

S-SERIES 2009

INVICTA (Intel-Discrete)

MV Build (A03) - Final

2009.03.18

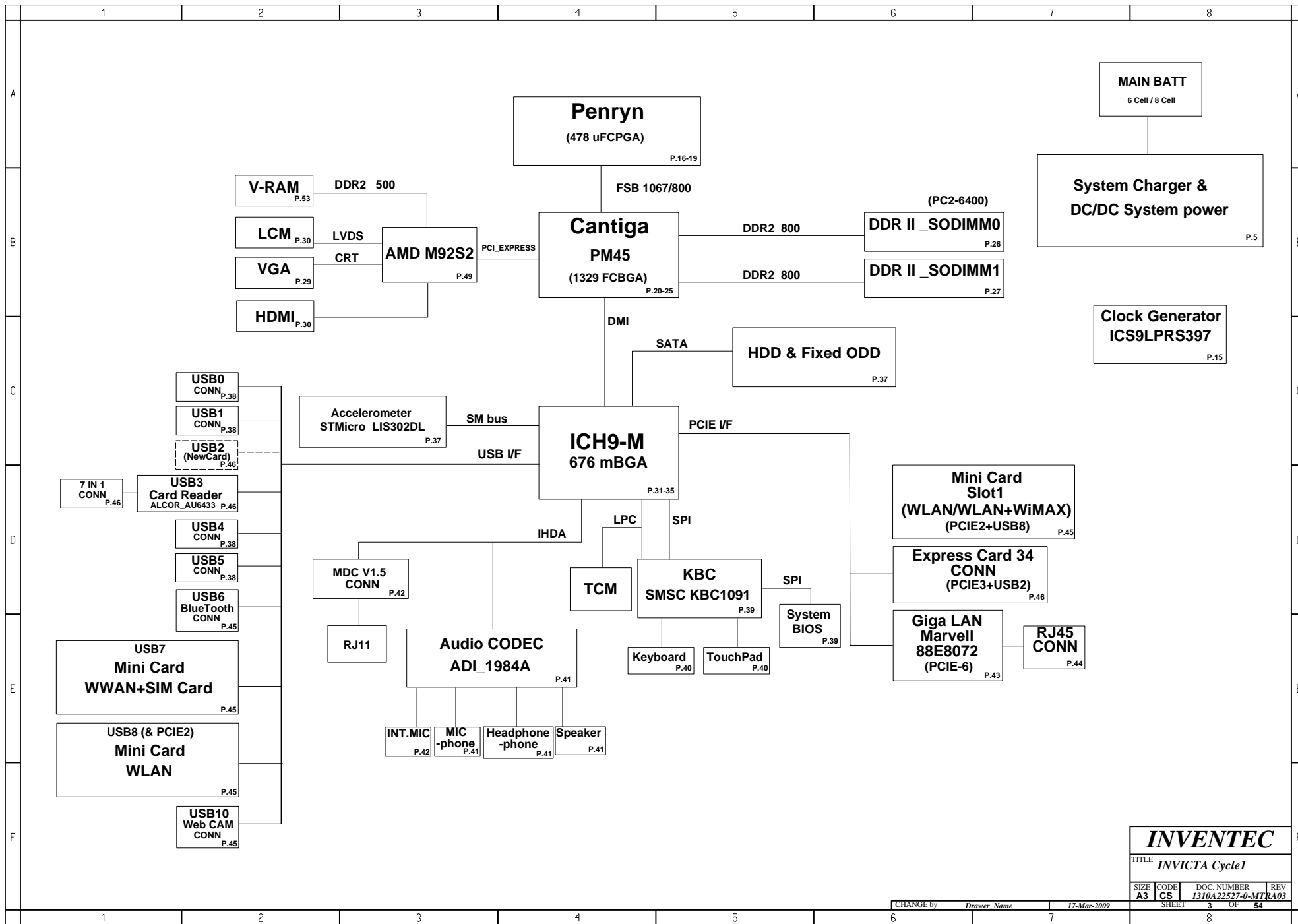
DATE	CHANGE NO.	REV

DRAWER	EE	DATE	POWER	DATE	INVENTEC		
DESIGN							
CHECK							
RESPONSIBLE							
TITLE					<i>INVICTA Cycle1</i>		
SIZE =	3	VER :					
FILE NAME :	XXXX-XXXXXX-XX			SIZE	CODE	DOC. NUMBER	REV
P/N	XXXXXXXXXXXX			A3	CS	J310A22527-0-MTR	A03
					SHEET	1	OF 54

