

	1	2	3	4	5	6	7	8																																																																						
A	THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF INVENTEC CORPORATION AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION, INVENTEC CORPORATION 2009 ALL RIGHT RESERVED		KEPLER 1.0: E1-1200 (6L):1310A2498703---10/100 E2-1800 (6L):1310A2498704---10/100 E1-1200 (6L):1310A2498705---GIGA E2-1800 (6L):1310A2498706---GIGA Battery Cell:6027B0039401 Nut:						A																																																																					
B	HSF Property : Comply iSupplier SYSTEM HSF PROPERTY ATTRIBUTE UP-TO DATE VALUE		PCB:6050A2498701						B																																																																					
C	RTL8165EH (10/100) LDO MODE R680:MOUNT R672:NA R14143:NA C741:NA C713:NA C12734:NA C12735:NA C12736:NA C12737:NA C12754:NA C12756:NA L332:NA U470:NA U9848:MOUNT 6016B0008001 U320:MOUNT 6019B0928301 R14131:NA		KF14BR AMD BRAZOS 2.0 DB						C																																																																					
D	RTL8161FH (GIGA-LAN) SWITCH MODE R680:NA R672:MOUNT 60130B0000ZT R14143:MOUNT 60130B00000Z C741:MOUNT C713:MOUNT C12734:MOUNT C12735:MOUNT C12736:MOUNT C12737:MOUNT C12754:MOUNT C12756:MOUNT L332:MOUNT U470:MOUNT 6016B0010601 U9848:NA U320:MOUNT 6019B0928101 R14131:MOUNT								D																																																																					
E	BOM CHANGE L332:6014B0200401		DB(MOUNT) X805:6018A0009301-004 C1329,C1303:6010A0036105 R1208,R1269:60130B10600Y R562:60130B10500Y X301:6018B0044501 C577,C578:6010071502AT C723,C724:6010B0010103 X304:6018B0044501		DB(OPEN) R16556 R16557 D321:6011A0026803 R14130		POWER BOARD :6050A2493201 USB BOARD :6050A2493701 PICK BUTTOM BOARD :6050A2493601		E																																																																					
F	<table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>2011/06/20</td><td>2011-ECO-012815</td><td>B</td></tr><tr><td>2011/03/21</td><td>2011-ECO-005030</td><td>A</td></tr><tr><td>DATE</td><td>CHANGE NO.</td><td>REV</td></tr></table>																				2011/06/20	2011-ECO-012815	B	2011/03/21	2011-ECO-005030	A	DATE	CHANGE NO.	REV	<table><tr><td></td><td>EE</td><td>DATE</td><td>POWER</td><td>DATE</td></tr><tr><td>DRAWER</td><td>ALAN WANG</td><td>2010-08-06</td><td>ALBERT</td><td>2010-08-06</td></tr><tr><td>DESIGN</td><td>ALAN WANG</td><td>2010-08-06</td><td>ALBERT</td><td>2010-08-06</td></tr><tr><td>CHECK</td><td></td><td></td><td></td><td></td></tr><tr><td>RESPONSIBLE</td><td></td><td></td><td></td><td></td></tr><tr><td>SIZE =</td><td colspan="3">3</td><td>VER : A02</td></tr><tr><td>FILE NAME :</td><td colspan="4">BRAZOS-6050A2412701</td></tr><tr><td>P/N</td><td colspan="4">6050A2412701</td></tr></table>							EE	DATE	POWER	DATE	DRAWER	ALAN WANG	2010-08-06	ALBERT	2010-08-06	DESIGN	ALAN WANG	2010-08-06	ALBERT	2010-08-06	CHECK					RESPONSIBLE					SIZE =	3			VER : A02	FILE NAME :	BRAZOS-6050A2412701				P/N	6050A2412701				INVENTEC TITLE SARAH BRAZOS SIZE CODE DOC. NUMBER REV A3 CS 1310A241270-MTR B SHEET 1 OF 54		F
2011/06/20	2011-ECO-012815	B																																																																												
2011/03/21	2011-ECO-005030	A																																																																												
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SIZE =	3			VER : A02																																																																										
FILE NAME :	BRAZOS-6050A2412701																																																																													
P/N	6050A2412701																																																																													
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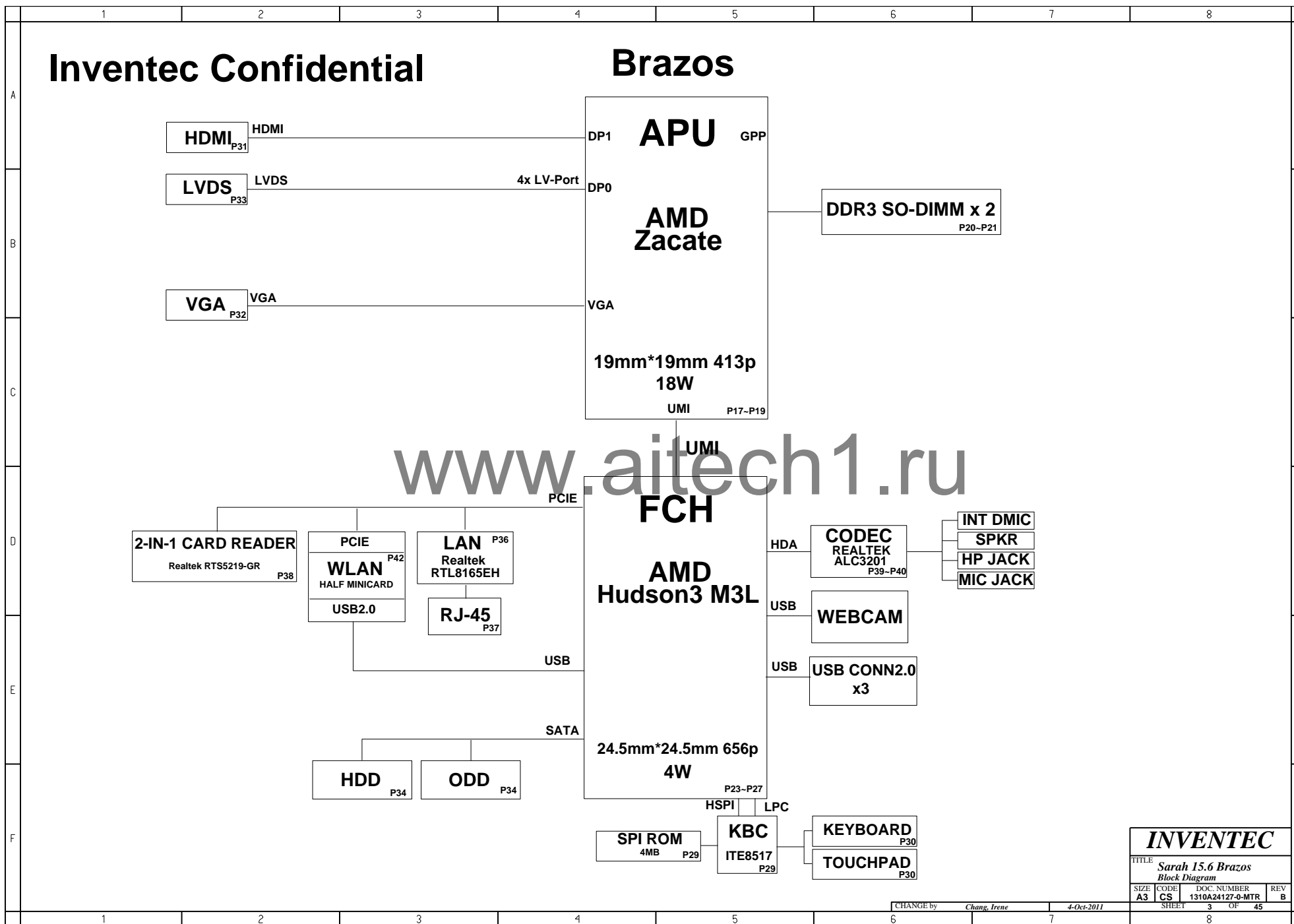
26- FCH	
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29- KBC	
30- Keyboard CONN & Indicate LED& TouchPad CONN	
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40- HP and MIC CONN	
41- Screws&EMI CAP	
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43- POWER BUTTON BOARD & PICK BUTTON BOARD	
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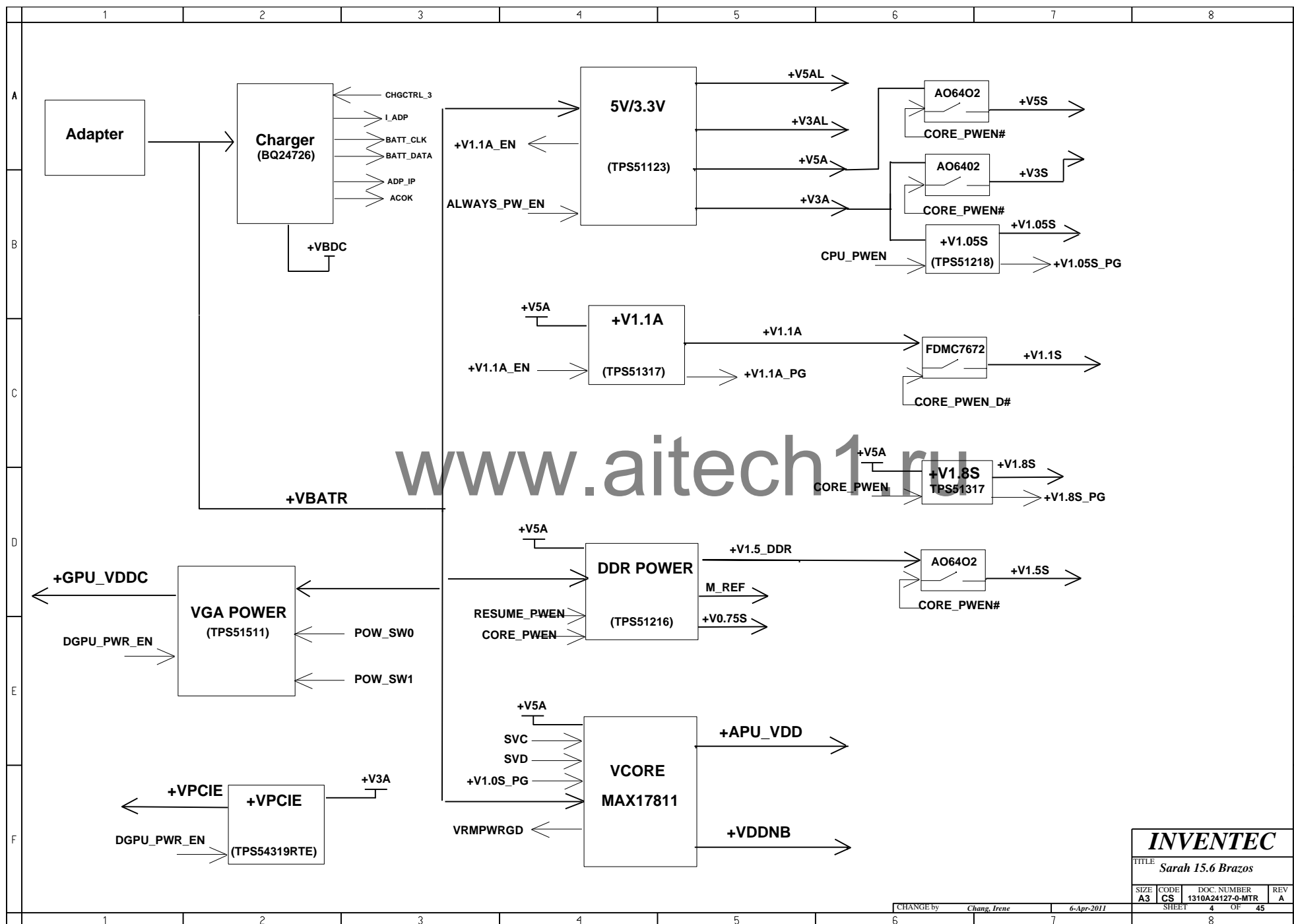
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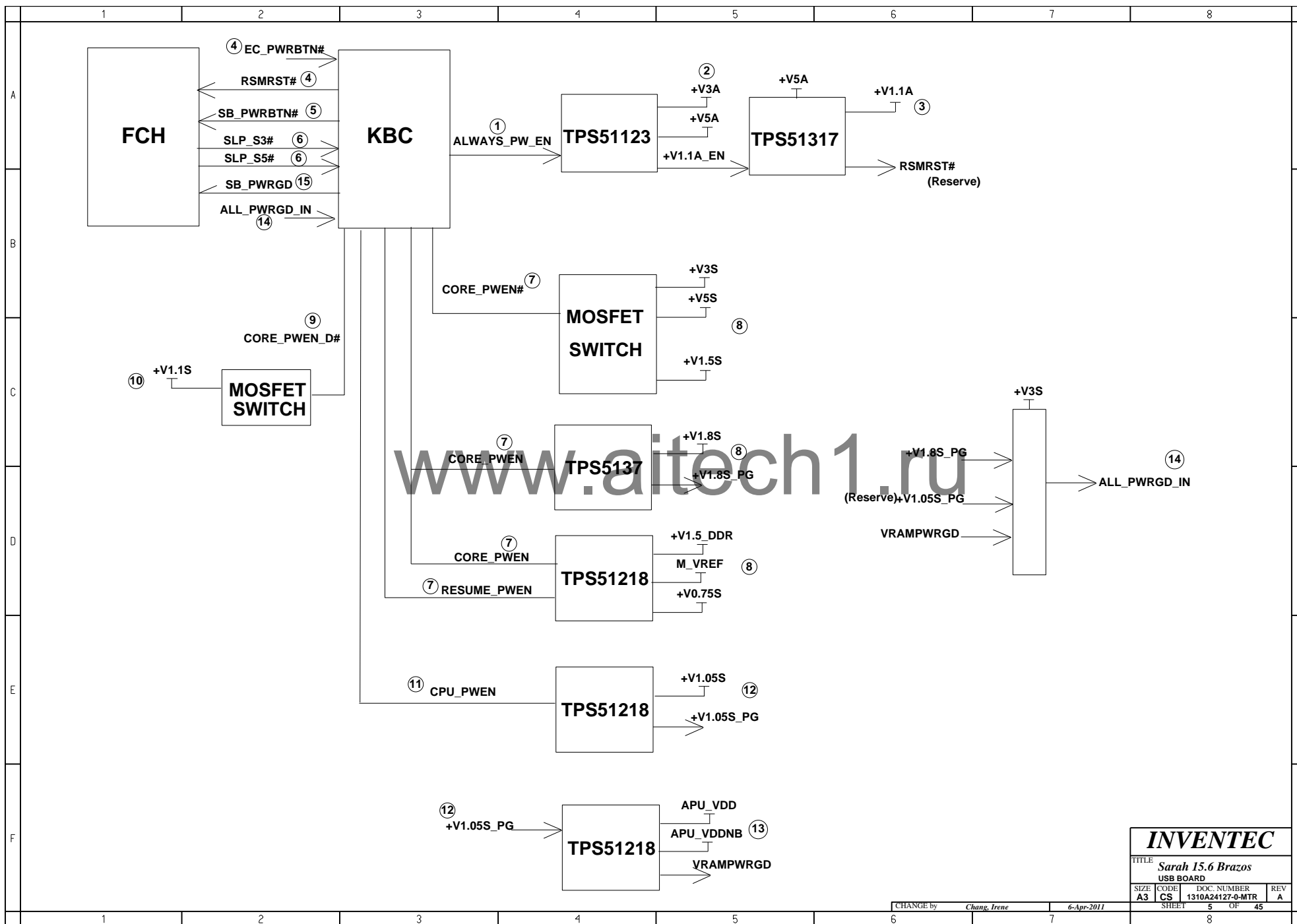
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Sarah 15.6 Brazos Index			
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A3	CS	1310A24127-0-MTR	B

