

	1	2	3	4	5	6	7	8																																																																										
A	<div>WWW.AliSaler.Com</div>								A																																																																									
B	<div>AMD-UMA Volna SI Build Final 2008/12/26</div>								B																																																																									
C									C																																																																									
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DATE	CHANGE NO.	REV																																																																																
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 48- EXPRESS CARD
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 50- BUTTON & LED
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 53- SWITCH Board

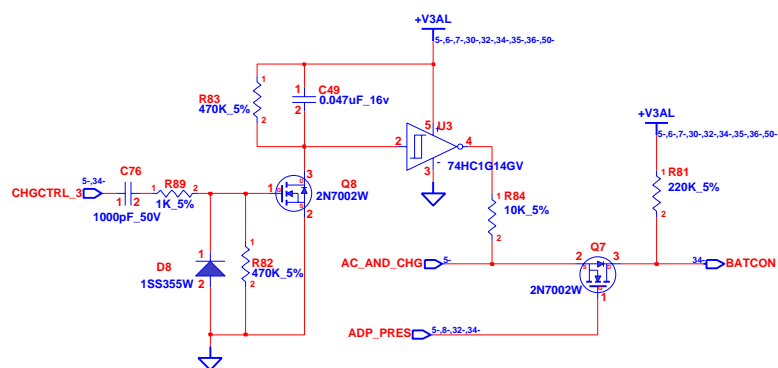
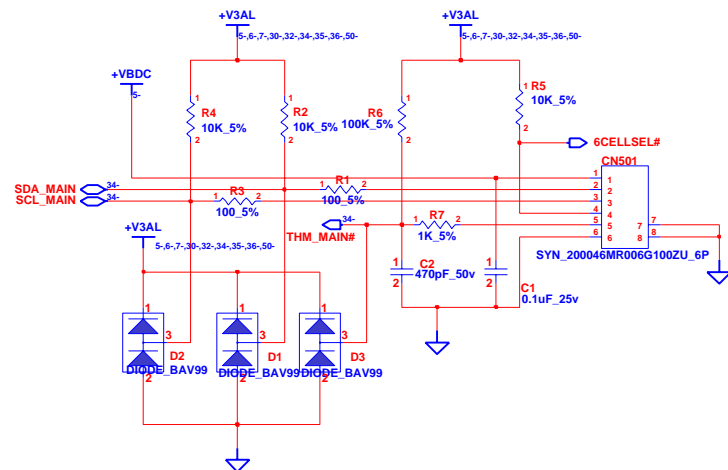
INVENTEC

TITLE **Volna 09 AMD-UMA**
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CHANGE by *Jimmy song* 26-Dec-2008

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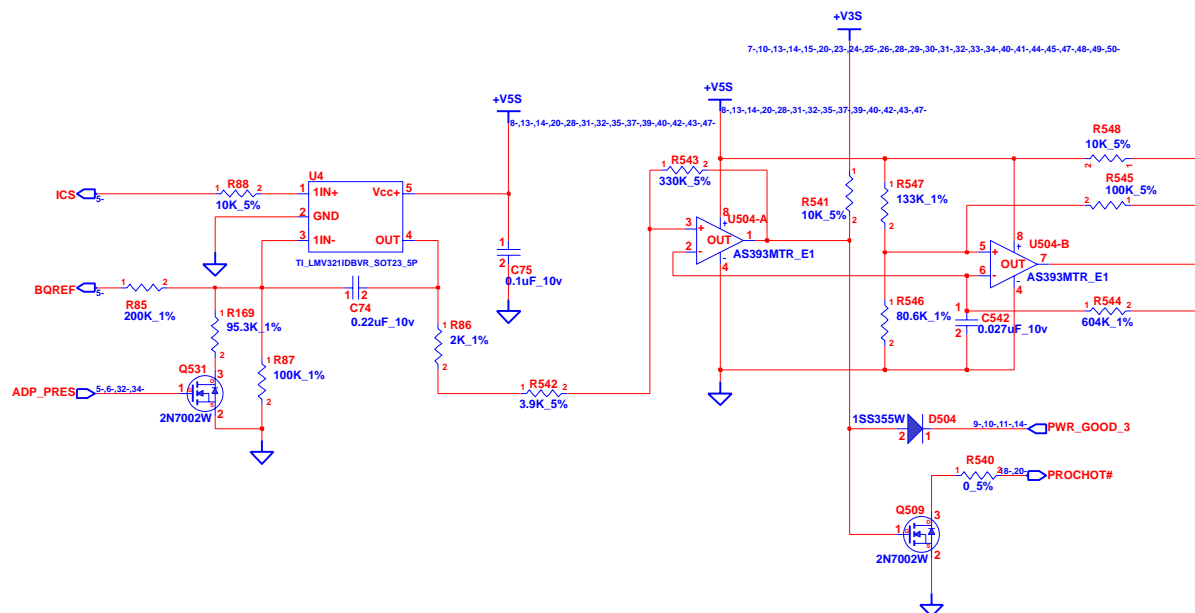
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TITLE
**Volna 09 AMD-UMA
SELECT & BATTERY CONN**

SIZE CODE DOC. NUMBER REV
A3 CS 1310A22587-0 AX1

CHANGE by Jimmy song 26-Dec-2008

SHEET 6 OF 53



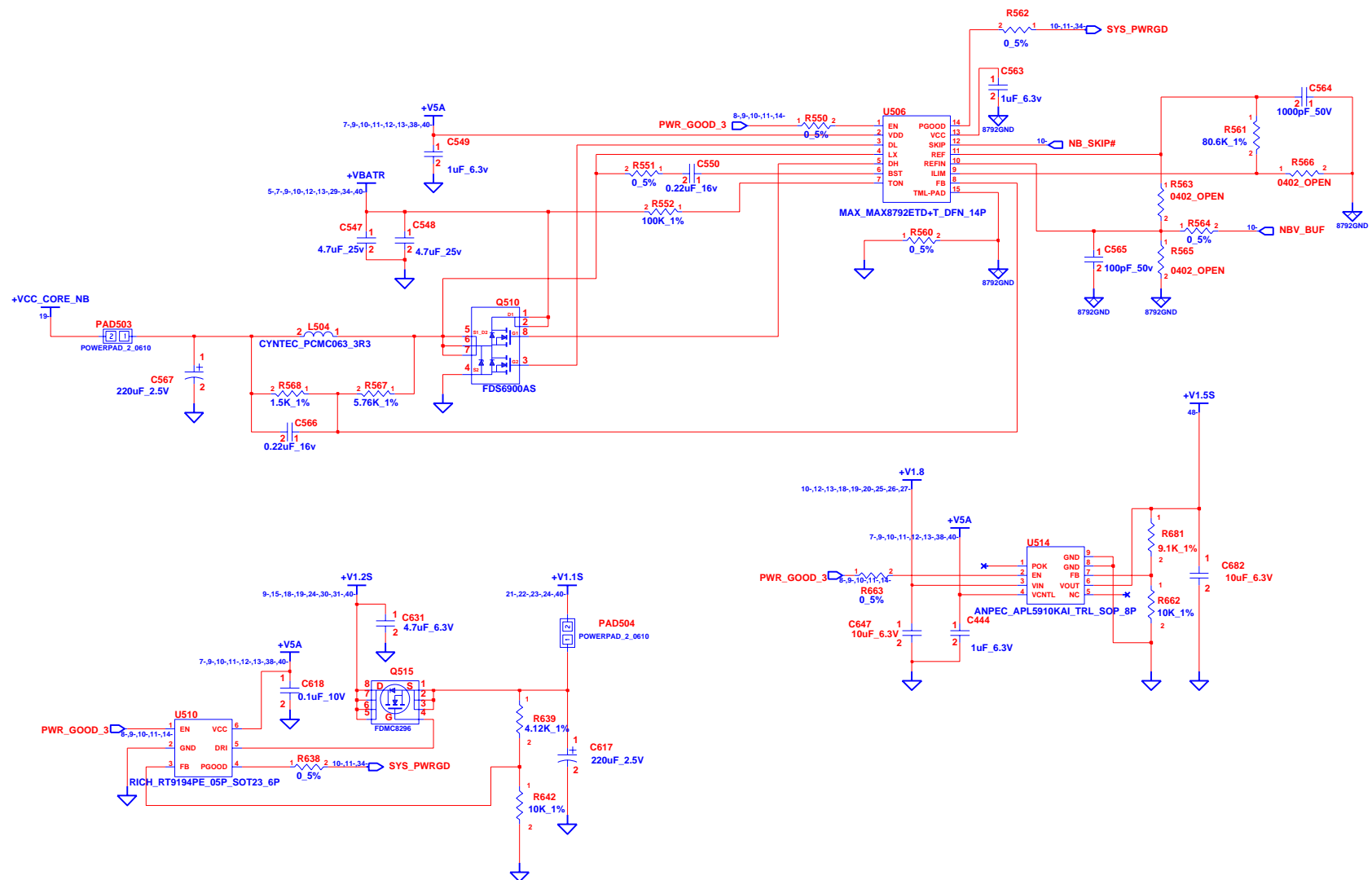
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TITLE: **Volna 09 AMD-UMA**
OCP

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22587-0	AXI

CHANGE by: Jimmy song 26-Dec-2008

SHEET 8 OF 53



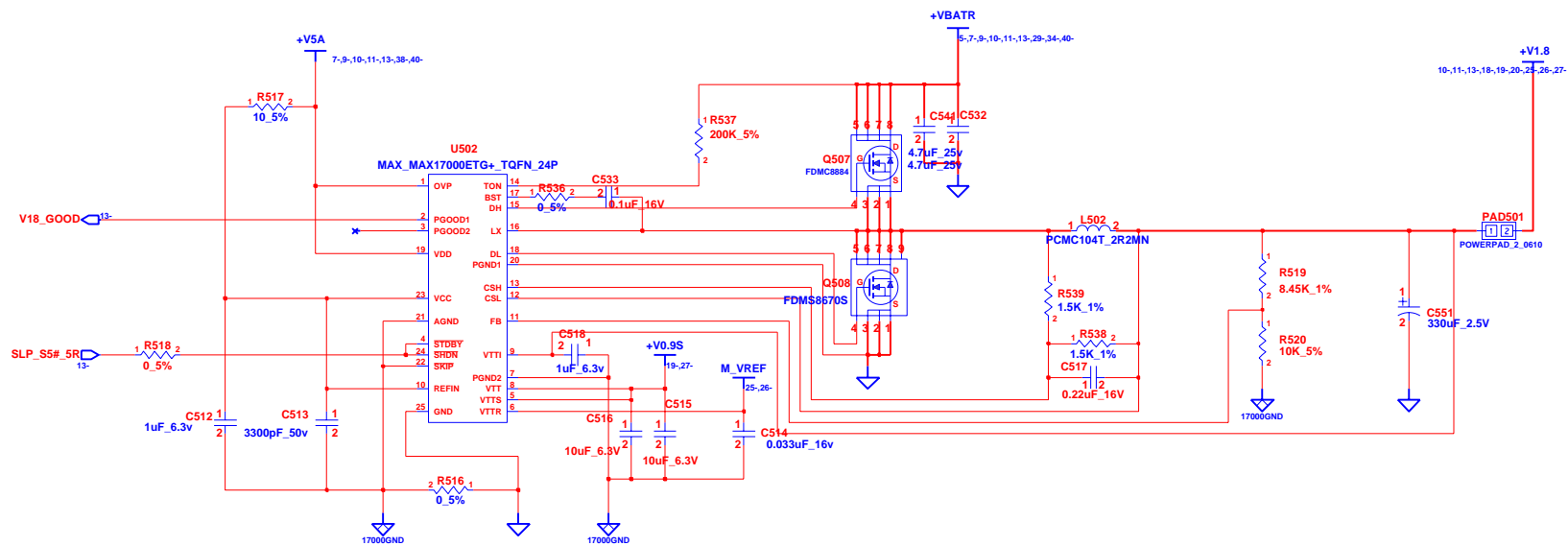
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TITLE: Volna 09 AMD-UMA
POWER