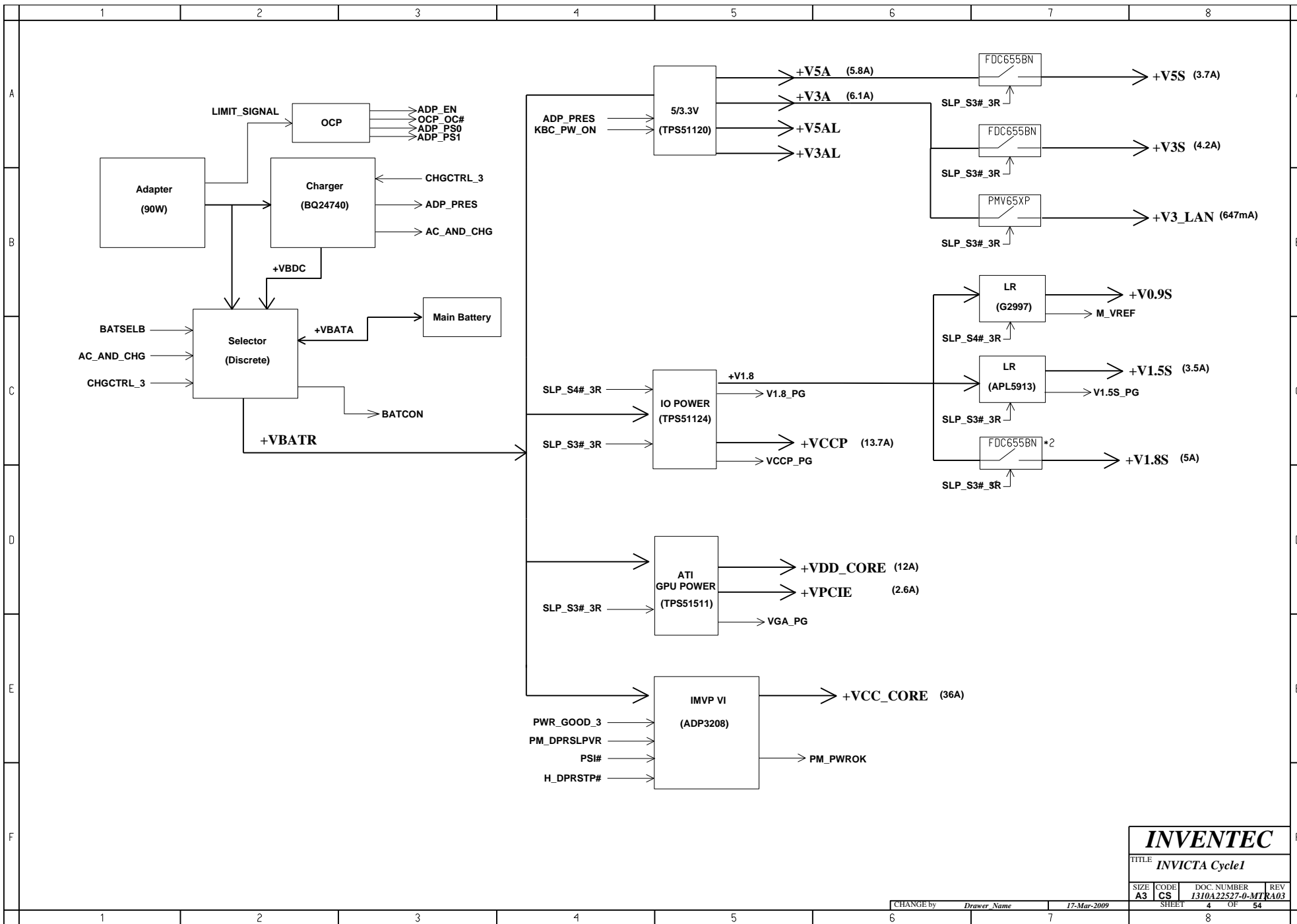
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7- System Power (+V3A/+V5A).	17- CPU Penryn-2.	38- USB CONN.
8- System Power (+V1.8/+VCCP) .	18- CPU Penryn-3.	39- KBC, BIOS ROM, Debug Port.
9- Graphic Power (+VDD_CORE & +VPCIE).	19- XDP & Thermal & Fan.	40- Internal Keyboard & TouchPad CONN.
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	33- S/B ICH9-3.	54- Video RAM-2 (DDR2).
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	35- S/B ICH9-5.	