CHANGE by *Chang, Irene* 4-Oct-2011

SHEET 2 OF 45





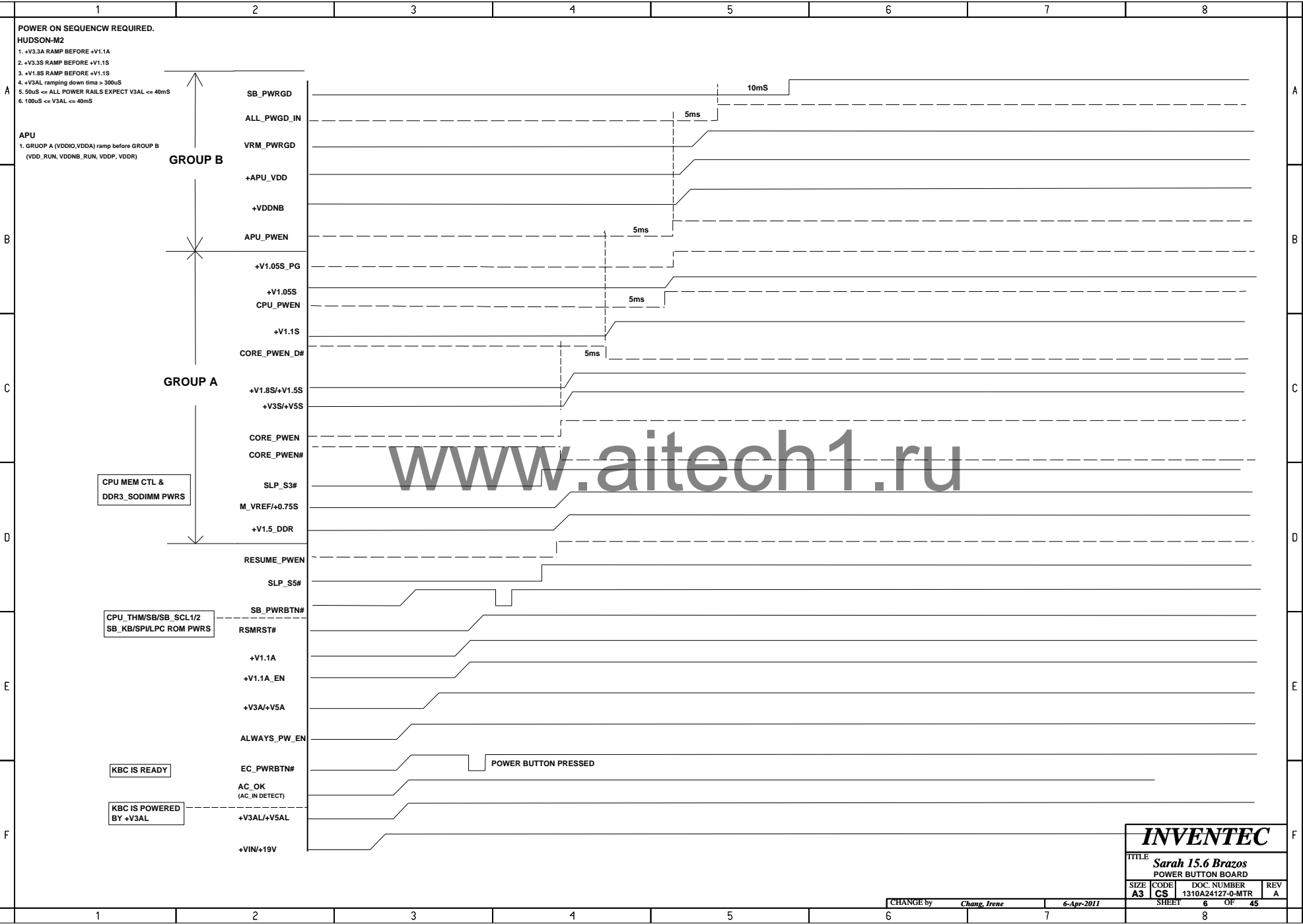


INVENTEC

TITLE			
Sarah 15.6 Brazos			
USB BOARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	A

CHANGE by *Chang, Irene* 6-Apr-2011

SHEET 5 OF 45

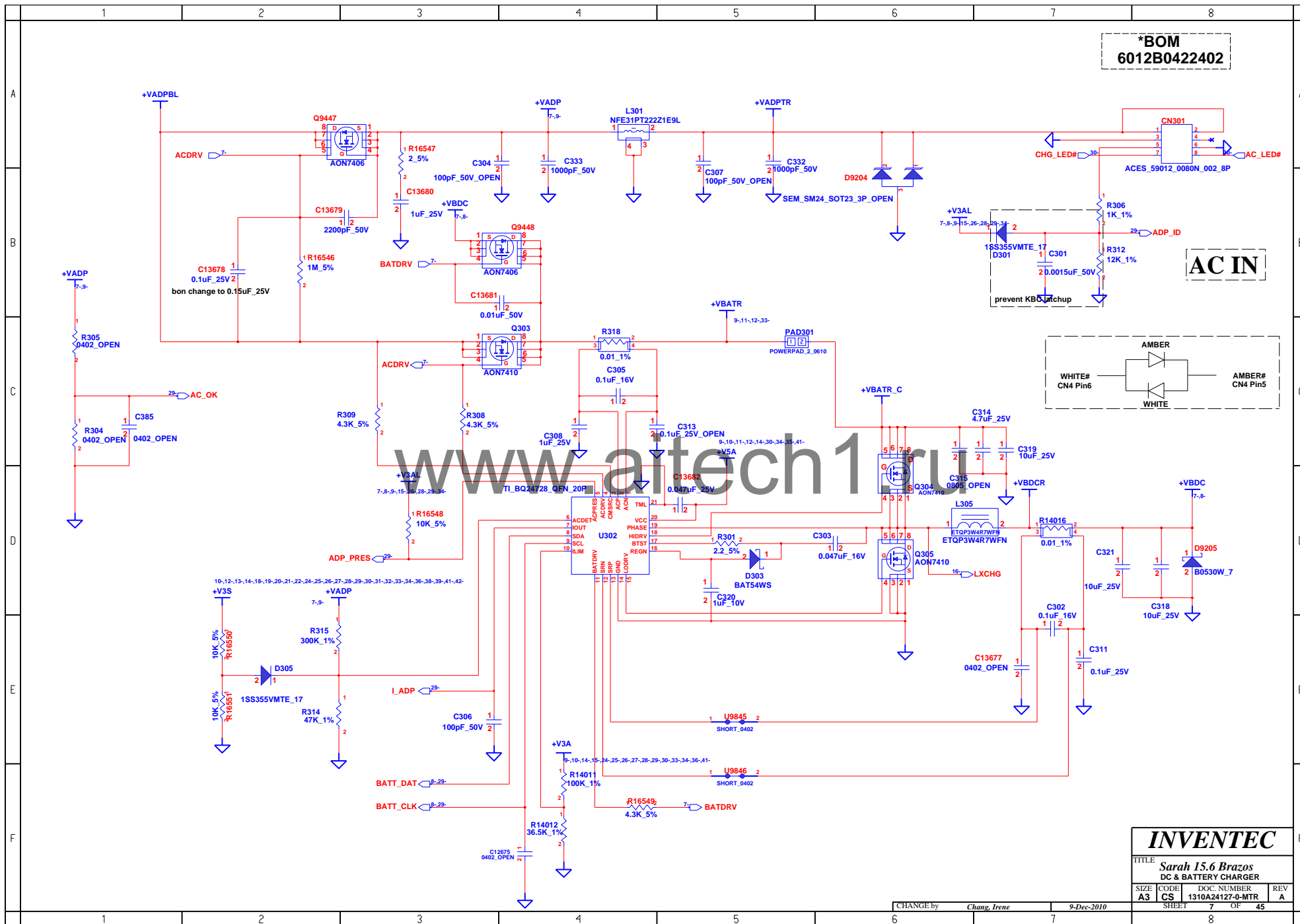


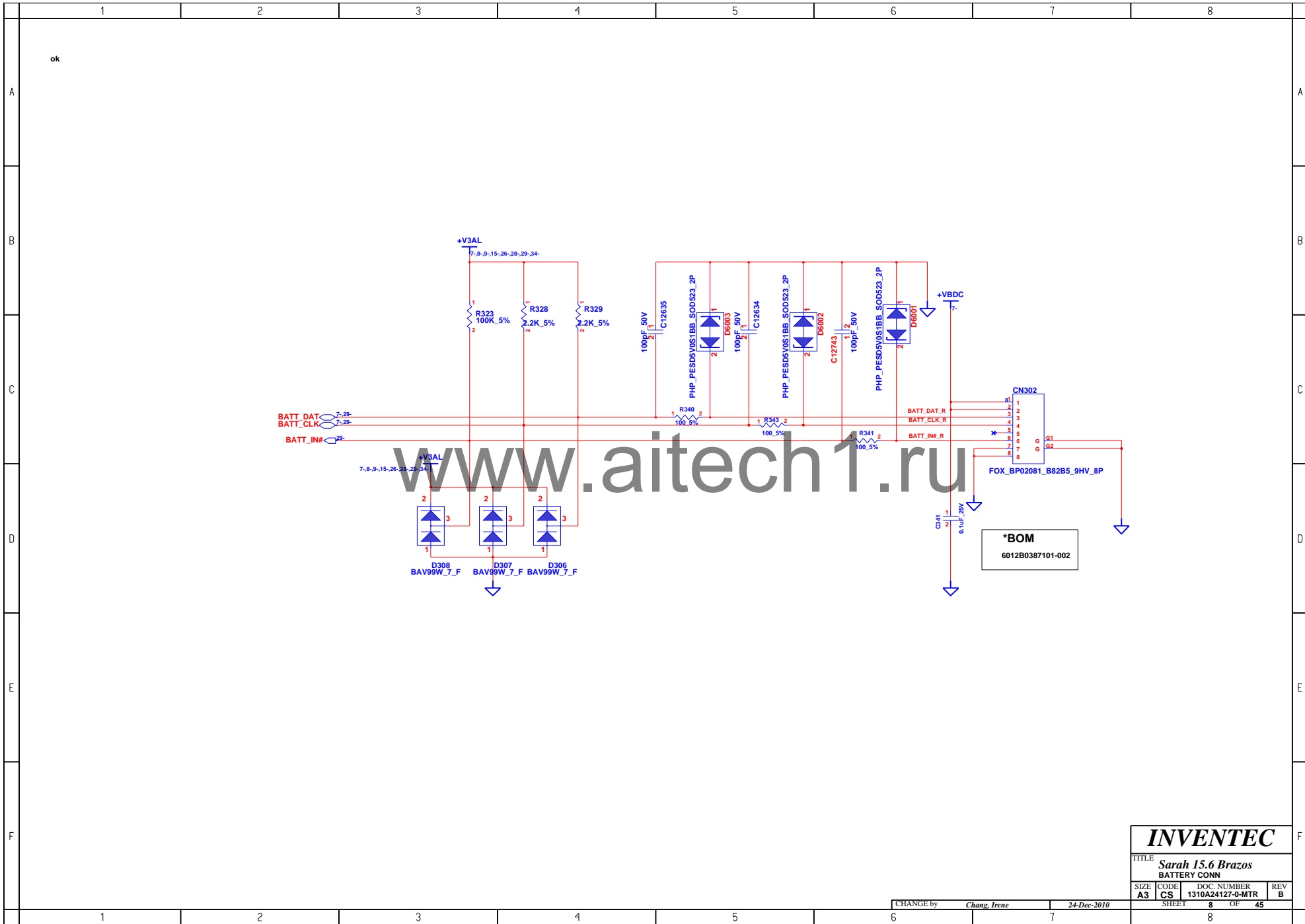
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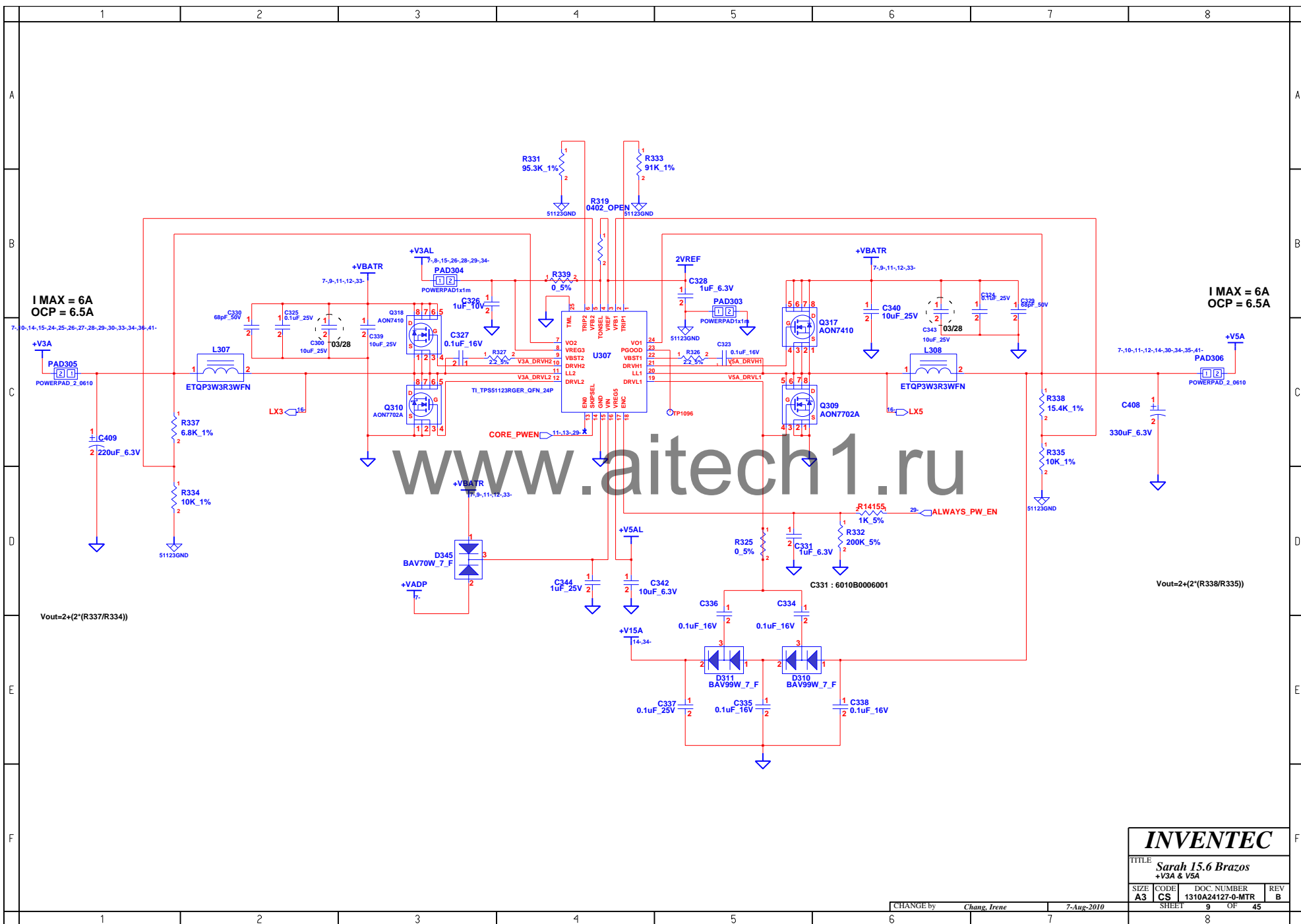
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Sarah 15.6 Brazos
POWER BUTTON BOARD

