Project Namel: Tahoe MT MLK
PCB Number: 15141-1
PCBA Ver.: A00
SCH Ver.: A00
Project Code : 3PD06M010001
PCB Size: 268.7 x 243.5mm, 1.6mm, 4 Layers

Jumper Setting		
JMP1	Pin 1-2	With Jumper to ME Disable
	Pin 3-4	Without Jumper to Clear Password
	Pin 5-6	With Jumper to Clear CMOS
DB1	PD 1K	PD 1K to GND for Debug, All Power-On

BOM Configuration

(R_): Unmount
(X_): Debug
(A_): Tahoe MT MLK
(B_): Tahoe CBB MT MLK
(T_): With TPM
(O_): Without TPM

Power sates

	Name	G3	DSW	S5	S4	S3	S0
+12V	V_12P0_A		O	O	O	O	O
	+12V						O
	V_12V_CPU_S0		O	O	O	O	O
-12V	-12V						O
+5V	5V_S0						O
	USBVCC12 USBVCC34 USBVCC78			O	O	O	O
	5V_S5 V_5_CODEC		O	O	O	O	O
3.3V	3P3V_S0 3P3V_AUD_S0						O
	3P3V_SB 3P3V_SPI 3P3V_LAN 3P3V_M2VAUX 3P3V_PCIVAUX			O	O	O	O
	3P3V_S5		O	O	O	O	O
VBAT	3P0V_BAT_VREG VBAT1 VBAT2	O	O	O	O	O	O
VDDQ	+VCCPLL_OC						O
	V_SM					O	O
DIMM	V_SM_VTT						
	V_VPP						O
PCH	V1P0_PCH_SB +V1P0A_VCCAPLL +V1P0A_VCCF24_1P0 +V1P0A_VCCAMPHYPLL V_CPU_ST_PLL			O	O	O	O
CPU	V_CPU_CORE V_CPU_GT V_CPU_IO V_CPU_SA +VCCFUSEPRG						O

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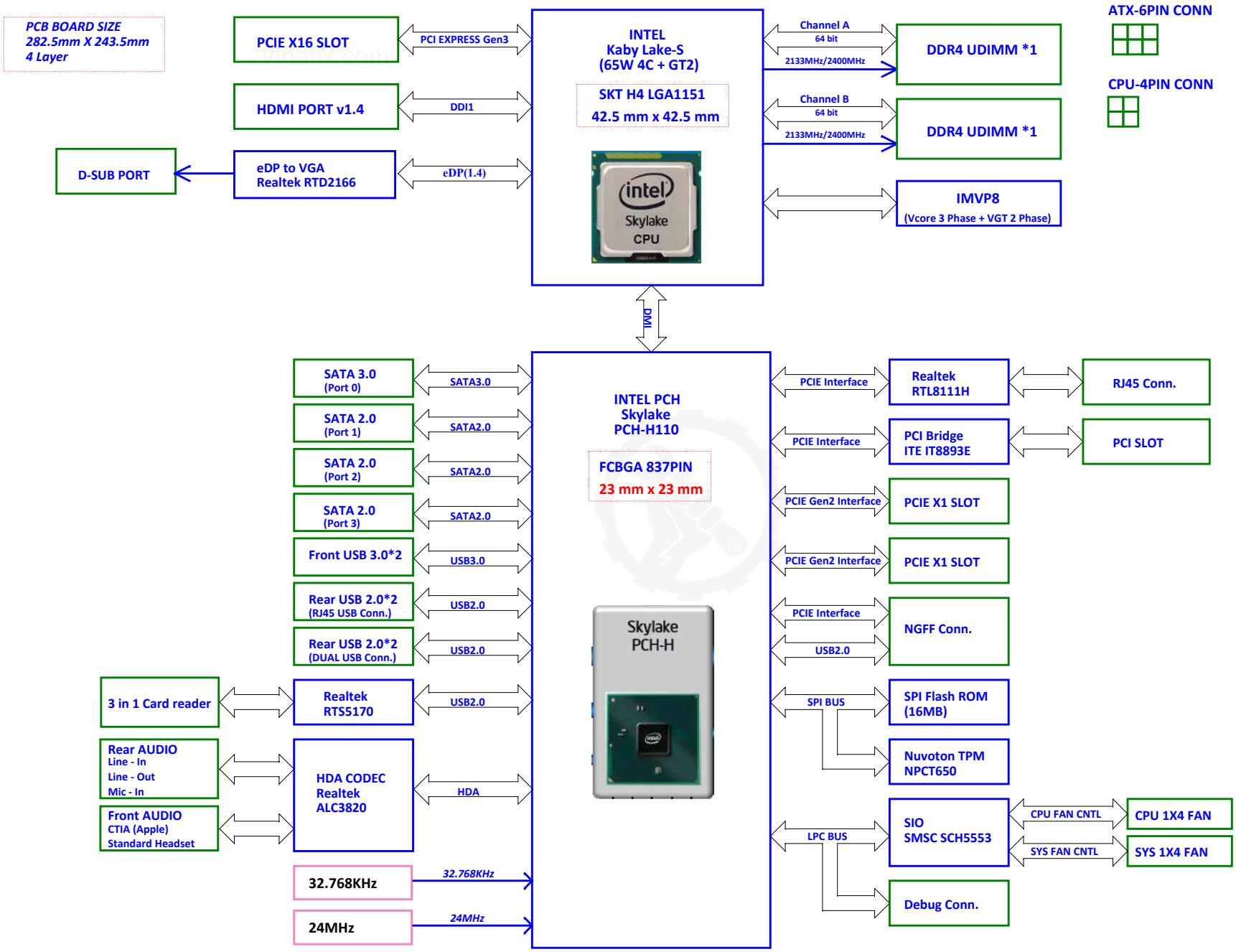
Title: Cover Page
Size: C | Document Number: Tahoe MT MLK/Gambits MT KBL | Rev: A00
Date: Wednesday, October 19, 2016 | Sheet 1 of 107



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Title: Block Diagram

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 2 of 107

DDR DATA

(11) M_DATA_A[0..63]
(13) M_DATA_B[0..63]
(11) M_DQS_A_DP[0..7]
(11) M_DQS_A_DN[0..7]
(13) M_DQS_B_DP[0..7]
(13) M_DQS_B_DN[0..7]

DDR CMD/ADD

(11) M_MAA_A[0..16]
(13) M_MAA_B[0..16]
(11) M_BA_A_0
(11) M_BA_A_1
(11) M_BG_A_0
(11) M_BG_A_1
(13) M_BA_B_0
(13) M_BA_B_1
(13) M_BG_B_0
(13) M_BG_B_1

DDR CTRL

(11) M_SCS_A_N0
(11) M_SCS_A_N1
(11) M_SCKE_A0
(11) M_SCKE_A1
(11) M_ODT_A0
(11) M_ODT_A1
(13) M_SCS_B_N0
(13) M_SCS_B_N1
(13) M_SCKE_B0
(13) M_SCKE_B1
(13) M_ODT_B0
(13) M_ODT_B1

DDR CLOCK

(11) CK_M_DDR0_A_DP
(11) CK_M_DDR0_A_DN
(11) CK_M_DDR1_A_DP
(11) CK_M_DDR1_A_DN
(13) CK_M_DDR0_B_DP
(13) CK_M_DDR0_B_DN
(13) CK_M_DDR1_B_DP
(13) CK_M_DDR1_B_DN

DDR OTHERS

(11) DIMM_CA_CPU_VREF_A
(13) DIMM_DQ_CPU_VREF_B
(11) M_ACT_A_N
(11) M_PARITY_A
(11) M_ALERT_A_N
(13) M_ACT_B_N
(13) M_PARITY_B
(13) M_ALERT_B_N

CPU1A — SKYLAKE — 1 OF 12 — LGA1151

M_DATA_A5	AE38	DDR0_DQ0	AW18	CK_M_DDR0_A_DP	
M_DATA_A1	AE37	DDR0_DQ1	AV18	CK_M_DDR0_A_DN	
M_DATA_A2	AG38	DDR0_DQ2	AW17	CK_M_DDR1_A_DP	
M_DATA_A3	AG37	DDR0_DQ3	AV17	CK_M_DDR1_A_DN	
M_DATA_A4	AE39	DDR0_DQ4	AW16		
M_DATA_A0	AE40	DDR0_DQ5	AV16		
M_DATA_A6	AG39	DDR0_DQ6	AT16		
M_DATA_A7	AG40	DDR0_DQ7	AU16		
M_DATA_A13	AJ38	DDR0_DQ8	AK35		
M_DATA_A9	AJ37	DDR0_DQ9	AY24	M_SCKE_A0	
M_DATA_A10	AL38	DDR0_DQ10	AW24	M_SCKE_A1	
M_DATA_A11	AL37	DDR0_DQ11	AV24		
M_DATA_A5	AJ40	DDR0_DQ12	AV25		
M_DATA_A12	AJ39	DDR0_DQ13	AW12	M_SCS_A_N0	
M_DATA_A14	AL39	DDR0_DQ14	AU11	M_SCS_A_N1	
M_DATA_A15	AL40	DDR0_DQ15	AV13		
M_DATA_A21	AN38	DDR0_DQ16/DDR0_DQ32	AV10		
M_DATA_A16	AN40	DDR0_DQ17/DDR0_DQ33	AW11	M_ODT_A0	
M_DATA_A18	AR38	DDR0_DQ18/DDR0_DQ34	AU14	M_ODT_A1	
M_DATA_A19	AR37	DDR0_DQ19/DDR0_DQ35	AU12		
M_DATA_A20	AN39	DDR0_DQ20/DDR0_DQ36	AY10		
M_DATA_A17	AN37	DDR0_DQ21/DDR0_DQ37	AW13	M_BA_A_0	
M_DATA_A22	AR39	DDR0_DQ22/DDR0_DQ38	AV15	M_BA_A_1	
M_DATA_A23	AR40	DDR0_DQ23/DDR0_DQ39	AW23	M_BG_A_0	
M_DATA_A25	AW37	DDR0_DQ24/DDR0_DQ40			
M_DATA_A28	AU38	DDR0_DQ25/DDR0_DQ41	AW28	M_MAA_A16	
M_DATA_A27	AV35	DDR0_DQ26/DDR0_DQ42	AV14	M_MAA_A14	
M_DATA_A31	AW35	DDR0_DQ27/DDR0_DQ43	AV11	M_MAA_A15	
M_DATA_A29	AU37	DDR0_DQ28/DDR0_DQ44	AW15	M_MAA_A0	
M_DATA_A24	AV37	DDR0_DQ29/DDR0_DQ45	AU18	M_MAA_A1	
M_DATA_A30	AT35	DDR0_DQ30/DDR0_DQ46	AU17	M_MAA_A2	
M_DATA_A26	AU35	DDR0_DQ31/DDR0_DQ47	AV19	M_MAA_A3	
M_DATA_A32	AY8	DDR0_DQ32/DDR1_DQ0	AT19	M_MAA_A4	
M_DATA_A36	AW8	DDR0_DQ33/DDR1_DQ1	AU20	M_MAA_A5	
M_DATA_A34	AV6	DDR0_DQ34/DDR1_DQ2	AV20	M_MAA_A6	
M_DATA_A35	AU6	DDR0_DQ35/DDR1_DQ3	AU21	M_MAA_A7	
M_DATA_A33	AU8	DDR0_DQ36/DDR1_DQ4	AT20	M_MAA_A8	
M_DATA_A37	AV8	DDR0_DQ37/DDR1_DQ5	AT22	M_MAA_A9	
M_DATA_A39	AW6	DDR0_DQ38/DDR1_DQ6	AY14	M_MAA_A10	
M_DATA_A38	AY6	DDR0_DQ39/DDR1_DQ7	AU22	M_MAA_A11	
M_DATA_A44	AY4	DDR0_DQ40/DDR1_DQ8	AV22	M_MAA_A12	
M_DATA_A40	AV4	DDR0_DQ41/DDR1_DQ9	AV12	M_MAA_A13	
M_DATA_A47	AT1	DDR0_DQ42/DDR1_DQ10	AV23	M_BG_A_1	
M_DATA_A43	AT2	DDR0_DQ43/DDR1_DQ11	AU24	M_ACT_A_N	
M_DATA_A41	AV3	DDR0_DQ44/DDR1_DQ12			
M_DATA_A45	AW4	DDR0_DQ45/DDR1_DQ13	AY15	M_PARITY_A	
M_DATA_A46	AT4	DDR0_DQ46/DDR1_DQ14	AT23	M_ALERT_A_N	
M_DATA_A42	AT3	DDR0_DQ47/DDR1_DQ15			
M_DATA_A49	AP2	DDR0_DQ48/DDR1_DQ32	AF39	M_DQS_A_DN0	
M_DATA_A54	AM4	DDR0_DQ49/DDR1_DQ33	AK39	M_DQS_A_DN1	
M_DATA_A53	AP3	DDR0_DQ50/DDR1_DQ34	AP39	M_DQS_A_DN2	
M_DATA_A50	AM3	DDR0_DQ51/DDR1_DQ35	AU36	M_DQS_A_DN3	
M_DATA_A52	AP4	DDR0_DQ52/DDR1_DQ36	AW7	M_DQS_A_DN4	
M_DATA_A51	AM2	DDR0_DQ53/DDR1_DQ37	AU3	M_DQS_A_DN5	
M_DATA_A48	AP1	DDR0_DQ54/DDR1_DQ38	AN3	M_DQS_A_DN6	
M_DATA_A55	AM1	DDR0_DQ55/DDR1_DQ39	AJ3	M_DQS_A_DN7	
M_DATA_A61	AK3	DDR0_DQ56/DDR1_DQ40			
M_DATA_A63	AH1	DDR0_DQ57/DDR1_DQ41	AF38	M_DQS_A_DP0	
M_DATA_A60	AK4	DDR0_DQ58/DDR1_DQ42	AK38	M_DQS_A_DP1	
M_DATA_A59	AH2	DDR0_DQ59/DDR1_DQ43	AP38	M_DQS_A_DP2	
M_DATA_A62	AH4	DDR0_DQ60/DDR1_DQ44	AV36	M_DQS_A_DP3	
M_DATA_A57	AK2	DDR0_DQ61/DDR1_DQ45	AV7	M_DQS_A_DP4	
M_DATA_A58	AH3	DDR0_DQ62/DDR1_DQ46	AU2	M_DQS_A_DP5	
M_DATA_A56	AK1	DDR0_DQ63/DDR1_DQ47	AN2	M_DQS_A_DP6	
			AJ2	M_DQS_A_DP7	
	AU33	DDR0_ECC0			
	AT33	DDR0_ECC1	AV32		
	AW33	DDR0_ECC2	AU32		
	AV31	DDR0_ECC3			
	AU31	DDR0_ECC4			
	AV33	DDR0_ECC5			
	AW31	DDR0_ECC6			
	AY31	DDR0_ECC7			

DDR CHANNEL A

(062.10015.0161)

CPU1B — SKYLAKE — 2 OF 12 — LGA1151

M_DATA_B4	AD34	DDR1_DQ0/DDR0_DQ16	AM20	CK_M_DDR0_B_DP	
M_DATA_B5	AD35	DDR1_DQ1/DDR0_DQ17	AM21	CK_M_DDR0_B_DN	
M_DATA_B7	AG35	DDR1_DQ2/DDR0_DQ18	AP22	CK_M_DDR1_B_DP	
M_DATA_B3	AH35	DDR1_DQ3/DDR0_DQ19	AP21	CK_M_DDR1_B_DN	
M_DATA_B1	AE35	DDR1_DQ4/DDR0_DQ20	AN20		
M_DATA_B0	AE34	DDR1_DQ5/DDR0_DQ21	AN21		
M_DATA_B6	AG34	DDR1_DQ6/DDR0_DQ22	AP19		
M_DATA_B2	AH34	DDR1_DQ7/DDR0_DQ23	AP20		
M_DATA_B13	AK35	DDR1_DQ8/DDR0_DQ24	AY29	M_SCKE_B0	
M_DATA_B9	AL35	DDR1_DQ9/DDR0_DQ25	AV29	M_SCKE_B1	
M_DATA_B14	AK32	DDR1_DQ10/DDR0_DQ26	AW29		
M_DATA_B15	AL32	DDR1_DQ11/DDR0_DQ27	AU28		
M_DATA_B12	AK34	DDR1_DQ12/DDR0_DQ28	AP17	M_SCS_B_N0	
M_DATA_B8	AL34	DDR1_DQ13/DDR0_DQ29	AN15	M_SCS_B_N1	
M_DATA_B10	AK31	DDR1_DQ14/DDR0_DQ30	AN17		
M_DATA_B11	AL31	DDR1_DQ15/DDR0_DQ31	AM15		
M_DATA_B16	AP35	DDR1_DQ16/DDR0_DQ48	AM16	M_ODT_B0	
M_DATA_B20	AN35	DDR1_DQ17/DDR0_DQ49	AL16	M_ODT_B1	
M_DATA_B22	AN32	DDR1_DQ18/DDR0_DQ50	AP15		
M_DATA_B23	AP32	DDR1_DQ19/DDR0_DQ51	AL18		
M_DATA_B17	AN34	DDR1_DQ20/DDR0_DQ52	AN18	M_MAA_B16	
M_DATA_B21	AP34	DDR1_DQ21/DDR0_DQ53	AL17	M_MAA_B14	
M_DATA_B18	AN31	DDR1_DQ22/DDR0_DQ54	AP16	M_MAA_B15	
M_DATA_B19	AP31	DDR1_DQ23/DDR0_DQ55			
M_DATA_B28	AL29	DDR1_DQ24/DDR0_DQ56	DDR1_RAS#/DDR1_CAB3/DDR1_MA16		
M_DATA_B24	AM29	DDR1_DQ25/DDR0_DQ57	DDR1_WE#/DDR1_CAB2/DDR1_MA14		
M_DATA_B30	AP29	DDR1_DQ26/DDR0_DQ58	DDR1_CAS#/DDR1_CAB1/DDR1_MA15		
M_DATA_B26	AR29	DDR1_DQ27/DDR0_DQ59			
M_DATA_B25	AM28	DDR1_DQ28/DDR0_DQ60	DDR1_BA0/DDR1_CAB4/DDR1_BA0		
M_DATA_B29	AL28	DDR1_DQ29/DDR0_DQ61	DDR1_BA1/DDR1_CAB6/DDR1_BA1		
M_DATA_B27	AR28	DDR1_DQ30/DDR0_DQ62	DDR1_BA2/DDR1_CAA5/DDR1_BG0		
M_DATA_B31	AP28	DDR1_DQ31/DDR0_DQ63			
M_DATA_B32	AR12	DDR1_DQ32/DDR1_DQ16	DDR1_MA0/DDR1_CAB9/DDR1_MA0		
M_DATA_B33	AP12	DDR1_DQ33/DDR1_DQ17	DDR1_MA1/DDR1_CAB8/DDR1_MA1		
M_DATA_B38	AM13	DDR1_DQ34/DDR1_DQ18	DDR1_MA2/DDR1_CAB5/DDR1_MA2		
M_DATA_B36	AR13	DDR1_DQ35/DDR1_DQ19	DDR1_MA3		
M_DATA_B37	AP13	DDR1_DQ36/DDR1_DQ20	DDR1_MA4		
M_DATA_B39	AM12	DDR1_DQ37/DDR1_DQ21	DDR1_MA5/DDR1_CAA0/DDR1_MA5		
M_DATA_B35	AL12	DDR1_DQ38/DDR1_DQ22	DDR1_MA6/DDR1_CAA2/DDR1_MA6		
M_DATA_B44	AP10	DDR1_DQ39/DDR1_DQ23	DDR1_MA7/DDR1_CAA4/DDR1_MA7		
M_DATA_B45	AR10	DDR1_DQ40/DDR1_DQ24	DDR1_MA8/DDR1_CAA3/DDR1_MA8		
M_DATA_B46	AR7	DDR1_DQ41/DDR1_DQ25	DDR1_MA9/DDR1_CAA1/DDR1_MA9		
M_DATA_B42	AP7	DDR1_DQ42/DDR1_DQ26	DDR1_MA10/DDR1_CAB7/DDR1_MA10		
M_DATA_B41	AR9	DDR1_DQ43/DDR1_DQ27	DDR1_MA11/DDR1_CAA7/DDR1_MA11		
M_DATA_B40	AP9	DDR1_DQ44/DDR1_DQ28	DDR1_MA12/DDR1_CAA6/DDR1_MA12		
M_DATA_B47	AR6	DDR1_DQ45/DDR1_DQ29	DDR1_MA13/DDR1_CAB0/DDR1_MA13		
M_DATA_B43	AP6	DDR1_DQ46/DDR1_DQ30	DDR1_MA14/DDR1_CAA9/DDR1_BG1		
M_DATA_B52	AM10	DDR1_DQ47/DDR1_DQ31	DDR1_MA15/DDR1_CAA8/DDR1_ACT#		
M_DATA_B53	AL10	DDR1_DQ48			
M_DATA_B55	AM7	DDR1_DQ49	DDR1_PAR	AL20	M_PARITY_B
M_DATA_B51	AL7	DDR1_DQ50	DDR1_ALERT#	AY25	M_ALERT_B_N
M_DATA_B48	AM9	DDR1_DQ51			
M_DATA_B49	AL9	DDR1_DQ52		AF34	M_DQS_B_DN0
M_DATA_B54	AM6	DDR1_DQ53	DDR1_DQSN0/DDR0_DQSN2	AK33	M_DQS_B_DN1
M_DATA_B50	AL6	DDR1_DQ54	DDR1_DQSN1/DDR0_DQSN3	AN33	M_DQS_B_DN2
M_DATA_B61	AJ6	DDR1_DQ55	DDR1_DQSN2/DDR0_DQSN6	AN29	M_DQS_B_DN3
M_DATA_B56	AJ7	DDR1_DQ56	DDR1_DQSN3/DDR0_DQSN7	AN13	M_DQS_B_DN4
M_DATA_B63	AE6	DDR1_DQ57	DDR1_DQSN4/DDR1_DQSN2	AR8	M_DQS_B_DN5
M_DATA_B58	AF7	DDR1_DQ58	DDR1_DQSN5/DDR1_DQSN3	AM8	M_DQS_B_DN6
M_DATA_B60	AH7	DDR1_DQ59	DDR1_DQSN6	AG6	M_DQS_B_DN7
M_DATA_B57	AH6	DDR1_DQ60	DDR1_DQSN7		
M_DATA_B59	AE7	DDR1_DQ61		AF35	M_DQS_B_DP0
M_DATA_B62	AF6	DDR1_DQ62	DDR1_DQSP0/DDR0_DQSP2	AL33	M_DQS_B_DP1
		DDR1_DQ63	DDR1_DQSP1/DDR0_DQSP3	AP33	M_DQS_B_DP2
			DDR1_DQSP2/DDR0_DQSP6	AN28	M_DQS_B_DP3
	AR25		DDR1_DQSP3/DDR0_DQSP7	AN12	M_DQS_B_DP4
DDR1_ECC0	AR26		DDR1_DQSP4/DDR1_DQSP2	AP8	M_DQS_B_DP5
DDR1_ECC1	AM26		DDR1_DQSP5/DDR1_DQSP3	AL8	M_DQS_B_DP6
DDR1_ECC2	AM25		DDR1_DQSP6	AG7	M_DQS_B_DP7
DDR1_ECC3	AP26		DDR1_DQSP7		
DDR1_ECC4	AP25				
DDR1_ECC5	AL25		DDR1_DQSP8	AN25	
DDR1_ECC6	AL26		DDR1_DQSN8	AN26	
DDR1_ECC7					

DDR CHANNEL B

(062.10015.0161)

For DDR4 Modify

For DDR4 Modify

DDR_VREF_CA	AB40	DIMM_CA_CPU_VREF_A
DDR0_VREF_DQ	AC40	TP_DIMM_DQ_CPU_VREF_A
DDR1_VREF_DQ	AC39	DIMM_DQ_CPU_VREF_B

TP170

C1 SCD1U16V2KX-3DLGP
C2 SCD1U16V2KX-3DLGP

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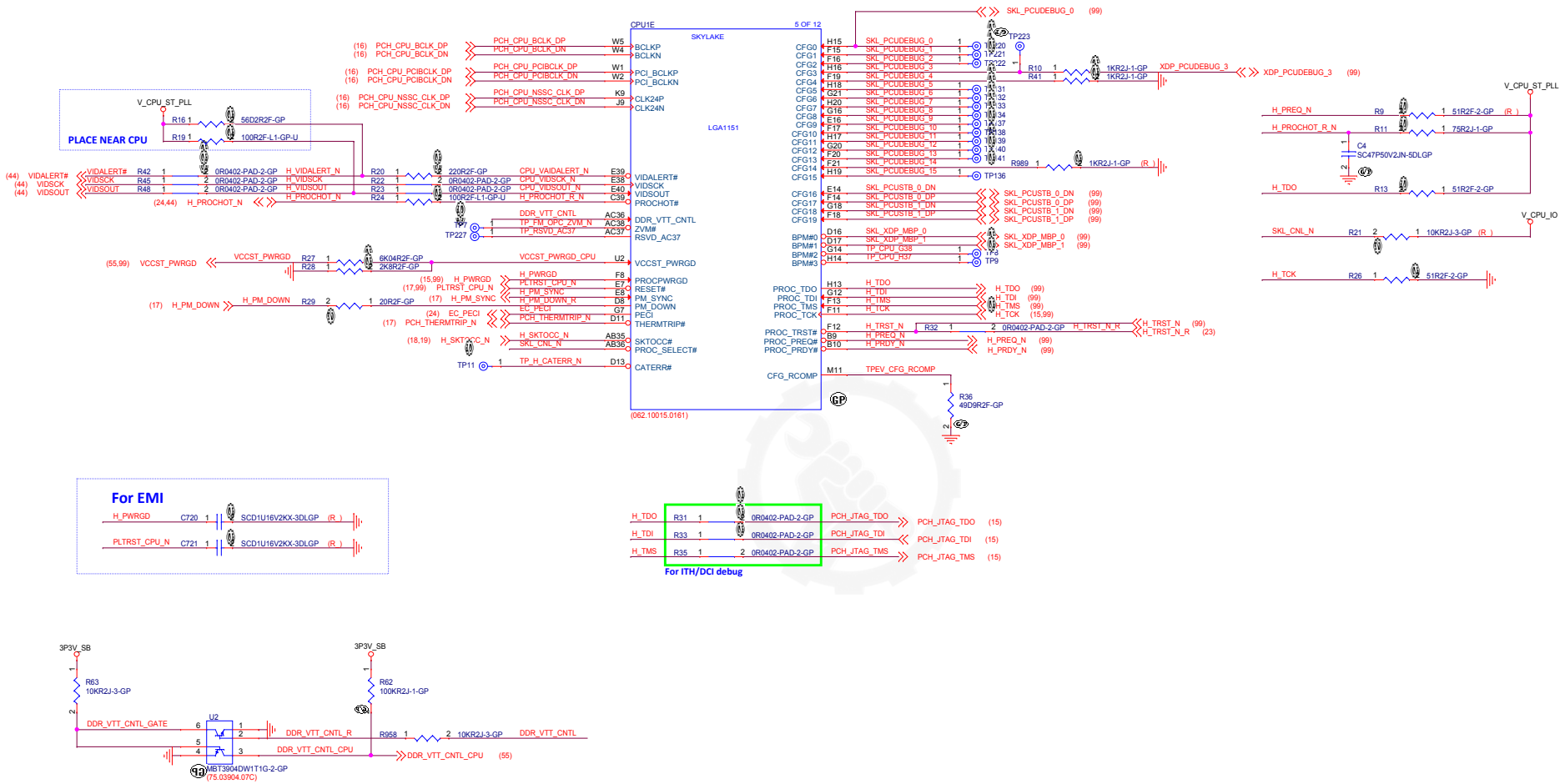
Title: CPU_(DDRA_DDRB)
Size: C
Document Number: Tahoe MT MLK/Gambits MT KBL
Rev: A00
Date: Wednesday, October 19, 2016
Sheet 3 of 107



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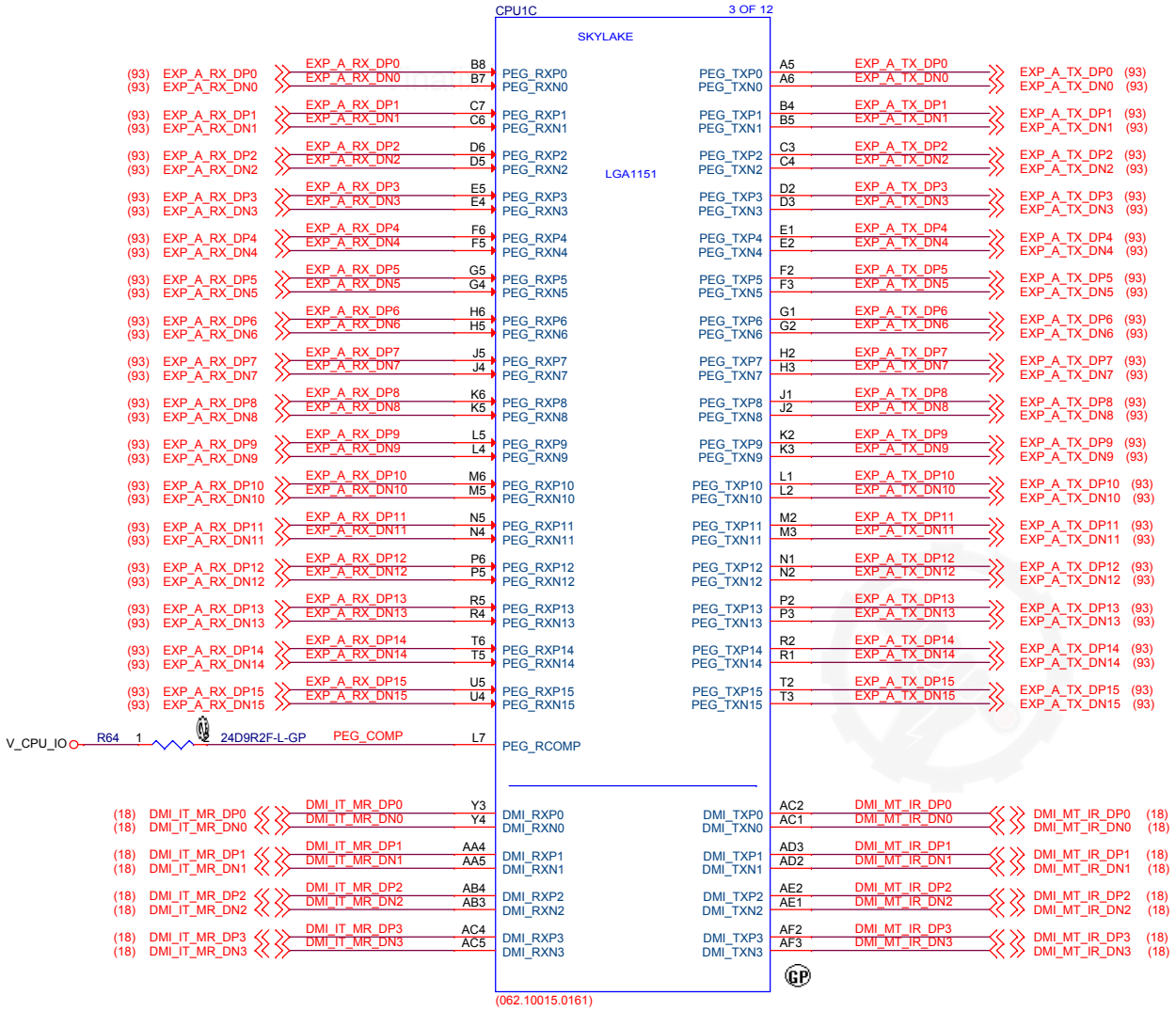
Title: CPU_(CFG/CLOCK/STRAP)

