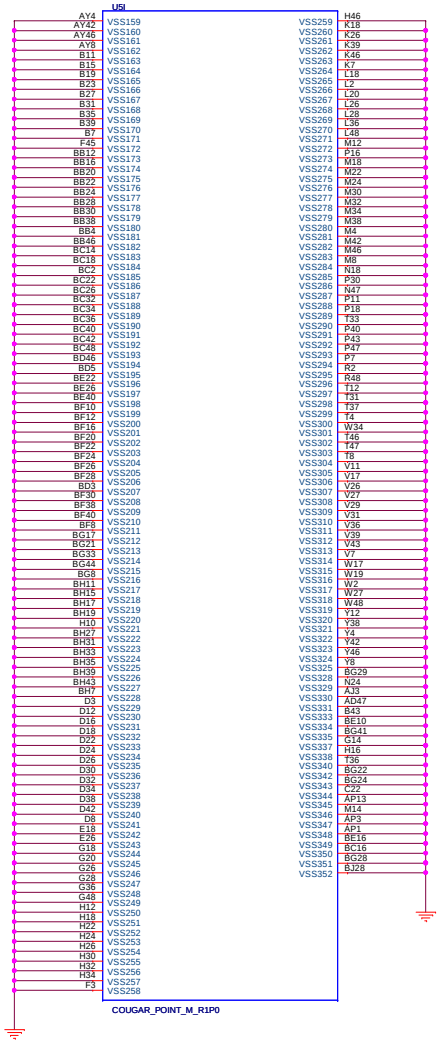
FLEXComputing			
Project Name : H430UI1	Title : PCH(7/9):POWER		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 29 of 99	

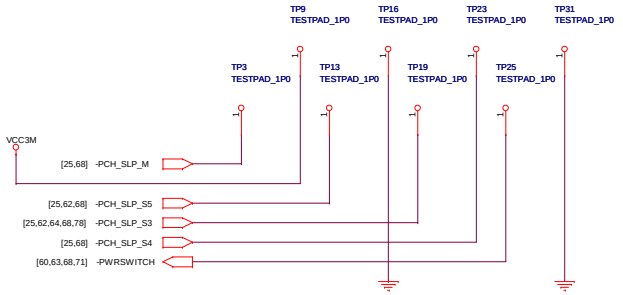


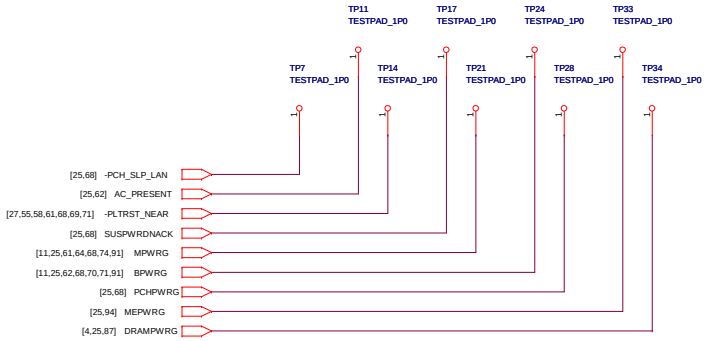
FLEXComputing	
Project Name : H430UI1	Title : PCH(8/9):POWER
Size : C	Document Number : LNVH-40GAB5700-F100 Rev : F
Date: Monday, December 13, 2010	Sheet : 30 of 99

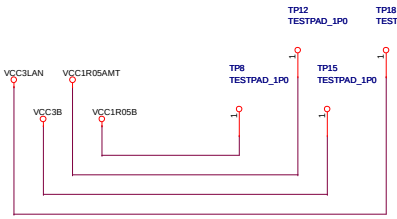
TEST PAD FOR METS/APS



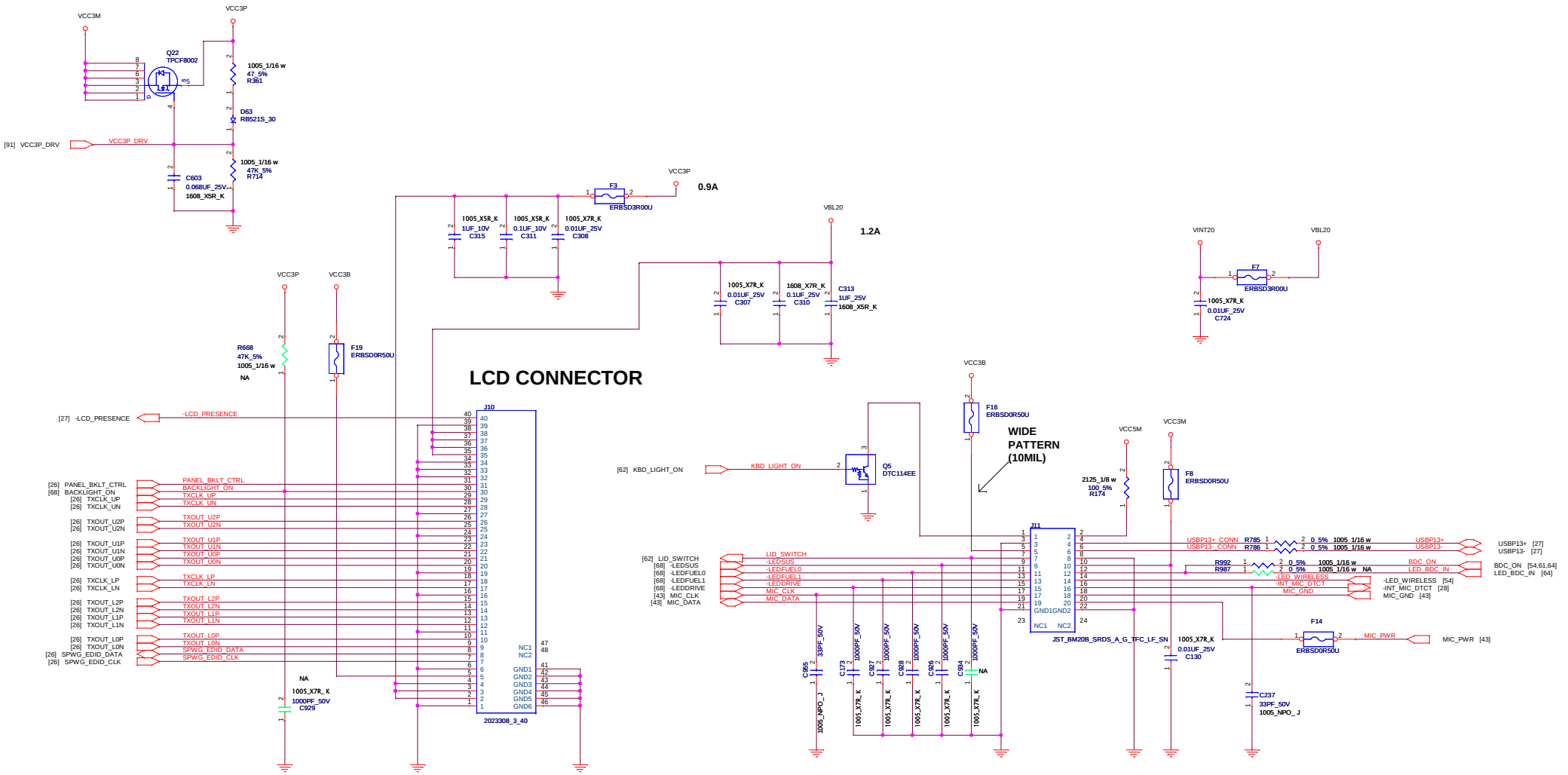




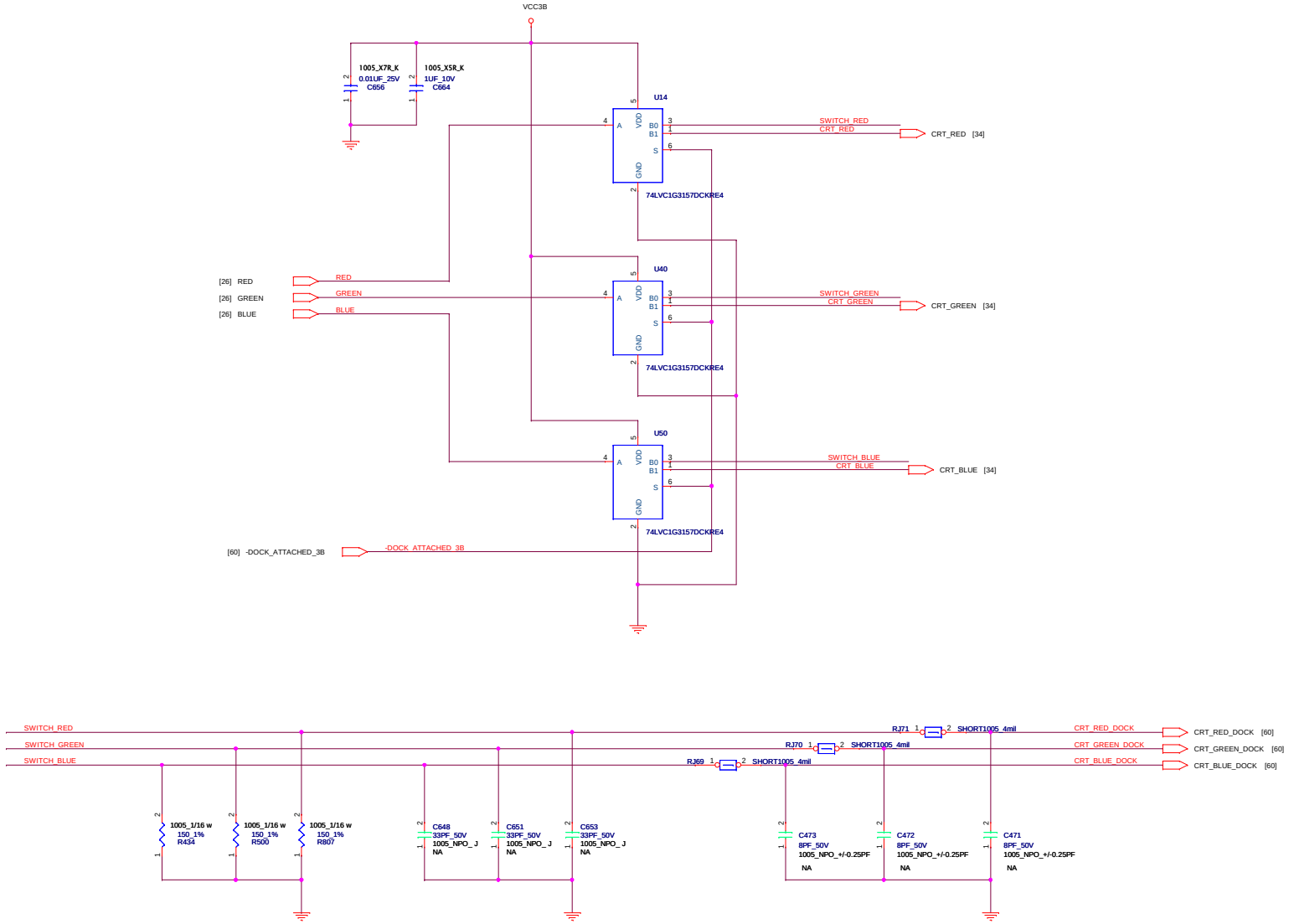




FLEXComputing			
Project Name : H430UI1	Title : PCH(9/9):GND		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 31 of 99	

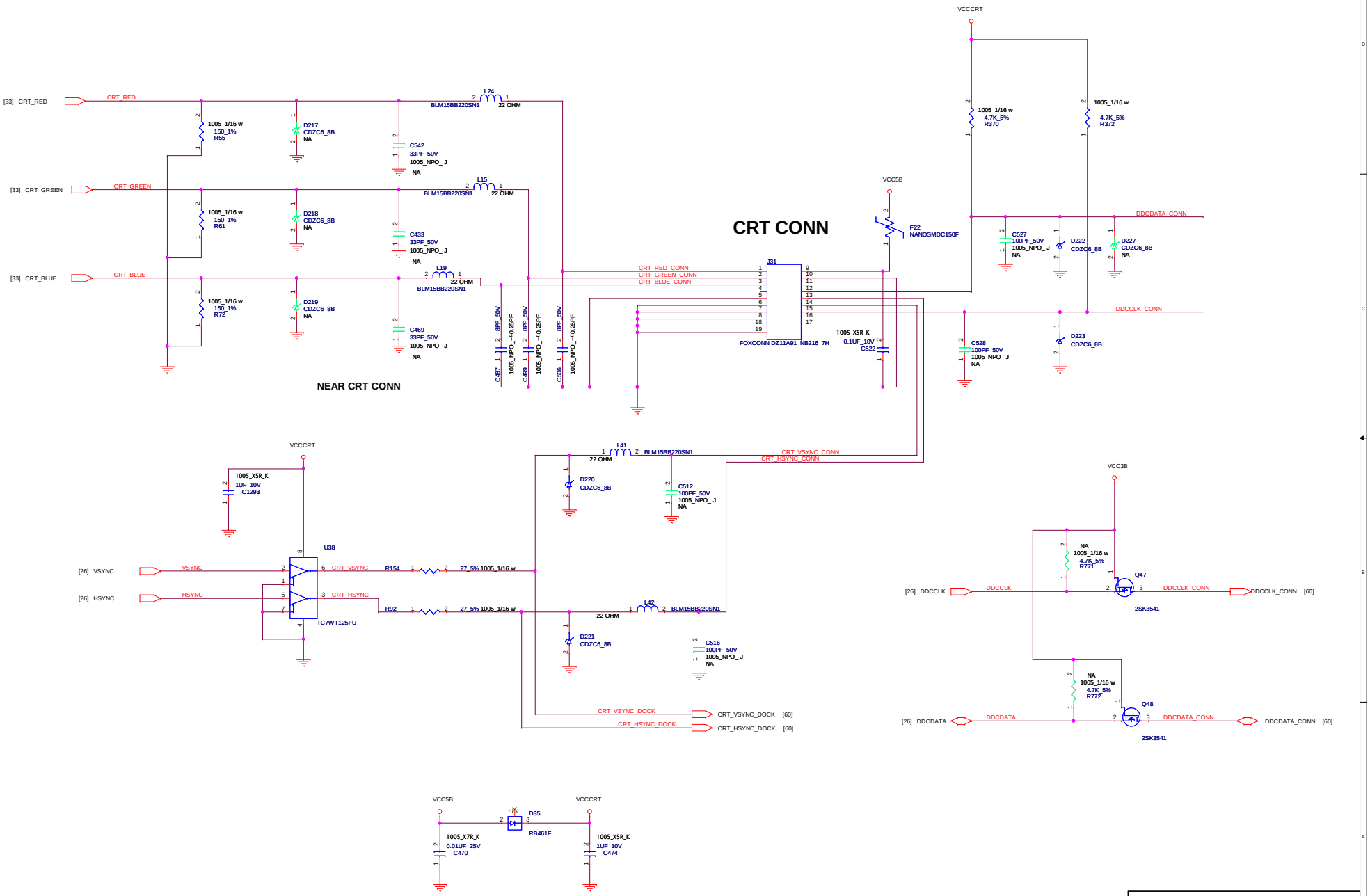


FLEXComputing			
Project Name : H430UI1	Title : LCD CONNECTOR		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 32 of 99	

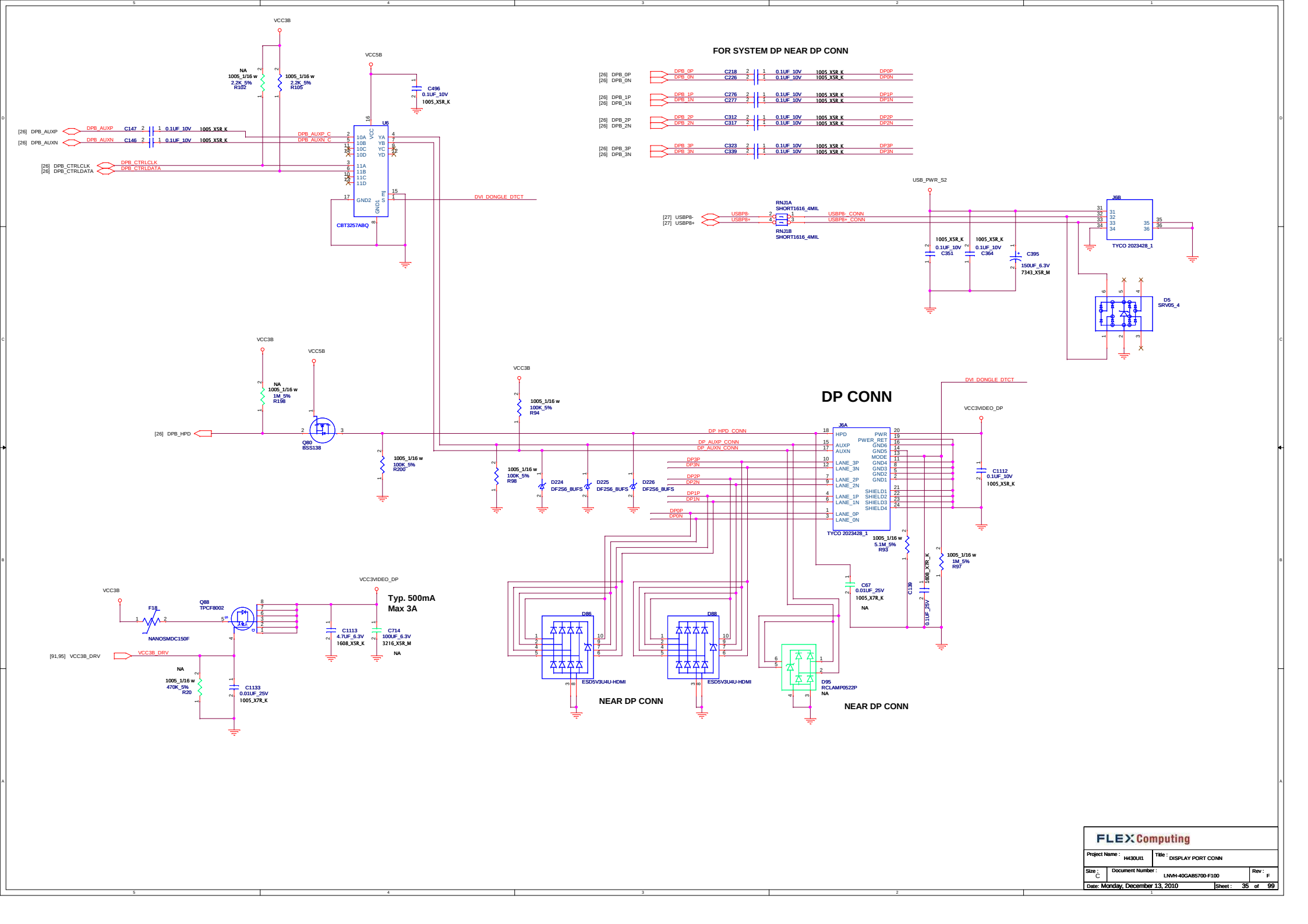


FLEXComputing

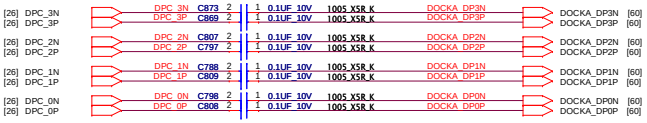
Project Name : H430UI1	Title : RGB SWITCH	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 33 of 99	



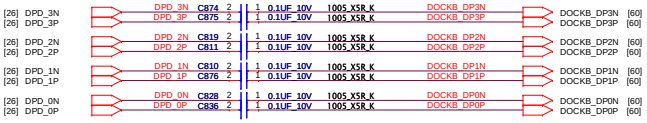
FLEXComputing			
Project Name : H430UI1	Title : EXT CRT I/F		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 34 of 99	


FOR SYSTEM DP NEAR DP CONN
DP CONN
NEAR DP CONN
NEAR DP CONN
Typ. 500mA
Max 3A
U6
CBT3257ABQ
J6A
TYCO 2023428_1
J6B
TYCO 2023428_1
D86
D88
ESD5V3U4U-HDMI
ESD5V3U4U-HDMI
D95
RCLAMP0522P
D5
SRV05_4
Q80
BSS138
Q88
TPCF8002
F18
NANOSMDC150F
DVI_DONGLE_DTCT
USB_PWR_S2
VCC3B
VCC5B
VCC3VIDEO_DP
DP_HPD_CONN
DP_AUXP_CONN
DP_AUXN_CONN
DPB_AUXP_C
DPB_AUXN_C
DPB_CTRLCLK
DPB_CTRLDATA
VCC3B_DRV
Project Name : H430UI1
Title : DISPLAY PORT CONN
Size : C
Document Number : LNVH-40GAB5700-F100
Rev : F
Date: Monday, December 13, 2010
Sheet : 35 of 99

NEAR DOCK CONN

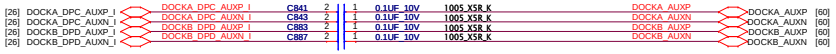


NEAR DOCK CONN



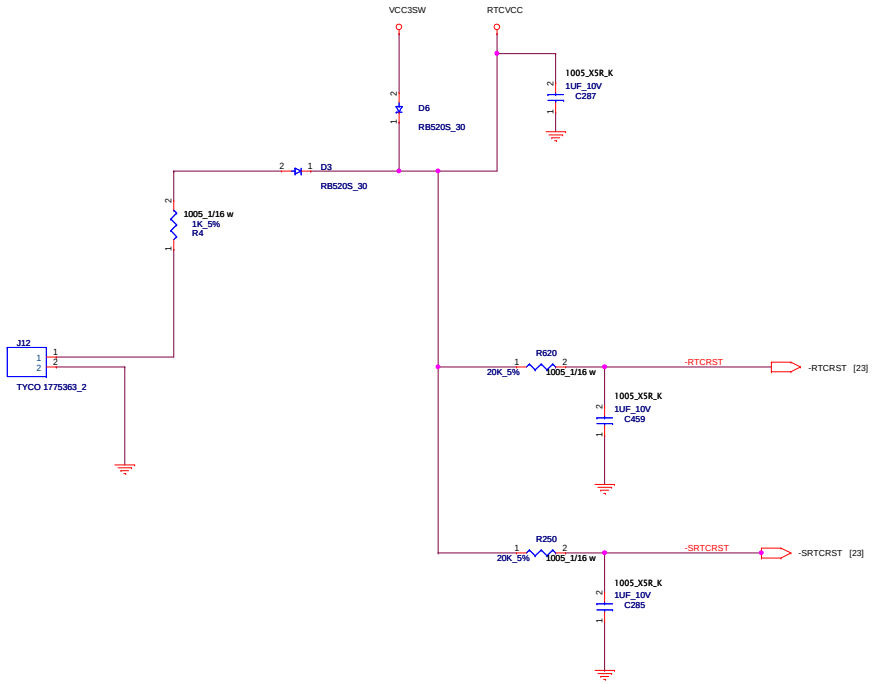
FLEXComputing

Project Name : H430UI1	Title : DOCK DISPLAY PORT	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 36 of 99	



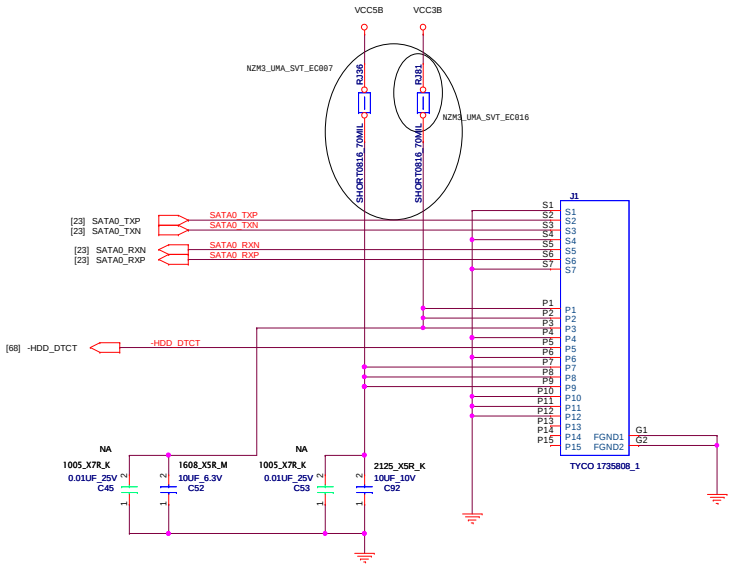
FLEXComputing

Project Name : H430UI1	Title : DISPLAY PORT MUX	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 37 of 99	



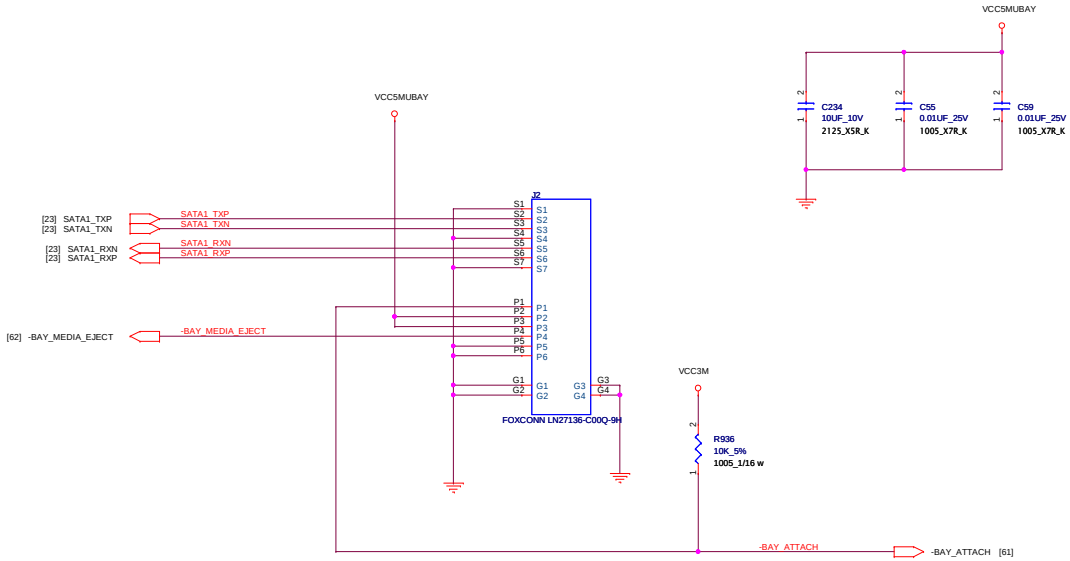
FLEXComputing

Project Name : H430UI1	Title : RTC BATTERY		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 38 of 99	