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	A

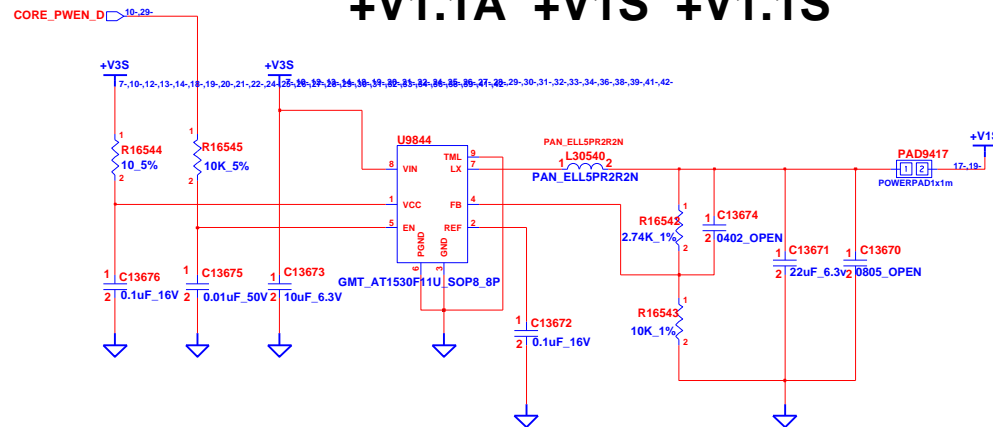
SHEET 6 OF 45





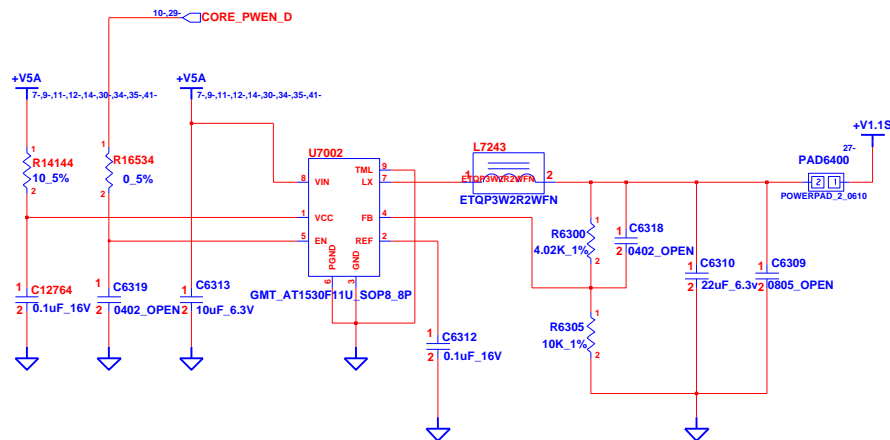


+V1.1A +V1S +V1.1S

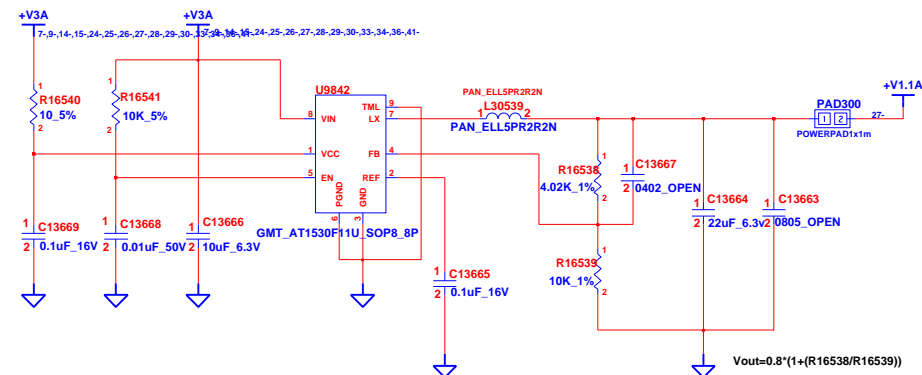


$$V_{out}=0.8 \cdot (1 + (R16542/R16543))$$

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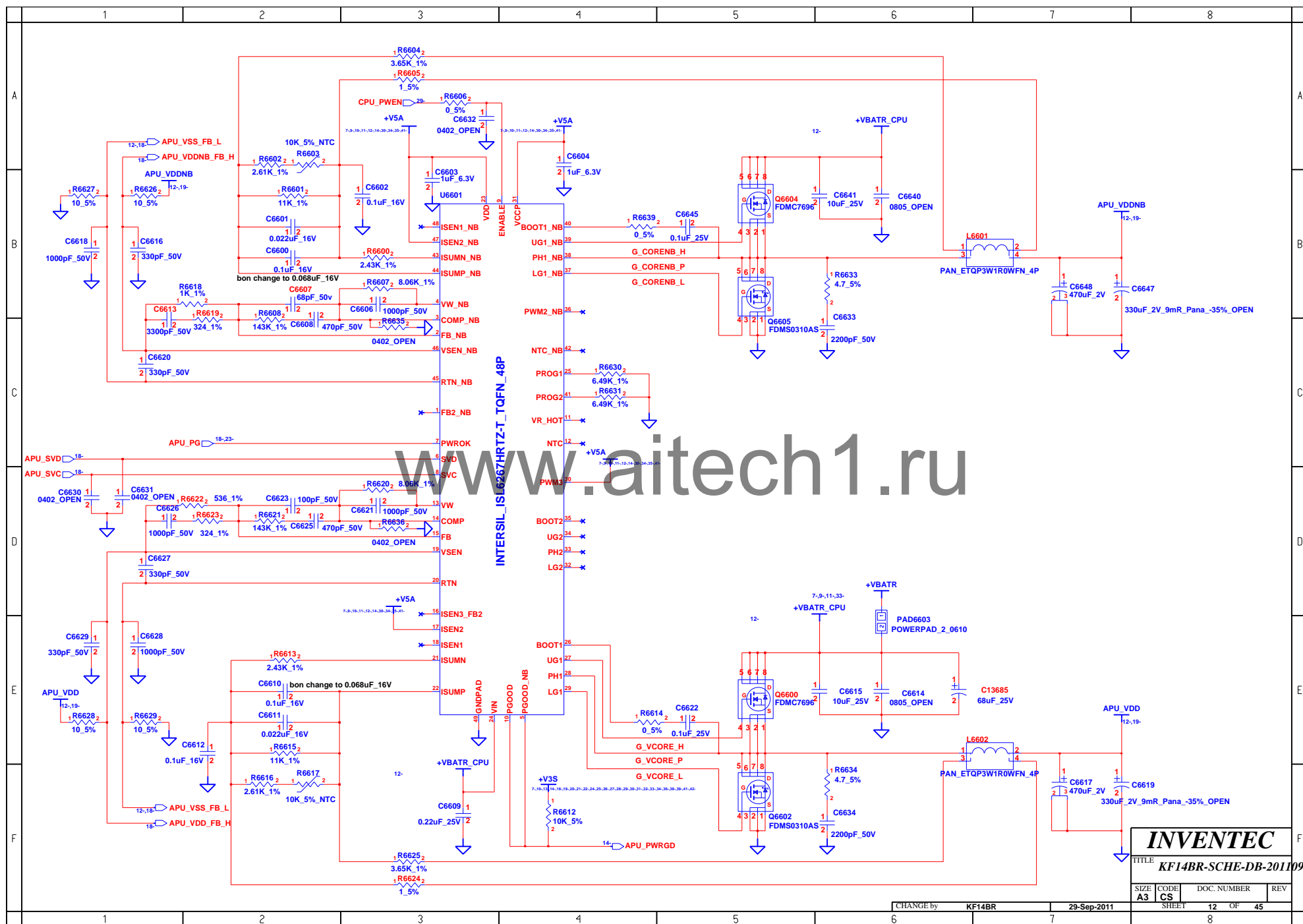
$$V_{out}=0.8 \cdot (1 + (R6300/R6305))$$

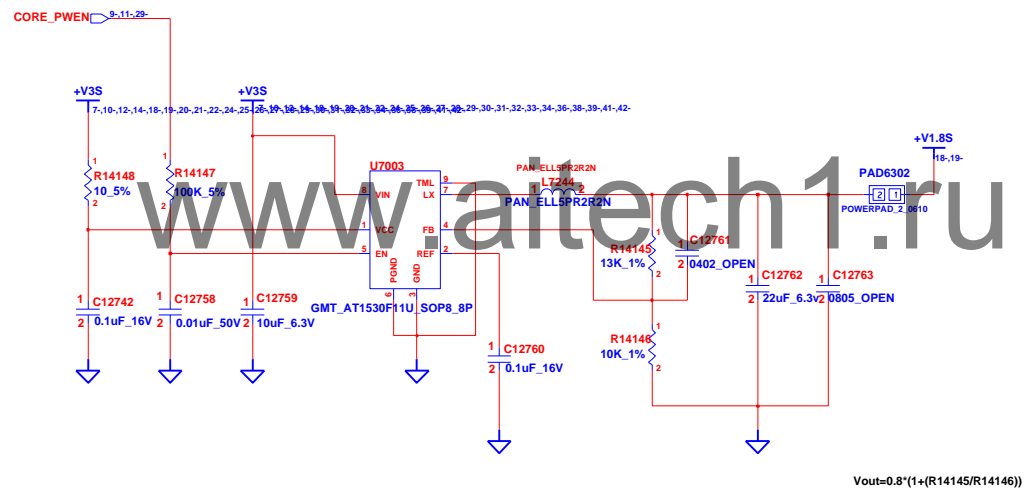


$$V_{out}=0.8 \cdot (1 + (R16538/R16539))$$

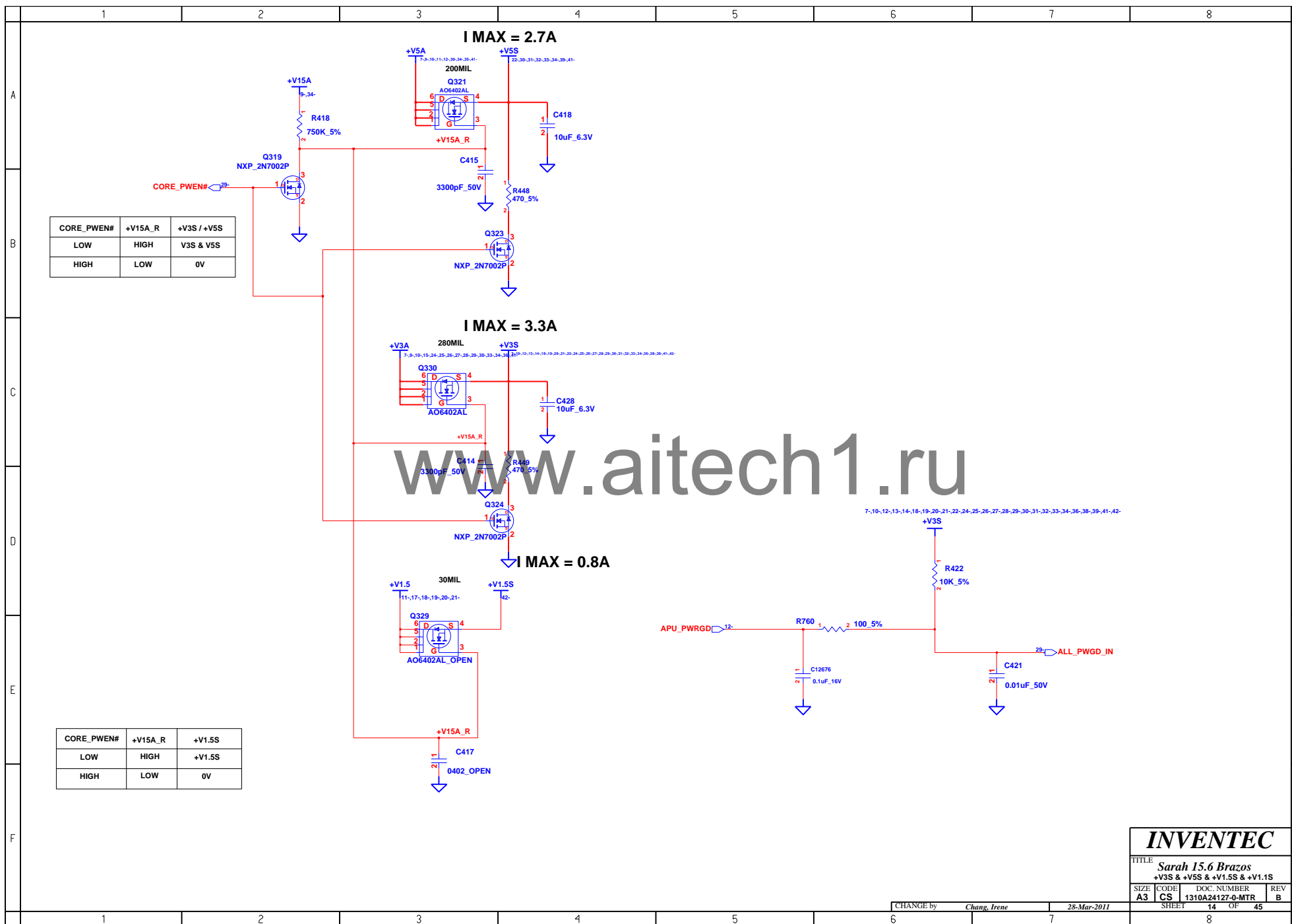
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SIZE A3	CODE CS	DOC. NUMBER	REV
SHEET 10		OF 45	

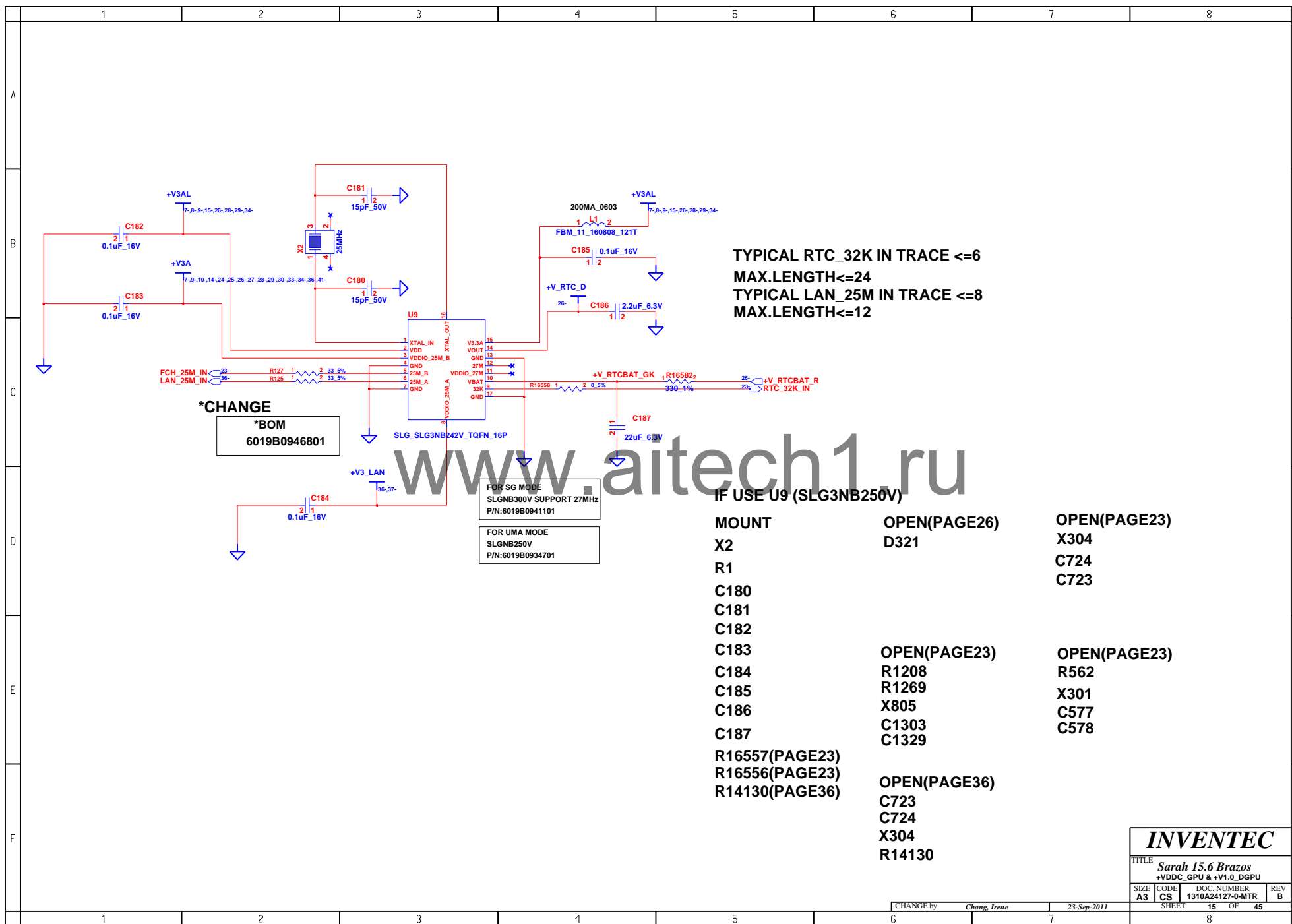
CHANGE by KF14BR 29-Sep-2011

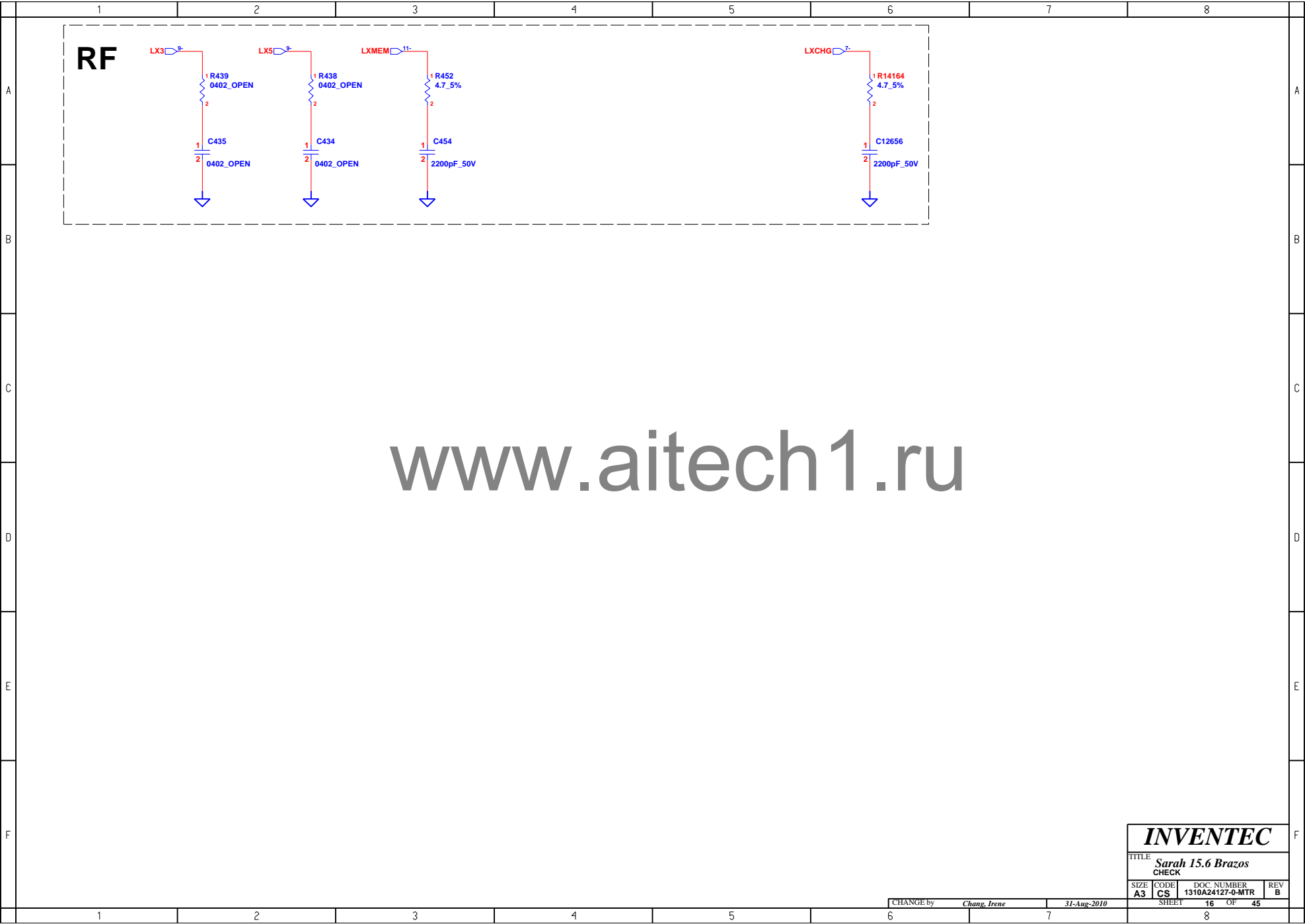




INVENTEC			
TITLE Sarah 15.6 Brazos +V1.0S & +V1.8S			
SIZE A3	CODE CS	DOC. NUMBER 1310A24127-0-MTR	REV B
CHANGE by Chang, Irene		10-Aug-2011	
SHEET 13		OF 45	





