

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F

ASPEN

UMA MV - BUILD

FINAL BUILD 2004.12.13

DATE	CHANGE NO.	REV
1		2

DRAWER	EE	DATE	POWER	DATE	INVENTEC			
DESIGN								
CHECK								
RESPONSIBLE								
SIZE = 3					VER :			
FILE NAME : XXXX-XXXXXX-XX					SIZE A3	CODE CS	DOC. NUMBER	REV
P/N XXXXXXXXXXXX					SHEET 1 OF 8			

TABLE OF CONTENTS

PAGE
5- DC& BATTERY CHANGER
6- SELECT & BATTERY CONN
7- SYSTEM POWER(3V/5V/12V)
8- SYSTEM POWER(V1.2L/V2.5S)
9- SYSTEM POWER(VGAVCC/V1.5A)
10- D/B SYSTEM POWER(V1.8/VCCP)
11- CPU POWER(VCC_CORE)
12- SYSTEM POWER (V0.9)
13- POWER(SLEEP)
14- POWER(SEQUENCE)
15- CLOCK_GENERATOR
16- DOTHAN-1
17- DOTHAN-2
18- DOTHAN-3
19- DOTHAN-4
20- THERMAL&FAN CONTROLLER
21- ALVISO-1
22- ALVISO-2
23- ALVISO-3
24- ALVISO-4
25- ALVISO-5
26- DDR2-DIMM0
27- DDR2-DIMM1
28- DDR2-DAMPING

PAGE
29- DVI-CONTROLLER
30- BLANK
31- BLANK
32- BLANK
33- BLANK
34- BLANK
35- CRT& SVEDIO CONN
36- LCD CONN
37- ICH6-1
38- ICH6-2
39- ICH6-3
40- ICH6-4
41- ICH6-5
42- KBC
43- FWH
44- INT.KBC/POINT DEVICES
45- SUPER I/O
46- SERIAL PORT (SERIAL DAUGHTER BOARD)
47- BLANK
48- AC97 CODEC
49- EQ&MIC JACK (USB DAUGHTER BOARD)
50- AUDIO AMP&HP JACK

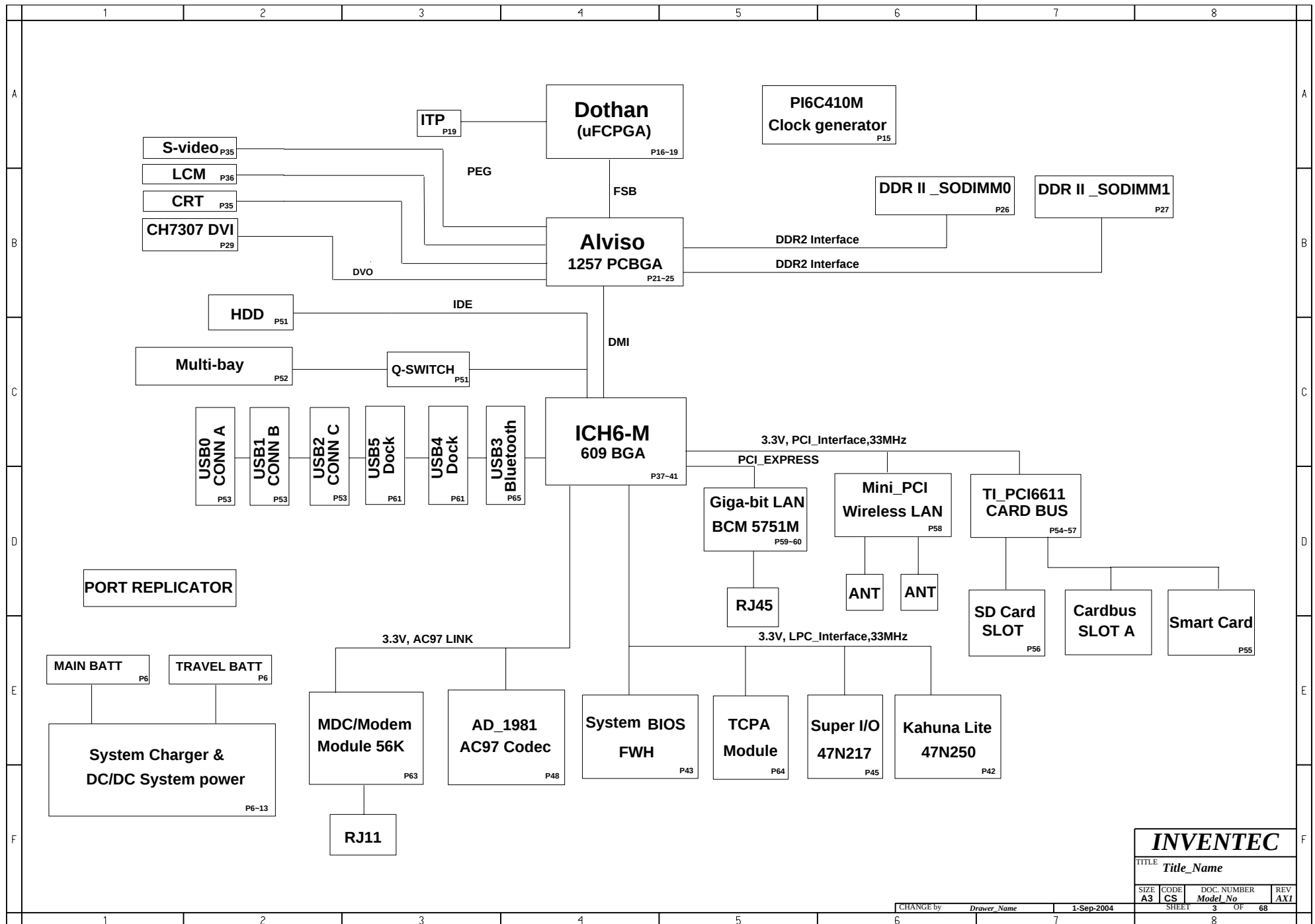
PAGE
51- HDD CONN
52- MULTIBAY CONN
53- USB&IR CONN (USB DAUGHTER BOARD)
54- CARDBUS CONTROLL
55- PC CARD SLOT
56- SD CARD CONN
57- BLANK
58- MINIPCI CONN
59- LAN INTERFACE-1
60- LAN RJ45 CONN
61- DOCKING CONN
62- SCREW
63- MDC CONN
64- TCPA CONN
65- BLUETOOTH
66- LED / LID_SWITCH
67- LED BOARD / CNN (LED DAUGHTER BOARD)

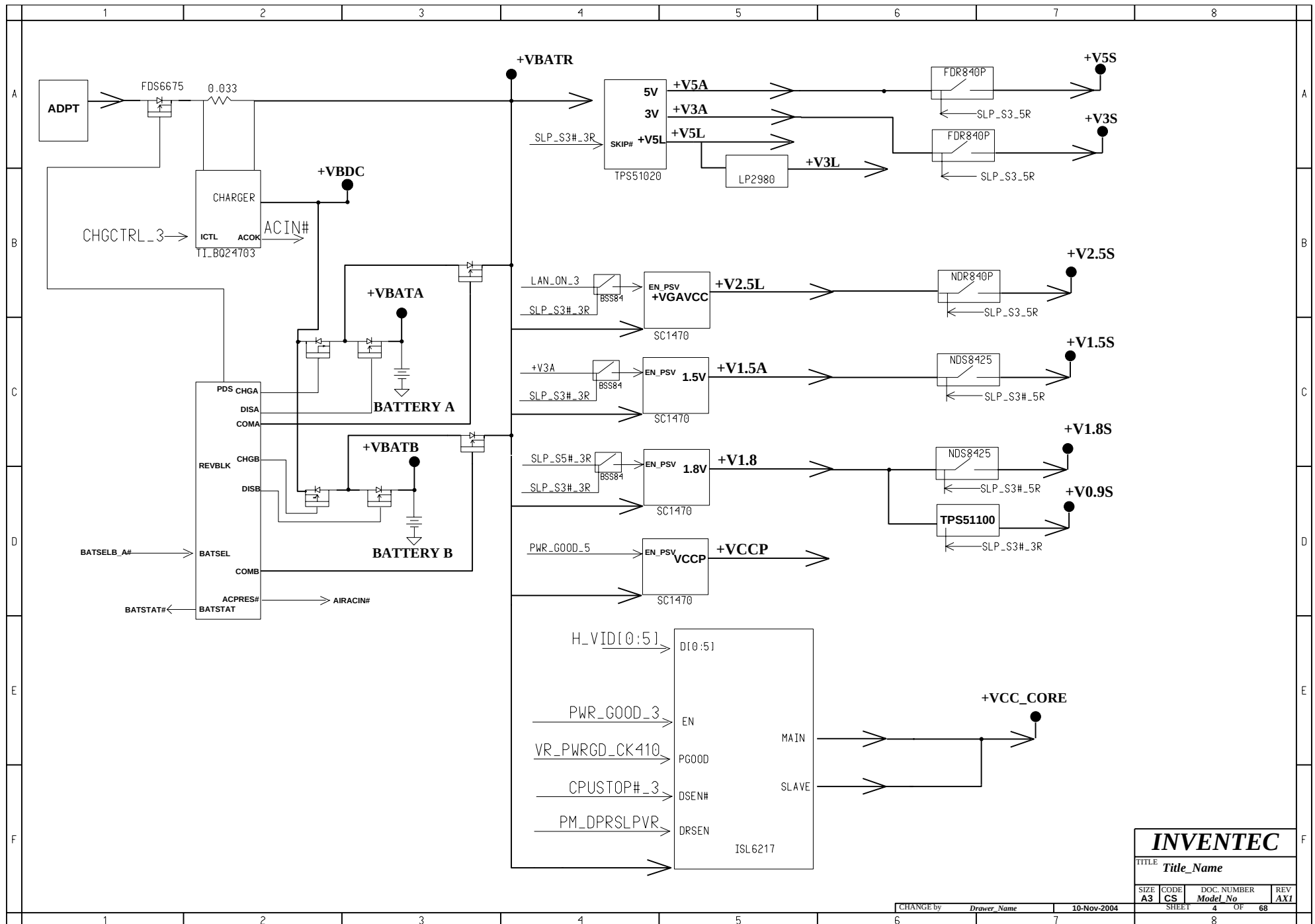
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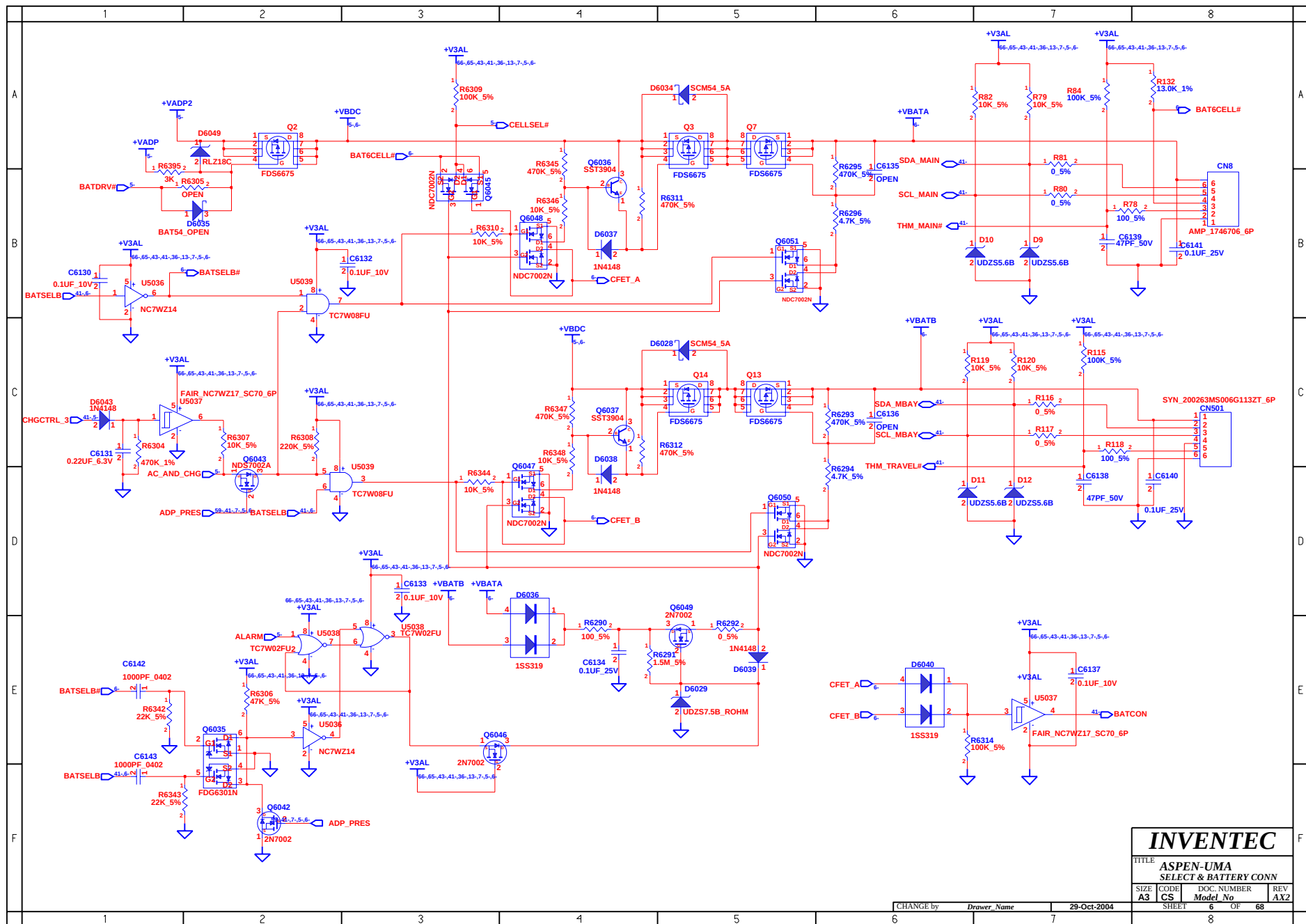
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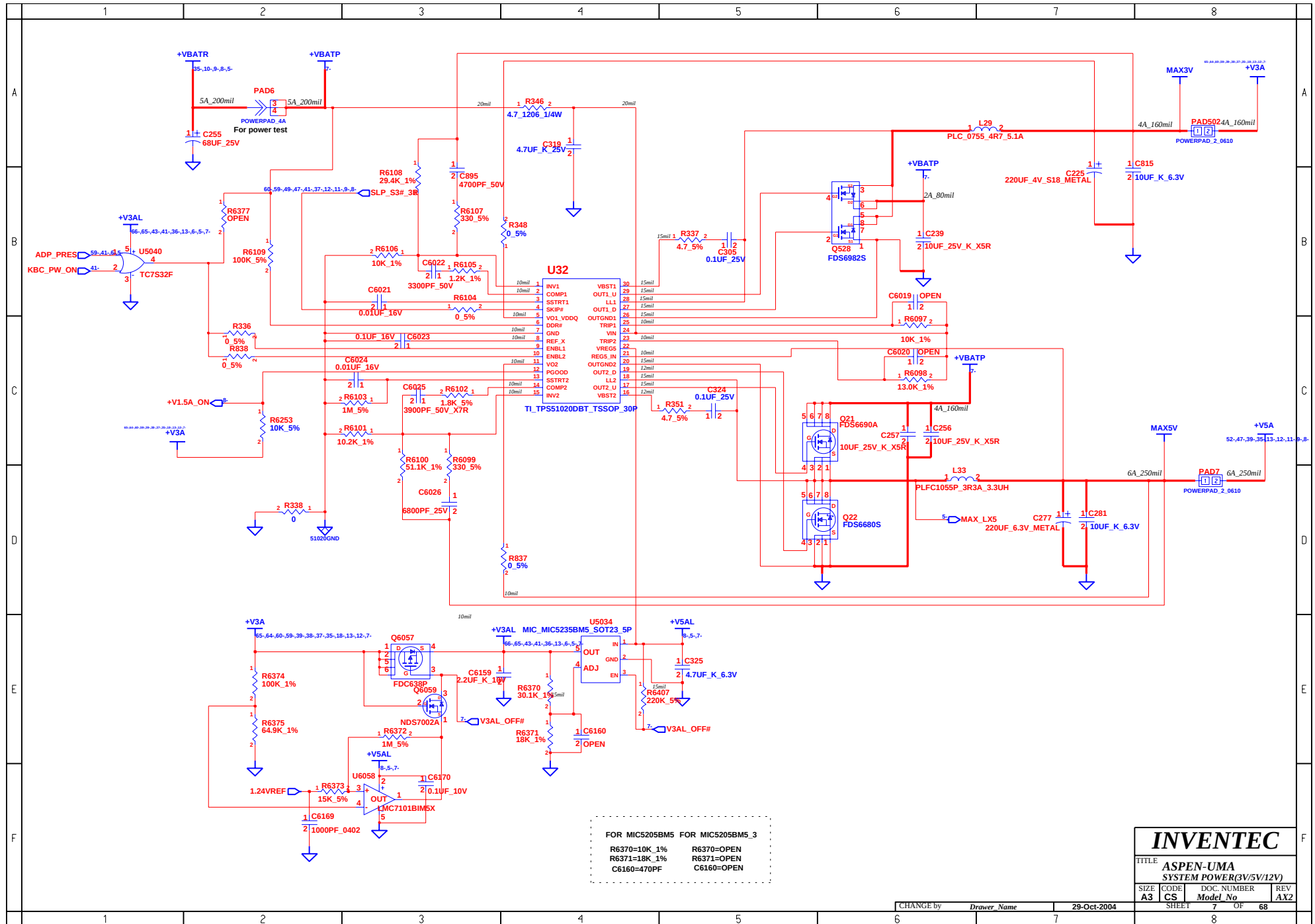
CHANGE by *Drawn Name* 1-Sep-2004

