

	1	2	3	4	5	6	7	8	
	WWW.AliSaler.Com								
A									A
B									B
C									C
D									D
E									E
F									F

AMD-DISCRETE
Volna
MV Build
2009.04.24

DATE	CHANGE NO.	REV
1	2	

DRAWER	EE	DATE	POWER	DATE	INVENTEC		
DESIGN							
CHECK							
RESPONSIBLE							
SIZE = 3					VER :		
FILE NAME : XXXX-XXXXXX-XX					SIZE CODE	DOC. NUMBER	REV
P/N XXXXXXXXXXXX					A3 CS	I310A22588-0-MTR	RA03
					SHEET	1	OF 58

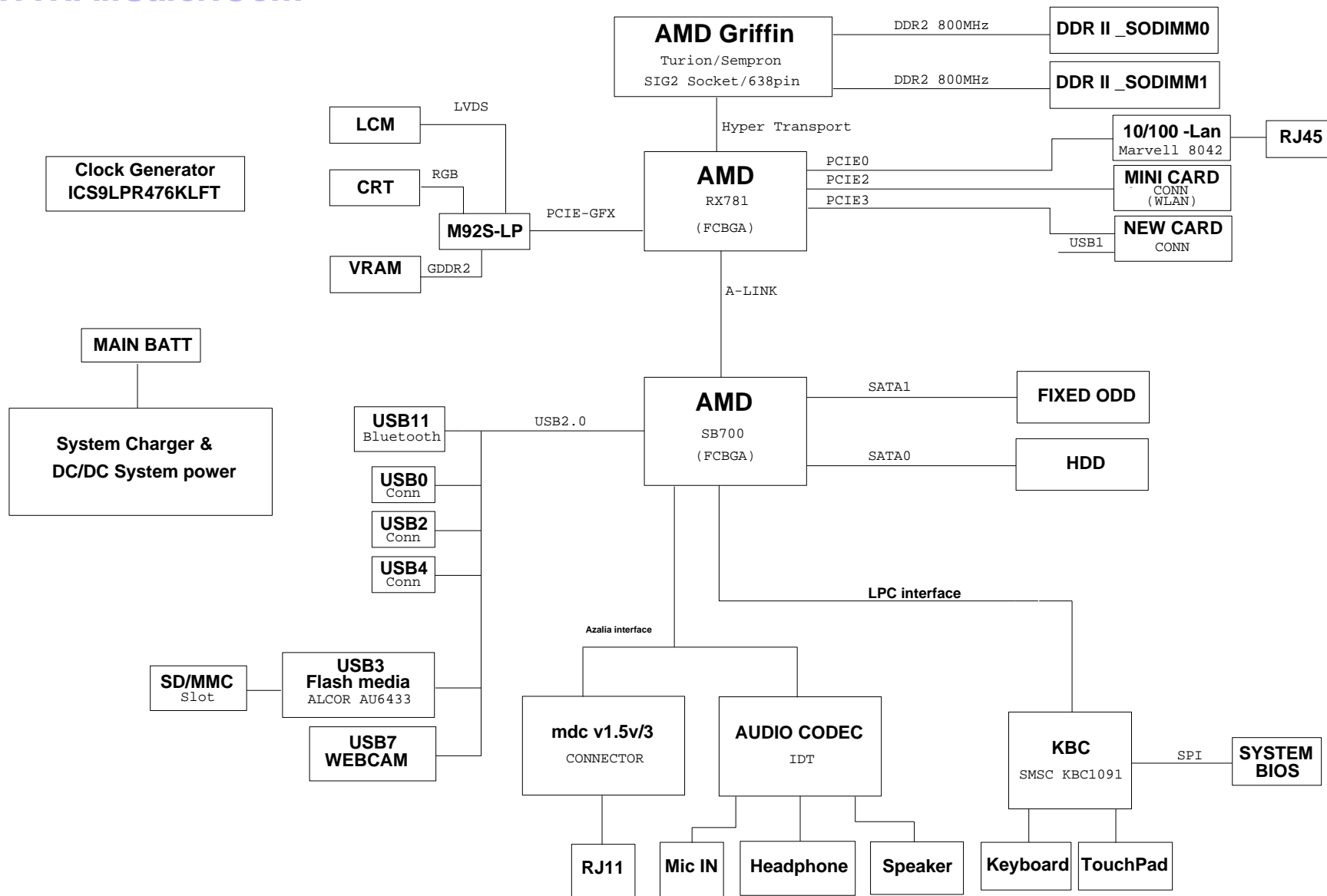
TABLE OF CONTENTS

PAGE	PAGE	PAGE
5- DC& BATTERY CHARGER	15- CLOCK_GENERATOR	40- KBC
6- SELECT & BATTERY CONN	16- CPU-1	41- KB & TP CONN
7- +V5A,+V3A & +V2.5S	17- CPU-2	42- SPI
8- OCP	18- CPU-3	43- HDD & ODD CONN
9- +VCC_NB & +V1.2A	19- CPU-4	44- USB CONN
10- +VCC_CORE	20- DDR2-DIMM0	45- USB WEBCAM CONN
11- POWER	21- DDR2-DIMM1	46- AZALIA IDT CODEC
12- DDR2 POWER	22- DDR2-DAMPING	47- Earphone & MIC JACK
13- POWER(SLEEP)	23- THERMAL&FAN CONTROLLER	48- AUDIO AMP & HP JACK
14- POWER(SEQUENCE)	24- RX781-1	49- MDC CNTR
	25- RX781-2	50- NIC 10/100 LAN- CONTROLLER
	26- RX781-3	51- RJ45 CONN
	27- RX781-4	52- MINICARD & BT CONN
	28- GPU-AMD-M92S-LP-1	53- NEW CARD
	29- GPU-AMD-M92S-LP-2	54- BUTTON & LED
	29- GPU-AMD-M92S-LP-3	55- SCREW
	30- GPU-AMD-M92S-LP-4	56- SWITCH Board
	32- Video RAM(GDDR2)-1	57- 15" ODD Extend Board
	33- Video RAM(GDDR2)-2	58- FLASH MEDIA CARD
	34- CRT	
	35- LCD CONN	
	36- SB700-1	
	37- SB700-2	
	38- SB700-3	
	39- SB700-4	

INVENTEC

TITLE VV09 AMD-DIS			
Table OF Content			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22588-0-MTR	A03
SHEET		2	OF 58

CHANGE by **EDI CHEN** 16-Apr-2009



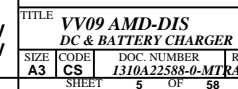
INVENTEC

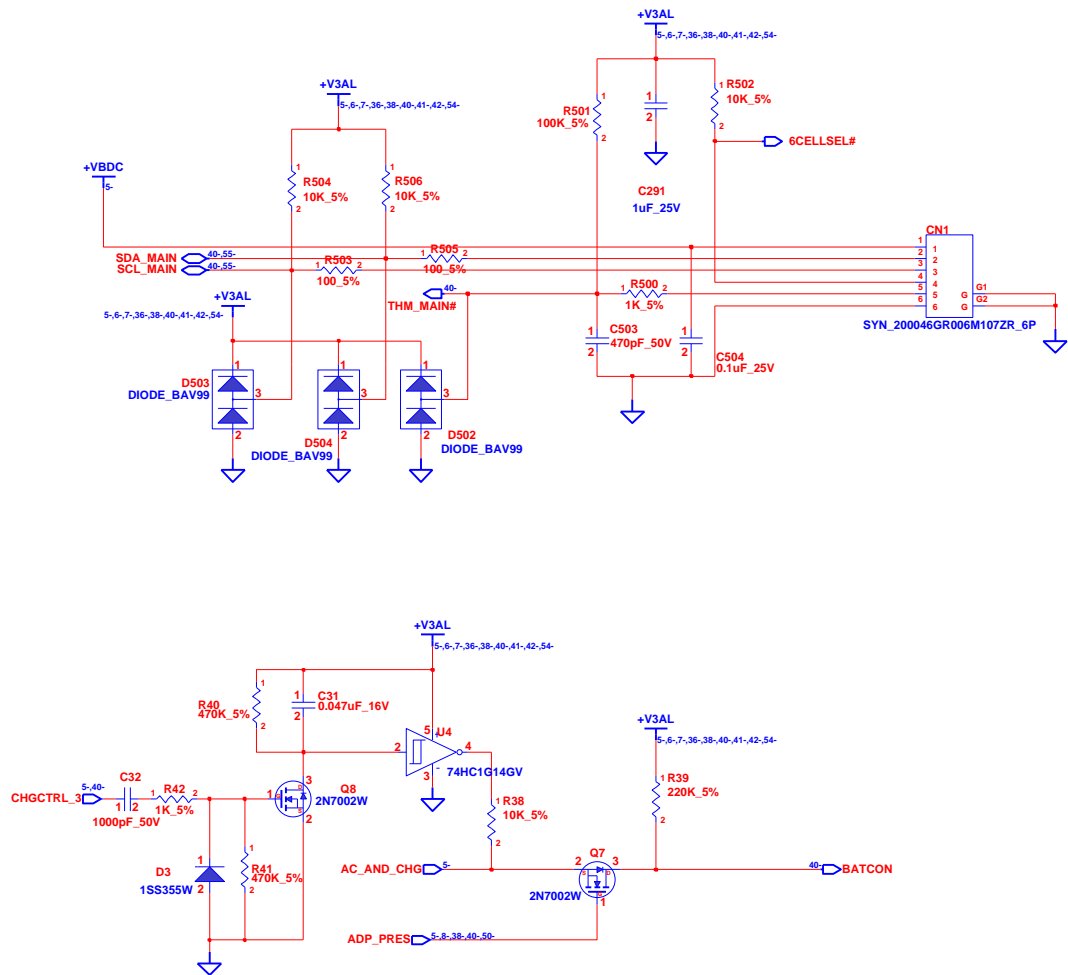
TITLE: **VV09 AMD-DIS**
Block Diagram

SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
-------------------	-------------------	--	-------------------

CHANGE by: **EDI CHEN** 16-Apr-2009

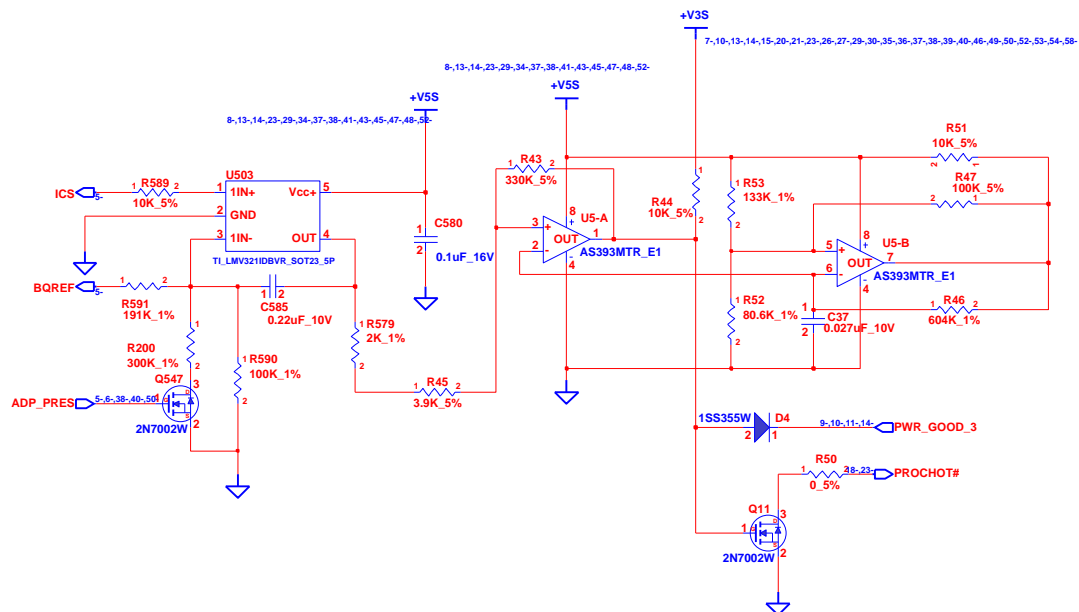
SHEET 3 OF 58



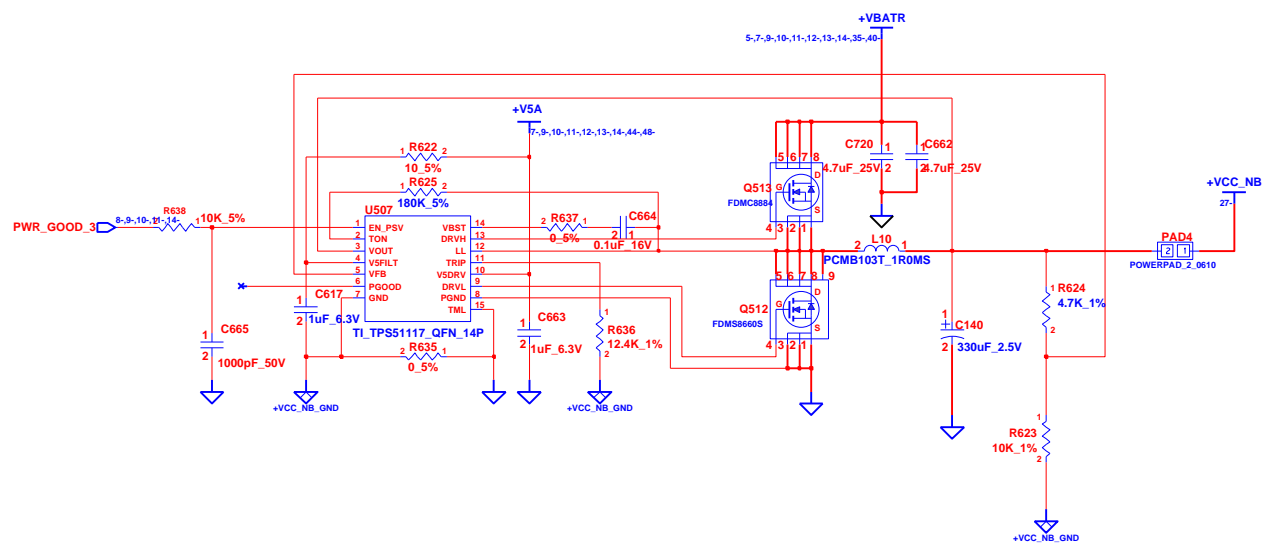
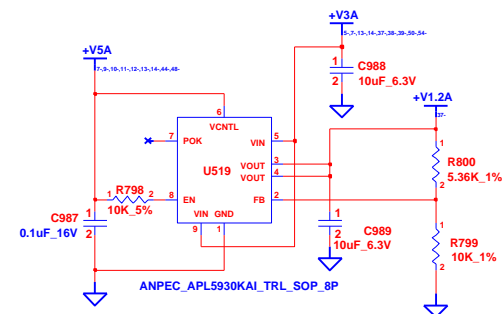
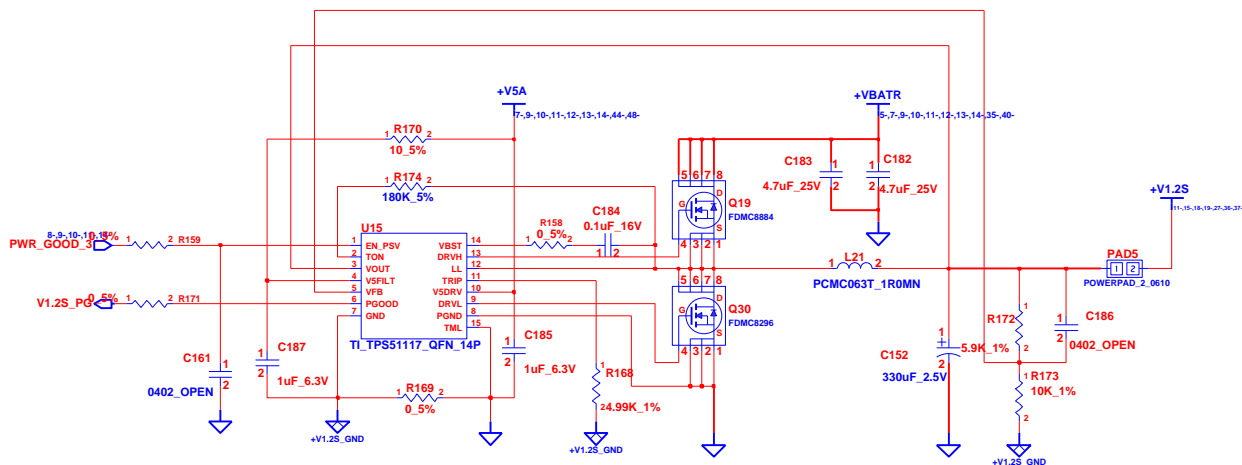


