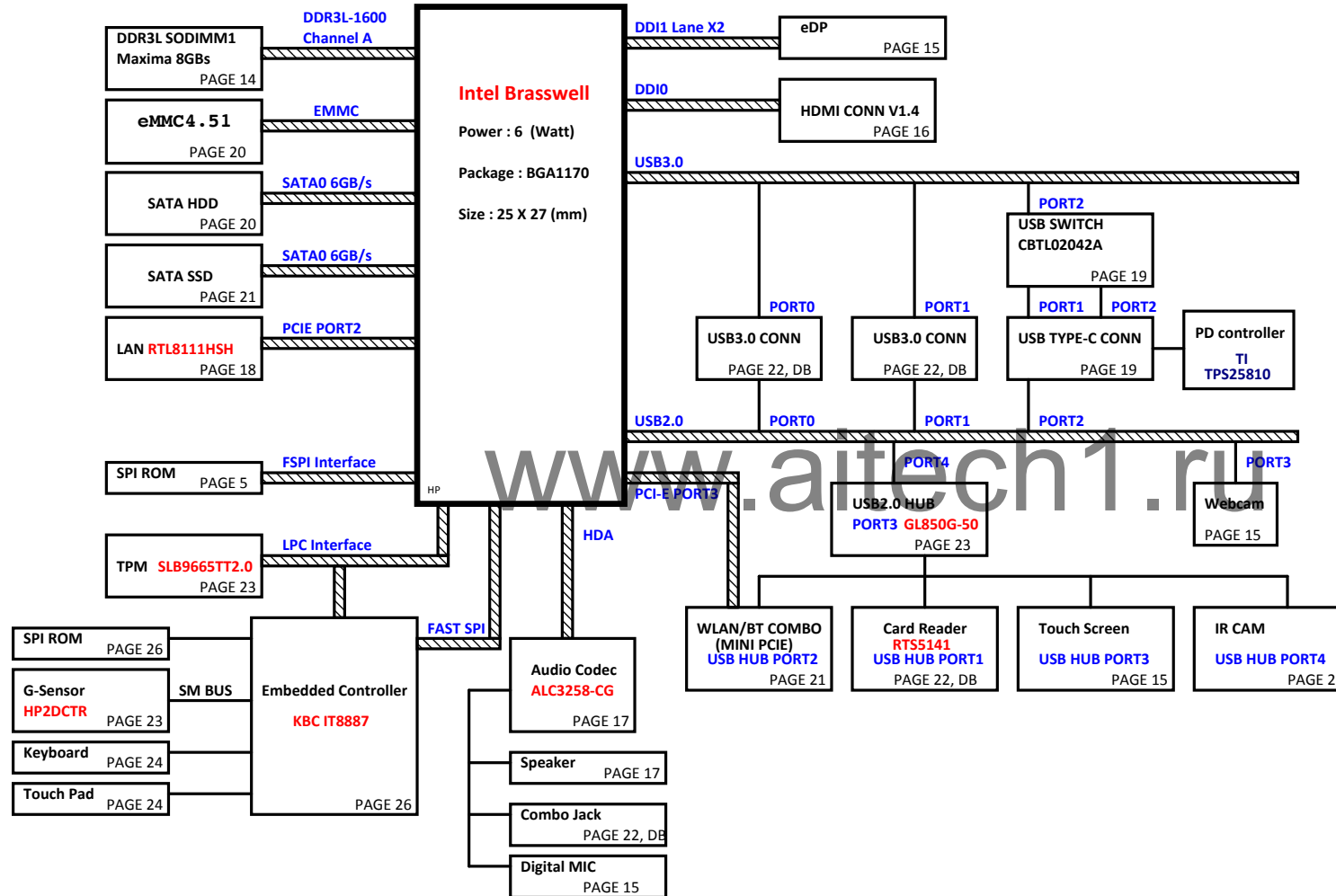


NFL-P G72D BSW UMA (14"/15.6")

Intel Braswell-M Platform Block Diagram



PCB 6L STACK UP

LAYER 1 : TOP
 LAYER 2 : SVCC
 LAYER 3 : IN1(LOW)
 LAYER 4 : IN2(HIGH)
 LAYER 5 : SGND
 LAYER 6 : BOT

Charger

PG.27

+3VS5/+5VS5

PG.28

DDR3L

PG.29

MOIC

PG.30

VGG & VCC CORE

PG.31, 32

SYS Power

PG.33

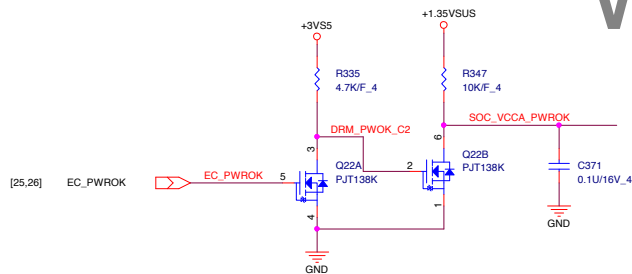
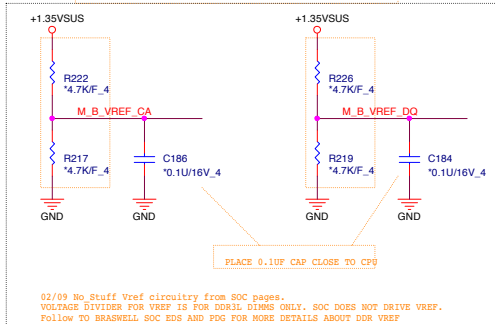


PROJECT : G72D
 Quanta Computer Inc.

Size Custom	Document Number Braswell Block Diagram	Rev 1A
Date: Tuesday, January 24, 2017	Sheet 1	of 35

ROUTE ALL VREF POWER SIGNALS AS THICK TRACES

PLACE TWO 4.7K RESISTORS CLOSE TO CPU PINS ON M_VREF
ROUTE THE VREF POWER SIGNALS WITH THICK TRACES

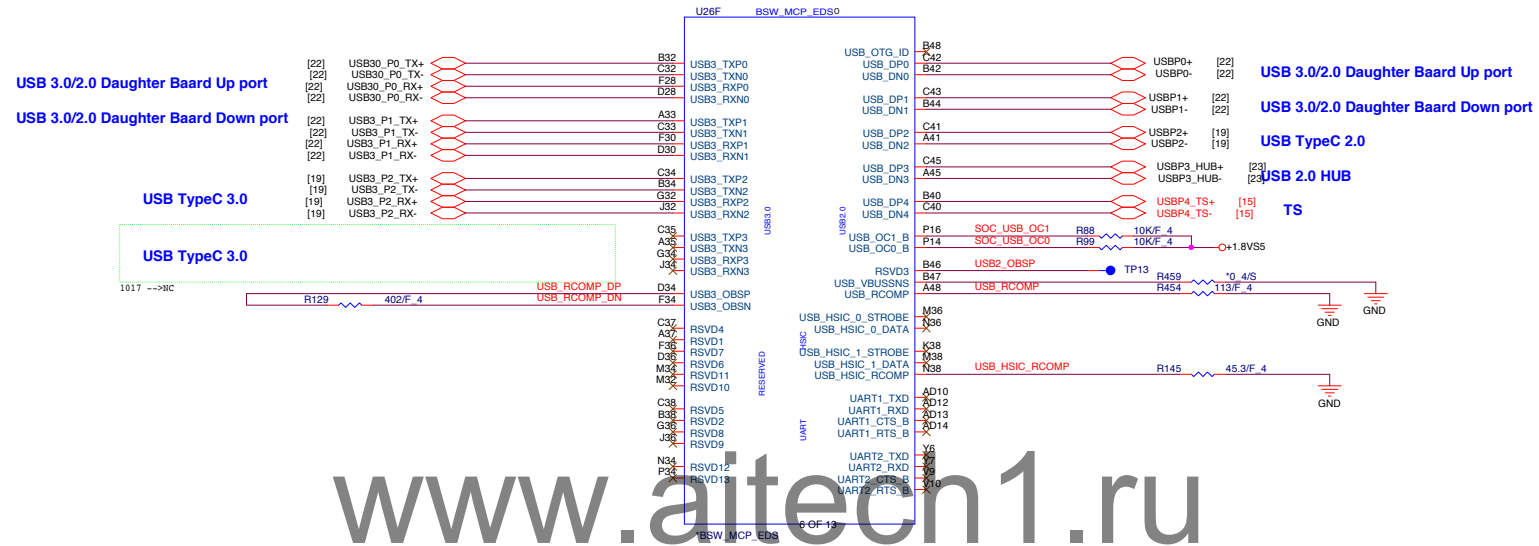


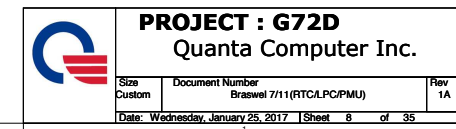
M_B_VREF_CA
M_B_VREF_DO
SOC_VCCA_PWROK
DRAM_RCMP2

U26B BSW_MCP_EDS		
BD5	DDR3_M1_MA_15	DDR3_M1_DQ_63
BD7	DDR3_M1_MA_14	DDR3_M1_DQ_62
BF4	DDR3_M1_MA_13	DDR3_M1_DQ_61
BB5	DDR3_M1_MA_12	DDR3_M1_DQ_60
BJ9	DDR3_M1_MA_11	DDR3_M1_DQ_59
BE2	DDR3_M1_MA_10	DDR3_M1_DQ_58
BD10	DDR3_M1_MA_9	DDR3_M1_DQ_57
BE8	DDR3_M1_MA_8	DDR3_M1_DQ_56
BB8	DDR3_M1_MA_7	DDR3_M1_DQ_55
BH6	DDR3_M1_MA_6	DDR3_M1_DQ_54
BD12	DDR3_M1_MA_5	DDR3_M1_DQ_53
BH7	DDR3_M1_MA_4	DDR3_M1_DQ_52
BJ6	DDR3_M1_MA_3	DDR3_M1_DQ_51
BC12	DDR3_M1_MA_2	DDR3_M1_DQ_50
BB7	DDR3_M1_MA_1	DDR3_M1_DQ_49
BF2	DDR3_M1_MA_0	DDR3_M1_DQ_48
AY14	DDR3_M1_BS_2	DDR3_M1_DQ_47
BH8	DDR3_M1_BS_1	DDR3_M1_DQ_46
	DDR3_M1_BS_0	DDR3_M1_DQ_45
BG9	DDR3_M1_CASB	DDR3_M1_DQ_44
BA14	DDR3_M1_RASB	DDR3_M1_DQ_43
BH10	DDR3_M1_WEB	DDR3_M1_DQ_42
AU16	DDR3_M1_CS_1	DDR3_M1_DQ_41
AY16	DDR3_M1_CS_0	DDR3_M1_DQ_40
BD16	DDR3_M1_CK_1	DDR3_M1_DQ_39
BF16	DDR3_M1_CKB_1	DDR3_M1_DQ_38
AY12	DDR3_M1_CKE_1	DDR3_M1_DQ_37
BD14	DDR3_M1_CK_0	DDR3_M1_DQ_36
BF14	DDR3_M1_CKB_0	DDR3_M1_DQ_35
BB10	DDR3_M1_CKE_0	DDR3_M1_DQ_34
AT24	RSVD1	DDR3_M1_DQ_33
AU24	RSVD2	DDR3_M1_DQ_32
AV18	DDR3_M1_ODT_0	DDR3_M1_DQ_31
BA16	DDR3_M1_ODT_1	DDR3_M1_DQ_30
AT26	DDR3_M1_OCAVREF	DDR3_M1_DQ_29
AU26	DDR3_M1_ODQVREF	DDR3_M1_DQ_28
BA12	DDR3_M1_DRAMRSTB	DDR3_M1_DQ_27
AV26	DDR3_VCCA_PWROK	DDR3_M1_DQ_26
		DDR3_M1_DQ_25
BA26	DDR3_M1_RCOMP2	DDR3_M1_DQ_24
BH24	DDR3_M1_DM_7	DDR3_M1_DQ_23
BD22	DDR3_M1_DM_6	DDR3_M1_DQ_22
AY18	DDR3_M1_DM_5	DDR3_M1_DQ_21
BG13	DDR3_M1_DM_4	DDR3_M1_DQ_20
BA1	DDR3_M1_DM_3	DDR3_M1_DQ_19
AP10	DDR3_M1_DM_2	DDR3_M1_DQ_18
AT6	DDR3_M1_DM_1	DDR3_M1_DQ_17
AP2	DDR3_M1_DM_0	DDR3_M1_DQ_16
BH22	DDR3_M1_DQS_7	DDR3_M1_DQ_15
BG23	DDR3_M1_DQS_6	DDR3_M1_DQ_14
BC24	DDR3_M1_DQS_5	DDR3_M1_DQ_13
BC22	DDR3_M1_DQS_4	DDR3_M1_DQ_12
AT22	DDR3_M1_DQS_3	DDR3_M1_DQ_11
AT20	DDR3_M1_DQS_2	DDR3_M1_DQ_10
BH14	DDR3_M1_DQS_1	DDR3_M1_DQ_9
BG15	DDR3_M1_DQS_0	DDR3_M1_DQ_8
AY2	DDR3_M1_DQS_7	DDR3_M1_DQ_7
BA3	DDR3_M1_DQS_6	DDR3_M1_DQ_6
AT12	DDR3_M1_DQS_5	DDR3_M1_DQ_5
AT13	DDR3_M1_DQS_4	DDR3_M1_DQ_4
AV7	DDR3_M1_DQS_3	DDR3_M1_DQ_3
AV6	DDR3_M1_DQS_2	DDR3_M1_DQ_2
AM2	DDR3_M1_DQS_1	DDR3_M1_DQ_1
AM3	DDR3_M1_DQS_0	DDR3_M1_DQ_0

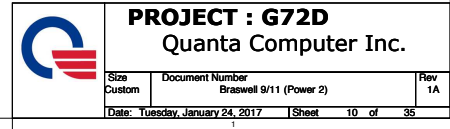
*BSW_MCP_EDS

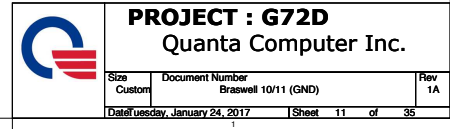
2 OF 13

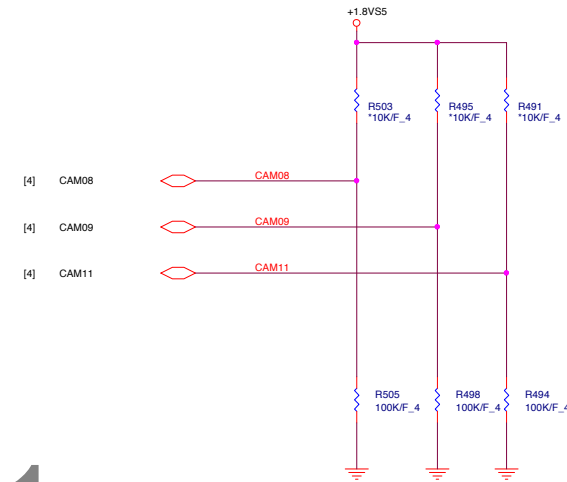
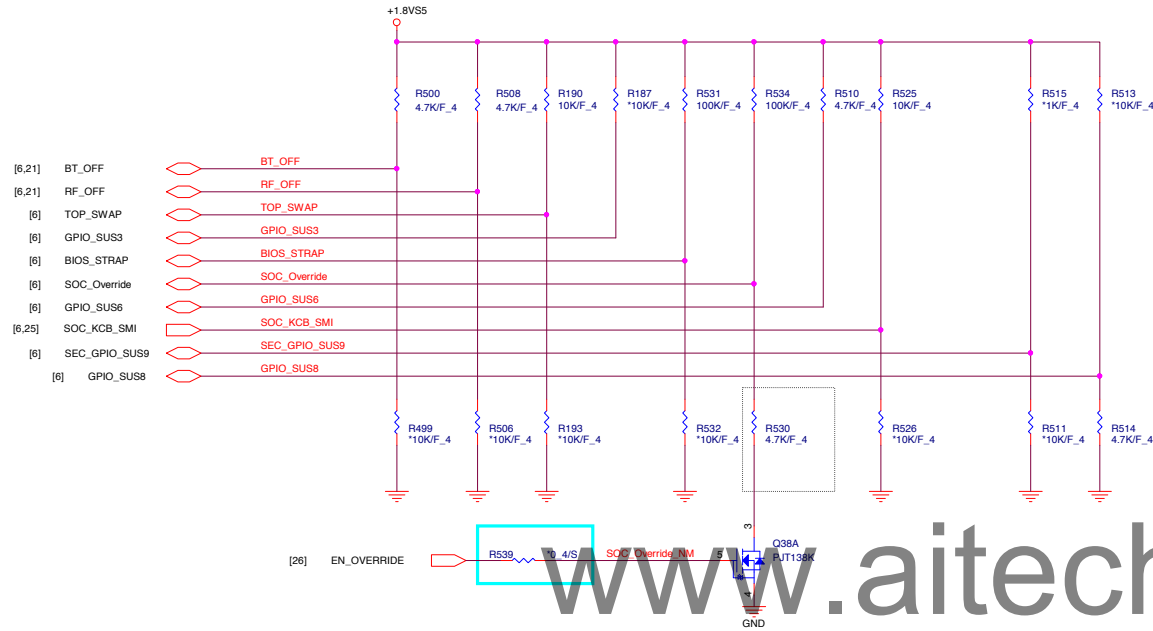




Disable HSIC SSIC MIPI power.