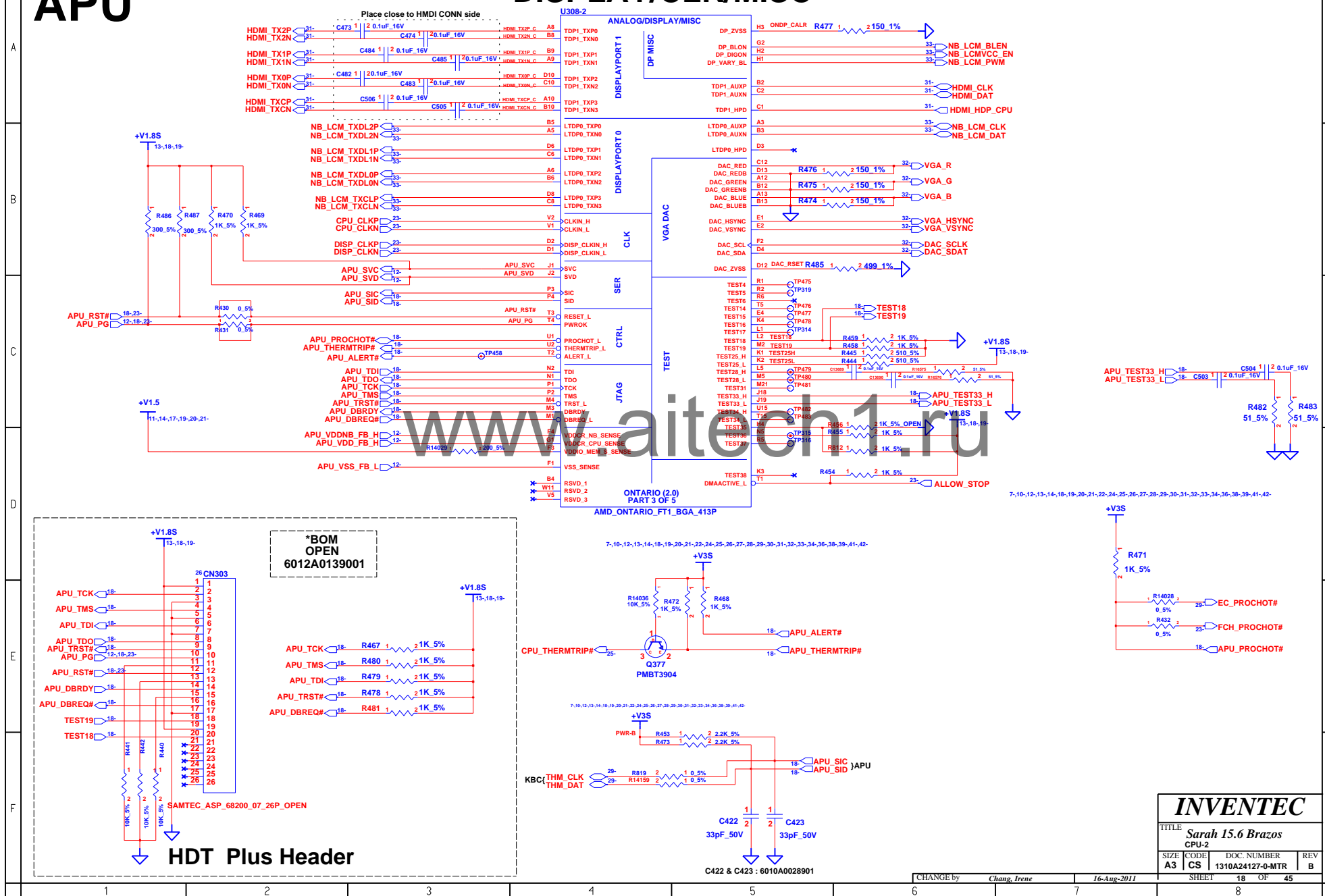


MEMORY



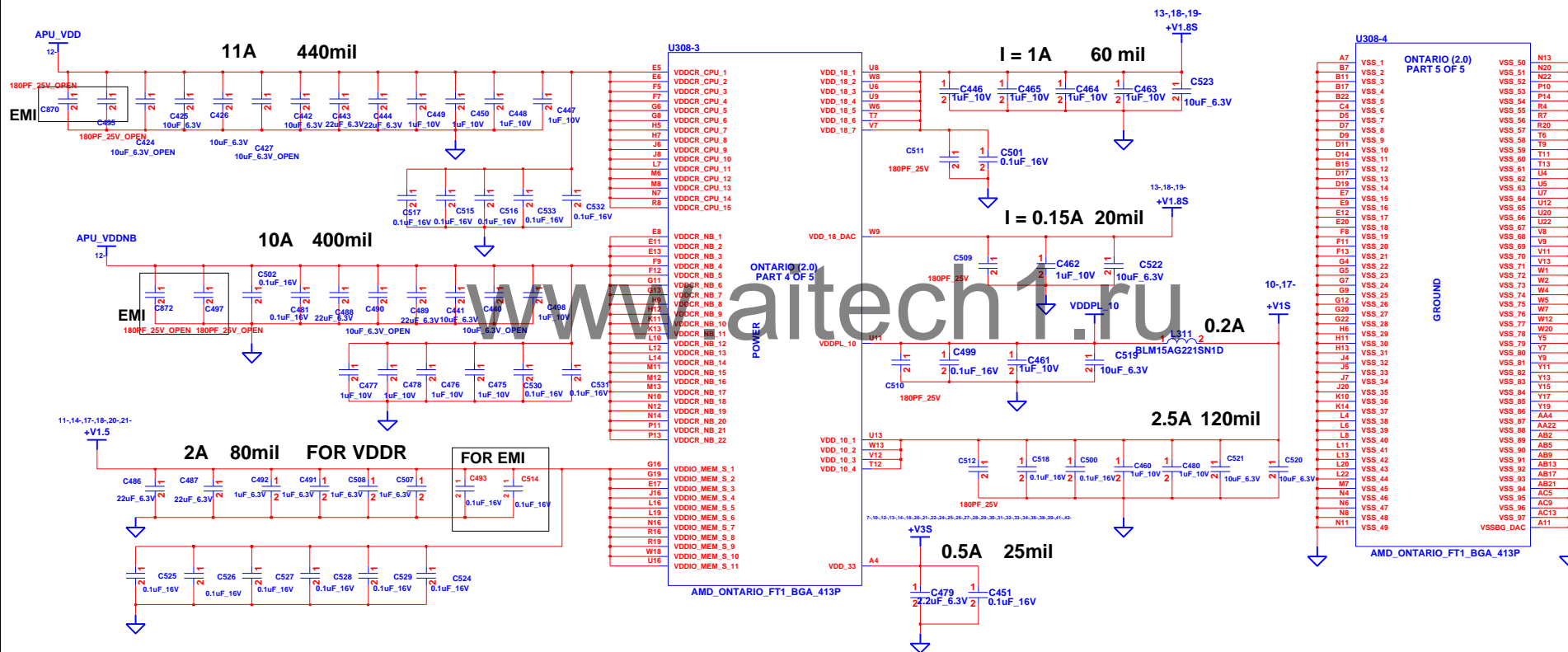
R460 connection to +V1.5 should be directly to the plane without a long trace.

DISPLAY/CLK/MISC



APU

POWER / GND

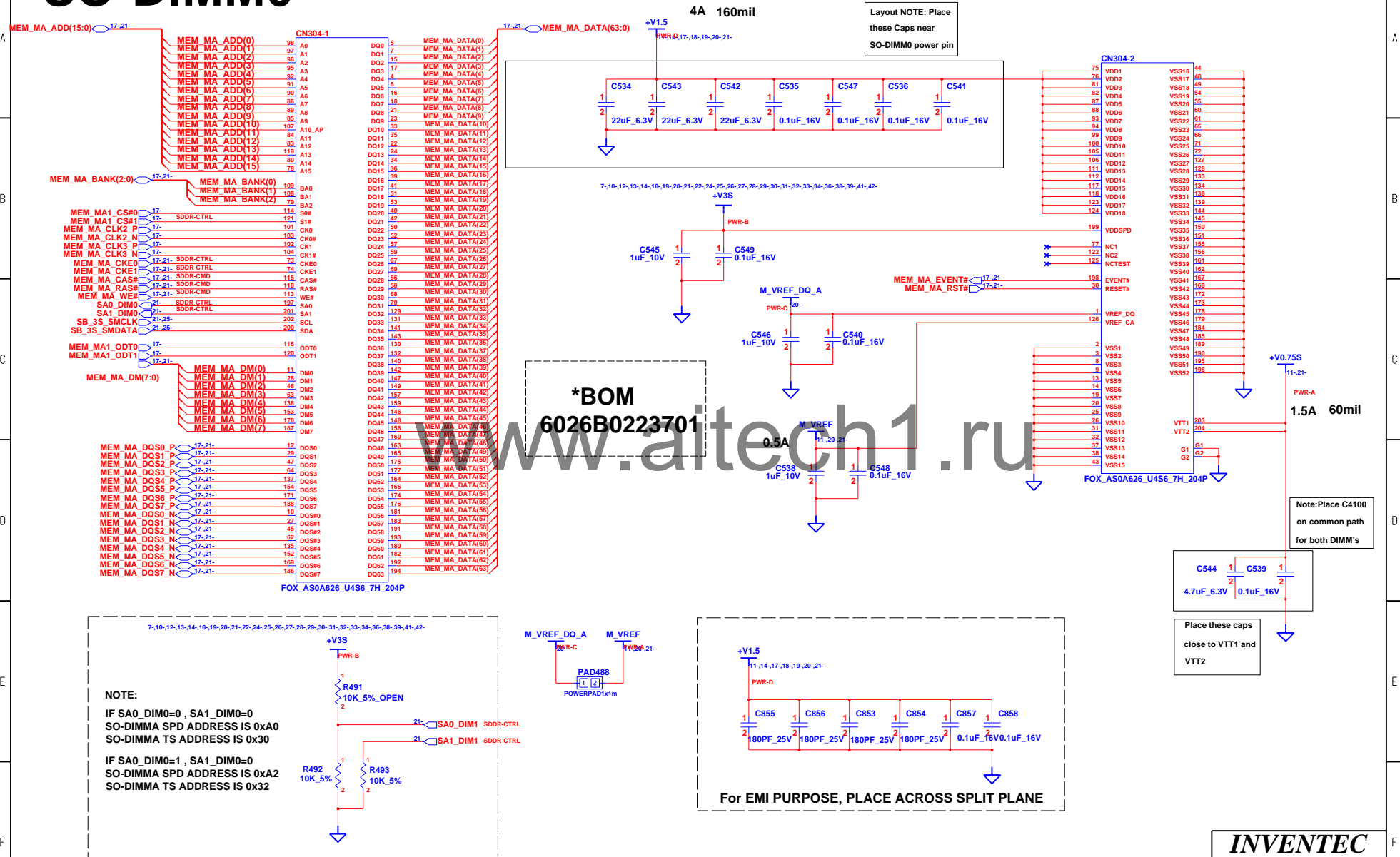


INVENTEC

TITLE: Sarah 15.6 Brazos CPU-4			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A24127-0-MTR	REV: B
SHEET: 19		OF: 45	

CHANGE by: Chang, Irene 7-Aug-2010

SO-DIMM0



INVENTEC

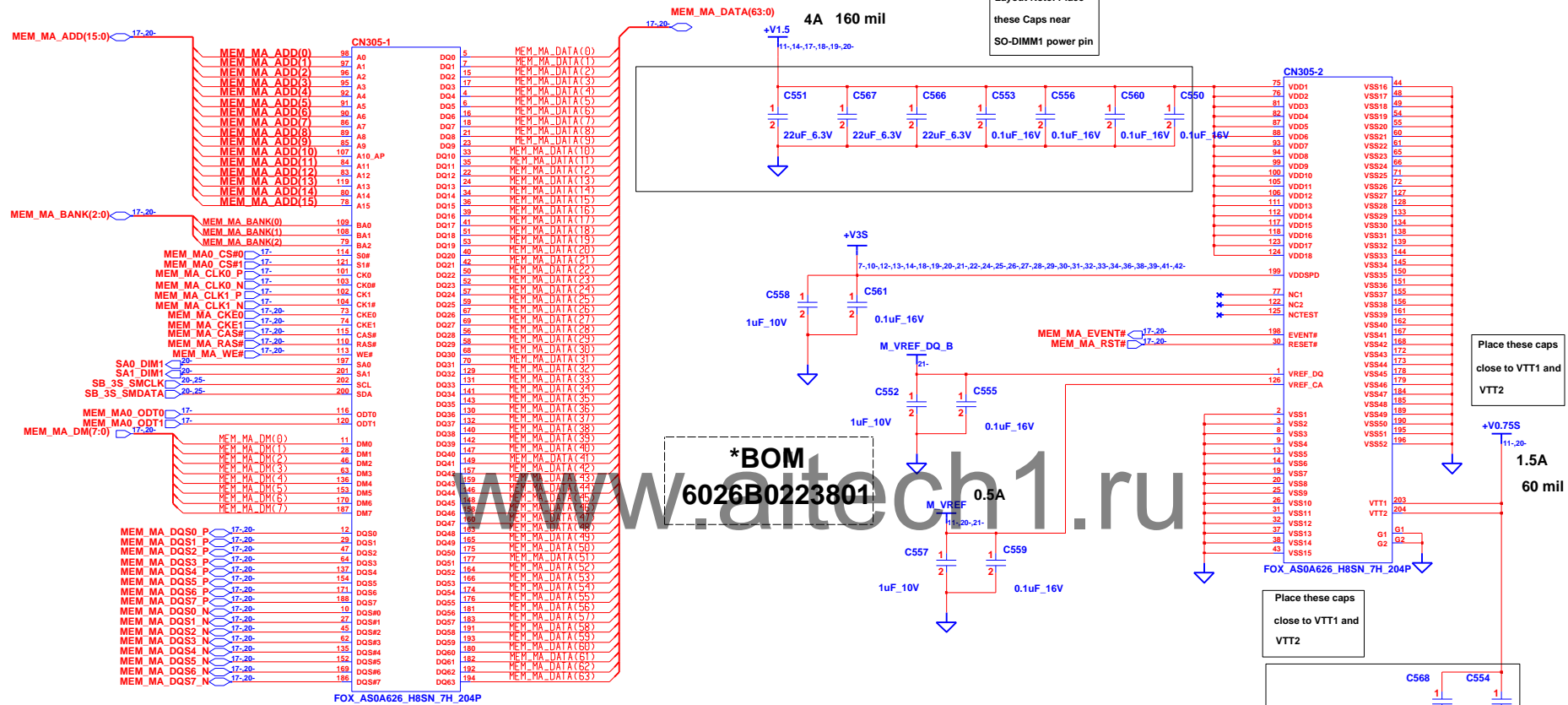
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Sarah 15.6 Brazos
DDR3 DIMM0

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 14-Mar-2011

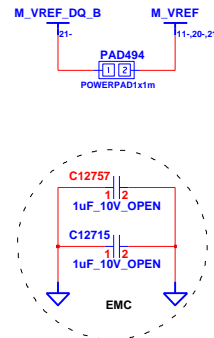
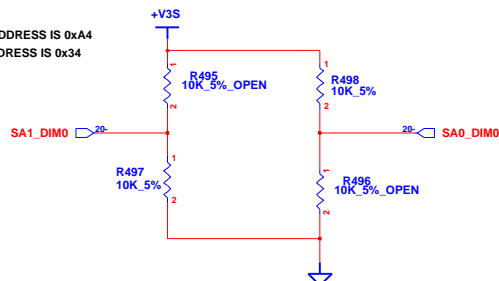
SHEET 20 OF 45

SO-DIMM1



*BOM
6026B0223801

NOTE:
SO-DIMM SPD ADDRESS IS 0xA4
SO-DIMM TS ADDRESS IS 0x34



INVENTEC

TITLE
Sarah 15.6 Brazos
DDR3 DIMM1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 23-Feb-2011

SHEET 21 OF 45

A



2

D

F

F

1

1

1

1

1

1

Thermal Sensor (Local)



*BOM
6019B0843501

TITLE			
<i>Sarah 15.6 Brazos</i> <i>FAN & THERMAL</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B
SHEET		22	OF 45

CHANGE by	<i>Chang, Irene</i>	<i>13-Oct-2010</i>
-----------	---------------------	--------------------