INVENTEC

TITLE VV09 AMD-DIS SELECT & BATTERY CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 6		OF 58	



INVENTEC			
TITLE VV09 AMD-DIS OCP			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV RA03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 8		OF 58	



INVENTEC

TITLE: **VV09 AMD-DIS**
+VCC_NB & +V1.2A

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22588-0-MTR	A03

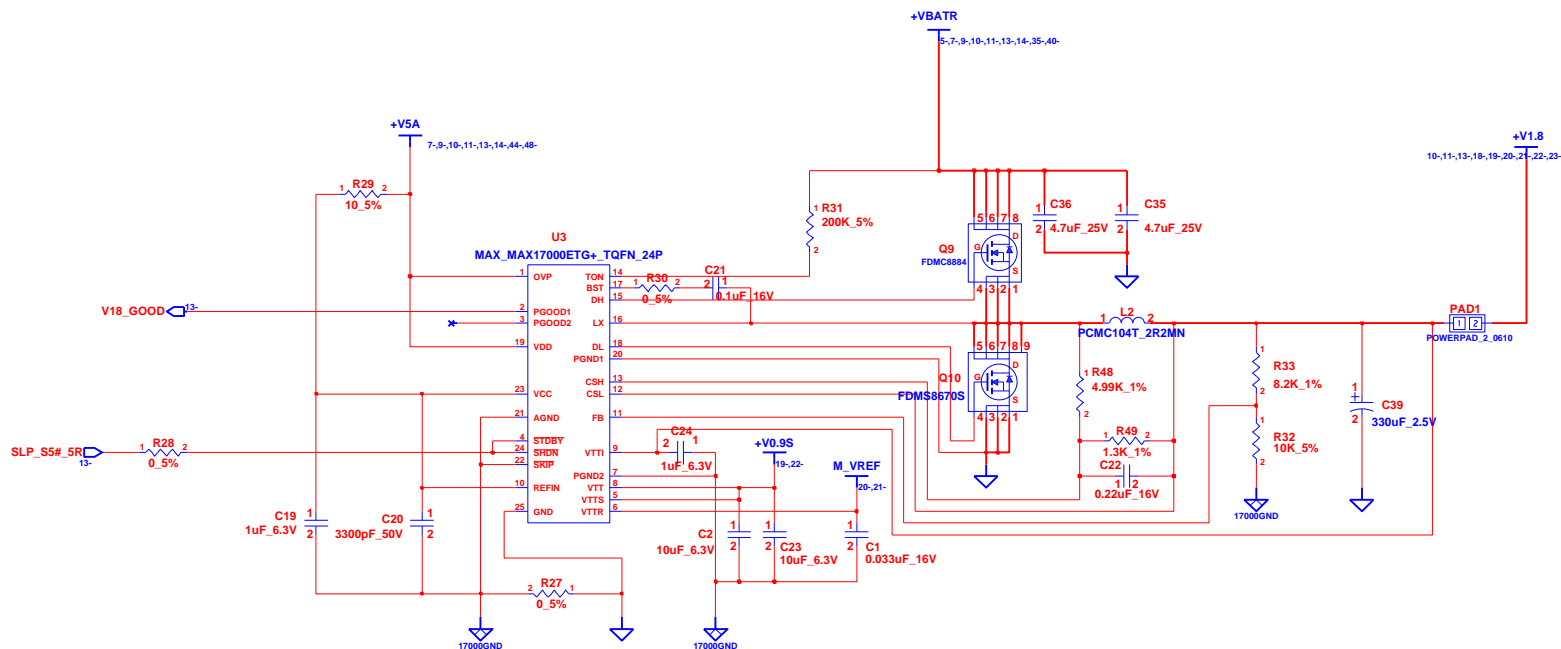
CHANGE by: **EDI CHEN** 16-Apr-2009

SHEET 9 OF 58

(Should routed in 5/5/5 pair and need to have 10mil clearance to other traces.)

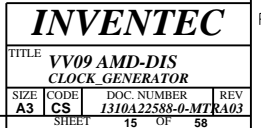
TITLE			
VV09 AMD-DIS +VCC_CORE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22588-0-MTR	A03
SHEET		10	OF 58

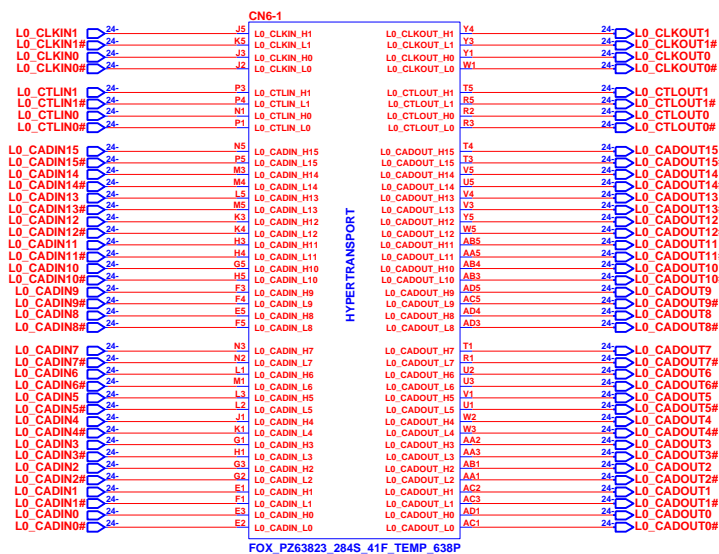
CHANGE by	<i>EDI CHEN</i>	<i>16-Apr-2009</i>
-----------	-----------------	--------------------



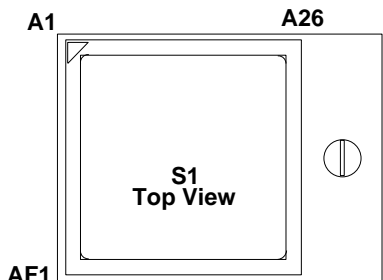
NOTE: DDR2 REGULATOR

INVENTEC			
TITLE VV09 AMD-DIS DDR2 POWER			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV RA03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 12		OF 58	





HYPERTRANSPORT



Layout: Add stitching caps if crossing plane split.

INVENTEC			
TITLE VV09 AMD-DIS CPU-1			
SIZE A3	CODE CS	DOC. NUMBER 1310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 16		OF 58	



FOX_P263823_284S_41F_TEMP_638P

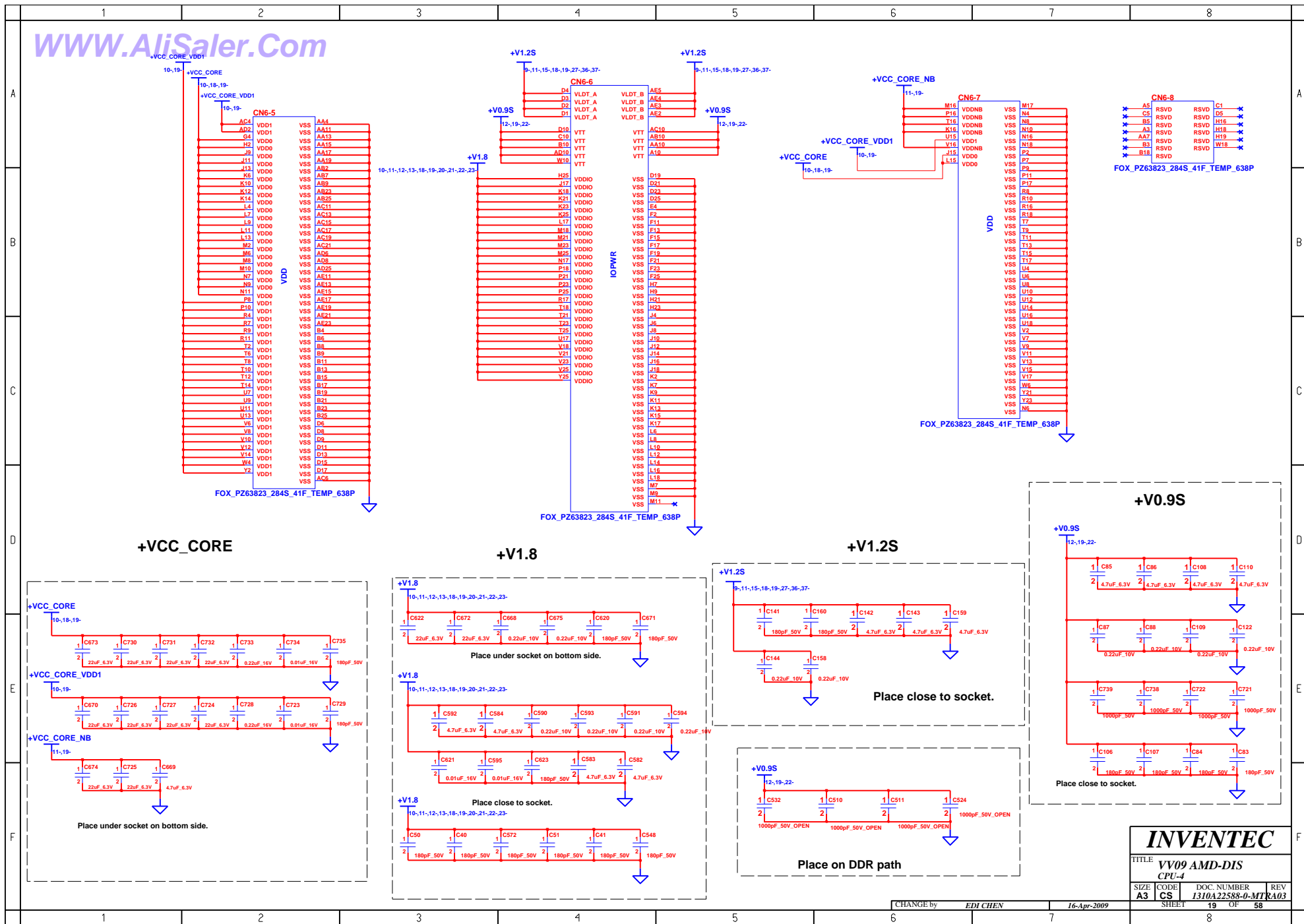


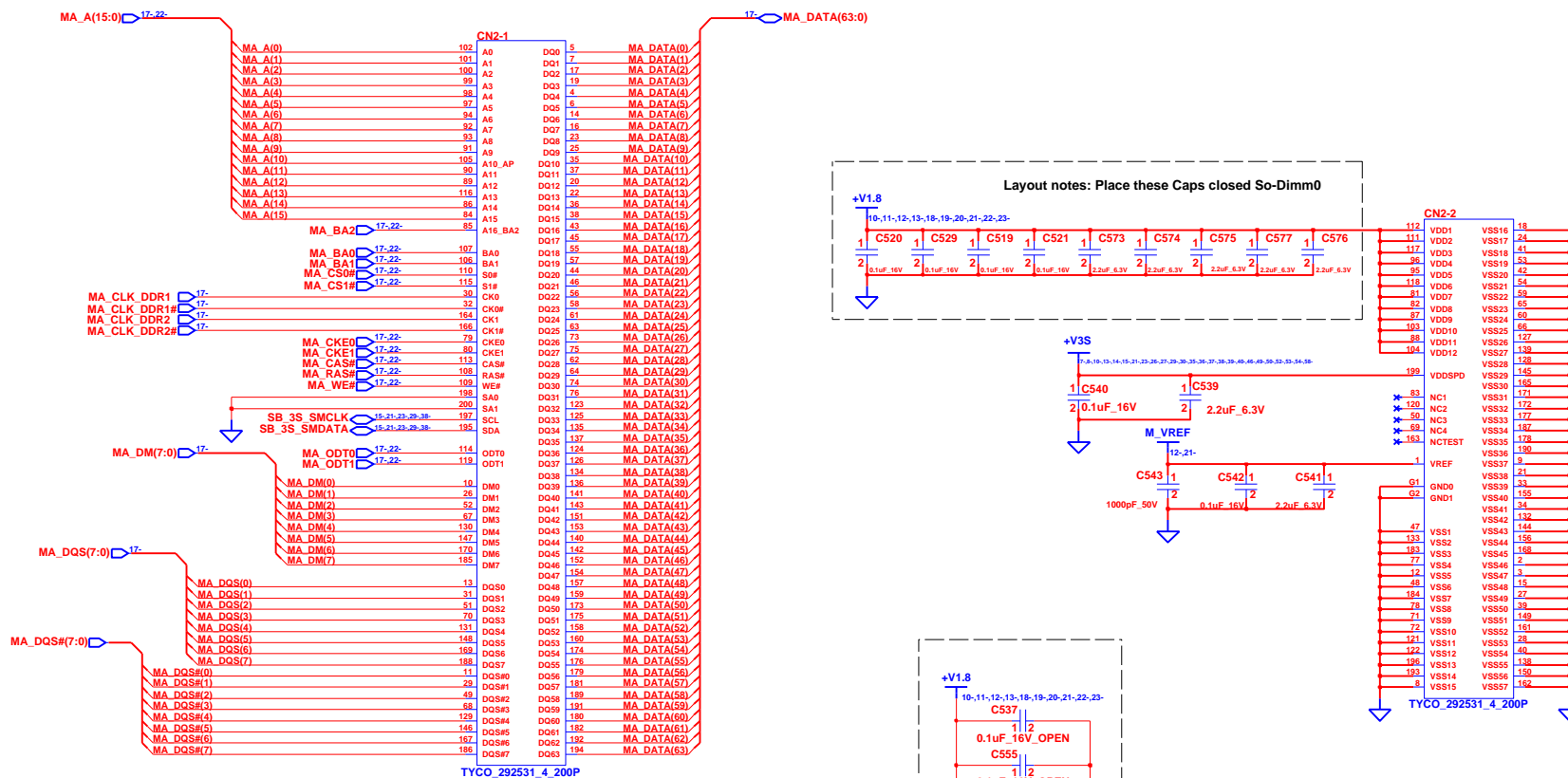
FOX_P263823_284S_41F_TEMP_638P

INVENTEC

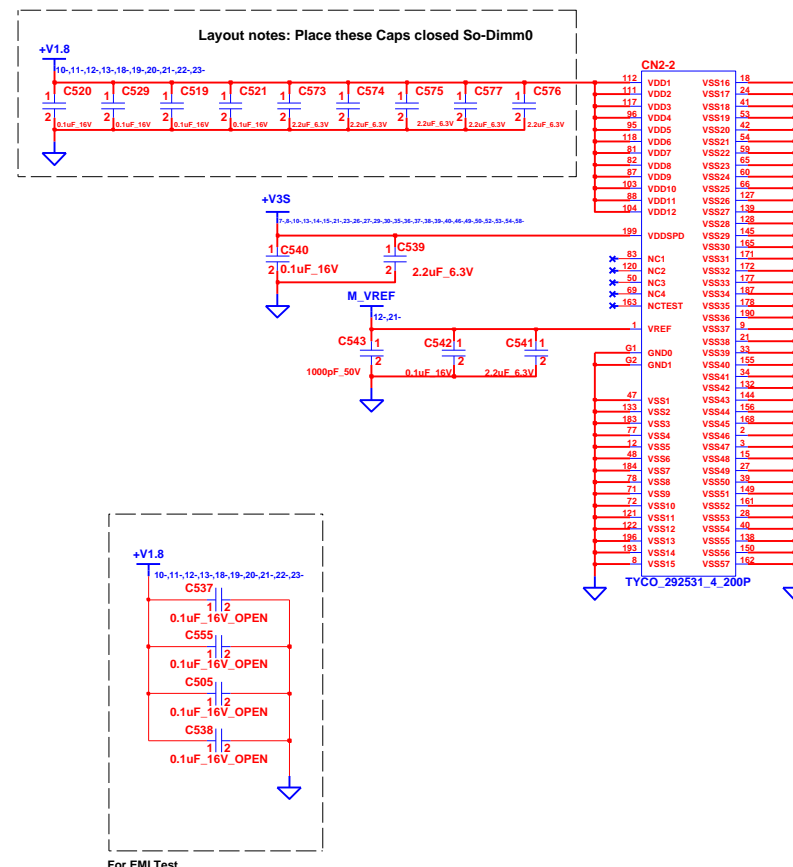
TITLE VV09 AMD-DIS CPU-2			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
SHEET 17		OF 58	