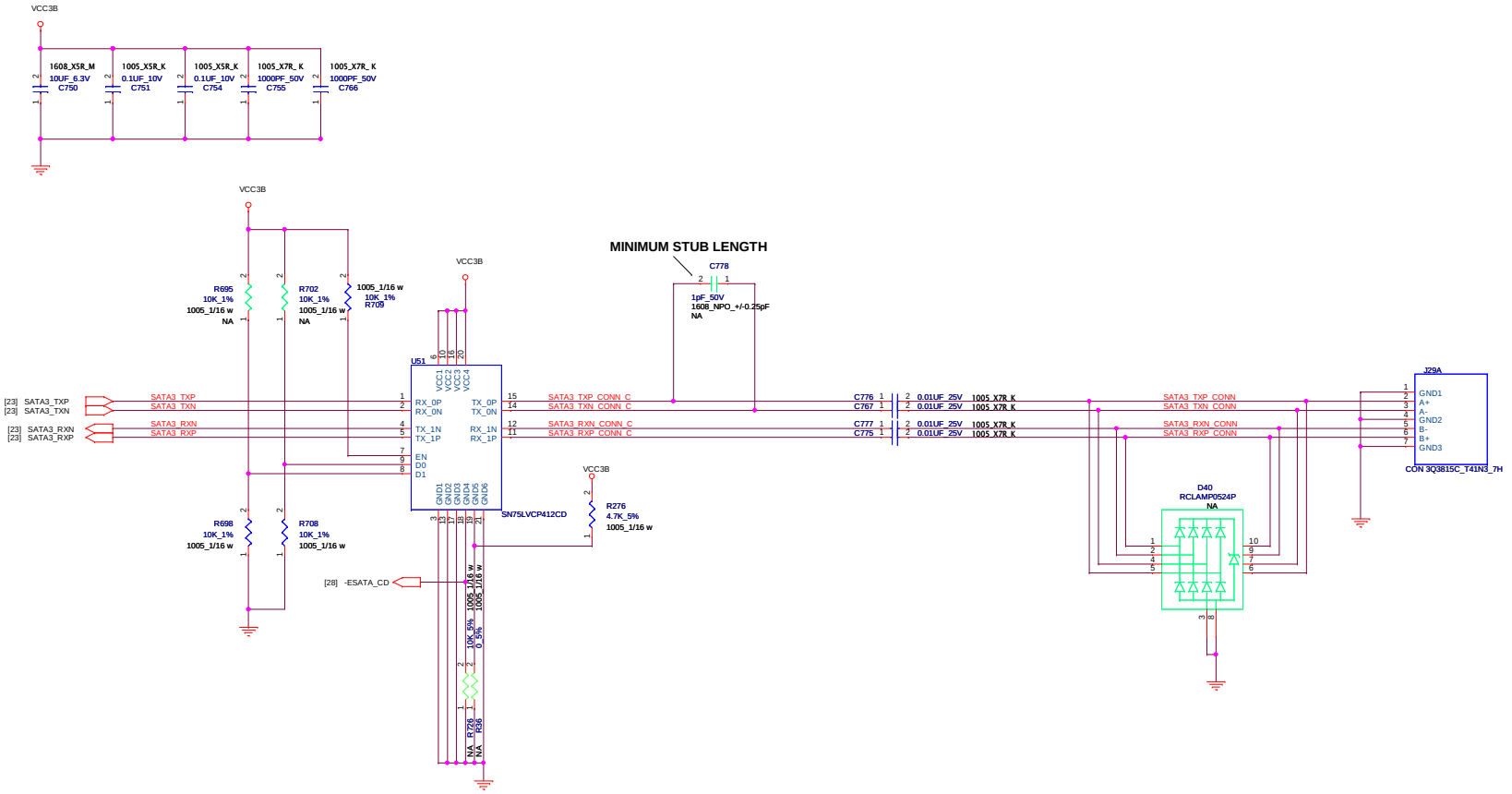
FLEX Computing

Project Name : H430UI1	Title : SATA HDD CONN	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 39 of 99	



FLEX Computing

Project Name : H430UI1	Title : SATA BAY I/F CONN	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 40 of 99	



TABLE

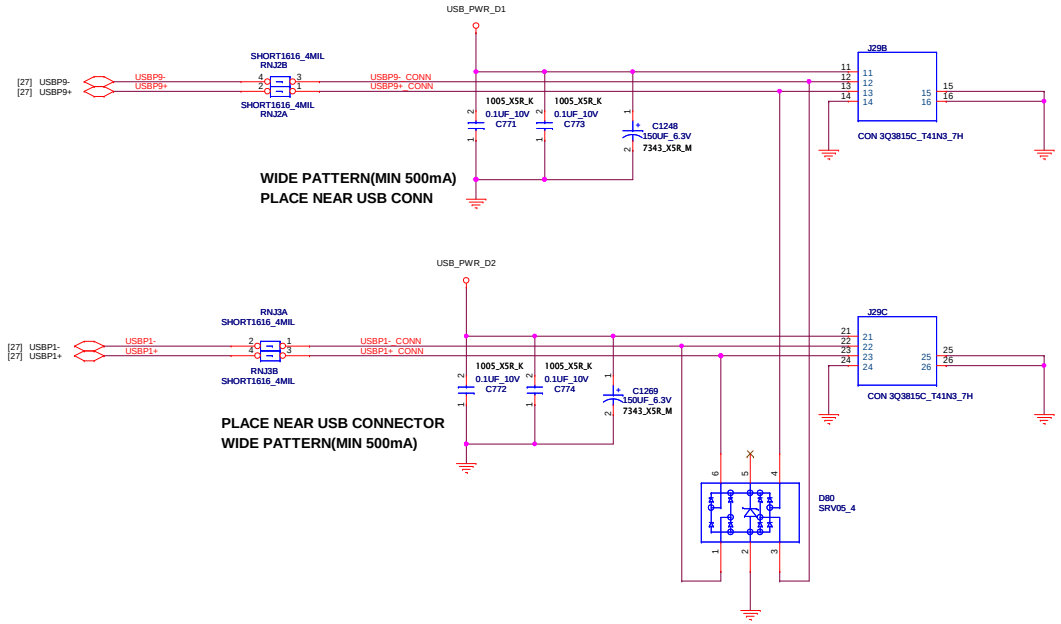
ESATA REDRIVER CHANNEL BOOST ENABLE OPTION

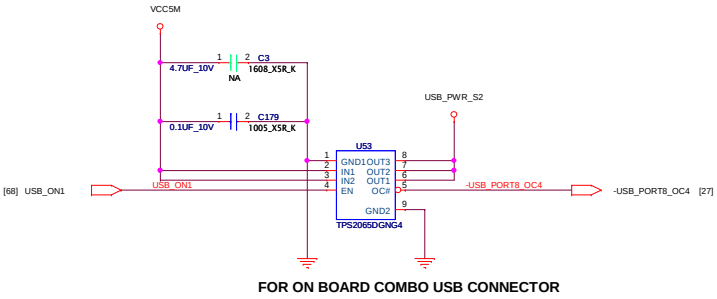
EN	D0	D1	CH-0	CH-1
0	X	X	STANDBY	STANDBY
1	0	0	STANDARD	STANDARD
1	1	0	BOOST	STANDARD
1	0	1	STANDARD	BOOST
1	1	1	BOOST	BOOST

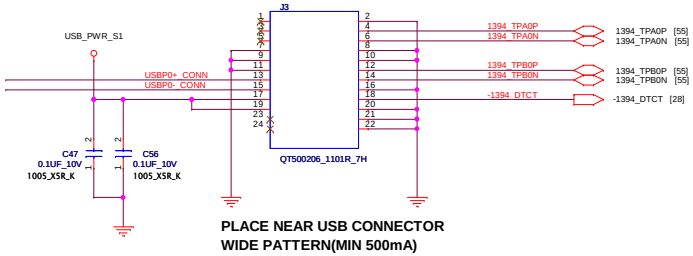
← LOGIC

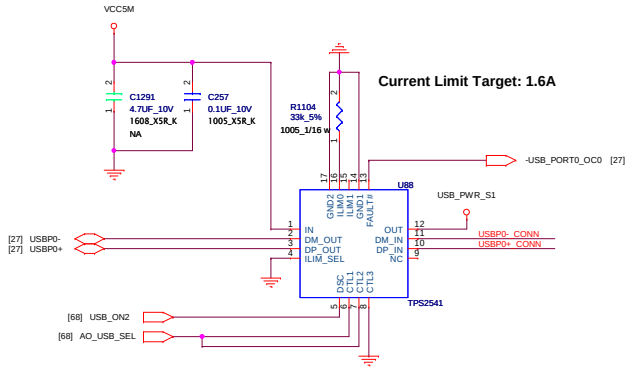
FLEXComputing

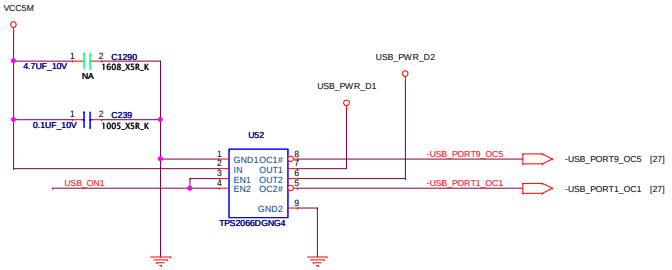
Project Name : H430UI1	Title : ESATA CONN		
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F	
Date: Monday, December 13, 2010	Sheet : 41 of 99		











FLEXComputing

Project Name : H430UI1		Title : USB POWER/CONN	
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 42 of 99	

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

U8

CX20672-21Z

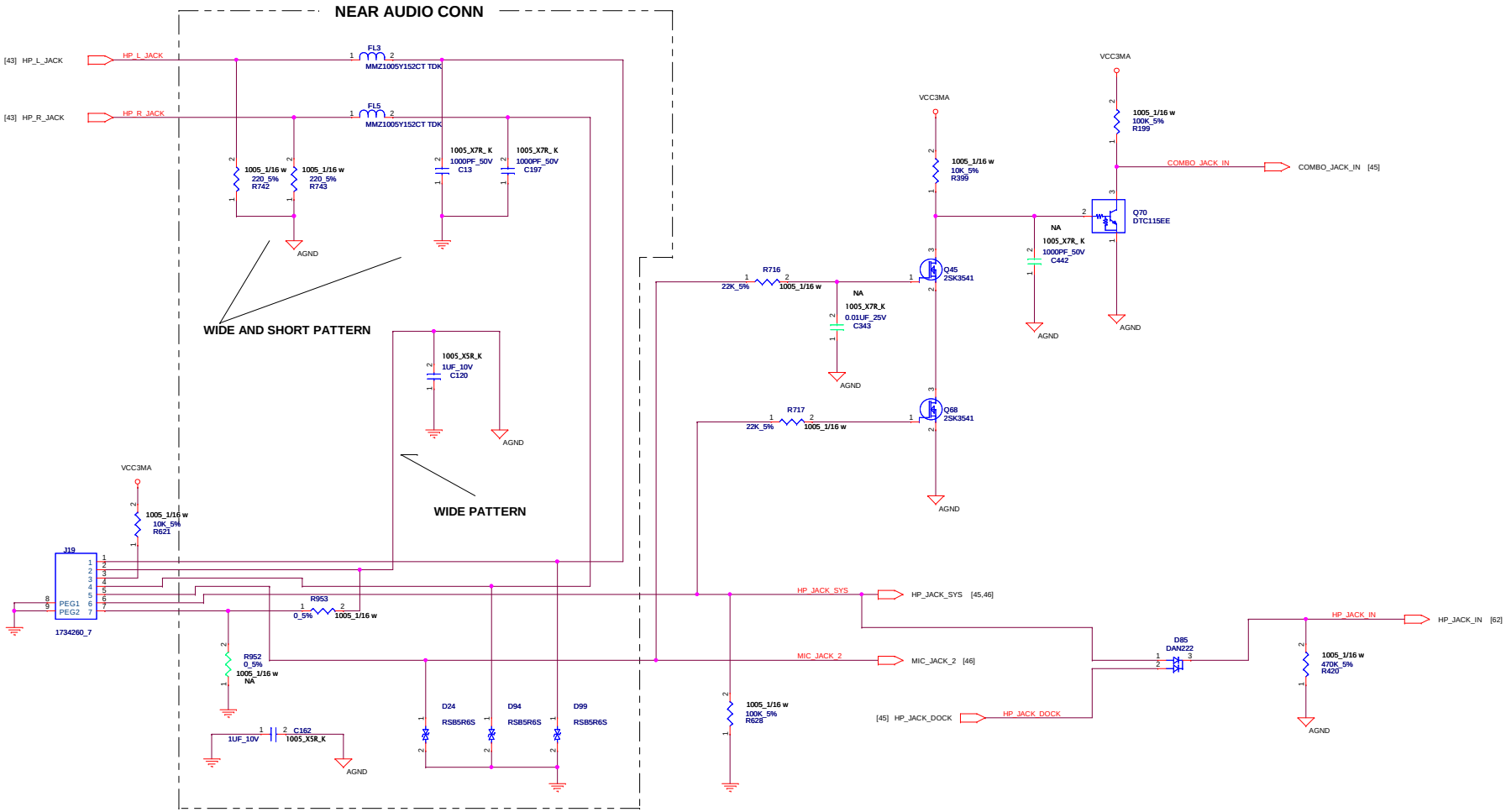
Layout Note: place R631 and R632 near dock conn

PLACE UNDER CX20561

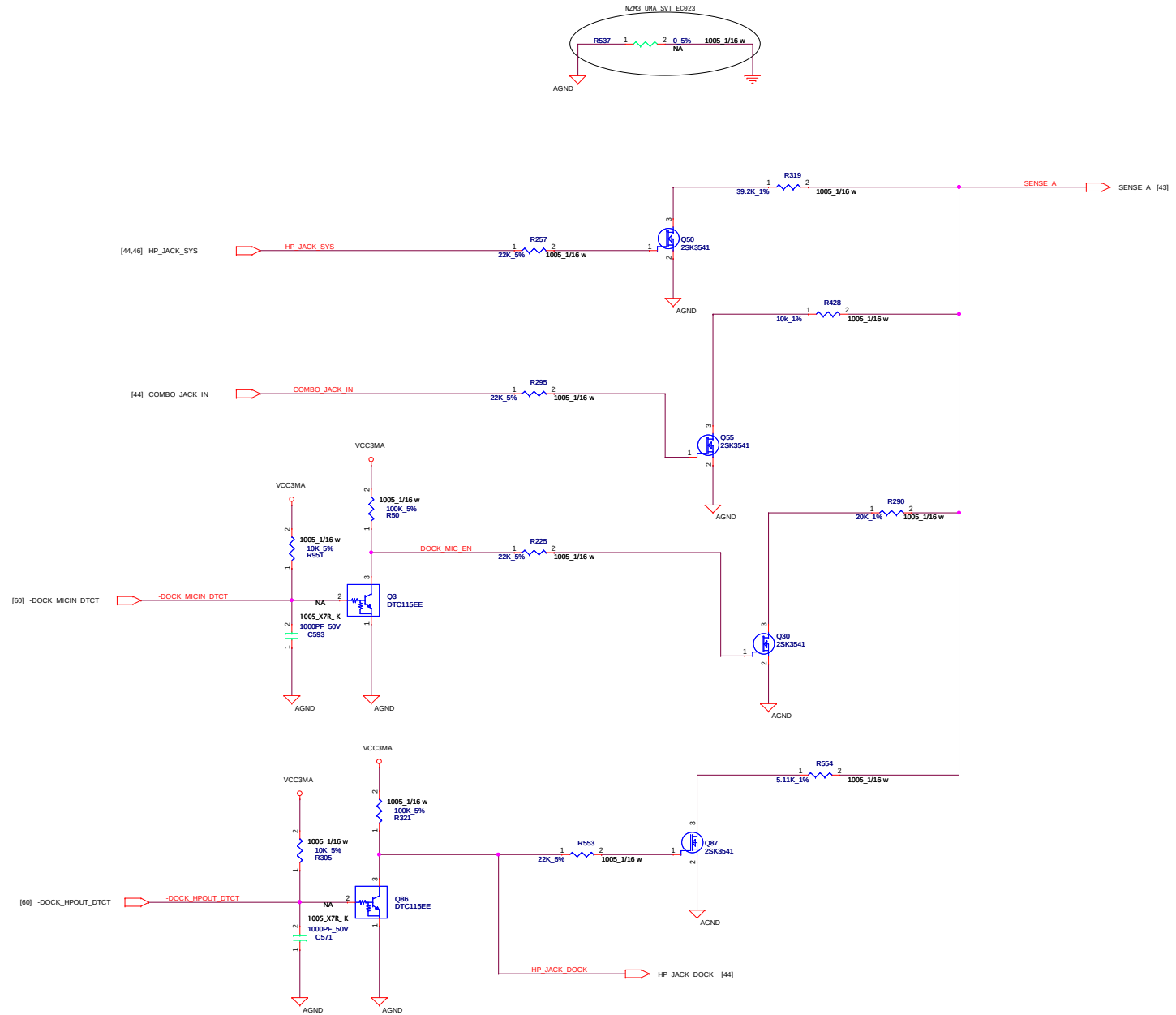
PLACE NEAR U8

FLEX Computing

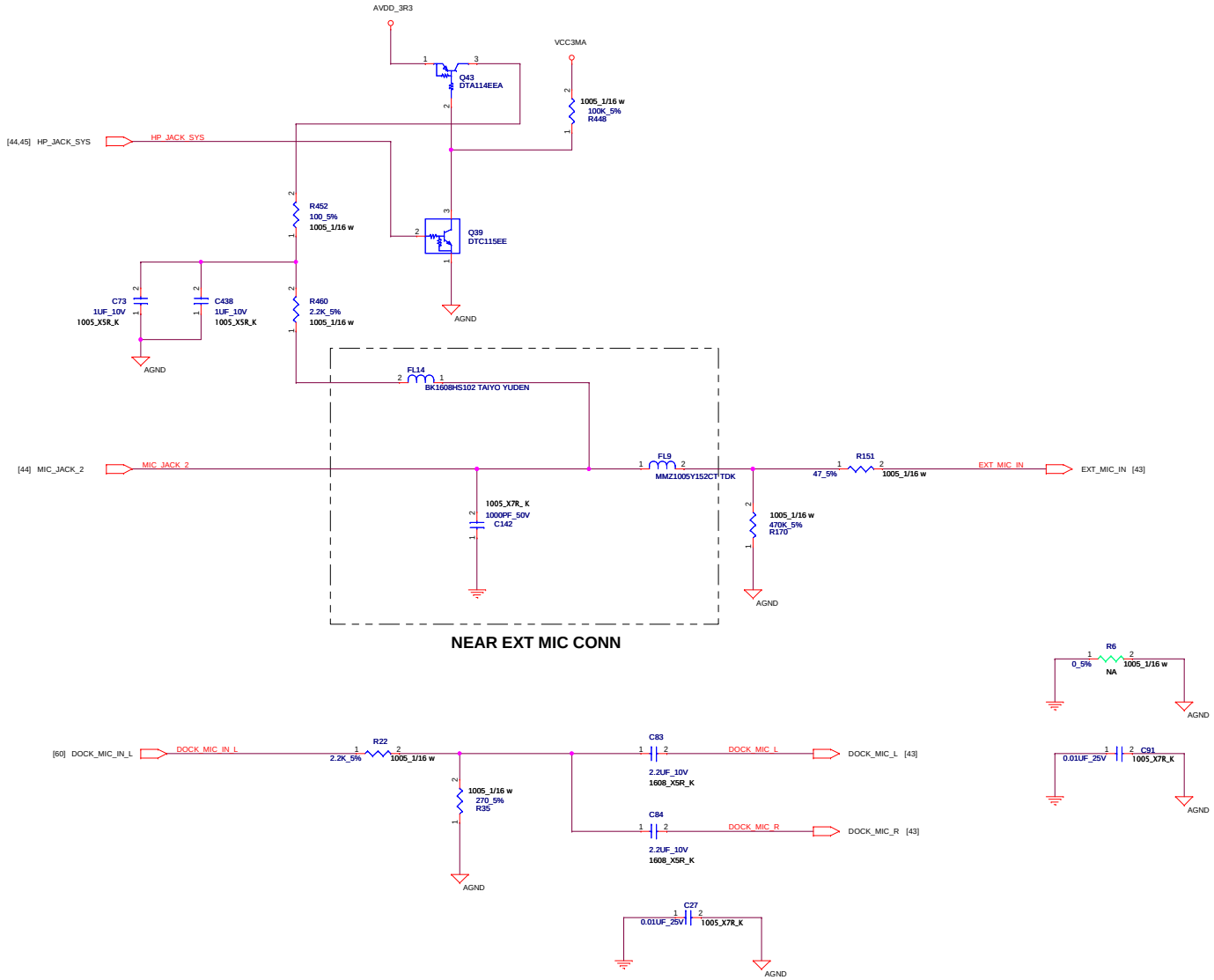
Project Name : H430UI1	Title : AUDIO CX20672-21Z
Size : C	Document Number : LNVH-40GAB5700-F100 Rev : F
Date: Monday, December 13, 2010	Sheet : 43 of 99



FLEX Computing			
Project Name : H430UI1	Title : AUDIO CONN		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 44 of 99	

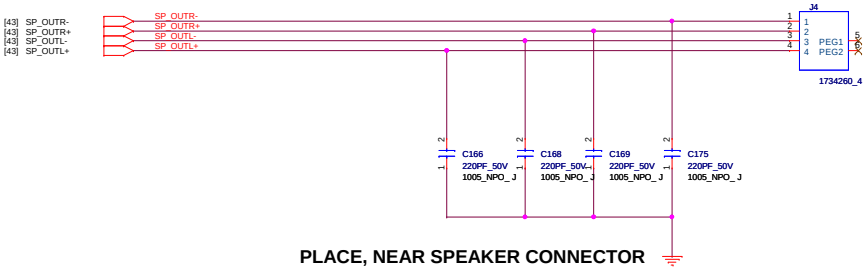


FLEXComputing			
Project Name : H430UI1	Title : AUDIO JACK SENSE		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 45 of 99	



FLEXComputing

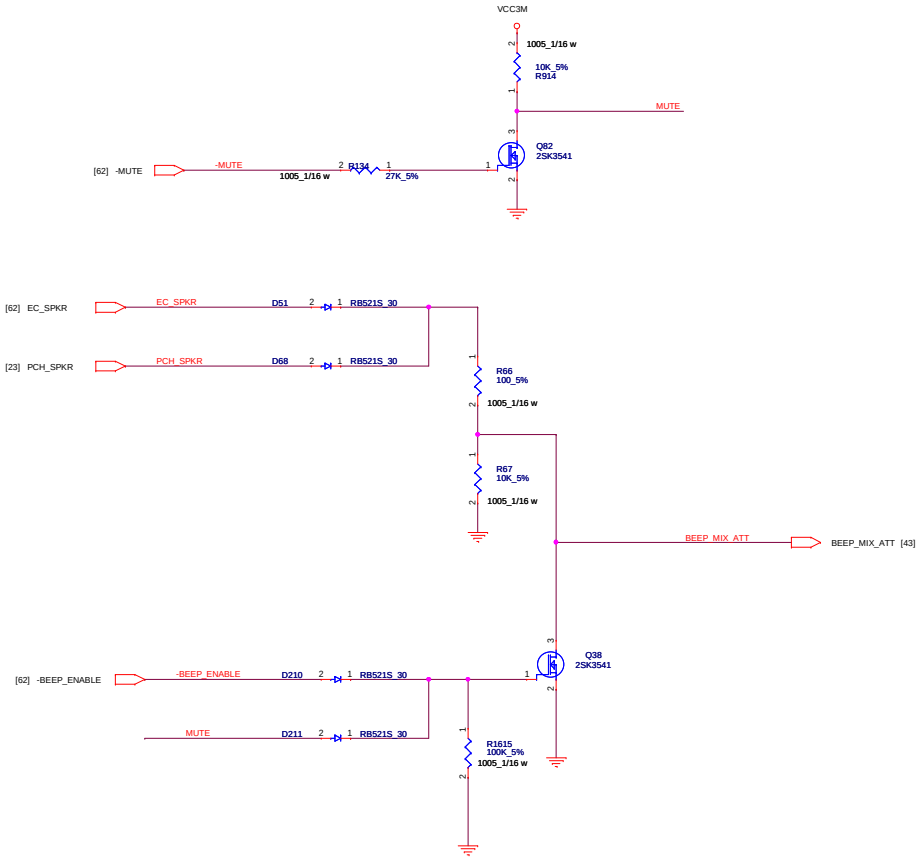
Project Name : H430UI1	Title : AUDIO EXT MIC I/F		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 46 of 99	



PLACE, NEAR SPEAKER CONNECTOR

FLEX Computing

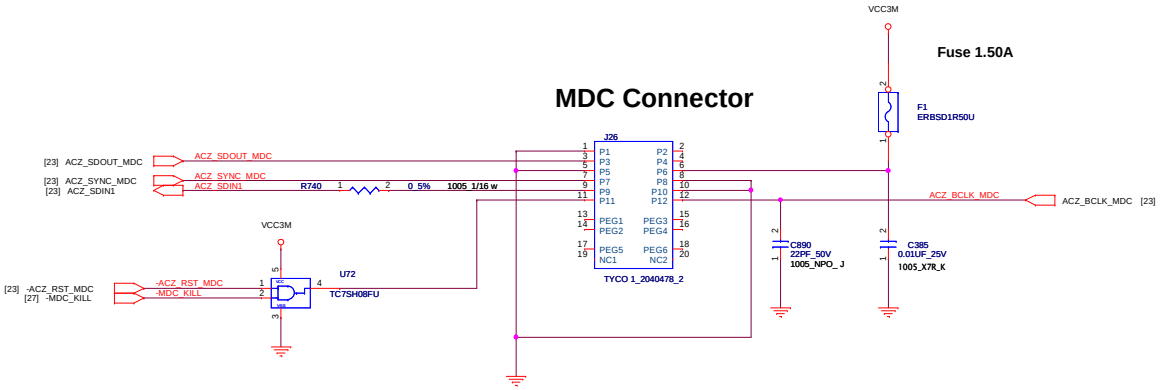
Project Name : H430UI1	Title : AUDIO SPEAKER	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 47 of 99	



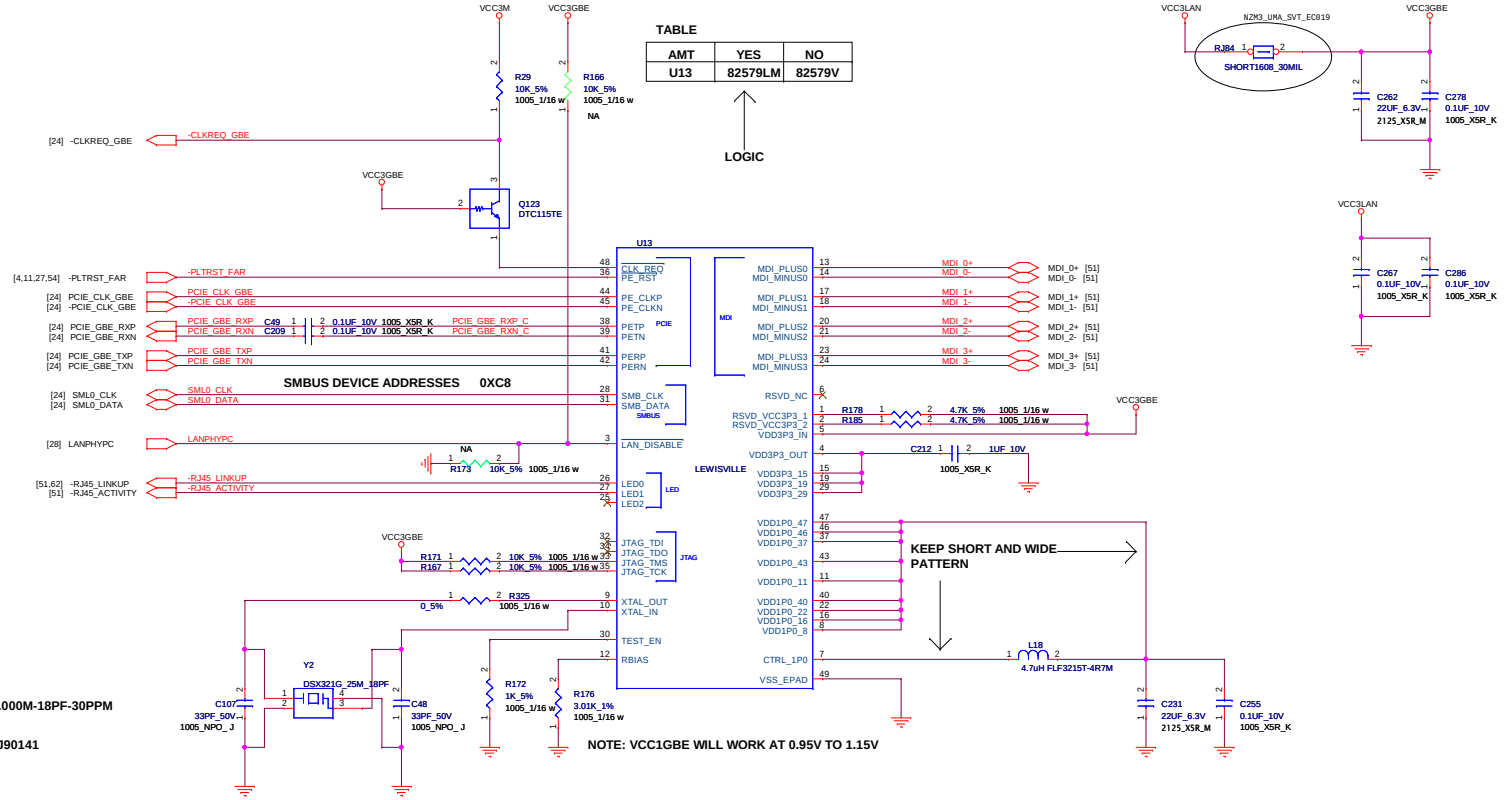
FLEX Computing

Project Name : H430UI1	Title : AUDIO BEEP	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 48 of 99	