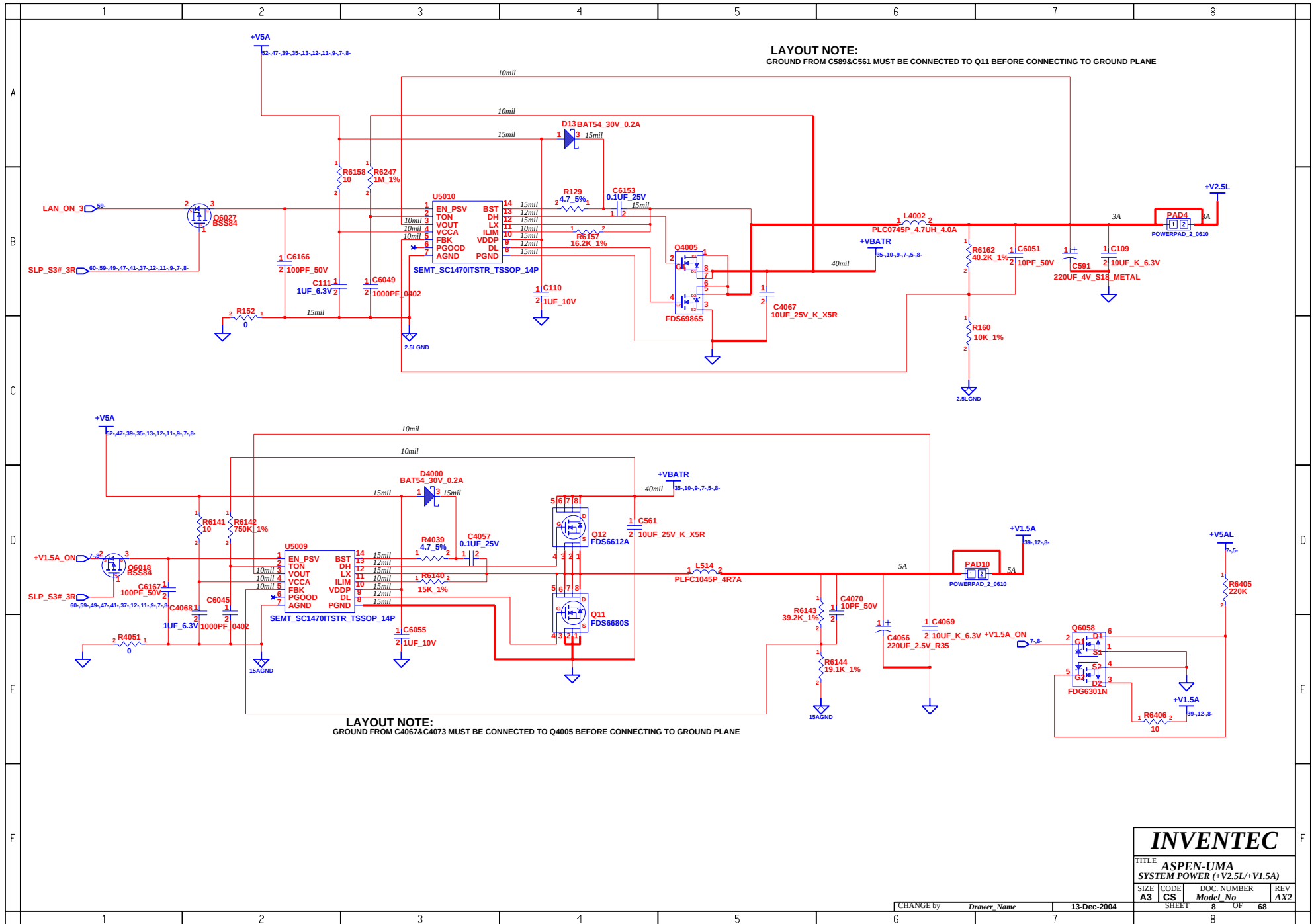
SHEET 2 OF 68

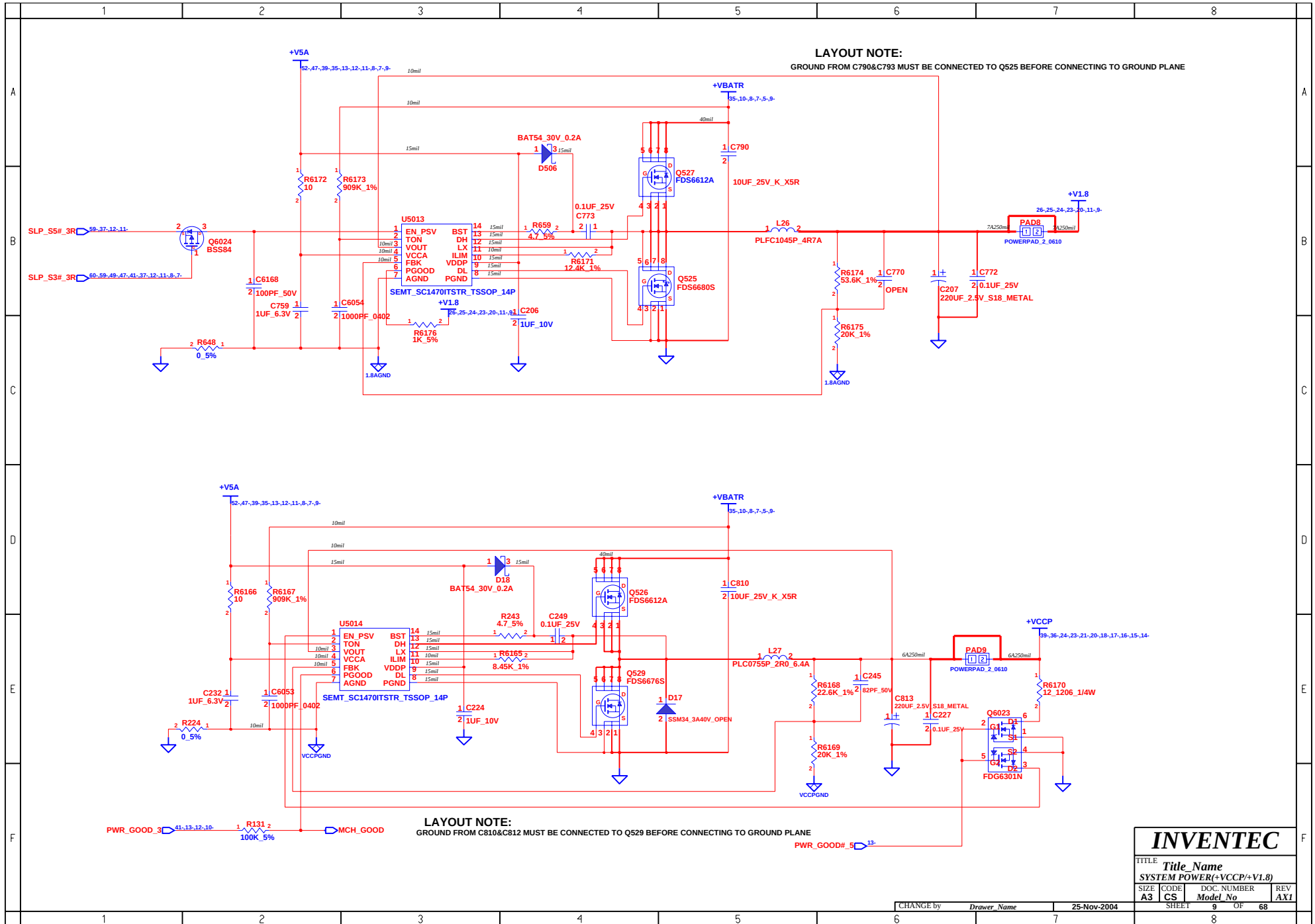


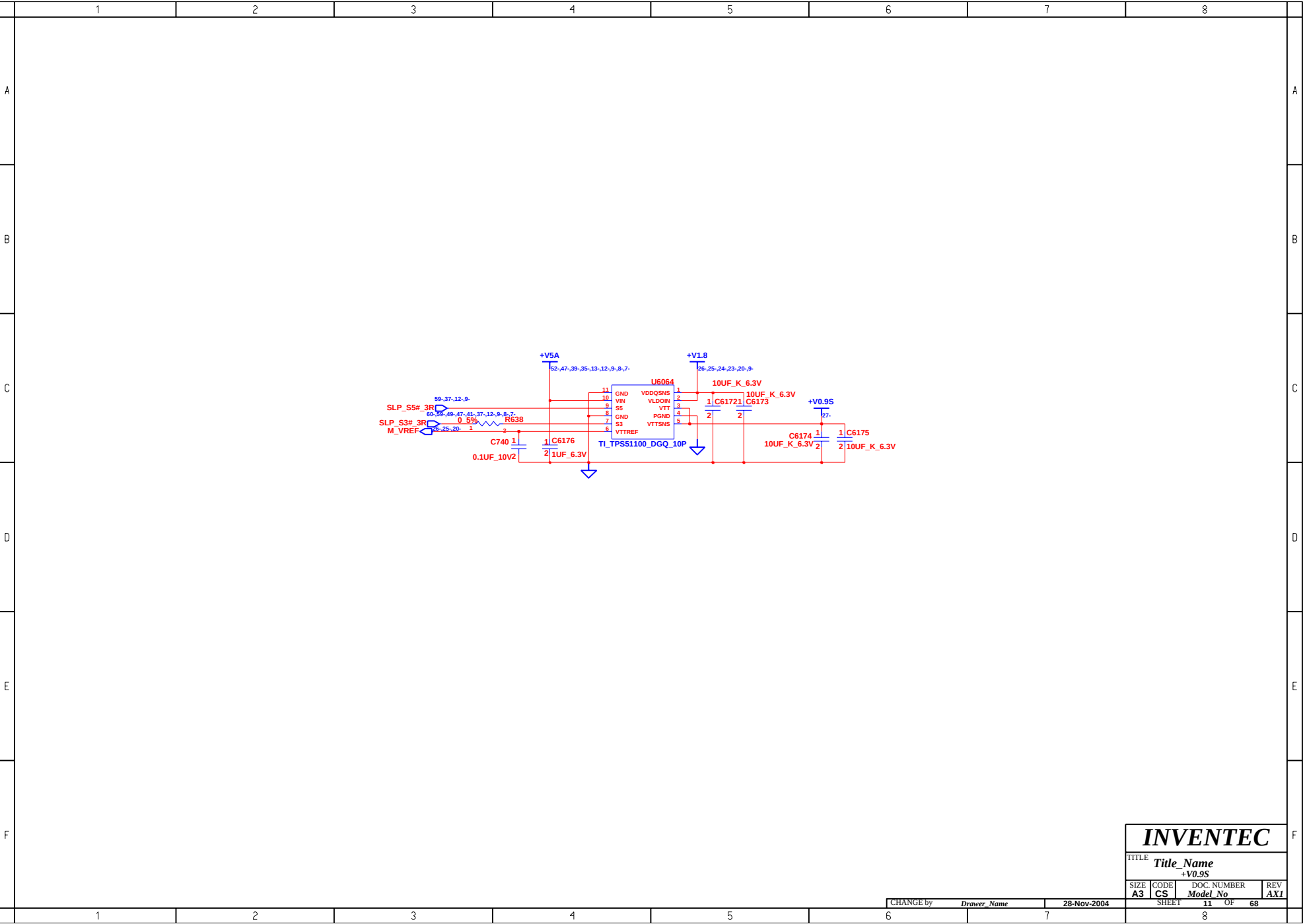










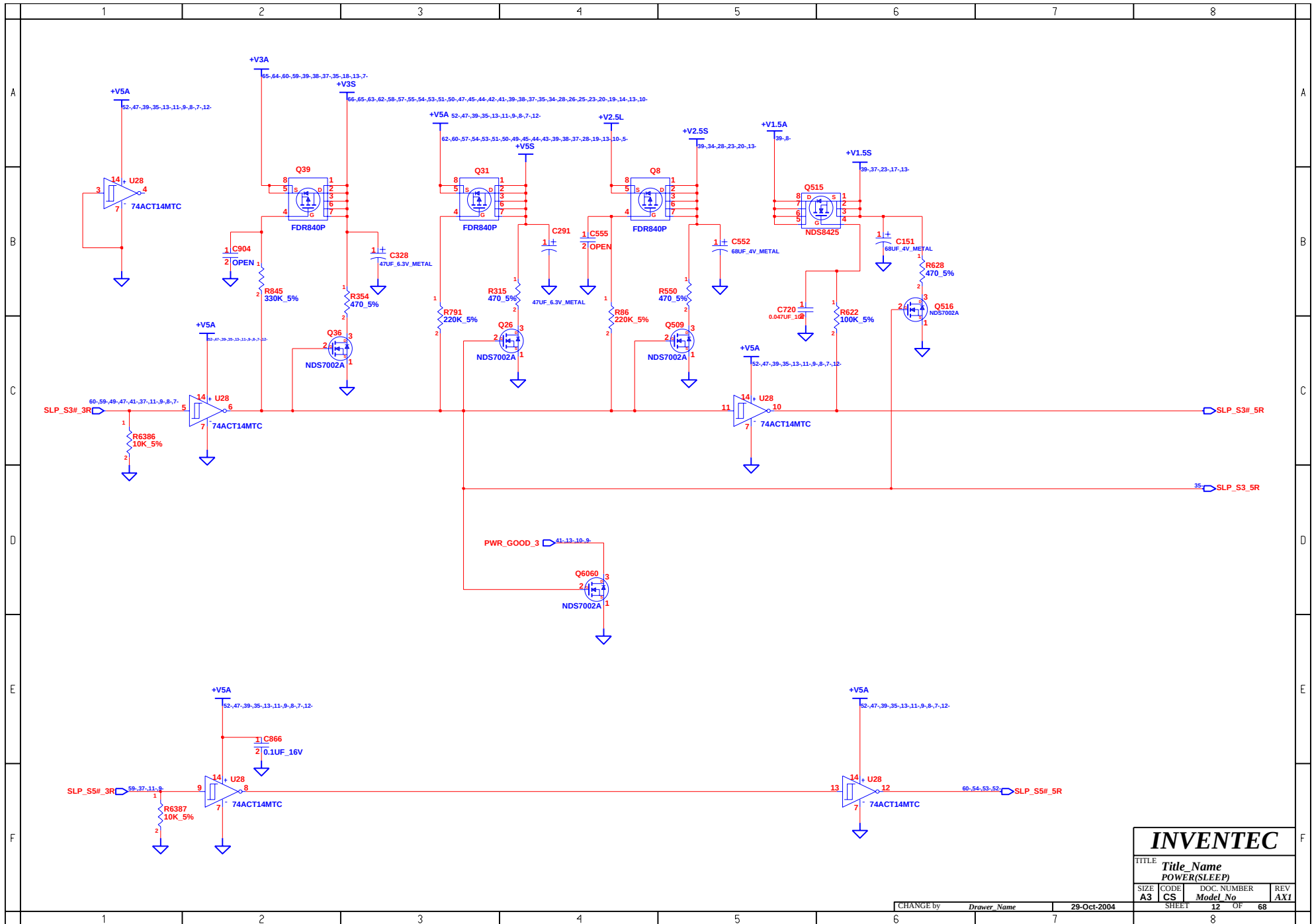


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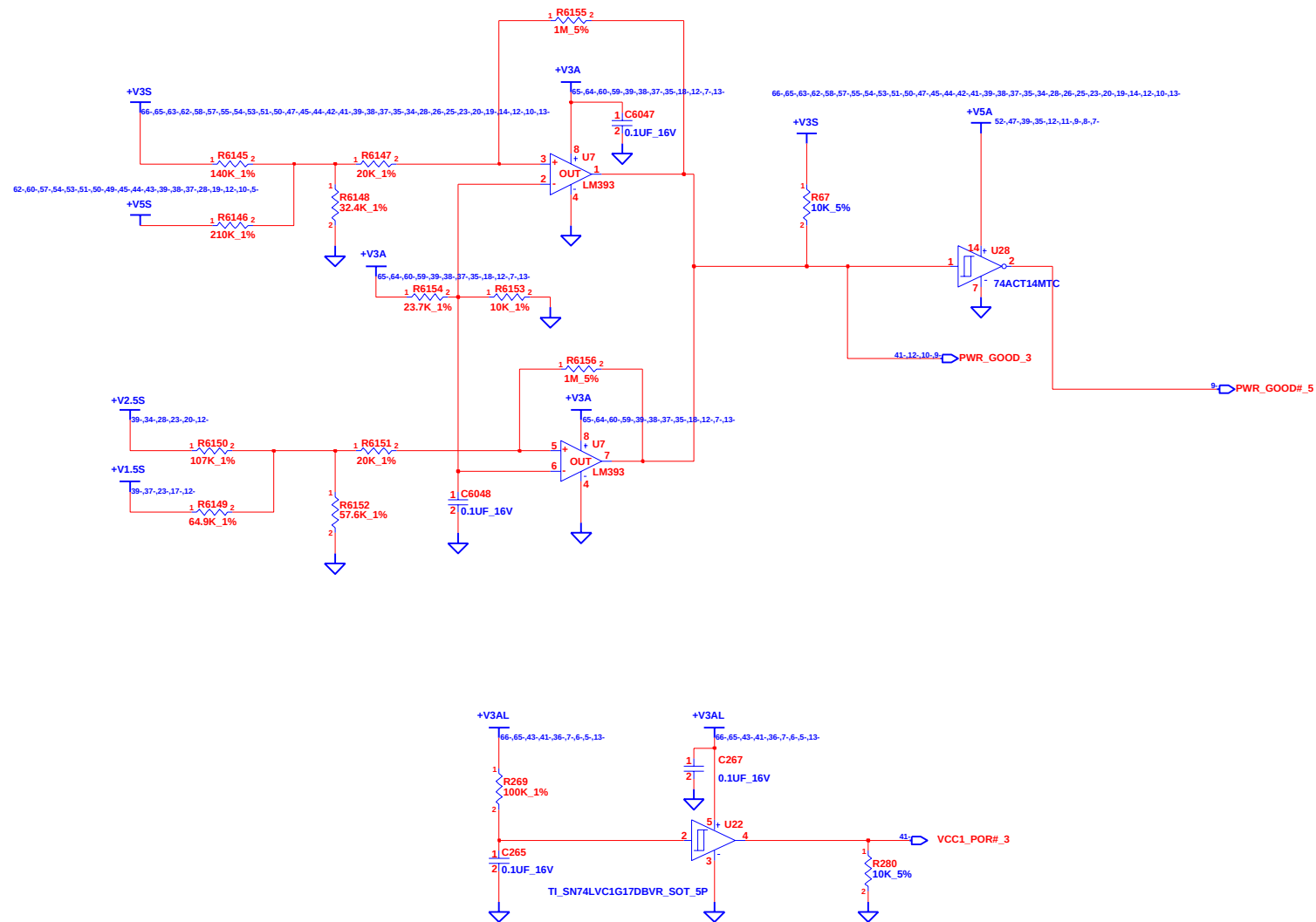
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Title_Name			
+V0.9S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX1

