

Model Name: GA-X99-UD5 WIFI Rev 1.0

SHEET TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04-06	CPU_LGA2011-DDR
07-08	CPU_LGA2011-CTRL_PCIE_DMI
09-10	CPU_LGA2011-PWR
11-12	DDR III CHANNEL A/B
13-14	DDR III CHANNEL C/D
15-16	PCH_SATA_GPIO_AUDIO
17	PCH_DMI_USB_PCIE_PCI
18	PCH_PWR_GND
20-21	PCI EXPRESS X16 SLOT_1/2
22	PCI EXPRESS X16 Switch
23-24	PCI EXPRESS X8 SLOT 1/2
25	PCI EXPRESS X1 SLOTS
26-27	CPU& PEG CLOCK BUFFER
28	ITE 8620 SIO
29	DUAL BIOS
30-31	VCORE IR3580
33-35	DDR A/B & VPP&DDRVTT IR3570*2
36	PCH CORE POWER RT8120
37-38	DISCRETE POWER
39	FP ,TPM ,THB
40	ATX , 80 PORT
41	I/O HWM ,FAN CTRL
42	ITE EC 8791
43	ITE EC 8951

SHEET TITLE

44	BUTTON & PROBE
45	EC HWM ,FAN CTRL
46	SOUND LEVEL SENSOR
47-48	M.2 WIFI & 10Gb SSD
49-52	USB3 HUB A/B
53-55	ALC1150+NE5532
56	USB3_LAN1/2 ,AUDIO JACK
57	PS2 , WIFI, HS BUTTON
58-59	LAN i210& i218
60	R_USB30
61	F_USB2 & F_USB3
62	PCH GPIO LIST
63	Parts Location

Model Name: GA-X99-UD5 WIFI

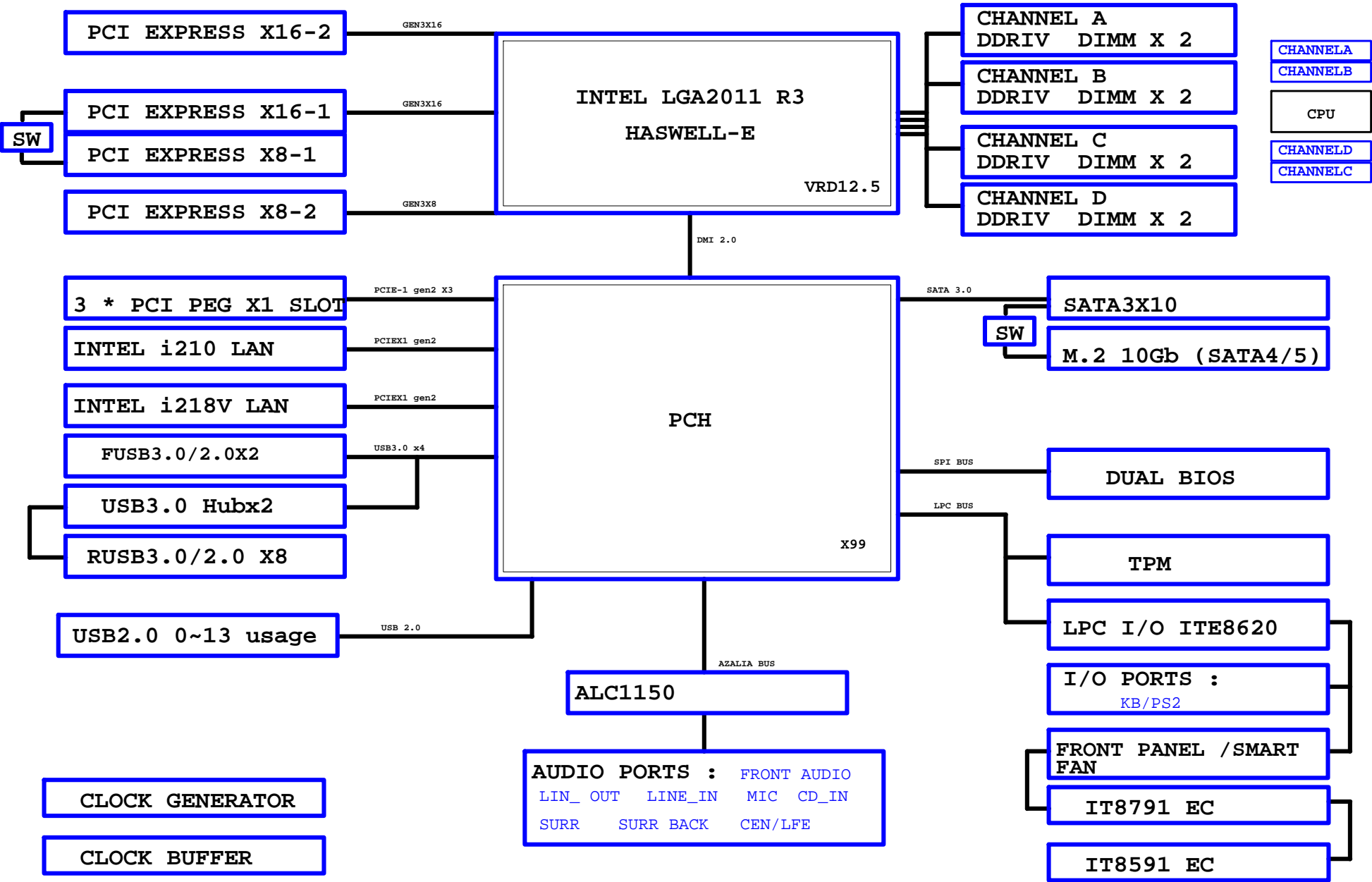
Component value change history

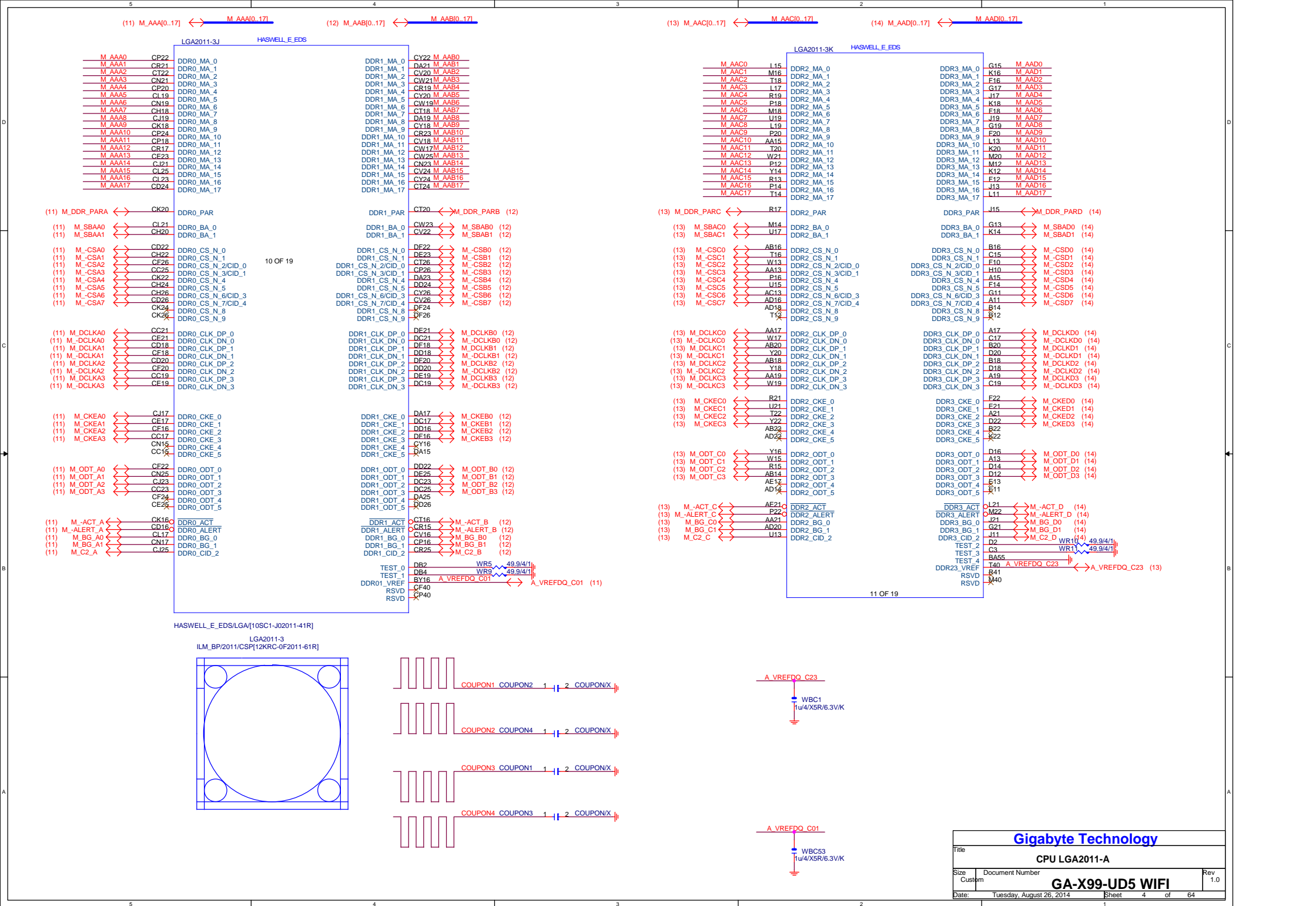
[illegible]

Circuit or PCB layout change

[illegible]

BLOCK DIAGRAM





CHANNEL A

LGA2011-3F		HASWELL_E_EDS	
M DA0	BU7	DDR0_DQ_0	BY6 M -DQSA0
M DA1	BT6	DDR0_DQ_1	BY6 M -DQSA0
M DA2	CA8	DDR0_DQ_2	
M DA3	CB8	DDR0_DQ_3	BY12 M -DQSA1
M DA4	BT8	DDR0_DQ_4	BY11 M -DQSA1
M DA5	BU8	DDR0_DQ_5	
M DA6	CA7	DDR0_DQ_6	CH10 M -DQSA2
M DA7	CB6	DDR0_DQ_7	CG11 M -DQSA2
M DA8	BT12	DDR0_DQ_8	
M DA9	BU11	DDR0_DQ_9	CK14 M -DQSA3
M DA10	BW13	DDR0_DQ_10	CL13 M -DQSA3
M DA11	BY14	DDR0_DQ_11	
M DA12	BT14	DDR0_DQ_12	CK30 M -DQSA4
M DA13	BU15	DDR0_DQ_13	CM30 M -DQSA4
M DA14	CA11	DDR0_DQ_14	
M DA15	BY12	DDR0_DQ_15	CD30 M -DQSA5
M DA16	CE9	DDR0_DQ_16	CF30 M -DQSA5
M DA17	CF8	DDR0_DQ_17	
M DA18	CK10	DDR0_DQ_18	CC37 M -DQSA6
M DA19	CL11	DDR0_DQ_19	CE37 M -DQSA6
M DA20	CD10	DDR0_DQ_20	
M DA21	CE11	DDR0_DQ_21	CJ37 M -DQSA7
M DA22	CK8	DDR0_DQ_22	CL37 M -DQSA7
M DA23	CJ8	DDR0_DQ_23	
M DA24	CE13	DDR0_DQ_24	CV10
M DA25	CG15	DDR0_DQ_25	CT10
M DA26	CM14	DDR0_DQ_26	
M DA27	CH14	DDR0_DQ_27	BV8
M DA28	CC13	DDR0_DQ_28	BW9
M DA29	CD14	DDR0_DQ_29	
M DA30	CM12	DDR0_DQ_30	BU13
M DA31	CL13	DDR0_DQ_31	BV14
M DA32	CK28	DDR0_DQ_32	
M DA33	CH28	DDR0_DQ_33	CG9
M DA34	CK32	DDR0_DQ_34	CH8
M DA35	CH32	DDR0_DQ_35	
M DA36	CL27	DDR0_DQ_36	CG13
M DA37	CJ27	DDR0_DQ_37	CF14
M DA38	CL31	DDR0_DQ_38	
M DA39	CJ31	DDR0_DQ_39	CL29
M DA40	CD28	DDR0_DQ_40	CV29
M DA41	CB28	DDR0_DQ_41	
M DA42	CD32	DDR0_DQ_42	CE29
M DA43	CB32	DDR0_DQ_43	CC29
M DA44	CE27	DDR0_DQ_44	
M DA45	CG27	DDR0_DQ_45	CF36
M DA46	CE31	DDR0_DQ_46	CD36
M DA47	CC31	DDR0_DQ_47	
M DA48	CE35	DDR0_DQ_48	CM36
M DA49	CC35	DDR0_DQ_49	CK36
M DA50	CE38	DDR0_DQ_50	
M DA51	CC39	DDR0_DQ_51	CU9
M DA52	CE34	DDR0_DQ_52	CV9
M DA53	CD34	DDR0_DQ_53	
M DA54	CF38	DDR0_DQ_54	
M DA55	CD38	DDR0_DQ_55	
M DA56	CL35	DDR0_DQ_56	
M DA57	CJ35	DDR0_DQ_57	
M DA58	CL39	DDR0_DQ_58	
M DA59	CJ39	DDR0_DQ_59	
M DA60	CM34	DDR0_DQ_60	
M DA61	CK34	DDR0_DQ_61	
M DA62	CM38	DDR0_DQ_62	
M DA63	CK38	DDR0_DQ_63	
CT8		DDR0_ECC_0	
CV8		DDR0_ECC_1	
CW13		DDR0_ECC_2	
CU13		DDR0_ECC_3	
CP8		DDR0_ECC_4	
CN8		DDR0_ECC_5	
CP10		DDR0_ECC_6	
CR13		DDR0_ECC_7	

6 OF 19

CHANNEL B

LGA2011-3G		HASWELL_E_EDS	
M DB0	BV4	DDR1_DQ_0	BY4 M -DQSB0
M DB1	BU1	DDR1_DQ_1	BW3 M -DQSB0
M DB2	CA3	DDR1_DQ_2	
M DB3	CB4	DDR1_DQ_3	CJ5 M -DQSB1
M DB4	BT4	DDR1_DQ_4	CH6 M -DQSB1
M DB5	BT2	DDR1_DQ_5	
M DB6	CA1	DDR1_DQ_6	CT4 M -DQSB2
M DB7	BY2	DDR1_DQ_7	CV4 M -DQSB2
M DB8	CE3	DDR1_DQ_8	
M DB9	CF4	DDR1_DQ_9	DB10 M -DQSB3
M DB10	CL5	DDR1_DQ_10	DC9 M -DQSB3
M DB11	CM4	DDR1_DQ_11	
M DB12	CE5	DDR1_DQ_12	CT30 M -DQSB4
M DB13	CF6	DDR1_DQ_13	CV30 M -DQSB4
M DB14	CK6	DDR1_DQ_14	
M DB15	CL3	DDR1_DQ_15	DD32 M -DQSB5
M DB16	CR3	DDR1_DQ_16	DB32 M -DQSB5
M DB17	CV2	DDR1_DQ_17	
M DB18	CT6	DDR1_DQ_18	DB37 M -DQSB6
M DB19	CB6	DDR1_DQ_19	CJ37 M -DQSB6
M DB20	CR1	DDR1_DQ_20	
M DB21	CP2	DDR1_DQ_21	DB38 M -DQSB7
M DB22	CU5	DDR1_DQ_22	DA37 M -DQSB7
M DB23	CR5	DDR1_DQ_23	
M DB24	DA7	DDR1_DQ_24	DB14
M DB25	DB8	DDR1_DQ_25	DA13
M DB26	DE11	DDR1_DQ_26	
M DB27	DC11	DDR1_DQ_27	BV2
M DB28	DA5	DDR1_DQ_28	BW1
M DB29	CE6	DDR1_DQ_29	
M DB30	DE9	DDR1_DQ_30	CH4
M DB31	DE10	DDR1_DQ_31	CG3
M DB32	CT28	DDR1_DQ_32	
M DB33	CP28	DDR1_DQ_33	CW3
M DB34	CT32	DDR1_DQ_34	CU3
M DB35	CP32	DDR1_DQ_35	
M DB36	CU27	DDR1_DQ_36	DC7
M DB37	CR27	DDR1_DQ_37	DB8
M DB38	CU31	DDR1_DQ_38	
M DB39	CR31	DDR1_DQ_39	CU29
M DB40	DA29	DDR1_DQ_40	CR29
M DB41	DB30	DDR1_DQ_41	
M DB42	DC33	DDR1_DQ_42	DA31
M DB43	DE34	DDR1_DQ_43	CV32
M DB44	DB28	DDR1_DQ_44	
M DB45	CY28	DDR1_DQ_45	CV36
M DB46	DA33	DDR1_DQ_46	CT36
M DB47	DE33	DDR1_DQ_47	
M DB48	CU35	DDR1_DQ_48	DB36
M DB49	CR35	DDR1_DQ_49	DE37
M DB50	CU39	DDR1_DQ_50	
M DB51	CR39	DDR1_DQ_51	CW13
M DB52	CV34	DDR1_DQ_52	CV14
M DB53	CT34	DDR1_DQ_53	
M DB54	CV38	DDR1_DQ_54	
M DB55	CT39	DDR1_DQ_55	
M DB56	DC37	DDR1_DQ_56	
M DB57	DE36	DDR1_DQ_57	
M DB58	DC39	DDR1_DQ_58	
M DB59	DA39	DDR1_DQ_59	
M DB60	DC35	DDR1_DQ_60	
M DB61	DB36	DDR1_DQ_61	
M DB62	DE38	DDR1_DQ_62	
M DB63	DE39	DDR1_DQ_63	
CU13		DDR1_ECC_0	
CV13		DDR1_ECC_1	
DD13		DDR1_ECC_2	
DF14		DDR1_ECC_3	
CR13		DDR1_ECC_4	
CT14		DDR1_ECC_5	
DC13		DDR1_ECC_6	
DE13		DDR1_ECC_7	

7 OF 19

(11) M_DA[0..63] ↔ M_DA[0..63]

(11) M_DQSA[0..7] ↔ M_DQSA[0..7]

(11) M_-DQSA[0..7] ↔ M_-DQSA[0..7]

(12) M_DB[0..63] ↔ M_DB[0..63]

(12) M_DQSB[0..7] ↔ M_DQSB[0..7]

(12) M_-DQSB[0..7] ↔ M_-DQSB[0..7]

Gigabyte Technology

Title		
CPU LGA2011-A		
Size	Document Number	Rev
Custom	GA-X99-UD5 WIFI	1.0
Date:	Tuesday, August 26, 2014	Sheet 5 of 64

CHANNEL C

LGA2011-3H HASWELL_E_EDS

M DC0	AD38	DDR2_DQ_0	DDR2_QQS_DP_0	V38	M_DQSC0
M DC1	AA37	DDR2_DQ_1	DDR2_QQS_DN_0	W37	M_-DQSC0
M DC2	R37	DDR2_DQ_2			
M DC3	Y38	DDR2_DQ_3	DDR2_QQS_DP_1	U31	M_DQSC1
M DC4	AE37	DDR2_DQ_4	DDR2_QQS_DN_1	V32	M_-DQSC1
M DC5	AC38	DDR2_DQ_5			
M DC6	T38	DDR2_DQ_6		AB32	M_DQSC2
M DC7	U37	DDR2_DQ_7	DDR2_QQS_DP_2	AD32	M_-DQSC2
M DC8	V34	DDR2_DQ_8			
M DC9	U33	DDR2_DQ_9		U25	M_DQSC3
M DC10	V30	DDR2_DQ_10	DDR2_QQS_DP_3	W25	M_-DQSC3
M DC11	T30	DDR2_DQ_11	DDR2_QQS_DN_3		
M DC12	U35	DDR2_DQ_12		N7	M_DQSC4
M DC13	R35	DDR2_DQ_13	DDR2_QQS_DP_4	P8	M_-DQSC4
M DC14	T32	DDR2_DQ_14	DDR2_QQS_DN_4		
M DC15	W31	DDR2_DQ_15		AB10	M_DQSC5
M DC16	AD34	DDR2_DQ_16	DDR2_QQS_DP_5	Y10	M_-DQSC5
M DC17	AB34	DDR2_DQ_17			
M DC18	AD30	DDR2_DQ_18	DDR2_QQS_DP_6	AH12	M_DQSC6
M DC19	AB30	DDR2_DQ_19	DDR2_QQS_DN_6	AJ13	M_-DQSC6
M DC20	AC35	DDR2_DQ_20			
M DC21	AA35	DDR2_DQ_21	DDR2_QQS_DP_7	AJ7	M_DQSC7
M DC22	AE31	DDR2_DQ_22	DDR2_QQS_DN_7	AH8	M_-DQSC7
M DC23	AC31	DDR2_DQ_23			
M DC24	U27	DDR2_DQ_24	DDR2_QQS_DP_8	AC25	
M DC25	R27	DDR2_DQ_25	DDR2_QQS_DN_8	AE25	
M DC26	U23	DDR2_DQ_26			
M DC27	R23	DDR2_DQ_27	DDR2_QQS_DP_9	AB38	
M DC28	V28	DDR2_DQ_28	DDR2_QQS_DN_9	AC37	
M DC29	T28	DDR2_DQ_29			
M DC30	V24	DDR2_DQ_30	DDR2_QQS_DP_10	T34	
M DC31	T24	DDR2_DQ_31	DDR2_QQS_DN_10	R33	
M DC32	N8	DDR2_DQ_32			
M DC33	K8	DDR2_DQ_33	DDR2_QQS_DP_11	AC33	
M DC34	R7	DDR2_DQ_34	DDR2_QQS_DN_11	AA33	
M DC35	P6	DDR2_DQ_35			
M DC36	J8	DDR2_DQ_36	DDR2_QQS_DP_12	V26	
M DC37	L3	DDR2_DQ_37	DDR2_QQS_DN_12	X26	
M DC38	K6	DDR2_DQ_38			
M DC39	M6	DDR2_DQ_39	DDR2_QQS_DP_13	M8	
M DC40	U8	DDR2_DQ_40	DDR2_QQS_DN_13	L7	
M DC41	W11	DDR2_DQ_41			
M DC42	AA11	DDR2_DQ_42	DDR2_QQS_DP_14	V8	
M DC43	AB8	DDR2_DQ_43	DDR2_QQS_DN_14	X9	
M DC44	T10	DDR2_DQ_44			
M DC45	U11	DDR2_DQ_45	DDR2_QQS_DP_15	AH16	
M DC46	AA9	DDR2_DQ_46	DDR2_QQS_DN_15	AJ15	
M DC47	Y8	DDR2_DQ_47			
M DC48	AE11	DDR2_DQ_48	DDR2_QQS_DP_16	AH10	
M DC49	AE12	DDR2_DQ_49	DDR2_QQS_DN_16	AJ9	
M DC50	AK12	DDR2_DQ_50			
M DC51	AL13	DDR2_DQ_51	DDR2_QQS_DP_17	AD26	
M DC52	AG15	DDR2_DQ_52	DDR2_QQS_DN_17	AB26	
M DC53	AE14	DDR2_DQ_53			
M DC54	AK14	DDR2_DQ_54			
M DC55	AL15	DDR2_DQ_55			
M DC56	AG9	DDR2_DQ_56			
M DC57	AG7	DDR2_DQ_57			
M DC58	AK10	DDR2_DQ_58			
M DC59	AL9	DDR2_DQ_59			
M DC60	AE7	DDR2_DQ_60			
M DC61	AE9	DDR2_DQ_61			
M DC62	AK8	DDR2_DQ_62			
M DC63	AL7	DDR2_DQ_63			
AC22		DDR2_ECC_0			
AA22		DDR2_ECC_1			
AC23		DDR2_ECC_2			
AA23		DDR2_ECC_3			
AD28		DDR2_ECC_4			
AB28		DDR2_ECC_5			
AD24		DDR2_ECC_6			
AB24		DDR2_ECC_7			

8 OF 19

(13) M_DC[0..63] <— M_DC[0..63]
 (13) M_DQSC[0..7] <— M_DQSC[0..7]
 (13) M_-DQSC[0..7] <— M_-DQSC[0..7]