MDC Connector

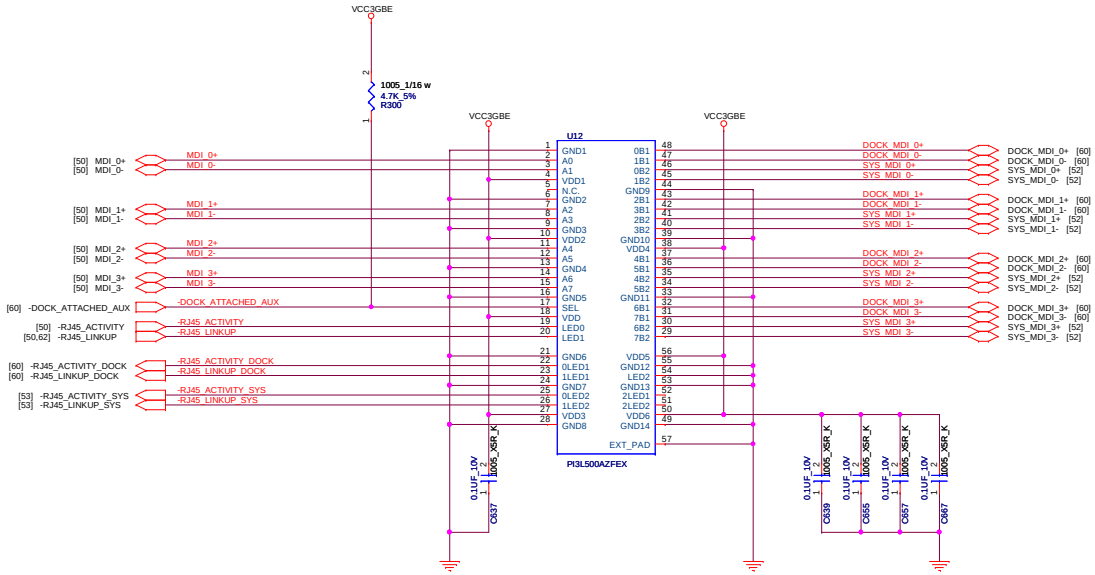


FLEXComputing			
Project Name : H430UI1	Title : MDC CONN		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 49 of 99	

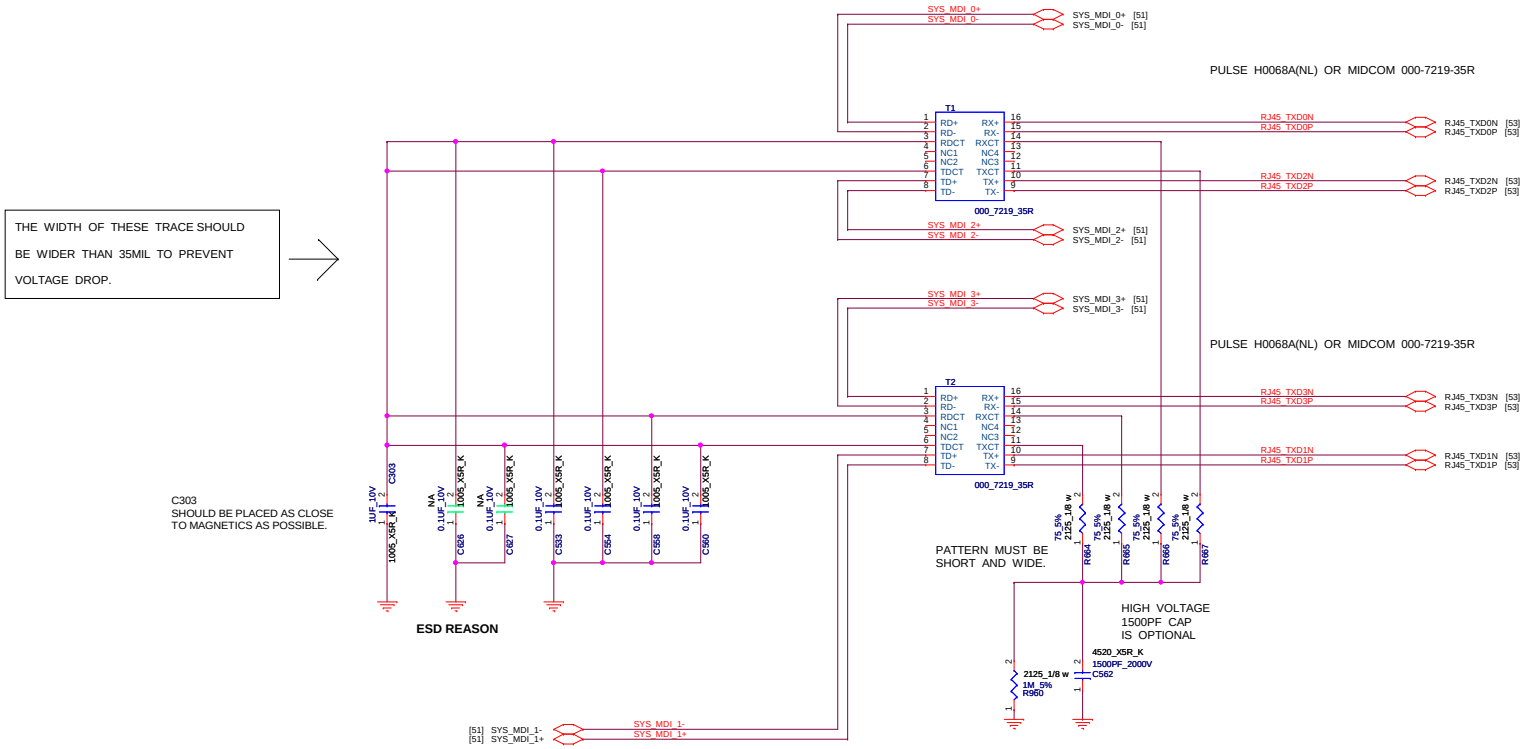


FLEX Computing

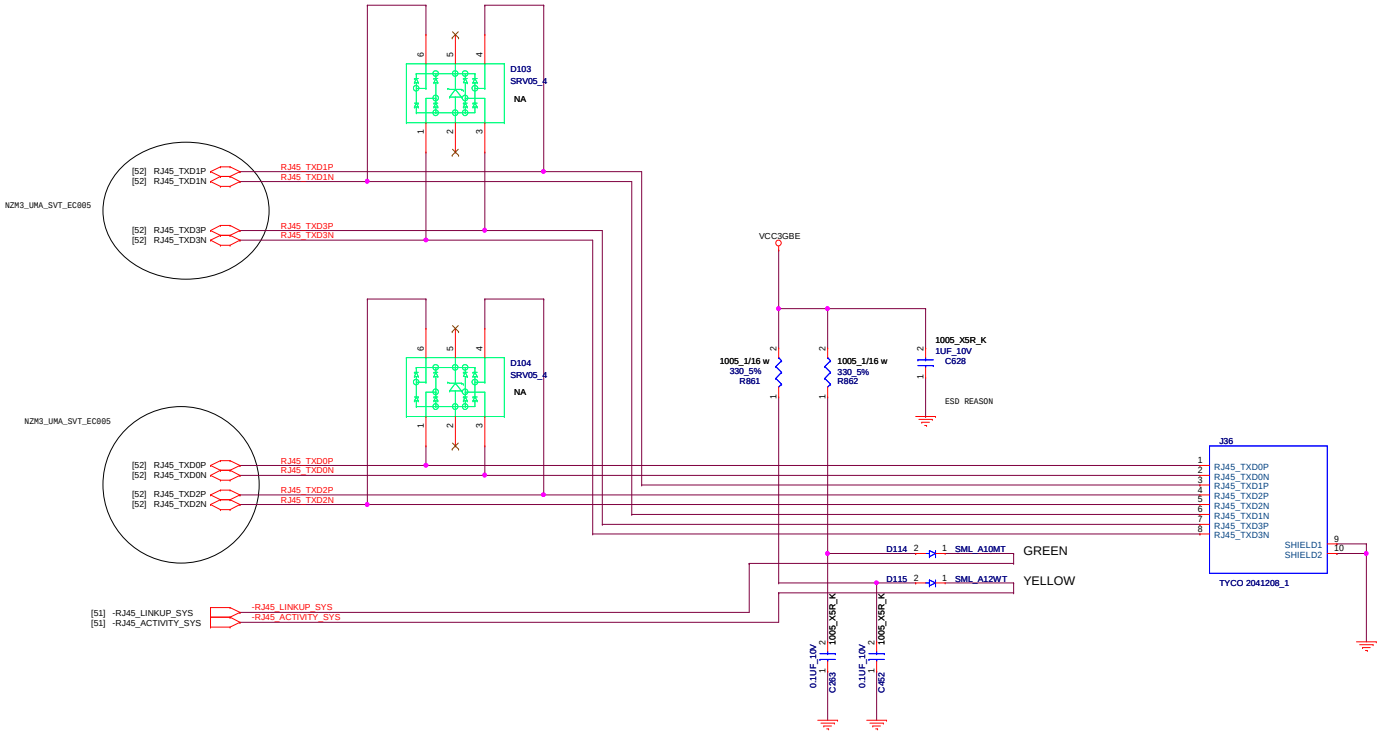
Project Name : H430UI1	Title : GBE LEWISVILLE		
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F	
Date: Monday, December 13, 2010	Sheet : 50 of 99		



FLEXComputing			
Project Name : H430UI1	Title : GBE LAN SWITCH		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 51 of 99	



FLEXComputing			
Project Name : H430UI1	Title : GBE MAGNETICS		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 52 of 99	

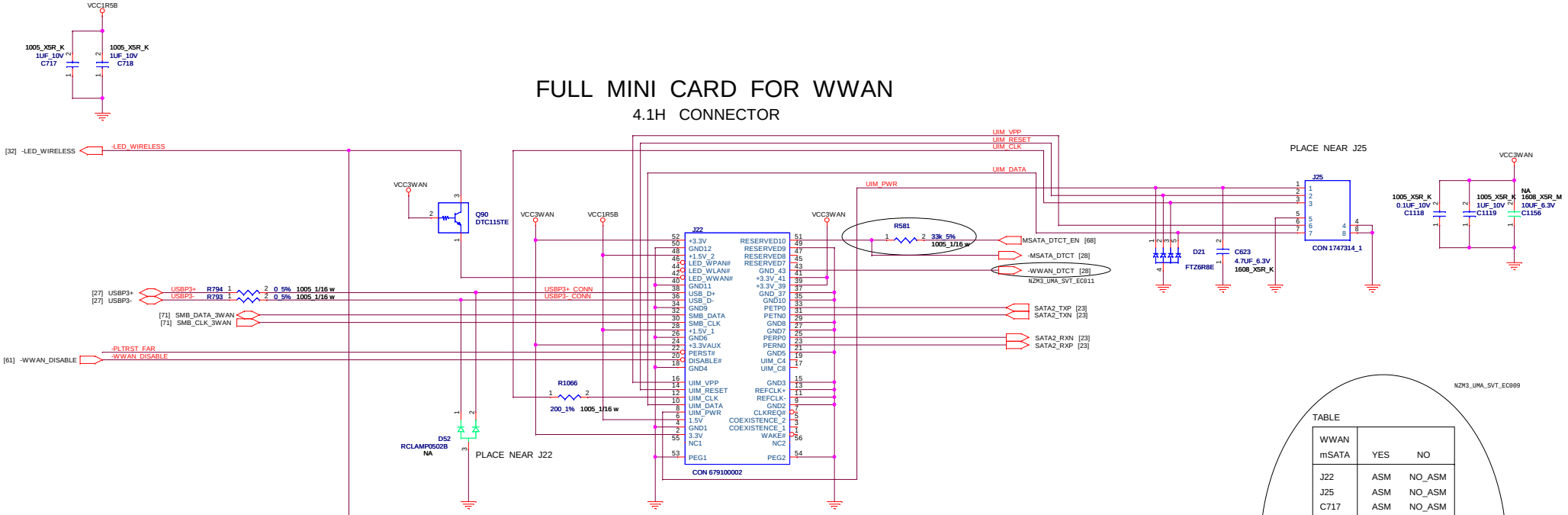


FLEX Computing

Project Name : H430UI1	Title : RJ45 CONNECTOR		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 53 of 99	

FULL MINI CARD FOR WWAN

4.1H CONNECTOR



NZM3_UMA_SVT_EC809

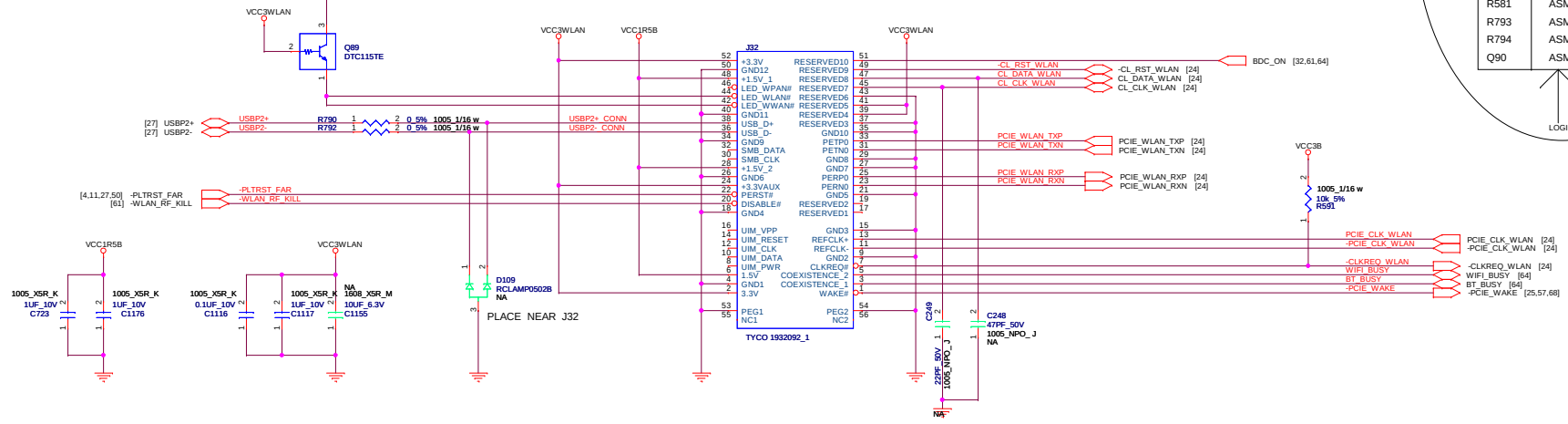
TABLE

WWAN mSATA	YES	NO
J22	ASM	NO_ASM
J25	ASM	NO_ASM
C717	ASM	NO_ASM
C718	ASM	NO_ASM
C1118	ASM	NO_ASM
C1119	ASM	NO_ASM
R1066	ASM	NO_ASM
C623	ASM	NO_ASM
D21	ASM	NO_ASM
R581	ASM	NO_ASM
R793	ASM	NO_ASM
R794	ASM	NO_ASM
Q90	ASM	NO_ASM

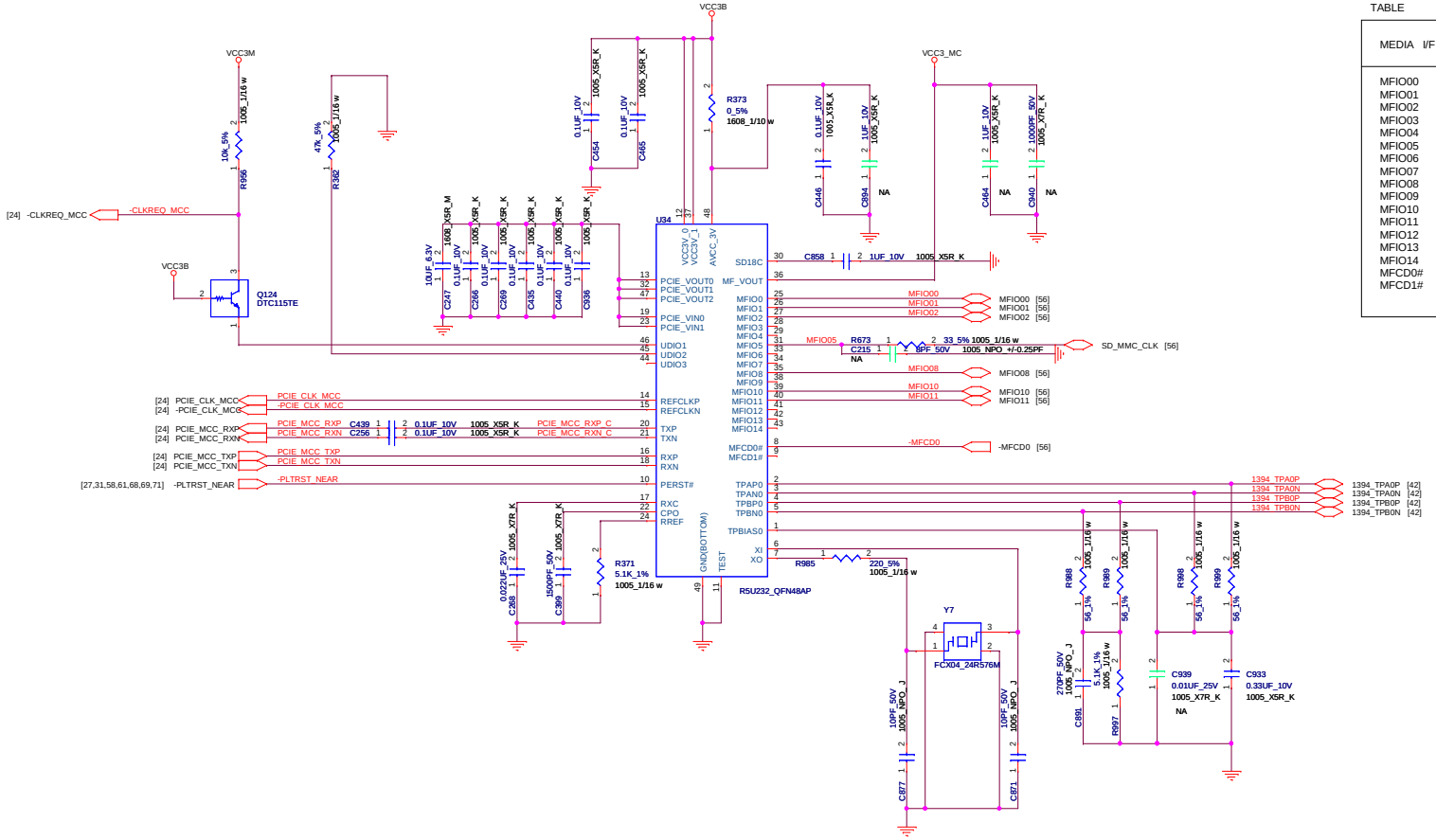
LOGIC

HALF MINI CARD FOR WLAN

7.0H CONNECTOR



FLEXComputing		
Project Name : H430UI1	Title : PCIE MINI CARD SLOT	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 54 of 99	



TABLE

MEDIA I/F	SD/MMC	MEMORSTICK	XD
MFIO00	SDWP#	MSBS	XD_D7
MFIO01	SD_D1		XD_D6
MFIO02	SD_D0	MS_D1	XD_D5
MFIO03	(SD_D7)		XD_D4
MFIO04	(SD_D6)	(MS_D5)	XD_D3
MFIO05	SD_CLK	MS_D0	XD_D2
MFIO06			XD_D1
MFIO07	(SD_D5)	(MS_D4)	XD_D0
MFIO08	SD_CMD	MS_D2	XD_WP#
MFIO09	(SD_D4)	(MS_D6)	XD_WE#
MFIO10	SD_D3	MS_D3	XD_ALE
MFIO11	SD_D2		XD_CLE
MFIO12			XD_CE#
MFIO13		(MS_D7)	XD_RE#
MFIO14		MS_CLK	XD_R/B#
MFCD0#	SDCD#		XDCD0#
MFCD1#		MSINS#	XDCD1#

UDIO Pin Assignment Table

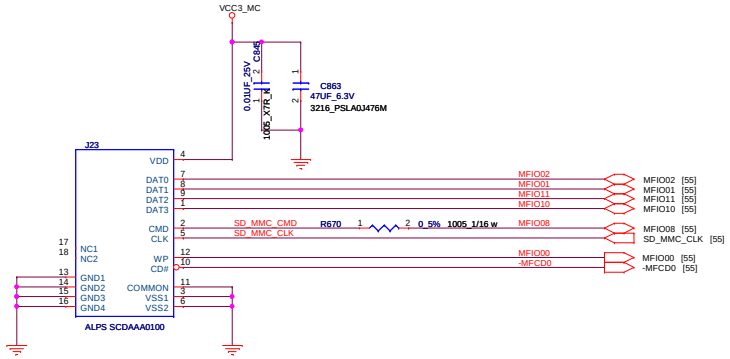
UDIO	Default
01	CLKREQ#
02	SCL/SROM_EN
03	SDA

MFCDxN Detection Table

MFCDxN		Card Type
1	0	
H	H	(No Card)
H	L	SD Card/MMC
L	H	MemoryStick
L	L	XD Card

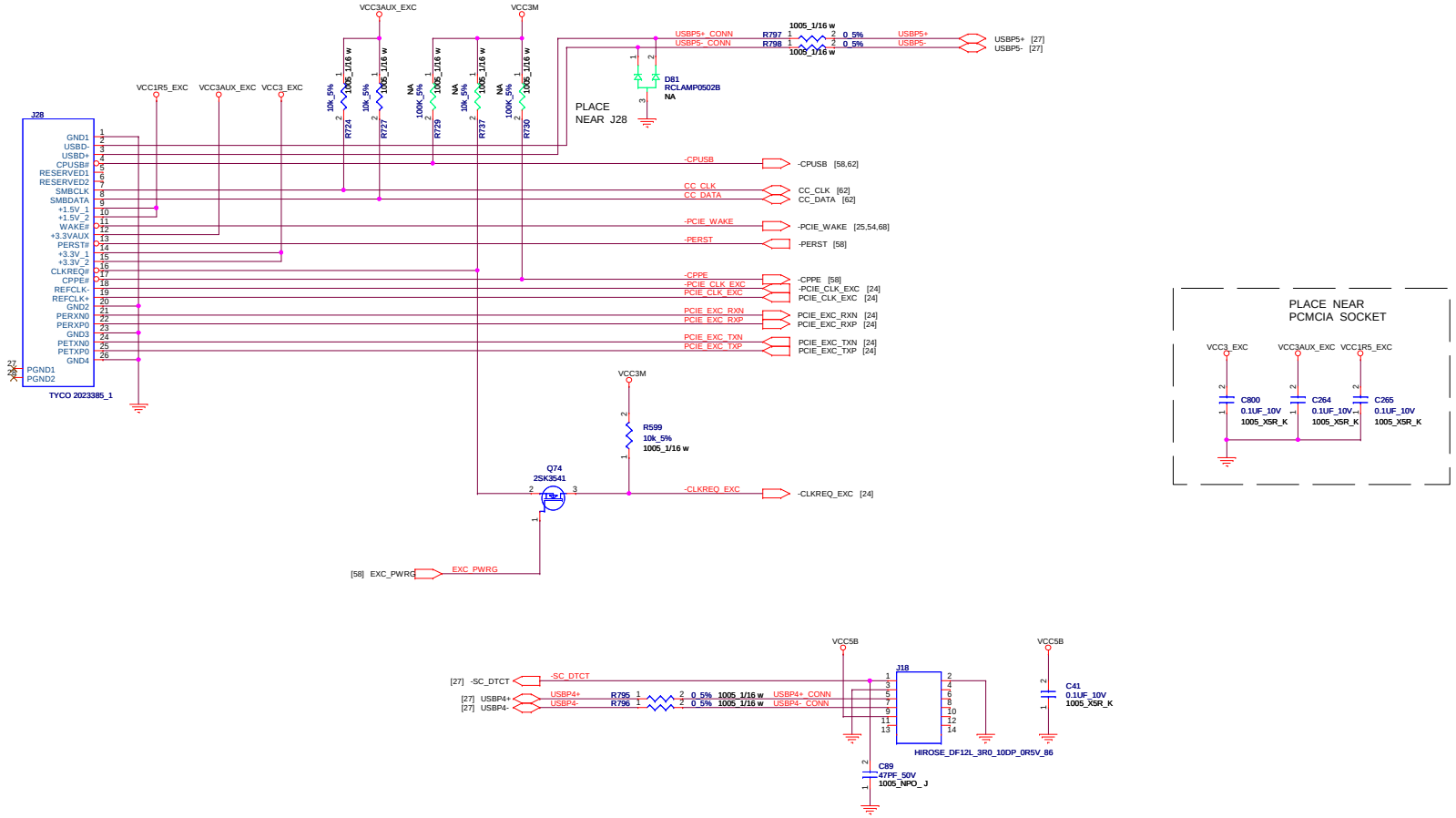
FLEXComputing

Project Name : H430UI1		Title : 1394/MEDIA CARD CONTROLLER	
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 55 of 99	

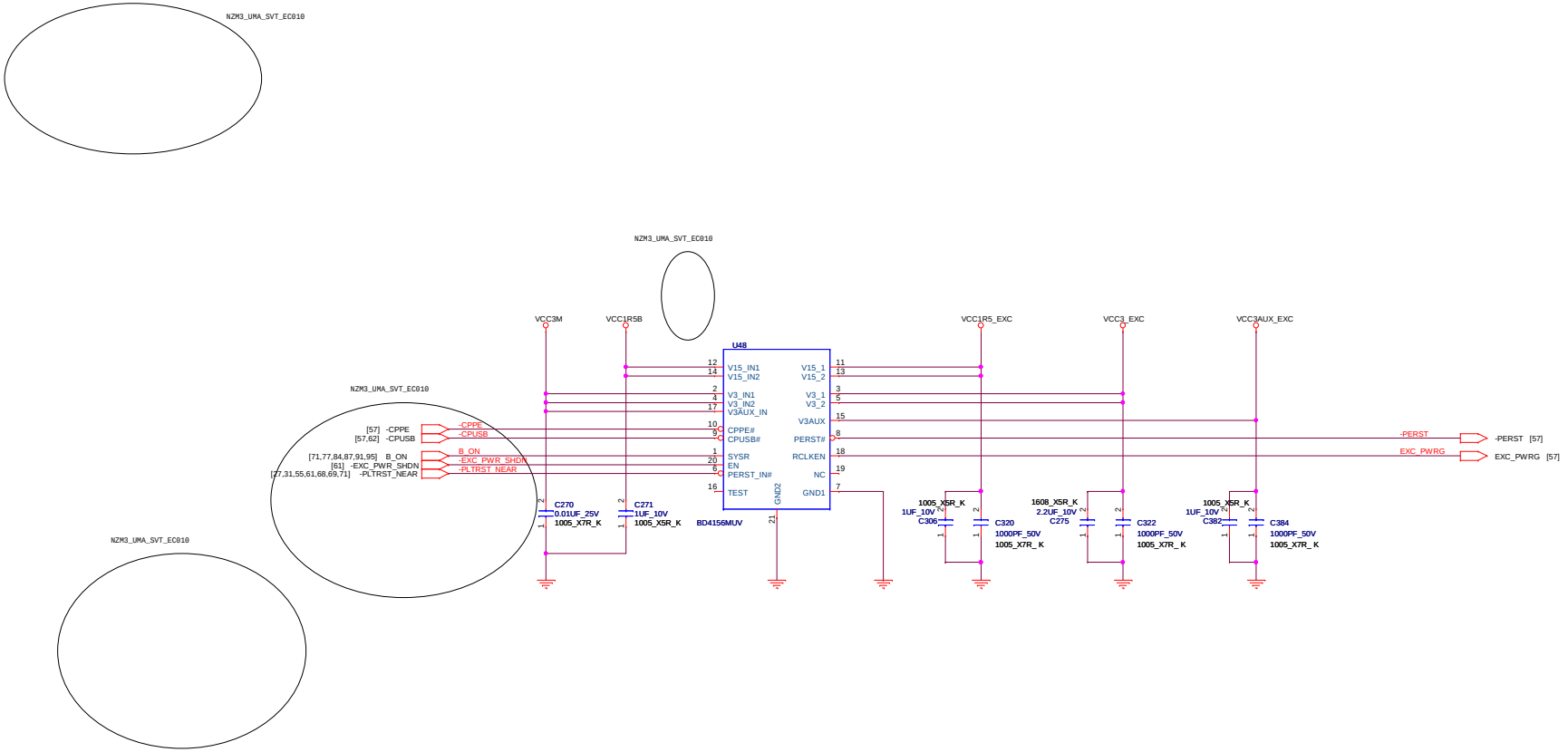


FLEXComputing

Project Name : H430UI1	Title : MEDIA CARD INTERFACE	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 56 of 99	