SIZE: A3 CODE: CS DOC. NUMBER: I310A22587-0 REV: AXI

CHANGE by: Jimmy song 26-Dec-2008

SHEET 11 OF 53



NOTE: DDR2 REGULATOR

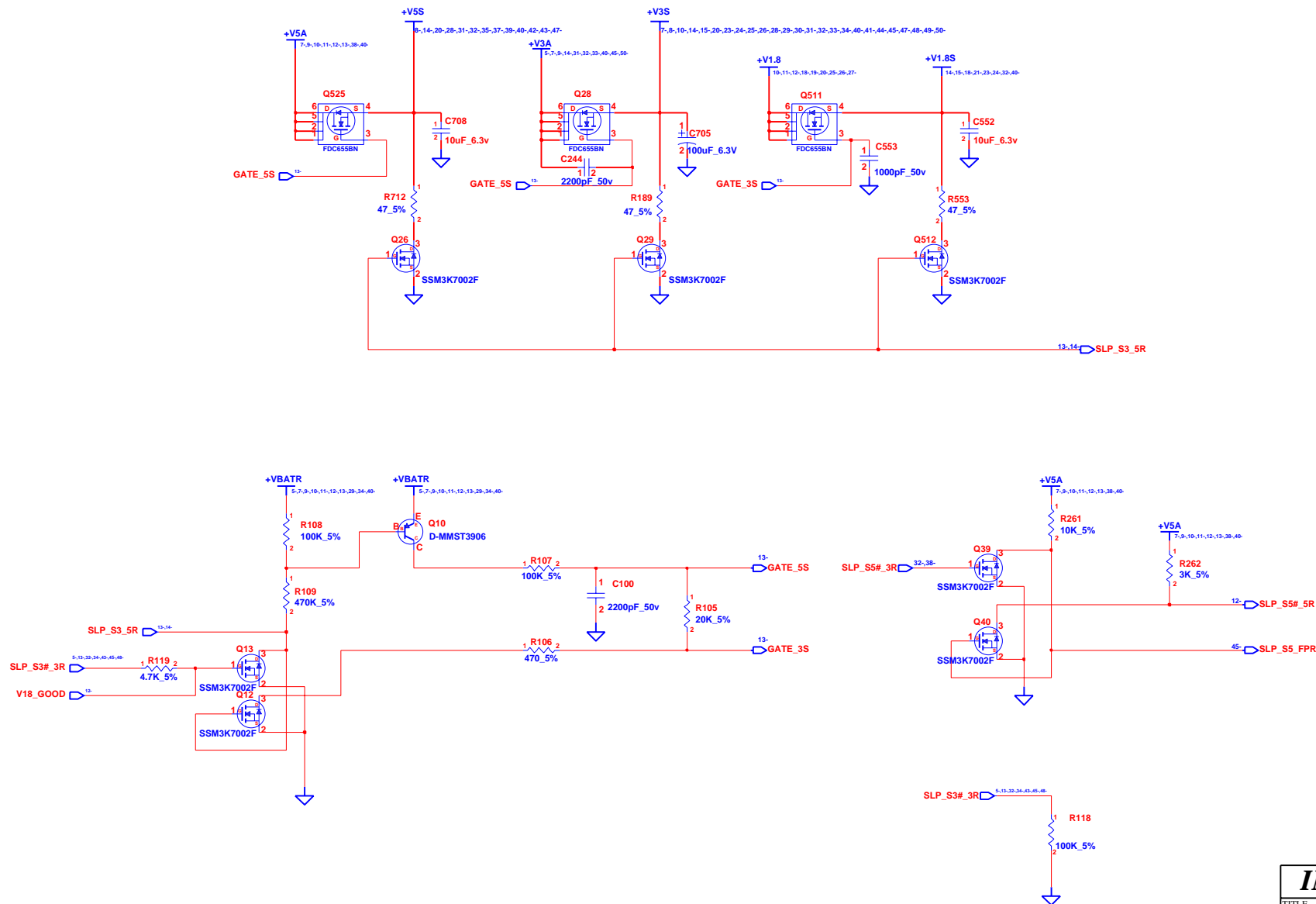
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TITLE: Volna 09 AMD-UMA
DDR2 POWER

SIZE: A3
CODE: CS
DOC. NUMBER: I310A22587-0
REV: AXI

CHANGE by: Jimmy song 26-Dec-2008

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INVENTEC

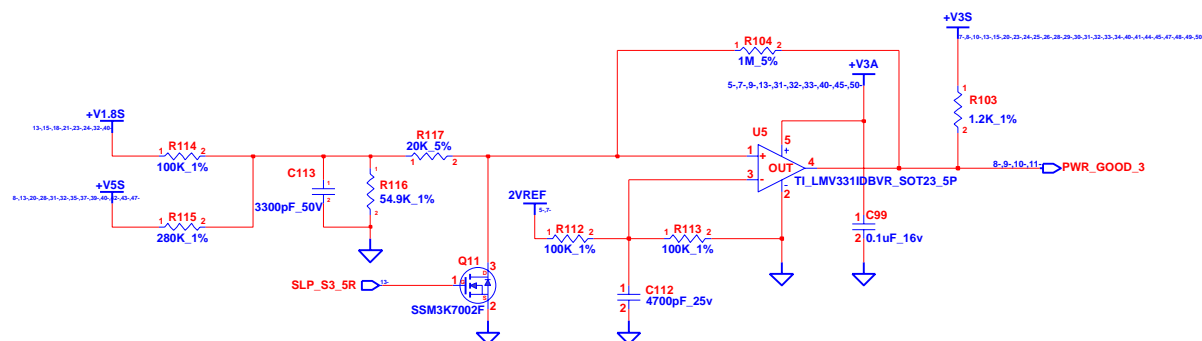
TITLE
**Volna 09 AMD-UMA
POWER(Sleep)**

SIZE A3	CODE CS	DOC. NUMBER I310A22587-0	REV AXI
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CHANGE by *Jimmy song* 26-Dec-2008

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INVENTEC

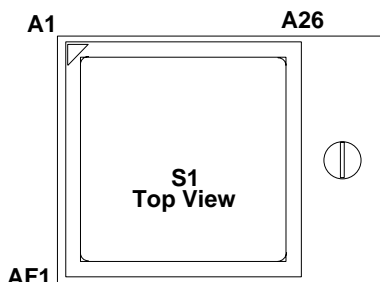
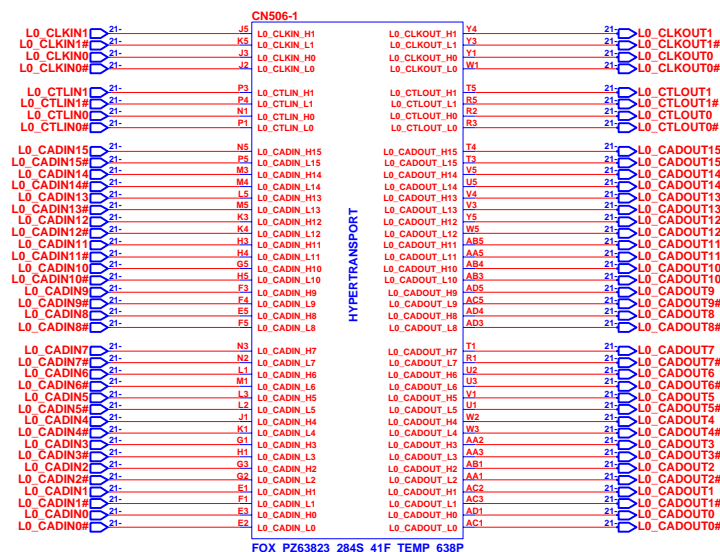
TITLE
**Volna 09 AMD-UMA
POWER(Sequence)**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22587-0	AXI

CHANGE by Jimmy song 26-Dec-2008

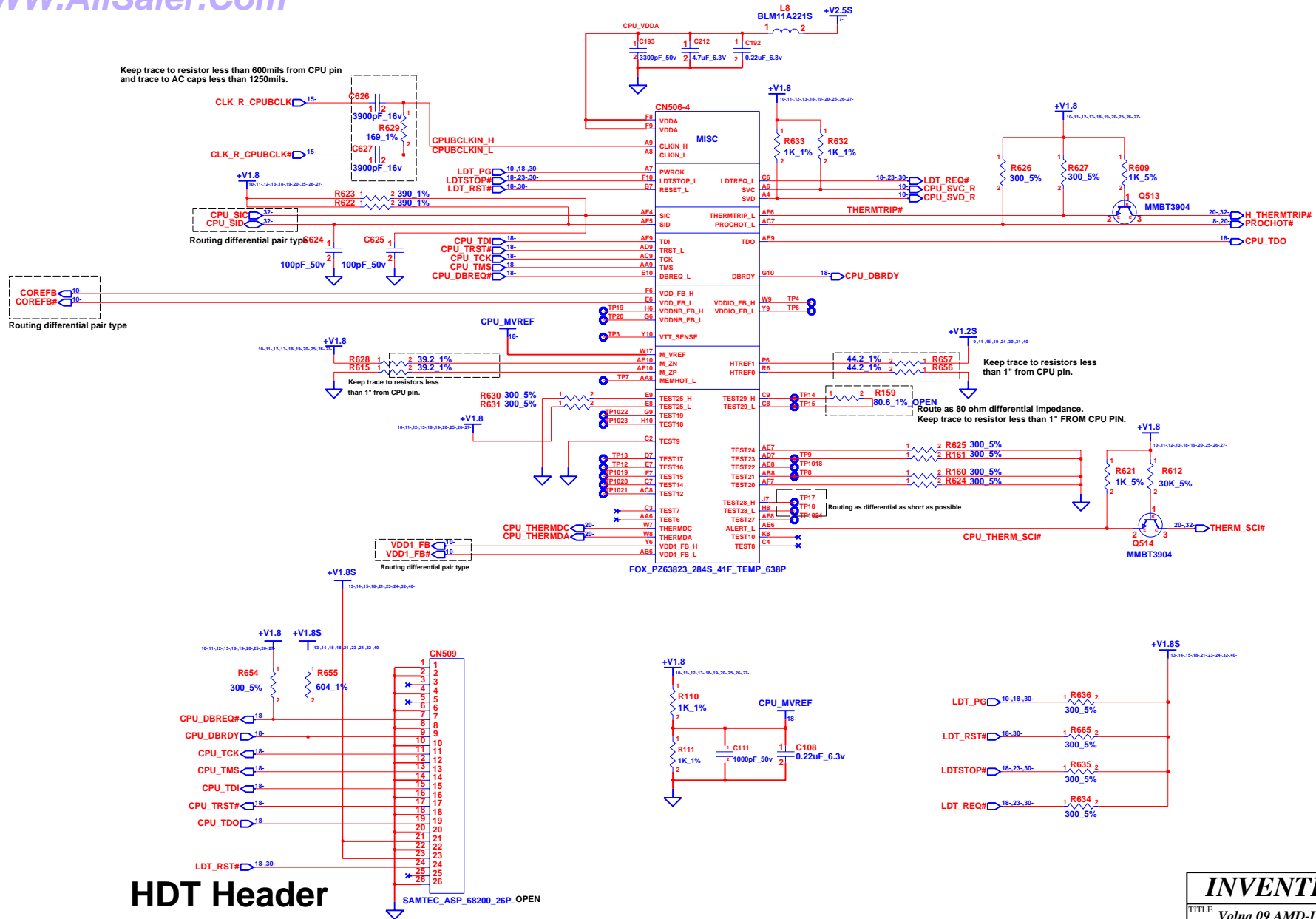
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Layout: Add stitching caps if crossing plane split.

INVENTEC			
TITLE Volna 09 AMD-UMA CPU-1			
SIZE A3	CODE CS	DOC. NUMBER 1310A22587-0	REV AXI
CHANGE by Jimmy song		26-Dec-2008	
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HDT Header

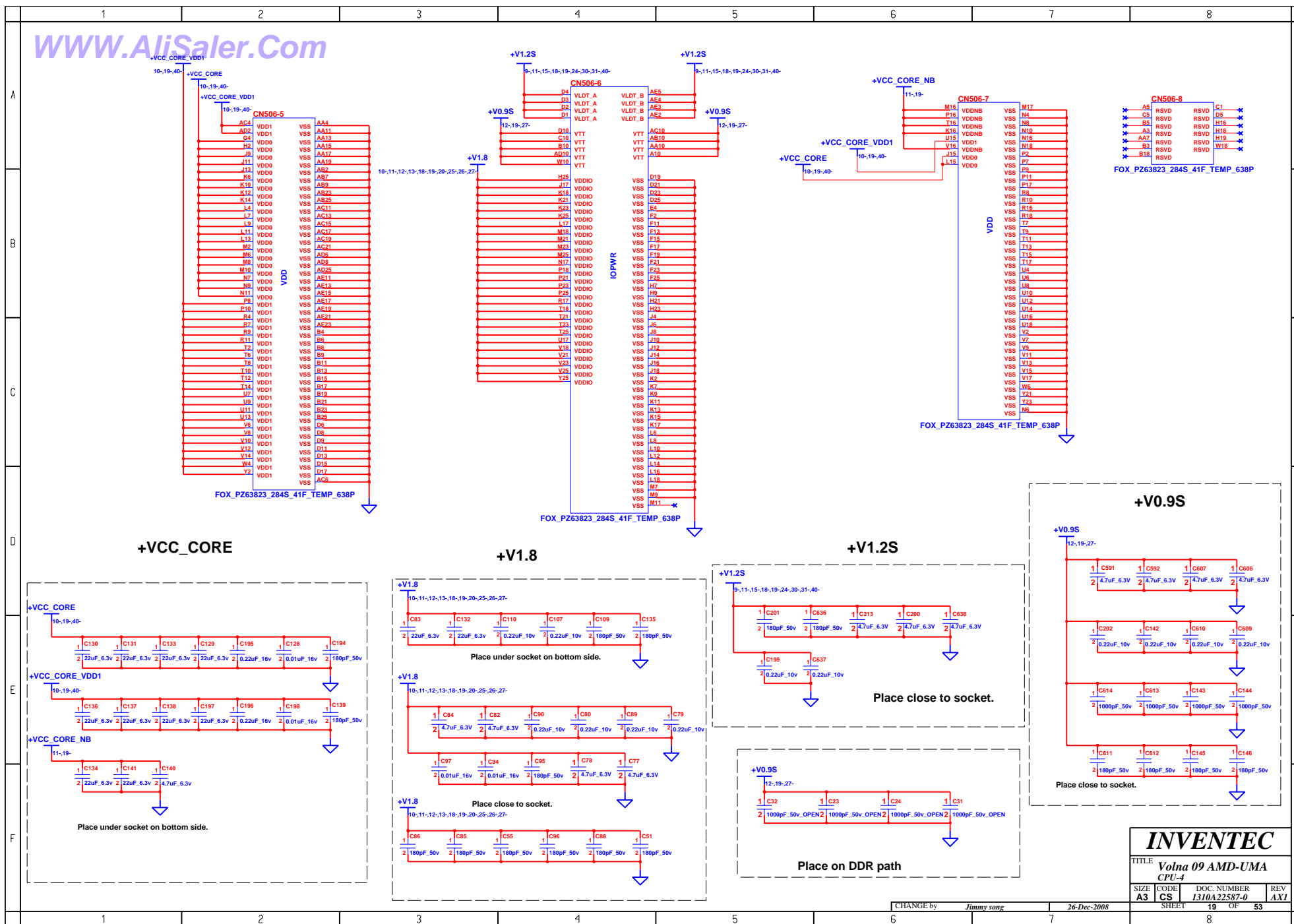
INVENTEC

TITLE	<i>Volna 09 AMD-UMA</i>
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SIZE A3	CODE CS	DOC. NUMBER <i>1310A22587-0</i>	REV <i>AX1</i>
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CHANGE by	<i>Jimmy song</i>	26-Dec-2008
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8



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Route differential pair type

LAYOUT Note: Put the thermal sensor close to CPU.

