ASUS CONFIDENTIAL

MODEL NAME : ***Elsa***

PCB NO : ***???***

ASUS P/N : ***???***

Lanai UMA Schematics Document

uFCPGA Mobile Merom
Intel Crestline-GM + ICH8M

2007-03-19

REV :1.2(DELL: X02)

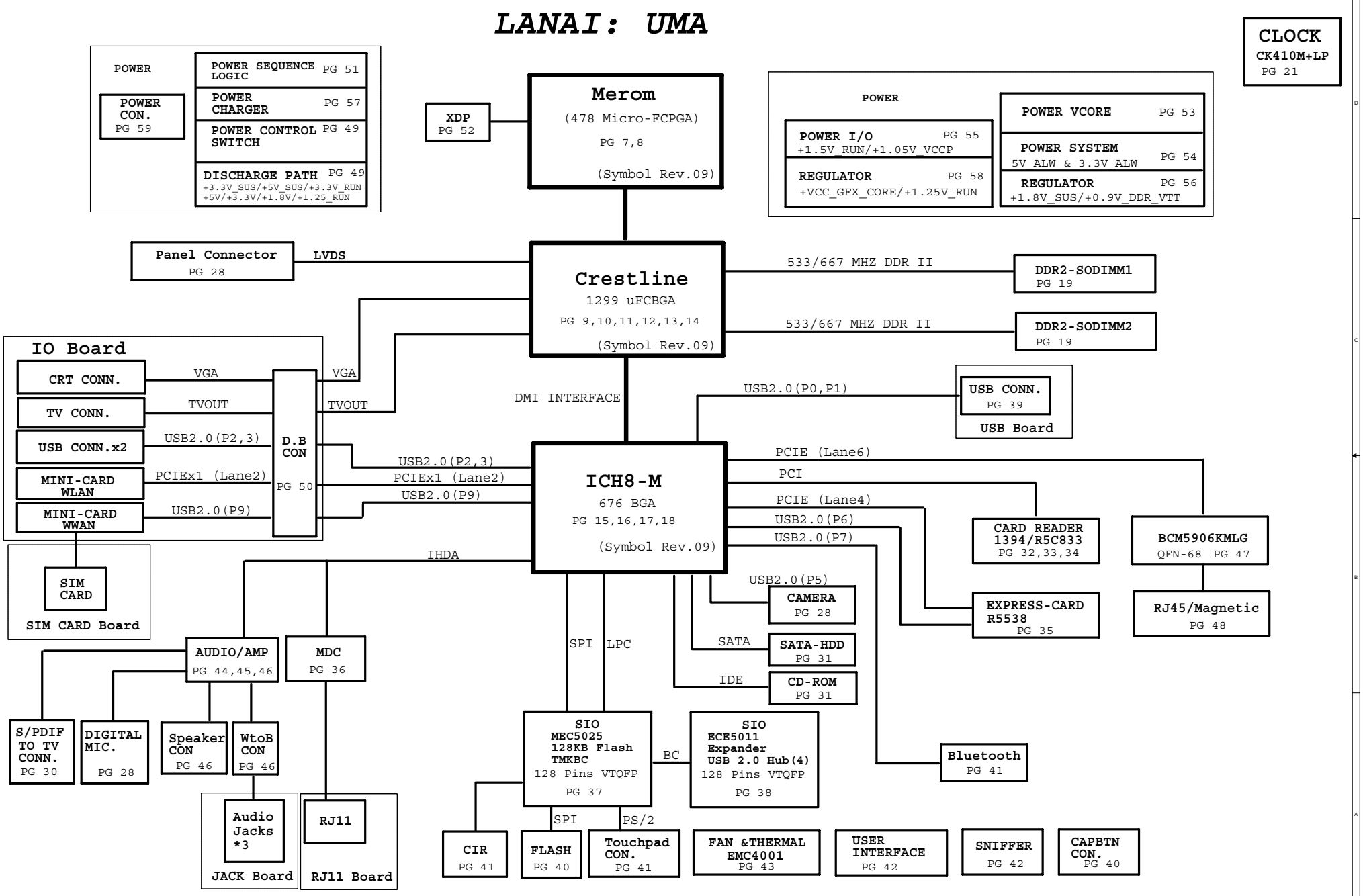
MB PCB

Part Number	Description
DA800004H0L	PCB 00B LA-3071P REV0 M/B

BOM NO. ???
PCB P/N: ???

PROJECT:	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	DESIGN ENGINEER :
	1.2	SHEET 1 OF 68	Cover Page	RELEASE DATE :	

LANAI: UMA



PROJECT:	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	DESIGN ENGINEER :
	1.2	SHEET 2 OF 68	BLOCK DIAGRAM	RELEASE DATE :	

INDEX

Pg#	Description	DNI LIST
01	Cover Page	
02	Schematic Block Diagram	
03	INDEX	
04	Bus connection	
05	SMBUS BLOCK	
06	Power Rail	
07-08	CPU (Merom 、 Penryn)	
09-14	Crestline	
15-18	ICH8M	
19-20	DDRII SO-DIMM(533MHz 、 667MHz)	
21	Clock Generator (CK410M+LP)	
22-27	BLANK PAGE	
28	LVDS CON & Camera & DMIC	
29	RGB CON	
30	TV OUT CON	
31	SATA(HDD & CD_ROM)	
32-34	MEDIA CARD READER / 1394 (R5C833)	
35	PCI-Express Card	
36	MDC CONN	
37	EC (MEC5025)	
38	SIO (ECE5011)	
39	USB PORT x 2	
40	FLASH & RTC & CAPBTN CONN	
41	TOUCH PAD & BT & CIR & LID	
42	SWITCH & LED	
43	HARDWARE MONITOR (EMC4001)	
44-46	AUDIO CODEC & AMP	
47	LOM BCM5906	
48	Magnetics and RJ-45	
49	Power Control Switch	
50	BtoB CON	
51	Power Sequence Logic	
52	XDP	
53-59	Power Circuit	
60	SCREW PAD	
61	Change List 1	
62	Change List 2	

Pg#	Description	DNI LIST
63	POWER CIRCUIT CHANGE LIST	
64	Modem board cover page	
65	RJ-11 CONN	
66	Modem board change List	
67	USB board cover page	
68	USB PORT (SINGLE * 2)	

Footprint Definition

Resistor	Footprint is 0402 if there is no description
Capacitor	Footprint is 0402 if there is no description
Ferrite Bead	Footprint is 0603 if there is no description

Layout Note

For all of ESD diode, they should be placed as close as possible to connectors and the signals from connectors should be routed to ESD diodes first. There is no branch or via before diodes

PCI TABLE

PCI DEVICE	IDSEL	REQ#/GNT#	PIRQ
R5C833	PCI_AD17	PCI_REQ1# PCI_GNT1#	PCI_PIRQC# PCI_PIRQD#

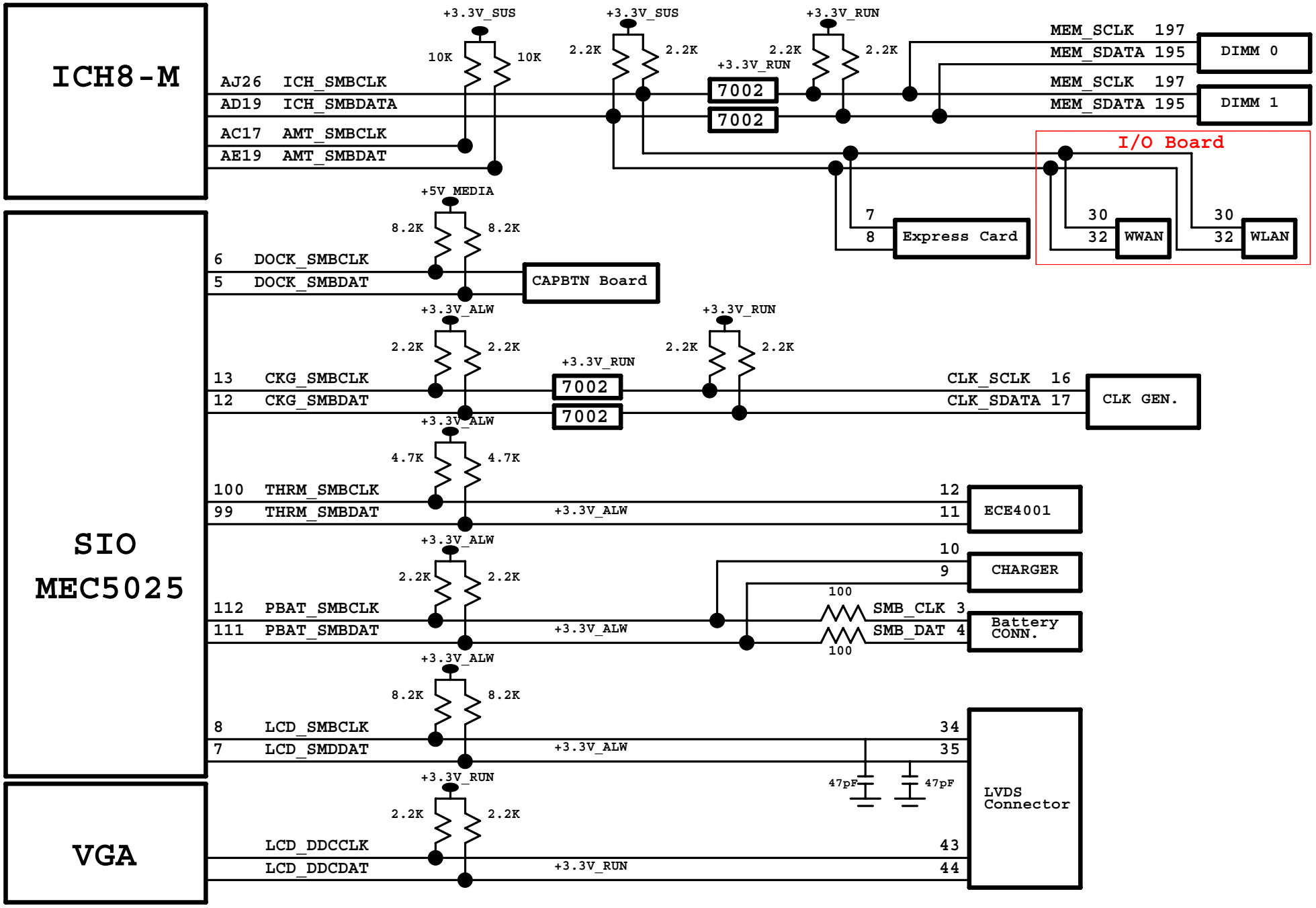
PCI Express TABLE

Lane 1	WWAN / Mini Card
Lane 2	WLAN / Mini Card
Lane 3	
Lane 4	ExpressCard
Lane 5	
Lane 6	LAN BCM5906KMLG

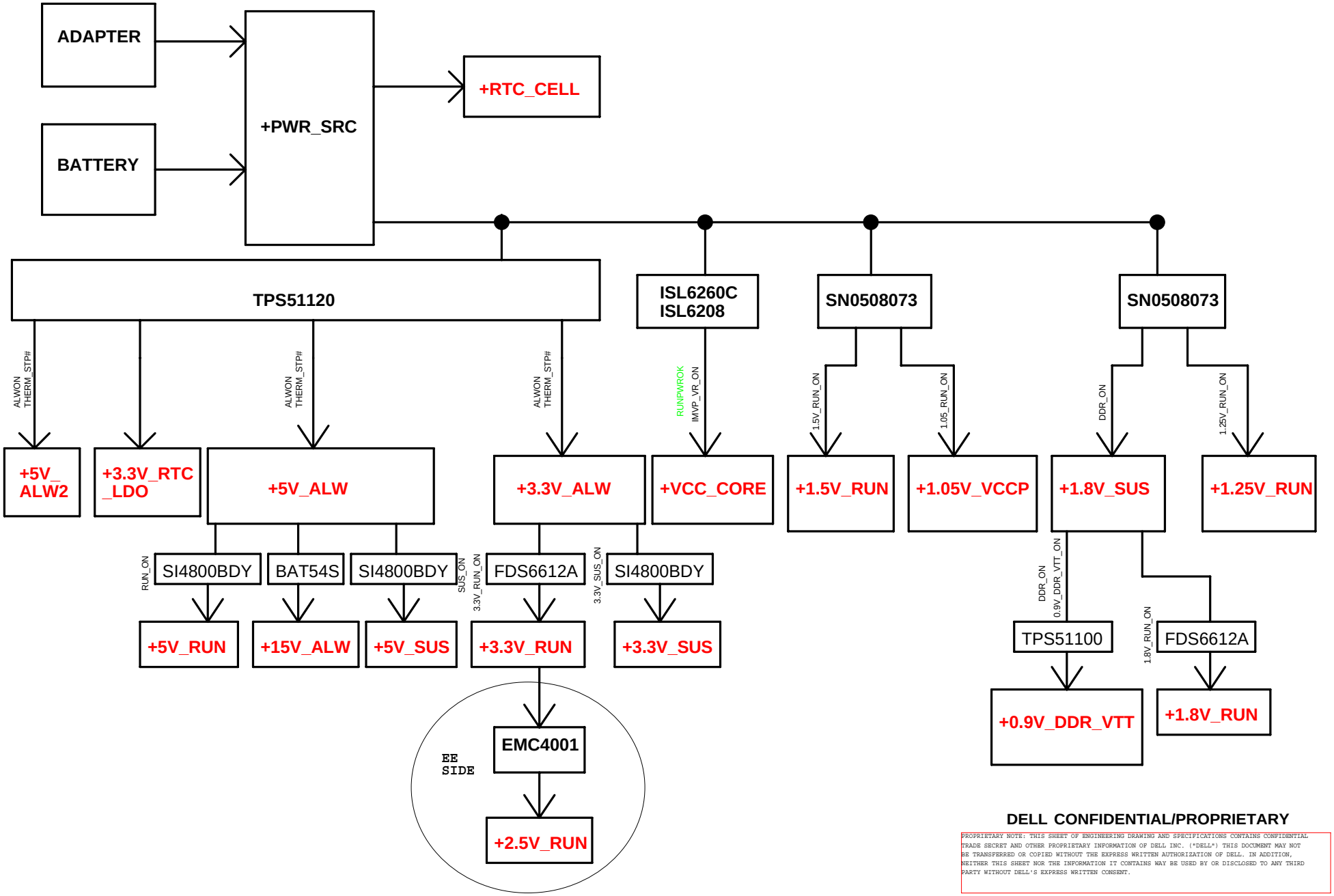
USB TABLE

ICH8-0 (EHCI#1)	User1 (Single port , in USB BD)
ICH8-1 (EHCI#1)	User2 (Single port , in USB BD)
ICH8-2 (EHCI#1)	User3 (Dual port-bottom , in I/O BD)
ICH8-3 (EHCI#1)	User4 (Dual port-top , in I/O BD)
ICH8-4 (EHCI#1)	
ICH8-5 (EHCI#1)	Camera
ICH8-6 (EHCI#2)	ExpressCard
ICH8-7 (EHCI#2)	BT Module
ICH8-8 (EHCI#2)	
ICH8-9 (EHCI#2)	WWAN / Mini Card

Note : No USB for WLAN

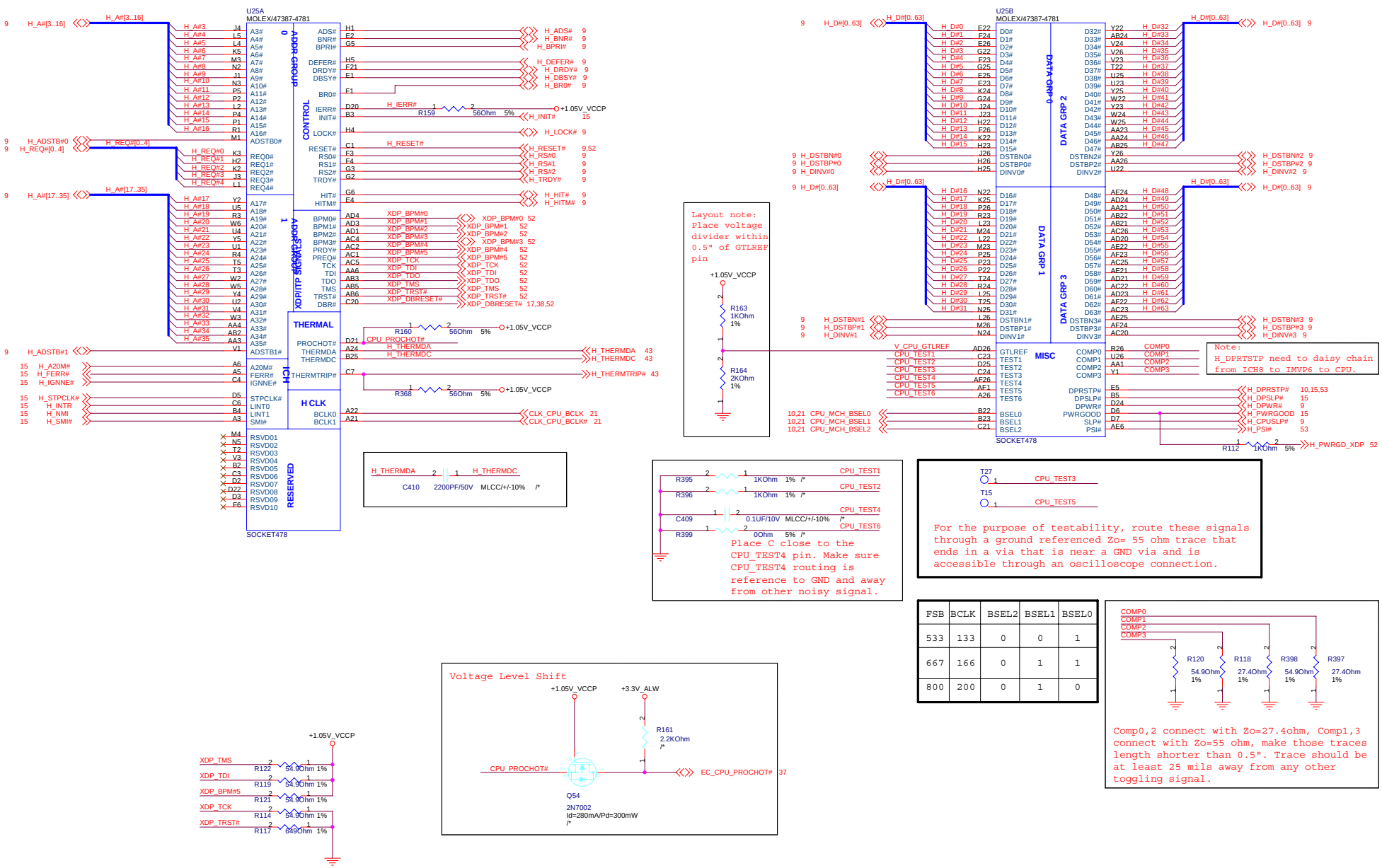


PROJECT: **Lanai**	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: *SMBUS BLOCK*	SCHEMATIC FILE NAME : <OrgName>	DESIGN ENGINEER :
		SHEET 5 OF 68		RELEASE DATE :	



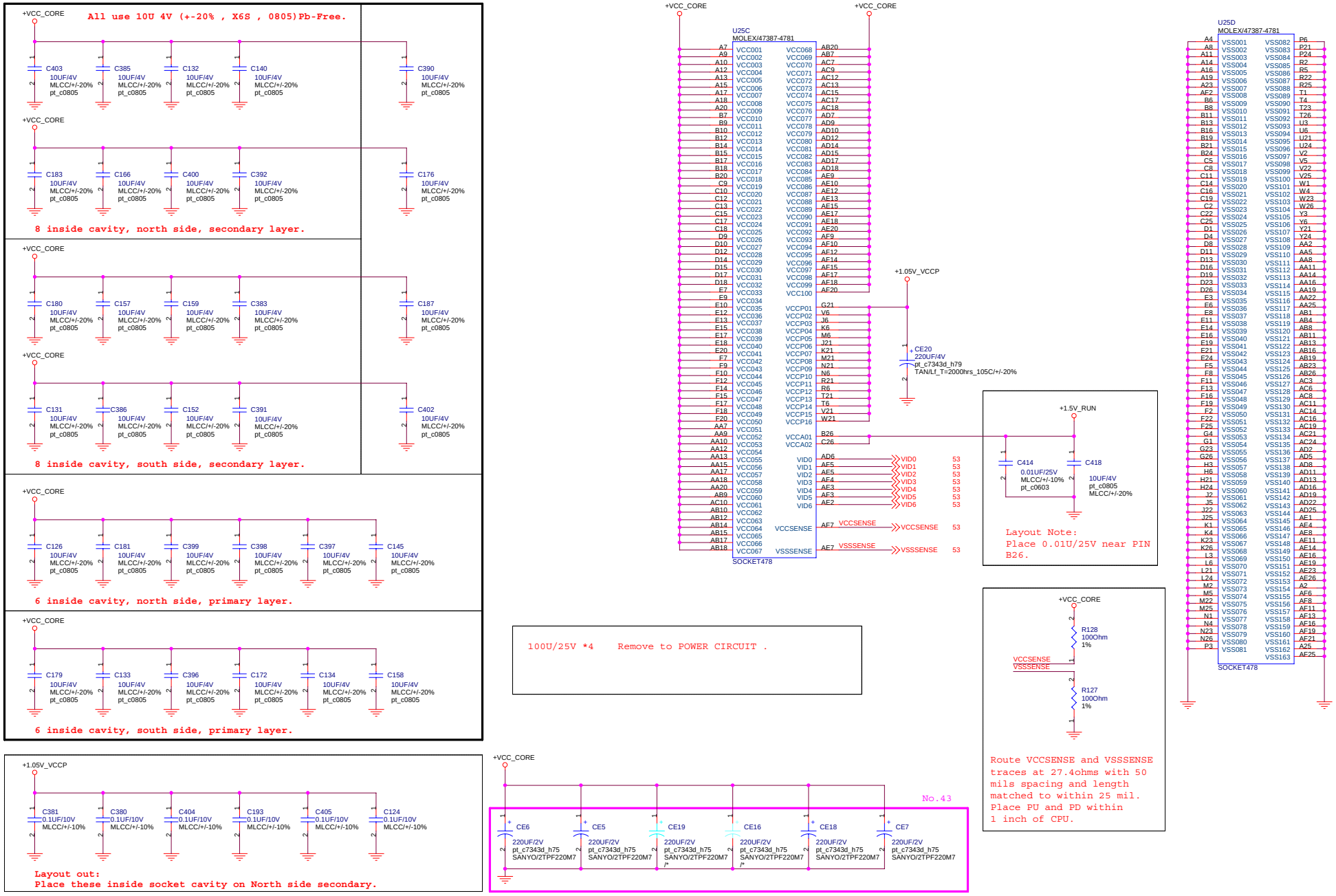
DELL CONFIDENTIAL/PROPRIETARY

PROJECT: Lanai	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	DESIGN ENGINEER :
	1.2	SHEET 6 OF 68	Power Rail	RELEASE DATE :	

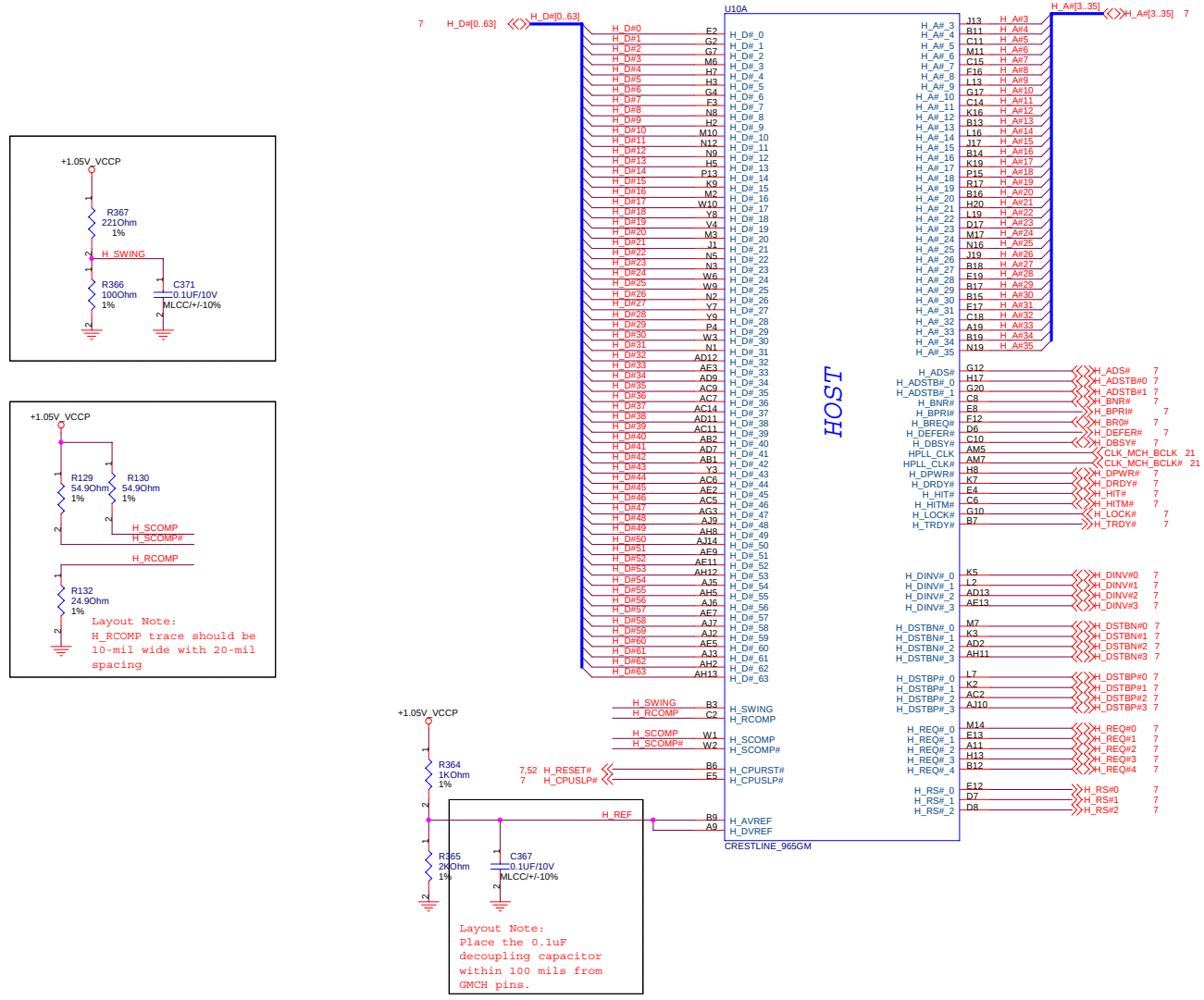


FSB	BCLK	BSEL2	BSEL1	BSEL0
533	133	0	0	1
667	166	0	1	1
800	200	0	1	0

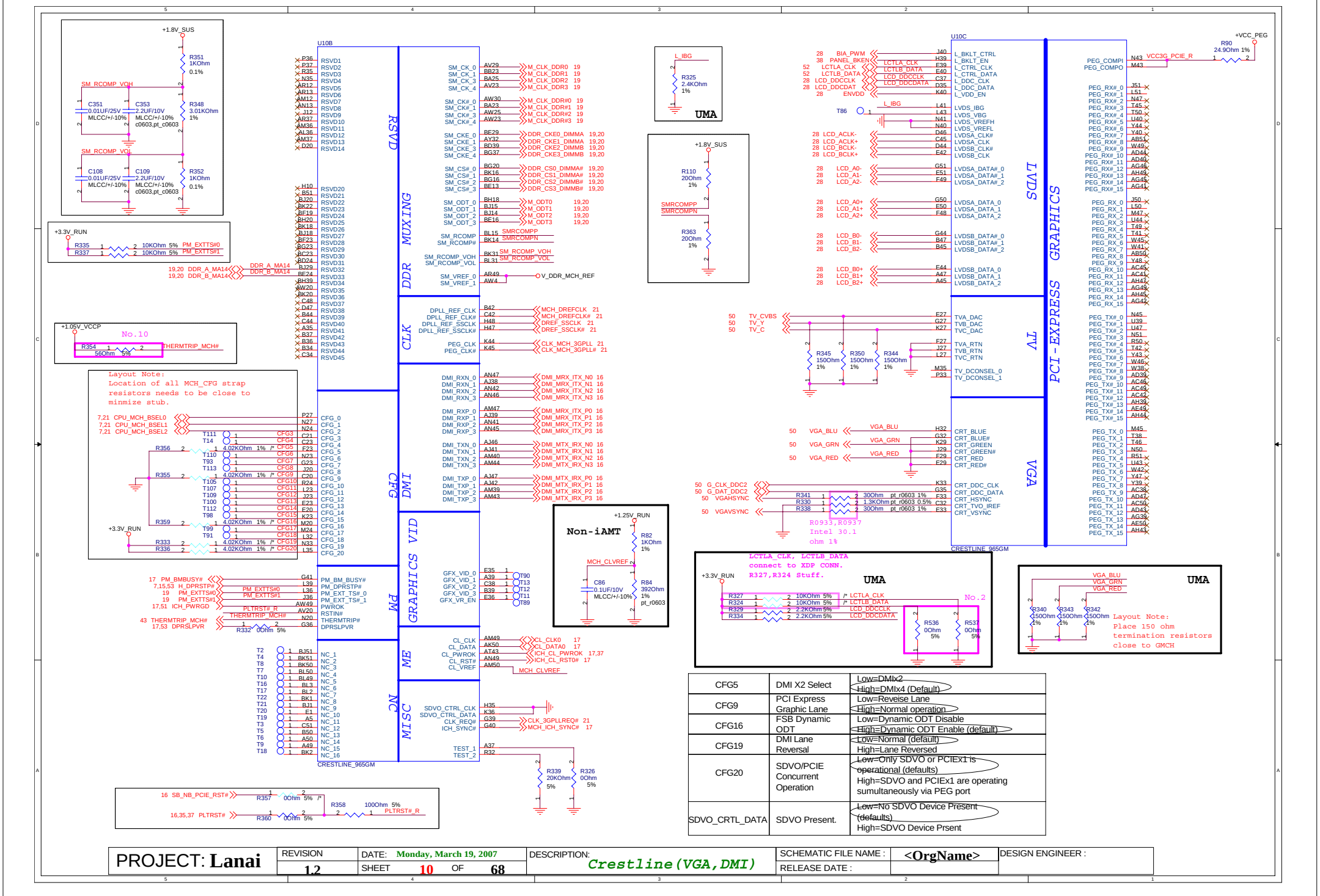
PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 7 OF 68	*MEROM CPU (1)*	RELEASE DATE :		