CHANNEL D

LGA2011-3I HASWELL_E_EDS

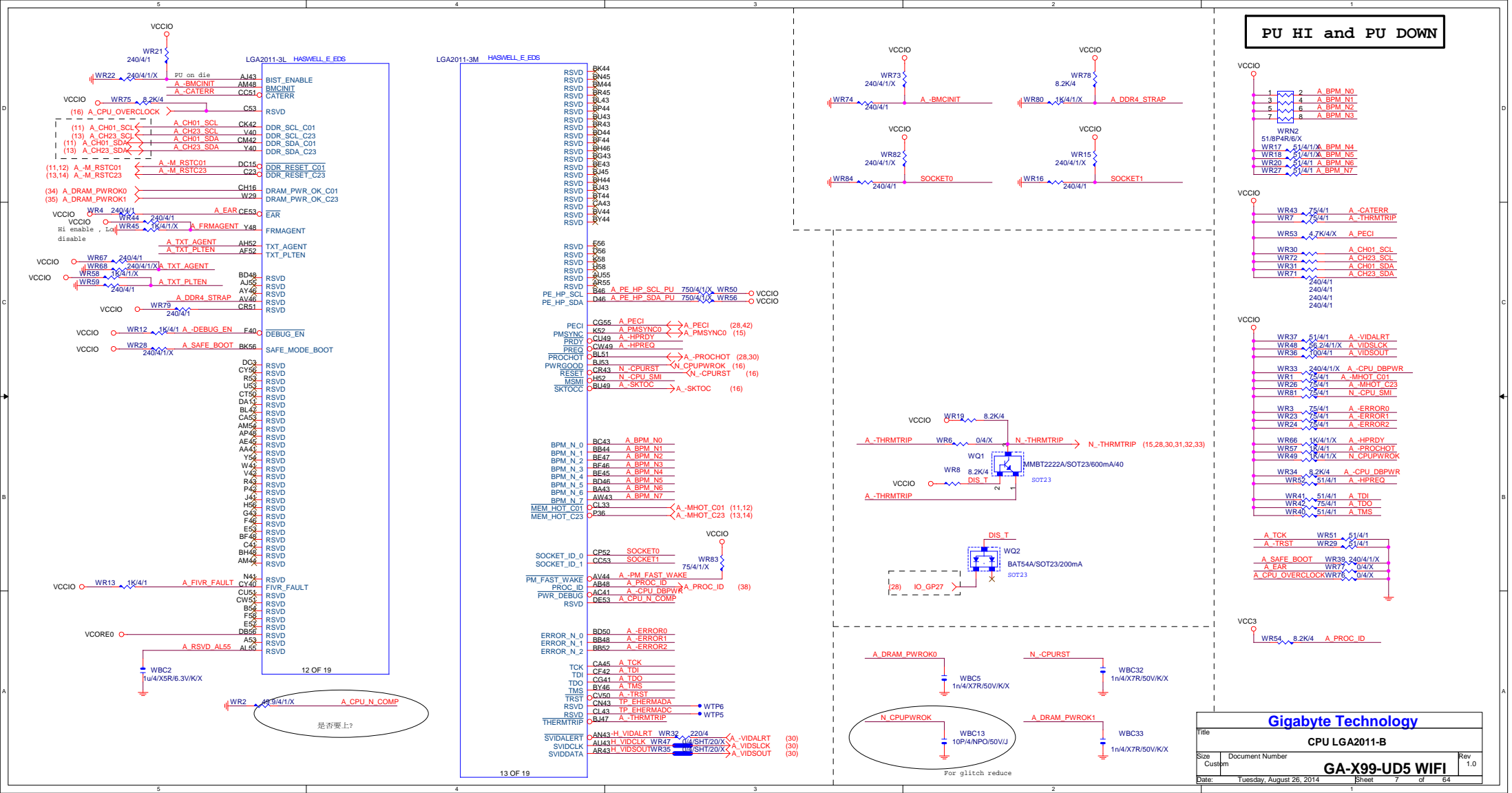
M DD0	D38	DDR3_DQ_0	DDR3_QQS_DP_0	E37	M_DQSD0
M DD1	B38	DDR3_DQ_1	DDR3_QQS_DN_0	C37	M_-DQSD0
M DD2	L37	DDR3_DQ_2			
M DD3	M38	DDR3_DQ_3	DDR3_QQS_DP_1	B32	M_DQSD1
M DD4	C39	DDR3_DQ_4	DDR3_QQS_DN_1	A33	M_-DQSD1
M DD5	J39	DDR3_DQ_5			
M DD6	G37	DDR3_DQ_6		M32	M_DQSD2
M DD7	K38	DDR3_DQ_7	DDR3_QQS_DP_2	K32	M_-DQSD2
M DD8	A35	DDR3_DQ_8			
M DD9	B34	DDR3_DQ_9	DDR3_QQS_DP_3	E25	M_DQSD3
M DD10	G31	DDR3_DQ_10	DDR3_QQS_DN_3	G25	M_-DQSD3
M DD11	E31	DDR3_DQ_11			
M DD12	F34	DDR3_DQ_12	DDR3_QQS_DP_4	H2	M_DQSD4
M DD13	E35	DDR3_DQ_13	DDR3_QQS_DN_4	G3	M_-DQSD4
M DD14	D32	DDR3_DQ_14			
M DD15	E33	DDR3_DQ_15		E7	M_DQSD5
M DD16	K34	DDR3_DQ_16	DDR3_QQS_DP_5	C7	M_-DQSD5
M DD17	M34	DDR3_DQ_17			
M DD18	K30	DDR3_DQ_18	DDR3_QQS_DP_6	AK2	M_DQSD6
M DD19	M30	DDR3_DQ_19	DDR3_QQS_DN_6	AJ1	M_-DQSD6
M DD20	J35	DDR3_DQ_20			
M DD21	L35	DDR3_DQ_21	DDR3_QQS_DP_7	AB4	M_DQSD7
M DD22	L31	DDR3_DQ_22	DDR3_QQS_DN_7	AA5	M_-DQSD7
M DD23	N31	DDR3_DQ_23			
M DD24	F28	DDR3_DQ_24	DDR3_QQS_DP_8	L25	
M DD25	E27	DDR3_DQ_25	DDR3_QQS_DN_8	N25	
M DD26	F24	DDR3_DQ_26			
M DD27	E23	DDR3_DQ_27	DDR3_QQS_DP_9	E38	
M DD28	G29	DDR3_DQ_28	DDR3_QQS_DN_9	H38	
M DD29	F29	DDR3_DQ_29			
M DD30	C25	DDR3_DQ_30	DDR3_QQS_DP_10	C35	
M DD31	B24	DDR3_DQ_31	DDR3_QQS_DN_10	D34	
M DD32	K4	DDR3_DQ_32			
M DD33	H4	DDR3_DQ_33	DDR3_QQS_DP_11	J33	
M DD34	J1	DDR3_DQ_34	DDR3_QQS_DN_11	L33	
M DD35	L1	DDR3_DQ_35			
M DD36	P4	DDR3_DQ_36	DDR3_QQS_DP_12	E26	
M DD37	N3	DDR3_DQ_37	DDR3_QQS_DN_12	D26	
M DD38	K2	DDR3_DQ_38			
M DD39	R3	DDR3_DQ_39	DDR3_QQS_DP_13	M4	
M DD40	E9	DDR3_DQ_40	DDR3_QQS_DN_13	L3	
M DD41	F8	DDR3_DQ_41			
M DD42	E5	DDR3_DQ_42	DDR3_QQS_DP_14	B8	
M DD43	F6	DDR3_DQ_43	DDR3_QQS_DN_14	D8	
M DD44	C9	DDR3_DQ_44			
M DD45	A9	DDR3_DQ_45	DDR3_QQS_DP_15	AH4	
M DD46	D6	DDR3_DQ_46	DDR3_QQS_DN_15	AJ5	
M DD47	G7	DDR3_DQ_47			
M DD48	AG3	DDR3_DQ_48	DDR3_QQS_DP_16	V6	
M DD49	AG1	DDR3_DQ_49	DDR3_QQS_DN_16	W5	
M DD50	AL3	DDR3_DQ_50			
M DD51	AL5	DDR3_DQ_51	DDR3_QQS_DP_17	M26	
M DD52	AG5	DDR3_DQ_52	DDR3_QQS_DN_17	K26	
M DD53	AE3	DDR3_DQ_53			
M DD54	AJ3	DDR3_DQ_54			
M DD55	AL1	DDR3_DQ_55			
M DD56	V4	DDR3_DQ_56			
M DD57	W3	DDR3_DQ_57			
M DD58	AC5	DDR3_DQ_58			
M DD59	AE5	DDR3_DQ_59			
M DD60	U5	DDR3_DQ_60			
M DD61	V6	DDR3_DQ_61			
M DD62	AC3	DDR3_DQ_62			
M DD63	AB6	DDR3_DQ_63			
L27		DDR3_ECC_0			
J27		DDR3_ECC_1			
L23		DDR3_ECC_2			
J23		DDR3_ECC_3			
K28		DDR3_ECC_4			
M28		DDR3_ECC_5			
M24		DDR3_ECC_6			
K24		DDR3_ECC_7			

9 OF 19

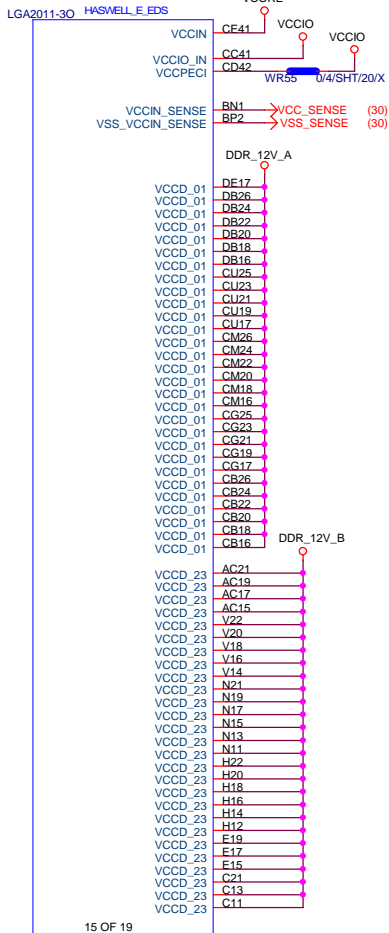
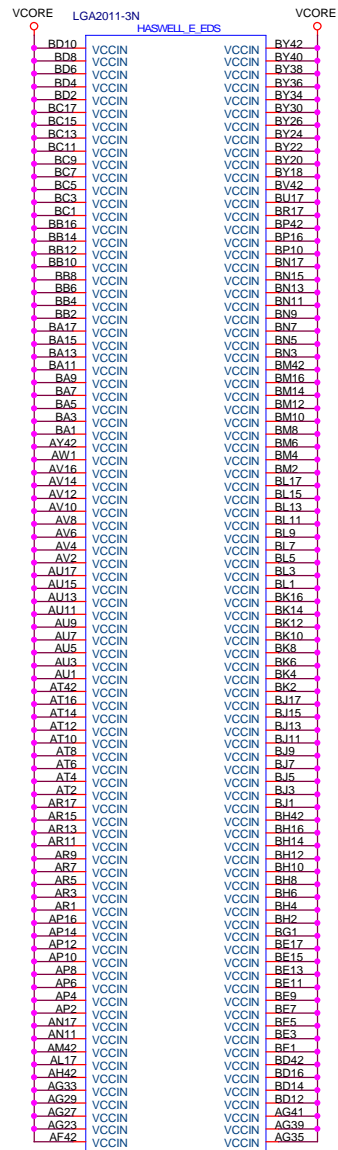
(14) M_DD[0..63] <— M_DD[0..63]
 (14) M_DQSD[0..7] <— M_DQSD[0..7]
 (14) M_-DQSD[0..7] <— M_-DQSD[0..7]

Gigabyte Technology

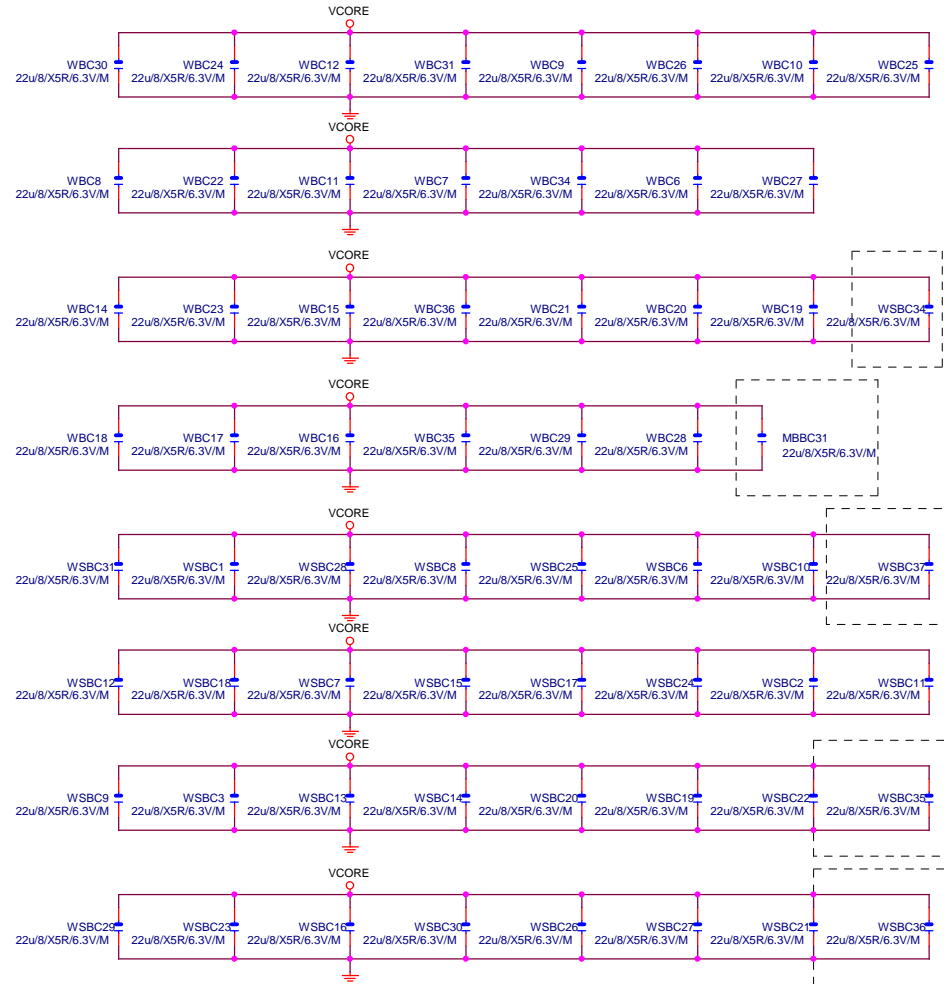
Title			CPU LGA2011-A		
Size			Document Number		
Custom			GA-X99-UD5 WIFI		
Date:			Tuesday, August 26, 2014		
			Sheet 6 of 64		
			Rev 1.0		



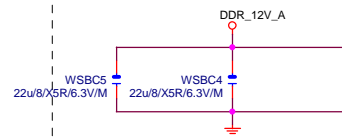
Gigabyte Technology			
Title			
CPU LGA2011-B			
Size	Document Number		Rev
Custom	GA-X99-UD5 WIFI		1.0
Date:	Tuesday, August 26, 2014	Sheet	8 of 64



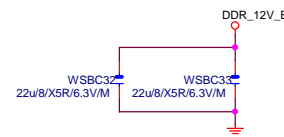
VCORE



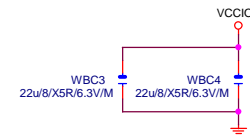
DDR_12V_A



DDR_12V_B

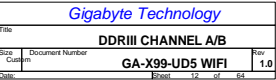


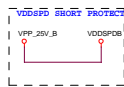
VCCIO



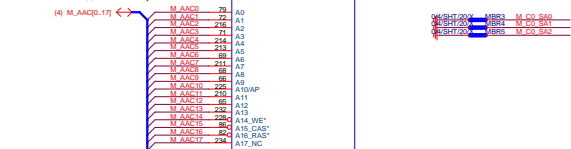
Gigabyte Technology

Title			CPU LGA2011-C		
Size			Document Number		
Custom			GA-X99-UD5 WIFI		
Date:			Rev 1.0		
Tuesday, August 26, 2014			Sheet 9 of 64		



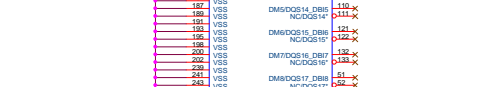


(c) M_DQ[0..63]	92	VDD	DQ23	177	M_DQ[23]
	204	VDD	DQ24	38	M_DQ[24]
(d) M_AAQ[0..17]	206	VDD	DQ25	183	M_DQ[25]
	209	VDD	DQ26	46	M_DQ[26]
(e) M_DQSC[0..7]	212	VDD	DQ27	190	M_DQ[27]
	215	VDD	DQ28	36	M_DQ[28]
(f) M_DQSC[0..7]	217	VDD	DQ29	181	M_DQ[29]

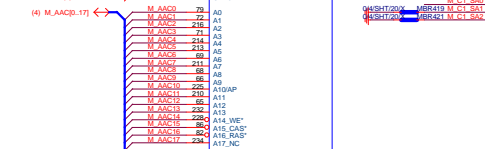


CHANNEL C

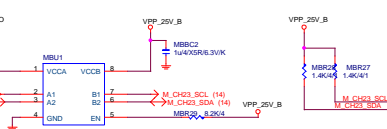
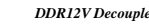
灰，短邊單耳扣，DIP



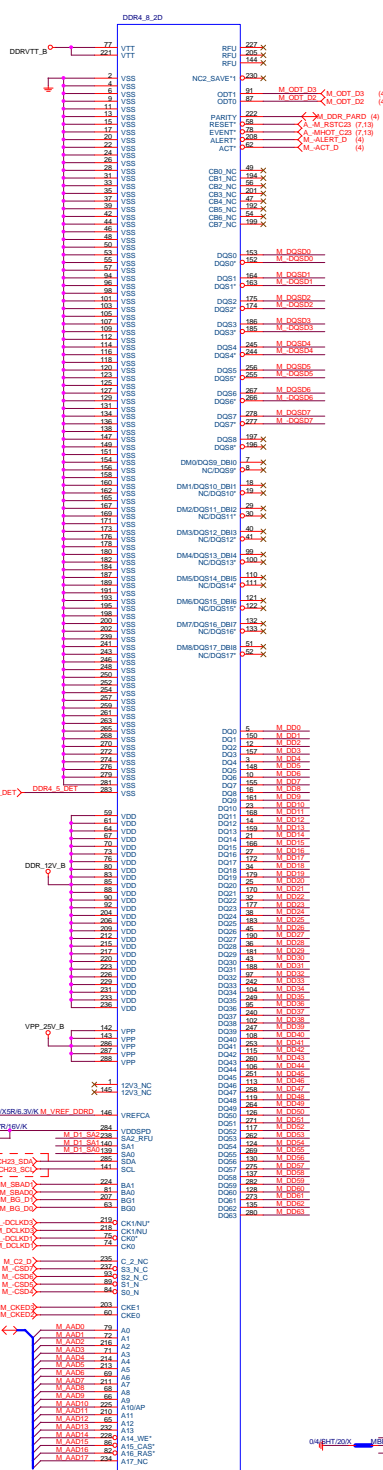
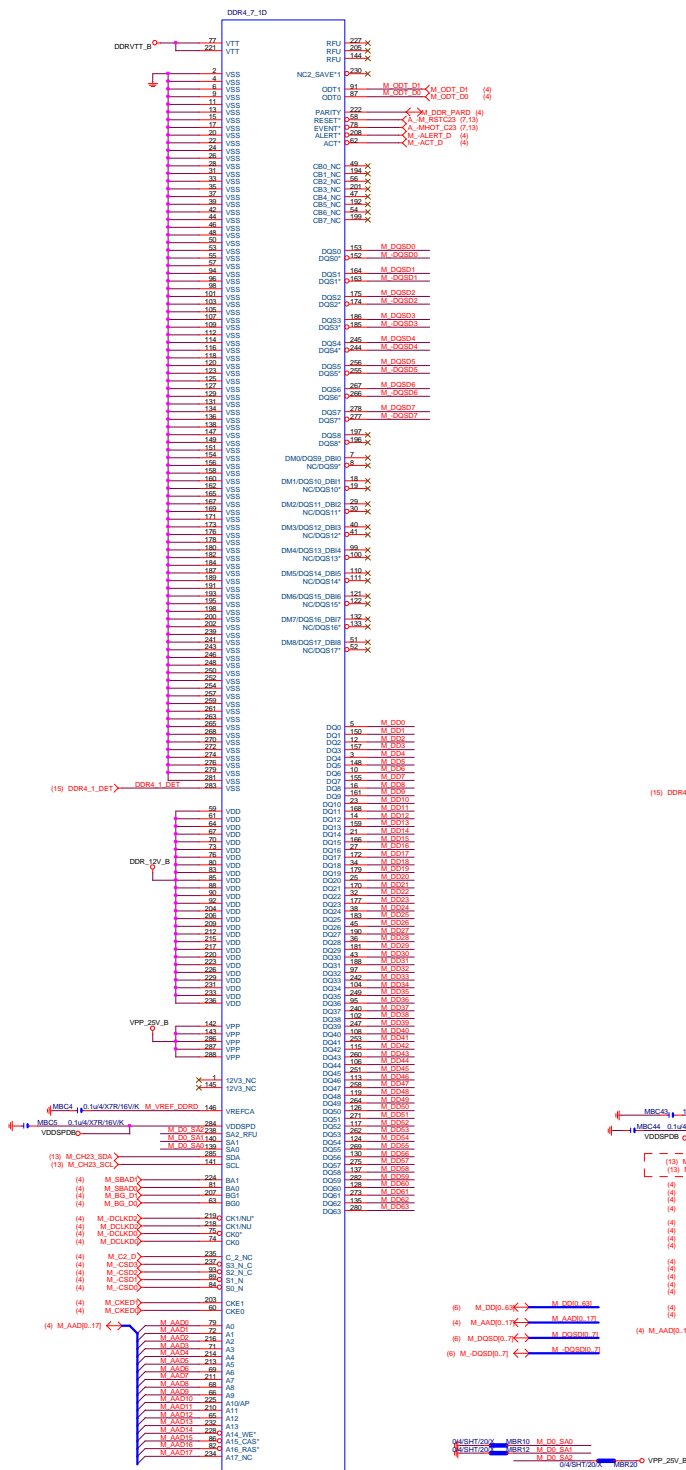
92	VDD	DC23	177	M	DC23
204	VDD	DC24	38	M	DC24
206	VDD	DC25	183	M	DC25
208	VDD	DC26	45	M	DC26
212	VDD	DC27	190	M	DC27
215	VDD	DC28	36	M	DC28
217	VDD	DC29	181	M	DC29



黑，短邊單耳扣，DIP SA2:0=001



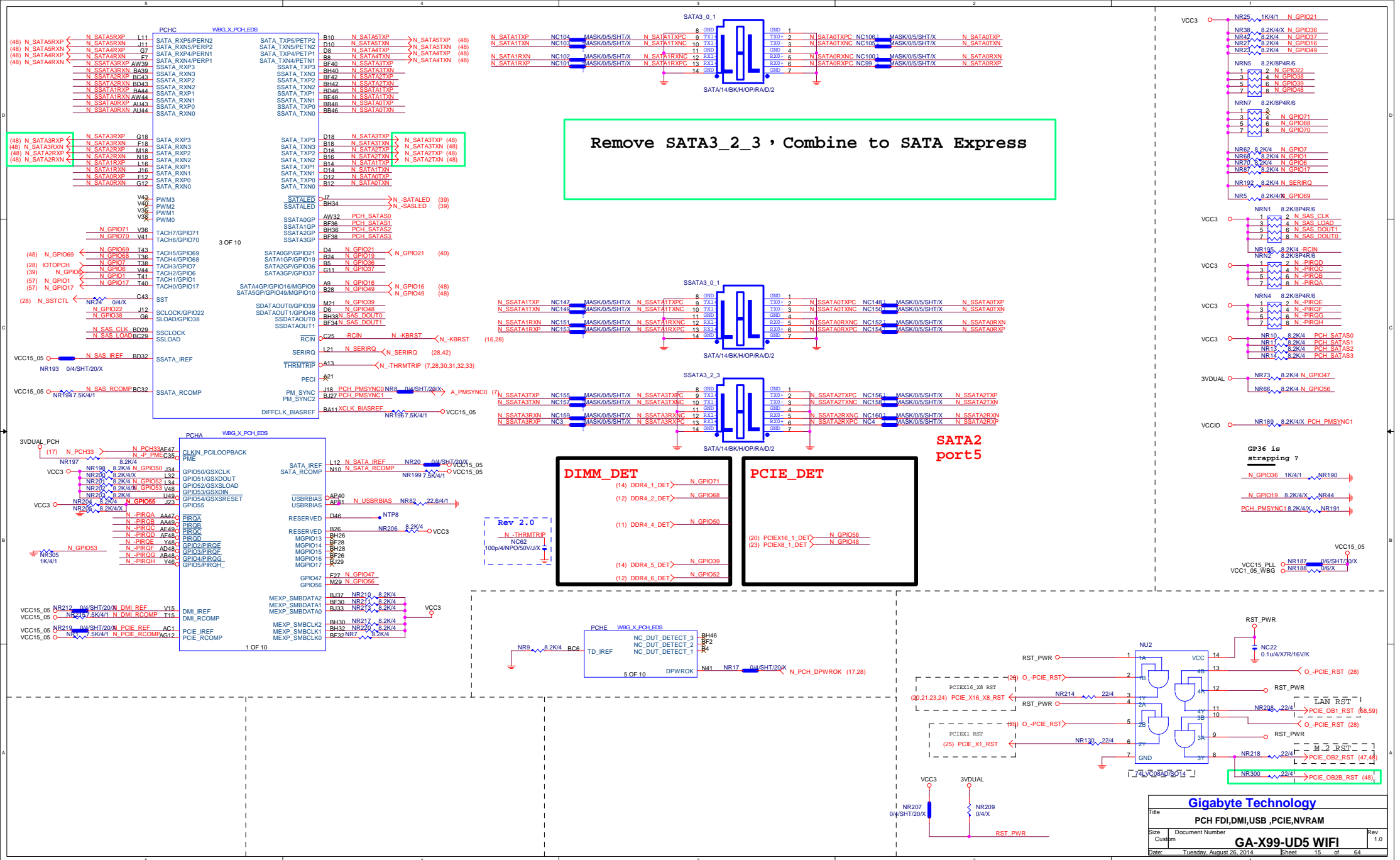
<i>Gigabyte Technology</i>			
DDRIII CHANNEL C/D			
Size	Document Number		Rev
Custom	GA-X99-UD5 WIFI		1.0
Date:		Sheet 13 of 64	