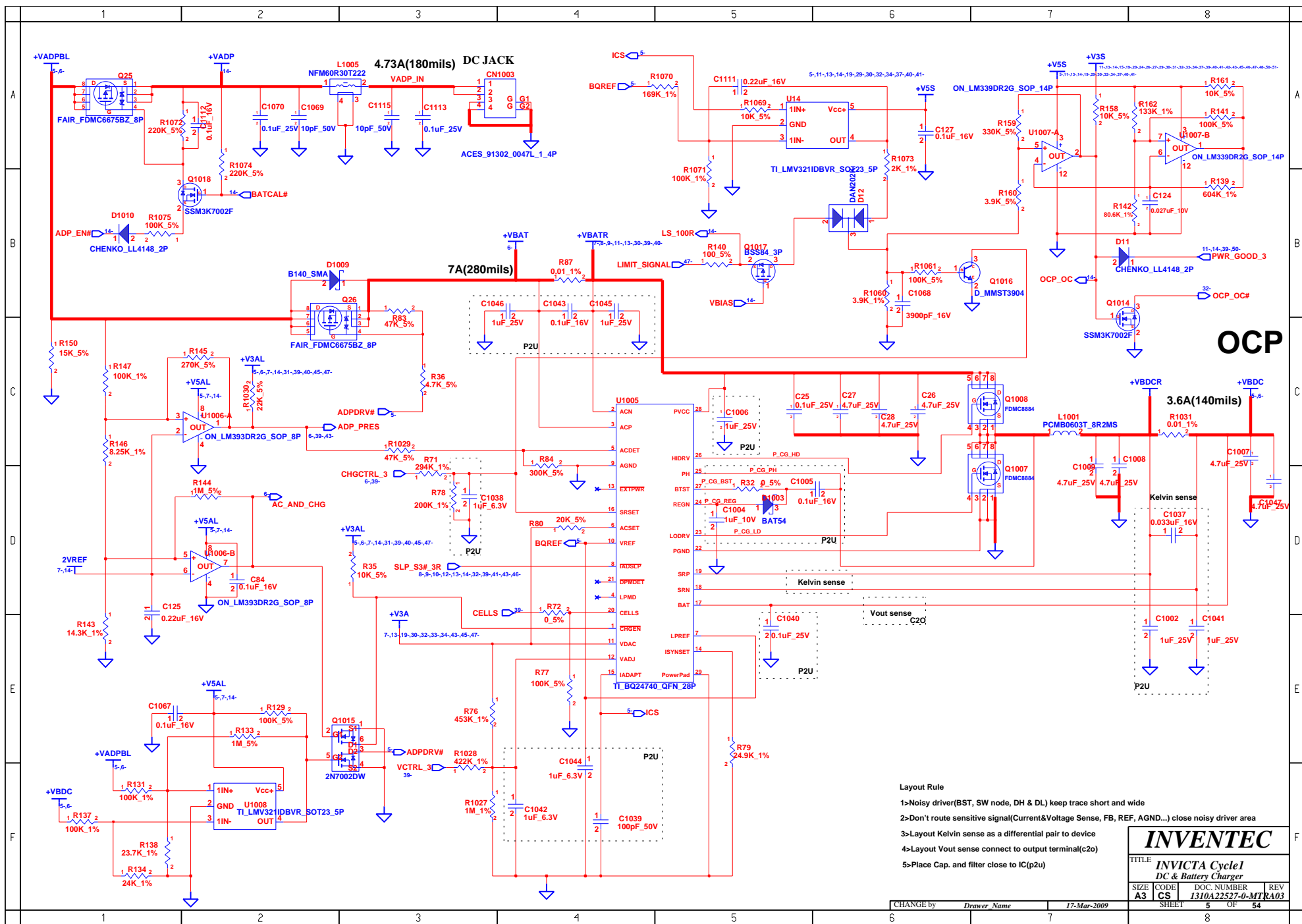
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SIZE A3	CODE CS	DOC NUMBER <i>1310A22527-0-MTR</i>	REV A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	
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INVENTEC			
TITLE <i>INVICTA Cycle1</i>			
SIZE A3	CODE CS	DOC. NUMBER 1310A22527-0-MTR	REV A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	SHEET 3 OF 54

