

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

ASPEN

DISCRETE SI-2(FINAL)

09/17/2004

DATE	CHANGE NO.	REV
1	2	

	EE	DATE	POWER	DATE	INVENTEC
DRAWER					
DESIGN					
CHECK					
RESPONSIBLE					TITLE
					ASPEN
SIZE = 3					SIZE
FILE NAME: XXXX-XXXXXX-XX					A3
P/N XXXXXXXXXXXX					CS
					DOC. NUMBER
					Model No
					REV
					X02
					SHEET
					1
					OF
					69
					8

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9- SYSTEM POWER(VGAVCC/V1.5A) (V1.5A B/B DAUGHTER BOARD)
10- D/B SYSTEM POWER(V1.8/VCCP)
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15- CLOCK_GENERATOR
16- DOTHAN-1
17- DOTHAN-2
18- DOTHAN-3
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32- VIDEO RAM DAMPING
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64- TCPA CONN (B/B DAUGHTER BOARD)
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66- LED / LID_SWITCH
67- LED BOARD / CNN (LED DAUGHTER BOARD)

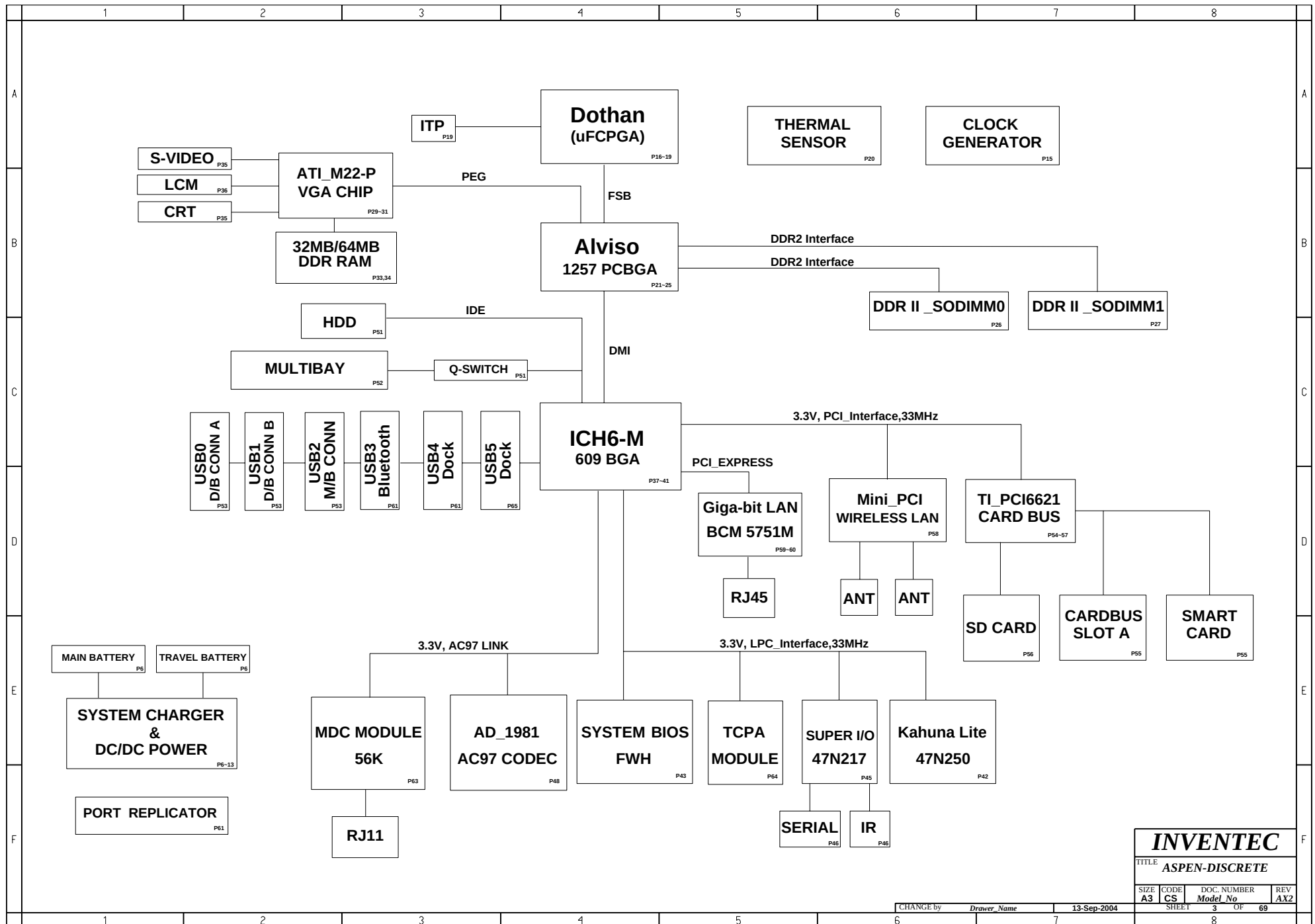
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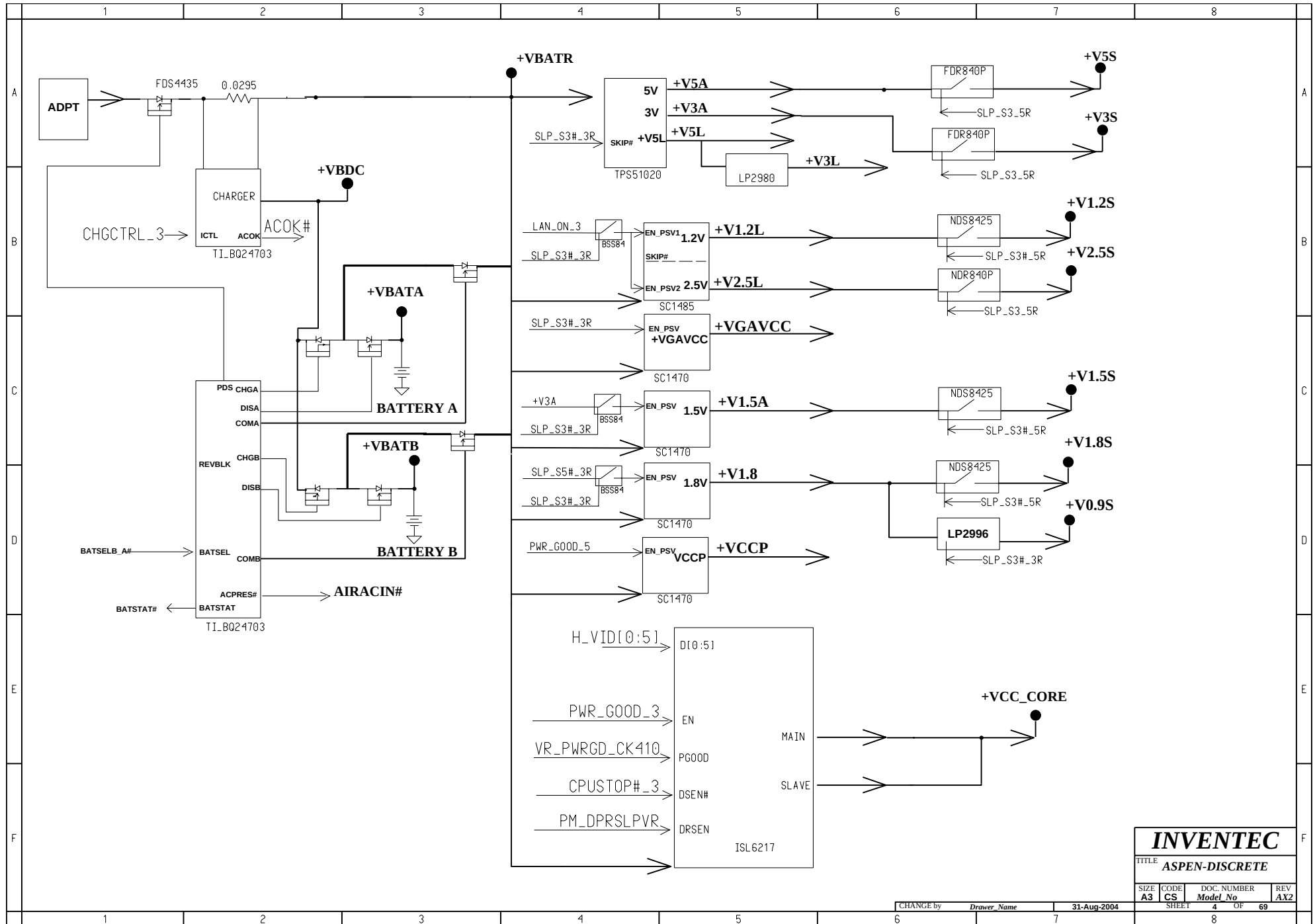
TITLE ASPEN-DISCRETE

SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
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CHANGE by Drawn Name 31-Aug-2004

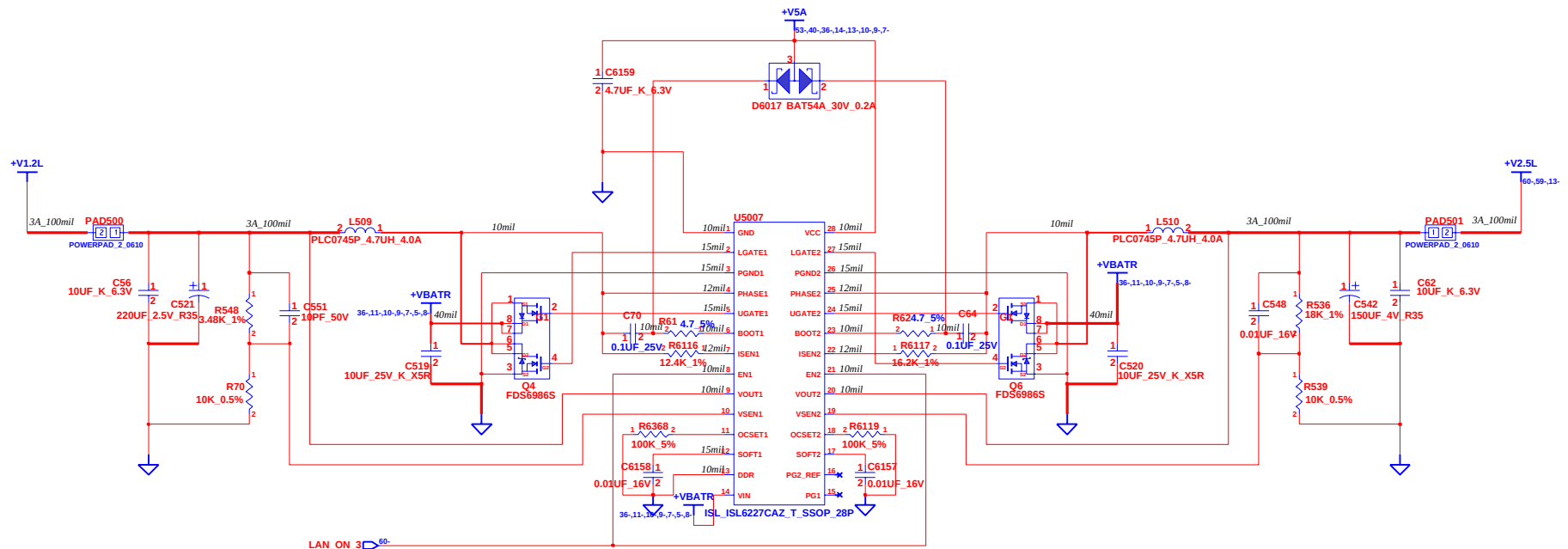
SHEET 2 OF 69





INVENTEC			
TITLE			
ASPEN-DISCRETE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2
CHANGE by		31-Aug-2004	
DRAWN			
SHEET		4	OF 69
		8	

INVENTEC			
TITLE ASPEN-DISCRETE DC & BATTERY CHANGER			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV A3
SHEET		5 OF	69



INVENTEC

TITLE
ASPEN-DISCRETE
 SYSTEM POWER(+V2.5L/+V1.2L)

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

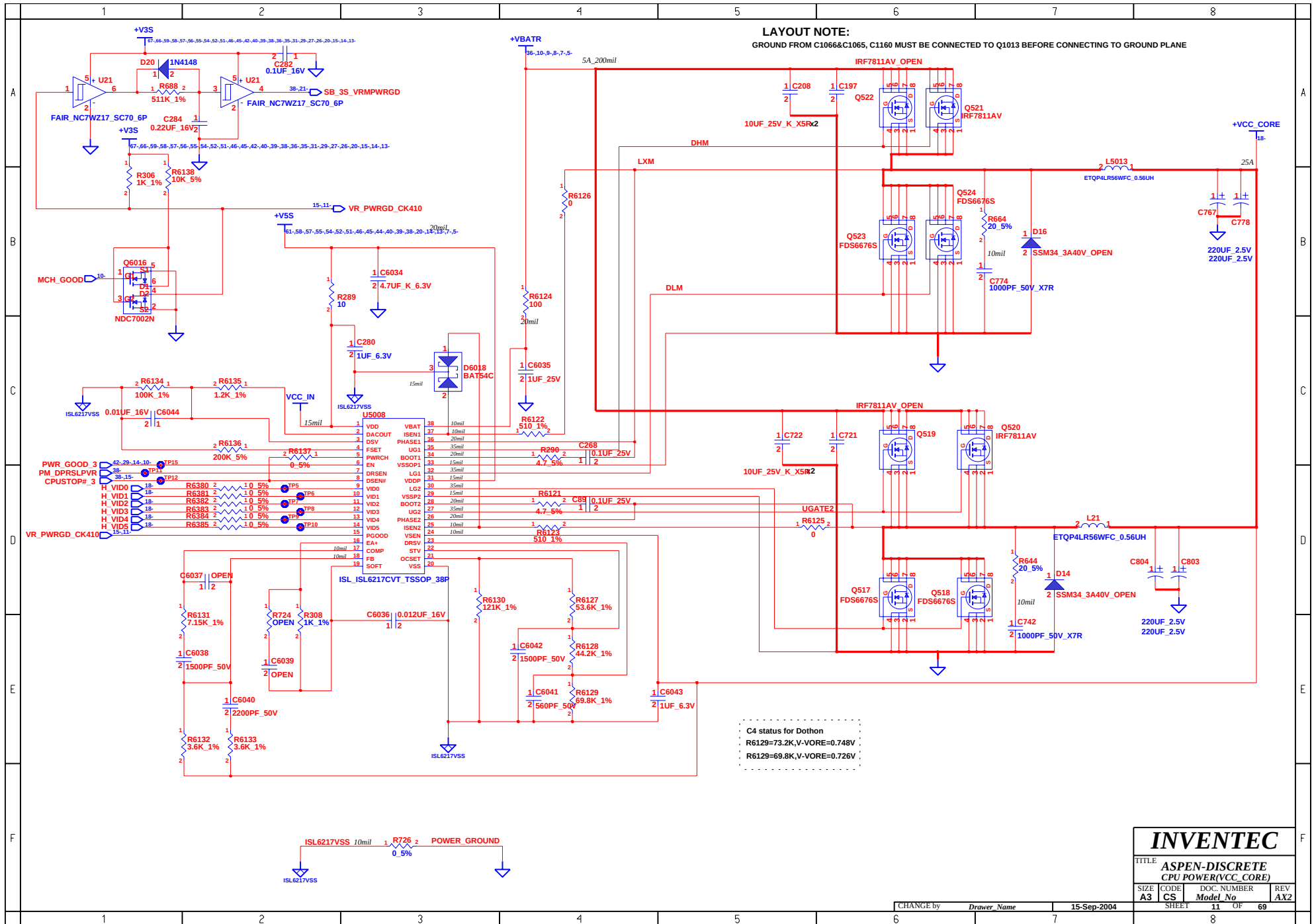
CHANGE by *Drawn Name* 13-Sep-2004

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TITLE			
ASPEN-DISCRETE			
SYSTEM POWER(+VCCP+V1.8)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2
SHEET		10	OF 69

CHANGE by	<i>Drawer_Name</i>	15-Sep-2004
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CS Model No
SHEET 10 OF 69

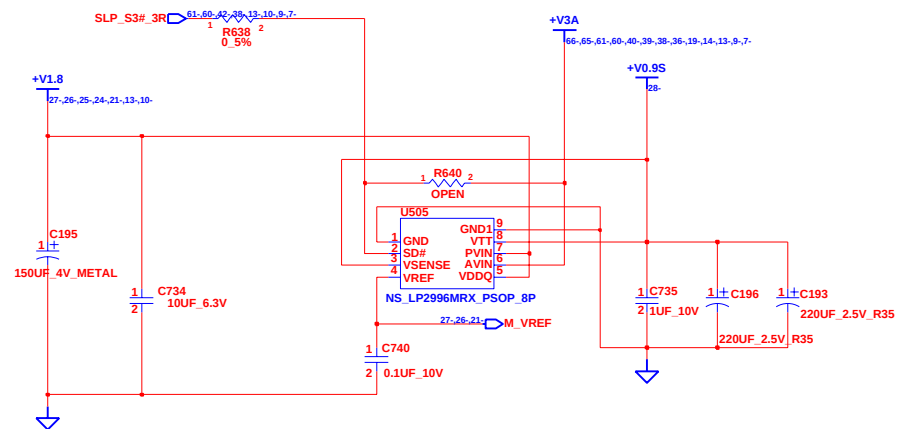
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TITLE
**ASPEN-DISCRETE
CPU POWER(VCC_CORE)**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