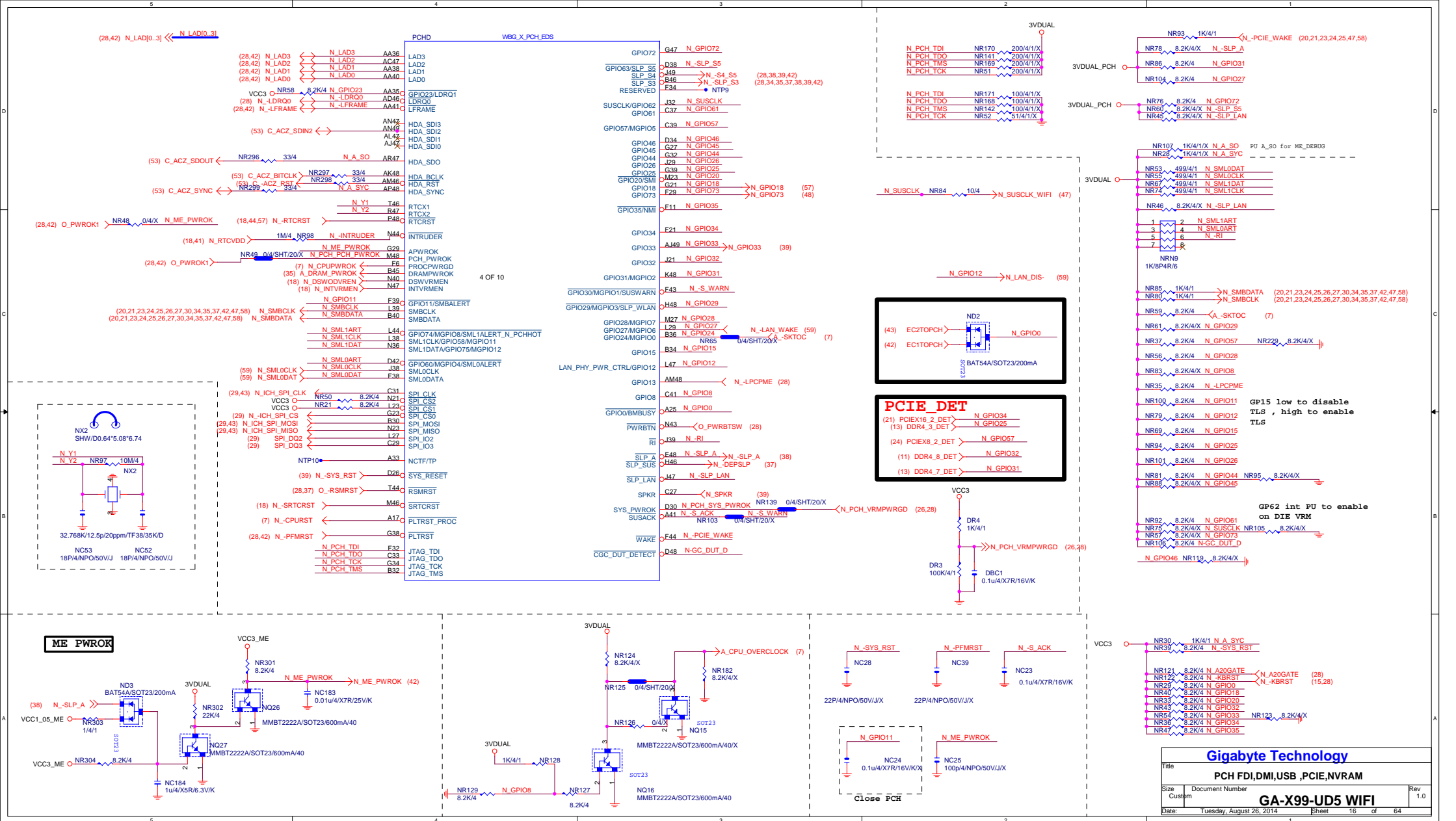


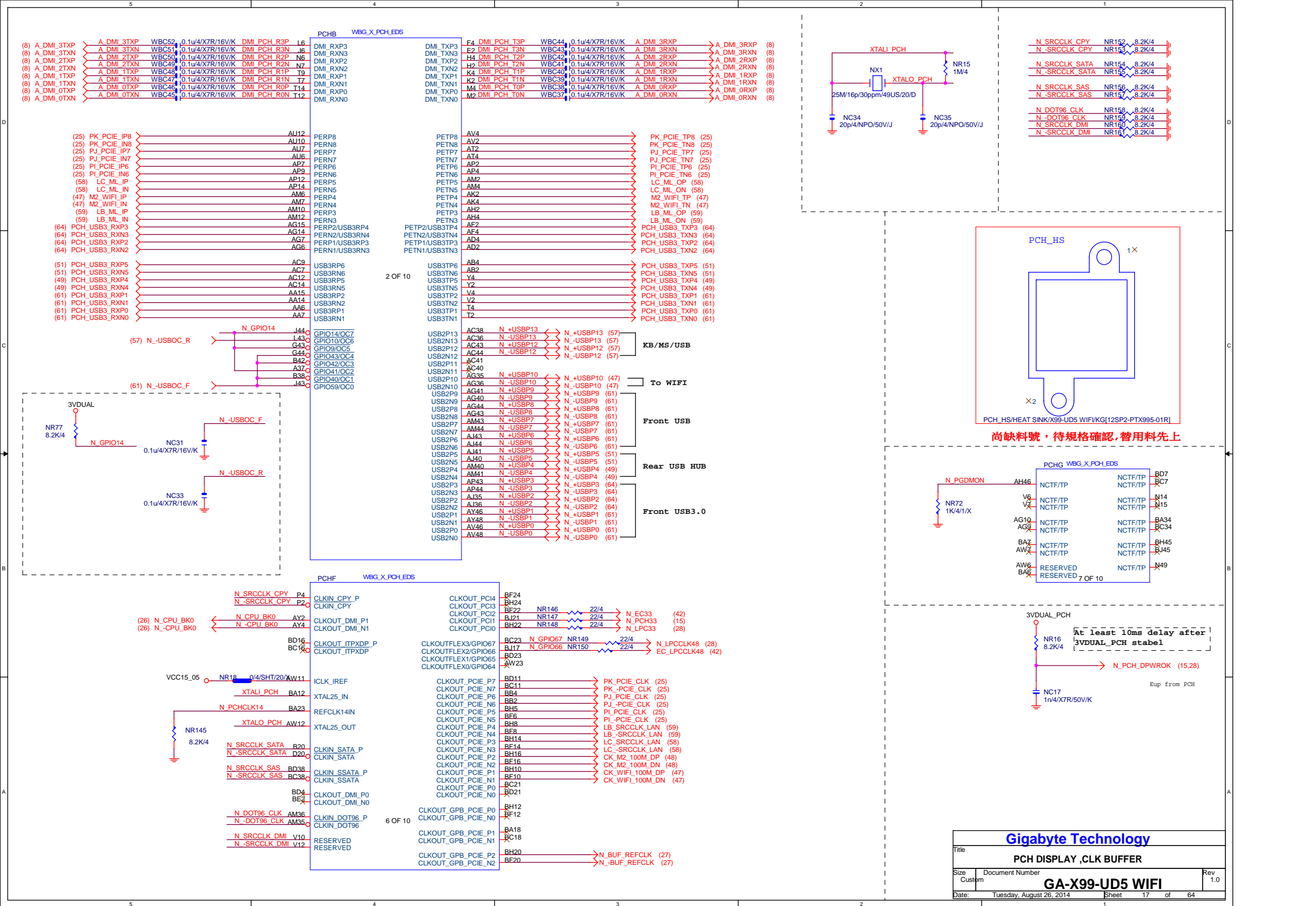
灰，短邊單耳扣，DIP
CHANNEL D
SA2:0=100

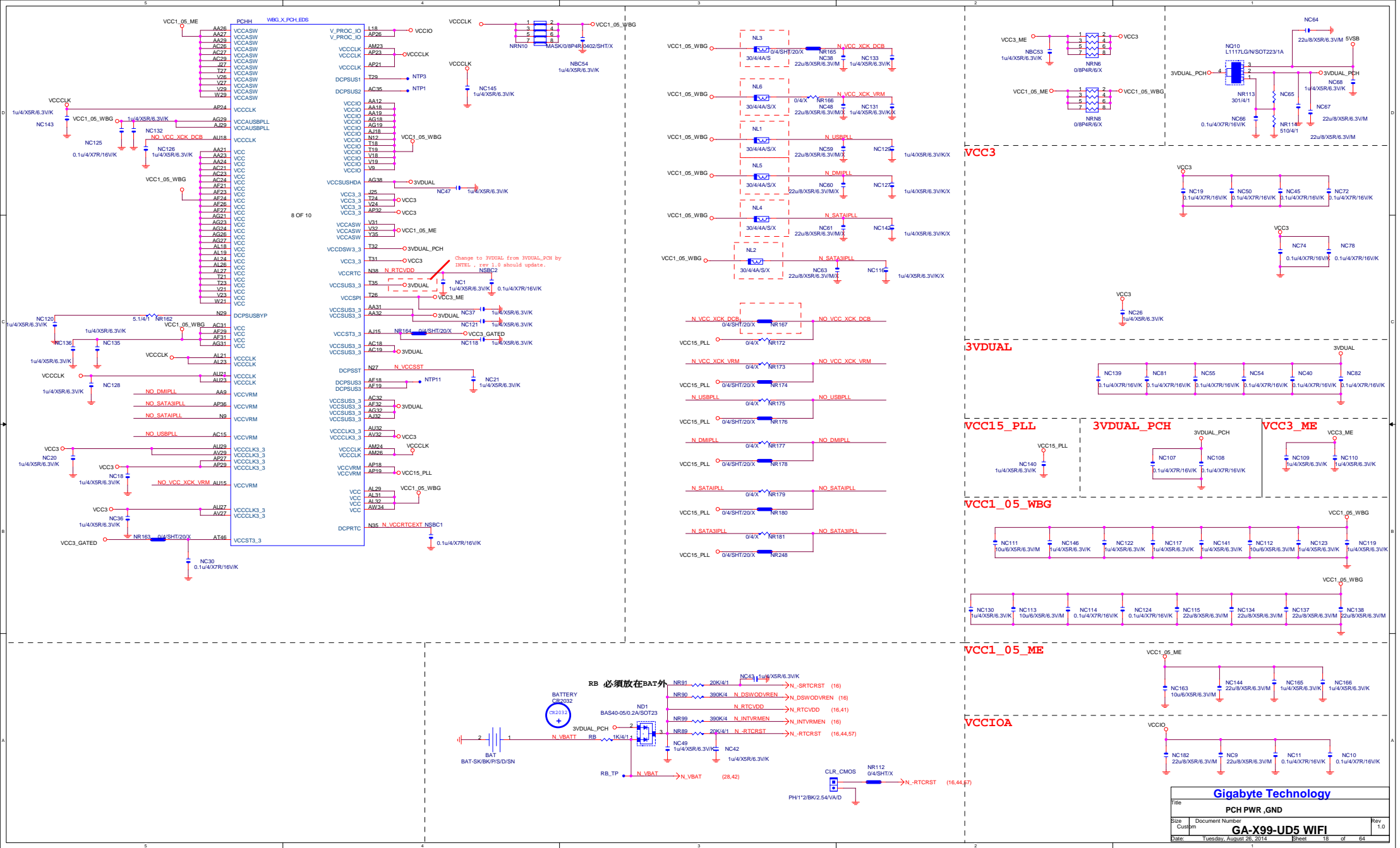
黑，短邊單耳扣，DIP
CHANNEL D
SA2:0=101

Gigabyte Technology		
Rev	DDRIII CHANNEL C/D	
Doc	Document Number	Rev
GA-X99-UD5 WIFI		1.0
Rev	Doc	Rev









PCHI WBG_X_PCH_EDS		
AT41	VSS	BC39
AT44	VSS	BC44
AT48	VSS	BC47
AT6	VSS	BC49
AT9	VSS	BD12
AU1	VSS	BD14
AU14	VSS	BD18
AU3	VSS	BD20
AU35	VSS	BD25
AU36	VSS	BD27
AU38	VSS	BD30
AU40	VSS	BD34
AU41	VSS	BD36
AU49	VSS	BD39
AU9	VSS	BD41
AV18	VSS	BD44
AV20	VSS	BD6
AV21	VSS	BD9
AV23	VSS	BF18
AV25	VSS	BF4
AV30	VSS	BF44
AW1	VSS	BF46
AW16	VSS	BF48
AW18	VSS	BG11
AW21	VSS	BG13
AW27	VSS	BG15
AW29	VSS	BG17
AW3	VSS	BG19
AW38	VSS	BG21
AW43	VSS	BG23
AW47	VSS	BG25
AW49	VSS	BG27
B22	VSS	BG29
BA1	VSS	BG31
BA14	VSS	BG33
BA16	VSS	BG35
BA20	VSS	BG37
BA21	VSS	BG39
BA25	VSS	BG41
BA27	VSS	BG43
BA29	VSS	BG7
BA3	VSS	BG9
BA30	VSS	BH18
BA32	VSS	BH4
BA36	VSS	B111
BA38	VSS	B113
BA41	VSS	B115
BA43	VSS	B119
BA47	VSS	B123
BA49	VSS	B125
BA9	VSS	B131
BC12	VSS	B135
BC27	VSS	B139
BC3	VSS	B141
A13	VSS	B143
A131	VSS	B17
A138	VSS	B19
A16	VSS	C11
A17	VSS	C13
A19	VSS	C15
AK12	VSS	C17
AK15	VSS	C19
AK35	VSS	AM38
AK38	VSS	AM9
AK41	VSS	AN1
AK44	VSS	AN3
AK46	VSS	AP10
AK6	VSS	AP15
AK9	VSS	AP31
AL1	VSS	AP35
AL3	VSS	AP38
AL49	VSS	AP46
AM14	VSS	AP6
AM15	VSS	AR1
AM18	VSS	AR3
AM19	VSS	AR49
AM21	VSS	AT12
AM27	VSS	AT15
AM29	VSS	AT35
AM31	VSS	AT38
AM32	VSS	A127

L1117LG/N/SOT223/1A

PCHJ WBG_X_PCH_EDS		
AA1	VSS	A11
AA10	VSS	A15
AA3	VSS	A19
AA43	VSS	A23
AA44	VSS	A27
AB46	VSS	A29
AC10	VSS	A31
AC3	VSS	A35
AC49	VSS	A39
AC6	VSS	A43
AD18	VSS	C21
AD19	VSS	C23
AD21	VSS	C7
AD23	VSS	C9
AD24	VSS	D22
AD26	VSS	D24
AD27	VSS	D28
AD29	VSS	D32
AD31	VSS	D36
AD32	VSS	D40
AE1	VSS	D44
AE12	VSS	F14
AE15	VSS	F16
AE3	VSS	F20
AE35	VSS	F23
AE38	VSS	F25
AE41	VSS	F30
AE44	VSS	F36
AE6	VSS	F41
AE9	VSS	F46
AF46	VSS	F9
AG1	VSS	G16
AG3	VSS	G3
AG47	VSS	G49
AG49	VSS	J1
AH48	VSS	J14
A11	VSS	J20
A110	VSS	J3
A112	VSS	J30
A114	VSS	J36
A119	VSS	J41
A121	VSS	J9
A123	VSS	K46
A124	VSS	L1
A126	VSS	Y12
L3	VSS	Y15
L49	VSS	Y38
L7	VSS	Y41
M20	VSS	Y44
M25	VSS	Y6
M30	VSS	Y9
M32	VSS	U1
N1	VSS	U3
N3	VSS	U47
N32	VSS	V14
P12	VSS	V46
P15	VSS	W1
P35	VSS	W18
P38	VSS	W19
P41	VSS	W23
P44	VSS	W24
P46	VSS	W26
P6	VSS	W27
P9	VSS	W3
R1	VSS	W31
R3	VSS	W32
R49	VSS	W47
T10	VSS	W49
AU47	VSS	T48
	VSS	T6
A4	VSS	G1
A45	VSS	BH2
A46	VSS	BH48
A48	VSS	BH49
A5	VSS	B12
A7	VSS	B14
B2	VSS	B146
B48	VSS	B148
B49	VSS	B15
BC1	VSS	D1
BE1	VSS	D2
BE49	VSS	D49
BF1	VSS	E1
BF49	VSS	E49
BH1	VSS	

Gigabyte Technology

Title			
PCH PWR ,GND			
Size	Document Number	Rev	
Custom	GA-X99-UD5 WIFI	1.0	
Date:	Tuesday, August 26, 2014	Sheet	19 of 64