INVENTEC			
TITLE: Volna 09 AMD-UMA			
THERMAL & FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AX1
CHANGE by: Jimmy song		26-Dec-2008	SHEET 20 OF 53

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Route differential pair type

LAYOUT Note: Put the thermal sensor close to CPU.

INVENTEC			
TITLE: Volna 09 AMD-UMA			
THERMAL & FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AX1
CHANGE by Jimmy song		26-Dec-2008	SHEET 20 OF 53

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Route differential pair type

LAYOUT Note: Put the thermal sensor close to CPU.

INVENTEC			
TITLE: Volna 09 AMD-UMA			
THERMAL & FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AX1
CHANGE by: Jimmy song		26-Dec-2008	SHEET 20 OF 53

1 2 3 4 5 6 7 8

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PROCHOT# 8-18

+V1.8 10-11-12-13-18-19-25-26-27-

R73 30K_5%

MMBT3904 Q6

TS_THERM#

+V5S 8-13-14-20-28-31-32-35-37-38-40-42-43-47-

R42 10K_5%

PWM_3S_FAN# 34-

R74 3K_5%

U1 TC7SET08F

R41 5.6K_5%

Q5 AO3409

C29 0.1uF_16v_OPEN

CN2 ENTRY_3802_B03S_01E_3P

+V3S 7-9-10-13-14-15-20-24-25-26-28-29-30-31-32-33-34-40-41-44-45-47-48-49-50-

C606 2200pF_50v

H_THERMDA 23-

H_THERMDC 23-

Route differential pair type

H_THERMTRIP# 18-32

U509 SMSC_EMC1402_1_ACZL_MSOP_8P

SB_3S_SMCLK

SB_3S_SMDATA

R607 0_5%

R608 0_5%_OPEN

Therm_SCI# 18-32

C568 0.1uF_16v

CPU_THERMDA 18-

R611 0_5%_OPEN

CPU_THERMDC 18-

R610 0_5%_OPEN

LAYOUT Note: Put the thermal sensor close to CPU.

CHANGE by Jimmy song 26-Dec-2008

INVENTEC			
TITLE Volna 09 AMD-UMA			
THERMAL & FAN CONTROLLER			
SIZE A3	CODE CS	DOC. NUMBER 1310A22587-0	REV AX1
SHEET 20		OF 53	

1 2 3 4 5 6 7 8

A

B

C

D

E

F

1 2 3 4 5 6 7 8

A

B

C

D

E

F

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PROCHOT# 8-18

+V1.8 10-11-12-13-18-19-25-26-27-

R73 30K_5%

MMBT3904 Q6

TS_THERM#

+V5S 8-13-14-20-28-31-32-35-37-38-40-42-43-47-

R42 10K_5%

PWM_3S_FAN# 34-

R74 3K_5%

U1 TC7SET08F

R41 5.6K_5%

Q5 AO3409

C29 0.1uF_16v_OPEN

CN2 ENTERY_3802_B03S_01E_3P

G1 G2

+V3S 7-9-10-12-14-15-20-24-25-26-28-29-30-31-32-33-34-40-41-44-45-47-48-49-50-

C606 2200pF_50v

H_THERMDA 23-

H_THERMDC 23-

Route differential pair type

H_THERMTRIP# 18-32

U509 SMSC_EMC1402_1_ACZL_MSOP_8P

SB_3S_SMCLK

SB_3S_SMDATA

R607 0_5%

R608 0_5%_OPEN

Therm_SCI# 18-32

C568 0.1uF_16v

CPU_THERMDA 18-

R611 0_5%_OPEN

CPU_THERMDC 18-

R610 0_5%_OPEN

LAYOUT Note: Put the thermal sensor close to CPU.

CHANGE by Jimmy song 26-Dec-2008

SIZE A3 CODE CS DOC NUMBER 1310A22587-0 REV AX1

SHEET 20 OF 53

INVENTEC

TITLE Volna 09 AMD-UMA

THERMAL & FAN CONTROLLER

1 2 3 4 5 6 7 8

A

B

C

D

E

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WWW.AliSaler.Com

PROCHOT# 8-18

+V1.8 10-11-12-13-18-19-25-26-27-

R73 30K_5%

MMBT3904 Q6

TS_THERM#

+V5S 8-13-14-20-28-31-32-35-37-38-40-42-43-47-

R42 10K_5%

PWM_3S_FAN# 34-

R74 3K_5%

U1 TC7SET08F

R41 5.6K_5%

Q5 AO3409

C29 0.1uF_16v_OPEN

CN2 ENTRY_3802_B03S_01E_3P

+V3S 7-9-10-13-14-15-20-24-25-26-28-29-30-31-32-33-34-40-41-44-45-47-48-49-50-

C606 2200pF_50v

H_THERMDA 23-

H_THERMDC 23-

Route differential pair type

H_THERMTRIP# 18-32

U509 SMSC_EMC1402_1_ACZL_MSOP_8P

SB_3S_SMCLK

SB_3S_SMDATA

R607 0_5%

R608 0_5%_OPEN

Therm_SCI# 18-32

C568 0.1uF_16v

CPU_THERMDA 18-

R611 0_5%_OPEN

CPU_THERMDC 18-

R610 0_5%_OPEN

LAYOUT Note: Put the thermal sensor close to CPU.

CHANGE by Jimmy song 26-Dec-2008

INVENTEC			
TITLE Volna 09 AMD-UMA			
THERMAL & FAN CONTROLLER			
SIZE A3	CODE CS	DOC. NUMBER 1310A22587-0	REV AX1
SHEET 20		OF 53	

1 2 3 4 5 6 7 8

A

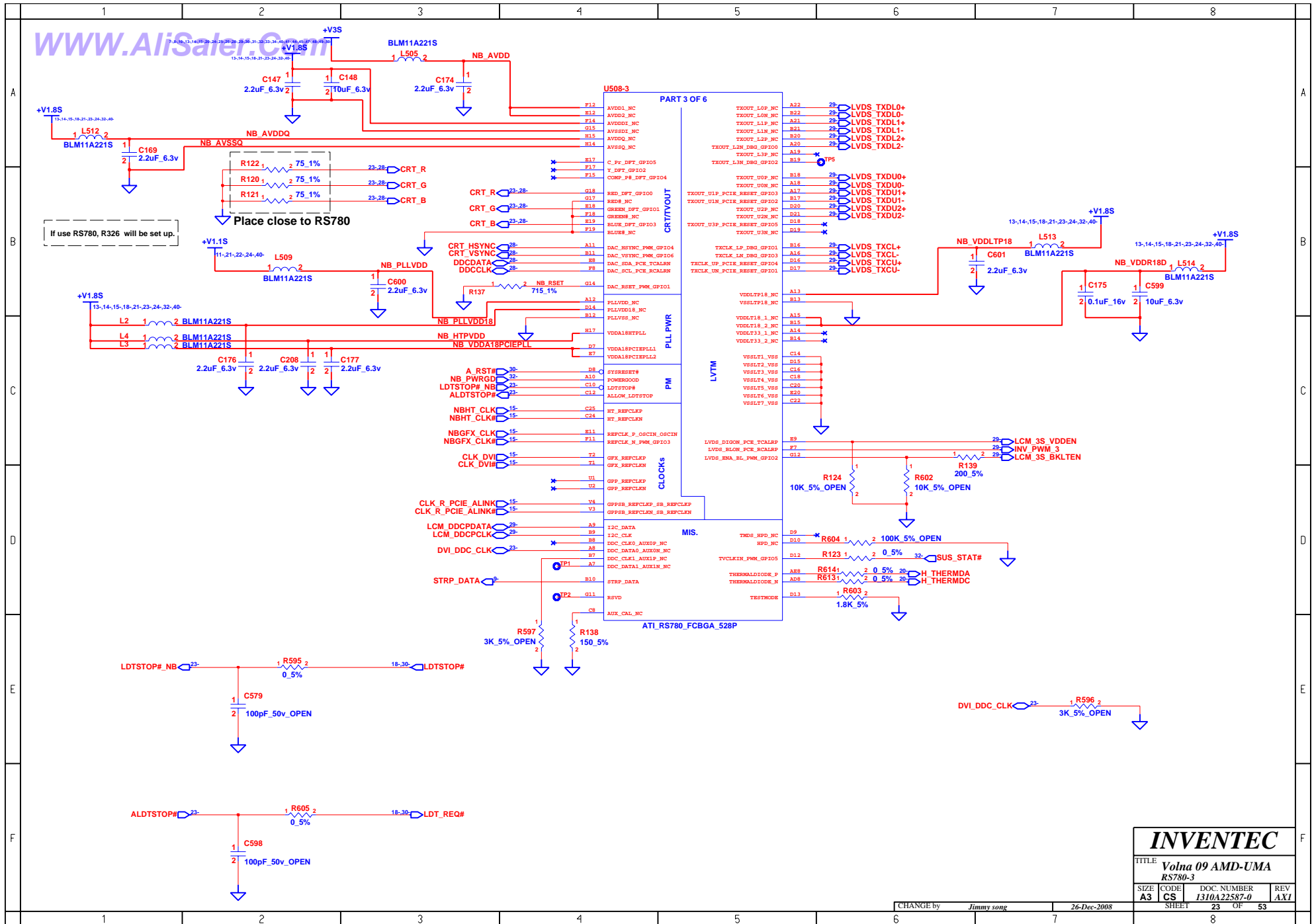
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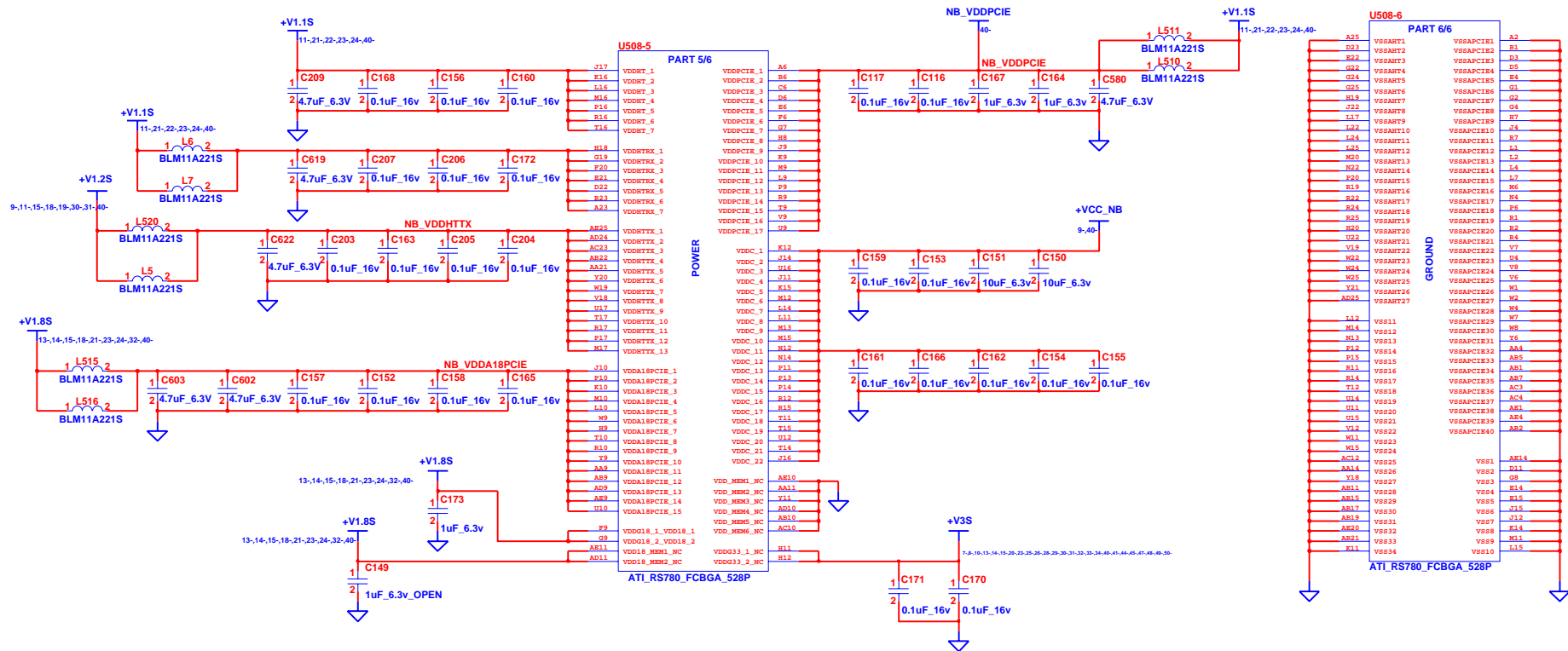
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D