FLEXComputing			
Project Name : H430UI1	Title : EXPRESS CARD/SMART CARD I/F		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 57 of 99	

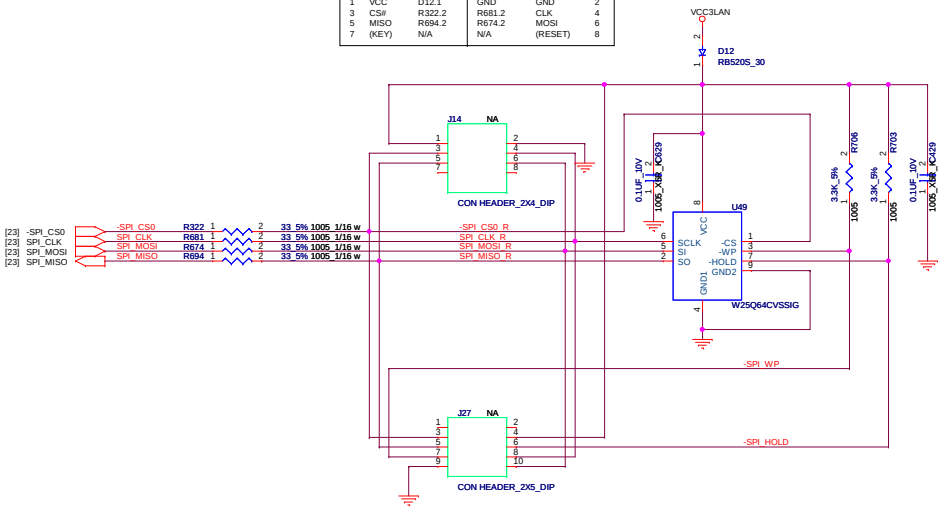


FLEXComputing

Project Name : H430UI1	Title : SLOT POWER CONTROL	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 58 of 99	

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

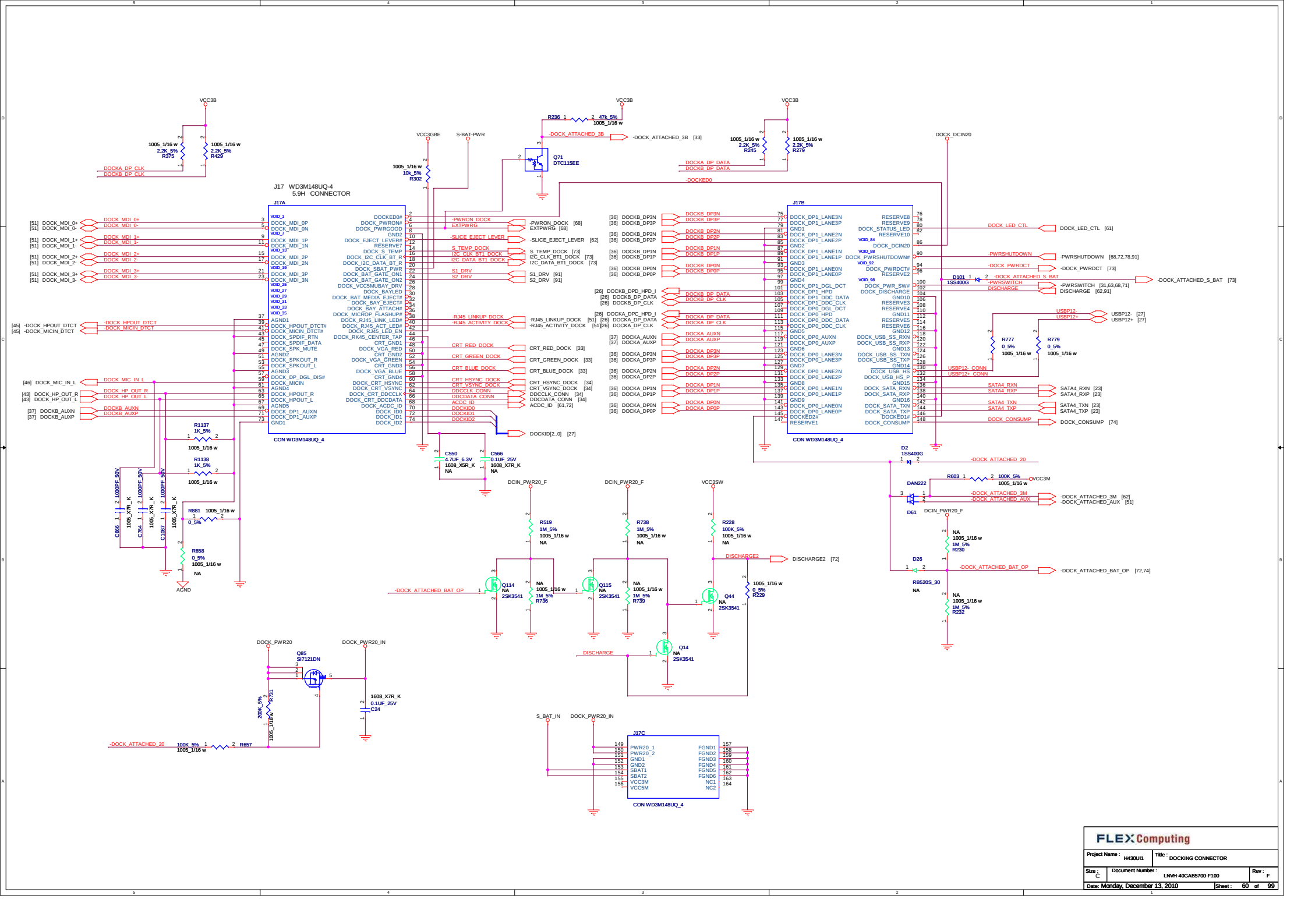
EM100 PIN HEADER INTERFACE (TOP VIEW)			
1	(HOLD1#)	(CS1#)	2
3	CS0#	VCC	4
5	MISO	HOLD0#	6
7	WP0#	CLK	8
9	GND	MOSI	10

8MB SOIC8
MACRONIX MX25L6436EM2I-10G
MACRONIX MX25L6406EM2I-12G
WINBOND W25Q64CVSSIG

8MB WSON8
NUMONYX M25PX64-VMD6TG

FLEXComputing

Project Name : H430UI1	Title : SPI FLASH		
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F	
Date: Monday, December 13, 2010	Sheet : 59 of 99		


J17 WD3M148UQ-4
5.9H CONNECTOR
J17A
J17B
J17C
CON WD3M148UQ_4
VCC3B
VCC3GBE
S-BAT-PWR
DOCK_DCIN20
DOCK_PWR20
DOCK_PWR20_IN
DOCK_PWR20_F
VCC3SW
AGND
DOCKED0
DOCKID[2..0] [27]
-DOCK_ATTACHED_3B
-DOCK_ATTACHED_3B [33]
DOCKA_DP_CLK
DOCKB_DP_CLK
DOCKA_DP_DATA
DOCKB_DP_DATA
-PWRON_DOCK [68]
EXTPWRG [68]
-SLICE_EJECT_LEVER
-SLICE_EJECT_LEVER [62]
S_TEMP_DOCK [73]
I2C_CLK_BT1_DOCK [73]
I2C_DATA_BT1_DOCK [73]
S1_DRV [91]
S2_DRV [91]
-RJ45_LINKUP_DOCK [51]
-RJ45_ACTIVITY_DOCK [51]
CRT_RED_DOCK [33]
CRT_GREEN_DOCK [33]
CRT_BLUE_DOCK [33]
CRT_HSYNC_DOCK [34]
CRT_VSYNC_DOCK [34]
DDCCLK_CONN [34]
DDCDATA_CONN [34]
ACDC_ID [61,72]
DOCK_LED_CTL
DOCK_LED_CTL [61]
-PWRSHUTDOWN
-PWRSHUTDOWN [68,72,78,91]
-DOCK_PWRDCT
-DOCK_PWRDCT [73]
-DOCK_ATTACHED_S_BAT
-DOCK_ATTACHED_S_BAT [73]
-PWRSWITCH
-PWRSWITCH [31,63,68,71]
DISCHARGE
DISCHARGE [62,91]
USBP12-
USBP12+
USBP12- [27]
USBP12+ [27]
USBP12- CONN
USBP12+ CONN
SATA4_RXN
SATA4_RXP
SATA4_TXN
SATA4_TXP
SATA4_RXN [23]
SATA4_RXP [23]
SATA4_TXN [23]
SATA4_TXP [23]
DOCK_CONSUMP
DOCK_CONSUMP [74]
-DOCK_ATTACHED_20
-DOCK_ATTACHED_3M
-DOCK_ATTACHED_3M [62]
-DOCK_ATTACHED_AUX
-DOCK_ATTACHED_AUX [51]
-DOCK_ATTACHED_BAT_OP
-DOCK_ATTACHED_BAT_OP [72,74]
DISCHARGE2
DISCHARGE2 [72]
DISCHARGE
-DOCK_ATTACHED_20
DOCK_MDI 0+
DOCK_MDI 0-
DOCK_MDI 1+
DOCK_MDI 1-
DOCK_MDI 2+
DOCK_MDI 2-
DOCK_MDI 3+
DOCK_MDI 3-
-DOCK_HPOUT_DTCT
-DOCK_MICIN_DTCT
DOCK_MIC_IN_L
DOCK_HP_OUT_R
DOCK_HP_OUT_L
DOCKB_AUXN
DOCKB_AUXP
Q71 DTC115EE
Q85 SI7121DN
Q114 NA 2SK3541
Q115 NA 2SK3541
Q44 NA 2SK3541
Q14 NA 2SK3541
D101 1SS400G
D2 1SS400G
D61 RB520S_30
DAN222
R236 47k 5% 1005_1/16 w
R302 10k 5% 1005_1/16 w
R375 2.2K 5% 1005_1/16 w
R429 2.2K 5% 1005_1/16 w
R245 2.2K 5% 1005_1/16 w
R279 2.2K 5% 1005_1/16 w
R777 0_5% 1005_1/16 w
R779 0_5% 1005_1/16 w
R603 100K 5% 1005_1/16 w
R1137 1K 5% 1005_1/16 w
R1138 1K 5% 1005_1/16 w
R881 0_5% 1005_1/16 w
R858 0_5% 1005_1/16 w NA
R519 1M 5% 1005_1/16 w NA
R738 1M 5% 1005_1/16 w NA
R228 100K 5% 1005_1/16 w NA
R736 NA 1005_1/16 w 1M 5%
R739 NA 1005_1/16 w 1M 5%
R229 1005_1/16 w 0_5%
R230 NA 1005_1/16 w 1M 5%
R232 NA 1005_1/16 w 1M 5%
R731 200K 5% 1005_1/16 w
R657 100K 5% 1005_1/16 w
C550 4.7UF_6.3V 1608_X5R_K NA
C566 0.1UF_25V 1608_X7R_K NA
C666 1000PF_50V 1005_X7R_K
C764 1000PF_50V 1005_X7R_K
C1087 1000PF_50V 1005_X7R_K
C24 0.1UF_25V 1608_X7R_K
FLEX Computing
Project Name : H430UI1
Title : DOCKING CONNECTOR
Size : C
Document Number : LNVH-40GAB5700-F100
Rev : F
Date: Monday, December 13, 2010
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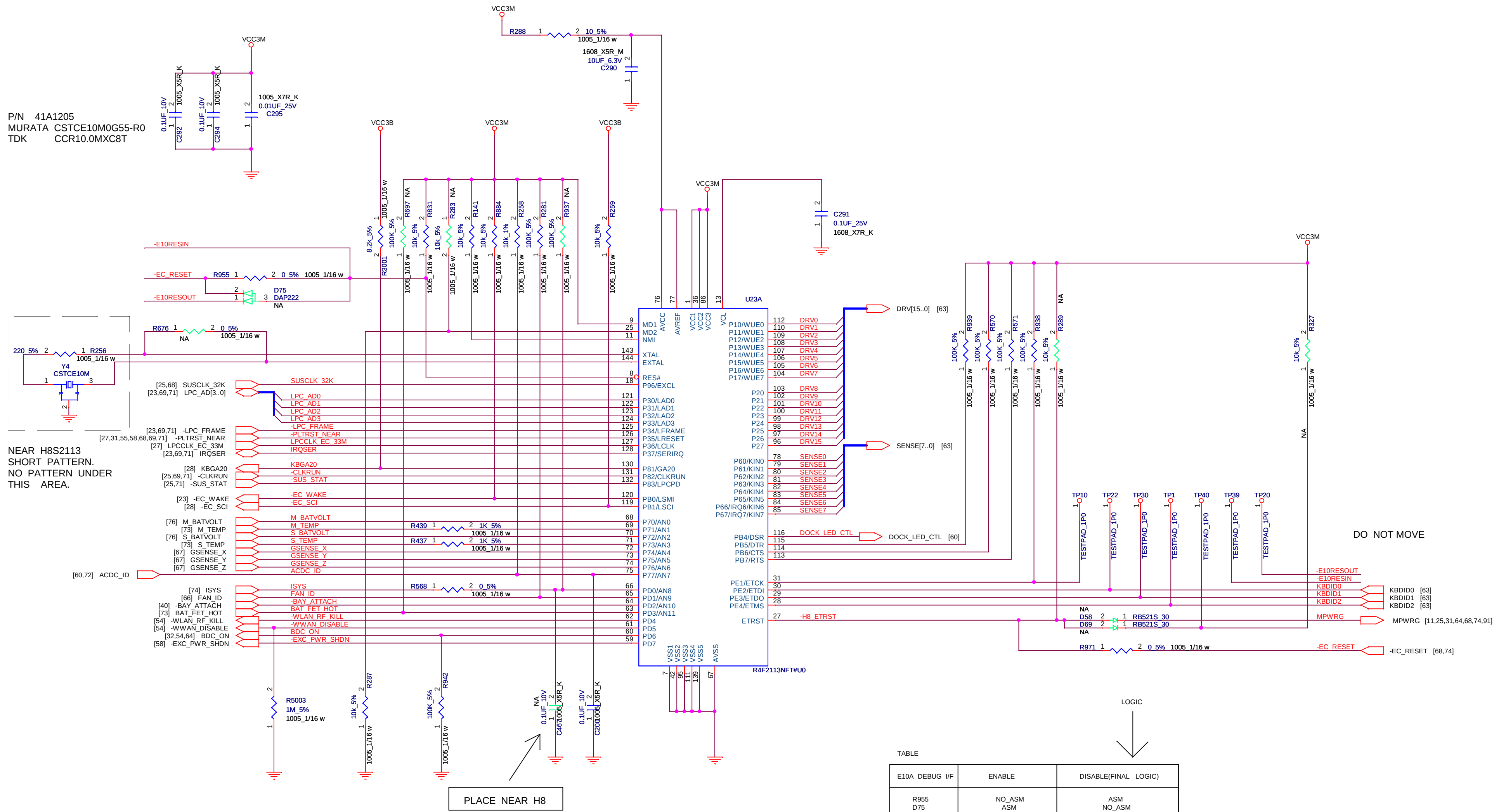


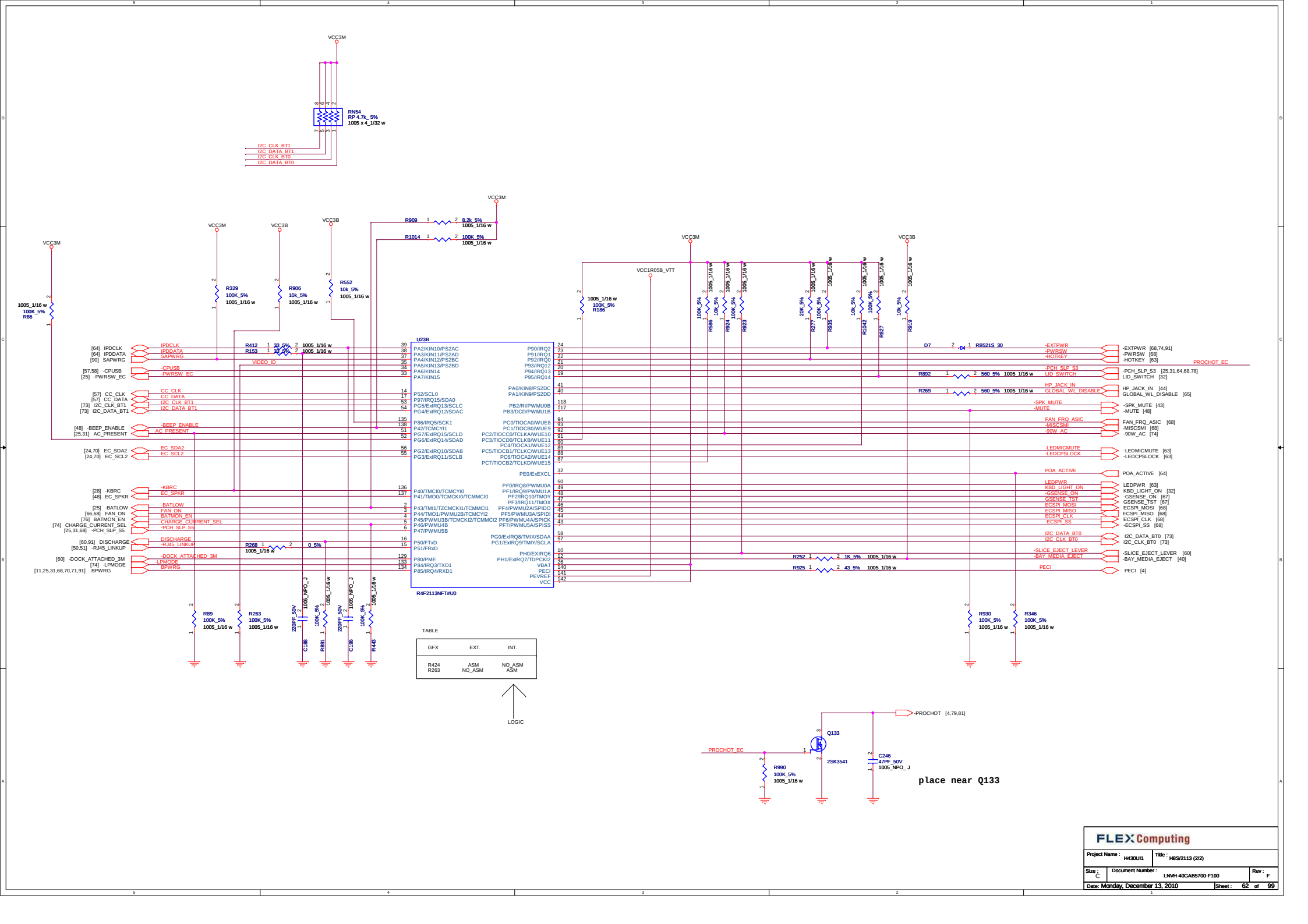
P/N 41A1205
MURATA CSTCE10M0G55-R0
TDK CCR10.0MXC8T
NEAR H8S2113
SHORT PATTERN.
NO PATTERN UNDER
THIS AREA.
VCC3M
VCC3B
Y4 CSTCE10M
R256 220_5% 1005_1/16 w
R676 0_5% NA
R955 0_5% 1005_1/16 w
D75 DAP222 NA
C292 C294 C295 C290 C291
U23A
R4F2113NFT#U0
MD1 MD2 NMI XTAL EXTAL RES# P96/EXCL
P30/LAD0 P31/LAD1 P32/LAD2 P33/LAD3 P34/LFRAME P35/LRESET P36/LCLK P37/SERIRQ
P81/GA20 P82/CLKRUN P83/LPCPD PB0/LSMI PB1/LSCI
P70/AN0 P71/AN1 P72/AN2 P73/AN3 P74/AN4 P75/AN5 P76/AN6 P77/AN7
PD0/AN8 PD1/AN9 PD2/AN10 PD3/AN11 PD4 PD5 PD6 PD7
P10/WUE0 P11/WUE1 P12/WUE2 P13/WUE3 P14/WUE4 P15/WUE5 P16/WUE6 P17/WUE7
P20 P21 P22 P23 P24 P25 P26 P27
P60/KIN0 P61/KIN1 P62/KIN2 P63/KIN3 P64/KIN4 P65/KIN5 P66/IRQ6/KIN6 P67/IRQ7/KIN7
PB4/DSR PB5/DTR PB6/CTS PB7/RTS
PE1/ETCK PE2/ETDI PE3/ETDO PE4/ETMS ETRST
DRV[15..0] [63]
SENSE[7..0] [63]
DOCK_LED_CTL [60]
KBDID0 [63]
KBDID1 [63]
KBDID2 [63]
MPWRG [11,25,31,64,68,74,91]
-EC_RESET [68,74]
TP10 TP22 TP30 TP1 TP40 TP39 TP20
DO NOT MOVE
PLACE NEAR H8
LOGIC

TABLE

E10A DEBUG I/F	ENABLE	DISABLE(FINAL LOGIC)
R955 D75 R831	NO_ASM ASM ASM	ASM NO_ASM ASM
R971 D58 D69 R289 R327	NO_ASM ASM ASM ASM ASM	ASM NO_ASM NO_ASM NO_ASM NO_ASM
R283 R287	ASM NO_ASM	NO_ASM ASM
R881 R218	ASM NO_ASM	NO_ASM ASM
RN25	NO_ASM	ASM

FLEX Computing

Project Name : H430UI1
Title : H8S/2113 (1/2)
Size : C
Document Number : LNVH-40GAB5700-F100
Rev : F
Date: Monday, December 13, 2010