PCIE_1 3GIO_*16

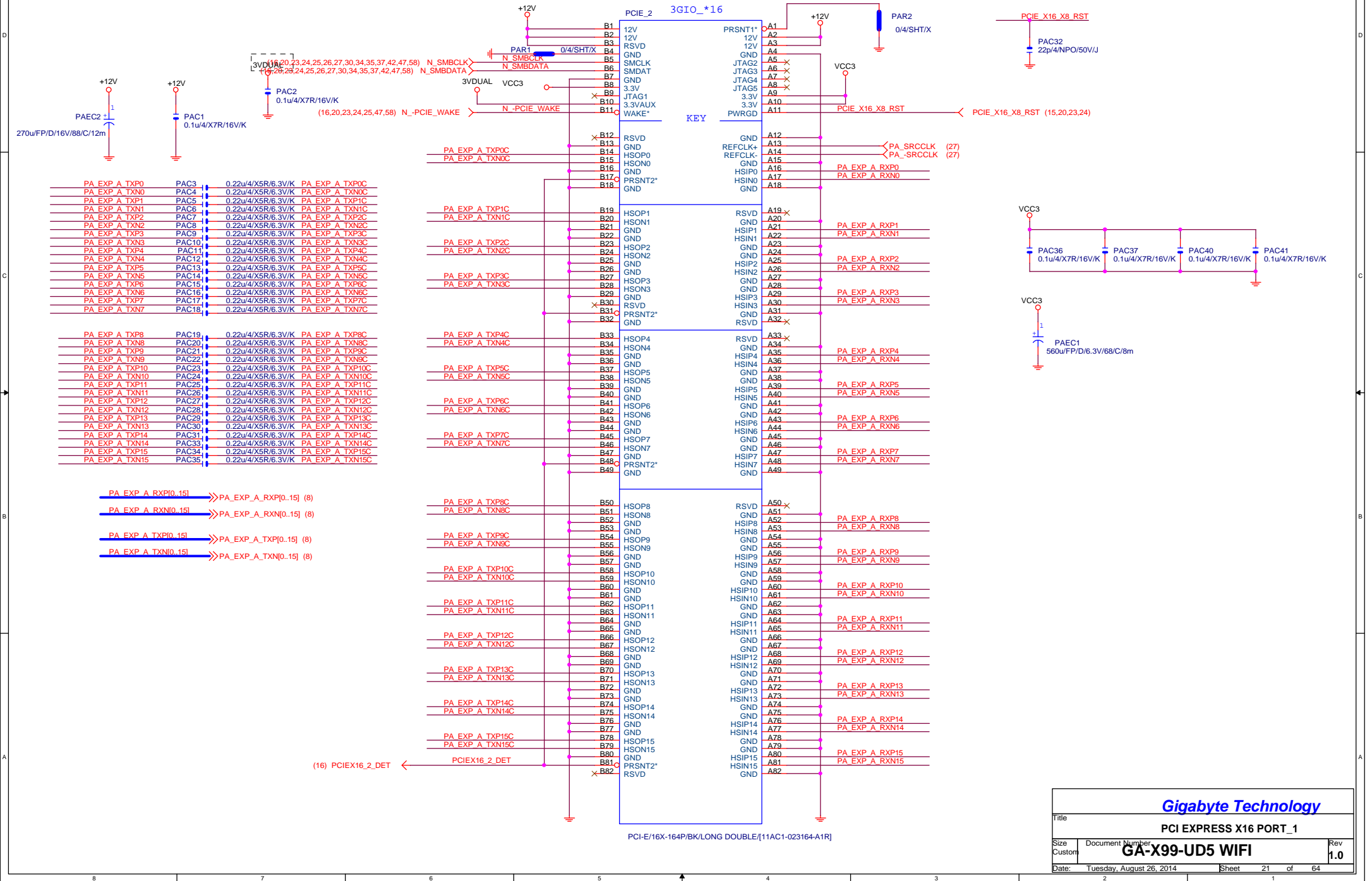


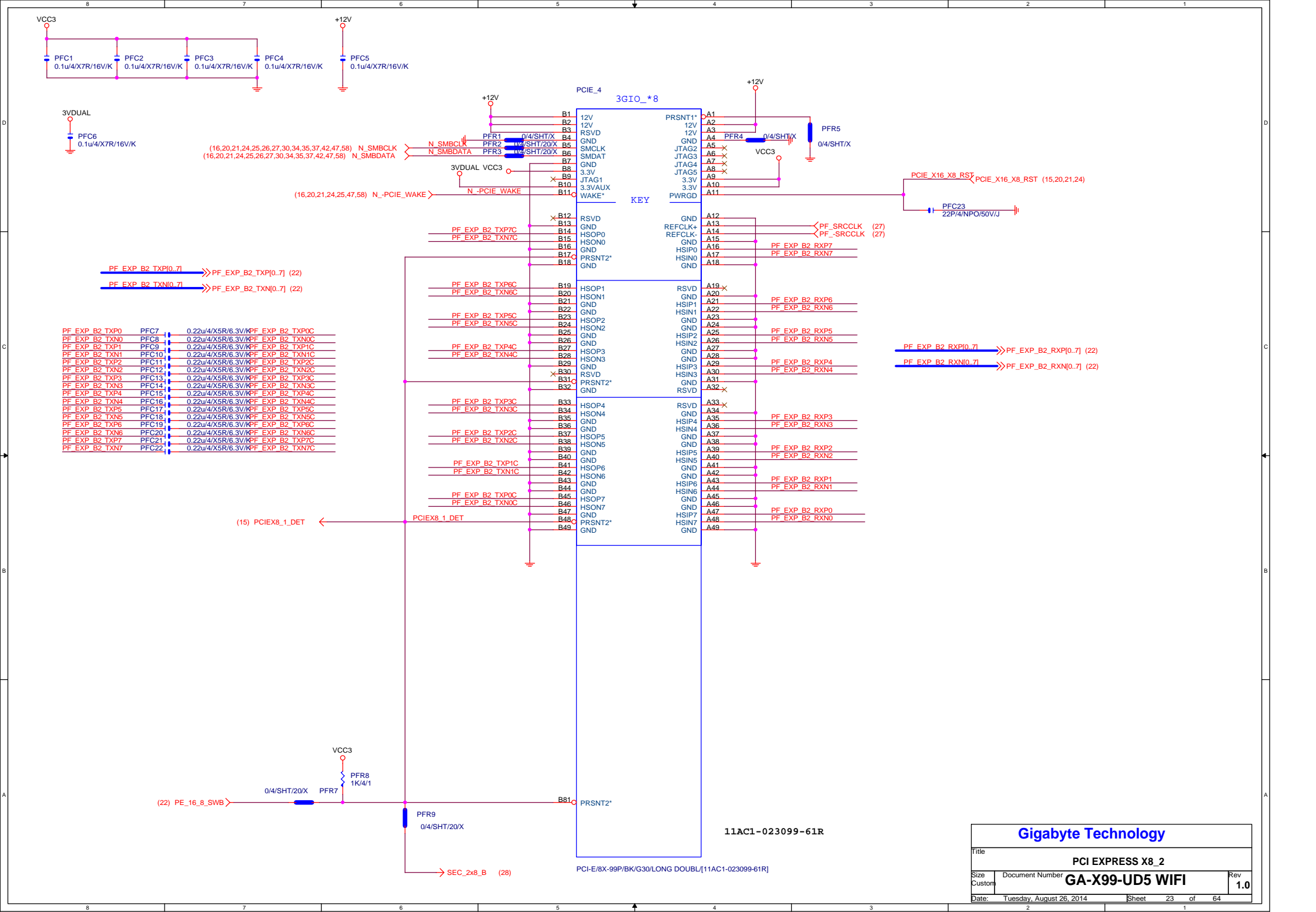
11AC1-023164-A1R

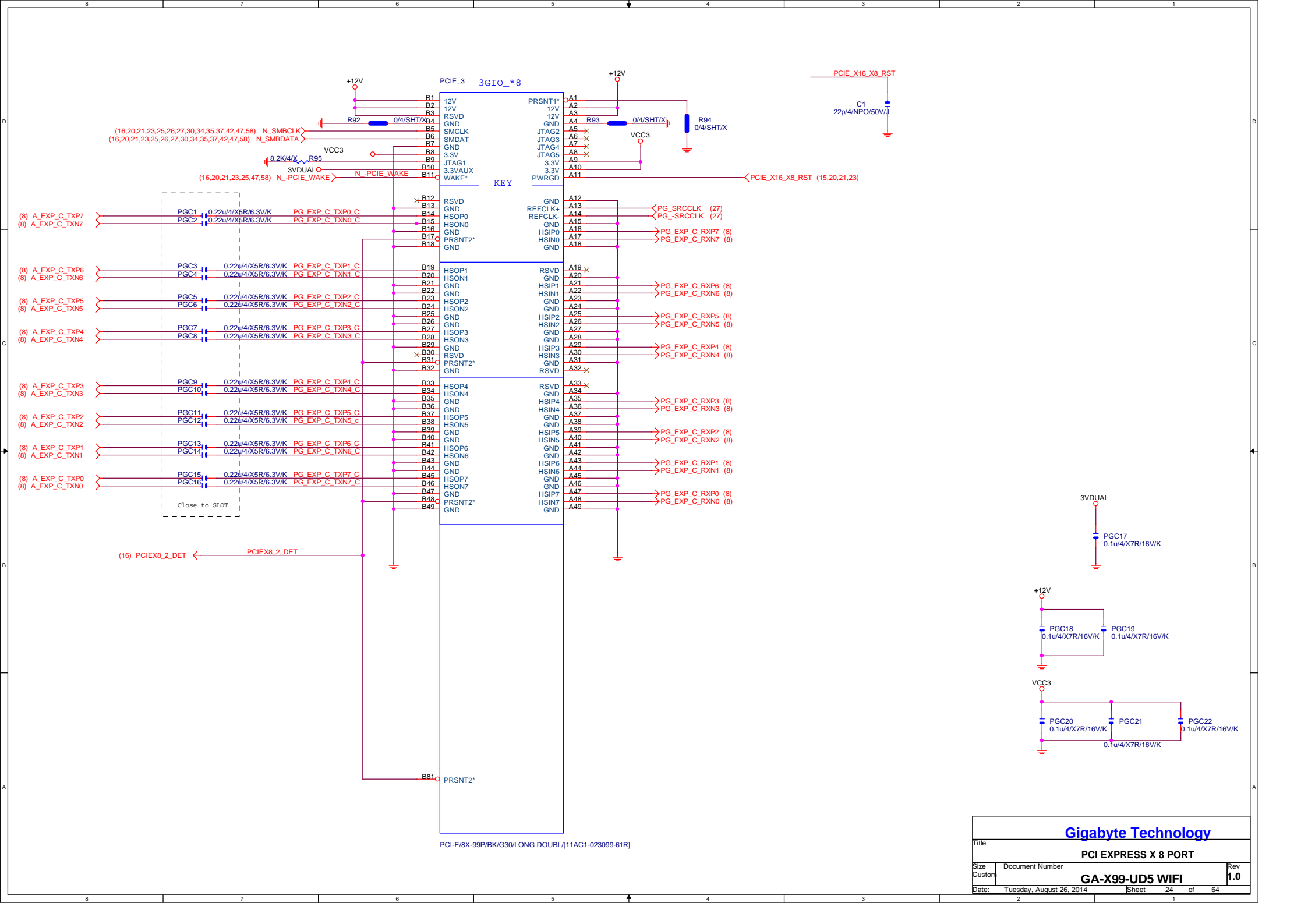
PCI EXPRESS X16 PORT_2

--	--

PCIE_2 3GIO_*16

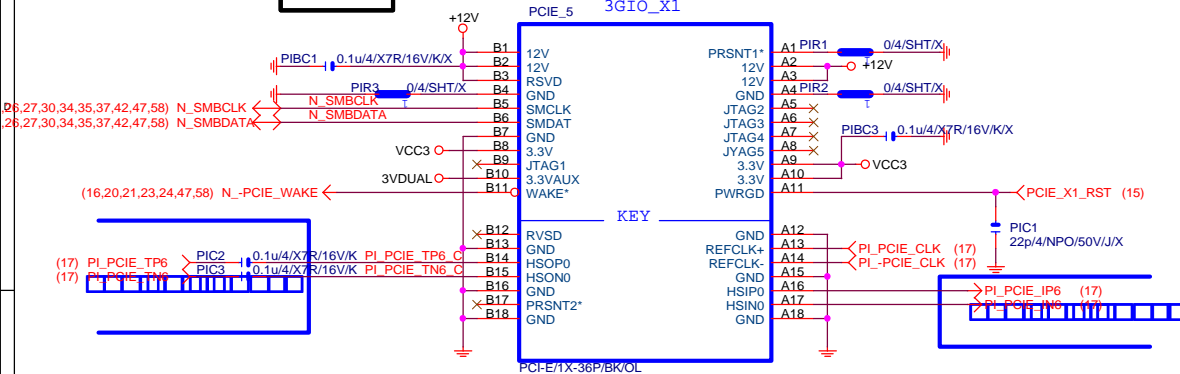




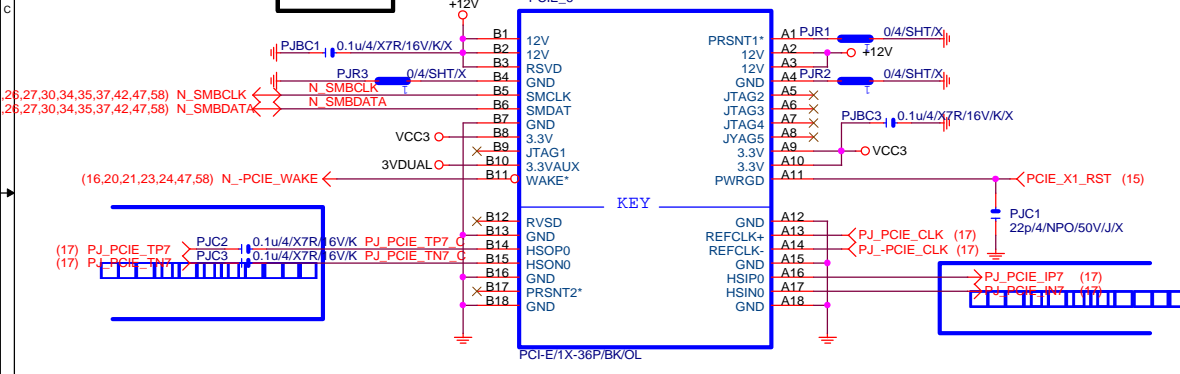


PCIEX1 SLOT

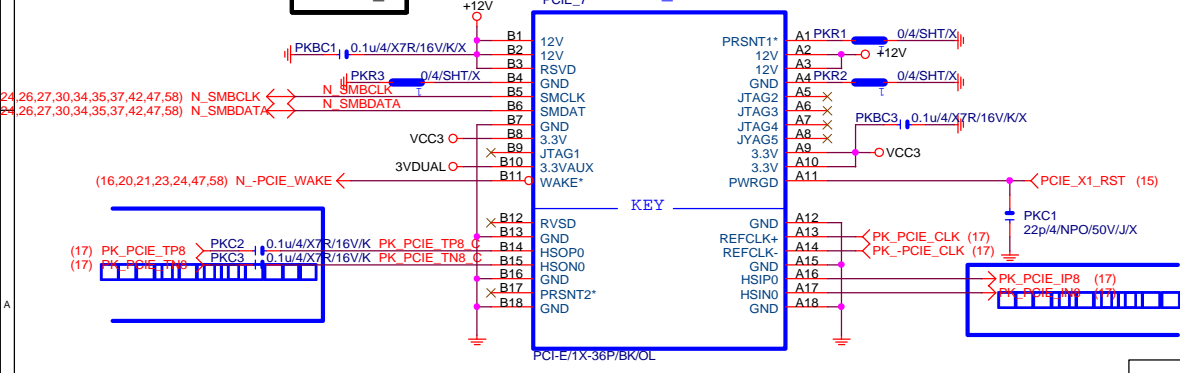
PCIEX1_1



PCIEX1_2

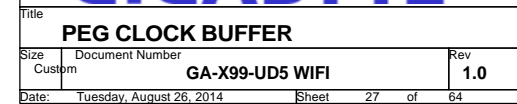
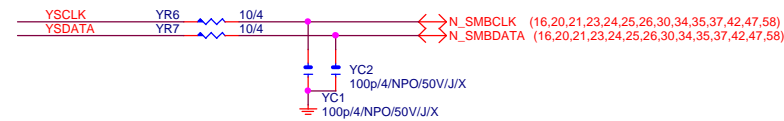
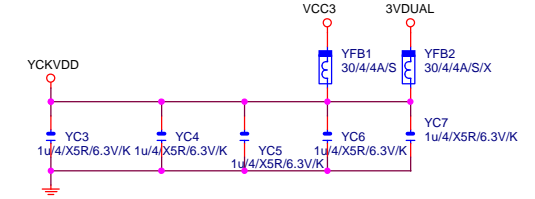
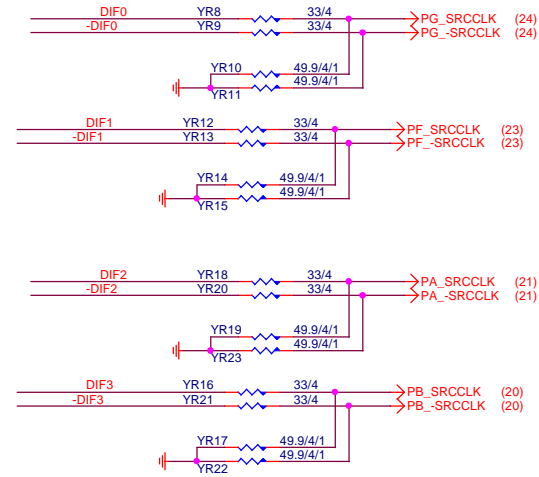
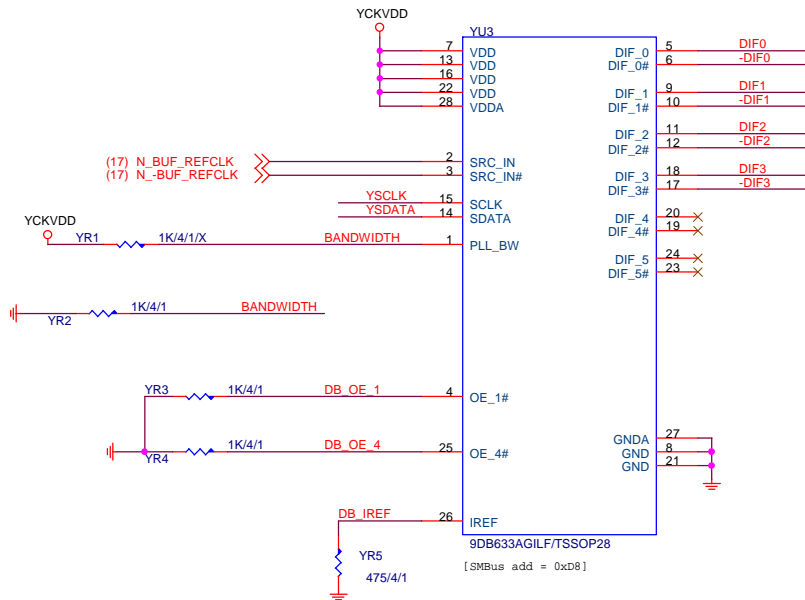


PCIEX1_3

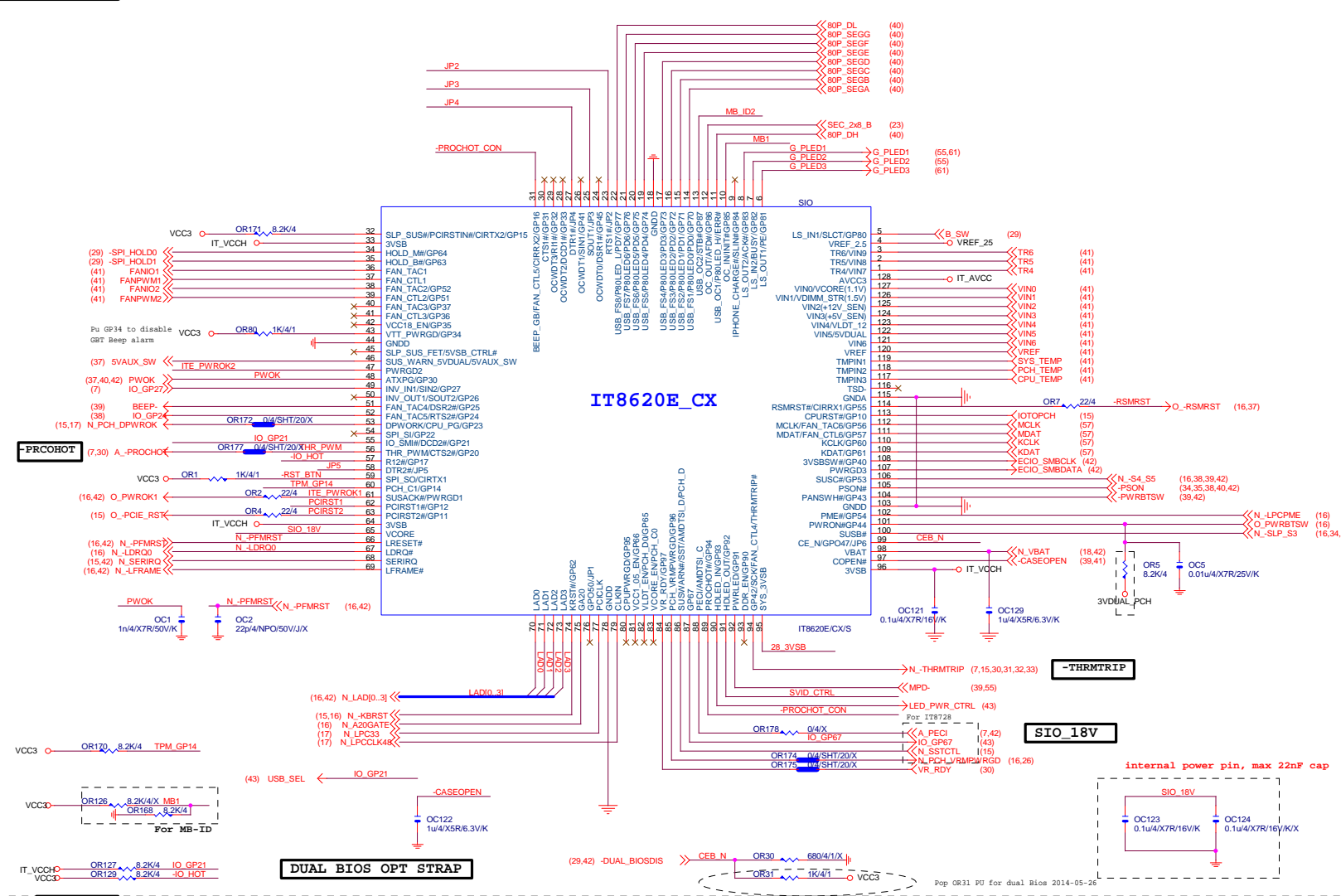


Gigabyte Technology

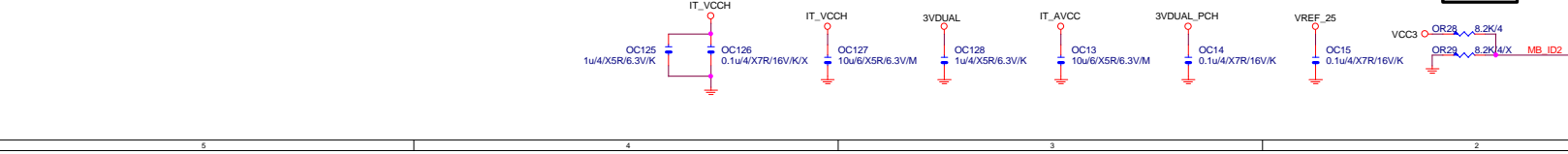
Title			PCIE_X1 1,2,3
Size	Document Number	GA-X99-UD5 WIFI	
Custom		Rev	1.0
Date:	Tuesday, August 26, 2014	Sheet	25 of 64



SIO IT8620



SIO CAP



SIO PU

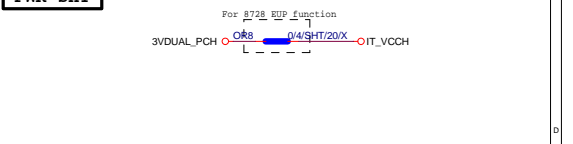


SIO STRAP

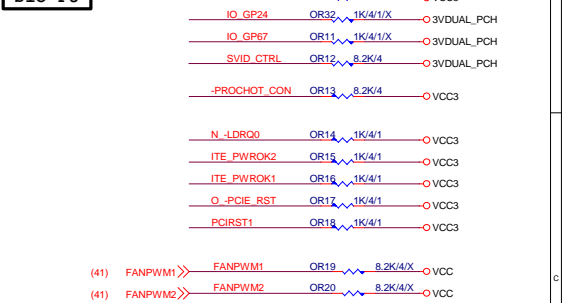


Power leakage

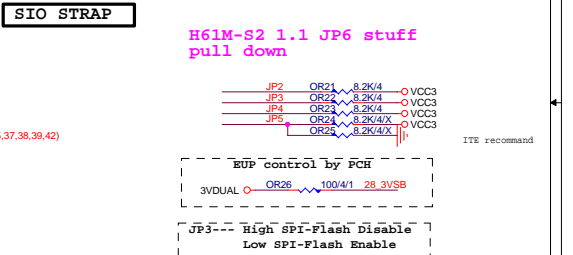
PWR SHT



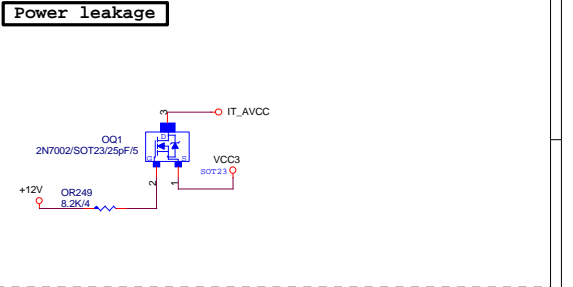
SIO PU



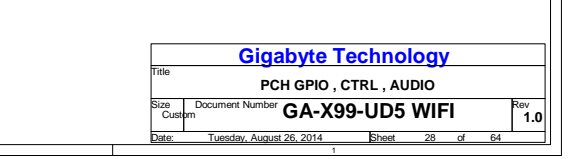
SIO STRAP



Power leakage



MB ID



Gigabyte Technology

PCH GPIO, CTRL, AUDIO

GA-X99-UD5 WIFI

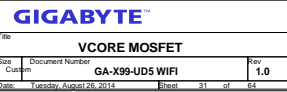
Rev 1.0

Document Number

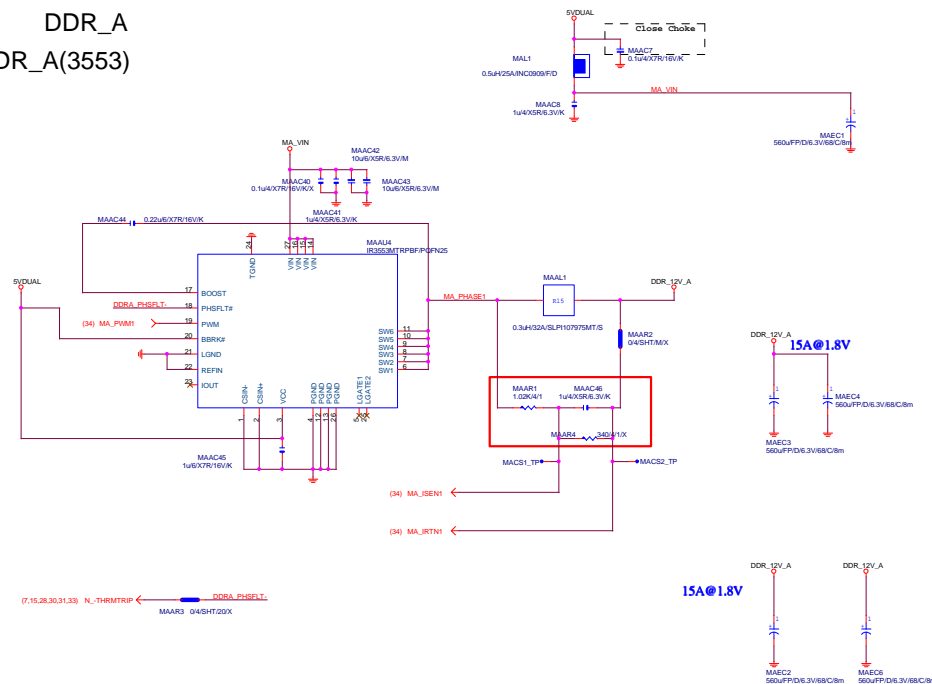
Size Custom

Date: Tuesday, August 26, 2014

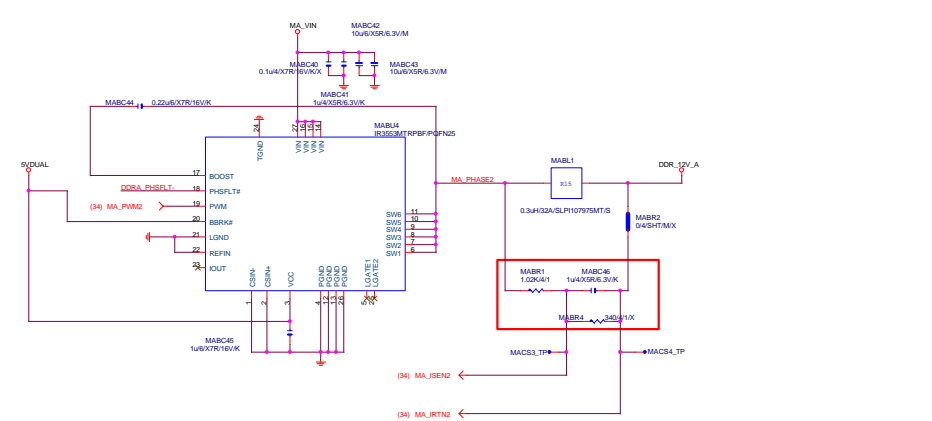
Sheet 28 of 64



DDR_A
DDR_A(3553)

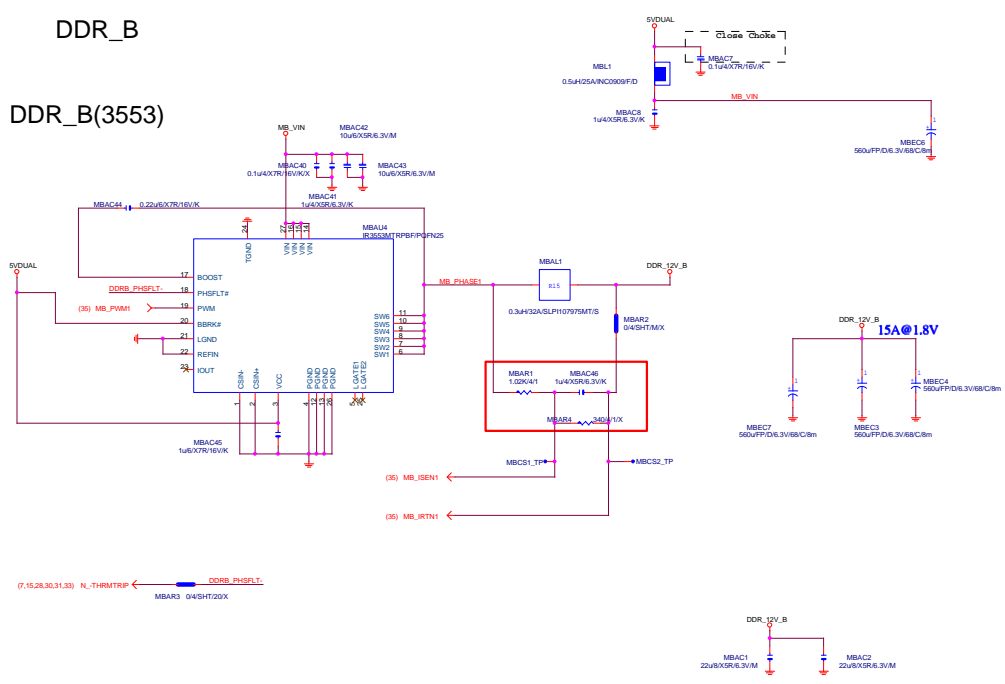


DDR_A(3553)

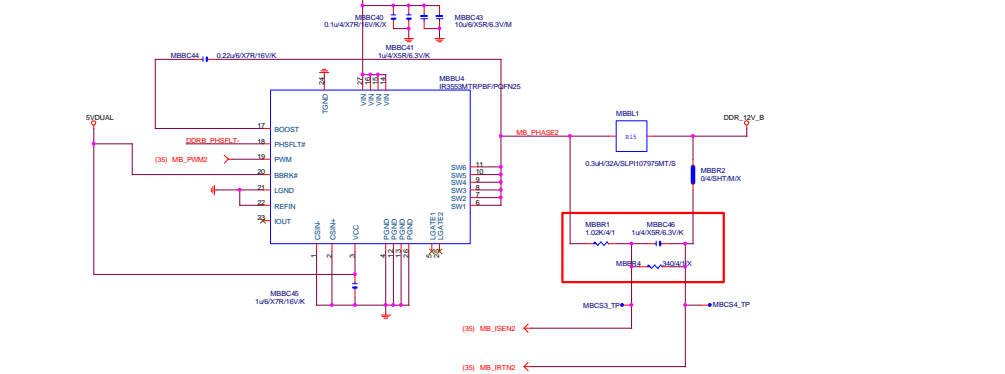


DDR_B

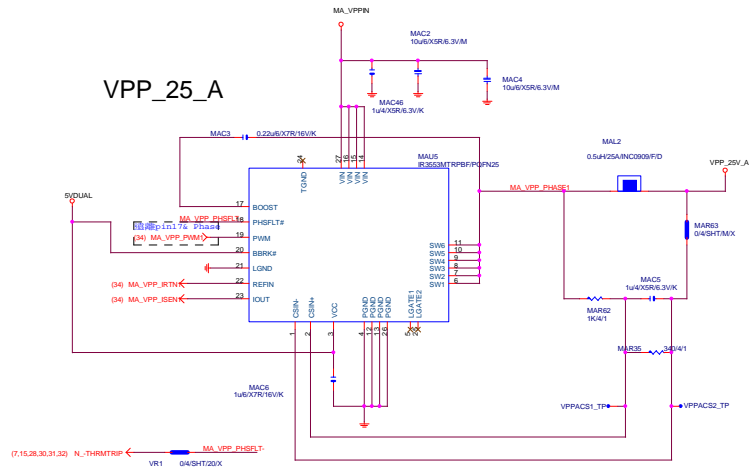
DDR_B(3553)



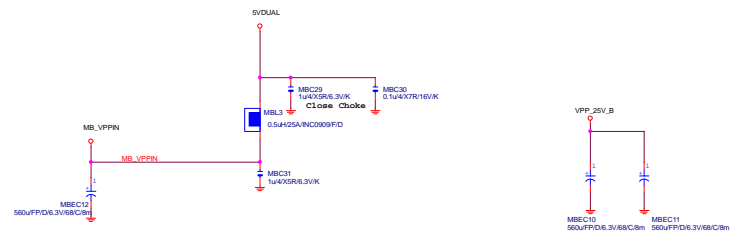
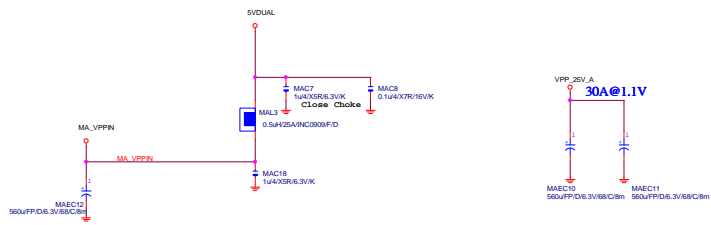
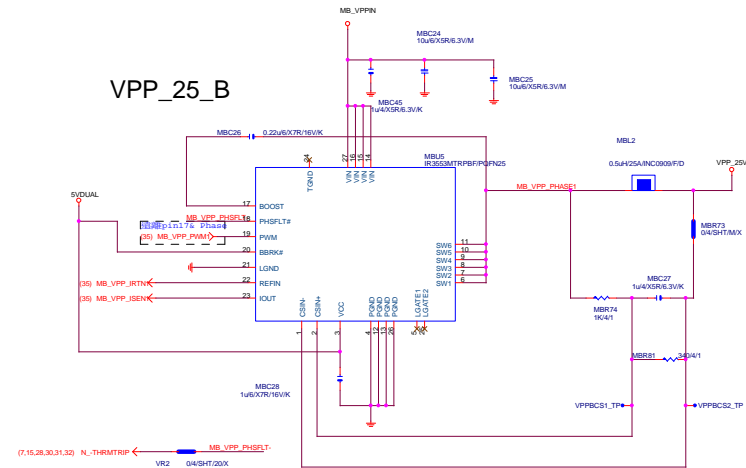
DDR_B(3553)