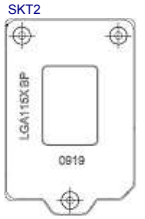
Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 4 of 107



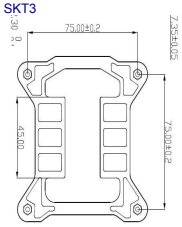
SKYLAKE SOCKET

Load Plate
(22.78003.021)



Back Plate
(22.78006.031)

ILMCOVER
(22.78005.171)



ASSY BACK PLATE
(60.3EQ19.002)

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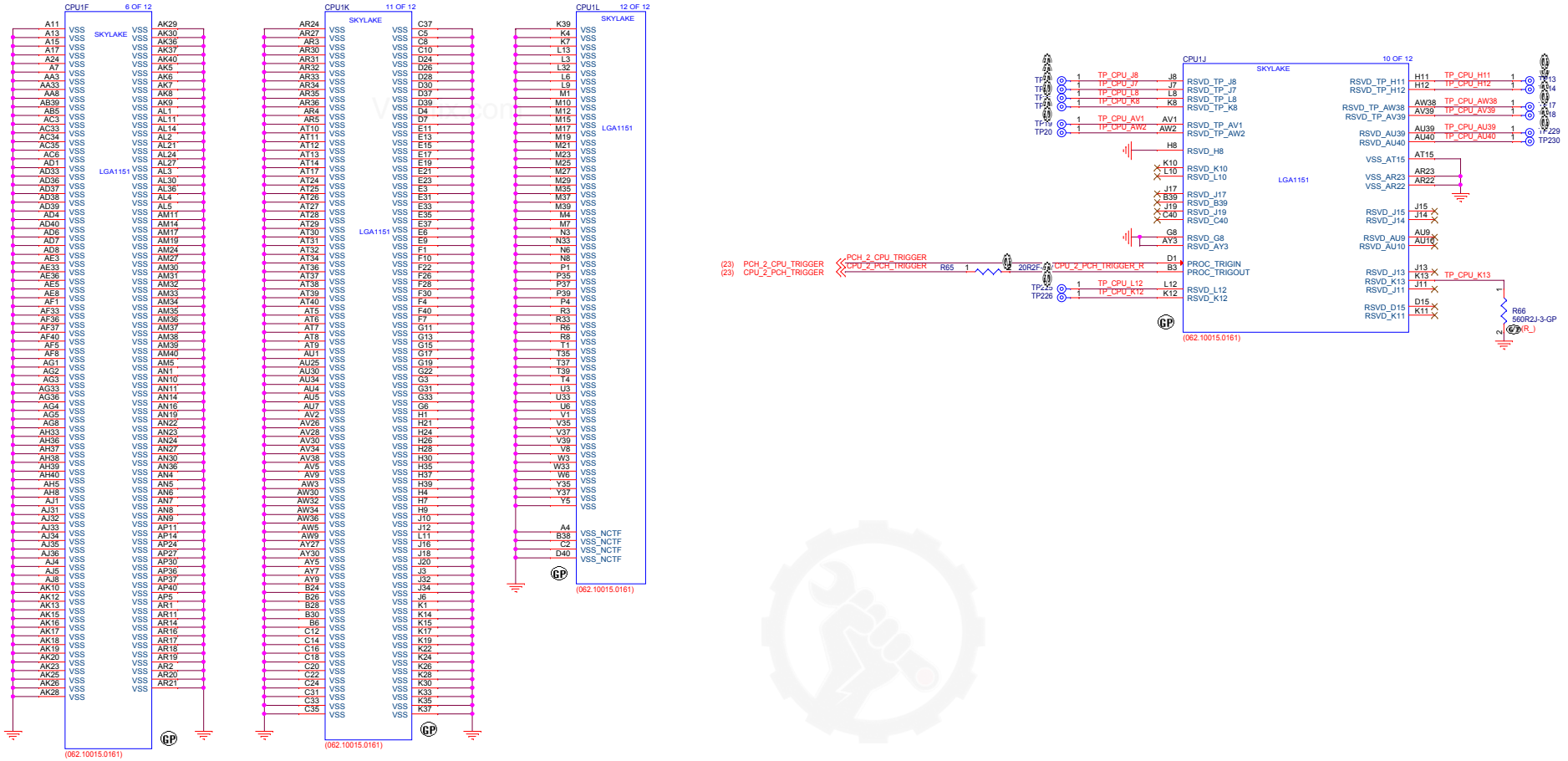
Title	CPU_(PCIE)	
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 5 of 107	



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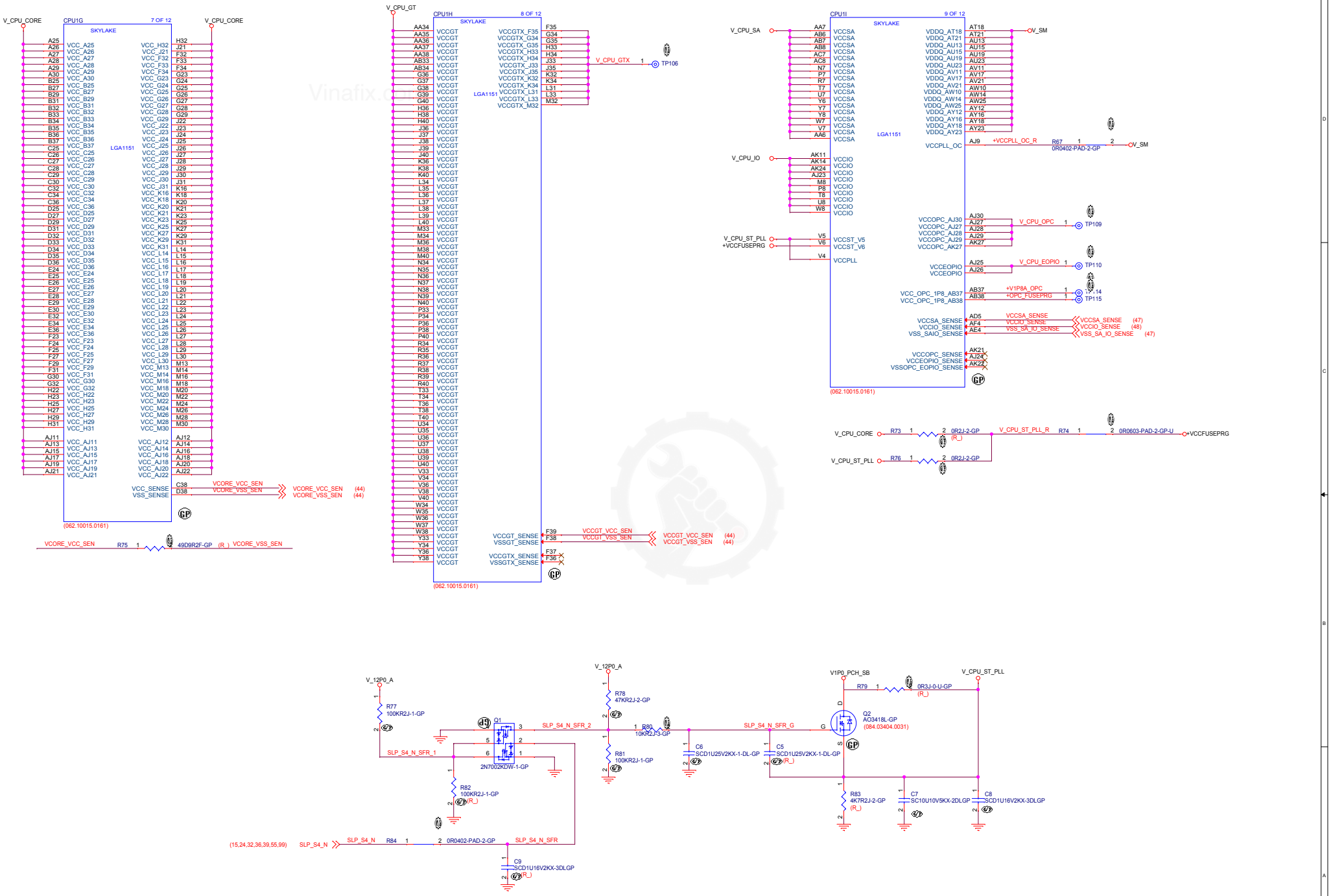
Title: CPU_(VSS)		
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 6 of 107	



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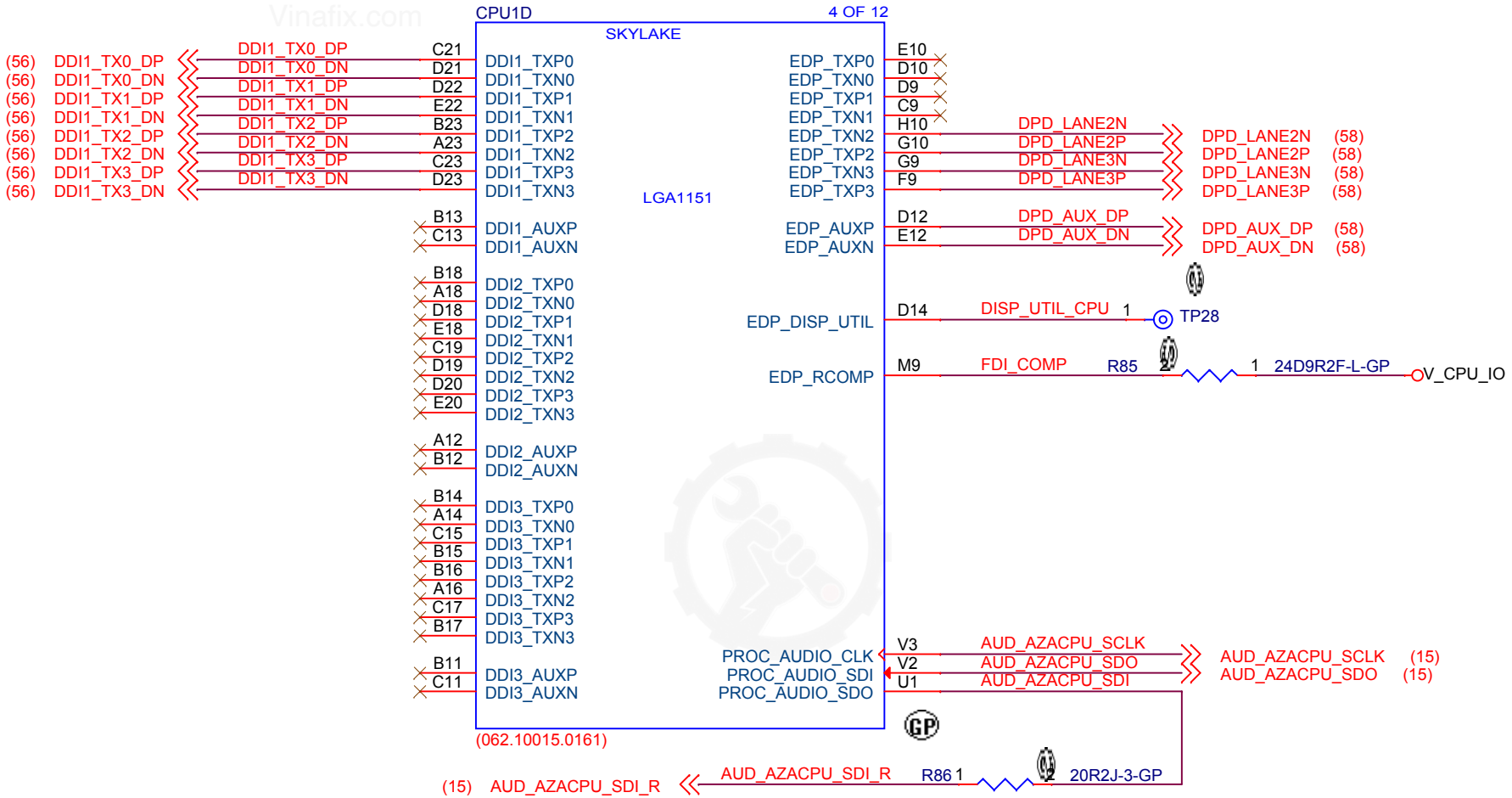
Title: CPU_(VCC_CORE/SENCE)			
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL		Rev: A00
Date: Wednesday, October 19, 2016	Sheet 7 of 107		



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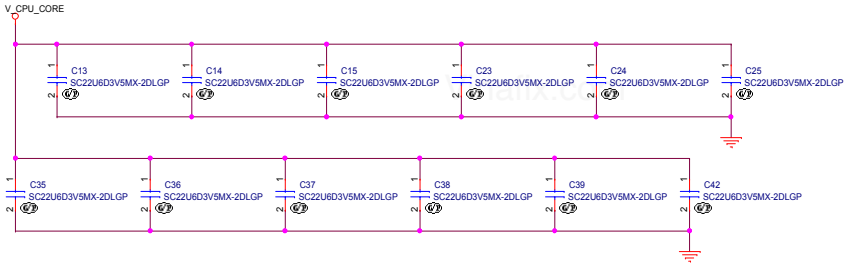
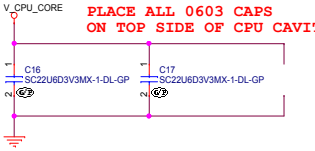
Title	CPU_(DDI/EDP)
Size	A
Document Number	Tahoe MT MLK/Gambits MT KBL
Rev	A00
Date:	Wednesday, October 19, 2016
Sheet	8 of 107

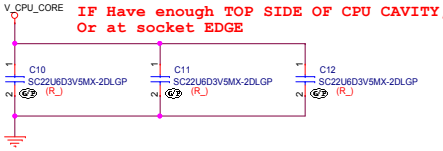
PLACE ALL 0805 CAPS ON TOP SIDE OF CPU CAVITY



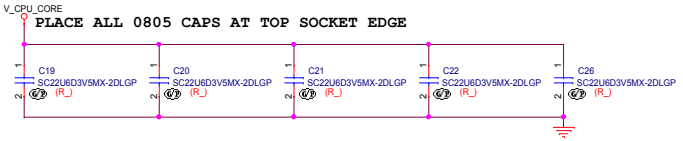
PLACE ALL 0603 CAPS ON TOP SIDE OF CPU CAVITY



IF Have enough TOP SIDE OF CPU CAVITY, On it, Or at socket EDGE

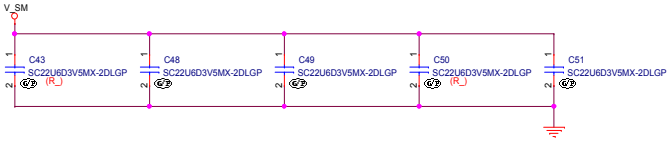


PLACE ALL 0805 CAPS AT TOP SOCKET EDGE

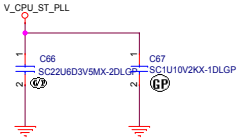


PLACE CAPS FOR DIMM

PLACE CAPS IN SOCKET EDGE TOP



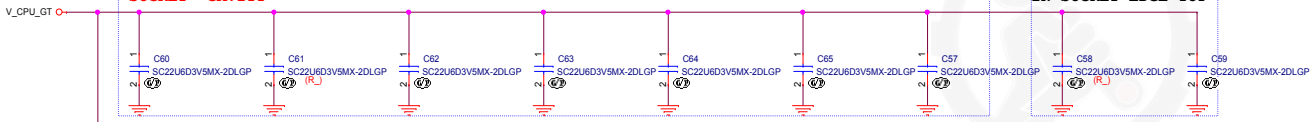
VCCST/VCCSTG
PLACE CAPS AT TOP SOCKET EDGE



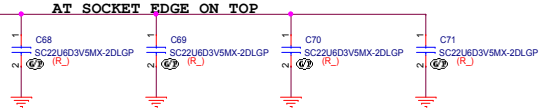
CRB:1*22U
0805,1*1U 0402

PLACE CAPS ON TOP SIDE SOCKET CAVITY

PLACE CAPS IN SOCKET EDGE TOP

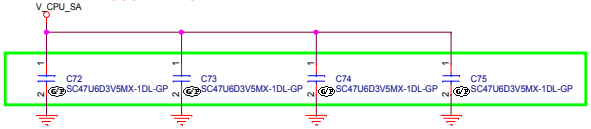


PLACE CAPS AT SOCKET EDGE ON TOP



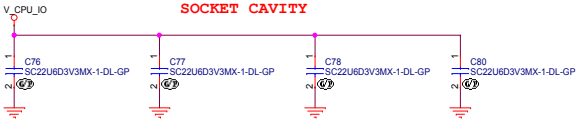
PLACE CAPS ON TOP SIDE SOCKET CAVITY

PLACE CAPS AT TOP SOCKET EDGE



CRB:4*22U 0603

PLACE CAPS ON TOP SIDE SOCKET CAVITY



CRB:1*22U
0805,:5*22U 0603

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Title: CPU_(PWR CAP)

Size: C | Document Number: Tahoe MT MLK/Gambits MT KBL | Rev: A00

Date: Wednesday, October 19, 2016 | Sheet 9 of 107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 10 of 107

DDR DATA

(3) M_DATA_A[0..63]
(3) M_DQS_A_DP[0..7]
(3) M_DQS_A_DN[0..7]

DDR CMD/ADD

(3) M_MAA_A[0..16]
(3) M_BA_A_0
(3) M_BA_A_1
(3) M_BG_A_0
(3) M_BG_A_1

DDR CTRL

(3) M_SCS_A_N0
(3) M_SCS_A_N1
(3) M_SCKE_A0
(3) M_SCKE_A1
(3) M_ODT_A0
(3) M_ODT_A1

DDR CLOCK

(3) CK_M_DDR0_A_DP
(3) CK_M_DDR0_A_DN
(3) CK_M_DDR1_A_DP
(3) CK_M_DDR1_A_DN

DDR OTHERS

(13,15) DDR3_DRAMRST_N
(13,24,58,99) SMB_DATA_MAIN
(13,24,58,99) SMB_CLK_MAIN
(3) M_ACT_A_N
(3) M_PARITY_A
(3) M_ALERT_A_N

DIMM1:
SA0: 0, SA1: 0
Write Address: 0xA0
Read Address: 0xA1

DIMM1A
DDR4-288P-82-GP
(022.10010.0A61)

DIMM1B
DDR4-288P-82-GP
(022.10010.0A61)

DIMM1C
DDR4-288P-82-GP
(022.10010.0A61)

DIMM1D
DDR4-288P-82-GP
(022.10010.0A61)

DIMM VREF DQ A (To DIMM/CPU)

Del for DDR4 Modify

Del C82, C83

For DDR4 Modify

DIMM VREF CA A (To DIMM)

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Title: **DDR4 CHA DIMM 0**

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 11 of 107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 12 of 107

DDR DATA

(3) M_DATA_B[0..63]
(3) M_DQS_B_DP[0..7]
(3) M_DQS_B_DN[0..7]

DDR CMD/ADD

(3) M_MAA_B[0..16]
(3) M_BA_B_0
(3) M_BA_B_1
(3) M_BG_B_0
(3) M_BG_B_1

DDR CTRL

(3) M_SCS_B_N0
(3) M_SCS_B_N1
(3) M_SCKE_B0
(3) M_SCKE_B1
(3) M_ODT_B0
(3) M_ODT_B1

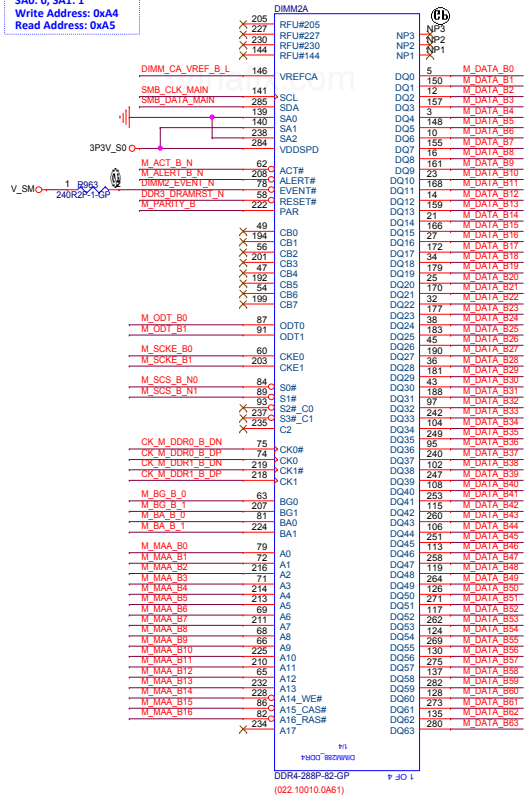
DDR CLOCK

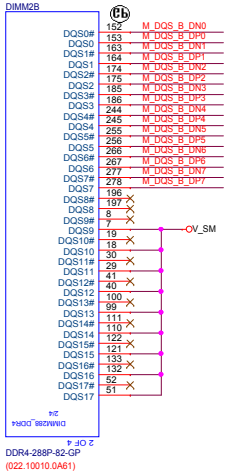
(3) CK_M_DDR0_B_DP
(3) CK_M_DDR0_B_DN
(3) CK_M_DDR1_B_DP
(3) CK_M_DDR1_B_DN

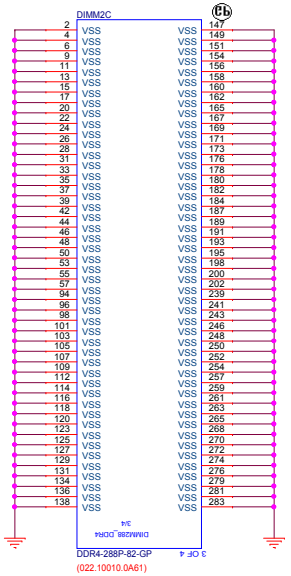
DDR OTHERS

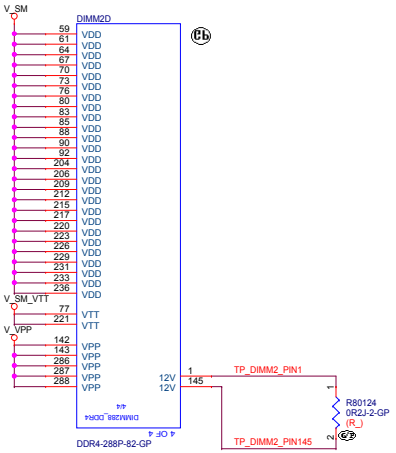
(11,15) DDR3_DRAMRST_N
(11,24,58,99) SMB_DATA_MAIN
(11,24,58,99) SMB_CLK_MAIN
(3) M_ACT_B_N
(3) M_PARITY_B
(3) M_ALERT_B_N

DIMM2:
SA0: 0, SA1: 1
Write Address: 0xA4
Read Address: 0xA5



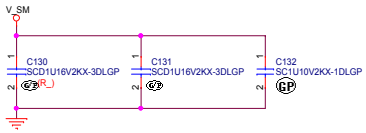


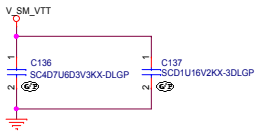


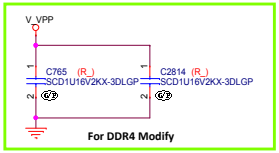


DIMM VREF DQ B (To DIMM/CPU)

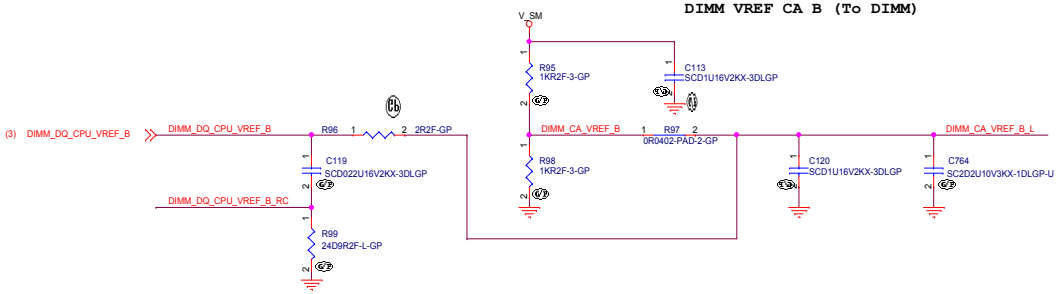
Del for DDR4 Modify







DIMM VREF CA B (To DIMM)



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Title: DDR4 CHB DIMM 0

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 13 of 107

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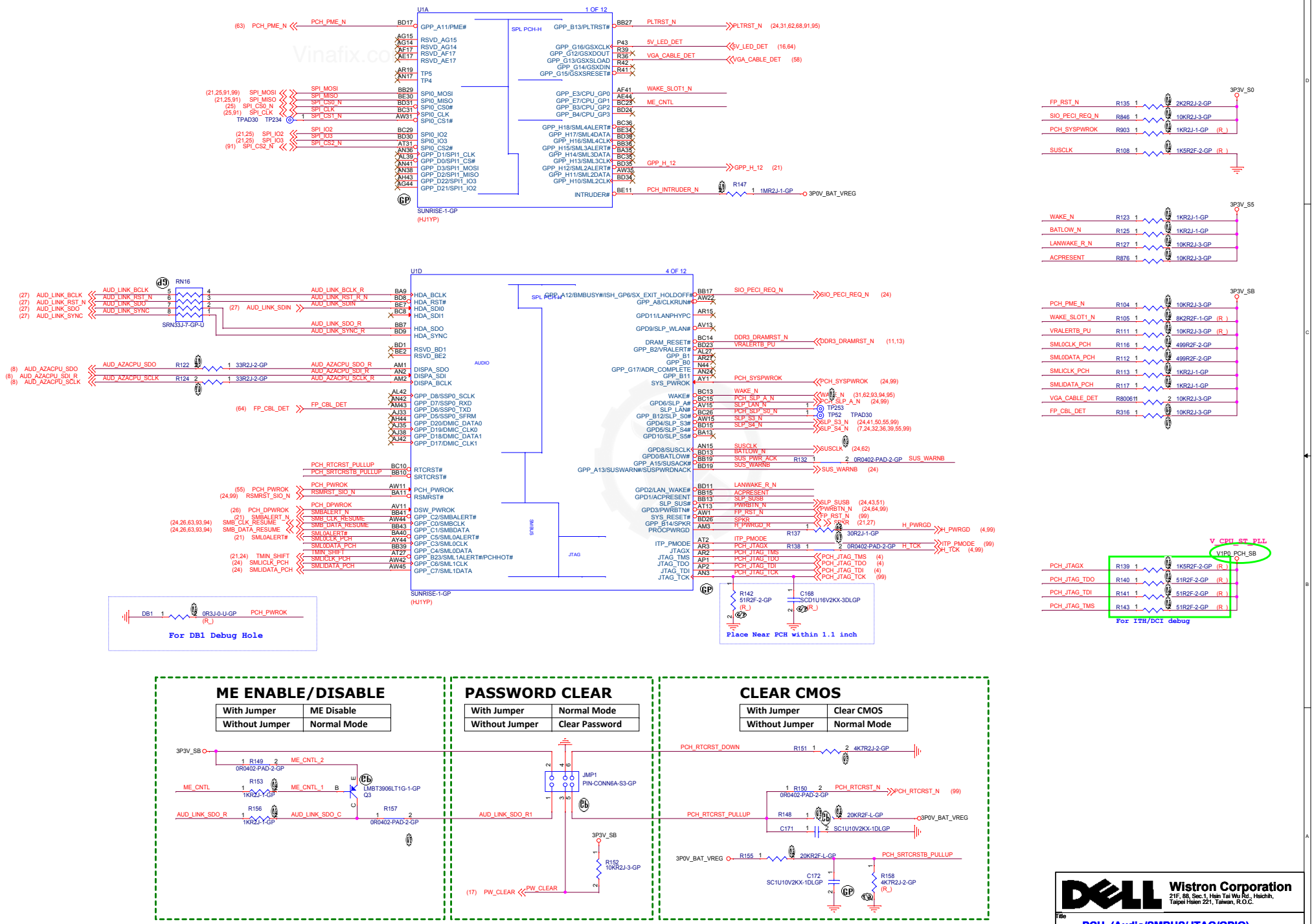
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 14 of 107


U1A
1 OF 12
SUNRISE-1-GP
(HJ1YP)
U1D
4 OF 12
SUNRISE-1-GP
(HU1YP)
RN16
SRN33J-7-GP-U
For DB1 Debug Hole
Place Near PCH within 1.1 inch
For ITH/DCI debug
ME ENABLE/DISABLE
With Jumper
ME Disable
Without Jumper
Normal Mode
PASSWORD CLEAR
With Jumper
Normal Mode
Without Jumper
Clear Password
CLEAR CMOS
With Jumper
Clear CMOS
Without Jumper
Normal Mode
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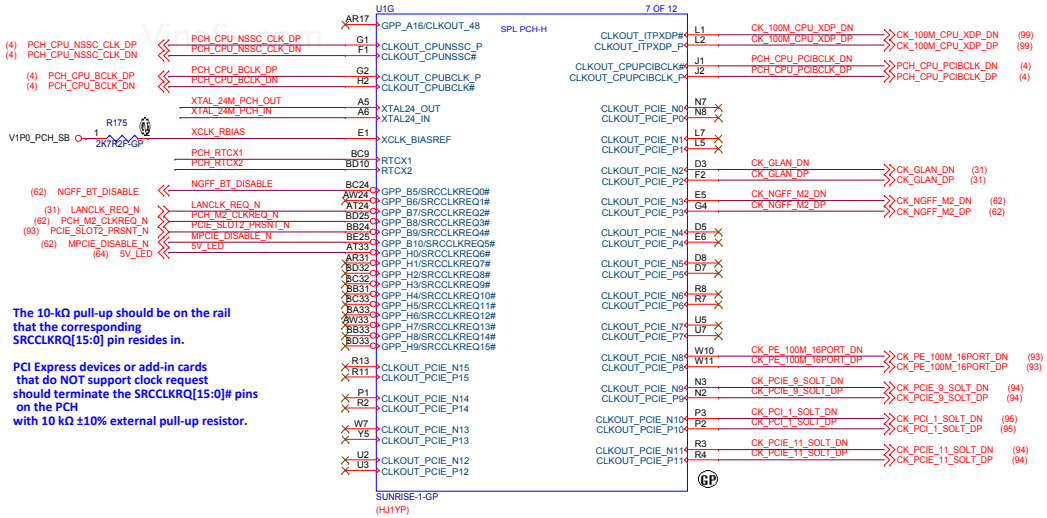
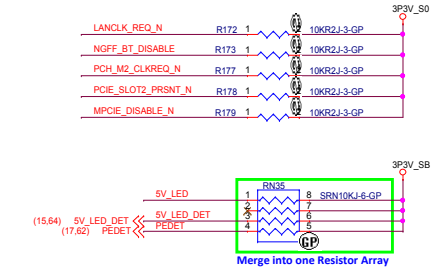
Taipei Hsien 221, Taiwan, R.O.C.
PCH_(Audio/SMBUS/JTAG/GPIO)
Tahoe MT MLK/Gambits MT KBL
A00
Wednesday, October 19, 2016
15
107

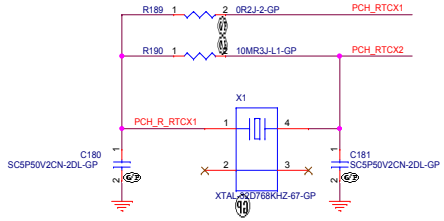


The 10-kΩ pull-up should be on the rail that the corresponding SRCCLKRQ[15:0] pin resides in.