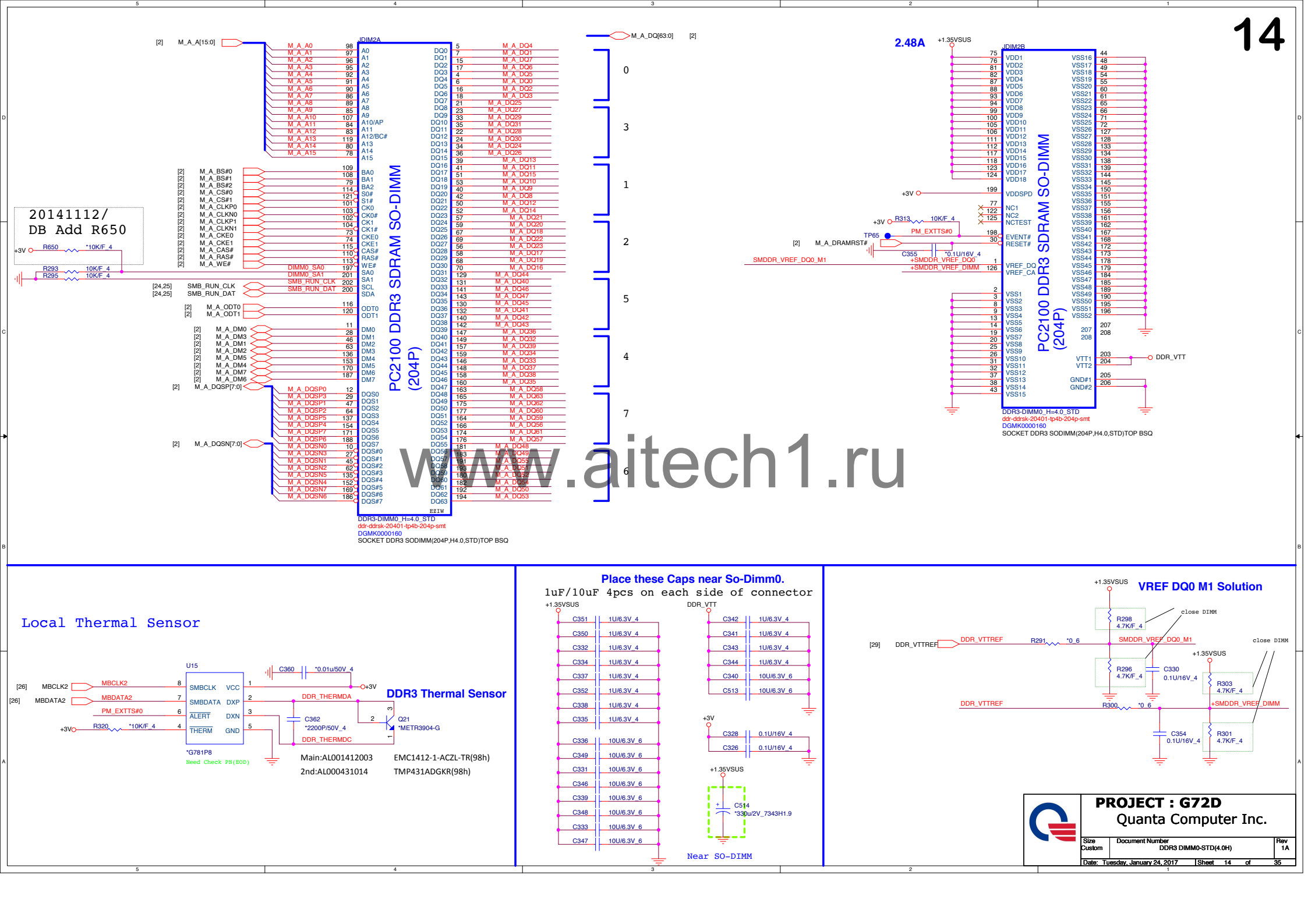
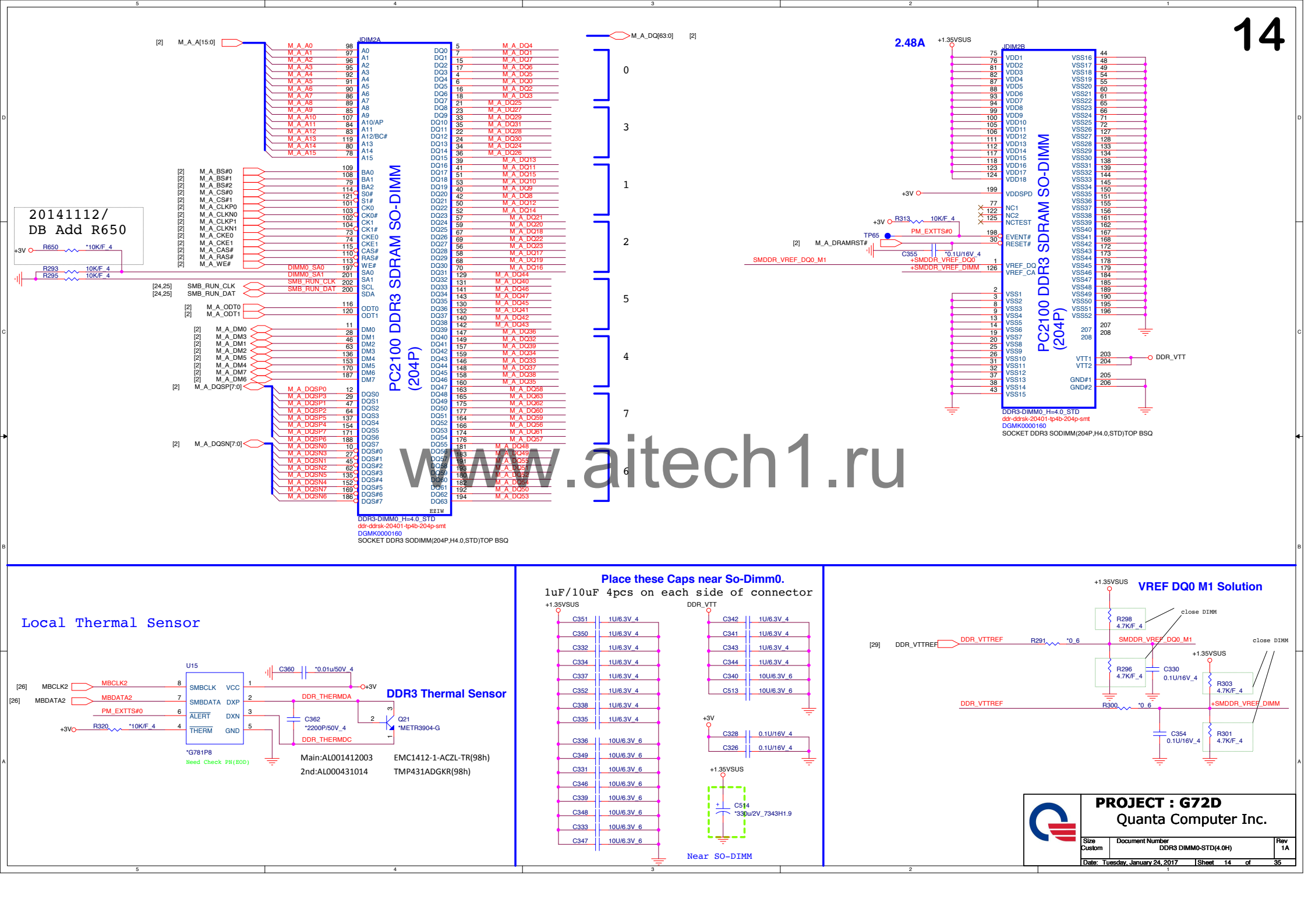
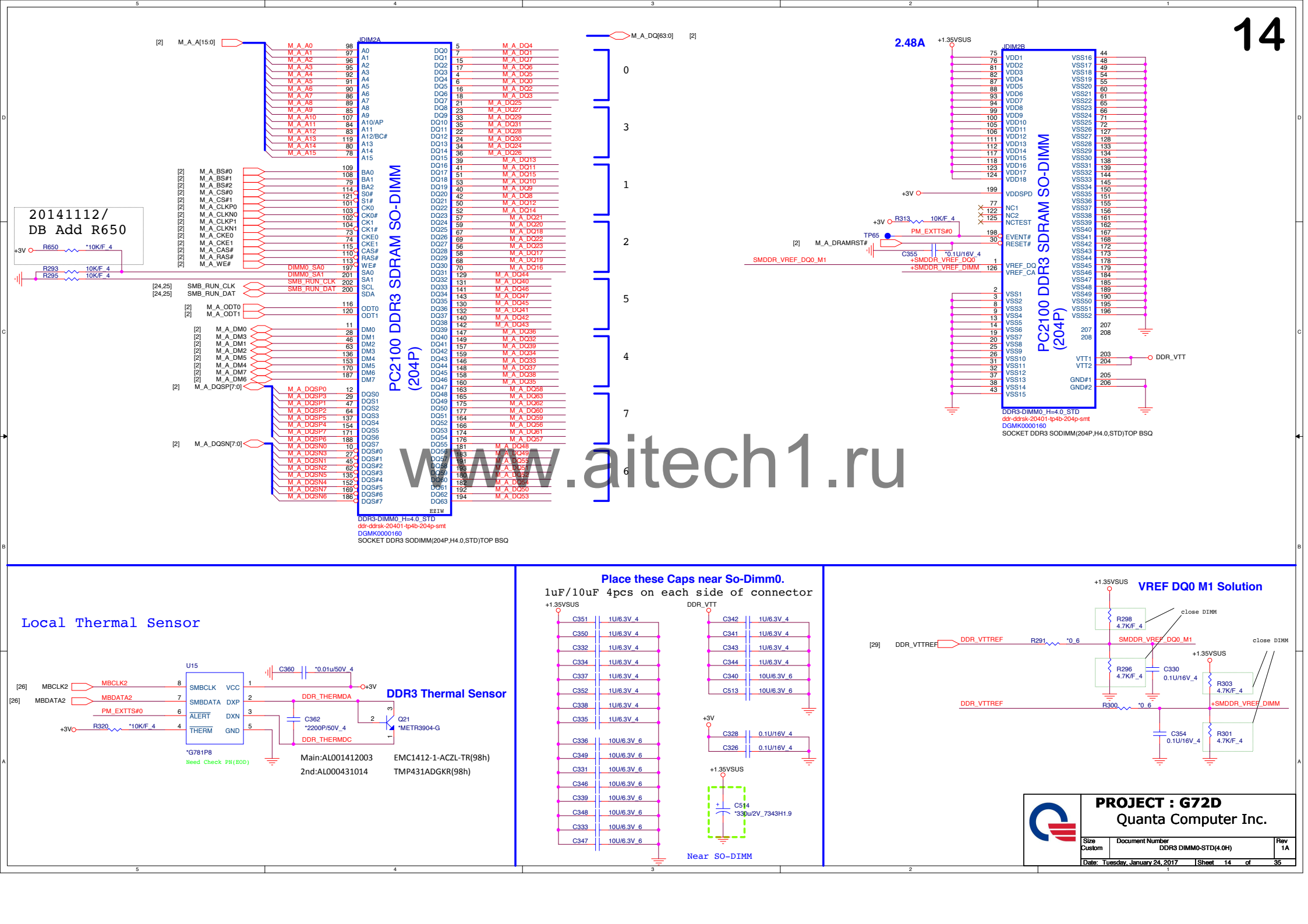
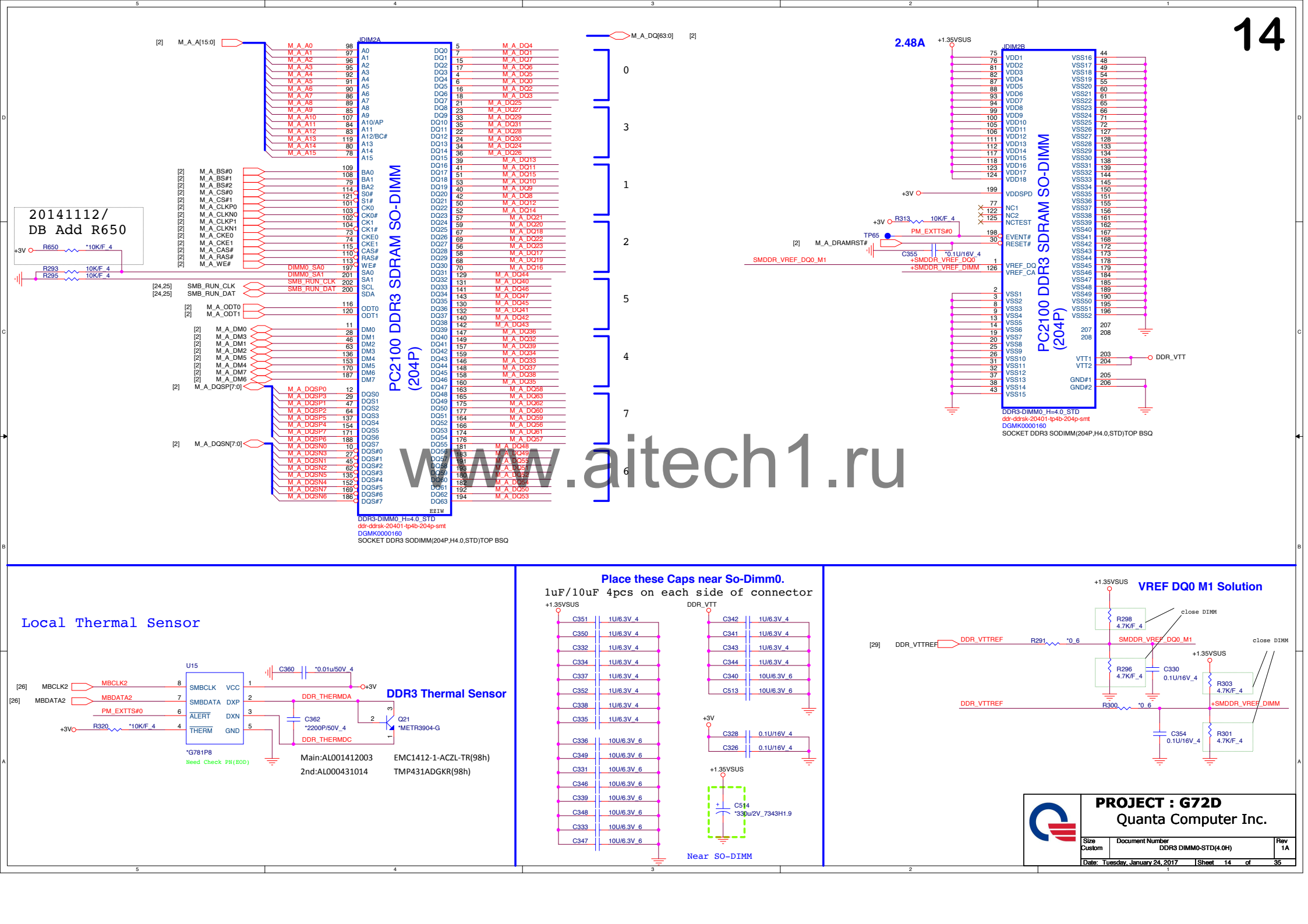
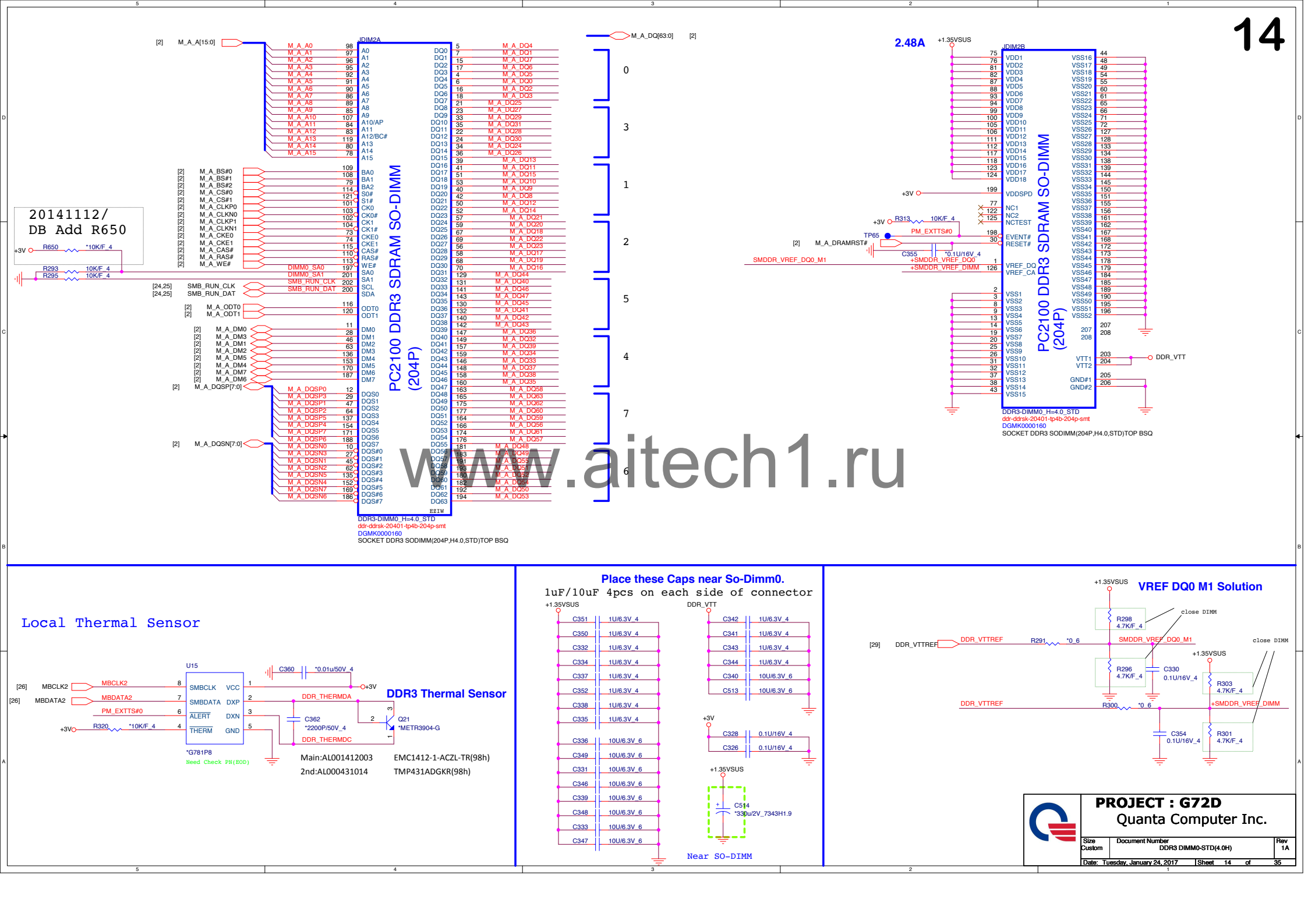
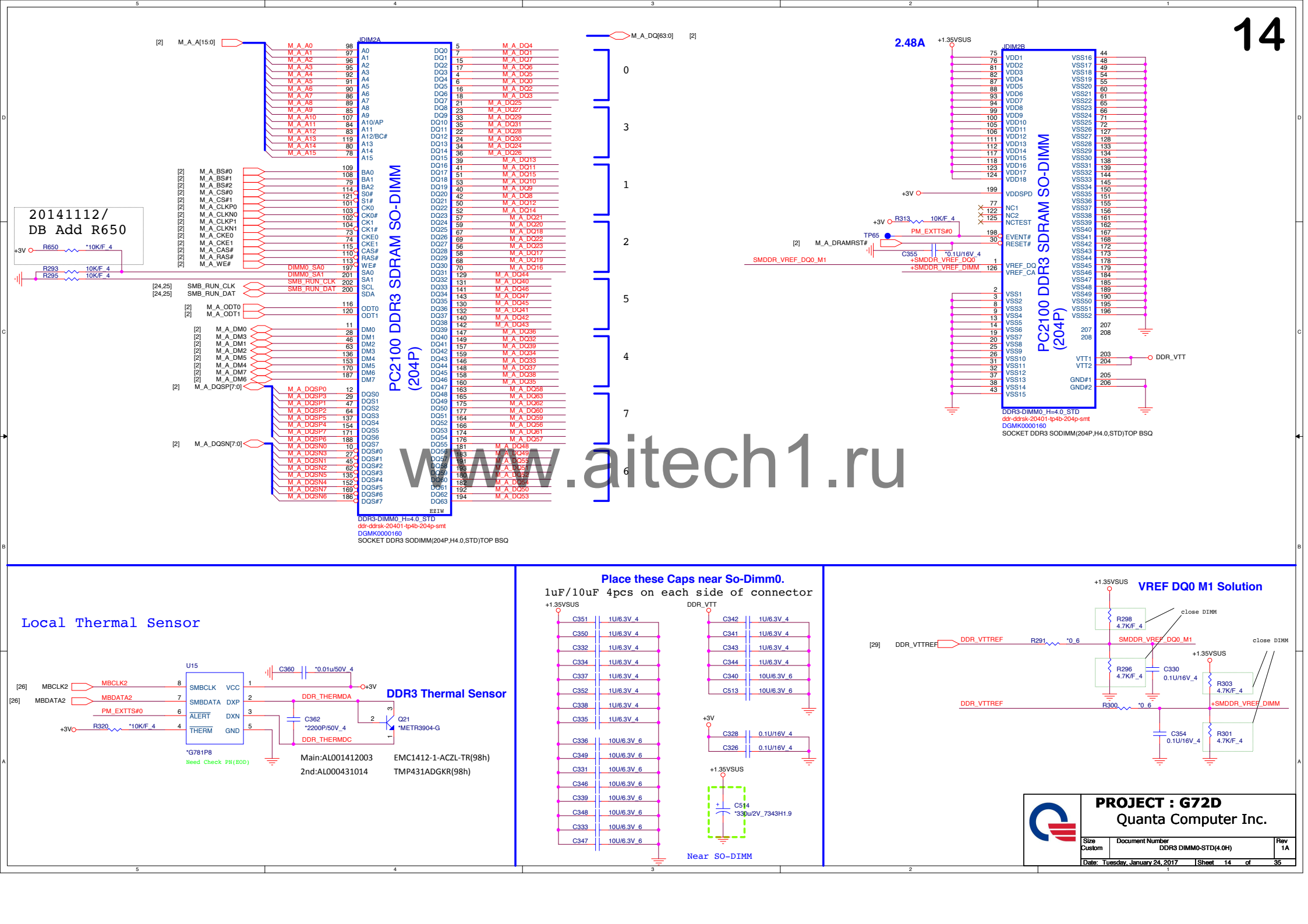
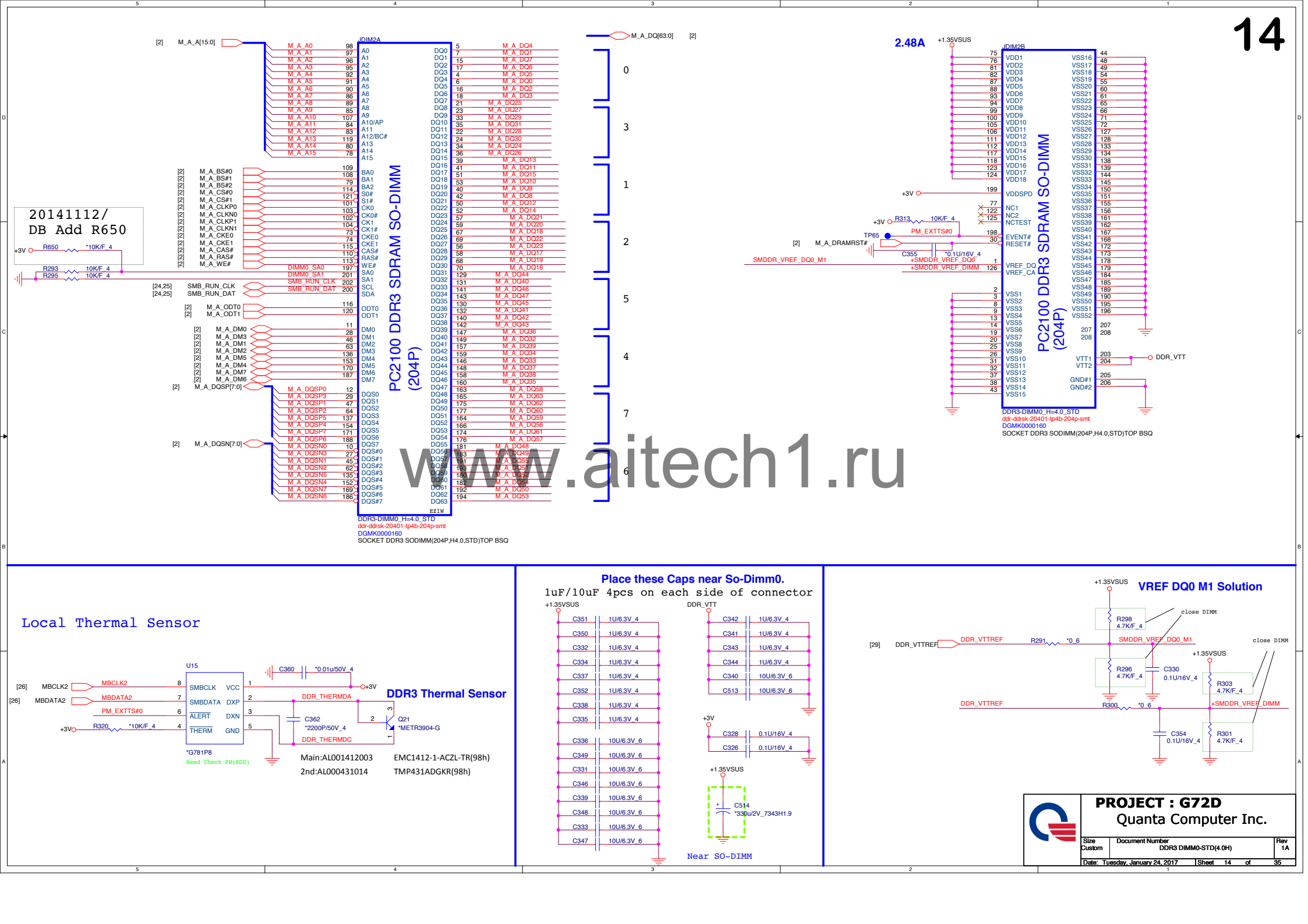