PROJECT: **Lanai**	REVISION **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION: *Merom CPU (2)*	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
		SHEET **8** OF **68**		RELEASE DATE :		

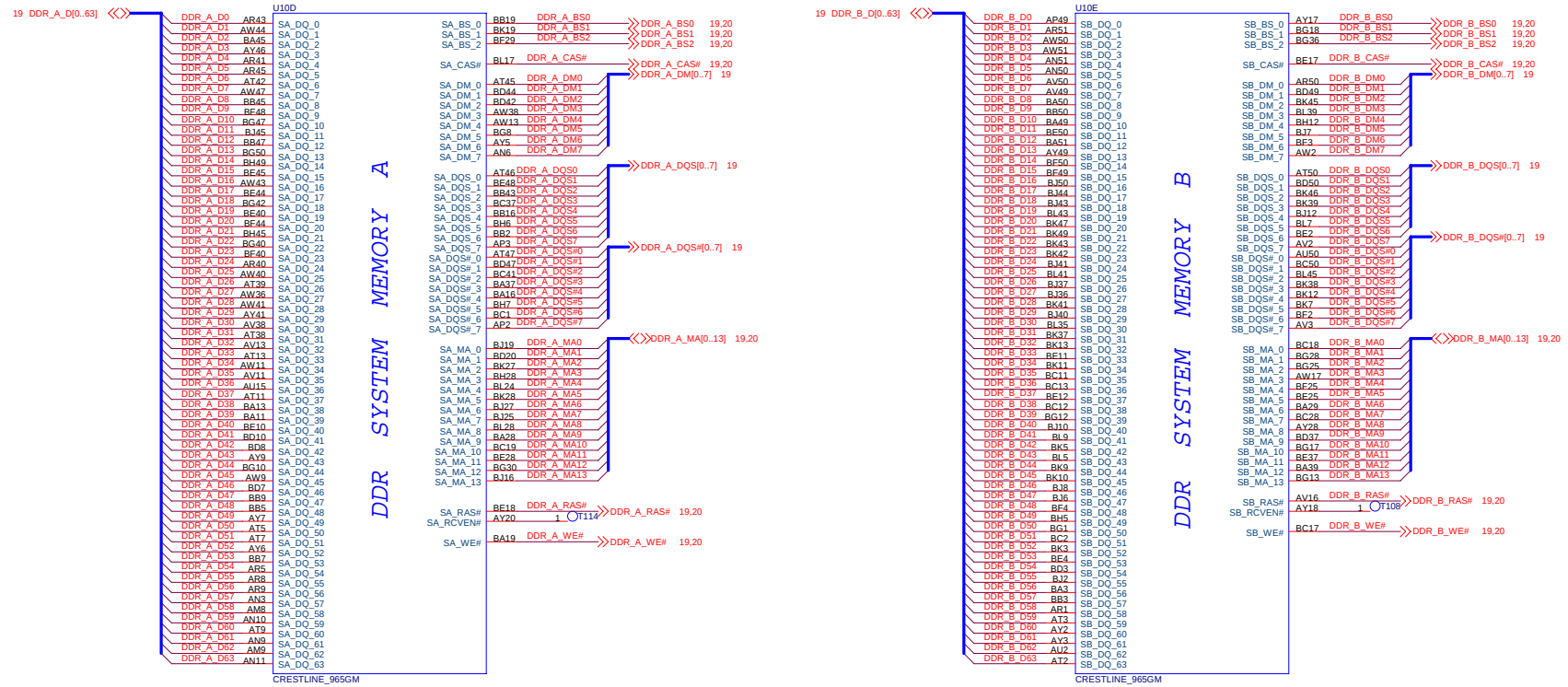


PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***Crestline(HOST)***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **9** OF **68**		RELEASE DATE :		

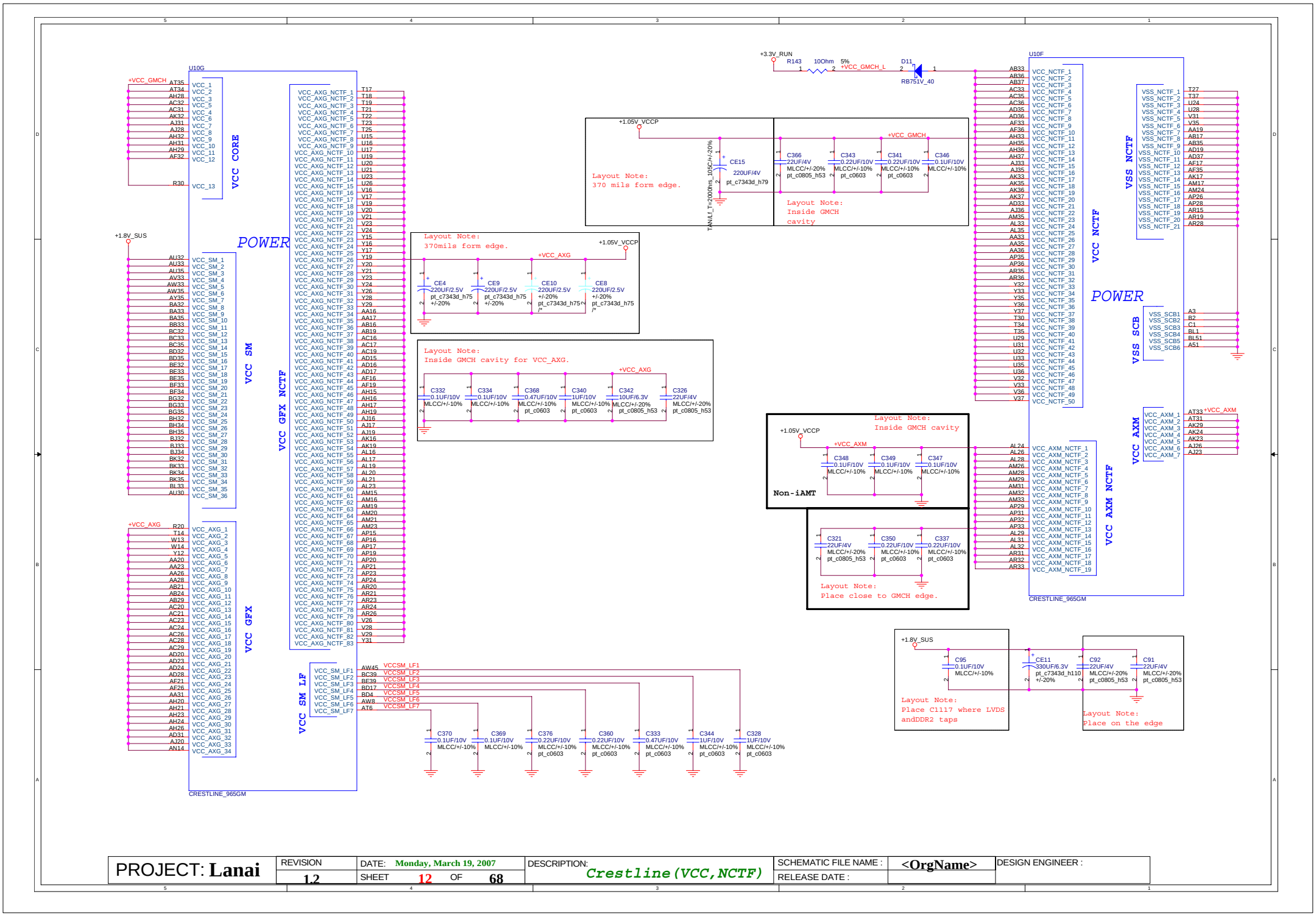


CFG5	DMI X2 Select	Low=DMIx2 High=DMIx4 (Default)
CFG9	PCI Express Graphic Lane	Low=Reveise Lane High=Normal operation
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable (default)
CFG19	DMI Lane Reversal	Low=Normal (default) High=Lane Reversed
CFG20	SDVO/PCIE Concurrent Operation	Low=Only SDVO or PCIEx1 is operational (defaults) High=SDVO and PCIEx1 are operating sumultaneously via PEG port
SDVO_CRTL_DATA	SDVO Present.	Low=No SDVO Device Present (defaults) High=SDVO Device Prsent

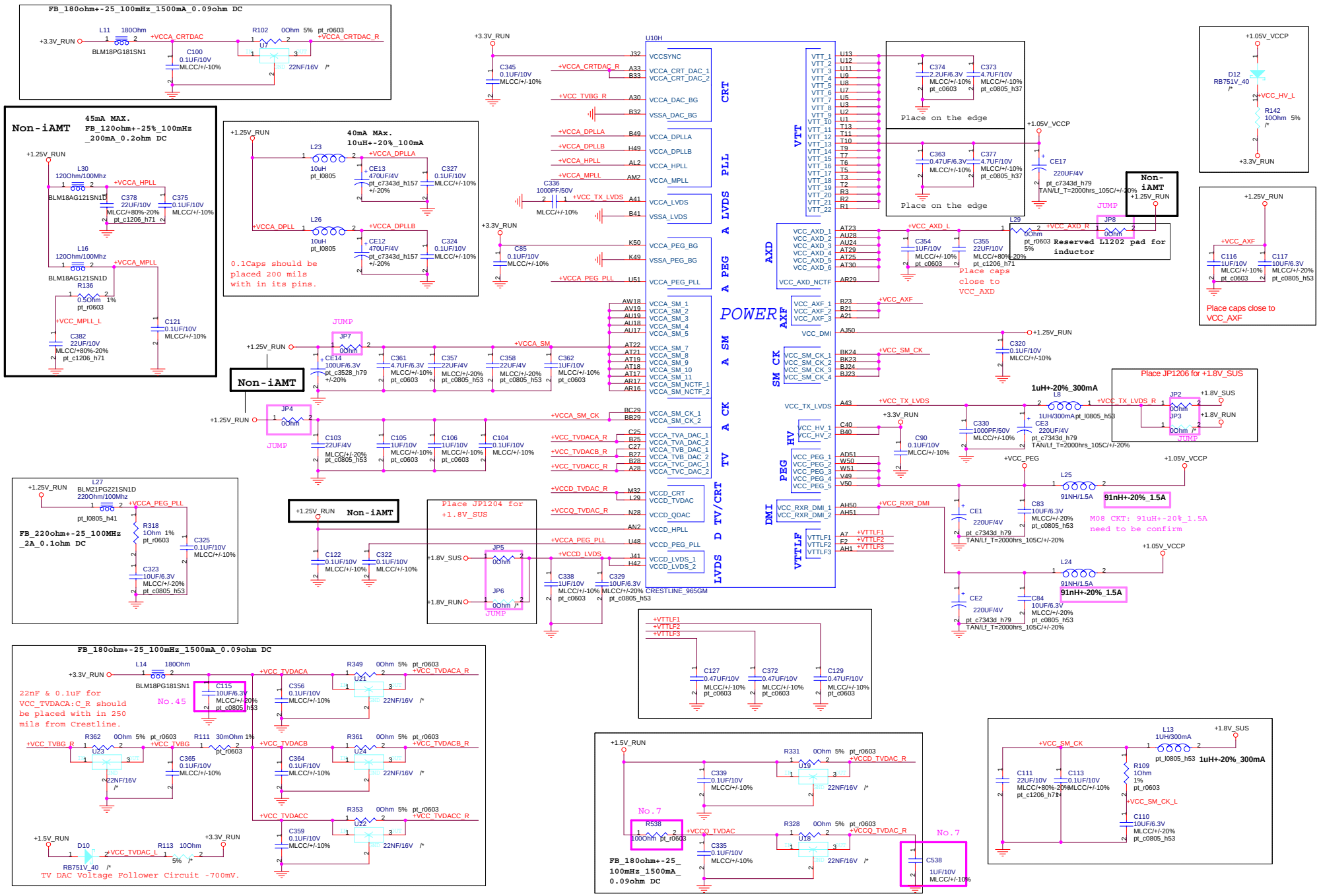
PROJECT: **Lanai**	REVISION: 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: *Crestline(VGA,DMI)*	SCHEMATIC FILE NAME : <OrgName>	DESIGN ENGINEER :
		SHEET 10 OF 68		RELEASE DATE :	



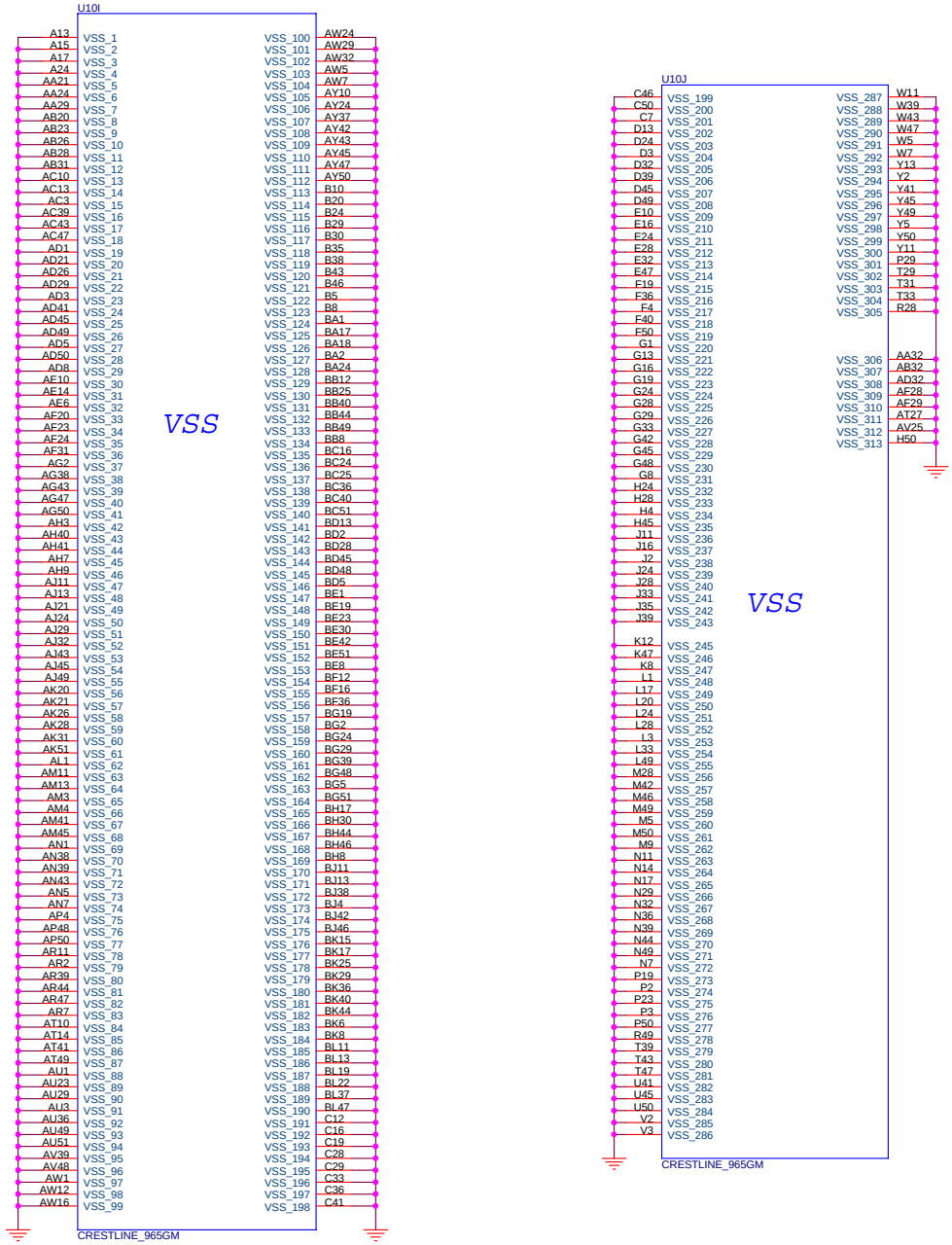
PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 11 OF 68	*Crestline(DDR2)*	RELEASE DATE :		



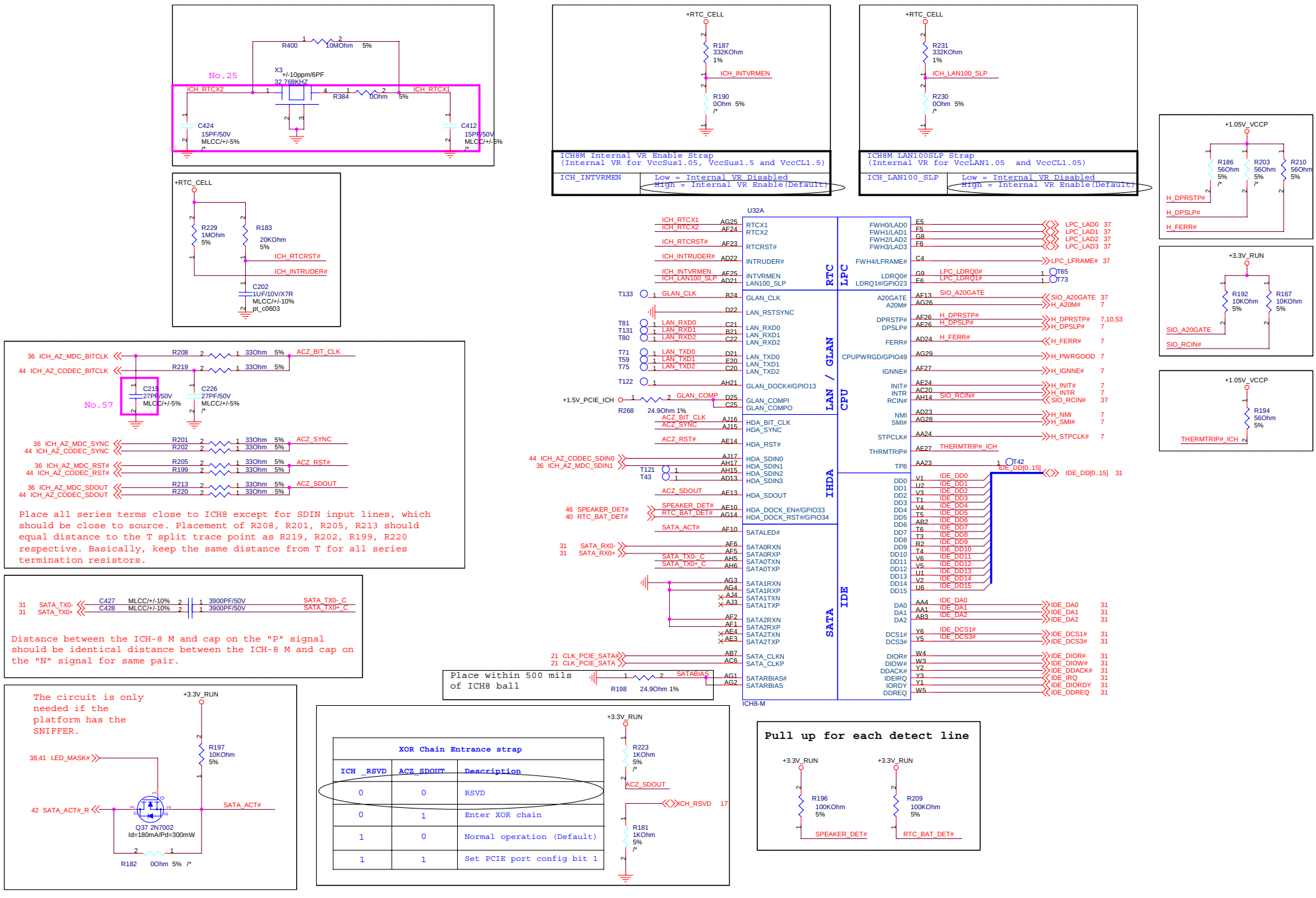
PROJECT: **Lanai**	REVISION: **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION: *Crestline(VCC,NCTF)*	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
		SHEET 12 OF 68		RELEASE DATE :		



PROJECT: **Lanai**	REVISION: **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION: *Crestline(POWER)*	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
		SHEET 13 OF 68		RELEASE DATE :		



PROJECT: **Lanai**	REVISION	DATE: **Monday, March 19, 2007**	DESCRIPTION:	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
	1.2	SHEET **14** OF **68**	***Crestline(VSS)***	RELEASE DATE :		



PROJECT: **Lanai**	REVISION: 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: *ICH8: IDE/AC97/LPC/RTC*	SCHEMATIC FILE NAME: <OrgName>	DESIGN ENGINEER:
		SHEET 15 OF 68		RELEASE DATE:	

Place TX DC blocking caps close ICH8.

50 PCIE_TX1- C465 0.1UF/10V MLCC/+/-10% PCIE_TXN1_C
50 PCIE_TX1+ C469 0.1UF/10V MLCC/+/-10% PCIE_TXP1_C
50 PCIE_TX2- C475 0.1UF/10V MLCC/+/-10% PCIE_TXN2_C
50 PCIE_TX2+ C473 0.1UF/10V MLCC/+/-10% PCIE_TXP2_C
35 PCIE_TX4- C483 0.1UF/10V MLCC/+/-10% PCIE_TXN4_C
35 PCIE_TX4+ C485 0.1UF/10V MLCC/+/-10% PCIE_TXP4_C
47 PCIE_TX6-/GLAN_TX- C494 0.1UF/10V MLCC/+/-10% GLAN_TXN_C
47 PCIE_TX6+/GLAN_TX+ C496 0.1UF/10V MLCC/+/-10% GLAN_TXP_C

U32D

50 PCIE_RX1- / 50 PCIE_RX1+ MiniWWAN: PCIE_TXN1_C / PCIE_TXP1_C
50 PCIE_RX2- / 50 PCIE_RX2+ MiniWLAN: PCIE_TXN2_C / PCIE_TXP2_C
35 PCIE_RX4- / 35 PCIE_RX4+ ExpressCard: PCIE_TXN4_C / PCIE_TXP4_C
47 PCIE_RX6-/GLAN_RX- / 47 PCIE_RX6+/GLAN_RX+: GLAN_TXN_C / GLAN_TXP_C

PCI-Express Direct Media Interface

DMI0RXN V27 DMI_MTX_IRX_N0 10
DMI0RXP V26 DMI_MTX_IRX_P0 10
DMI0TXN U29 DMI_MRX_ITX_N0 10
DMI0TXP U28 DMI_MRX_ITX_P0 10
DMI1RXN Y27 DMI_MTX_IRX_N1 10
DMI1RXP Y26 DMI_MTX_IRX_P1 10
DMI1TXN W29 DMI_MRX_ITX_N1 10
DMI1TXP W28 DMI_MRX_ITX_P1 10
DMI2RXN AB26 DMI_MTX_IRX_N2 10
DMI2RXP AB25 DMI_MTX_IRX_P2 10
DMI2TXN AA29 DMI_MRX_ITX_N2 10
DMI2TXP AA28 DMI_MRX_ITX_P2 10
DMI3RXN AD27 DMI_MTX_IRX_N3 10
DMI3RXP AD26 DMI_MTX_IRX_P3 10
DMI3TXN AC29 DMI_MRX_ITX_N3 10
DMI3TXP AC28 DMI_MRX_ITX_P3 10
DMI_CLKN T26 CLK_PCIE_ICH# 21
DMI_CLKP T25 CLK_PCIE_ICH 21
DMI_ZCOMP Y23
DMI_IRCOMP Y24
DMI_COMP R221 24.9Ohm 1% +1.5V_PCIE_ICH

Place within 500 mils of ICH8

BIOS should not enable the internal GPIO pull up resistor

+3.3V_RUN
SB_NB_PCIE_RST# R519 10KOhm 5%
SB_WLAN_PCIE_RST# R253 10KOhm 5%
SB_NB_PCIE_RST# R520 100KOhm 5%
SB_WLAN_PCIE_RST# R250 100KOhm 5%
SB_LOM_PCIE_RST# R280 20KOhm 5%
SB_WWAN_PCIE_RST# R274 20KOhm 5%

Layout Note:
Place 15 ohm within 500 mils from ICH.