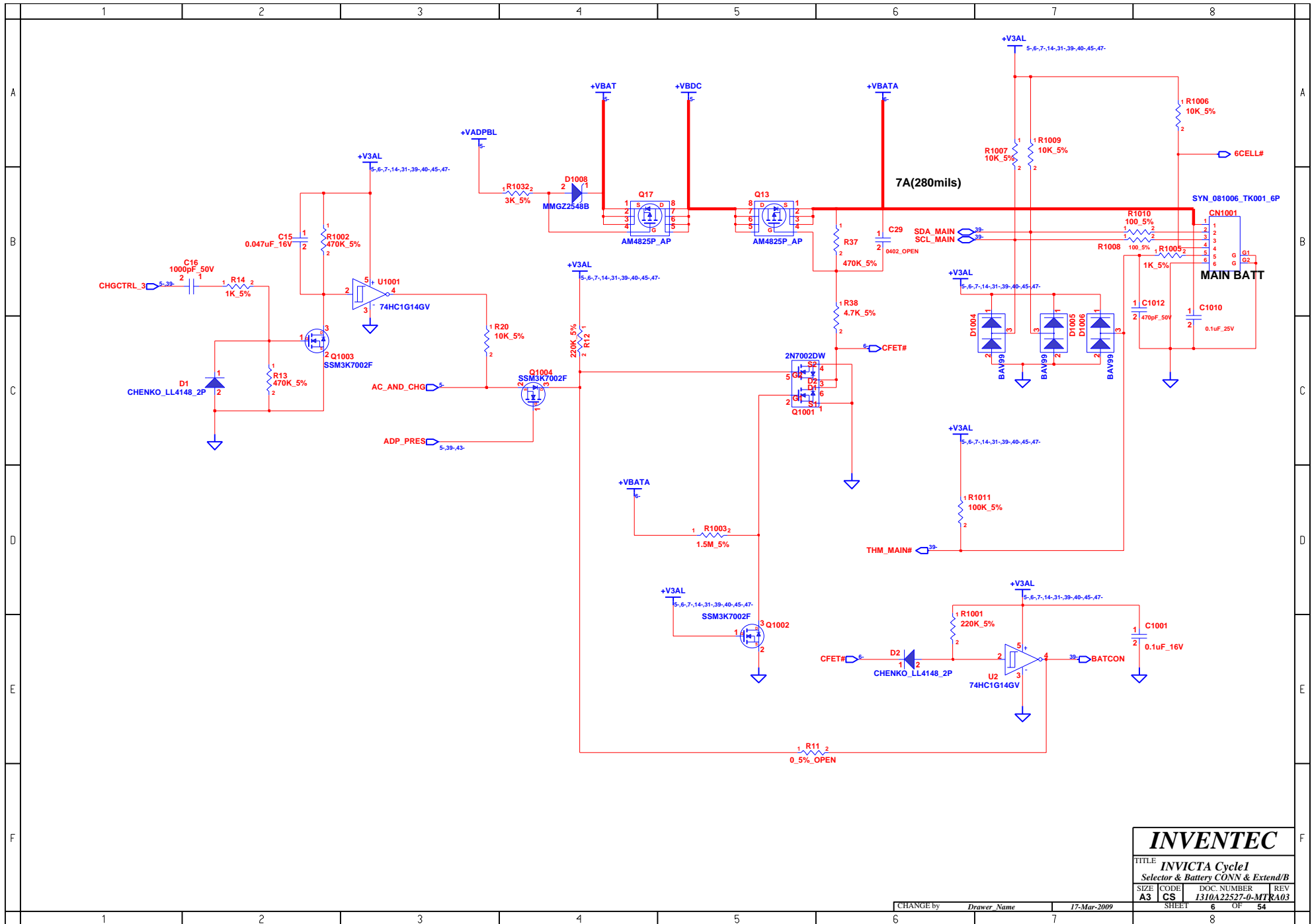


INVENTEC			
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MTR	A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	SHEET 4 OF 54



- Layout Rule**
- 1>Noisy driver(BST, SW node, DH & DL) keep trace short and wide
 - 2>Don't route sensitive signal(Current&Voltage Sense, FB, REF, AGND...) close noisy driver area
 - 3>Layout Kelvin sense as a differential pair to device
 - 4>Layout Vout sense connect to output terminal(c2o)
 - 5>Place Cap. and filter close to IC(p2u)

INVENTEC			
TITLE: INVICTA Cycle1			
DC & Battery Charger			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22527-0-MTR	REV: R403
CHANGE by: Drawer Name		17-Mar-2009	
		SHEET 5 OF 54	