REQUIRED STRAPS

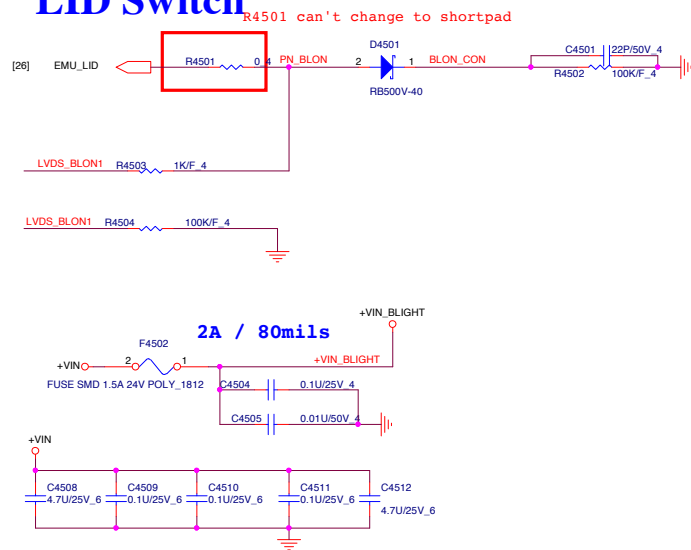
	GPIO_SUS0	GPIO_SUS1	TOP_SWAP	GPIO_SUS3	BIOS_STRAP	SOC_Override	GPIO_SUS6	SOC_KCB_SMI	GPIO_SUS8
PULL HIGH	DDI0 detected DEFAULT	DDI1 detected DEFAULT	Normal Operation DEFAULT	Reserve 10 KΩ PU DEFAULT	SPI DEFAULT	Normal Operation DEFAULT 20150209 PV change	10 KΩ PU to 1.8V DEFAULT	Reserve 10 KΩ PU DEFAULT	Supply is 1.35V
PULL LOW	DDI0 not detected	DDI1 not detected	Change Boot Loader address		LPC	Override			Supply is 1.25V DEFAULT

	CAM08	CAM09	CAM11
PULL HIGH	ICLK Xtal OSC Bypass	CCU SUS RO Bypass	RTC OSC Bypass
PULL LOW	ICLK Xtal OSC No Bypass DEFAULT	CCU SUS RO No Bypass DEFAULT	RTC OSC No Bypass DEFAULT