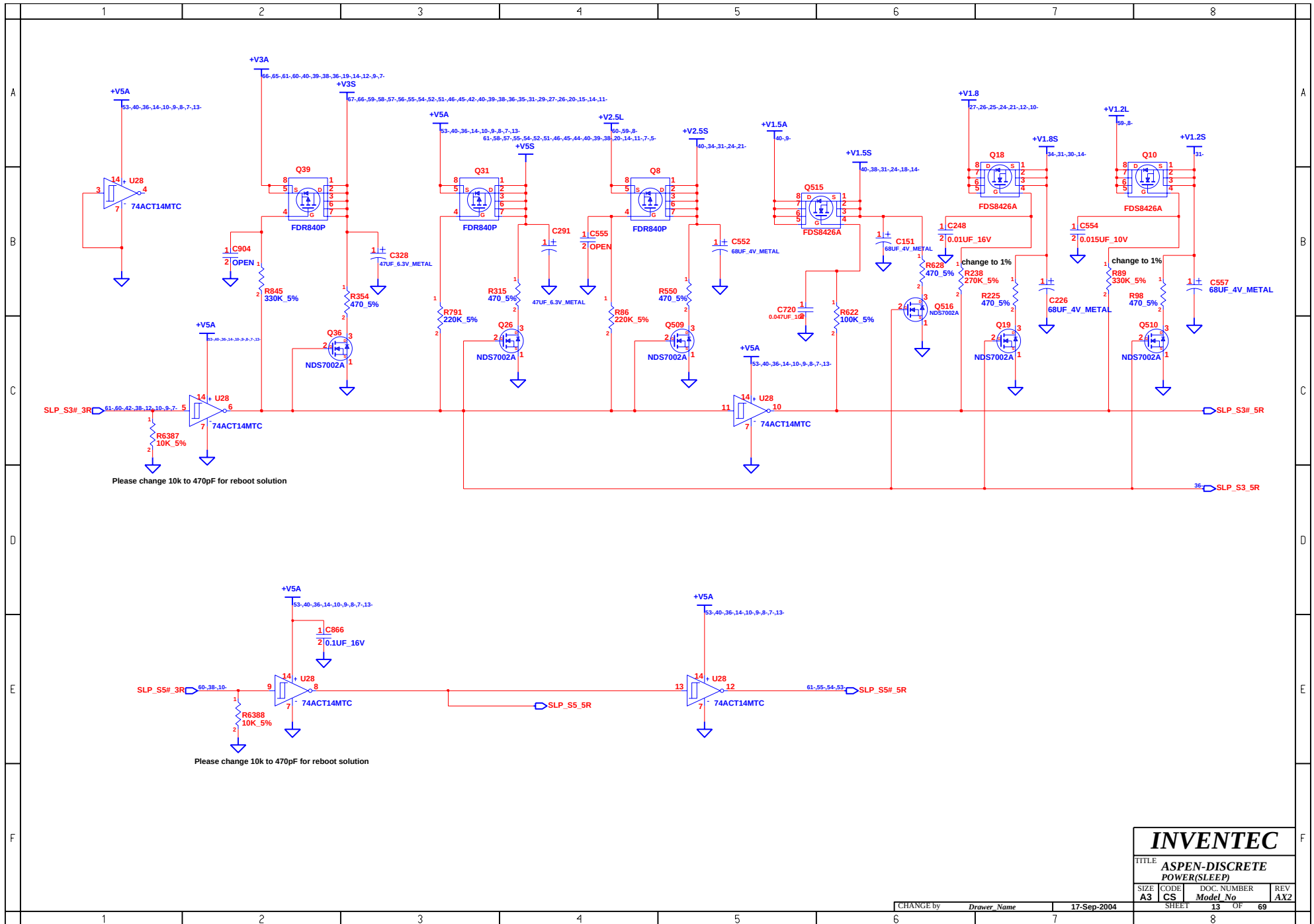
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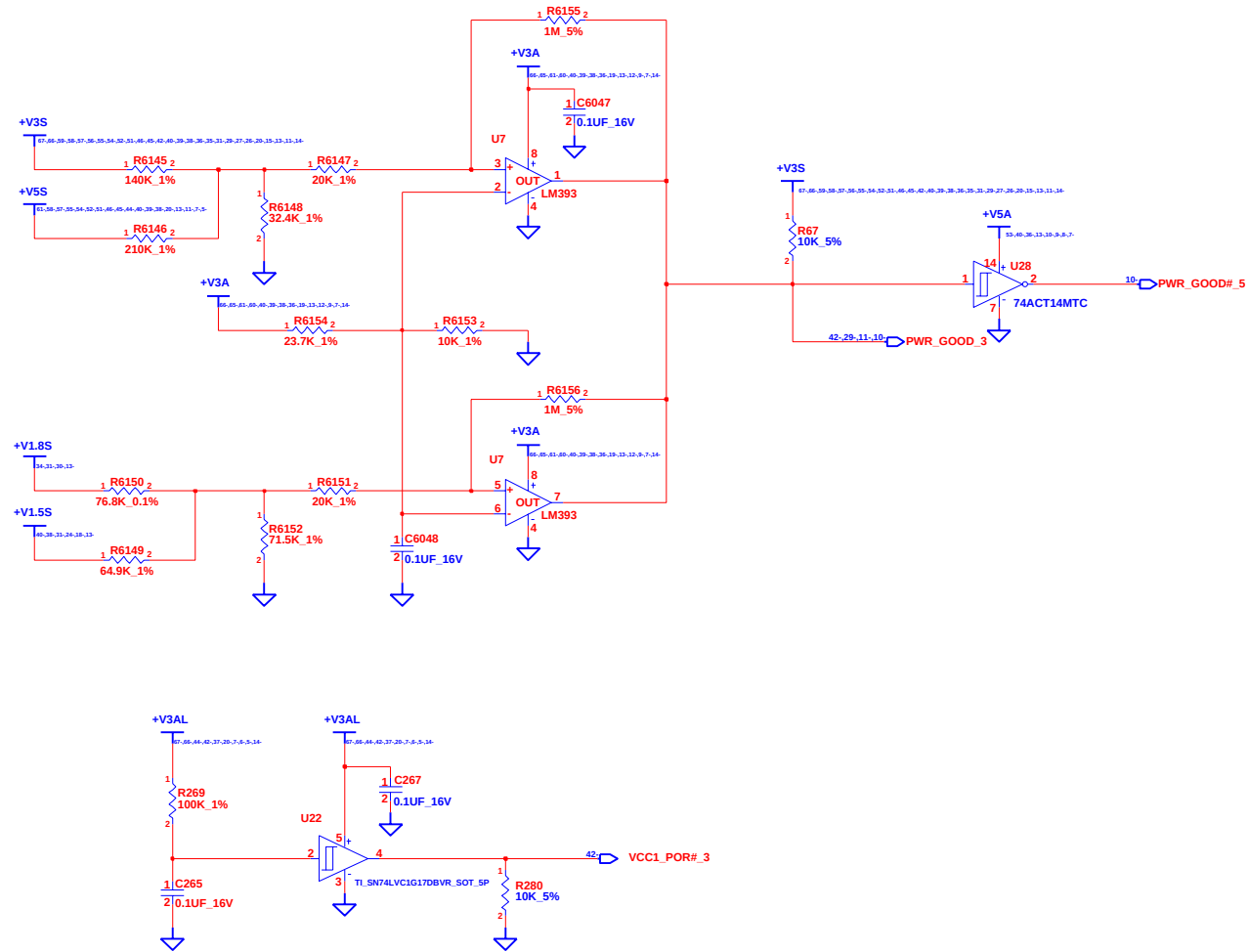
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+V0.9SSIZE CODE DOC. NUMBER REV
A3 CS Model No AX2CHANGE by *Drawn Name* 31-Aug-2004

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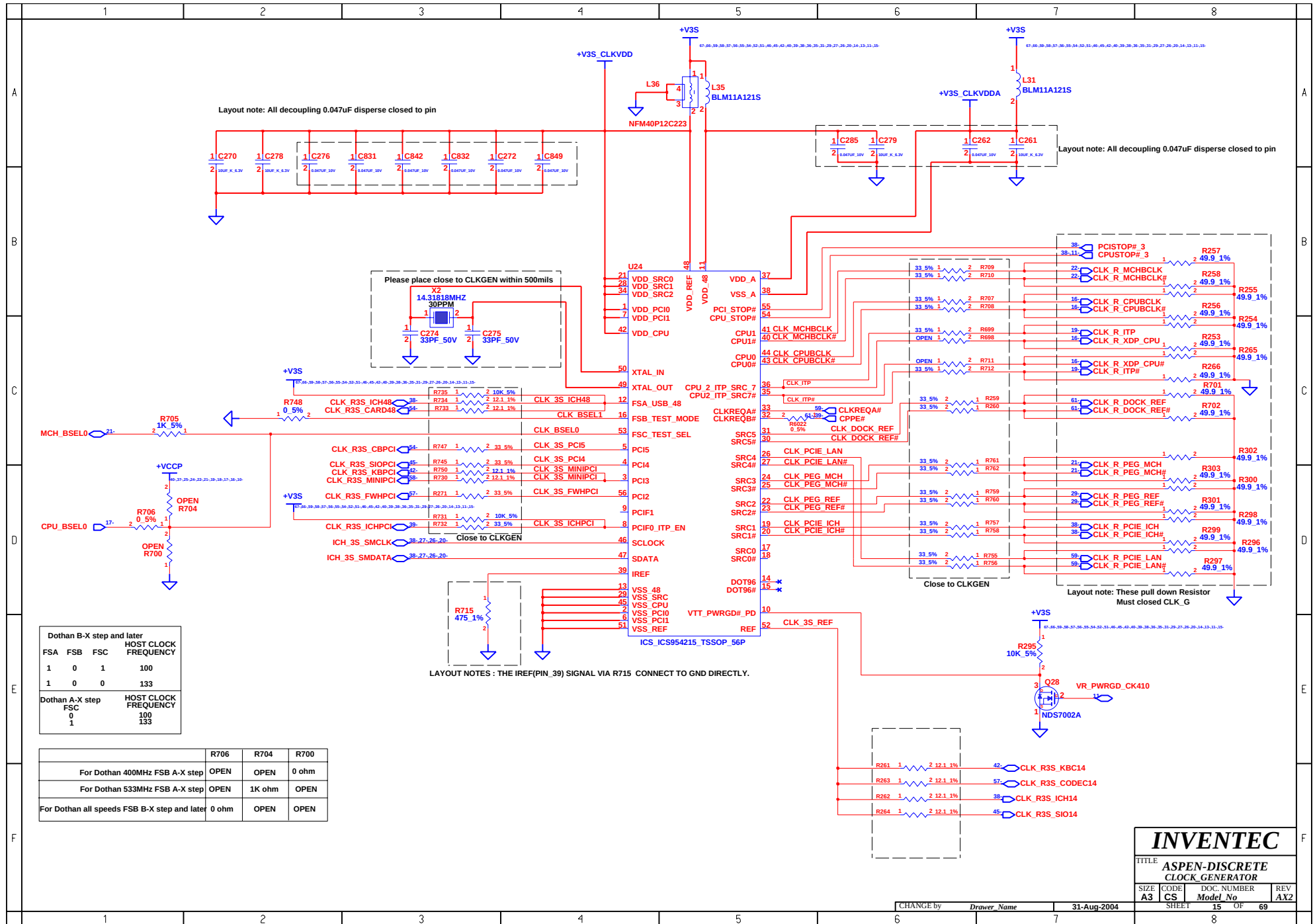
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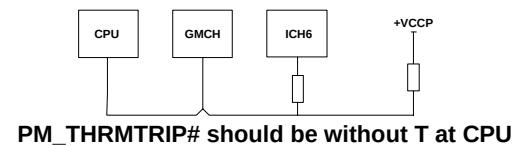
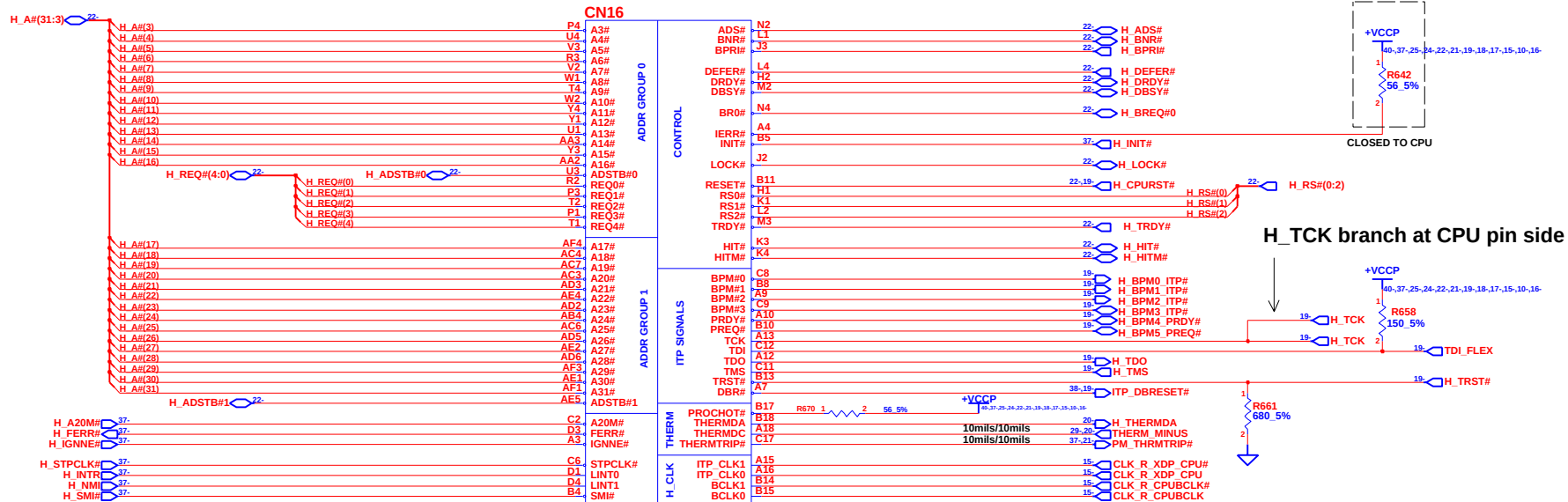


INVENTEC			
TITLE ASPEN-DISCRETE POWER(SLEEP)			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
CHANGE by Drawer Name		17-Sep-2004	
SHEET 13		OF 69	

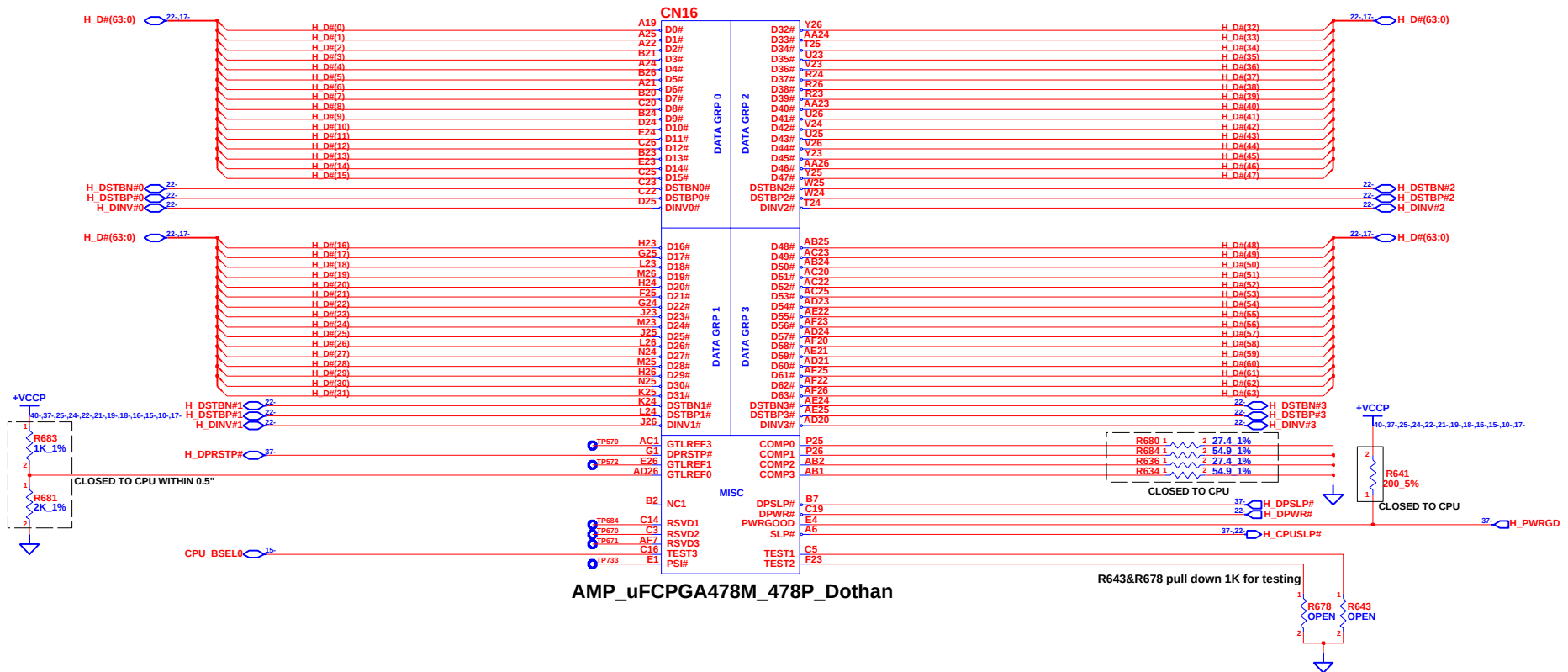
**INVENTEC**TITLE
**ASPEN-DISCRETE
POWER(SEQUENCE)**SIZE CODE DOC. NUMBER REV
A3 CS Model No AX2CHANGE by *Drawn Name* 31-Aug-2004

SHEET 14 OF 69



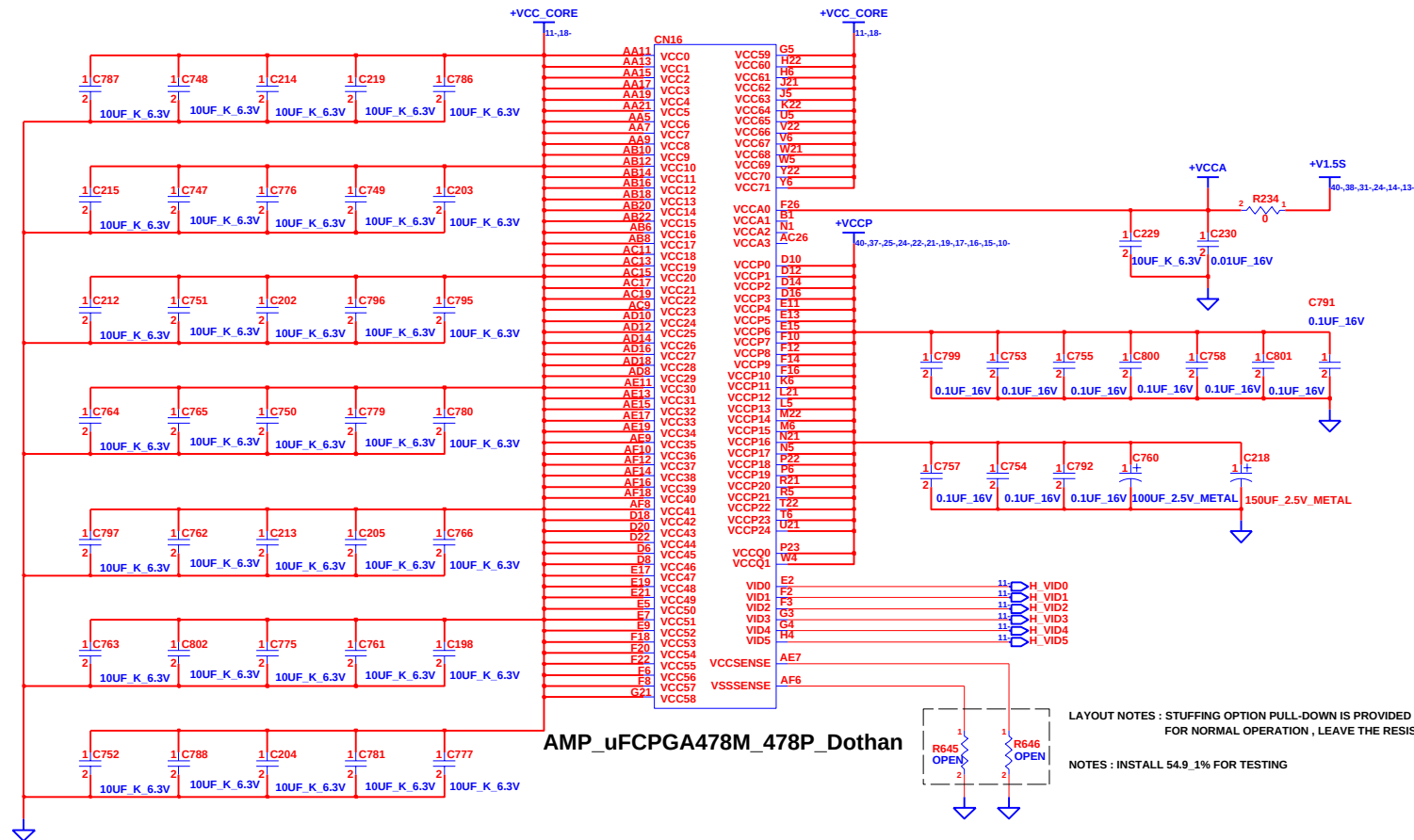


INVENTEC			
TITLE ASPEN-DISCRETE DOTHAN-1			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
CHANGE by Drafter Name		31-Aug-2004	SHEET 16 OF 69