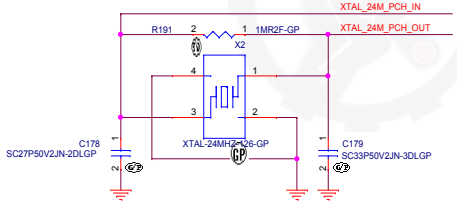
PCI Express devices or add-in cards that do NOT support clock request should terminate the SRCCLKRQ[15:0]# pins on the PCH with 10 kΩ ±10% external pull-up resistor.



Merge into one Resistor Array



NOTE:The 1Mohm Damping Resistor Use 0603 and Can't change to 0402!



When support FCIM need to stuff.

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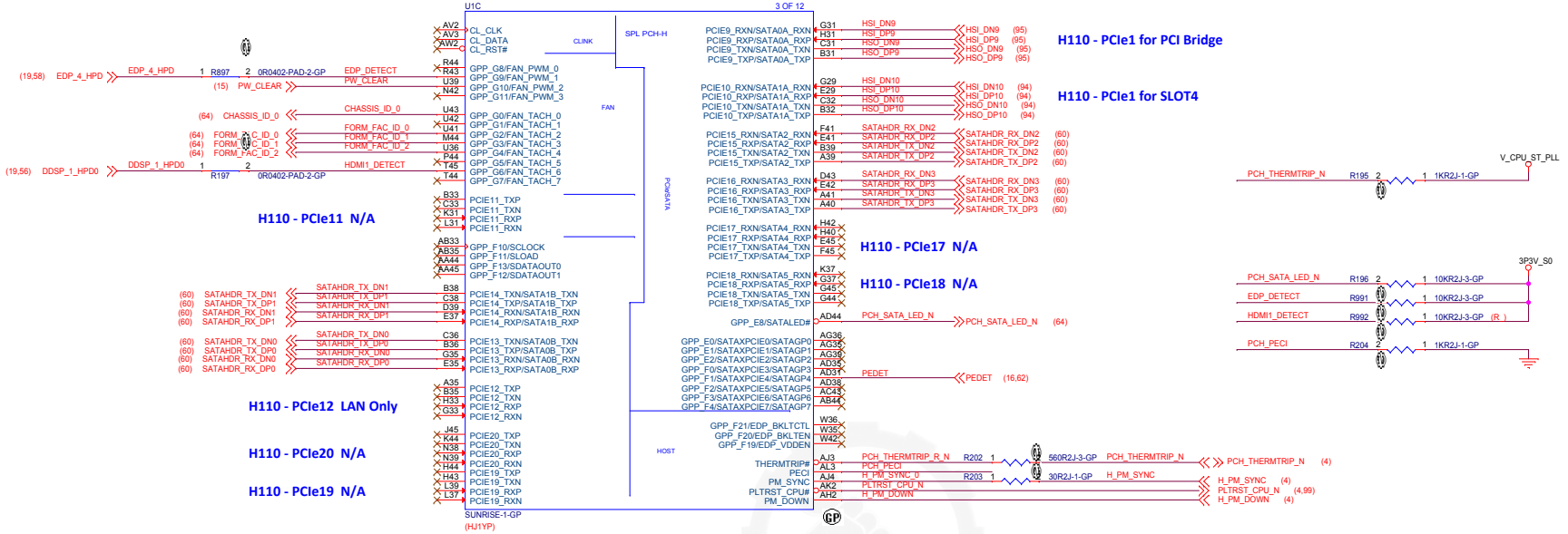
Title: PCH_(CLK)			
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL		Rev: A00
Date: Wednesday, October 19, 2016	Sheet 16 of 107		



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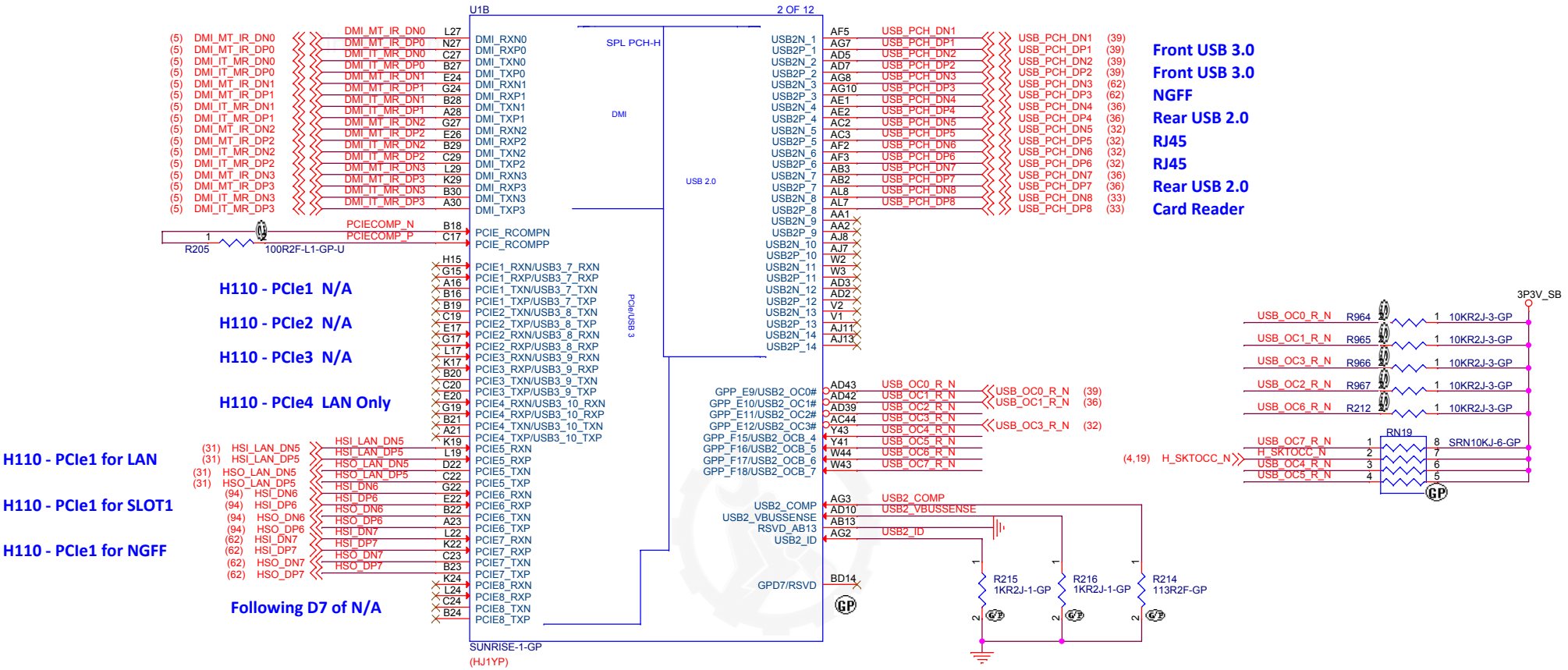
Title: PCH_(SATA/PCIE/HOST)			
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL		Rev: A00
Date: Wednesday, October 19, 2016	Sheet 17 of 107		



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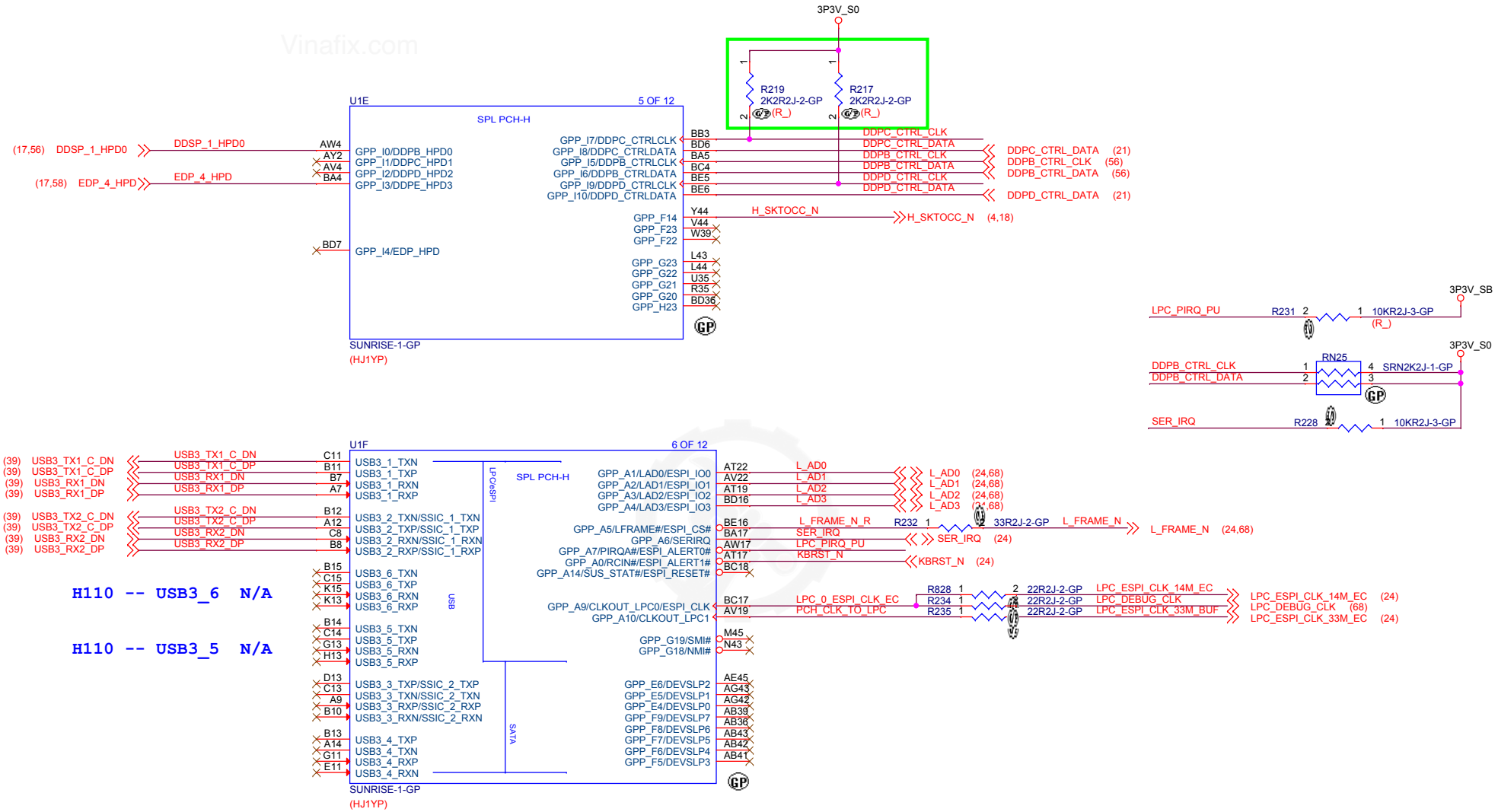
Title: PCH_(DMI/USB2/USB3/PCIE)		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 18 of 107	



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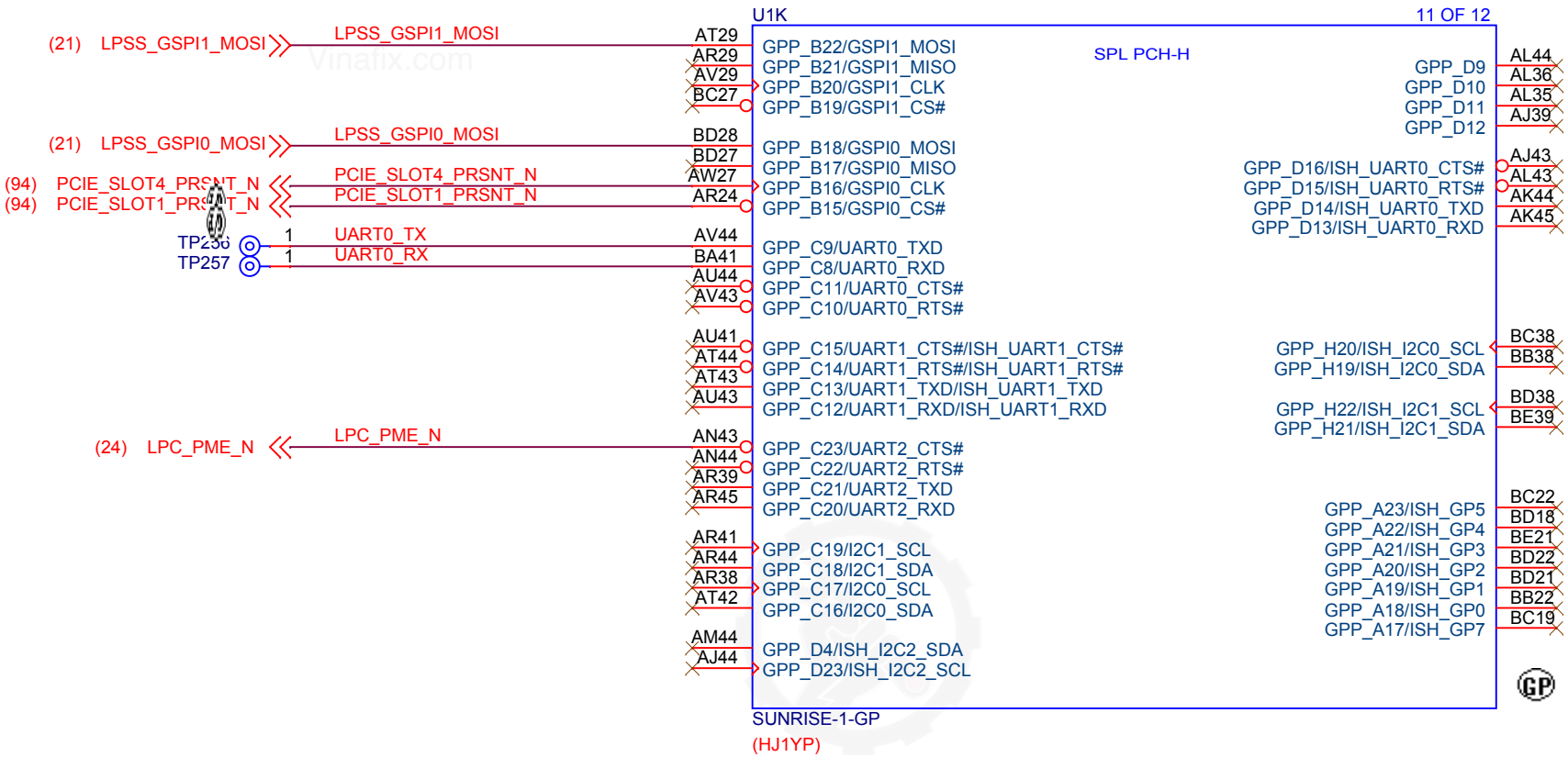
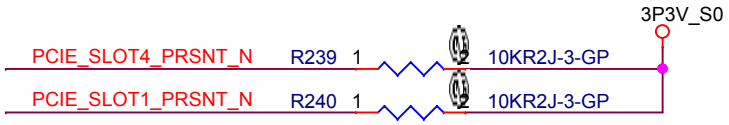
Title: PCH_(DDI/USB3/GPIO)

Size	Document Number	Rev
B	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 19 of 107





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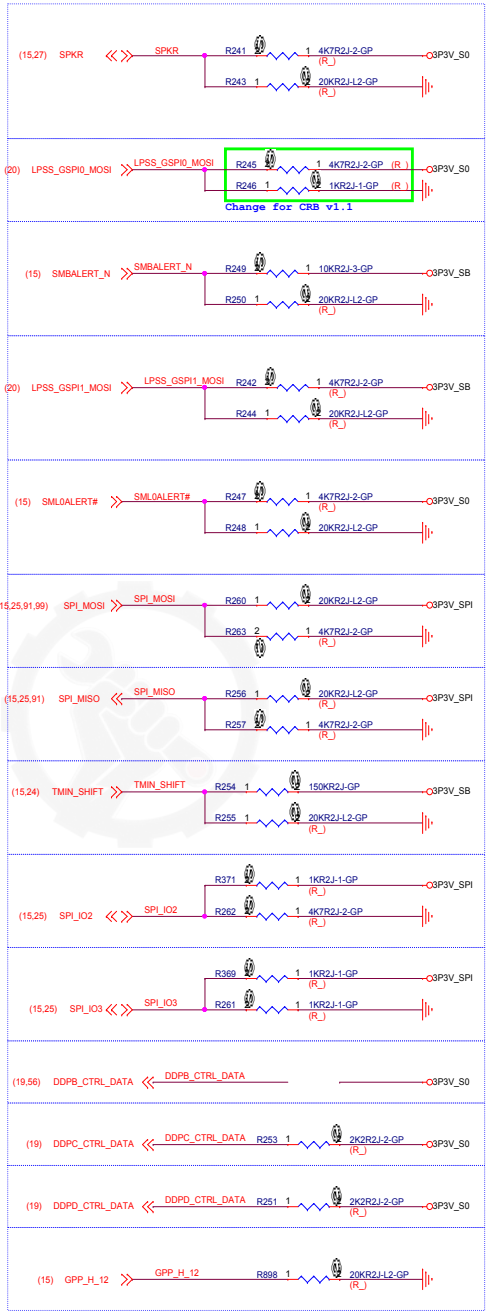
Title: **PCH_(UART/GPIO/I2C)**

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 20 of 107

SPKR/GPP_B14	Top Swap Override	Rising edge of PCH_PWROK	The signal has a weak internal pull-down. 0 = Disable "Top Swap" mode. (Default) 1 = Enable "Top Swap" mode. This inverts an address on access to SPI and firmware hub, so the processor believes it fetches the alternate boot block instead of the original boot-block. PCH will invert A16 (default) for cycles going to the upper two 64-KB blocks in the FWH or the appropriate address lines (A16, A17, or A18) as selected in Top Swap
GSPI0_MOSI/ GPP_B18	No Reboot	Rising edge of PCH_PWROK	The signal has a weak internal pull-down. 0 = Disable "No Reboot" mode. (Default) 1 = Enable "No Reboot" mode (PCH will disable the TCO Timer system reboot feature). This function is useful when running ITP/XDP.
SMBALERT#/ GPP_C2	TLS Confidentiality	Rising edge of RSMRST#	This signal has a weak internal pull-down. 0 = Disable Intel ME Crypto Transport Layer Security (TLS) cipher suite (no confidentiality). (Default) 1 = Enable Intel ME Crypto Transport Layer Security (TLS) cipher suite (with confidentiality). Must be pulled up to support Intel AMT with TLS and Intel SBA (Small Business Advantage) with TLS.
GSPI1_MOSI/ GPP_B22	Boot BIOS Strap Bit BBS	Rising edge of PCH_PWROK	This Signal has a weak internal pull-down. This field determines the destination of accesses to the BIOS memory range. Also controllable using Boot BIOS Destination bit (Bus0, Device31, Function0, offset BCh, bit 6). Bit 6 Boot BIOS Destination 0 SPI (Default) 1 LPC
SML0ALERT#/ GPP_C5	eSPI or LPC	Rising edge of RSMRST#	This signal has a weak internal pull-down. 0 = LPC Is selected for EC. (Default) 1 = eSPI Is selected for EC. Notes: 1. The internal pull-down is disabled after RSMRST# de-asserts. 2. This signal is in the primary well.
SPI0_MOSI	Reserved	Rising edge of RSMRST#	This signal has an internal pull-up. This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.
SPI0_MISO	Reserved	Rising edge of RSMRST#	This signal has an internal pull-up. This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.
SML1ALERT#/ PCHHOT#/ GPP_B23	Reserved	Rising edge of RSMRST#	This signal has an internal pull-down. This strap should sample LOW. There should NOT be any on-board device driving it to opposite direction during strap sampling.
SPI0_IO2	Reserved	Rising edge of RSMRST#	This signal has an internal pull-up. This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.
SPI0_IO3	Reserved	Rising edge of RSMRST#	This signal has an internal pull-up. This strap should sample HIGH. There should NOT be any on-board device driving it to opposite direction during strap sampling.
DDPB_CTRLDATA /GPP_I6	Display Port B Detected	Rising edge of PCH_PWROK	This signal has a weak internal pull-down. 0 = Port B is not detected. (Default) 1 = Port B is detected.
DDPC_CTRLDATA / GPP_I8	Display Port C Detected	Rising edge of PCH_PWROK	This signal has a weak internal pull-down. 0 = Port C is not detected. (Default) 1 = Port C is detected.
DDPD_CTRLDATA / GPP_I10	Display Port D Detected	Rising edge of PCH_PWROK	This signal has a weak internal pull-down. 0 = Port D is not detected. (Default) 1 = Port D is detected.
GPP_H12	Reserved	Rising edge of RSMRST#	This signal has a weak internal pull-down. This strap should sample LOW. There should NOT be any on-board device driving it to opposite direction during strap sampling.



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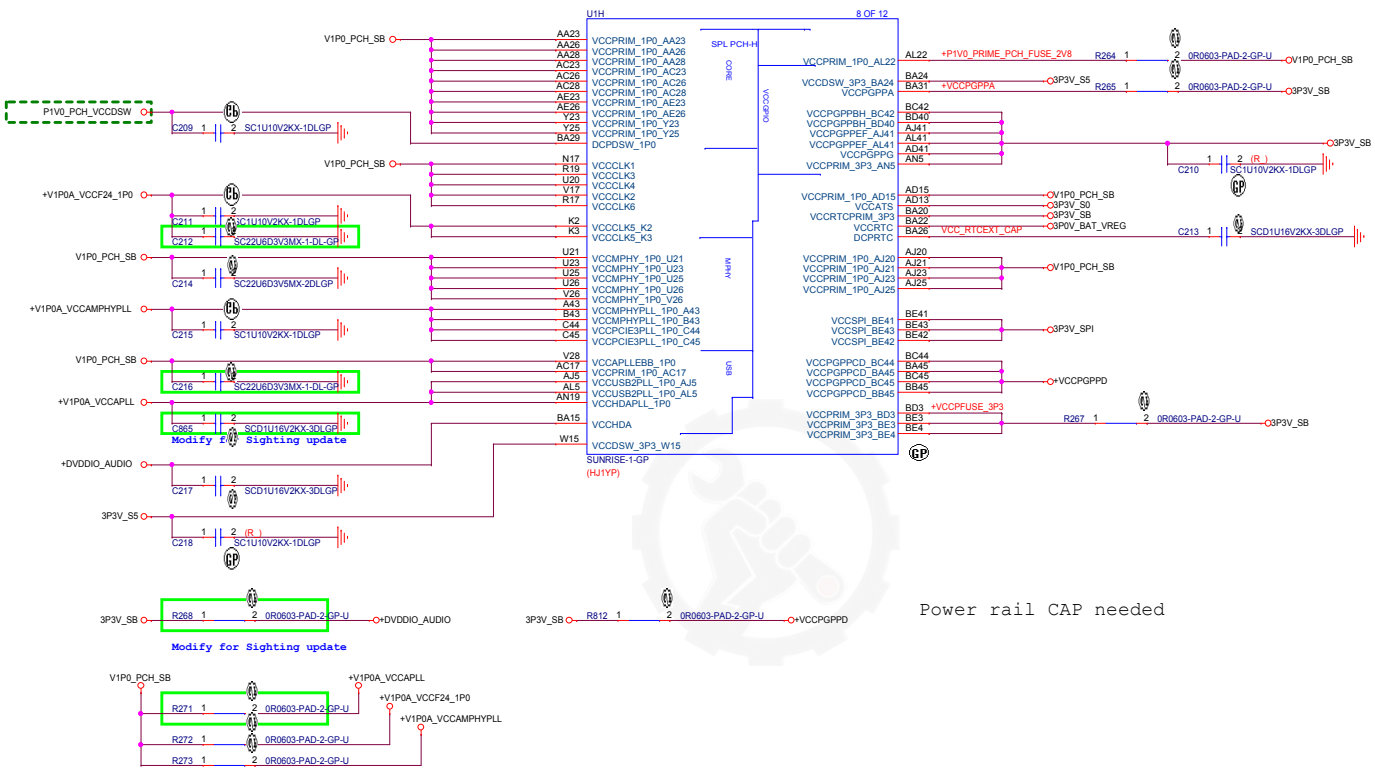
Taipei Hsien 221, Taiwan, R.O.C.

Title: PCH_(Strap Pin)

Size: C | Document Number: Tahoe MT MLK/Gambits MT KBL | Rev: A00

Date: Wednesday, October 19, 2016 | Sheet 21 of 107



Power rail CAP needed

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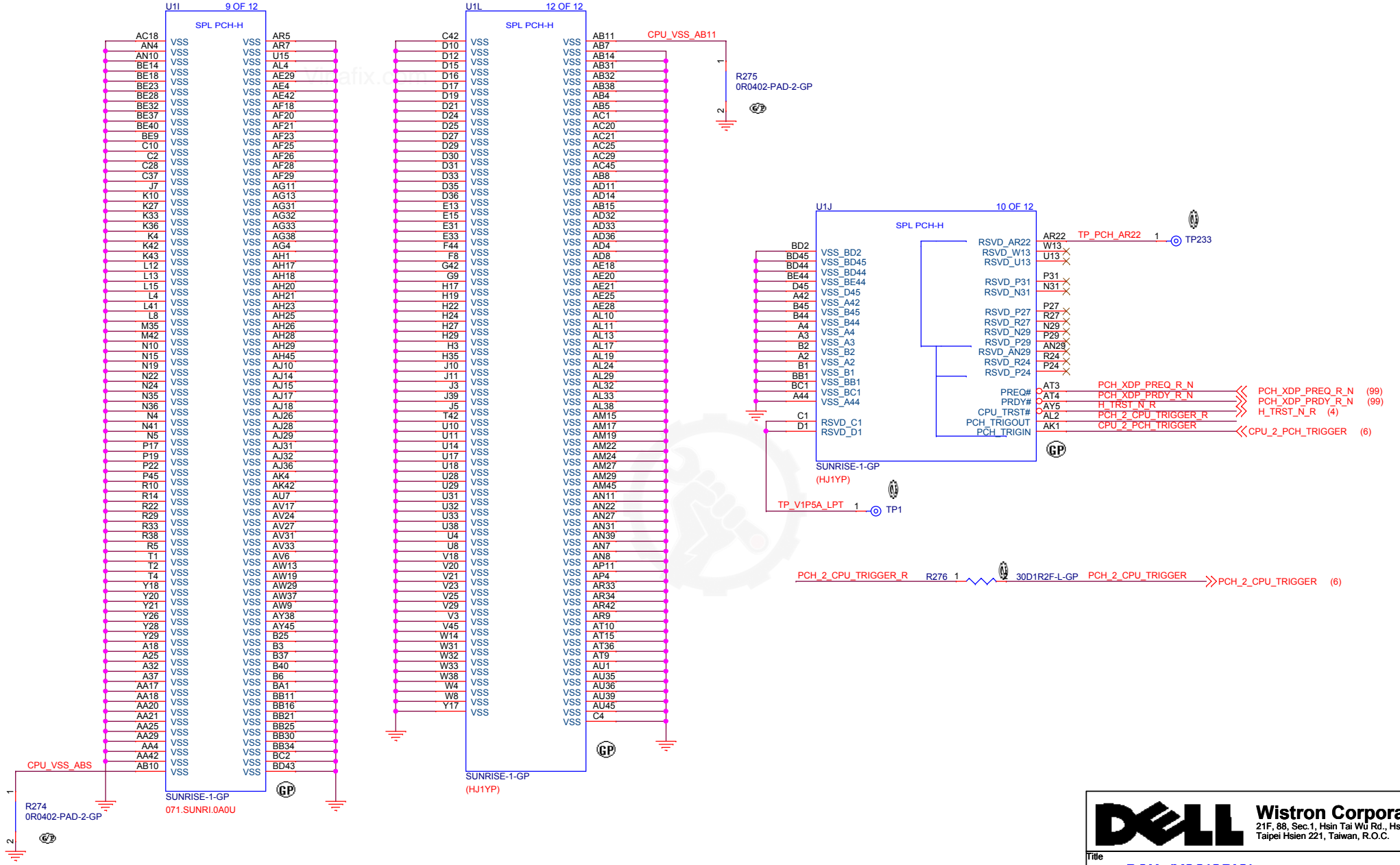
Title: PCH_(VCC)		
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 22 of 107	