37 ICH_EC_SPI_CLK R275 15Ohm 5% ICH_EC_SPI_CLK_R
T55
37 ICH_EC_SPI_DO R267 15Ohm 5% ICH_EC_SPI_DO_R
37 ICH_EC_SPI_DIN

SPI: SPI_CLK C23 ICH_SPI_CS# B23 ICH_SPI_CS1# E22 SPI_MOSI D23 SPI_MISO F21

USB

USBP0N G3 ICH_USBP0- 39 USER1 Left side pair top/left
USBP0P G2 ICH_USBP0+ 39
USBP1N H5 ICH_USBP1- 39 USER2 Left side pair bottom/right
USBP1P H4 ICH_USBP1+ 39
USBP2N H2 ICH_USBP2- 50 USER3 Right side pair top/left
USBP2P H1 ICH_USBP2+ 50
USBP3N J3 ICH_USBP3- 50 USER3 Right side pair bottom/right
USBP3P J2 ICH_USBP3+ 50
USBP4N K5 ICH_USBP4- T60
USBP4P K4 ICH_USBP4+ T56
USBP5N K2 ICH_USBP5- 28 CCD
USBP5P K1 ICH_USBP5+ 28
USBP6N L3 ICH_USBP6- 35 Express Card
USBP6P L2 ICH_USBP6+ 35
USBP7N M5 ICH_USBP7- 41 BlueTooth
USBP7P M4 ICH_USBP7+ 41
USBP8N M2 ICH_USBP8- T48
USBP8P M1 ICH_USBP8+ T49 No.5
USBP9N N3 ICH_USBP9- 50 WWAN
USBP9P N2 ICH_USBP9+ 50
USBRBIAS# F2
USBRBIAS F3 USBRBIAS
R492 22.6Ohm 1% pt_r0603

Short F2 and F3 at the package and keep length to less than 500mils. Trace Impedance should be 60ohms +/- 15%.

OC0# OC1#/GPIO40 OC2#/GPIO41 OC3#/GPIO42 OC4#/GPIO43 OC5#/GPIO29 OC6#/GPIO30 OC7#/GPIO31 OC8# OC9#

39 USB_OC0_1# → USB_OC0_1# A19 AG16
50 USB_OC2_3# → USB_OC2_3# AG15 AE15 AF15 AG17 AD12 AJ18 AD14 AH18

ICH8-M

SPI_CS0# R517 15Ohm 5% /* U36 74AHC1G08GW /* ICH_SPI_CS# R R518 15Ohm 5% ICH_SPI_CS# SIO_SPI_CS# 37
R521 0Ohm 5%

PCI Pullups

PCI_STOP# R276 8.2KOhm 5% +3.3V_RUN
PCIE_MCARD2_DET# R548 100KOhm 5% +3.3V_RUN +3.3V_RUN No.14
PCI_DEVSEL# RP4E 8.2KOhm 5%
PCI_FRAME# RP4F 8.2KOhm 5% RP4D PCI_REQ1# 8.2KOhm 5%
ICH_GPIO2_PIRQE# RP4G 8.2KOhm 5% RP4C PCI_PIRQD# 8.2KOhm 5%
PCI_SERR# RP4H 8.2KOhm 5% RP4B 8.2KOhm 5%
RP4A PCI_TRDY# 8.2KOhm 5%
RP3E 8.2KOhm 5% +3.3V_RUN
PCI_REQ0# RP3F 8.2KOhm 5% RP3D PCI_PIRQC# 8.2KOhm 5%
PCI_PLOCK# RP3G 8.2KOhm 5% RP3C PCI_PIRQB# 8.2KOhm 5%
PCI_PERR# RP3H 8.2KOhm 5% RP3B PCI_PIRQA# 8.2KOhm 5%
RP3A PCI_IRDY# 8.2KOhm 5%

Non-iAMT

+3.3V_SUS
USB_OC0_1# RP1E 10KOhm 5%
OC9# RP1F 10KOhm 5% RP1D OC5# 10KOhm 5%
OC6# RP1G 10KOhm 5% RP1C OC8# 10KOhm 5%
OC7# RP1H 10KOhm 5% RP1B USB_OC2_3# 10KOhm 5%
RP1A OC4# 10KOhm 5%

ICH_SPI_CS1#_R
PCI_GNT0#
R272 1KOhm 5%
R260 1KOhm 5% /*

Boot BIOS Strap

		GNT0#	SPI_CS1#
LPC	11	No stuff	No stuff
PCI	10	No stuff	Stuff
SPI	01	Stuff	No stuff

PCI_GNT3#
R266 1KOhm 5% /*

A16 away override strap.

PCI_GNT3#	Low = A16 swap override enabled.
	High = Default.

Non-iAMT

Add Buffers as needed for Loading and fanout concerns.

+3.3V_SUS
C279 0.047UF/10V MLCC/+/-10%
PCI_RST#_G U14 SN74AHC1G32DBVR PCI_RST# 32
No.37

+3.3V_SUS
C199 0.047UF/10V MLCC/+/-10%
PCI_PLTRST# U12 SN74AHC1G32DBVR PLTRST# 10,35,37
+3.3V_SUS
C542 0.047UF/10V MLCC/+/-10%
PCI_PLTRST# U40 SN74AHC1G32DBVR PLTRST_LAN_MINICARD# 47,50
C553 47PF/50V MLCC/+/-5% /*
No.54

32 PCI_AD[0..31]

U32B

PCI_AD0 D20 AD0 … PCI_AD31 A3 AD31

PCI

REQ0# A4 PCI_REQ0# → PCI_REQ0#
GNT0# D7 PCI_GNT0# → PCI_GNT0#
REQ1#/GPIO50 E18 PCI_REQ1# → PCI_REQ1# 32
GNT1#/GPIO51 C18 PCI_GNT1# → PCI_GNT1# 32
REQ2#/GPIO52 B19 SB_WWAN_PCIE_RST# → SB_WWAN_PCIE_RST# 50 T72
GNT2#/GPIO53 F18 PCI_GNT2# 1
REQ3#/GPIO54 A11 SB_LOM_PCIE_RST# → SB_LOM_PCIE_RST# 47 T78
GNT3#/GPIO55 C10 PCI_GNT3# 1

C/BE0# C17 PCI_C_BE0# 32
C/BE1# E15 PCI_C_BE1# 32
C/BE2# E16 PCI_C_BE2# 32
C/BE3# E17 PCI_C_BE3# 32

IRDY# C8 PCI_IRDY# → PCI_IRDY# 32
PAR D9 PCI_PAR 32
PCIRST# G6 PCI_RST#_G
DEVSEL# D16 PCI_DEVSEL# → PCI_DEVSEL# 32
PERR# A7 PCI_PERR# → PCI_PERR# 32
PLOCK# B7 PCI_PLOCK#
SERR# F10 PCI_SERR# → PCI_SERR# 32
STOP# C16 PCI_STOP# → PCI_STOP# 32
TRDY# C9 PCI_TRDY# → PCI_TRDY# 32
FRAME# A17 PCI_FRAME# → PCI_FRAME# 32

PLTRST# AG24 PCI_PLTRST#
PCICLK B10 CLK_PCI_ICH → CLK_PCI_ICH 21
PME# G7 ICH_PME# 38

Interrupt I/F

T79 1
PCI_PIRQA# F9 PCI_PIRQB# B5 PCI_PIRQC# C5 PCI_PIRQD# A10
32 PCI_PIRQB#
32 PCI_PIRQC#
32 PCI_PIRQD#

PIRQE#/GPIO2 F8 ICH_GPIO2_PIRQE#
PIRQF#/GPIO3 G11 SB_WLAN_PCIE_RST# → SB_WLAN_PCIE_RST# 50
PIRQG#/GPIO4 F12 SB_NB_PCIE_RST# → SB_NB_PCIE_RST# 10
PIRQH#/GPIO5 B3 PCIE_MCARD2_DET# → PCIE_MCARD2_DET# 50
No.14

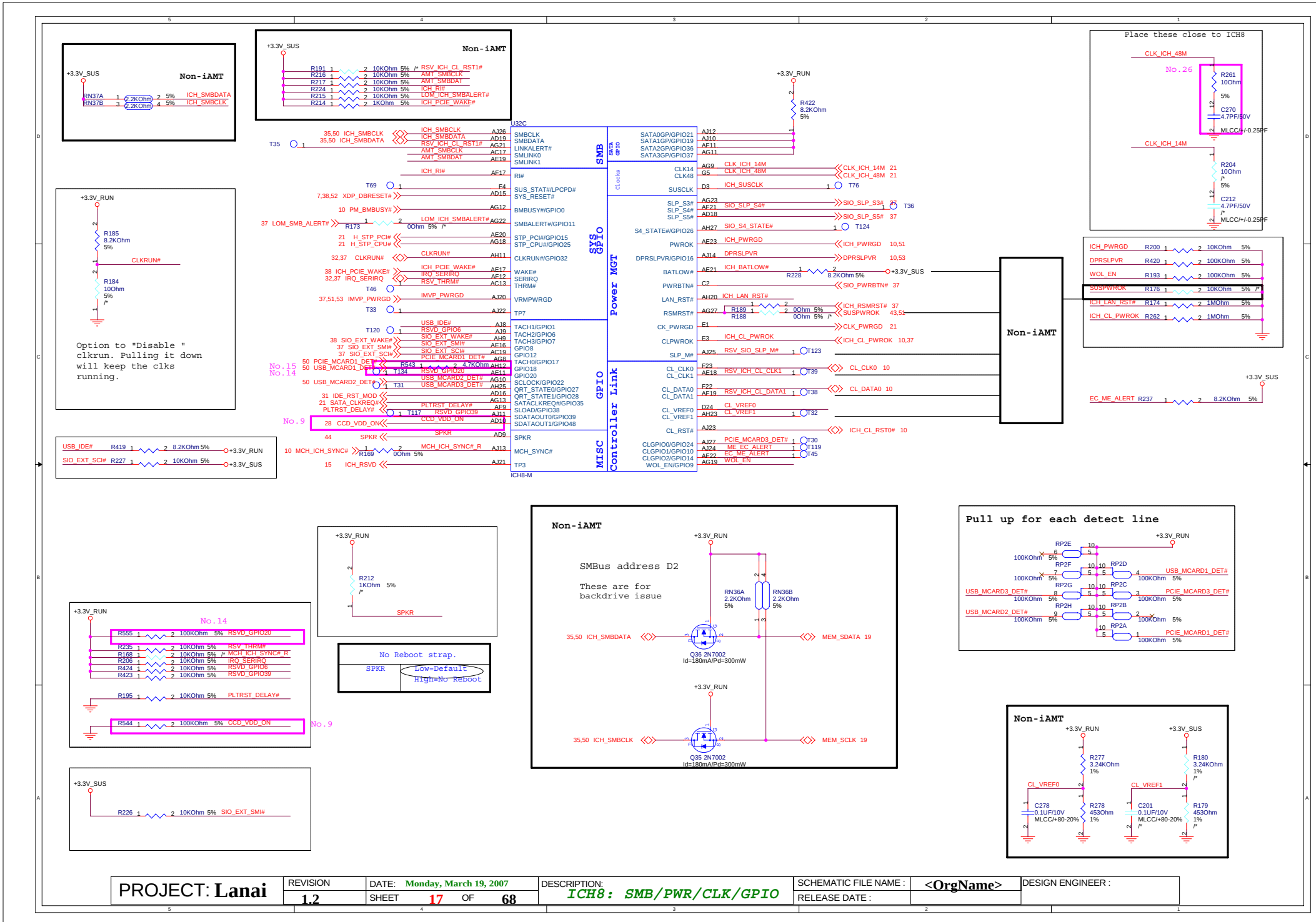
ICH8-M

R5C833	REQ1 GNT1	PIRQC PIRQD

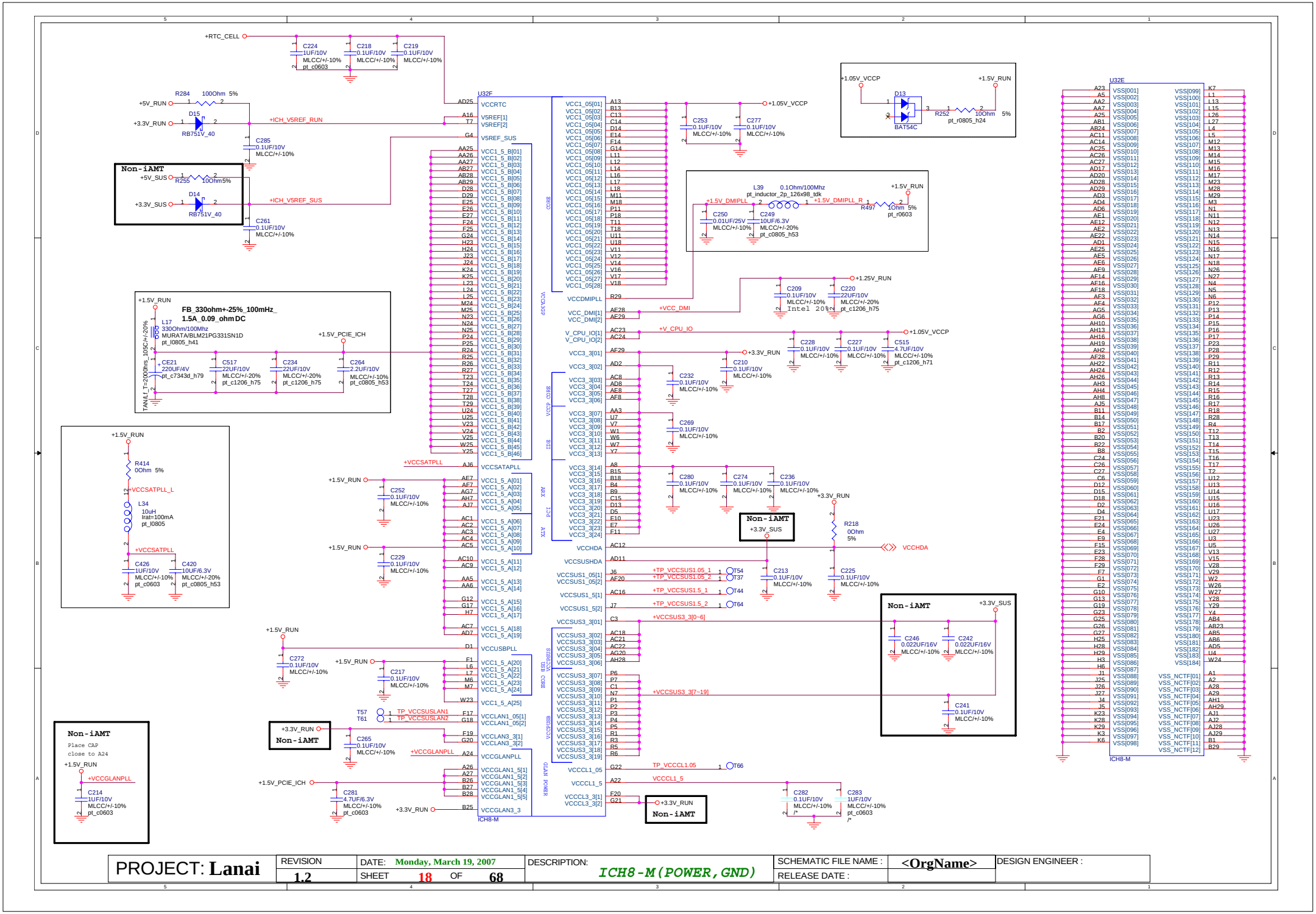
CLK_PCI_ICH
R281 10Ohm 5% /*
C284 8.2PF/50V MLCC/+/-0.25PF /*

Reserved for EMI. Place resister and cap close to ICH.

PROJECT: Lanai	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: ICH8: PCI/INT/DMI/USB	SCHEMATIC FILE NAME : <OrgName>	DESIGN ENGINEER :
		SHEET 16 OF 68		RELEASE DATE :	



PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***ICH8: SMB/PWR/CLK/GPIO***	SCHEMATIC FILE NAME : **<OrgName>**	DESIGN ENGINEER :
		SHEET **17** OF **68**		RELEASE DATE :	



PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***ICH8-M(POWER,GND)***	SCHEMATIC FILE NAME : **<OrgName>**	DESIGN ENGINEER :
		SHEET **18** OF **68**		RELEASE DATE :	

A is required to route to Top SODIMM for AMT to function Ch.A SODIMM needs to be populated for Intel AMT support.

TOP

+1.8V_SUS
V_DDR_MCH_REF

DDR_A_DM[0..7] 11
DDR_A_D[0..63] 11
DDR_A_DQS[0..7] 11
DDR_A_DQS#[0..7] 11
DDR_A_MA[0..14] 10,11,20

CON14

		VREF	VSS46	2	
DDR_A_D12	3	VSS47	DQ4	4	DDR_A_D13
DDR_A_D8	5	DQ0	DQ5	6	DDR_A_D14
	7	DQ1	VSS15	8	
DDR_A_DQS#1	9	VSS37	DM0	10	DDR_A_DM1
DDR_A_DQS1	11	DQS#0	VSS5	12	
	13	DQS0	DQ6	14	DDR_A_D11
DDR_A_D15	15	VSS48	DQ7	16	DDR_A_D10
DDR_A_D9	17	DQ2	VSS16	18	
	19	DQ3	DQ12	20	DDR_A_D3
DDR_A_D7	21	VSS38	DQ13	22	DDR_A_D1
DDR_A_D2	23	DQ8	VSS17	24	
	25	DQ9	DM1	26	DDR_A_DM0
DDR_A_DQS#0	27	VSS49	VSS53	28	
DDR_A_DQS0	29	DQS#1	CK0	30	M_CLK_DDR0 10
	31	DQS1	CK0#	32	M_CLK_DDR#0 10
DDR_A_D4	33	VSS39	VSS41	34	
DDR_A_D6	35	DQ10	DQ14	36	DDR_A_D5
	37	DQ11	DQ15	38	DDR_A_D0
	39	VSS50	VSS54	40	
	41	VSS18	VSS20	42	
DDR_A_D16	43	DQ16	DQ20	44	DDR_A_D17
DDR_A_D21	45	DQ17	DQ21	46	DDR_A_D20
	47	VSS1	VSS6	48	
DDR_A_DQS#2	49	DQS#2	NC3	50	PM_EXTTS#0 DDR_A_DM2 PM_EXTTS#0 10
DDR_A_DQS2	51	DQS2	DM2	52	
	53	VSS19	VSS21	54	
DDR_A_D19	55	DQ18	DQ22	56	DDR_A_D18
DDR_A_D22	57	DQ19	DQ23	58	DDR_A_D23
	59	VSS22	VSS24	60	
DDR_A_D25	61	DQ24	DQ28	62	DDR_A_D28
DDR_A_D27	63	DQ25	DQ29	64	DDR_A_D29
	65	VSS23	VSS25	66	
DDR_A_DM3	67	DM3	DQS#3	68	DDR_A_DQS#3
	69	NC4	DQS3	70	DDR_A_DQS3
	71	VSS9	VSS10	72	
DDR_A_D31	73	DQ26	DQ30	74	DDR_A_D30
DDR_A_D24	75	DQ27	DQ31	76	DDR_A_D26
	77	VSS4	VSS8	78	
10,20 DDR_CKE0_DIMMA	79	CKE0	CKE1	80	DDR_CKE1_DIMMA 10,20
	81	VDD7	VDD8	82	
	83	NC1	A15	84	
11,20 DDR_A_BS2	85	A16_BA2	A14	86	DDR_A_MA14
	87	VDD9	VDD11	88	
DDR_A_MA12	89	A12	A11	90	DDR_A_MA11
DDR_A_MA9	91	A9	A7	92	DDR_A_MA7
DDR_A_MA8	93	A8	A6	94	DDR_A_MA6
	95	VDD5	VDD4	96	
DDR_A_MA5	97	A5	A4	98	DDR_A_MA4
DDR_A_MA3	99	A3	A2	100	DDR_A_MA2
DDR_A_MA1	101	A1	A0	102	DDR_A_MA0
	103	VDD10	VDD12	104	
DDR_A_MA10	105	A10/AP	BA1	106	DDR_A_BS1 DDR_A_RAS# 11,20
DDR_A_BS0	107	BA0	RAS#	108	DDR_A_RAS# 11,20
11,20 DDR_A_WE#	109	WE#	S0#	110	DDR_CS0_DIMMA# 10,20
	111	VDD2	VDD1	112	
DDR_A_CAS#	113	CAS#	ODT0	114	M_ODT0 DDR_A_MA13 M_ODT0 10,20
10,20 DDR_CS1_DIMMA#	115	S1#	A13	116	
	117	VDD3	VDD6	118	
10,20 M_ODT1	119	ODT1	NC2	120	
	121	VSS11	VSS12	122	
DDR_A_D36	123	DQ32	DQ36	124	DDR_A_D32
DDR_A_D33	125	DQ33	DQ37	126	DDR_A_D38
	127	VSS26	VSS28	128	
DDR_A_DQS#4	129	DQS#4	DM4	130	DDR_A_DM4
DDR_A_DQS4	131	DQS4	VSS42	132	
	133	VSS2	DQ38	134	DDR_A_D37
DDR_A_D39	135	DQ34	DQ39	136	DDR_A_D35
DDR_A_D34	137	DQ35	VSS55	138	
	139	VSS27	DQ44	140	DDR_A_D45
DDR_A_D40	141	DQ40	DQ45	142	DDR_A_D44
DDR_A_D47	143	DQ41	VSS43	144	
	145	VSS29	DQS#5	146	DDR_A_DQS#5
DDR_A_DM5	147	DM5	DQS5	148	DDR_A_DQS5
	149	VSS51	VSS56	150	
DDR_A_D42	151	DQ42	DQ46	152	DDR_A_D41
DDR_A_D43	153	DQ43	DQ47	154	DDR_A_D46
	155	VSS40	VSS44	156	
DDR_A_D48	157	DQ48	DQ52	158	DDR_A_D53
DDR_A_D49	159	DQ49	DQ53	160	DDR_A_D52
	161	VSS52	VSS57	162	
	163	NCTEST	CK1	164	M_CLK_DDR1 10
	165	VSS30	CK1#	166	M_CLK_DDR#1 10
DDR_A_DQS#6	167	DQS#6	VSS45	168	
DDR_A_DQS6	169	DQS6	DM6	170	DDR_A_DM6
	171	VSS31	VSS32	172	
DDR_A_D50	173	DQ50	DQ54	174	DDR_A_D51
DDR_A_D54	175	DQ51	DQ55	176	DDR_A_D55
	177	VSS33	VSS35	178	
DDR_A_D56	179	DQ56	DQ60	180	DDR_A_D58
DDR_A_D60	181	DQ57	DQ61	182	DDR_A_D57
	183	VSS3	VSS7	184	
DDR_A_DM7	185	DM7	DQS#7	186	DDR_A_DQS#7
	187	VSS34	DQS7	188	DDR_A_DQS7
DDR_A_D61	189	DQ58	VSS36	190	
DDR_A_D59	191	DQ59	DQ62	192	DDR_A_D63
	193	VSS14	DQ63	194	DDR_A_D62
MEM_SDATA	195	SDA	VSS13	196	
MEM_SCLK	197	SCL	SA0	198	
+3.3V_RUN	199	VDDSPD	SA1	200	
	201	GND0	GND1	202	
	203	NP_NC1NP_NC2		204	

STD FOXCONN/AS0A426-N2SN-7F

CLOCK 0 , 1
CKE 0 , 1

17 MEM_SDATA MEM_SDATA
17 MEM_SCLK MEM_SCLK
+3.3V_RUN

Non-iAMT

SMbus address A0

V_DDR_MCH_REF
C102 0.1UF/10V MLCC/+/-10%
C99 2.2UF/6.3V MLCC/+80-20%
pt_c0805_h53

+3.3V_RUN
Non-iAMT
C445 2.2UF/6.3V MLCC/+/-10%
C200 0.1UF/10V MLCC/+80-20%
pt_c0805_h53

R178 10KOhm 5%
R171 10KOhm 5%

BOT

+1.8V_SUS
V_DDR_MCH_REF

DDR_B_DM[0..7] 11
DDR_B_D[0..63] 11
DDR_B_DQS[0..7] 11
DDR_B_DQS#[0..7] 11
DDR_B_MA[0..14] 10,11,20

CON15

		VREF	VSS46	2	
DDR_B_D0	3	VSS47	DQ4	4	DDR_B_D5
DDR_B_D1	5	DQ0	DQ5	6	DDR_B_D4
	7	DQ1	VSS15	8	
DDR_B_DQS#0	9	VSS37	DM0	10	DDR_B_DM0
DDR_B_DQS0	11	DQS#0	VSS5	12	
	13	DQS0	DQ6	14	DDR_B_D6
DDR_B_D3	15	VSS48	DQ7	16	DDR_B_D7
DDR_B_D2	17	DQ2	VSS16	18	
	19	DQ3	DQ12	20	DDR_B_D8
DDR_B_D9	21	VSS38	DQ13	22	DDR_B_D12
DDR_B_D13	23	DQ8	VSS17	24	
	25	DQ9	DM1	26	DDR_B_DM1
DDR_B_DQS#1	27	VSS49	VSS53	28	
DDR_B_DQS1	29	DQS#1	CK0	30	M_CLK_DDR2 10
	31	DQS1	CK0#	32	M_CLK_DDR#2 10
DDR_B_D10	33	VSS39	VSS41	34	
DDR_B_D14	35	DQ10	DQ14	36	DDR_B_D11
	37	DQ11	DQ15	38	DDR_B_D15
	39	VSS50	VSS54	40	
	41	VSS18	VSS20	42	
DDR_B_D20	43	DQ16	DQ20	44	DDR_B_D21
DDR_B_D16	45	DQ17	DQ21	46	DDR_B_D23
	47	VSS1	VSS6	48	
DDR_B_DQS#2	49	DQS#2	NC3	50	PM_EXTTS#1 DDR_B_DM2 PM_EXTTS#1 10
DDR_B_DQS2	51	DQS2	DM2	52	
	53	VSS19	VSS21	54	
DDR_B_D18	55	DQ18	DQ22	56	DDR_B_D22
DDR_B_D19	57	DQ19	DQ23	58	DDR_B_D17
	59	VSS22	VSS24	60	
DDR_B_D25	61	DQ24	DQ28	62	DDR_B_D29
DDR_B_D28	63	DQ25	DQ29	64	DDR_B_D31
	65	VSS23	VSS25	66	
DDR_B_DM3	67	DM3	DQS#3	68	DDR_B_DQS#3
	69	NC4	DQS3	70	DDR_B_DQS3
	71	VSS9	VSS10	72	
DDR_B_D27	73	DQ26	DQ30	74	DDR_B_D24
DDR_B_D30	75	DQ27	DQ31	76	DDR_B_D26
	77	VSS4	VSS8	78	
10,20 DDR_CKE2_DIMMB	79	CKE0	CKE1	80	DDR_CKE3_DIMMB 10,20
	81	VDD7	VDD8	82	
	83	NC1	A15	84	
11,20 DDR_B_BS2	85	A16_BA2	A14	86	DDR_B_MA14
	87	VDD9	VDD11	88	
DDR_B_MA12	89	A12	A11	90	DDR_B_MA11
DDR_B_MA9	91	A9	A7	92	DDR_B_MA7
DDR_B_MA8	93	A8	A6	94	DDR_B_MA6
	95	VDD5	VDD4	96	
DDR_B_MA5	97	A5	A4	98	DDR_B_MA4
DDR_B_MA3	99	A3	A2	100	DDR_B_MA2
DDR_B_MA1	101	A1	A0	102	DDR_B_MA0
	103	VDD10	VDD12	104	
DDR_B_MA10	105	A10/AP	BA1	106	DDR_B_BS1 11,20
DDR_B_BS0	107	BA0	RAS#	108	DDR_B_RAS# 11,20
11,20 DDR_B_WE#	109	WE#	S0#	110	DDR_CS2_DIMMB# 10,20
	111	VDD2	VDD1	112	
11,20 DDR_B_CAS#	113	CAS#	ODT0	114	M_ODT2 DDR_B_MA13 M_ODT2 10,20
10,20 DDR_CS3_DIMMB#	115	S1#	A13	116	
	117	VDD3	VDD6	118	
10,20 M_ODT3	119	ODT1	NC2	120	
	121	VSS11	VSS12	122	
DDR_B_D38	123	DQ32	DQ36	124	DDR_B_D35
DDR_B_D36	125	DQ33	DQ37	126	DDR_B_D32
	127	VSS26	VSS28	128	
DDR_B_DQS#4	129	DQS#4	DM4	130	DDR_B_DM4
DDR_B_DQS4	131	DQS4	VSS42	132	
	133	VSS2	DQ38	134	DDR_B_D39
DDR_B_D34	135	DQ34	DQ39	136	DDR_B_D37
DDR_B_D33	137	DQ35	VSS55	138	
	139	VSS27	DQ44	140	DDR_B_D40
DDR_B_D45	141	DQ40	DQ45	142	DDR_B_D41
DDR_B_D46	143	DQ41	VSS43	144	
	145	VSS29	DQS#5	146	DDR_B_DQS#5
DDR_B_DM5	147	DM5	DQS5	148	DDR_B_DQS5
	149	VSS51	VSS56	150	
DDR_B_D44	151	DQ42	DQ46	152	DDR_B_D47
DDR_B_D42	153	DQ43	DQ47	154	DDR_B_D43
	155	VSS40	VSS44	156	
DDR_B_D53	157	DQ48	DQ52	158	DDR_B_D52
DDR_B_D48	159	DQ49	DQ53	160	DDR_B_D49
	161	VSS52	VSS57	162	
	163	NCTEST	CK1	164	M_CLK_DDR3 10
	165	VSS30	CK1#	166	M_CLK_DDR#3 10
DDR_B_DQS#6	167	DQS#6	VSS45	168	
DDR_B_DQS6	169	DQS6	DM6	170	DDR_B_DM6
	171	VSS31	VSS32	172	
DDR_B_D51	173	DQ50	DQ54	174	DDR_B_D55
DDR_B_D54	175	DQ51	DQ55	176	DDR_B_D50
	177	VSS33	VSS35	178	
DDR_B_D56	179	DQ56	DQ60	180	DDR_B_D57
DDR_B_D62	181	DQ57	DQ61	182	DDR_B_D61
	183	VSS3	VSS7	184	
DDR_B_DM7	185	DM7	DQS#7	186	DDR_B_DQS#7
	187	VSS34	DQS7	188	DDR_B_DQS7
DDR_B_D63	189	DQ58	VSS36	190	
DDR_B_D60	191	DQ59	DQ62	192	DDR_B_D58
MEM_SDATA	193	VSS14	DQ63	194	DDR_B_D59
MEM_SCLK	195	SDA	VSS13	196	
+3.3V_RUN	197	SCL	SA0	198	
	199	VDDSPD	SA1	200	
	201	GND0	GND1	202	
	203	NP_NC1NP_NC2		204	