**INVENTEC**TITLE
ASPEN-DISCRETE
DOTHAN-2SIZE CODE DOC. NUMBER REV
A3 CS Model No AX2

CHANGE by Drawer Name 31-Aug-2004

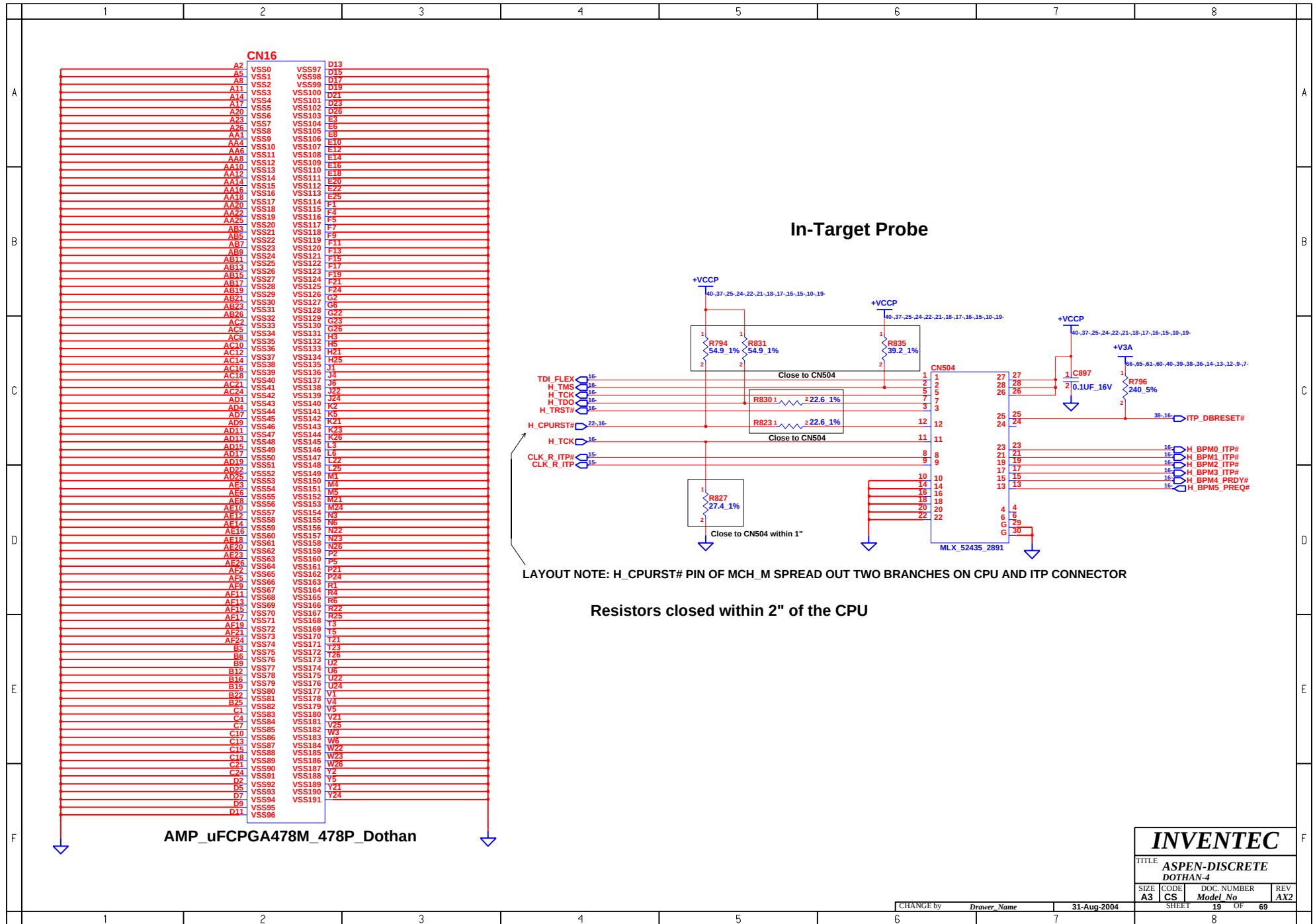
SHEET 17 OF 69

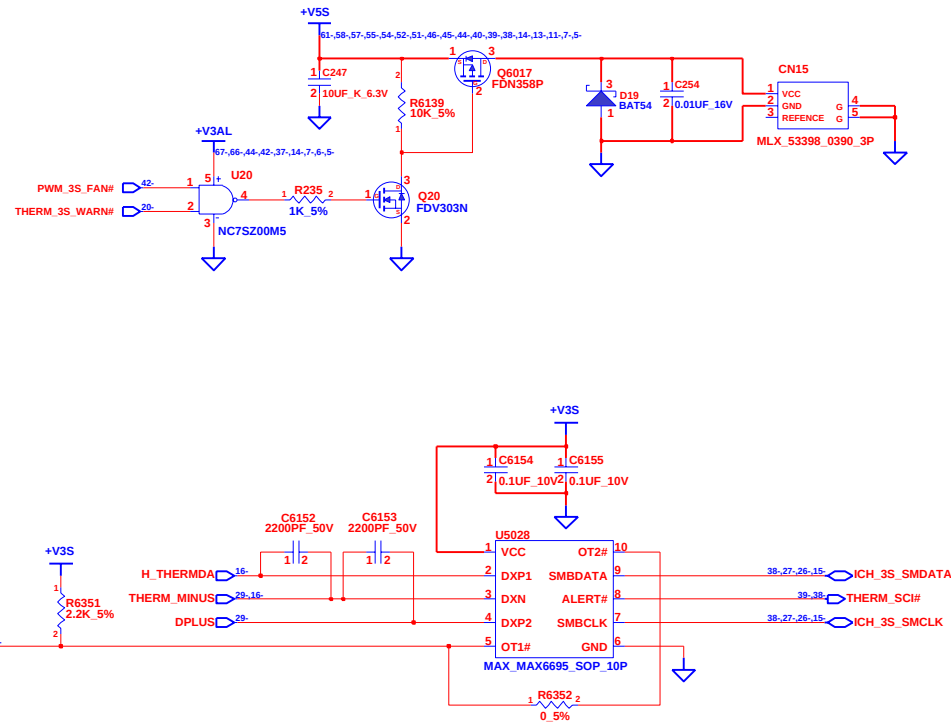
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**ASPEN-DISCRETE
DOTHAN-3**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by *Drawer Name* 31-Aug-2004

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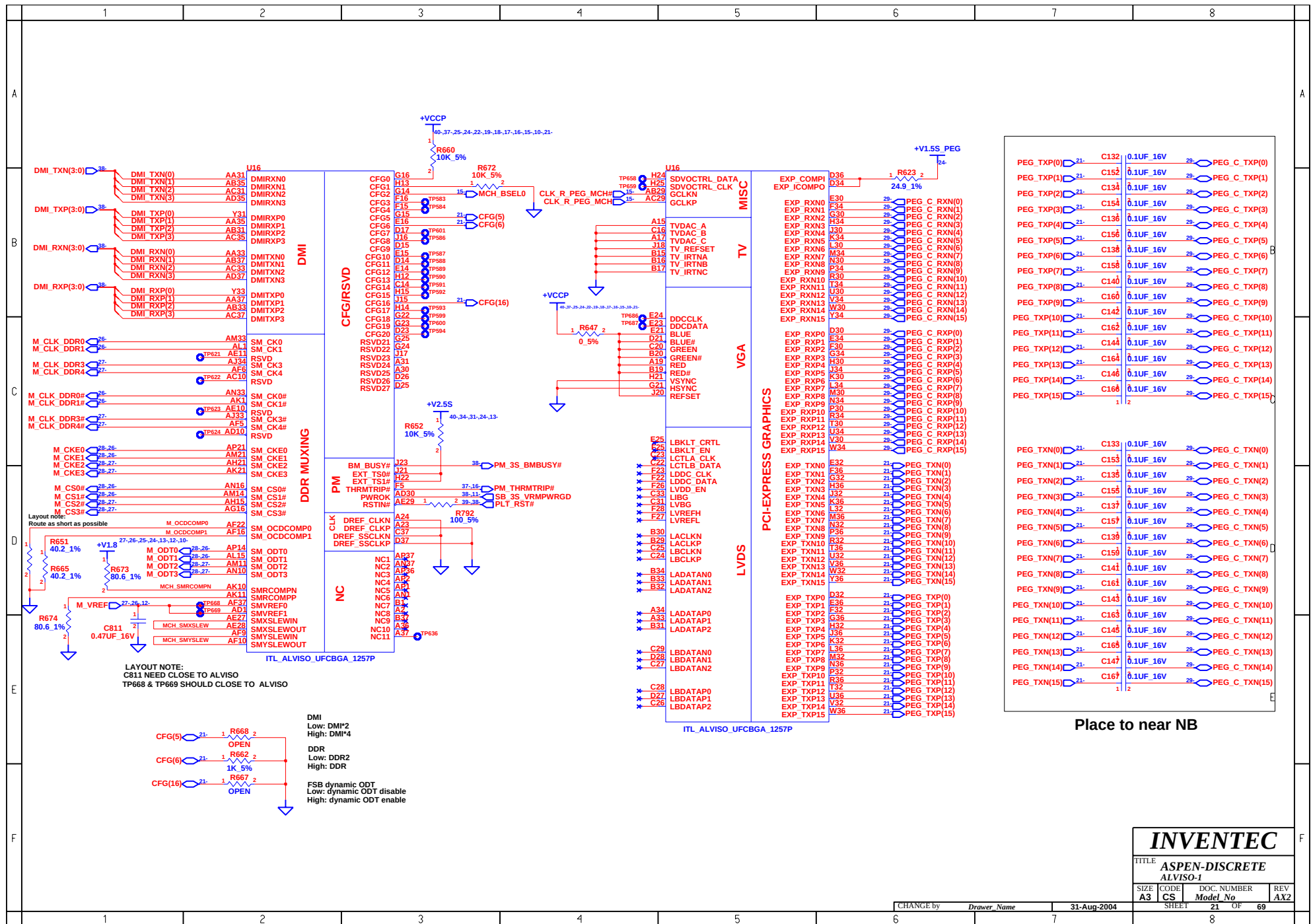




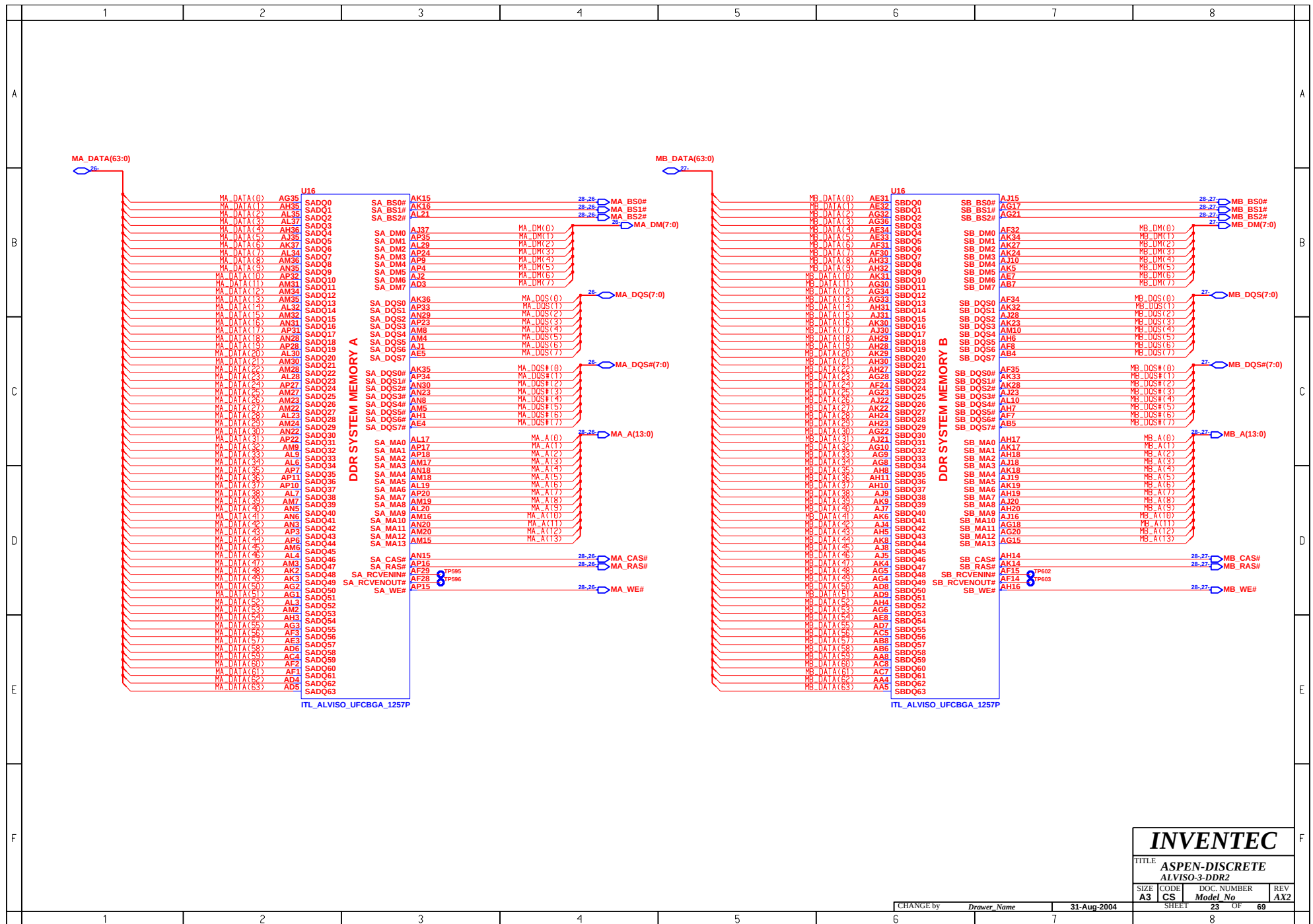
LAYOUT NOTES: PUT THE THERMAL SENSOR CLOSE TO CPU

INVENTEC			
TITLE			
ASPEN-DISCRETE THERMAL&FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2
SHEET		20	OF 69

CHANGE by *Drawn Name* 31-Aug-2004



SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	RE A
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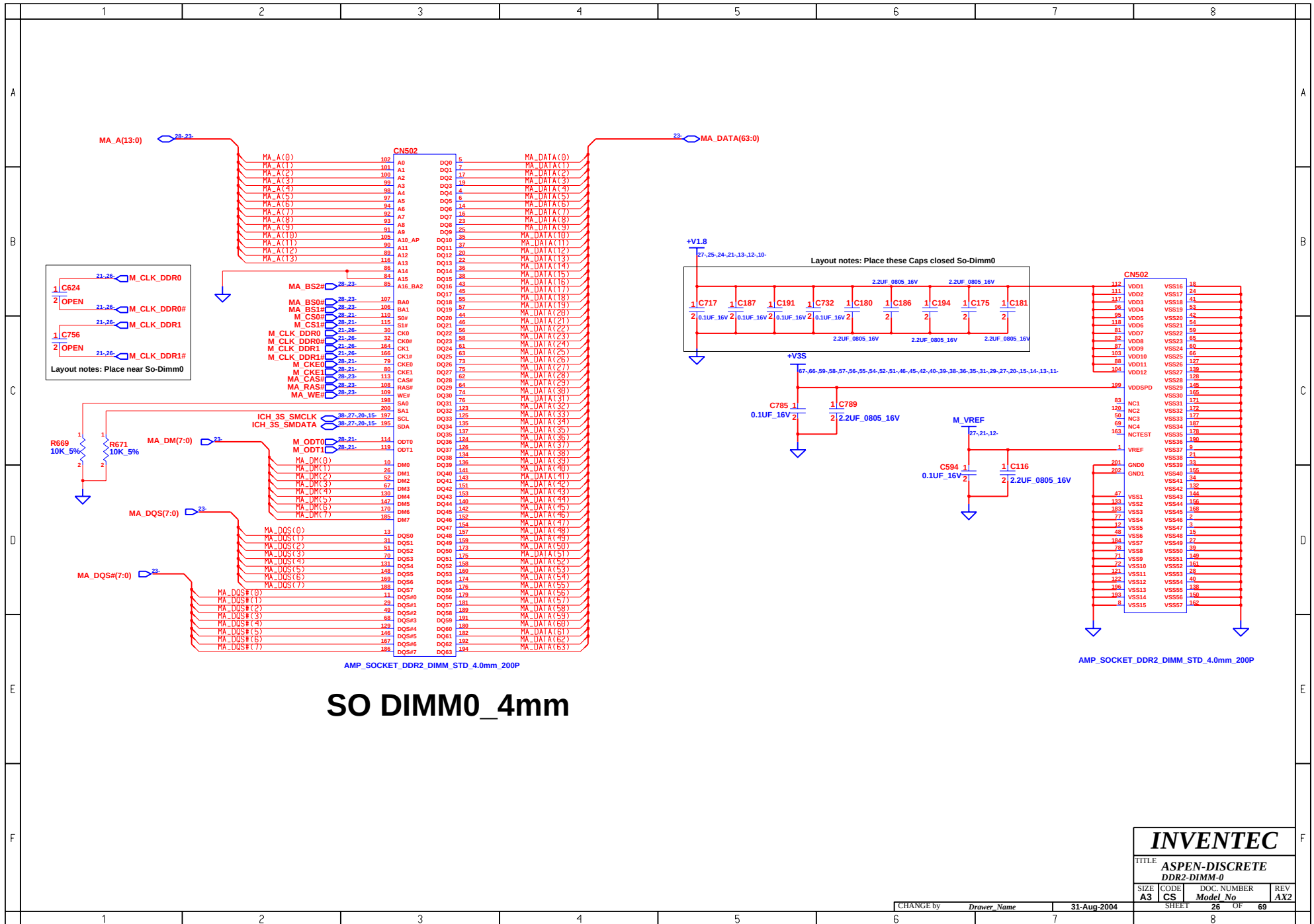
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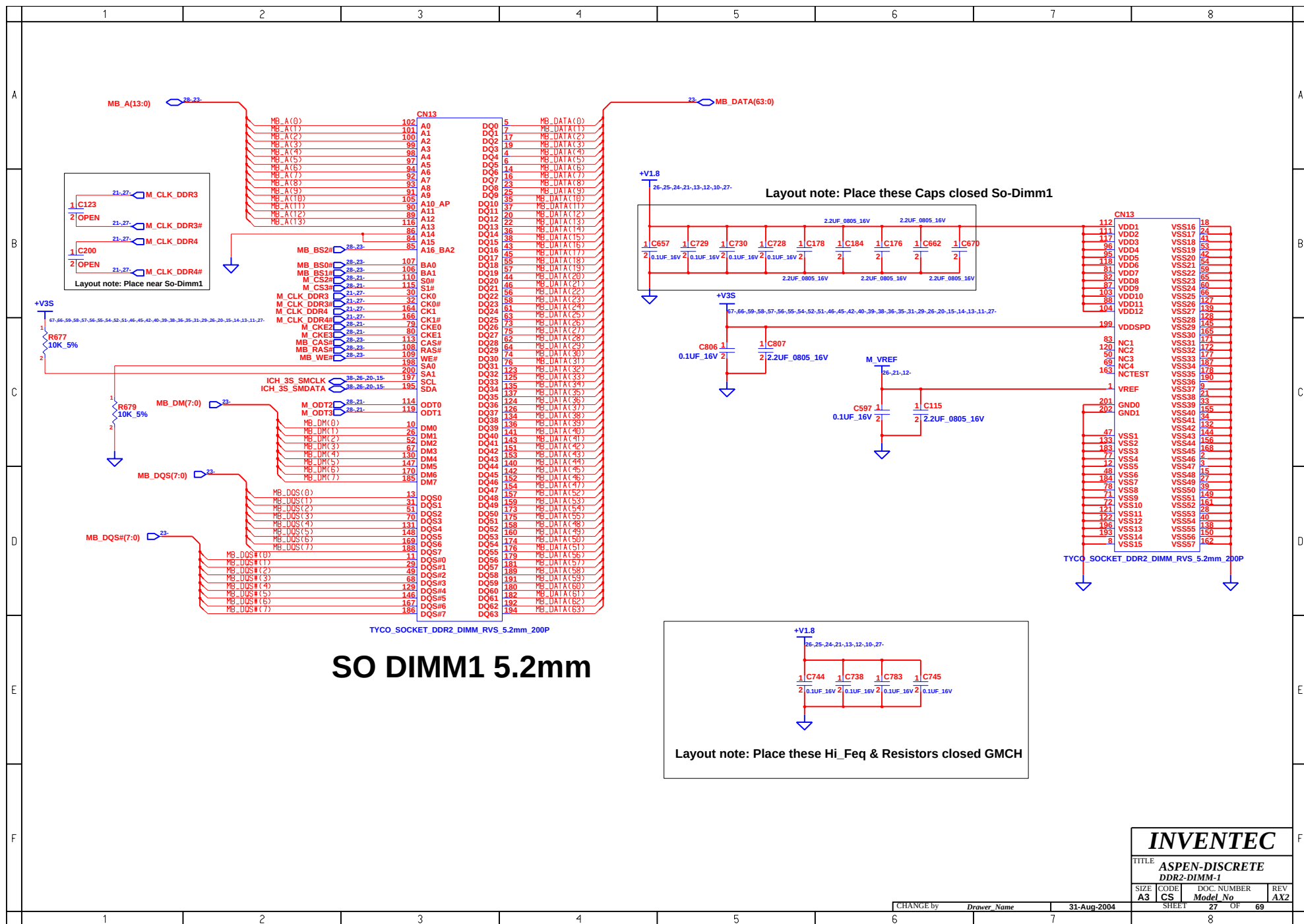
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ALVISO-3-DDR2SIZE CODE CS DOC. NUMBER REV AX2
Model No