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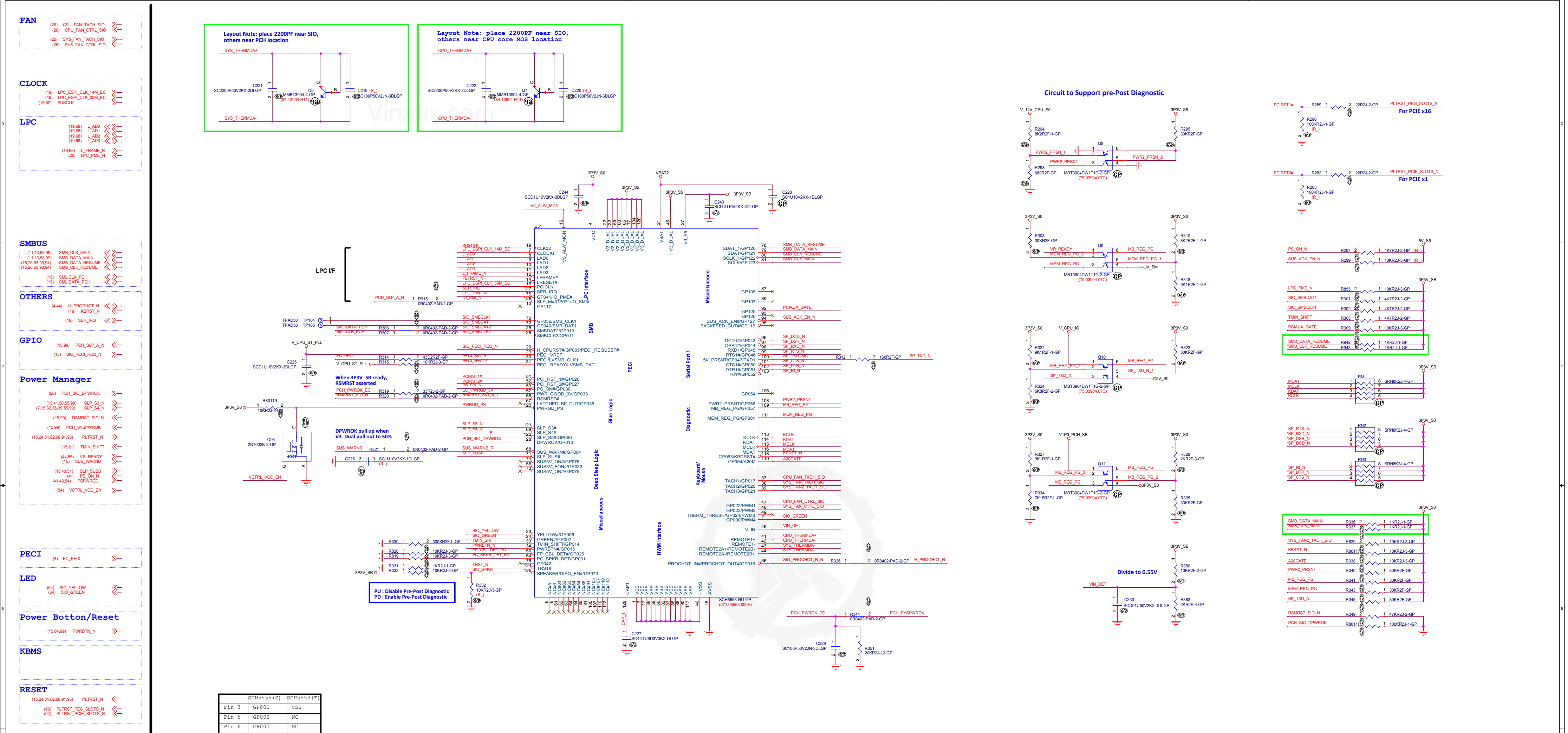
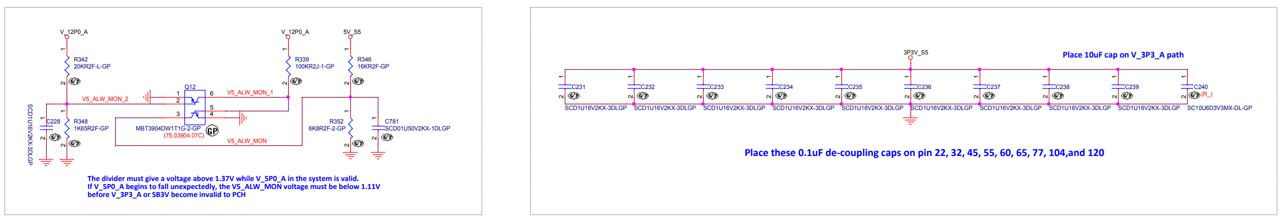
Title	PCH_(VSS/GPIO)
Size	B
Document Number	Tahoe MT MLK/Gambits MT KBL
Rev	A00
Date:	Wednesday, October 19, 2016
Sheet	23 of 107



	SCH5555(S)	SCH5553(T)
Pin 3	GP001	VSS
Pin 5	GP002	NC
Pin 6	GP003	NC
Pin 61	GP111	NC
Pin 62	GP112	NC
Pin 63	GP113	NC
Pin 64	GP114	NC
Pin 82	DDC_DAT_5V GP100	VSS
Pin 83	DDC_DAT_2P5V GP101	VSS
Pin 84	DDC_CLK_5V GP102	NC
Pin 85	DDC_CLK_2P5V GP103	NC
Pin 86	GP104	VSS
Pin 88	GP106	VSS
Pin 91	PCIAUX_CTRL# GP124	NC
Pin 92	PCIAUX_GATE GP125	GP125
Pin 105	GP053	NC
Pin 107	GP055	NC
Pin 110	GP060	NC
Pin 112	GP062	NC



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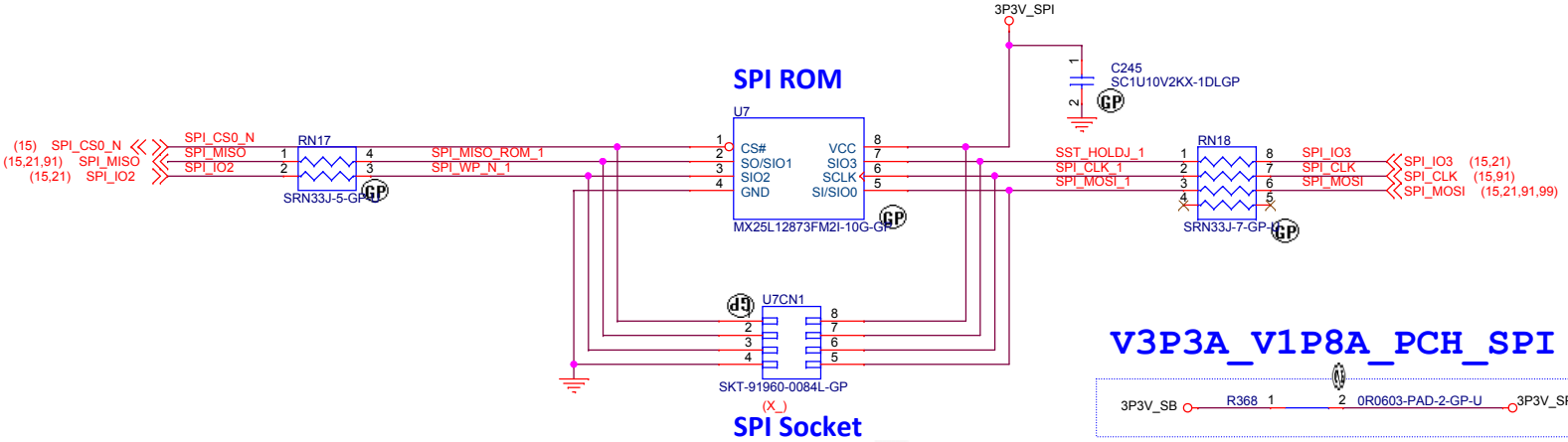
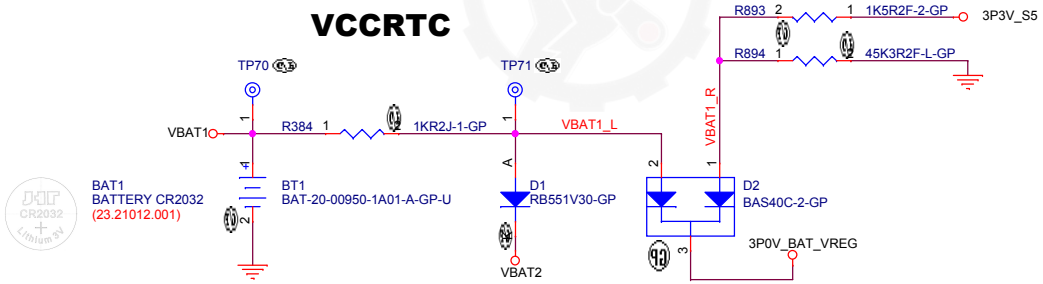
Title	SMSC 5555/5553		
Size: D	Document Number: Tahoe MT MLK/Gambits MT KBL		Rev: A00
Date:	Wednesday, October 19, 2016	Sheet 24 of 107	



V3P3A_V1P8A_PCH_SPI

3P3V_SB — R368 1 — 2 0R0603-PAD-2-GP-U — 3P3V_SPI



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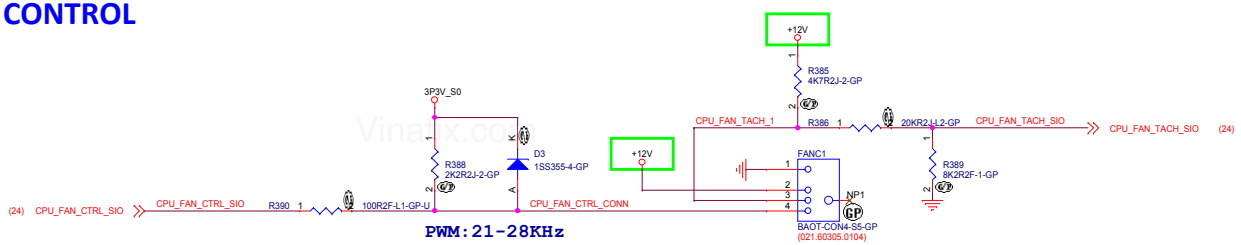
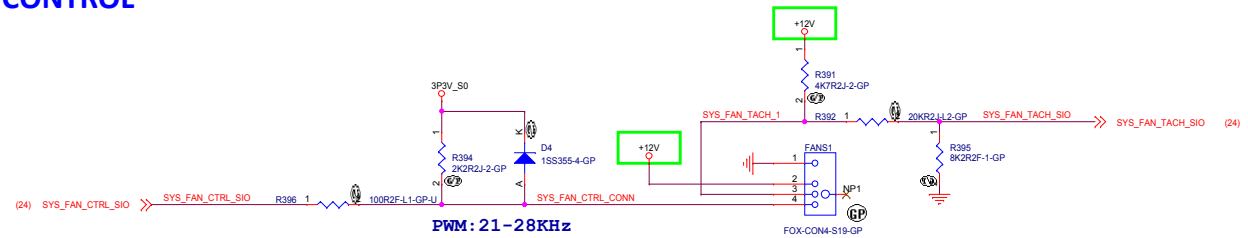
Title: SPI/RTC/BAT		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 25 of 107	

CPU FAN CONTROL



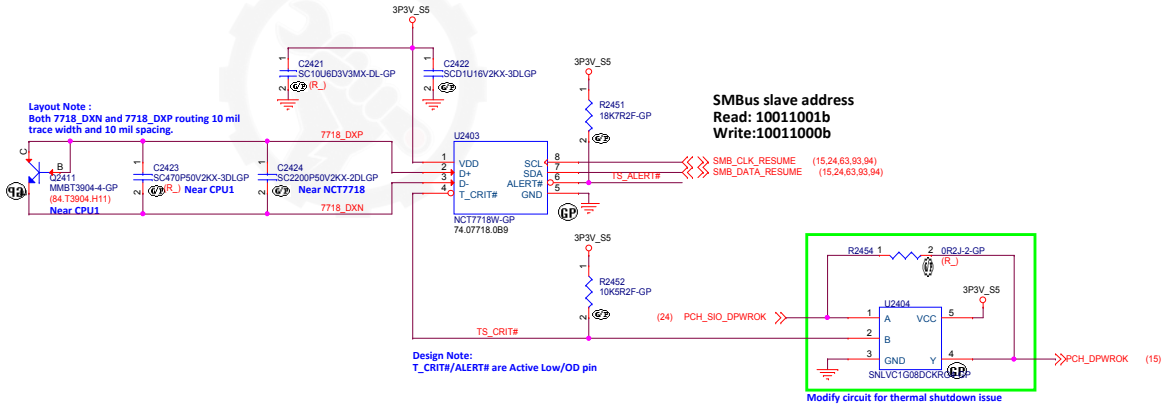
SYS FAN CONTROL

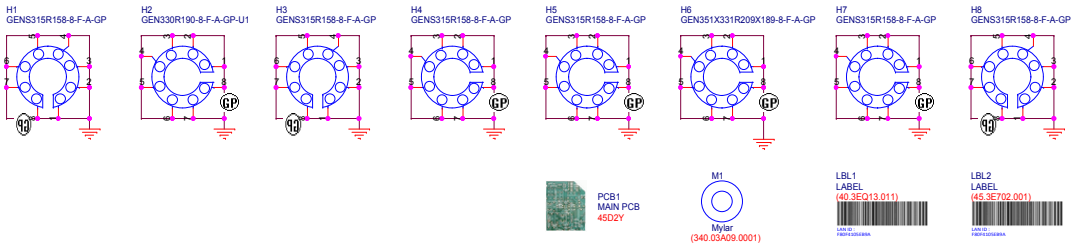


Thermal sensor NCT7718W

The default value is trapping after power up 100ms by different pull-up resistors of T_CRIT# and ALERT# pin:

TEMPERATURE (℃)		T_CRIT#				
		2KΩ	7.5KΩ	10.5KΩ	14KΩ	18.7KΩ
ALERT#	2KΩ	77	87	97	107	117
	7.5KΩ	79	89	99	109	119
	10.5KΩ	81	91	101	111	121
	14KΩ	83	93	103	113	123
	18.7KΩ	85	95	105	115	125





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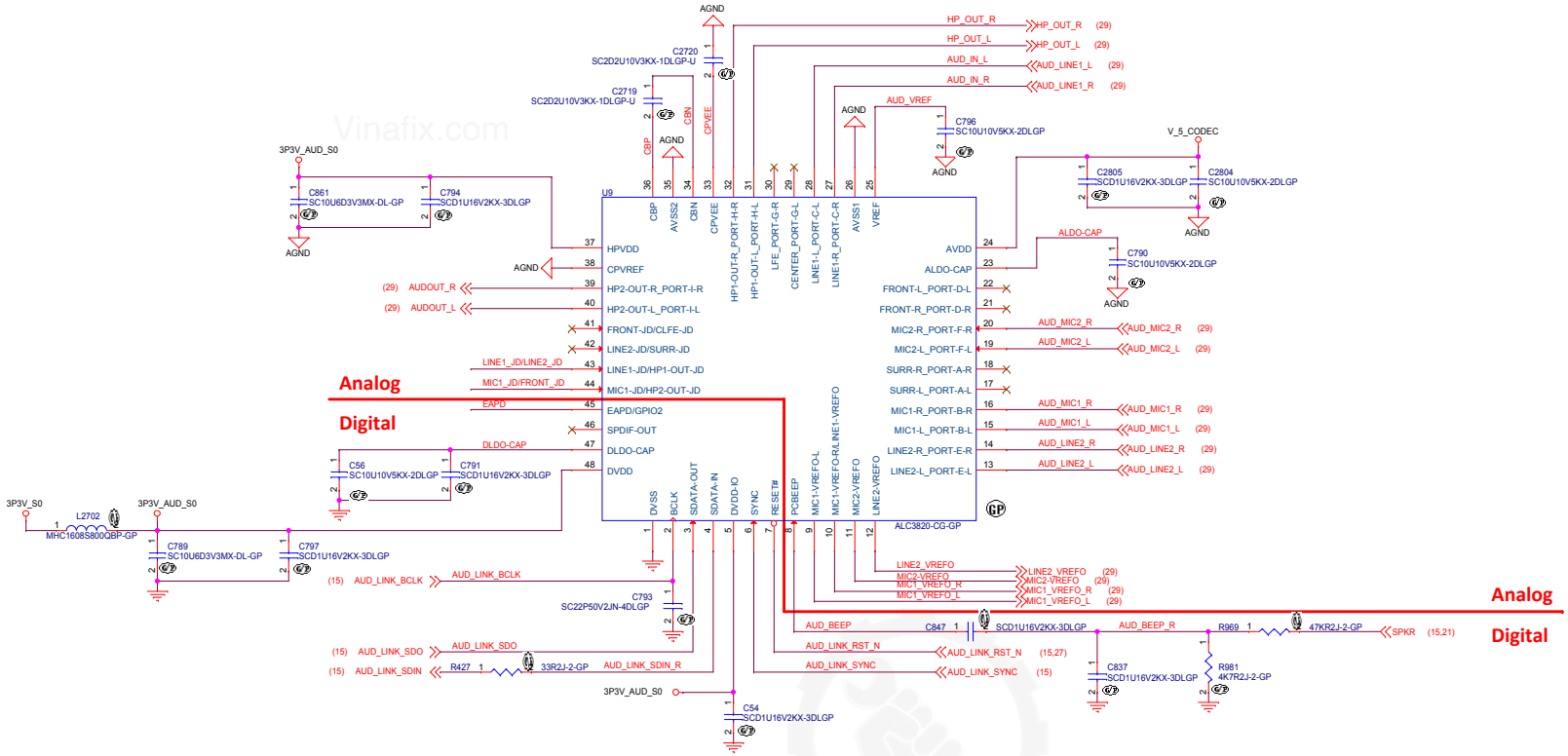
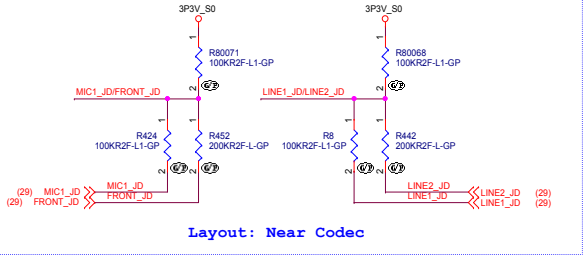
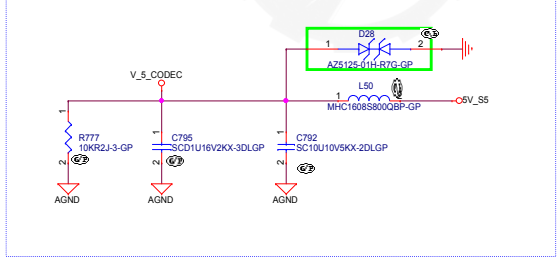
Title: FAN CIRCUITS/HOLE

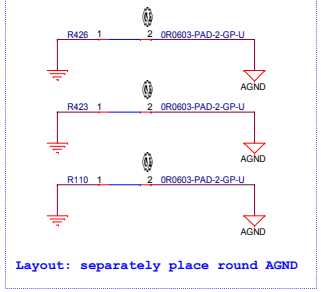
Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

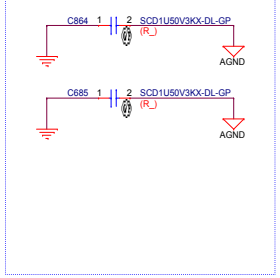
Date: Wednesday, October 19, 2016 Sheet 26 of 107

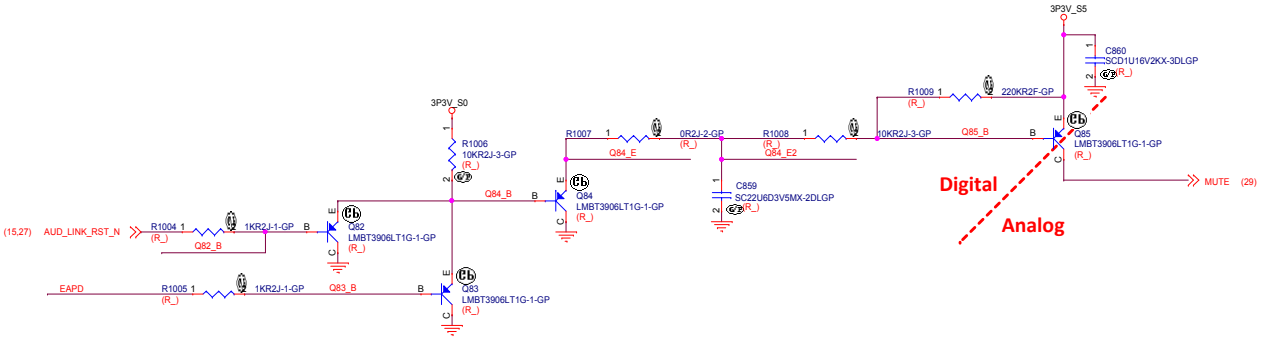












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Title: AUDIO_ALC3820

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 27 of 107

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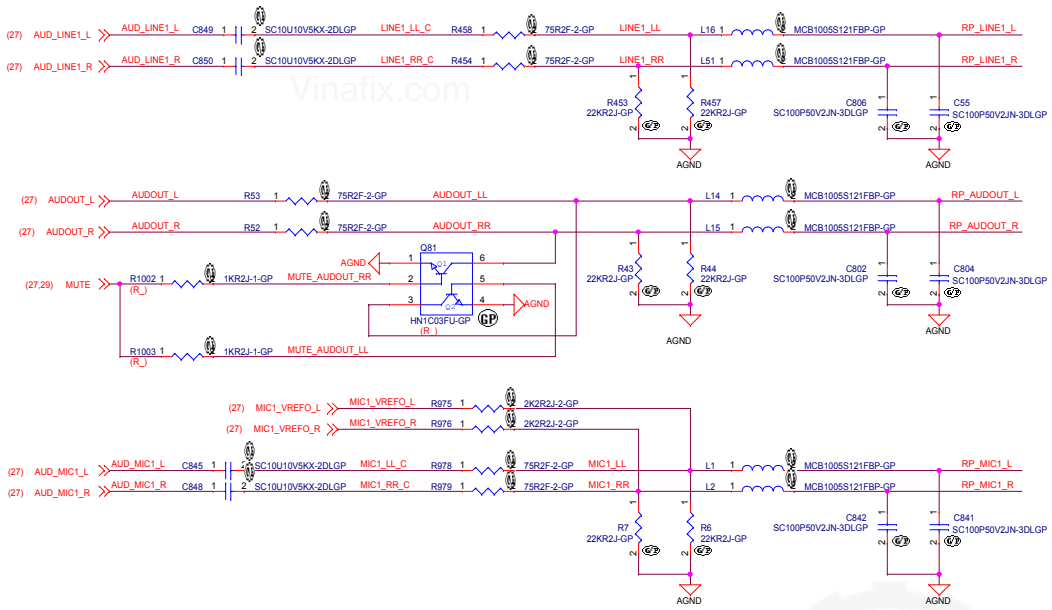
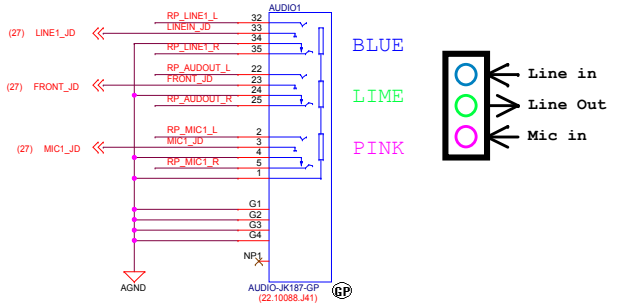
Title

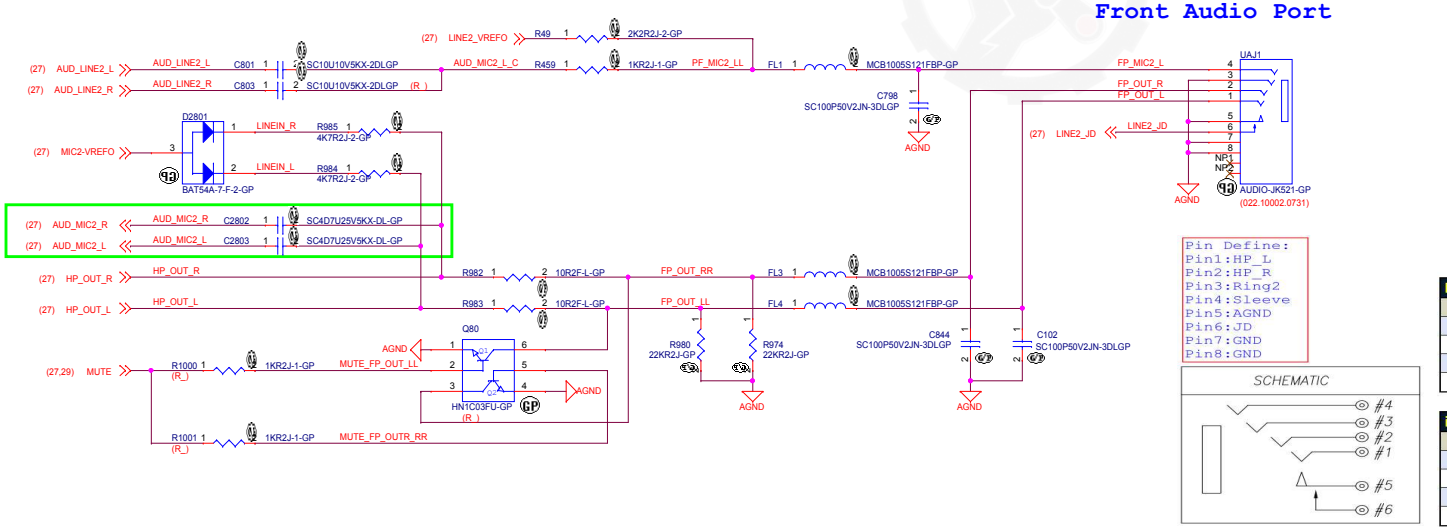
Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00



Rear Audio Port





Front Audio Port

4-pin 3.5mm Headset Connector Pinout

Nokia, Lenovo mobile		
Pin Number	**Pin Name**	**Description**
1	Tip	Left Audio Out
2	Ring-1	Right Audio Out
3	Ring-2	Microphone
4	Sleeve	Ground / Common

iPhone, Samsung, Blackberry, HTC		
Pin Number	**Pin Name**	**Description**
1	Tip	Left Audio Out
2	Ring-1	Right Audio Out
3	Ring-2	Ground / Common
4	Sleeve	Microphone

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Title: AUDIO JACK
Size: C | Document Number: Tahoe MT MLK/Gambits MT KBL | Rev: A00
Date: Wednesday, October 19, 2016 | Sheet 29 of 107

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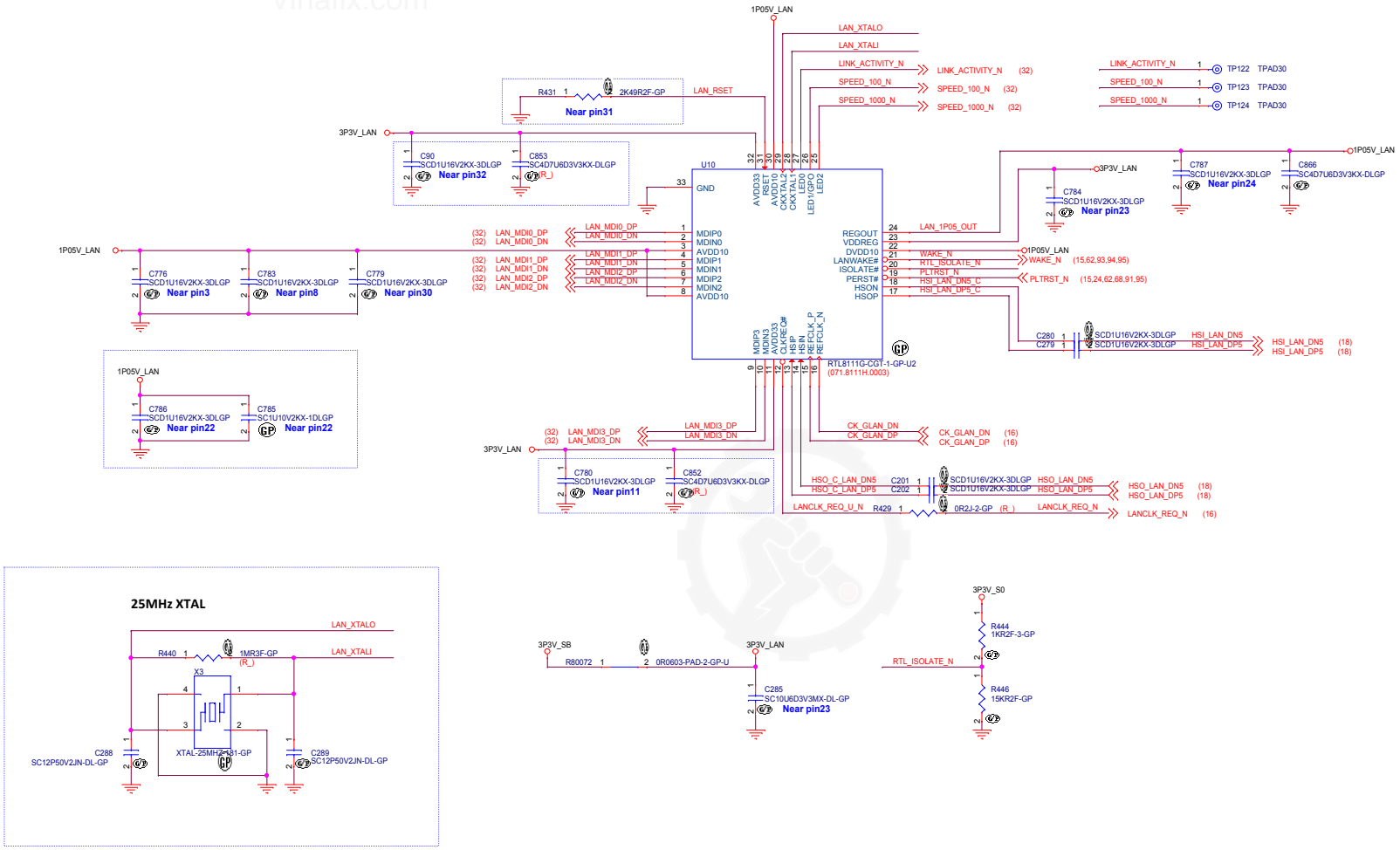
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 30 of 107



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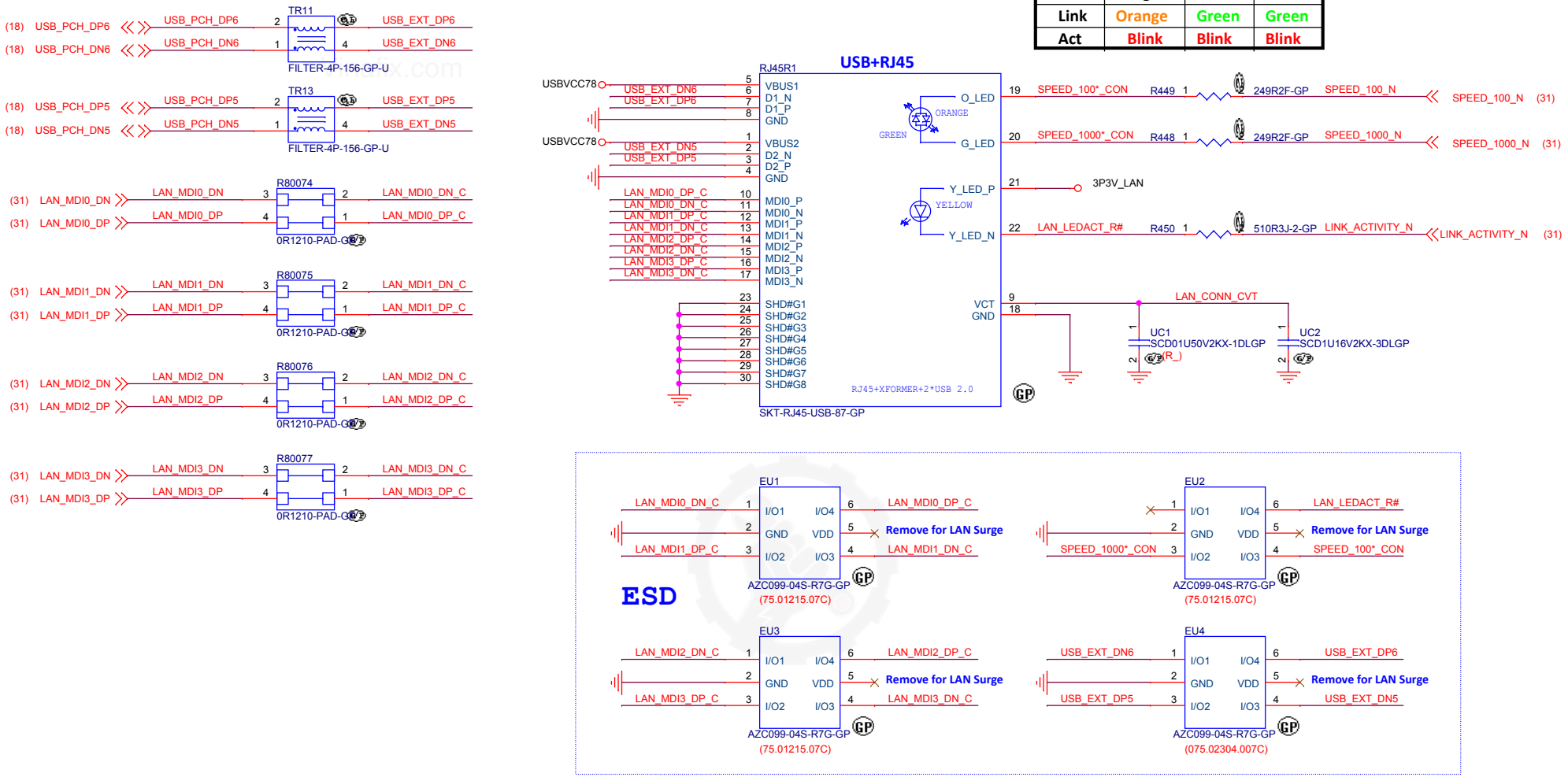
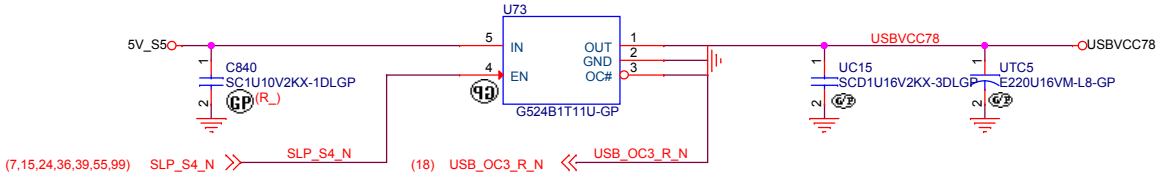
Title	LAN RTL8111H
Size	Document Number: Tahoe MT MLK/Gambits MT KBL
Rev	A00
Date:	Wednesday, October 19, 2016
Sheet	31 of 107