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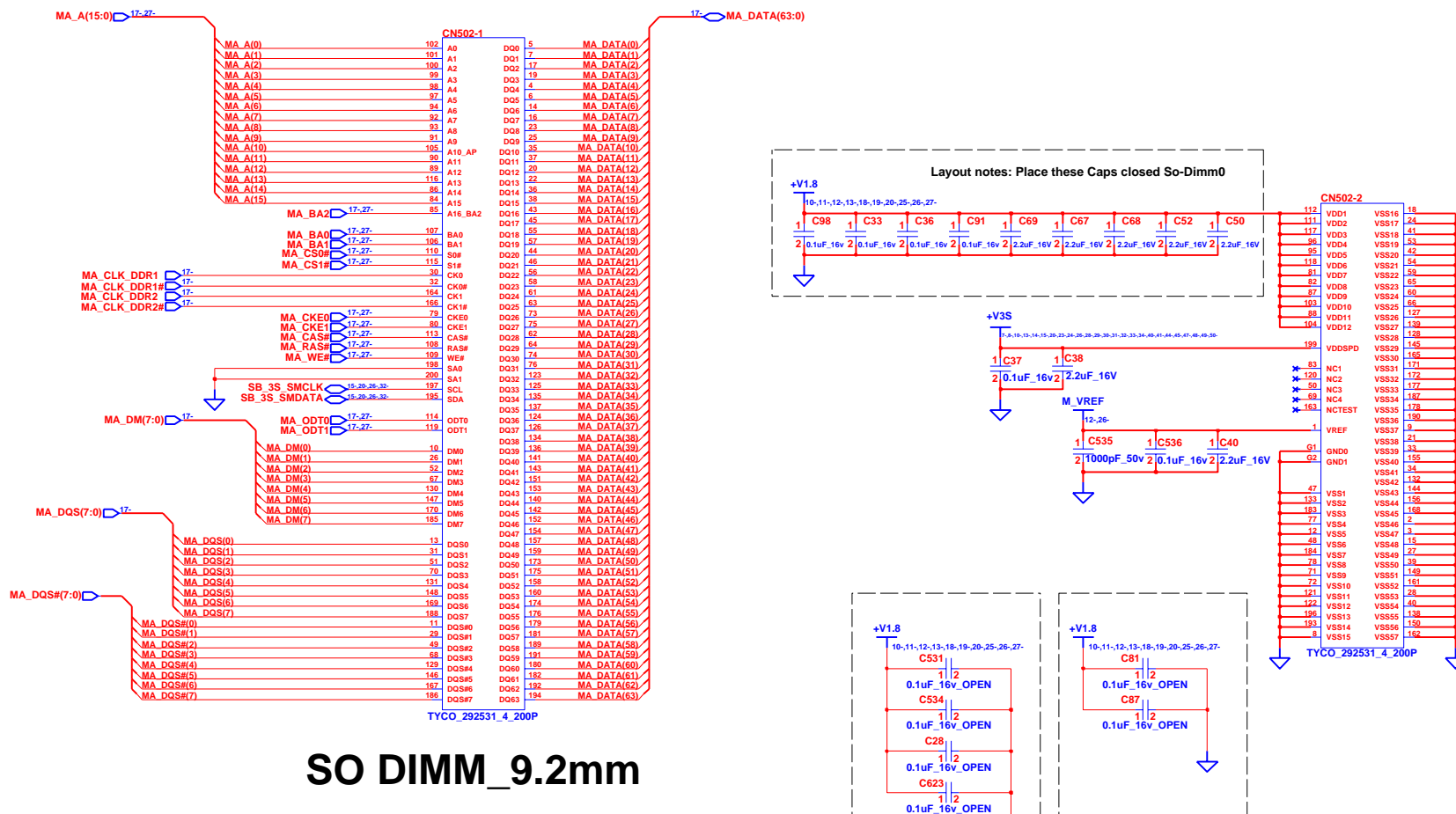
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TITLE: **Volna 09 AMD-UMA**
RS780-4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AX1

CHANGE by: *Jimmy song* 26-Dec-2008

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SO DIMM_9.2mm

For EMI Test

For EMI Test

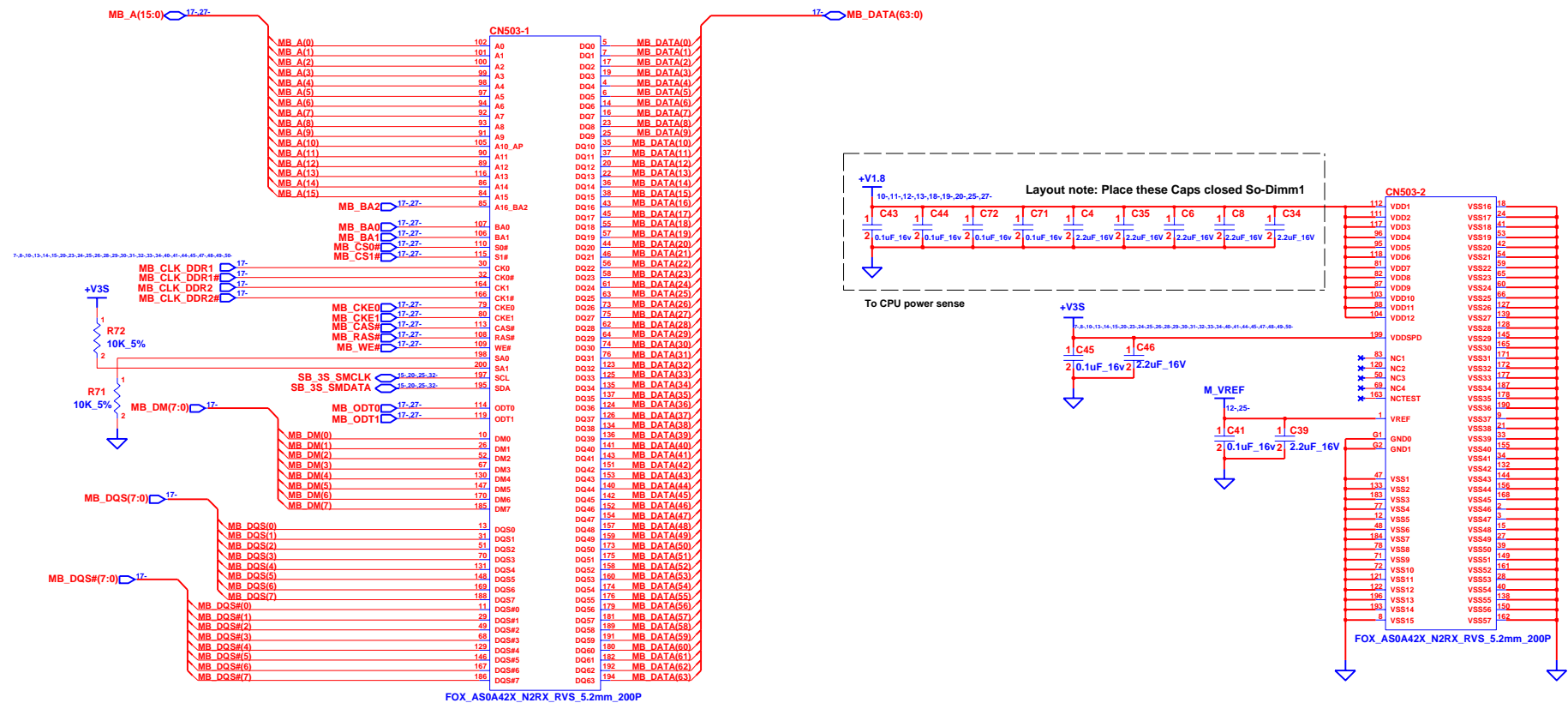
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TITLE: **Volna 09 AMD-UMA**
DDR2-DIMM-0

SIZE	CODE	DOC. NUMBER	REV
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CHANGE by: Jimmy song 26-Dec-2008

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SODIMM_5.2mm

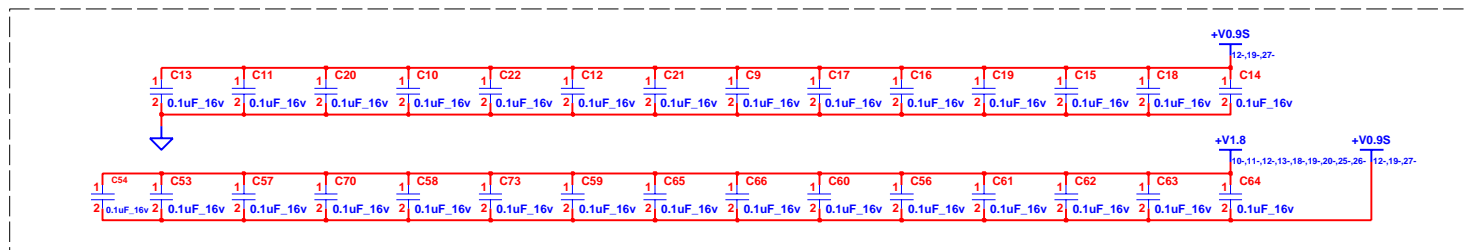
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DDR2-DIMM-1

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22587-0 REV: AX1

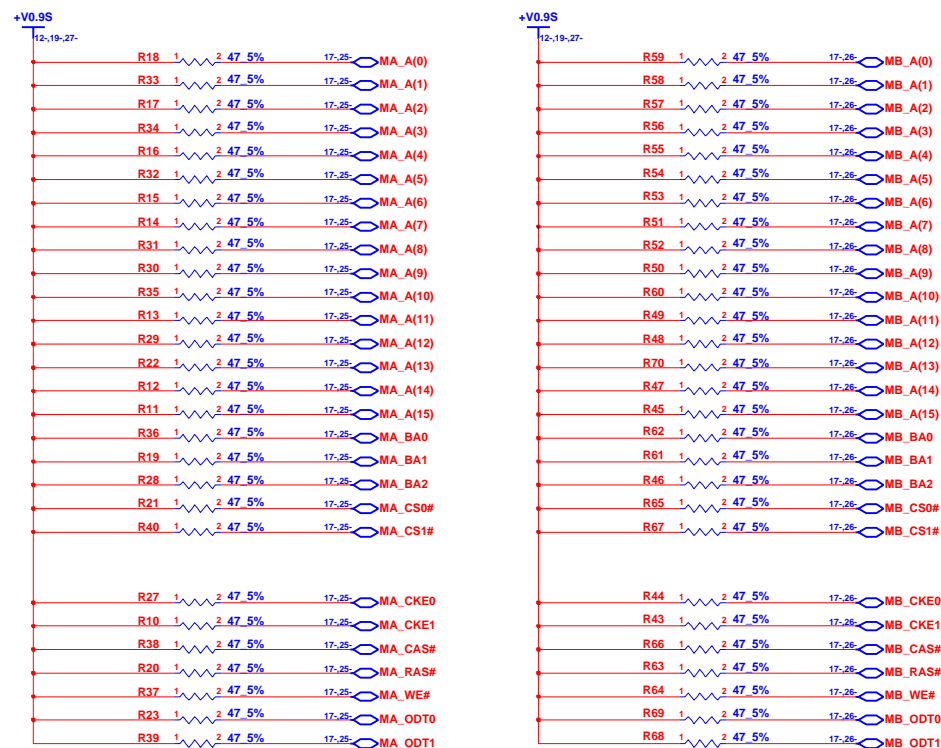
CHANGE by: Jimmy song 26-Dec-2008

SHEET: 26 OF 53



To CPU power sense

Place CAPs close to DIMM



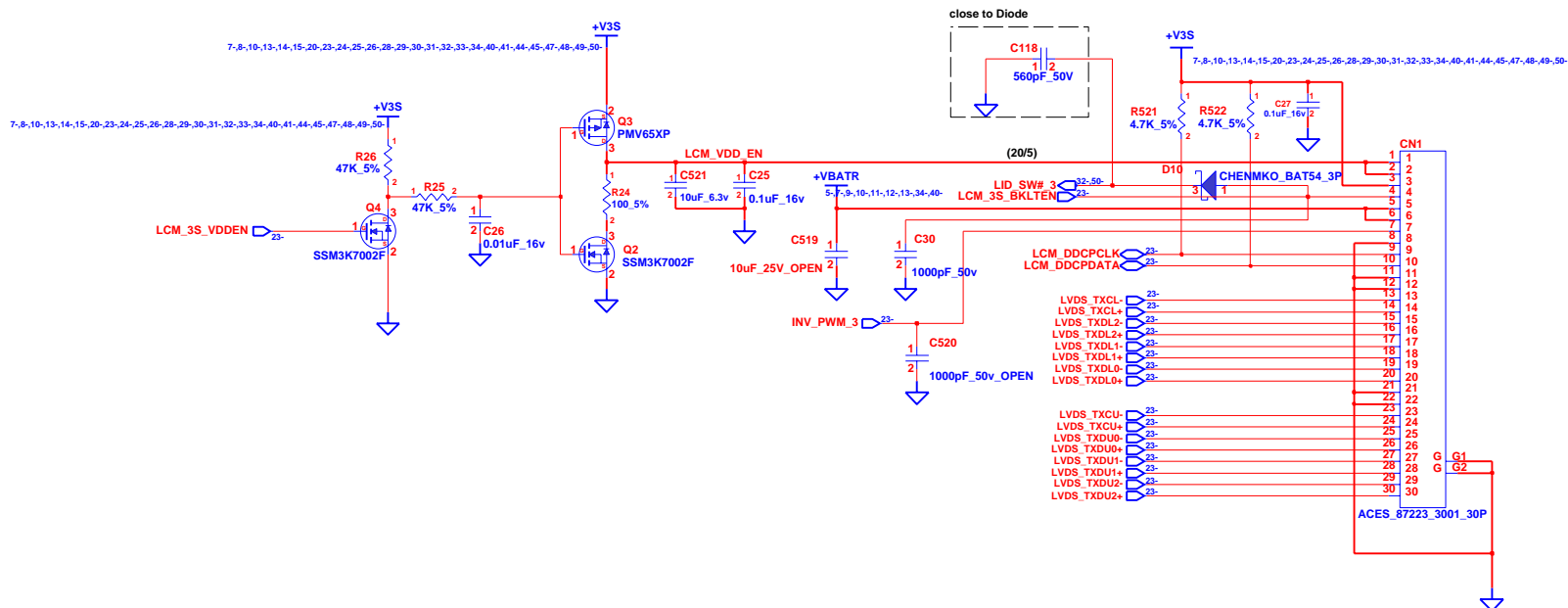
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TITLE
**Volna 09 AMD-UMA
DDR2-DAMPING**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22587-0	AXI