CS	1310A24127-0-MTR		
SHEET	22	OF	45

FCH

M2 : 6019B0775601
M3 : 6019B0775602

WLAN
CardReader

NB_REF - 100MHZ

CPU - 100 MHZ

LAN - 100MHZ

WLAN - 100MHZ

CARDREADER - 100MHZ

*BOM
X301: 6018B0044501
C577,C578:6010071502AT

*BOM
X805: 6018A0009301-004

INVENTEC

TITLE
Sarah 15.6 Brazos

SIZE
A3

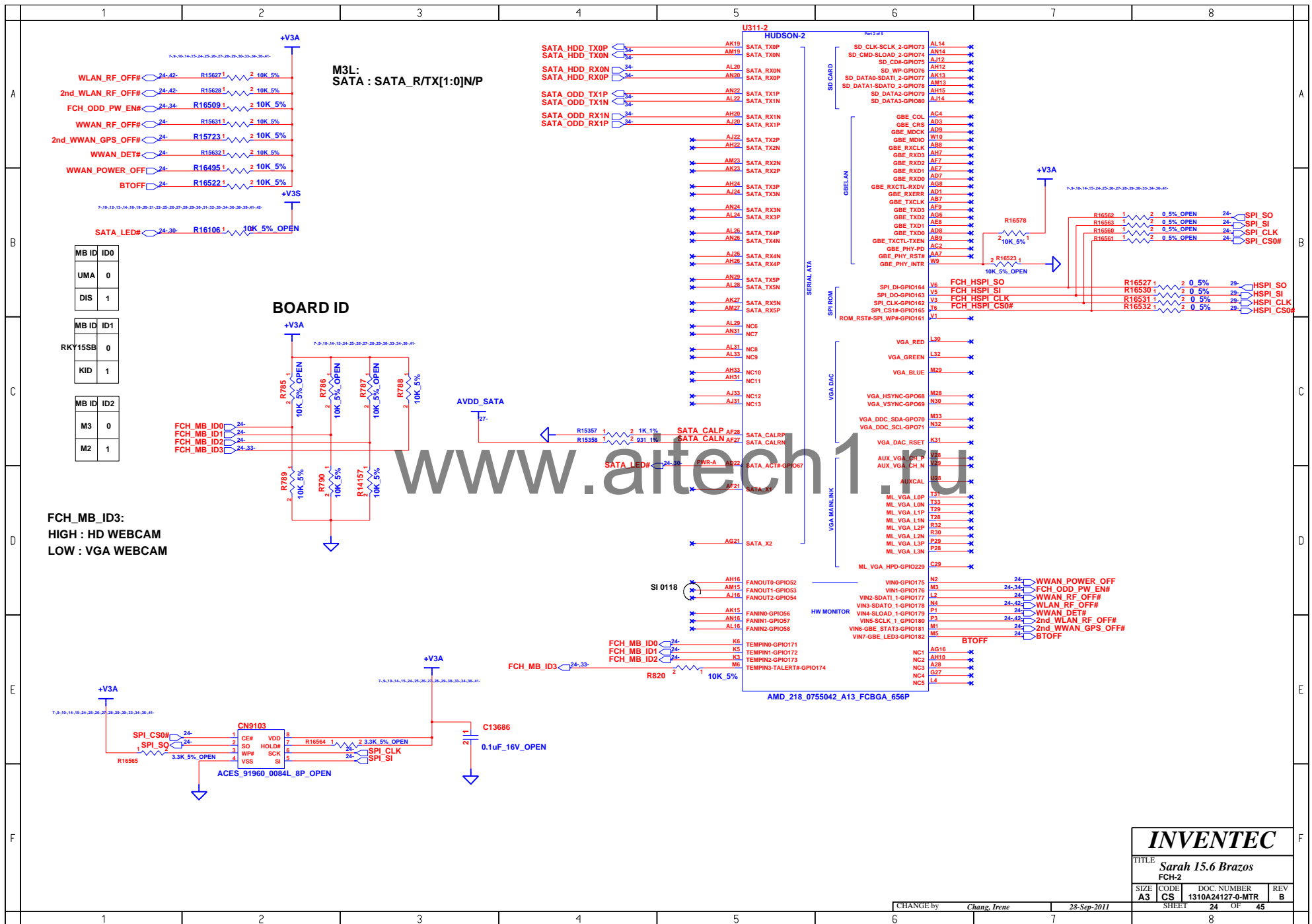
CODE
CS

DOC. NUMBER
1310A24127-0-MTR

REV
B

CHANGE by Chang, Irene 29-Sep-2011

SHEET 23 OF 45



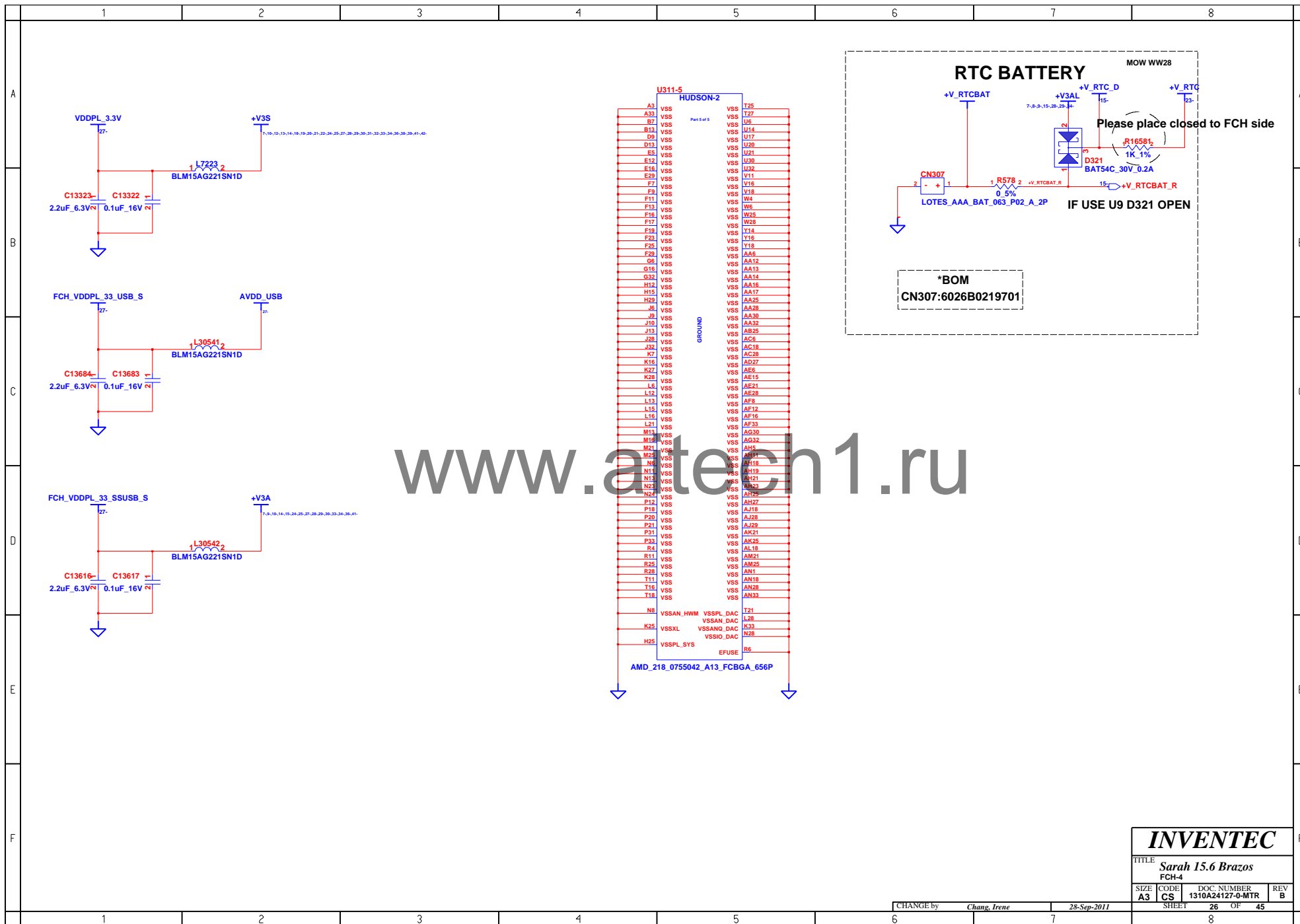
INVENTEC

TITLE
Sarah 15.6 Brazos
FCH-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 28-Sep-2011

SHEET 24 OF 45



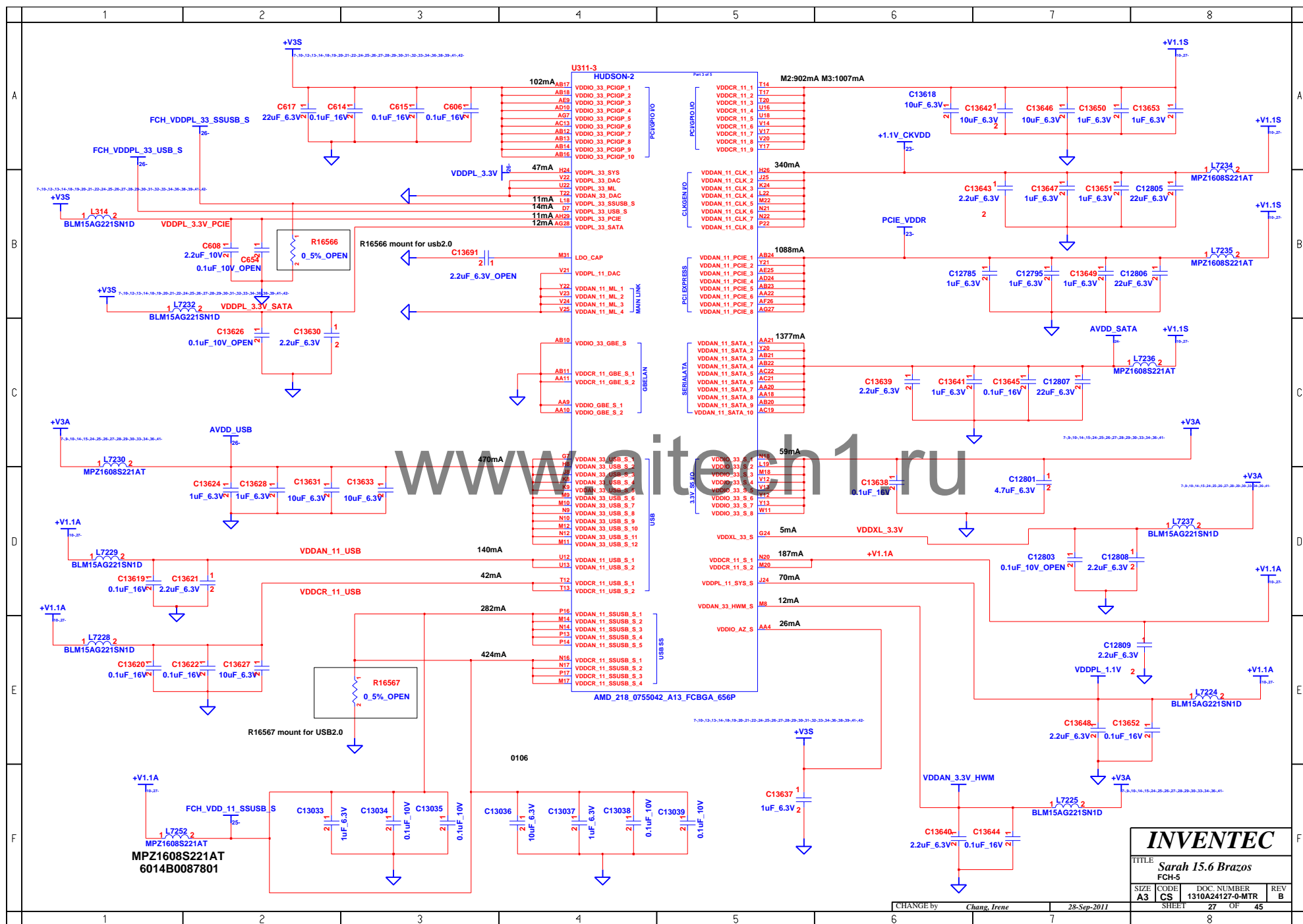
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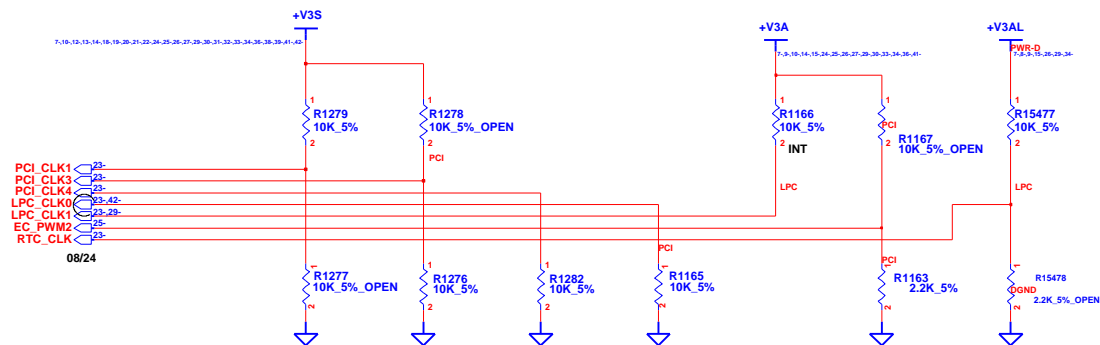
INVENTEC

TITLE			
Sarah 15.6 Brazos			
FCH-4			
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CHANGE by Chang, Irene 28-Sep-2011

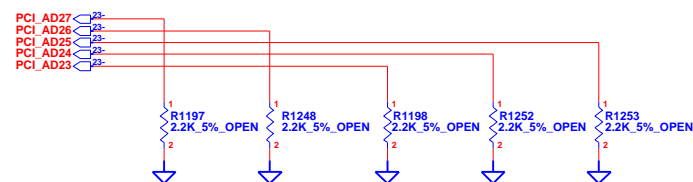
SHEET 26 OF 45





Required Straps:

RTCCCLK		PCI_CLK1	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	EC_PWM2
S5 PLUS MODE DISABLE (DEFAULT)	PULL HIGH	ALLOW PCIE Gen2 DEFAULT	USE DEBUG STRAP	non Fusion CLOCK MODE APU_CLK AND DISP_CLK NO CLOCK OUTPUT	EC ENABLED	INTEGRATED CLKGEN ENABLED DEFAULT	LPC ROM
S5 PLUS MODE ENABLE	PULL LOW	FORCE PCIE Gen1	IGNORE DEBUG STRAP DEFAULT	Fusion CLOCK MODE DEFAULT APU_CLK AND DISP_CLK CLOCK OUTPUT FROM INT CLOCK GEN	EC DISABLED DEFAULT	INTEGRATED CLKGEN DISABLED	SPI ROM DEFAULT



Debug Straps

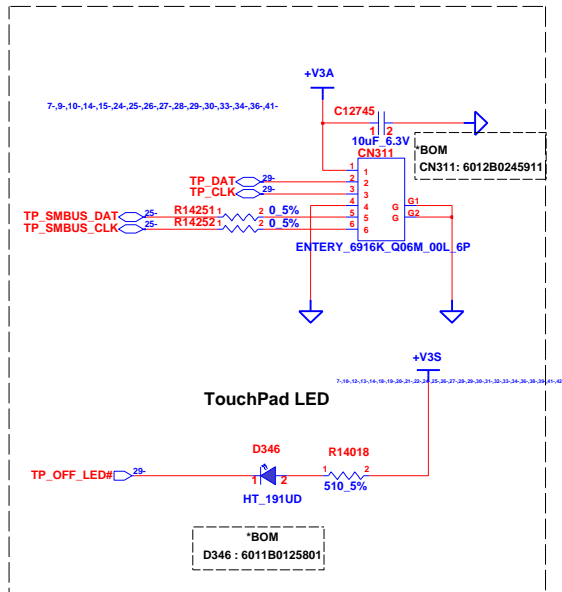
FCH HAS 15K INTERNAL PU FOR PCI_AD[27:23]

	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL (default)	DISABLE ILA AUTORUN (default)	USE FC PLL (default)	USE DEFAULT PCIE STRAPS (default)	DISABLE PCI MEM BOOT (default)
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PCI PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