CHANGE by: *Drawn Name* 28-Nov-2004

SHEET 11 OF 68

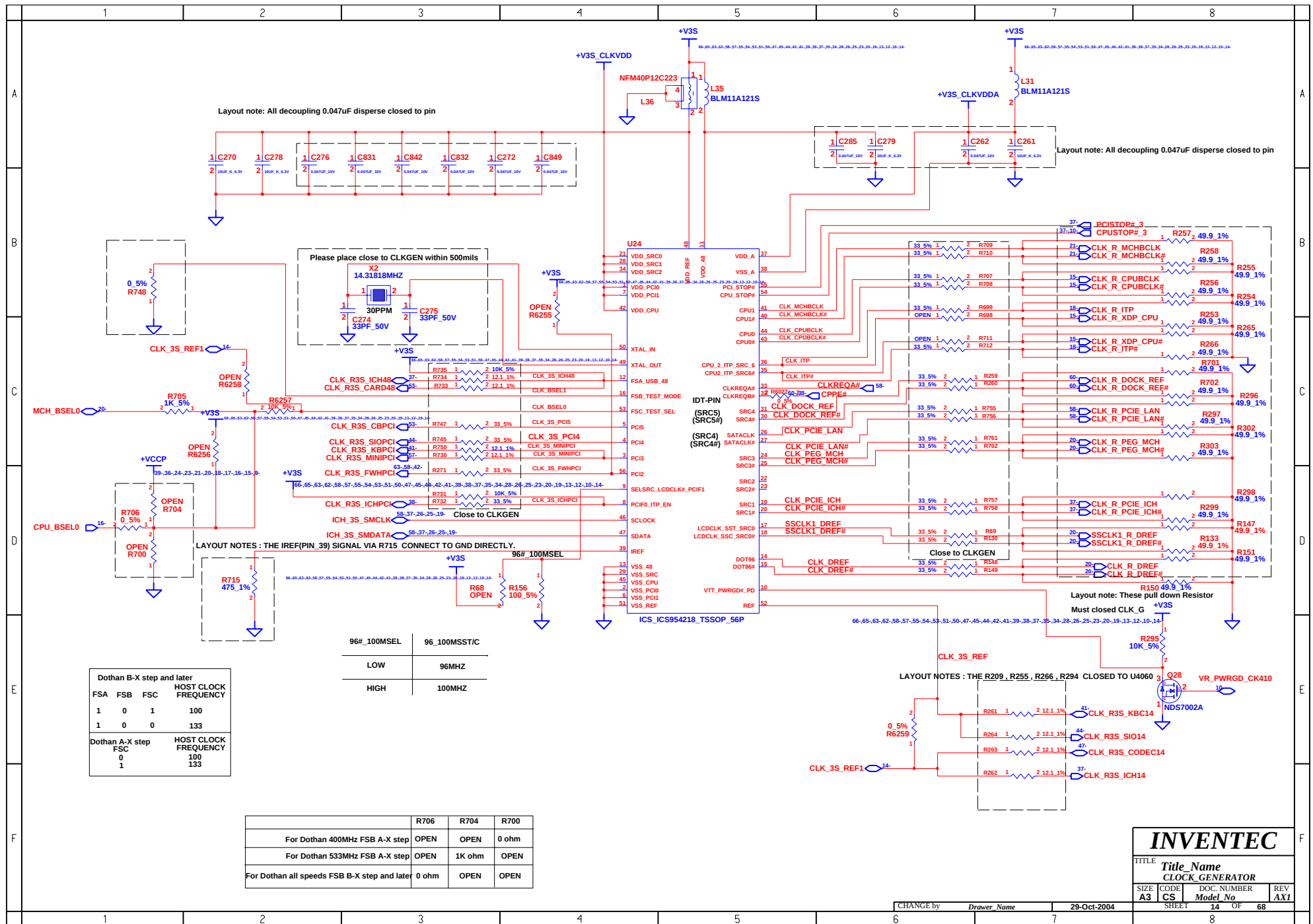


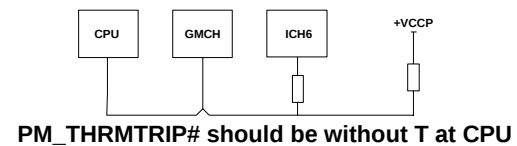
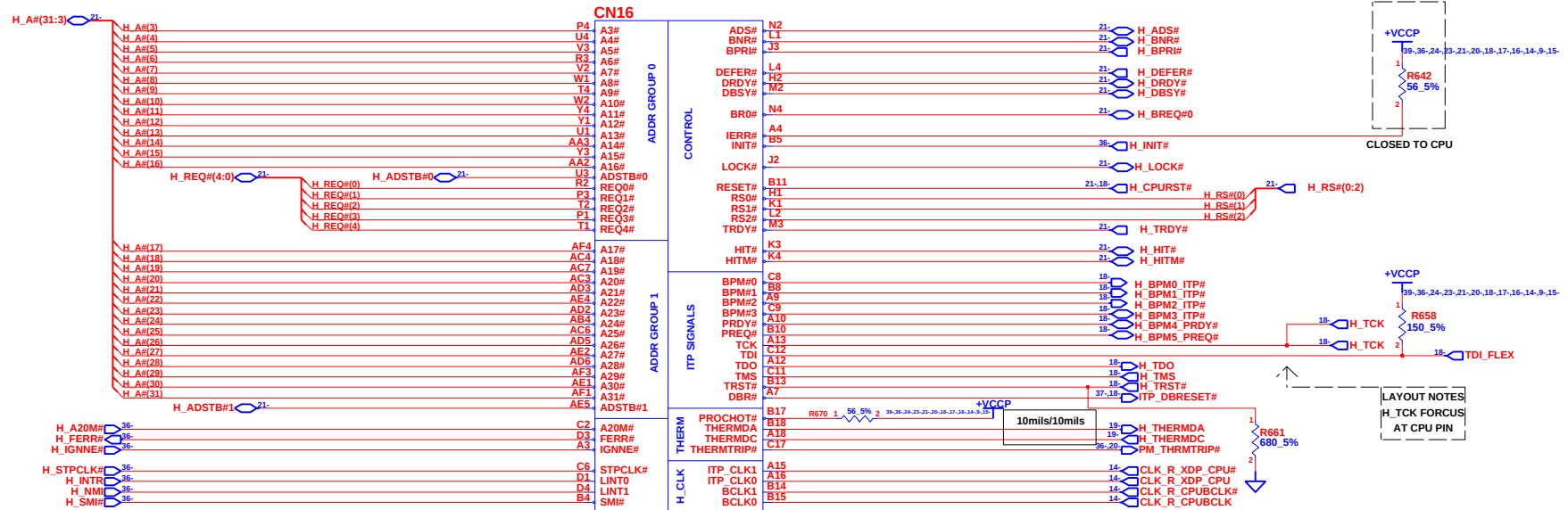
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CHANGE by Drawer Name		29-Oct-2004		
SHEET 12		OF 68		

**INVENTEC**

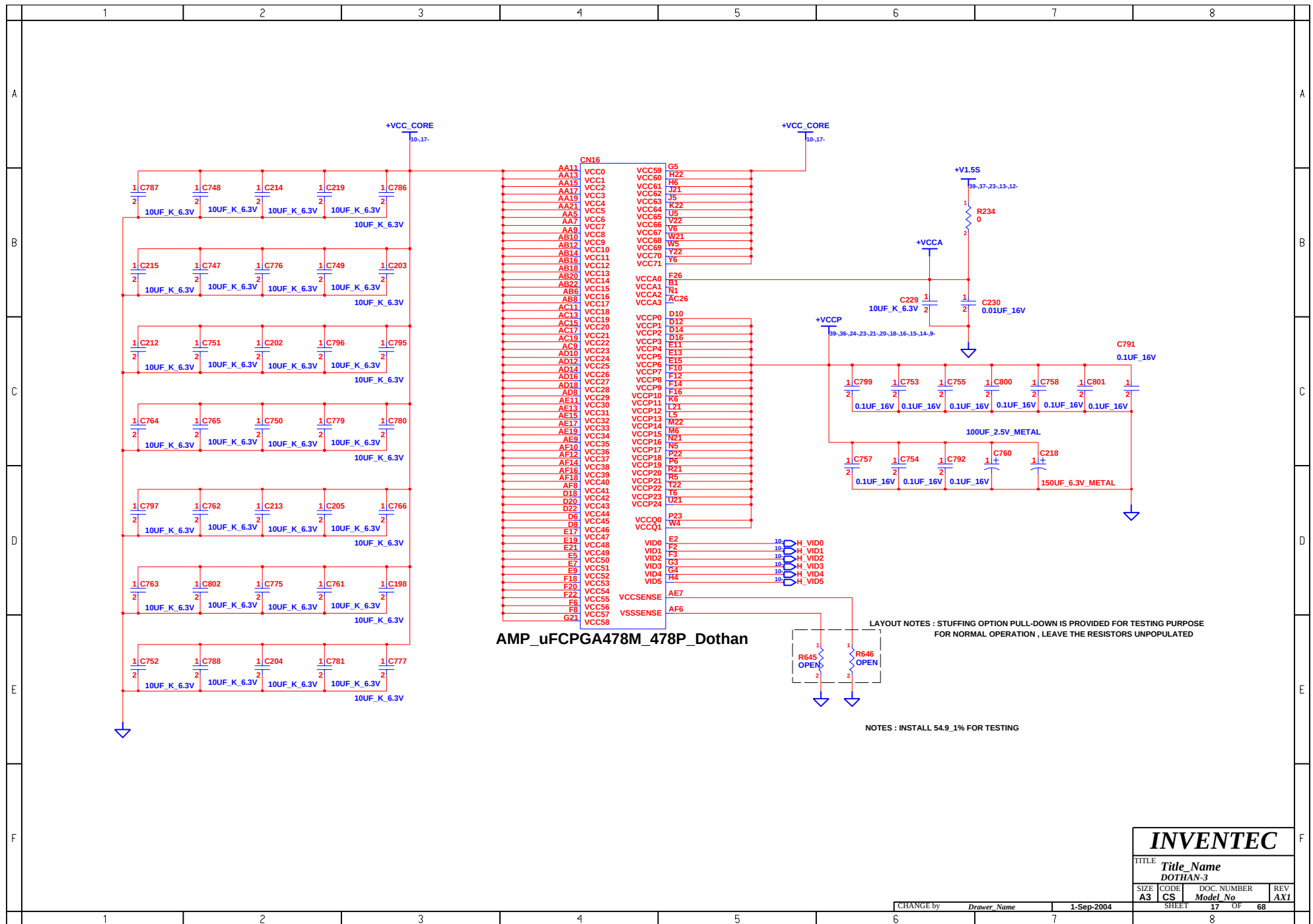
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Title_Name			
POWER(SEQUENCE)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AXI
SHEET		13	OF 68

CHANGE by: *Drawn Name* 10-Dec-2004




INVENTEC

TITLE			
Title Name			
DOTHAN-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AXI
CHANGE by		29-Oct-2004	
SHEET		15	OF 68

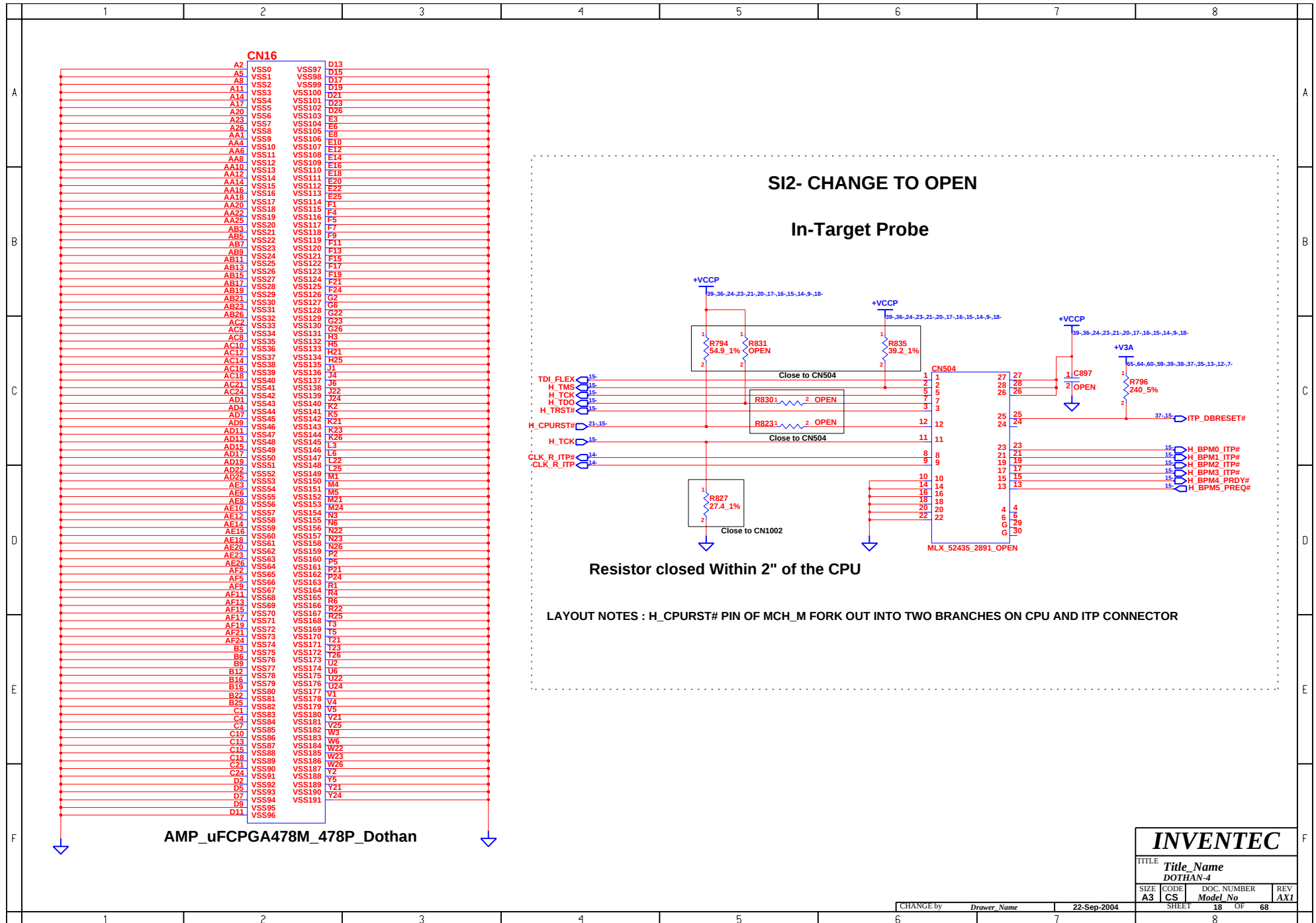


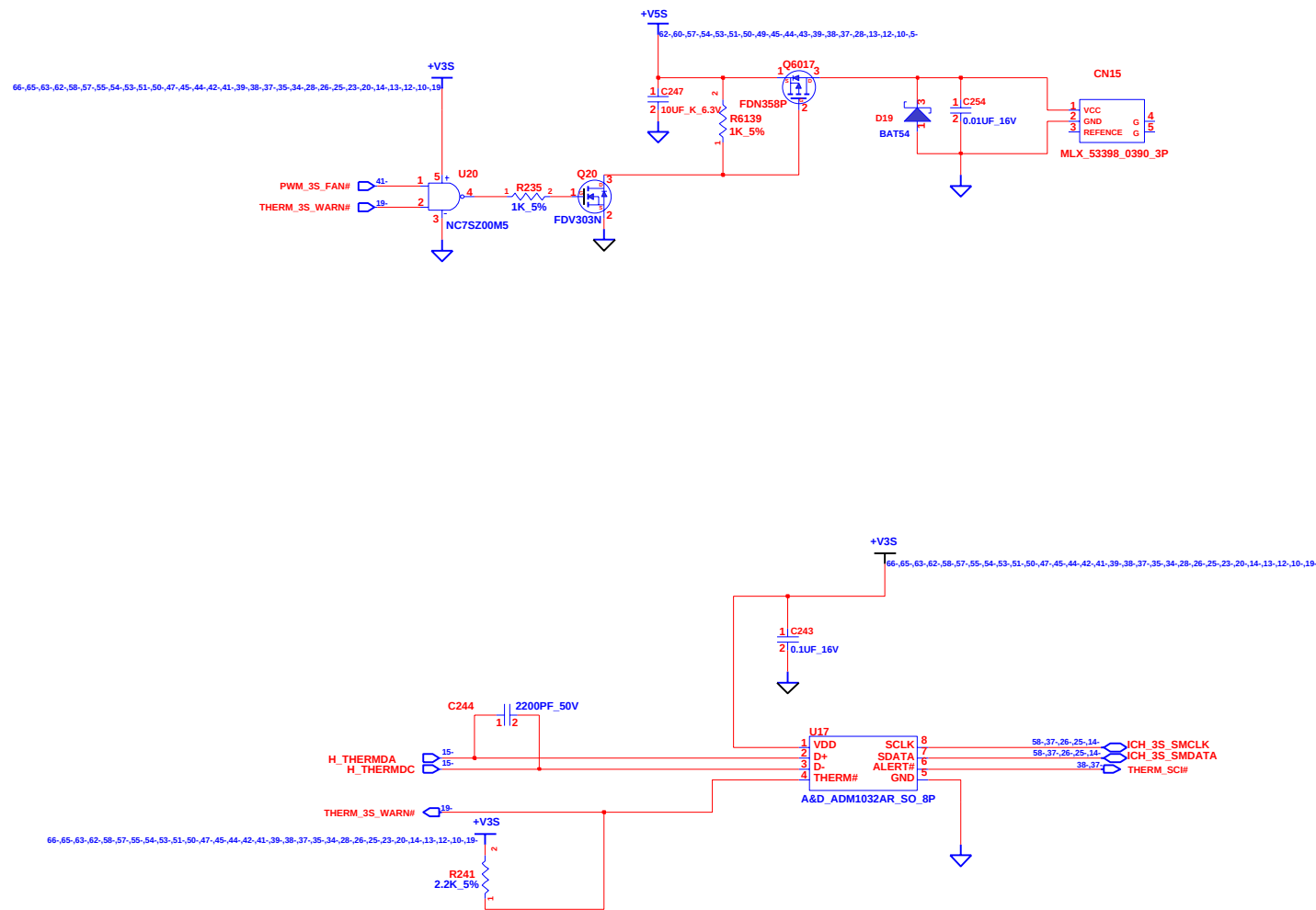
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX1