CHANGE by Jimmy song 26-Dec-2008

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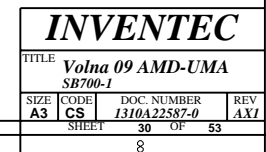
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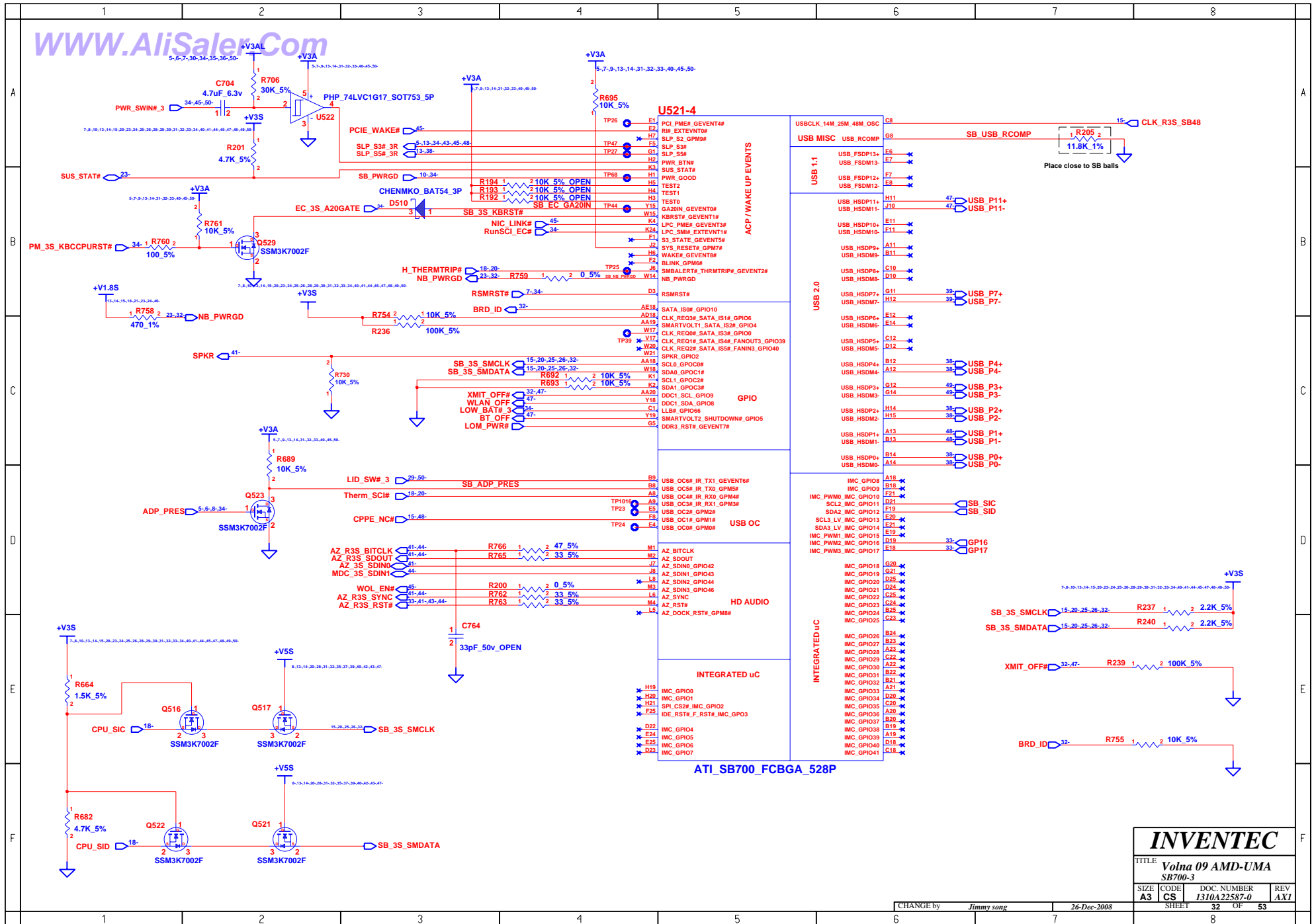
TITLE
Volna 09 AMD-UMA
LCD CONN

SIZE A3	CODE CS	DOC. NUMBER I310A22587-0	REV AXI
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CHANGE by Jimmy song 26-Dec-2008