	Giga	100M	10M
Link	Orange	Green	Green
Act	Blink	Blink	Blink



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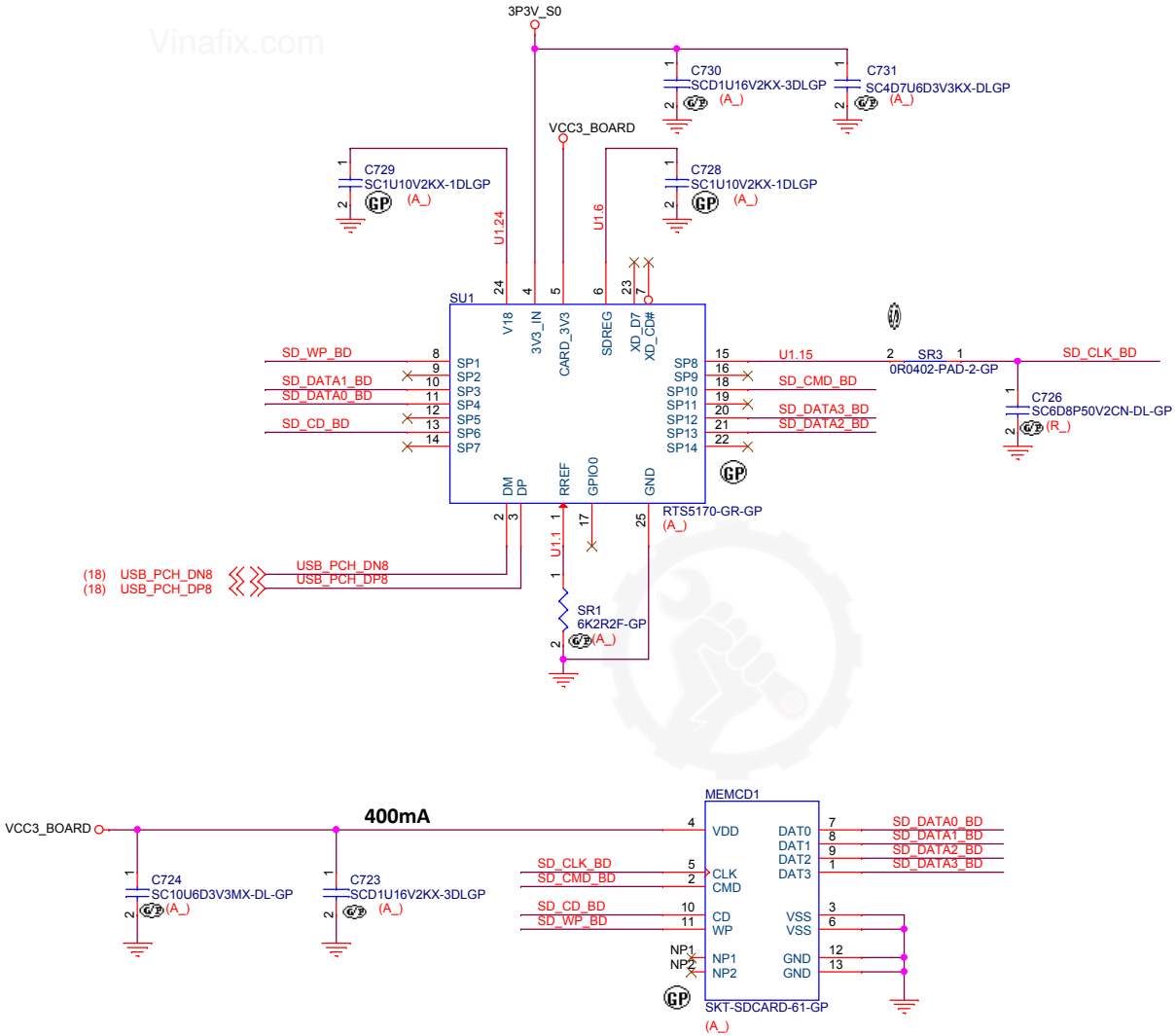
Title	RJ45+USB2.0	
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 32 of 107	



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Title	Card Reader (RTS5170)	
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 33 of 107	

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 34 of 107

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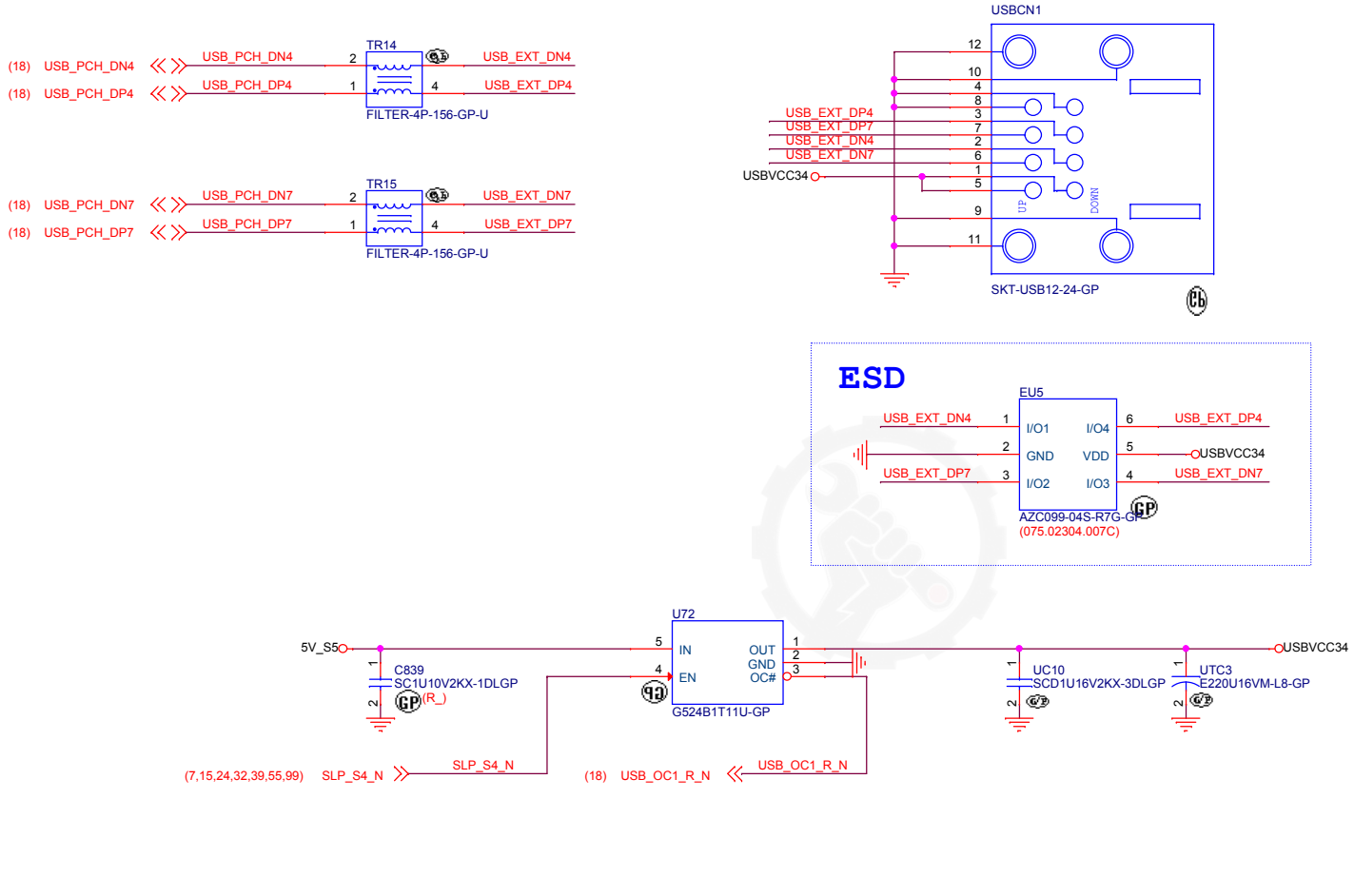
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 35 of 107



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Title: REAR USB 2.0		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 36 of 107	

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 37 of 107

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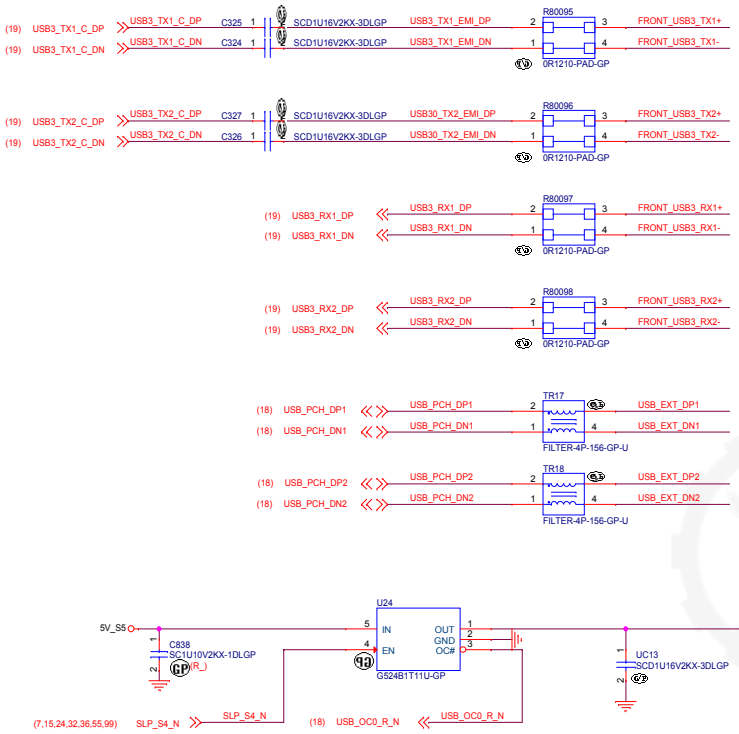
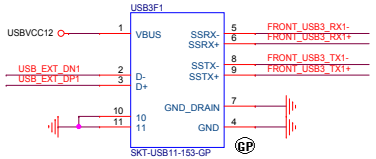
Title

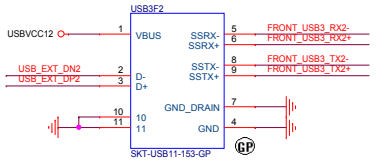
Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

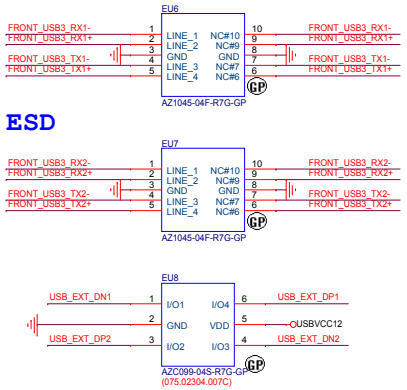
Date: Wednesday, October 19, 2016 Sheet 38 of 107







ESD



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Title: Front USB3.0

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 39 of 107

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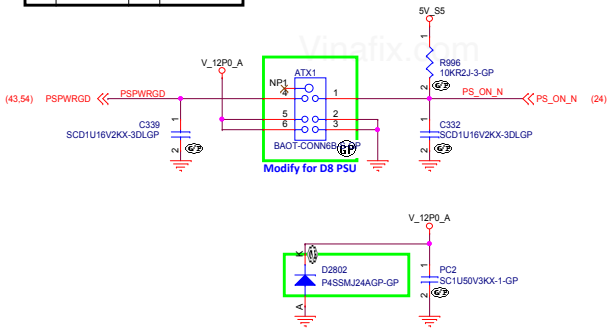
Title

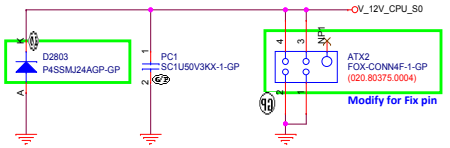
Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

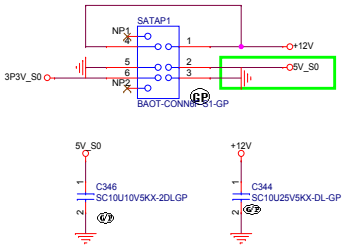
Date: Wednesday, October 19, 2016 Sheet 40 of 107

1	PS_ON	4	P_OK
2	COM	5	+12VBDC
3	COM	6	+12VBDC

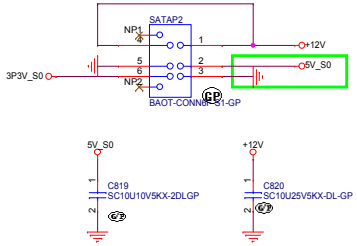


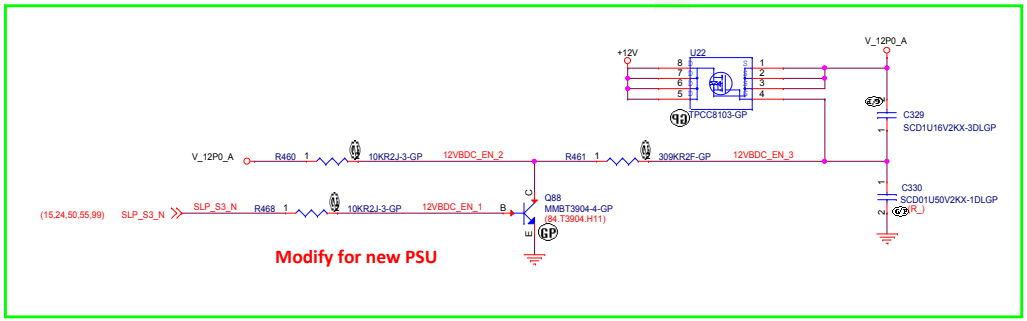


3.5" SATA POWER CONNECTOR



2.5" SATA POWER CONNECTOR





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Title: ATX CONNECTOR

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 41 of 107

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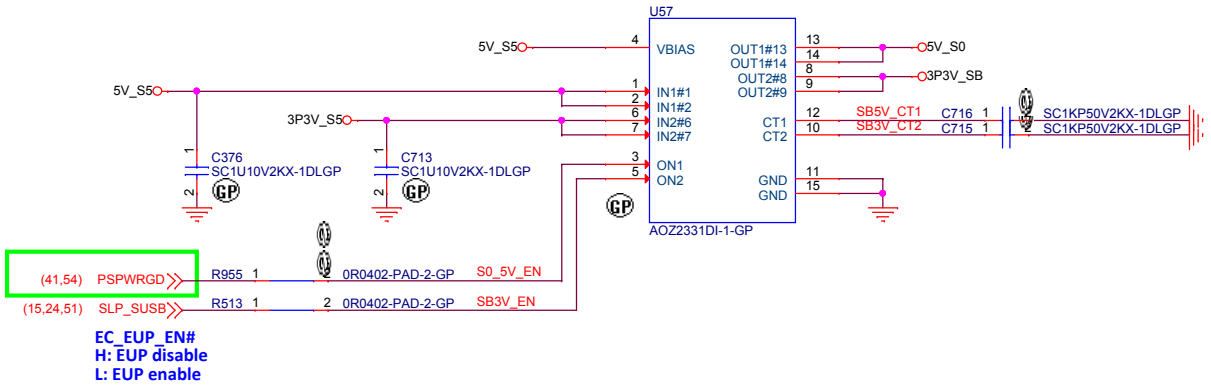
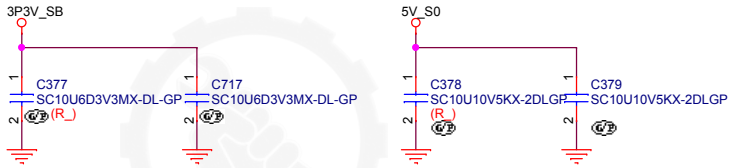
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 42 of 107





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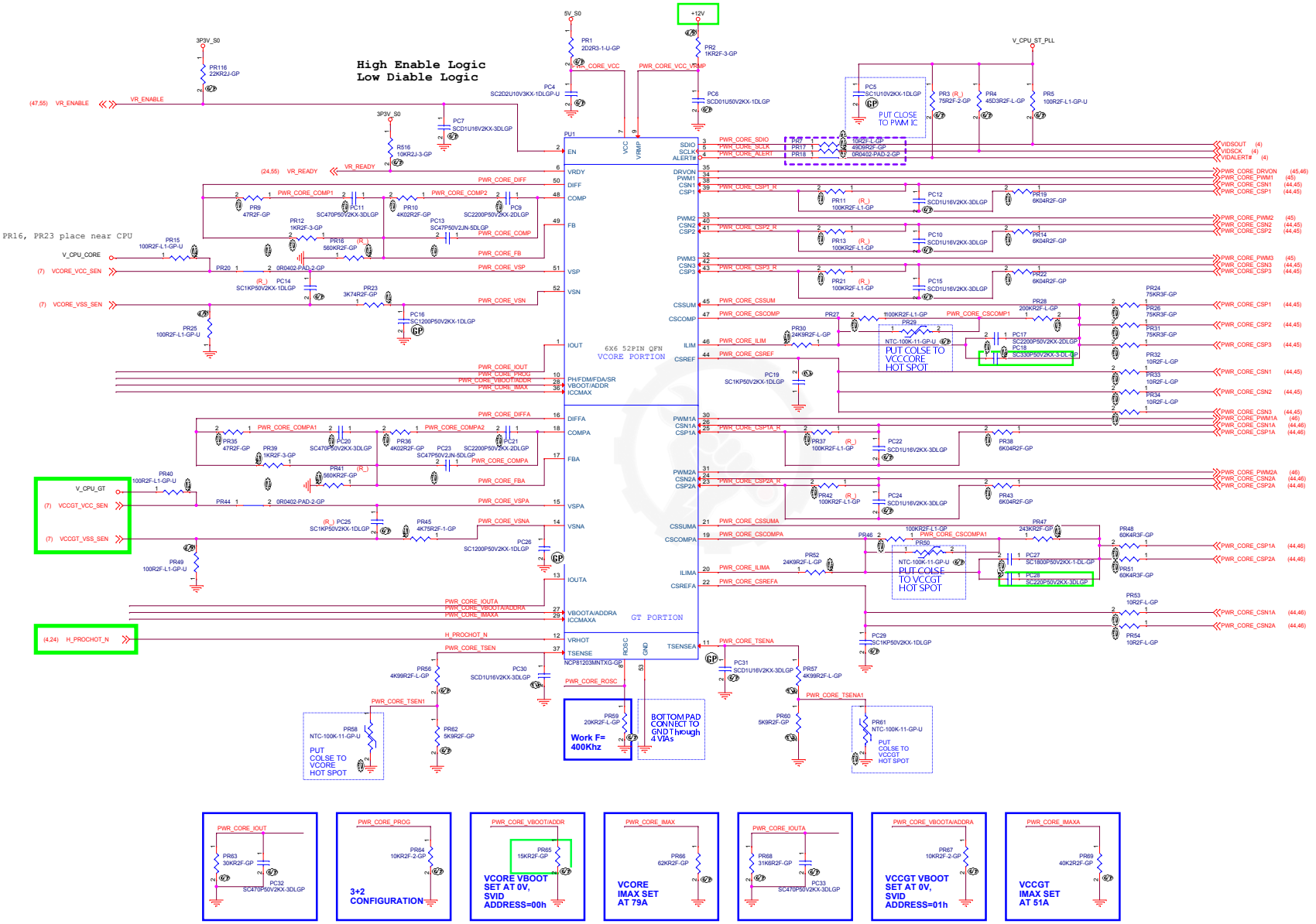
Title: DSW_PWR_CTRL		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 43 of 107	

VCC CORE&GT_PWR

Intel SKYLAKE IMVP8 POWER CKT 3+2 PHASE



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Title: VCORE & V_GT(NCP81203)

Size	Document Number	Rev
Custom	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 44 of 107

VCC CORE&GT_PWR

84.06520.037 AON6520
Rds(on) = 7.0~8.5 mohm,
Vgs=10V, I-D = 20A,
Qg = 20nC
Vgs=10V, Vds=15V, I-D=20A

084.06510.0037 AON6510
Rds(on) = 3.6~4.4 mohm,
Vgs=10V, I-D = 20A,
Qg =30nC
Vgs=10V, Vds=15V, I-D=20A

Vin Ripple current Imax =10.2A

0.36uH, DCR=0.65mohm, Idc=35A, Isat=40A

820uF/2.5V,
ESR=7mohm,
Ripple current=5000mA

65W VCORE
TDC= 70A
Iccmax= 79A

High Enable Logic
Low Diable Logic

270uF/16V,
ESR=10mohm,
Ripple current=5000mA

BOTTOM PAD CONNECT TO GND Through 4 VIAs

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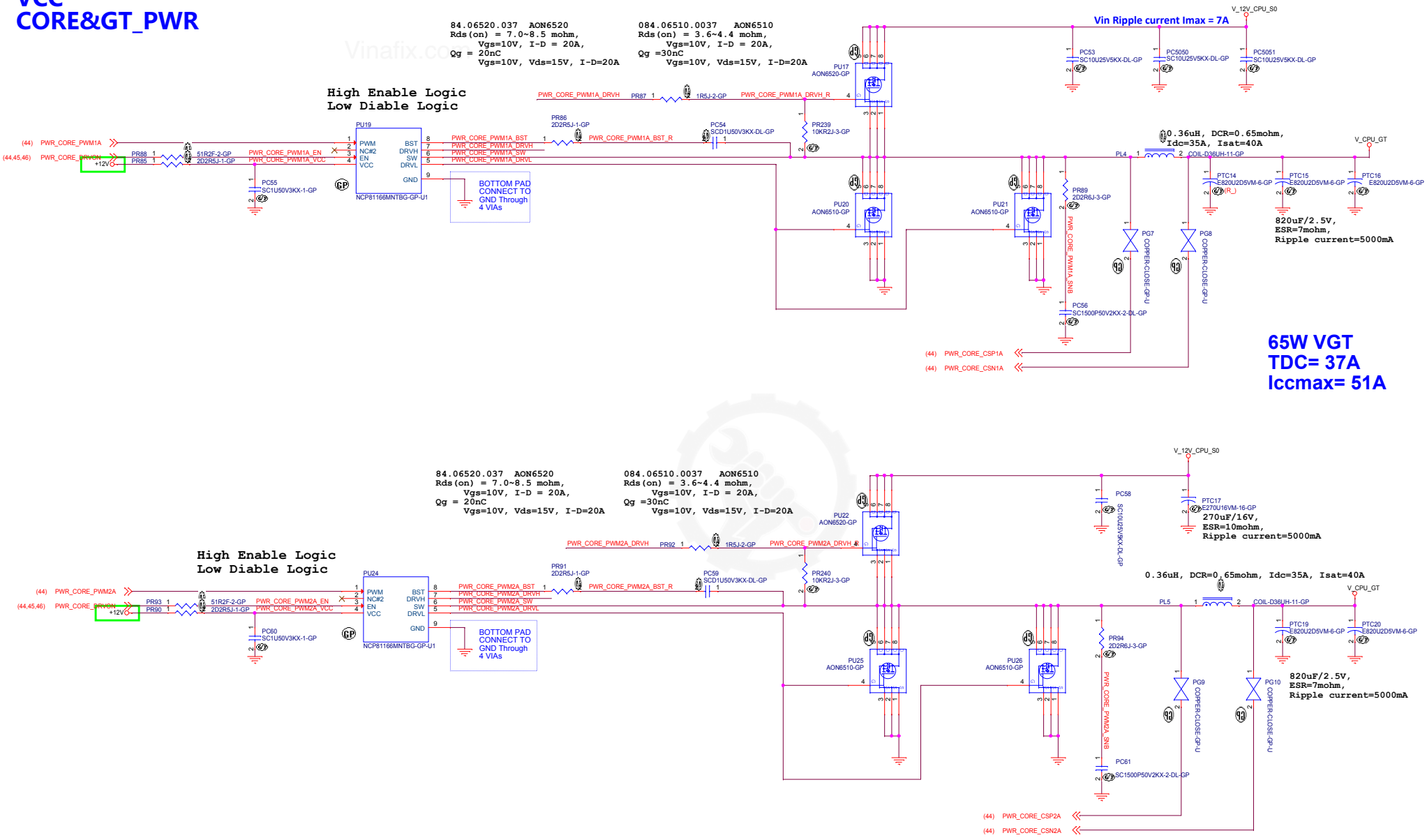
Title: VCORE Output (NCP81166)
Size: C
Document Number: Tahoe MT MLK/Gambits MT KBL
Rev: A00
Date: Wednesday, October 19, 2016
Sheet 45 of 107

VCC
CORE&GT_PWR



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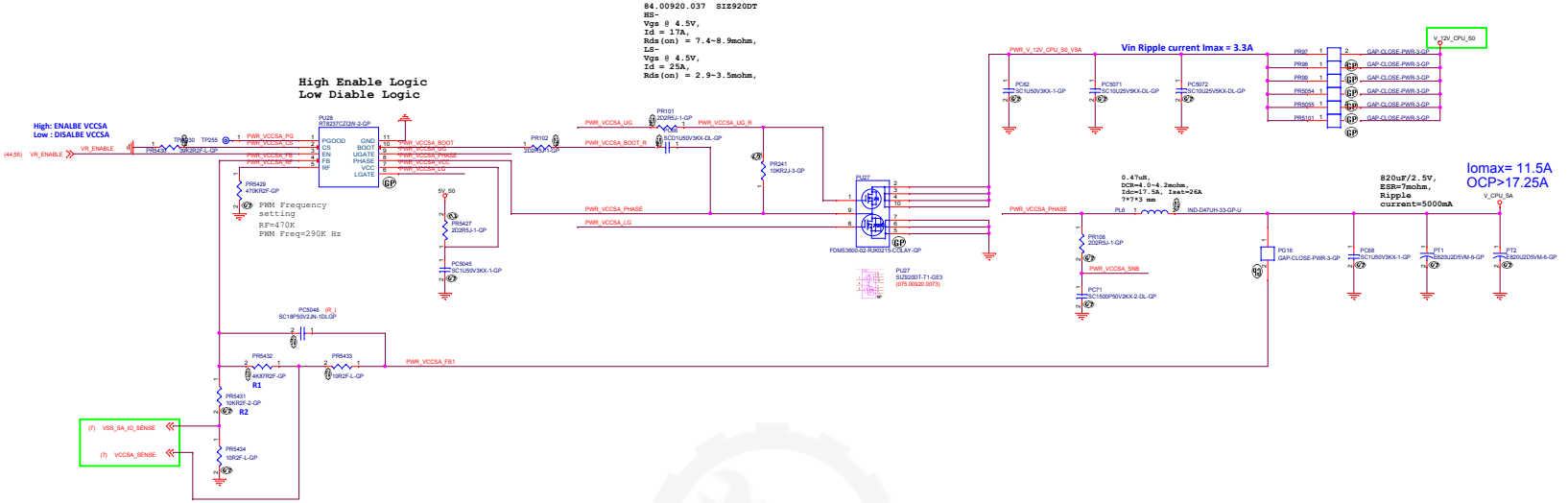
Title: V_GT Output(NCP81161)			
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL		Rev: A00
Date: Wednesday, October 19, 2016	Sheet 46 of 107		



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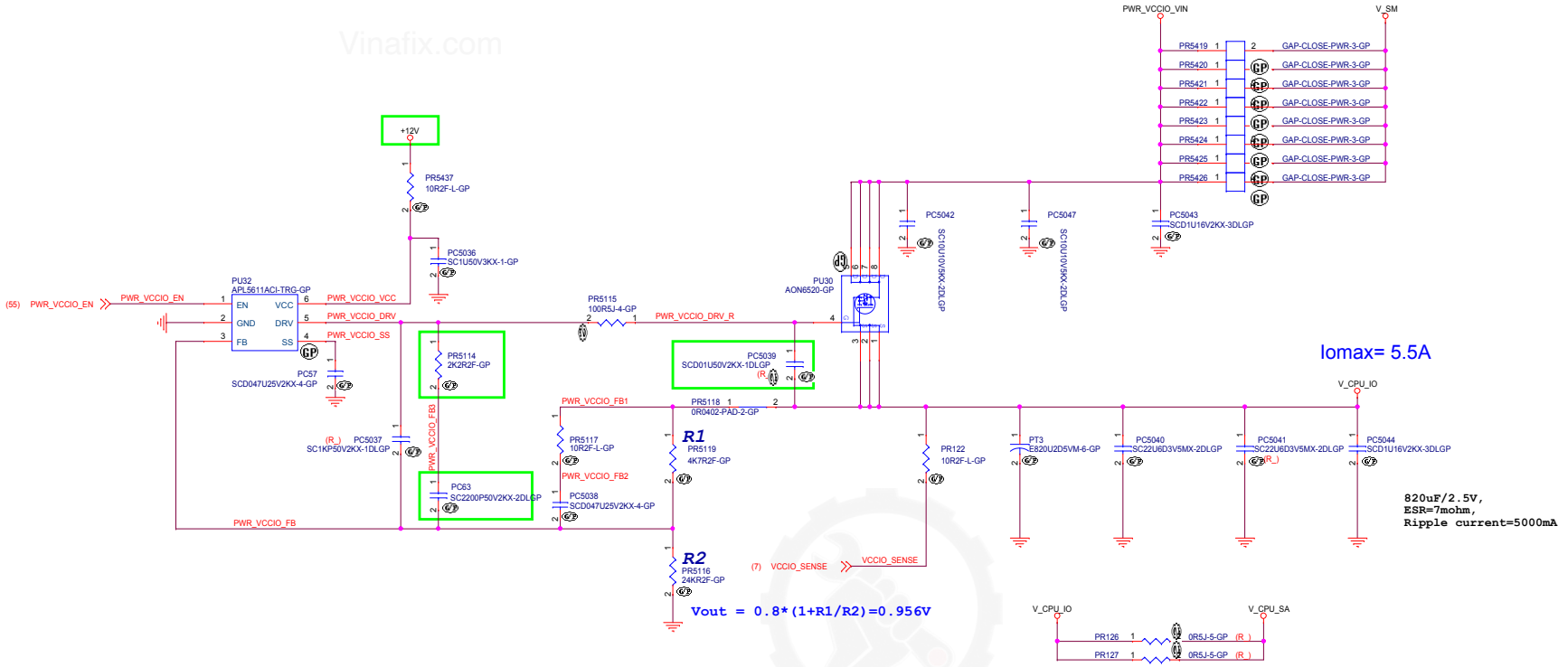
Title: VCCSA (NCP1589D)		
Size: D	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 47 of 107	