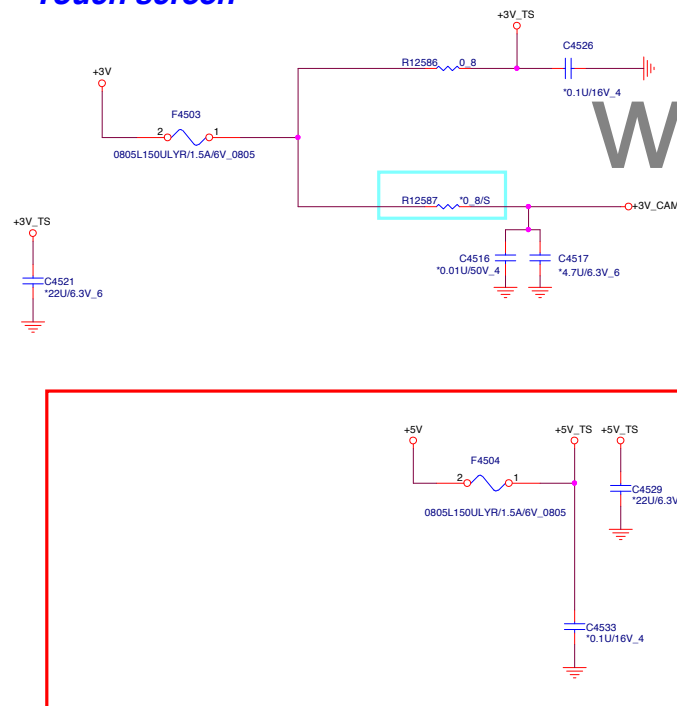
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LID Switch

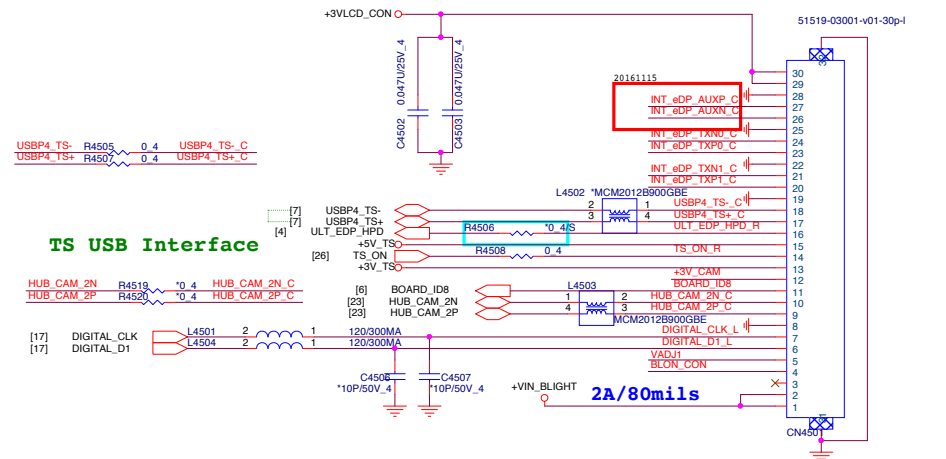


Touch screen

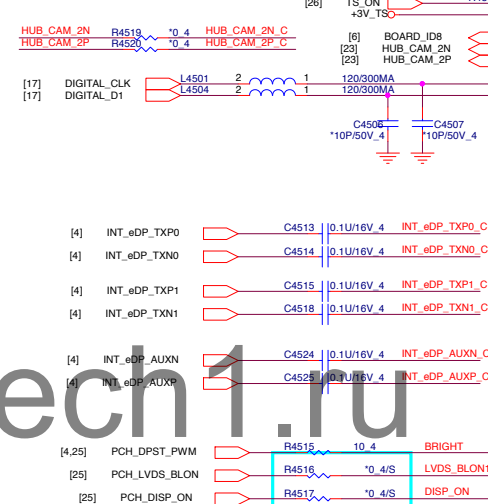


eDP Conn.

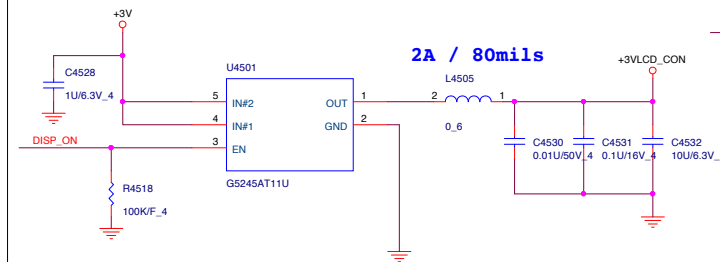
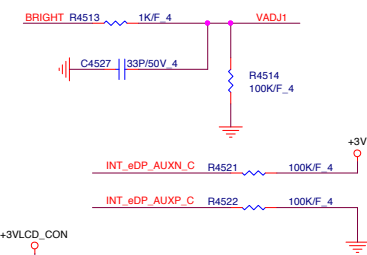
26

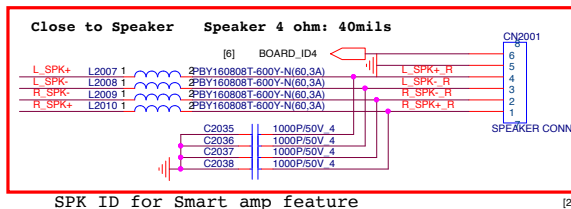
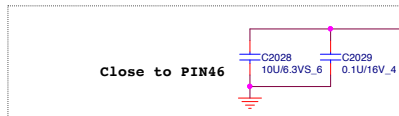
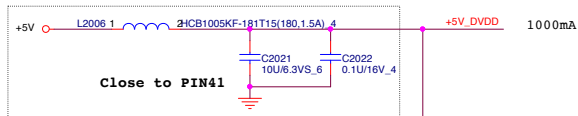
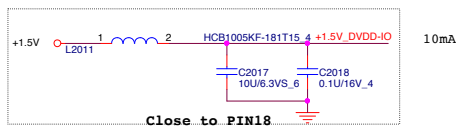
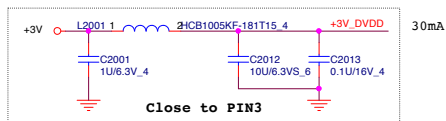


TS USB Interface



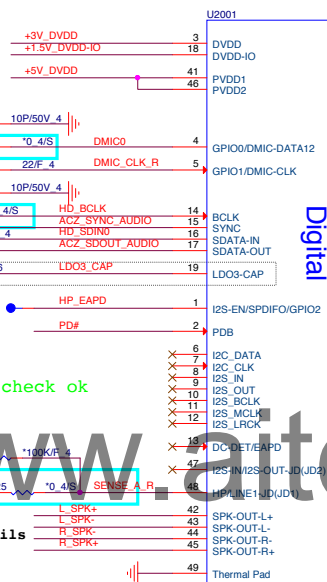
20161018 FP/PN check ok





20161018 FP/PN check ok

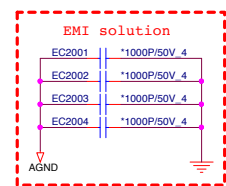
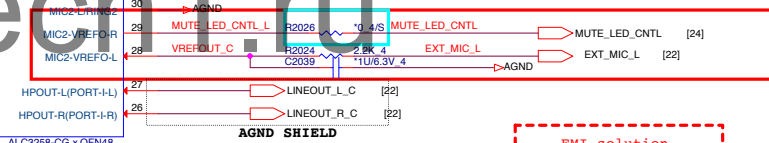
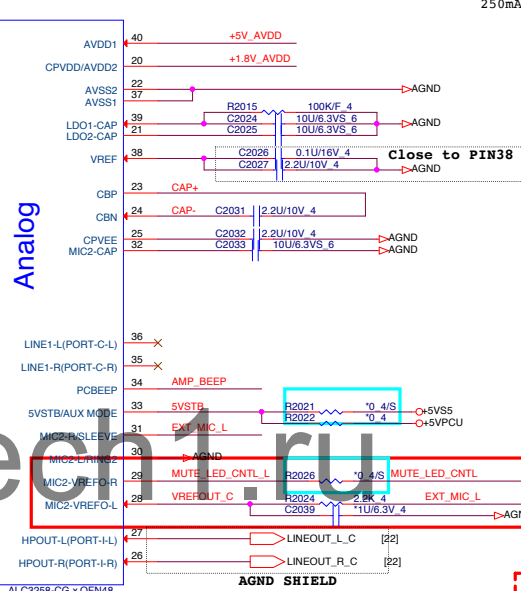
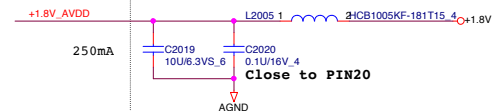
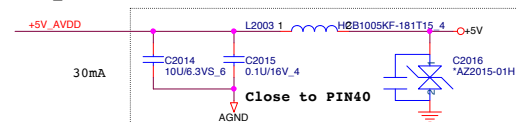
Speaker 4 ohm: 40mils



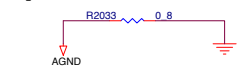
Digital

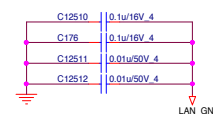
Analog

+5V_AVDD >40mils trace



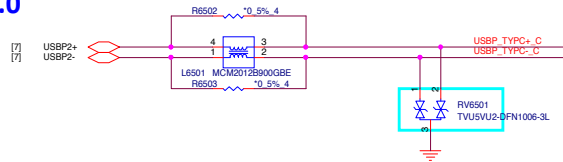
place to under codec





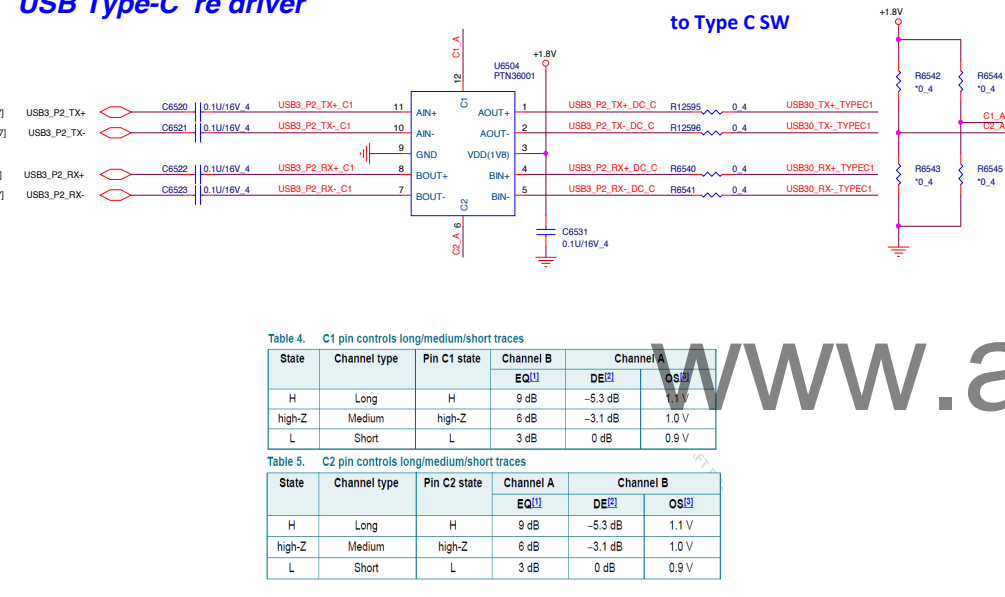
USB TYPE-C - TPS25810

USB2.0

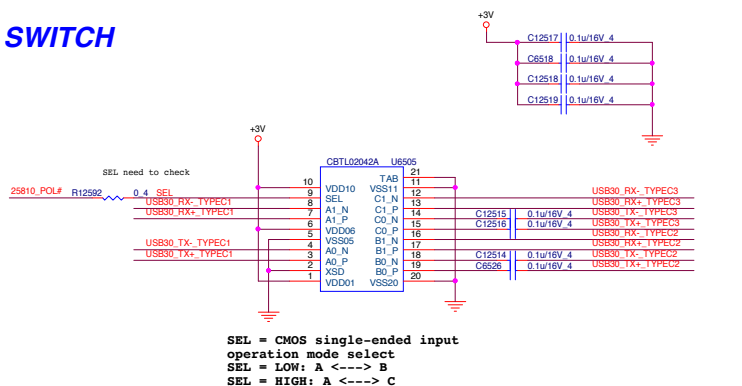


PV add To judge the usb typeC port for factory

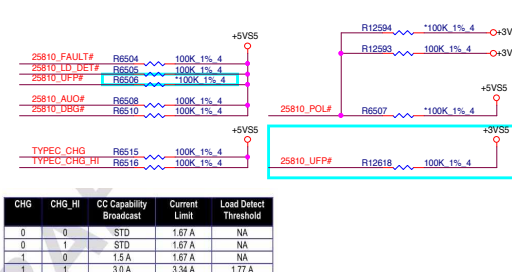
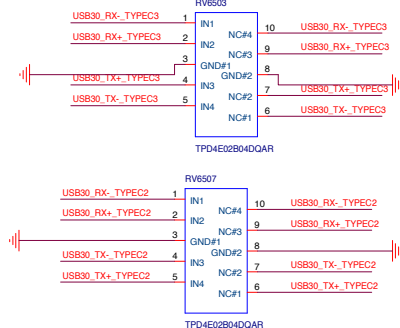
USB Type-C re driver



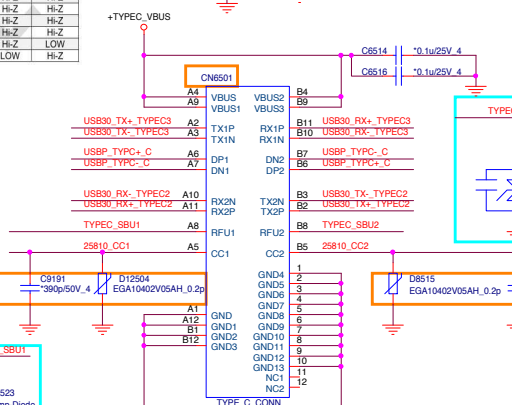
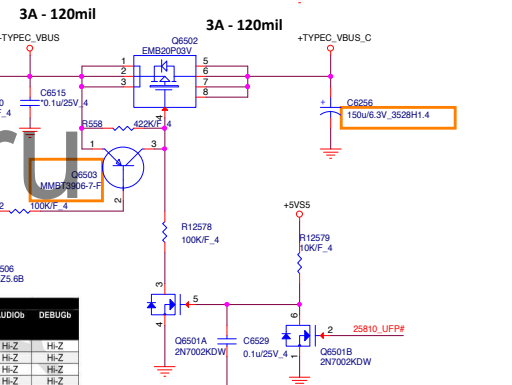
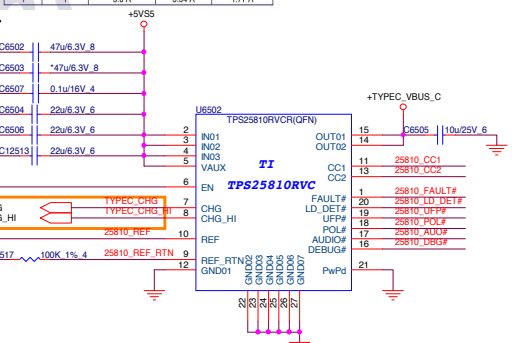
USB SWITCH