INVENTEC			
TITLE KF14BR-SCHE-DB-20110928-M3L			
SIZE A3	CODE CS	DOC. NUMBER	REV
SHEET		28	OF 45

CHANGE by **KF14BR** 28-Sep-2011

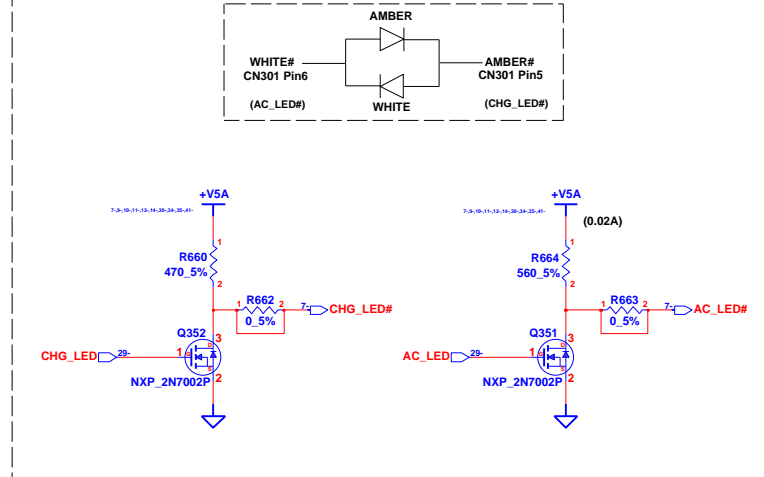
TouchPad Module CONN



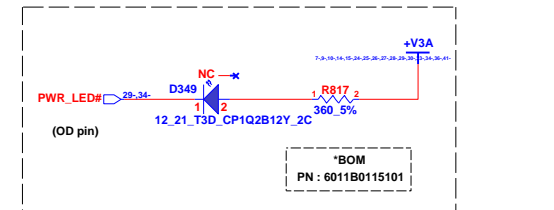
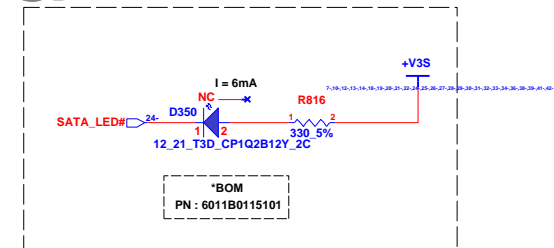
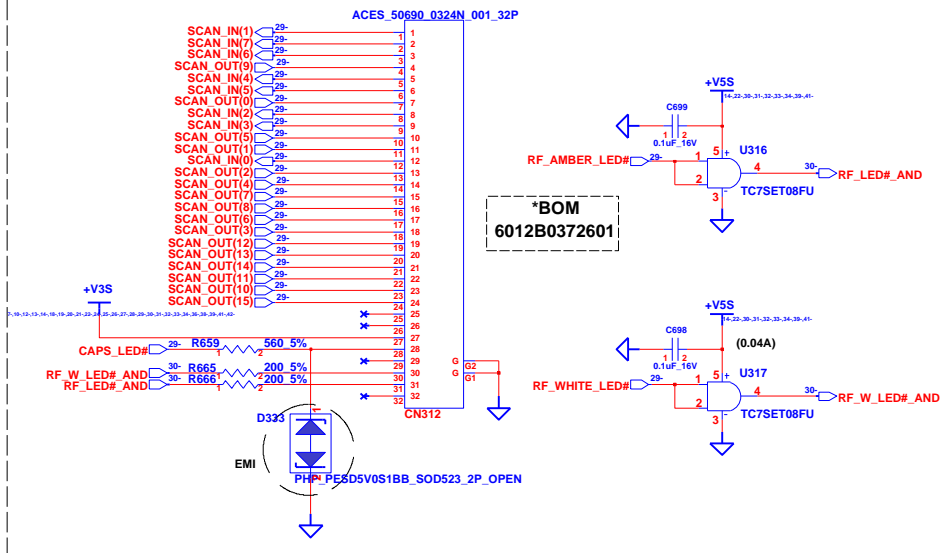
TouchPad LED

OK

DC-JACK LED



KeyBoard CONN (30 pin)



INVENTEC

TITLE
Sarah 15.6 Brazos
KBC

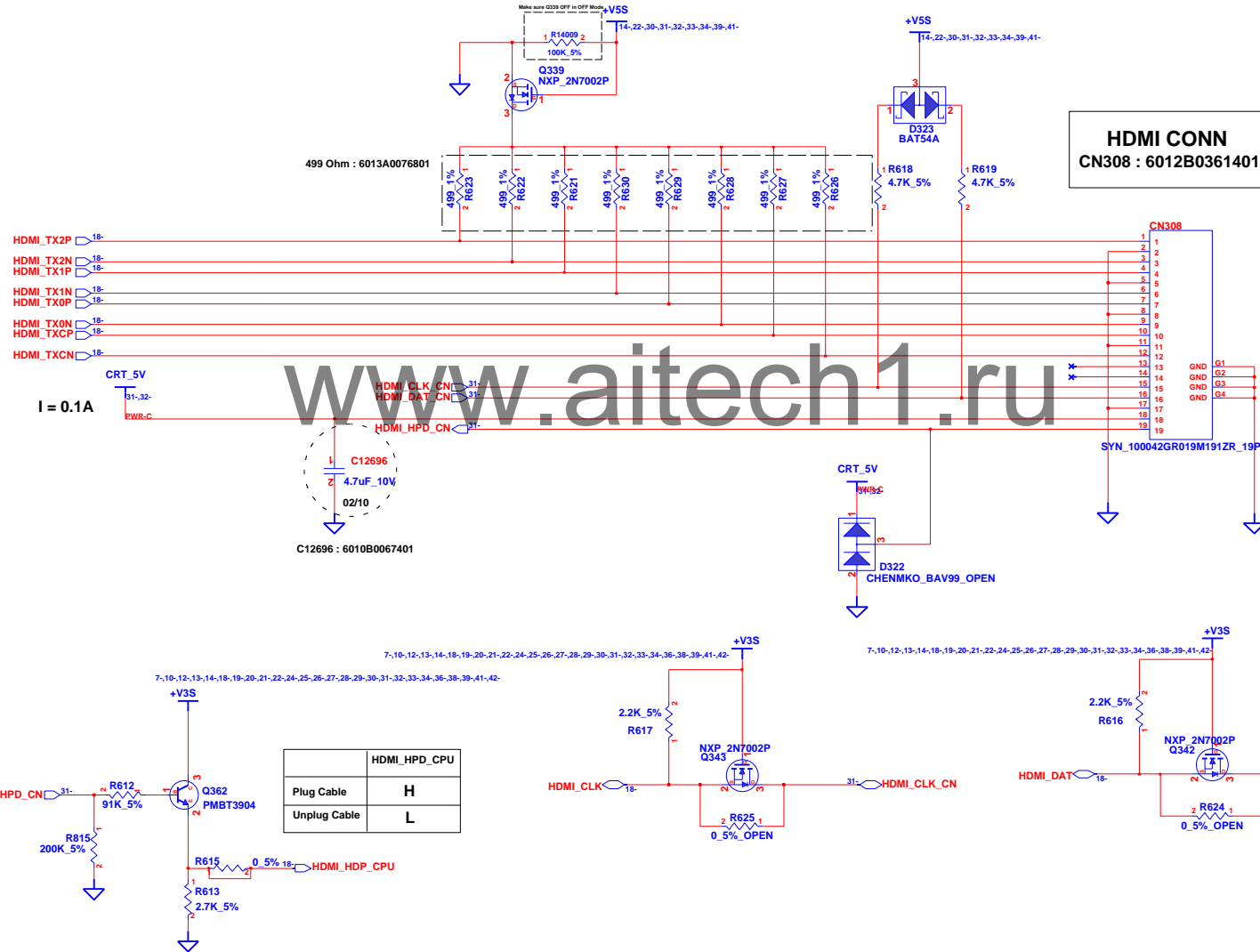
SIZE CODE DOC. NUMBER REV
A3 CS 1310A24127-0-MTR B

CHANGE by Chang, Irene 7-Aug-2010

SHEET 30 OF 45

HDMI

OK



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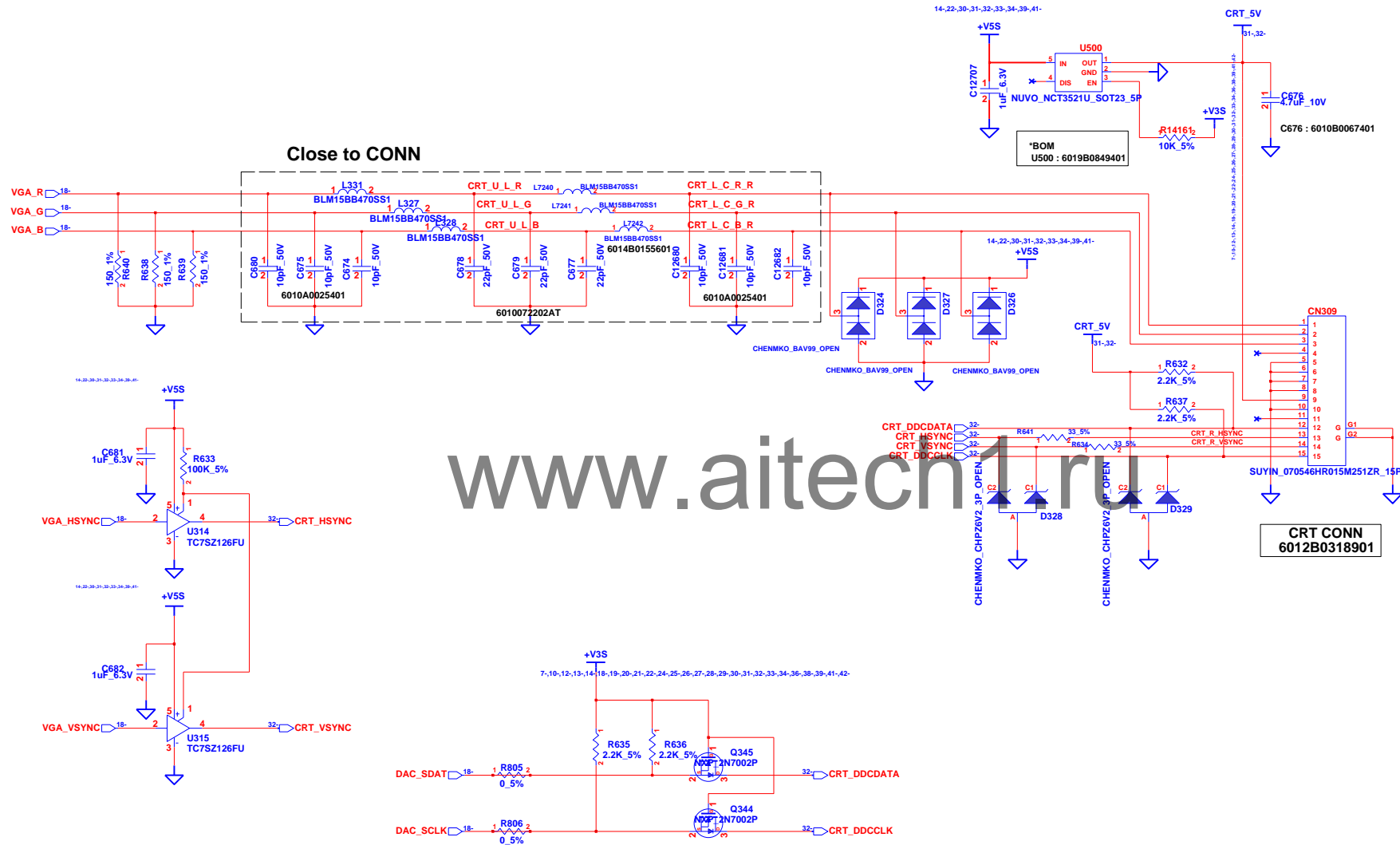
INVENTEC

TITLE
**Sarah 15.6 Brazos
CRT**

SIZE	CODE	DOC. NUMBER	REV
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CHANGE by *Chang, Irene* 12-Mar-2011

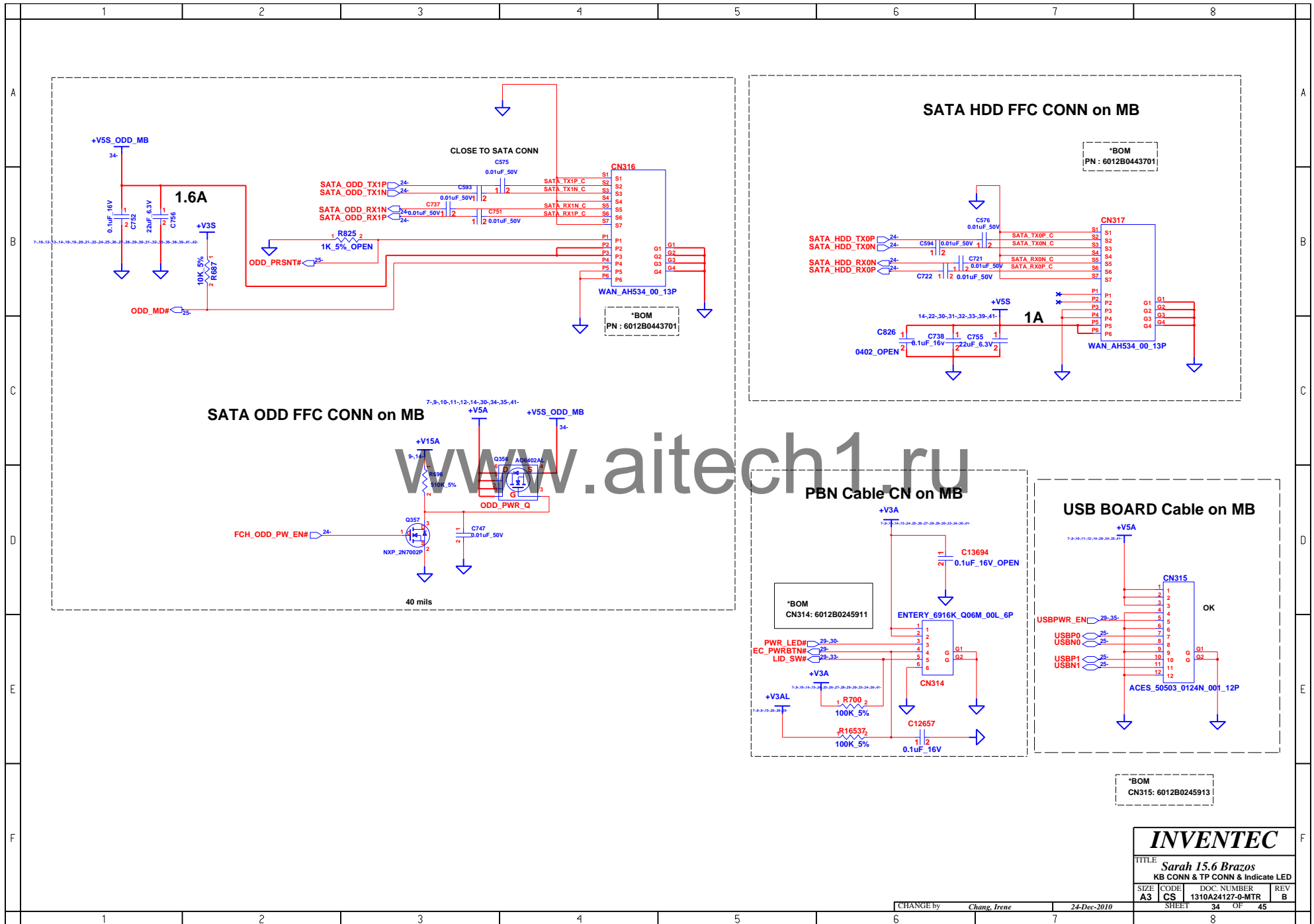
SHEET 32 OF 45



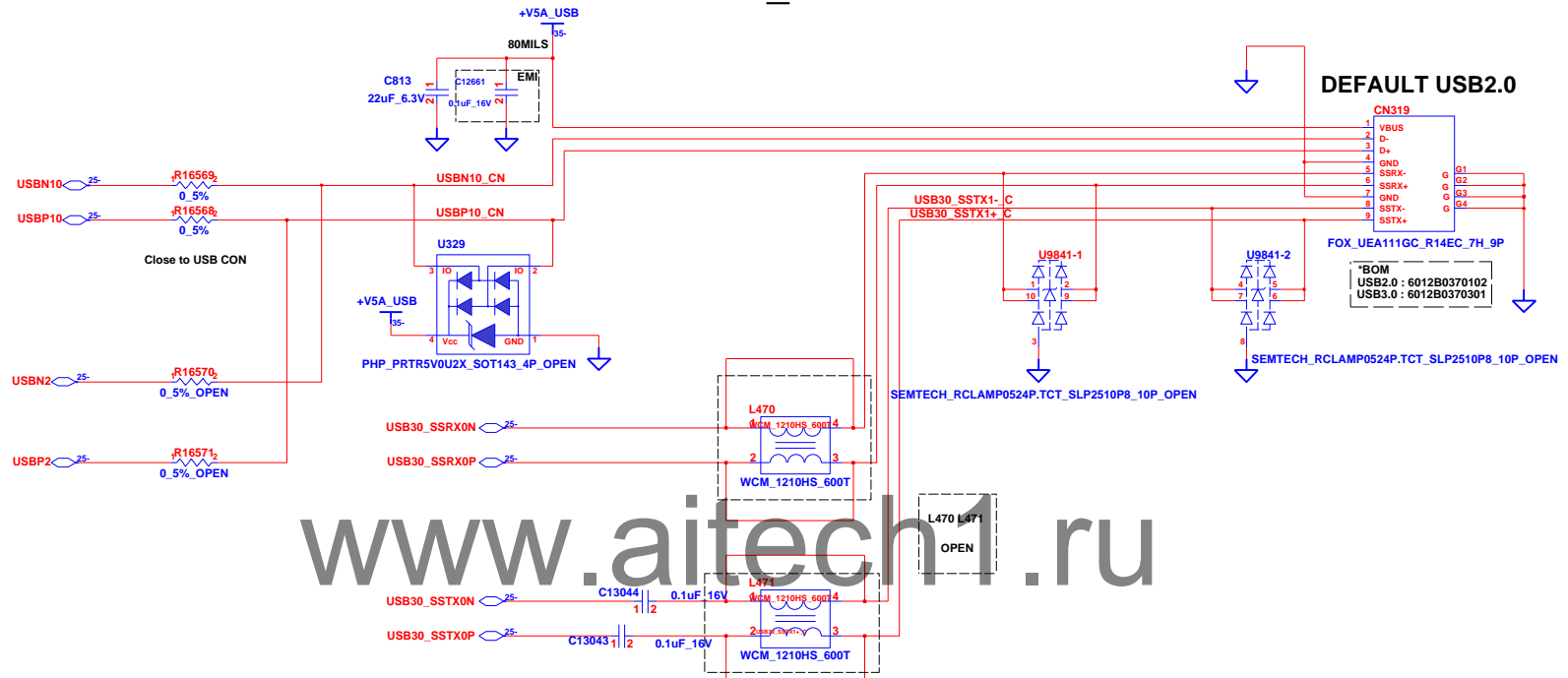
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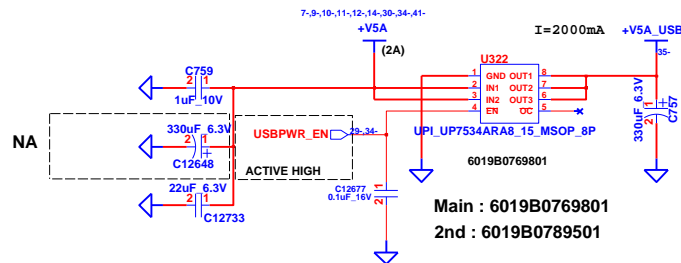
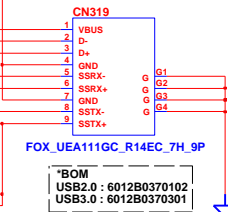
CHANGE by	<i>Chang, Irene</i>	<i>31-Aug-2010</i>
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USB3.0_PORT