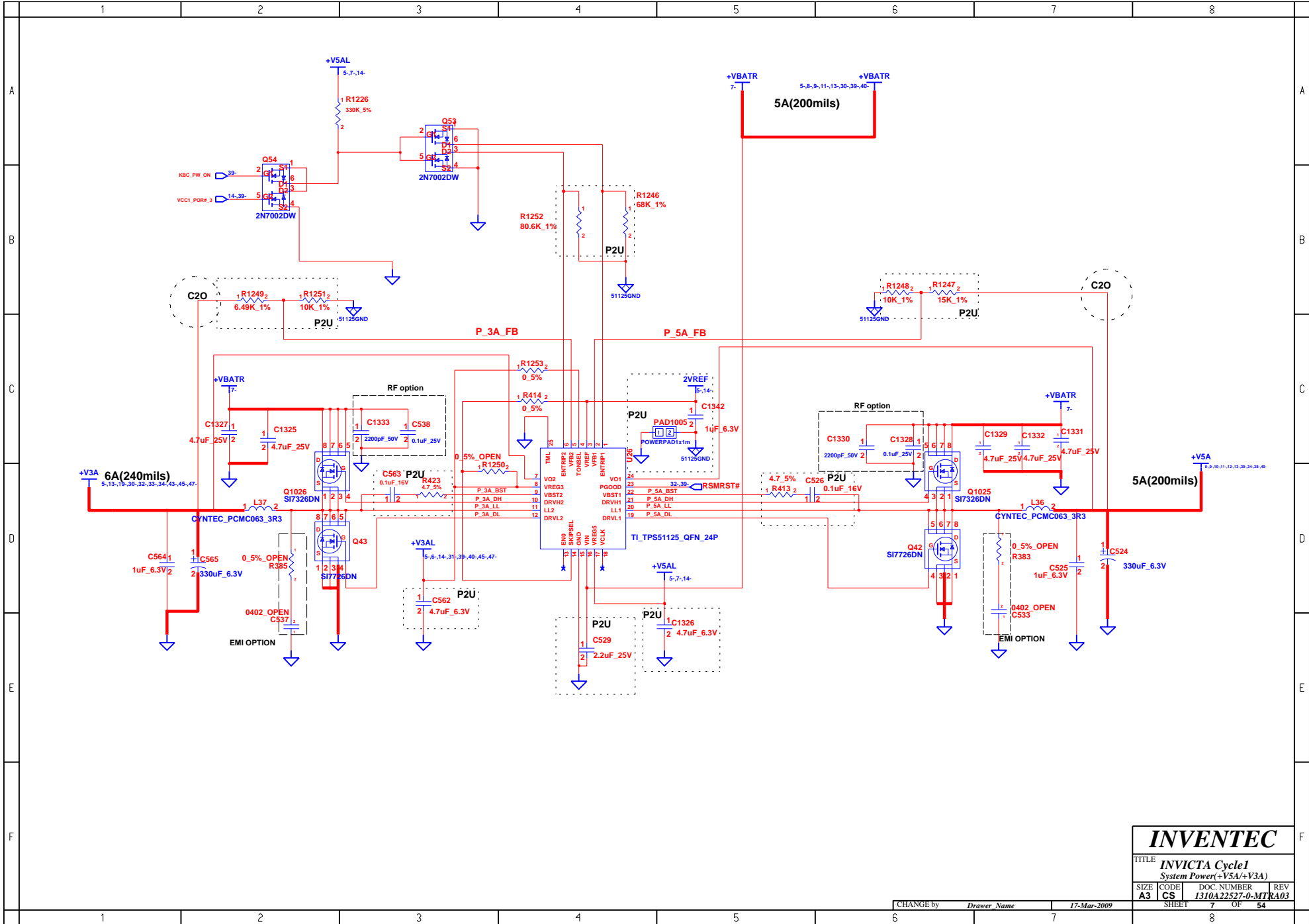


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