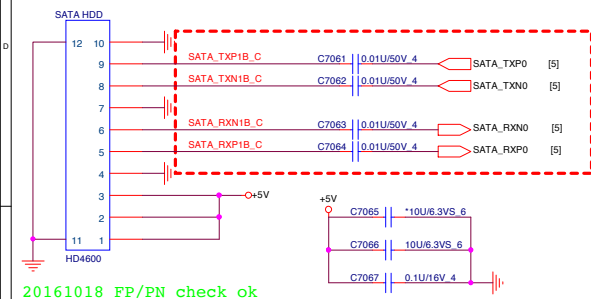
TYPE C USB3.0 ESD



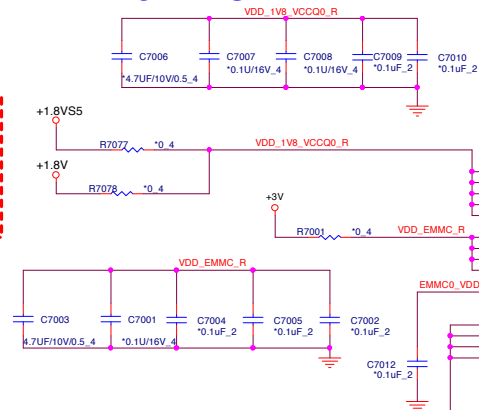
CHG	CHG_H	CC Capability Broadcast	Current Limit	Load Detect Threshold
0	0	STD	1.67 A	NA
0	1	STD	1.67 A	NA
1	0	1.5 A	1.67 A	NA
1	1	3.0 A	3.34 A	1.77 A



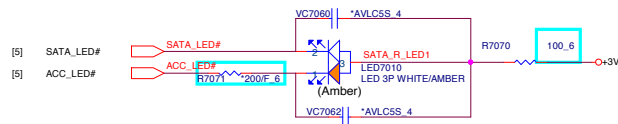
HDD
SATA HDD



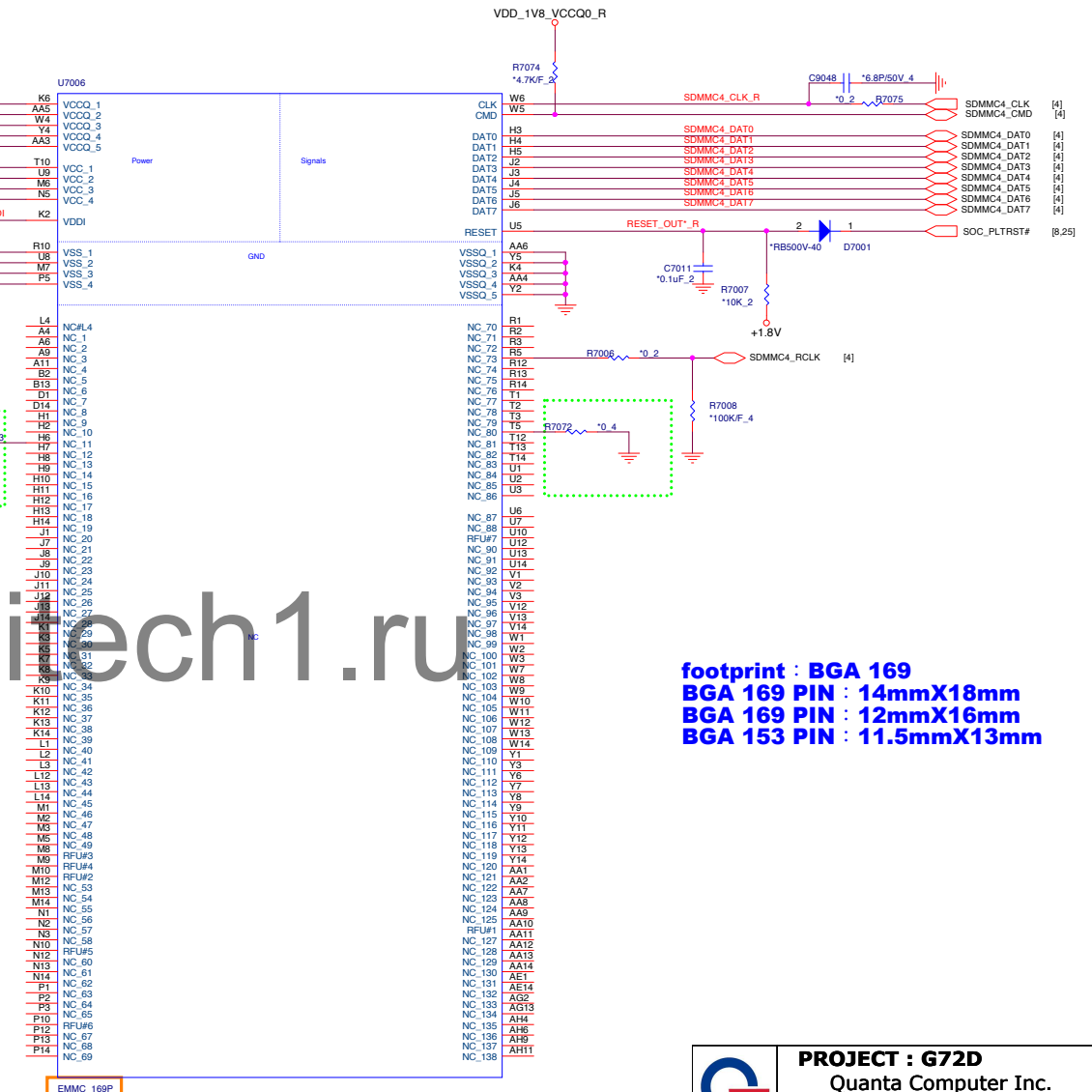
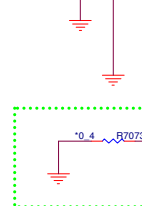
eMMC



SATA LED



iNAND (eMMC) V4.51				
TOPBSQ	QBCON	Description	SIZE	Vender
AKE3SZ-TW01	AKE3SZ-TW02	IC FLASH(153P)H26M64103EMR(FBGA)	32G	Hynix
AKE3SZ0T511	AKE3SZ0T512	IC FLASH(153)KLMBG4GEND-B031(FBGA)	32G	samsung
AKE3SFUT000	AKE3SFUT001	IC FLASH(153P)SDIN9DW4-32G(FBGA)	32G	SanDisk
AKE3TG-TW01	AKE3TG-TW02	IC FLASH(153P)H26M78103CCR(FBGA)	64G	Hynix
AKE3TZPT521	AKE3TZPT520	IC FLASH(153)KLKCG8GEND-B031(FBGA)	64G	samsung
AKE3TFUT101	AKE3TFUT102	IC FLASH(153P)SDIN9DW4-64G(FBGA)	64G	SanDisk



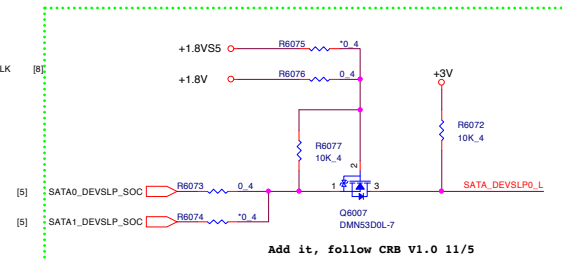
footprint : BGA 169
BGA 169 PIN : 14mmX18mm
BGA 169 PIN : 12mmX16mm
BGA 153 PIN : 11.5mmX13mm



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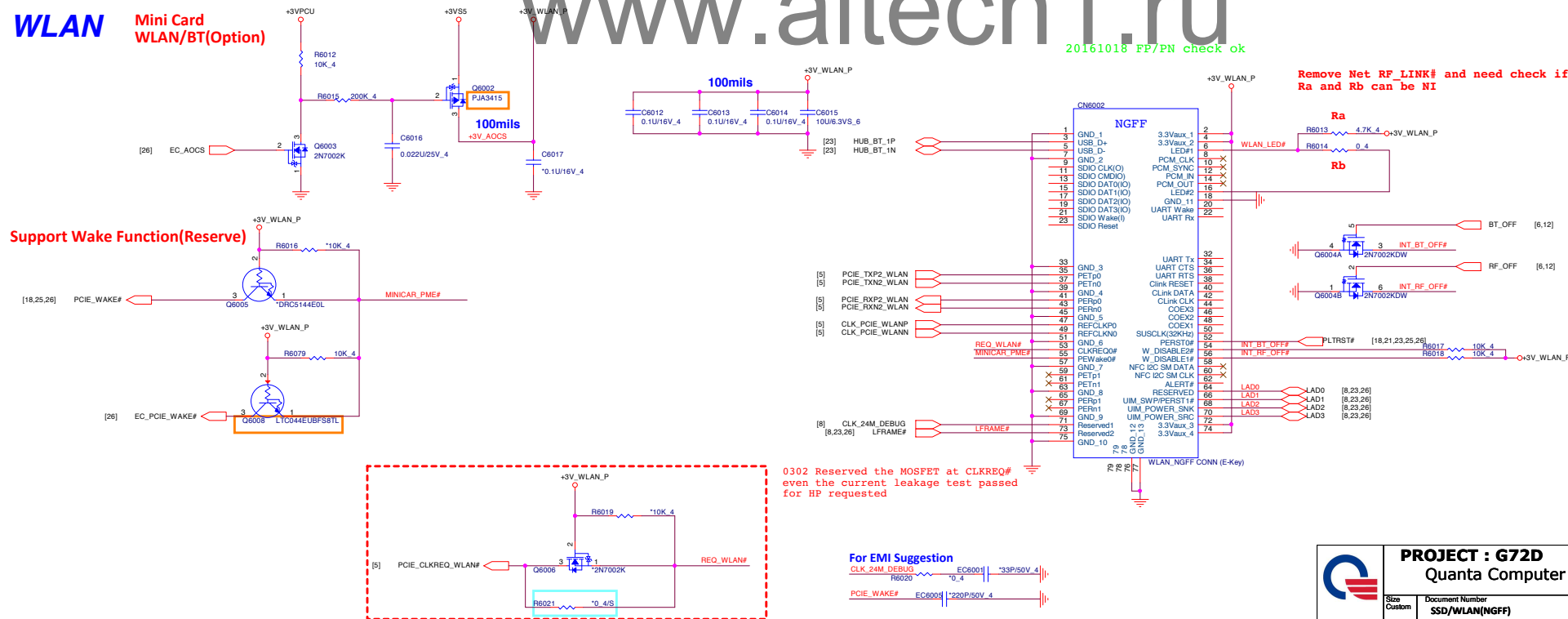
Size Custom	Document Number HDD/EMMC	Rev 1A
Date: Wednesday, January 25, 2017		Sheet 20 of 35

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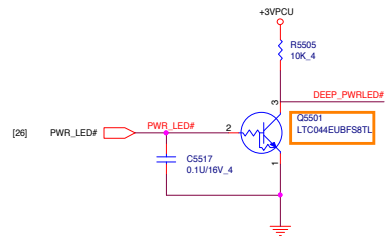
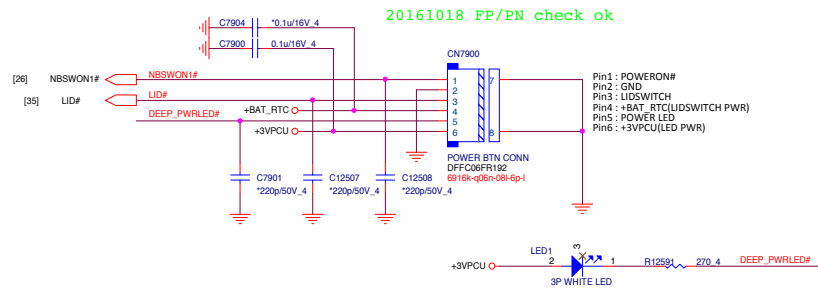
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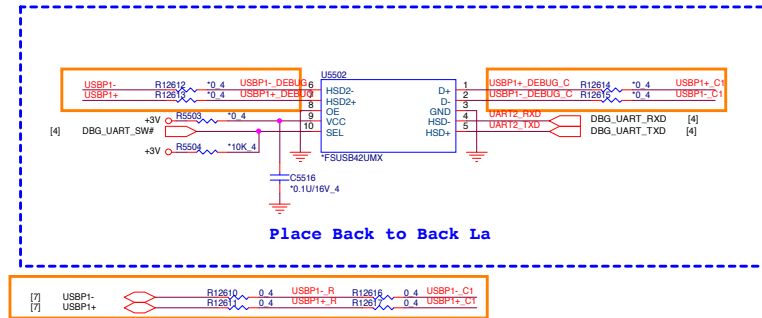
For EMI Suggestion

The schematic diagram shows two signal lines. The top line is labeled **CLK_24M_DEBUG** and is connected to pin ***0_4** of component **EC6001**. The bottom line is labeled **PCIE_WAKE#** and is connected to pin ***220P/50V_4** of component **EC6005**. Both lines are connected to a common ground symbol on the right.

Power Botton Connector

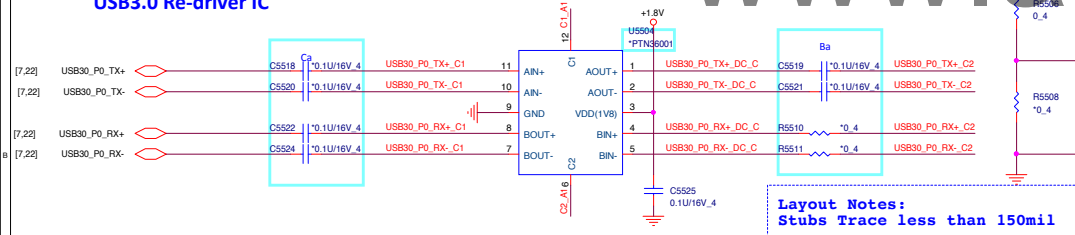


UART for Win7 WHQL DEBUG



USB3.0

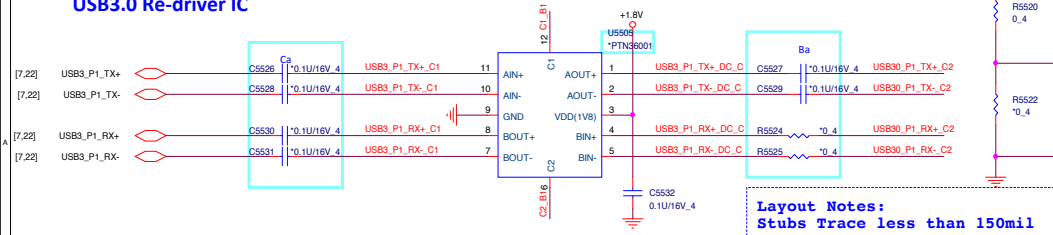
USB3.0 Re-driver IC



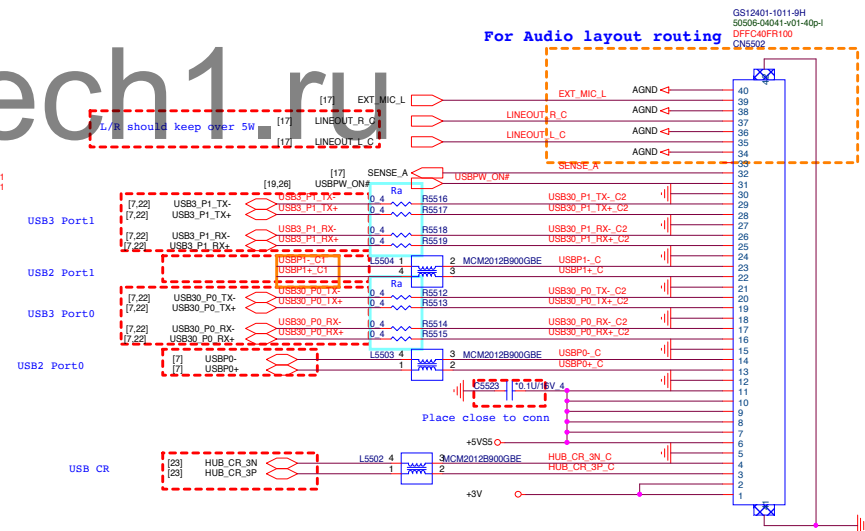
SOC to CON--> Stuff Ra, remove Ca,Ba
SOC to re-driver to conn--> Stuff Ca,Ba, remove Ra