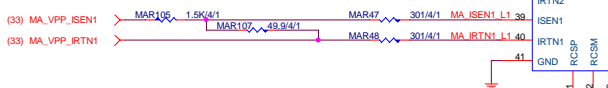
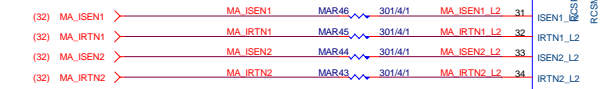
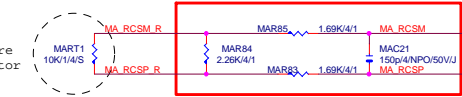
VPP_25_A



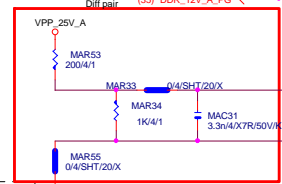
VPP_25_B



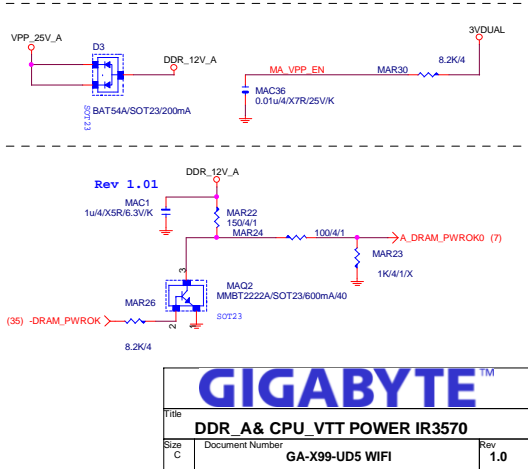
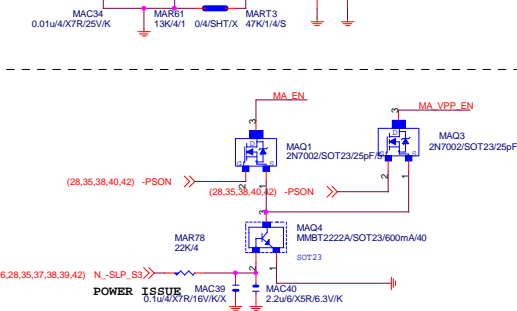
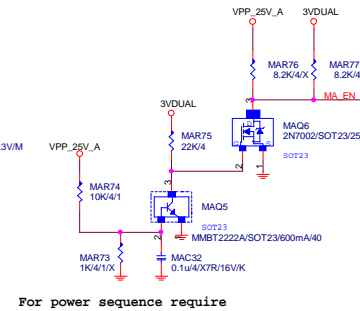
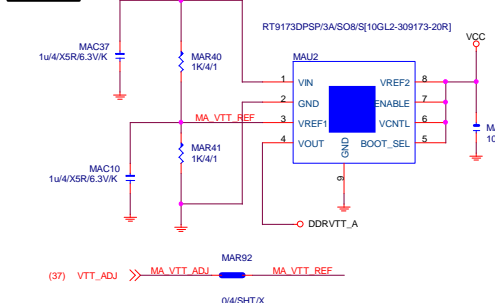
Close to Vcore
output inductor



should be routed as
differential pair,
7mil width,8mil
spacing



DDRVTT



GIGABYTE™			
Title DDR_A & CPU_VTT POWER IR3570			
Size C	Document Number GA-X99-UD5 WIFI	Rev 1.0	
Date Tuesday, August 26, 2014	Sheet 34	of 64	

Close to Vcore
output inductor

should be routed as
differential pair,
7mil width,8mil
spacing

DDRVTT

For power sequence require

POWER ISBTE
0.1u4/X7R/16V/K

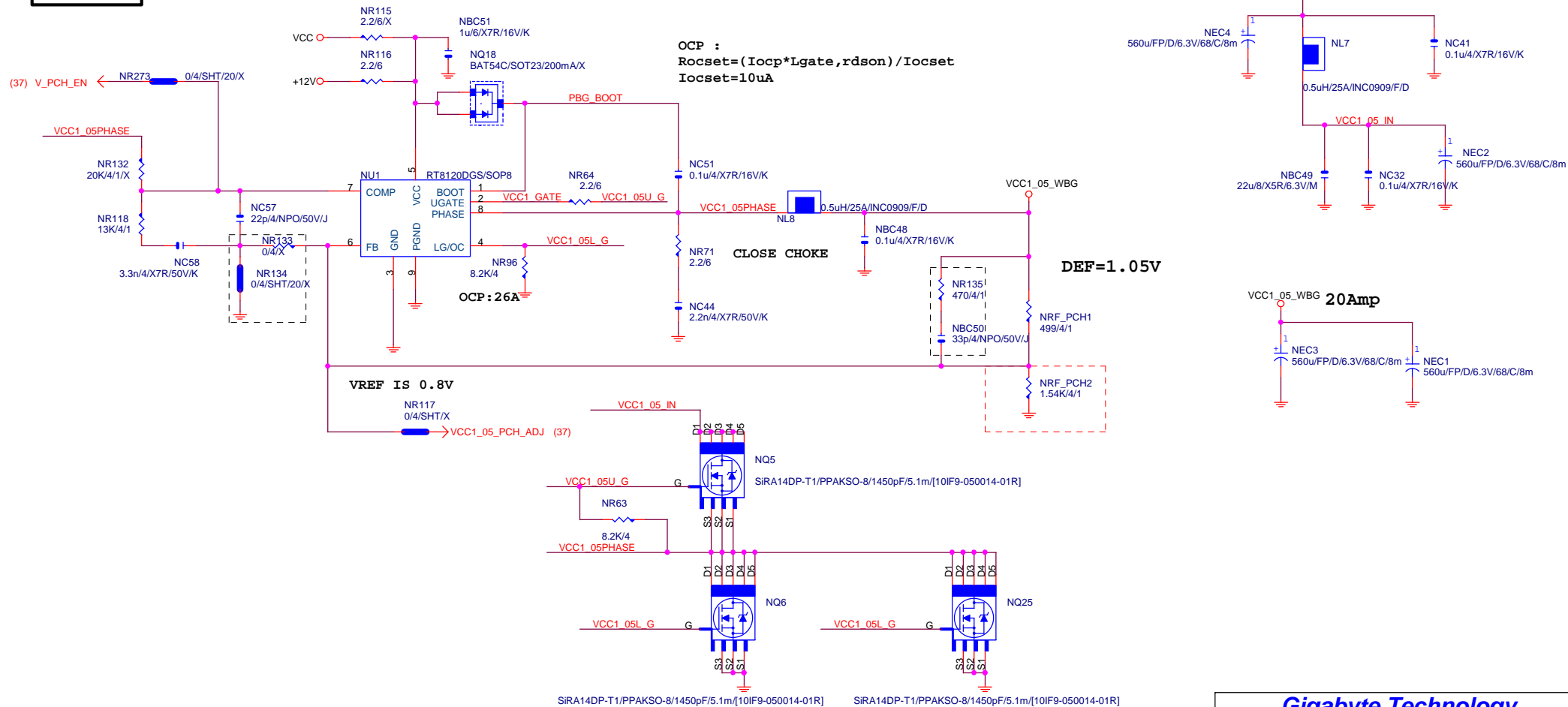
GIGABYTE™

DDR_A & CPU_VTT POWER IR3570

Document Number GA-X99-UD5 WIFI Rev 1.0

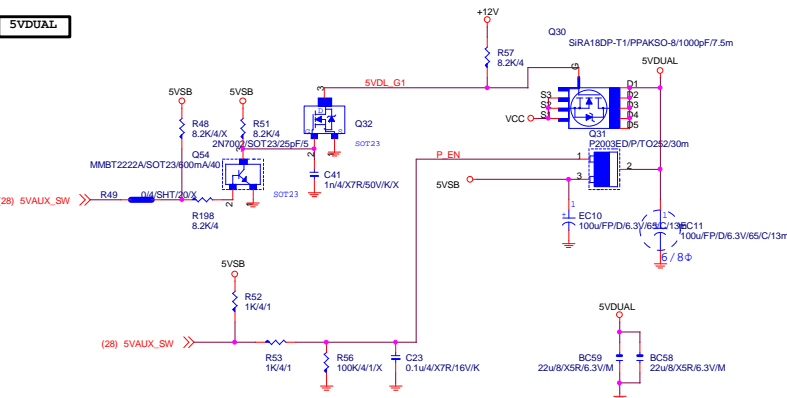
Date: Tuesday, August 26, 2014 Sheet 35 of 64

PBG_1.1V

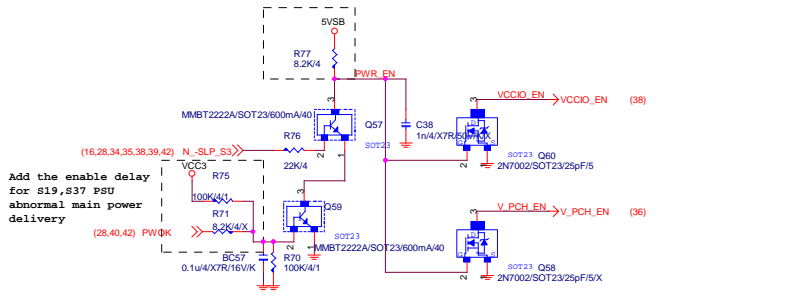
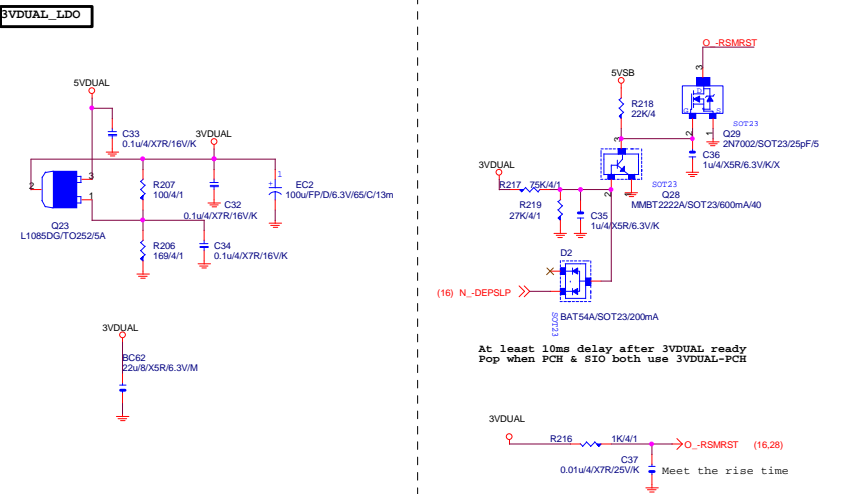


Gigabyte Technology			
Title			
RT8120 PCH			
Size	Document Number		Rev
Custom	GA-X99-UD5 WIFI		1.0
Date:	Tuesday, August 26, 2014	Sheet	36 of 64

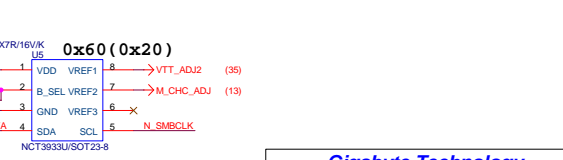
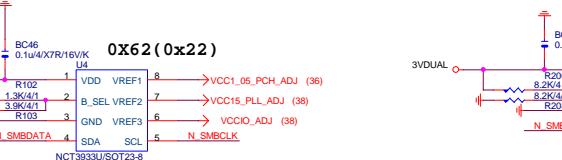
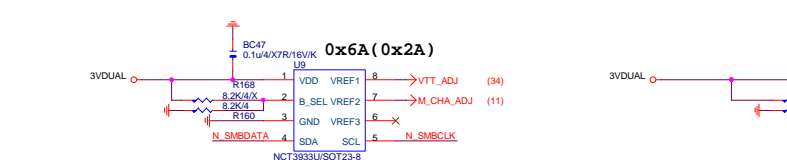
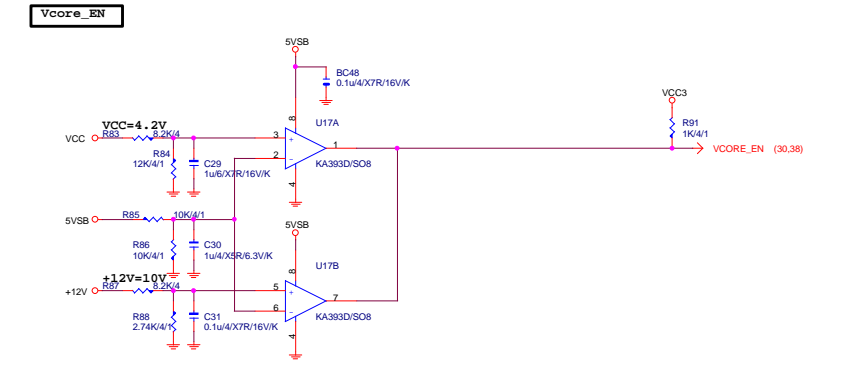
5VDUAL



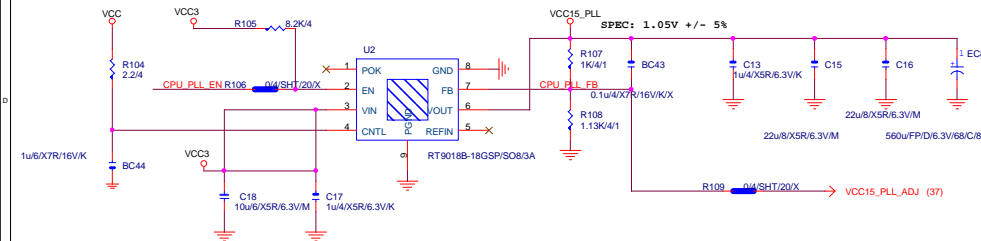
3VDUAL_LDO



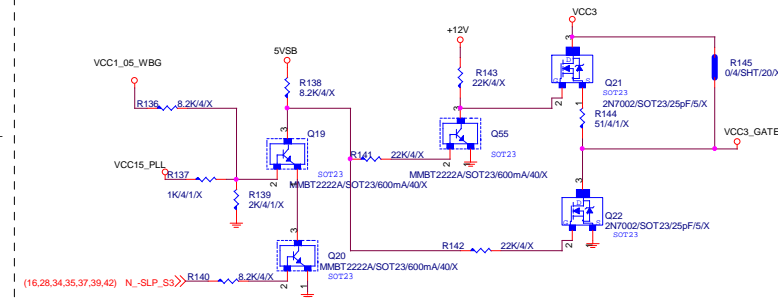
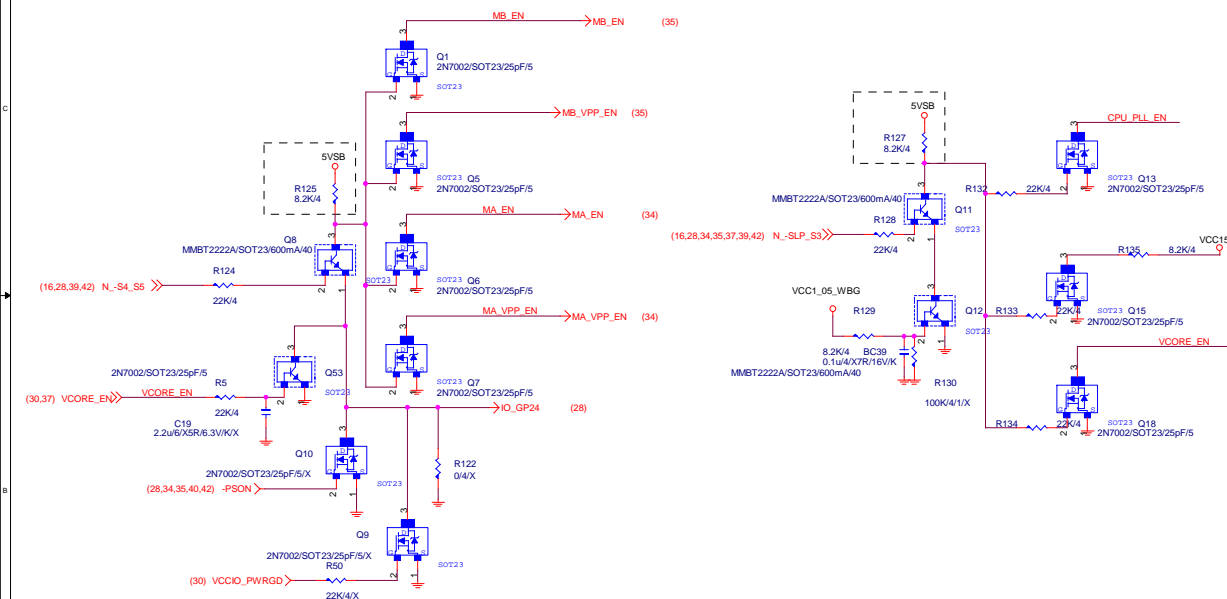
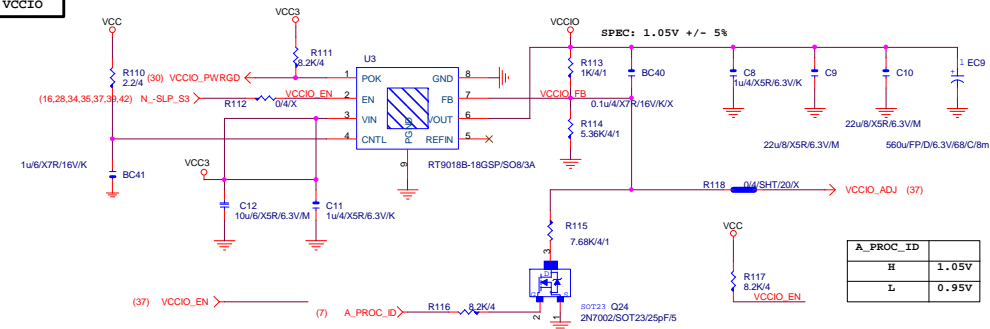
Vcore_EN



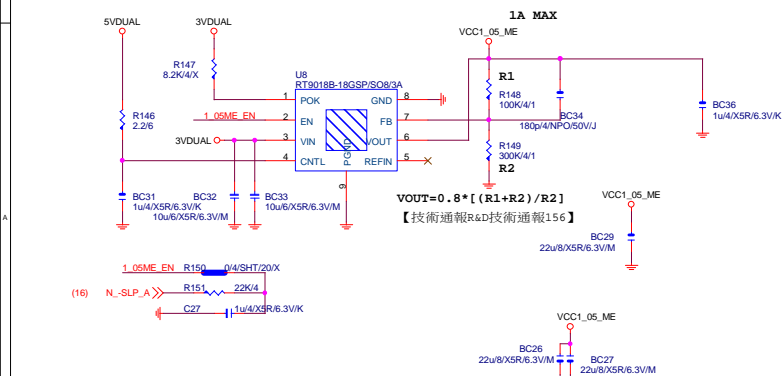
VCC15_PLL



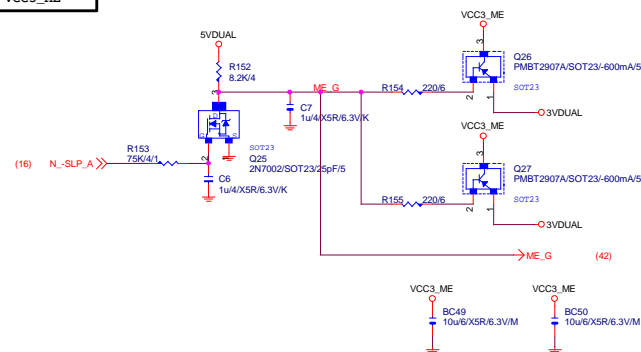
VCCIO



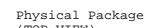
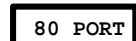
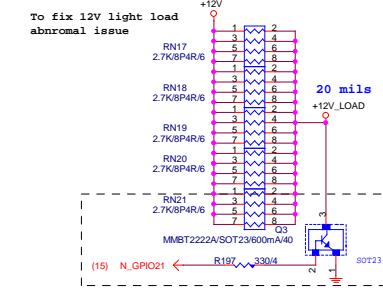
VCC1_05_ME



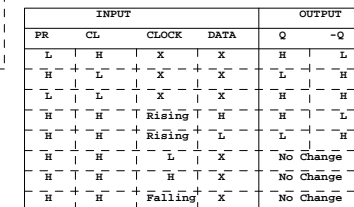
VCC3_ME



【技術通報R&D技術通報153】



OVER CLOCKING



Gigabyte Technology

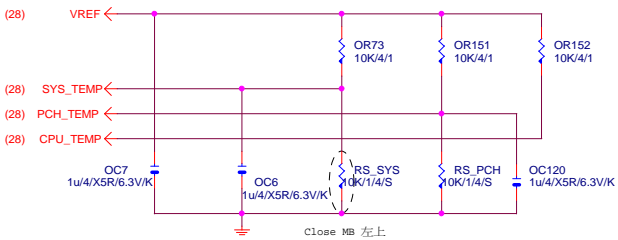
Title

Size	ATX , 80PORT
C	Document Number GA-X99-UD5 WIFI

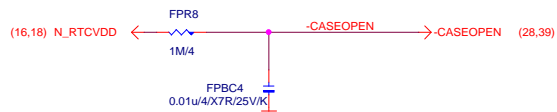
Date: Tuesday, August 26, 2014 Sheet 40 of 6

1.9

TEMP H/W MONITOR

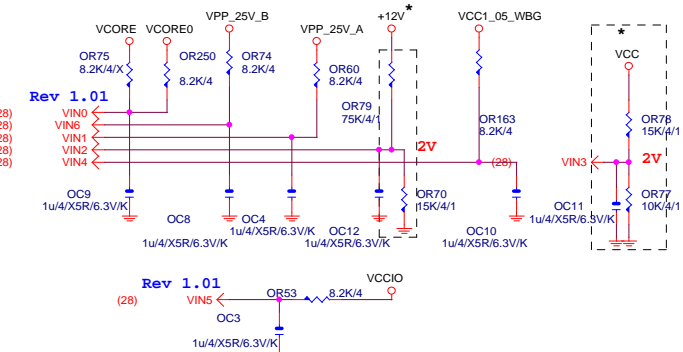


CASE OPEN

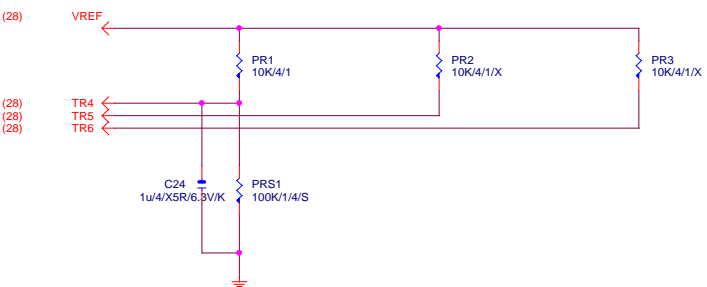


VOLTAGE-- H/W MONITOR

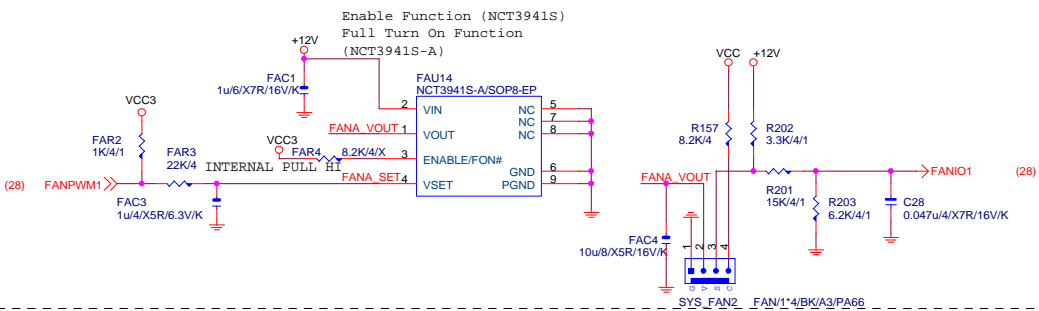
VIN2 must +12V input
VIN3 must VCC input