DEFAULT USB2.0



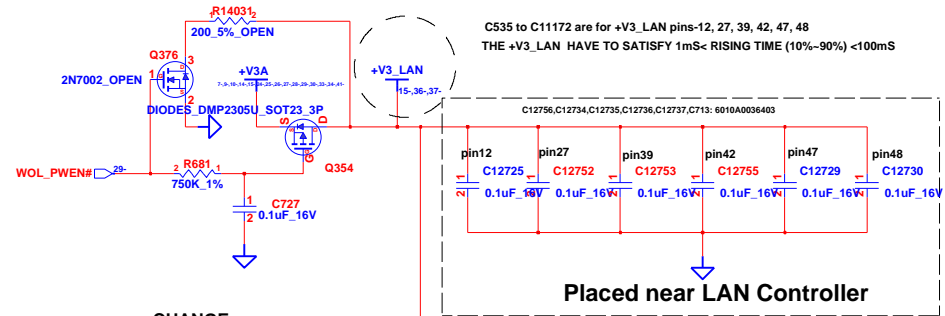
Main : 6019B0769801
2nd : 6019B0789501

INVENTEC			
TITLE: <i>Surge 15.6 Brazos</i>			
SATA HDD & SATA DVD			
USB B CONN & PBN CONN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by: *Chang, Irene* 6-Apr-2011

SHEET 35 OF 45

RTL8161FH(10/100/1000)/RTL8165EH(10/100)		
	MOUNT	OPEN
10/100 LAN MODE DEFAULT	U320,R680,U9848	L332,R14143,R672,C741,C713 C12754,C12756,C12734,C12735 C12736,C12737,U470,R14131 R14141
GIGA LAN SWITCHING MODE		R680,U9848



CHANGE
*BOM
L332
1ST: 6014B0200401
2ND: 6014B0190301

MOUNT R672, OPEN R680
ENABLE SWITCHING REGULATOR
MOUNT R680, OPEN R672
DISABLE SWITCHING REGULATOR
MOUNT R680, OPEN R672
ENABLE LDO REGULATOR
(ONLY 10/100)

LDO MODE (RTL8165EH)
L332, C741, C713 OPEN

Placed near LAN Controller
C10627 to C11162 are for VDD10 pins-3, 6, 9, 13, 29, 41, 45

Placed near LAN Controller

C12741, C1060 CLOSE TO RTL8165EH PIN21

RTL8165EH (10/100)	3.3V: ENABLE SWITCHING REGULATOR OR EXTERNAL 1.05 INPUT MODE 0V: ENABLE LDO REGULATOR
RTL8161FH (10/100/1000)	3.3V: ENABLE SWITCHING REGULATOR 0V: DISABLE SWITCHING REGULATOR

INVENTEC

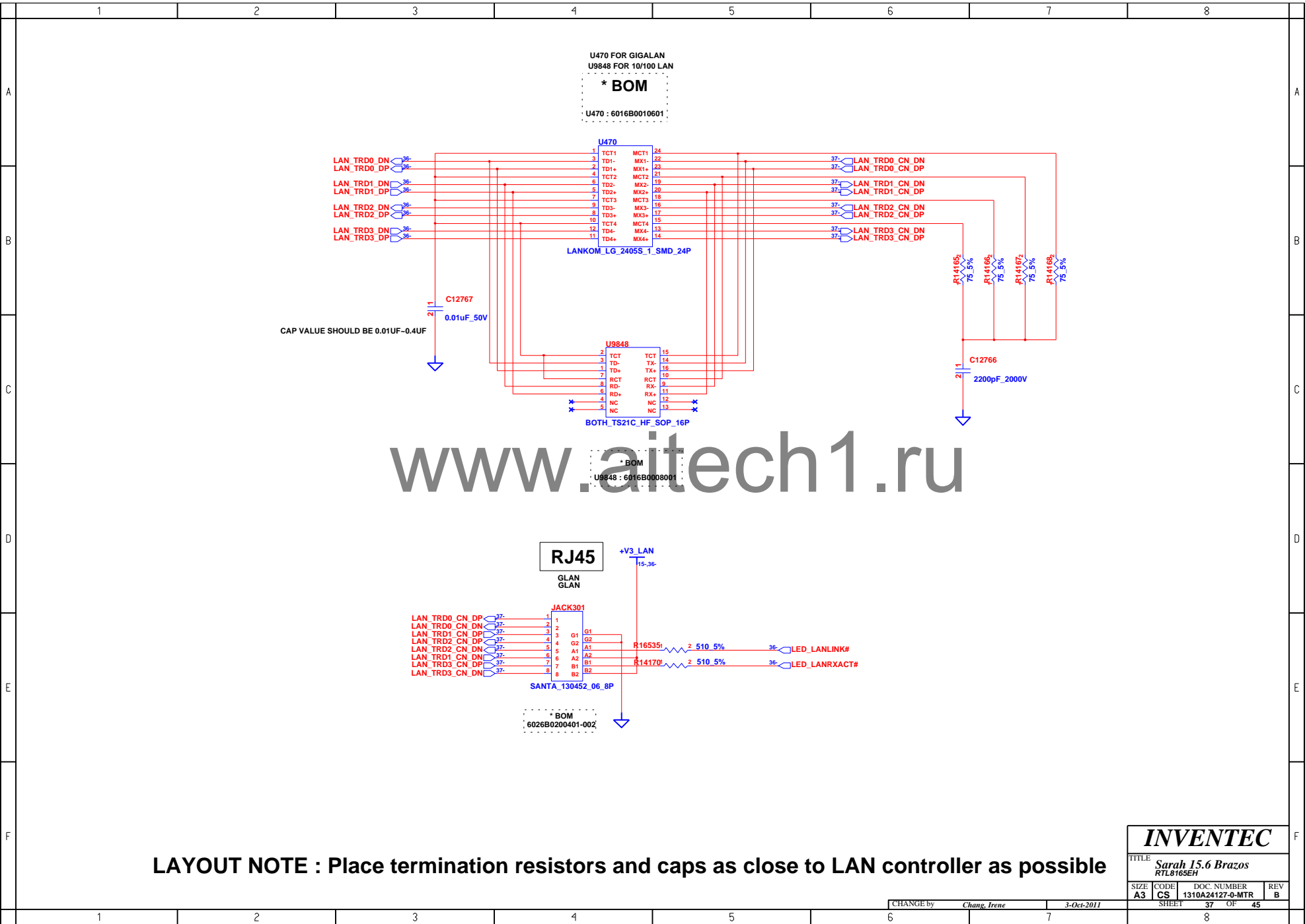
TITLE
Sarah 15.6 Brazos
USB

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 7-Aug-2010

SHEET 36 OF 45

C12717,C12718 CLOSE TO LAN CHIP PIN 22,23



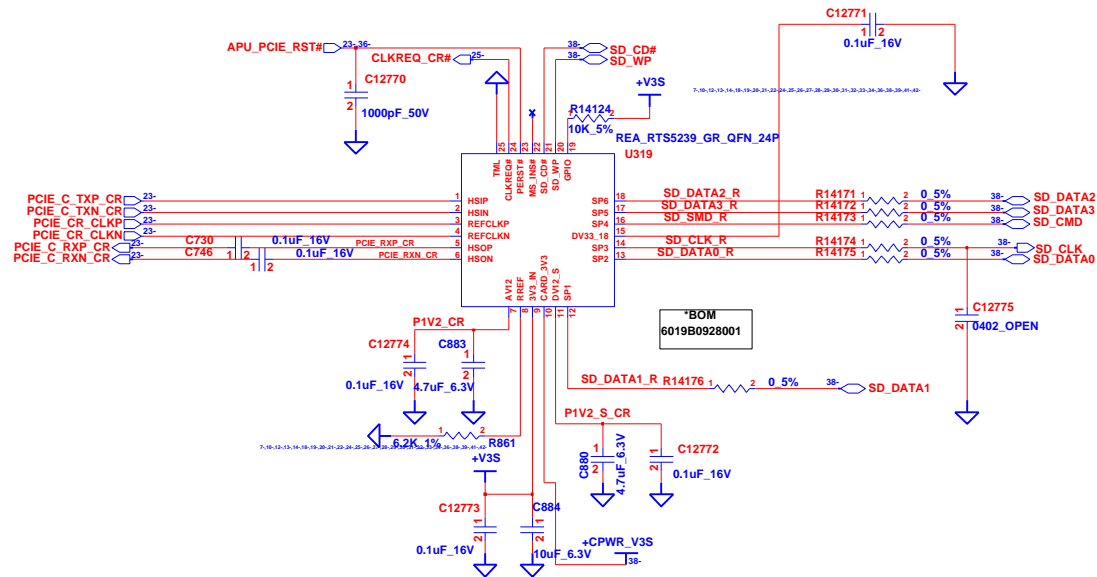
INVENTEC

TITLE
Sarah 15.6 Brazos
RTL8168EH

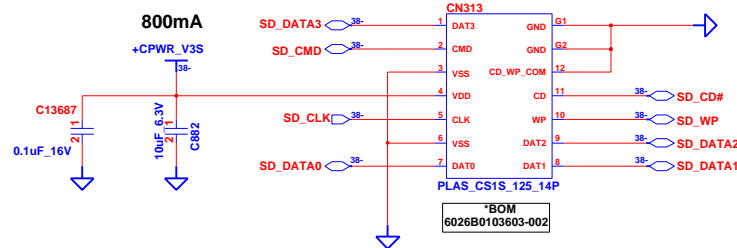
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 3-Oct-2011

SHEET 37 OF 45



www.aitech1.ru
Card Reader CONN

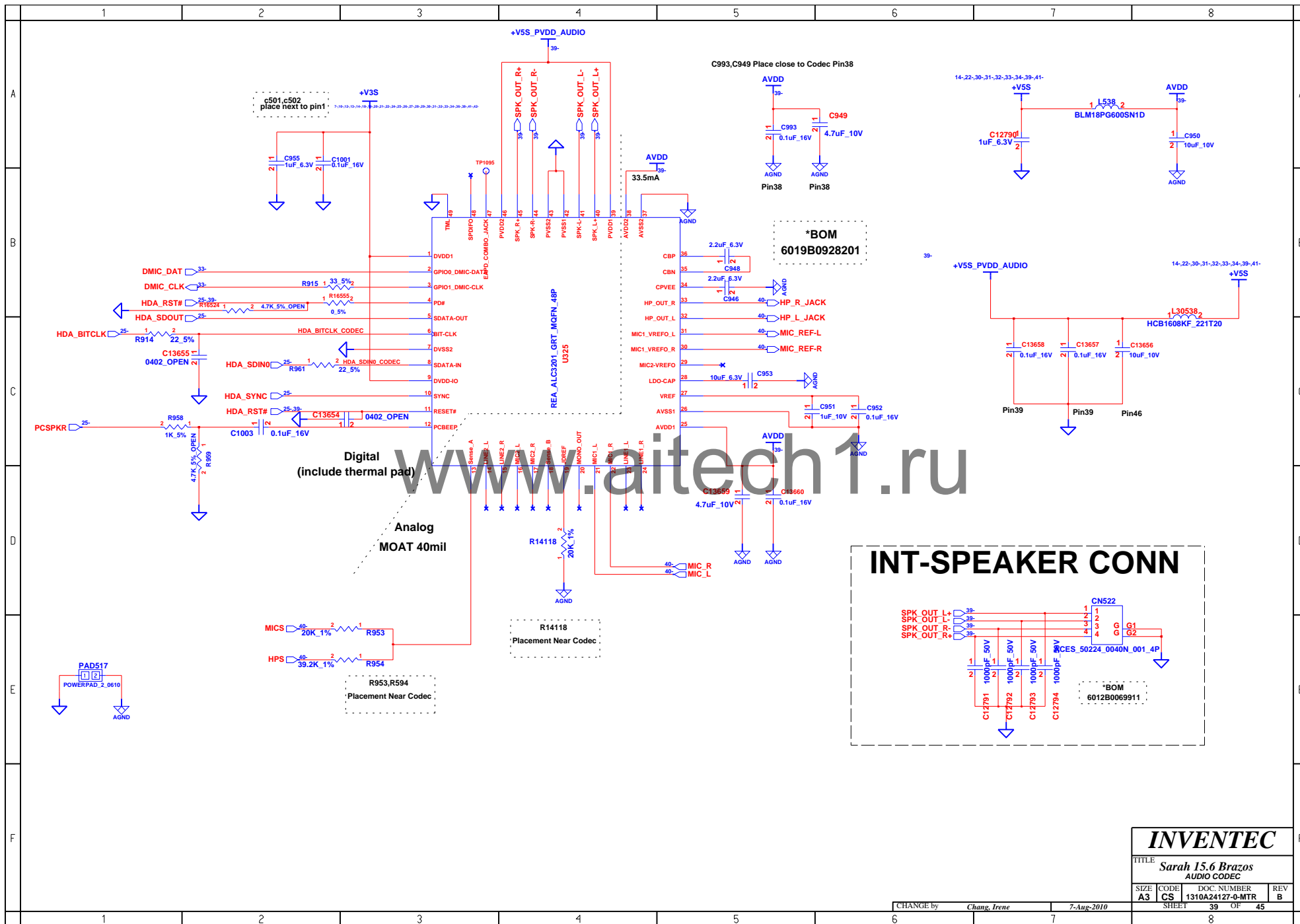


INVENTEC

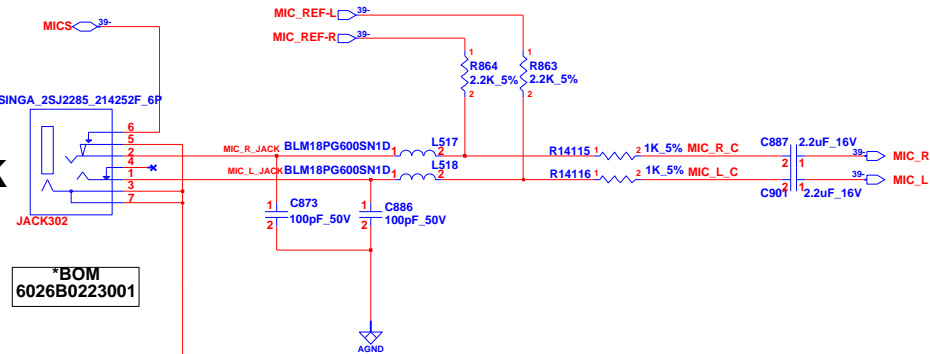
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Sarah 15.6 Brazos			
LAN & RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 7-Aug-2010

SHEET 38 OF 45

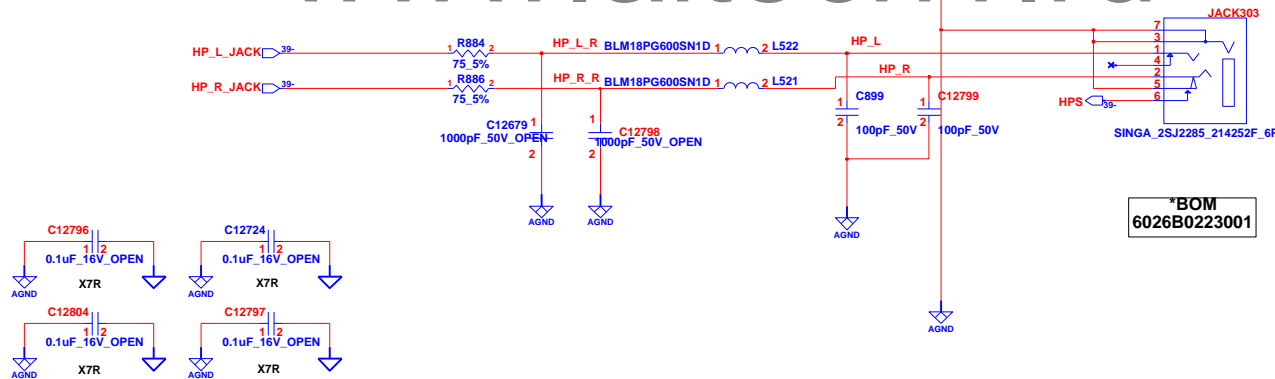


Normal OPEN
MIC JACK



www.aitech1.ru

HP JACK
Normal OPEN

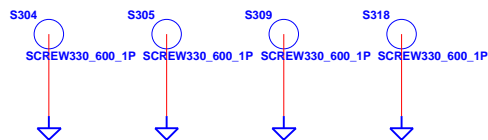


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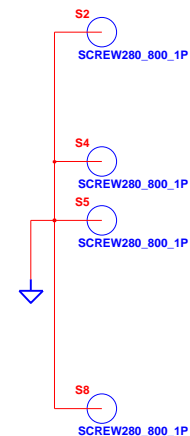
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Sarah 15.6 Brazos AUDIO JACK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B
SHEET		40	OF 45