USB3.0

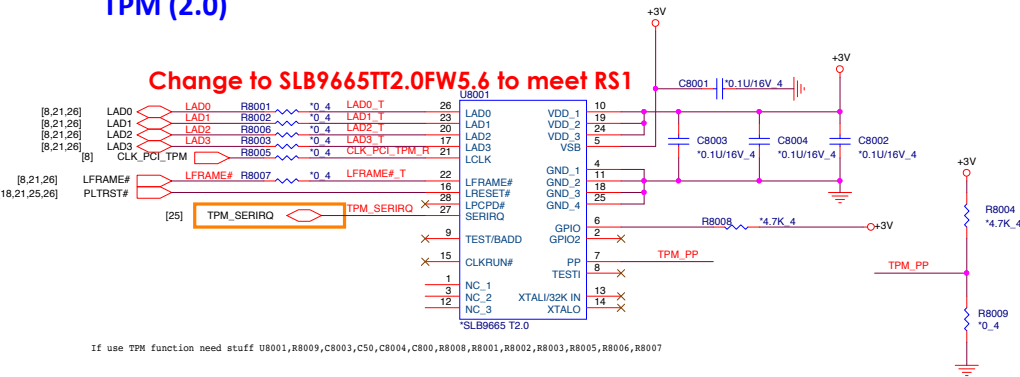
USB3.0 Re-driver IC



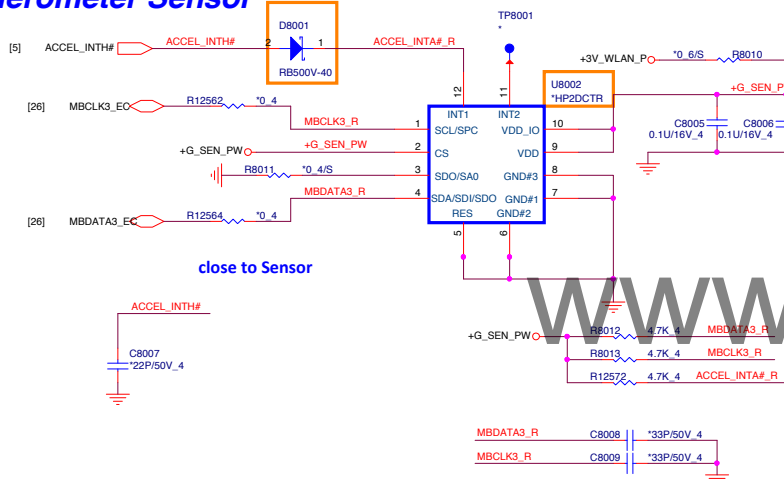
Daughter Board



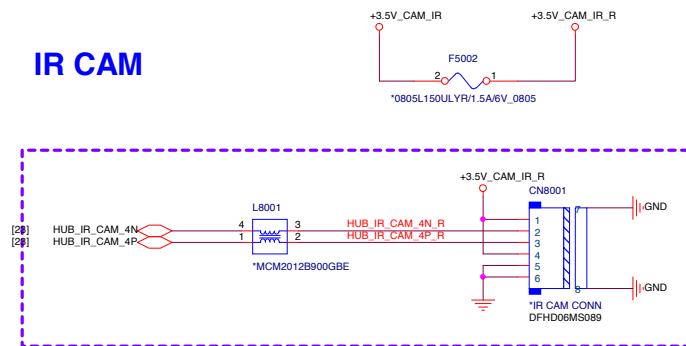
TPM (2.0)



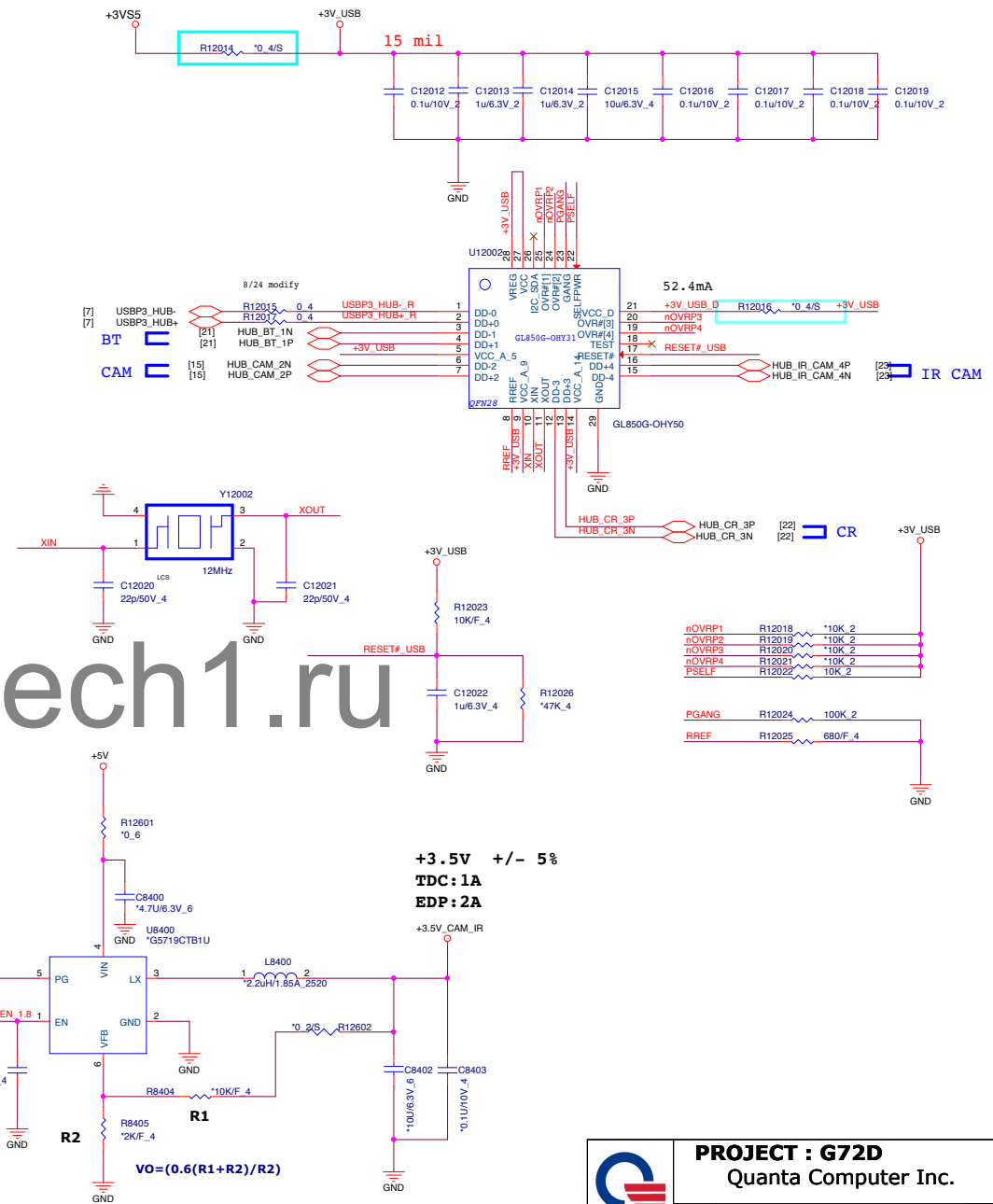
Accelerometer Sensor



IR CAM



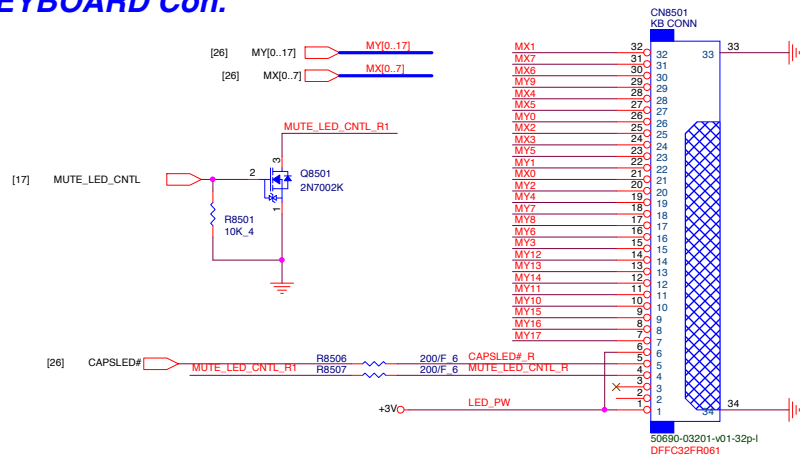
USB HUB



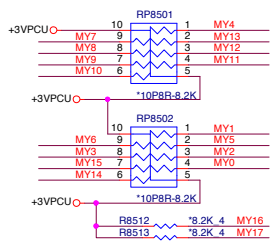
PROJECT : G72D
Quanta Computer Inc.

Size	Document Number	Rev
Custom	TPM/G-Sensor/IR CAM/HUB	1A
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KEYBOARD Con.

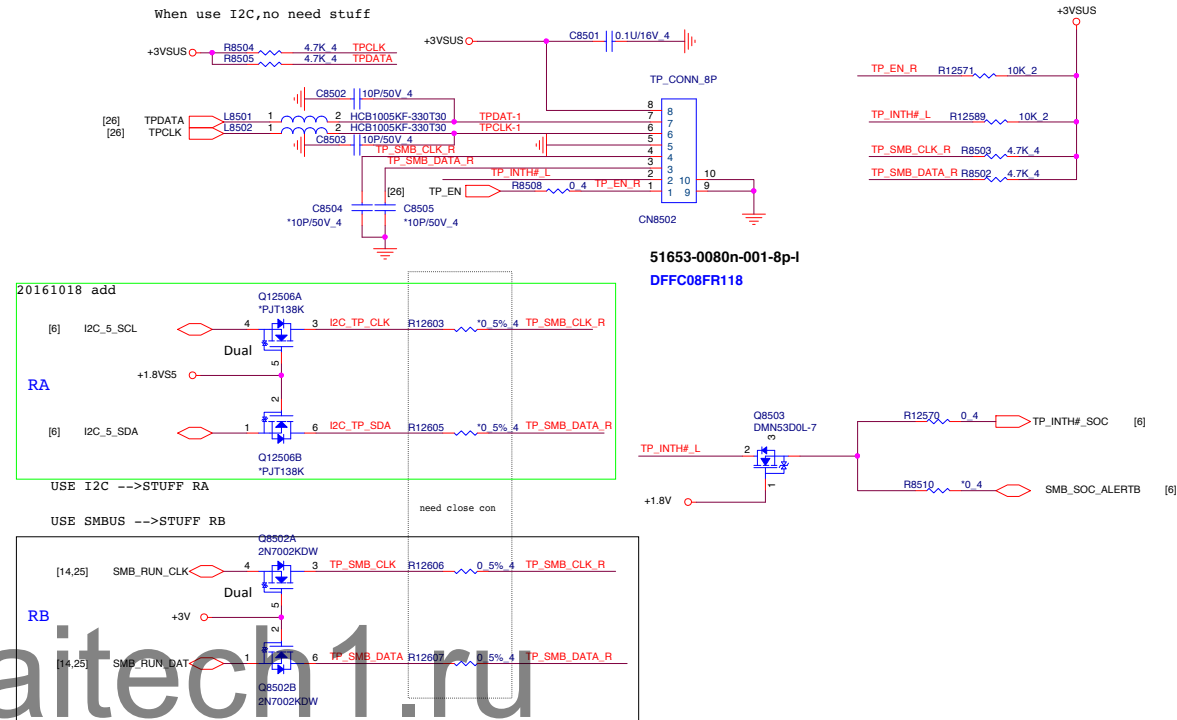


KEYBOARD PULL-UP

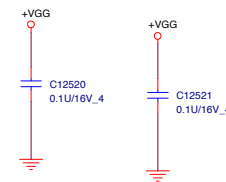


MY5	C8506	220P/50V_4
MY6	C8507	220P/50V_4
MY3	C8508	220P/50V_4
MY7	C8509	220P/50V_4
MY8	C8510	220P/50V_4
MY9	C8512	220P/50V_4
MY10	C8513	220P/50V_4
MY11	C8515	220P/50V_4
MY1	C8516	220P/50V_4
MY2	C8517	220P/50V_4
MY4	C8520	220P/50V_4
MY0	C8521	220P/50V_4
MX4	C8522	220P/50V_4
MX6	C8523	220P/50V_4
MX3	C8524	220P/50V_4
MX2	C8525	220P/50V_4
MX7	C8526	220P/50V_4
MX0	C8527	220P/50V_4
MX5	C8528	220P/50V_4
MX1	C8529	220P/50V_4
MY12	C8530	220P/50V_4
MY13	C8531	220P/50V_4
MY14	C8533	220P/50V_4
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MY16	C8536	220P/50V_4
MY17	C8537	220P/50V_4

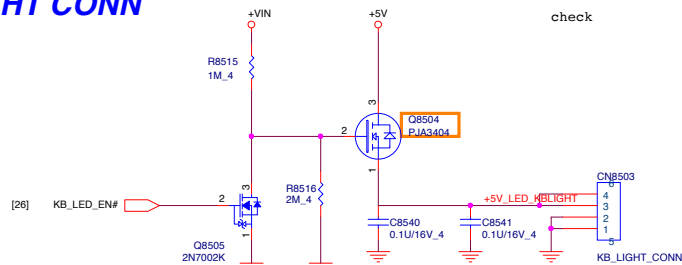
Touch Pad Connector

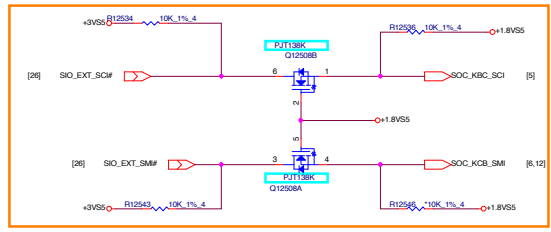
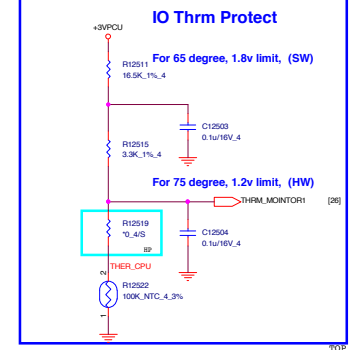
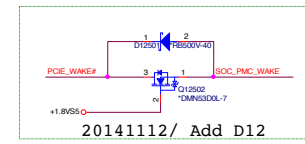
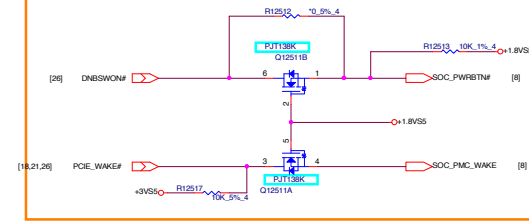
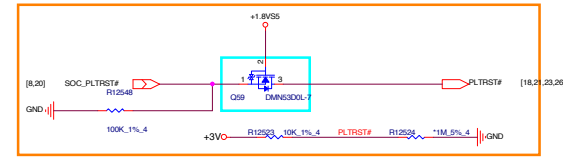
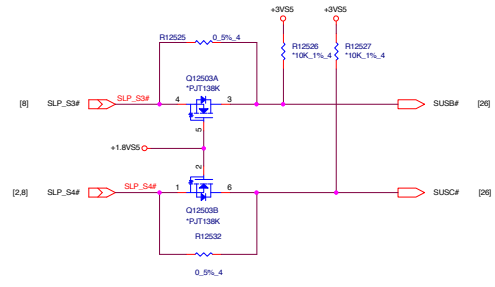
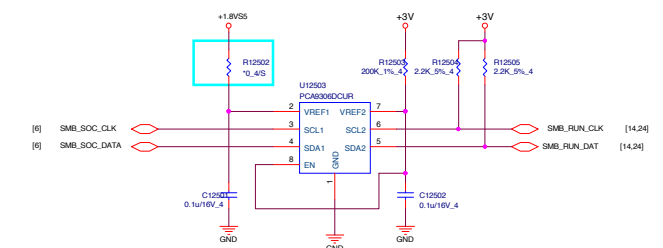
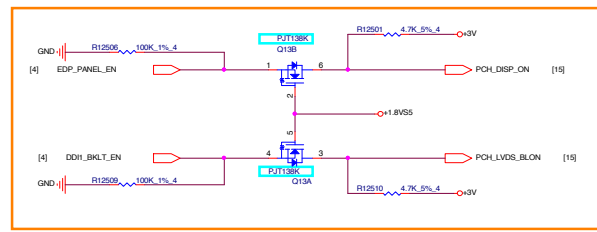
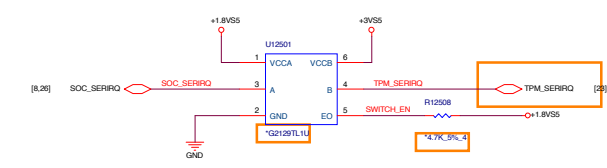