CHANGE by EDI CHEN 16-Apr-2009





SO DIMM_9.2mm



For EMI Test

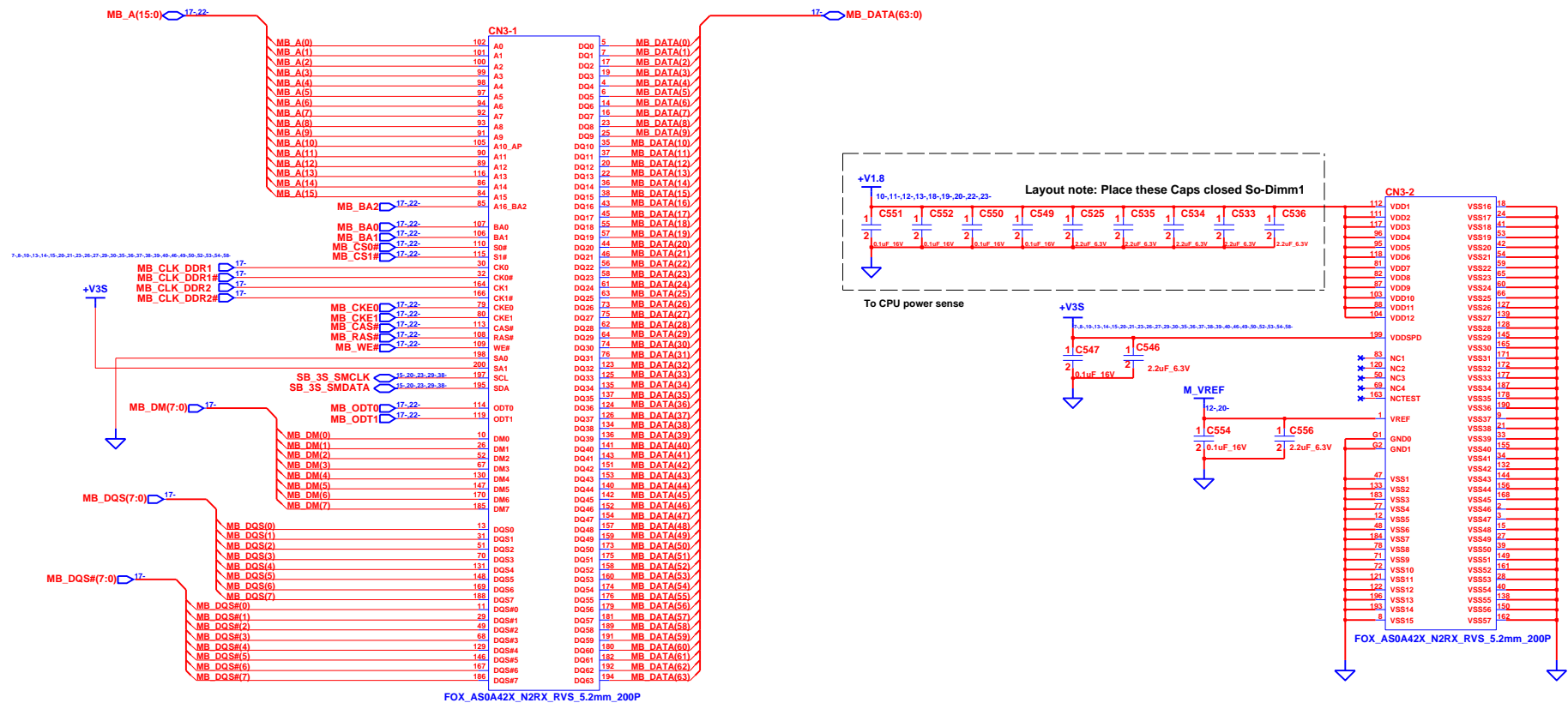
INVENTEC

TITLE: VV09 AMD-DIS
DDR2-DIMM-0

SIZE CODE DOC. NUMBER REV
A3 CS 1310A22588-0-MT RA03

CHANGE by EDI CHEN 16-Apr-2009

SHEET 20 OF 58



SODIMM_5.2mm

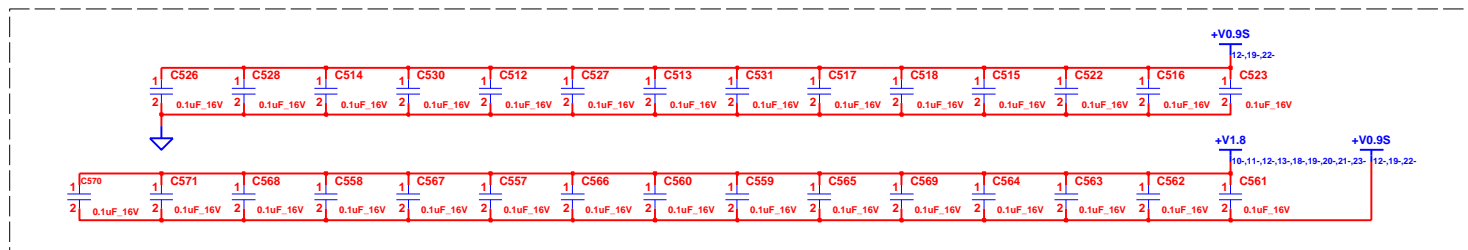
INVENTEC

TITLE: VV09 AMD-DIS
DDR2-DIMM-1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22588-0-MTR	A03

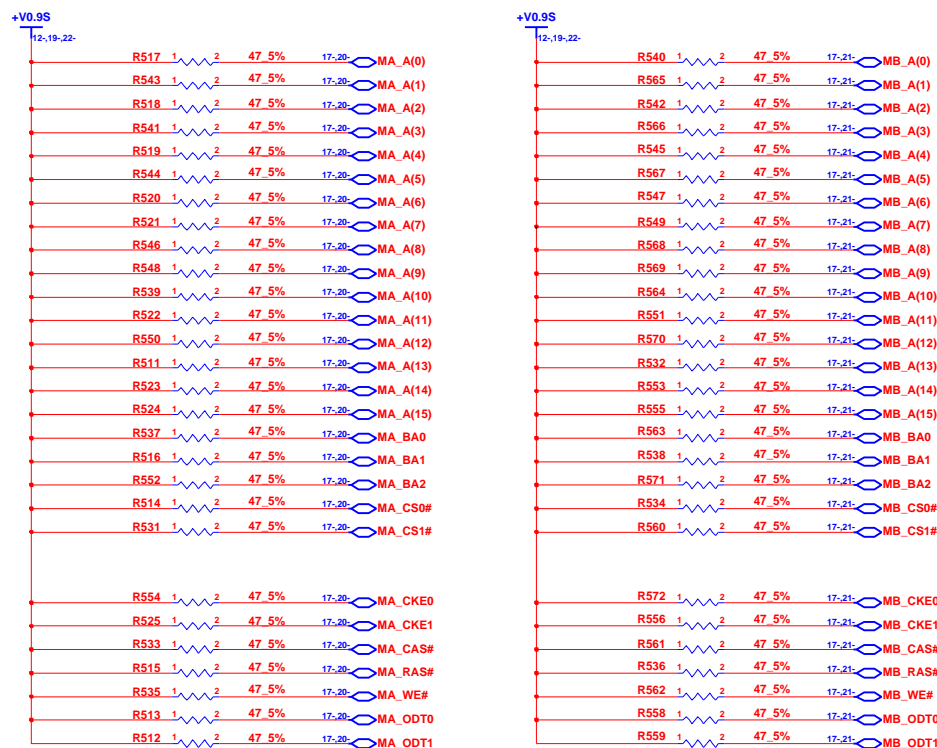
CHANGE by: EDI CHEN 16-Apr-2009

SHEET 21 OF 58



To CPU power sense

Place CAPs close to DIMM



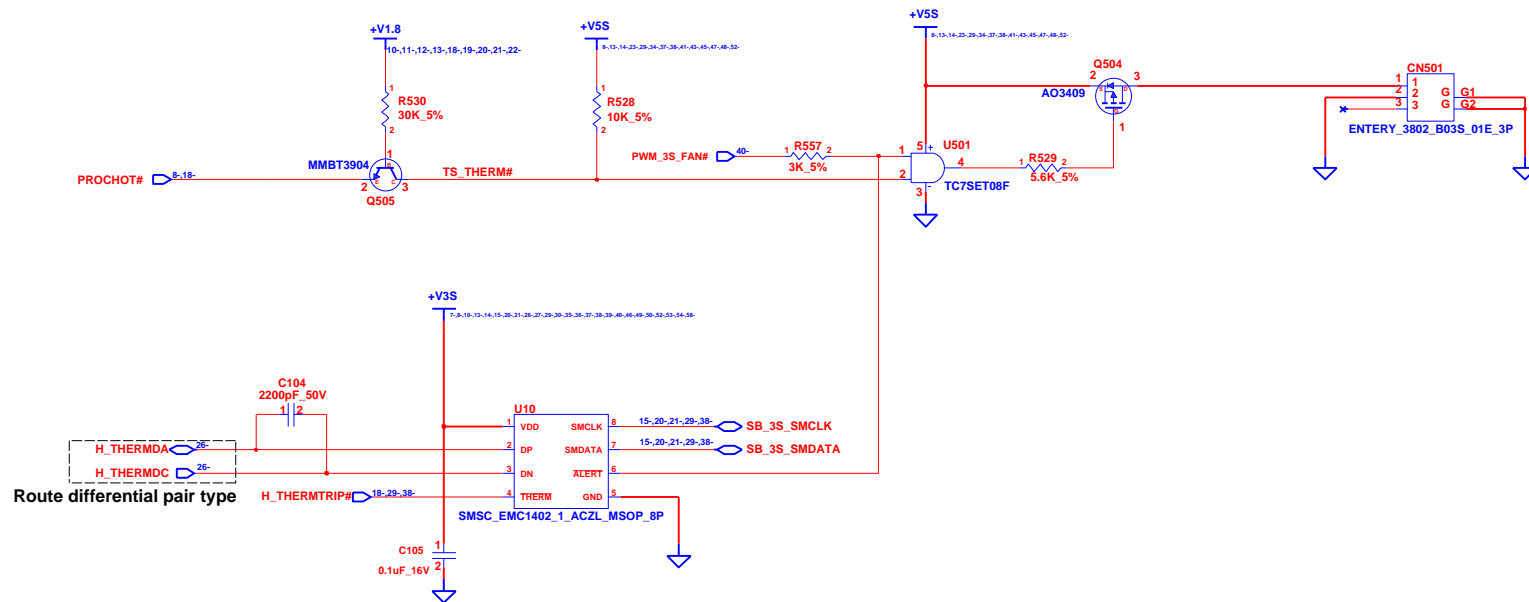
INVENTEC

TITLE
VV09 AMD-DIS
DDR2-DAMPING

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22588-0-MTR	A03

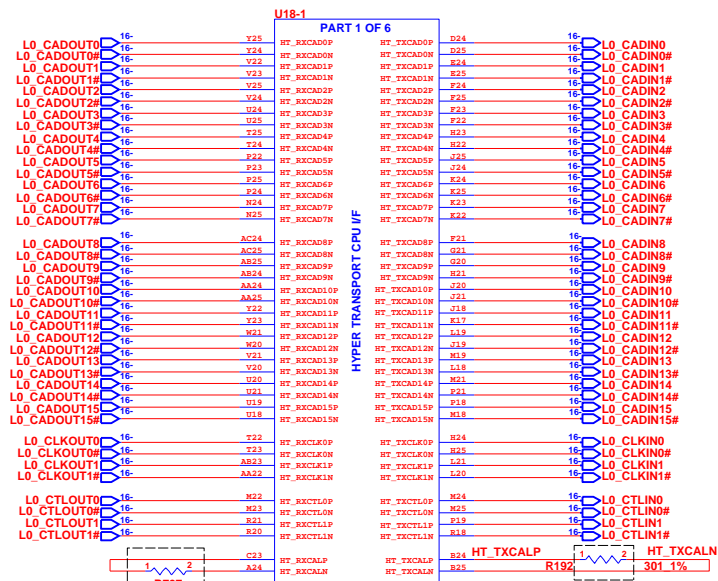
CHANGE by EDI CHEN 16-Apr-2009

SHEET 22 OF 58



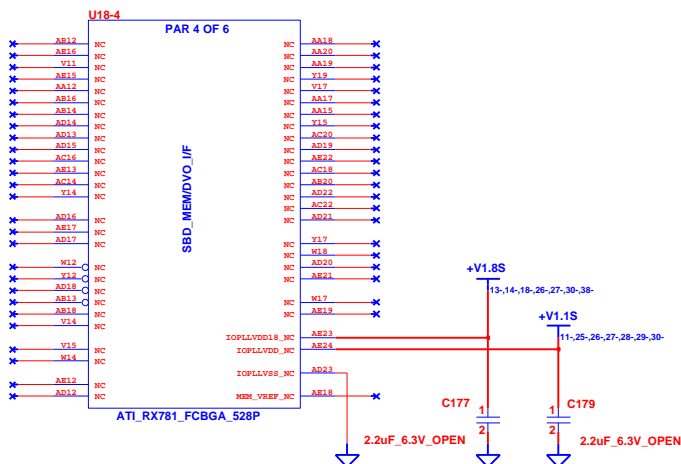
LAYOUT Note: Put the thermal sensor close to CPU.