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Title: VCCIO(RT8237)

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 48 of 107

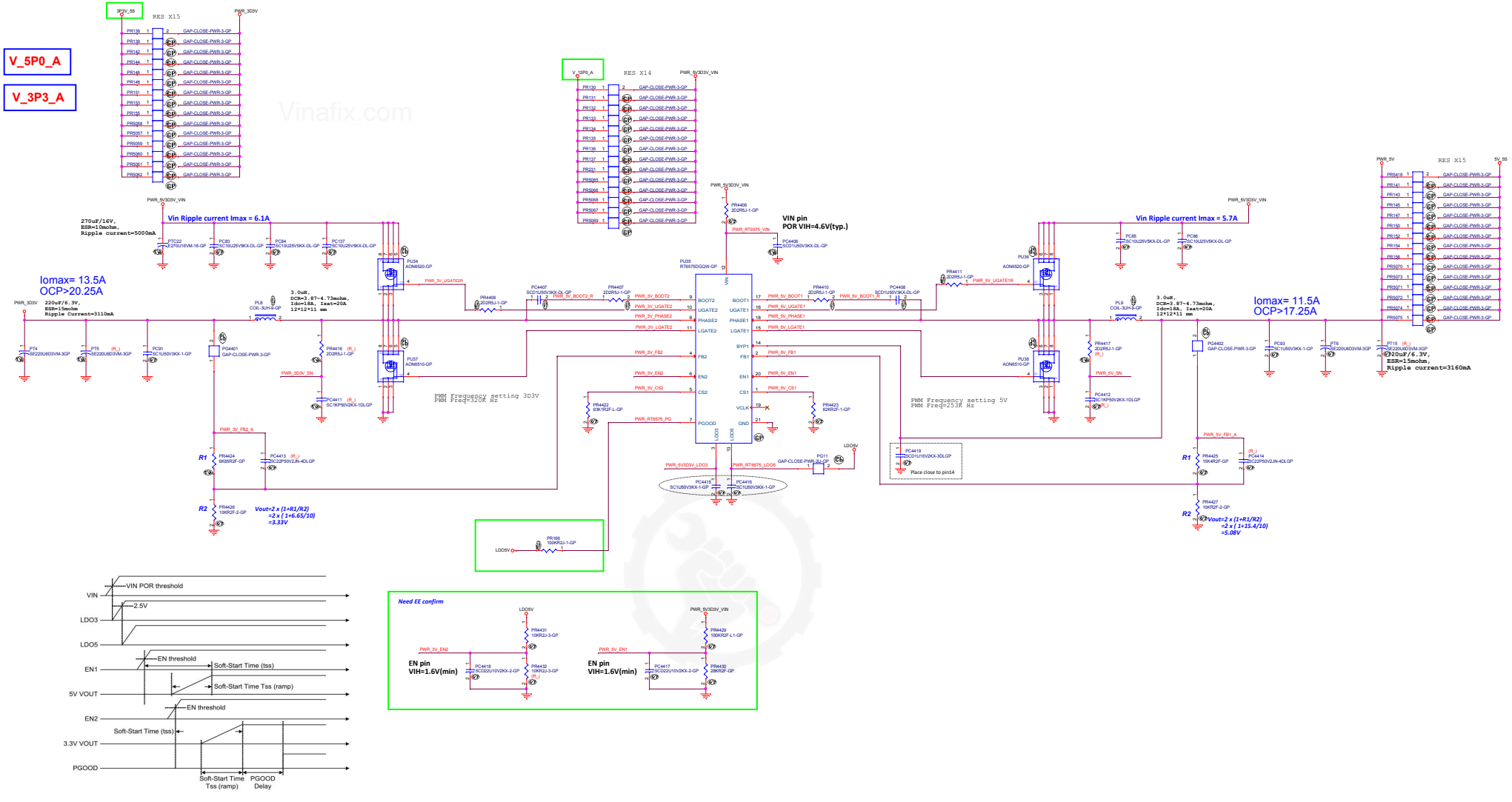

Figure 6. RT6575D Timing

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Title	5V/3P3V_S5 (RT6575D)
Size: D	Document Number: Tahoe MT MLK/Gambits MT KBL
Rev: A00	
Date: Wednesday, October 19, 2016	Sheet 49 of 107

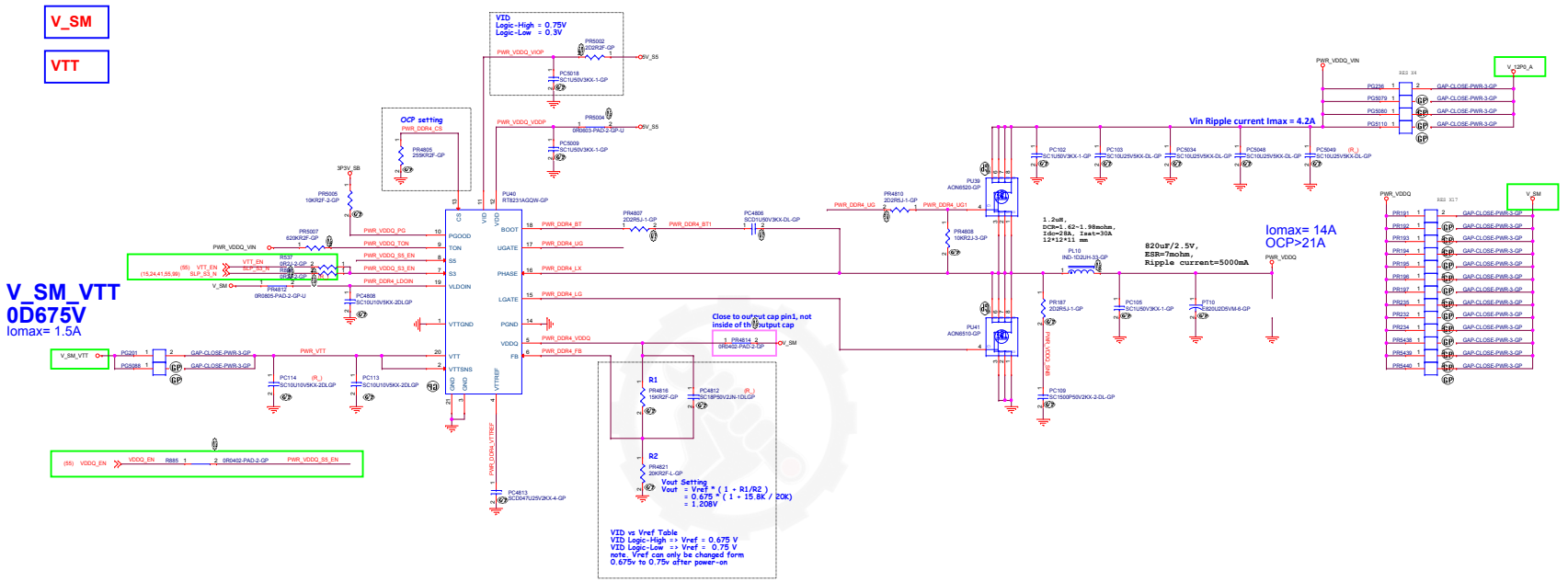

Table 2. S3 and S5 truth table

STATE	S3	S5	VDDQ	VTTREF	VTT
S0	Hi	Hi	On	On	On
S3	Lo	Hi	On	On	Off (Hi-Z)
S4/S5	Lo	Lo	Off (Discharge)	Off (Discharge)	Off (Discharge)

Table 1. VID and Reference Voltage Setting

VID	Reference Voltage (V)
High	0.675
Low	0.75

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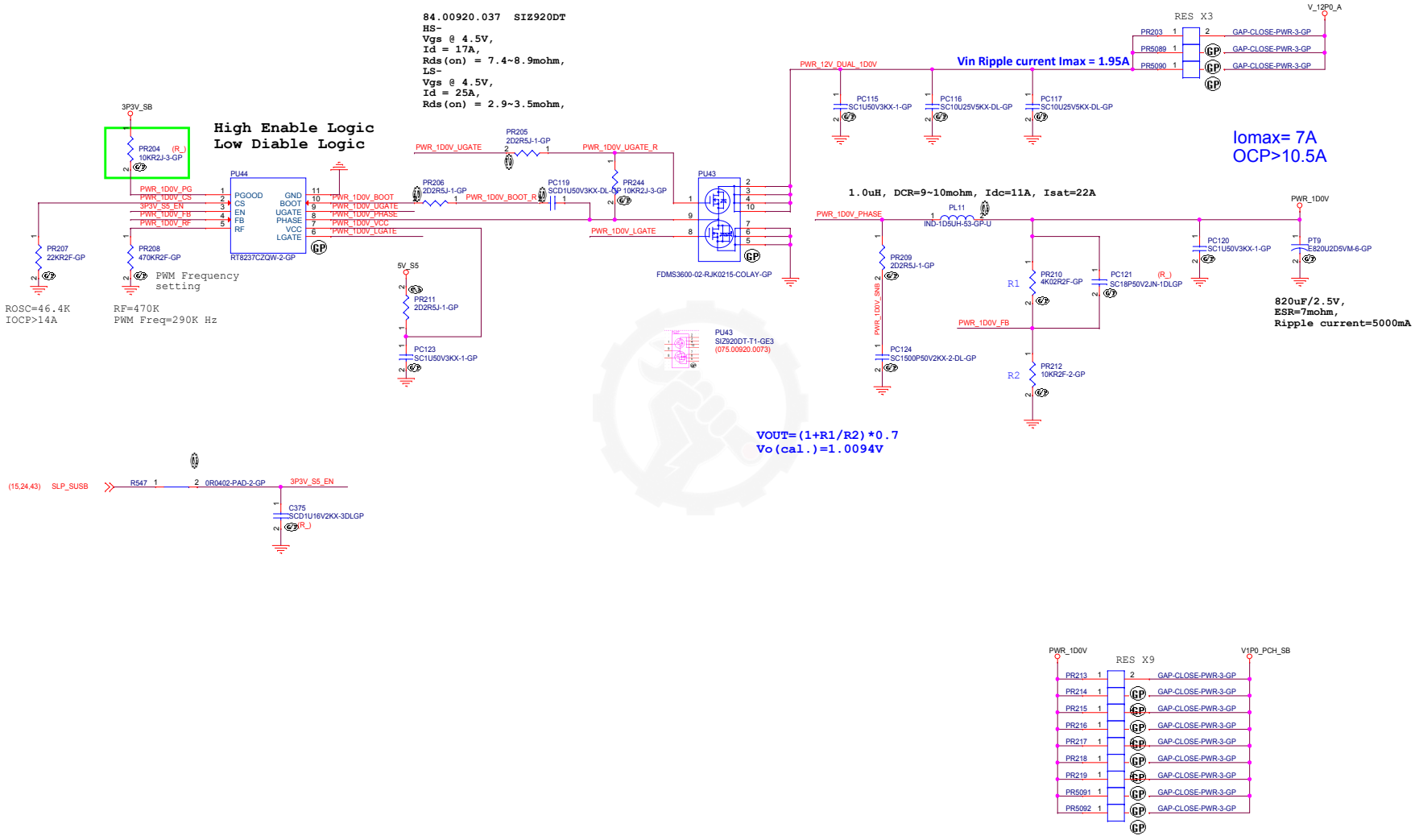
Title: DDR PWR (RT8231A)

Size: D | Document Number: Tahoe MT MLK/Gambits MT KBL | Rev: A00

Date: Wednesday, October 19, 2016 | Sheet 50 of 107



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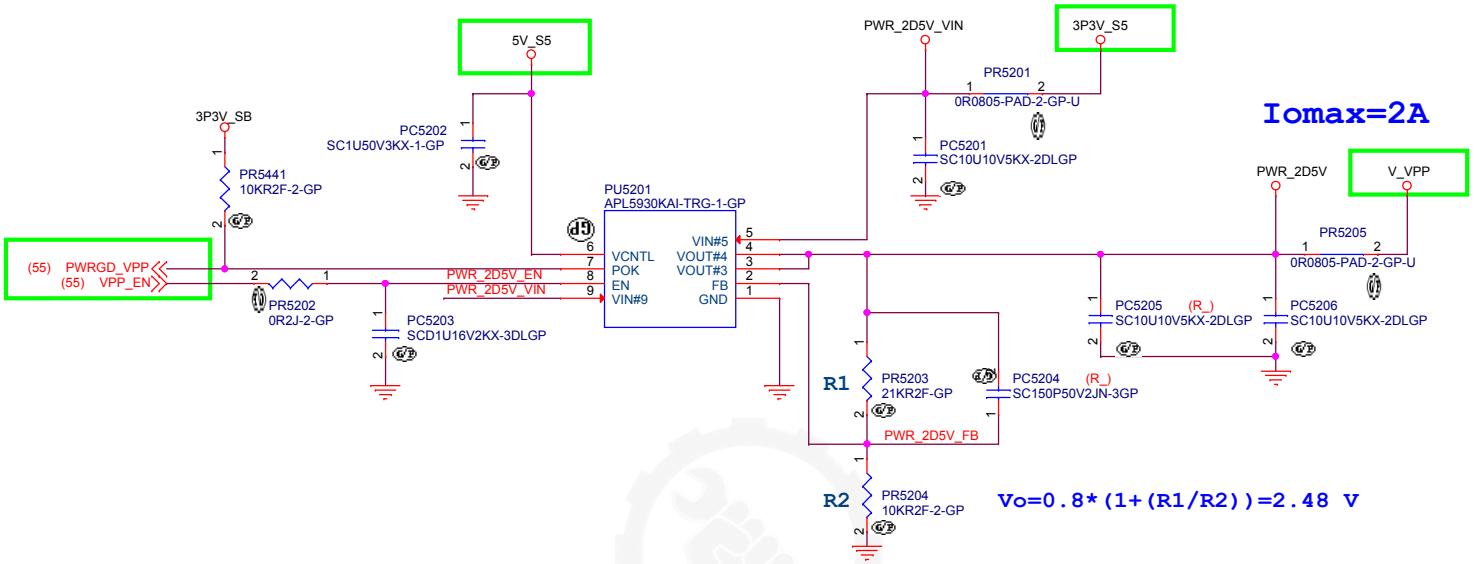
Title: PCH 1D0V (RT8237C)

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 51 of 107



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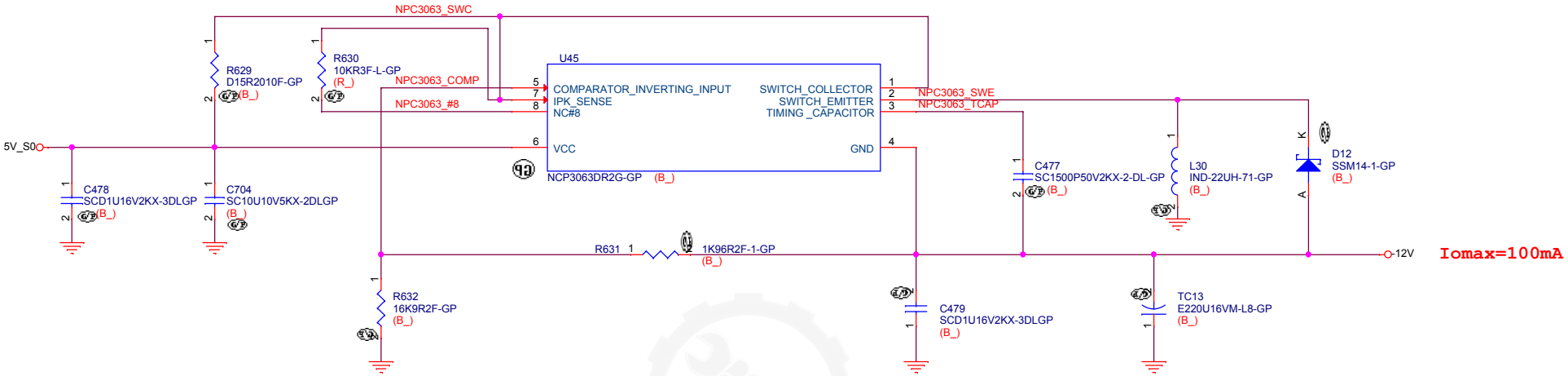
Title: 2D5V_VPP/1D5V_PCI		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 52 of 107	



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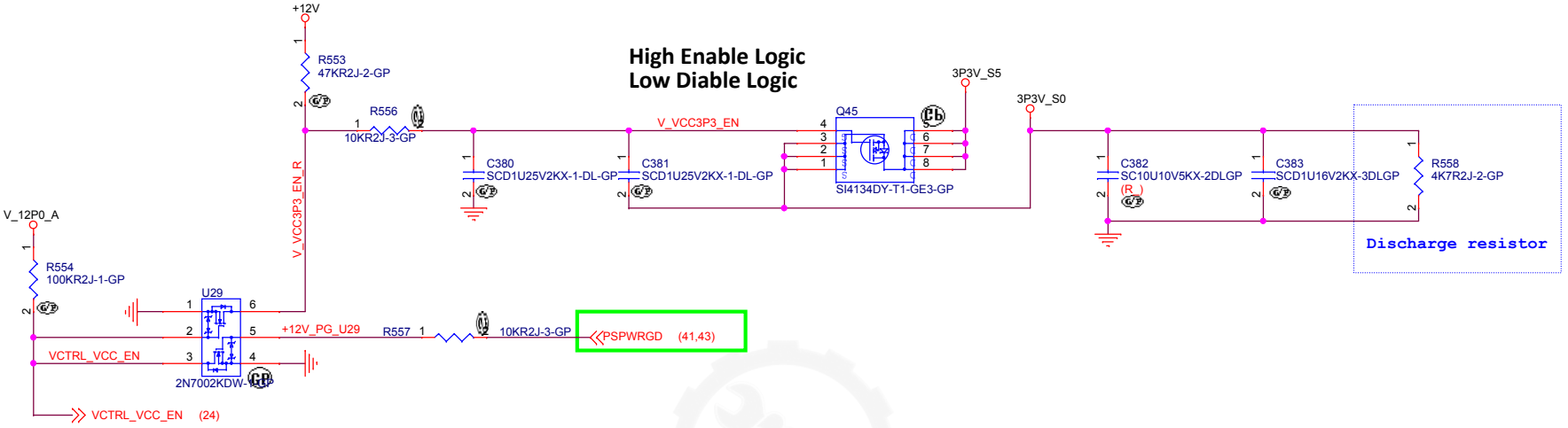
Title: MINUS 12V (NCP3063)		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 53 of 107	



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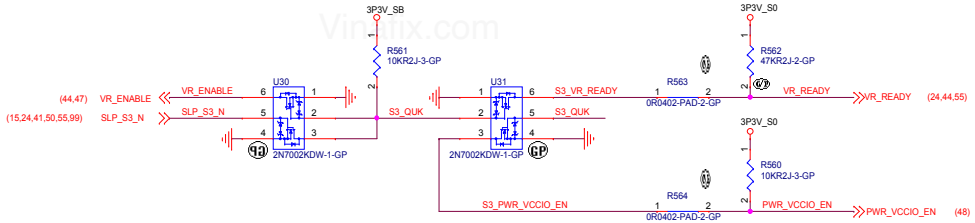
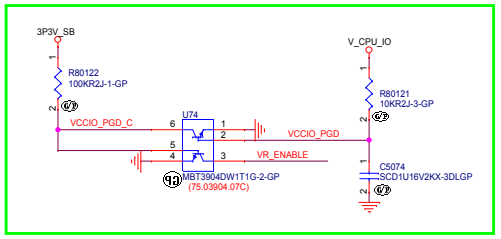
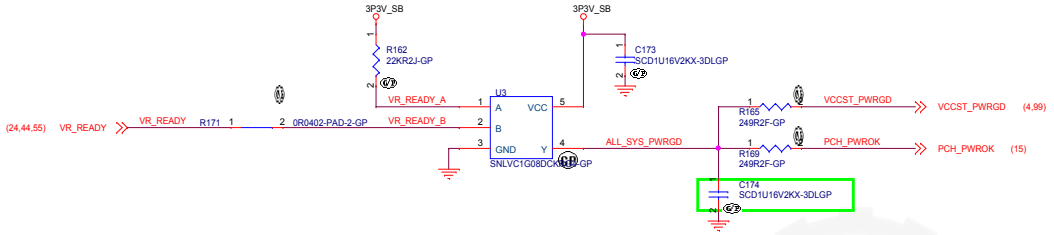
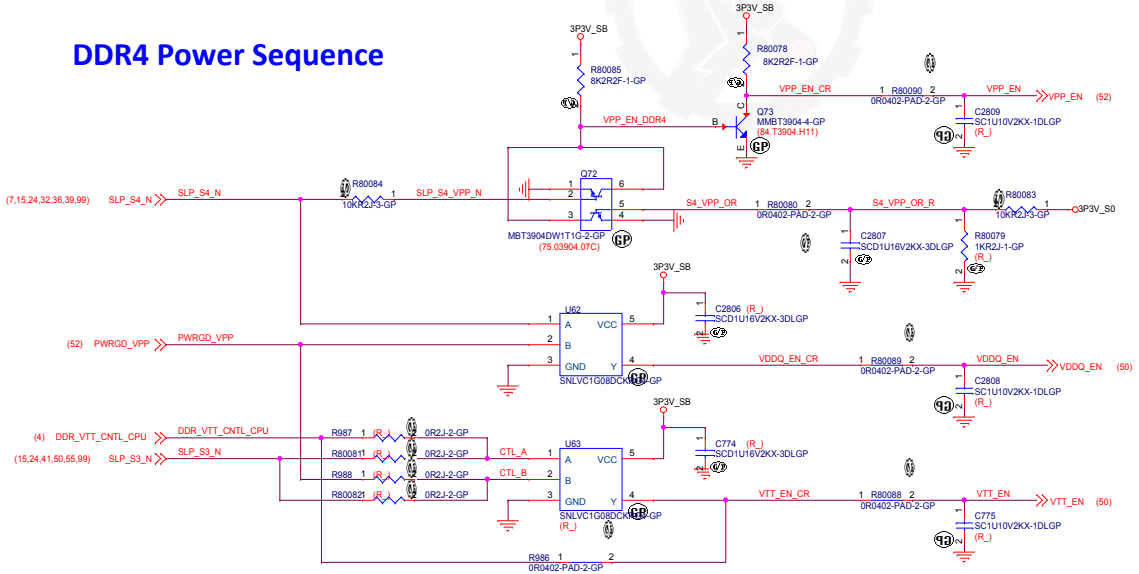
Title	5V/3P3V_S0
Size	B
Document Number	Tahoe MT MLK/Gambits MT KBL
Rev	A00
Date:	Wednesday, October 19, 2016
Sheet	54 of 107







DDR4 Power Sequence



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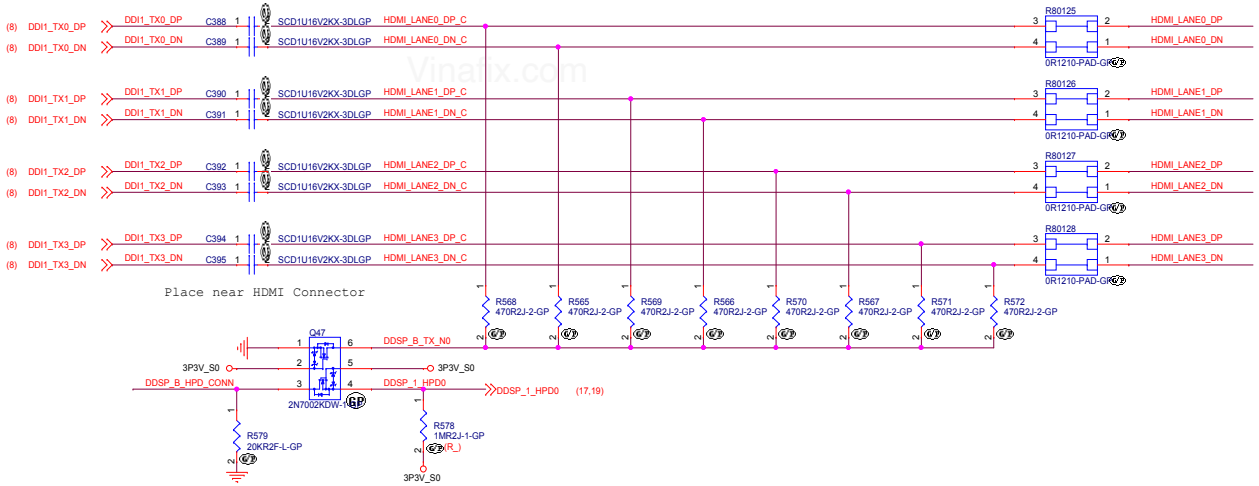
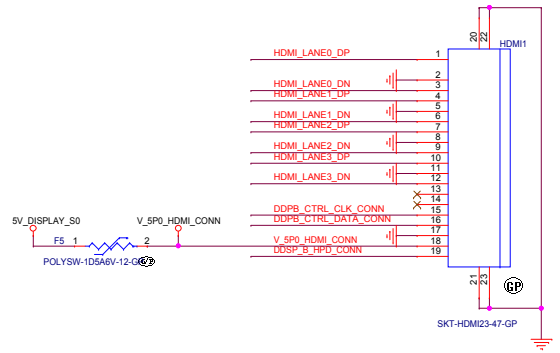
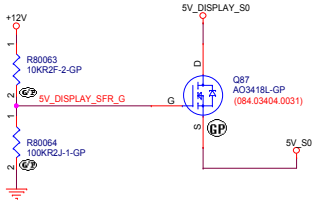
Title: Sequence Circuit

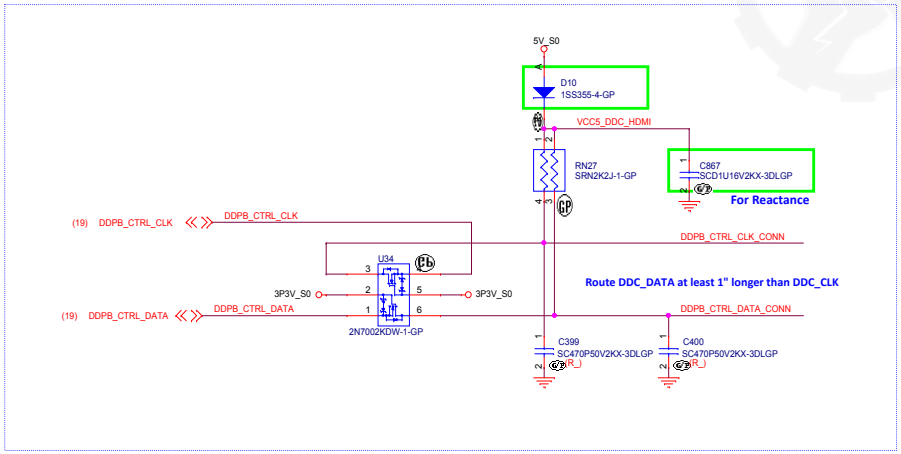
Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

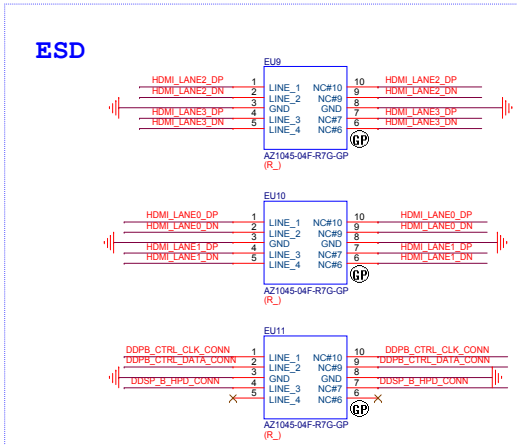
Date: Wednesday, October 19, 2016 Sheet 55 of 107











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Title	HDMI	
Size C	Document Number Tahoe MT MLK/Gambits MT KBL	Rev A00
Date: Wednesday, October 19, 2016	Sheet 56 of 107	

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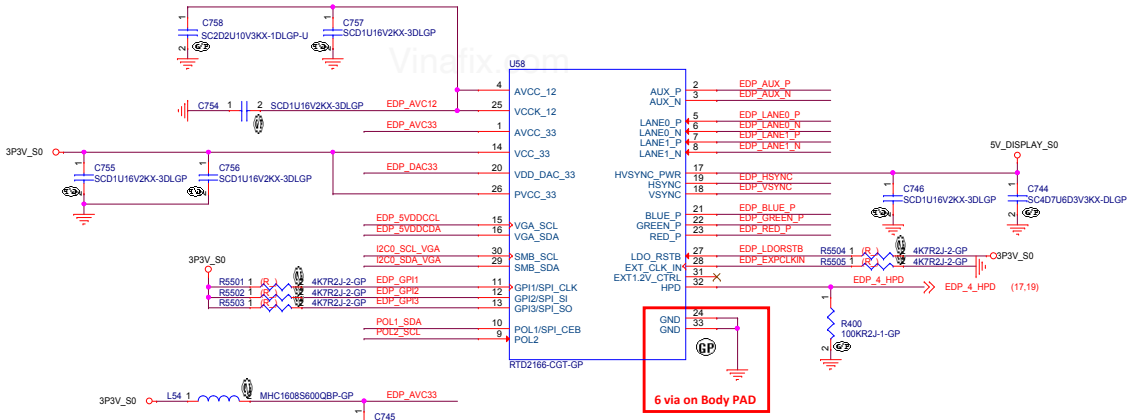
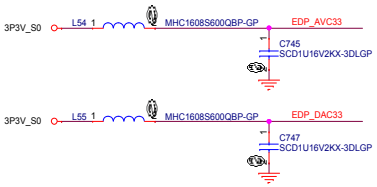
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

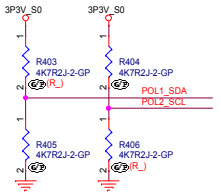
Date: Wednesday, October 19, 2016 Sheet 57 of 107





Operation Mode Selection Table(Power on latch)