Cap

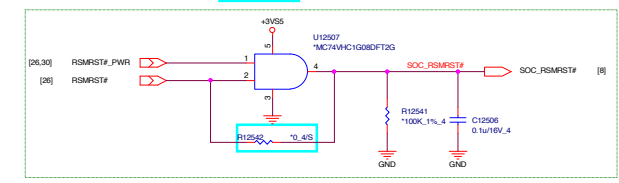
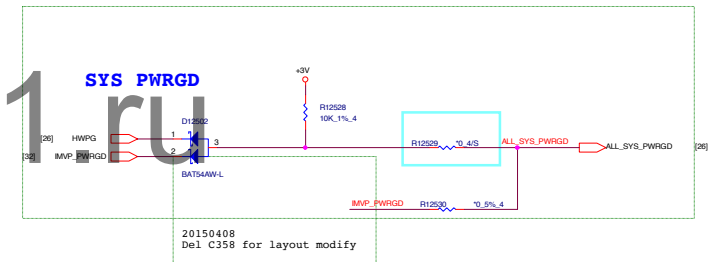


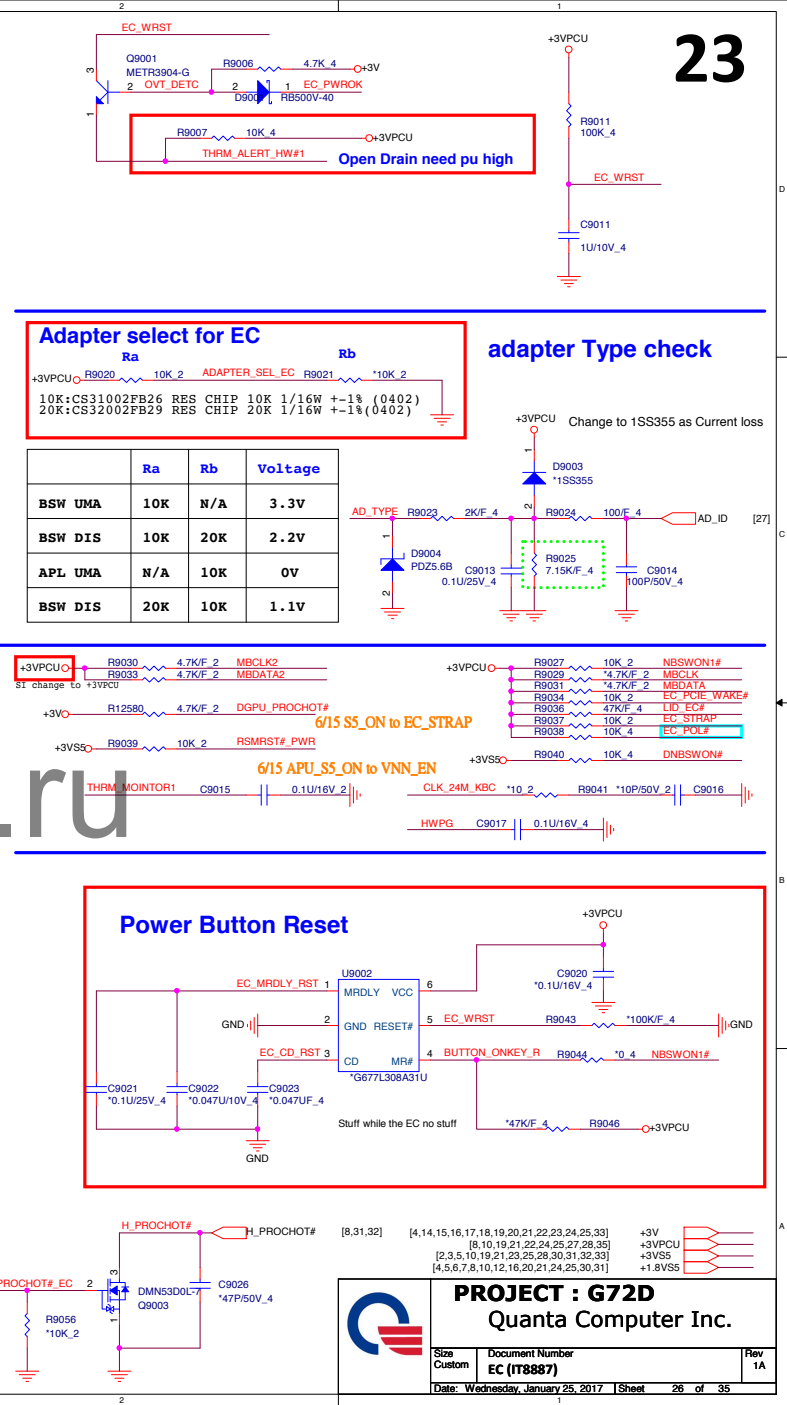
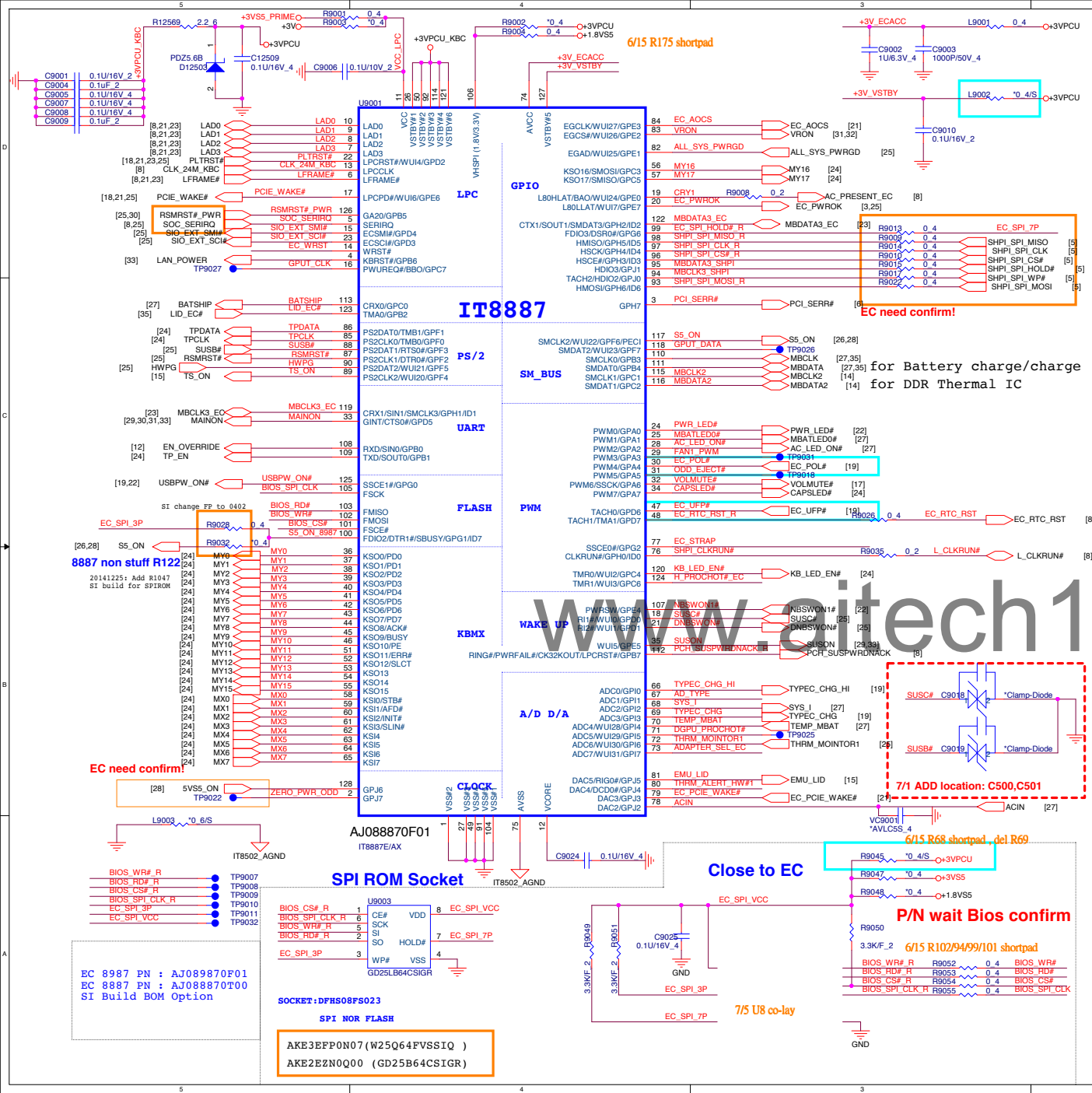
KB LIGHT CONN