INVENTEC			
TITLE: VV09 AMD-DIS			
THERMAL & FAN CONTROLLER			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22588-0-MTR	REV: A03
CHANGE by: EDI CHEN		16-Apr-2009	
SHEET: 23		OF: 58	



Please close to NB balls

Please close to NB balls



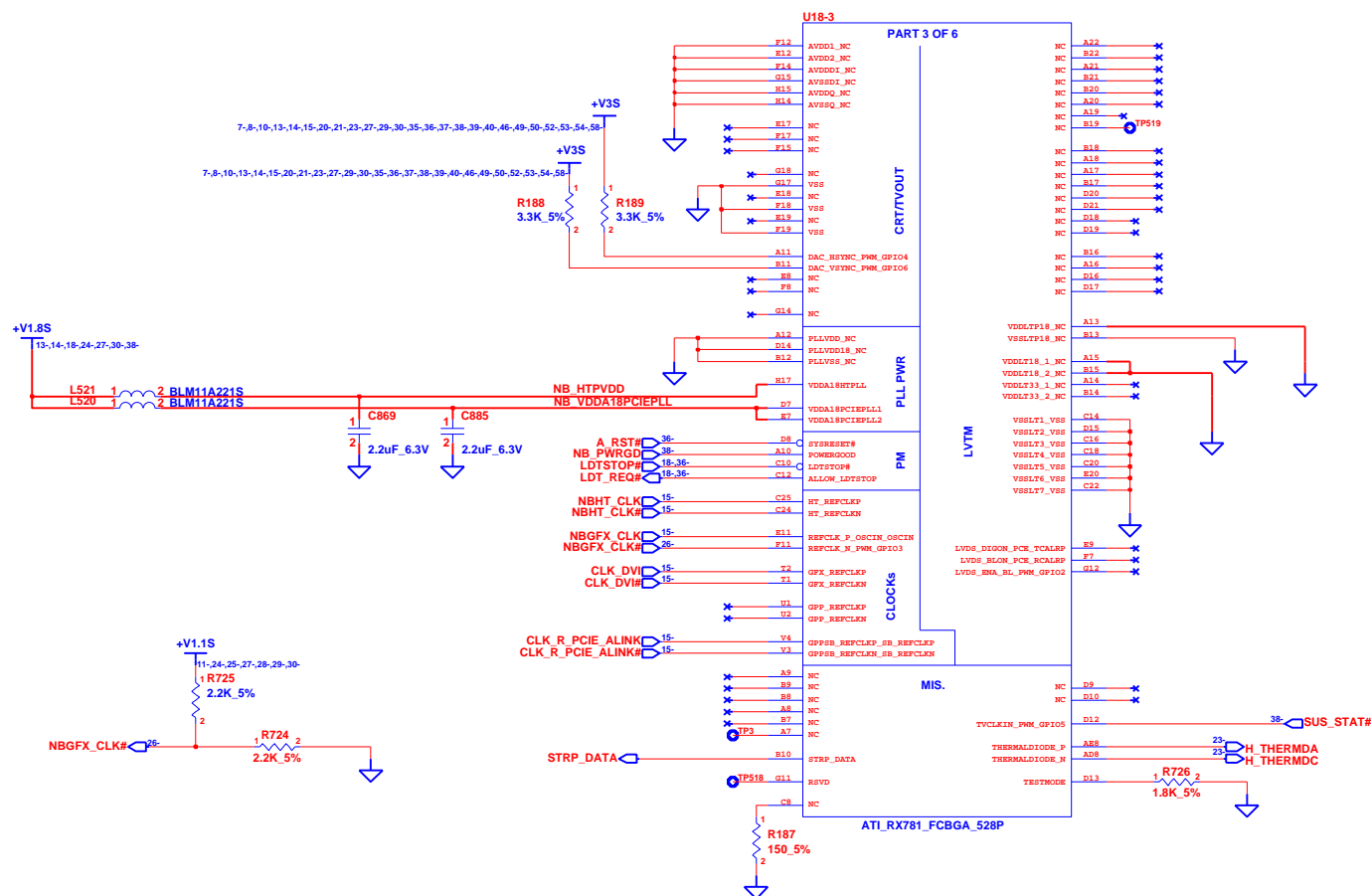
INVENTEC

TITLE: **VV09 AMD-DIS**
RS780-1

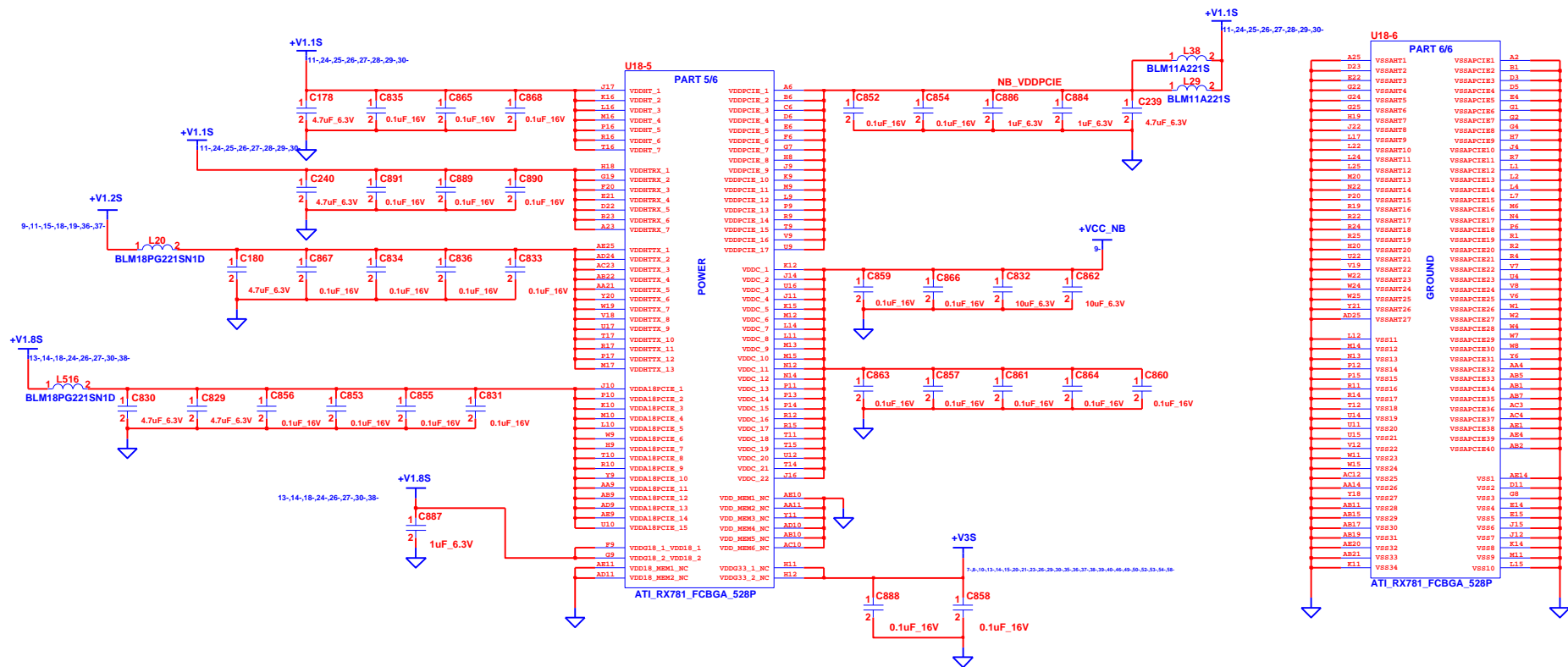
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22588-0-MTR	A03

CHANGE by: **EDI CHEN** 16-Apr-2009

SHEET 24 OF 58

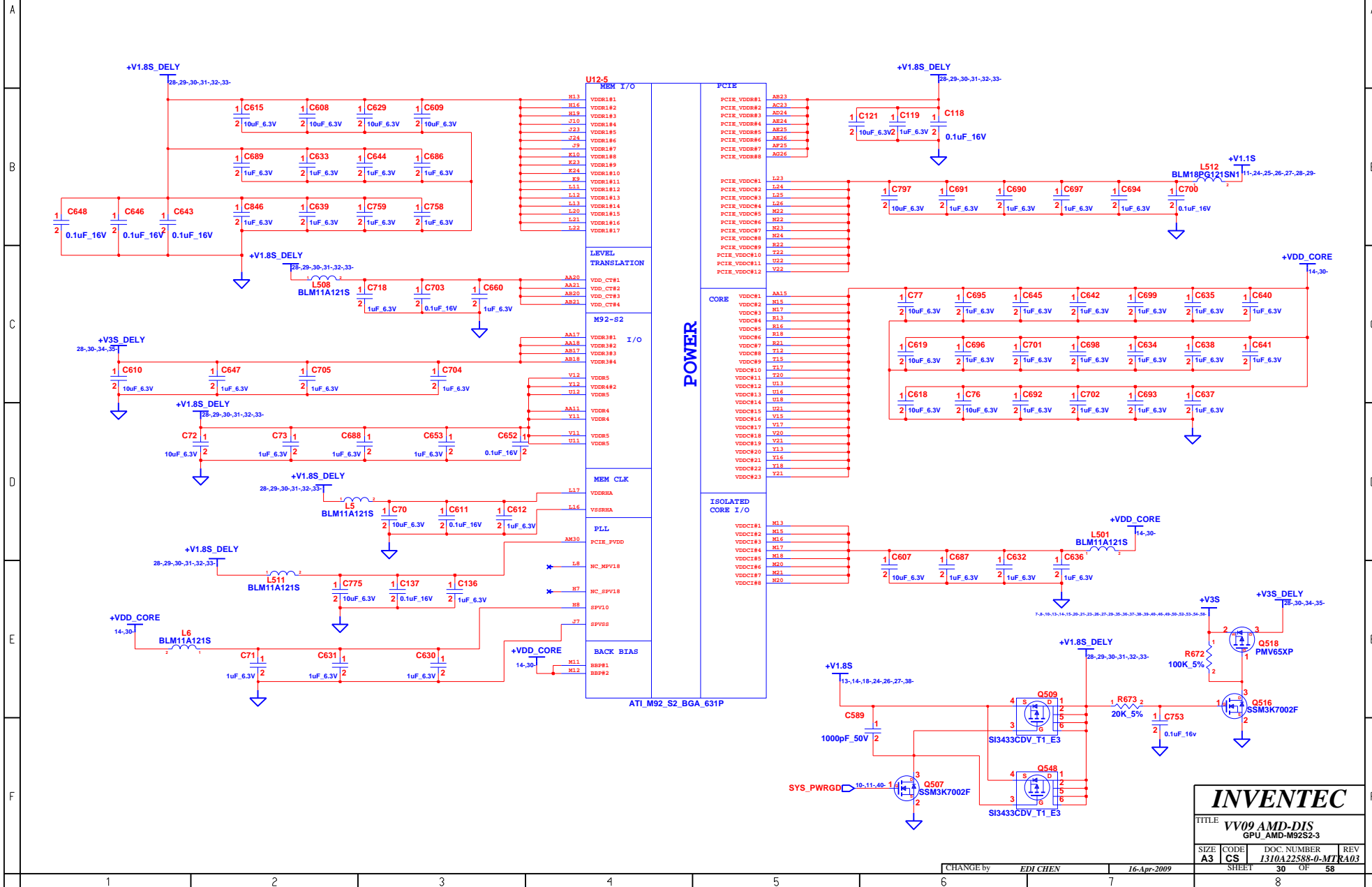


INVENTEC			
TITLE VV09 AMD-DIS RS780-3			
SIZE A3	CODE CS	DOC. NUMBER 1310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 26		OF 58	

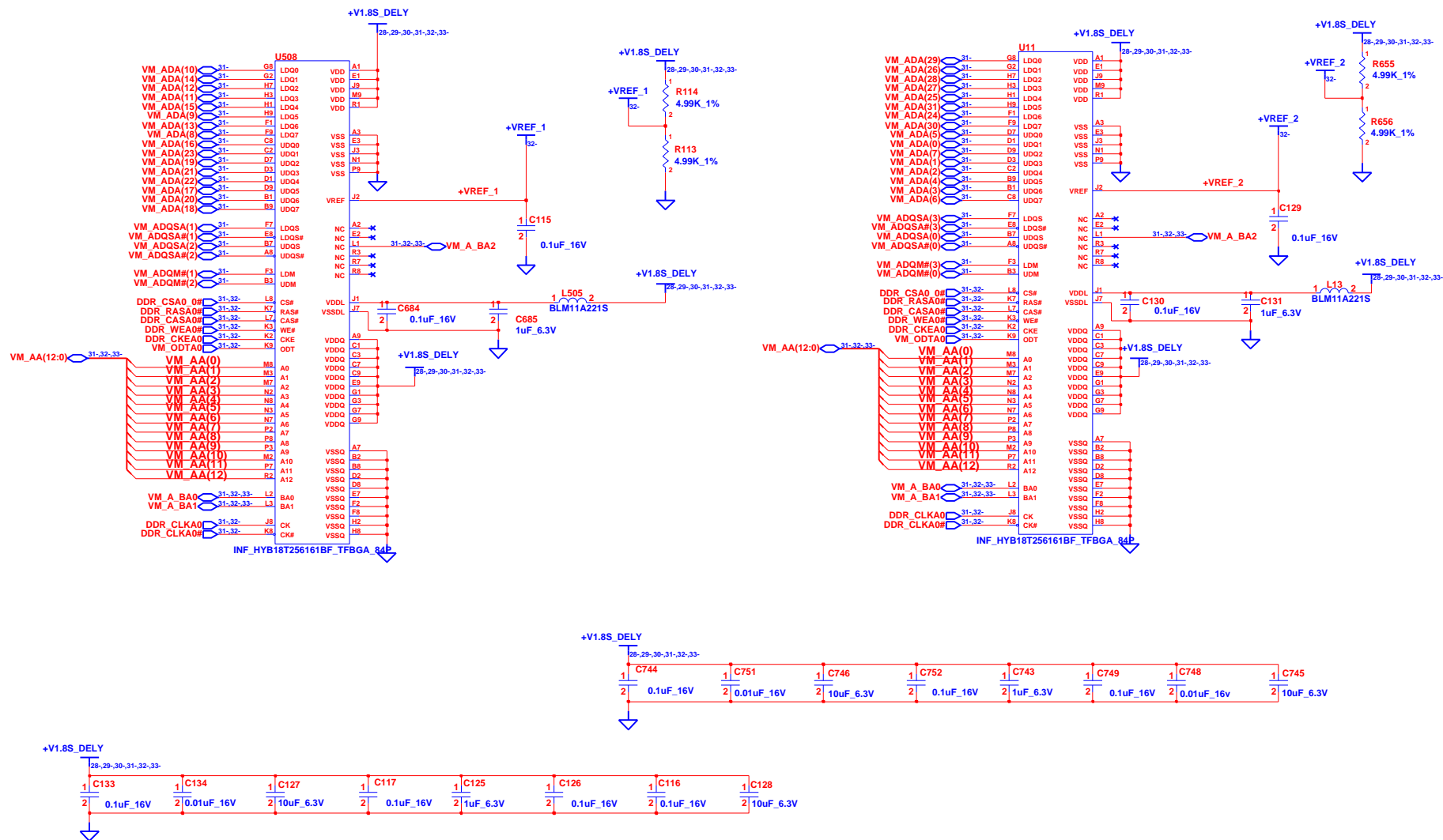


INVENTEC

TITLE VV09 AMD-DIS RS780-4			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 27		OF 58	



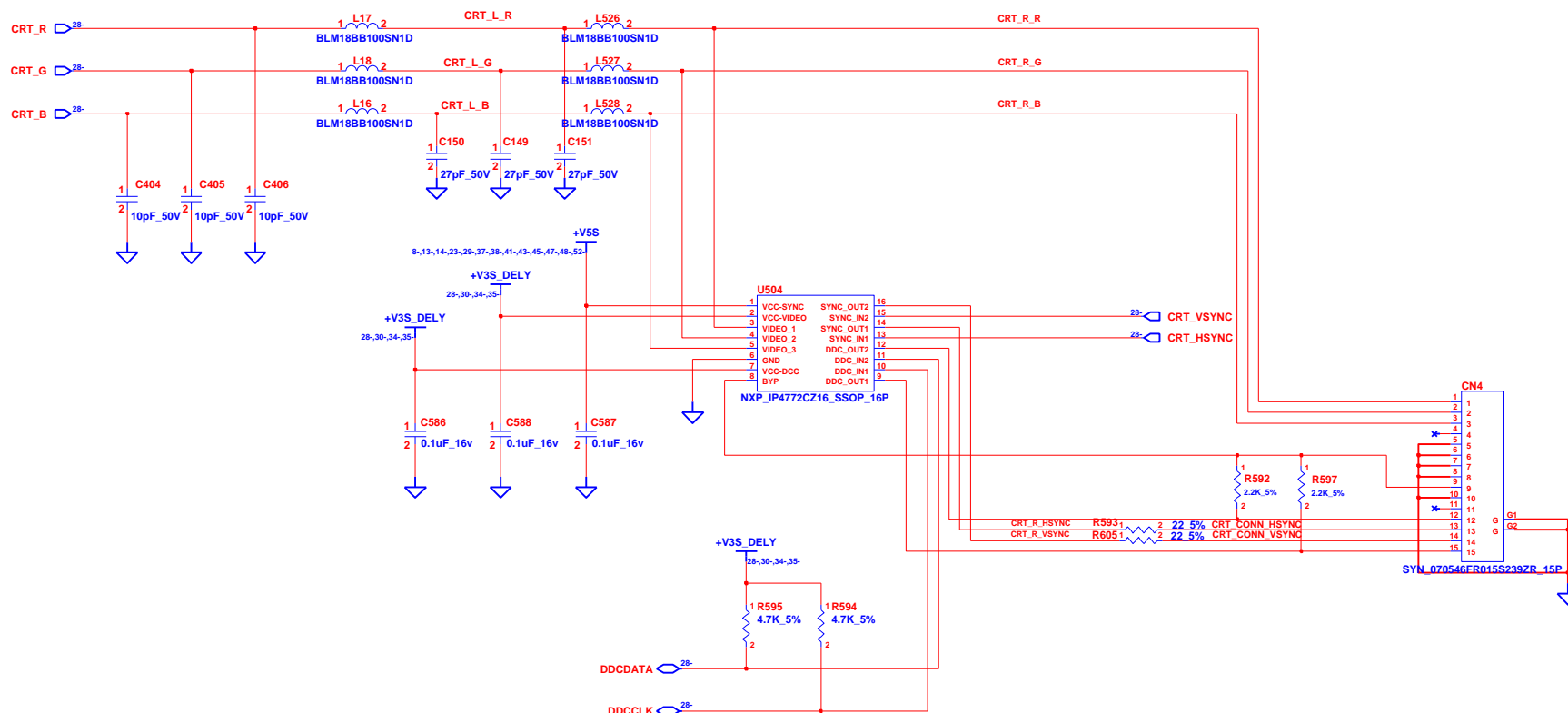
INVENTEC			
TITLE: VV09 AMD-DIS GPU_AMD-M92S2-3			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22588-0-MTR	REV: A03
CHANGE by: EDI CHEN		16-Apr-2009	
SHEET: 30		OF: 58	