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INVENTEC

TITLE: Volna 09 AMD-UMA

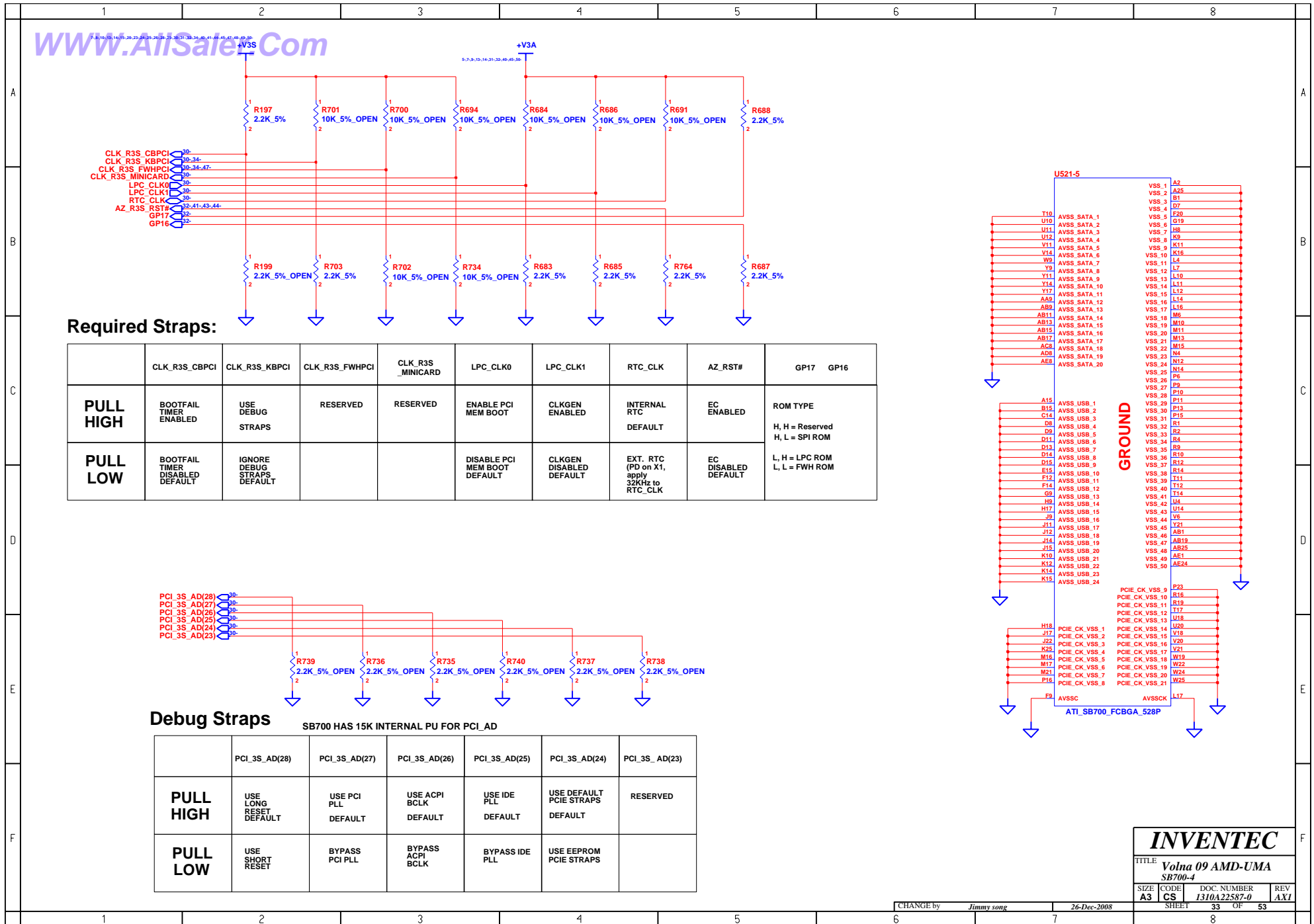
SB700-3

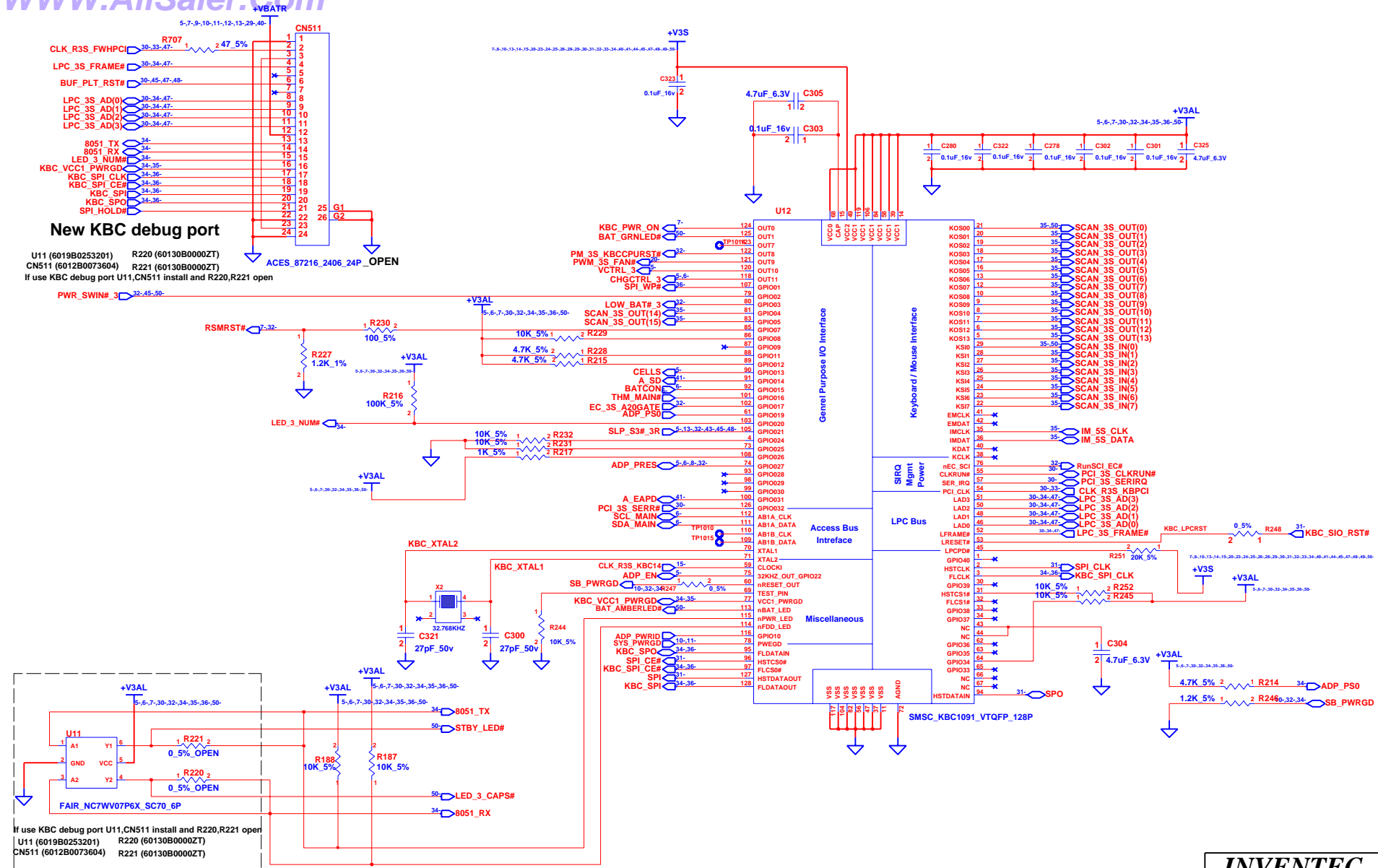
SIZE CODE DOC. NUMBER REV

A3 CS 1310A22587-0 AX1

CHANGE by Jimmy song 26-Dec-2008

SHEET 32 OF 53



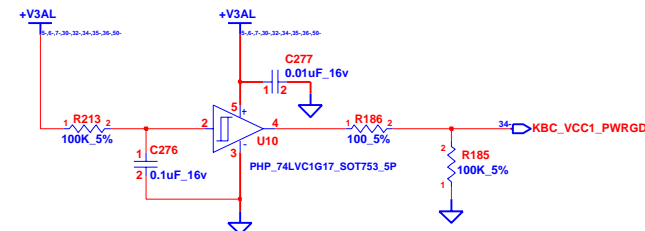
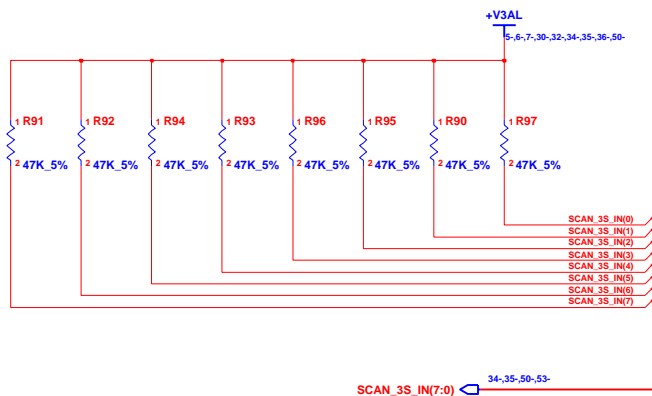
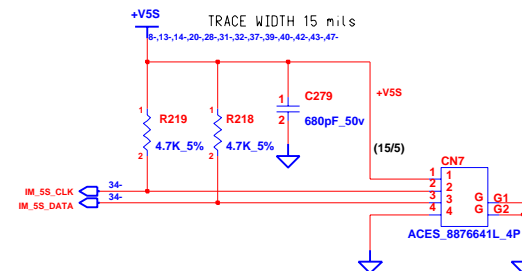
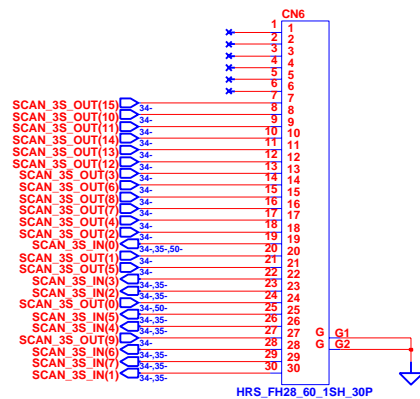
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TITLE	<i>Volna 09 AMD-UMA</i>
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AY1

CHANGE by	<i>Jimmy song</i>	26-Dec-2008
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INVENTEC

TITLE
Volna 09 AMD-UMA
KB&TP CONN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AXI

CHANGE by Jimmy song 26-Dec-2008

SHEET 35 OF 53

1 2 3 4 5 6 7 8

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Schematic diagram of SPI Flash circuit for Volna 09 AMD-UMA SPI.

The circuit includes the following components and connections:

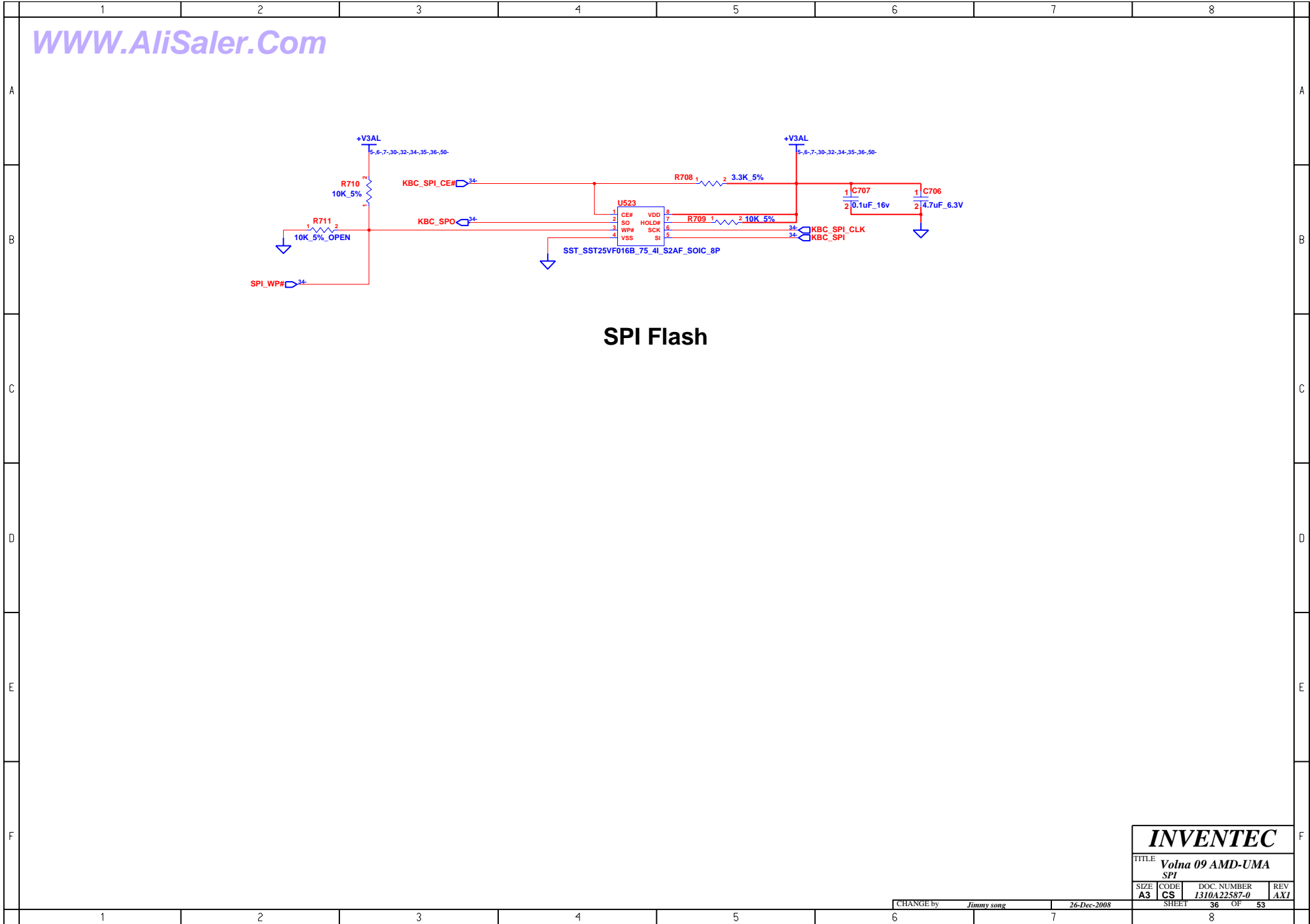
- Power Supply:** +V3AL (5-6-7-30-32-34-35-36-50).
- Resistors:**
 - R710: 10K_5% (connected to +V3AL and KBC_SPI_CE#).
 - R711: 10K_5% OPEN (connected to +V3AL and SPI_WP#).
 - R708: 3.3K_5% (connected to +V3AL and KBC_SPI_CLK).
 - R709: 10K_5% (connected to +V3AL and KBC_SPI).
- Capacitors:**
 - C707: 0.1uF_16v (connected to +V3AL and KBC_SPI).
 - C706: 4.7uF_6.3V (connected to +V3AL and KBC_SPI).
- Flash Memory (U523):** SST25VF016B_75_4L_S2AF_SOIC_8P.
 - Pin 1 (CE#) connected to KBC_SPI_CE#.
 - Pin 2 (SO) connected to KBC_SPO.
 - Pin 3 (WP#) connected to SPI_WP#.
 - Pin 4 (VSS) connected to ground.
 - Pin 5 (SCK) connected to KBC_SPI.
 - Pin 6 (HOLD#) connected to KBC_SPI_CLK.
 - Pin 7 (VDD) connected to +V3AL.
 - Pin 8 (SI) connected to +V3AL.

SPI Flash

INVENTEC			
TITLE: Volna 09 AMD-UMA SPI			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22587-0	AXI

CHANGE by: Jimmy song 26-Dec-2008

SHEET 36 OF 53



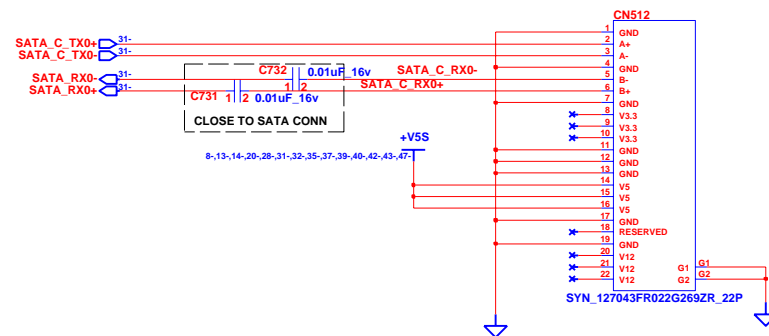
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SPI Flash

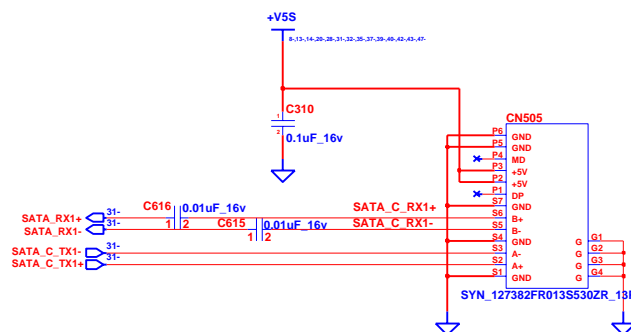
INVENTEC			
TITLE: Volna 09 AMD-UMA SPI			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22587-0	AXI

CHANGE	by	26-Dec-2008
6	Jimmy song	7

SHEET	36	OF	53
8			



HDD CONNECTOR



ODD SATA CONNECTOR

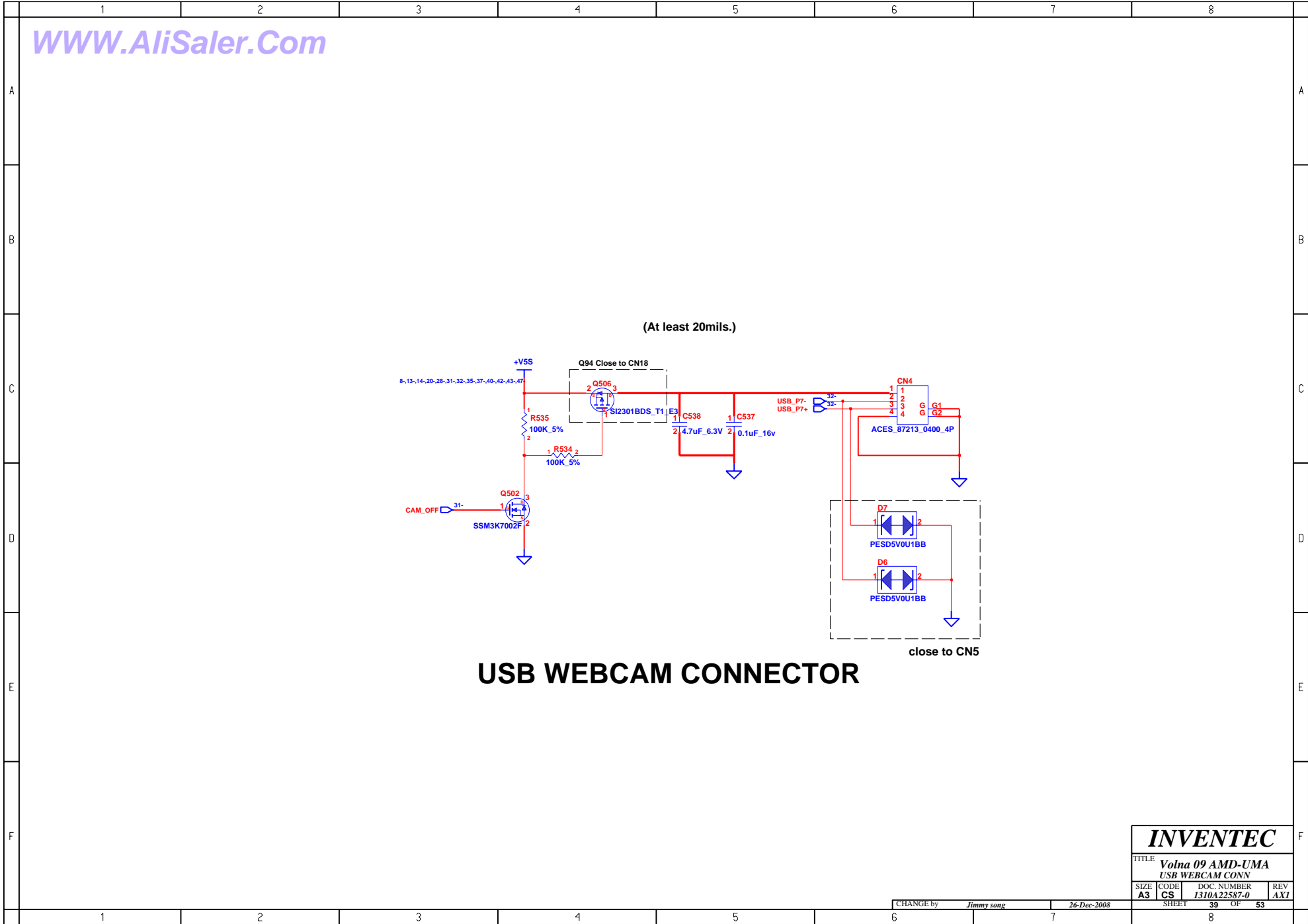
INVENTEC

TITLE **Volna 09 AMD-UMA
HDD & ODD CONN**

SIZE **A3** CODE **CS** DOC. NUMBER **I310A22587-0** REV **AXI**

CHANGE by **Jimmy song** 26-Dec-2008

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[illegible][illegible][illegible][illegible][illegible]

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(At least 20mils.)