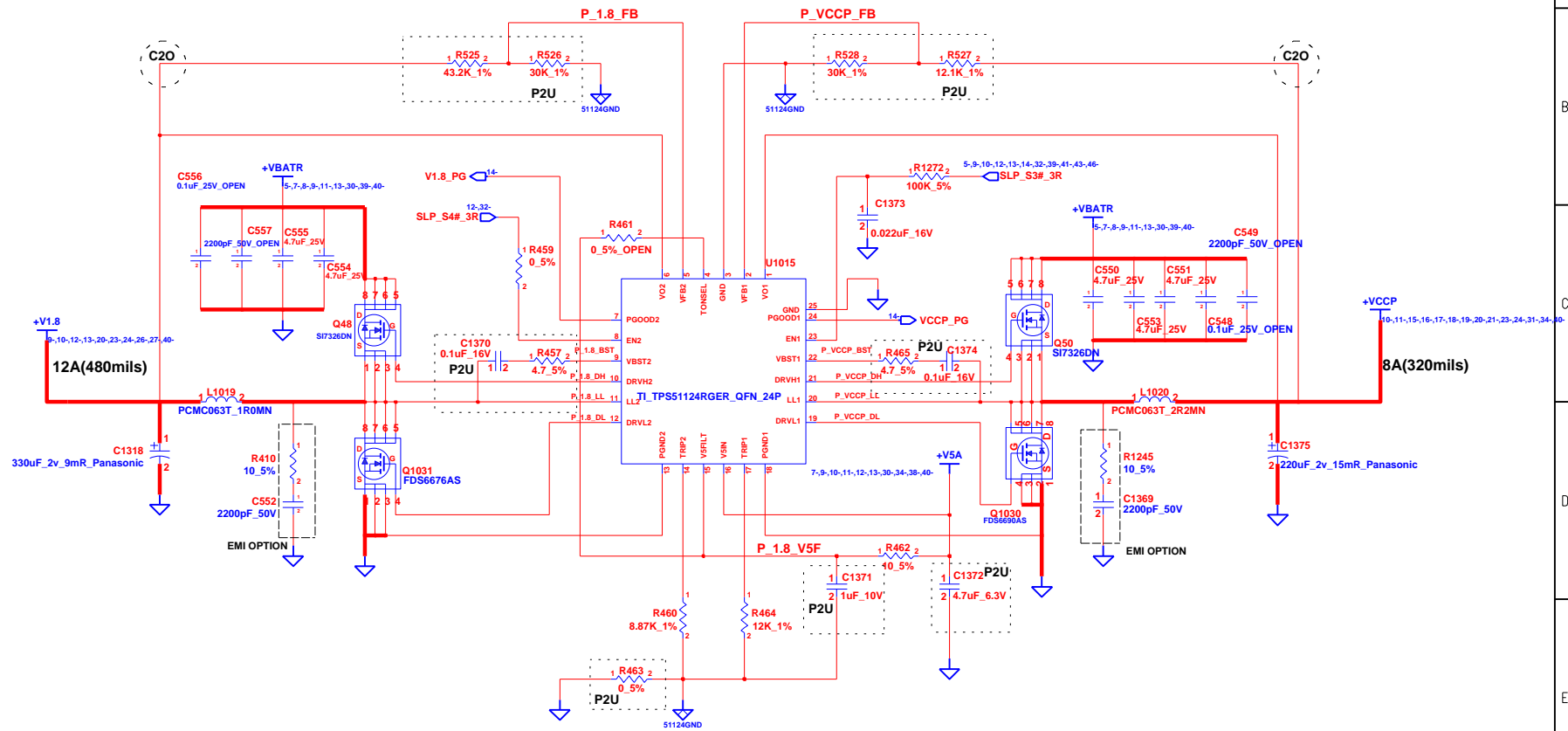
TITLE: *INVICTA Cycle1*
 Selector & Battery CONN & Extend/B