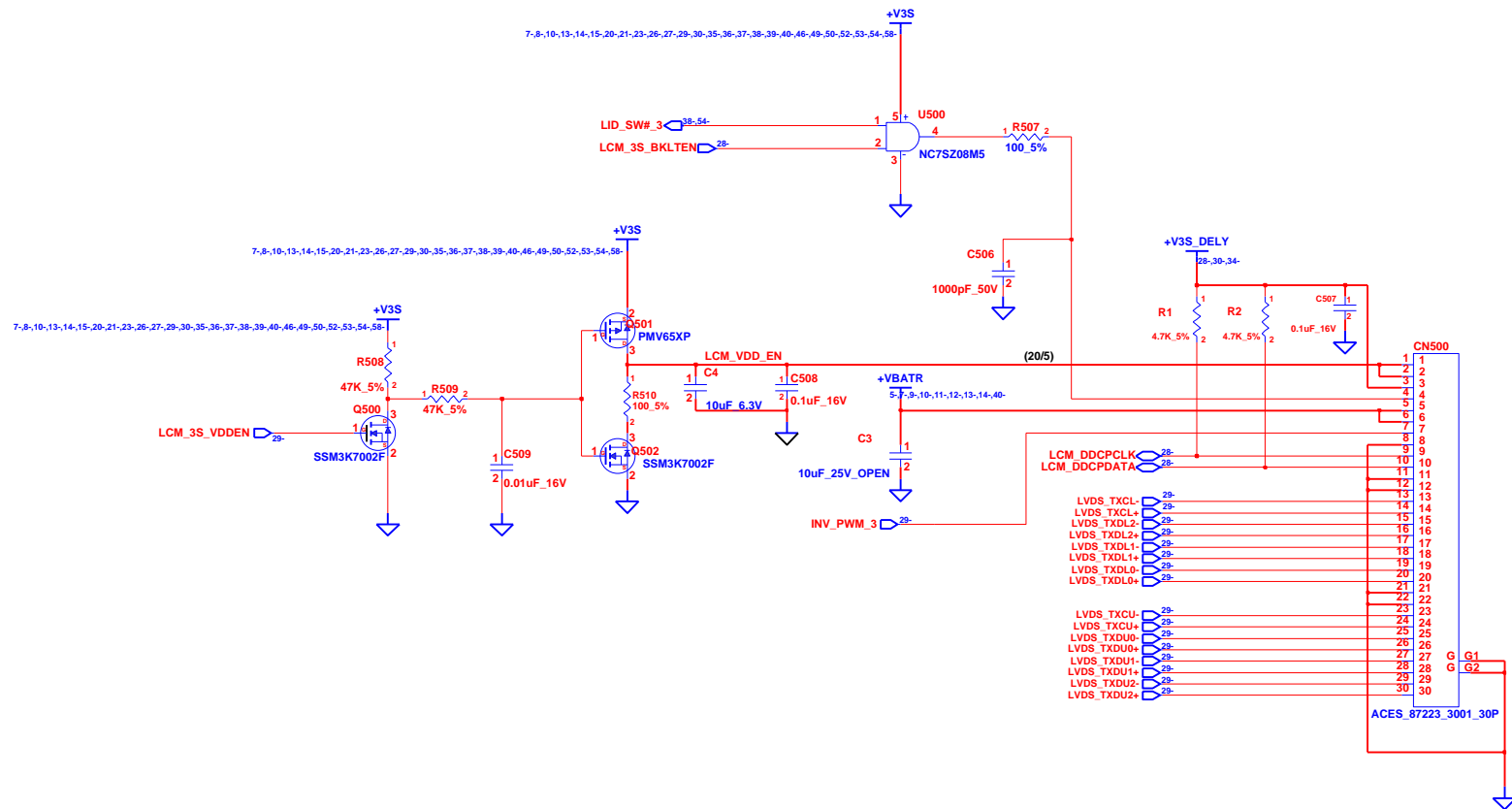
INVENTEC

TITLE			
VV09 AMD-DIS			
Video RAM (GDDR2) -1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22588-0-MTR	A03
SHEET		32	OF 58

CHANGE by EDI CHEN 16-Apr-2009



INVENTEC			
TITLE VV09 AMD-DIS CRT			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 34		OF 58	



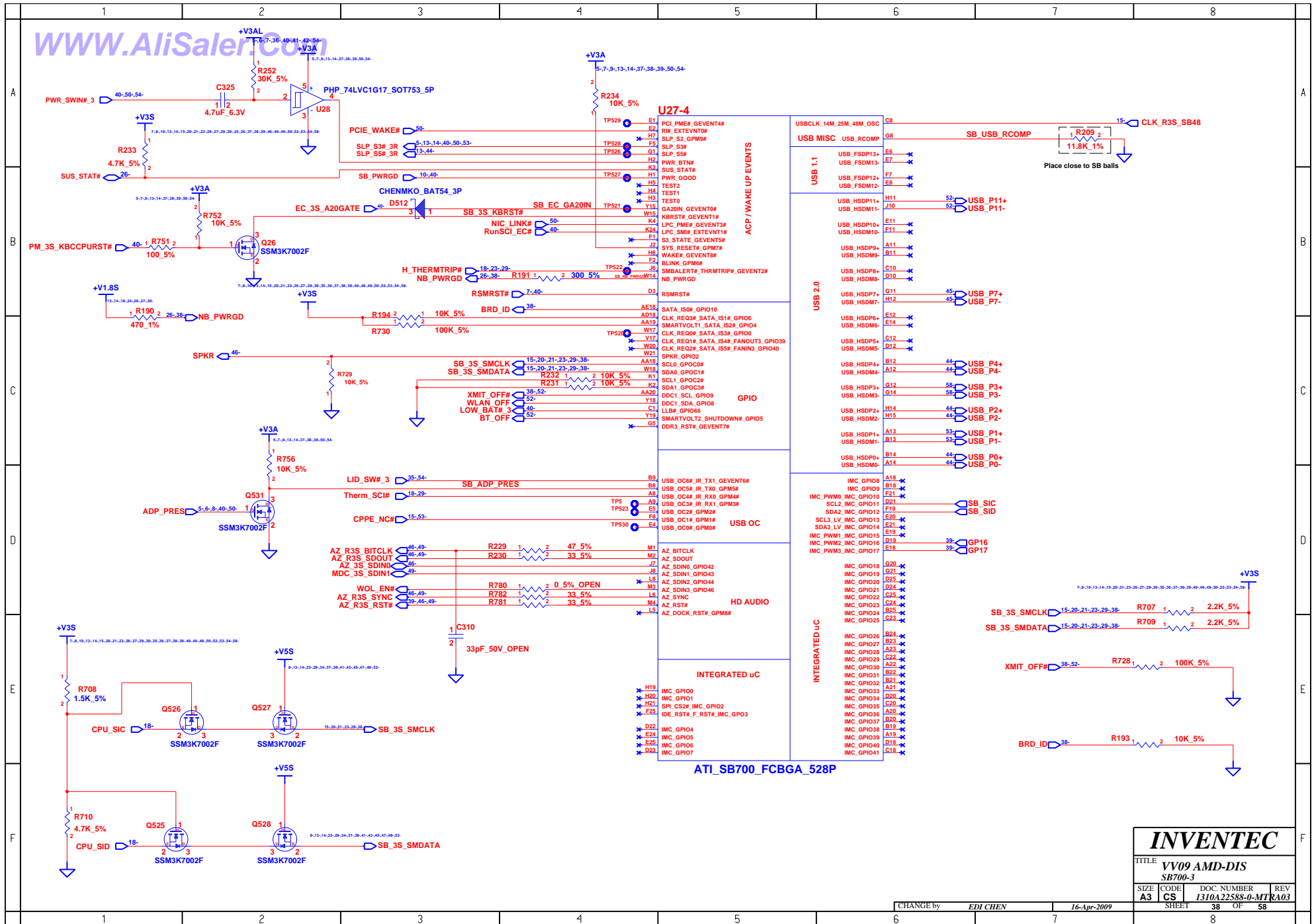
INVENTEC

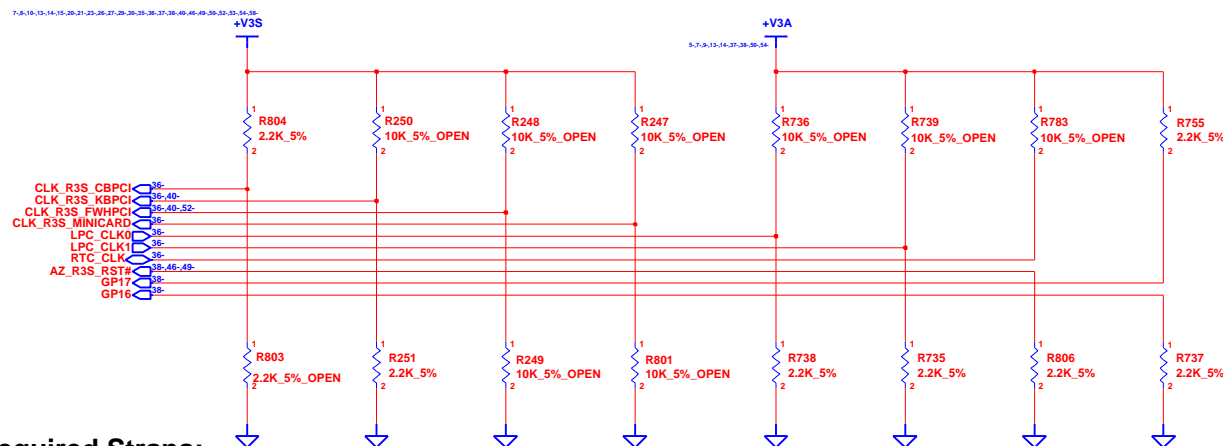
TITLE
VV09 AMD-DIS
LCD CONN

SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
------------	------------	---------------------------------	------------

CHANGE by EDI CHEN 16-Apr-2009

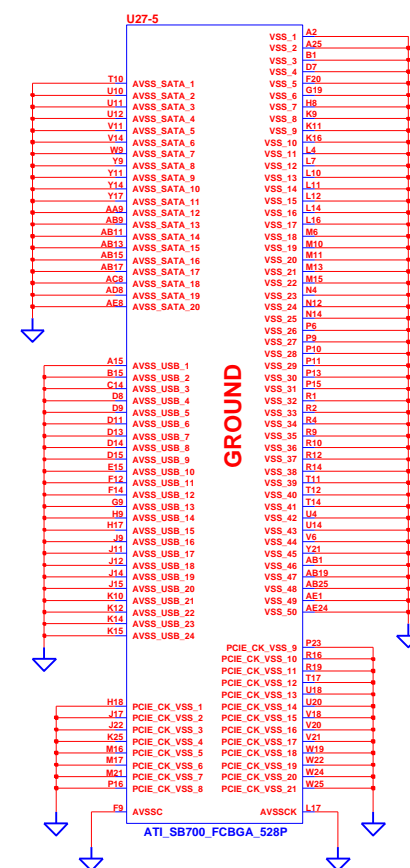
SHEET 35 OF 58





Required Straps:

	CLK_R3S_CBPCI	CLK_R3S_KBPCI	CLK_R3S_FWHPCI	CLK_R3S_MINICARD	LPC_CLK0	LPC_CLK1	RTC_CLK	AZ_RST#	GP17 GP16
PULL HIGH	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	ENABLE PCI MEM BOOT	CLKGEN ENABLED	INTERNAL RTC DEFAULT	EC ENABLED	ROM TYPE H, H = Reserved H, L = SPI ROM
PULL LOW	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			DISABLE PCI MEM BOOT DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK	EC DISABLED DEFAULT	L, H = LPC ROM L, L = FWH ROM



GROUND

INVENTEC

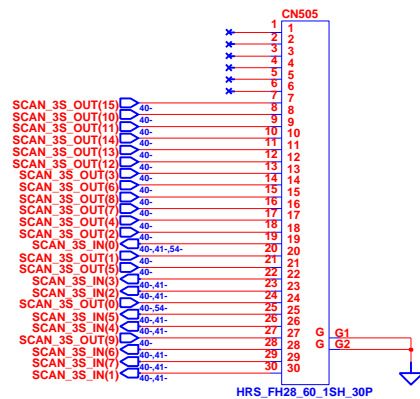
TITLE
**VV09 AMD-DIS
SB700-4**

SIZE CODE DOC. NUMBER REV
A3 CS 1310A22588-0-MTR A03

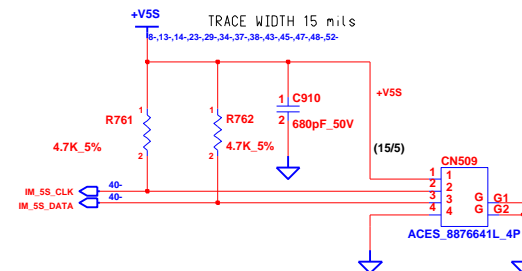
SHEET 39 OF 58

CHANGE by **EDI CHEN** 16-Apr-2009

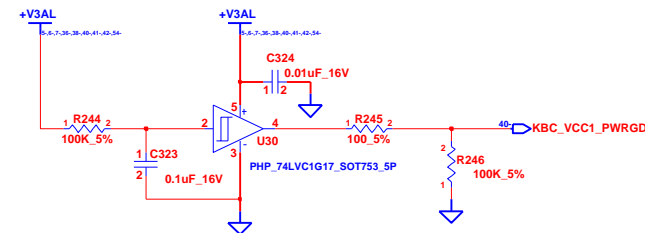
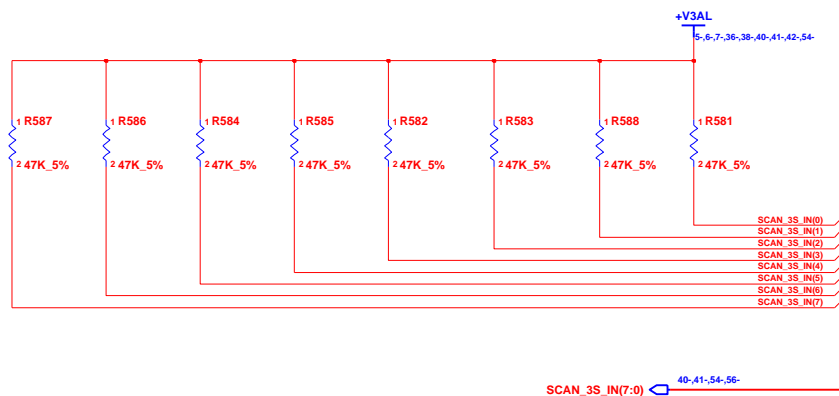




KEYBOARD CONN

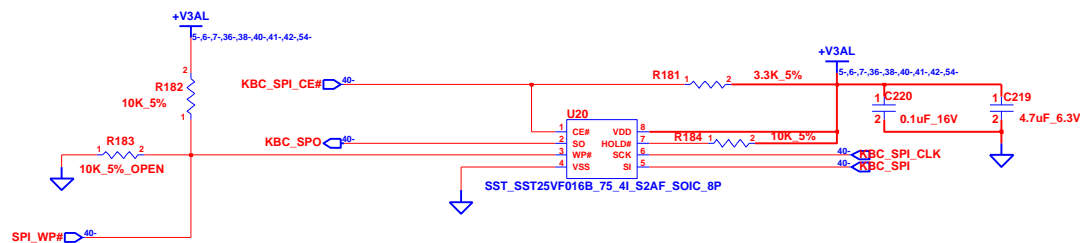


TOUCH PAD CNTR



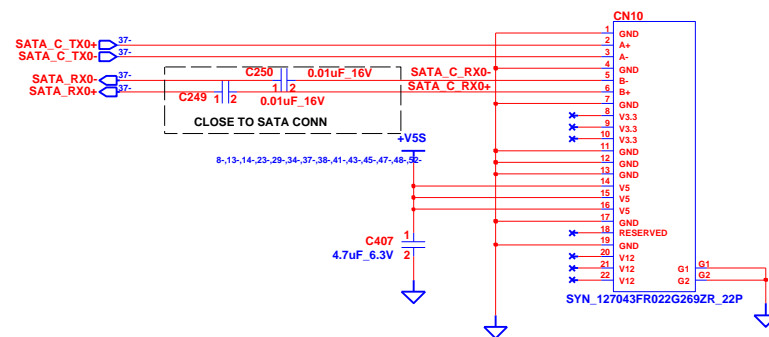
U35 should be placed close to U39.