Q94 Close to CN18

+VSS

8-13-14-20-28-31-32-35-37-40-42-43-47

R535
100K_5%

R534
100K_5%

Q506
SI2301BDS_T1

E9

C538
4.7uF_6.3V

C537
0.1uF_16v

USB_P7-
USB_P7+

CN4

ACES_87213_0400_4P

G1
G2

D7
PESD5V0U1BB

D6
PESD5V0U1BB

close to CN5

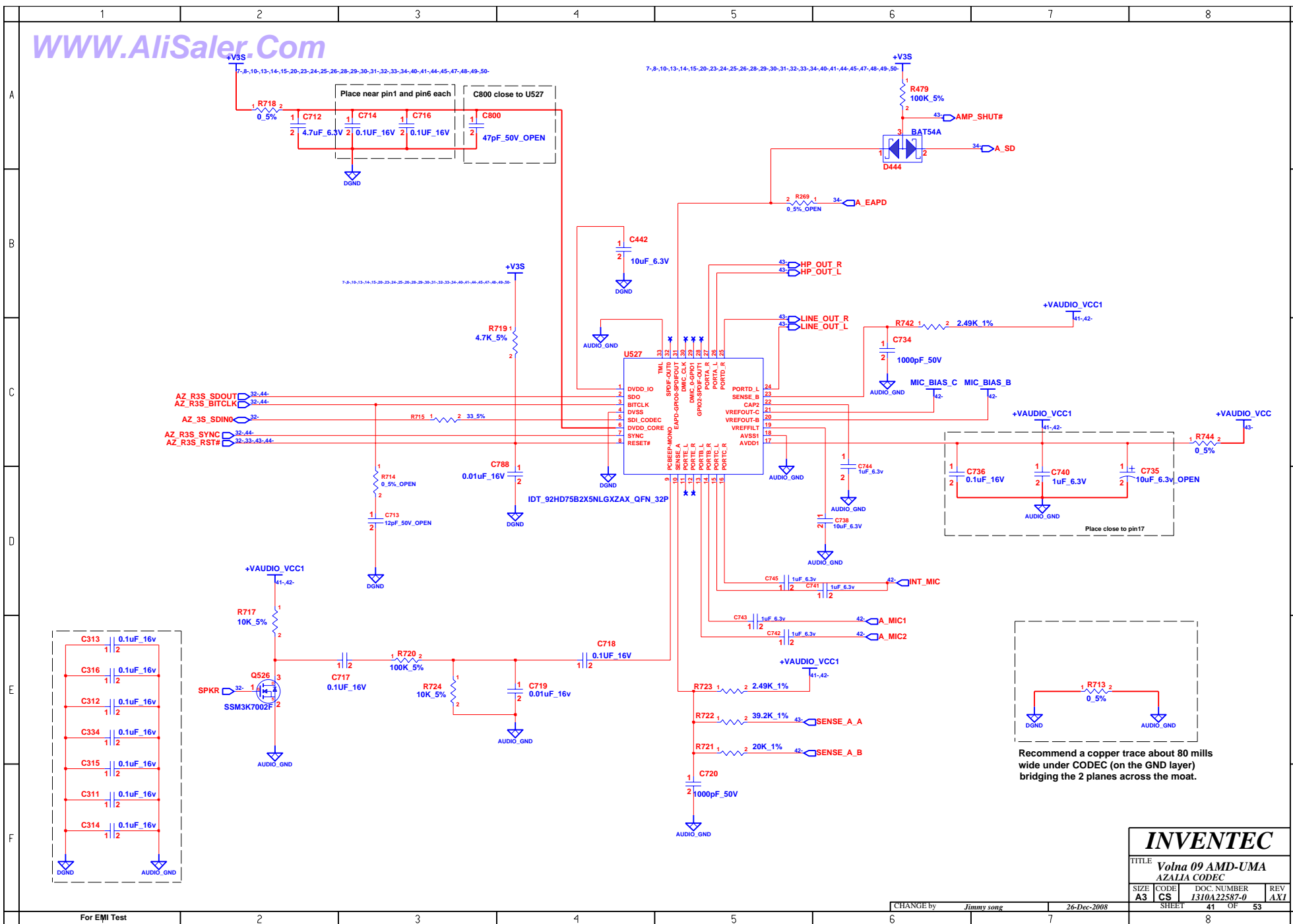
Q502
SSM3K7002F

CAM_OFF 31-

USB WEBCAM CONNECTOR

INVENTEC			
TITLE Volna 09 AMD-UMA USB WEBCAM CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A22587-0	REV AX1
CHANGE by Jimmy song		26-Dec-2008	SHEET 39 OF 53

[illegible]



INVENTEC

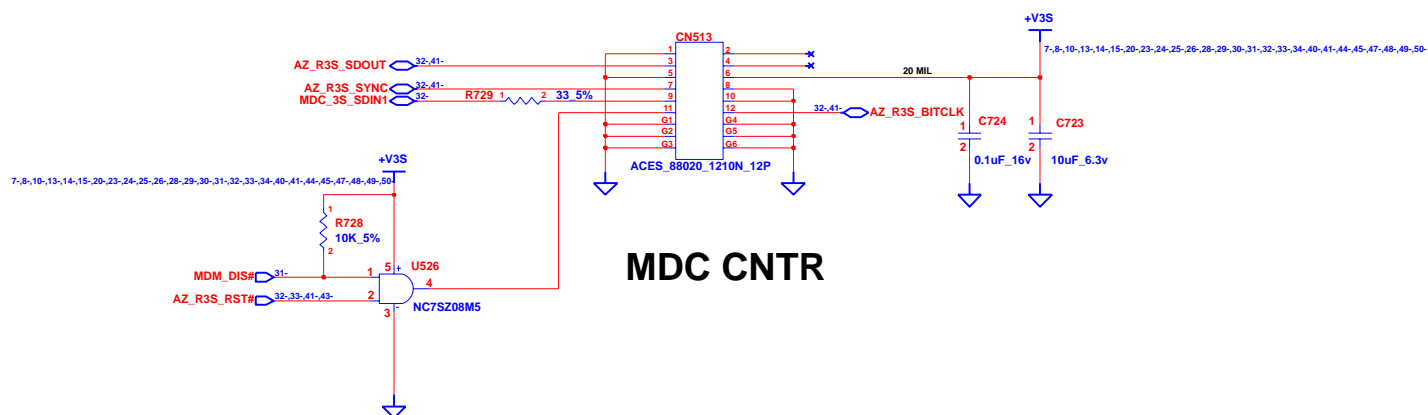
TITLE
Volna 09 AMD-UMA
AZALIA CODEC

SIZE A3	CODE CS	DOC. NUMBER I310A22587-0	REV AX1
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SHEET 41 OF 53

CHANGE by Jimmy song 26-Dec-2008

For EMI Test



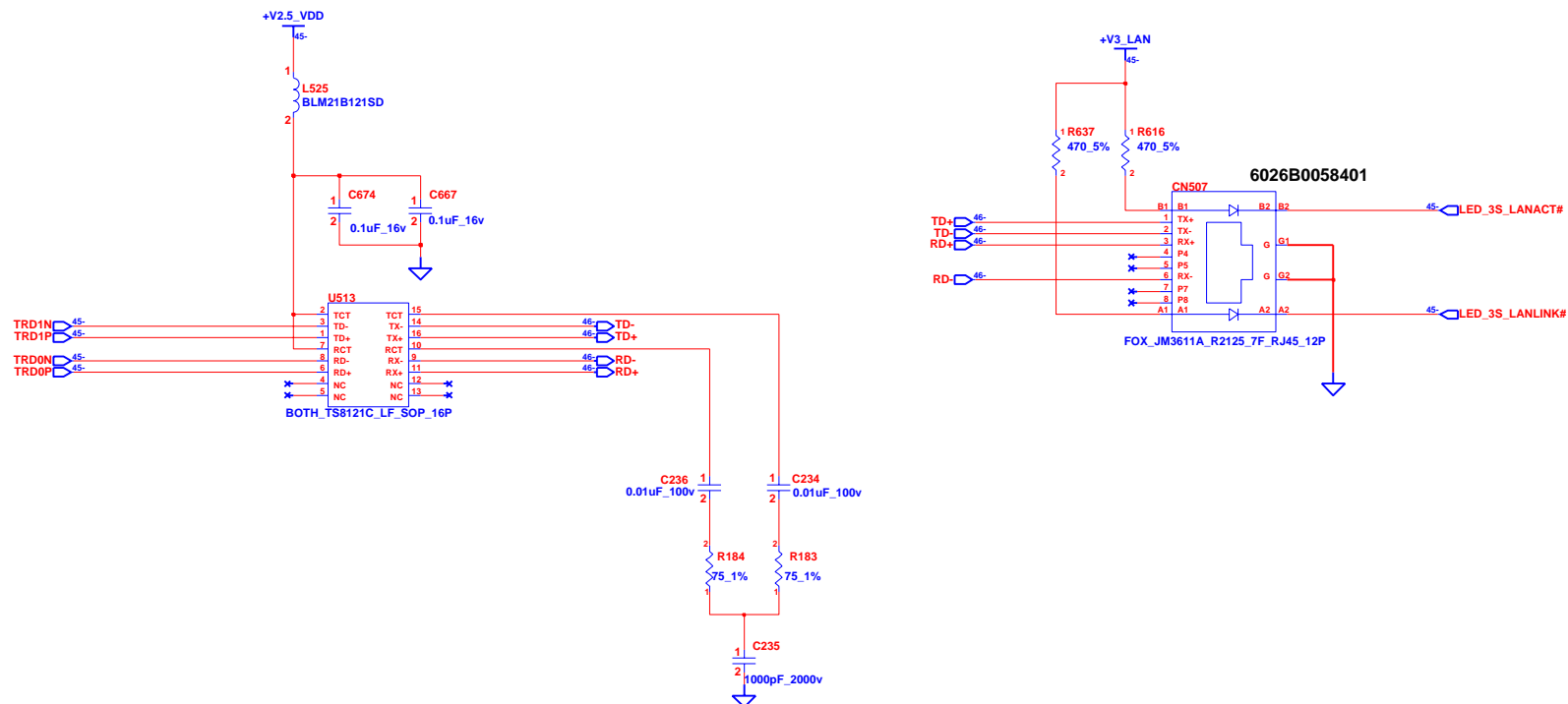
INVENTEC

TITLE
Volna 09 AMD-UMA
MDC CNTR

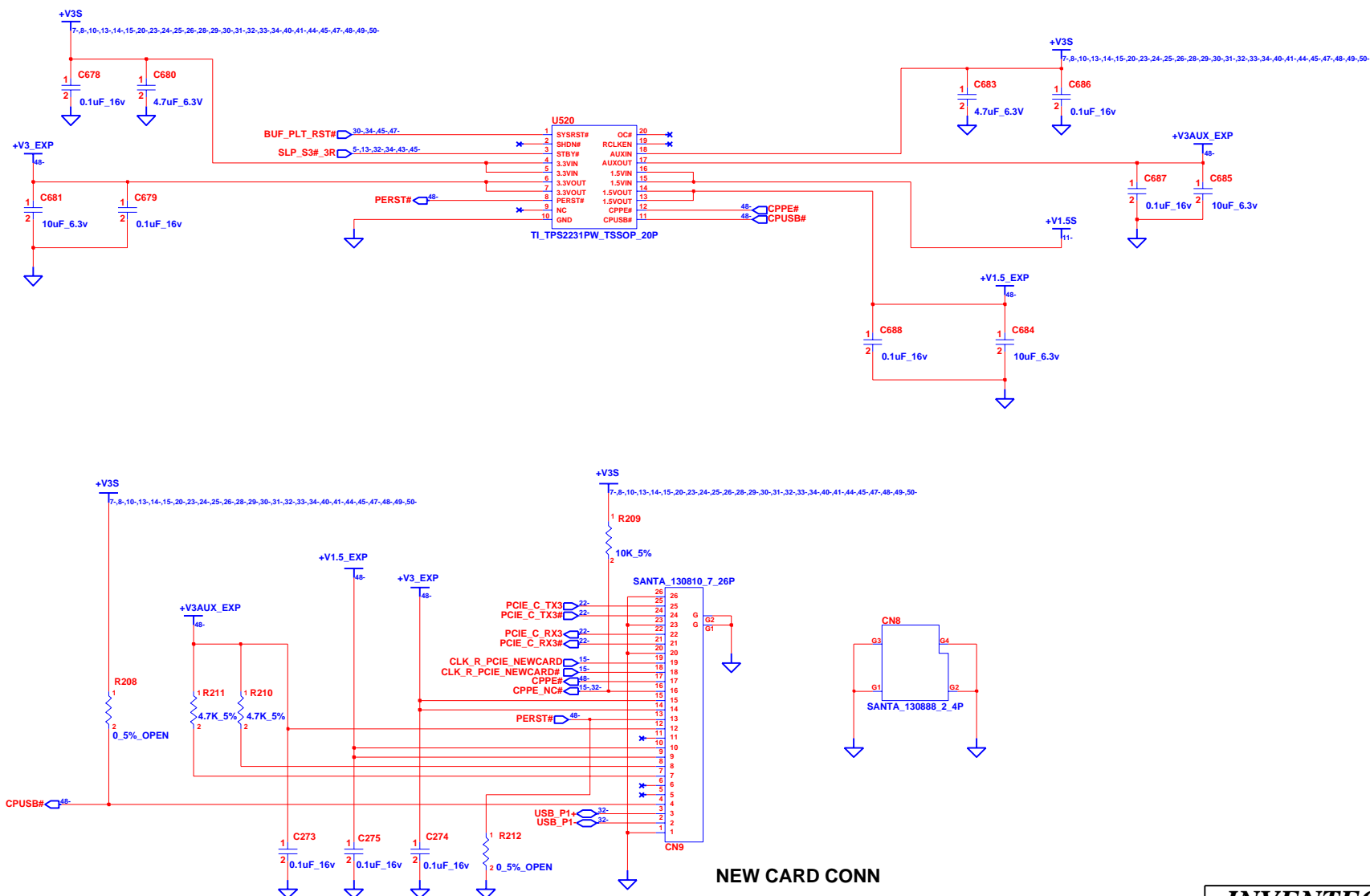
SIZE A3	CODE CS	DOC. NUMBER 1310A22587-0	REV AXI
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CHANGE by *Jimmy song* 26-Dec-2008