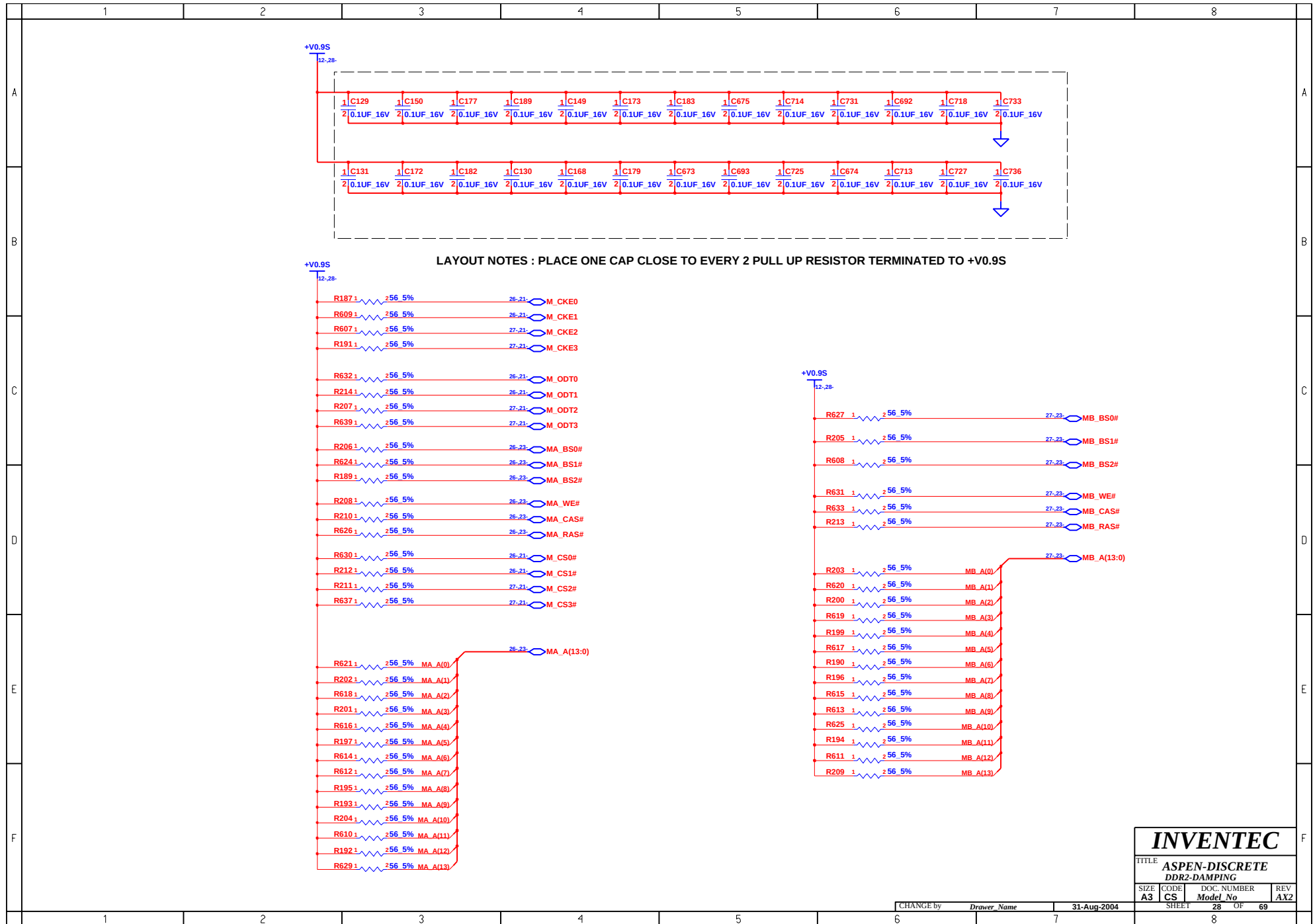
CHANGE by Drawer Name 31-Aug-2004

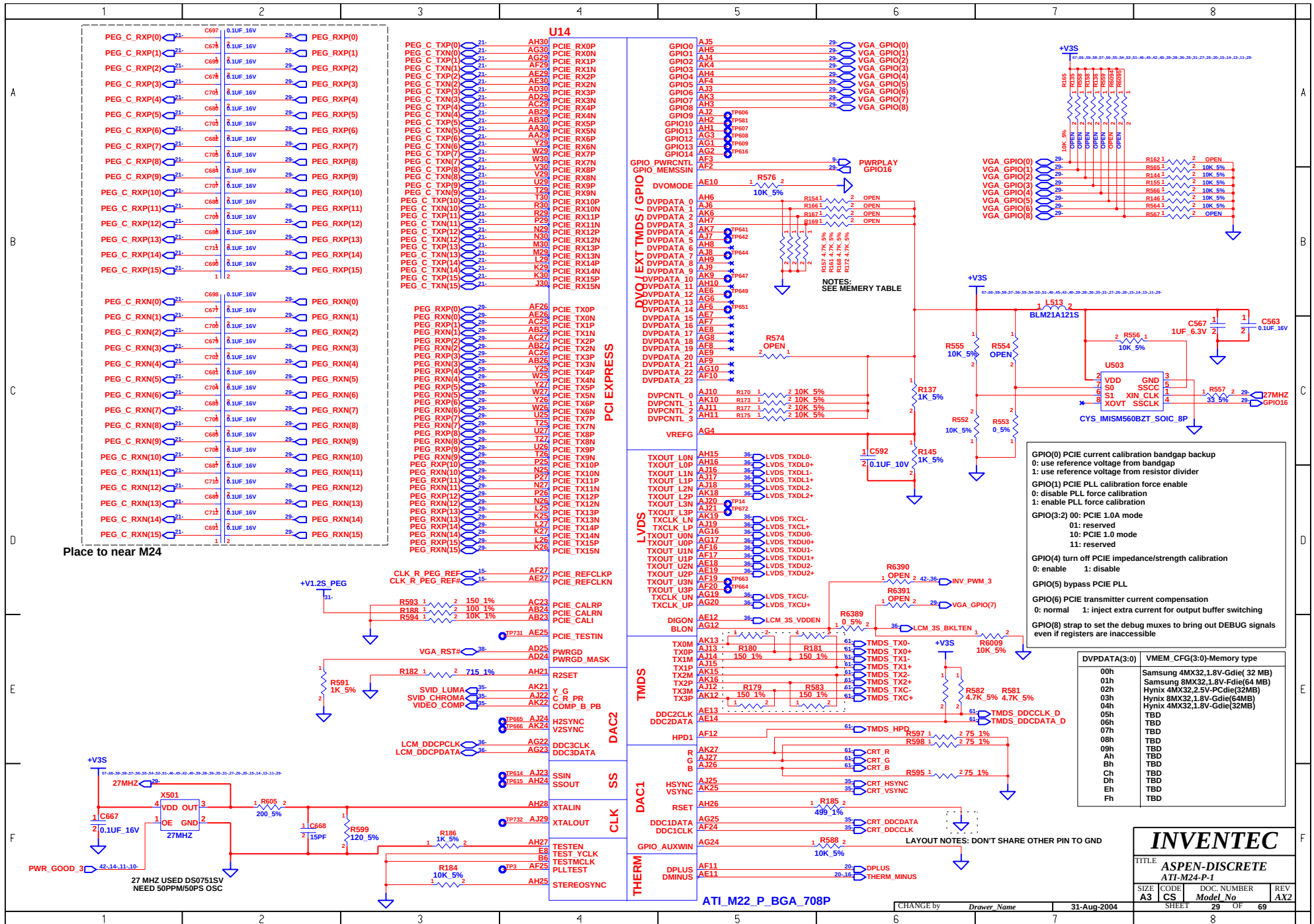
SHEET 23 OF 69

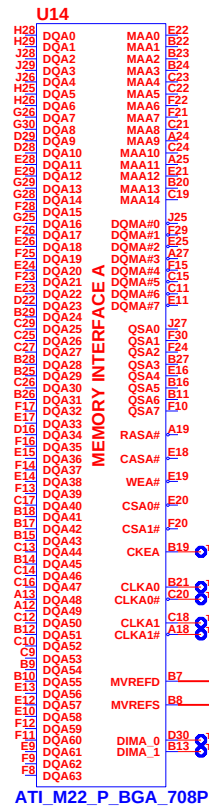
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ASPEN-DISCRETE ALVISO-4-POWER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	<i>Model No</i>	AX2
SHEET		24	OF 69



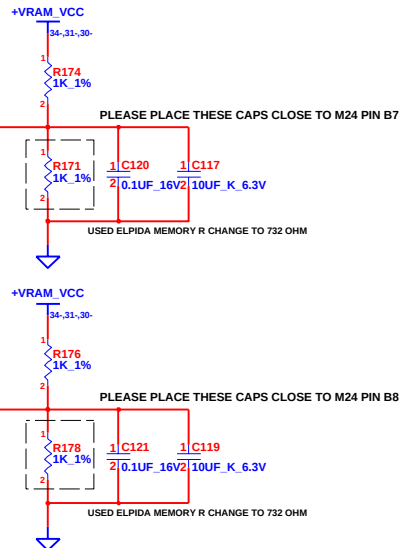




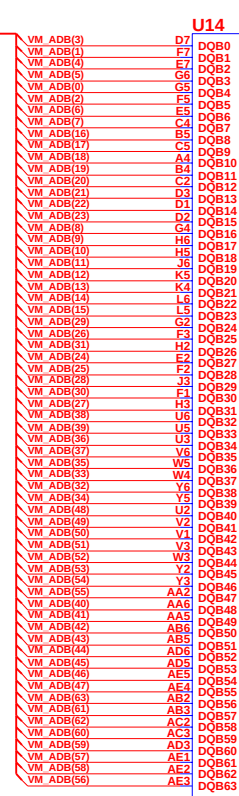




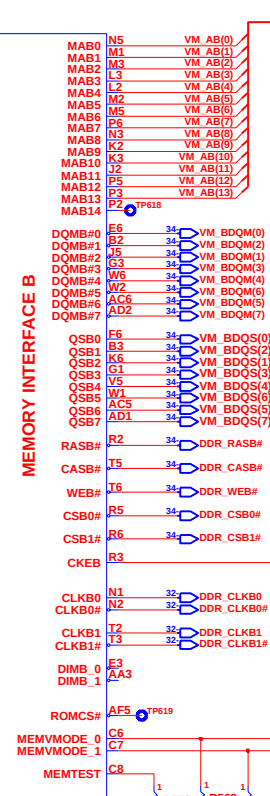
**Layout Note:
CLOSE TO ATI**



VM_ADB(63:0)



ATI_M22_P_BGA 708P



VM_AB(13:0)

LAYOUT NOTES :

MEMVMODE_0, MEMVMODE_1, VDDR1(VRAM_VCC)
0, 4.7K PULL UP TO V1.8S, 1.8V
4.7K PULL UP TO V1.8S, 0 2.5V

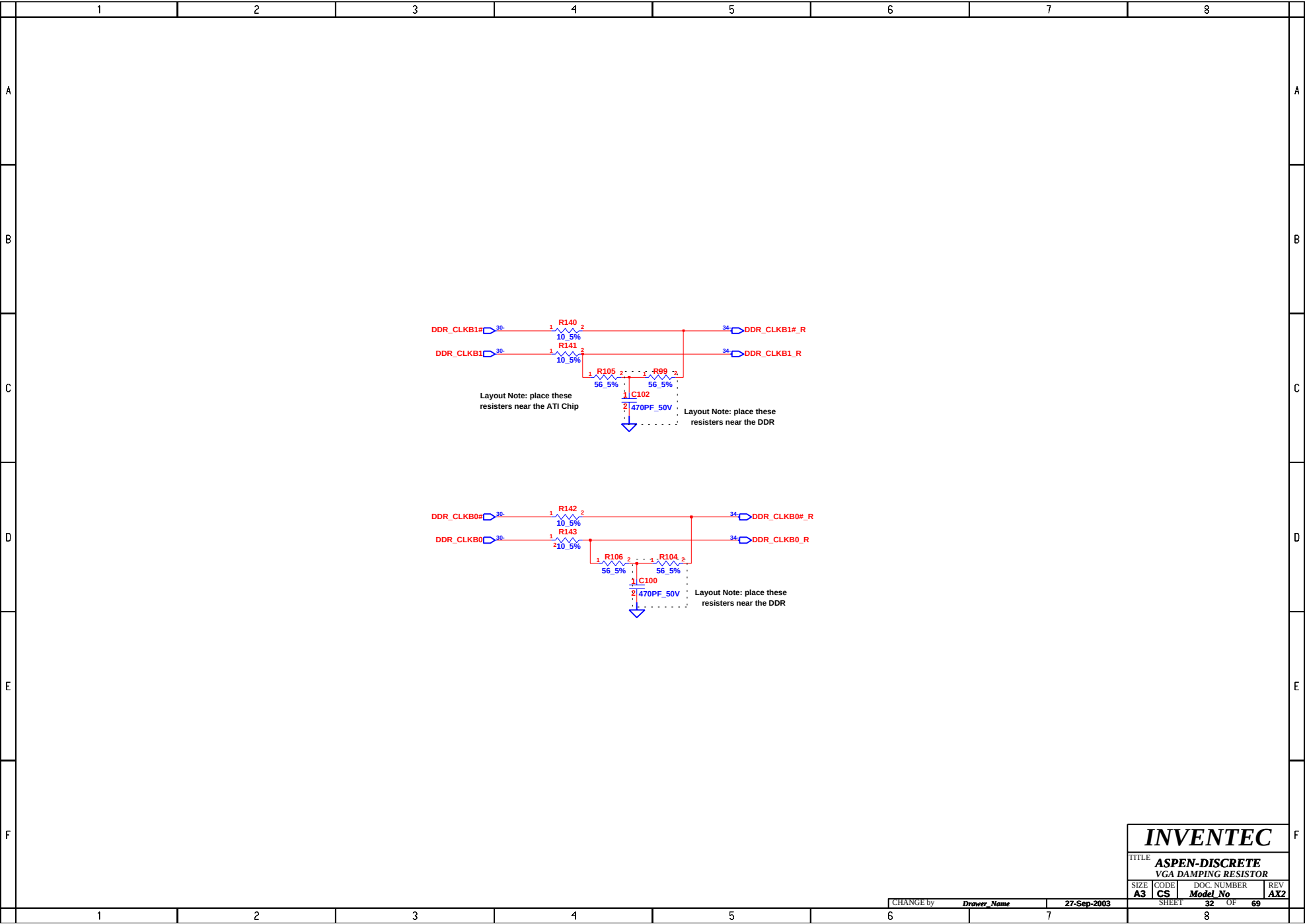
INVENTEC

TITLE
ASPEN-DISCRETE
ATI-M24-P-3

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by Drawer Name 31-Aug-2004

SHEET 30 OF 69



INVENTEC

TITLE
ASPEN-DISCRETE
VGA DAMPING RESISTOR

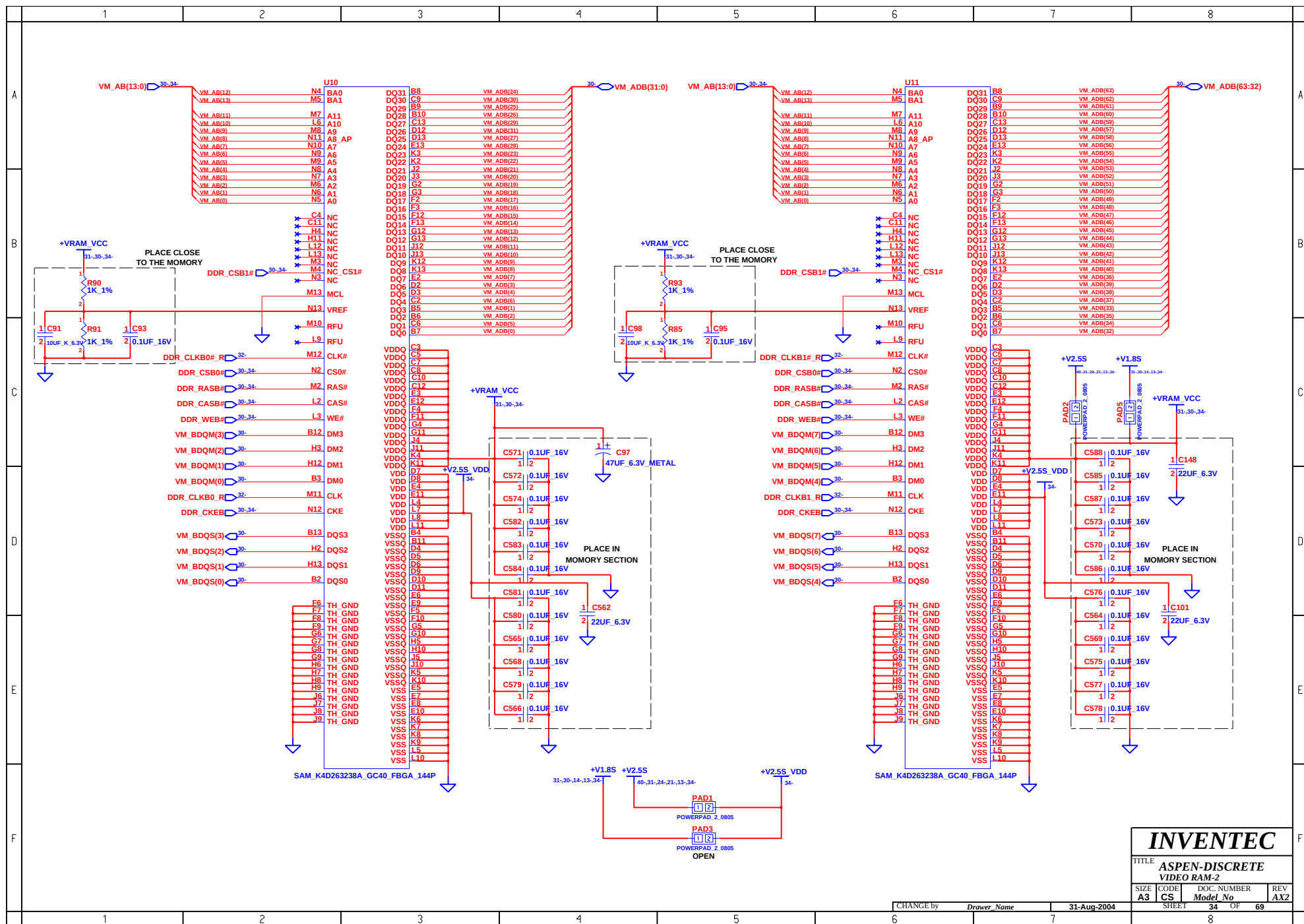
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
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CHANGE by *Drawn Name* 27-Sep-2003