VCC3M
RN54
RP 4.7k_ 5%
1005 x 4_1/32 w
I2C_CLK_BT1
I2C_DATA_BT1
I2C_CLK_BT0
I2C_DATA_BT0
VCC3B
R909
8.2k_5%
1005_1/16 w
R1014
100K_5%
1005_1/16 w
R329
100K_5%
1005_1/16 w
R906
10k_5%
1005_1/16 w
R552
10k_5%
1005_1/16 w
R86
100K_5%
1005_1/16 w
VCC1R05B_VTT
R186
R586
R924
R923
R277
R595
R1042
R827
R819
U23B
R4F2113NFT#U0
[64] IPDCLK
[64] IPDDATA
[90] SAPWRG
VIDEO_ID
[57,58] -CPUSB
[25] -PWRSW_EC
[57] CC_CLK
[57] CC_DATA
[73] I2C_CLK_BT1
[73] I2C_DATA_BT1
[48] -BEEP_ENABLE
[25,31] AC_PRESENT
[24,70] EC_SDA2
[24,70] EC_SCL2
[28] -KBRC
[48] EC_SPKR
[25] -BATLOW
[66,68] FAN_ON
[76] BATMON_EN
[74] CHARGE_CURRENT_SEL
[25,31,68] -PCH_SLP_S5
[60,91] DISCHARGE
[50,51] -RJ45_LINKUP
[60] -DOCK_ATTACHED_3M
[74] -LPMODE
[11,25,31,68,70,71,91] BPWRG
R412
R153
33_5%
R268
0_5%
R89
100K_5%
1005_1/16 w
R263
100K_5%
1005_1/16 w
220PF_50V
1005_NPO_J
C188
100K_5%
R891
C186
R443
TABLE
GFX
EXT.
INT.
R424
R263
ASM
NO_ASM
NO_ASM
ASM
LOGIC
D7
RB521S_30
R892
560_5%
R269
560_5%
R930
R346
R252
1K_5%
R925
43_5%
-EXTPWR [68,74,91]
-PWRSW [68]
-HOTKEY [63]
PROCHOT_EC
-PCH_SLP_S3 [25,31,64,68,78]
LID_SWITCH [32]
HP_JACK_IN [44]
GLOBAL_WL_DISABLE [65]
-SPK_MUTE [43]
-MUTE [48]
FAN_FRQ_ASIC [68]
-MISCSMI [68]
-90W_AC [74]
-LEDMICMUTE [63]
-LEDCPSLOCK [63]
POA_ACTIVE [64]
LEDPWR [63]
KBD_LIGHT_ON [32]
-GSENSE_ON [67]
GSENSE_TST [67]
ECSPI_MOSI [68]
ECSPI_MISO [68]
ECSPI_CLK [68]
-ECSPI_SS [68]
I2C_DATA_BT0 [73]
I2C_CLK_BT0 [73]
-SLICE_EJECT_LEVER [60]
-BAY_MEDIA_EJECT [40]
PECI [4]
-PROCHOT [4,79,81]
Q133
2SK3541
R990
100K_5%
1005_1/16 w
C246
47PF_50V
1005_NPO_J
place near Q133
FLEXComputing
Project Name : H430UI1
Title : HBS/2113 (2/2)
Size : C
Document Number : LNVH-40GAB5700-F100
Rev : F
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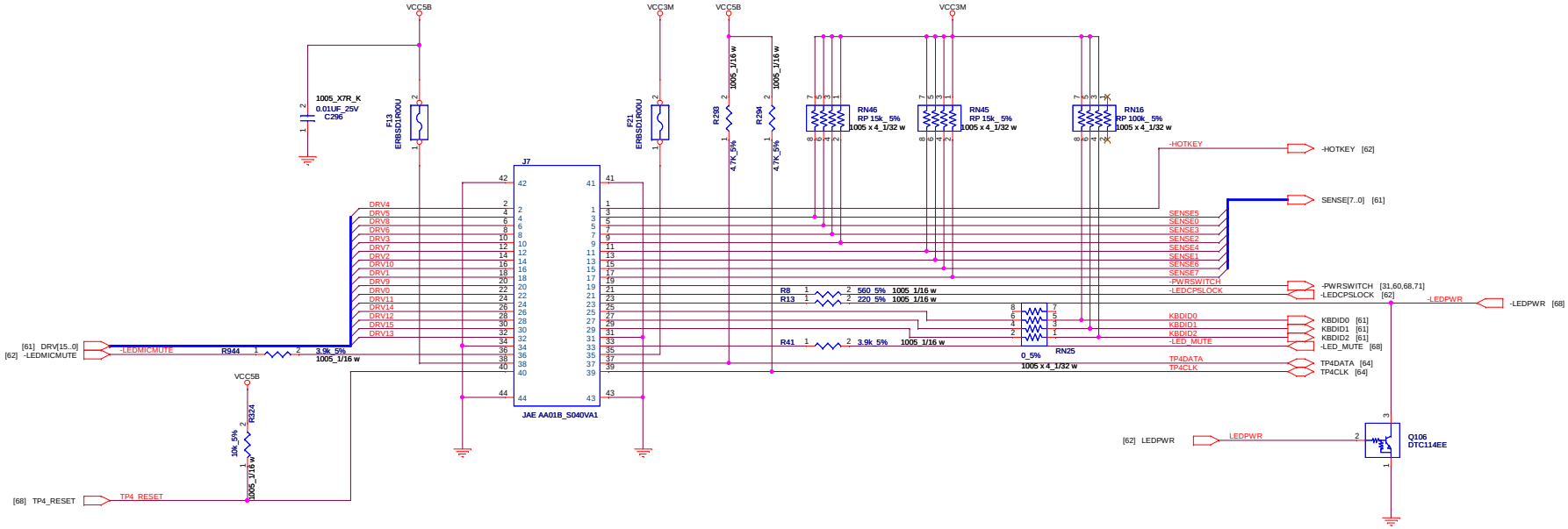
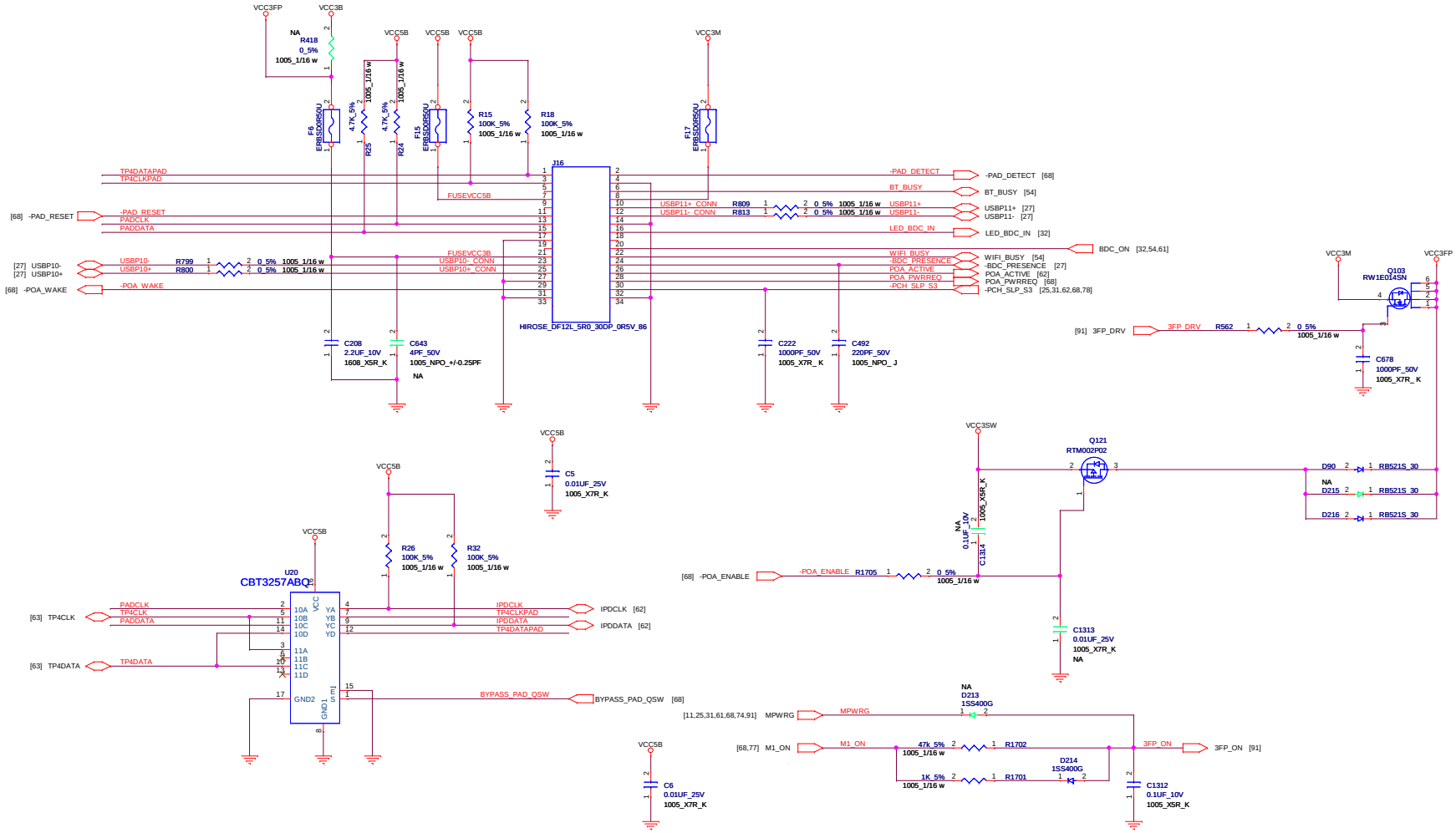


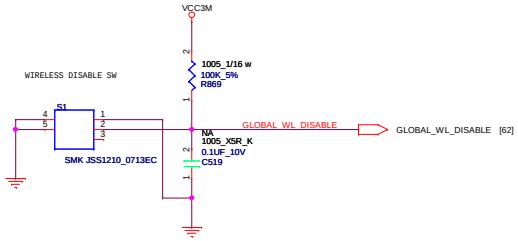
FLEXComputing

Project Name : H430UI1	Title : KEYBOARD CONNECTOR		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 63 of 99	



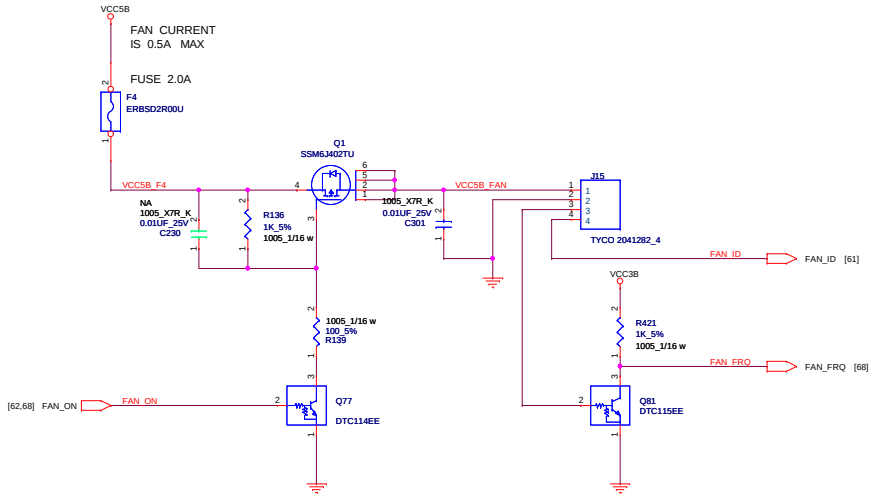
FLEXComputing

Project Name : H430UI1	Title : TOUCH PAD CONNECTOR		
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F	
Date: Monday, December 13, 2010	Sheet : 64 of 99		



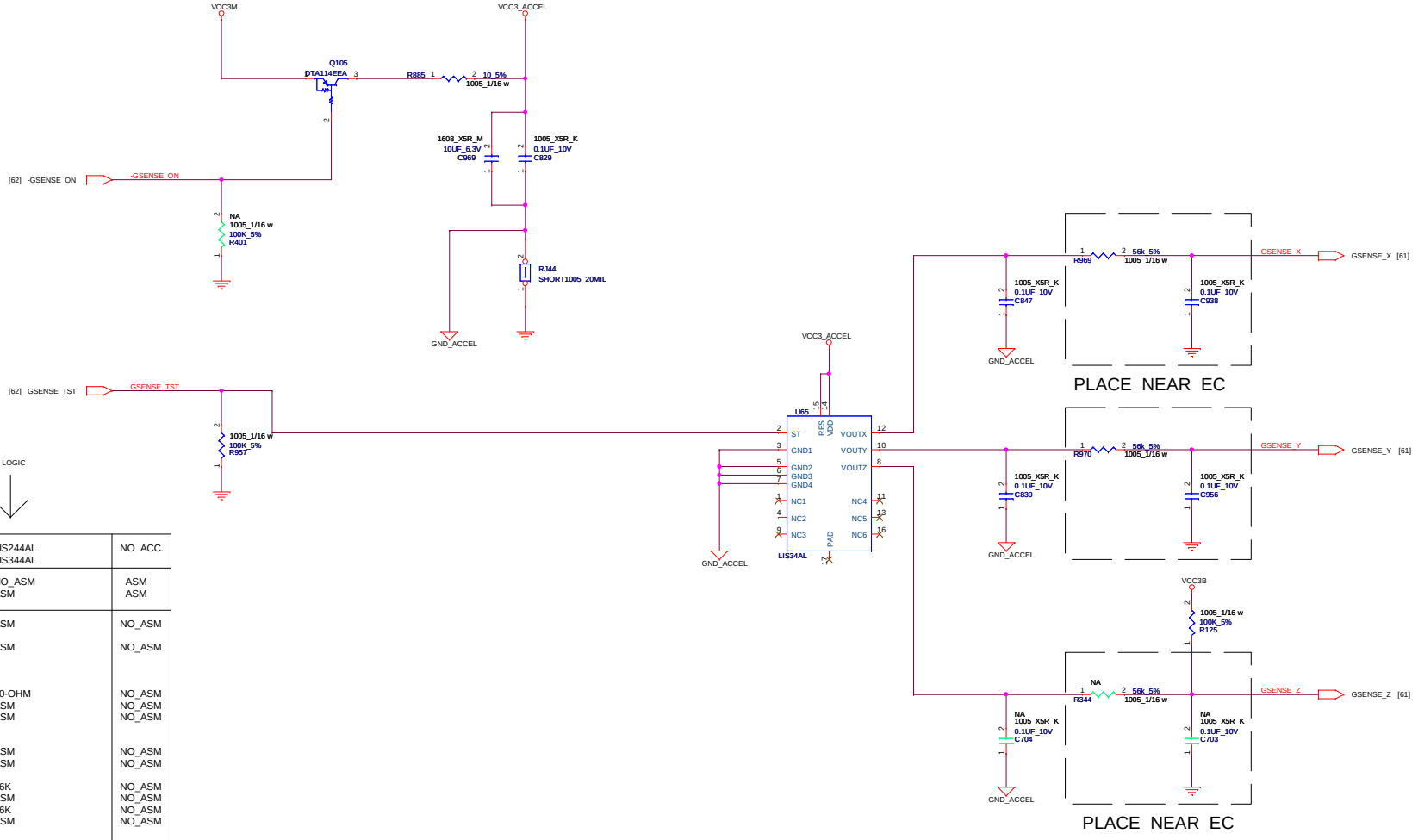
FLEX Computing

Project Name : H430UI1	Title : WIRELESS DISABLE SW		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 65 of 99	



FLEX Computing

Project Name : H430UI1	Title : FAN CONNECTOR		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 66 of 99	

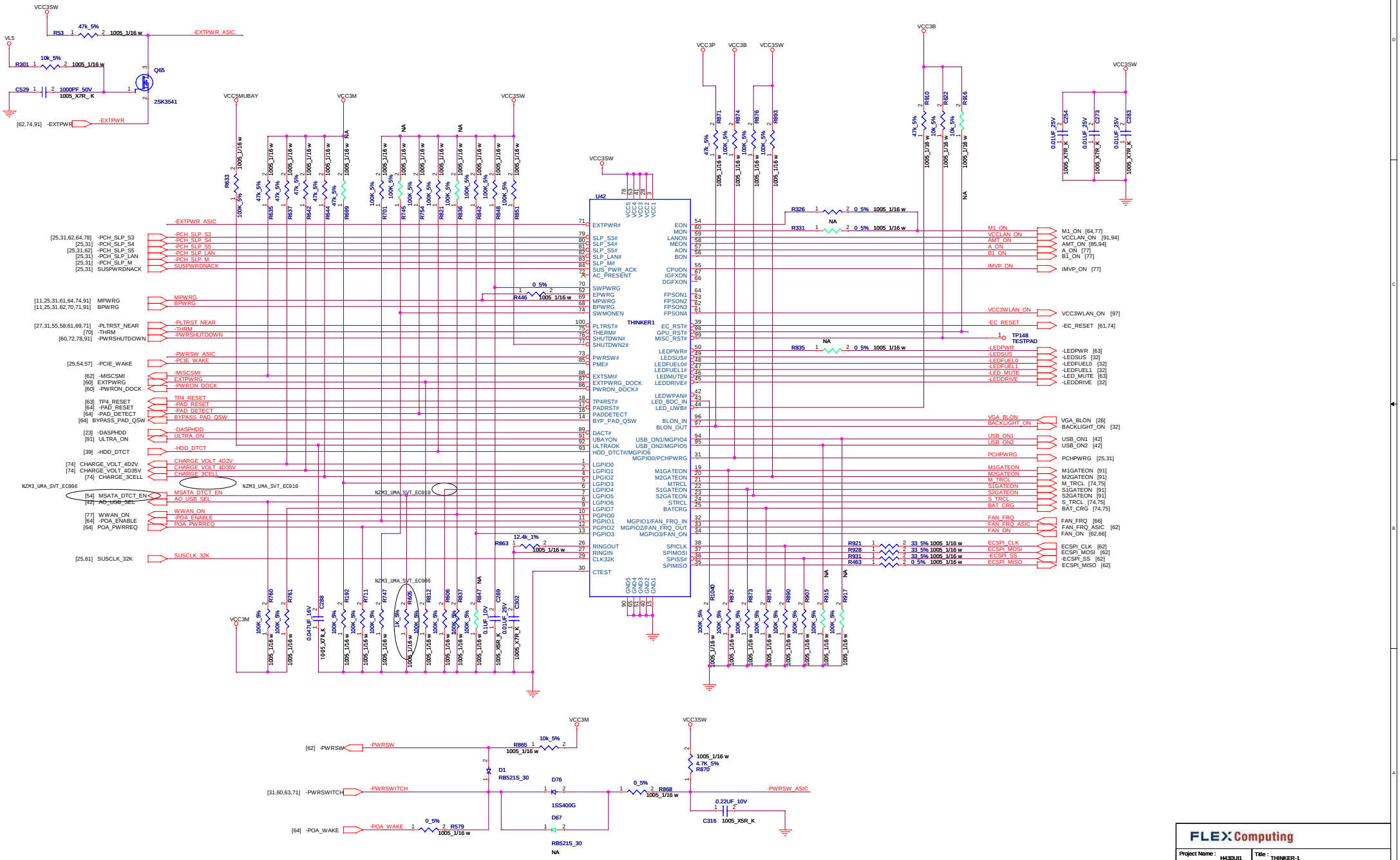


TABLE

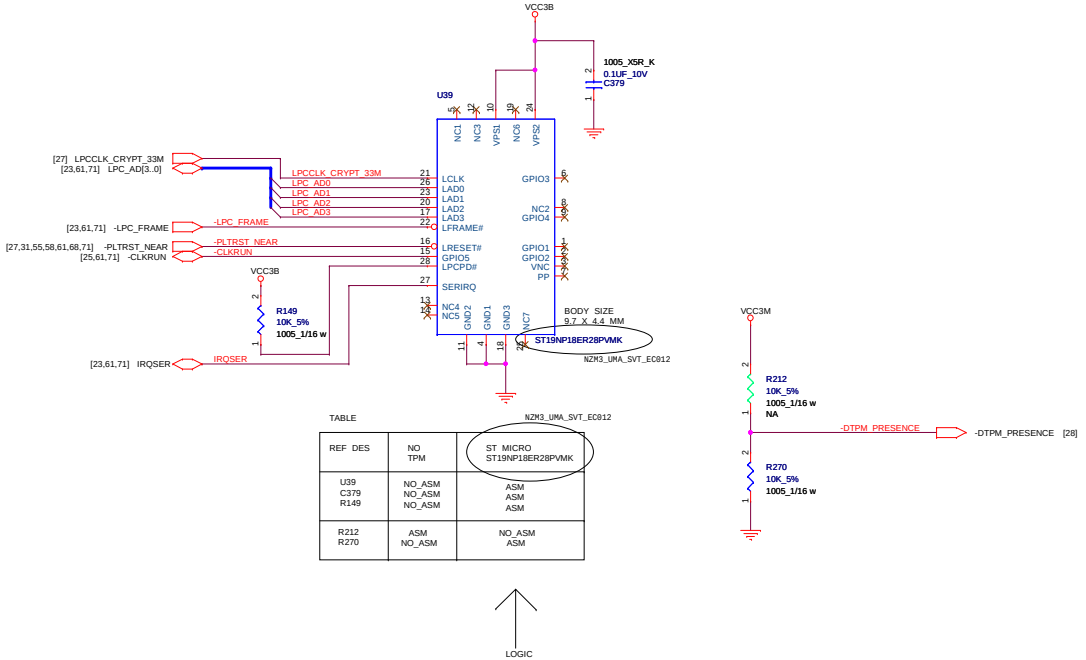
	LIS244AL LIS344AL	NO ACC.
R401 R957	NO_ASM ASM	ASM ASM
U65	ASM	NO_ASM
Q105	ASM	NO_ASM
R885 C829 C969	10-OHM ASM ASM	NO_ASM NO_ASM NO_ASM
C830 C847	ASM ASM	NO_ASM NO_ASM
R969 C938 R970 C956	56K ASM 56K ASM	NO_ASM NO_ASM NO_ASM NO_ASM
C704 R344 C703	NO_ASM NO_ASM NO_ASM	NO_ASM NO_ASM NO_ASM
R125	ASM	ASM

FLEXComputing

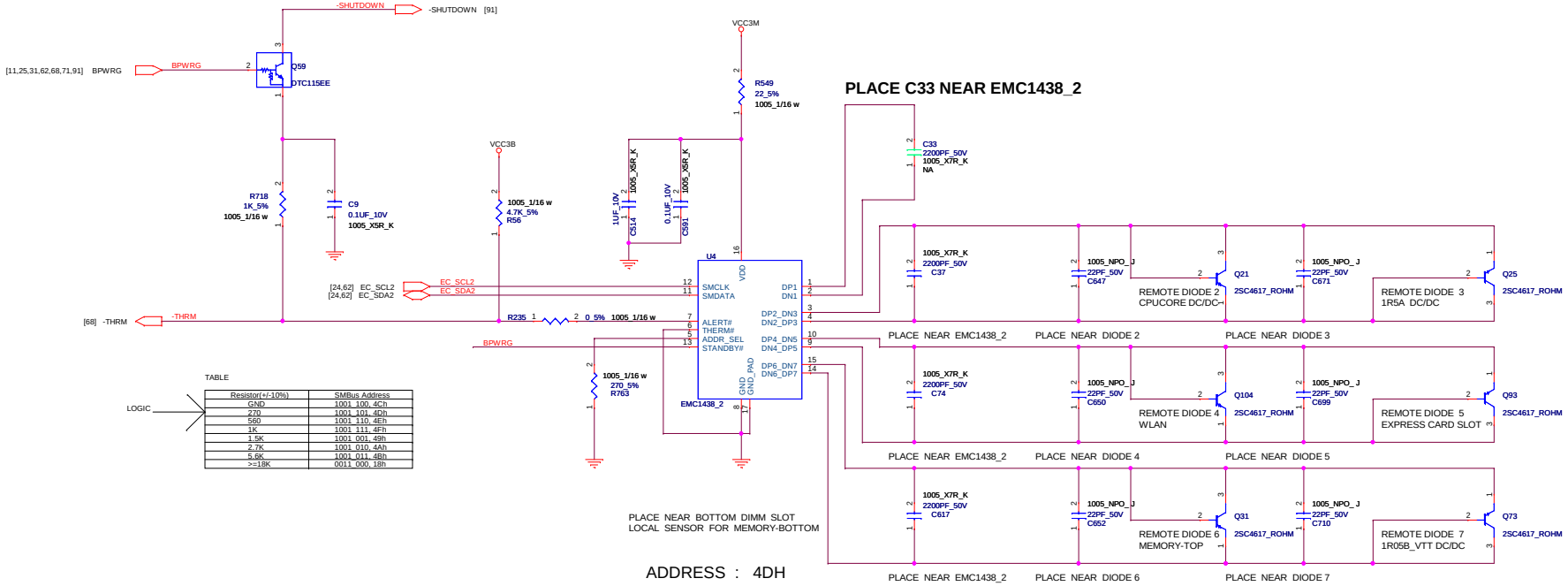
Project Name : H430UI1	Title : G-SENSOR	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 67 of 99	



Project Name : H430UI1	Title : THINKER-1
Size : C	Document Number : LNVH-40GAB5700-F100
Rev : F	
Date: Monday, December 13, 2010	Sheet : 68 of 99



FLEXComputing	
Project Name : H430UI1	Title : TPM
Size : C	Document Number : LNVH-40GAB5700-F100 / Rev : F
Date: Monday, December 13, 2010	Sheet : 69 of 99



FLEXComputing

Project Name : H430UI1	Title : THERMAL SENSOR		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 70 of 99	

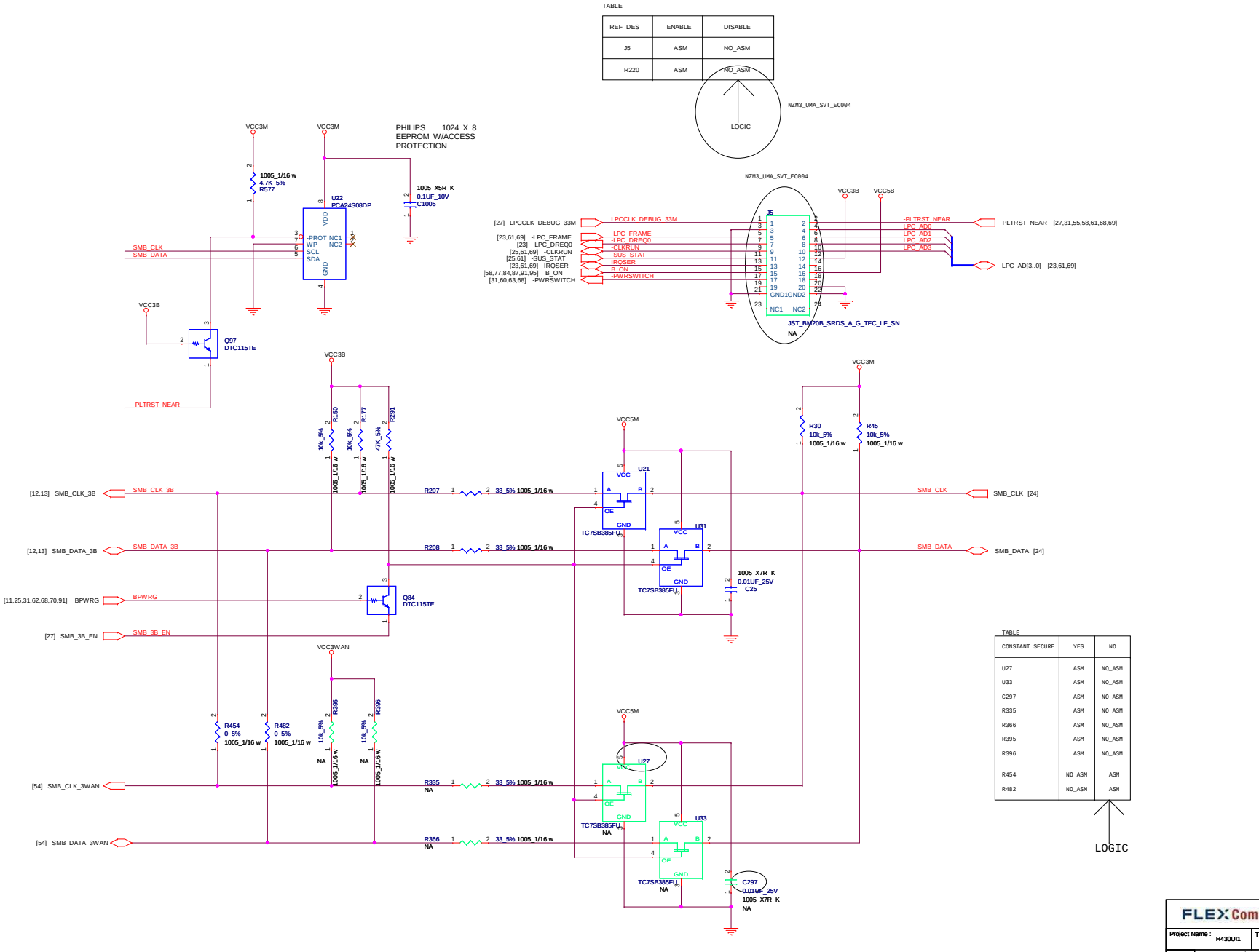


TABLE
REF DES | ENABLE | DISABLE
J5 | ASM | NO_ASM
R220 | ASM | NO_ASM
NZM3_UMA_SVT_EC004
LOGIC
PHILIPS 1024 X 8 EEPROM W/ACCESS PROTECTION
VCC3M
VCC3M
1005_1/16 w 4.7K_5% RS77
U22 PCA24S08DP
1005_X5R_K 0.1UF_10V C1005
SMB_CLK
SMB_DATA
VCC3B
Q97 DTC115TE
-PLTRST_NEAR
NZM3_UMA_SVT_EC004
VCC3B
VCC5B
[27] LPCCLK_DEBUG_33M
[23,61,69] -LPC_FRAME
[23] -LPC_DREQ0
[25,61,69] -CLKRUN
[25,61] -SUS_STAT
[23,61,69] IRQSER
[58,77,84,87,91,95] B_ON
[31,60,63,68] -PWRSWITCH
J5
JST_BM20B_SRDS_A_G_TFC_LF_SN
NA
-PLTRST_NEAR [27,31,55,58,61,68,69]
LPC_AD0
LPC_AD1
LPC_AD2
LPC_AD3
LPC_AD[3..0] [23,61,69]
VCC3M
R30 10k_5% 1005_1/16 w
R45 10k_5% 1005_1/16 w
VCC3B
R150 10k_5% 1005_1/16 w
R177 10k_5% 1005_1/16 w
R391 47K_5% 1005_1/16 w
VCC5M
U21 TC7SB385FU
U31 TC7SB385FU
1005_X7R_K 0.01UF_25V C25
[12,13] SMB_CLK_3B
[12,13] SMB_DATA_3B
[11,25,31,62,68,70,91] BPWRG
[27] SMB_3B_EN
R207 33_5% 1005_1/16 w
R208 33_5% 1005_1/16 w
Q84 DTC115TE
SMB_CLK
SMB_DATA
SMB_CLK [24]
SMB_DATA [24]
VCC3WAN
R454 0_5% 1005_1/16 w
R482 0_5% 1005_1/16 w
R395 10k_5% 1005_1/16 w NA
R396 10k_5% 1005_1/16 w NA
[54] SMB_CLK_3WAN
[54] SMB_DATA_3WAN
R335 33_5% 1005_1/16 w NA
R366 33_5% 1005_1/16 w NA
VCC5M
U27 TC7SB385FU NA
U33 TC7SB385FU NA
C297 0.01UF_25V 1005_X7R_K NA
TABLE
CONSTANT SECURE | YES | NO
U27 | ASM | NO_ASM
U33 | ASM | NO_ASM
C297 | ASM | NO_ASM
R335 | ASM | NO_ASM
R366 | ASM | NO_ASM
R395 | ASM | NO_ASM
R396 | ASM | NO_ASM
R454 | NO_ASM | ASM
R482 | NO_ASM | ASM
LOGIC
FLEXComputing
Project Name : H430UI1
Title : EEPROM/SMBUS SW
Size : C
Document Number : LNVH-40GAB5700-F100
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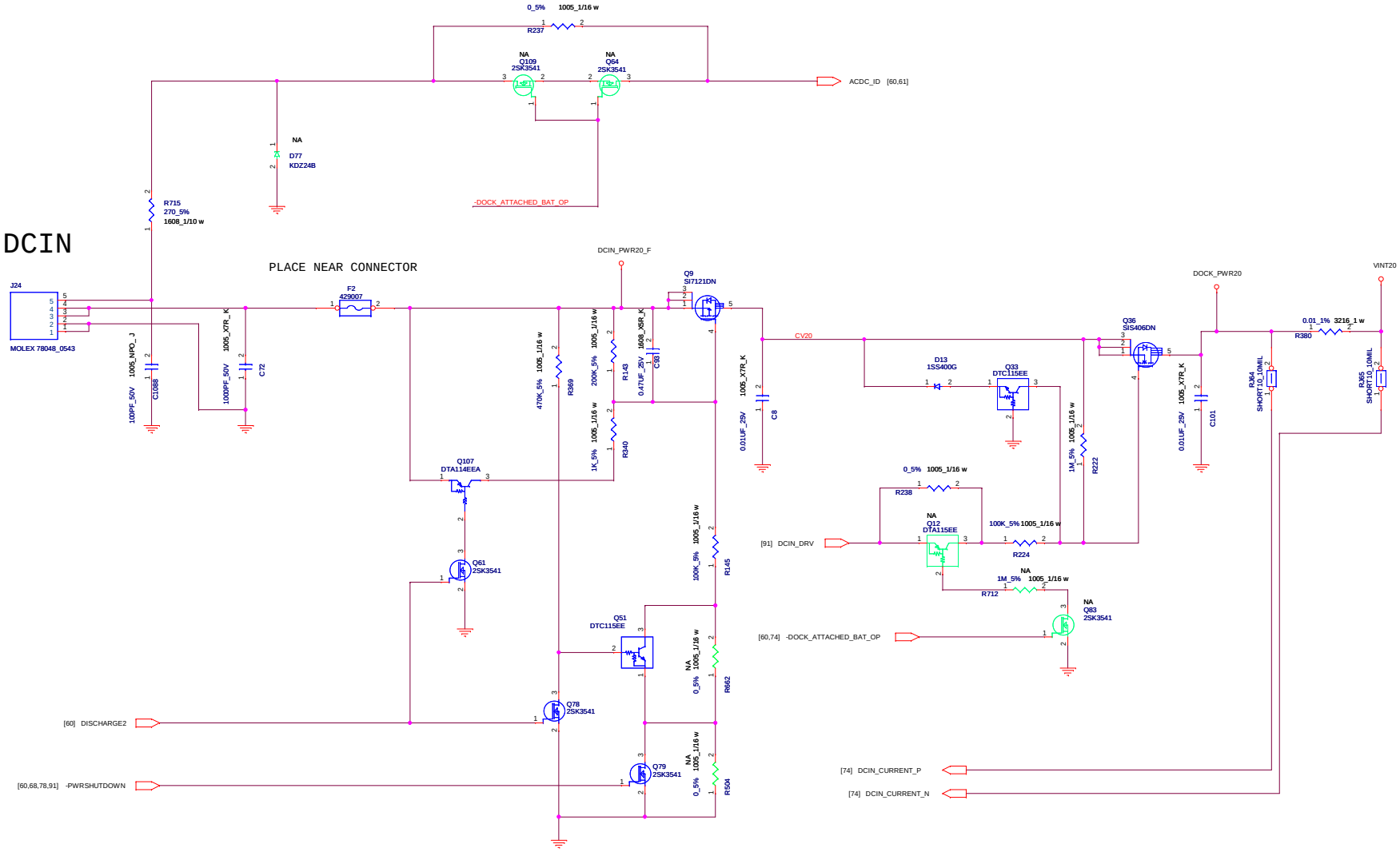
DCIN