CHANGE by Drawer Name 1-Sep-2004

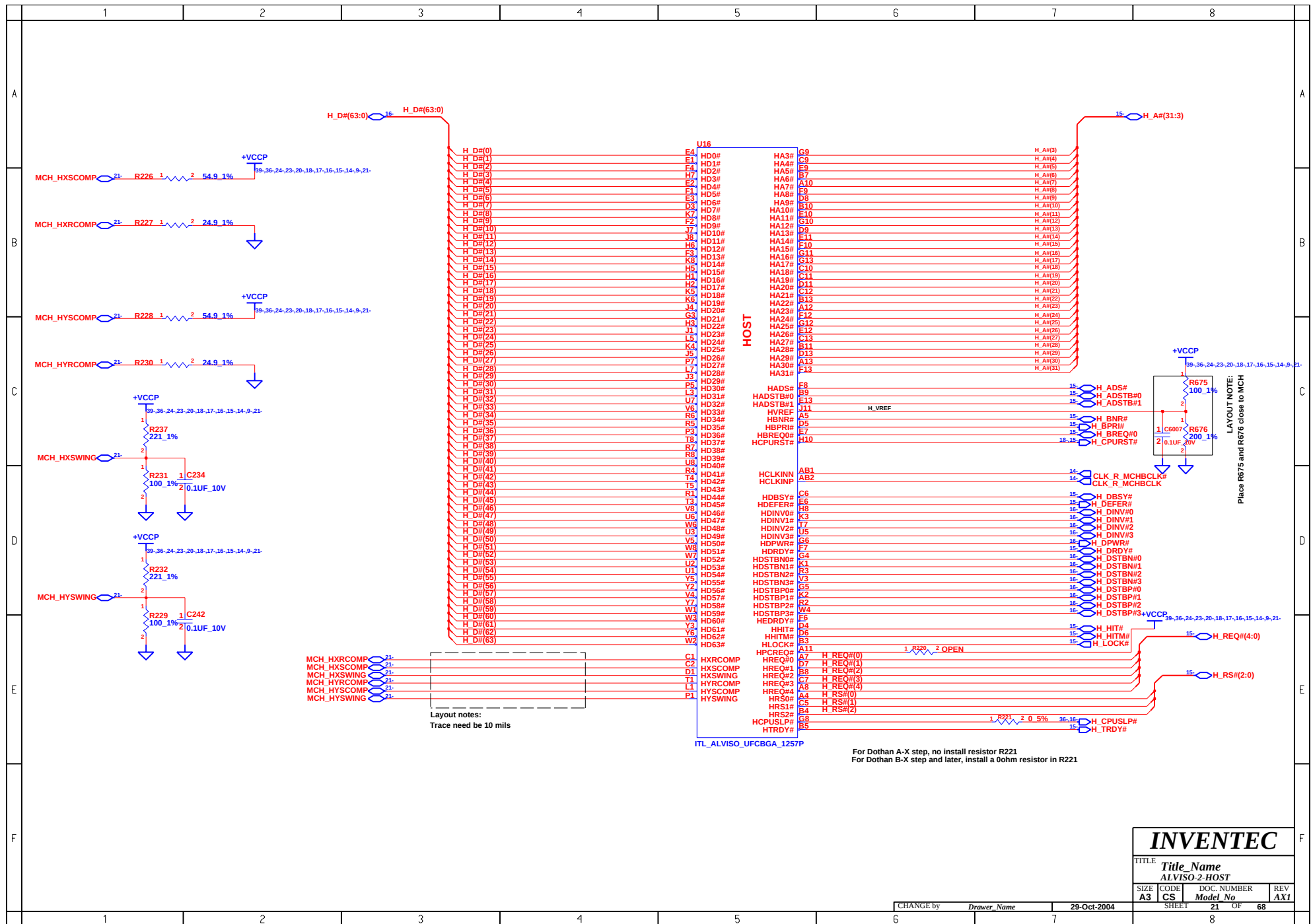
SHEET 17 OF 68

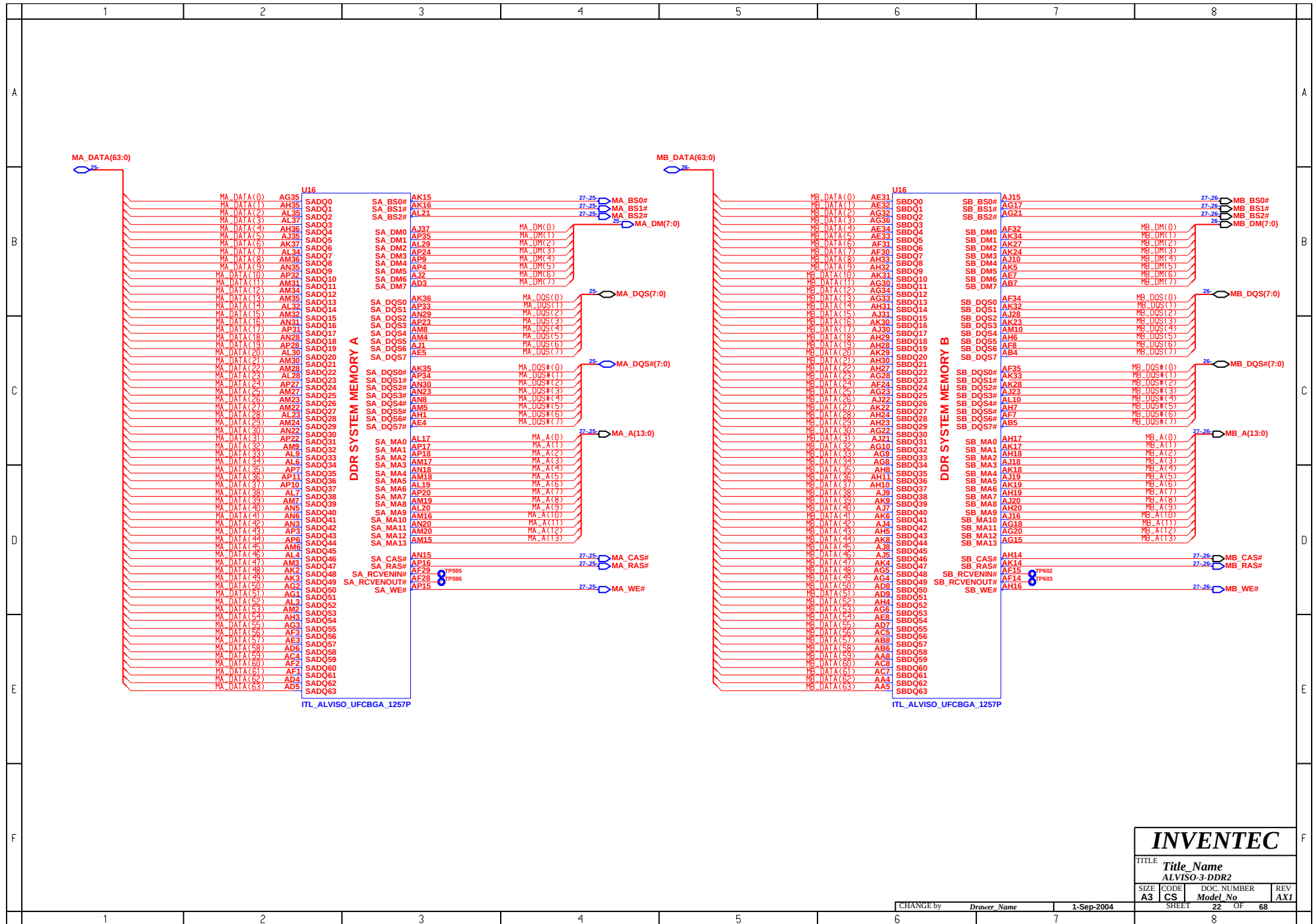




LAYOUT NOTES: PUT THE THERMAL SENSOR CLOSE TO CPU

INVENTEC			
TITLE			
Title_Name			
THERMAL&FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX1
CHANGE by		Drawer Name	5-Nov-2004
SHEET		19	OF 68



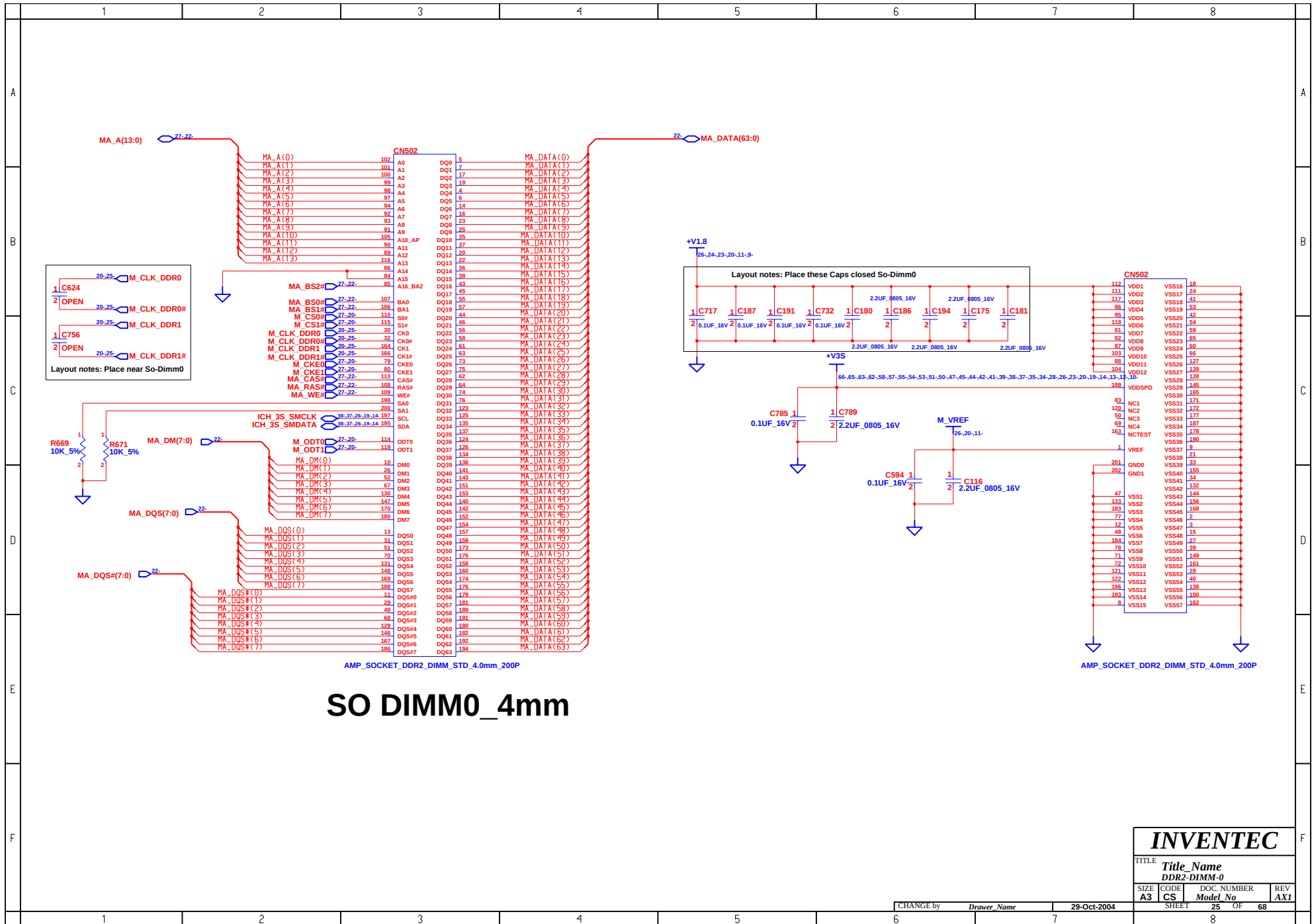


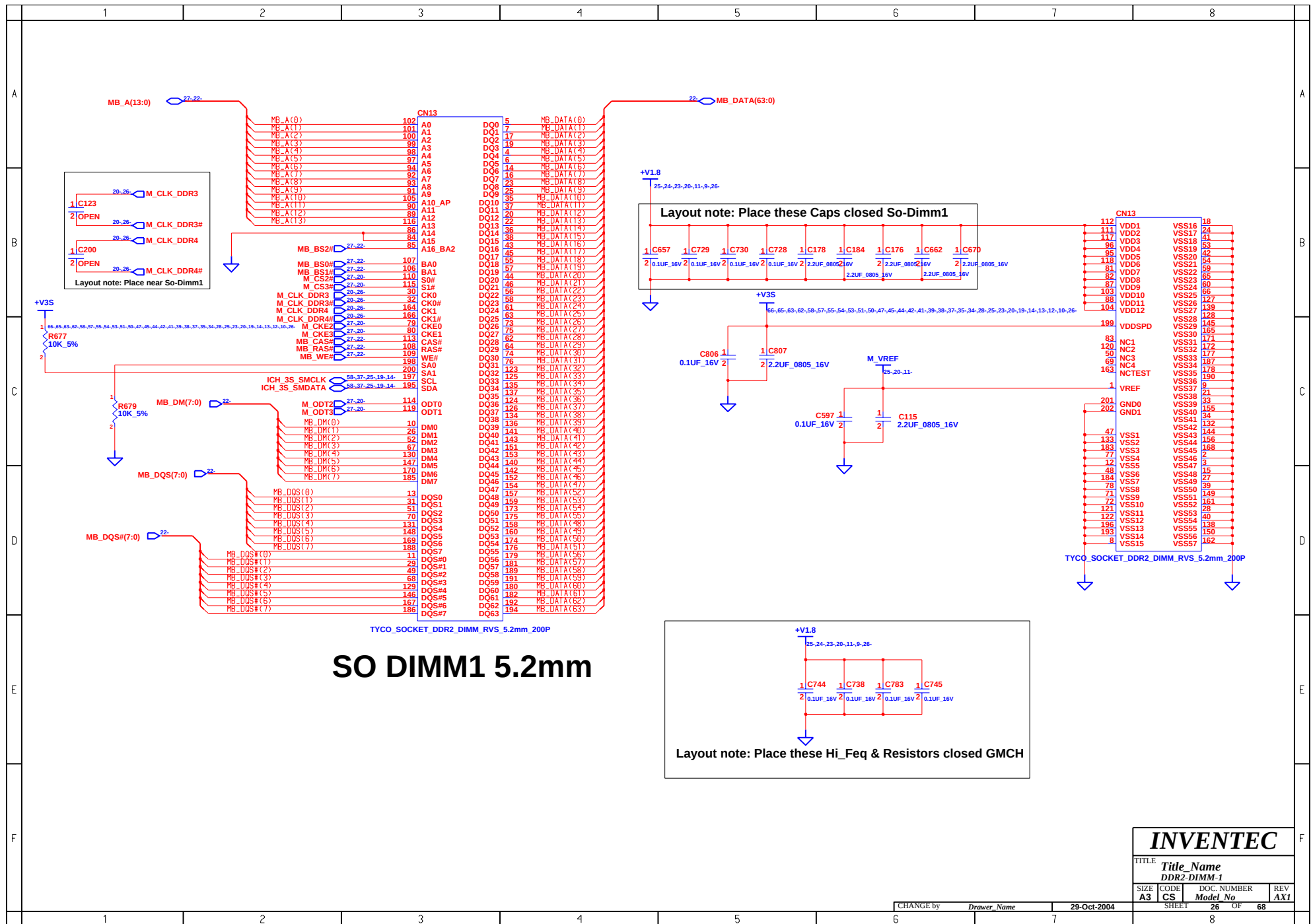
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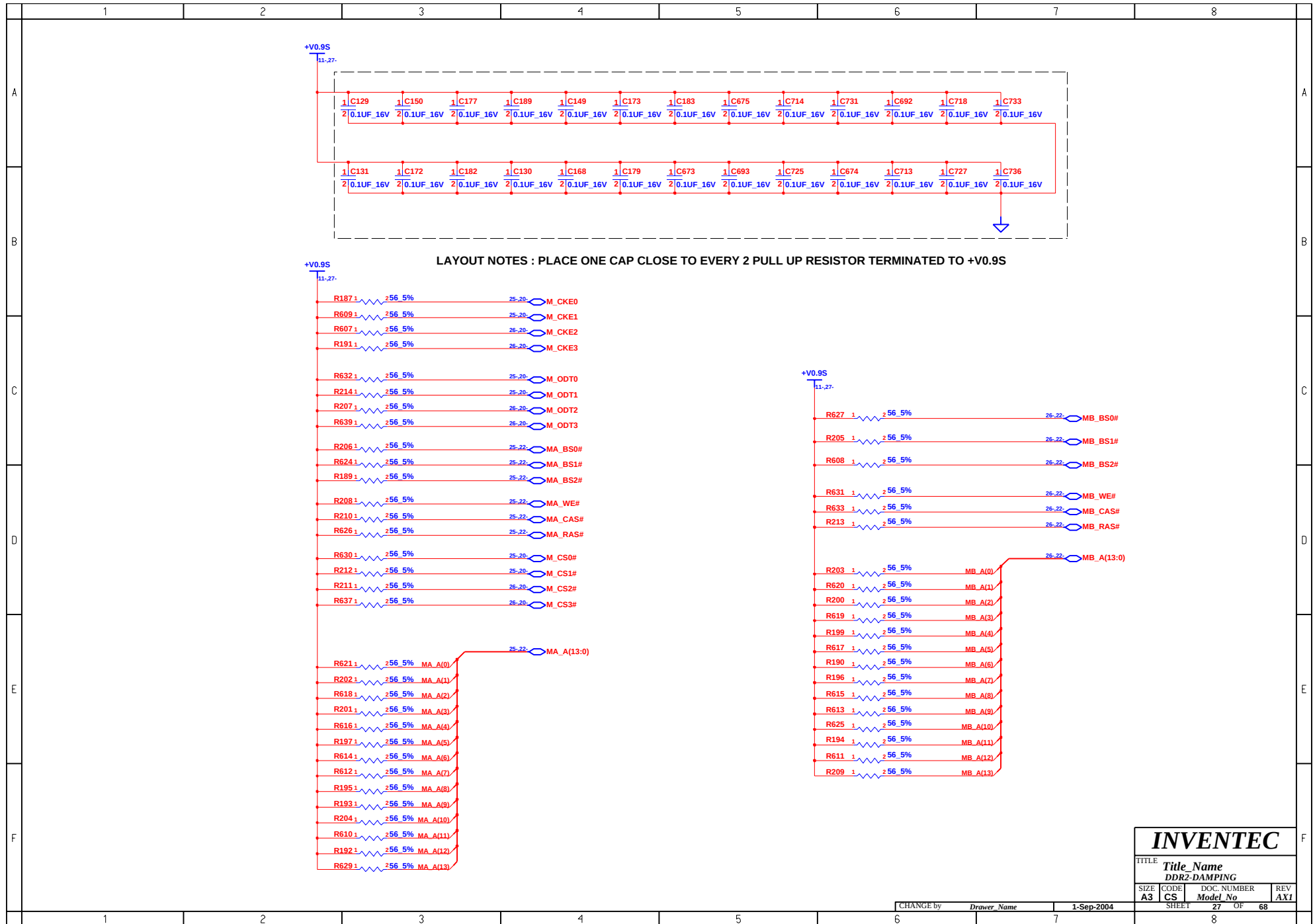
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A3	CS	Model No	AX1
SHEET		22	OF 68

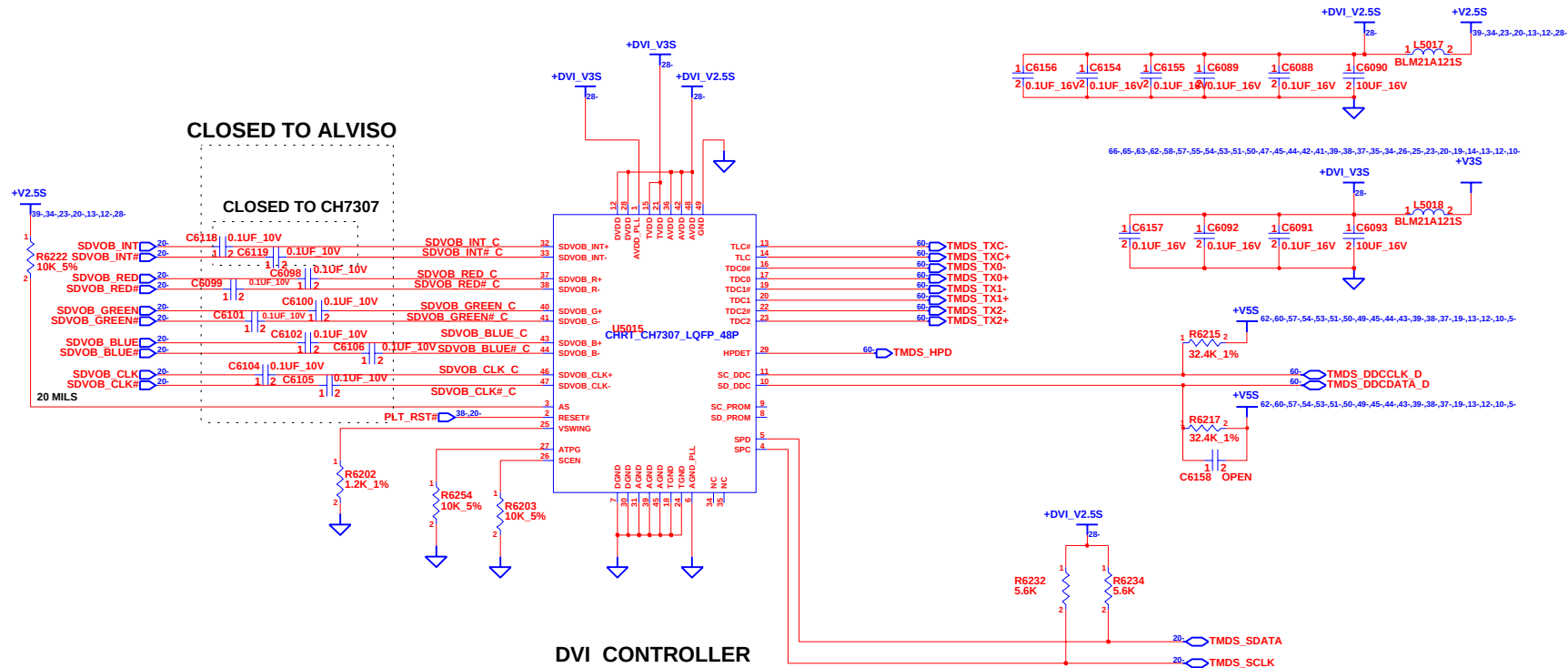
CHANGE by Draver Name 1-Sep-2004

8









DVI CONTROLLER

INVENTEC

TITLE
Title Name
DVI-CONTROL

SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX1
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CHANGE by Drawer Name 29-Oct-2004