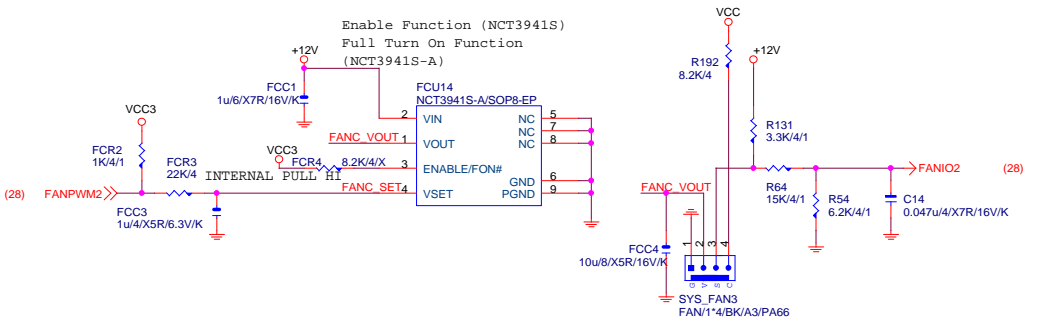
8620 PROCHOT

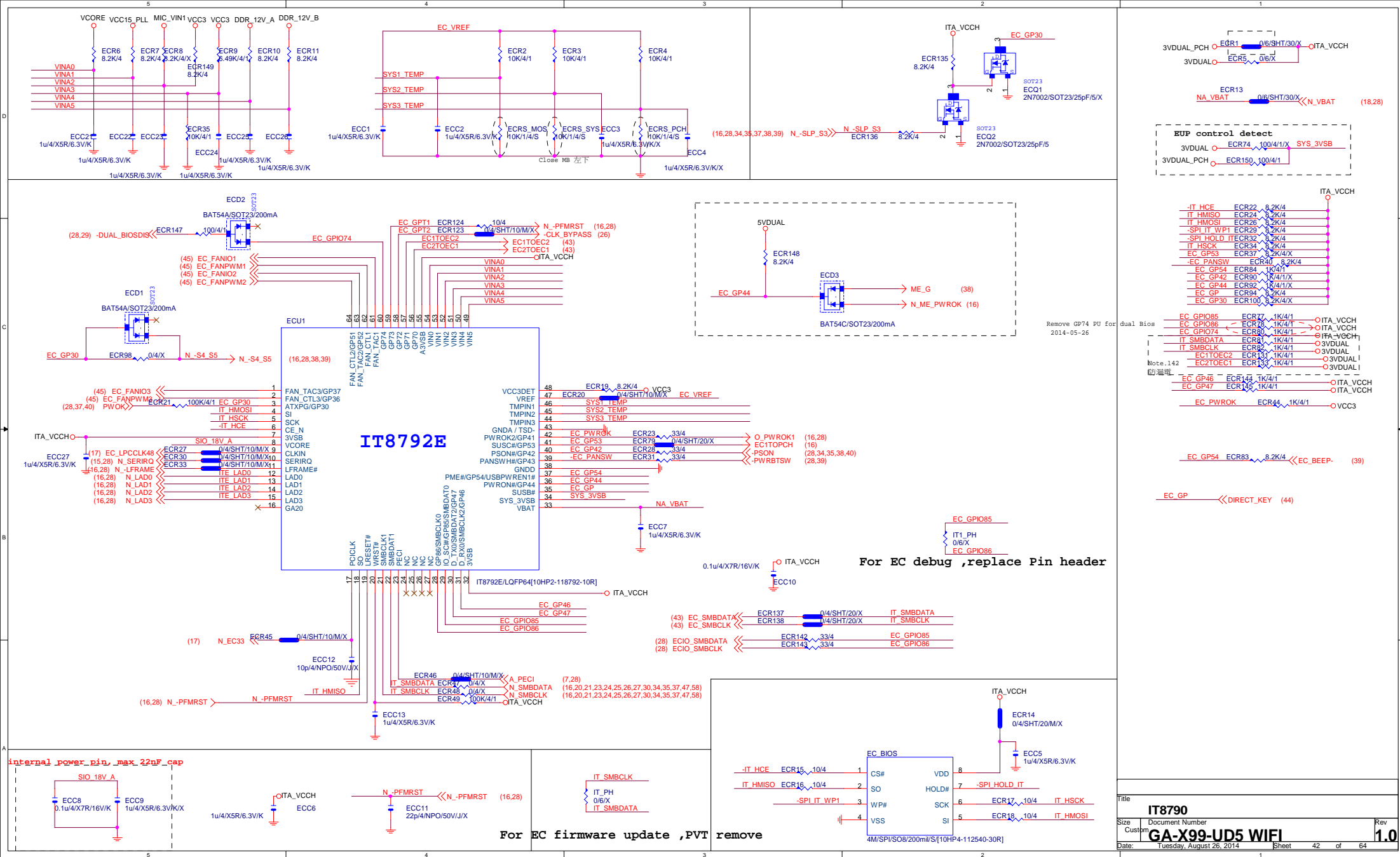


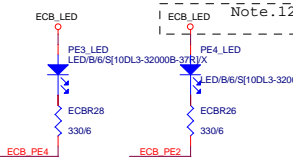
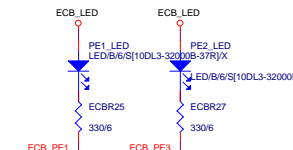
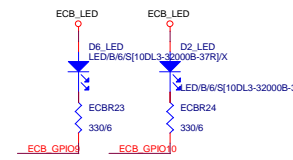
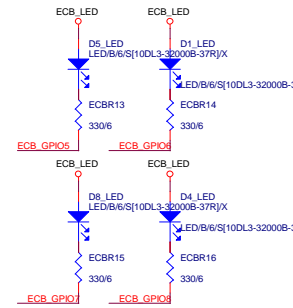
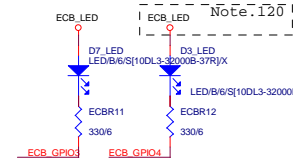
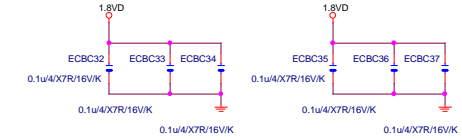
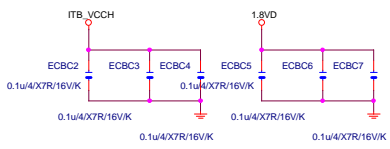
SYS FAN2



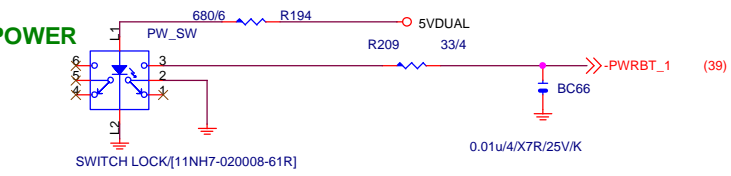
SYS FAN3



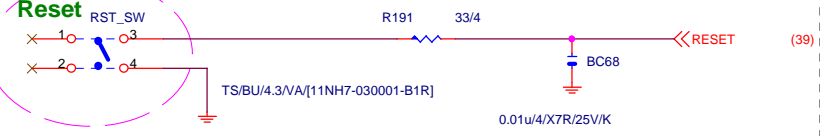




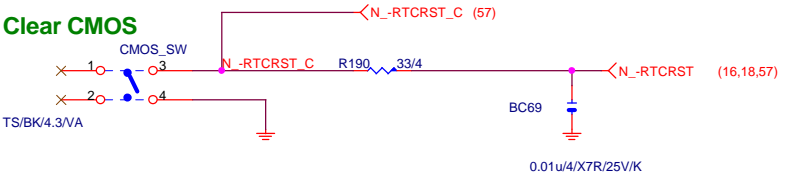
POWER



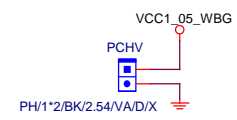
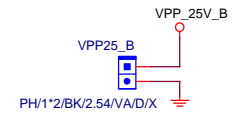
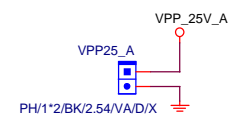
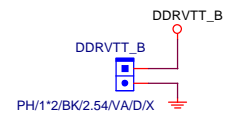
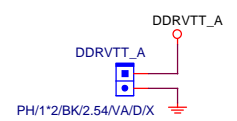
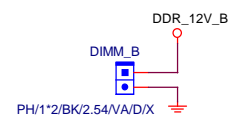
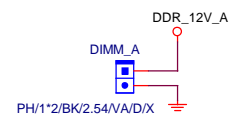
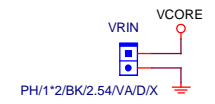
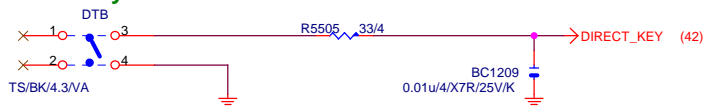
Reset



Clear CMOS

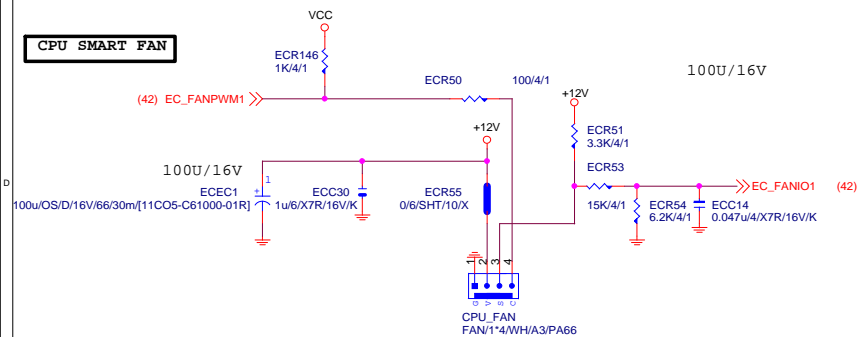


Direct Key

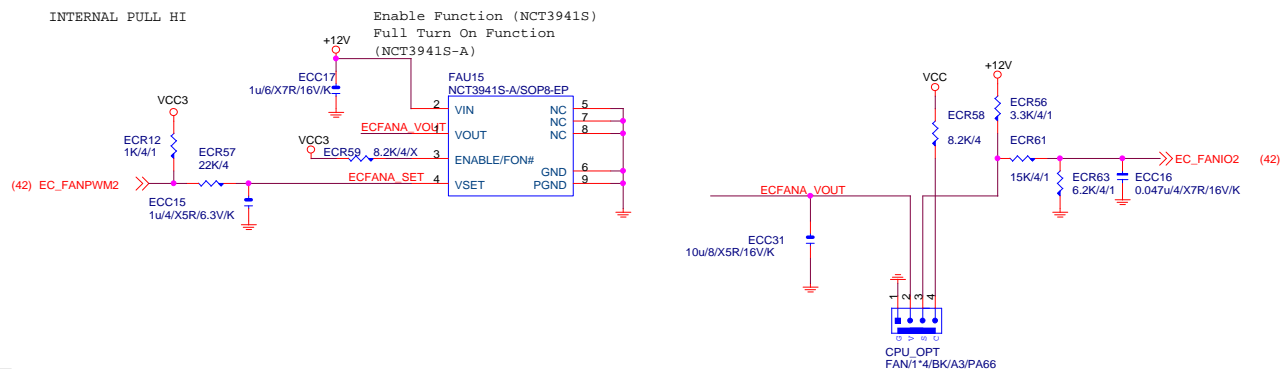


Title			
SWITCH			
Size	Document Number		Rev
B	GA-X99-UD5 WIFI		1.0
Date:	Tuesday, August 26, 2014	Sheet	44 of 64

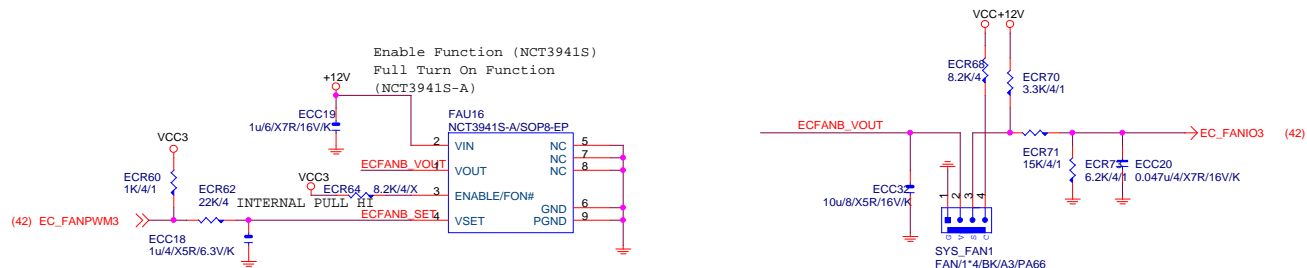
CPU SMART FAN



CPUOPT FAN



SYS FAN1

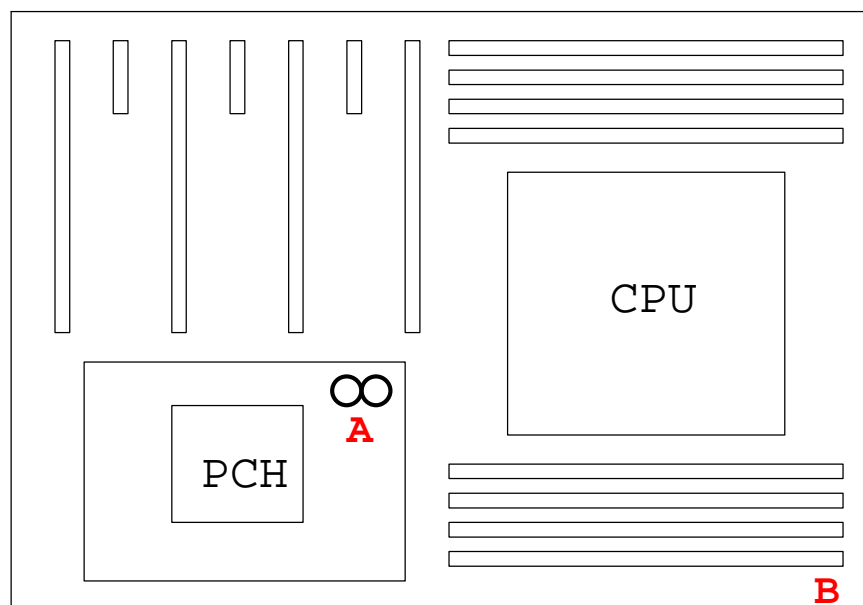


Gigabyte Technology

Title			HWM,KB/MS, FAN CTRL
Size	Document Number	Rev	
Custom	GA-X99-UD5 WIFI	1.0	
Date:	Tuesday, August 26, 2014	Sheet	45 of 64

The schematic diagram illustrates a microphone input circuit. It starts with a microphone (MIC1) connected to a pre-amplifier (SLU1A, LM358DR/SO8/X). The pre-amplifier is configured with a gain of $Gain = 1 + (R1/R2)$. The output of the pre-amplifier is connected to a post-amplifier (SLU1B, LM358DR/SO8/X). The post-amplifier output is connected to a battery (BAT54A/SOT23/200mA/X) and a capacitor (SLC5, 22uF/8V/5R/6.3V/M/X) to filter out noise. The circuit also includes a filter capacitor (SLC2, 0.01uF/4X/7R/25V/K/X) and a resistor (SLR10, 100K/4/1/X) to prevent a sudden response. The final output is connected to the MIC VIN pin. The circuit is powered by VCC3 and VCC. Annotations include '加快放電速度' (Speed up discharge rate) and '<=3.3V DC 8620's VIN'.

The schematic diagram illustrates the SL MIC1 EN circuit. It features a 5VDUAL supply connected to a network of resistors (SLR11, SLR12), capacitors (SLC7), and MOSFETs (SLQ1, SLQ2, SOT23). The circuit is controlled by the SL MIC1 EN signal.



1. 假設User設定系統噪音要低於45dB(即VINx=1.75V)，當VINx高於1.75V，8620會把PCH的GPI7拉Low一次。
2. 當噪音降低到VINx低於1.65V(即1.75V-0.1V)時，8620會再把PCH的GPI7拉Low一次。
3. 超過Th時，將CPU & VGA降頻或Throttle。低於Tl時，則回復正常頻率運作。

Figure 10.10 illustrates the Interrupt Mode. The graph shows Temperature (Y-axis) versus Time (X-axis). The temperature fluctuates between a lower limit (TL) and an upper limit (Th). The Interrupt signal is a step function that is high (active) when the temperature is between TL and Th, and low (inactive) when the temperature is outside this range.

1. 麥克風不可被CPU_FAN & VGA_FAN吹到，用DIP電容擋住顯卡的風。
2. 麥克風需和IOP-AMP越靠近越好，<1000mil。
3. IT8620偵測到dB值超過user設定值，通知PCH的GPI7發SMI。
4. 麥克風料號為：[10BM1-014030-01R]

dB	VINx
30	1.30V
35	1.45V
40	1.60V
45	1.75V
50	1.90V
55	2.05V
60	2.20V
65	2.35V
70	2.50V
75	2.65V
80	2.80V
85	2.95V
90	3.10V
95	3.25V
100	3.33V

此Table只是假設值，需至無響室測試後確認。

Gigabyte Technology			
Sound Level			
Title			
Size B	Document Number		Rev
GA-X99-UD5 WIFI			1.
Date:	Tuesday, August 26, 2014	Sheet	46 of 64

請選擇適用的USBport :
SOC/UD7/UD5/G1/G7 : USB3
;UD3/G5:USB5

WIFI use PCIe port4 in X99

DIP螺絲



CR/[12KS2-110202-01R]

SMD螺柱



~CR/[10KS2-040109-01R]
should be SMD level

M_PCIE_H

WIFI_MODULE
WI-FI WITH BT MINI CARD INTEL[20CB1-027260-20R]

PVT need pop this part !

(17) N_+USBP10
(17) N_-USBP10

(17) M2_WIFI_IP
(17) M2_WIFI_IN

(17) CK_WIFI_100M_DP
(17) CK_WIFI_100M_DN

(16,20,21,23,24,25,58) N_-PCI_E_WAKE

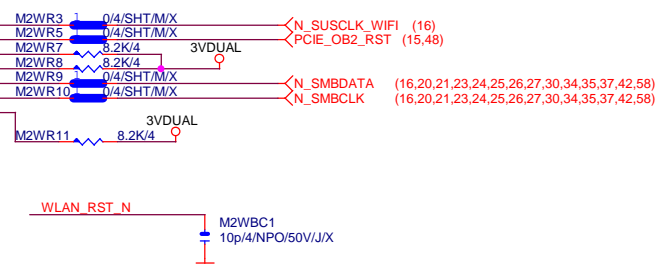
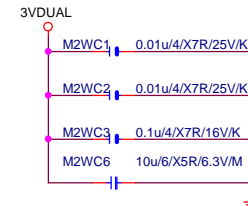
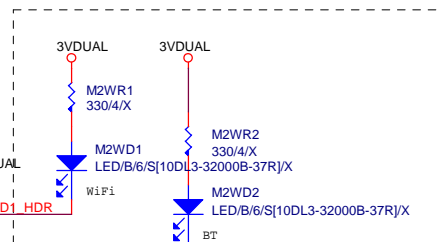
M2_WIFI

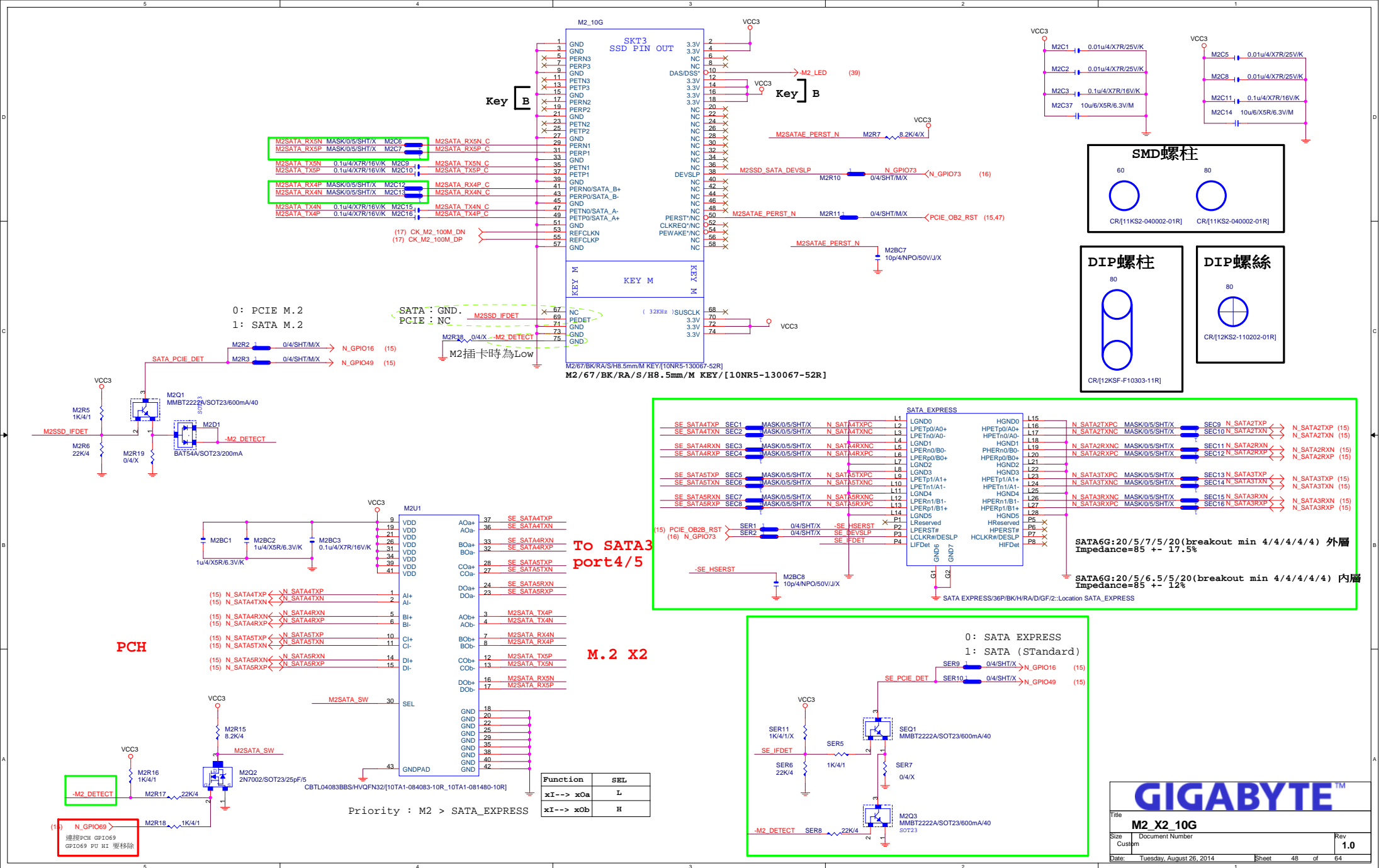
REV=1

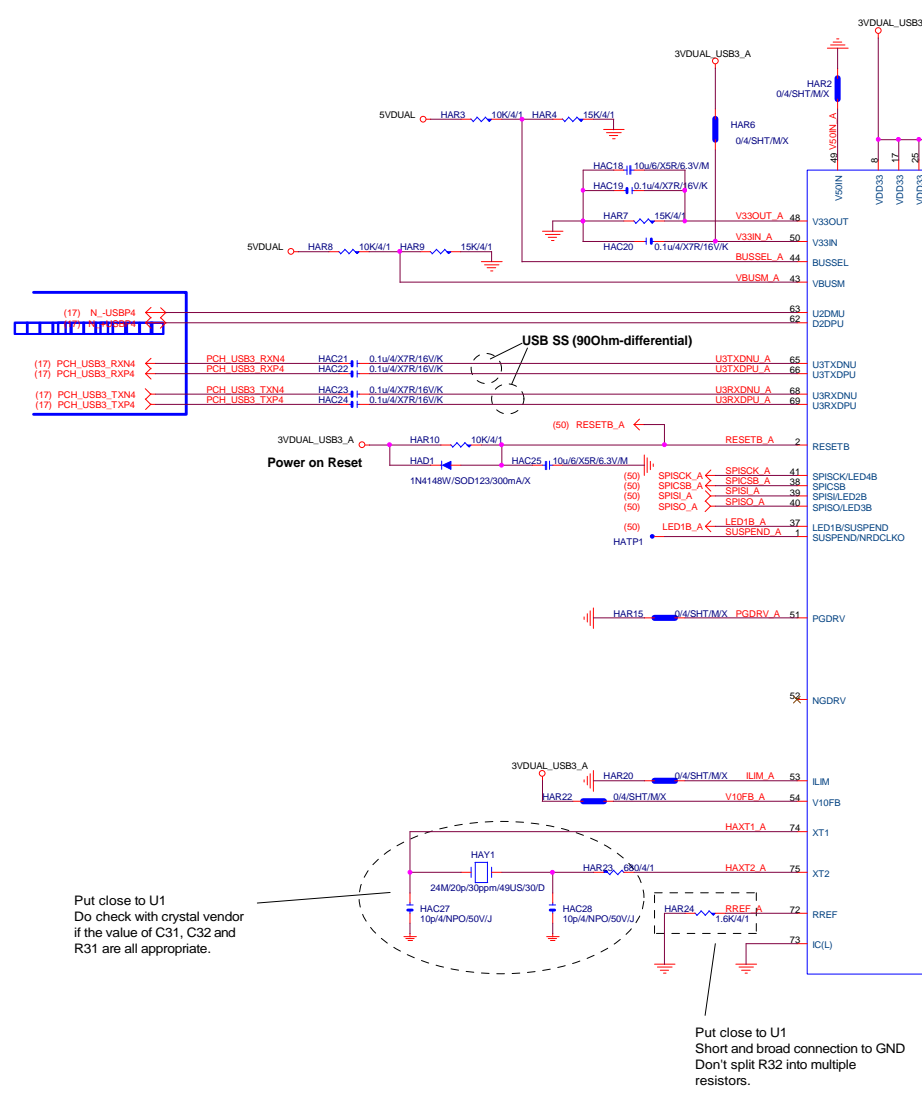
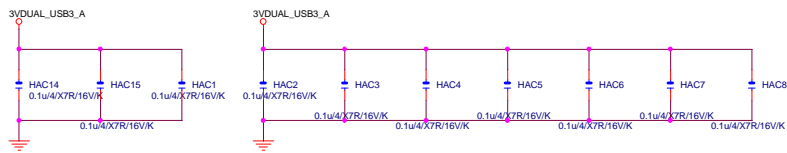
Module Key E

NGFF_M2_E-KEY[10NR5-130067-22R]

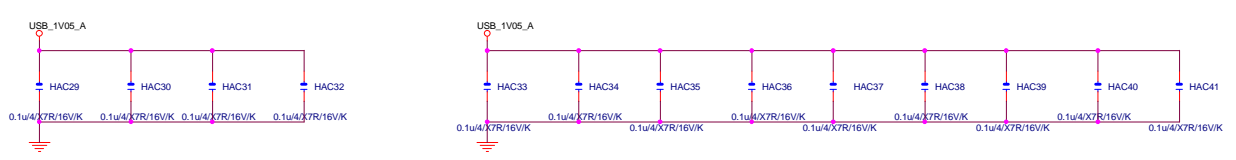
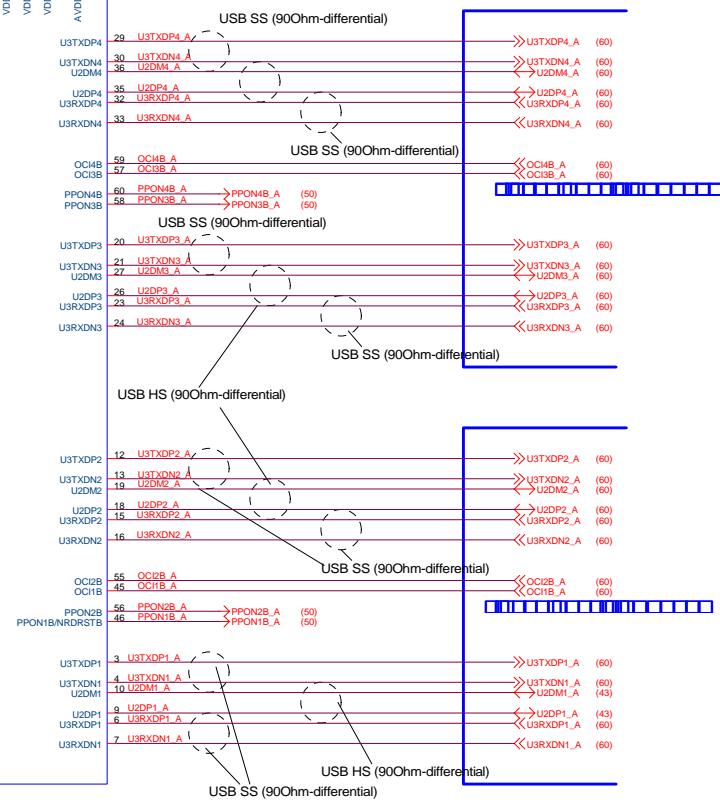
NGFF_M2_E-KEY[10NR5-130067-22R]