SHEET 44 OF 53

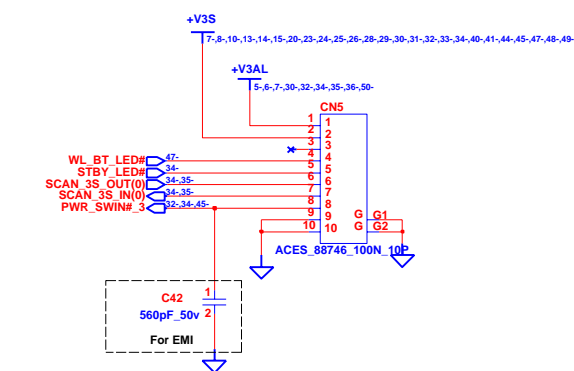


INVENTEC			
TITLE Volna 09 AMD-UMA NIC 10/100-RJ45 CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A22587-0	REV AX1
CHANGE by Jimmy song		26-Dec-2008	
SHEET 46		OF 53	

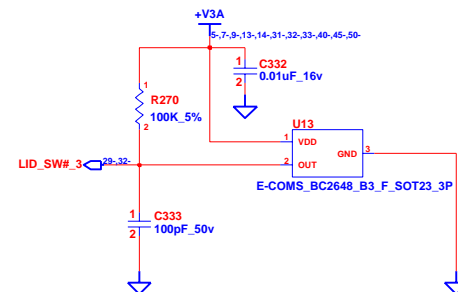


NEW CARD CONN

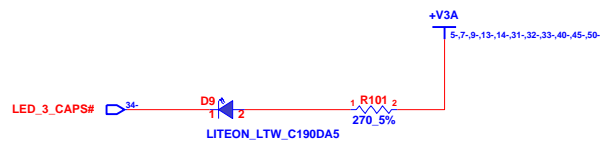
INVENTEC			
TITLE			
Volna 09 AMD-UMA EXPRESS CARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22587-0	AXI
CHANGE by		26-Dec-2008	
SHEET		48	OF 53



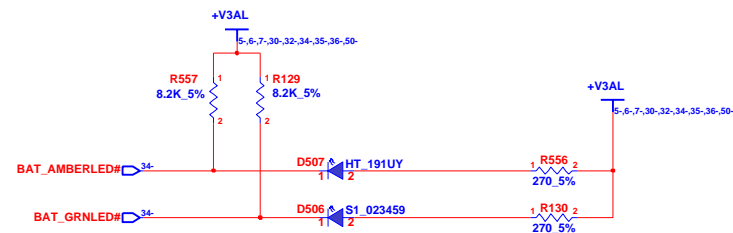
SWITCH DAUGHTER CONNECTOR



LID SWITCH



CAP LED



BATTERY-CHARGE LED

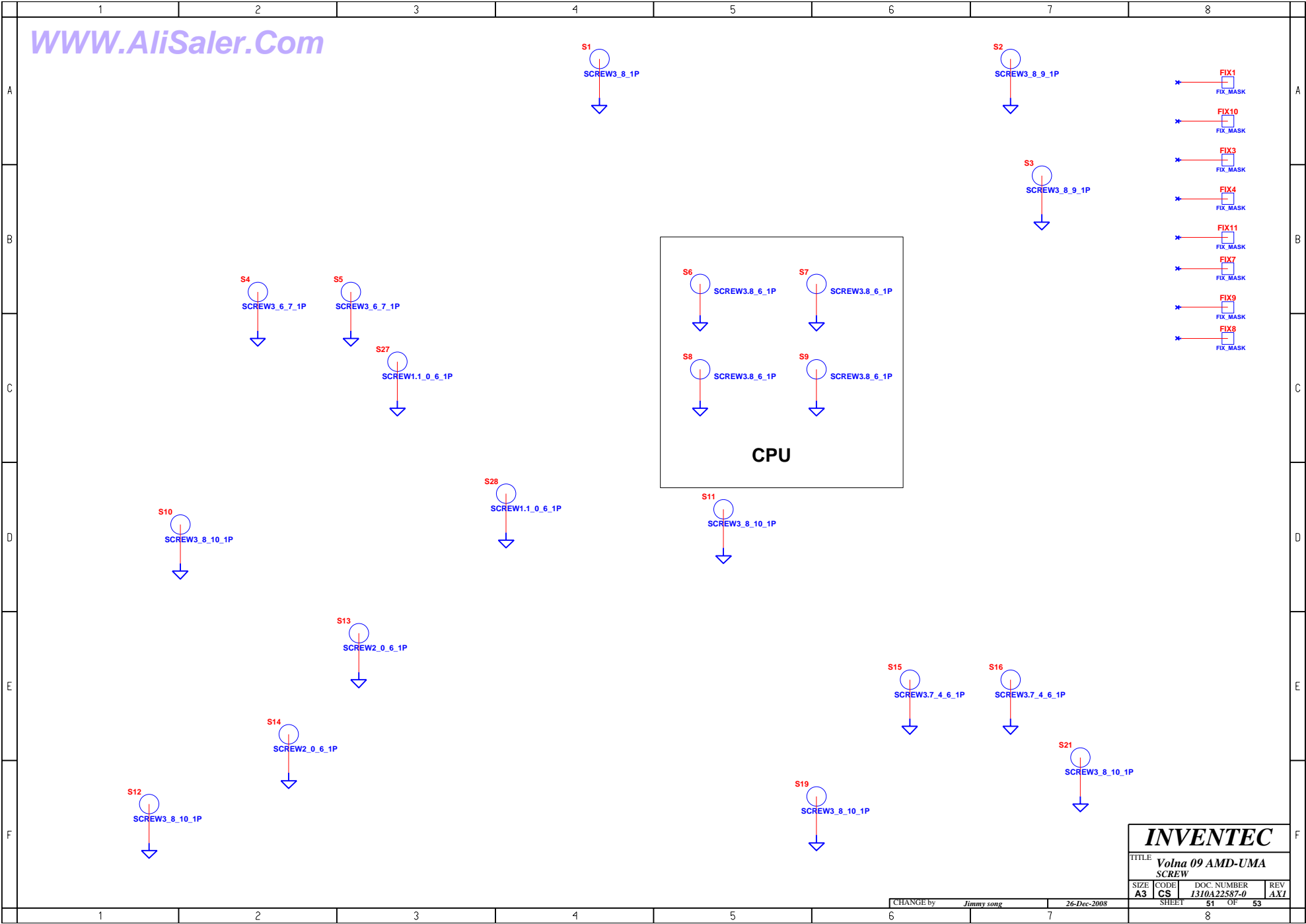
INVENTEC

TITLE
**Volna 09 AMD-UMA
BUTTON & LED**

SIZE A3	CODE CS	DOC. NUMBER I310A22587-0	REV AX1
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CHANGE by *Jimmy song* 26-Dec-2008

SHEET 50 OF 53



INVENTEC

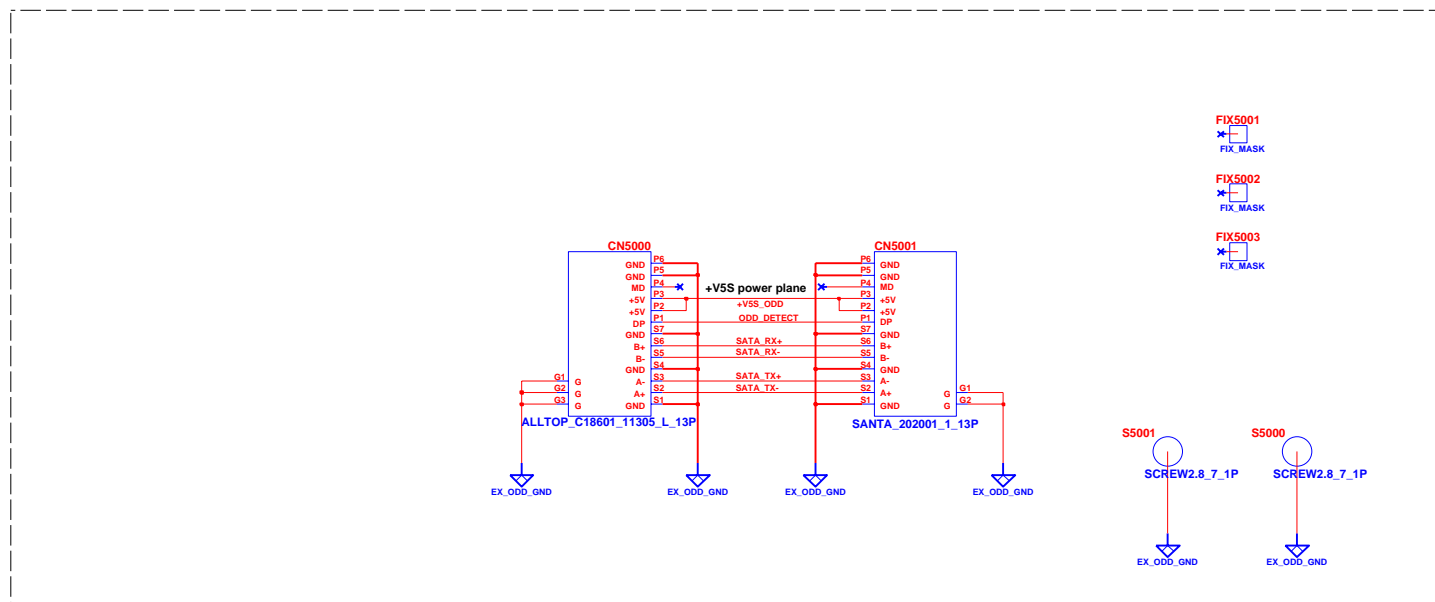
TITLE Volna 09 AMD-UMA
SCREW

SIZE A3	CODE CS	DOC. NUMBER I310A22587-0	REV AXI
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CHANGE by Jimmy song 26-Dec-2008

SHEET 51 OF 53

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ODD Extension Board

INVENTEC

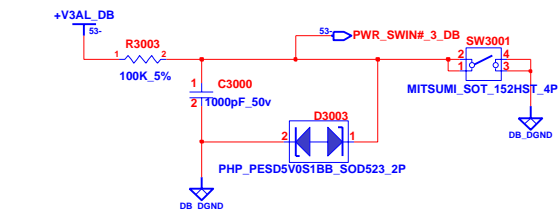
TITLE
Volna 09 AMD-UMA
ODD Extension Board

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22587-0	AXI

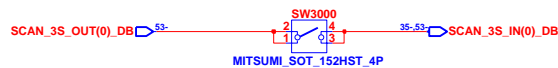
CHANGE by Jimmy song 26-Dec-2008

SHEET 52 OF 53

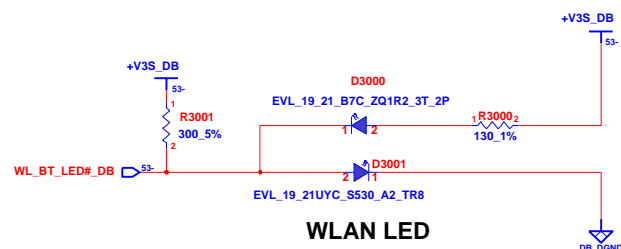
WWW.AliSaler.Com



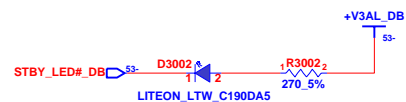
POWER BUTTON



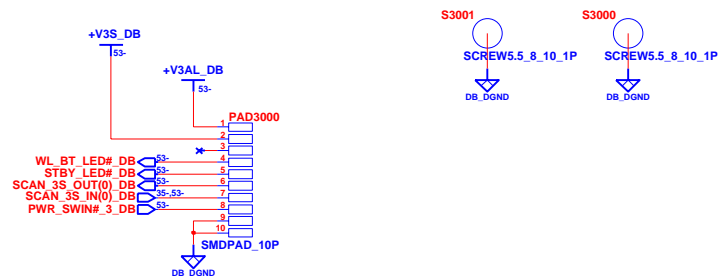
WIRELESS BUTTON



WLAN LED



POWER / STANDBY LED



LED & SWITCH PAD

SWITCH DAUGHTER BOARD

INVENTEC

TITLE: **Volna 09 AMD-UMA**
SWITCH Board

SIZE: **A3** CODE: **CS** DOC. NUMBER: **I310A22587-0** REV: **AXI**

CHANGE by: **Jimmy song** 26-Dec-2008

SHEET: **53** OF: **53**