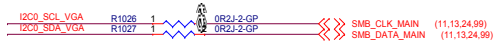
		POL1_SPICEB(PIN10)	
		0	1
POL2(PIN9)	0	Not use, for Internal Test Purpose	Not use, for Internal Test Purpose
	1	ROM MODE	External Flash Mode

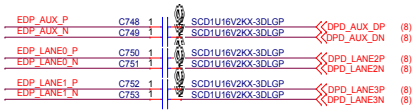


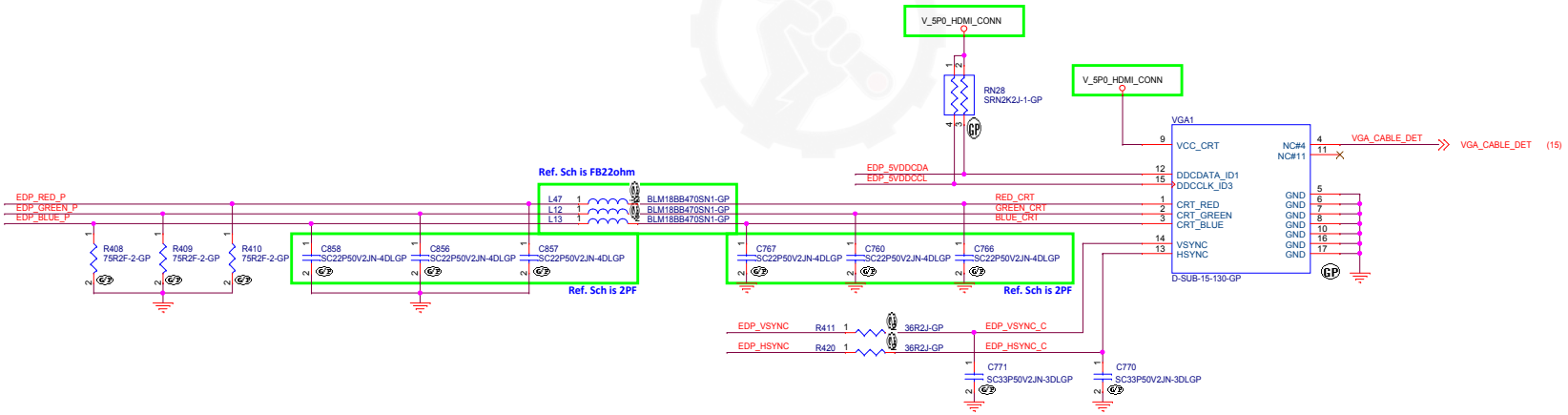
ROM Mode:
PIN29/30 pull high, connect to SMB_SDA/SMB_SCL(PCH)
PIN10 pull down, PIN9 pull high

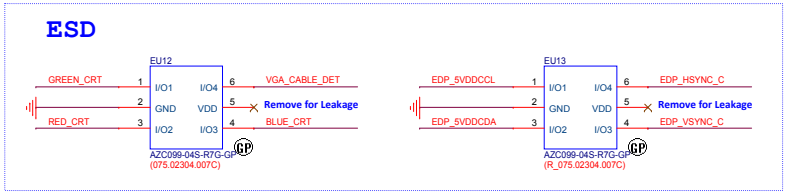
External Flash Mode:
PIN29/30 pull high, connect to SMB_SDA/SMB_SCL(PCH)
PIN9 pull high
PIN10 pull high, connect to SPI FLASH
PIN11/12/13 connect to SPI FLASH

RTD2166 Slave Address:
0x64/0x65, 0x68/0x69









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Title: DP to VGA (RTD2166)
Size: C
Document Number: Tahoe MT MLK/Gambits MT KBL
Rev: A00
Date: Wednesday, October 19, 2016
Sheet 58 of 107

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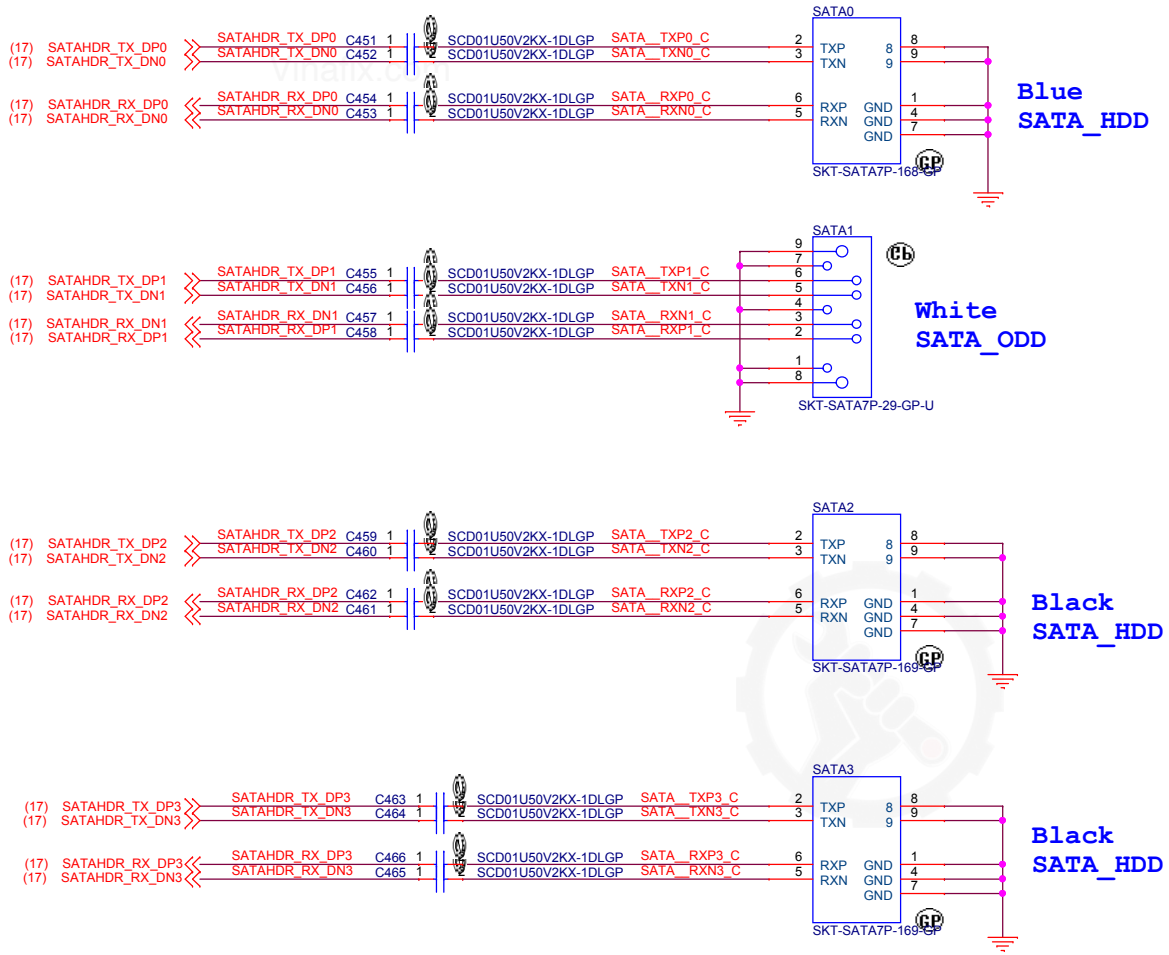
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 59 of 107



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Title: HDD/ODD		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 60 of 107	

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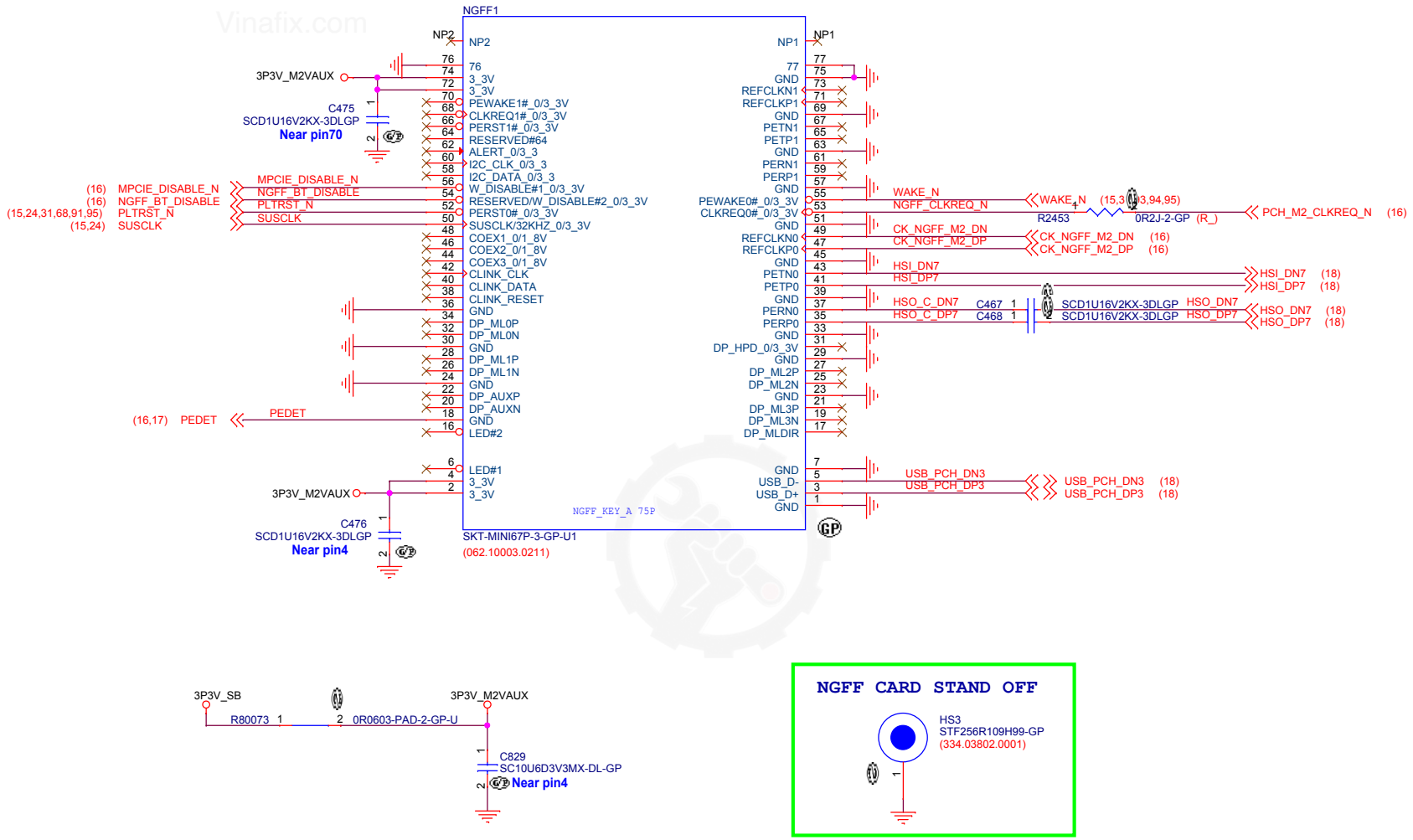
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 61 of 107



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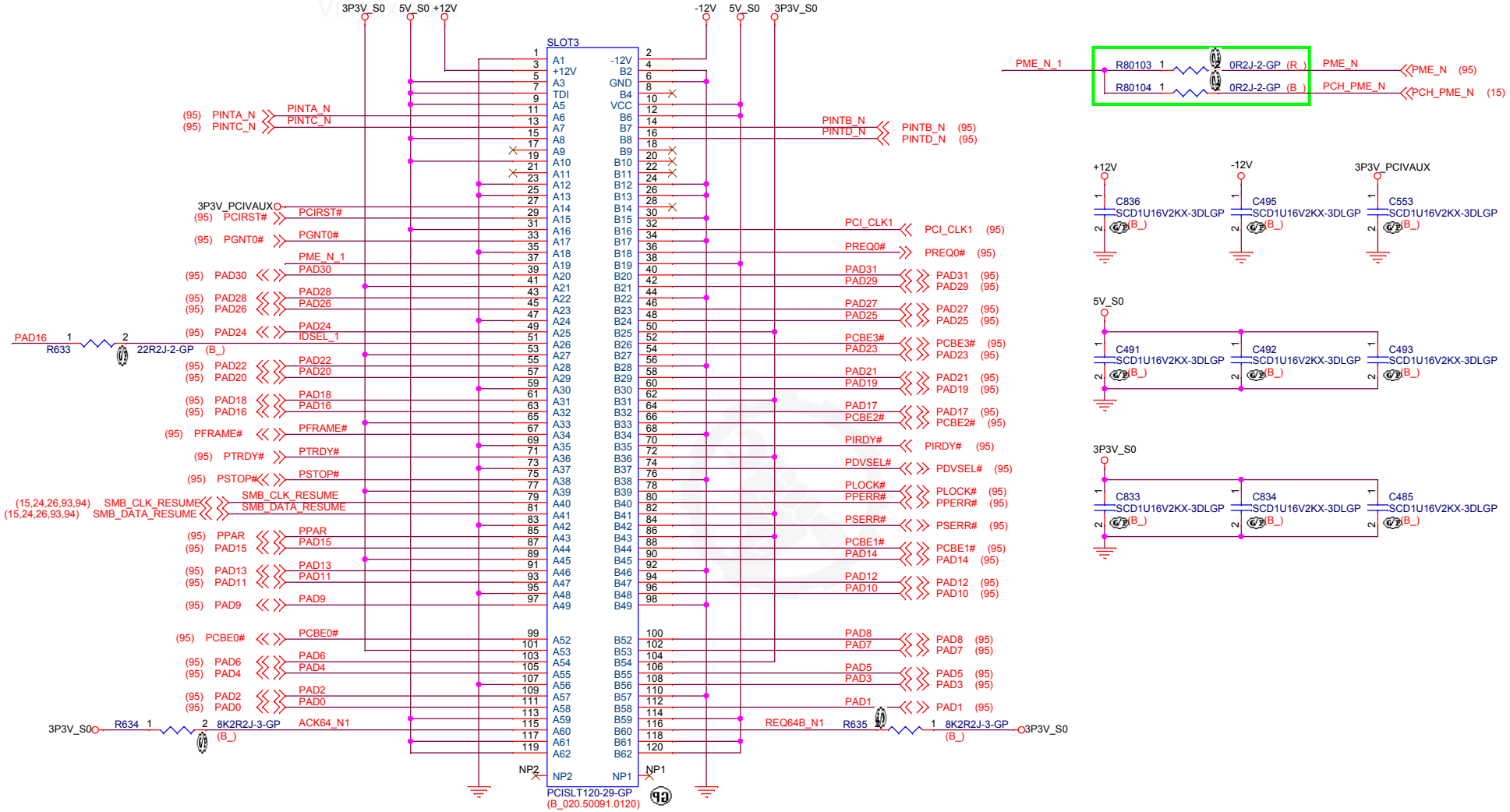
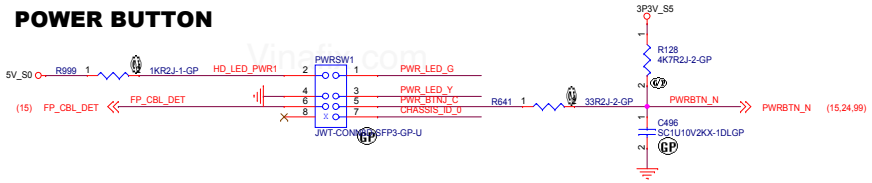
Title: NGFF		
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 62 of 107	



Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title: PCI Slot			
Size: B	Document Number: Tahoe MT MLK/Gambits MT KBL		Rev: A00
Date: Wednesday, October 19, 2016	Sheet 63 of 107		

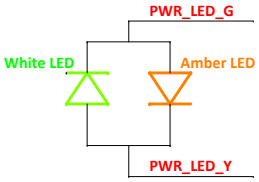
POWER BUTTON



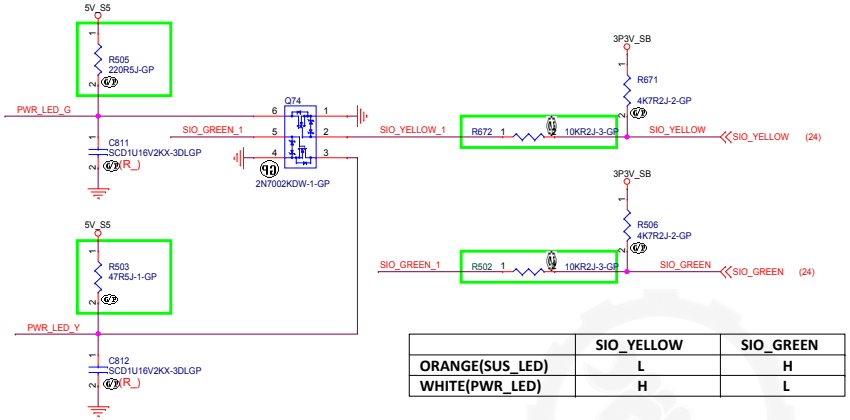
Chassis ID

ID_0	Chassis	CY16 (KBL)	CY15 (SKL)
0	Vostro	Tahoe MLK	Tahoe
1	Inspiron	Gambits	Lotus

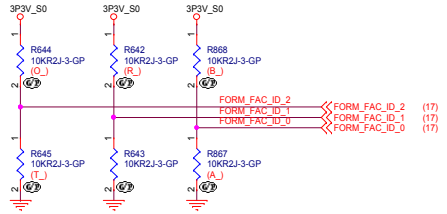
Power switch cable select



S0	White
S3	White(blinking)
S4/S5	LED off
No Post	Amber
Failure to Post	Amber(blinking)



	SIO_YELLOW	SIO_GREEN
ORANGE(SUS_LED)	L	H
WHITE(PWR_LED)	H	L



SKU ID

Type	ID_2	ID_1	ID_0
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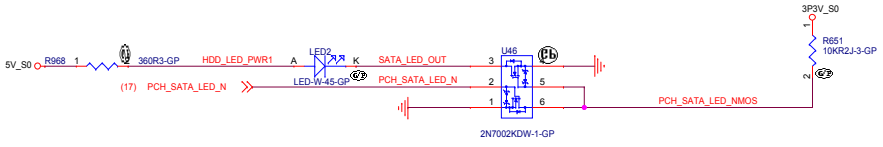
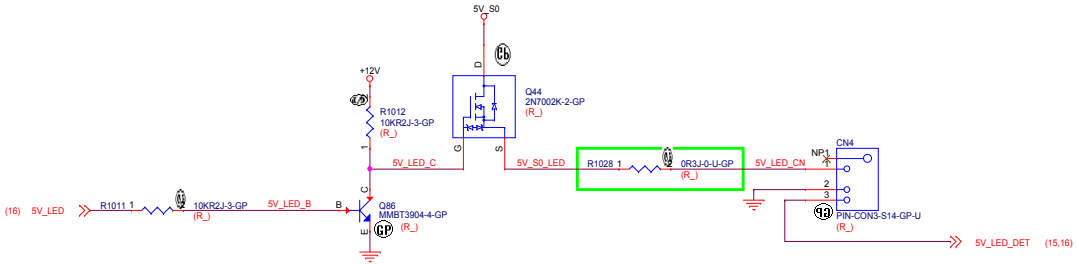
Tahoe MT MLK w/o TPM	1	0	0
Tahoe CBB MT MLK with TPM	0	0	1
Tahoe CBB MT MLK w/o TPM	1	0	1
Tahoe SFF MLK with TPM	0	1	1
Tahoe SFF MLK w/o TPM	1	1	1





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Title	PWR Button/LED	
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 64 of 107	

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 65 of 107

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 66 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

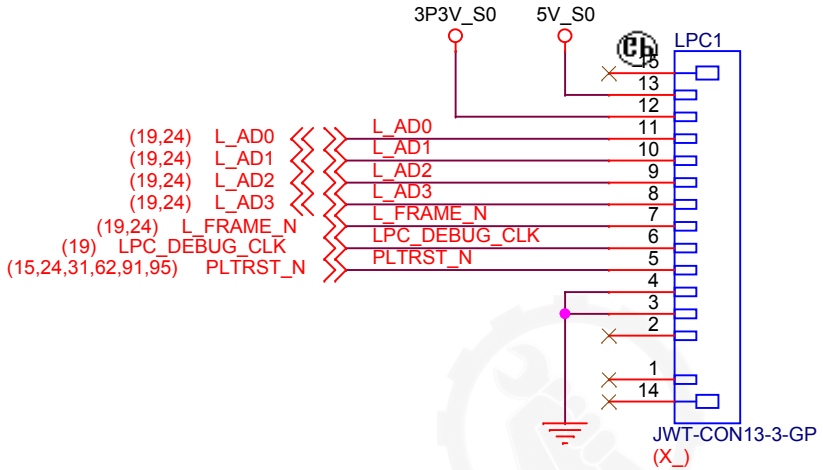
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 67 of 107

LPC DEBUG PORT



Pitch:1.0mm, Hight: 4.25mm

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Title: **LPC/UART Port**		
Size: **A**	Document Number: **Tahoe MT MLK/Gambits MT KBL**	Rev: **A00**
Date: Wednesday, October 19, 2016	Sheet 68 of 107	

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 69 of 107

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 70 of 107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 71 of 107

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 72 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 73 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 74 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 75 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 76 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date:	Wednesday, October 19, 2016	Sheet	77	of	107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 78 of 107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 79 of 107

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Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 80 of 107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 81 of 107

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 82 of 107

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 83 of 107

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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 84 of 107

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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 85 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 86 of 107

Wistron Corporation
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 87 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date:	Wednesday, October 19, 2016	Sheet	88	of	107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 89 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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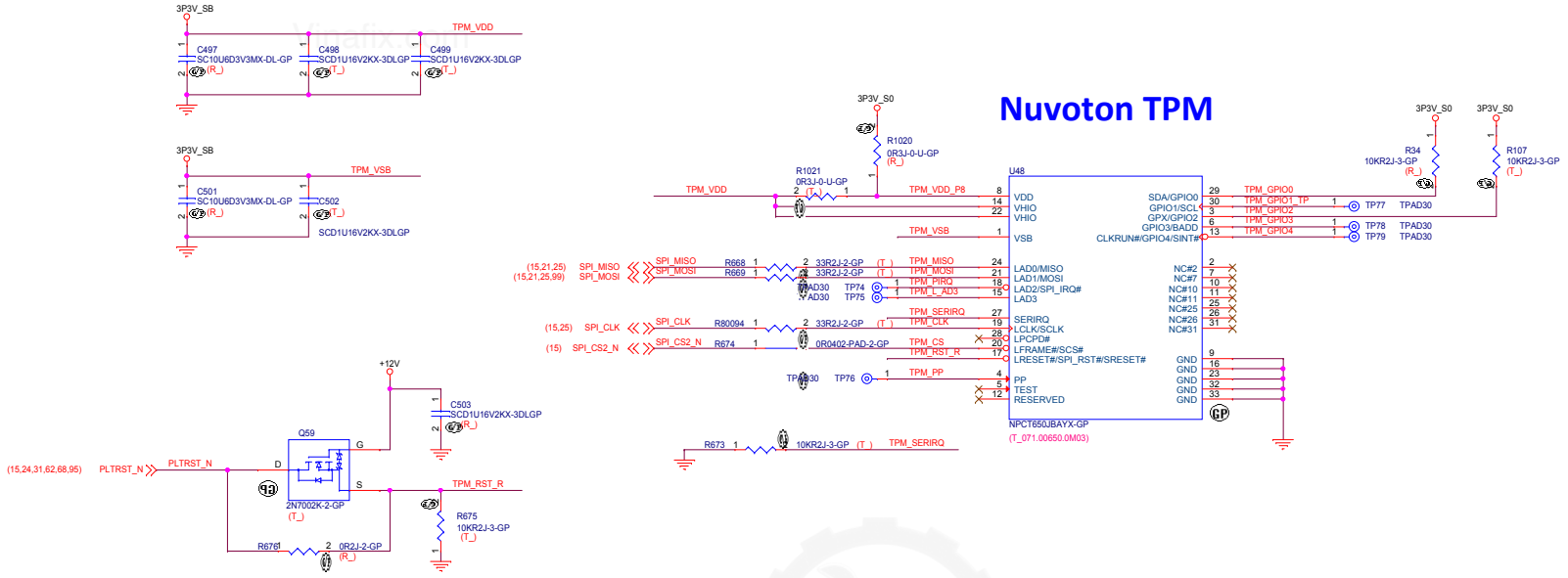
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 90 of 107



NationZ TCM for China

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Title: TPM/TCM		
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 91 of 107	

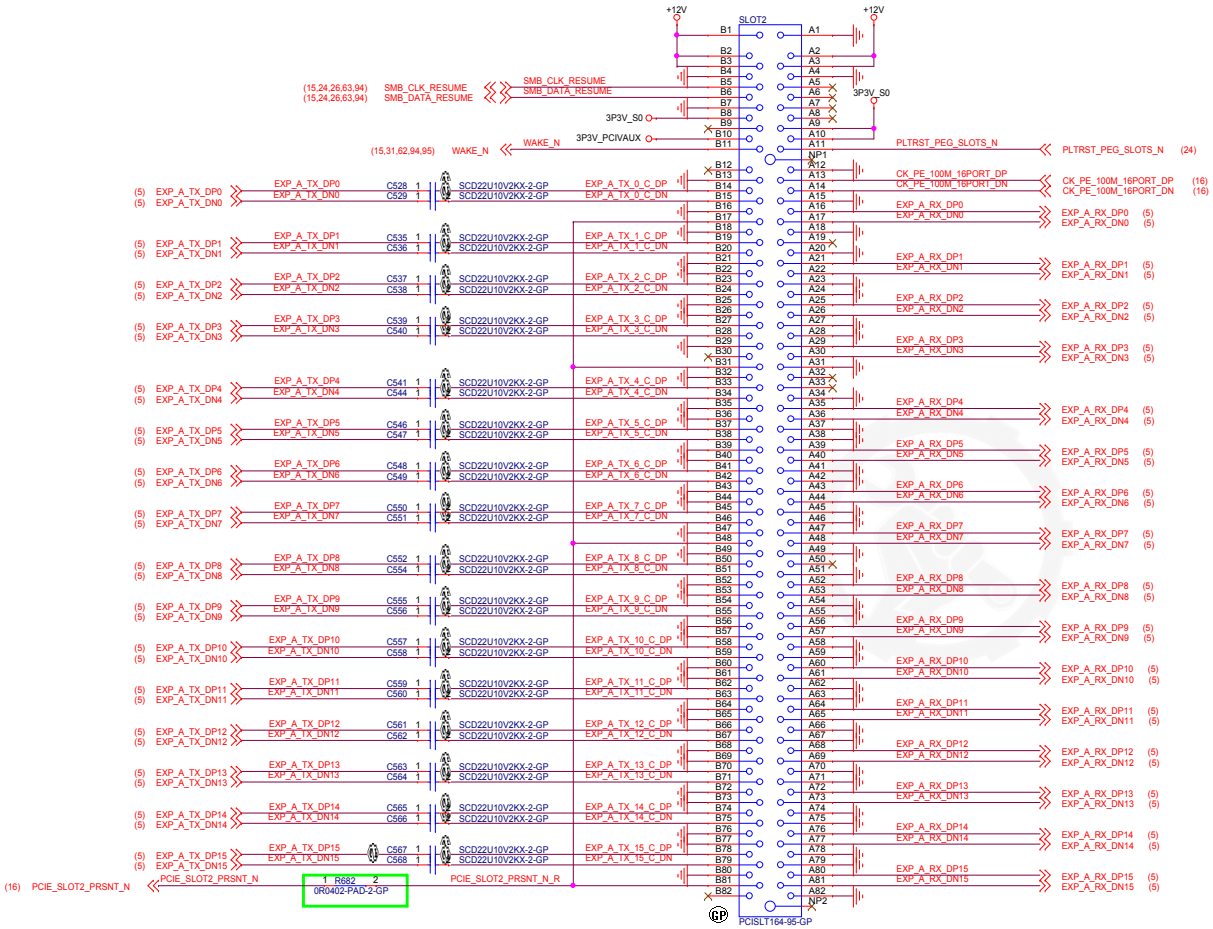
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

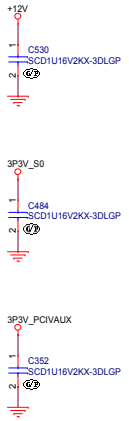
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 92 of 107





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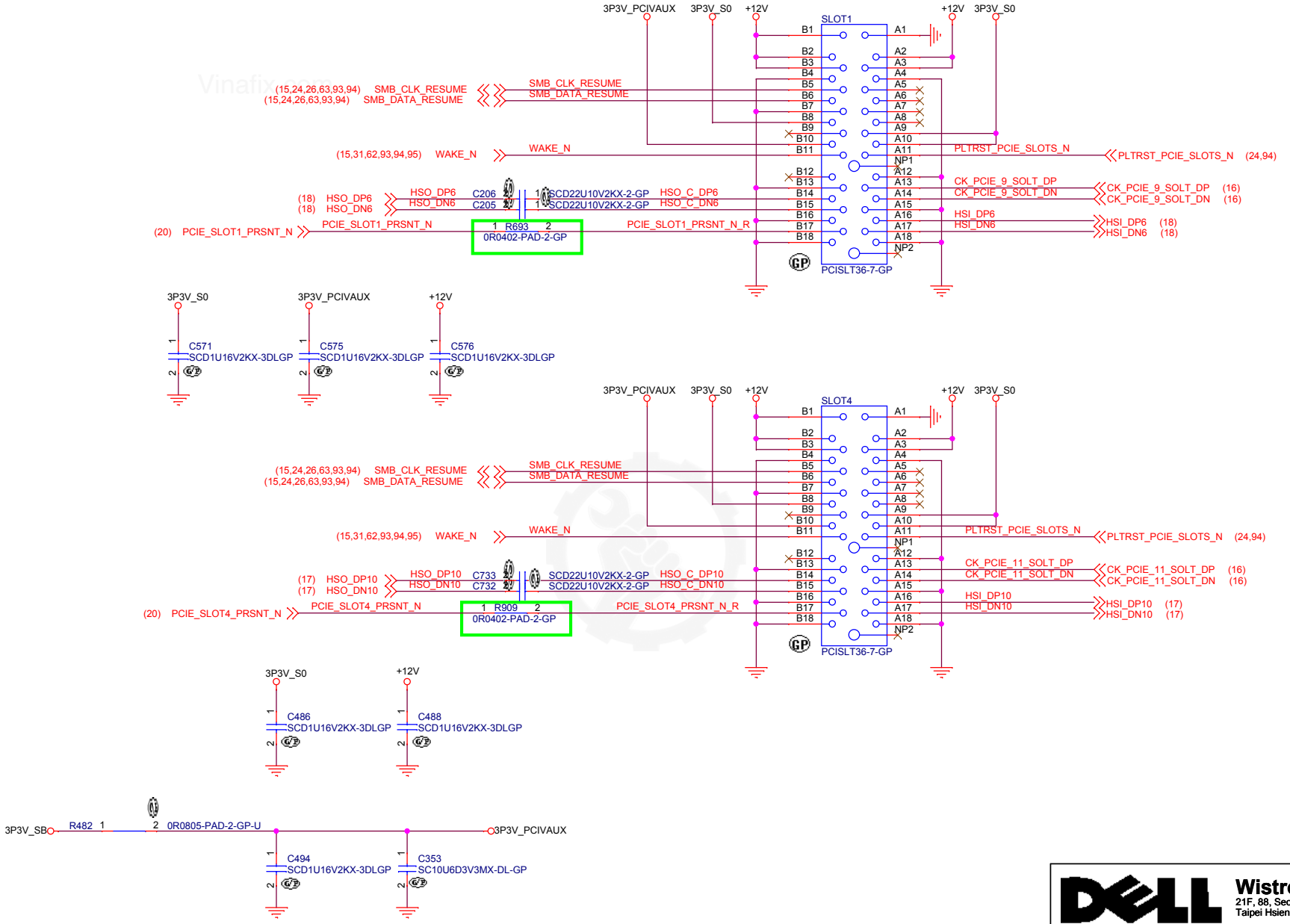
Title: PCIeX16		
Size: C	Document Number: Tahoe MT MLK/Gambits MT KBL	Rev: A00
Date: Wednesday, October 19, 2016	Sheet 93 of 107	