SHEET 28 OF 68

	1	2	3	4	5	6	7	8	
A	BLANK								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE <i>Title_Name</i> ATI-M24-P-3			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX1
CHANGE by <i>Drawer_Name</i>		1-Sep-2004	
SHEET 29		OF 68	

	1	2	3	4	5	6	7	8	
A	BLANK								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE <i>Title_Name</i> <i>ATI-M24-P-4</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV AX1
CHANGE by <i>Drawn Name</i>		1-Sep-2004	
SHEET 30		OF 68	

	1	2	3	4	5	6	7	8	
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D									D
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F									F
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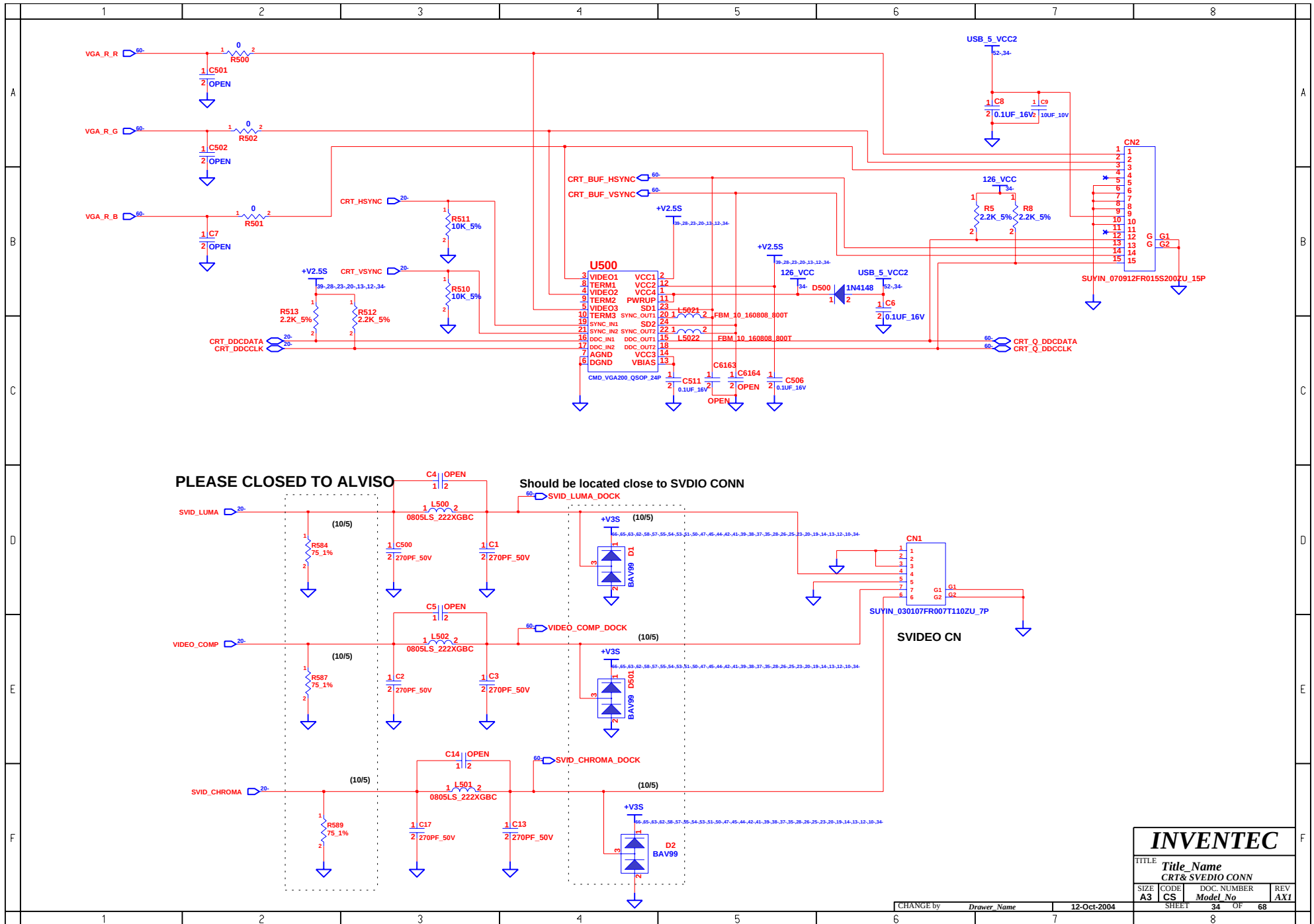
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VGA DAMPING RESISTOR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX1
SHEET		31	OF 68

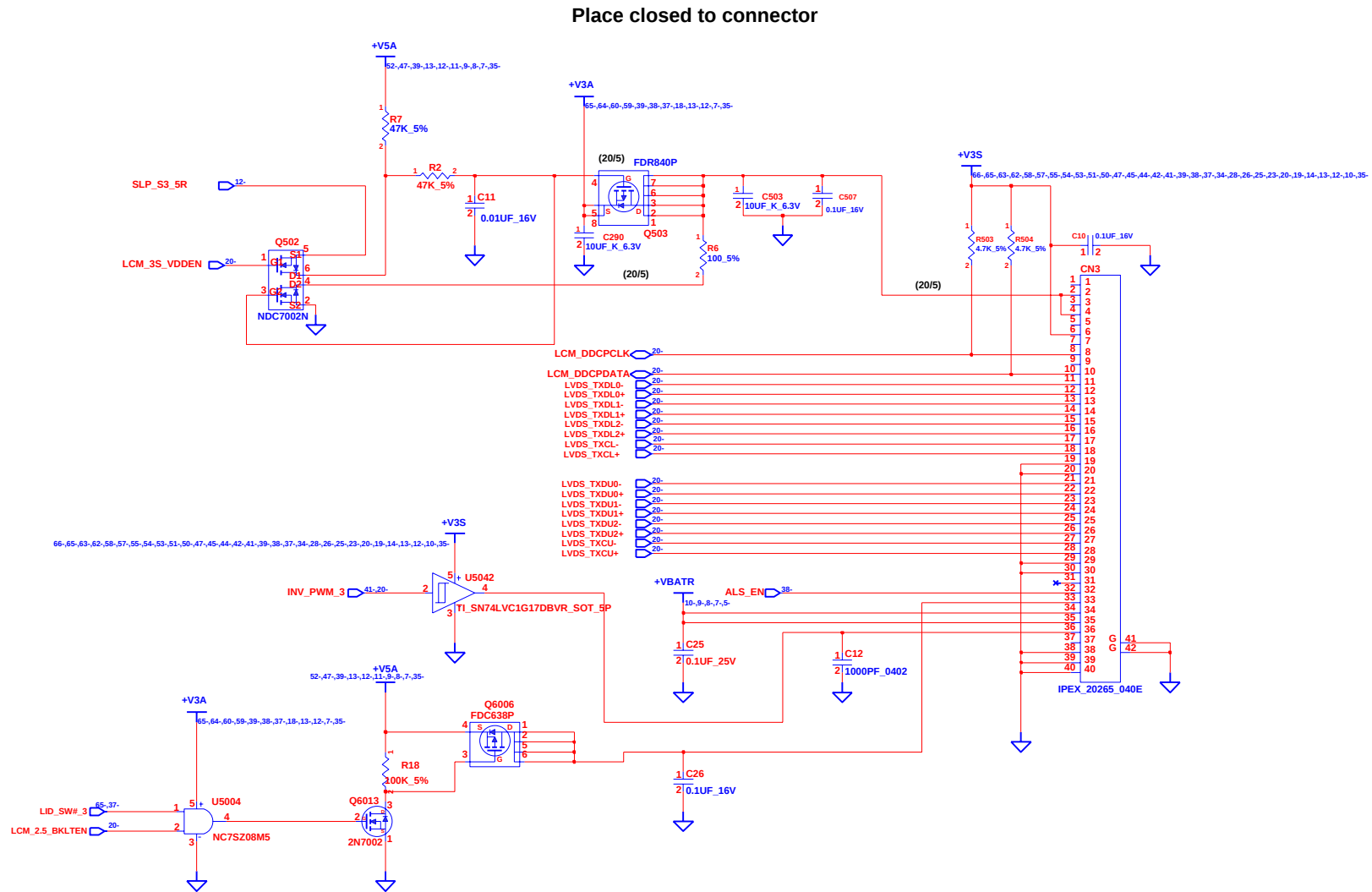
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B									B
C									C
D									D
E									E
F									F
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INVENTEC			
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SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX1
CHANGE by Drafter Name		1-Sep-2004	
SHEET		32	OF 68

	1	2	3	4	5	6	7	8	
A	BLANK								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE <i>Title Name</i> VIDEO RAM-2			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV AX1
CHANGE by <i>Drawn Name</i>		1-Sep-2004	
SHEET 33		OF 68	



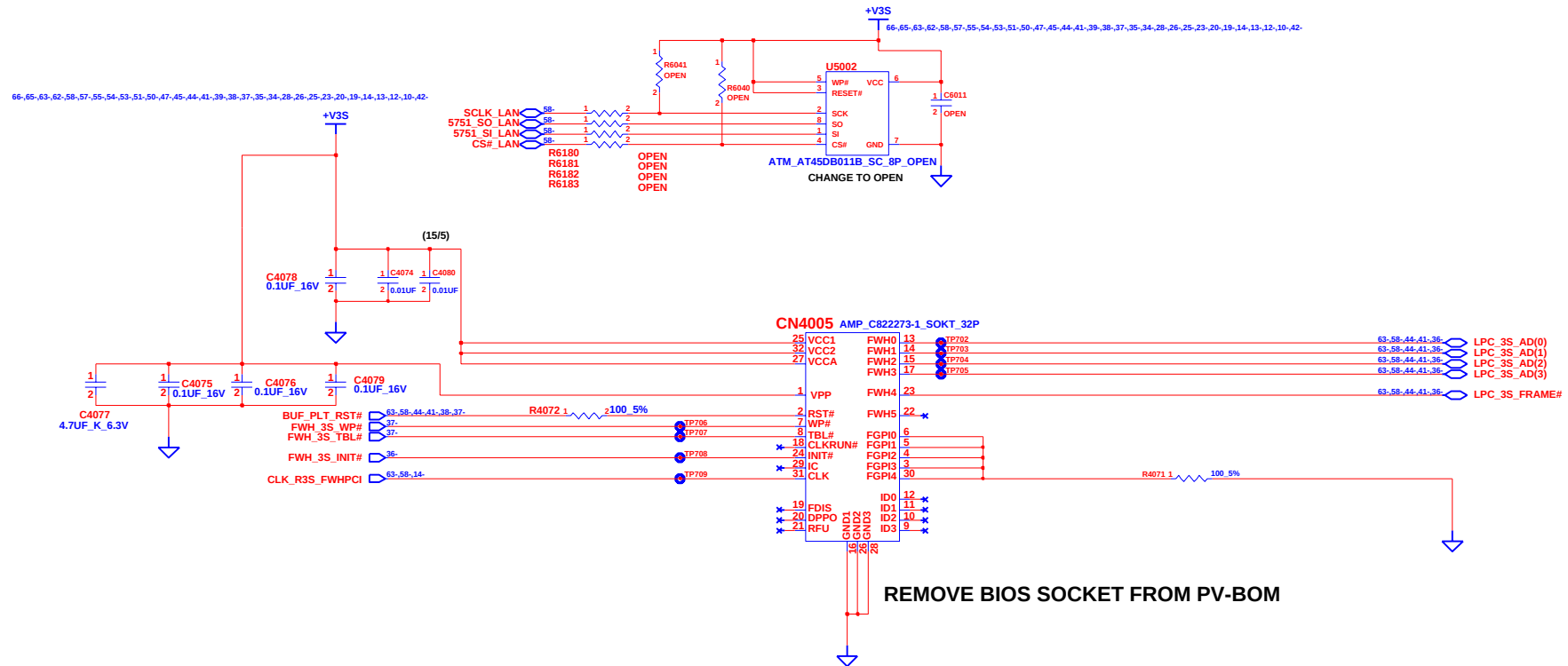


INVENTEC

TITLE			
Title Name			
LCD CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AXI

CHANGE by *Drawn Name* 1-Dec-2004

SHEET 35 OF 68

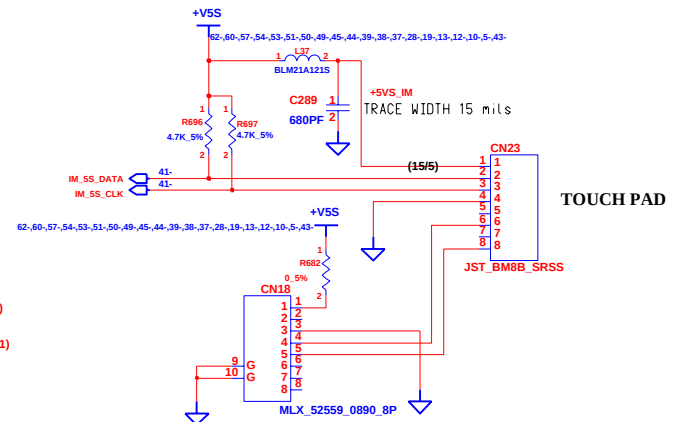
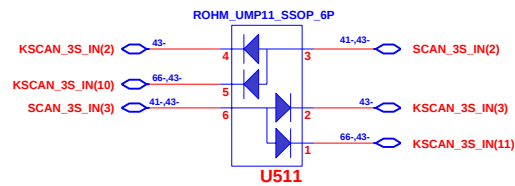
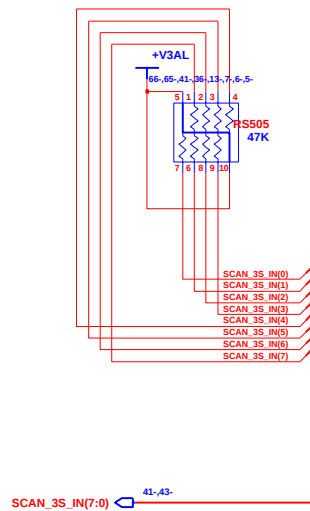
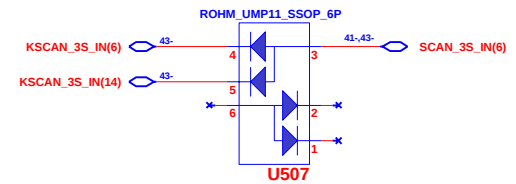
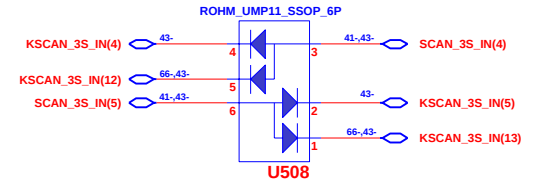
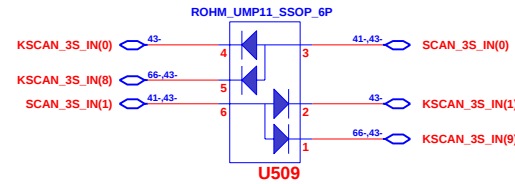
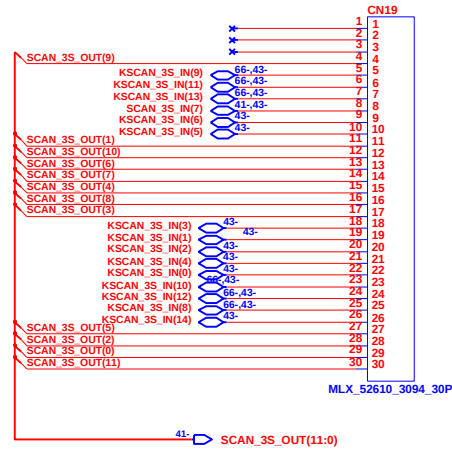


INVENTEC

TITLE			
Title_Name			
FWH			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AXI
SHEET		42	OF 68