SHEET 32 OF 69

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

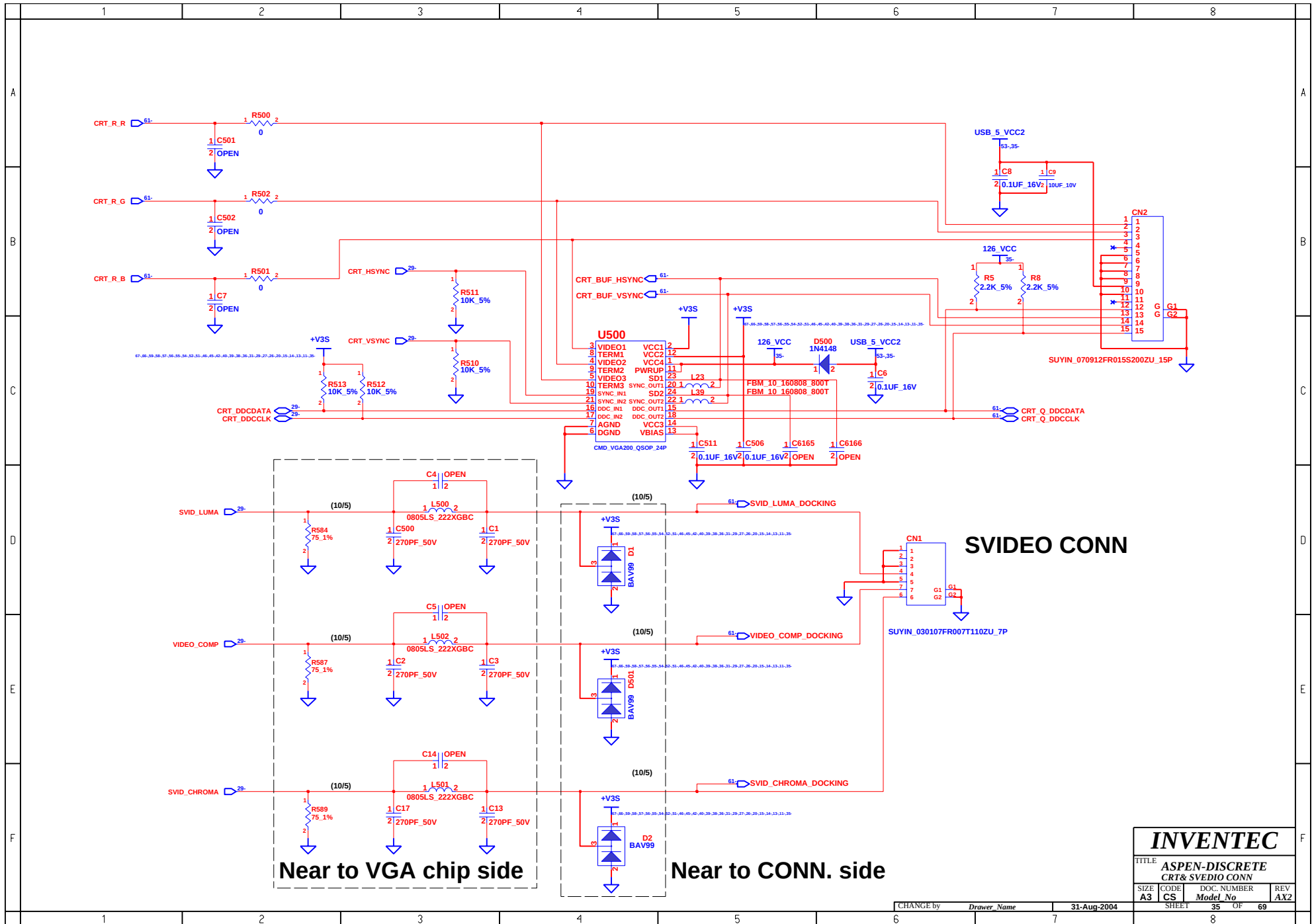
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SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
CHANGE by Drafter Name		31-Aug-2004	
SHEET		33	OF 69

**INVENTEC**TITLE
ASPEN-DISCRETE
VIDEO RAM-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by: Drawer Name 31-Aug-2004

SHEET 34 OF 69



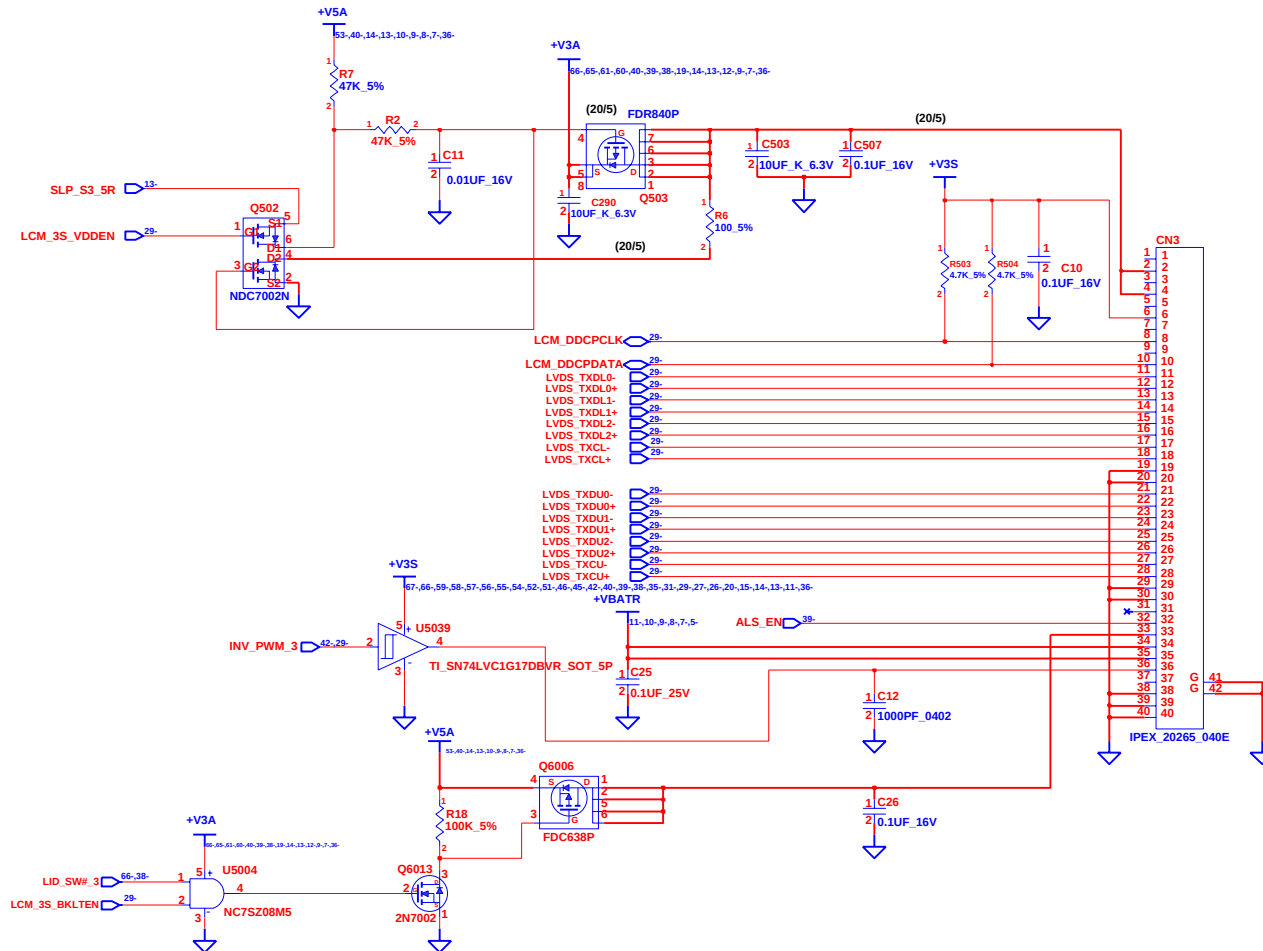
INVENTEC

TITLE			
ASPEN-DISCRETE CRT & SVIDEO CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by: *Drawn Name* 31-Aug-2004

SHEET 35 OF 69

Place closed to connector



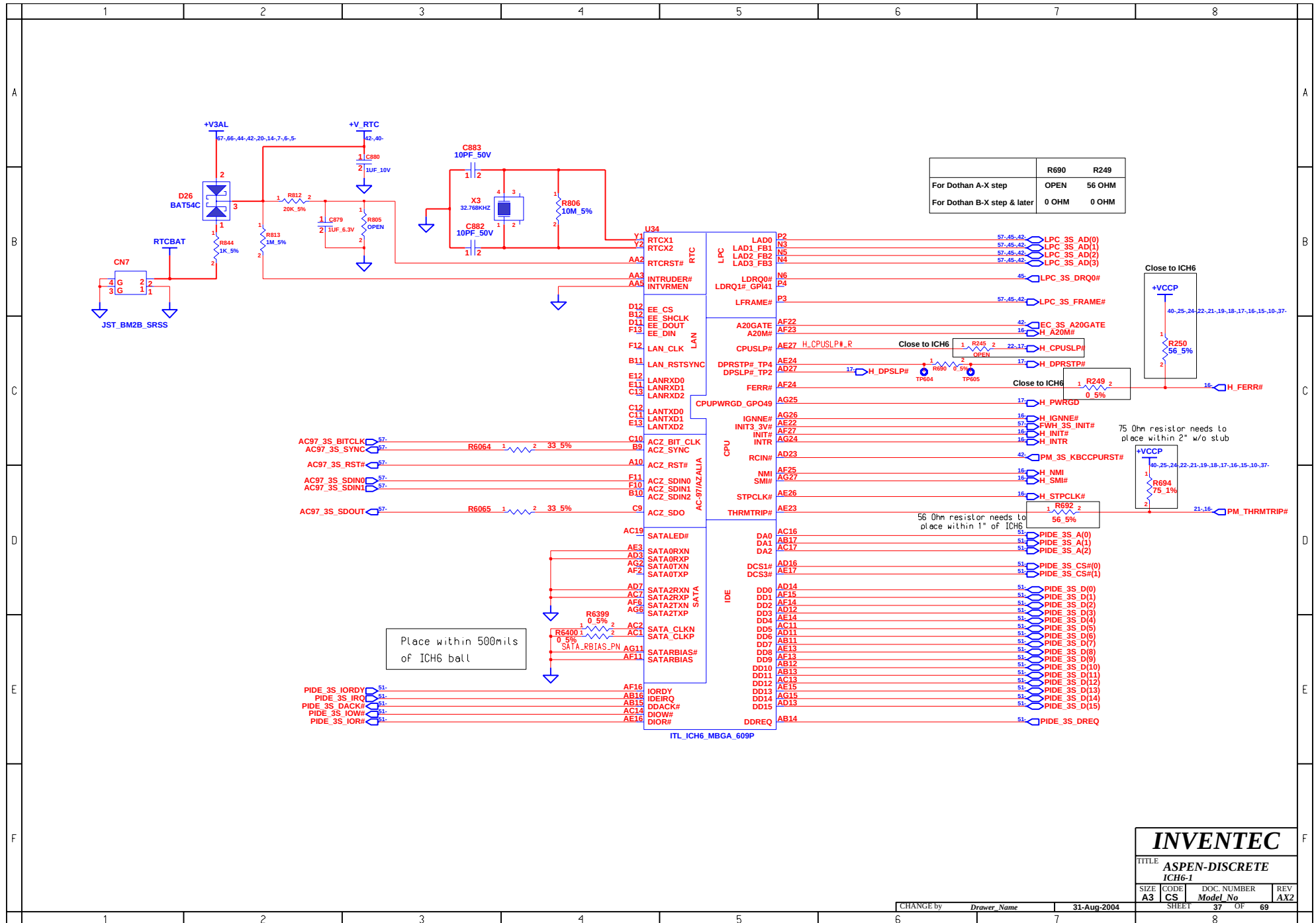
INVENTEC

TITLE
ASPEN-DISCRETE
LCD CONN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by *Drawn Name* 31-Aug-2004

SHEET 36 OF 69



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B									B
C									C
D									D
E									E
F									F

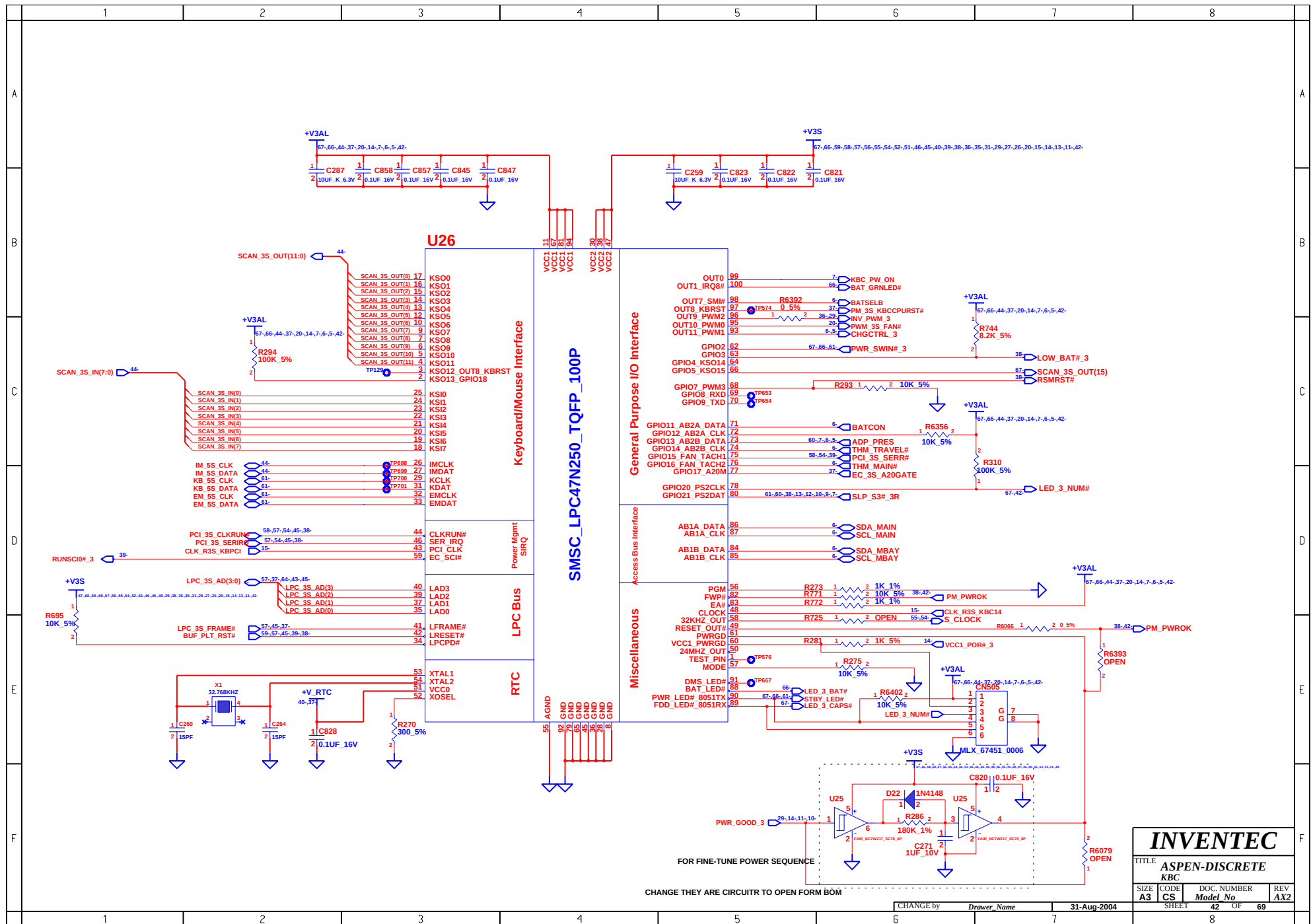
U34
E27 VSS172 VSS86 F4
Y26 VSS171 VSS85 F22
Y27 VSS170 VSS84 F17
Y26 VSS169 VSS83 E25
Y23 VSS168 VSS82 E18
W7 VSS167 VSS81 E15
W25 VSS166 VSS80 E14
W24 VSS165 VSS79 D22
W23 VSS164 VSS78 D20
W1 VSS163 VSS77 D18
V4 VSS162 VSS76 D13
V27 VSS161 VSS75 D10
V26 VSS160 VSS74 D1
V23 VSS159 VSS73 C1
U25 VSS158 VSS72 C22
U24 VSS157 VSS71 C20
U23 VSS156 VSS70 C18
U15 VSS155 VSS69 C14
U13 VSS154 VSS68 B25
T7 VSS153 VSS67 B24
T27 VSS152 VSS66 B23
T23 VSS151 VSS65 B21
T16 VSS150 VSS64 B19
T14 VSS149 VSS63 B15
T13 VSS148 VSS62 B13
T13 VSS147 VSS61 AG7
T12 VSS146 VSS60 AG3
T1 VSS145 VSS59 AG22
R4 VSS144 VSS58 AG20
R25 VSS143 VSS57 AG17
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R23 VSS141 VSS55 AG12
R17 VSS140 VSS54 AG1
R16 VSS139 VSS53 AG7
R15 VSS138 VSS52 AG3
R15 VSS137 VSS51 AG22
R14 VSS136 VSS50 AG20
R12 VSS135 VSS49 AG17
R11 VSS134 VSS48 AG14
P22 VSS133 VSS47 AG12
P16 VSS132 VSS46 AG10
P15 VSS131 VSS45 AG1
P14 VSS130 VSS44 AG7
P13 VSS129 VSS43 AG3
P12 VSS128 VSS42 AG22
P12 VSS127 VSS41 AG20
N7 VSS126 VSS40 AG17
N17 VSS125 VSS39 AG14
N16 VSS124 VSS38 AG12
N15 VSS123 VSS37 AG10
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N13 VSS121 VSS35 AG3
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N1 VSS119 VSS33 AG20
M4 VSS118 VSS32 AG17
M27 VSS117 VSS31 AG14
M26 VSS116 VSS30 AG12
M23 VSS115 VSS29 AG10
M18 VSS114 VSS28 AG7
M15 VSS113 VSS27 AG3
M14 VSS112 VSS26 AG22
M13 VSS111 VSS25 AG20
M12 VSS110 VSS24 AG17
L25 VSS109 VSS23 AG14
L24 VSS108 VSS22 AG12
L23 VSS107 VSS21 AG10
L15 VSS106 VSS20 AG7
L13 VSS105 VSS19 AG3
K7 VSS104 VSS18 AG22
K27 VSS103 VSS17 AG20
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K1 VSS100 VSS14 AG12
J5 VSS99 VSS13 AG10
J24 VSS98 VSS12 AG7
J23 VSS97 VSS11 AG3
H27 VSS96 VSS10 AG22
H26 VSS95 VSS9 AG20
H23 VSS94 VSS8 AG17
G9 VSS93 VSS7 AG14
G7 VSS92 VSS6 AG12
G21 VSS91 VSS5 AG10
G12 VSS90 VSS4 AG7
G12 VSS89 VSS3 AG3
G1 VSS88 VSS2 AG22
VSS87 VSS1 AG20