STD FOXCONN/AS0A426-NASN-7F

CLOCK 2 , 3
CKE 2 , 3

Non-iAMT
+3.3V_RUN
SMbus address A4

V_DDR_MCH_REF
C101 0.1UF/10V MLCC/+/-10%
C97 2.2UF/6.3V MLCC/+80-20%
pt_c0805_h53

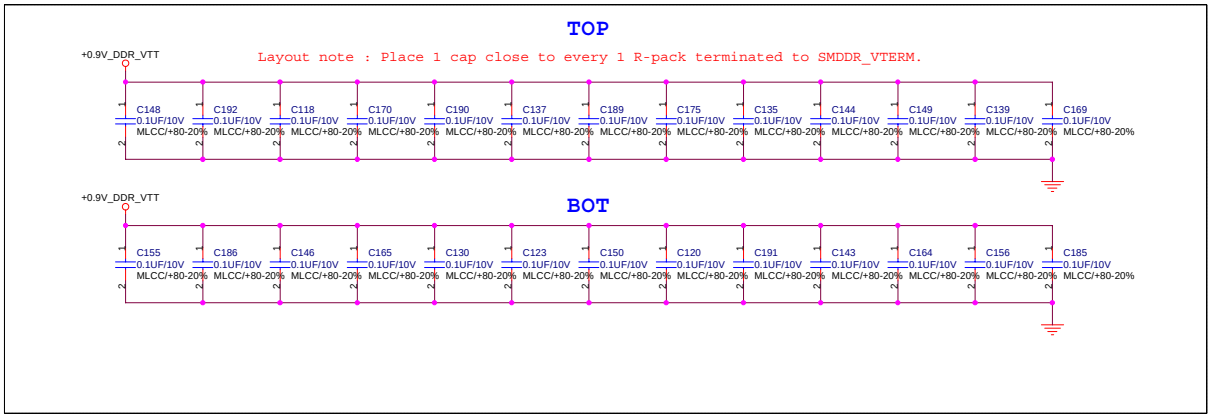
+3.3V_RUN
Non-iAMT
C435 2.2UF/6.3V MLCC/+/-10%
C429 0.1UF/10V MLCC/+80-20%
pt_c0805_h53

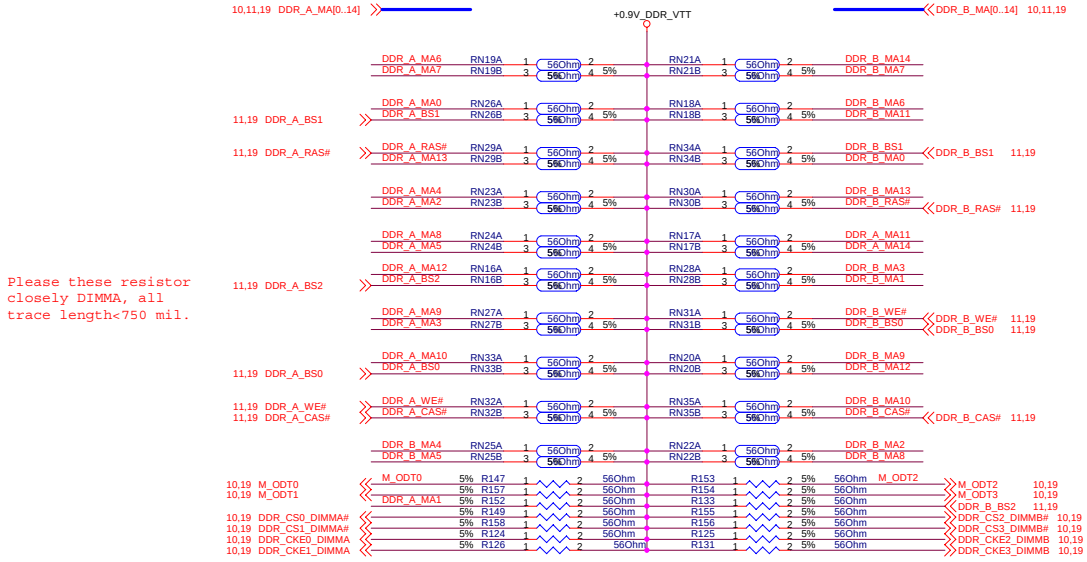
Non-iAMT
+3.3V_RUN
R172 10KOhm 5%
R170 10KOhm 5%

+1.8V_SUS
Please these Caps near So-Dimm1
C154 C119 C163 C147 C168
2.2UF/6.3V MLCC/+/-10% pt_c0603
C128 C136 C153 C125
0.1UF/10V MLCC/+80-20%

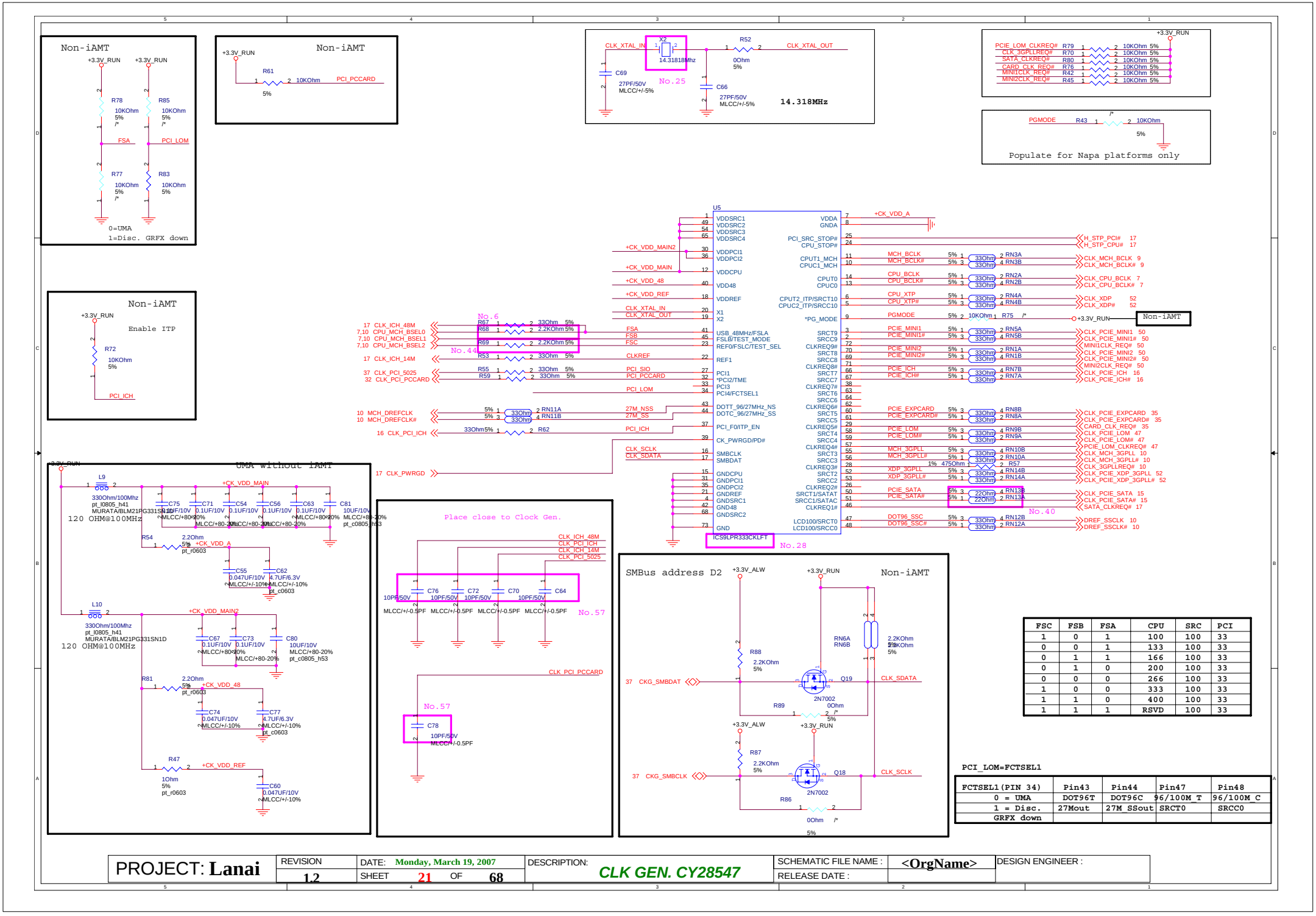
+1.8V_SUS
Please these Caps near So-Dimm2
C138 C395 C379 C151 C142
2.2UF/6.3V MLCC/+/-10% pt_c0603
C167 C384 C388 C393
0.1UF/10V MLCC/+80-20%

PROJECT: **Lanai**	REVISION: **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION: *DDR2 SO-DIMM (0)*
	SHEET **19** OF **68**	SCHEMATIC FILE NAME : **<OrgName>**	DESIGN ENGINEER :
		RELEASE DATE :	





PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***DDR2 SO-DIMM (1)***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **20** OF **68**		RELEASE DATE :		



FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

PCI_LOM=FCTSEL1

FCTSEL1(PIN 34)	Pin43	Pin44	Pin47	Pin48
0 = UMA	DOT96T	DOT96C	96/100M_T	96/100M_C
1 = Disc. GRFX down	27Mout	27M_SSout	SRCT0	SRCC0

PROJECT: **Lanai**	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: *CLK GEN. CY28547*	SCHEMATIC FILE NAME : <OrgName>	DESIGN ENGINEER :
		SHEET 21 OF 68		RELEASE DATE :	

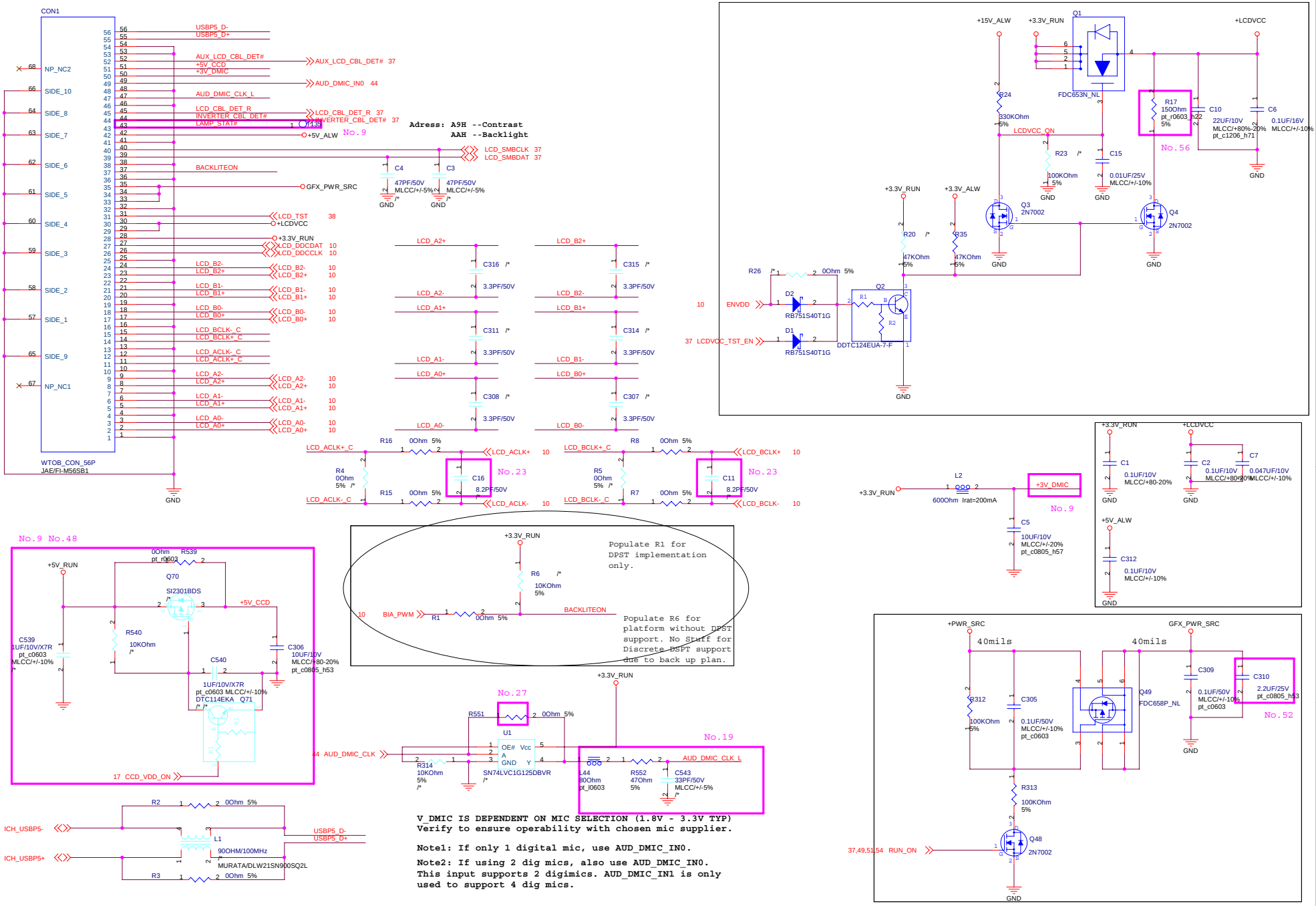
PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 23 OF 68		RELEASE DATE :		

PROJECT: **Lanai**	REVISION	DATE: **Monday, March 19, 2007**	DESCRIPTION:	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
	1.2	SHEET **24** OF **68**		RELEASE DATE :		

PROJECT: **Lanai**	REVISION	DATE: **Monday, March 19, 2007**	DESCRIPTION:	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
	1.2	SHEET **25** OF **68**		RELEASE DATE :		

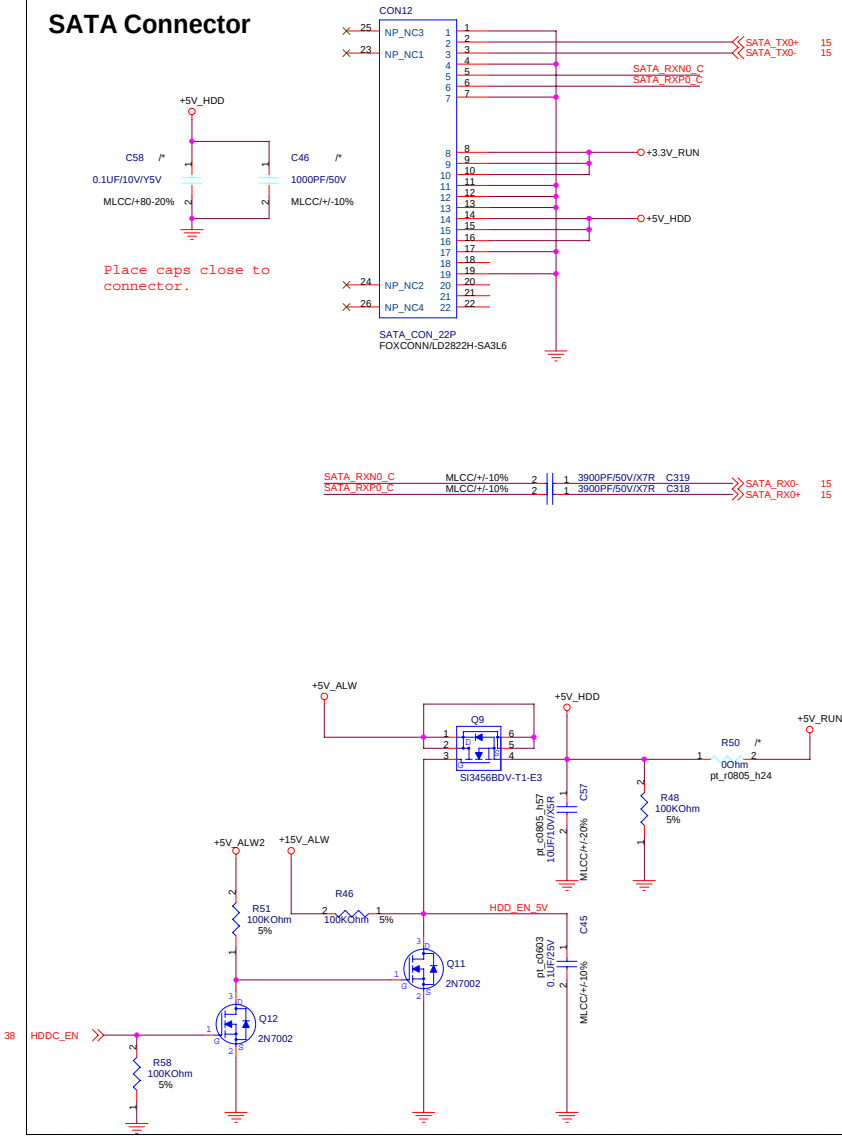
PROJECT: **Lanai**	REVISION	DATE: **Monday, March 19, 2007**	DESCRIPTION:	SCHEMATIC FILE NAME :		DESIGN ENGINEER :
	1.2	SHEET **26** OF **68**		RELEASE DATE :		

PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION:	SCHEMATIC FILE NAME :	DESIGN ENGINEER : *Sean Kuo*
		SHEET **27** OF **68**		RELEASE DATE :	

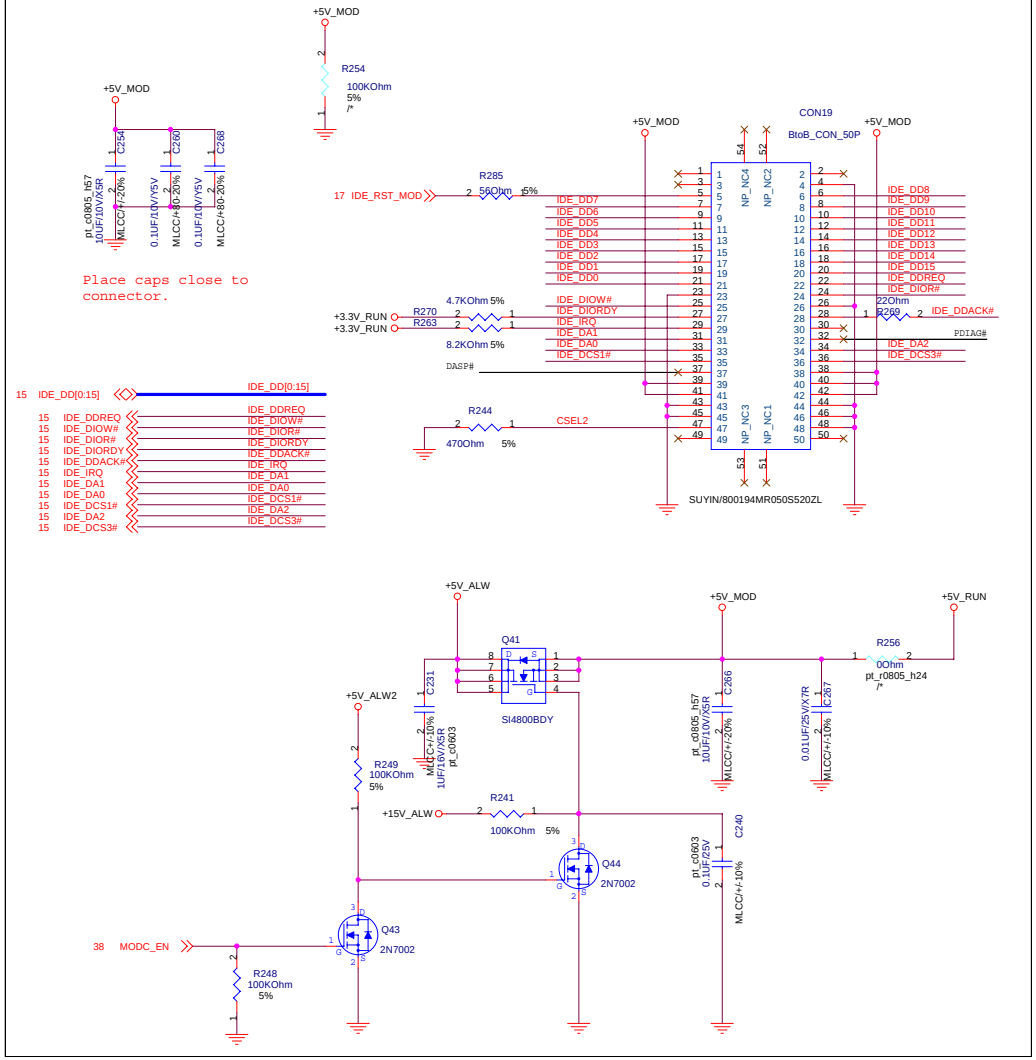


PROJECT: Lanai	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: LVDS CON	SCHEMATIC FILE NAME :	DESIGN ENGINEER :
		SHEET 28 OF 68		RELEASE DATE :	

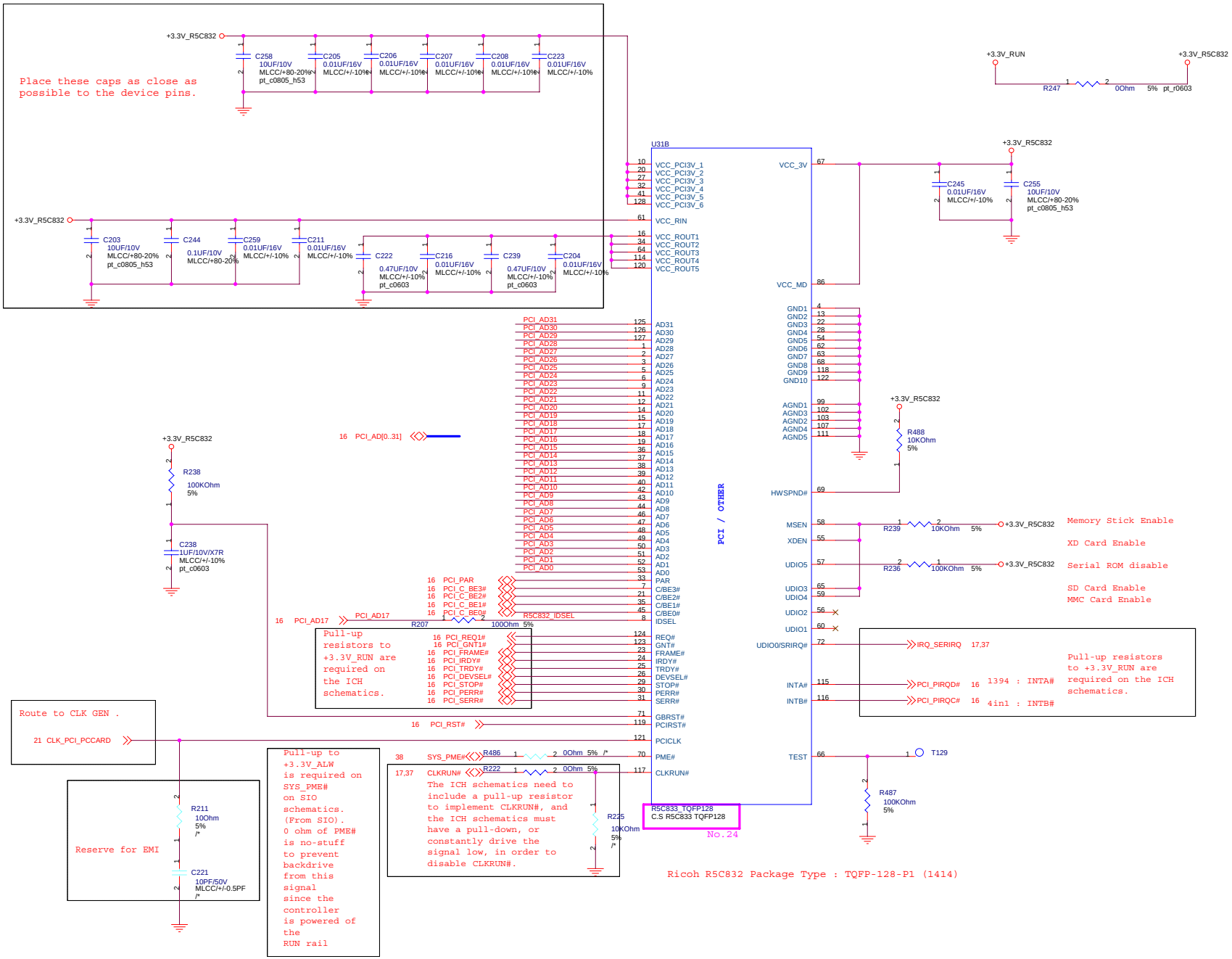
SATA Connector



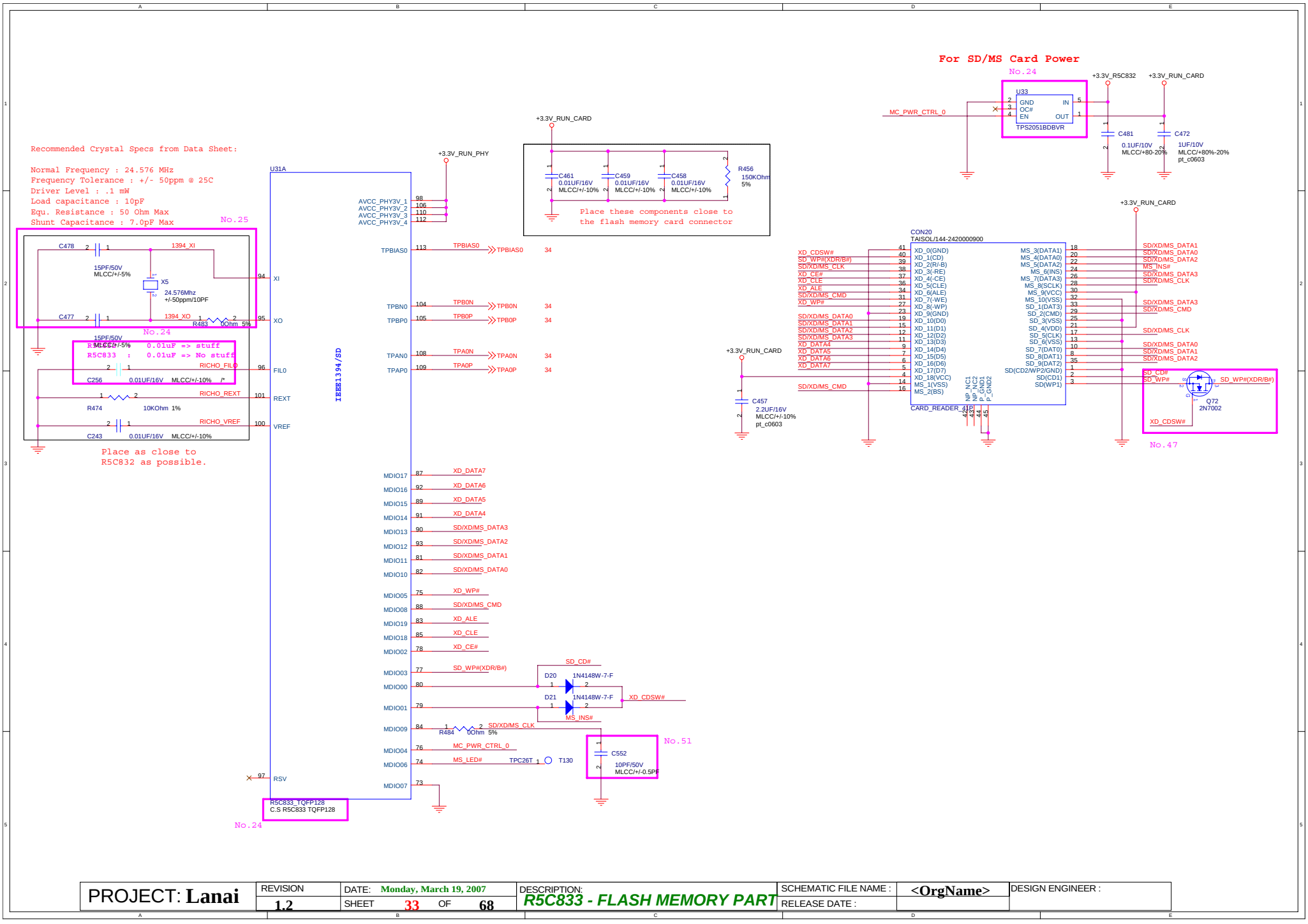
ODD Connector



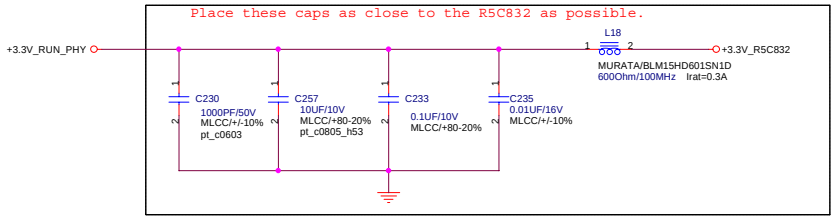
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***SATA (HDD & CD_ROM)***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **31** OF **68**		RELEASE DATE :		