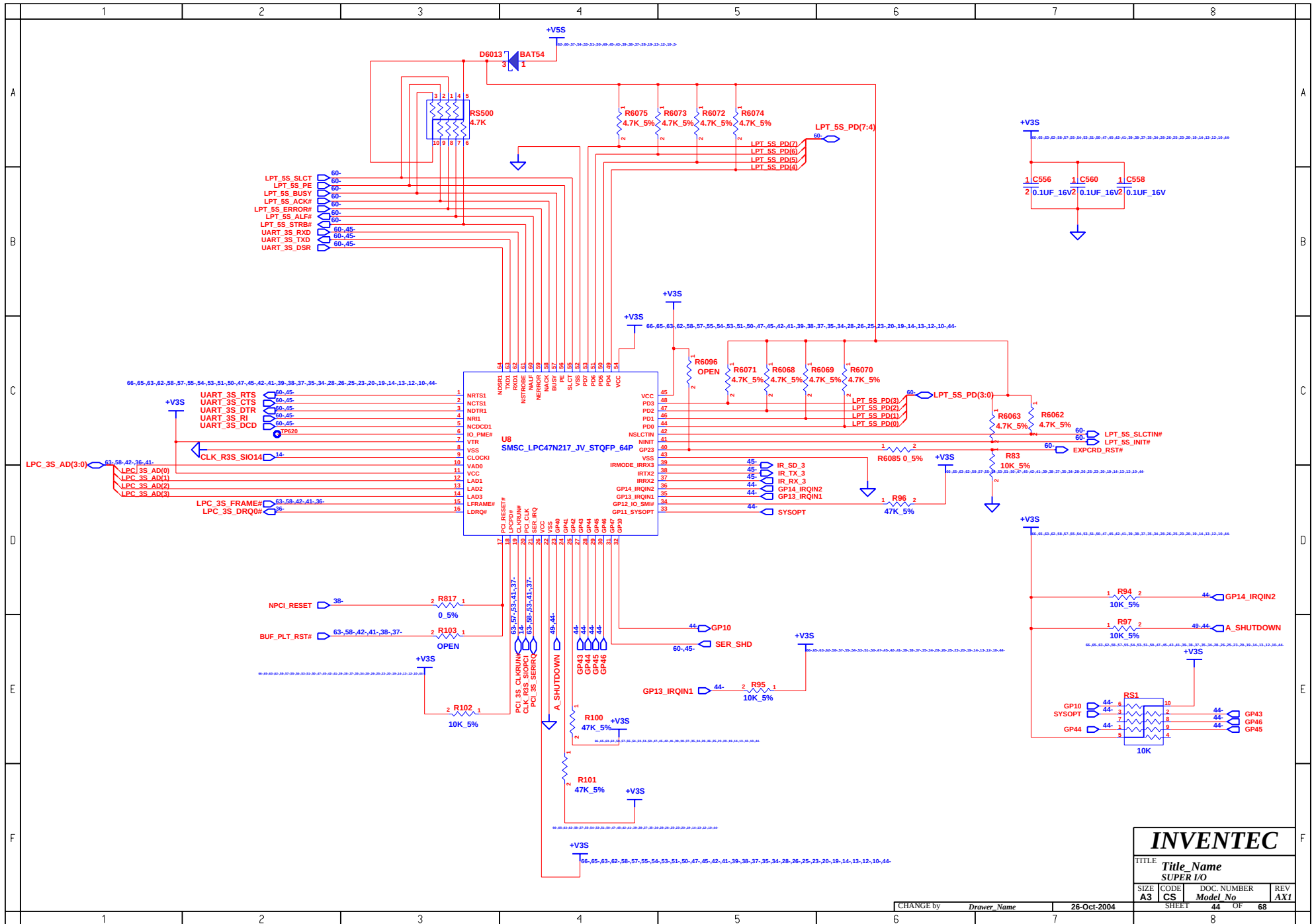
CHANGE by Drawer Name 1-Dec-2004

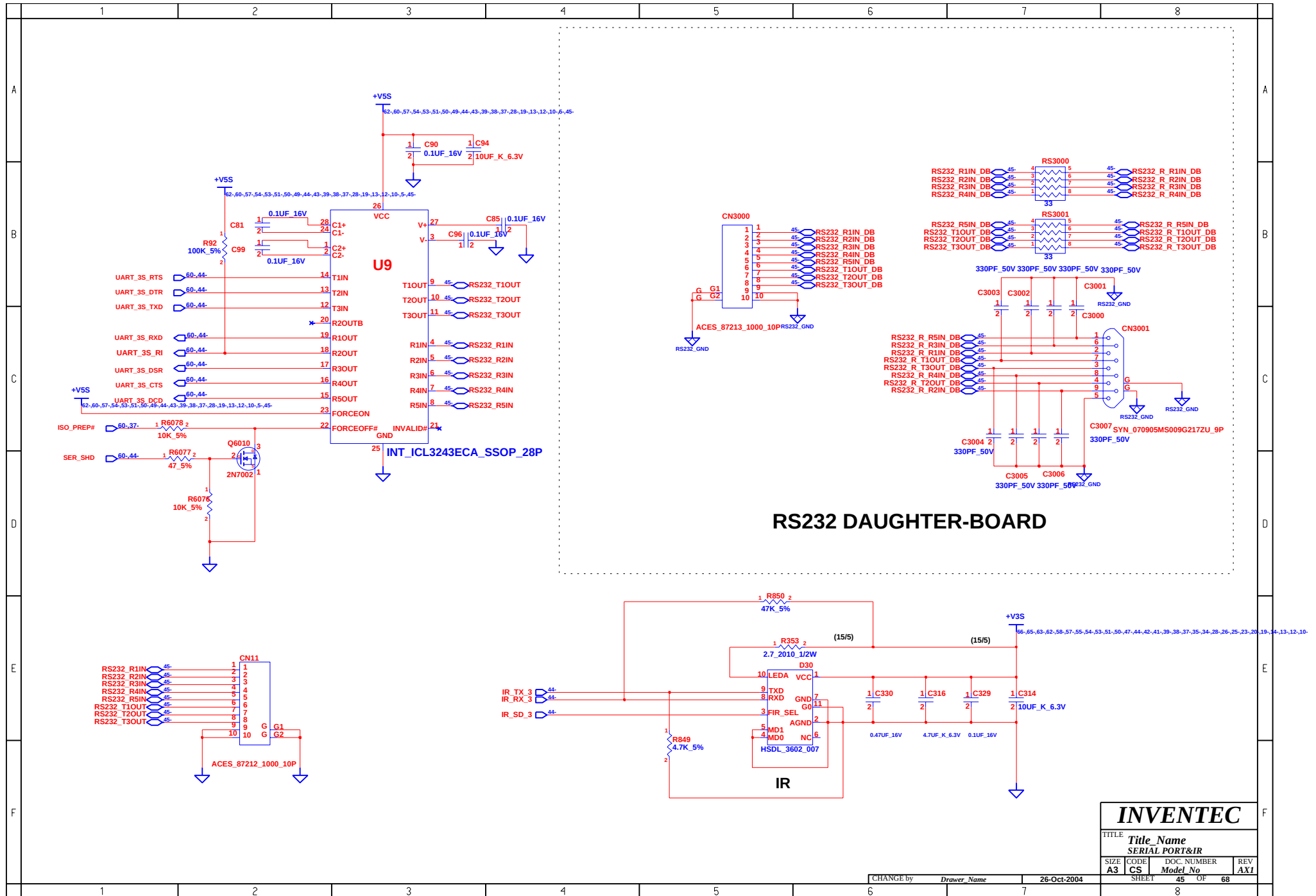
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POINT STICK

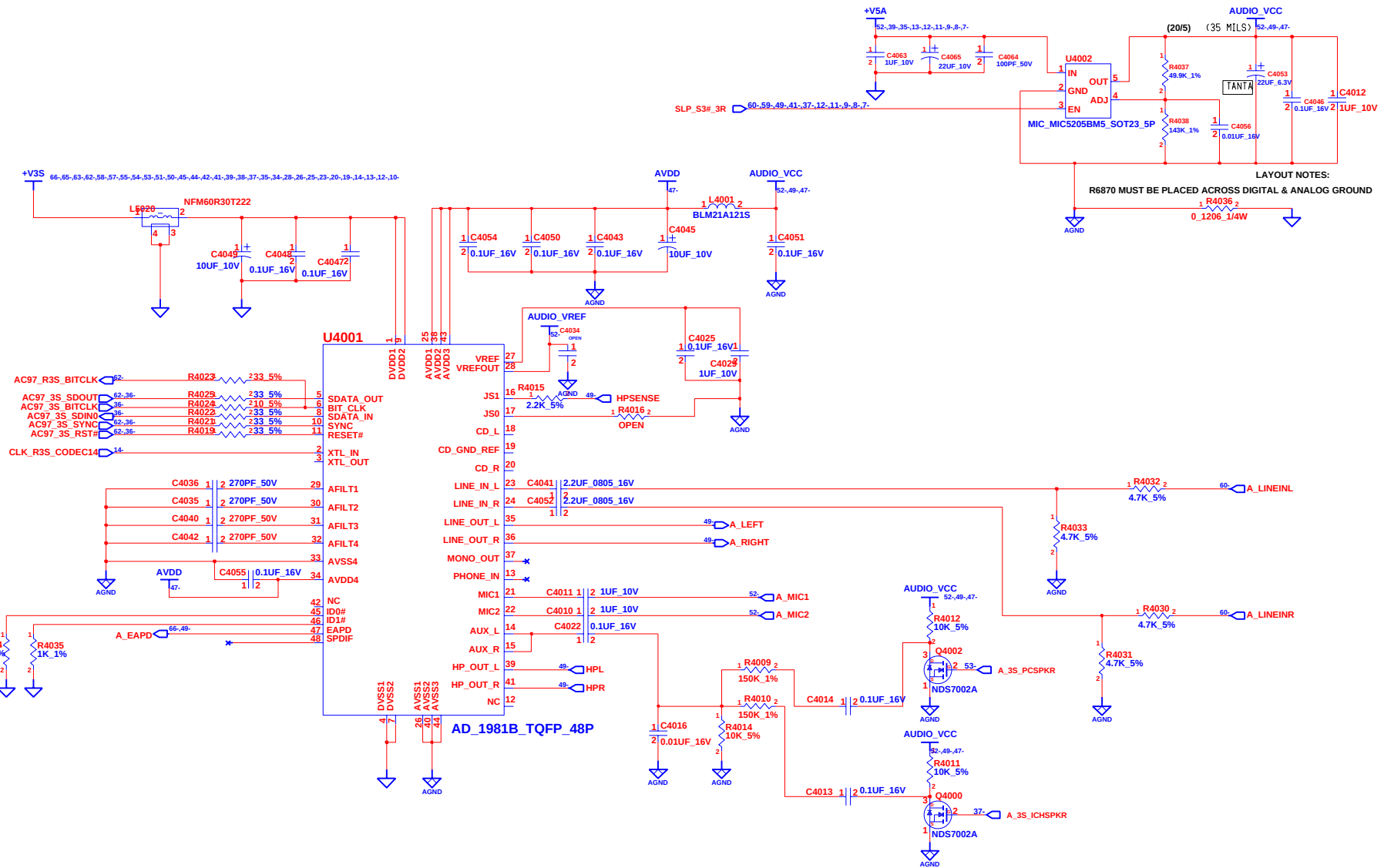
INVENTEC			
TITLE			
Title Name			
INT.KBC/POINT DEVICES			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX1
CHANGE by		1-Dec-2004	
Draver Name			
SHEET		43	OF 68
		8	





	1	2	3	4	5	6	7	8	
A	BLANK								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE <i>Title_Name</i> PARALLER PORT			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV AX1
CHANGE by <i>Drawn Name</i>		1-Sep-2004	
SHEET 46		OF 68	

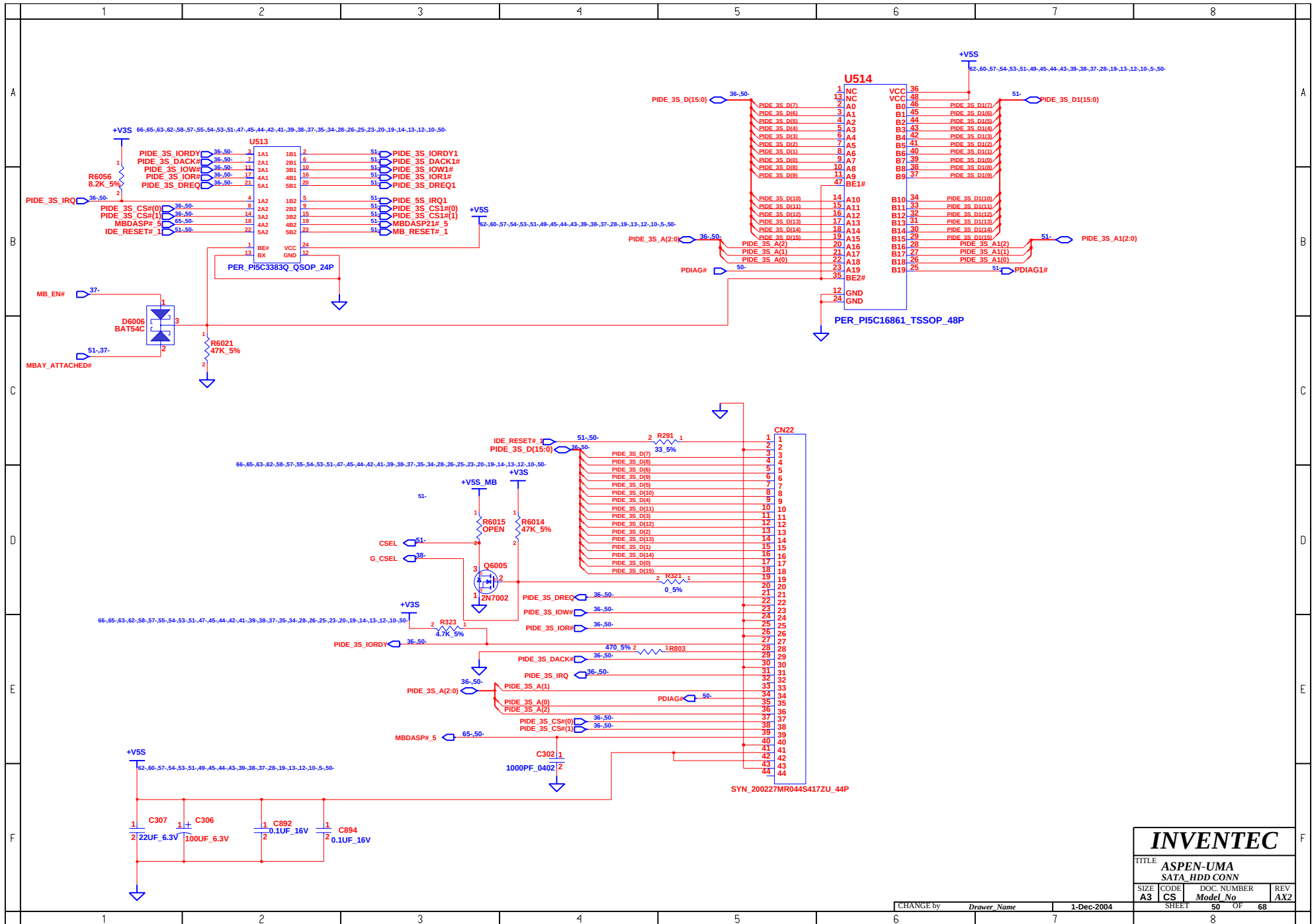


INVENTEC

TITLE			
Title Name			
AC97 CODEC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX1

CHANGE by *Drawer Name* 1-Sep-2004

SHEET 47 OF 68

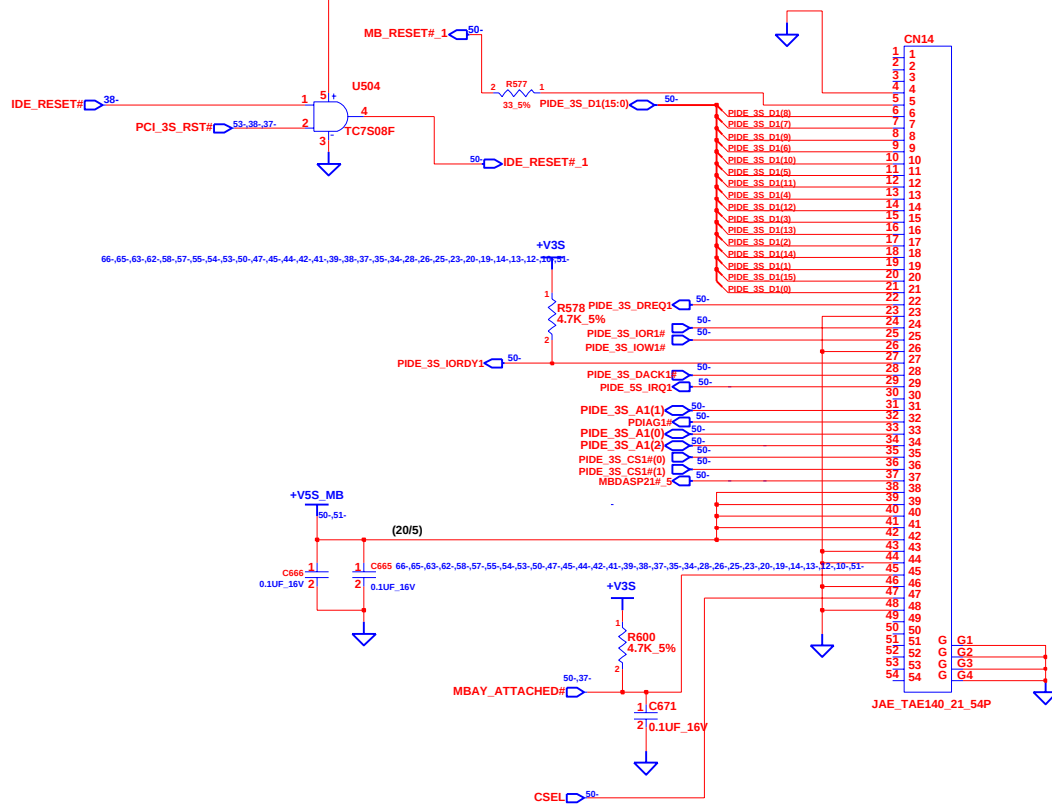


INVENTEC

TITLE ASPEN-UMA SATA_HDD CONN			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
SHEET 50 OF 68			

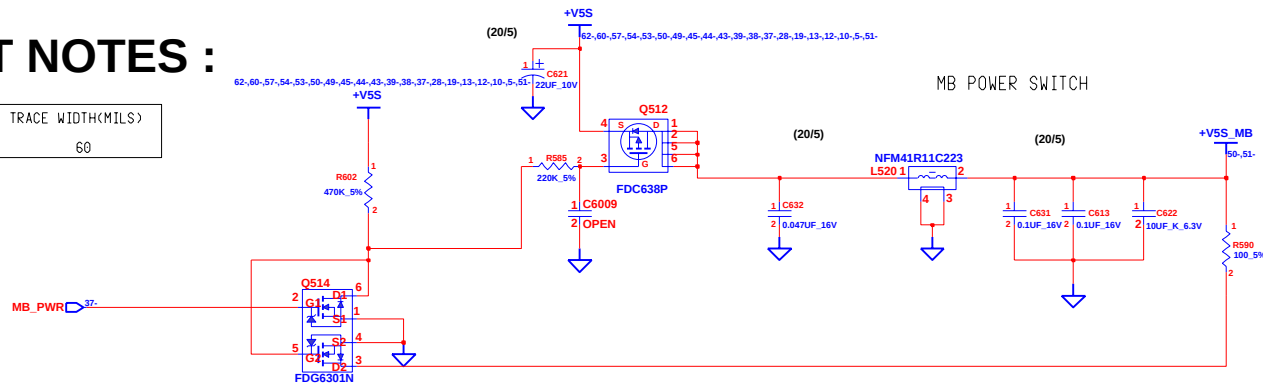
CHANGE by *Drawn Name* 1-Dec-2004

LAYOUT NOTE : WILL BE CHANGE PUSH CONN 54 PIN



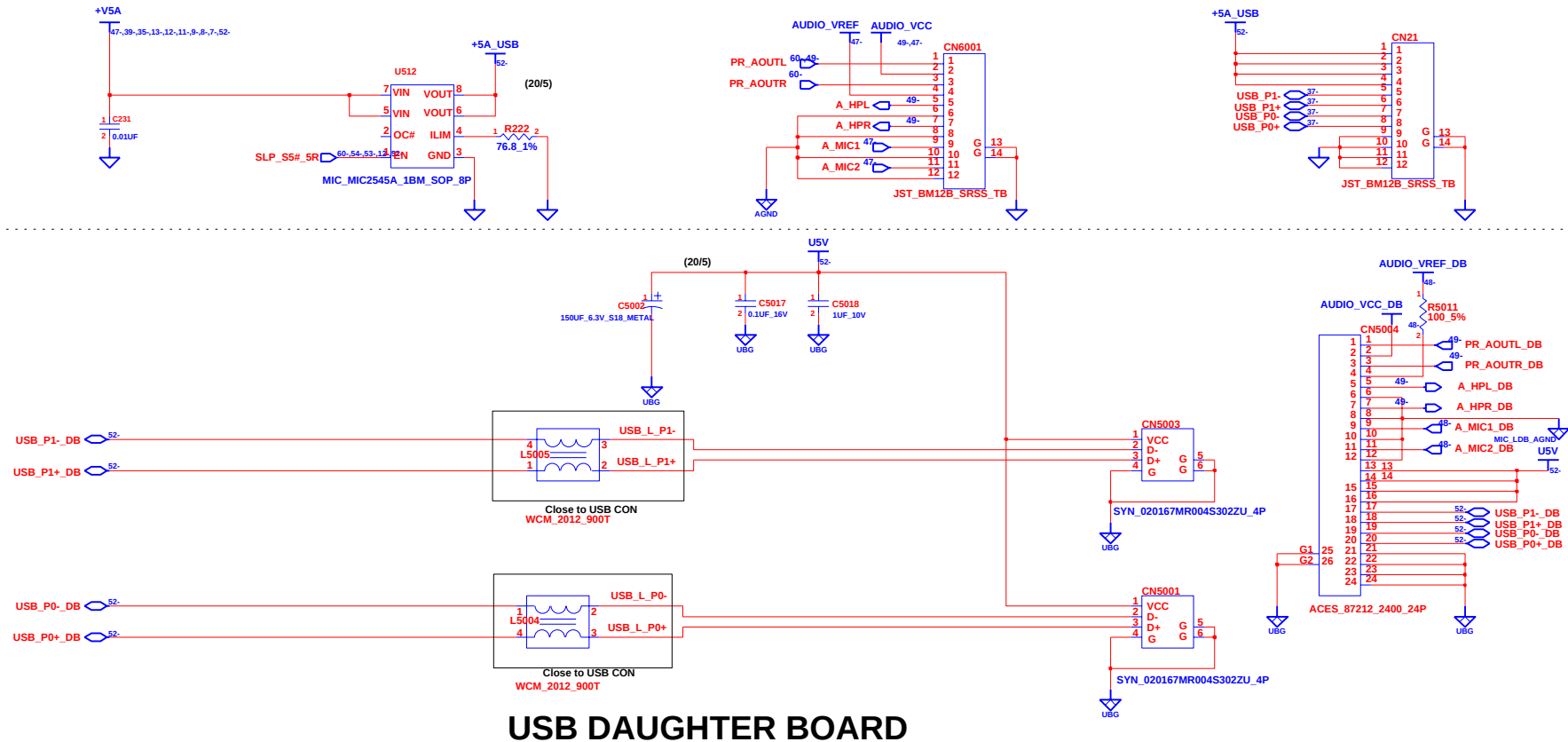
LAYOUT NOTES :