INVENTEC			
TITLE: VV09 AMD-DIS KB&TP CONN			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22588-0-MTR	REV: A03
CHANGE by: EDI CHEN	16-Apr-2009	SHEET: 41	OF: 58

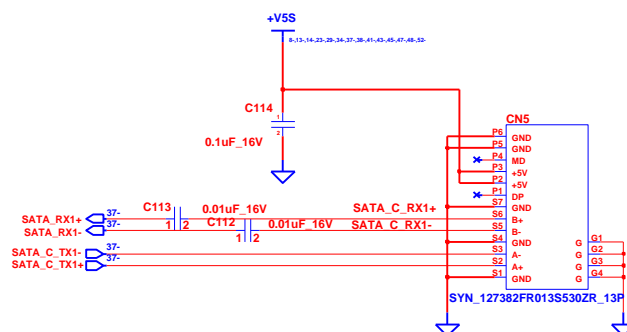


SPI Flash

INVENTEC			
TITLE VV09 AMD-DIS			
SPI			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 42		OF 58	

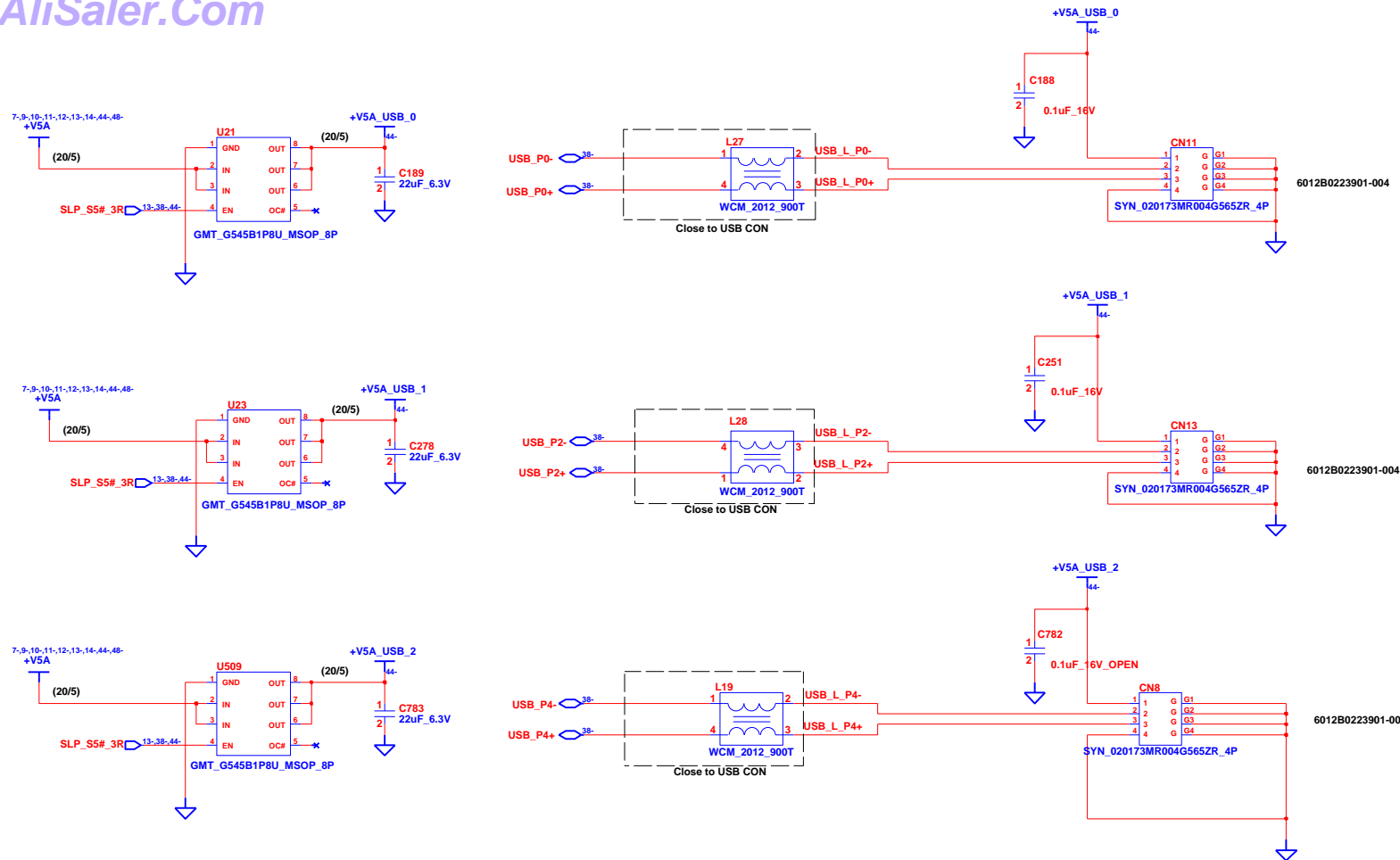


HDD CONNECTOR



ODD SATA CONNECTOR

INVENTEC			
TITLE VV09 AMD-DIS HDD & ODD CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 43		OF 58	



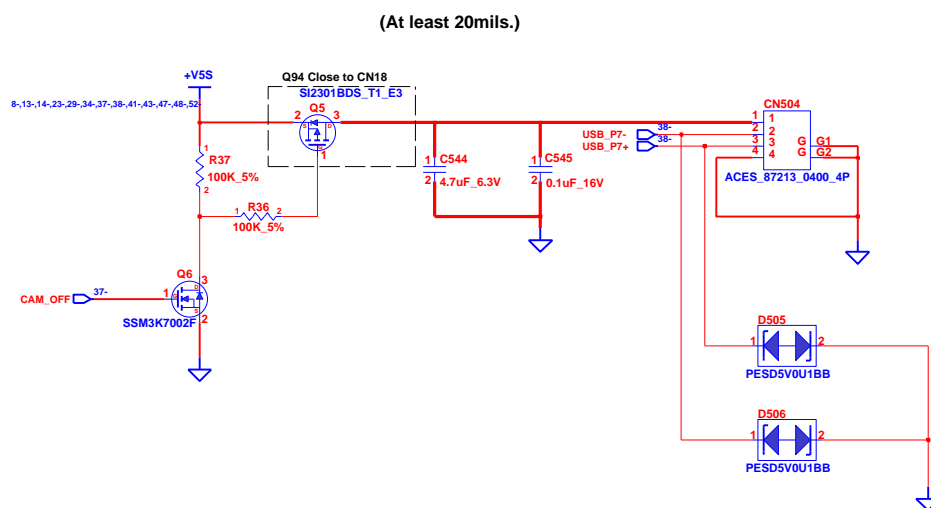
INVENTEC

TITLE
VV09 AMD-DIS
USB CONN

SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
------------	------------	---------------------------------	------------

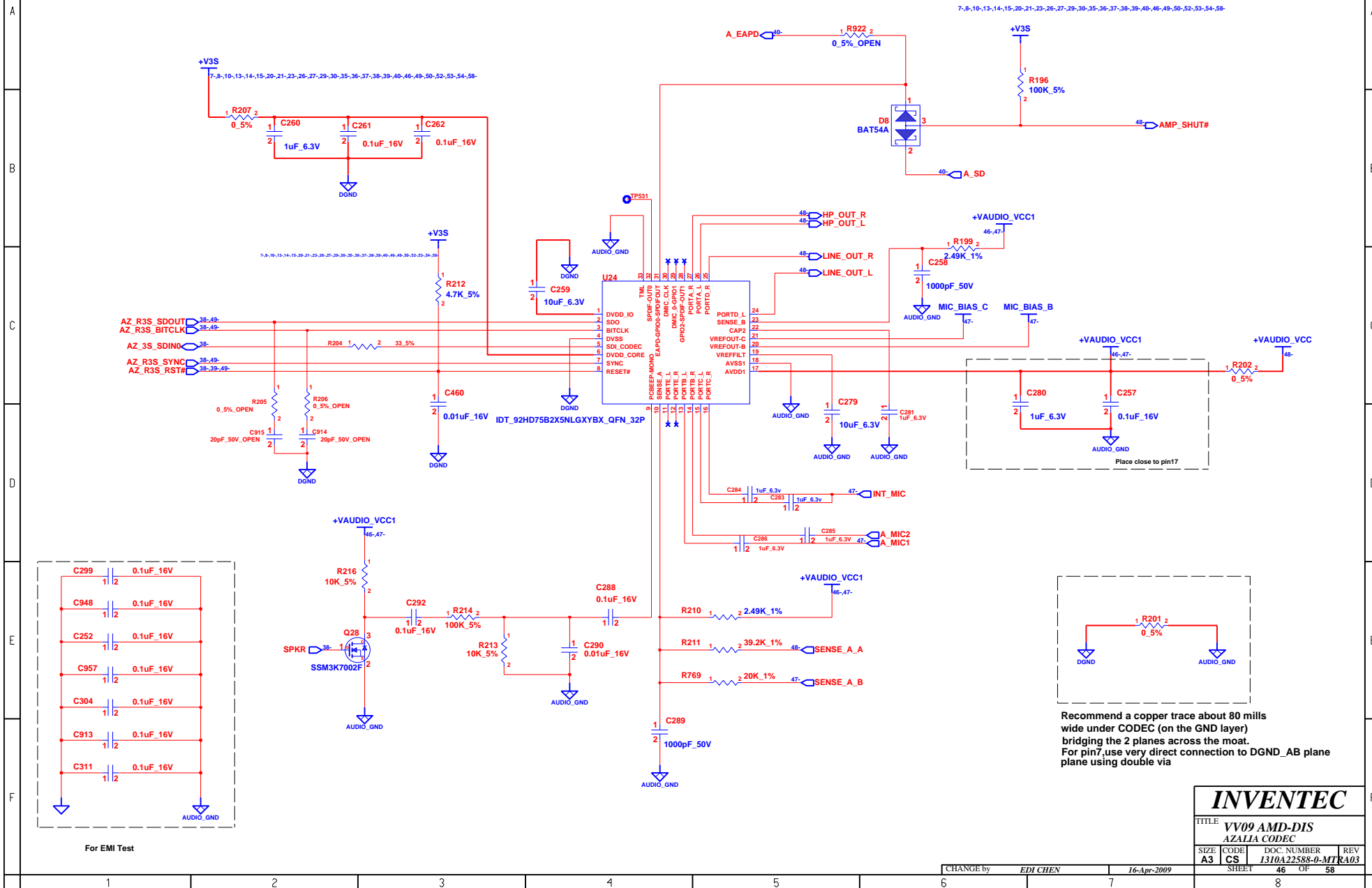
CHANGE by EDI CHEN 16-Apr-2009

SHEET 44 OF 58



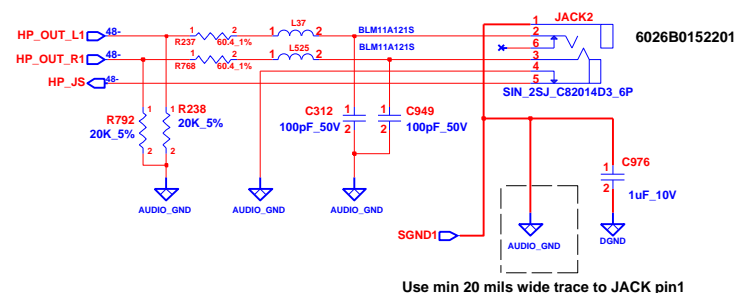
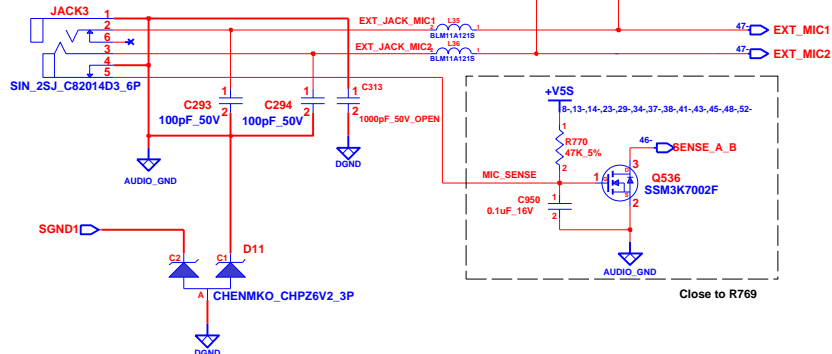
USB WEBCAM CONNECTOR

INVENTEC			
TITLE VV09 AMD-DIS USB WEBCAM CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 45		OF 58	



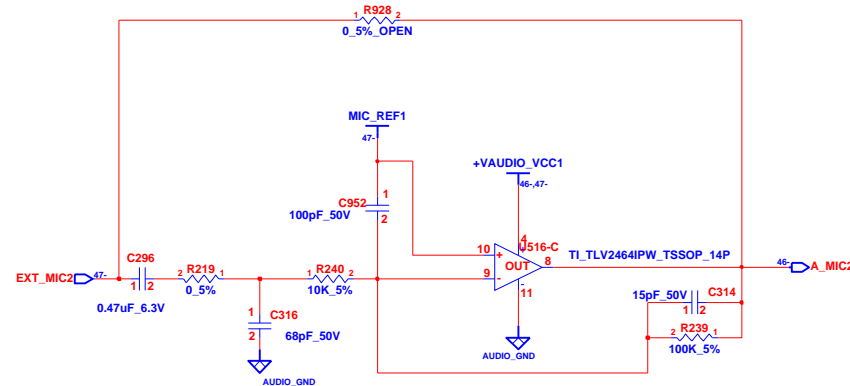
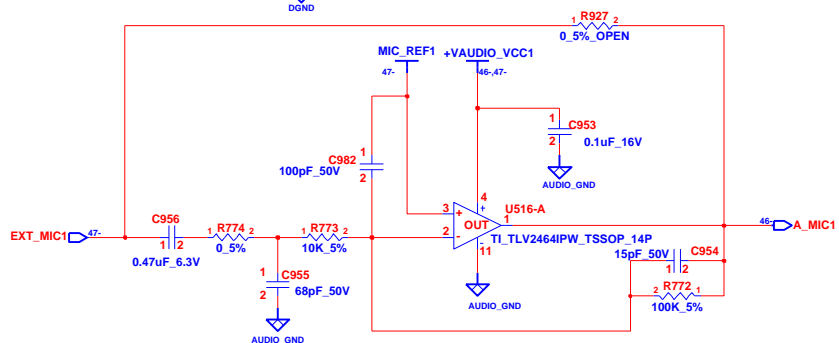
MIC Jack