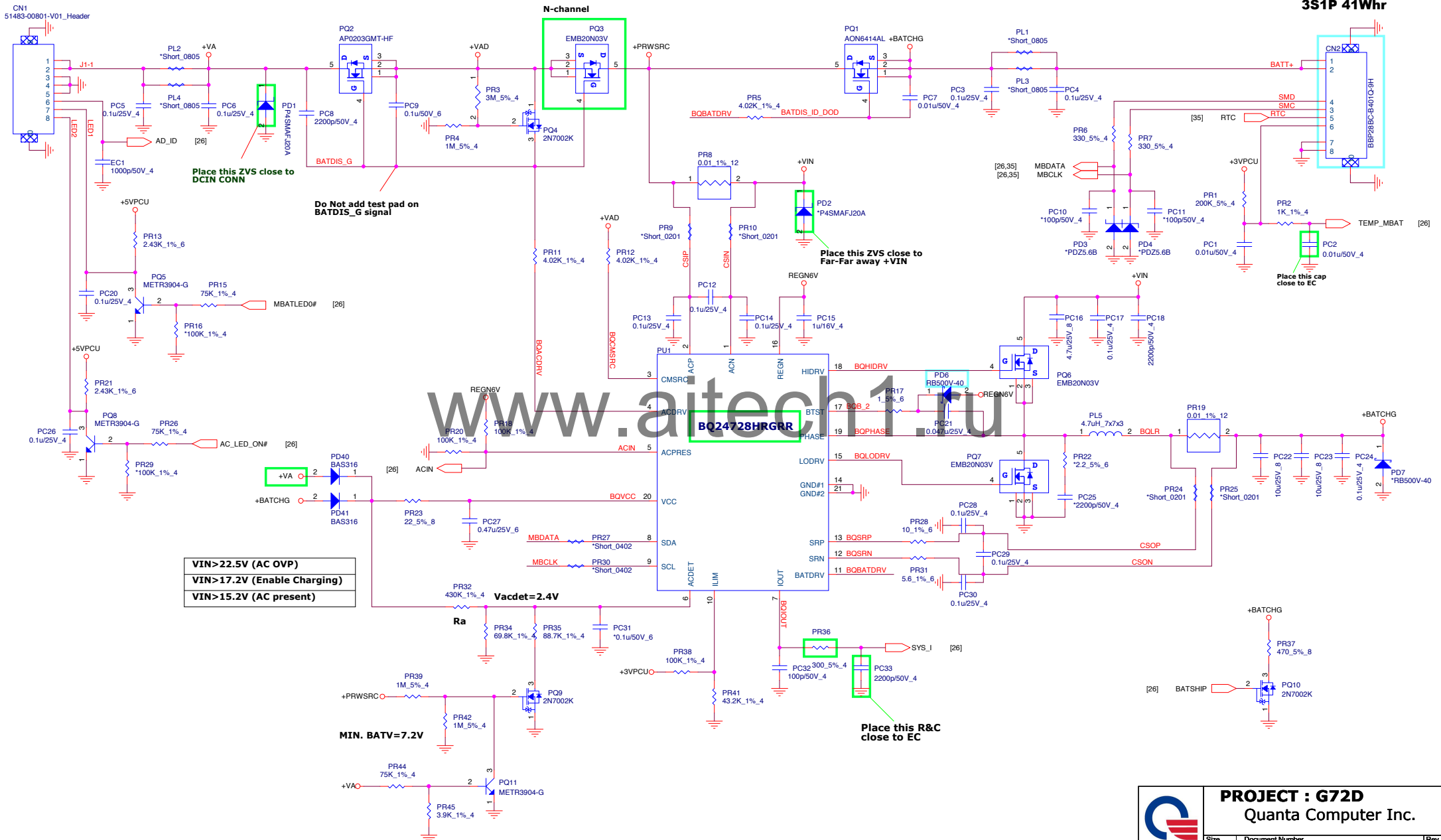


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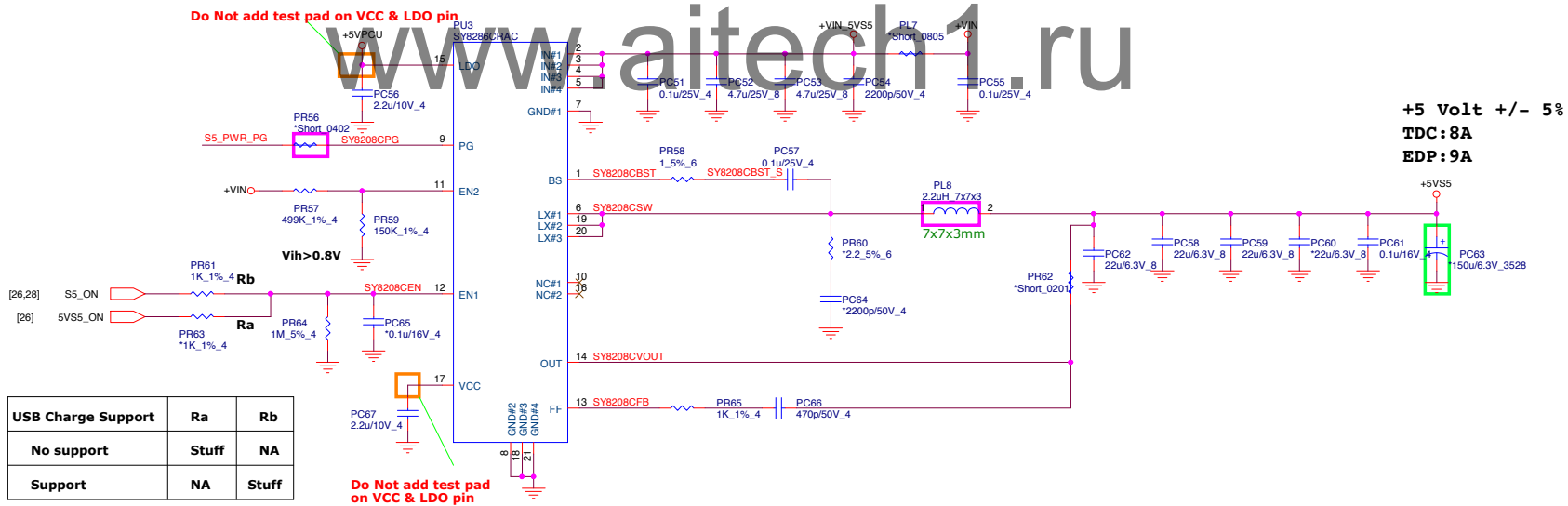
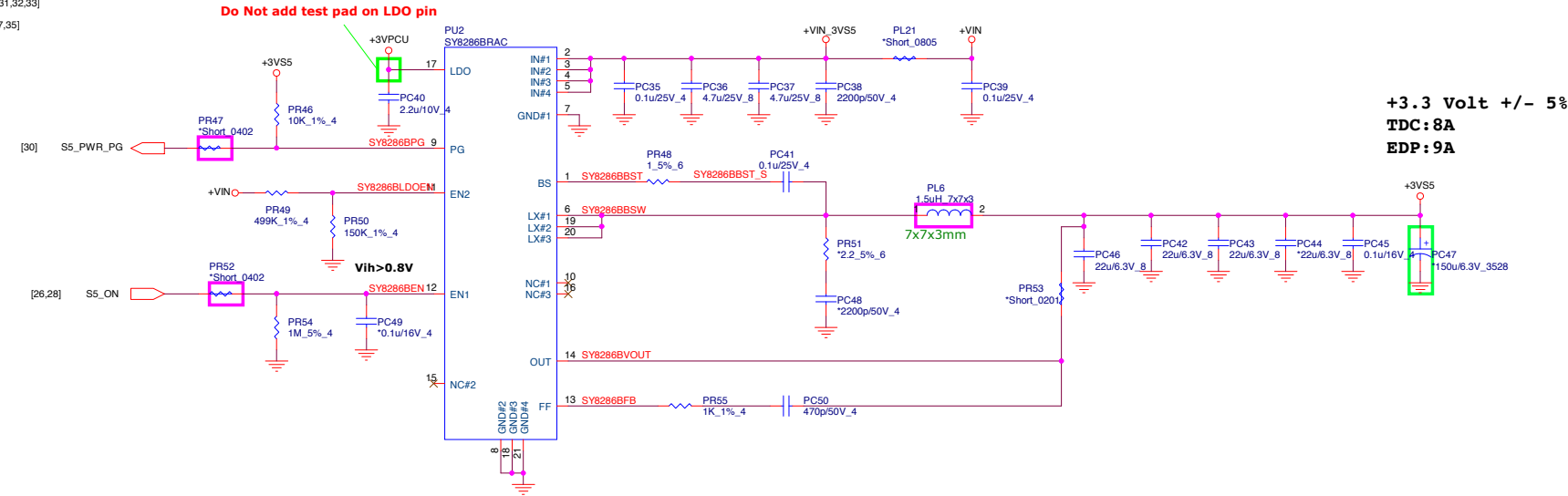


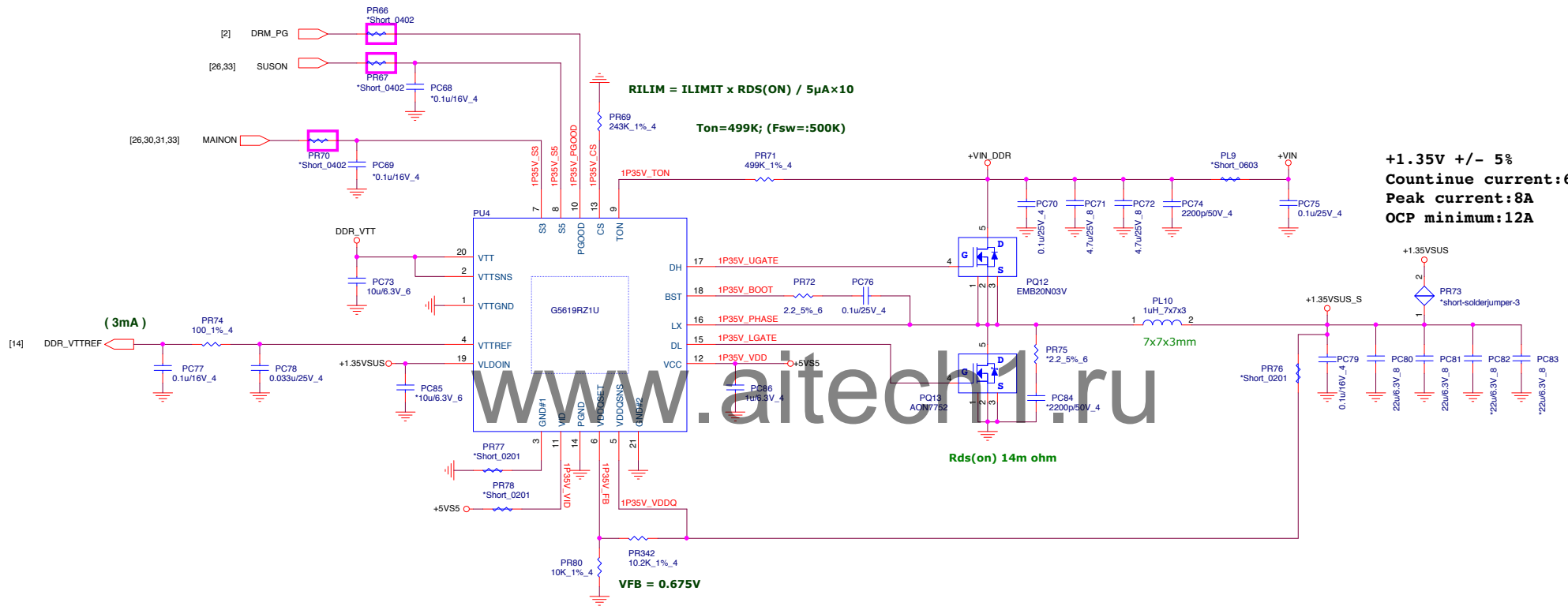


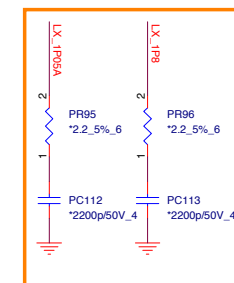
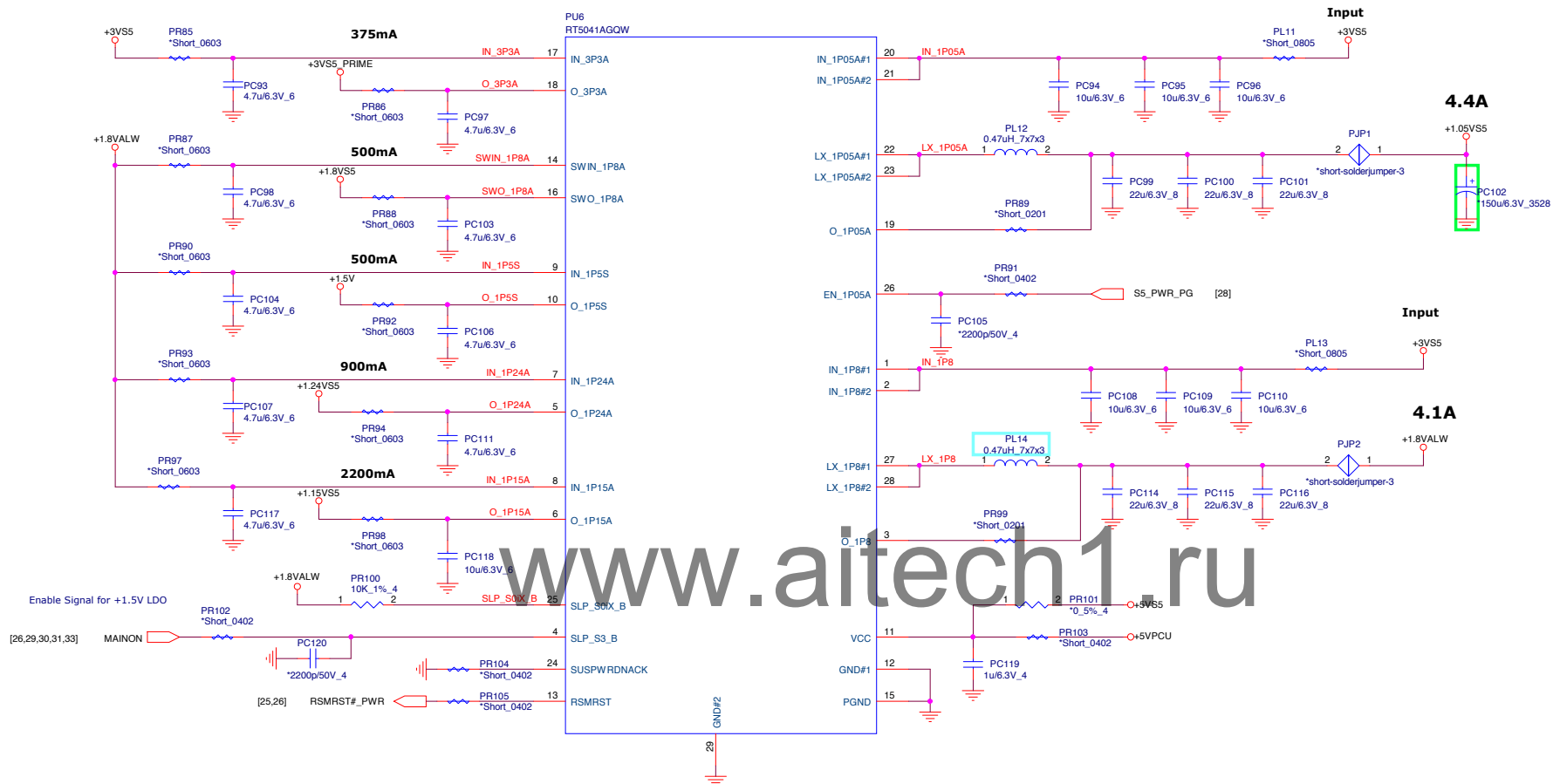
ADP=65W



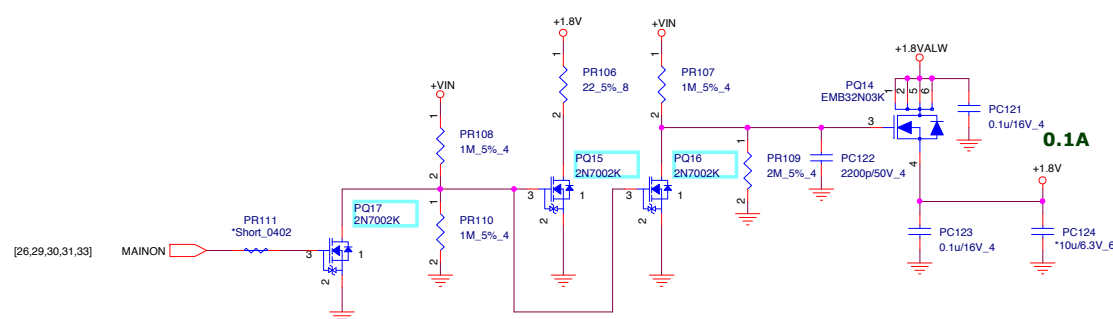
- +VIN [15,24,27,29,30,31,32,34]
- +3VS5 [2,3,5,10,19,21,23,25,26,30,31,32,33]
- +5VS5 [17,19,22,29,30,31,32,33]
- +3VPCU [8,10,19,21,22,24,25,26,27,35]
- +5VPCU [17,27,30,33]







Snubber

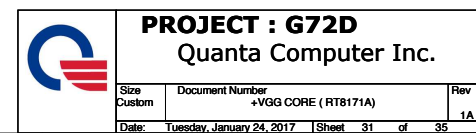


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	+1.8VALW	
	+1.8VSS	[4,5,6,7,8,10,12,16,20,21,24,25,26,31]
	+3VSS_PRIME	[10,26]
	+1.5V	[10,17]
	+1.24VSS	[10]
	+1.15VSS	[9,30]
	+5VPCU	[17,27,28,30,33]
	+1.05VSS	[8,9,31,32]
	+1.15VSS	[9,30]
	+5VPCU	[17,27,28,30,33]
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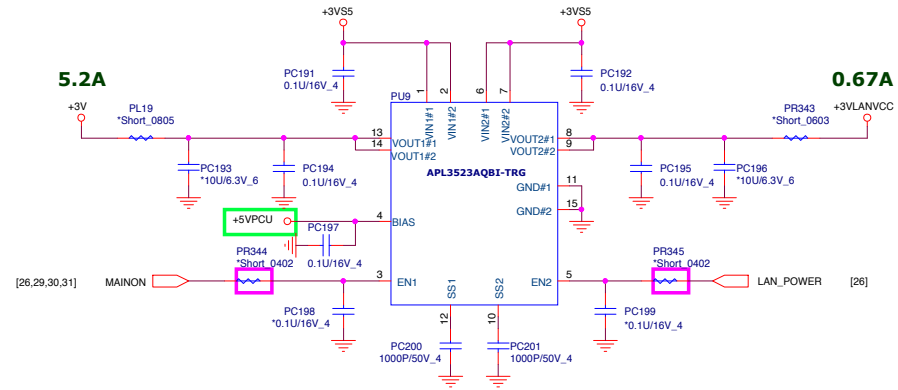


PROJECT : G72D
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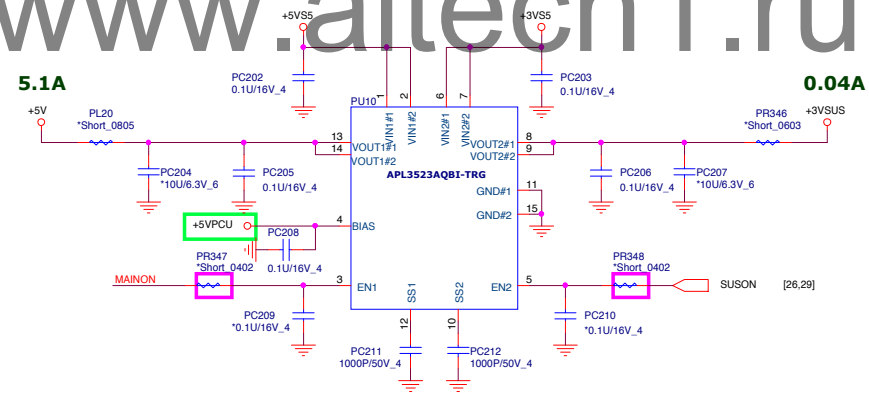
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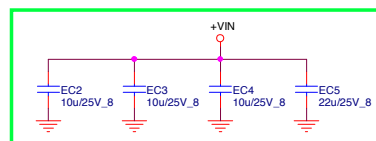
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+VIN	[15,24,27,28,29,30,31,32,34]
+3VS5	[2,3,5,10,19,21,23,25,26,28,30,31,32]
+5VS5	[17,19,22,28,29,30,31,32]
+3VSUS	[24]
+5VPCU	[17,27,28,30]
+3VLAVCC	[18]



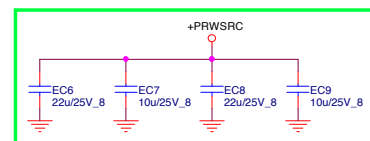
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EMI request for ISN



EMI request for ISN



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+3VPCU [8,10,19,21,22,24,25,26,27,28]
+BAT_RTC [8,22]