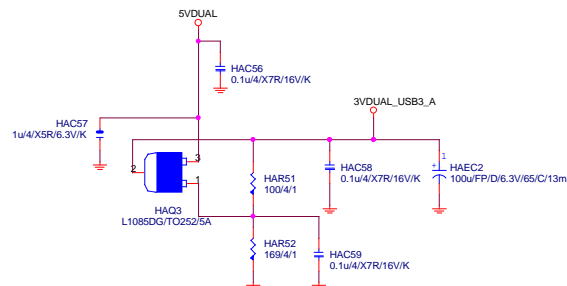




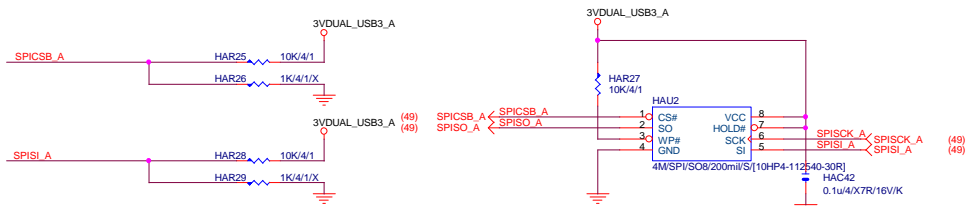
uPD720210



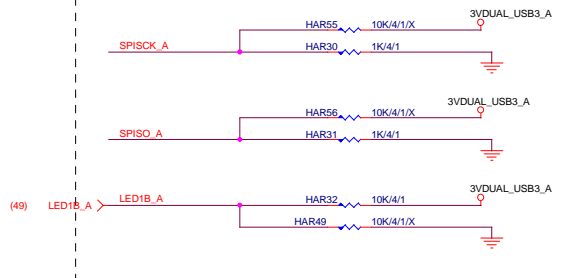
3VDUAL_USB_1



External SPI ROM ; SPI ROM attached mode

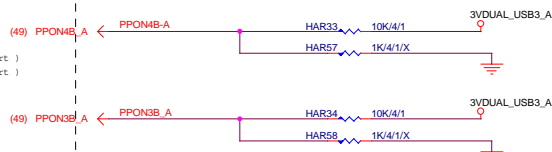


Battery Charging



Number of Ports ; 4Ports mode

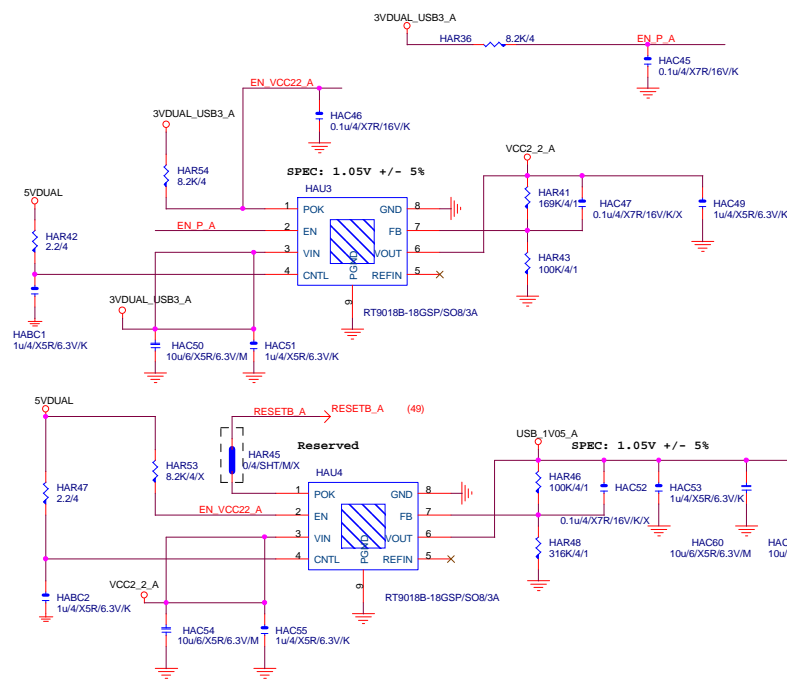
PPON3B / PPON4B : H / H (4 port)
PPON3B / PPON4B : L / L (2 port)

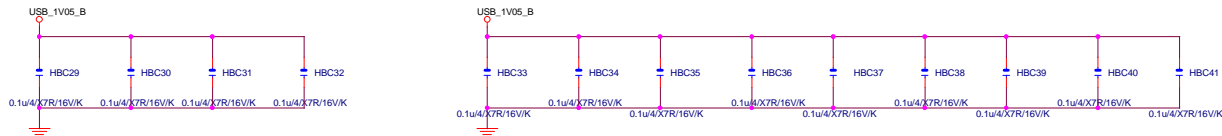


VBUS Power Control ; Individual mode

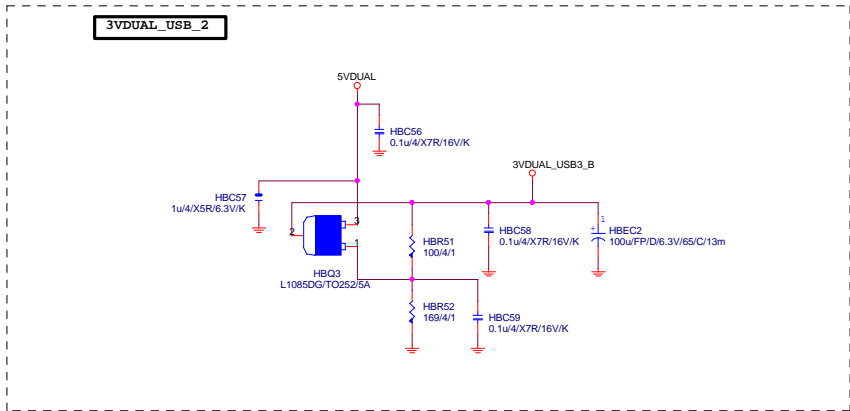


PPON1B Pin Function ; Port1 PPONB mode

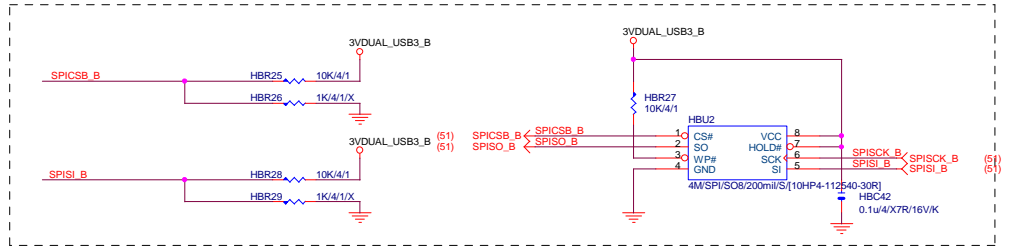




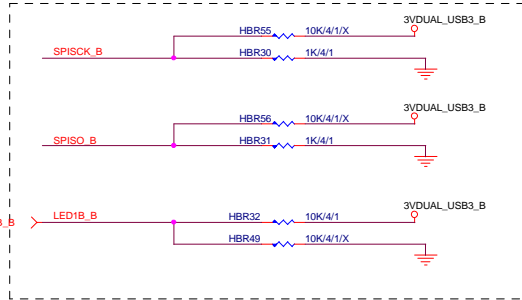
Put close to U1
Short and broad connection to GND
Don't split R32 into multiple resistors.



External SPI ROM ; SPI ROM attached mode

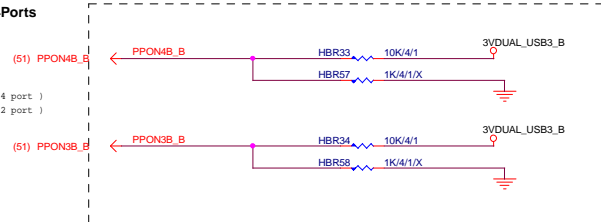


Battery Charging

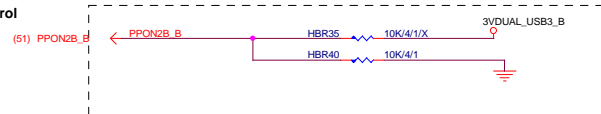


Number of Ports ; 4Ports mode

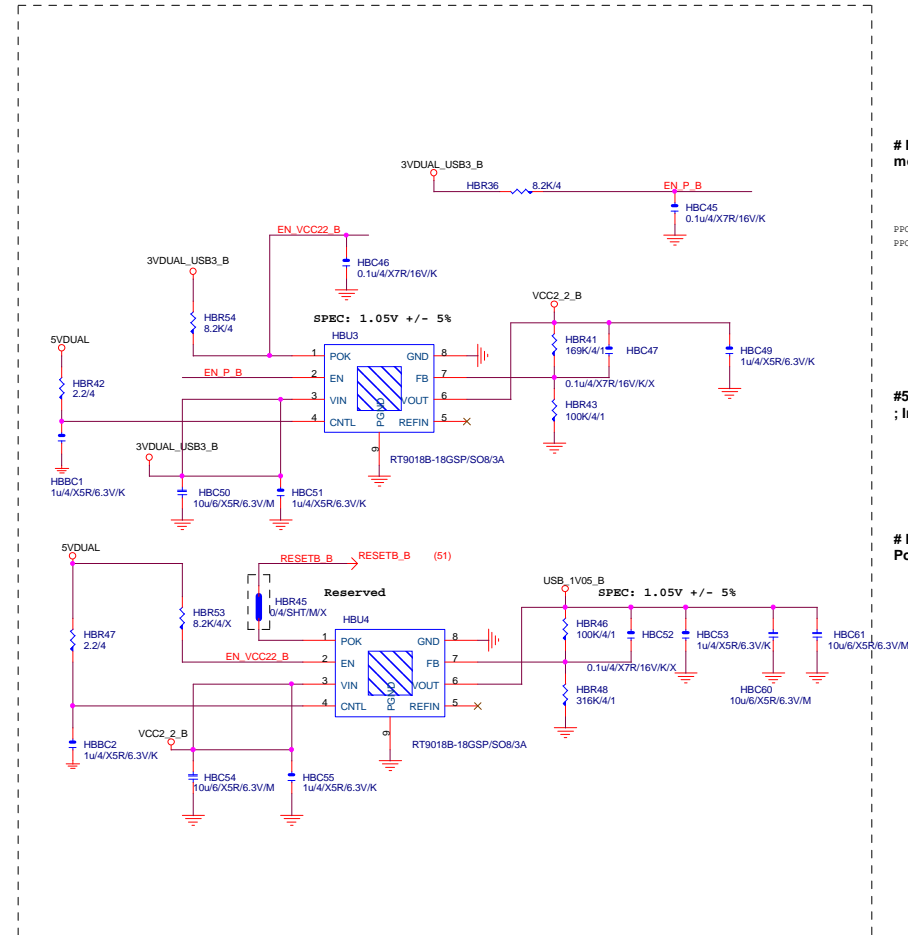
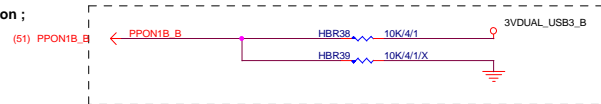
PPON3B / PPON4B : H / H (4 port)
PPON3B / PPON4B : L / L (2 port)

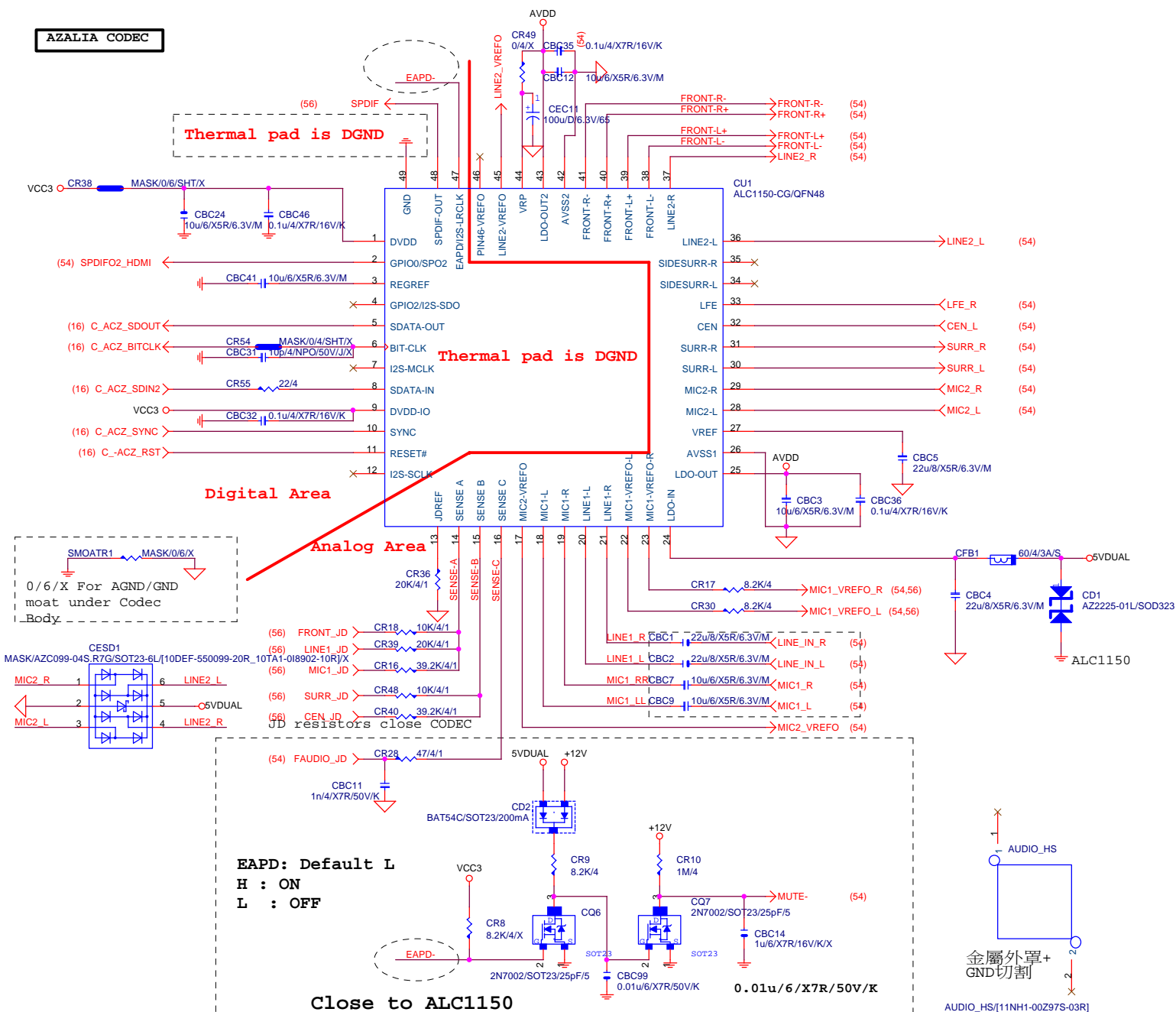


#5 VBUS Power Control ; Individual mode



PPON1B Pin Function ; Port1 PPONB mode





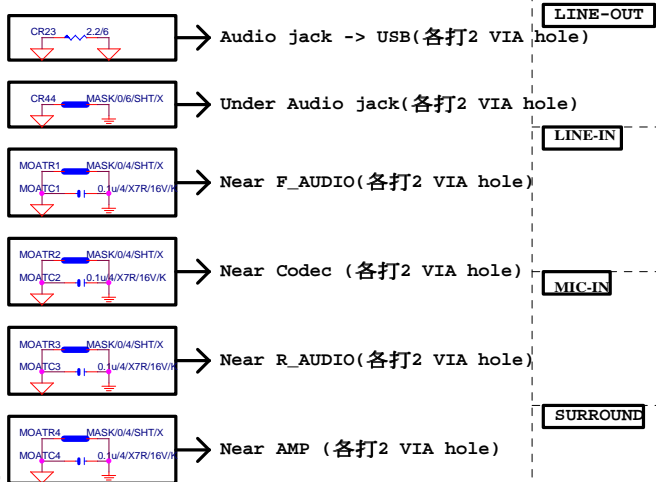
Gigabyte Technology

Title
HD AUDIO ALC887B-VD2/VT1708S/VT2021

Size Custom	Document Number	GA-X99-UD5 WIFI	Rev 1.0
----------------	-----------------	------------------------	-------------------

Date: Tuesday, August 26, 2014 Sheet 53 of 64

金屬外罩+
GND切割



LINE-OUT

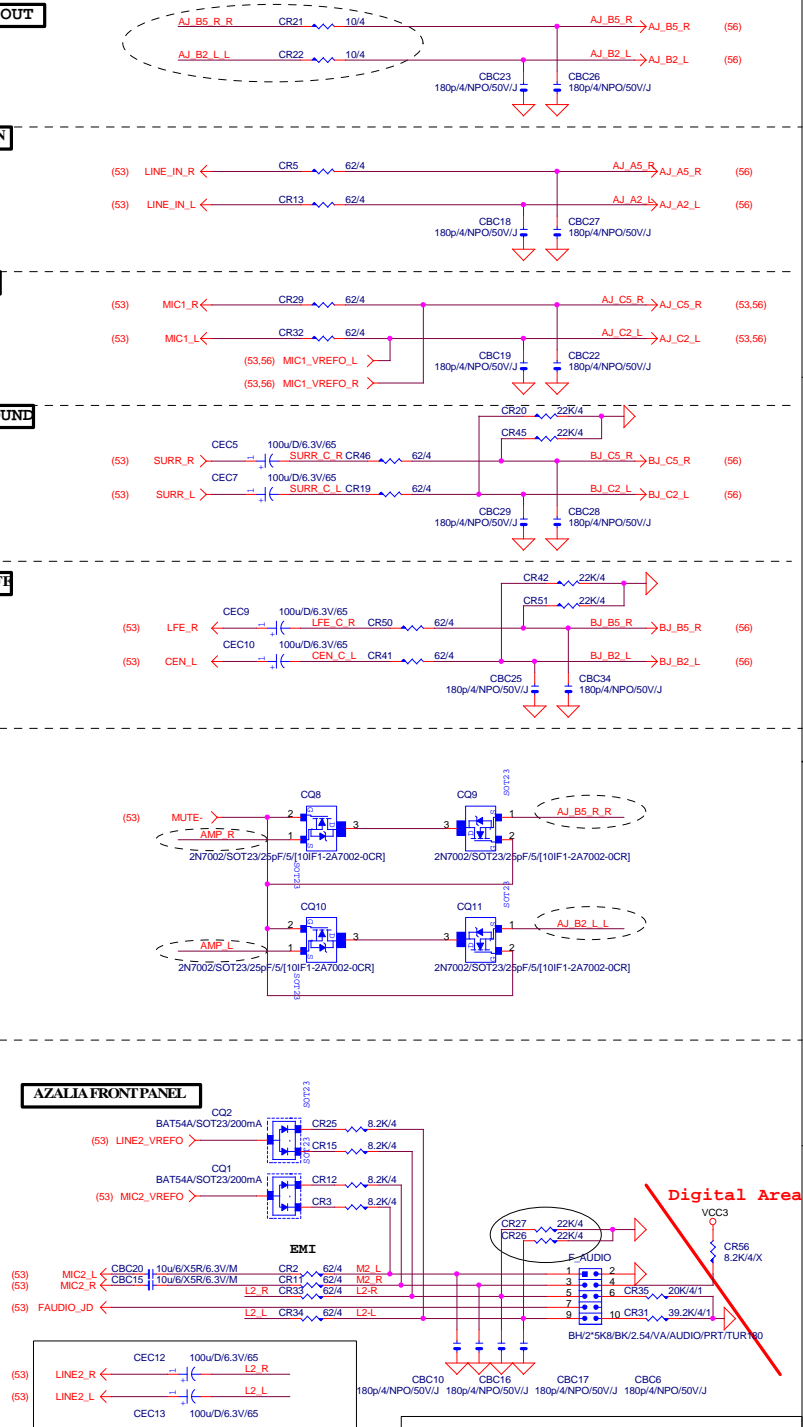
LINE-IN

MIC-IN

SURROUND

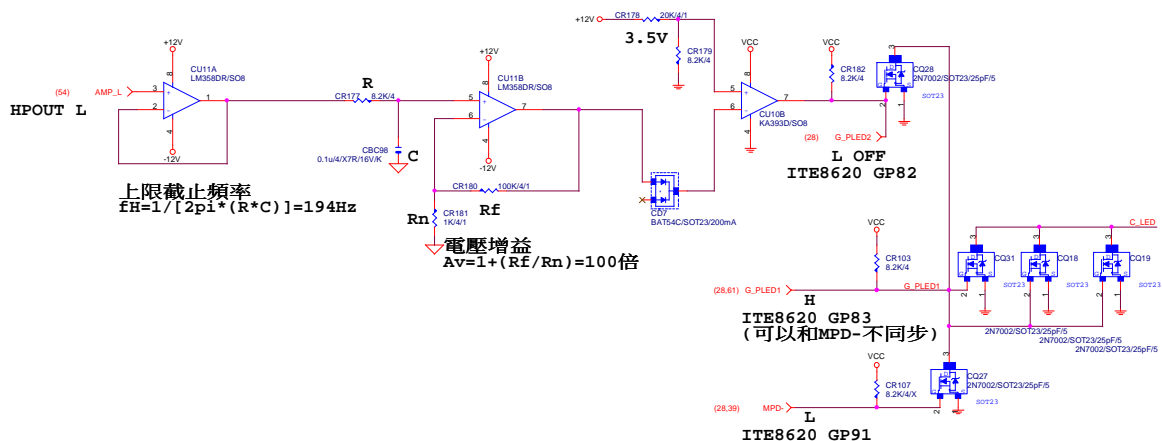
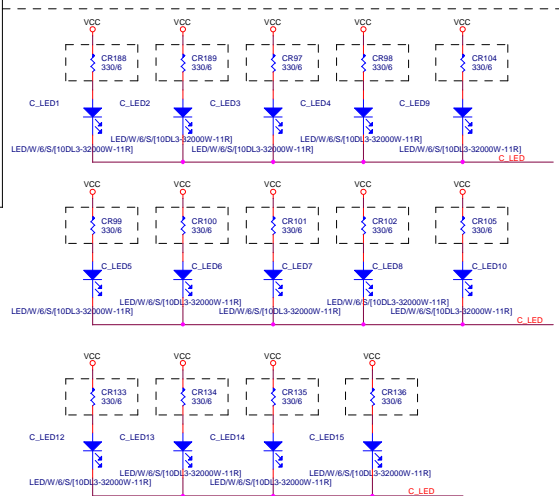
CEN/LFE