ITL_ICH6_MBG6_609P



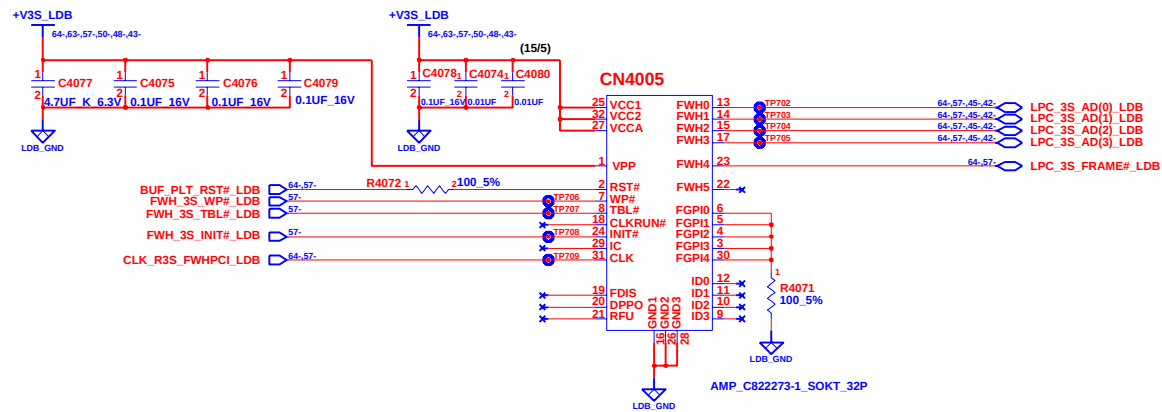
INVENTEC			
TITLE ASPEN-DISCRETE			
ICH6-5			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
SHEET 41		OF 69	

CHANGE by Drafter Name 31-Aug-2004



CHANGE THEY ARE CIRCUIT TO OPEN FORM BOM

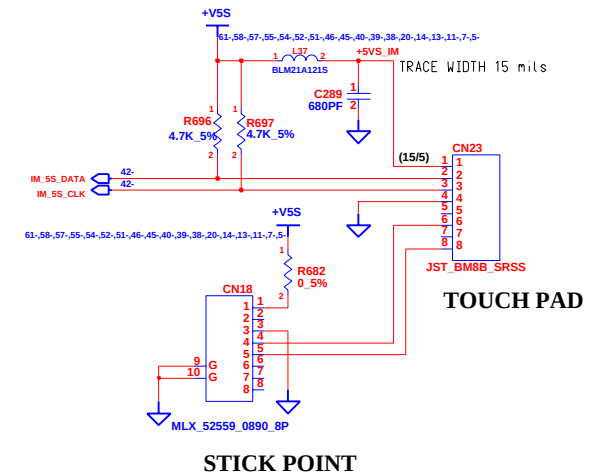
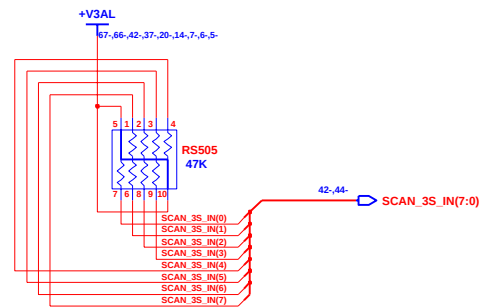
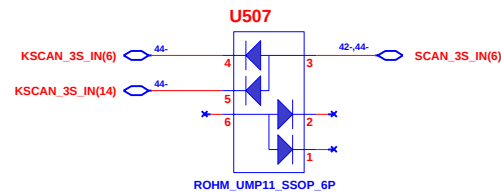
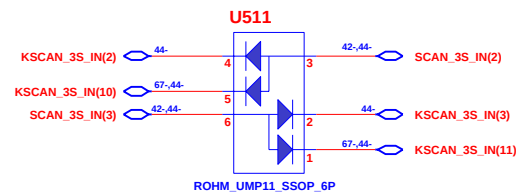
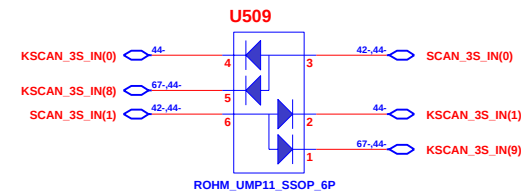
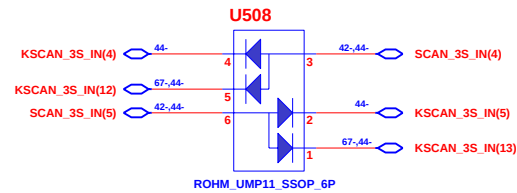
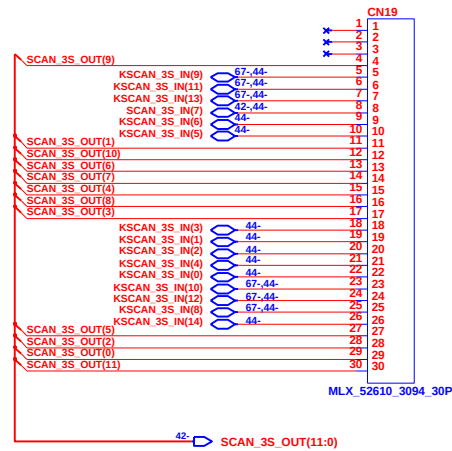
CHANGE by: Drawer Name 31-Aug-2004



MDC , TCPA , OCP , FWH , AC97 B/B DAUGHTER BOARD

INVENTEC			
TITLE ASPEN-DISCRETE FWH			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
SHEET 43 OF 69			

CHANGE by *Drawn Name* 31-Aug-2004

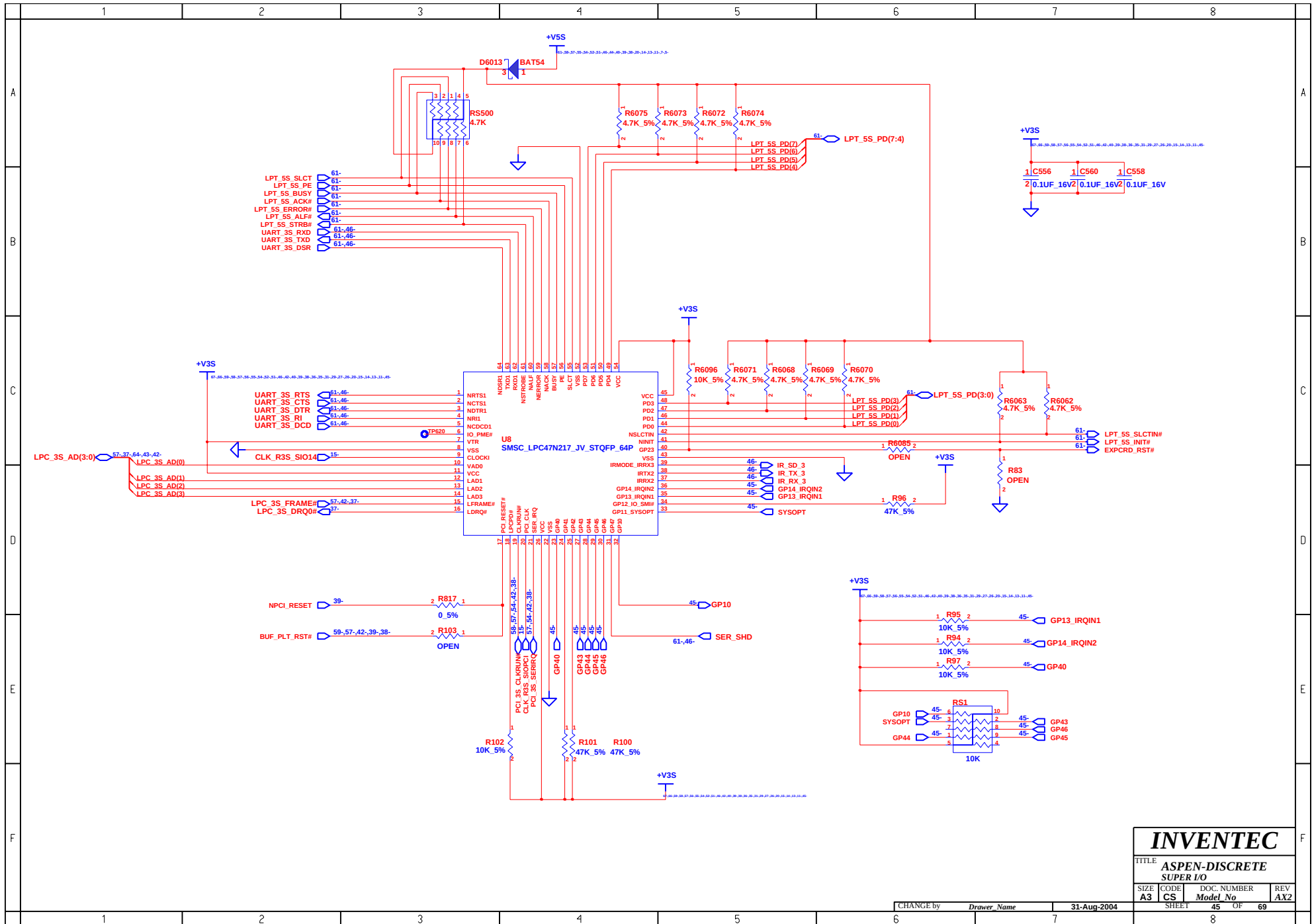

INVENTEC

 TITLE
ASPEN-DISCRETE
 INT.KBC/POINT DEVICES

 SIZE CODE CS DOC. NUMBER REV AX2
 Model No

CHANGE by Drawer Name 31-Aug-2004

SHEET 44 OF 69



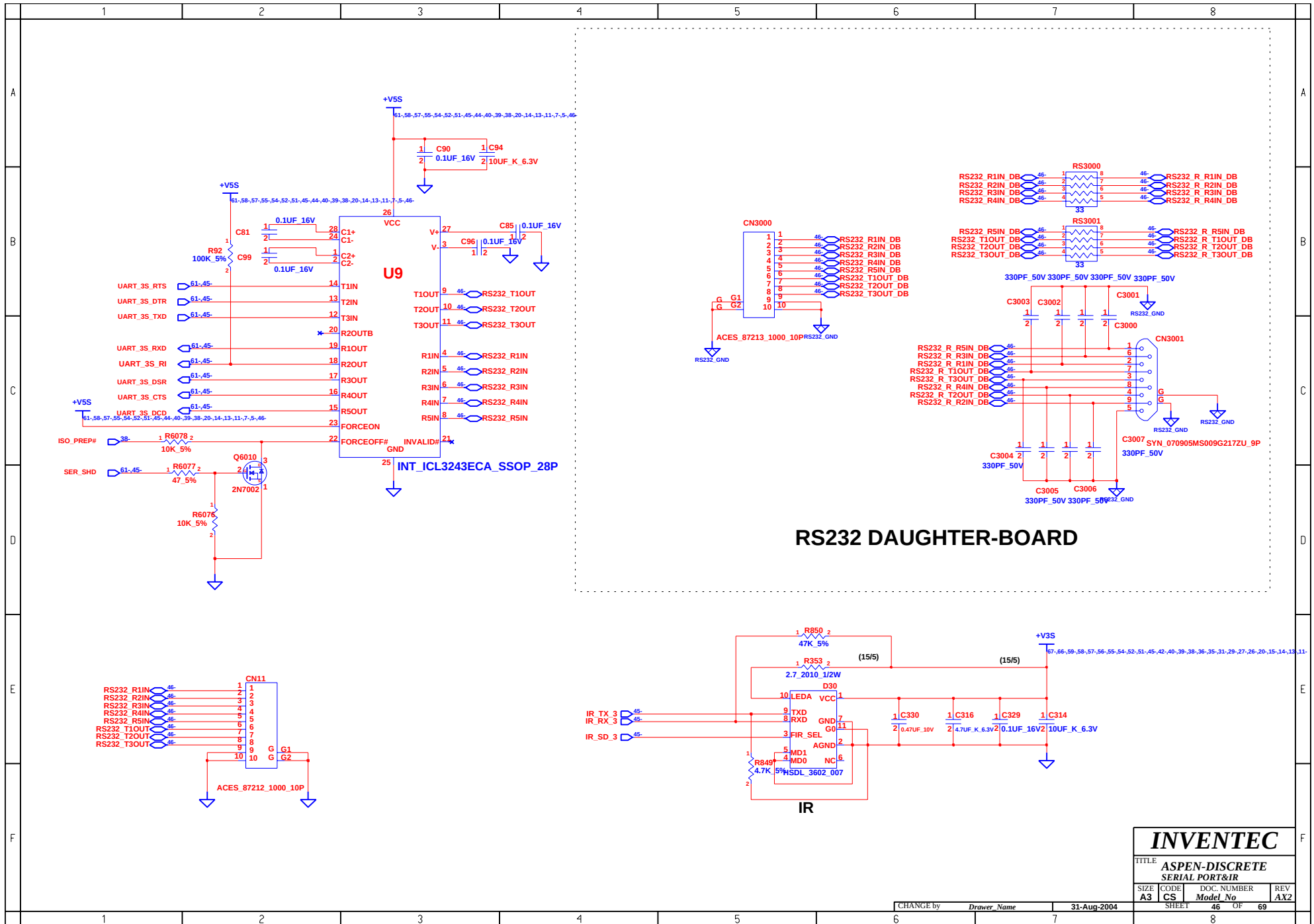
INVENTEC

TITLE
ASPEN-DISCRETE
SUPER I/O

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by *Drawer Name* 31-Aug-2004

SHEET 45 OF 69



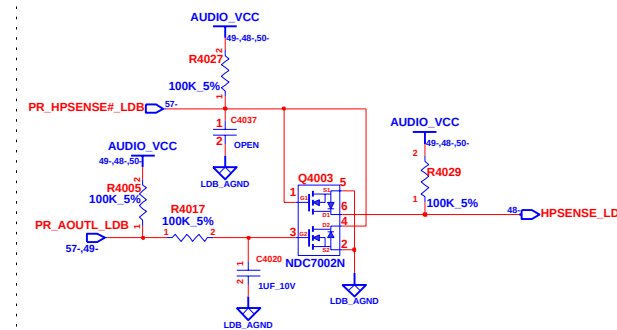
	1	2	3	4	5	6	7	8	
A	BLANK								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE ASPEN-DISCRETE PARALLER PORT			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
CHANGE by Drafter Name		31-Aug-2004	
SHEET		47	OF 69

OCP , FWH , AC97 B/B DAUGHTER BOARD MDC , TCPA

INVENTEC			
TITLE ASPEN-DISCRETE EQ&MIC JACK			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV AX2
SHEET		49 OF	69

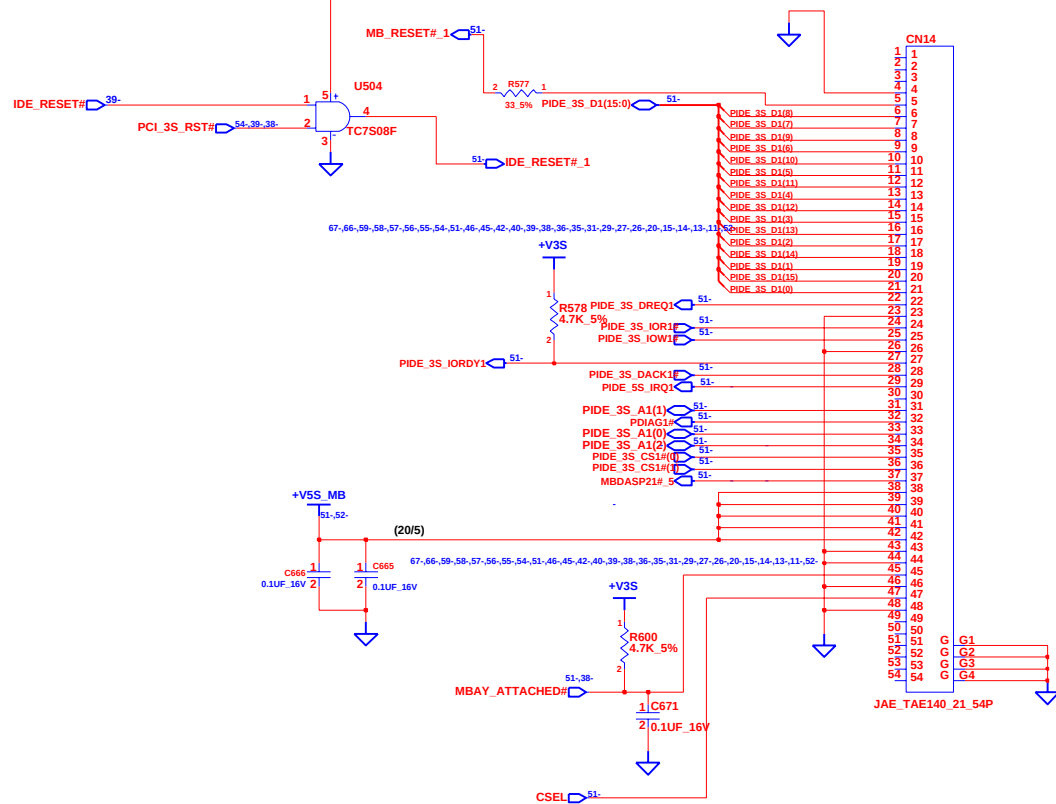
The schematic diagram illustrates the LDB (Low-Dropout Buffer) circuit for the HPL and HPR channels. The circuit is powered by +V3S_LDB and V5SB. The input stage consists of two input buffers, HPL and HPR, which are connected to the LDB_AGN and LDB_BGN pins. The output stage consists of two output buffers, R4001 and R4002, which are connected to the LDB_AGN and LDB_BGN pins. The circuit also includes a differential output stage (R4003, R4004) and a differential output stage (R4005, R4006). The output is connected to the LDB_AGN and LDB_BGN pins.