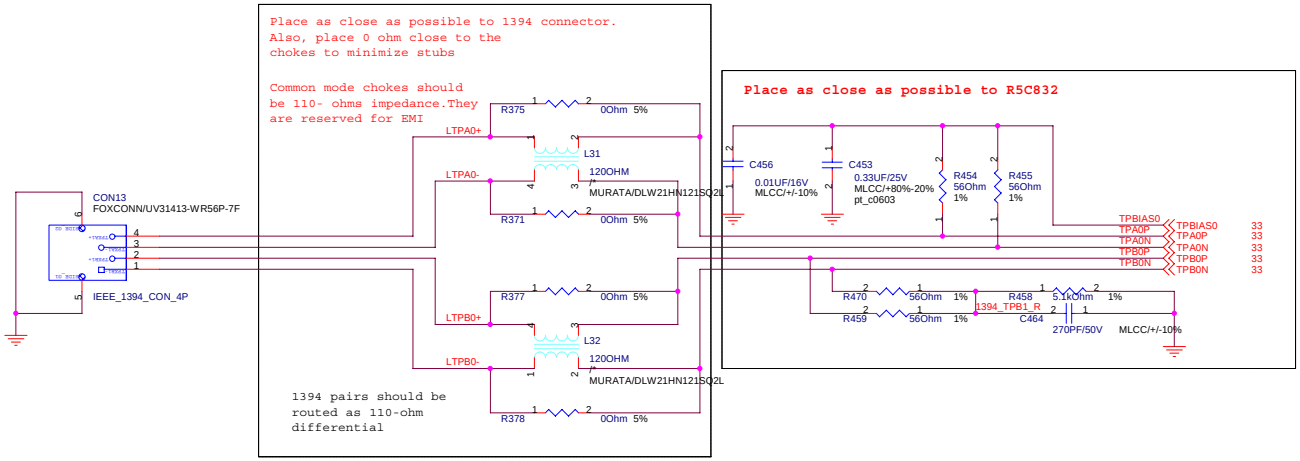


PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***R5C833 - PCI INTERFACE***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **32** OF **68**		RELEASE DATE :		



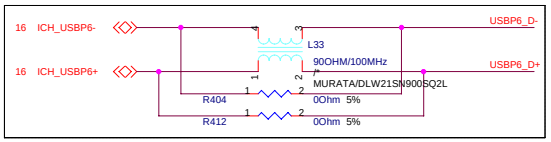
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***R5C833 - FLASH MEMORY PART***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **33** OF **68**		RELEASE DATE :		

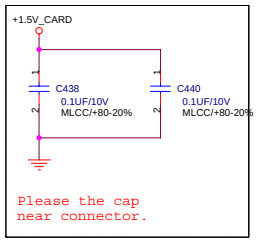


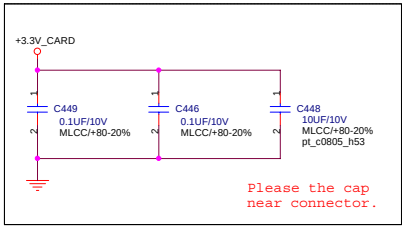


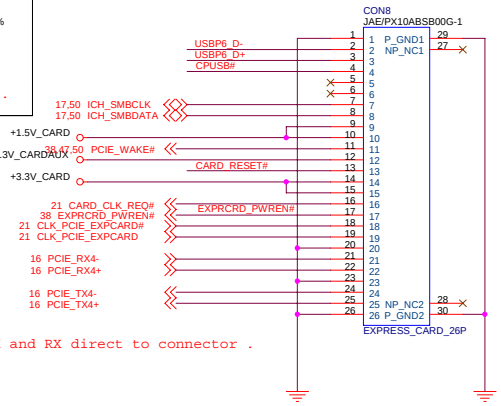
PROJECT: **Lanai**	REVISION **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION: *R5C833 - IEEE1394 PART*	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
		SHEET 34 OF 68		RELEASE DATE :		

Express Card



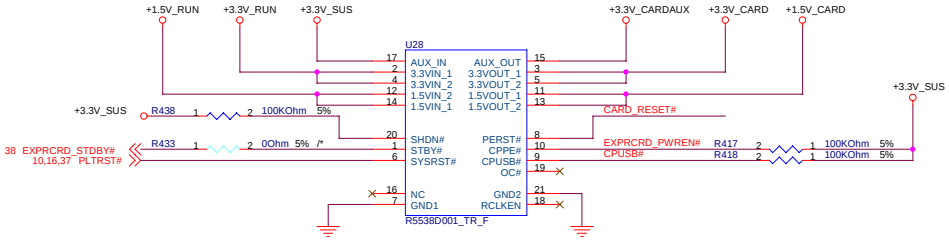


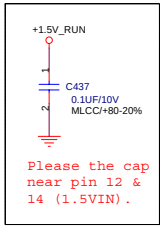


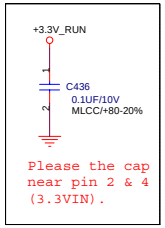


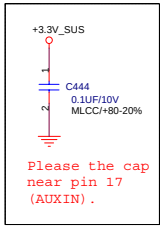
PCI-Express TX and RX direct to connector .

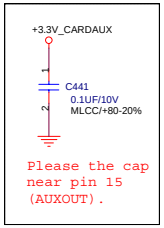
+1.5V_CARD Max. 650mA, Average 500mA.
+3V_CARD Max. 1300mA, Average 1000mA.

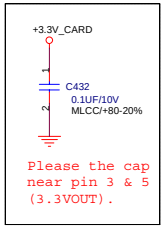


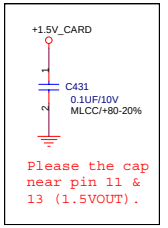




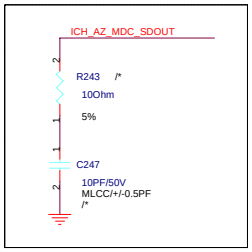


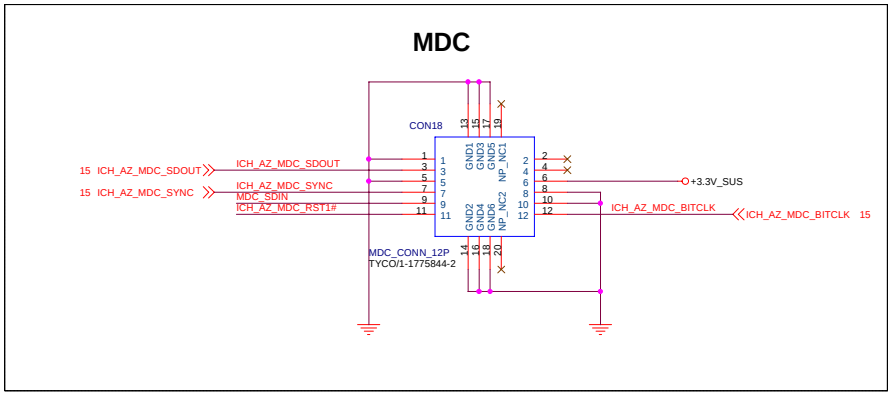


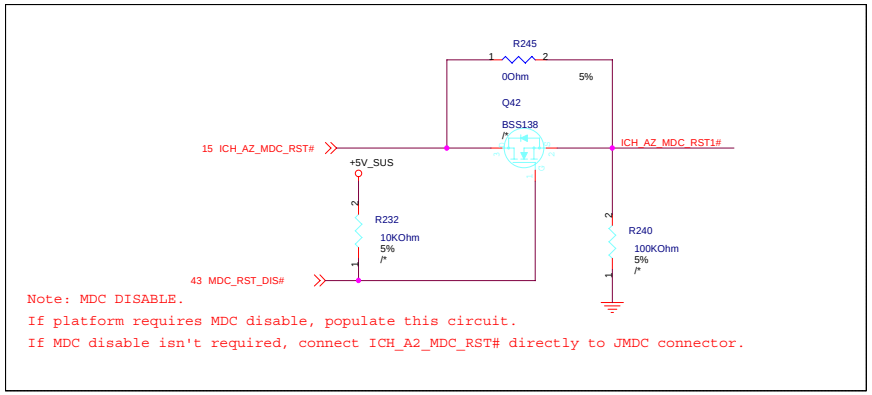


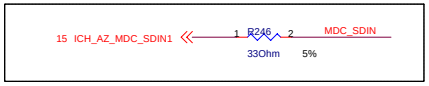


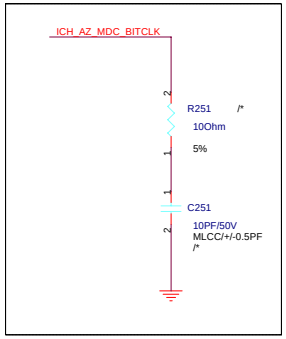
PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 35 OF 68	*PCI-Express Card*	RELEASE DATE :		*Terry_Lin*

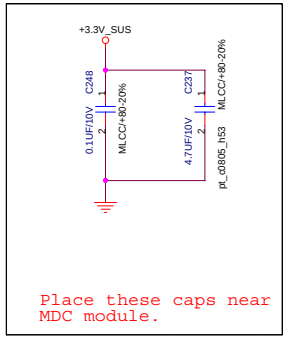




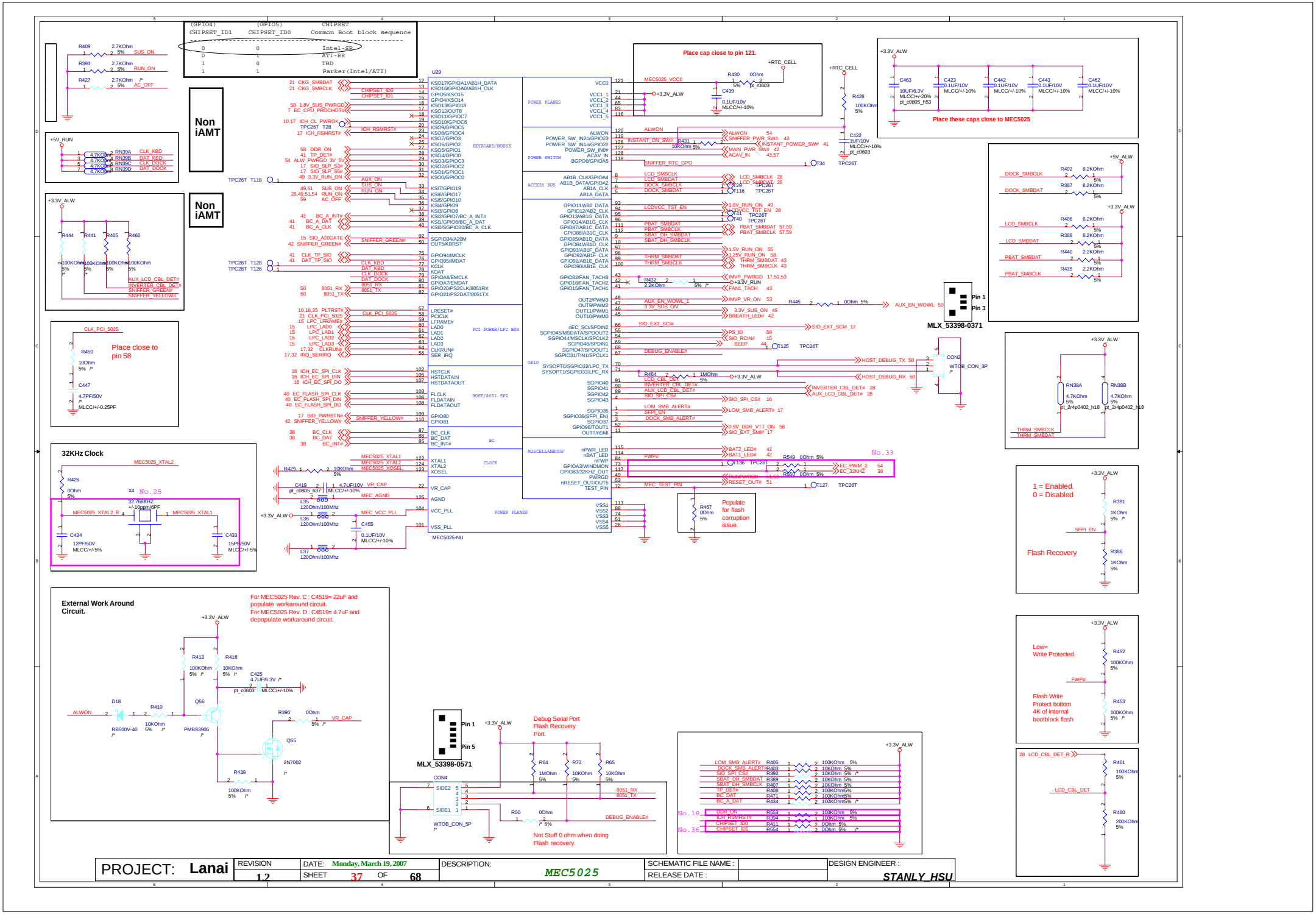


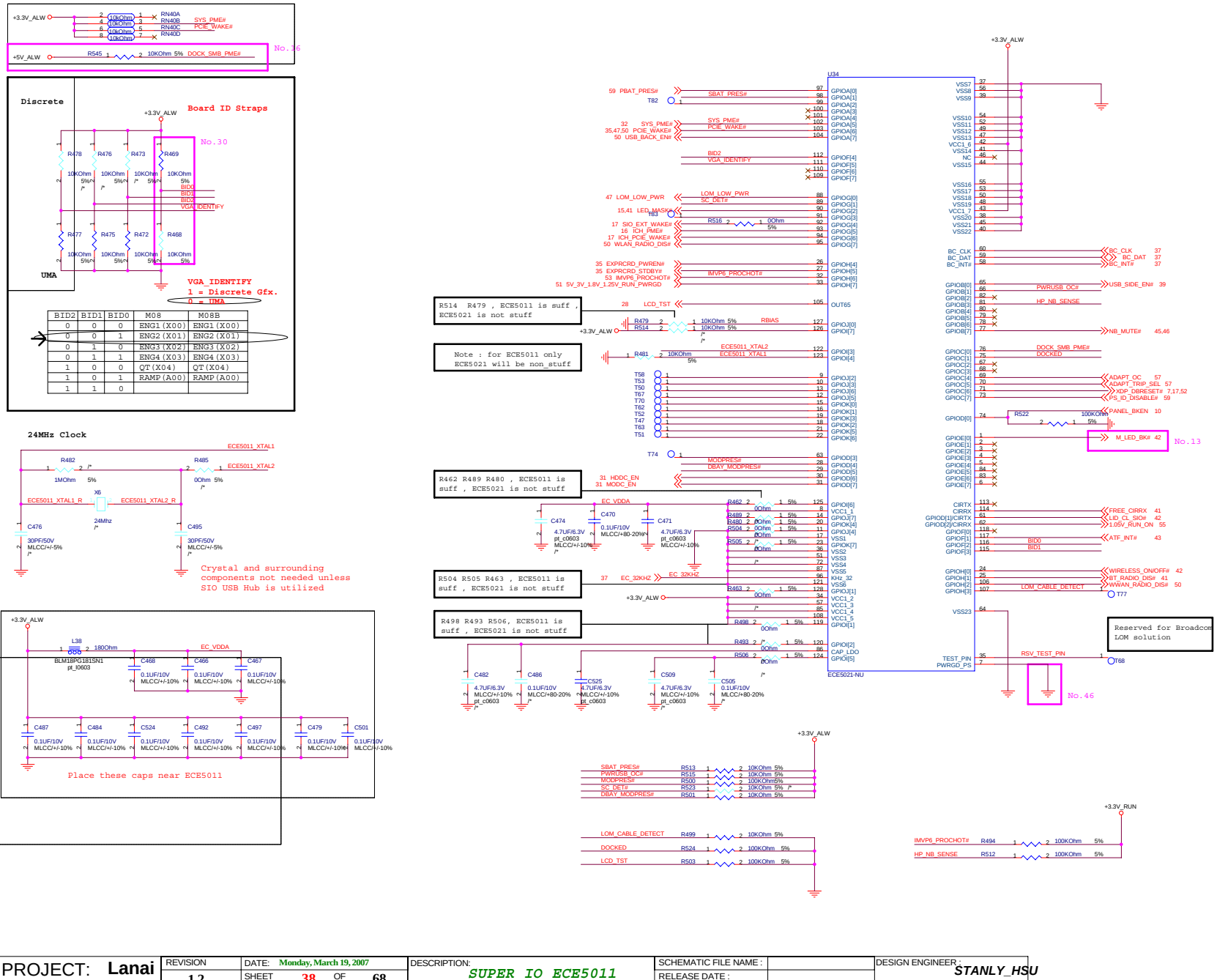




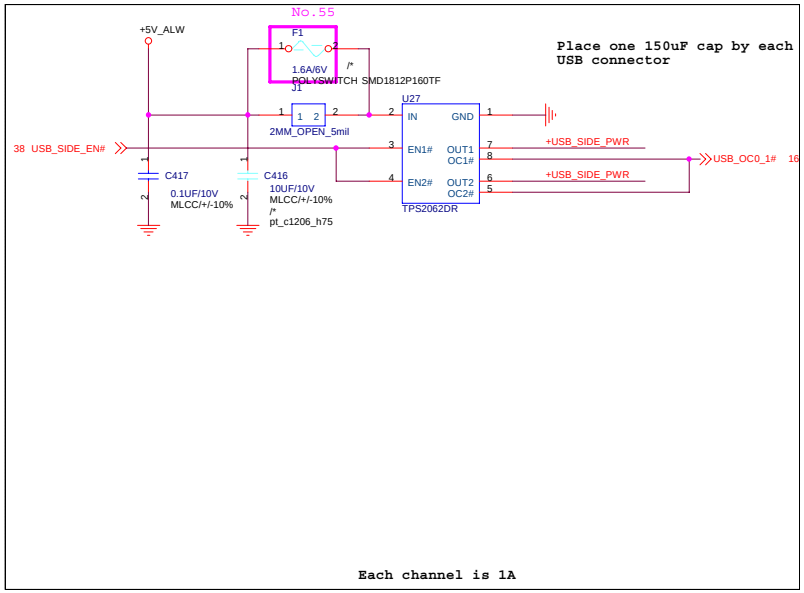


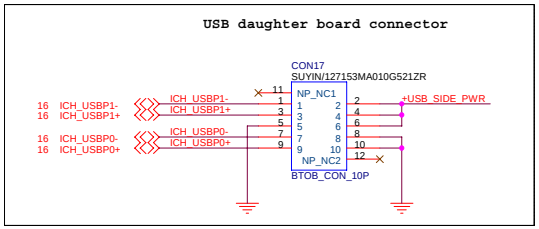
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***MDC CONN***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **36** OF **68**		RELEASE DATE :		


(GPIO4) (GPIO5) CHIPSET
CHIPSET_ID1 CHIPSET_ID0 Common Boot block sequence
0 0 Intel-SR
0 1 ATI-RR
1 0 TBD
1 1 Parker(Intel/ATI)
Non iAMT
Non iAMT
Place cap close to pin 121.
Place these caps close to MEC5025
Place close to pin 58
32KHz Clock
External Work Around Circuit.
For MEC5025 Rev. C : C4519= 22uF and populate workaround circuit.
For MEC5025 Rev. D : C4519= 4.7uF and depopulate workaround circuit.
MLX_53398-0371
MLX_53398-0371
Populate for flash corruption issue.
Debug Serial Port Flash Recovery Port.
Not Stuff 0 ohm when doing Flash recovery.
1 = Enabled.
0 = Disabled
Flash Recovery
Low= Write Protected.
Flash Write Protect bottom 4K of internal bootblock flash
MEC5025-NU
PROJECT: Lanai
REVISION 1.2
DATE: Monday, March 19, 2007
SHEET 37 OF 68
DESCRIPTION: MEC5025
SCHEMATIC FILE NAME :
RELEASE DATE :
DESIGN ENGINEER : STANLY_HSU

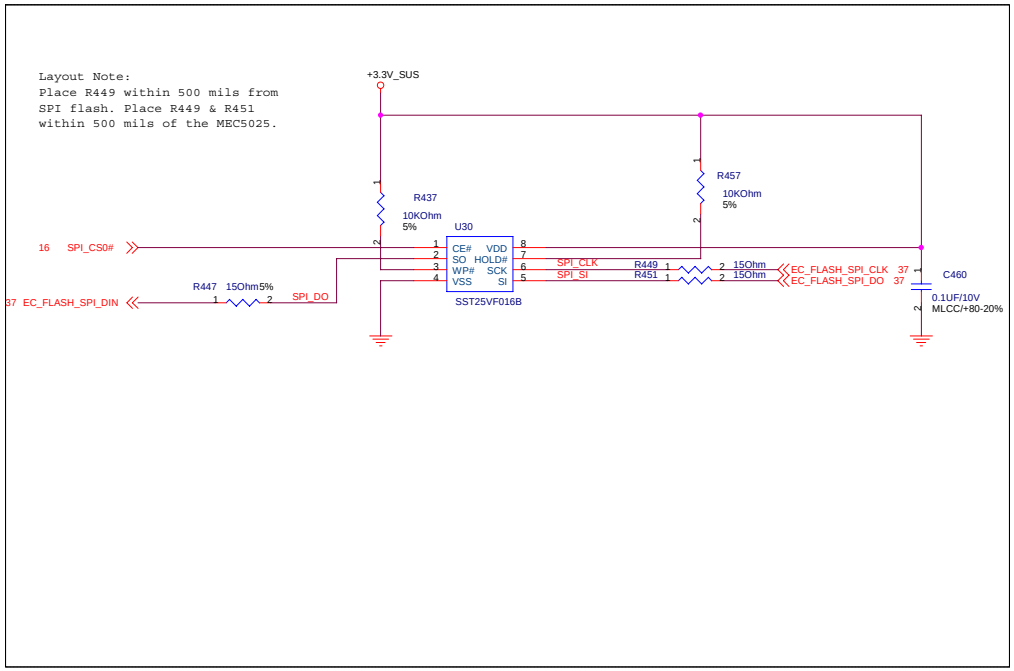


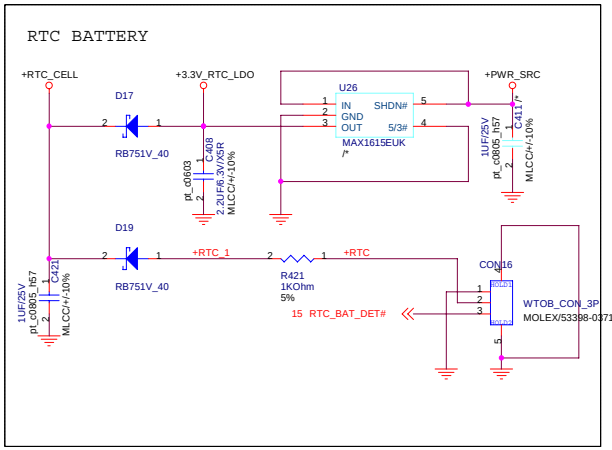
PROJECT: Lanai	REVISION 1.2	DATE: Monday, March 19, 2007	SHEET 38 OF 68	DESCRIPTION: SUPER IO ECE5011	SCHEMATIC FILE NAME :	RELEASE DATE :	DESIGN ENGINEER : STANLY_HSU

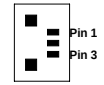




PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 39 OF 68	*USB PORT x 2*	RELEASE DATE :		*Terry_Lin*