SIGNAL NAME	TRACE WIDTH(MILS)
+V5S_MB	60

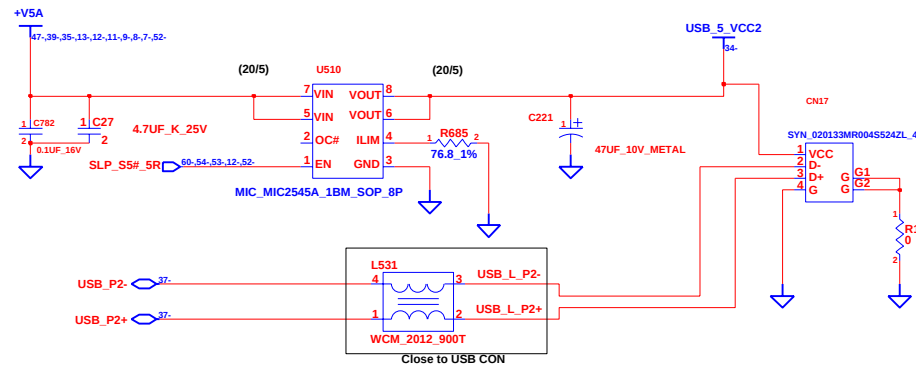
**INVENTEC**TITLE
ASPEN-UMA
MULTIBAY CONNSIZE CODE DOC. NUMBER REV
A3 CS Model No AX2

CHANGE by Drawer Name 1-Dec-2004

SHEET 51 OF 68

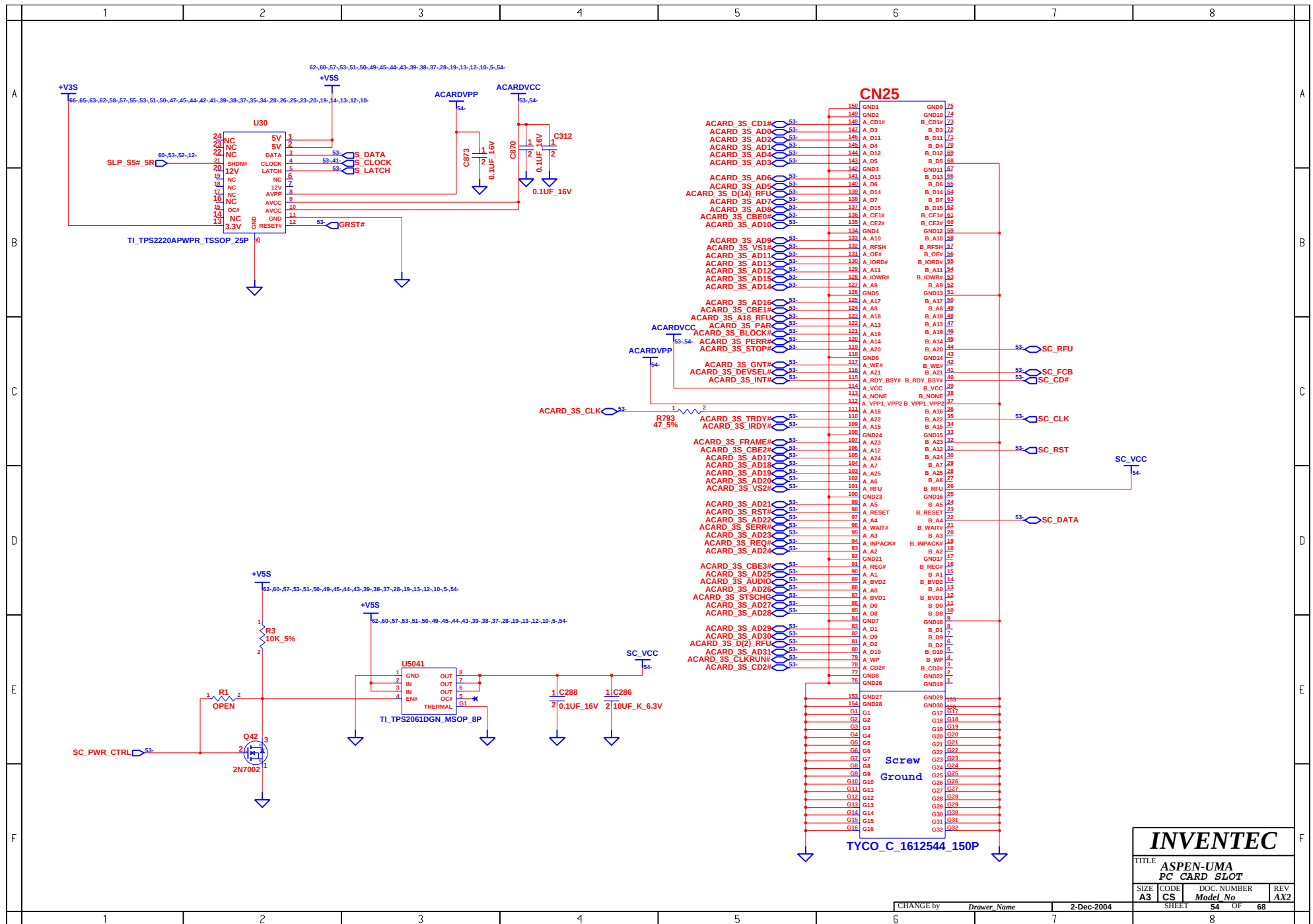


USB DAUGHTER BOARD



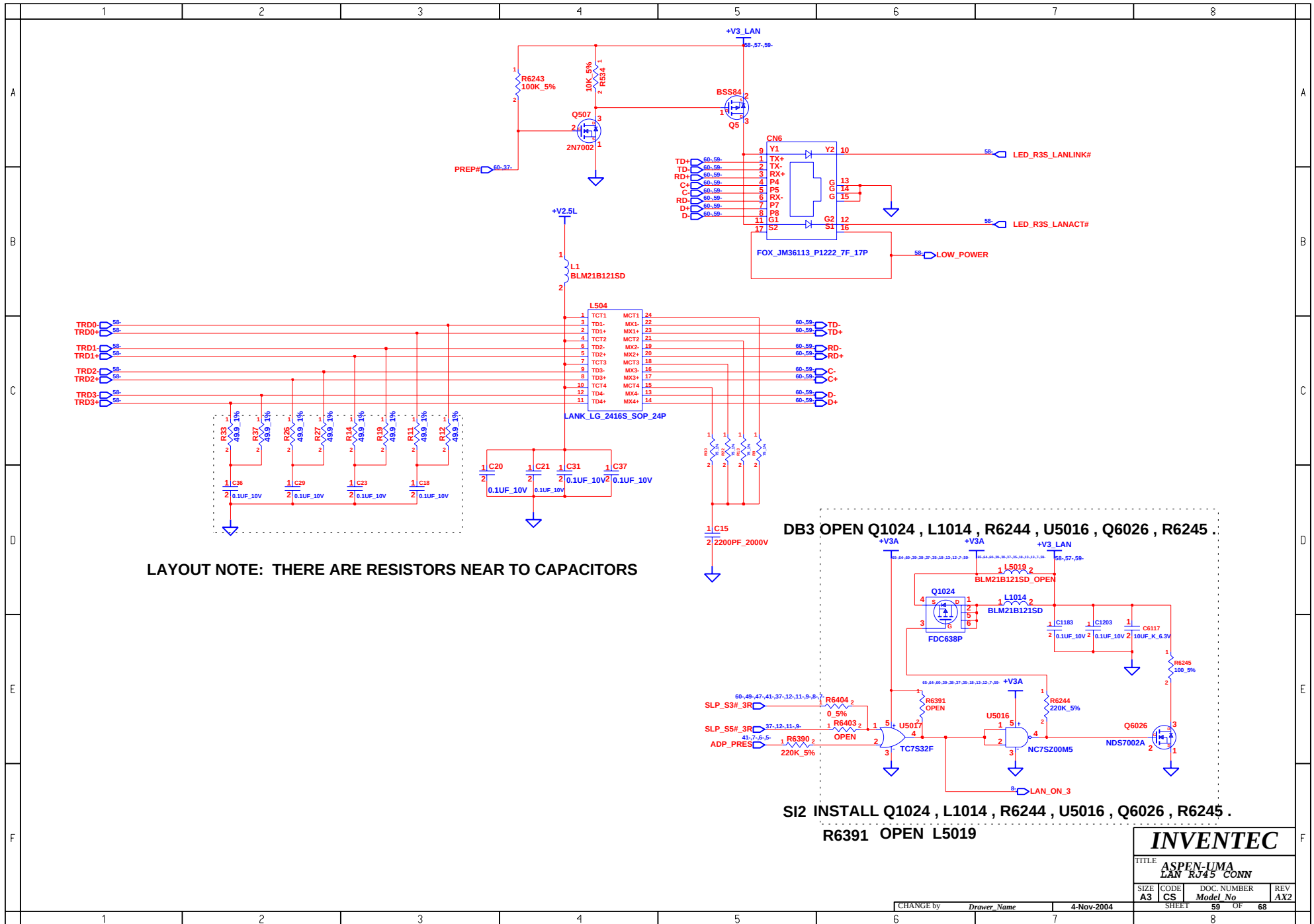
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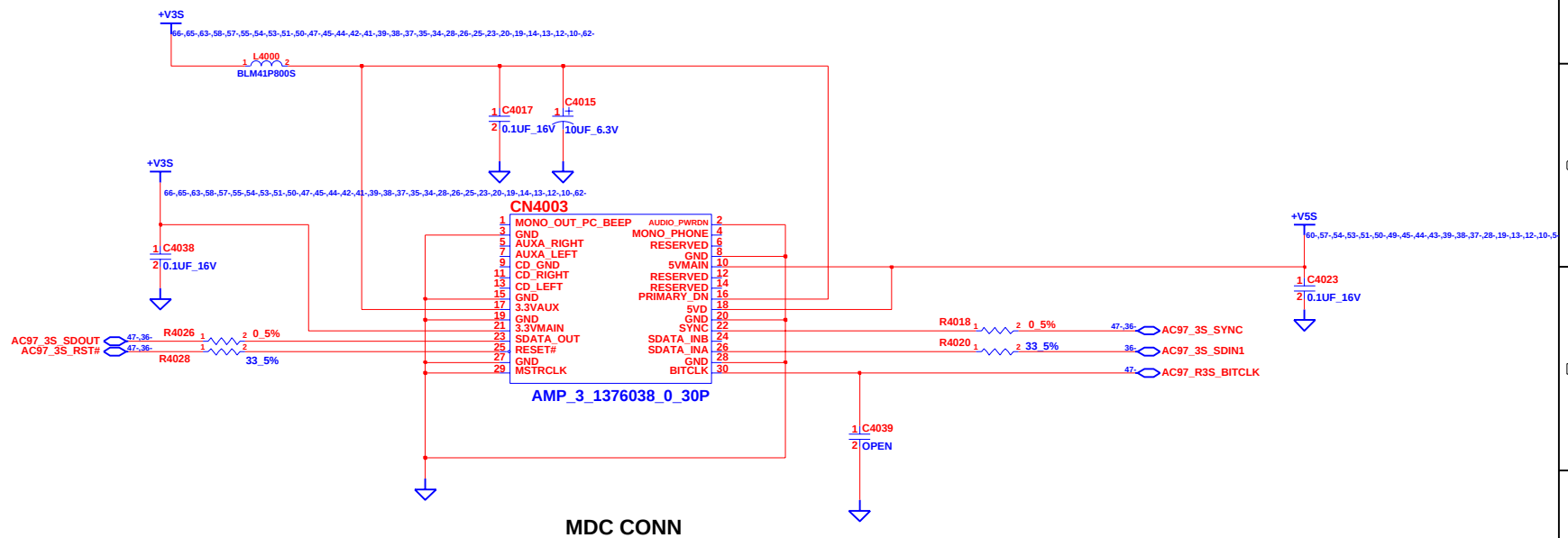
TITLE			
ASPEN-UMA			
USB&IR CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2
CHANGE by		1-Dec-2004	
SHEET		52 OF 68	



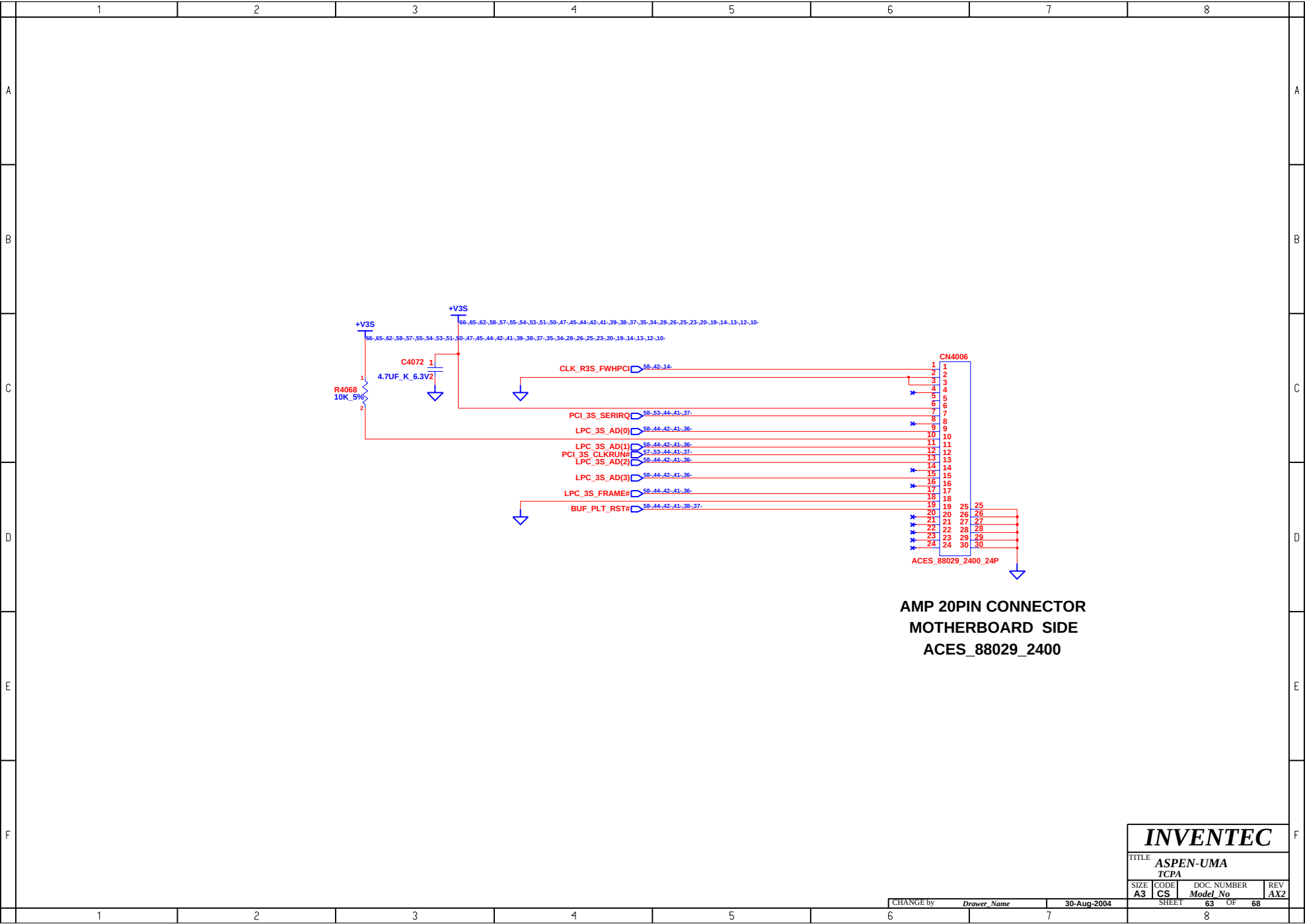
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A	BLANK								A
B									B
C									C
D									D
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	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE ASPEN-UMA DAUGHTER BOARD CNN			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
CHANGE by		30-Aug-2004	
SHEET		56	OF 68



**INVENTEC**TITLE
ASPEN-UMA
MDC CONNSIZE CODE DOC. NUMBER REV
A3 CS Model No AX2CHANGE by *Drawer Name* 1-Dec-2004

SHEET 62 OF 68

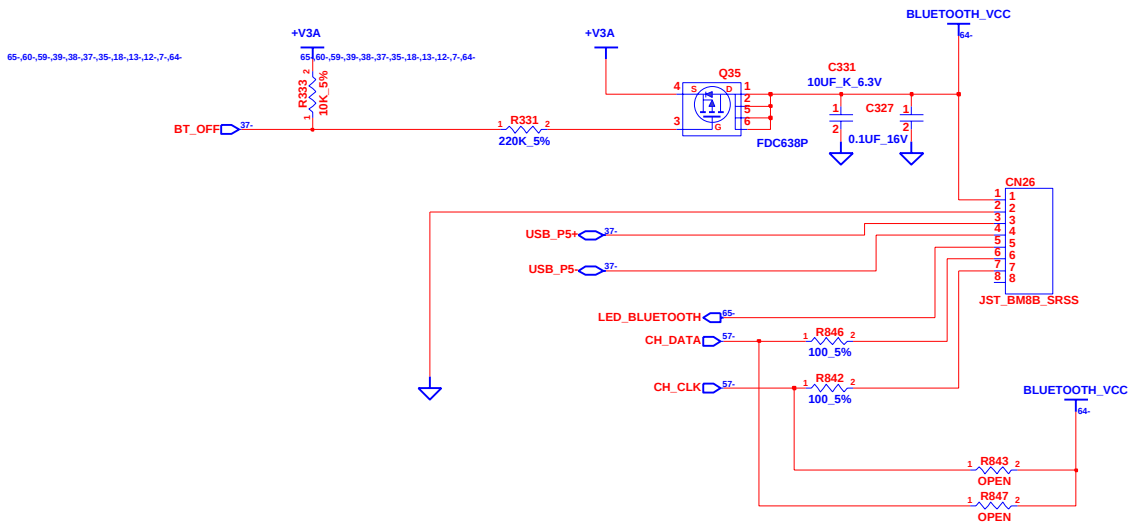


INVENTEC

TITLE
ASPEN-UMA
ICPA

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by	Drawn Name	30-Aug-2004
SHEET		63 OF 68