[illegible][illegible]

TITLE	ASPEN-DISCRETE AUDIO AMP & HP JACK
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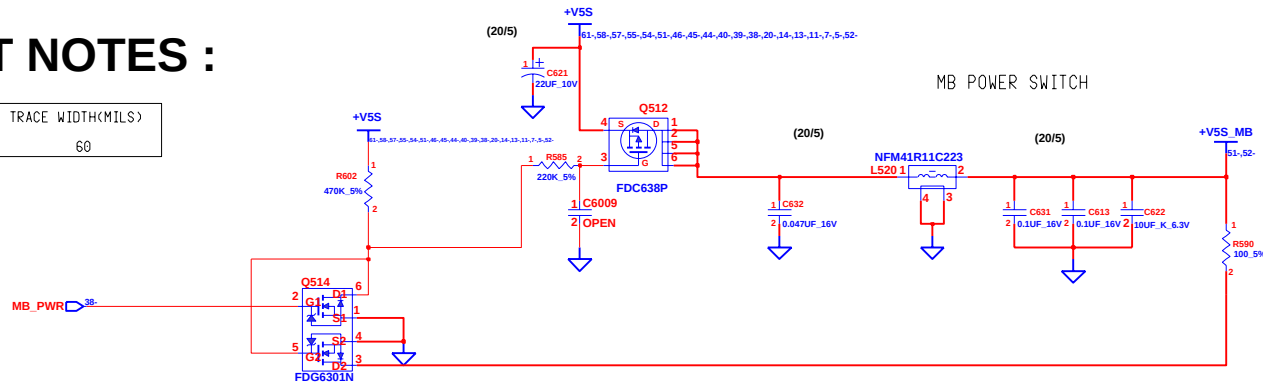
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

LAYOUT NOTE : WILL BE CHANGE PUSH CONN 54 PIN



LAYOUT NOTES :

SIGNAL NAME	TRACE WIDTH(MILS)
+VSS_MB	60



INVENTEC

TITLE
ASPEN-DISCRETE
MULTIBAY CONN

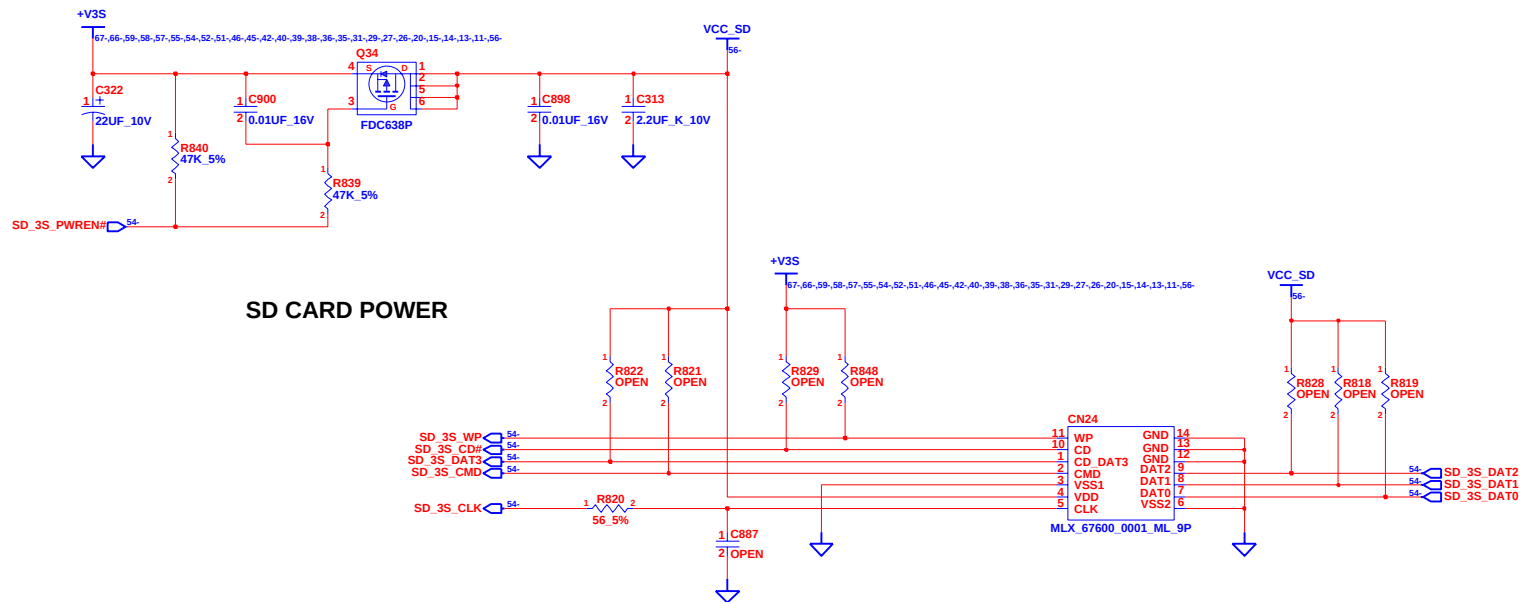
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by *Drawn Name* 31-Aug-2004

SHEET 52 OF 69

Open R3, Q42 and add 0ohm at R6408 for TPS2065

TITLE			
ASPEN-DISCRETE PC CARD SLOT			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2
SHEET		55	OF 69

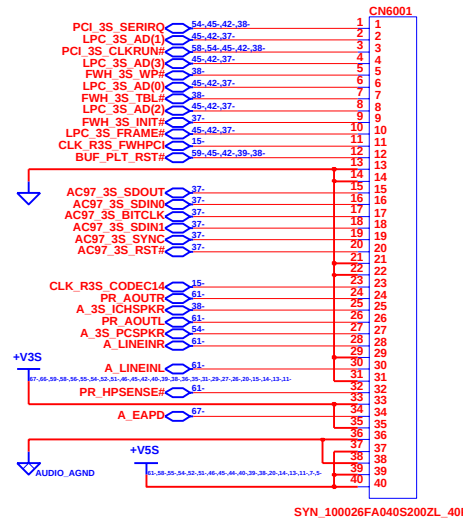
**INVENTEC**

TITLE ASPEN-DISCRETE SD CARD CONN			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2

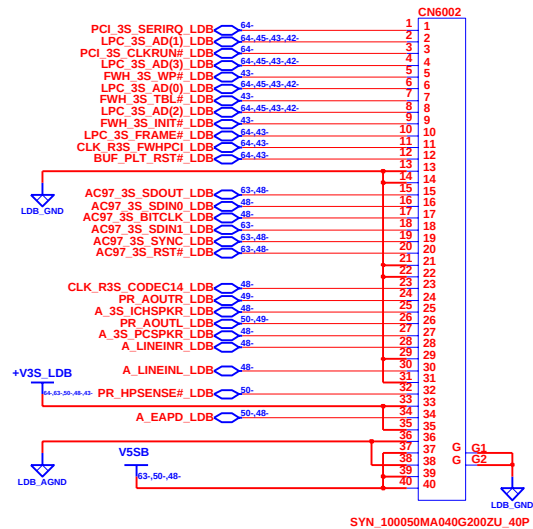
CHANGE by *Drawn Name* 31-Aug-2004

SHEET 56 OF 69

FM CONN.



ML CONN.



B/B DAUGHTER BOARD

INVENTEC

TITLE ASPEN-DISCRETE
DAUGHTER BOARD CNN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by Drawer Name 31-Aug-2004

SHEET 57 OF 69

8

LAYOUT NOTES : TIP RING NEED 2.5MM SPACE BETWEEN THE OTHER SIGNALS

LAYOUT NOTES : +V3 15-20 mil

TYCO_16127756_1_124P

INVENTECTITLE
ASPEN-DISCRETE
MINIPCI CONNSIZE CODE DOC. NUMBER REV
A3 CS Model No AX2

CHANGE by Drawer Name 31-Aug-2004

SHEET 58 OF 69

8

CHANGE by	<i>Drawer Name</i>	13-Sep-2004
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TITLE			
ASPEN-DISCRETE LAN RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2
SHEET		60	OF 69

Trace space need more than 100 mils

INVENTEC

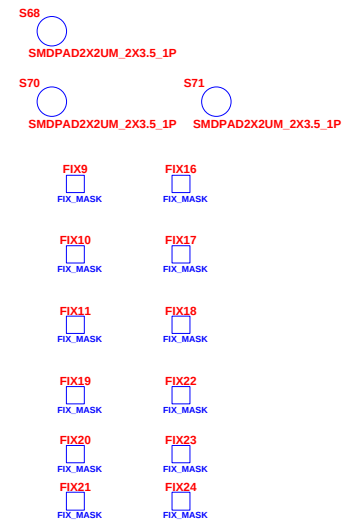
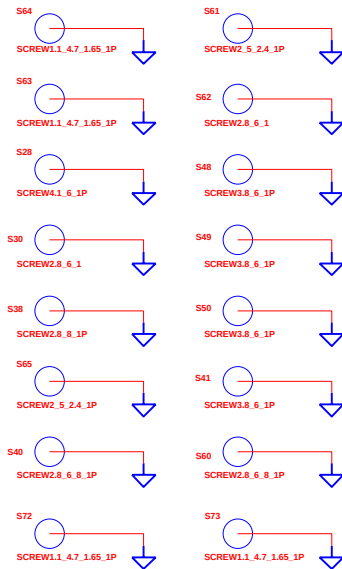
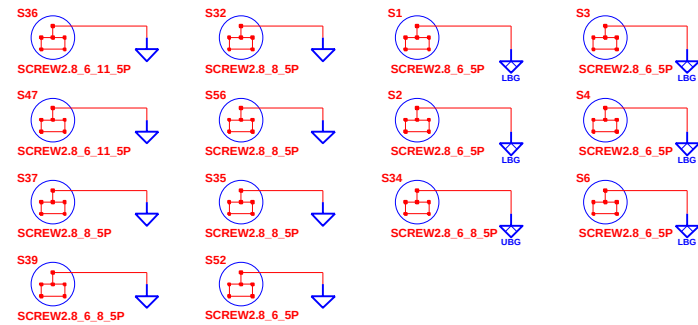
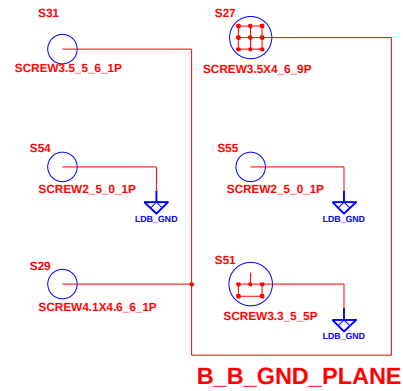
TITLE	ASPEN-DISCRETE DOCKING CONN
-------	--------------------------------

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

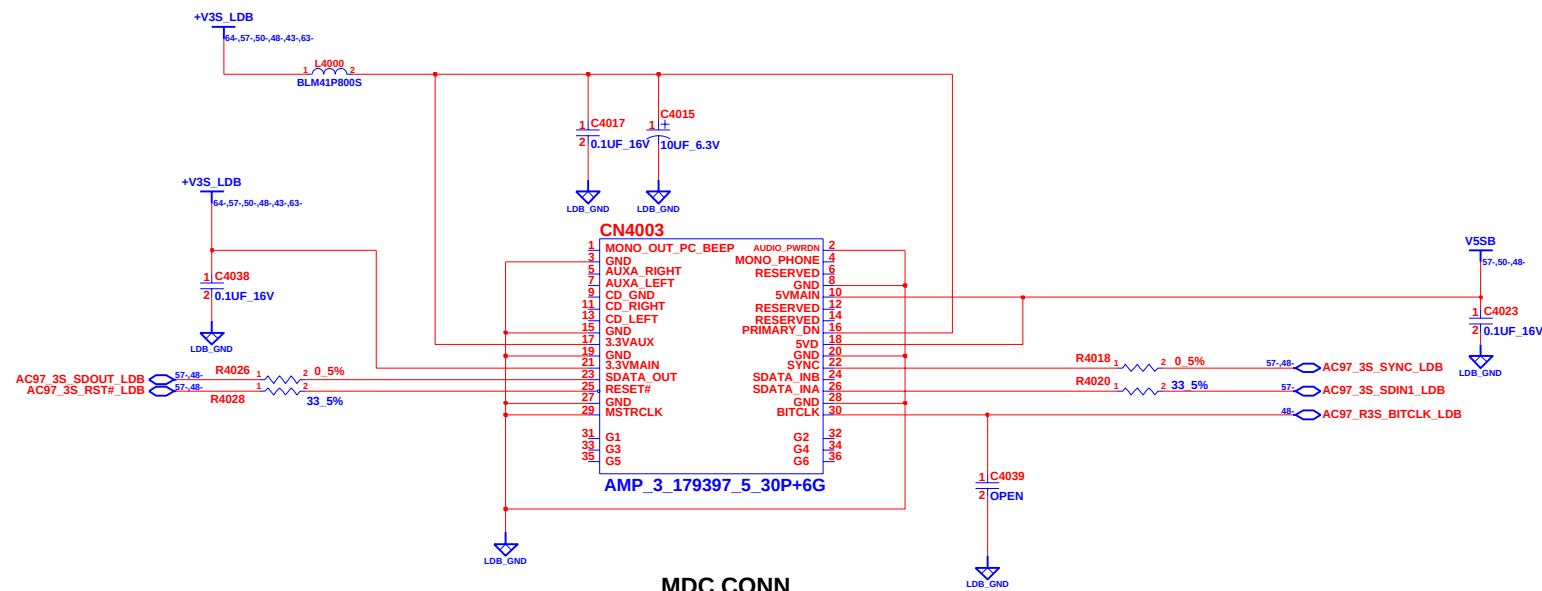
CHANGE by	<i>Drawer Name</i>	31-Aug-2004
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8

**INVENTEC**TITLE
**ASPEN-DISCRETE
SCREW**SIZE CODE DOC. NUMBER REV
A3 CS Model No AX2CHANGE by *Drawn Name* 31-Aug-2004

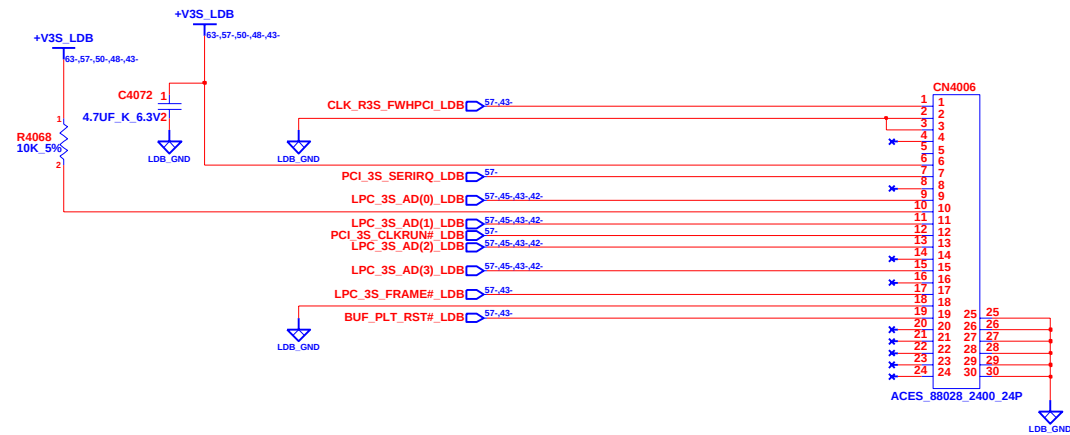
SHEET 62 OF 69

**INVENTEC**
 TITLE
ASPEN-DISCRETE
 MDC CONN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

 CHANGE by *Drawer Name* 31-Aug-2004

SHEET 63 OF 69



AMP 20PIN CONNECTOR
MOTHERBOARD SIDE
ACES_88028_2400

MDC , TCPA , OCP , FHW , AC97 B/B DAUGHTER BOARD

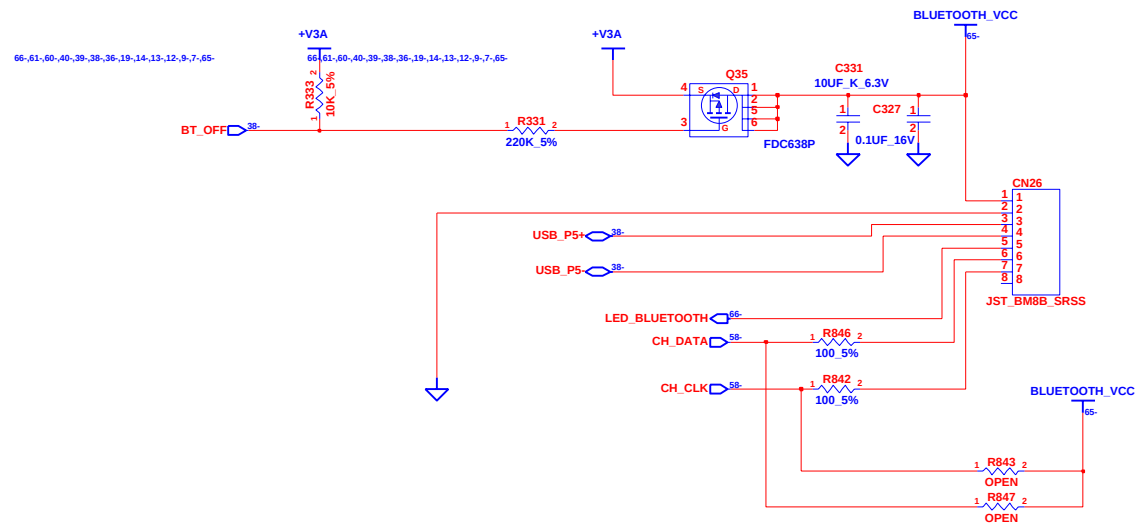
INVENTEC

TITLE
ASPEN-DISCRETE
TCPA

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

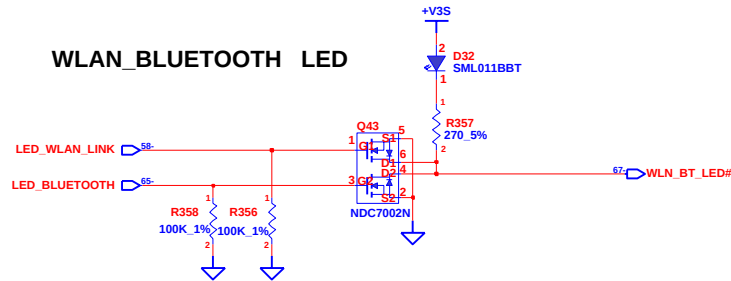
CHANGE by *Drawer Name* 31-Aug-2004

SHEET 64 OF 69

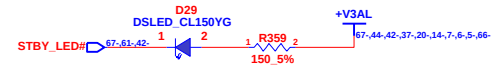


INVENTEC			
TITLE ASPEN-DISCRETE BLUETOOTH			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV AX2
CHANGE by Drawer Name		31-Aug-2004	SHEET 65 OF 69