TABLE

PEAK SHIFT	YES	NO
R662	NO-ASM	ASM
R369	ASM	NO-ASM
Q78	ASM	NO-ASM
Q51	ASM	NO-ASM

LOGIC

FLEXComputing

Project Name : H430UI1	Title : DC-IN	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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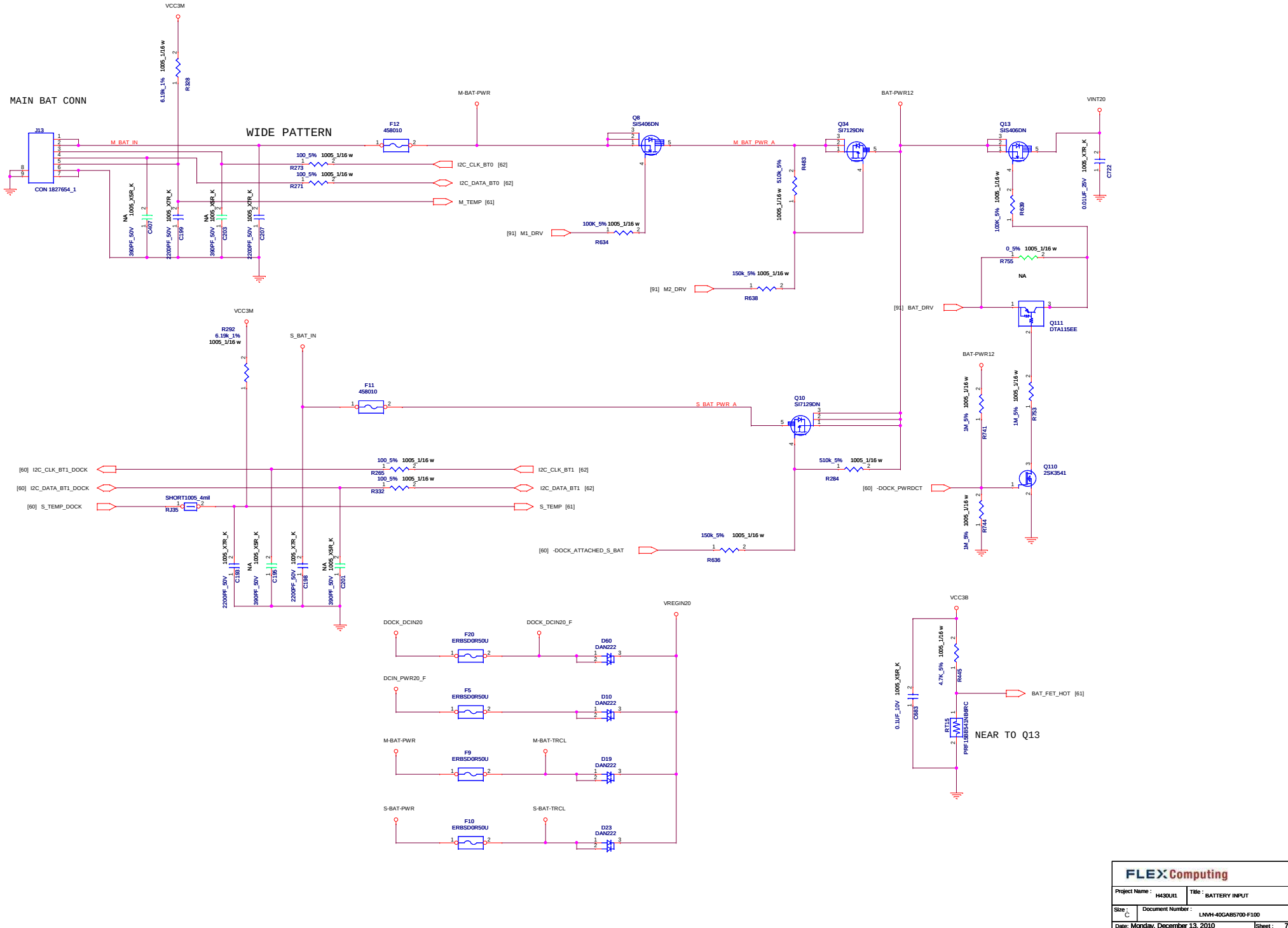
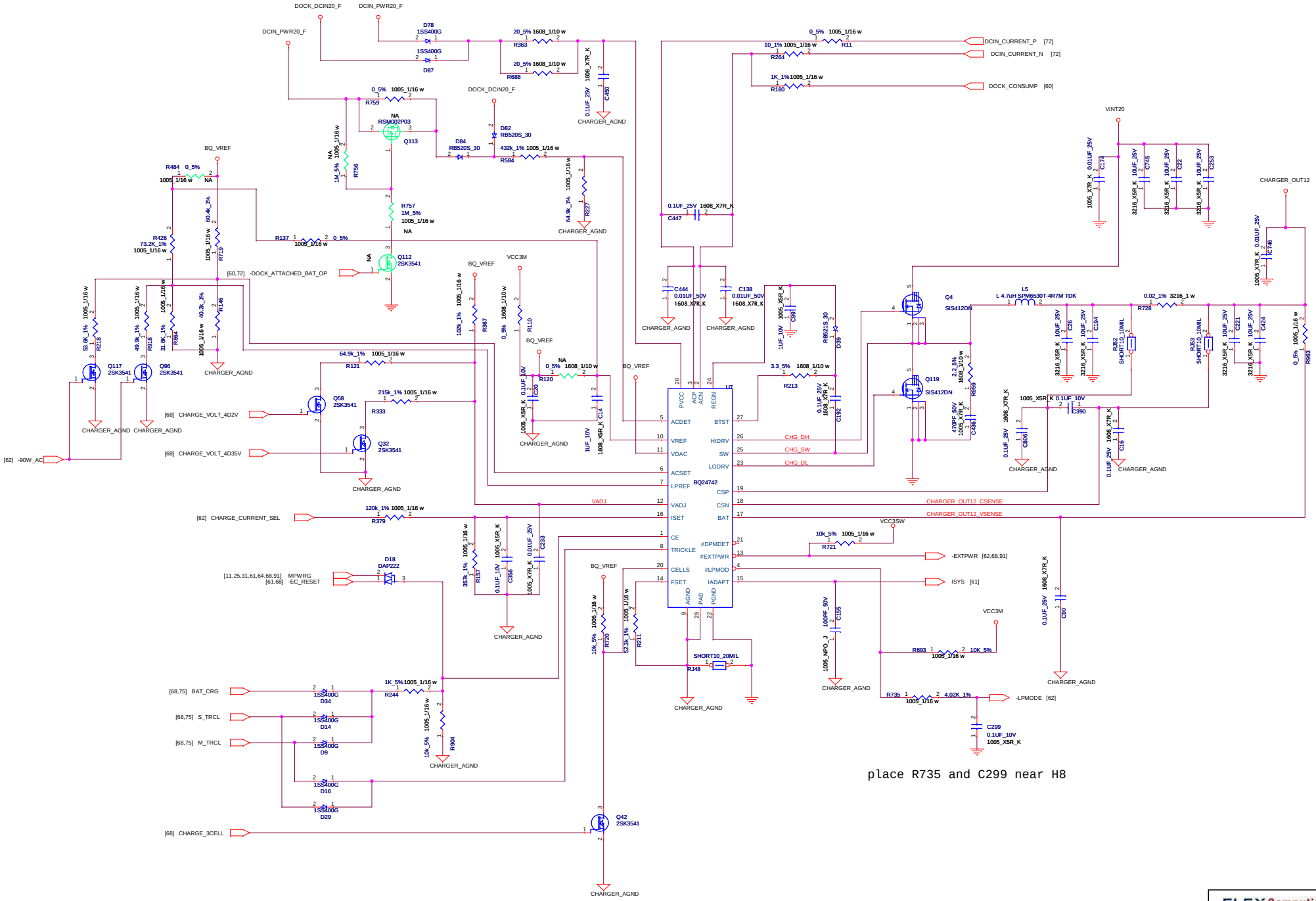


FLEXComputing

Project Name : H430UI1	Title : BATTERY INPUT		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 73 of 99	


DOCK_DCIN20_F
DCIN_PWR20_F
D78 1SS400G
D87 1SS400G
R363 20_5% 1608_1/10 w
R688 20_5% 1608_1/10 w
C450 0.1UF_25V 1608_X7R_K
CHARGER_AGND
R759 0_5% 1005_1/16 w
Q113 NA RSM002P03
D82 RB520S_30
D84 RB520S_30
R584 432k_1% 1005_1/16 w
R756 1M_5% 1005_1/16 w NA
R757 1M_5% 1005_1/16 w NA
R227 64.9k_1% 1005_1/16 w
BQ_VREF
R484 0_5% 1005_1/16 w NA
R426 73.2K_1% 1005_1/16 w
R719 60.4k_1% 1005_1/16 w
R137 1005_1/16 w 0_5%
Q112 NA 2SK3541
[60,72] -DOCK_ATTACHED_BAT_OP
VCC3M
R367 102k_1% 1005_1/16 w
R110 0_5% 1608_1/10 w
R120 NA 0_5% 1608_1/10 w
C20 0.1UF_10V 1005_X5R_K
C14 1UF_10V 1608_X5R_K
R121 64.9k_1% 1005_1/16 w
R333 215k_1% 1005_1/16 w
Q58 2SK3541
Q32 2SK3541
R218 53.6K_1% 1005_1/16 w
R918 49.9k_1% 1005_1/16 w
R864 31.6K_1% 1005_1/16 w
R146 40.2k_1% 1005_1/16 w
Q117 2SK3541
Q96 2SK3541
[62] -90W_AC
[68] CHARGE_VOLT_4D2V
[68] CHARGE_VOLT_4D35V
[62] CHARGE_CURRENT_SEL
R379 120k_1% 1005_1/16 w
[11,25,31,61,64,68,91] MPWRG
[61,68] -EC_RESET
D18 DAP222
R157 357k_1% 1005_1/16 w
C566 0.1UF_10V 1005_X5R_K
C233 0.01UF_25V 1005_X7R_K
R720 10k_5% 1005_1/16 w
R211 523k_1% 1005_1/16 w
R244 1K_5% 1005_1/16 w
R904 10k_5% 1005_1/16 w
D34 1SS400G
D14 1SS400G
D9 1SS400G
D16 1SS400G
D29 1SS400G
[68,75] BAT_CRG
[68,75] S_TRCL
[68,75] M_TRCL
[68] CHARGE_3CELL
Q42 2SK3541
U7 BQ24742
PVCC ACP ACN REGN
ACDET BTST
VREF HIDRV
VDAC SW
ACSET LODRV
LPREF CSP
VADJ CSN
ISET BAT
CE #DPMDET
TRICKLE #EXTPWR
CELLS #LPMOD
FSET IADAPT
AGND PAD PGND
CHG_DH
CHG_SW
CHG_DL
CHARGER_OUT12_CSENSE
CHARGER_OUT12_VSENSE
R11 0_5% 1005_1/16 w
R264 10_1% 1005_1/16 w
R180 1K_1% 1005_1/16 w
DCIN_CURRENT_P [72]
DCIN_CURRENT_N [72]
DOCK_CONSUMP [60]
C447 0.1UF_25V 1608_X7R_K
C444 0.01UF_50V 1608_X7R_K
C138 0.01UF_50V 1608_X7R_K
C69 1UF_10V 1005_X5R_K
D39 RB215S_30
R213 3.3_5% 1608_1/10 w
C192 0.1UF_25V 1608_X7R_K
Q4 SIS412DN
Q119 SIS412DN
R869 2.2_5% 1608_1/10 w
C461 470PF_50V 1005_X7R_K
L5 L 4.7uH SPM6530T-4R7M TDK
R728 0.02_1% 3216_1 w
R252 SHORT10_10MIL
R253 SHORT10_10MIL
C390 0.1UF_10V 1005_X5R_K
C8068 0.1UF_25V 1608_X7R_K
C16 0.1UF_25V 1608_X7R_K
C26 10UF_25V 3216_X5R_K
C194 10UF_25V 3216_X5R_K
C221 10UF_25V 3216_X5R_K
C424 10UF_25V 3216_X5R_K
C172 0.01UF_25V 1005_X7R_K
C745 10UF_25V 3216_X5R_K
C22 10UF_25V 3216_X5R_K
C253 10UF_25V 3216_X5R_K
C746 0.01UF_25V 1005_X7R_K
R963 0_5% 1005_1/16 w
CHARGER_OUT12
VINT20
VCC3SW
R721 10k_5% 1005_1/16 w
-EXTPWR [62,68,91]
ISYS [61]
R693 10K_5% 1005_1/16 w
R735 4.02K_1% 1005_1/16 w
-LPMODE [62]
C155 100PF_50V 1005_NPO_J
C590 0.1UF_25V 1608_X7R_K
C299 0.1UF_10V 1005_X5R_K
R748 SHORT10_20MIL
place R735 and C299 near H8
FLEX Computing
Project Name : H430UI1
Title : BATTERY CHARGER
Size :
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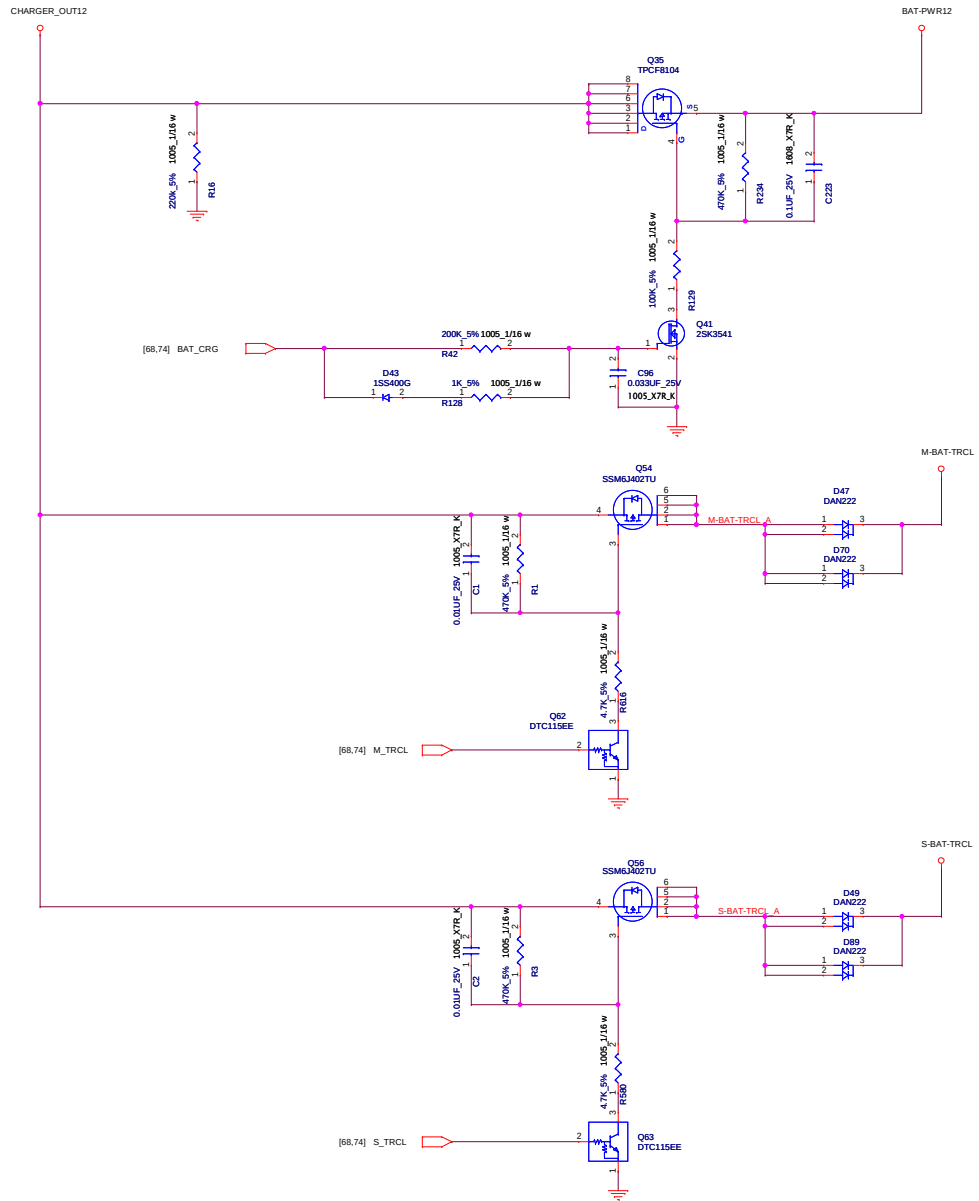

FLEX Computing

Project Name : H430UI1	Title : CHARGE SELECTOR	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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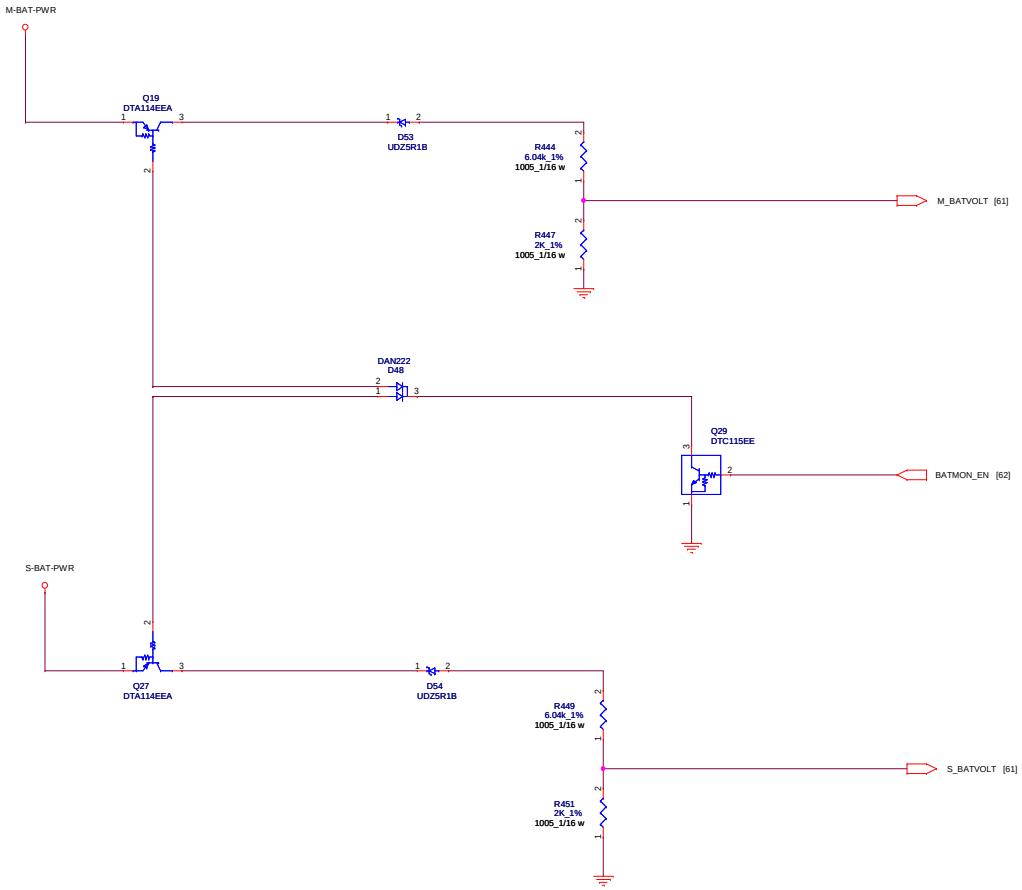

FLEXComputing

Project Name : H430UI1	Title : BATTERY MONITOR		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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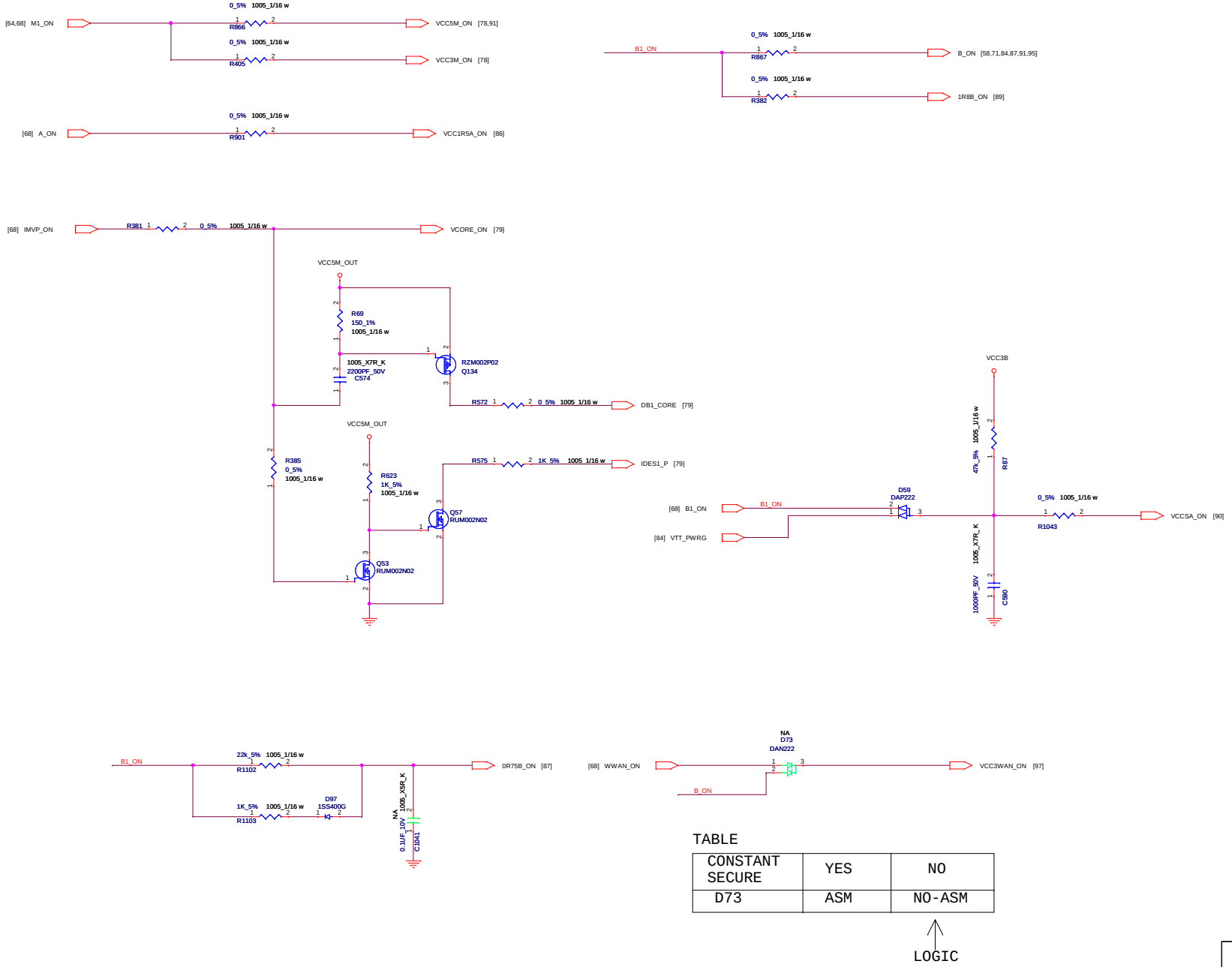