INVENTEC

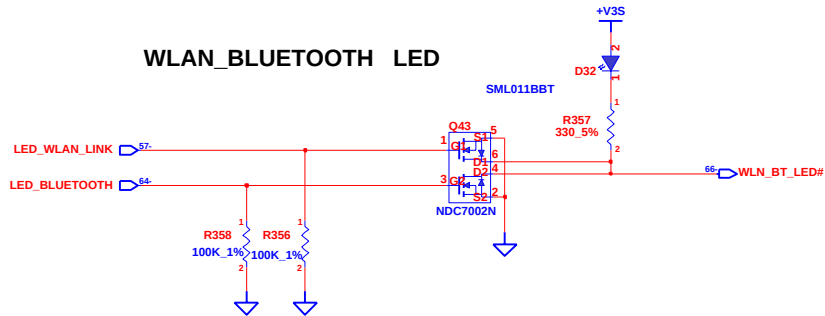
TITLE
**ASPEN-UMA
BLUETOOTH**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

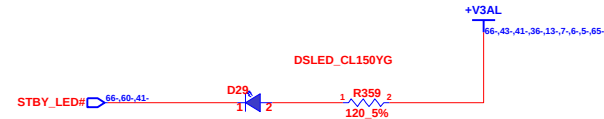
SHEET 64 OF 68

CHANGE by *Drawn Name* 30-Aug-2004

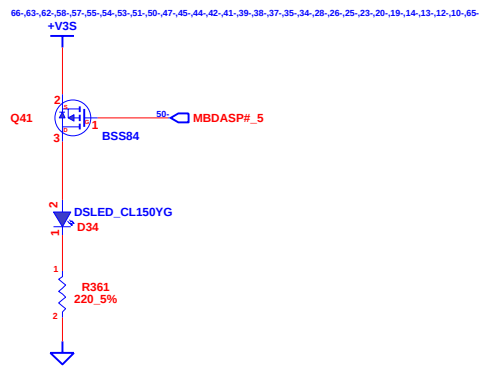
WLAN_BLUETOOTH LED



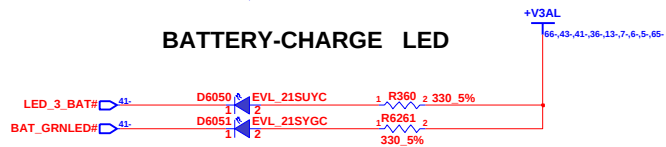
POWER LED



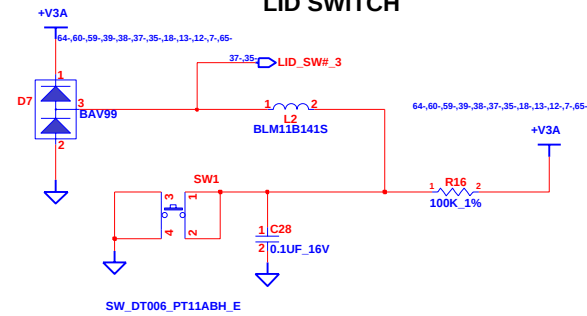
HDD & MBAY LED



BATTERY-CHARGE LED



LID SWITCH

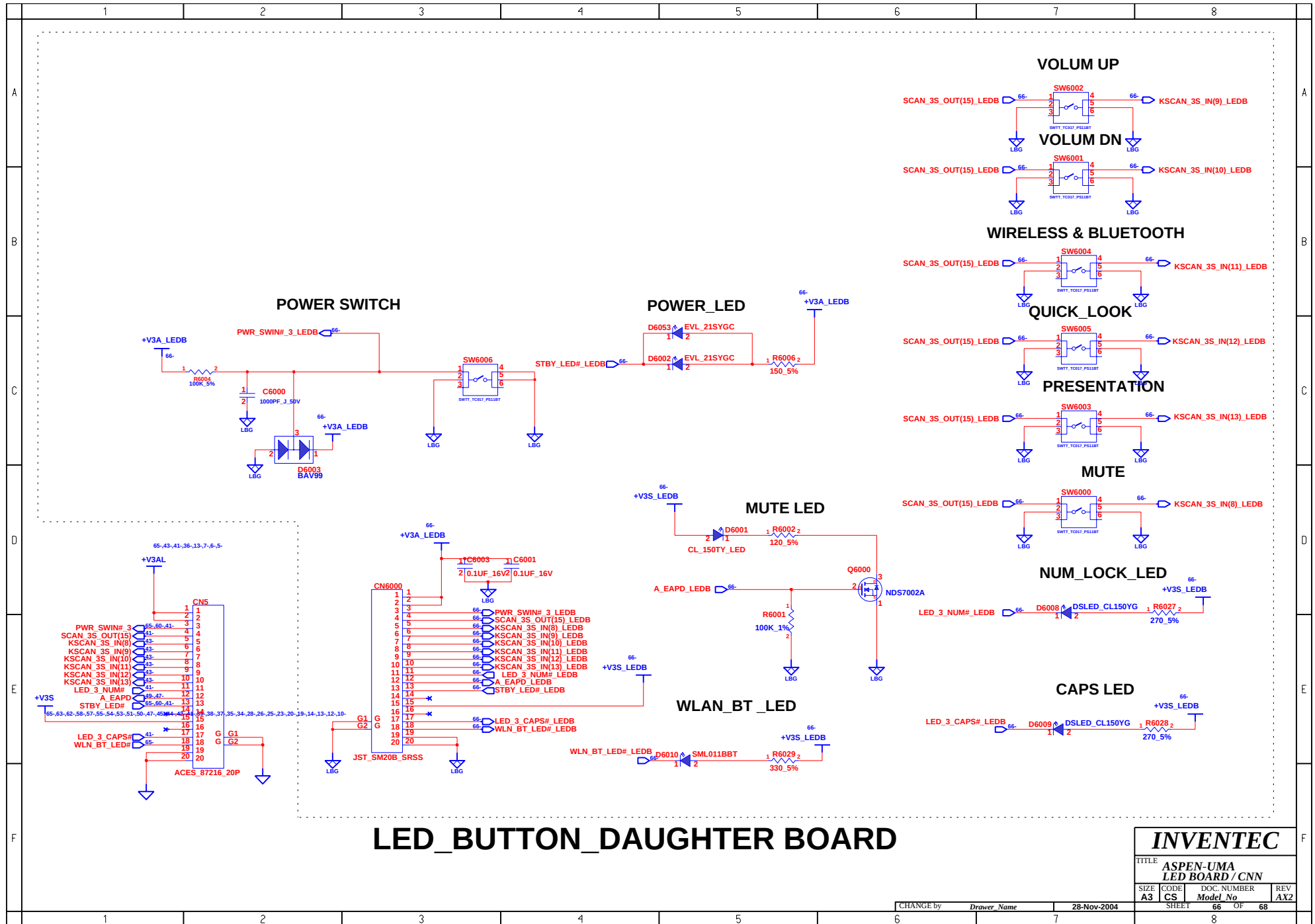


INVENTEC

TITLE ASPEN-UMA LED			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2

CHANGE by *Drawn Name* 13-Dec-2004

SHEET 65 OF 68



LCD CABLE

1	1	1	1
2	2	+V3S	2
3	3		3
4	4	+V3S	4
5	5		5
6	6	+V3S	6
7	7		7
8	8	LCM DDCPCLK	8
9	9		9
10	10	LCM DDCPDATA	10
11	11	LVDS TXDL0-	11
12	12	LVDS TXDL0+	12
13	13	LVDS TXDL1-	13
14	14	LVDS TXDL1+	14
15	15	LVDS TXDL2-	15
16	16	LVDS TXDL2+	16
17	17	LVDS TXCL-	17
18	18	LVDS TXCL+	18
19	19	GND	19
20	20	GND	20
21	21	LVDS TXDU0-	21
22	22	LVDS TXDU0+	22
23	23	LVDS TXDU1-	23
24	24	LVDS TXDU1+	24
25	25	LVDS TXDU2-	25
26	26	LVDS TXDU2+	26
27	27	LVDS TXCU+	27
28	28	LVDS TXCU-	28
29	29	GND	29
30	30	GND	30
31	31		31
32	32	ALS_EN	32
33	33	+V5A	33
34	34	+V5A	34
35	35	+V5A	35
36	36	INV_PWM_3	36
37	37	+V3S	37
38	38	GND	38
39	39	GND	39
40	40	GND	40

USB CABLE

1	1	+5A USB	1	1
2	2	+5A USB	2	2
3	3	+5A USB	3	3
4	4	+5A USB	4	4
5	5	USB P1-	5	5
6	6	USB P1+	6	6
7	7	USB P0-	7	7
8	8	USB P0+	8	8
9	9	GND	9	9
10	10	GND	10	10
11	11	GND	11	11
12	12	GND	12	12

TOUCHPAD CABLE

1	1	+VSS	1	1
2	2	+VSS	2	2
3	3	IM_SS DATA	3	3
4	4	IM_SS CLK	4	4
5	5	GND	5	5
6	6	GND	6	6
7	7	GND	7	7
8	8	GND	8	8
9	9	GND	9	9
10	10	GND	10	10
11	11	GND	11	11
12	12	GND	12	12

POINT STICK

1	1	+VSS	1	1
2	2	GND	2	2
3	3	GND	3	3
4	4	GND	4	4
5	5	GND	5	5
6	6	GND	6	6
7	7	GND	7	7
8	8	GND	8	8

keyboard

1	1	1	1
2	2		2
3	3		3
4	4	SCAN_3S_OUT(9)	4
5	5	KSCAN_3S_IN(9)	5
6	6	KSCAN_3S_IN(11)	6
7	7	KSCAN_3S_IN(13)	7
8	8	SCAN_3S_IN(7)	8
9	9	KSCAN_3S_IN(6)	9
10	10	KSCAN_3S_IN(5)	10
11	11	SCAN_3S_OUT(1)	11
12	12	SCAN_3S_OUT(10)	12
13	13	SCAN_3S_OUT(6)	13
14	14	SCAN_3S_OUT(7)	14
15	15	SCAN_3S_OUT(4)	15
16	16	SCAN_3S_OUT(8)	16
17	17	SCAN_3S_OUT(3)	17
18	18	KSCAN_3S_IN(3)	18
19	19	KSCAN_3S_IN(1)	19
20	20	KSCAN_3S_IN(2)	20
21	21	KSCAN_3S_IN(4)	21
22	22	KSCAN_3S_IN(0)	22
23	23	KSCAN_3S_IN(10)	23
24	24	KSCAN_3S_IN(12)	24
25	25	KSCAN_3S_IN(8)	25
26	26	KSCAN_3S_IN(14)	26
27	27	SCAN_3S_OUT(5)	27
28	28	SCAN_3S_OUT(2)	28
29	29	SCAN_3S_OUT(0)	29
30	30	SCAN_3S_OUT(11)	30

AUDIO CABLE

1	1	PR_AOUTL_DB	1	1
2	2	AUDIO_VCC_DB	2	2
3	3	PR_AOUTR_DB	3	3
4	4	AUDIO_VREF_DB	4	4
5	5	A_HPL_DB	5	5
6	6	GND	6	6
7	7	A_HPR_DB	7	7
8	8	GND	8	8
9	9	A_MICL_DB	9	9
10	10	GND	10	10
11	11	A_MICR_DB	11	11
12	12	GND	12	12

SERIAL CABLE

1	1	1	1
2	2		2
3	3	RS232_R1IN	3
4	4	RS232_R2IN	4
5	5	RS232_R3IN	5
6	6	RS232_R4IN	6
7	7	RS232_R5IN	7
8	8	RS232_T1OUT	8
9	9	RS232_T2OUT	9
10	10	RS232_T3OUT	10
11	11	GND	11
12	12	GND	12

SW/B CABLE

1	1	+V3A	1	1
2	2	+V3A	2	2
3	3	PWR_SWIN#_3	3	3
4	4	SCAN_3S_OUT(15)	4	4
5	5	KSCAN_3S_IN(8)	5	5
6	6	KSCAN_3S_IN(9)	6	6
7	7	KSCAN_3S_IN(10)	7	7
8	8	KSCAN_3S_IN(11)	8	8
9	9	KSCAN_3S_IN(12)	9	9
10	10	KSCAN_3S_IN(13)	10	10
11	11	LED_3_NUM#	11	11
12	12	A_EAPD	12	12
13	13	LED_3_PWR#	13	13
14	14	STANDBY_SW#	14	14
15	15	SLP_S3_SR	15	15
16	16	QUICK_LOCK#	16	16
17	17	WLK_BY_LED#	17	17
18	18	GND	18	18
19	19	GND	19	19
20	20	GND	20	20

SPEAKER CABLE

1	1	SPK_OUT_L-	1	1
2	2	SPK_OUT_L+	2	2
3	3	SPK_OUT_R-	3	3
4	4	SPK_OUT_R+	4	4

BLUETOOTH CABLE

1	1	BLUETOOTH_VCC	1	1
2	2	GND	2	2
3	3	GND	3	3
4	4	USB_P5+	4	4
5	5	USB_P5-	5	5
6	6	LED_BLUETOOTH	6	6
7	7	CH_DATA	7	7
8	8	CH_CLK	8	8

PATA&SATA

1	1	PCI_3S_RST#	1	1
2	2	GND	2	2
3	3	PIDE_3S_D(7)	3	3
4	4	PIDE_3S_D(8)	4	4
5	5	PIDE_3S_D(9)	5	5
6	6	PIDE_3S_D(10)	6	6
7	7	PIDE_3S_D(11)	7	7
8	8	PIDE_3S_D(12)	8	8
9	9	PIDE_3S_D(13)	9	9
10	10	PIDE_3S_D(14)	10	10
11	11	PIDE_3S_D(15)	11	11
12	12	PIDE_3S_D(16)	12	12
13	13	PIDE_3S_D(17)	13	13
14	14	PIDE_3S_D(18)	14	14
15	15	PIDE_3S_D(19)	15	15
16	16	PIDE_3S_D(20)	16	16
17	17	PIDE_3S_D(21)	17	17
18	18	PIDE_3S_D(22)	18	18
19	19	GND	19	19
20	20	GND	20	20
21	21	PIDE_3S_DREQ	21	21
22	22	GND	22	22
23	23	PIDE_3S_IOW#	23	23
24	24	GND	24	24
25	25	PIDE_3S_JOR#	25	25
26	26	GND	26	26
27	27	PIDE_3S_JORDY	27	27
28	28	GND	28	28
29	29	PIDE_3S_DACK#	29	29
30	30	GND	30	30
31	31	PIDE_3S_IRQ	31	31
32	32	GND	32	32
33	33	PIDE_3S_A(1)	33	33
34	34	GND	34	34
35	35	PIDE_3S_A(0)	35	35
36	36	PIDE_3S_A(2)	36	36
37	37	PIDE_3S_CS#(0)	37	37
38	38	PIDE_3S_CS#(1)	38	38
39	39	MIDASPI_5	39	39
40	40	+VSS	40	40
41	41	+VSS	41	41
42	42	+VSS	42	42
43	43	+VSS	43	43
44	44	SATA_C_TXP0	44	44
45	45	SATA_C_TXN0	45	45
46	46	+VSS	46	46
47	47	+VSS	47	47
48	48	+VSS	48	48
49	49	SATA_C_RXN0	49	49
50	50	SATA_C_RXP0	50	50

INVENTEC

TITLE
ASPEN-UMA
CABLESIZE CODE CS DOC. NUMBER REV AX2
A3 Model No

CHANGE by Drawer Name 30-Aug-2004

SHEET 67 OF 68

IEC / HP Aspen_UMA MV Schematic Changes								December 10, 2004
HP Confidential Information						Open Items		
Item #	Project	Component / Subsection	PG. #	Description of Requested Change	Date Open+F7 / Closed	Requested By / Owner	Status / Aspen	Aspen FBK/Date
1	UMA	V2.5L	8	Improve the RGB signal waveform on CRT monitor R6247 from 909k change to 1M_1% 60130B10049T	2004/11/17	IEC	Open	sch1117 done
2	UMA	ALVISO	23	Improve the S-Video & RGB signal waveform for S-Video & RGB monitor. 1.L5014 pin 1 C6059 change to 47UF capacitor (OXi cap). 2.L5015 pin 1 C6063 change to 47UF capacitor (OXi cap). 3.C216 change to 47UF capacitor (OXi cap). 4.Remove C6068.	2004/11/29	IEC	Open	sch1129 done
3	UMA	Power	11	Change U6064 +V0.9 limit regulator circuit for DDR2. Remove R640 , C734 , C195 , C735 , C196 , C193 add C6176 1uf , C6172 , C6173 , C6174 , C6175 10uf.	2004/11/29	HP	Open	sch1129 done
4	UMA	LED	66	1.Add LED D6053 EVL_21SYGC for machine ID recommend. 2.Change D6002 to EVL_21SYGC.	2004/11/29	HP	Open	sch1129 done
5	UMA	Switch Board	66	Change switch Board trace from Top side & Bottom side to internal layer a surface used GND to Cover it this change for safty ESD recommend.	2004/11/29	IEC	Open	sch1129 done
6	UMA	serial Board	45	Change Serial Board trace from Top side & Bottom side to internal layer a surface used GND to cover it this change for Safty ESD recommend.	2004/11/29	IEC	Open	sch1129 done
7	UMA	Power	7	Move D6048 , C6162 , R6283 placement this change for machine recommend.	2004/11/29	IEC	Open	sch1129 done
8	UMA	ICH-6	37	Change C882,C883 from 10pF to 18pF for RTC accuracy	2004/11/29	IEC	Open	sch1129 done
9	UMA	ALVISO ICH-6	23 23 36	For EMI recommend: 1.Add C6188,C6189,C6190 0.01uF_16V connect +V1.5S for EMI improve +V1.5S power plane. 2.Add C6185,C6186,C6187 0.01uF_16V connect +V1.8 for EMI improve +V1.8 power plane 3.Add C6191 0.01uF_16V connect CN7 RTCBAT to improve EMI noise.	2004/12/2	IEC	Open	sch1202 done
10	UMA	Power	11	Add two power via 30_16 on +V0.9S power rail.	2004/12/3	IEC	open	sch1203 done
11	UMA	Power	13	Aspen UMA uses a 2.5V rail,R6150 should be changed to 107K_1%, and R6152 should be changed to 57.6K_1%.	2004/12/10	HP	open	sch1210 done