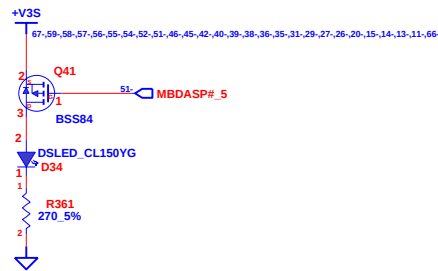
WLAN_BLUETOOTH LED



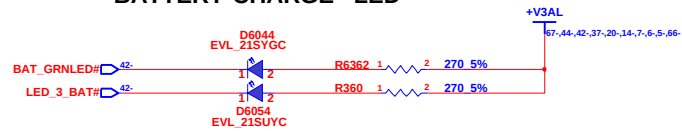
POWER LED



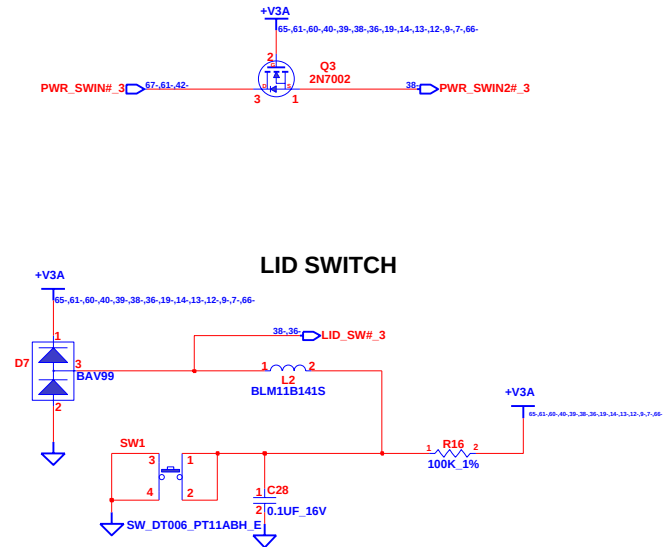
HDD & MBAY LED



BATTERY-CHARGE LED



LID SWITCH



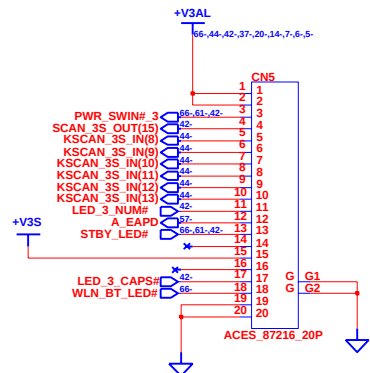
INVENTEC

TITLE
**ASPEN-DISCRETE
LED**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	AX2

CHANGE by *Drawn Name* 31-Aug-2004

SHEET 66 OF 69



LED_BUTTON_DAUGHTER BOARD

SHEET **67** OF **69**

8

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

keyboard

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

LCD CABLE

1	1		1	1
2	2	+V3S	2	2
3	3		3	3
4	4	+V3S	4	4
5	5		5	5
6	6	+V3S	6	6
7	7		7	7
8	8	LCM_DDCCLK	8	8
9	9		9	9
10	10	LCM_DDCPDATA	10	10
11	11	LVDS_TXDL0-	11	11
12	12	LVDS_TXDL0+	12	12
13	13	LVDS_TXDL1-	13	13
14	14	LVDS_TXDL1+	14	14
15	15	LVDS_TXDL2-	15	15
16	16	LVDS_TXDL2+	16	16
17	17	LVDS_TXCL-	17	17
18	18	LVDS_TXCL+	18	18
19	19	GND	19	19
20	20	GND	20	20
21	21	LVDS_TXDU0-	21	21
22	22	LVDS_TXDU0+	22	22
23	23	LVDS_TXDU1-	23	23
24	24	LVDS_TXDU1+	24	24
25	25	LVDS_TXDU2-	25	25
26	26	LVDS_TXDU2+	26	26
27	27	LVDS_TXCU+	27	27
28	28	LVDS_TXCU-	28	28
29	29	GND	29	29
30	30	GND	30	30
31	31		31	31
32	32	ALS_EN	32	32
33	33	+V5A	33	33
34	34	+V5A	34	34
35	35	+V5A	35	35
36	36	INV_PWM3	36	36
37	37	+V3S	37	37
38	38	GND	38	38
39	39	GND	39	39
40	40	GND	40	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

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_RFC_DB	5	5
6	6	GND	6	6
7	7	A_HPR_DB	7	7
8	8	GND	8	8
9	9	A_MIC1_DB	9	9
10	10	GND	10	10
11	11	A_MIC2_DB	11	11
12	12	GND	12	12

SERIAL CABLE

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

STICK POINT

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

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	LED_3_PWR#	12	12
13	13	STANDBY_SW#	13	13
14	14	SLEEP_3_SR	14	14
15	15	QUICK_LOCK#	15	15
16	16	WLT_BV_LEDV	16	16
17	17	GND	17	17
18	18	GND	18	18
19	19	GND	19	19
20	20	GND	20	20

INVENTECTITLE
ASPEN-DISCRETE
CABLESIZE CODE DOC. NUMBER REV
A3 CS Model No AX2

CHANGE by Drawer Name 31-Aug-2004

SHEET 68 OF 69

IEC / HP Aspen_Discrete SI-2 Schematic Changes

September 17, 2004

HP Confidential Information

Open Items 62

Item #	Project	Component / Subsection	PG. #	Description of Requested Change	Date Open+F7 / Closed	Requested By / Owner	Status / Aspen	Aspen FBK/Date
1	Discrete	Charger	5	1.Change R4063 from 162k to 100k, same as Davos design 2.Change R4064 from 221 ohm to 909 ohm, same as Davos design 3.Change R6347 from 47k to 10k, same as Davos design 4.Added a 13.3k ohm series resistor (R6396) between +VADP and R6322 for travel battery may leakage to VADP 5.Changed R6322 to 86.6k and connection on R6396 , U5020 pin5 for travel battery may leakage to VADP 6.Added D6051 in parallel connection R6396 for travel battery may leakage to VADP 7.Added C6167 across D6051 pin2 to GND for travel battery leakage to VADP 8.Changed C6164,C6128,C6129 to 10uf_25V_1206 for saving space 9.Changed C6149,C6150 to 10uf_25V_1206 for saving space 10.Added C6168 across U5026 pin2 to GND.	2004/7/22	IEC	Open	sch0722 done.
2	Discrete	Battery select	6	1.Delete D6035 2.NI R6284 3.Connect R6397.1 to +VADP. 4.Add D6052 across Q6044 source to gate 5.Delete R6034 for saving space	2004/7/22	DB	Open	sch0722 done.
3	Discrete	3V/5V	7	1.Change C6023 value from 0.01uf to 0.1uf 2.Change R6374 value from 10k to 100k 3.Change R6375 value from 10k to 64.9k 4.Change C6160 value from 4.7uf to 22uf 5.Change L33 from PLFC1055P_6R8 to PLFC1055P_3R3 6.Connect R6097pin2 , R6098 pin2 to U32 pin24.	2004/7/22	IEC	Open	sch0722 done.
4	Discrete	2.5L/1.2L	8	Change C519, C520 to 10uF/25V_1206 for saving space.	2004/7/22	IEC	Open	sch0722 done.
5	Discrete	VGAVCC/1.5A	9	Change C561,C4067 to 10uF/25V_1206 for saving space.	2004/7/22	IEC	Open	sch0722 done.
6	Discrete	VCCP/V1.8	10	Change C790, C810 to 10uF/25V_1206 for saving space	2004/7/22	IEC	Open	sch0722 done.
7	Discrete	M24	29,42	for ATI VARI_Bright feature 1.Add R6389 (0 ohm) across U14 pinAG12 to LCM_3S_BKL TEN 2.Add R6390(NI) across U14 pinAG12 to INV_PWM_3 3.Add R6391(NI) across U14 pinAJ5 to LCM_3S_BKL TEN 4.Add R6392(0 ohm jumper) between INV_PWM_3 and U26 pin 96 at page42 (KBC)	2004/7/22	RL	Open	sch0722 done.
8	Discrete	M24	29	Change R180,R181,R179,R583 from 150_1% to 100_1% for DVI, same as the Vail schematic.	2004/7/22	IEC	Open	sch0722 done.

9	Discrete	CRT_SVEDIO	35	1.Add R6394(0 ohm) resistor at U500.20 and CRT_BUF_HSYNC 2.Add R6395(0 ohm) resistor at U500.22 & CRT_BUF_VSYNC. 3.Add NI capacitor, pin1 to CRT_BUF_HSYNC & pin2 to GND. 4.Add NI capacitor, pin1 to CRT_BUF_VSYNC & pin2 to GND. 5.Change C4, C5 & C14 to NI. 6.Change C2, C17 & C500 to 270pF. 7.Change L500, L501 & L502 to 2.2uH_0805.	2004/7/22	MM	Open	sch0722 done.
10	Discrete	NIC transformer	60	Change L504 from LG_2402S to LG_2408S for saving space	2004/7/22	IEC	Open	sch0722 done.
11	Discrete	VCC_CORE	11	Changed R6129 to 69.8k for B1-QS Dothan in C4 state	2004/7/29	DB	Open	sch0729 done.
12	Discrete	M22	29~31	Change ATI parts name from M24 to M22	2004/7/29	IEC	Open	sch0729 done.
12	Discrete	CRT_SVEDIO	35	Change C4, C5, C14, C6165, C6166 to NI	2004/7/29	MM	Open	sch0729 done.
14	Discrete	ICH6	38	Change R6093 to 0 ohm and uninstall R6092 for low power NIC	2004/7/29	RK	Open	sch0729 done.
15	Discrete	AC97	48	Change L5012 from ferrite beads to filter and Moved C4049,C4048,C4047 to L5012 pin2	2004/7/29	IEC	Open	sch0729 done.
16	Discrete	NIC	59	1. Install R6358,R6367,R6359 and open R6360 for low power NIC 2. Change R6082 from 100 ohm to 0 ohm for low power NIC	2004/7/29	RK	Open	sch0729 done.
17	Discrete	NIC	60	Change U1 pin1 connection from SLP_S5#_3R to SLP_S3#_3R for WOL on DC will not be supported	2004/7/29	RL	Open	sch0729 done.
18	Discrete	ICH6	38 39	for NIC LED circuitry -Change U34 pin C25 from LED_LANLINK#_DOCK to LED_LANLINK#. -Change R801 pin1 from LED_LANLINK#_DOCK to LED_LANLINK#.	2004/8/4	RK	Open	sch0809 done
19	Discrete	NIC	59	Connect the NIC controller LED signals directly to the dock LEDs 1.Connect R58 pin1 to Q25 pin5 by LED_LANLINK# signal 2.Connect R60 pin1 to Q25 pin2 by LED_LANACT# signal	2004/8/4	RK	Open	sch0809 done
20	Discrete	USB	53	Add a 0 ohm between CN17-G1,G2 and DGND for EMI	2004/8/4	IEC_EMI	Open	sch0809 done
21	Discrete	RJ45 CONN	60	Change CN6 from TYCO to FOX , same as UMA.	2004/8/5	IEC	Open	sch0809 done
22	Discrete	NIC	60	for WOL on DC S3 mode will not be supported 1.Open L5020, R6361 2.Install U1,U2,Q1,Q508,L12,R28,R516 3.Change U1-5,U2-5,R6361-1 from +V3A to +V3AL 4. Add a serial 0 ohm(R6405) at SLP_S3#_3R line and optional a jumper(R6406) between on U1-1 and SLP_S5#_3R line	2004/8/5	IEC	Open	sch0809 done
23	Discrete	LED	66	1. Change battery-charge led from dual led to two single led for no dual led in Amber/Green. 2. Change R352 from 10K to 100K.	2004/8/5	IEC	Open	sch0809 done
24	Discrete	SUSPEND_LED	67	Change Q6014-1 from +V3A_LEDB to +V3S_LEDB, same as UMA	2004/8/5	HP	Open	sch0809 done
25	Discrete	KBC	42	Add a (R6402) 10k pull-up to +V3AL from STBY_LED#, same as UMA	2004/8/9	HP	Open	sch0809 done
26	Discrete	ICH6	37	Add two 0 ohm(R6400,R6399) to DGND from U34 pin AC1, AC2, same as UMA	2004/8/9	HP	Open	sch0809 done

27	Discrete	CRT_SVEDIO	35	Add a layout note on D1,D501,D2 close to SVIDEO CONN	2004/8/9	IEC	Open	sch0809 done
28	Discrete	ICH6	38 39	Add a test point(TP734) on TI_GRST# signal (U34-T3), same as UMA Add a test point(TP735) on IDE_RESET# signal (U34-E7), same as UMA	2004/8/9	HP	Open	sch0809 done
29	Discrete	ICH6	40	Add a 1_1% resistor(R6401) on +V1.5S and L30-1, same as UMA	2004/8/9	IEC	Open	sch0809 done
30	Discrete	LCD_CONN	36	Change C25 from 4700pf to 0.1uf_25V (0603), same as UMA	2004/8/9	IEC	Open	sch0809 done
31	Discrete	ICH6	38	Install R6092 to 10K, same as UMA	2004/8/9	IEC	Open	sch0809 done
32	Discrete	NIC	59	Not Install R6367, same as UMA	2004/8/9	IEC	Open	sch0809 done
33	Discrete	LED	66	Change R10 from 270k to 10k, same as UMA	2004/8/9	IEC	Open	sch0809 done
34	Discrete	FWH	43	Remove R6357 at CN4005 pin 29 , same as UMA	2004/8/9	IEC	Open	sch0809 done
35	Discrete	Charger	5	1. Remove D6051, C6167. 2.Add R6407_150K between U5020 pin7 (ADP_PRES) and U5021 pin1. 3Add D6056_1N4148 between U5021 pin1 and U5026 pin1.	2004/8/18	IEC	Open	sch0818 done
36	Discrete	3V/5V	7	Replace D6045_DAN202K to U5036_TC7S32F	2004/8/18	IEC	Open	sch0818 done
37	Discrete	VGA_VCC/1.5A	9	for M22 power play on 1V/1.15V 1.Change R6162 from 11.3K to 10.2K. 2.Change R160 from 10.2K to 10K. 3.Change R6163 from 36.5K to 34K.	2004/8/18	RL	Open	sch0818 done
38	Discrete	M22	29	for ENA_BL from GPIO(0) to GPIO(7) 1.Change R6391 pin2 from VGA_GPIO(0) to VGA_GPIO(7).	2004/8/18	MM	Open	sch0818 done
39	Discrete	NIC	38 59	for NIC Low Power circuit -Not install R6092. -Install R6367 (10K).	2004/8/18	RK	Open	sch0818 done
40	Discrete	PC card slot	55	SmartCard power for EMV test, same as Vail 1.Replace Q44(FDC638P) to U5038 (TPS2061DGN) 2.Add a R6408 (open) for TPS2065DGN with active high enable. 3.Remove R1, C33. 4.Change R3 from 470K to 10K	2004/8/18	HP	Open	sch0818 done
41	Discrete	New power button	38 42 66 67	Remove Quick look led and suspend led for new ME ID -Remove standby_sw# at U34 pin C23 -Change U26 pin62 from PWR_SWIN1#_3 to PWR_SWIN#_3 -Change D29 from dual led to single led (green color) for power led -Remove Q37,R352,Q40,R355,Q38,Q13, R10, U5029,Q7,R6363 -Change R359 from 270 to 150 -Change D6005 from dual led to single led -Remove Q6002,R6003,Q6001 -Remove D6002,R6006,R6090,Q6014 -Change SW6006 from power switch to power button -Remove R6005,C6002,D6004 -Change CN5 pin14 and CN6000 pin 14 to NC pin	2004/8/18	ME	Open	sch0818 done
42	Discrete	3V/5V	7	Not Install R6378	2004/8/19	IEC	Open	sch0819 done
43	Discrete	VCC_CORE	11	To set OCP to 32A: -Change R6122,R6123 from 432_1% to 510_1%.	2004/8/19	IEC	Open	sch0819 done
44	Discrete	VCC_CORE	11	Change D14, D16 from SSM34_3A to NI	2004/8/19	IEC	Open	sch0819 done
45	Discrete	M22	29	Change R180,R181,R179,R583 from 100_1% to 150_1% for DVI, same as SI-1	2004/8/19	MM	Open	sch0819 done
46	Discrete	CRT_SVEDIO	35	Replace R6394,R6395 to L23, L39 (FBM_10_160808_800T)	2004/8/19	MM	Open	sch0819 done

47	Discrete	3V/5V	7	Remove R6378	2004/8/23	IEC	Open	sch0823 done
48	Discrete	VRAM configure	29,38	Modify the VRAM configure table on sheet29 and Remove the table on sheet38, same as Vail	2004/8/23	HP	Open	sch0823 done
49	Discrete	LCD_CONN	36	Add a buffer between INV_PWM_3 line and CN3 pin 36	2004/8/23	IEC	Open	sch0823 done
50	Discrete	Quick_Lock	45 67	Remove Quick_Lock signal -Change U8 pin32 from QUICK_LOCK# to GP10 -Change RS1 pin6 from QUICK_LOCK# to GP10 -Change CN5 pin16 from QUICK_LOCK# to NC -Change CN6000 pin 16 from QUICK_LOCK# to NC	2004/8/23	IEC	Open	sch0823 done
51	Discrete	NIC	60	1. Change U1 pin5 and U2 pin5 from +V3AL to +V3A for WOL on DC will not be supported, same as Vail. 2. Add a 220K ohm serial resister between ADP_PRES line and U1 pin2	2004/8/23	HP	Open	sch0823 done
52	Discrete	Charger	5	Change the charge current from 2A to 3A, same as Davs. -Change R6324 from 191K_1% to 140K_1%. -Change R6264 from 140K_1% to 191K_1%.	2004/9/7	HP	Open	sch0913 done
53	Discrete	+V1.5A discharge	7 9	Add a discharge circuit on +V1.5A -Add a +V1.5A_ON signal at U32 pin 12 and connect a pull up resister 10K to +V3A. -Change Q6018 pin2 from +V3A to +V1.5A_ON. -Add a dual FET (FDG6301N) to do +V1.5A discharge.	2004/9/7	HP	Open	sch0913 done
54	Discrete	VCC_CORE	11	Connect R6135 pin2 to U5008 pin3	2004/9/13	IEC	Open	sch0913 done
55	Discrete	NIC	59	Insatl R531 to 30K when B5751M B1 silcon is installed.	2004/9/13	HP	Open	sch0913 done
56	Discrete	ICH6	38	Remove R272,R276,R736,R283 reserve pads on ICH6 VMEM configuration	2004/9/13	IEC	Open	sch0913 done
57	Discrete	3V/5V	7	Change R337,R351 from 0 ohm to 4.7_5% for EMI request	2004/9/15	EMI	Open	sch0915 done
58	Discrete	VCC_CORE	11	Change R290, R6121 from 2.2_5% to 4.7_5% for EMI request.	2004/9/15	EMI	Open	sch0915 done
59	Discrete	VGAVCC/1.5A	9	Add C6169 100PF_50V between Q6018 drain and U5009 AGND for reducing overshoot/undershoot	2004/9/15	IEC	Open	sch0915 done
60	Discrete	VCCP/V1.8	10	Add C6170 100pf_50V between Q6024 drain and U5013 AGND for reducing overshoot/undershoot	2004/9/15	IEC	Open	sch0915 done
61	Discrete	PC card slot	55	To change the SC_VCC power switch parts from EN# active to EN active -Change U5038 from TPS2061 to TPS2065 -Remove R3, Q42 -Install R6408 to 0 ohm	2004/9/17	IEC	Open	Implement 0917BOM.
62	Discrete	Sleep	13	Auto reboot when perform S4/S5 mode on Aspen discrete and Vail platform. - Change R6387, R6388 from 10K to 470pf to delay SLP_S3#_5R about 5us on falling time.	2004/9/17	IEC	Open	Implement 0917BOM.