TABLE

CONSTANT SECURE	YES	NO
D73	ASM	NO-ASM

LOGIC

FLEXComputing

Project Name : H430UI1	Title : POWER SEQUENCE	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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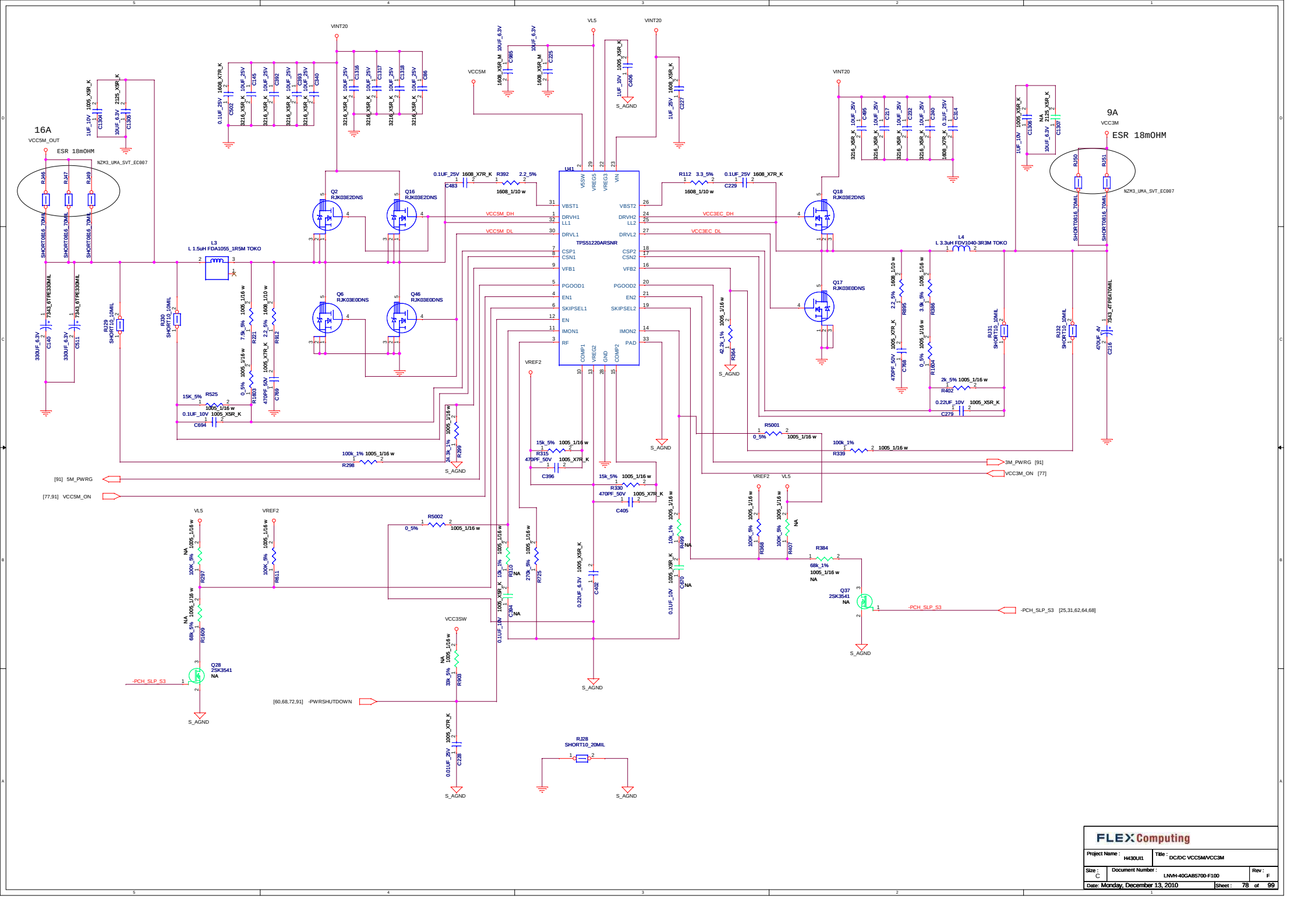
16A
VCC5M_OUT
ESR 18mOHM
NZM3_UMA_SVT_EC007
9A
VCC3M
ESR 18mOHM
NZM3_UMA_SVT_EC007
VINT20
VL5
VCC5M
S_AGND
U41
TPS51220ARSNR
VBST1
DRVH1
LL1
DRVL1
CSP1
CSN1
VFB1
PGOOD1
EN1
SKIPSEL1
EN
IMON1
RF
VBST2
DRVH2
LL2
DRVL2
CSP2
CSN2
VFB2
PGOOD2
EN2
SKIPSEL2
IMON2
PAD
VSW
VREG5
VREG3
VIN
COMP1
VREG2
GND
COMP2
Q2 RJK03E2DNS
Q16 RJK03E2DNS
Q5 RJK03E0DNS
Q46 RJK03E0DNS
Q18 RJK03E2DNS
Q17 RJK03E0DNS
L3 L 1.5uH FDA1055_1R5M TOKO
L4 L 3.3uH FDV1040-3R3M TOKO
VCC5M_DH
VCC5M_DL
VCC3EC_DH
VCC3EC_DL
VREF2
VCC3SW
[91] 5M_PWRG
[77,91] VCC5M_ON
3M_PWRG [91]
VCC3M_ON [77]
[60,68,72,91] -PWRSHUTDOWN
-PCH_SLP_S3
-PCH_SLP_S3 [25,31,62,64,68]
Q28 2SK3541 NA
Q37 2SK3541 NA
RJ28 SHORT10_20MIL
FLEX Computing
Project Name : H430UI1
Title : DC/DC VCC5M/VCC3M
Size : C
Document Number : LNVH-40GAB5700-F100
Rev : F
Date: Monday, December 13, 2010
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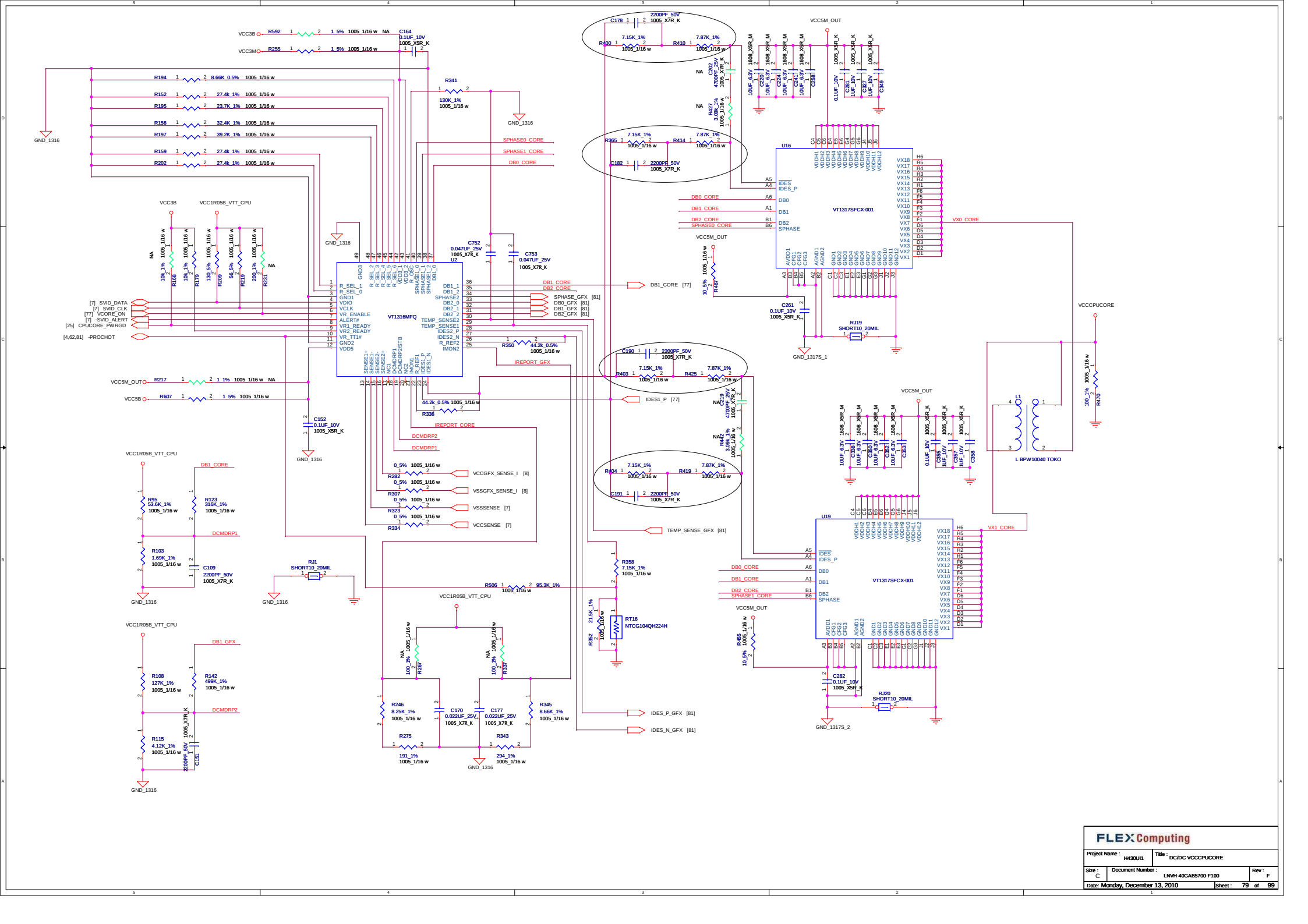
VT1316MFQ
VT1317SFCX-001
U16
U19
U2
VCC5M_OUT
VCC1R05B_VTT_CPU
VCC3B
GND_1316
VCCCPUCORE
VX0_CORE
VX1_CORE
DB0_CORE
DB1_CORE
DB2_CORE
SPHASE0_CORE
SPHASE1_CORE
SPHASE_GFX [81]
DB0_GFX [81]
DB1_GFX [81]
DB2_GFX [81]
TEMP_SENSE_GFX [81]
IDES_P_GFX [81]
IDES_N_GFX [81]
IDES1_P [77]
DB1_CORE [77]
VCCGFX_SENSE_I [8]
VSSGFX_SENSE_I [8]
VSSSENSE [7]
VCCSENSE [7]
IREPORT_GFX
IREPORT_CORE
DCMDRP1
DCMDRP2
L BPW10040 TOKO
RT16 NTCG104QH224H
RJ1 SHORT10_20MIL
RJ19 SHORT10_20MIL
RJ20 SHORT10_20MIL
FLEX Computing
Project Name : H430UI1
Title : DC/DC VCCCPUCORE
Size : C
Document Number : LNVH-40GAB5700-F100
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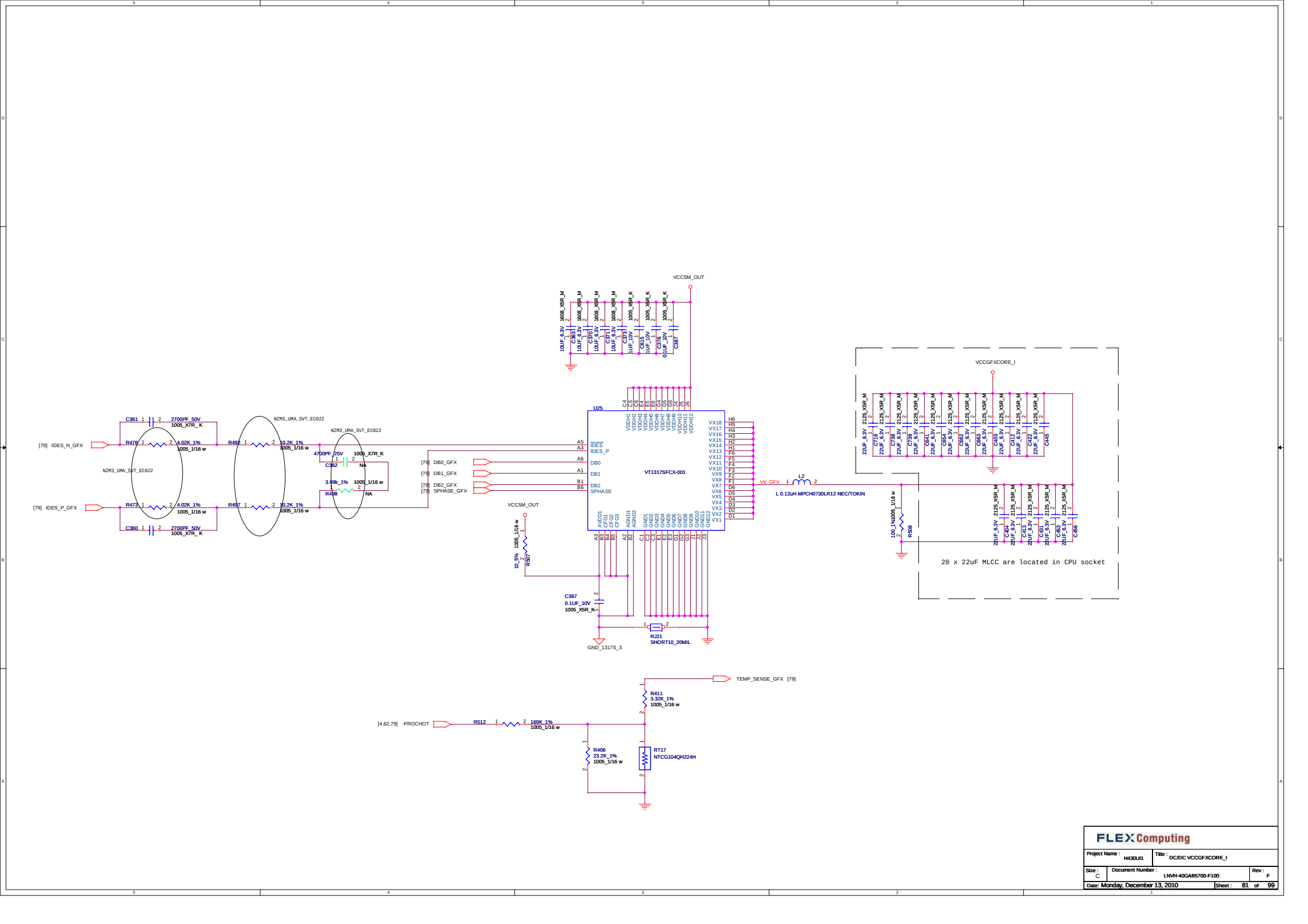
FLEX Computing

Project Name : H430UI1	Title : BLANK	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 80 of 99	



FLEX Computing			
Project Name : H430UI1	Title : DC/DC VCCGFXCORE_I		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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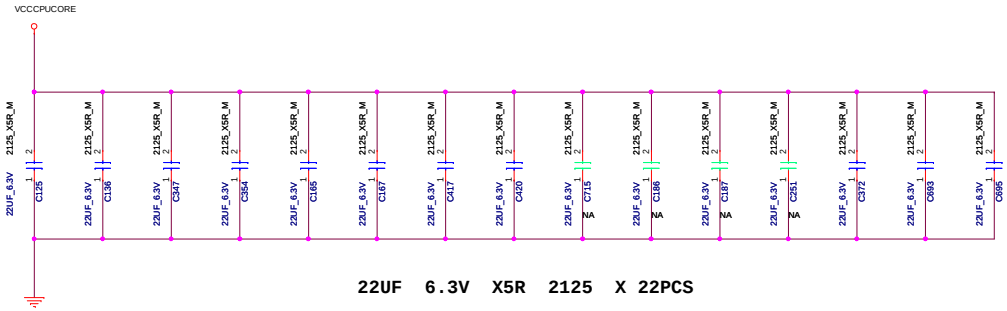
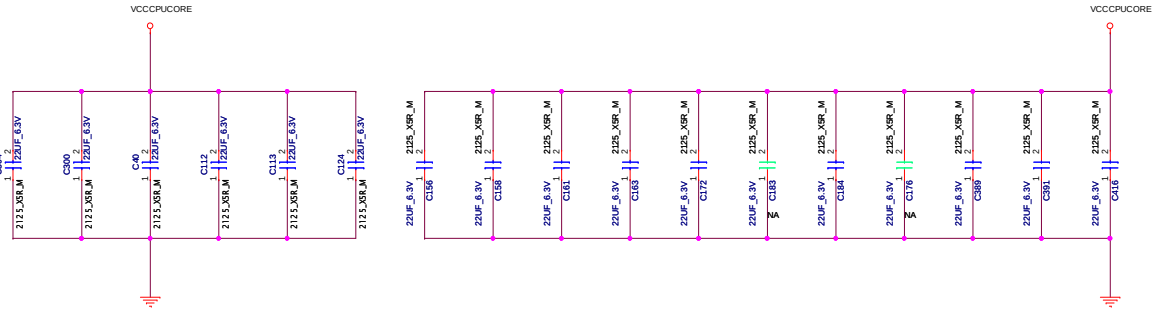


22UF 6.3V X5R 2125 X 22PCS



FLEX Computing

Project Name : H430UI1	Title : VCCCPUCORE DECOUPLING		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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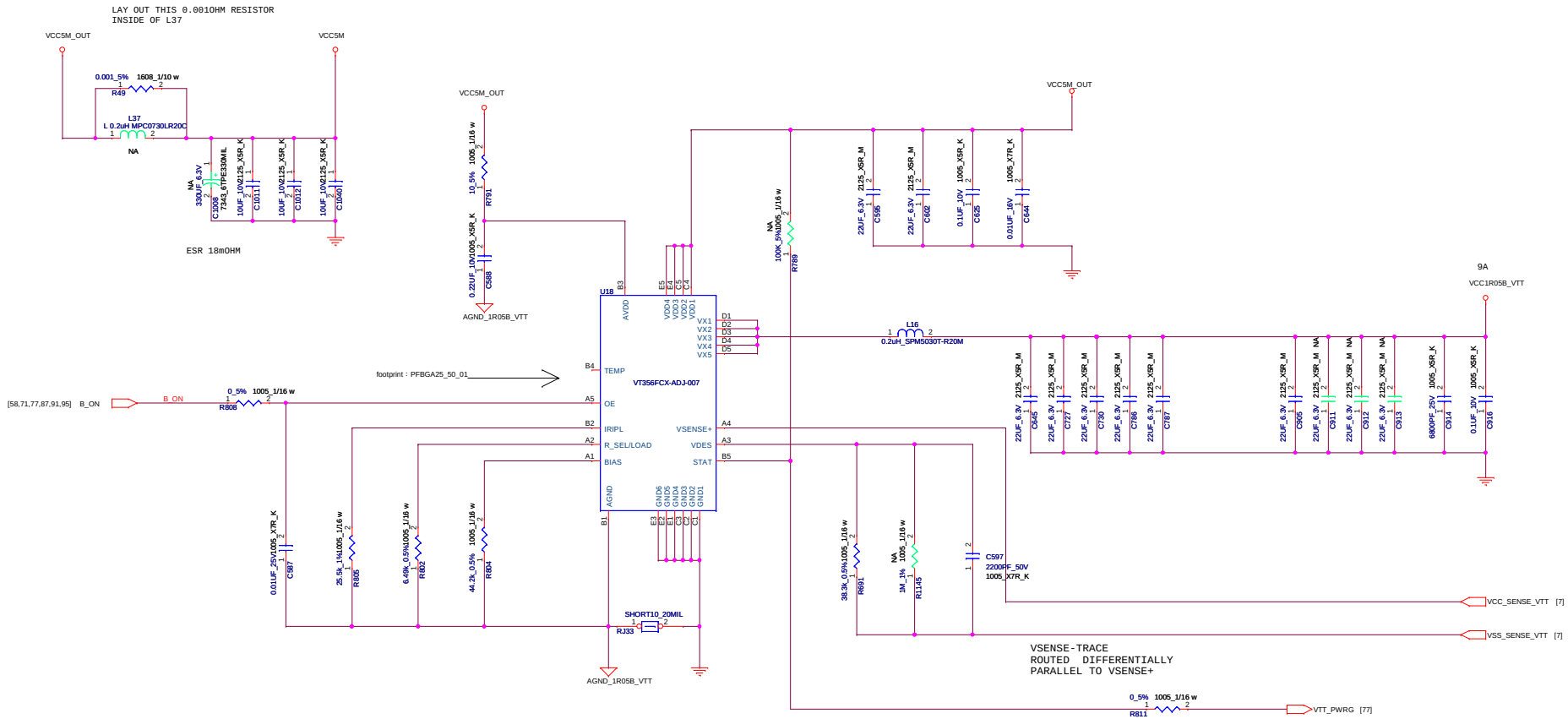
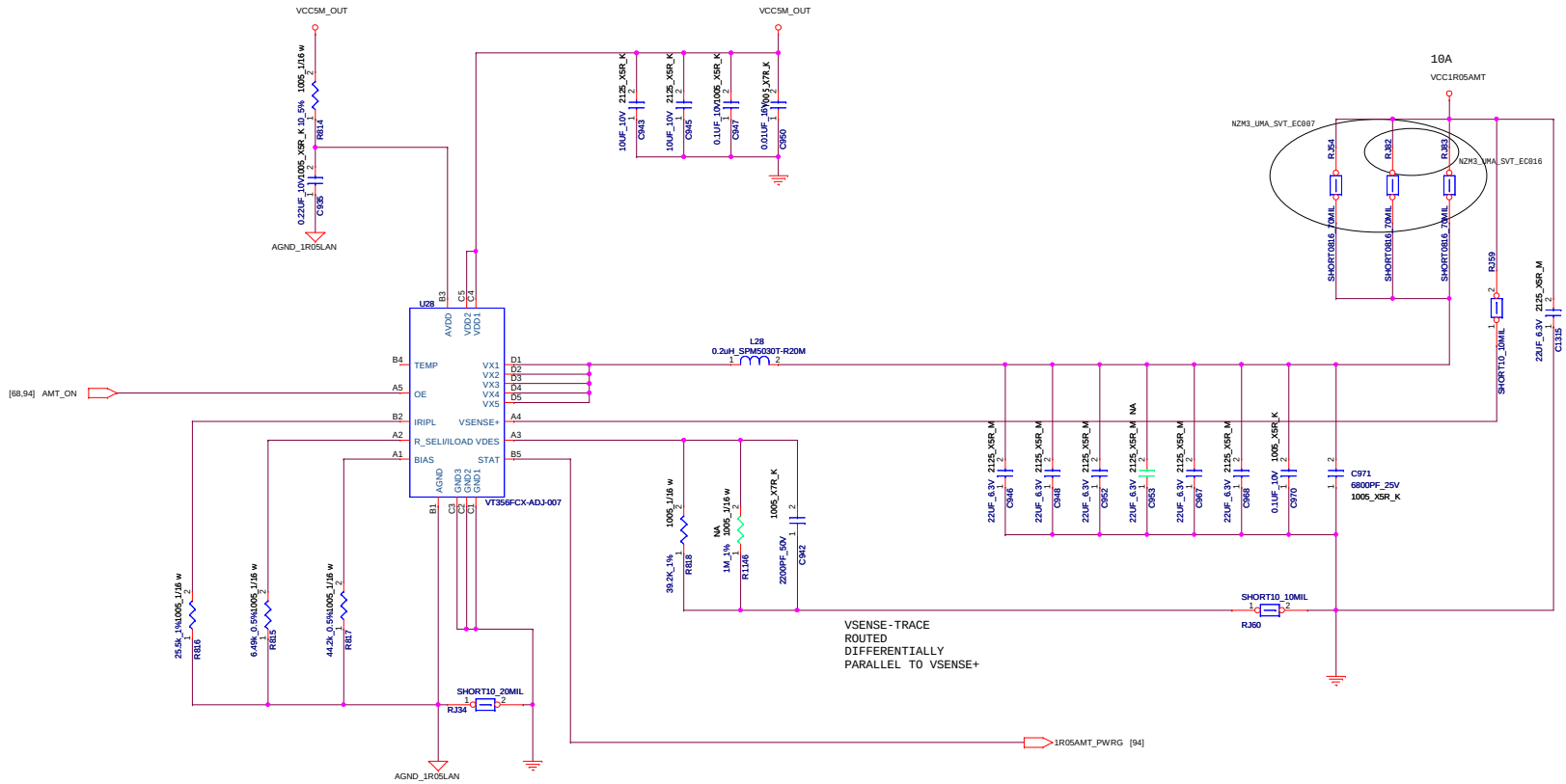
FLEX Computing

Project Name : H430UI1	Title : BLANK	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 83 of 99	



FLEXComputing			
Project Name : H430UI1	Title : DC/DC VCC1R05B_VTT		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 84 of 99	



FLEX Computing			
Project Name : H430UI1	Title : DC/DC VCC1R05AMT		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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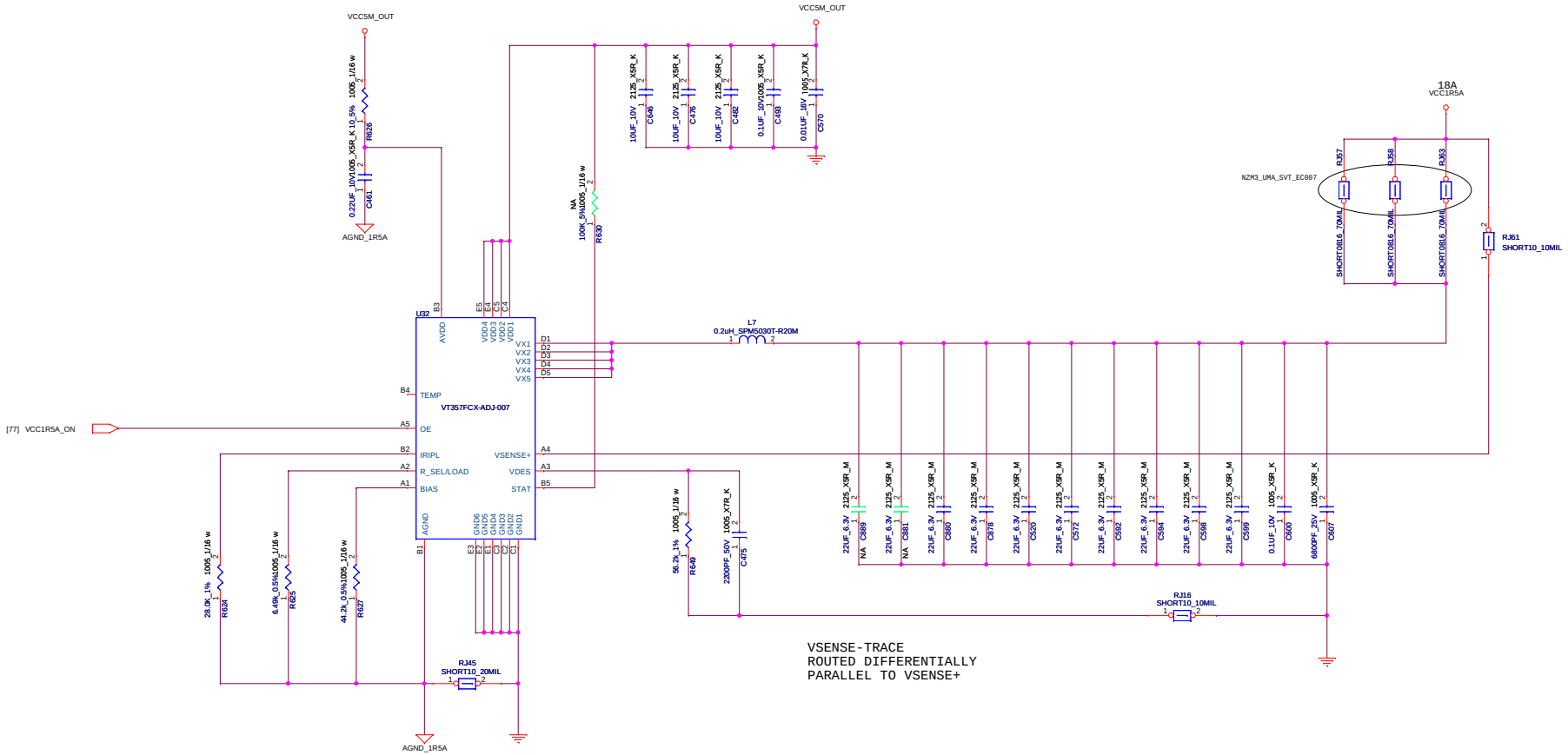
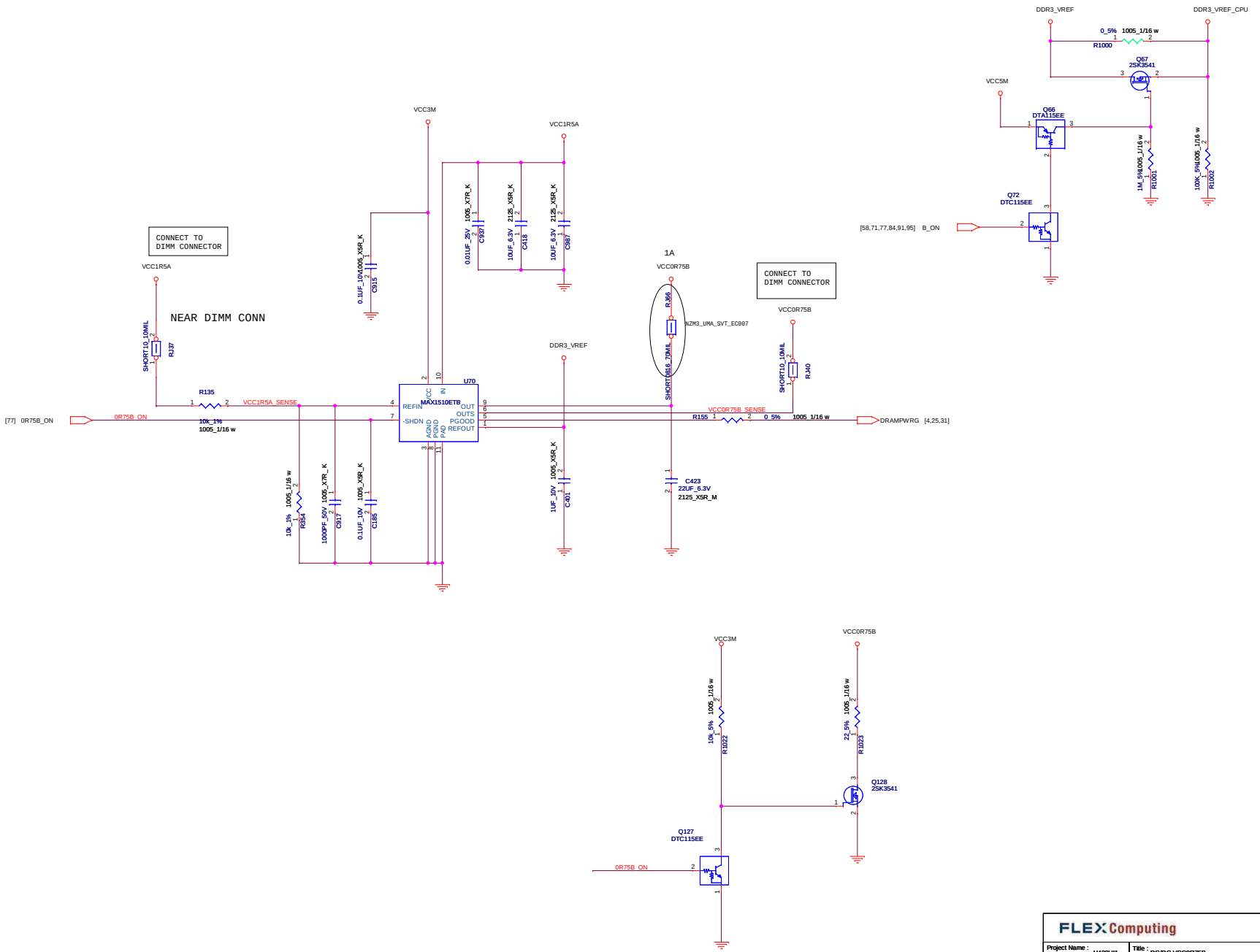