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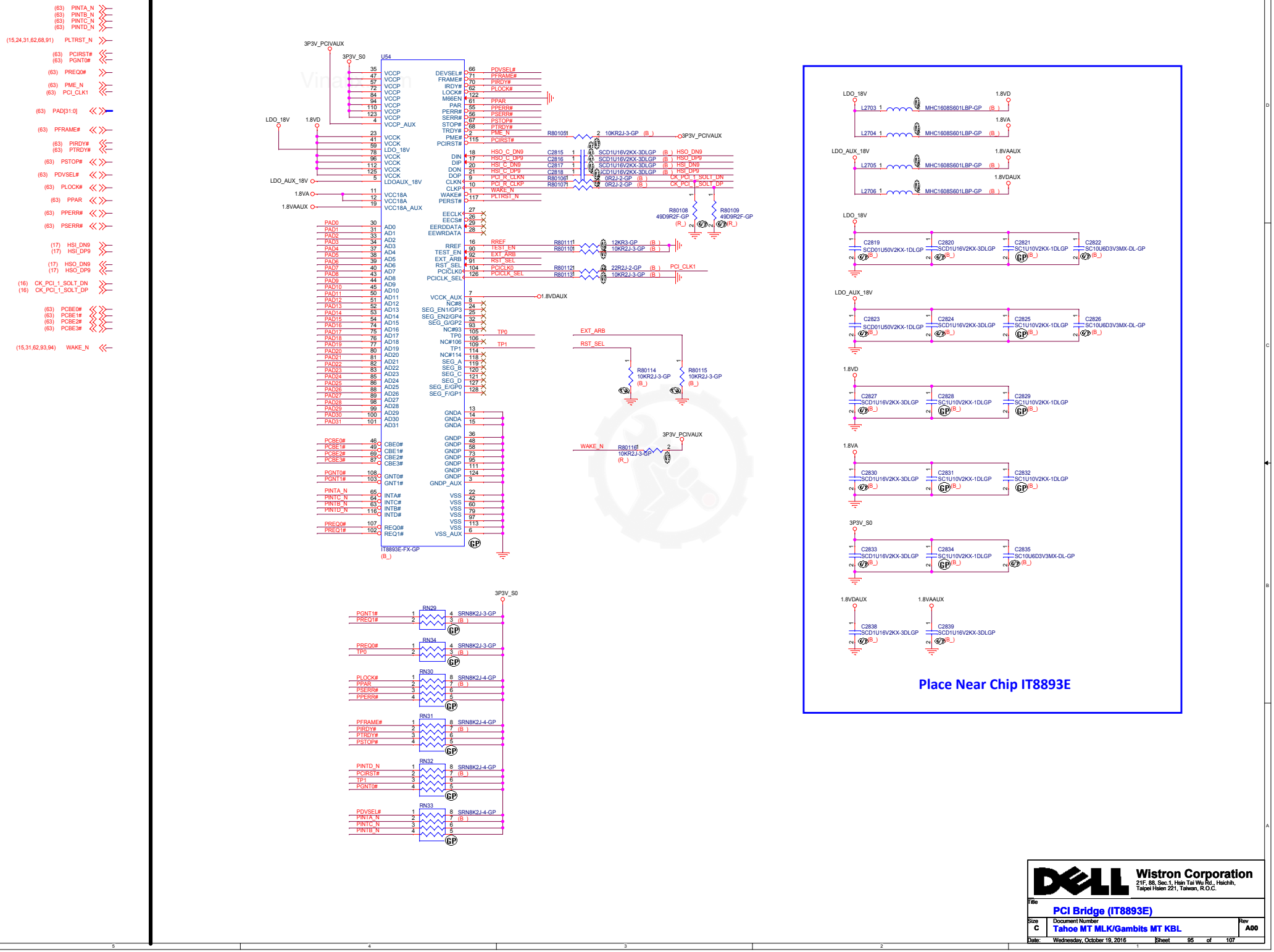
Title	PCIeX1/X4
Size	B
Document Number	Tahoe MT MLK/Gambits MT KBL
Rev	A00
Date:	Wednesday, October 19, 2016
Sheet	94 of 107


(63) PINTA_N
(63) PINTB_N
(63) PINTC_N
(63) PINTD_N
(15,24,31,62,68,91) PLTRST_N
(63) PCIRST#
(63) PGNT0#
(63) PREQ0#
(63) PME_N
(63) PCI_CLK1
(63) PAD[31:0]
(63) PFRAME#
(63) PIRDY#
(63) PTRDY#
(63) PSTOP#
(63) PDVSEL#
(63) PLOCK#
(63) PPAR
(63) PPERR#
(63) PSERR#
(17) HSI_DN9
(17) HSI_DP9
(17) HSO_DN9
(17) HSO_DP9
(16) CK_PCI_1_SOLT_DN
(16) CK_PCI_1_SOLT_DP
(63) PCBE0#
(63) PCBE1#
(63) PCBE2#
(63) PCBE3#
(15,31,62,93,94) WAKE_N
3P3V_PCIVAUX
3P3V_S0
U54
LDO_18V
1.8VD
LDO_AUX_18V
1.8VA
1.8VAAUX
1.8VDVAUX
3P3V_PCIVAUX
IT8893E-FX-GP
(B_)
TP0
TP1
EXT_ARB
RST_SEL
WAKE_N
PCI_CLK1
Place Near Chip IT8893E
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Title
PCI Bridge (IT8893E)
Size
C
Document Number
Tahoe MT MLK/Gambits MT KBL
Rev
A00
Date:
Wednesday, October 19, 2016
Sheet
95
of
107

Wistron Corporation
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Taipei Hsien 221, Taiwan, R.O.C.

Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 96 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 97 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 98 of 107

XDP for CPU

(4) H_TDO
(4) H_TDI
(4) H_TMS
(4,15) H_TCK
(4) H_TRST_N
(4) H_PREQ_N
(4) H_PRDY_N

(4,15) H_PWRGD
(4,55) VCCST_PWRGD
(15,21,25,91) SPI_MOSI

(4) SKL_PCUSTB_0_DN
(4) SKL_PCUSTB_0_DP
(4) SKL_PCUSTB_1_DN
(4) SKL_PCUSTB_1_DP

(4) SKL_XDP_MBP_0
(4) SKL_XDP_MBP_1

(4) SKL_PCUDEBUG_0
(23) PCH_XDP_PRDY_R_N
(23) PCH_XDP_PREQ_R_N

(4) XDP_PCUDEBUG_3

(15,24) RSMRST_SIO_N
(15,24) PCH_SYSPWROK
(15) FP_RST_N
(15) PCH_JTAG_TCK
(15) ITP_PMODE

(11,13,24,58) SMB_DATA_MAIN
(11,13,24,58) SMB_CLK_MAIN

(16) CK_100M_CPU_XDP_DN
(16) CK_100M_CPU_XDP_DP

(4,17) PLTRST_CPU_N
(15,21,25) SPI_IO2

APS DEBUG

(15,24,41,50,55) SLP_S3_N
(7,15,24,32,36,39,55) SLP_S4_N
(15,24) PCH_SLP_A_N
(15,24,64) PWRBTN_N
(15) PCH_RTCRST_N

PCH_XDP_PREQ_R_N R758 1 — 0R0402-PAD-2-GP H_PREQ_N
PCH_XDP_PRDY_R_N R759 1 — 2 0R0402-PAD-2-GP H_PRDY_N

SPI_MOSI R734 1 — 1KR2J-1-GP
PCH_SYSPWROK R735 1 (R_) 0R2J-2-GP XDP_VR_READY
Change for CRB v1.1
C623 SCD1U16V2KX-3DLGP (R_)

RSMRST_SIO_N R737 1 — 1KR2J-1-GP
H_PWRGD R738 1 (R_) 1KR2J-1-GP XDP_PWRGD
VCCST_PWRGD R739 1 (R_) 1KR2J-1-GP
Change for CRB v1.1

V1P0_PCH_SB R743 1 — 2K2R2J-2-GP
PLTRST_CPU_N R746 1 (R_) 1KR2J-1-GP
ITP_PMODE R749 1 — 0R2J-2-GP H_RSTOUT_XDP_N

V_CPU_IO R753 1 — 150R2F-1-GP
SKL_PCUDEBUG_0 R754 1 — 1KR2J-1-GP XDP_PWR_DEBUG

XDP for CPU

V1P0_CPU_XDP_S5 — V1P0_PCH_SB
XDPC1 MH1
1 R731 XDP_PCUDEBUG_3 0R2J-2-GP (R_)
H_PREQ_N
H_PRDY_N
SKL_XDP_MBP_0
SKL_XDP_MBP_1
XDP_PWRGD
PWRBTN_N
XDP_PWR_DEBUG
XDP_VR_READY
SMB_DATA_MAIN
SMB_CLK_MAIN
PCH_JTAG_TCK
H_TCK
SKL_PCUSTB_0_DP
SKL_PCUSTB_0_DN
SKL_PCUSTB_1_DP
SKL_PCUSTB_1_DN
CK_100M_CPU_XDP_DP
CK_100M_CPU_XDP_DN
H_RSTOUT_XDP_N
FP_RST_N
H_TDO
H_TRST_N
H_TDI
H_TMS
XDP_PRS
MH2
DM-SMC-CONN60A-GP-01 (R_)
R747 0R2J-2-GP (R_)
R752 51R2J-2-GP (R_)

APS CONNECTOR

3P3V_SB 3P3V_S5 APS1

PCH_SLP_A_N R740 1 — 0R0402-PAD-2-GP SLP_A_N_CN
SLP_S3_N R741 1 — 0R0402-PAD-2-GP SLP_S3_N_CN
SLP_S4_N R742 1 — 0R0402-PAD-2-GP SLP_S4_N_CN
PCH_RTCRST_N R744 1 — 0R0402-PAD-2-GP RTCRST_N_CN
PWRBTN_N R745 1 — 0R0402-PAD-2-GP PWRBTN_N_CN
FP_RST_N R748 1 — 2 0R0402-PAD-2-GP FP_RST_N_CN

JWT-CON13-3-GP (R_)

Pitch:1.0mm, Hight: 4.25mm

PWRBTN_N — To CPU XDP; To PCH XDP; To APS
PCH_JTAG_TCK — To CPU XDP; To PCH XDP

Layout Notes

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Title: XDP/ITP/APS HEADER
Size: B
Document Number: Tahoe MT MLK/Gambits MT KBL
Rev: A00
Date: Wednesday, October 19, 2016
Sheet 99 of 107

Wistron Corporation
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Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 100 of 107

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

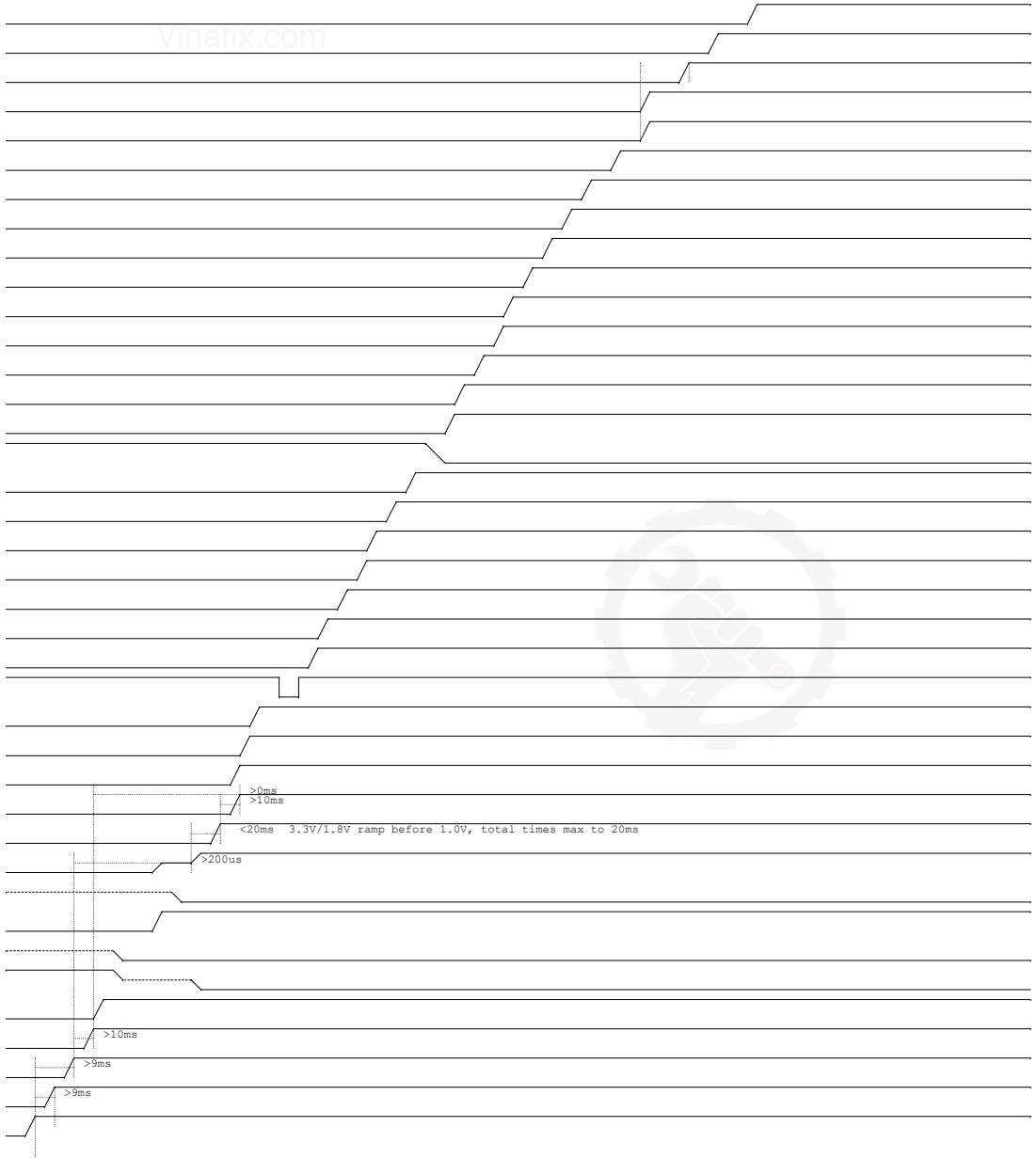
Title

Reserved

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 101 of 107

POWER ON SEQUENCE



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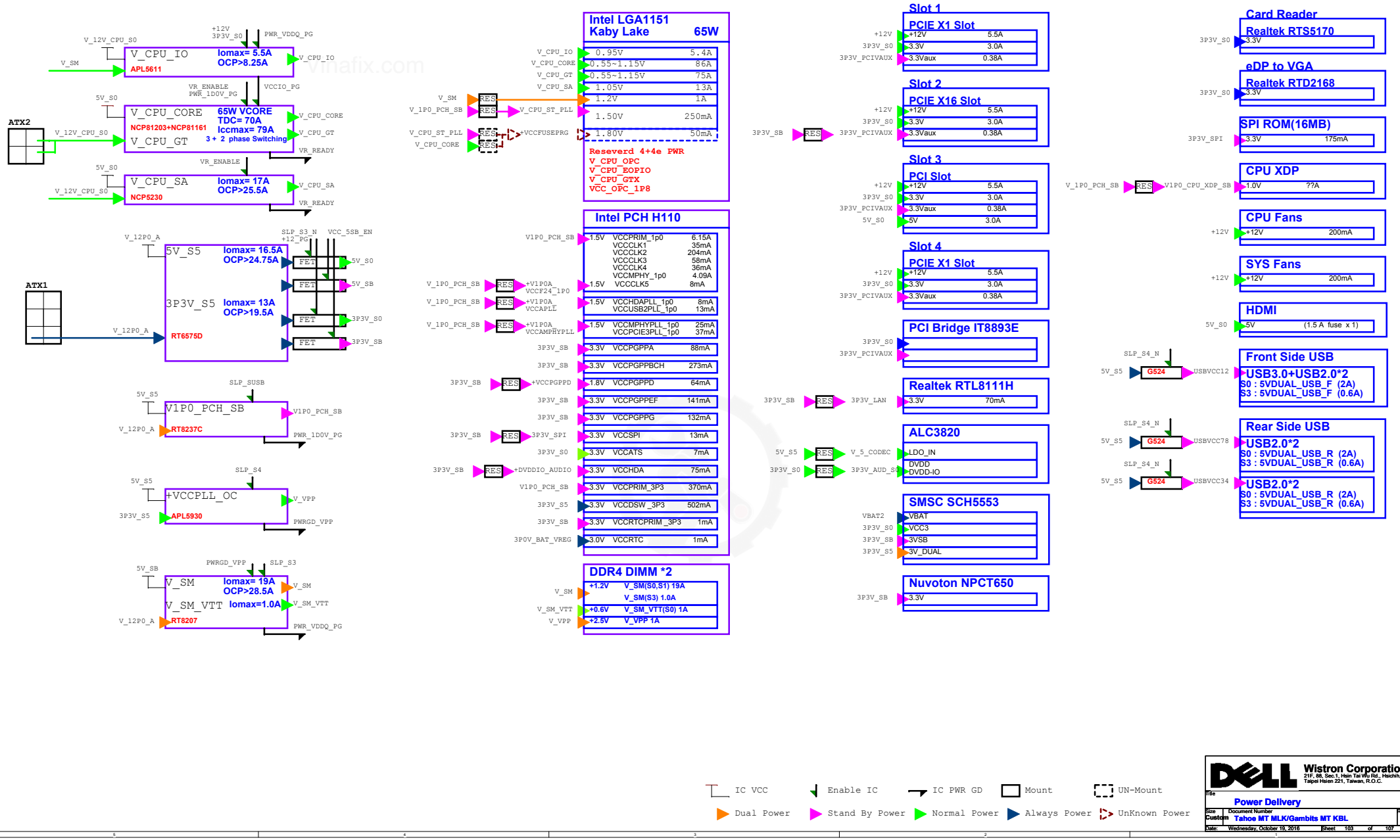
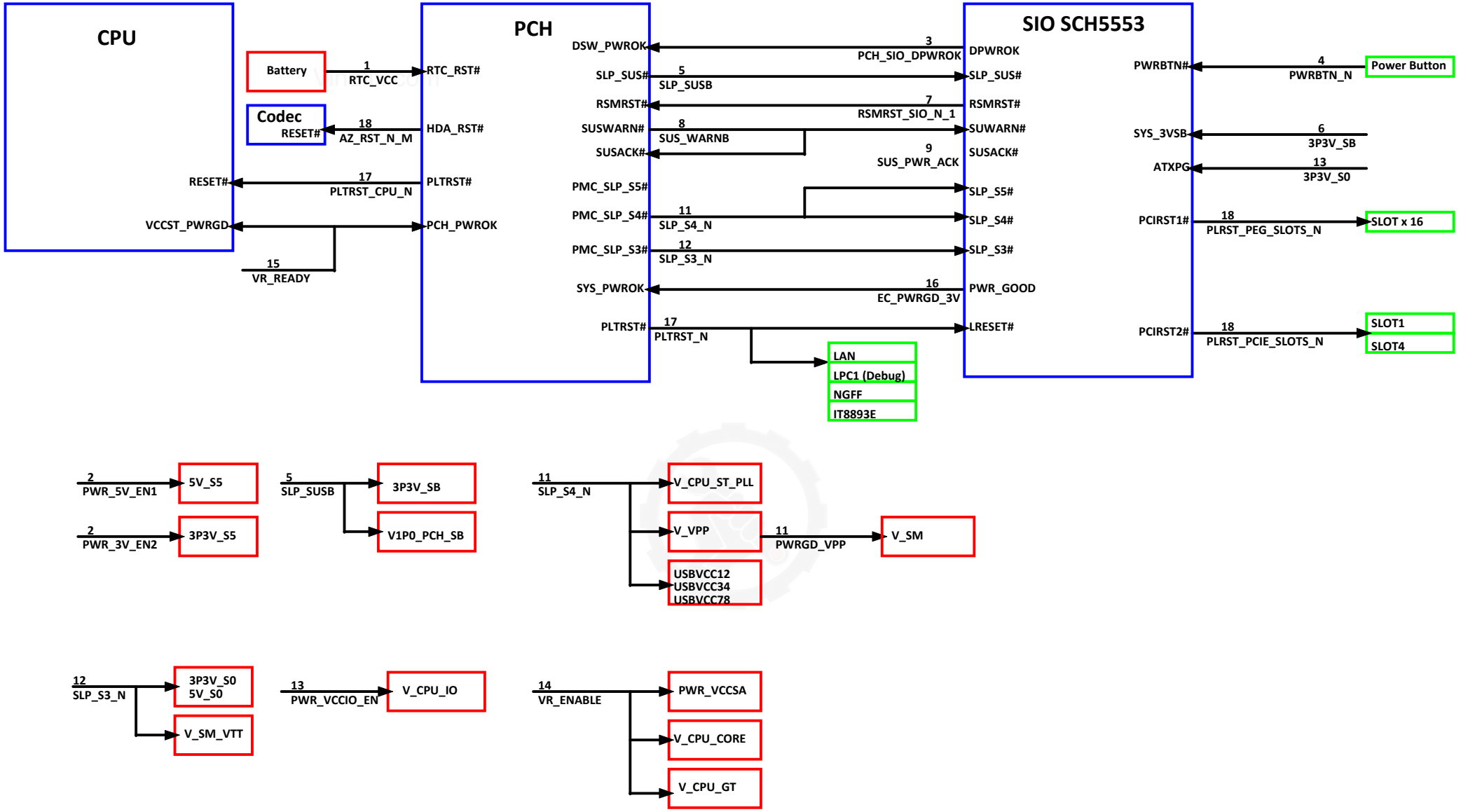
Title: Power Sequence

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 102 of 107


V_CPU_IO
lomax= 5.5A
OCP>8.25A
APL5611
V_CPU_CORE
65W VCORE
TDC= 70A
NCP81203+NCP81161
Iccmax= 79A
V_CPU_GT
3 + 2 phase Switching
V_CPU_SA
lomax= 17A
OCP>25.5A
NCP5230
ATX2
ATX1
5V_S5
lomax= 16.5A
OCP>24.75A
3P3V_S5
lomax= 13A
OCP>19.5A
RT6575D
V1P0_PCH_SB
RT8237C
+VCCPLL_OC
APL5930
V_SM
lomax= 19A
OCP>28.5A
V_SM_VTT
lomax=1.0A
RT8207
Intel LGA1151
Kaby Lake
65W
0.95V 5.4A
0.55~1.15V 86A
0.55~1.15V 75A
1.05V 13A
1.2V 1A
1.50V 250mA
1.80V 50mA
Reseverd 4+4e PWR
V_CPU_OPC
V_CPU_EOPIO
V_CPU_GTX
VCC_OPC_1P8
Intel PCH H110
DDR4 DIMM *2
+1.2V V_SM(S0,S1) 19A
V_SM(S3) 1.0A
+0.6V V_SM_VTT(S0) 1A
+2.5V V_VPP 1A
Slot 1
PCIE X1 Slot
Slot 2
PCIE X16 Slot
Slot 3
PCI Slot
Slot 4
PCIE X1 Slot
PCI Bridge IT8893E
Realtek RTL8111H
ALC3820
SMSC SCH5553
Nuvoton NPCT650
Card Reader
Realtek RTS5170
eDP to VGA
Realtek RTD2168
SPI ROM(16MB)
CPU XDP
CPU Fans
SYS Fans
HDMI
Front Side USB
USB3.0+USB2.0*2
S0 : 5VDUAL_USB_F (2A)
S3 : 5VDUAL_USB_F (0.6A)
Rear Side USB
USB2.0*2
S0 : 5VDUAL_USB_R (2A)
S3 : 5VDUAL_USB_R (0.6A)
IC VCC
Enable IC
IC PWR GD
Mount
UN-Mount
Dual Power
Stand By Power
Normal Power
Always Power
UnKnown Power
Wistron Corporation
Power Delivery
Tahoe MT MLK/Gambits MT KBL
A00



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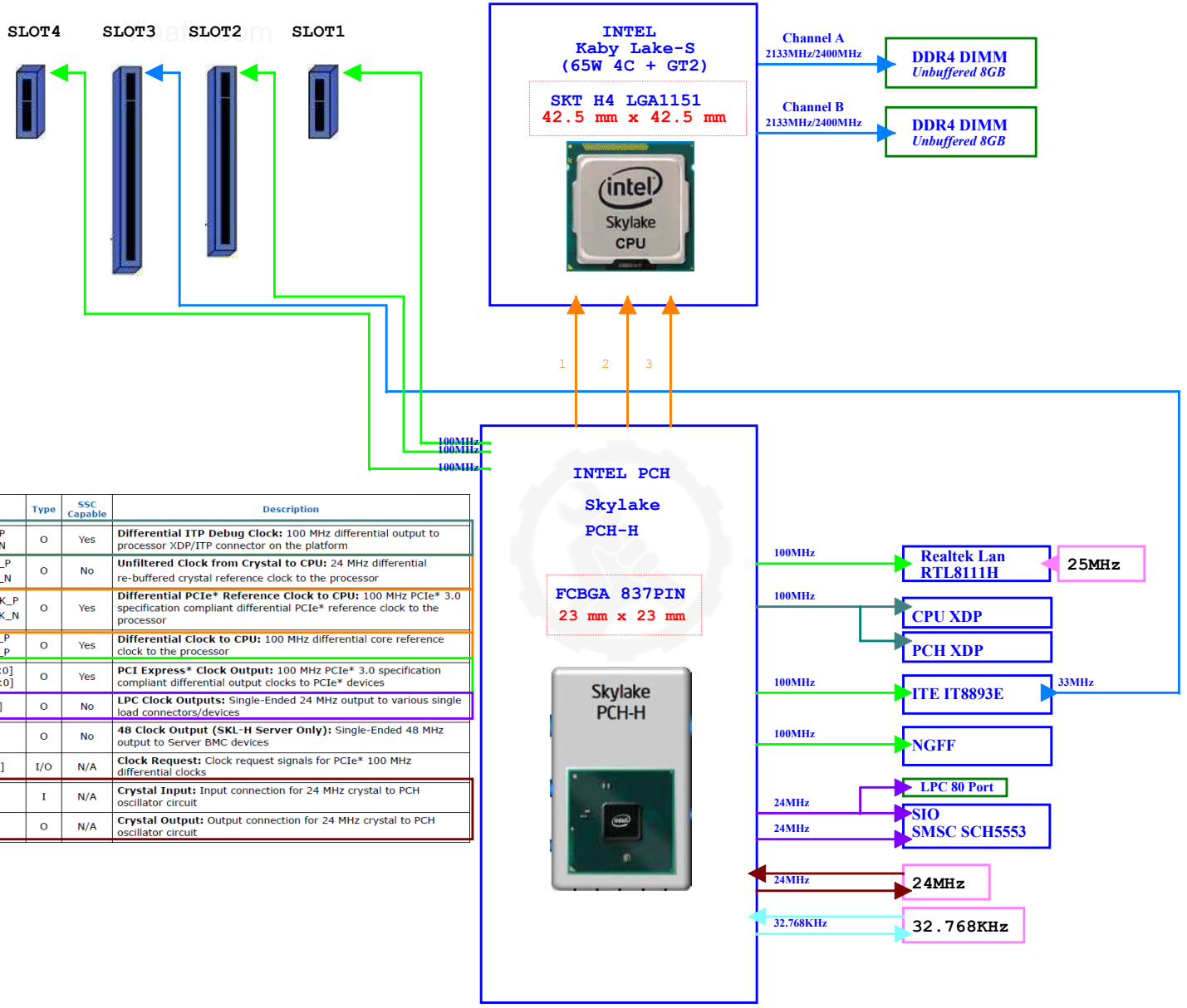
Title: Power Good & Reset Diagram

Size: D | Document Number: Tahoe MT MLK/Gambits MT KBL | Rev: A00

Date: Wednesday, October 19, 2016 | Sheet 104 of 107



	Name	Type	SSC Capable	Description
	CLKOUT_ITPXDP_P CLKOUT_ITPXDP_N	O	Yes	**Differential ITP Debug Clock:** 100 MHz differential output to processor XDP/ITP connector on the platform
1	CLKOUT_CPUNSSC_P CLKOUT_CPUNSSC_N	O	No	**Unfiltered Clock from Crystal to CPU:** 24 MHz differential re-buffered crystal reference clock to the processor
2	CLKOUT_CPUPCIBCLK_P CLKOUT_CPUPCIBCLK_N	O	Yes	**Differential PCIe* Reference Clock to CPU:** 100 MHz PCIe* 3.0 specification compliant differential PCIe* reference clock to the processor
3	CLKOUT_CPUBCLK_P CLKOUT_CPUBCLK_P	O	Yes	**Differential Clock to CPU:** 100 MHz differential core reference clock to the processor
	CLKOUT_SRC_P[15:0] CLKOUT_SRC_N[15:0]	O	Yes	**PCI Express* Clock Output:** 100 MHz PCIe* 3.0 specification compliant differential output clocks to PCIe* devices
	CLKOUT_LPC[1:0]	O	No	**LPC Clock Outputs:** Single-Ended 24 MHz output to various single load connectors/devices
	CLKOUT_48	O	No	**48 Clock Output (SKL-H Server Only):** Single-Ended 48 MHz output to Server BMC devices
	SRCCLKRQ#[15:0]	I/O	N/A	**Clock Request:** Clock request signals for PCIe* 100 MHz differential clocks
	XTAL24_IN	I	N/A	**Crystal Input:** Input connection for 24 MHz crystal to PCH oscillator circuit
	XTAL24_OUT	O	N/A	**Crystal Output:** Output connection for 24 MHz crystal to PCH oscillator circuit

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Title: Clock Diagram

Size	Document Number	Rev
C	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 105 of 107

Wistron Corporation
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Title

REST Flow Chart

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 106 of 107

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Title

Change History

Size	Document Number	Rev
A	Tahoe MT MLK/Gambits MT KBL	A00

Date: Wednesday, October 19, 2016 Sheet 107 of 107