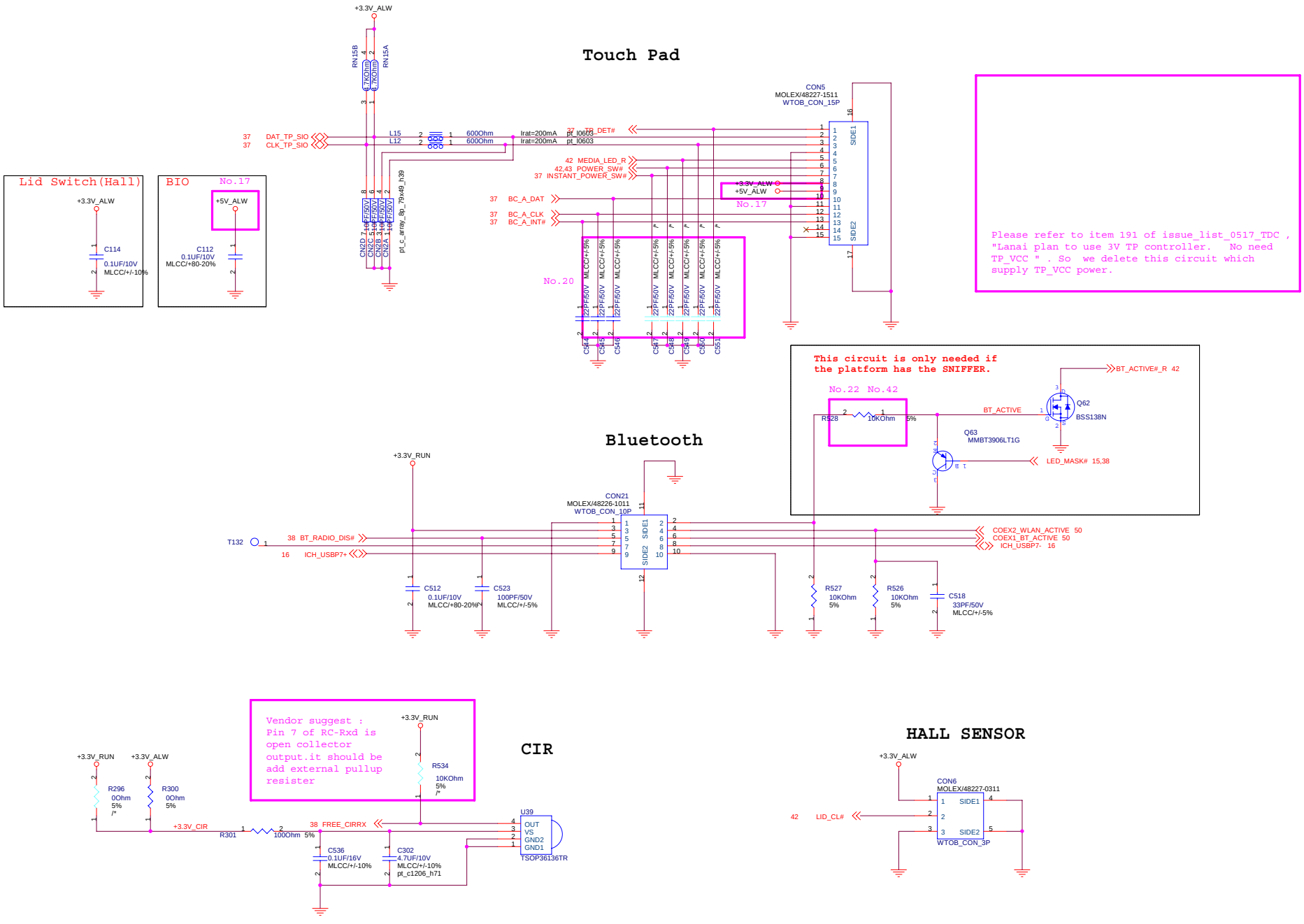




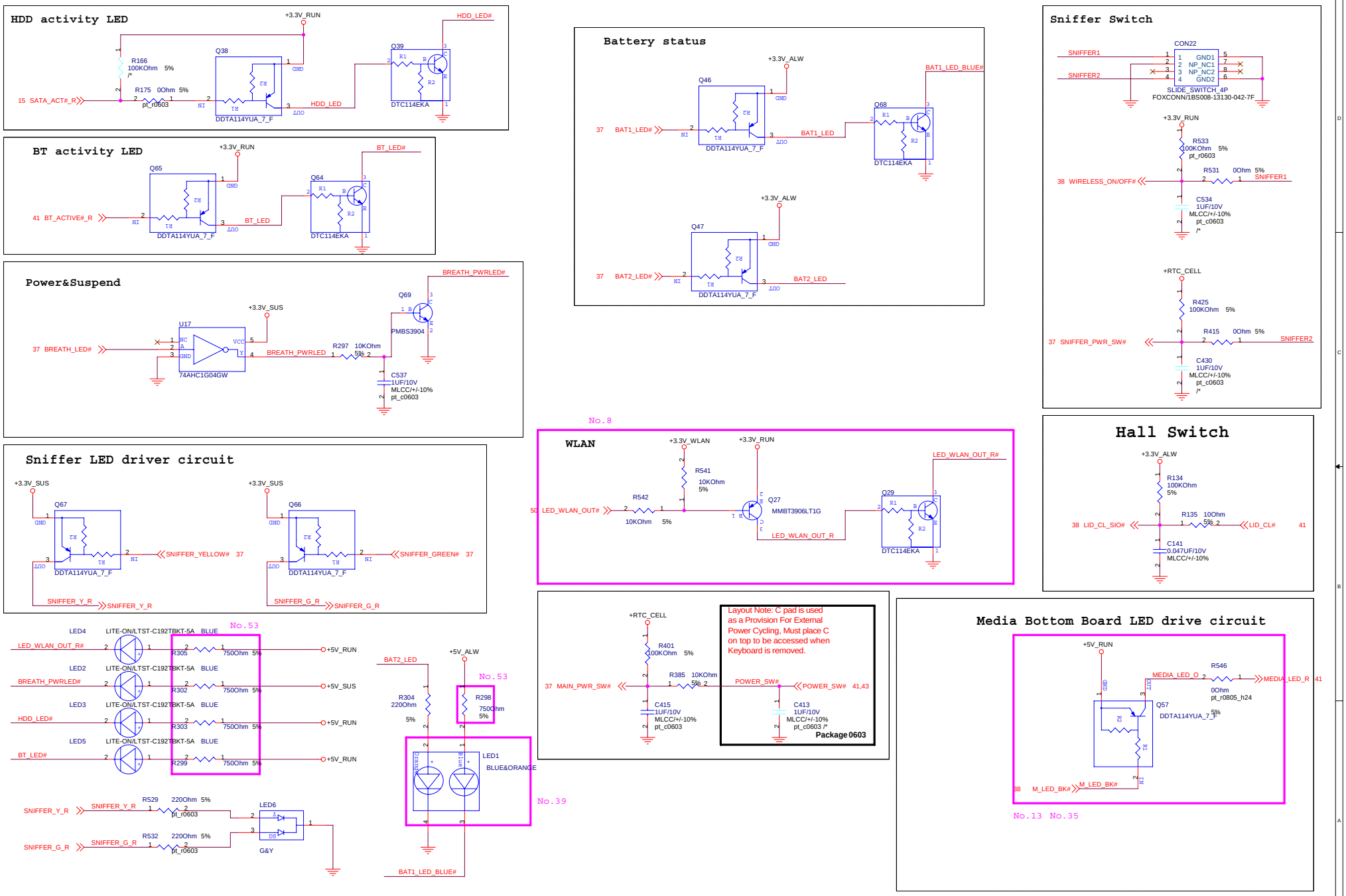


MLX_53398-0371

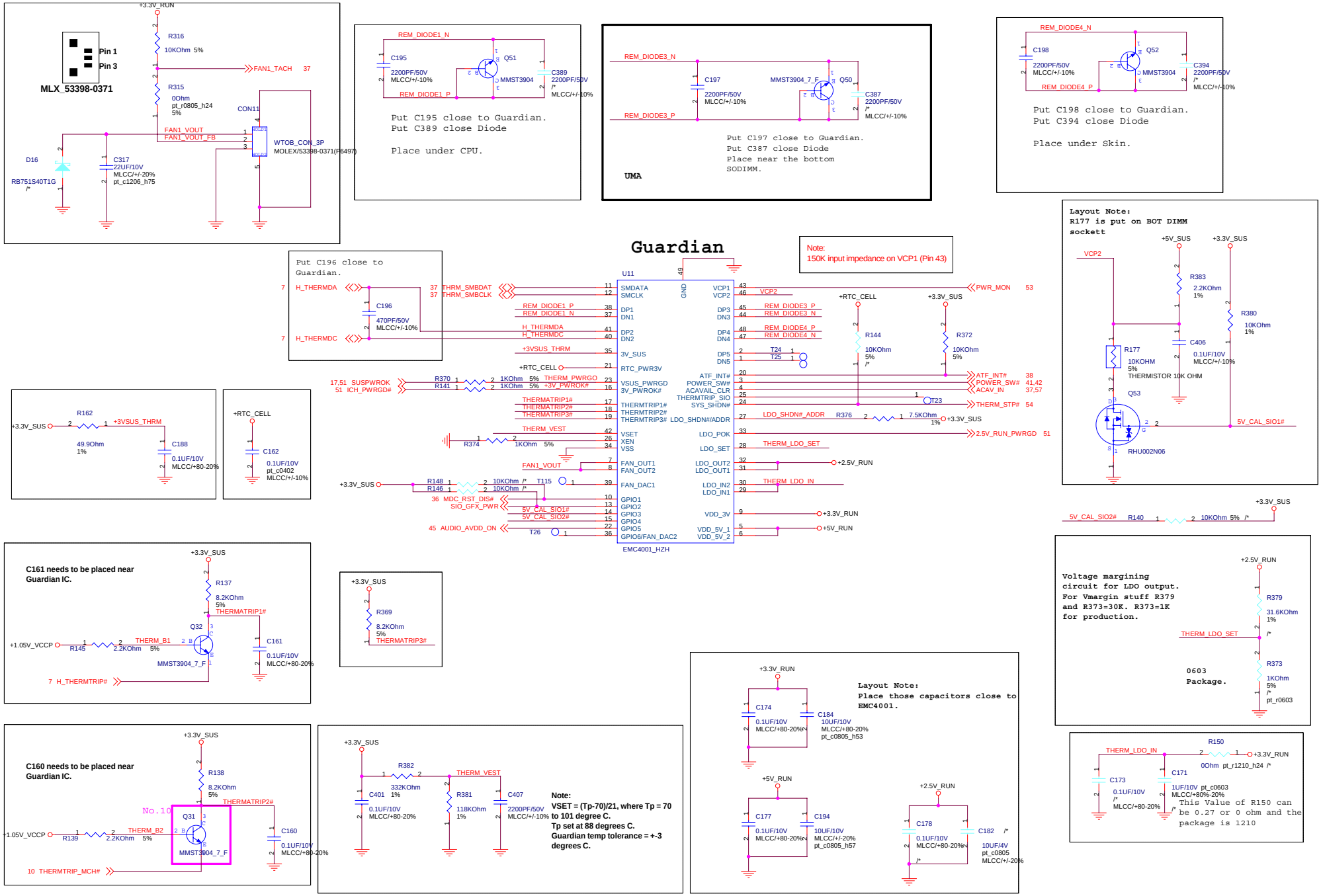
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***FLASH & RTC***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER : ***C.L. Ho***
		SHEET **40** OF **68**		RELEASE DATE :		



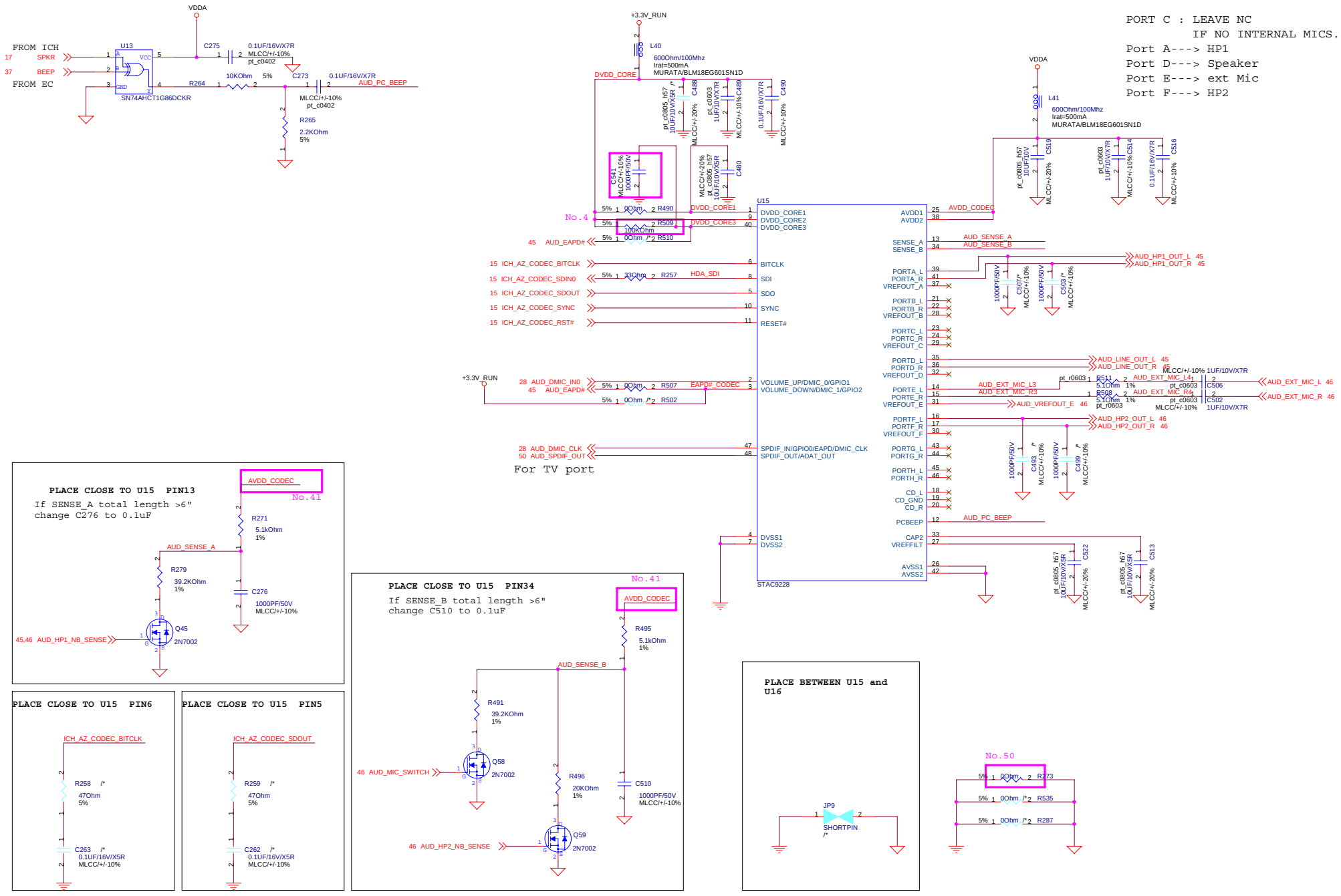
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: **TOUCH PAD & BT & CIR & LID**	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
		SHEET **41** OF **68**		RELEASE DATE :		



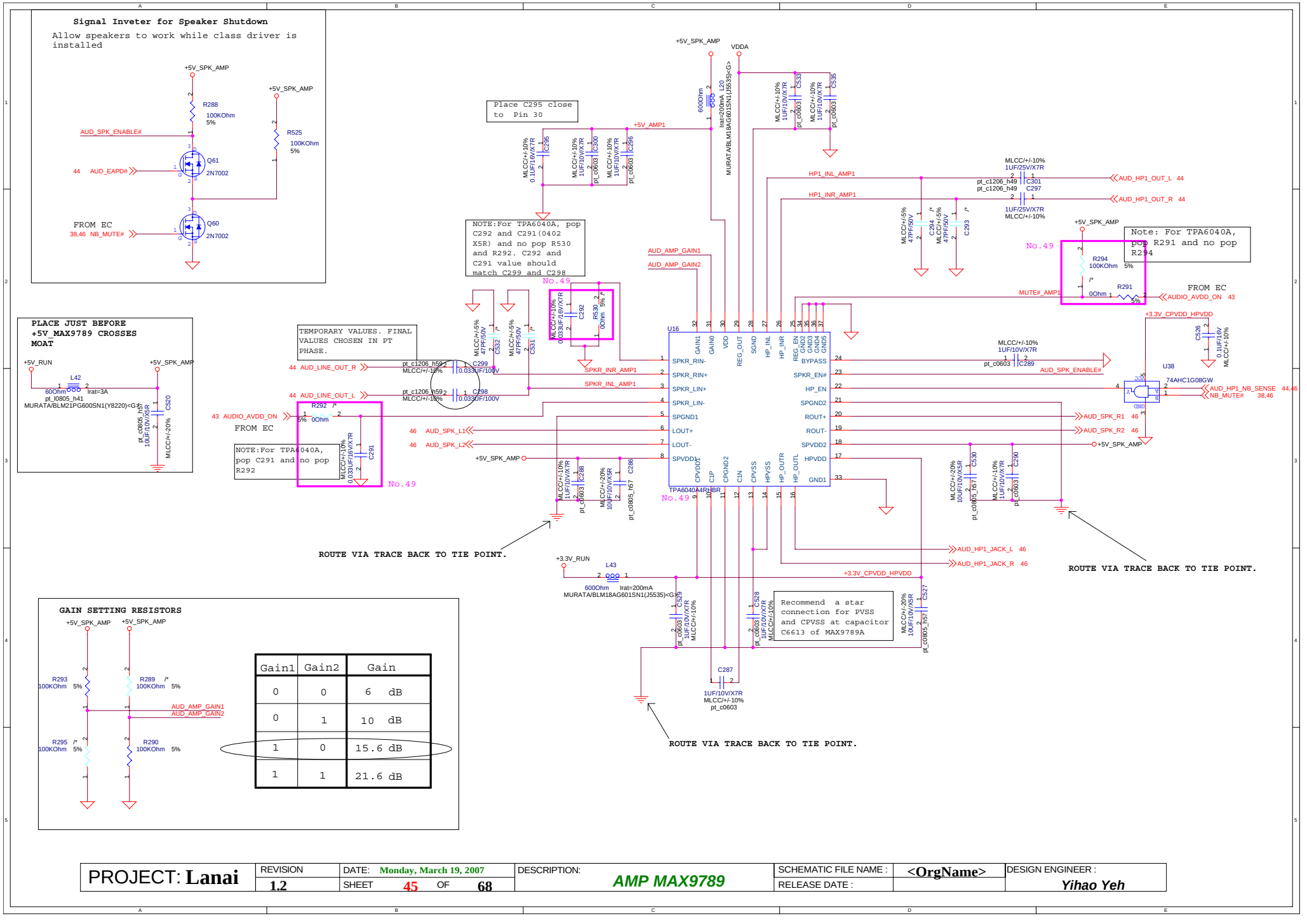
PROJECT: **Lanai**	REVISION **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION: ***SWITCH & LED***	SCHEMATIC FILE NAME : **<OrgName>**	DESIGN ENGINEER : ***C***
		SHEET **42** OF **68**		RELEASE DATE :	



PROJECT: Lanai	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: EMC4001	SCHEMATIC FILE NAME :	DESIGN ENGINEER : N
		SHEET 43 OF 68		RELEASE DATE :	



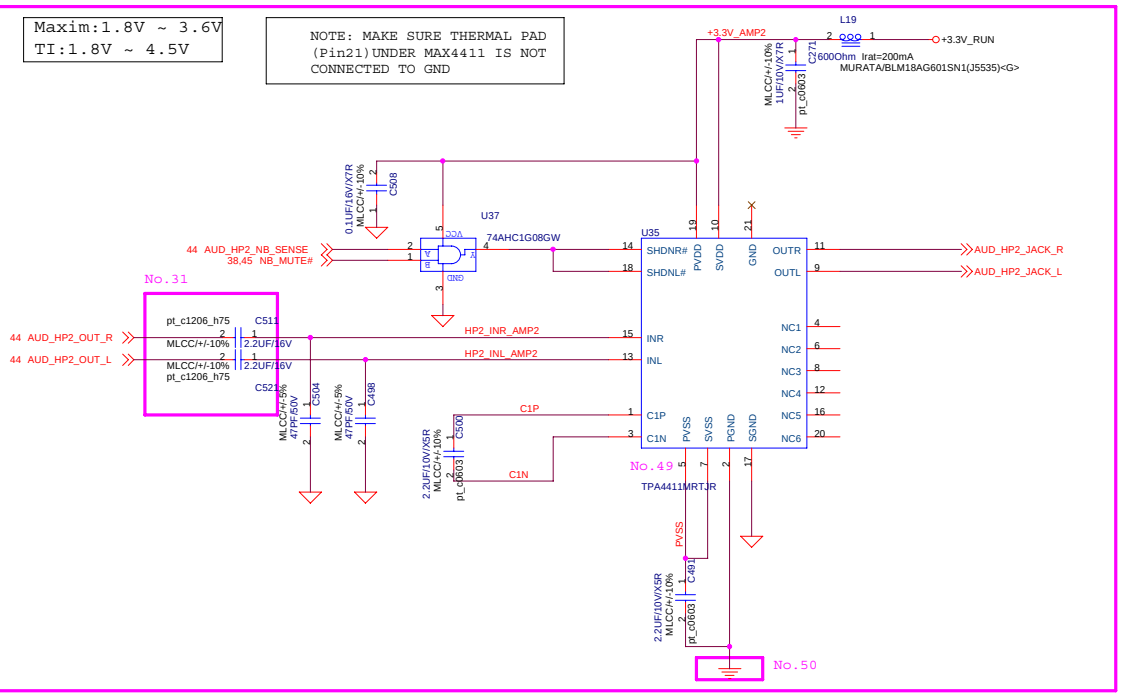
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***STAC9228***	SCHEMATIC FILE NAME :	DESIGN ENGINEER : ***Yihao Yeh***
		SHEET **44** OF **68**		RELEASE DATE :	



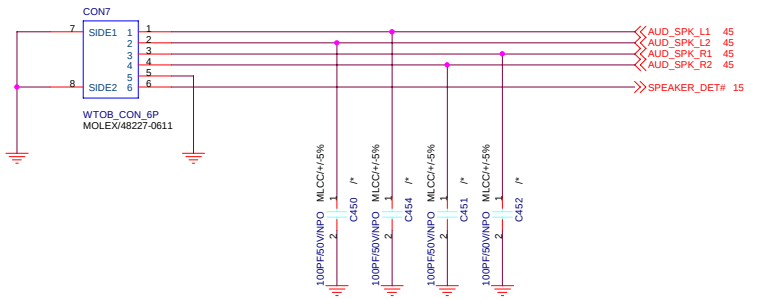
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***AMP MAX9789***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER : ***Yihao Yeh***
		SHEET **45** OF **68**		RELEASE DATE :		

Maxim:1.8V ~ 3.6V
TI:1.8V ~ 4.5V

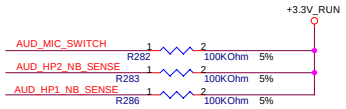
NOTE: MAKE SURE THERMAL PAD (Pin21)UNDER MAX4411 IS NOT CONNECTED TO GND

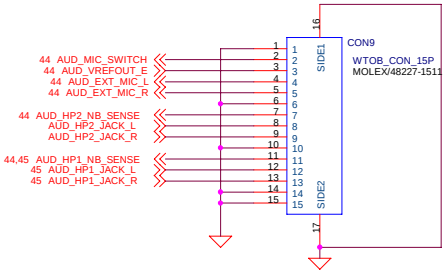


Speaker CON

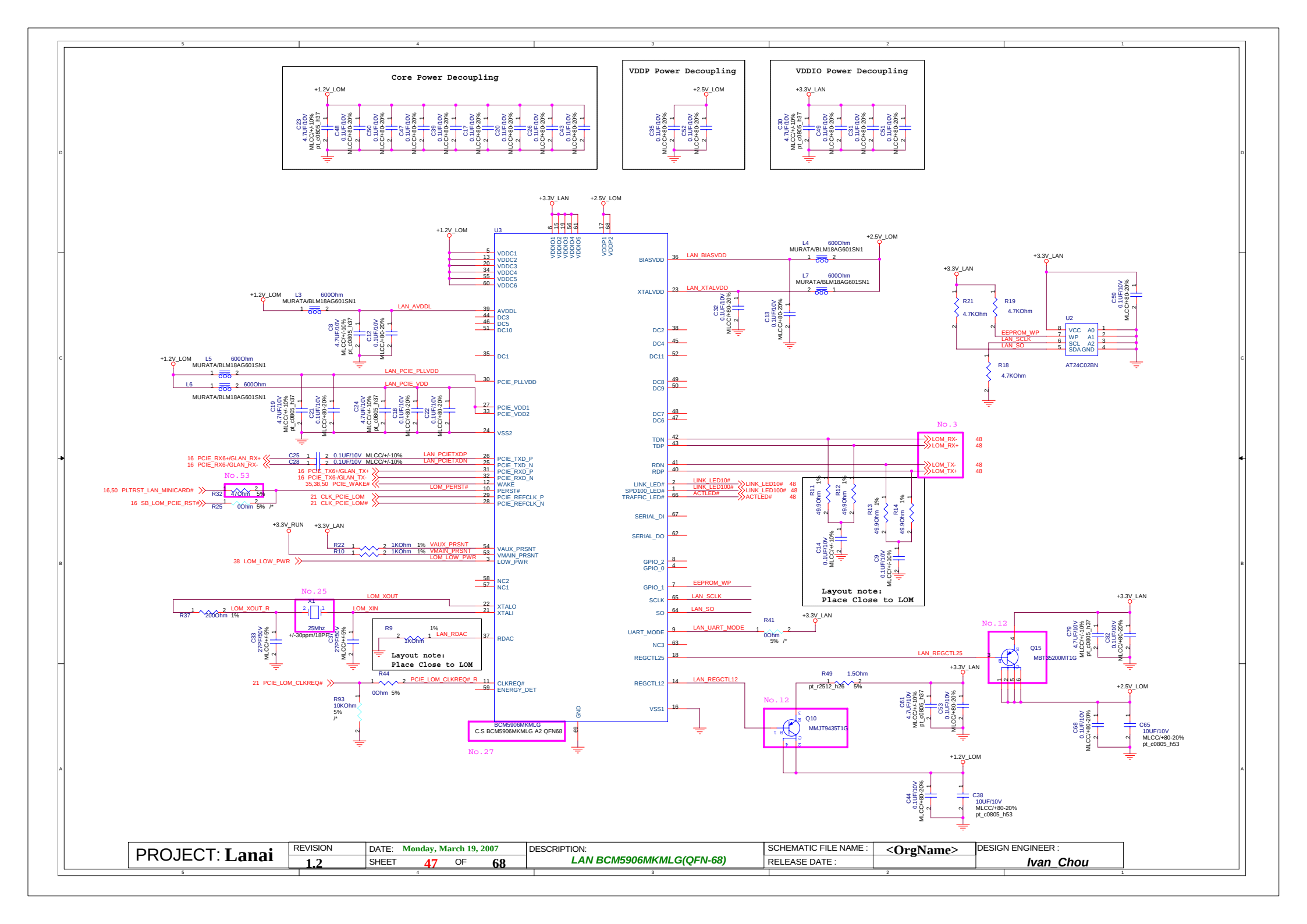


Need to adjust EMI cap values as necessary.