CHANGE by *Chang, Irene* 7-Aug-2010

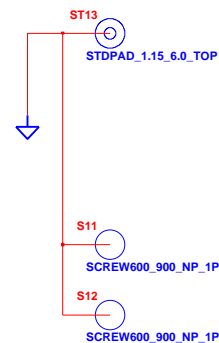
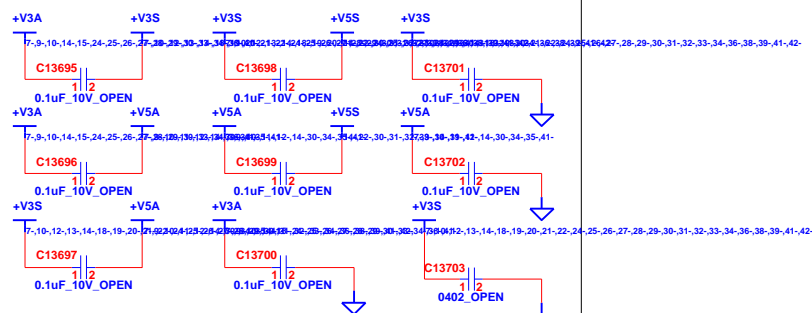
For APU



For MB



For EMI CAP



INVENTEC

TITLE Sarah 15.6 Brazos

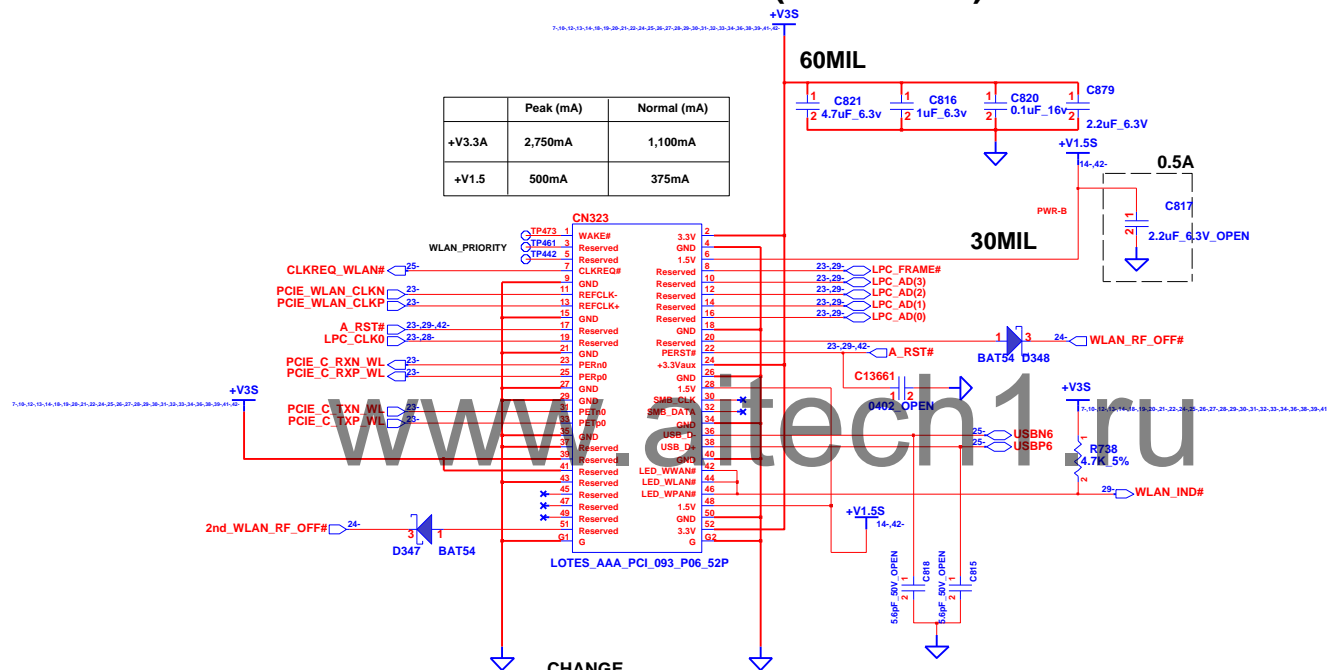
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B

CHANGE by Chang, Irene 12-Mar-2011

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WLAN CONN (MINICARD)

	Peak (mA)	Normal (mA)
+V3.3A	2,750mA	1,100mA
+V1.5	500mA	375mA



CHANGE

*BOM
CN323 : 6026B0184301

	FCH
WLAN_RF_OFF#	GPIO178
2nd_WLAN_RF_OFF#	GPIO180

6026B0221502 SI BUILD

INVENTEC

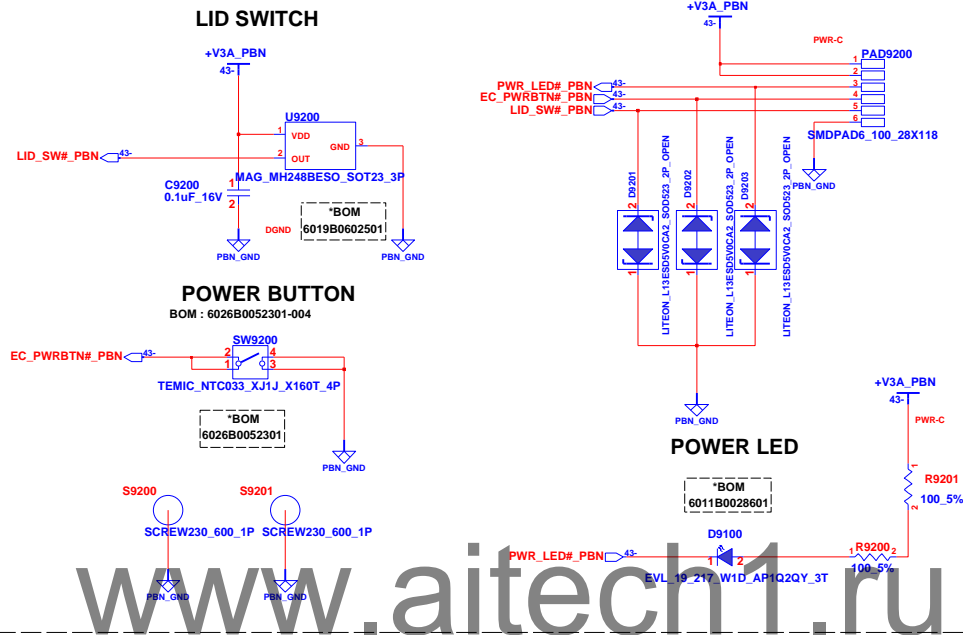
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SCREW

SIZE A3	CODE CS	DOC. NUMBER 1310A24127-0-MTR	REV B
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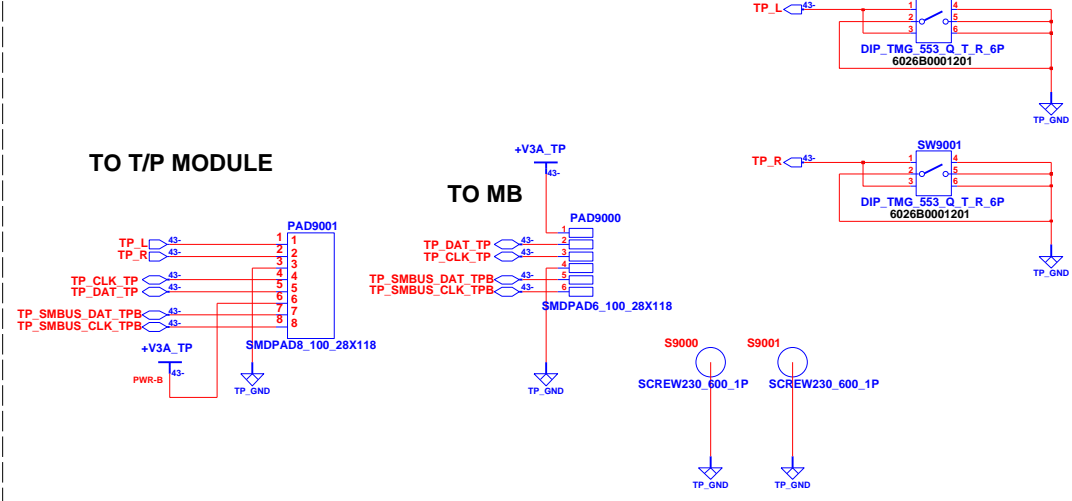
CHANGE by: Chang, Irene 1-Dec-2010

SHEET 42 OF 45

Power Button Board



Pick-Button BOARD

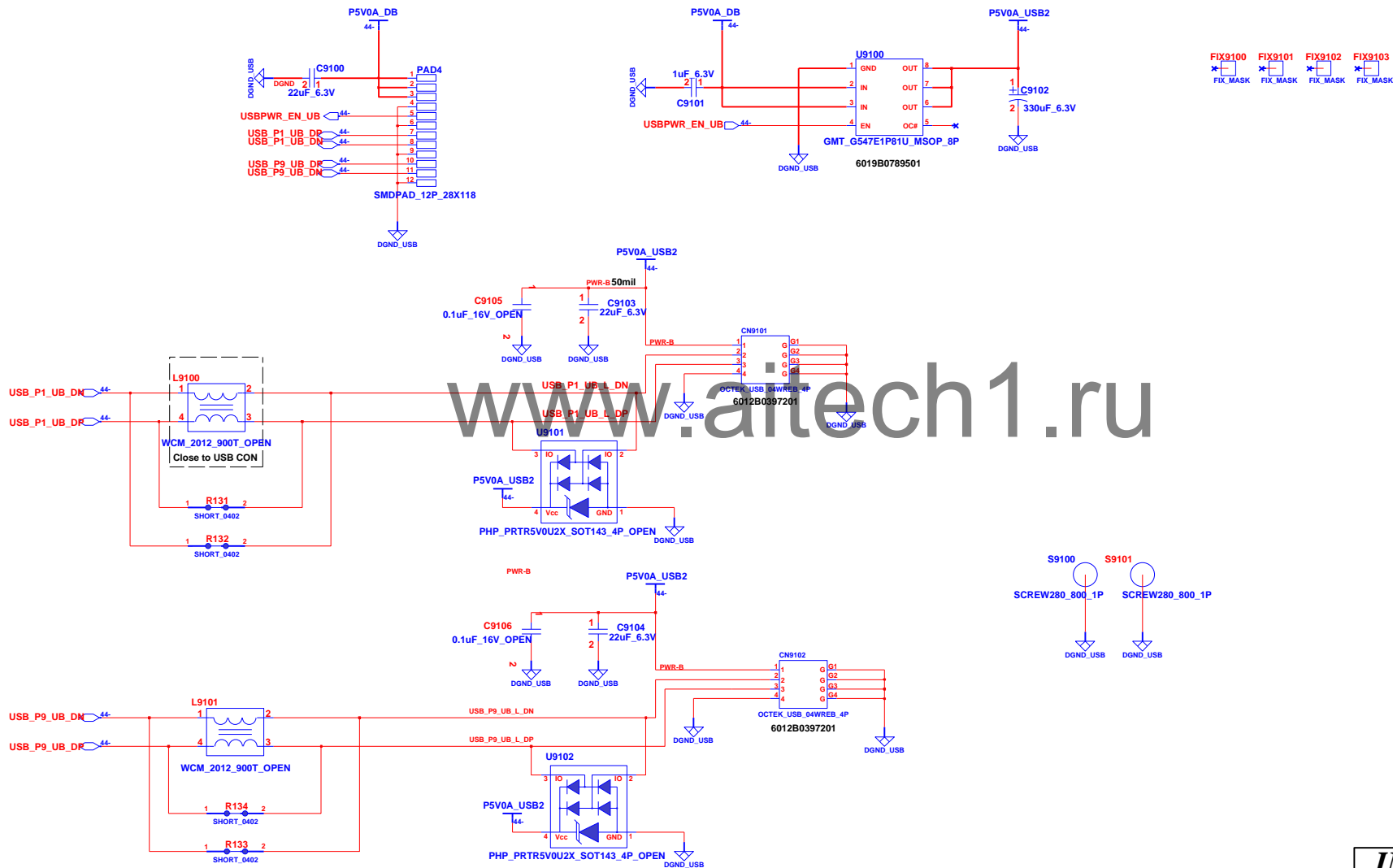


INVENTEC

TITLE Sarah 15.6 Brazos WLAN			
SIZE A3	CODE CS	DOC. NUMBER 1310A24127-0-MTR	REV B
SHEET 43		OF 45	

CHANGE by Chang, Irene 23-Sep-2011

USB BOARD

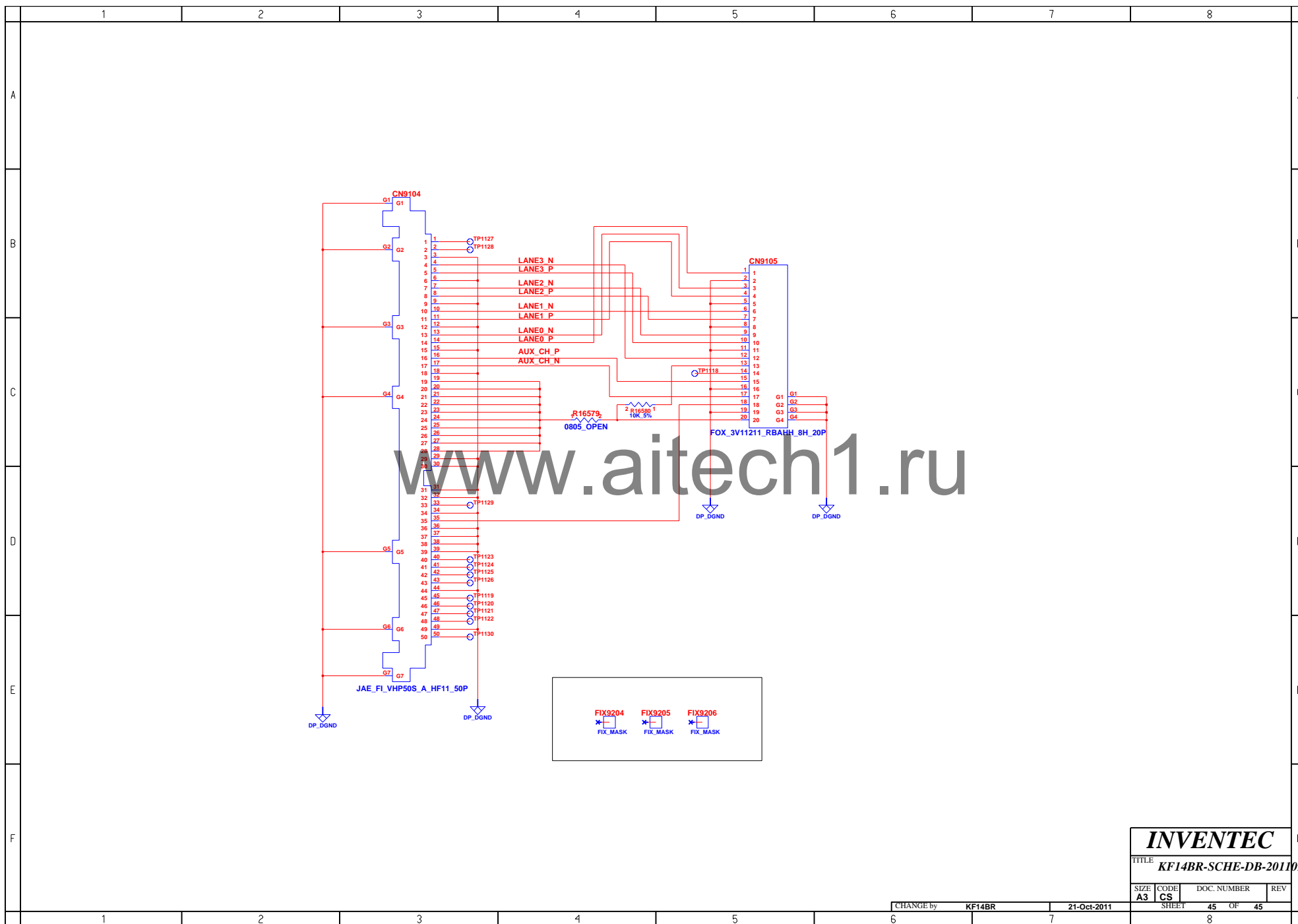


FIX9100
FIX9101
FIX9102
FIX9103

INVENTEC

TITLE			
Sarah 15.6 Brazos			
STRAP			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A24127-0-MTR	B
SHEET		44	OF 45

CHANGE by Chang, Irene 6-Apr-2011



INVENTEC			
TITLE KF14BR-SCHE-DB-20110928-M3L			
SIZE A3	CODE CS	DOC. NUMBER	REV
SHEET 45		OF 45	

CHANGE by KF14BR 21-Oct-2011