6026B0152201

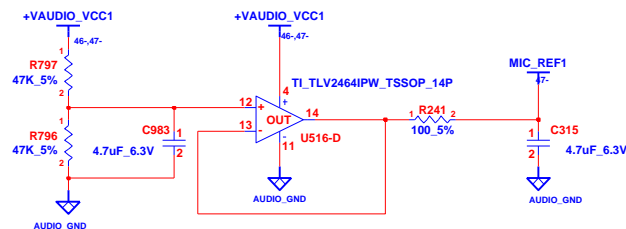
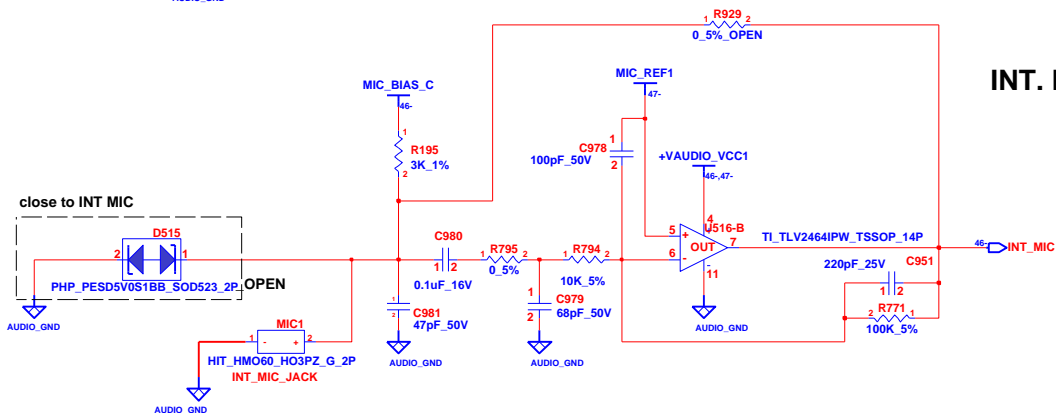


Earphone Jack

EXT. MIC



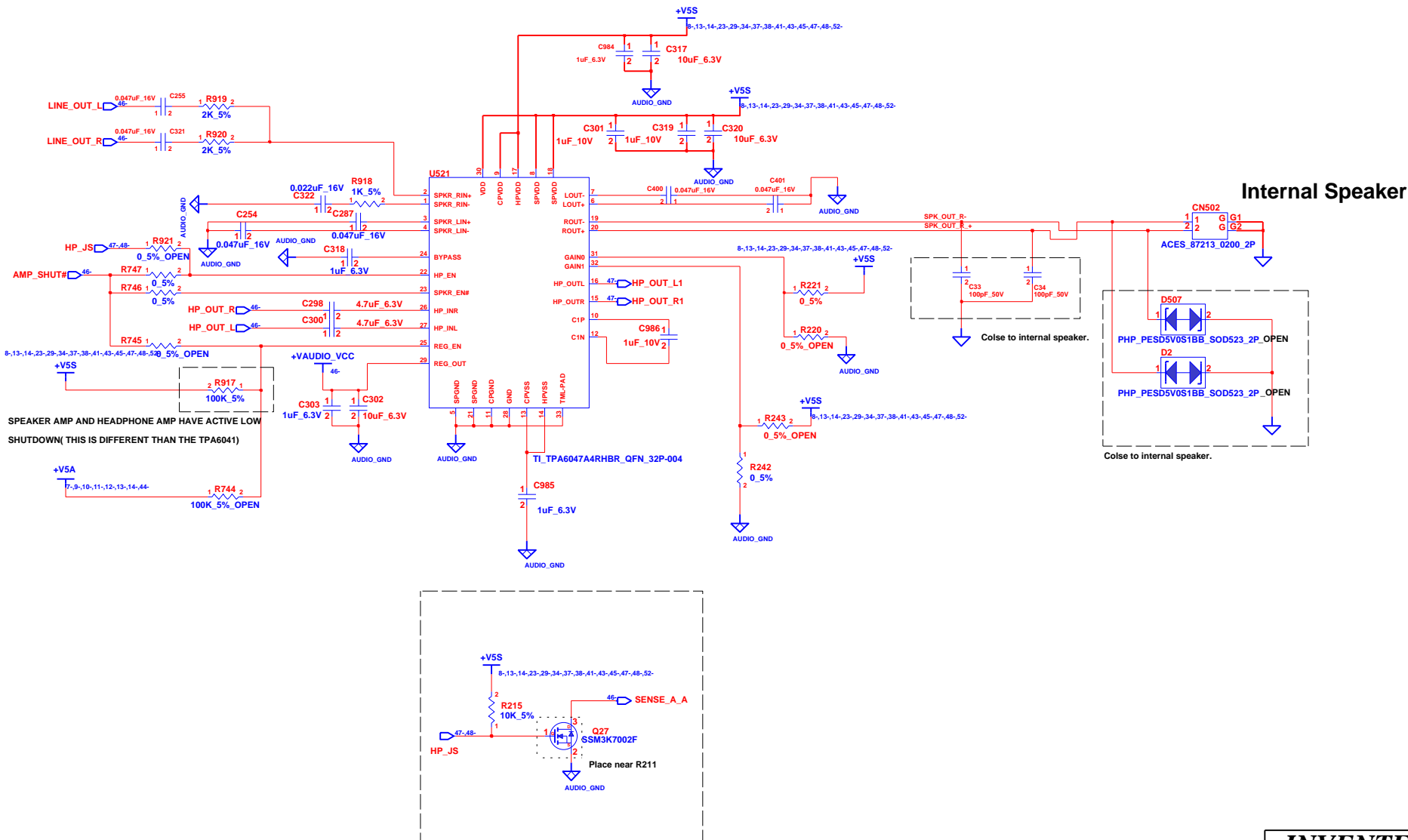
INT. MIC



INVENTEC

TITLE			
VV09 AMD-DIS			
Earphone & MIC JACK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22588-0-MTR	A03
SHEET		47	OF 58

CHANGE by EDI CHEN 16-Apr-2009



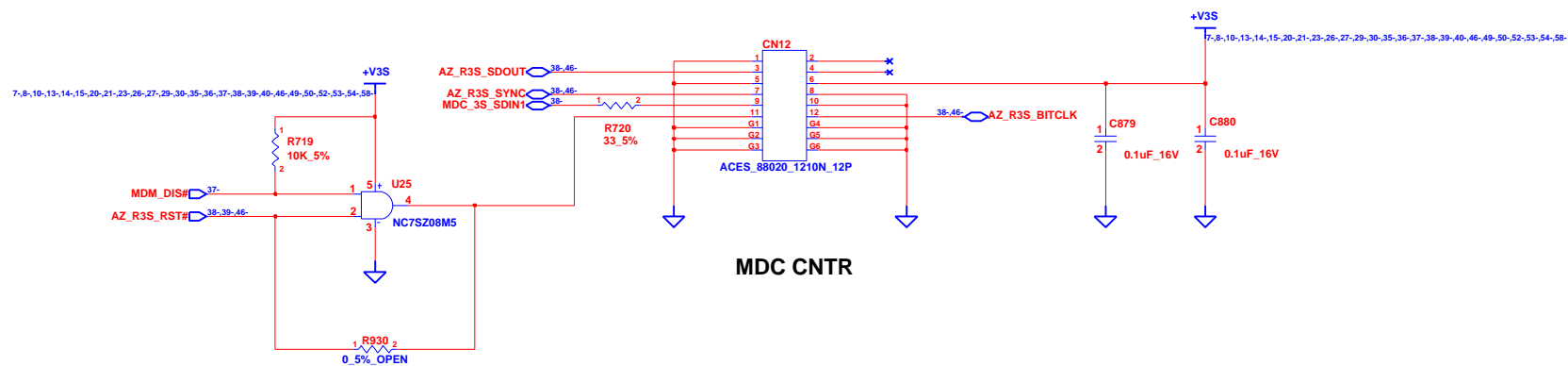
INVENTEC

TITLE
VV09 AMD-DIS
AUDIO AMP & HP JACK

SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
------------	------------	---------------------------------	------------

CHANGE by EDI CHEN 16-Apr-2009

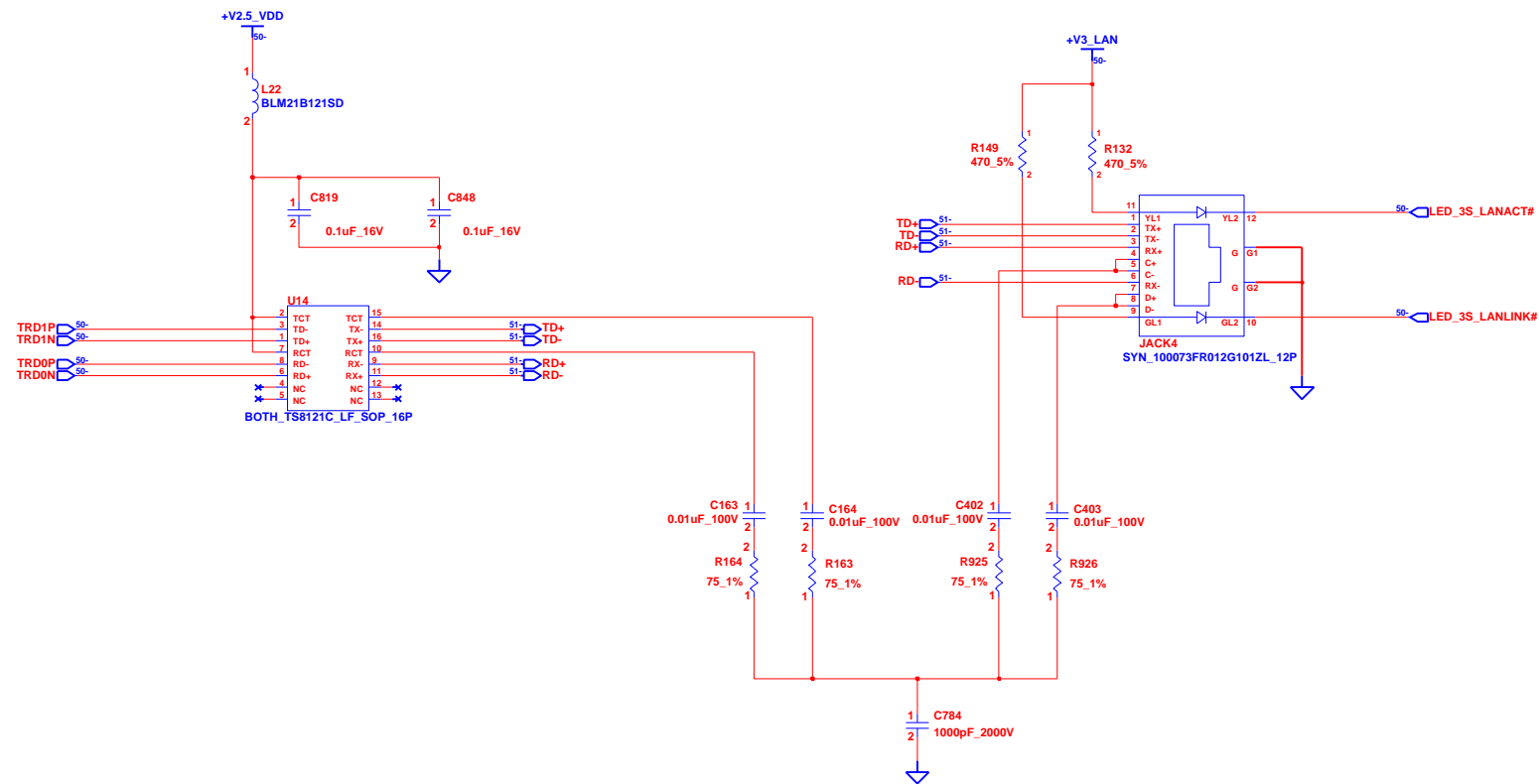
SHEET 48 OF 58



MDC CNTR

INVENTEC			
TITLE VV09 AMD-DIS MDC CNTR			
SIZE A3	CODE CS	DOC. NUMBER I310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 49		OF 58	





INVENTEC			
TITLE VV09 AMD-DIS NIC 10/100-RJ45 CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 51		OF 58	