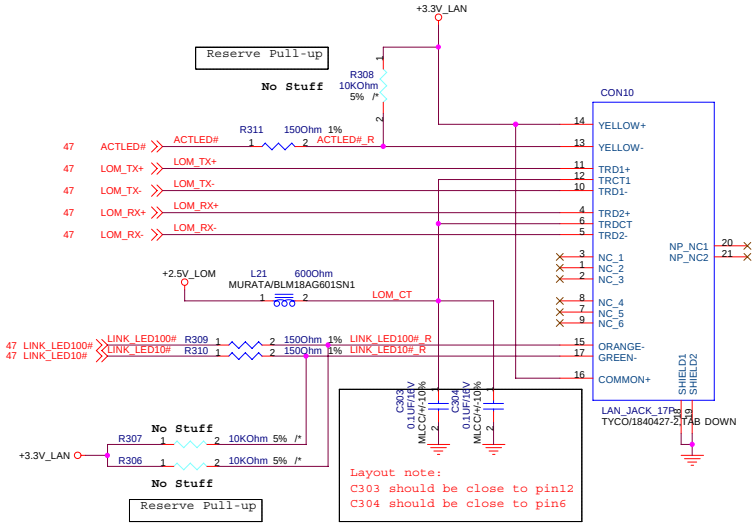




PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 46 OF 68	AMP MAX4411 & AUDIO JACK	RELEASE DATE :		Yihao Yeh

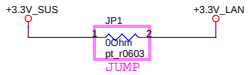


PROJECT: **Lanai**	REVISION	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER :
	1.2	SHEET 47 OF 68	*LAN BCM5906MKMLG(QFN-68)*	RELEASE DATE :		*Ivan_Chou*

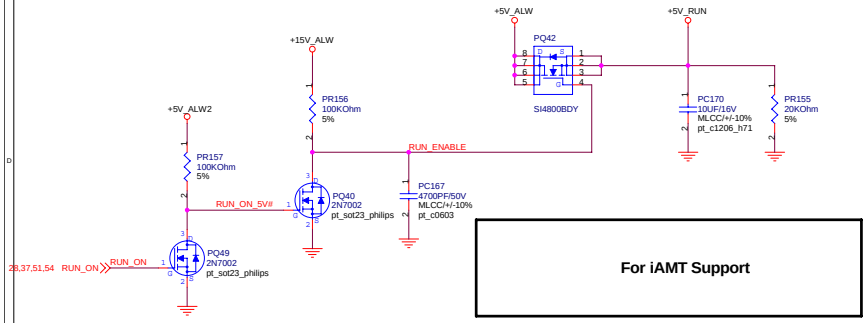


+3.3V_LAN Source Guideline:

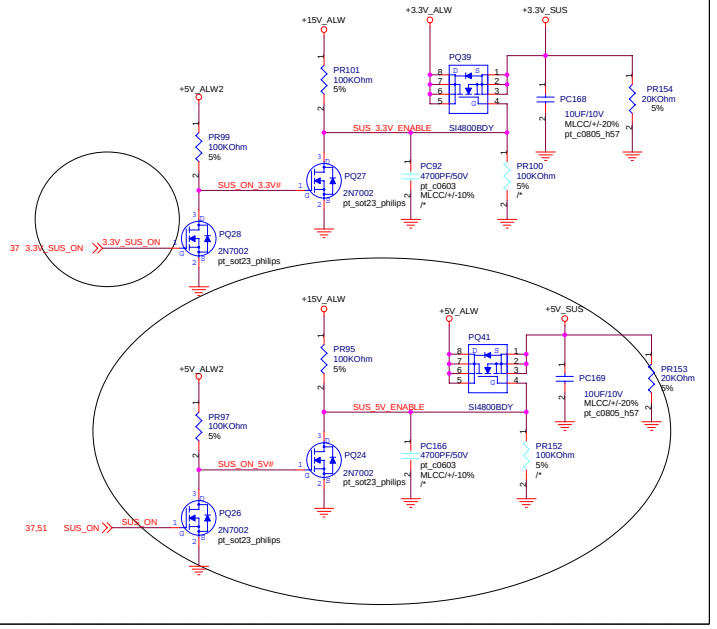
1. Use +3.3V_SUS if Wake-on-LAN is NOT required out of S4, S5
2. Use +3.3V_SRC if Wake-on-LAN is required out of S4, S5

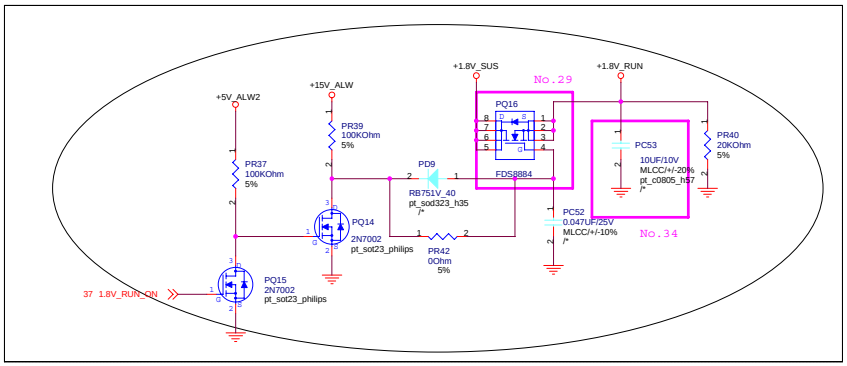


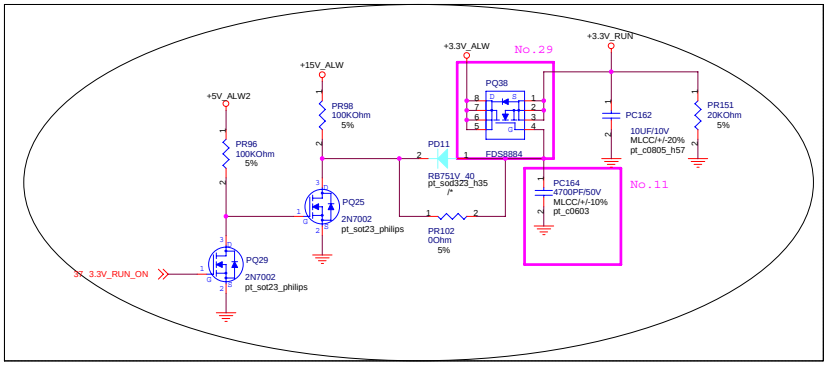
PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***Magnetics and RJ-45***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER : ***Ivan_Chou***
		SHEET **48** OF **68**		RELEASE DATE :		

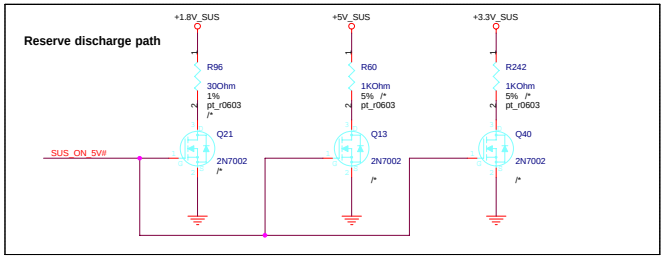


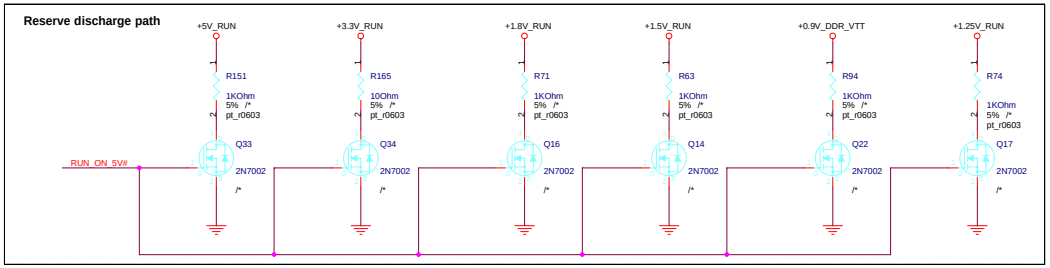
For iAMT Support







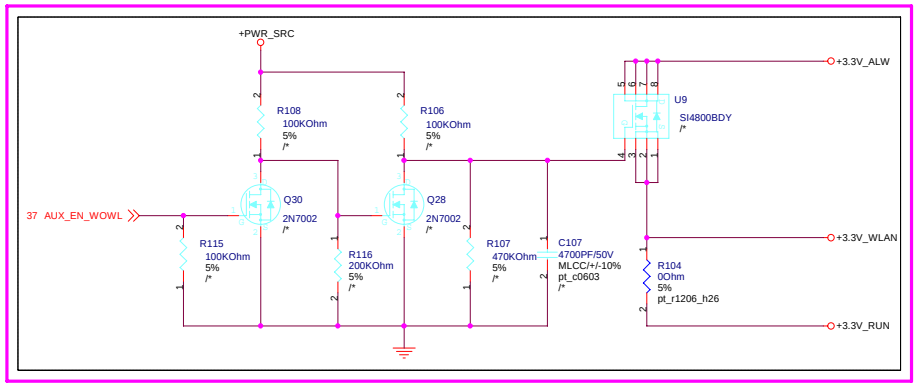


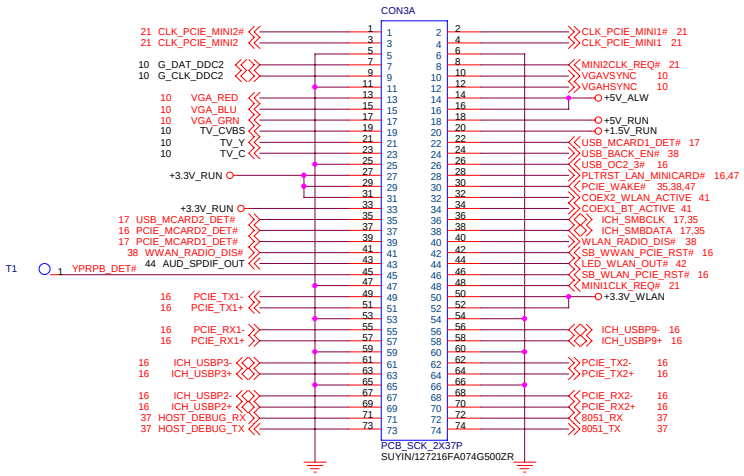


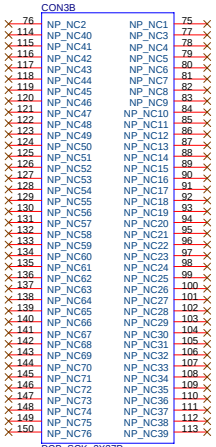
For iAMT Support

PROJECT: **Lanai**	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: *Power Control Switch*	SCHEMATIC FILE NAME :		DESIGN ENGINEER : *Eric Ko*
		SHEET 49 OF 68		RELEASE DATE :		

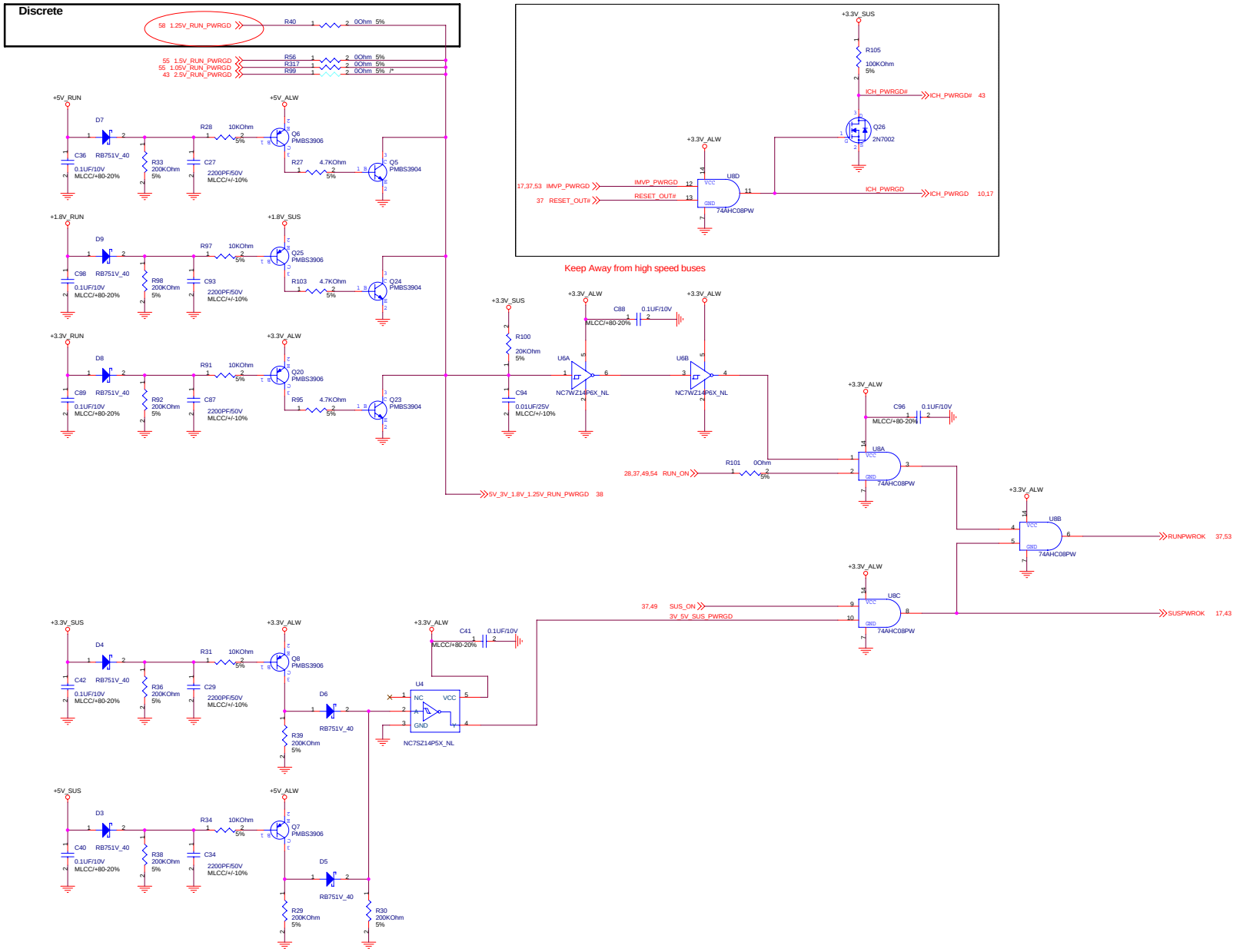
No.21





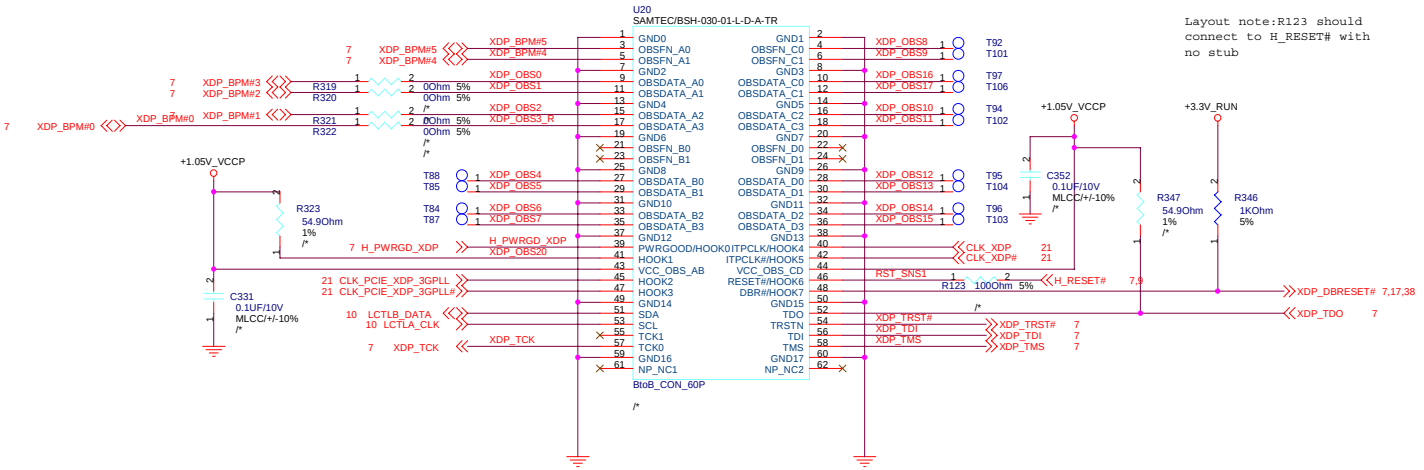


PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***BtoB CON***	SCHEMATIC FILE NAME : **<OrgName>**	DESIGN ENGINEER : ***STANLY_HSU***
		SHEET **50** OF **68**		RELEASE DATE :	



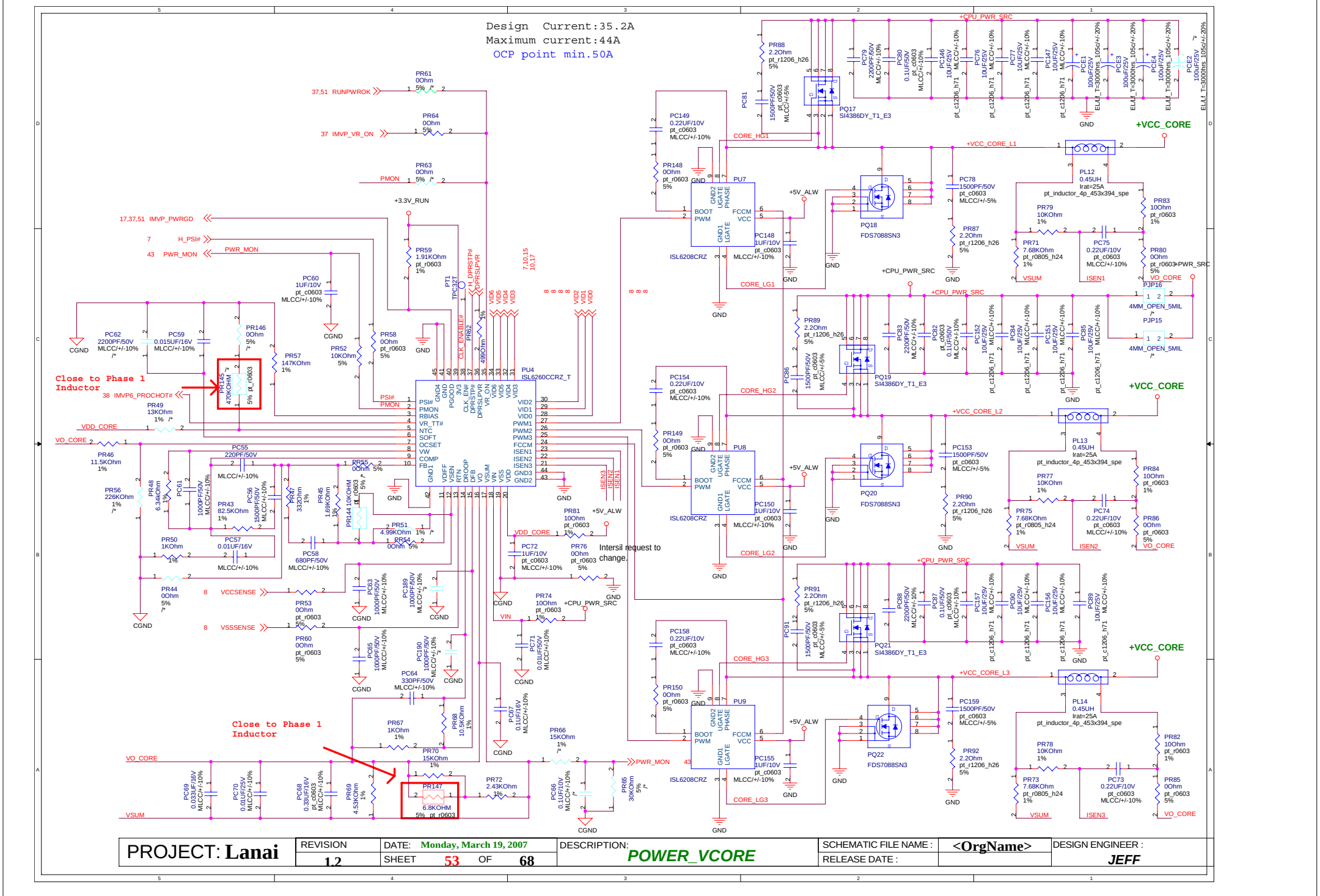
PROJECT: Lanai	REVISION 1.2	DATE: Monday, March 19, 2007	SHEET 51 OF 68	DESCRIPTION: Power Sequence Logic	SCHEMATIC FILE NAME :	RELEASE DATE :	DESIGN ENGINEER : C.L. Ho

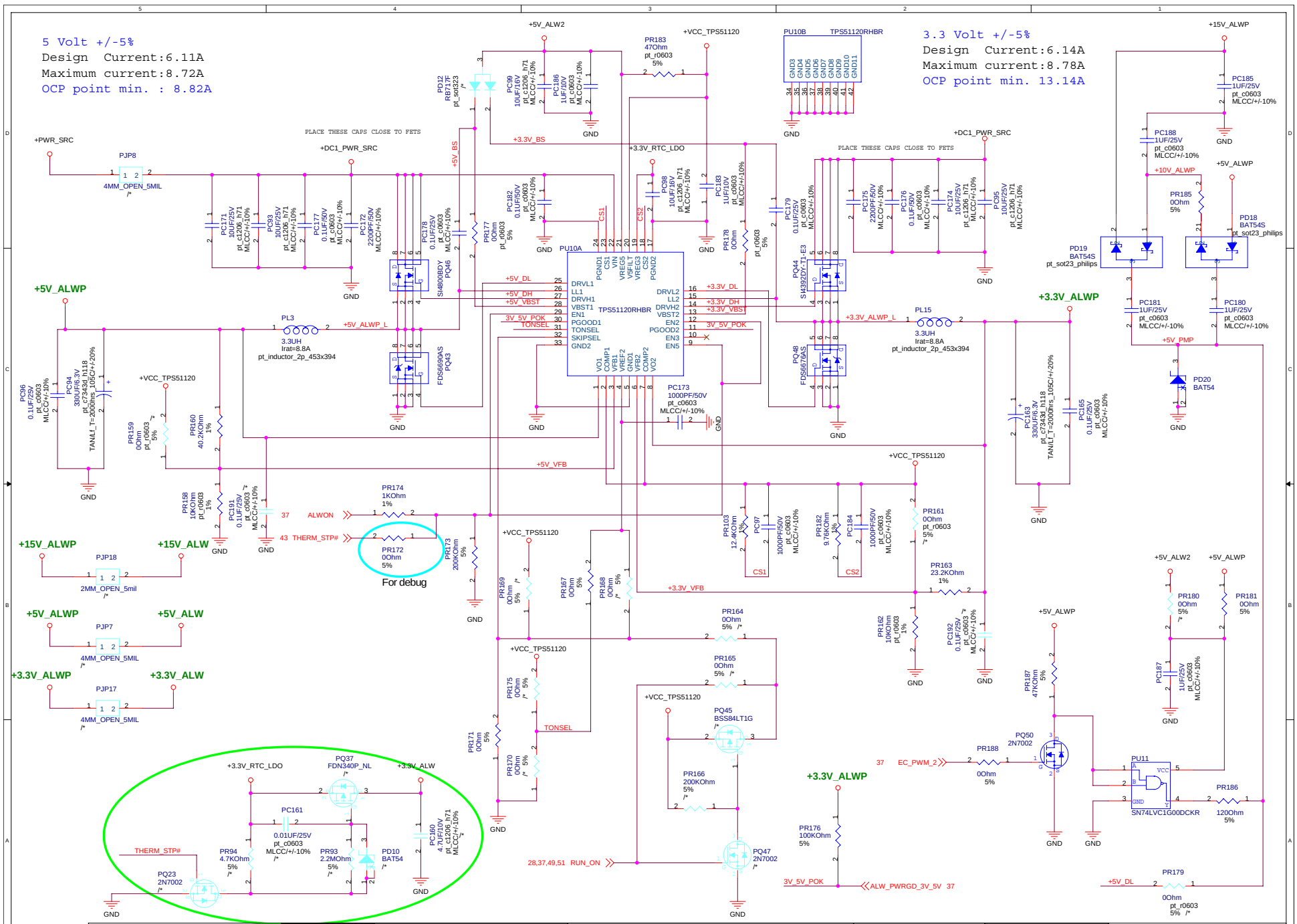
XDP

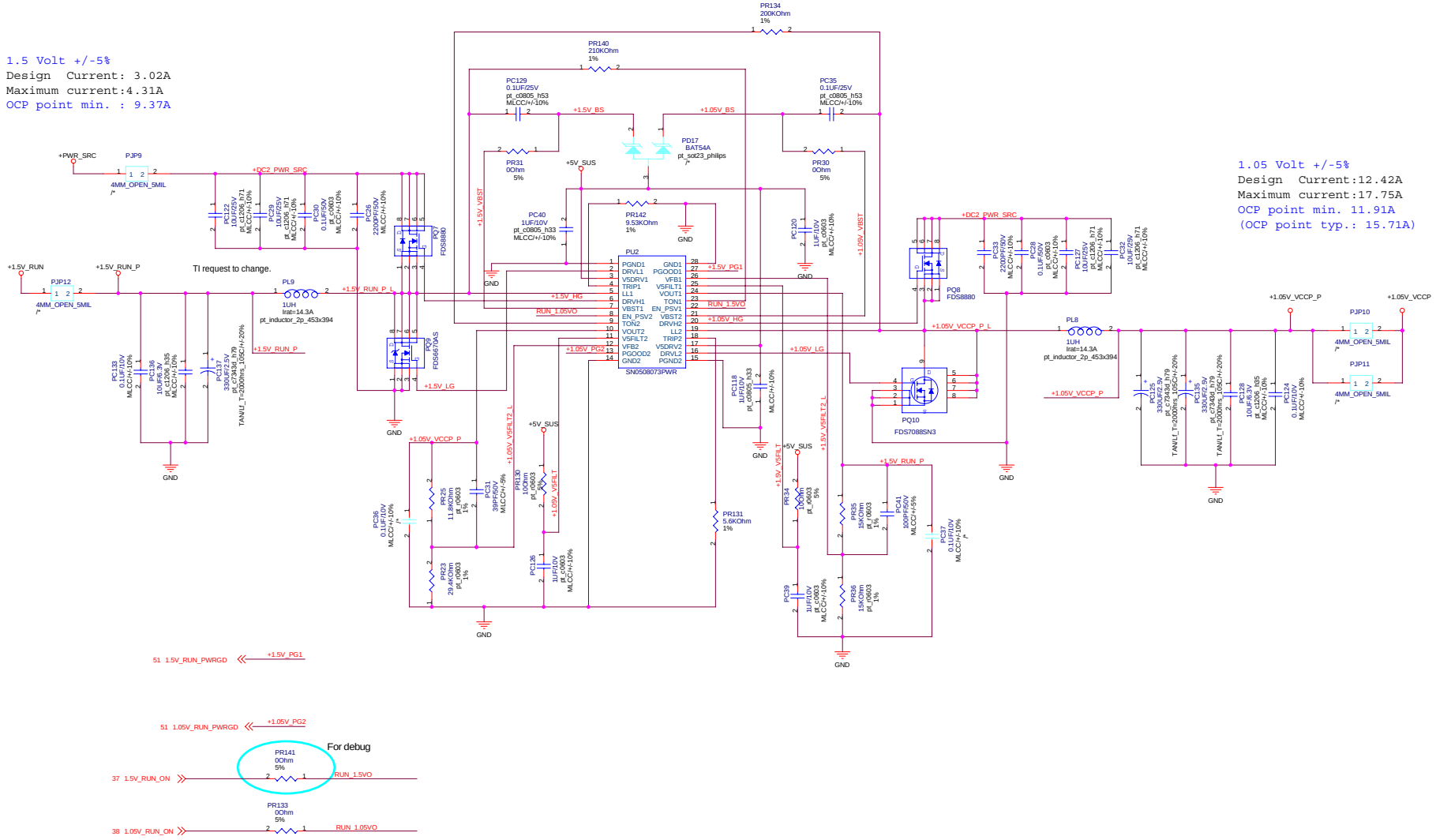


CAD NOTE:
Place the XDP connector on the primary side of the CRB and place all components near the connector.

PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***XDP***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER :
	SHEET **52** OF **68**			RELEASE DATE :		***Terry_Lin***


Design Current:35.2A
Maximum current:44A
OCP point min.50A
Close to Phase 1 Inductor
Close to Phase 1 Inductor
Intersil request to change.
+VCC_CORE
+CPU_PWR_SRC
+5V_ALW
+3.3V_RUN
PU4 ISL6260CCRZ_T
PU7 ISL6208CRZ
PU8 ISL6208CRZ
PU9 ISL6208CRZ
PQ17 SI4386DY_T1_E3
PQ18 FDS7088SN3
PQ19 SI4386DY_T1_E3
PQ20 FDS7088SN3
PQ21 SI4386DY_T1_E3
PQ22 FDS7088SN3
PROJECT: Lanai
REVISION 1.2
DATE: Monday, March 19, 2007
SHEET 53 OF 68
DESCRIPTION: POWER_VCORE
SCHEMATIC FILE NAME :
RELEASE DATE :
<OrgName>
DESIGN ENGINEER : JEFF


5 Volt +/-5%
Design Current:6.11A
Maximum current:8.72A
OCP point min. : 8.82A
3.3 Volt +/-5%
Design Current:6.14A
Maximum current:8.78A
OCP point min. 13.14A
PLACE THESE CAPS CLOSE TO FETS
TPS51120RHBR
For debug
PROJECT: Lanai
REVISION 1.2
DATE: Monday, March 19, 2007
SHEET 54 OF 68
DESCRIPTION: POWER_SYSTEM 5V_ALW&3.3V_ALW
SCHEMATIC FILE NAME : <OrgName>
RELEASE DATE :
DESIGN ENGINEER : JEFF



PROJECT: **Lanai**	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: **POWER I/O 1.5VS & 1.05VS**	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER : **JEFF**
		SHEET 55 OF 68		RELEASE DATE :		

TOTAL POWER=65W
-->3.34A

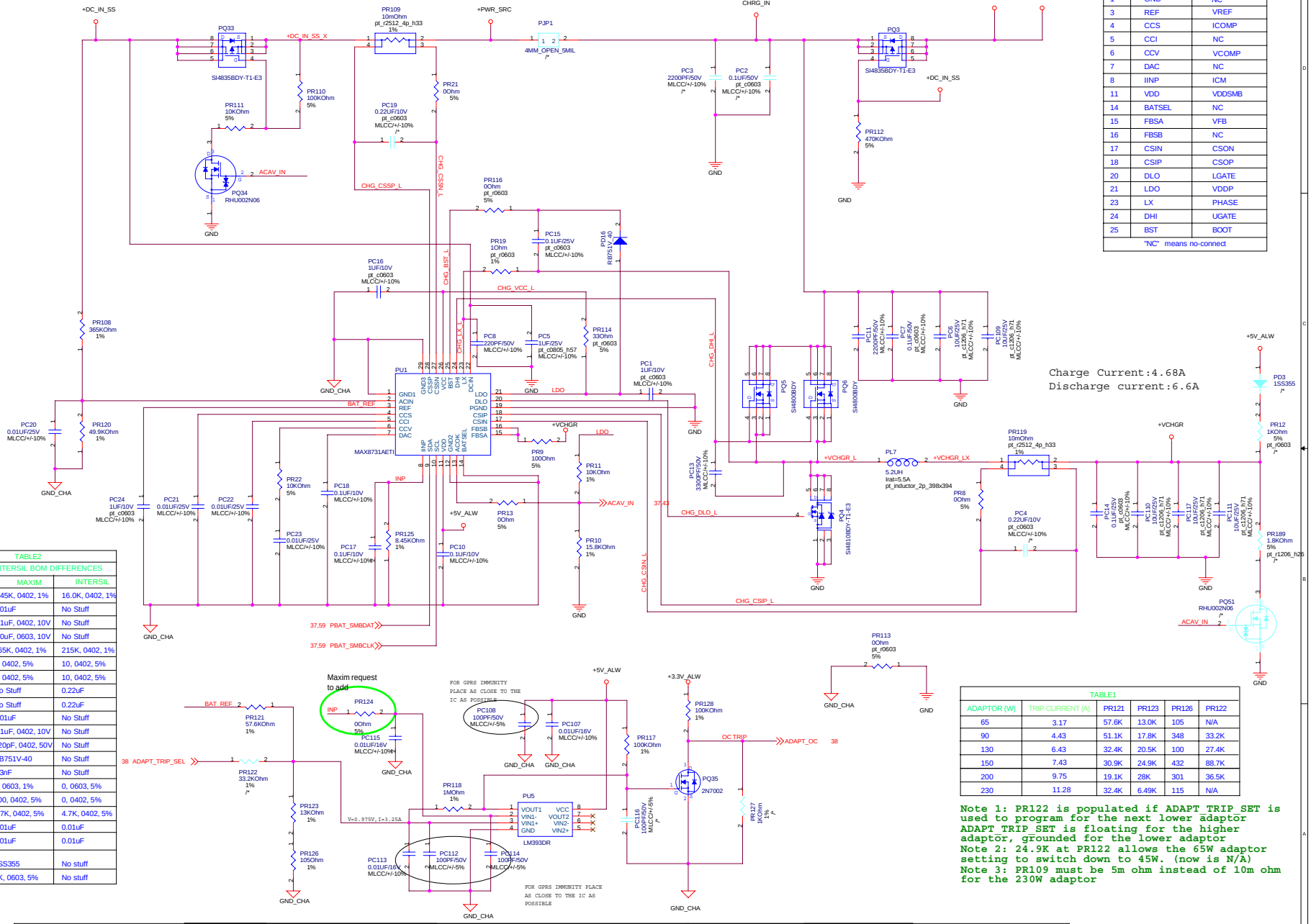


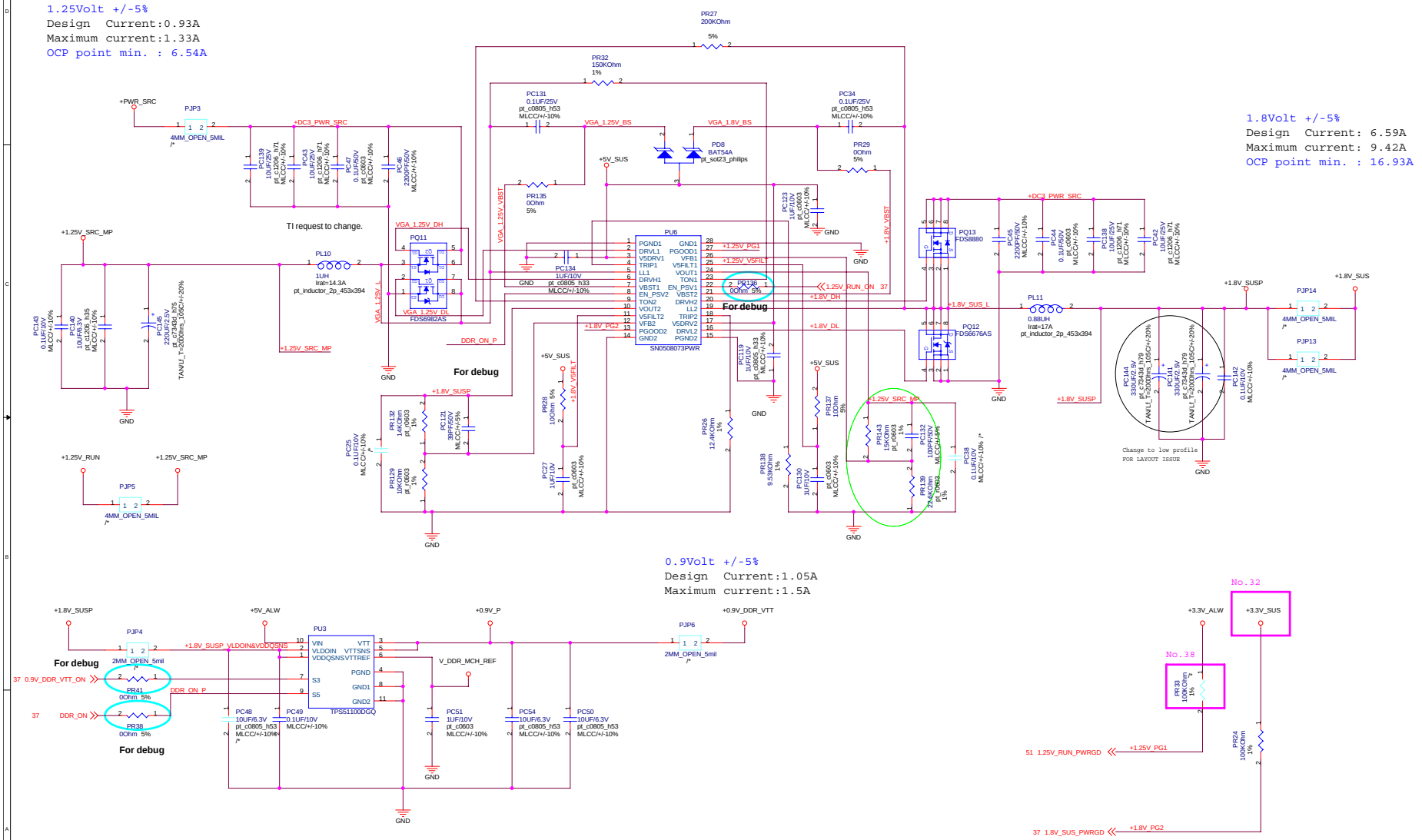
TABLE3		
PIN NAME DIFFERENCES		
PIN	MAXIM	INTERSIL
1	GND	NC
3	REF	VREF
4	CCS	ICOMP
5	CCI	NC
6	CCV	VCOMP
7	DAC	NC
8	IINP	ICM
11	VDD	VDDSMB
14	BATSEL	NC
15	FBSA	VFB
16	FBSB	NC
17	CSIN	CSON
18	CSIP	CSOP
20	DLO	LGATE
21	LDO	VDDP
23	LX	PHASE
24	DHI	UGATE
25	BST	BOOT
"NC" means no-connect		

TABLE2		
MAXIM & INTERSIL BOM DIFFERENCES		
REF DES	MAXIM	INTERSIL
PR125	8.45K, 0402, 1%	16.0K, 0402, 1%
PC115	0.01uF	No Stuff
PC17	0.1uF, 0402, 10V	No Stuff
PC24	1.0uF, 0603, 10V	No Stuff
PR108	365K, 0402, 1%	215K, 0402, 1%
PR8	0, 0402, 5%	10, 0402, 5%
PR21	0, 0402, 5%	10, 0402, 5%
PC4	No Stuff	0.22uF
PC19	No Stuff	0.22uF
PC22	0.01uF	No Stuff
PC18	0.1uF, 0402, 10V	No Stuff
PC8	220pF, 0402, 50V	No Stuff
PD16	RB751V-40	No Stuff
PC13	3.3nF	No Stuff
PR19	1, 0603, 1%	0, 0603, 5%
PR9	100, 0402, 5%	0, 0402, 5%
PR22	4.7K, 0402, 5%	4.7K, 0402, 5%
PC23	0.01uF	0.01uF
PC21	0.01uF	0.01uF
PD3	1SS355	No stuff
PR12	1K, 0603, 5%	No stuff

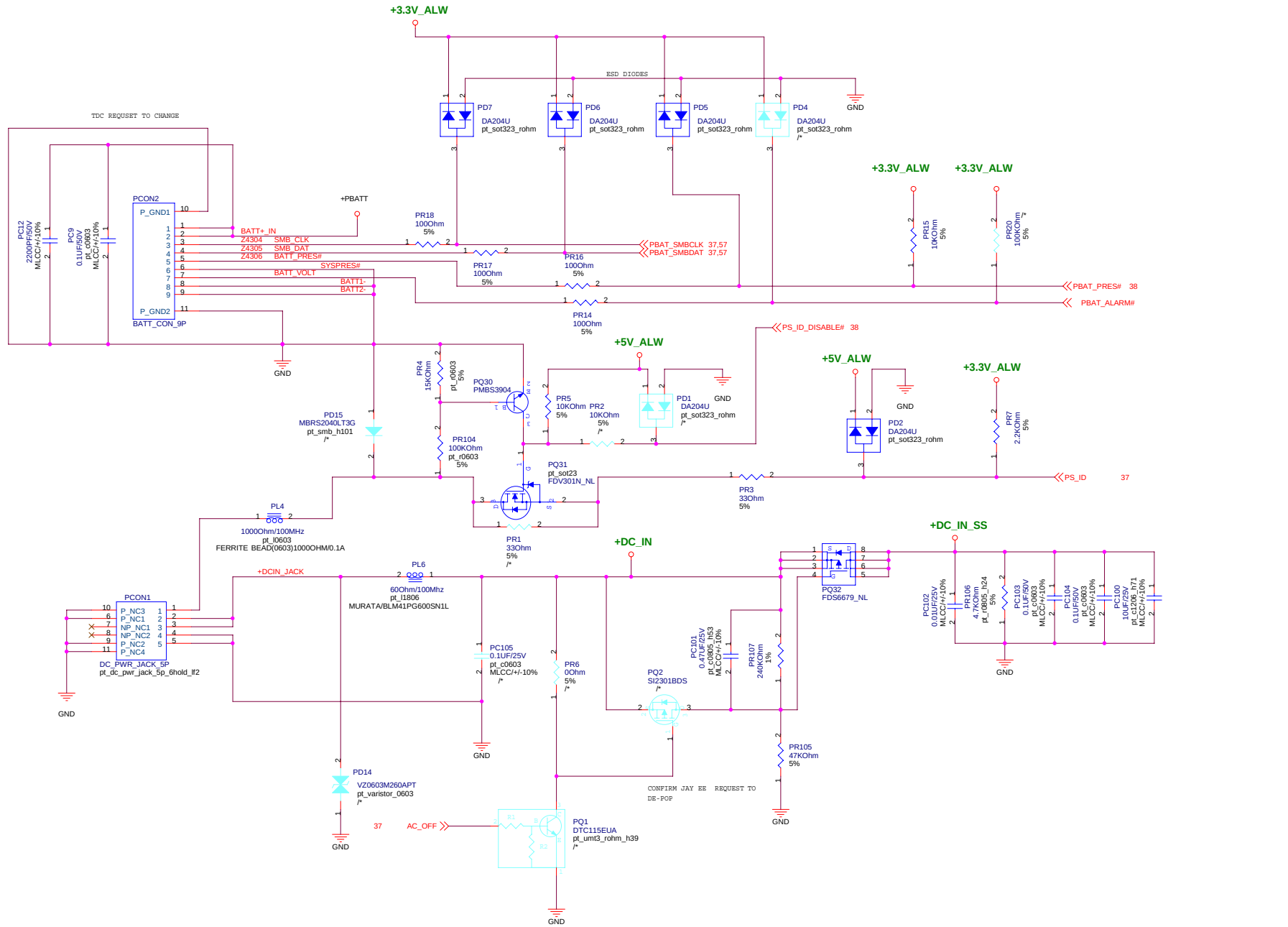
TABLE1					
ADAPTOR (W)	TRIP CURRENT (A)	PR121	PR123	PR126	PR122
65	3.17	57.6K	13.0K	105	N/A
90	4.43	51.1K	17.8K	348	33.2K
130	6.43	32.4K	20.5K	100	27.4K
150	7.43	30.9K	24.9K	432	88.7K
200	9.75	19.1K	28K	301	36.5K
230	11.28	32.4K	6.49K	115	N/A

Note 1: PR122 is populated if ADAPT_TRIP_SET is used to program for the next lower adaptor ADAPT_TRIP_SET is floating for the higher adaptor, grounded for the lower adaptor
Note 2: 24.9K at PR122 allows the 65W adaptor setting to switch down to 45W. (now is N/A)
Note 3: PR109 must be 5m ohm instead of 10m ohm for the 230W adaptor

PROJECT: Lanai	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: POWER_CHARGER	SCHEMATIC FILE NAME : <OrgName>	DESIGN ENGINEER : JEFF
		SHEET 57 OF 68		RELEASE DATE :	

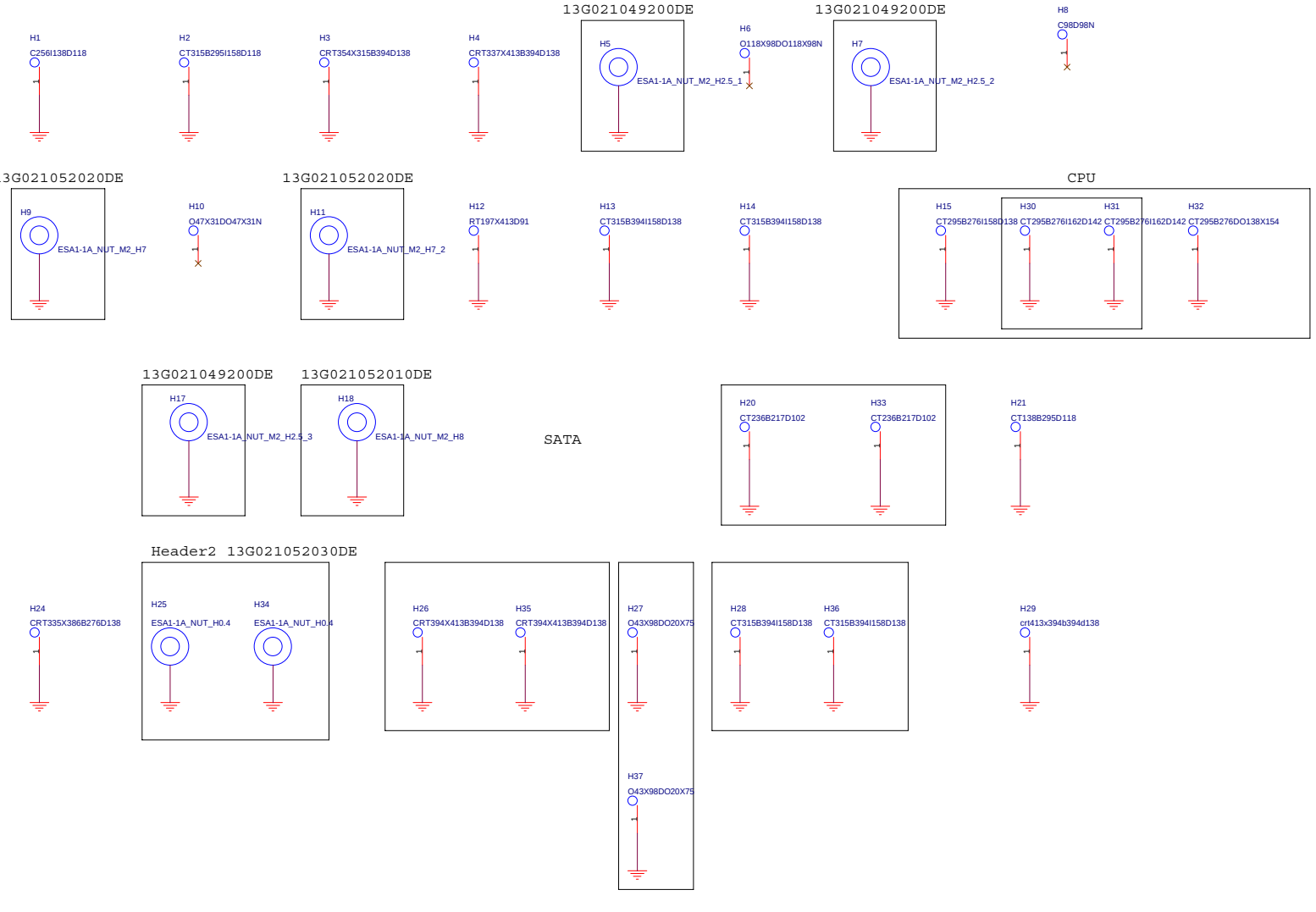


PROJECT: **Lanai**	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: **POWER_VGA_1.25V & DDR & VTT**	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER : **Jeff**
		SHEET 58 OF 68		RELEASE DATE :		



PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***POWER_CONNECTOR***	SCHEMATIC FILE NAME : **<OrgName>**	DESIGN ENGINEER : ***JEFF***
		SHEET **59** OF **68**		RELEASE DATE :	

GM screw pad

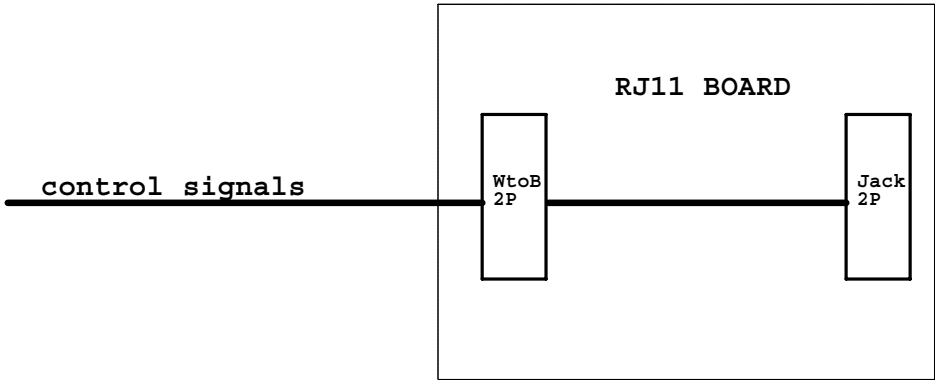


PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***SCREW PAD***	SCHEMATIC FILE NAME :	DESIGN ENGINEER : **Sean Kuo**
		SHEET **60** OF **68**		RELEASE DATE :	

ASUS CONFIDENTIAL

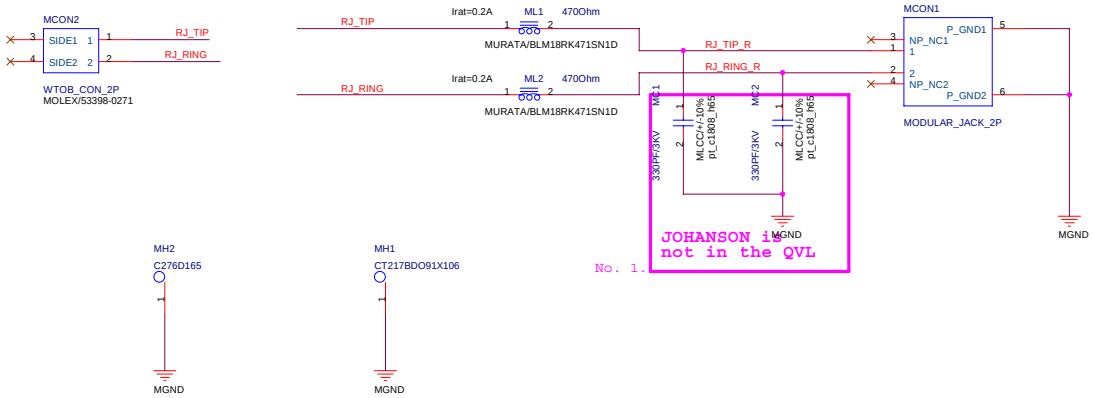
MODEL NAME : *Elsa*

Lanai:Modem Board



REV : 1.1(DELL: X01)

PROJECT: **Lanai**	REVISION: **1.2**	DATE: Monday, March 19, 2007	DESCRIPTION:	SCHEMATIC FILE NAME :	DESIGN ENGINEER :
		SHEET 64 OF 68	***BLOCK DIAGRAM***	RELEASE DATE :	***Stanly Hsu***



PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007**	DESCRIPTION: ***RJ-11 CONN***	SCHEMATIC FILE NAME :	**<OrgName>**	DESIGN ENGINEER : ***Stanly_Hsu***
		SHEET **65** OF **68**		RELEASE DATE :		

ASUS CONFIDENTIAL

MODEL NAME : ***Elsa***

PCB NO : ***???***

ASUS P/N : ***???***

Lanai PP2 USB Board

REV : 1.1(DELL: X01)

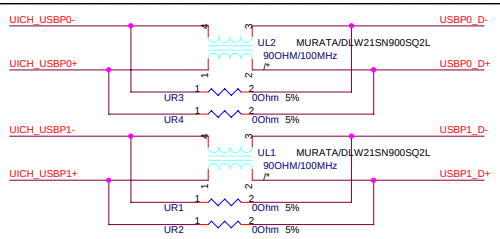
MB PCB

Part Number	Description
DA800004H0L	PCB 00B LA-3071P REV0 M/B

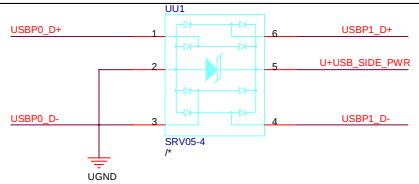
BOM NO. ???
PCB P/N: ???

PROJECT: **Lanai**	REVISION **1.2**	DATE: **Monday, March 19, 2007** SHEET **67** OF **68**	DESCRIPTION: **Cover Page**	SCHEMATIC FILE NAME : RELEASE DATE :	DESIGN ENGINEER : ***Terry Lin***

External USB PORT hookup reference. Your design may need more or less external ports and may be mapped differently .



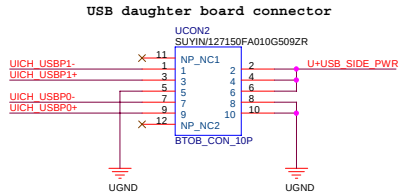
Platforms should put in PADS for the USB chokes if they have the room. Chokes should be NOPOP.



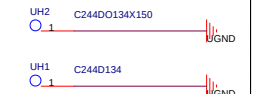
Place ESD diodes as close as USB connector. Semtech SRV05-4 can also be used but the Philips IP42220CZ6 have a lower input C (1pf vs 3pf).

Consult you ESD Engineer if you think you may need to add ESD Supression Components to your USB lines.
Add PADS ONLY until proven diodes are really needed.

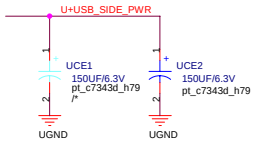
USB daughter board connector



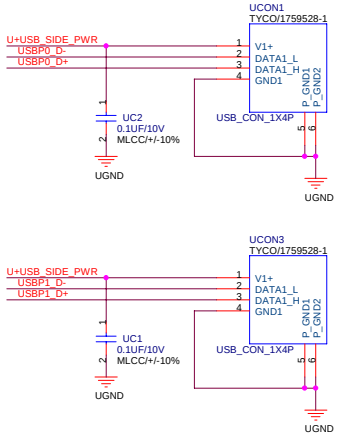
Screw hole



Place one 150uF cap by each USB connector



Each channel is 1A



PROJECT: **Lanai**	REVISION 1.2	DATE: Monday, March 19, 2007	DESCRIPTION: *USB PORT (SINGLE * 2)*	SCHEMATIC FILE NAME :	<OrgName>	DESIGN ENGINEER : *Terry_Lin*
		SHEET 68 OF 68		RELEASE DATE :		