AZALIA FRONT PANEL

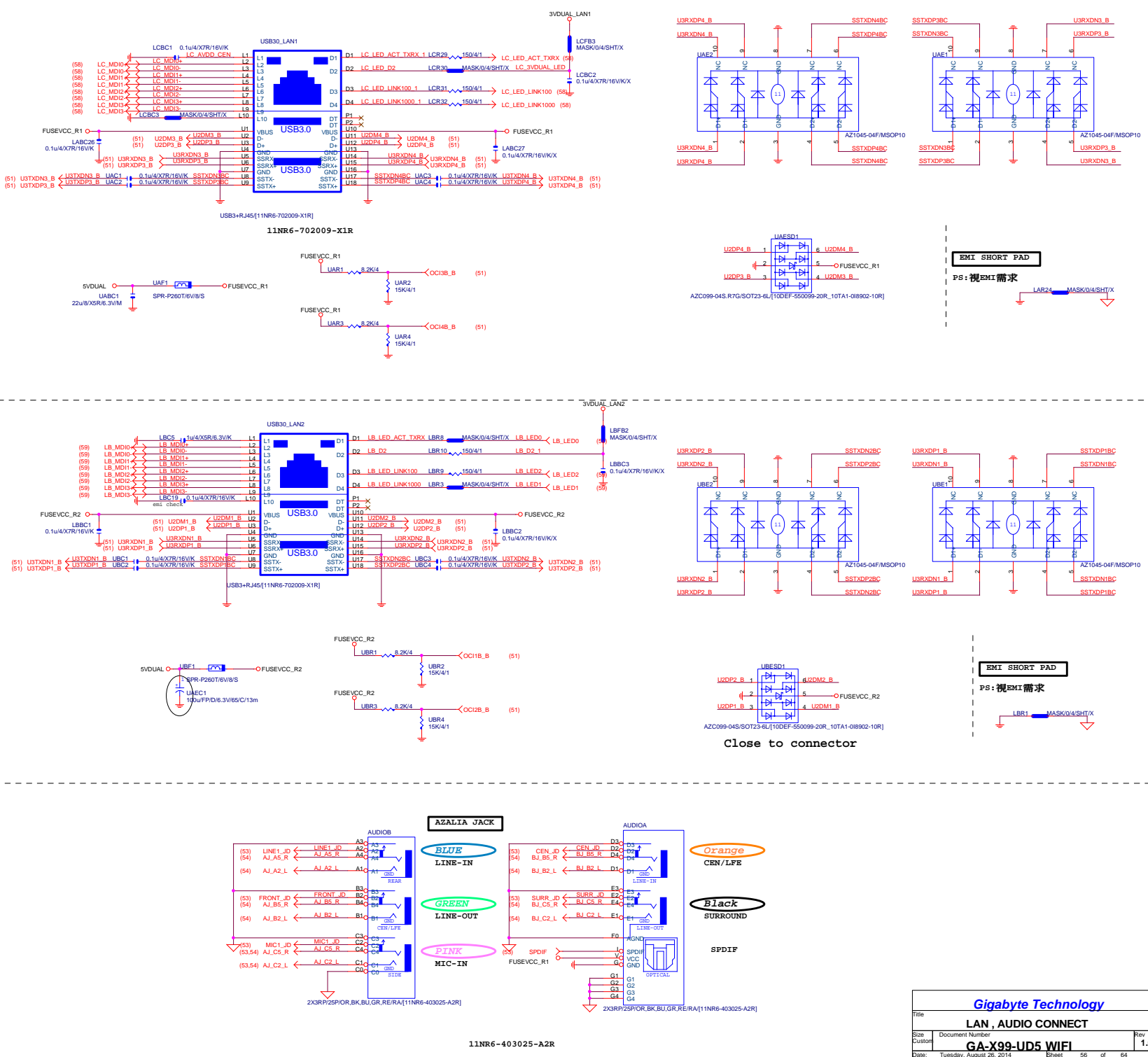


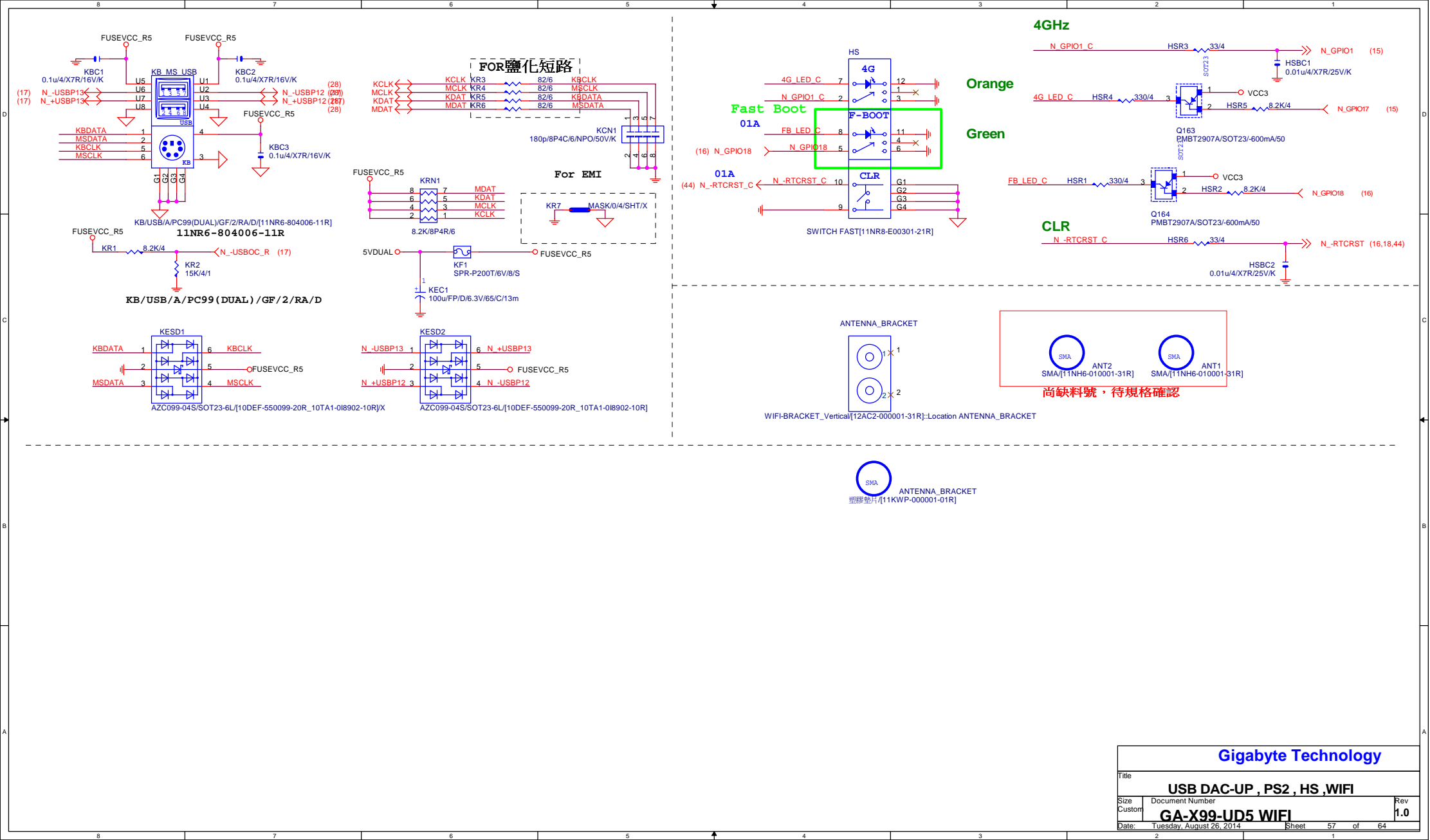
Digital Area

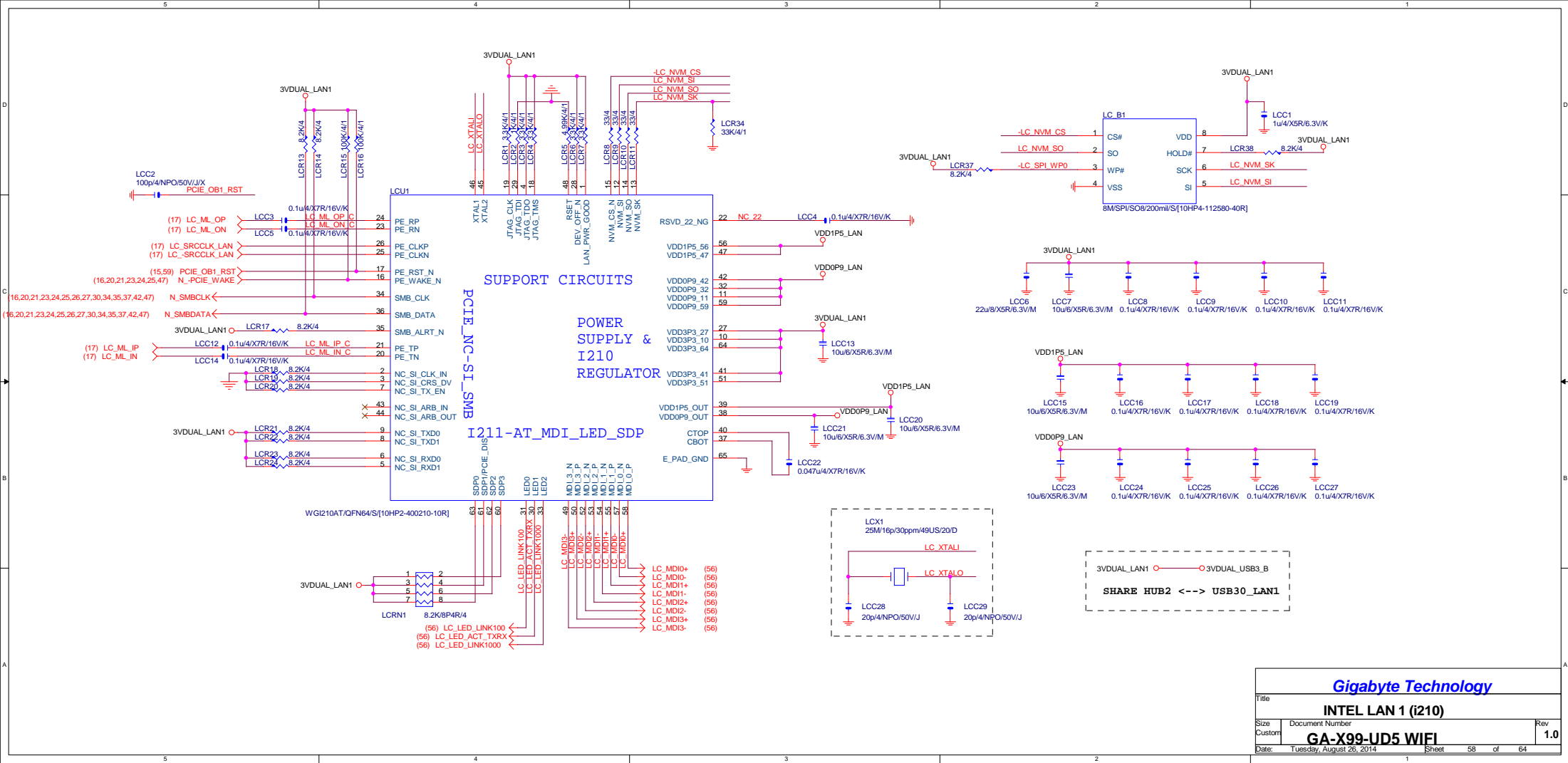
<h1 style="text-align: center;">Gigabyte Technology</h1>			
<h2 style="text-align: center;">AUDIO JACK</h2>			
Size	Document Number	GA-X99-UD5 WIFI	Rev
Custom			1.0
Date:	Tuesday, August 26, 2014	Sheet	54 of 64

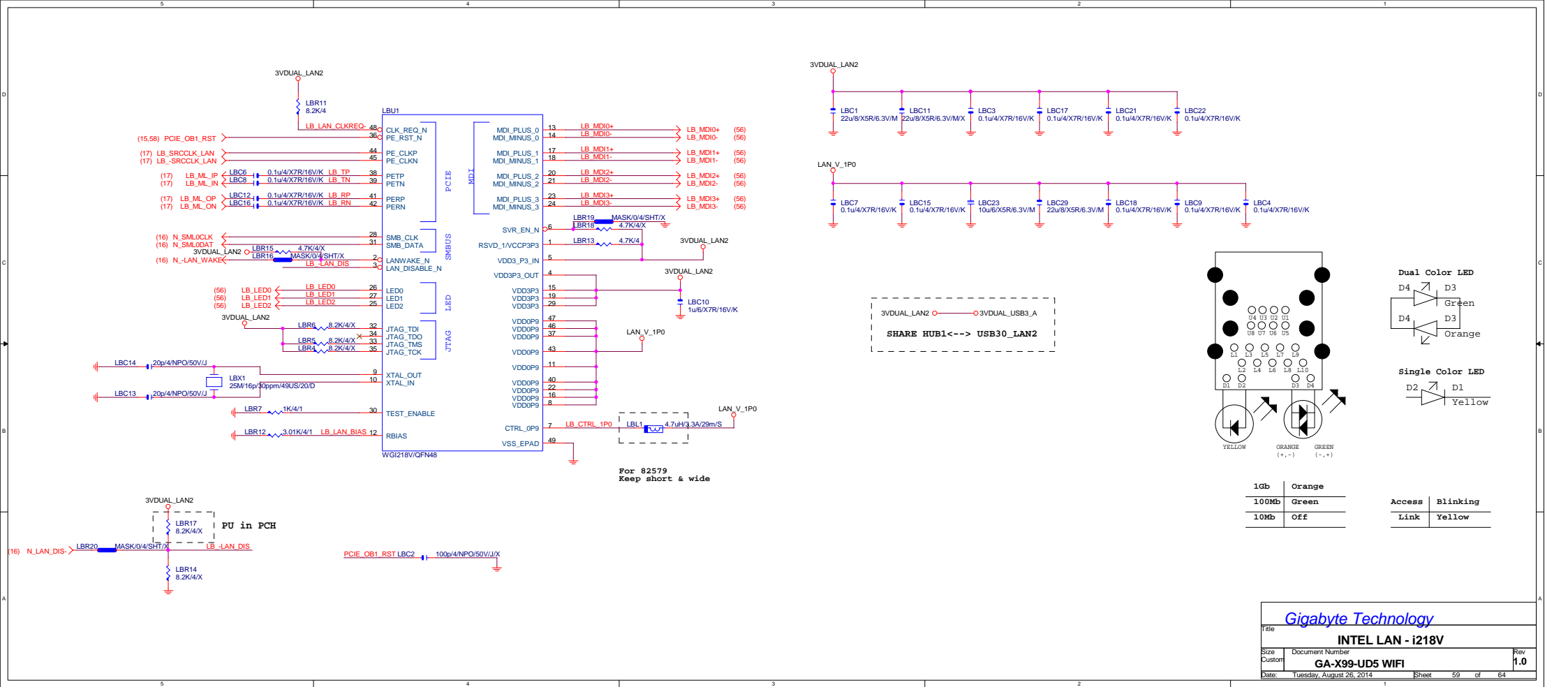


	IO_GP83	IO_GP91	IO_GP82
LED ON	H	L	L
LED OFF	L	L	L
LED BREATH	OD	BREATH	L
LED TEMPO	H	L	OD

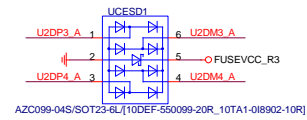
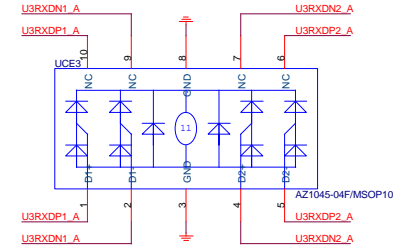
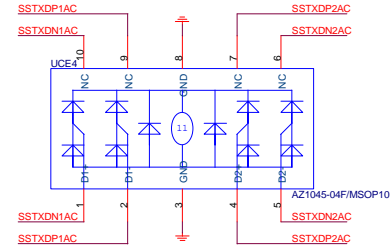
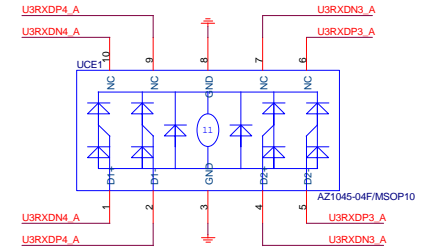
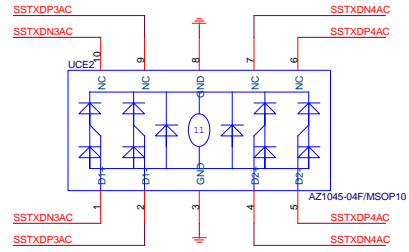
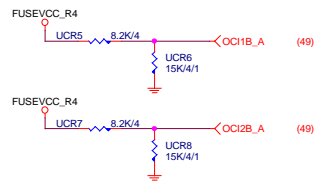
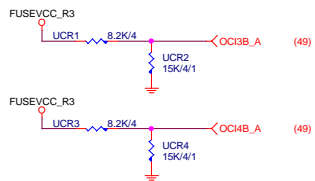
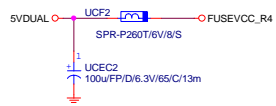
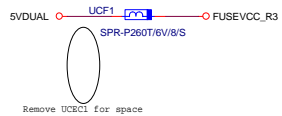
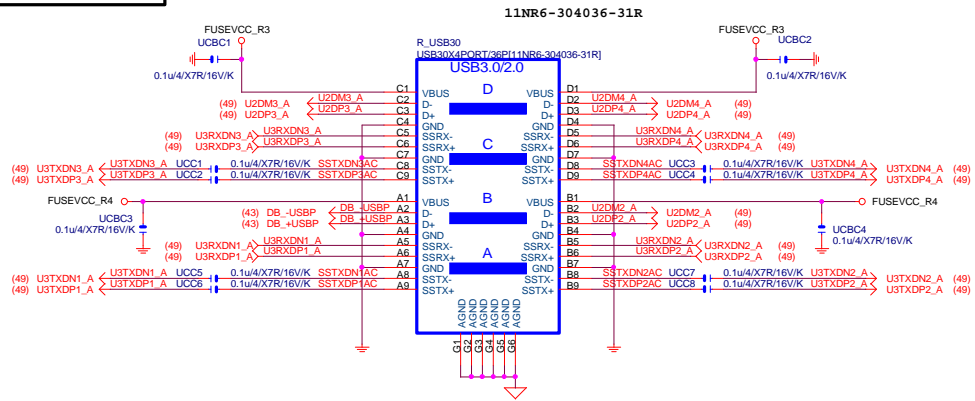




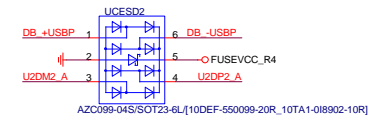




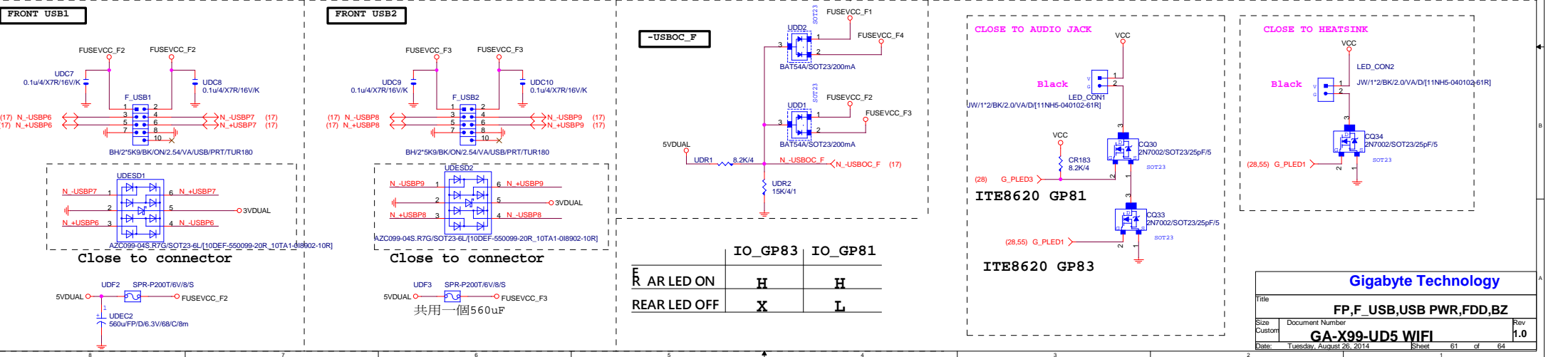
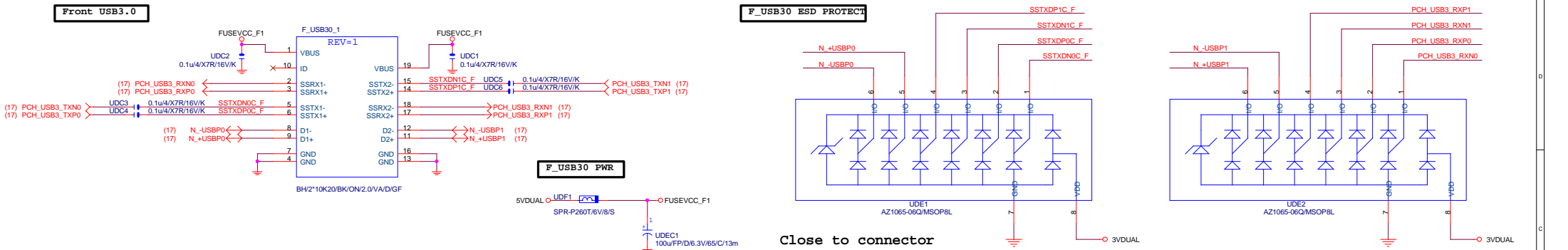
R_USB30 PORT



Close to connector



Close to connector



PCH GPIO

PIN NAME	POWER WELL	USAGE	AFTER PLTRST	S3/S5	NOTES
GP[0]	VCC3	-ICH_PSI	IN		8.2K P/U TO VCC3
GP[1]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[2]	VCC3	-PIRQE	IN		8.2K P/U TO VCC3
GP[3]	VCC3	-PIRQF	IN		8.2K P/U TO VCC3
GP[4]	VCC3	-PIRQG	IN		8.2K P/U TO VCC3
GP[5]	VCC3	-PIRQH	IN		8.2K P/U TO VCC3
GP[6]	VCC3	GPIO6	IN		8.2K P/U TO VCC3
GP[7]	VCC3	GPIO7	IN		8.2K P/U TO VCC3
GP[8]	3VDUAL	GPIO8	OUT		8.2K P/U TO 3VDUAL
GP[9]	3VDUAL	-USBOC5	IN		USB OVER-CURRENT
GP[10]	3VDUAL	-USBOC6	IN		USB OVER-CURRENT
GP[11]	3VDUAL	GPIO11	IN		8.2K P/U TO 3VDUAL
GP[12]	3VDUAL	GPIO12	OUT		8.2K P/U TO 3VDUAL
GP[13]	3VDUAL	-LPCPME	IN		8.2K P/U TO 3VDUAL
GP[14]	3VDUAL	GPIO14	IN		8.2K P/U TO 3VDUAL
GP[15]	3VDUAL	SPARE	OUT		8.2K P/U TO 3VDUAL (N/A)
GP[16]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[17]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[18]	VCC3	-SPI_WP0	OUT		8.2K P/U TO VCC3
GP[19]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[20]	VCC3	-SPI_WP1	OUT		8.2K P/U TO VCC3
GP[21]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[22]	VCC3	SPARE	IN		1K P/U TO VCC3
GP[23]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[24]	3VDUAL	-SKTOC	IN		8.2K P/U TO 3VDUAL (N/A)
GP[25]	3VDUAL	GPIO25	OUT		8.2K P/U TO 3VDUAL
GP[26]	3VDUAL	SPARE	OUT		8.2K P/U TO 3VDUAL
GP[27]	3VDUAL_PCH	SPARE	OUT		8.2K P/U TO 3VDUAL_PCH
GP[28]	3VDUAL	GPIO28	OUT		8.2K P/U TO 3VDUAL
GP[29]	3VDUAL	SPARE	OUT		8.2K P/U TO 3VDUAL (N/A)
GP[30]	3VDUAL	-S_WARN	OUT		CONNECT TO -S_ACK
GP[31]	3VDUAL_PCH	SPARE	IN		8.2K P/U TO 3VDUAL_PCH(N/A)
GP[32]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[33]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[34]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[35]	VCC3	-ACZ_DET	OUT		8.2K P/U TO VCC3
GP[36]	VCC3	SPARE	IN		8.2K P/U TO VCC3(N/A)
GP[37]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[38]	VCC3	SPARE	IN		1K P/U TO VCC3

PIN NAME	POWER WELL	USAGE	AFTER PLTRST	S3/S5	NOTES
GP[39]	VCC3	SPARE	IN		1K P/U TO VCC3
GP[40]	3VDUAL	-USBOC1	IN		USB OVER-CURRENT
GP[41]	3VDUAL	-USBOC2	IN		USB OVER-CURRENT
GP[42]	3VDUAL	-USBOC3	IN		USB OVER-CURRENT
GP[43]	3VDUAL	-USBOC4	IN		USB OVER-CURRENT
GP[44]	3VDUAL	SPARE	IN		1K P/U TO 3VDUAL
GP[45]	3VDUAL	SPARE	IN		1K P/U TO 3VDUAL
GP[46]	3VDUAL	SPARE	IN		1K P/U TO 3VDUAL
GP[47]	3VDUAL	SPARE	IN		1K P/U TO 3VDUAL
GP[48]	VCC3	SPARE	IN		1K P/U TO VCC3
GP[49]	VCC3	SPARE	IN		8.2K P/U TO VCC3
GP[50]	VCC3	-REQ1	OUT		8.2K P/U TO VCC3
GP[51]	VCC3	-GNT1	OUT		1K P/U TO VCC3
GP[52]	VCC3	-REQ2	OUT		8.2K P/U TO VCC3
GP[53]	VCC3	-GNT2	IN		8.2K P/U TO VCC3(N/A)
GP[54]	VCC3	-REQ3	IN		8.2K P/U TO VCC3
GP[55]	VCC3	-GNT3	IN		8.2K P/U TO VCC3(N/A)
GP[56]	3VDUAL	SPARE	IN		8.2K P/U TO 3VDUAL
GP[57]	3VDUAL	SPARE	IN		8.2K P/U TO 3VDUAL
GP[58]	3VDUAL	SML1CLK	OUT		8.2K P/U TO 3VDUAL
GP[59]	3VDUAL	-USBOC0	IN		USB OVER-CURRENT
GP[60]	3VDUAL	SML0ART	OUT		1K P/U TO 3VDUAL
GP[61]	3VDUAL	SPARE	OUT		8.2K P/U TO 3VDUAL
GP[62]	3VDUAL	SUSCLK	OUT		8.2K P/U TO 3VDUAL(N/A)
GP[63]	3VDUAL	-SLP_S5	OUT		8.2K P/U TO 3VDUAL(N/A)
GP[64]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[65]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[66]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[67]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[68]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[69]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[70]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[71]	VCC3	SPARE	OUT		8.2K P/U TO VCC3
GP[72]	3VDUAL	SPARE	OUT		8.2K P/U TO 3VDUAL
GP[73]	3VDUAL	SPARE	OUT		8.2K P/U TO 3VDUAL
GP[74]	3VDUAL	SML1ART	OUT		1K P/U TO 3VDUAL
GP[75]	3VDUAL	SML1DAT	IN/OUT		8.2K P/U TO 3VDUAL

Gigabyte Technology		
Title		
PCH GPIO LIST		
Size	Document Number	Rev
Custom	GA-X99-UD5 WIFI	1.0
Date:	Tuesday, August 26, 2014	Sheet 62 of 64

RS_SYS

LED_CON1

REAR PANEL

PE4_LED

B_BIOS

M_BIOS

PE3_LED

M2_WIFI

M2_20G

M2WD1 M2WD2

PE2_LED

SL_MIC1

PE1_LED

DDR4_4

D4_LED

DDR4_8

D8_LED

DDR4_2

D2_LED

DDR4_6

D6_LED

CPU SOCKET

DDR4_5

D5_LED

DDR4_1

D1_LED

DDR4_7

D7_LED

DDR4_3

D3_LED

SL_MIC2

PCH

ECRS_PCH

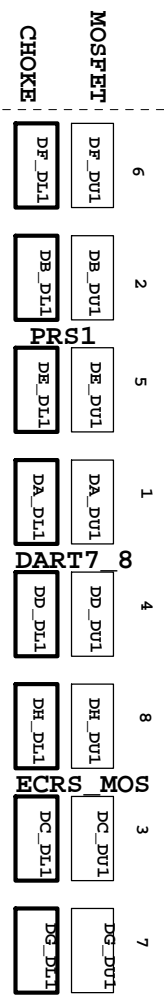
RS_PCH

放在PCH背板正中央

LED_CON2

FBIOS_LED

ECRS_SYS



Gigabyte Technology

Title

Location

Size Document Number

Custom

GA-X99-UD5 WIFI

Rev

1.0

Date: Tuesday, August 26, 2014

Sheet 63 of 64