WLAN CNTR

BLUETOOTH CNTR

INVENTEC

TITLE: VV09 AMD-DIS MINICARD & BT CONN

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22588-0-MTR REV: A03

CHANGE by: EDI CHEN 16-Apr-2009 SHEET: 52 OF 58

WLAN CNTR

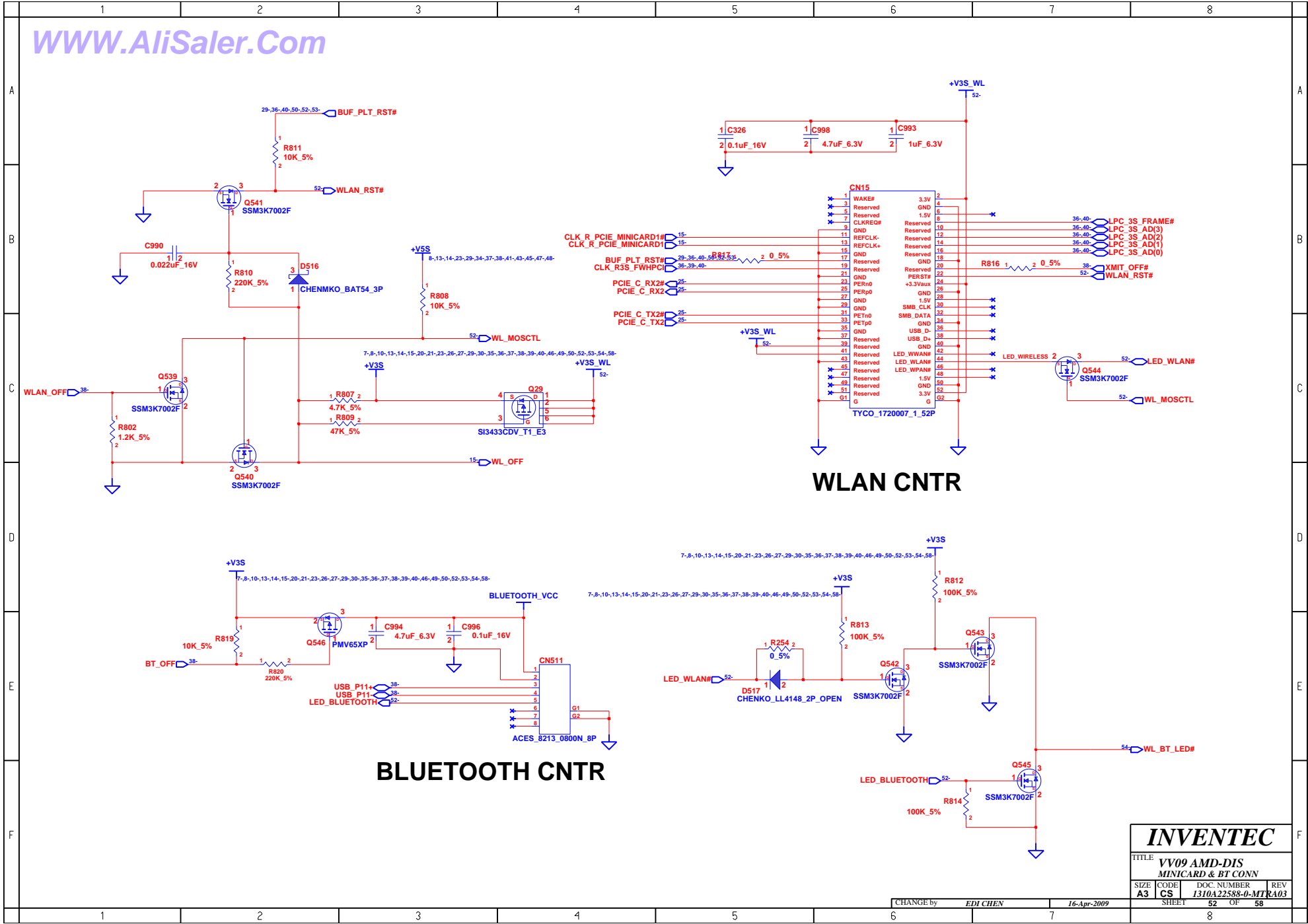
BLUETOOTH CNTR

INVENTEC

TITLE: VV09 AMD-DIS MINICARD & BT CONN

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22588-0-MTR REV: A03

CHANGE by: EDI CHEN 16-Apr-2009 SHEET: 52 OF 58



WLAN CNTR

BLUETOOTH CNTR

INVENTEC

TITLE: VV09 AMD-DIS MINICARD & BT CONN

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22588-0-MTR REV: A03

CHANGE by: EDI CHEN 16-Apr-2009 SHEET: 52 OF 58

WLAN CNTR

BLUETOOTH CNTR

INVENTEC

TITLE: VV09 AMD-DIS MINICARD & BT CONN

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22588-0-MTR REV: A03

CHANGE by: EDI CHEN 16-Apr-2009 SHEET: 52 OF 58

WLAN CNTR

BLUETOOTH CNTR

INVENTEC

TITLE: VV09 AMD-DIS MINICARD & BT CONN

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22588-0-MTR REV: A03

CHANGE by: EDI CHEN 16-Apr-2009

SHEET: 52 OF 58

WLAN CNTR

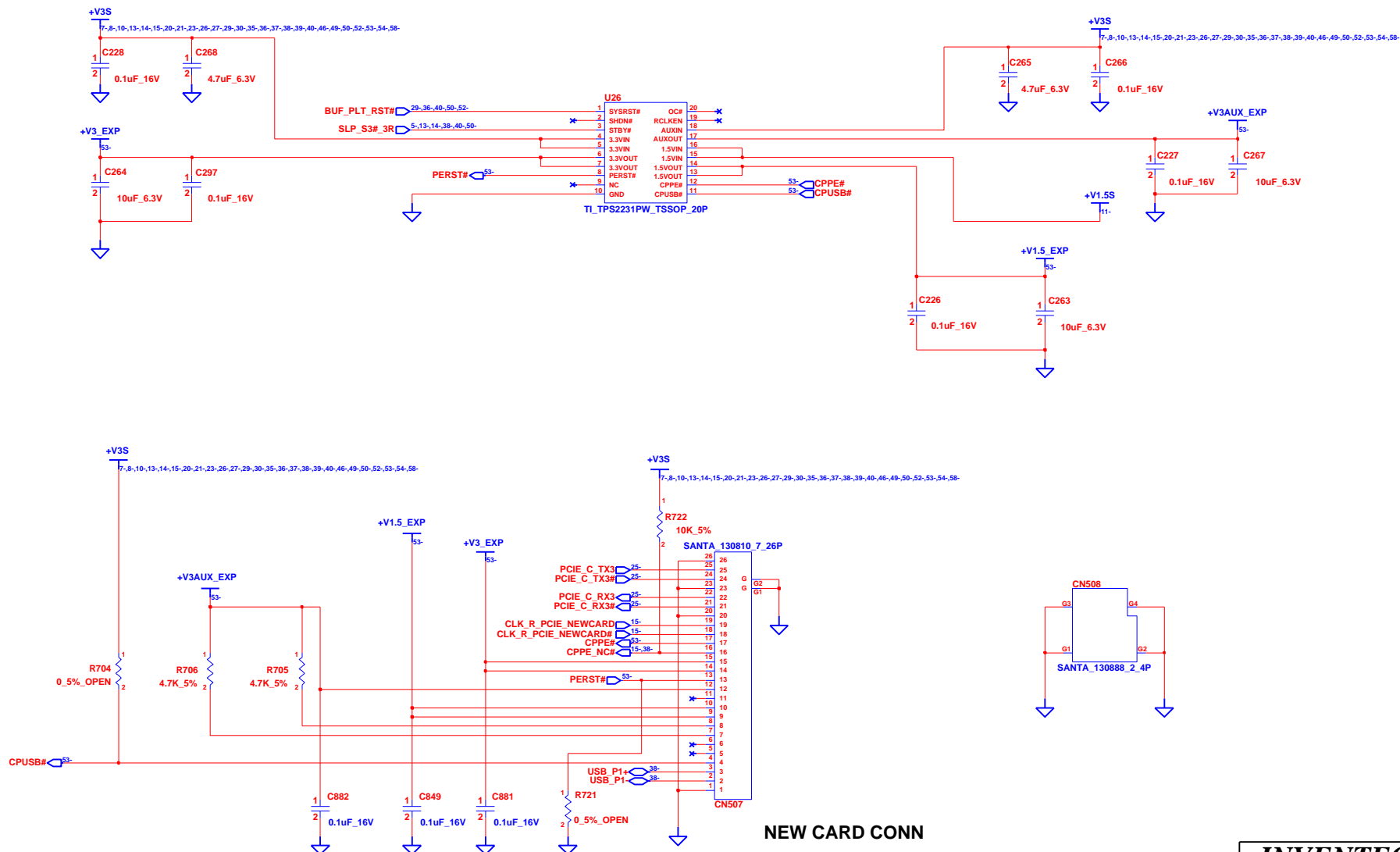
BLUETOOTH CNTR

INVENTEC

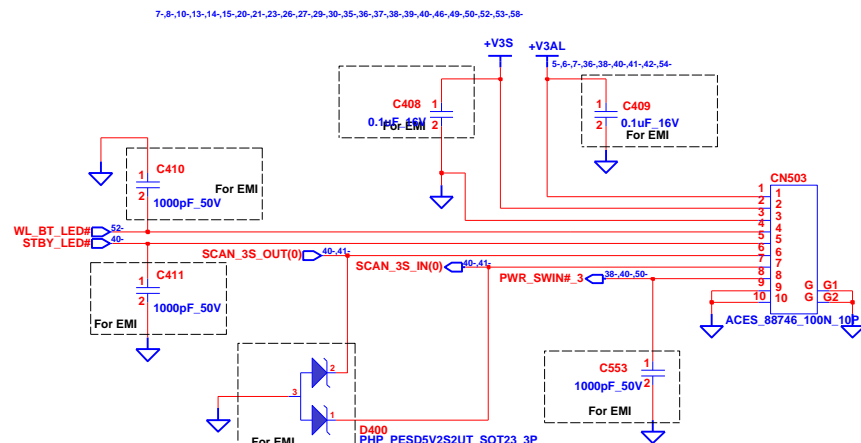
TITLE: VV09 AMD-DIS MINICARD & BT CONN

SIZE: A3 CODE: CS DOC. NUMBER: 1310A22588-0-MTR REV: A03

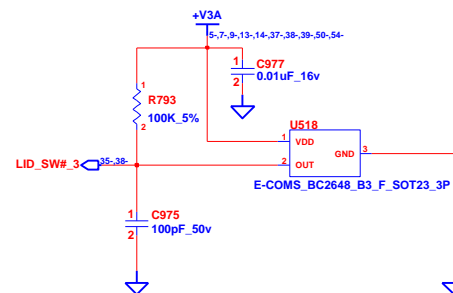
CHANGE by: EDI CHEN 16-Apr-2009 SHEET: 52 OF 58



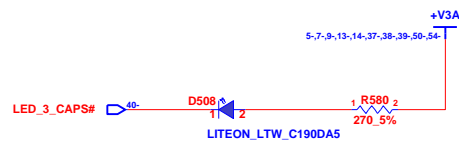
INVENTEC			
TITLE: VV09 AMD-DIS NEW CARD			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22588-0-MTR	REV: A03
CHANGE by: EDI CHEN		16-Apr-2009	
SHEET: 53		OF: 58	



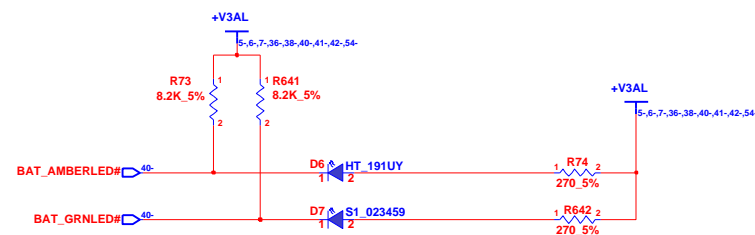
SWITCH DAUGHTER CONNECTOR



LID SWITCH

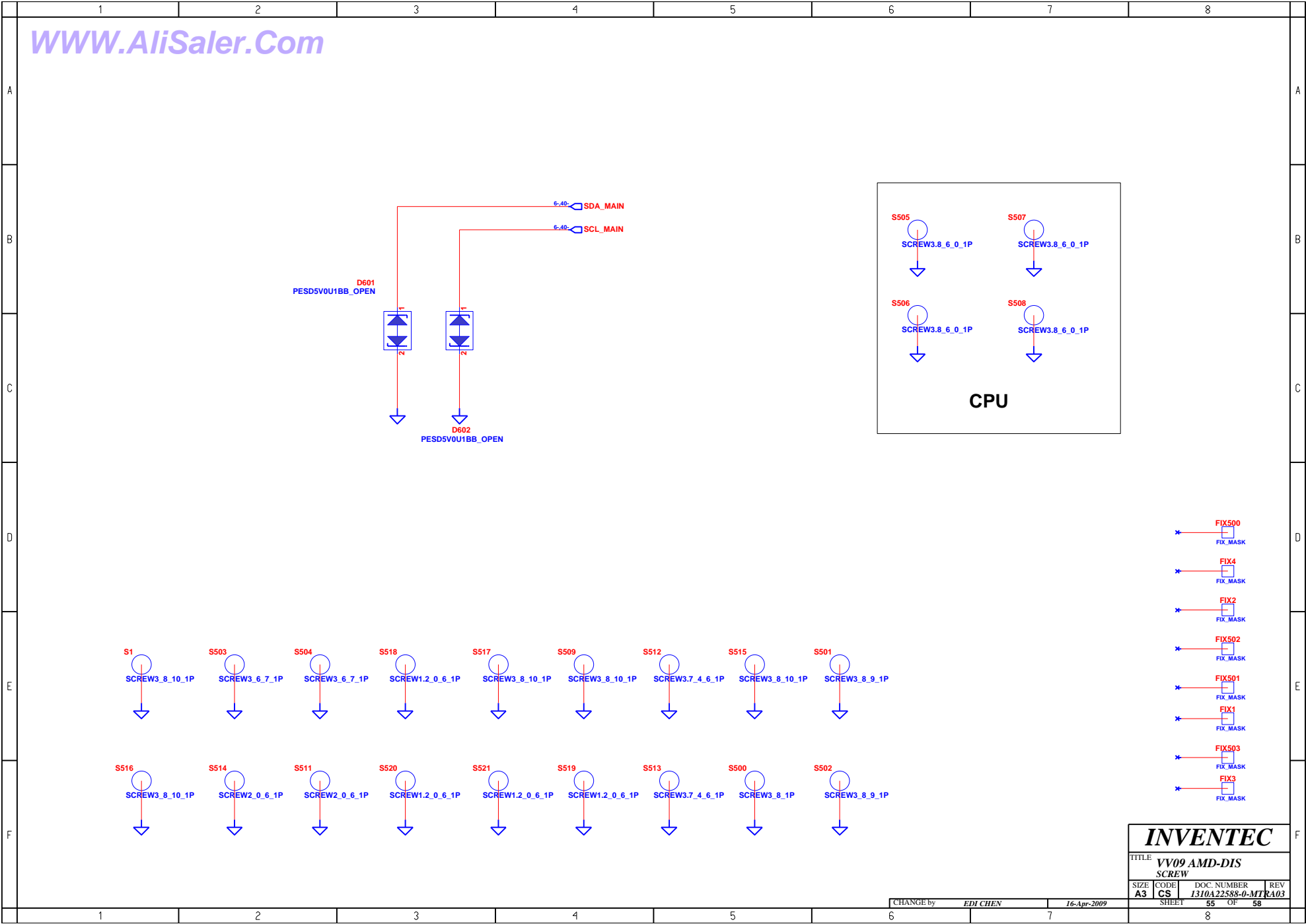


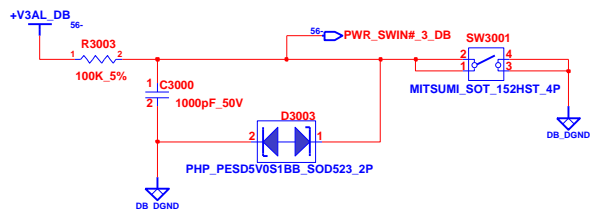
CAP LED



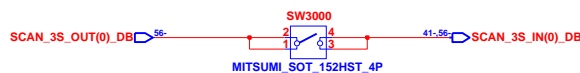
BATTERY-CHARGE LED

INVENTEC			
TITLE VV09 AMD-DIS BUTTON & LED			
SIZE A3	CODE CS	DOC. NUMBER 1310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 54		OF 58	

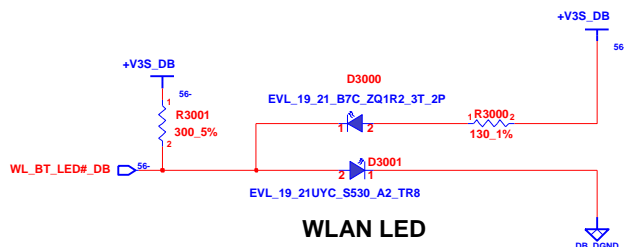




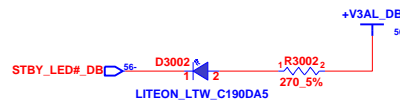
POWER BUTTON



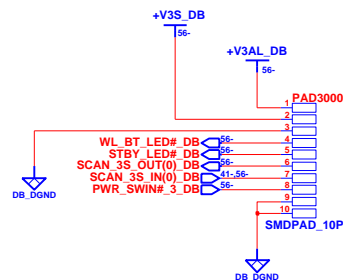
WIRELESS BUTTON



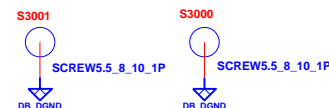
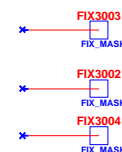
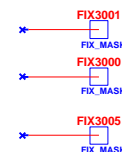
WLAN LED



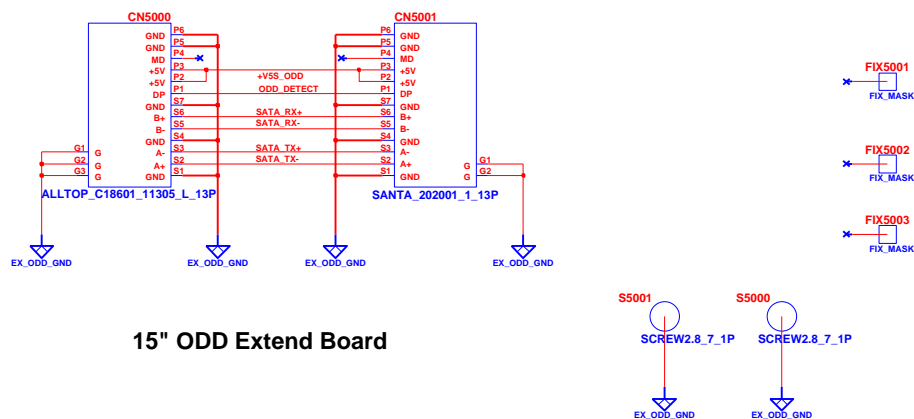
POWER / STANDBY LED



LED&SWITCH BOARD



INVENTEC			
TITLE VV09 AMD-DIS SWITCH Board			
SIZE A3	CODE CS	DOC. NUMBER 1310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	SHEET 56 OF 58



INVENTEC			
TITLE VV09 AMD-DIS 15" ODD Extend Board			
SIZE A3	CODE CS	DOC. NUMBER 1310A22588-0-MTR	REV A03
CHANGE by EDI CHEN		16-Apr-2009	
SHEET 57		OF 58	