FLEXComputing			
Project Name : H430UI1	Title : DC/DC VCC1R5A		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 86 of 99	



FLEXComputing			
Project Name : H430UI1	Title : DC/DC VCC0R75B		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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FLEX Computing

Project Name : H430UI1	Title : BLANK	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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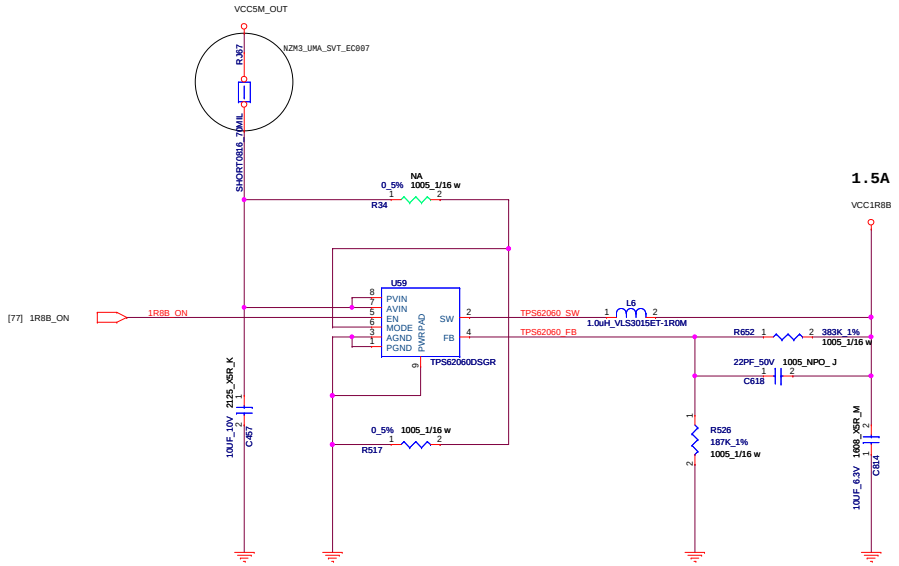
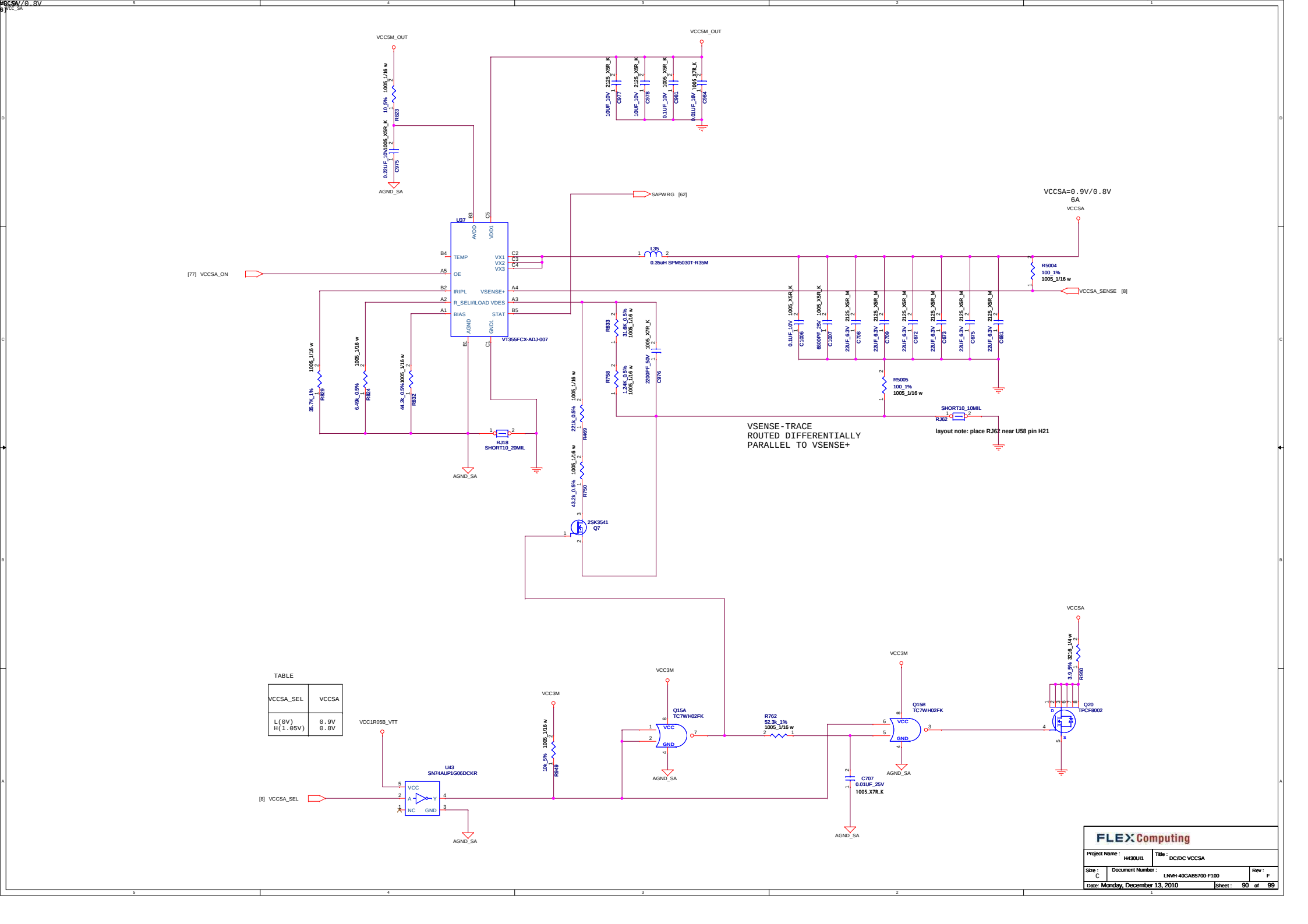


FLEX Computing

Project Name : H430UI1	Title : DC/DC VCC1R8B	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 89 of 99	


VCCSA=0.9V/0.8V
6A
VCCSA
VCC5M_OUT
AGND_SA
SAPWRG [62]
[77] VCCSA_ON
U37
VT355FCX-ADJ-007
L35
0.35uH SPM5030T-R35M
R5004
100_1%
1005_1/16 w
VCCSA_SENSE [8]
R5005
100_1%
1005_1/16 w
SHORT10_10MIL
RJ62
layout note: place RJ62 near U58 pin H21
RJ18
SHORT10_20MIL
2SK3541
Q7
VSENSE-TRACE
ROUTED DIFFERENTIALLY
PARALLEL TO VSENSE+
TABLE
VCCSA_SEL
VCCSA
L(0V)
H(1.05V)
0.9V
0.8V
VCC1R05B_VTT
U43
SN74AUP1G06DCKR
[8] VCCSA_SEL
VCC3M
Q15A
TC7WH02FK
Q15B
TC7WH02FK
R762
52.3k_1%
1005_1/16 w
C707
0.01UF_25V
Q20
TPCF8002
FLEX Computing
Project Name : H430UI1
Title : DC/DC VCCSA
Size : C
Document Number : LNVH-40GAB5700-F100
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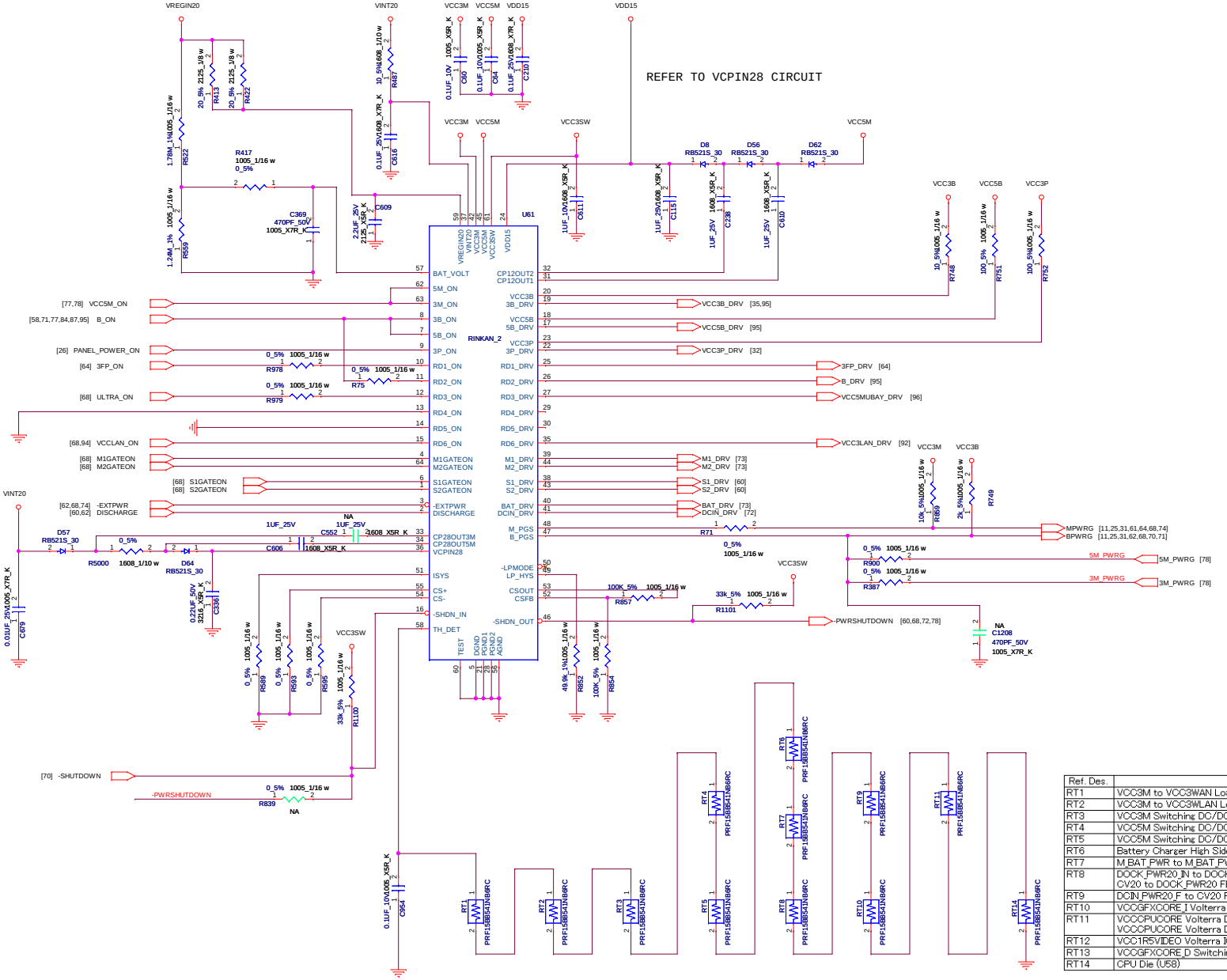

Ref. Des.	Target
RT1	VCC3M to VCC3WAN Load Switch (Q94)
RT2	VCC3M to VCC3WLAN Load Switch (Q100)
RT3	VCC3M Switching DC/DC High/Low Side FET (Q18/Q17)
RT4	VCC5M Switching DC/DC High Side FET (Q2/Q16)
RT5	VCC5M Switching DC/DC Low Side FET (Q6/Q46)
RT6	Battery Charger High Side FET (Q4)
RT7	M_BAT_PWR to M_BAT_PWR_A FET (Q8)
RT8	DOCK_PWR20_IN to DOCK_PWR20 FET (Q85) CV20 to DOCK_PWR20 FET (Q36)
RT9	DCIN_PWR20_F to CV20 FET (Q9)
RT10	VCCGFXCORE_I Volterra Driver IC VT1317S (U25)
RT11	VCCCPUCORE Volterra Driver IC VT1317S Phase 1 (U16) VCCCPUCORE Volterra Driver IC VT1317S Phase 2 (U19)
RT12	VCC1R5VIDEO Volterra IC VT356 (U66)
RT13	VCCGFXCORE_D Switching DC/DC High/Low Side FET (Q40/Q95)
RT14	CPU Die (U58)

FLEX Computing

Project Name : H430UI1	Title : DC/DC RINKAN-2	
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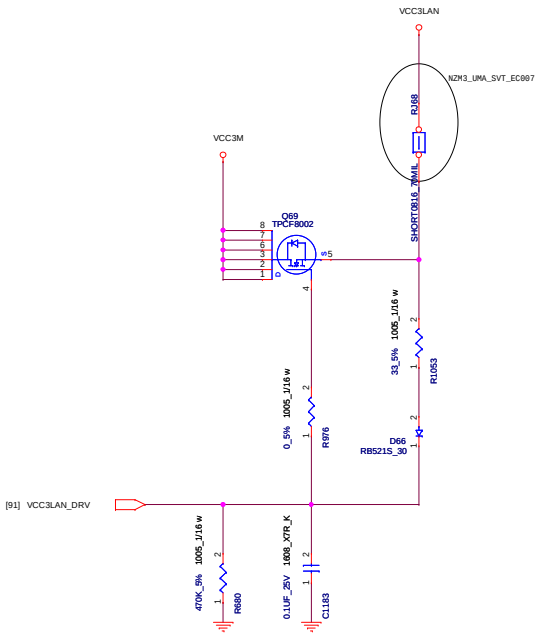
0.5A



FLEX Computing			
Project Name : H430UI1	Title : LOAD SW LAN		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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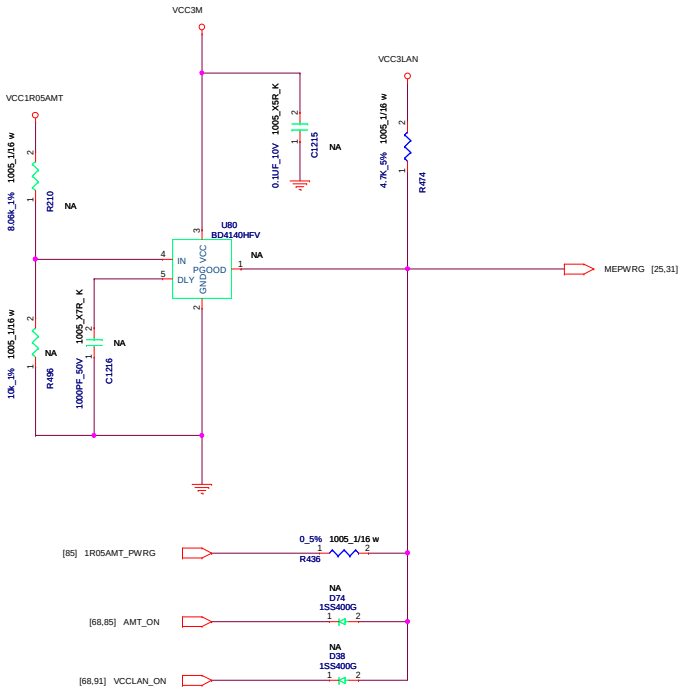
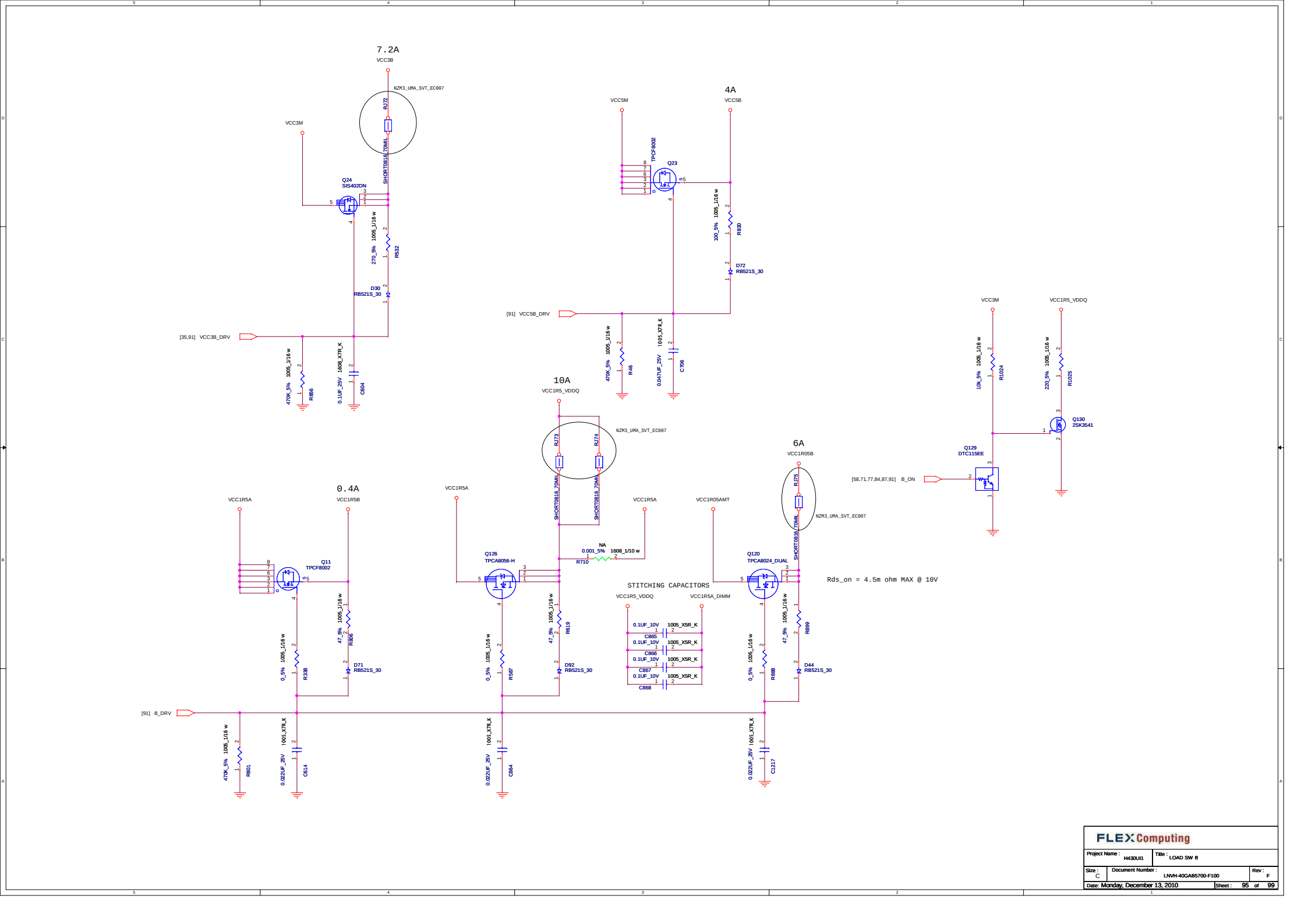
FLEX Computing

Project Name : H430UI1	Title : BLANK	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 93 of 99	



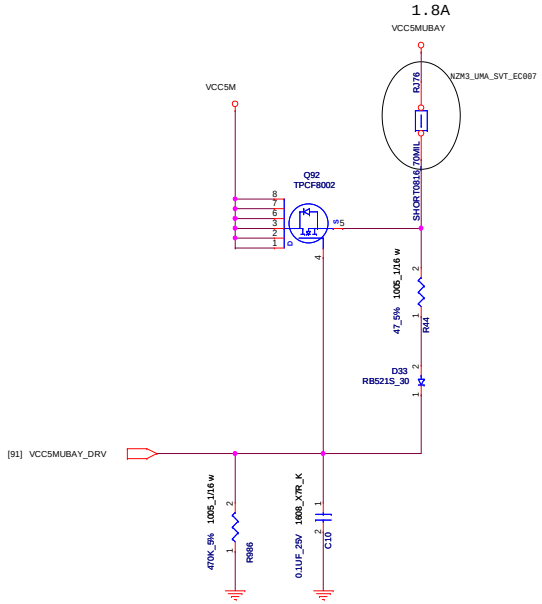
FLEXComputing

Project Name : H430UI1	Title : MEPWRG	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
Date: Monday, December 13, 2010	Sheet : 94 of 99	

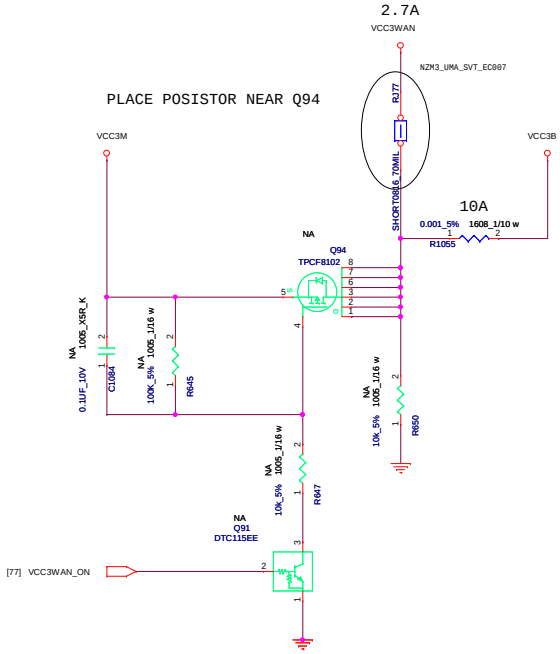


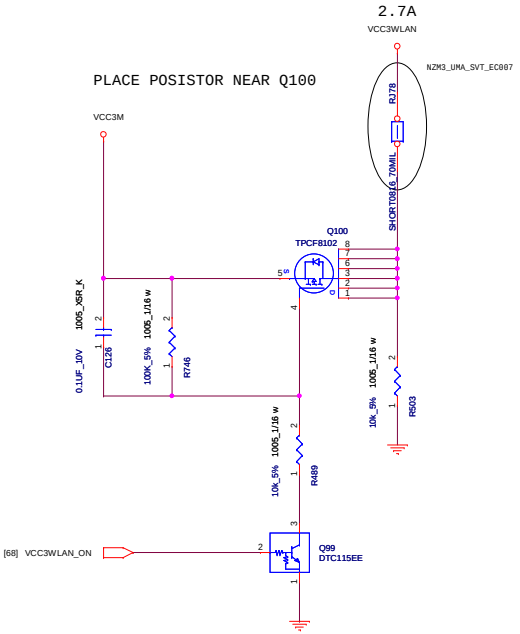
FLEX Computing

Project Name : H430UI1	Title : LOAD SW B		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 95 of 99	



FLEXComputing			
Project Name : H430UI1	Title : LOAD SW VCC5MUBAY		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
Date: Monday, December 13, 2010		Sheet : 96 of 99	





TABLE

CONSTANT SECURE	YES	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

FLEXComputing

Project Name : H430UI1	Title : LOAD SW WAN & WLAN		
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F	
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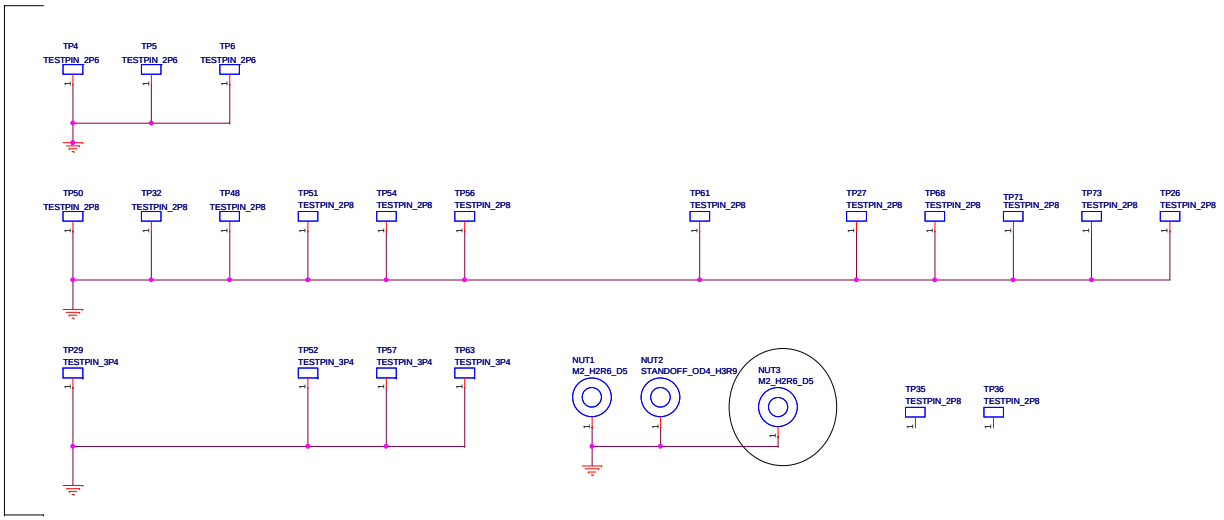
PTH FOR SCREW HOLE



NPTH

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.

FLEXComputing

Project Name : H430UI1	Title : PTH FOR SCREW HOLES		
Size : C	Document Number : LNVH-40GAB5700-F100		Rev : F
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FLEX Computing

Project Name : H430UI1	Title : BLANK	
Size : C	Document Number : LNVH-40GAB5700-F100	Rev : F
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