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MT	A03

CHANGE by: Drawer Name 17-Mar-2009 SHEET 6 OF 54

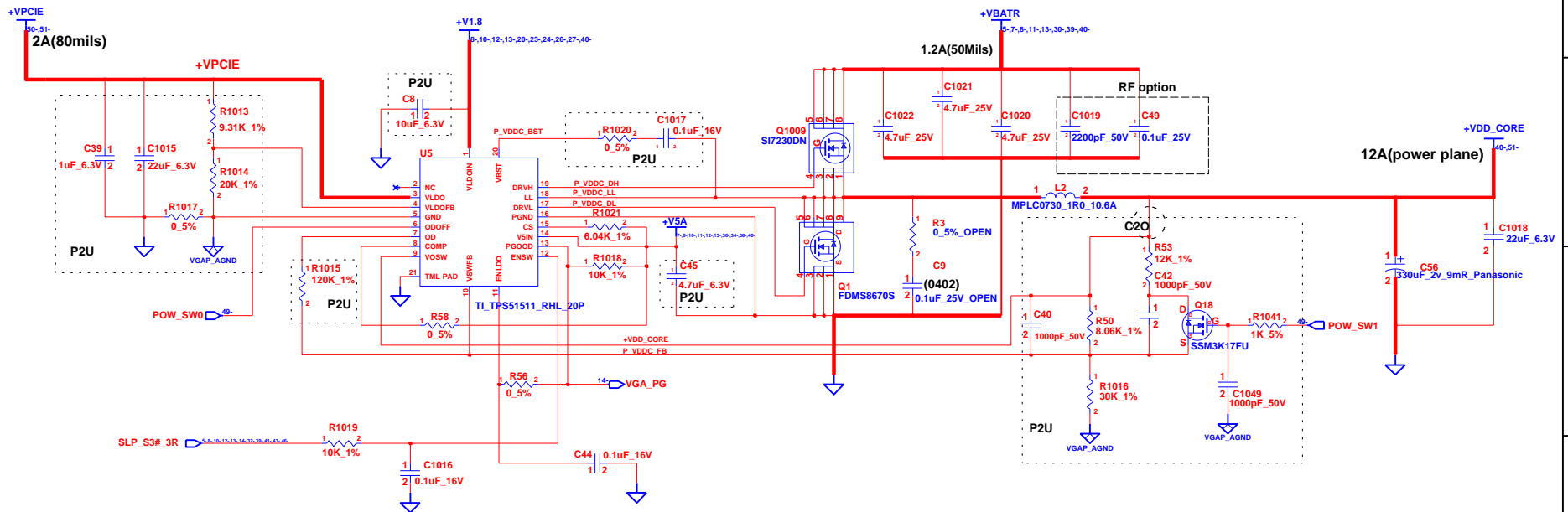


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TITLE: INVICTA Cycle 1			
System Power(+V5A/+V3A)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MT	R403
CHANGE by		Drawer Name	17-Mar-2009
SHEET		7	OF 54



INVENTEC			
TITLE: INVICTA Cycle1			
System Power(+V1.8/+VCCP)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MT	R403
CHANGE by		Drawer Name	17-Mar-2009
SHEET		8	OF 54

POW_SW1	POW_SW0	+VDD_CORE
0	0	1.0V
0	1	0.95V
1	0	0.9V



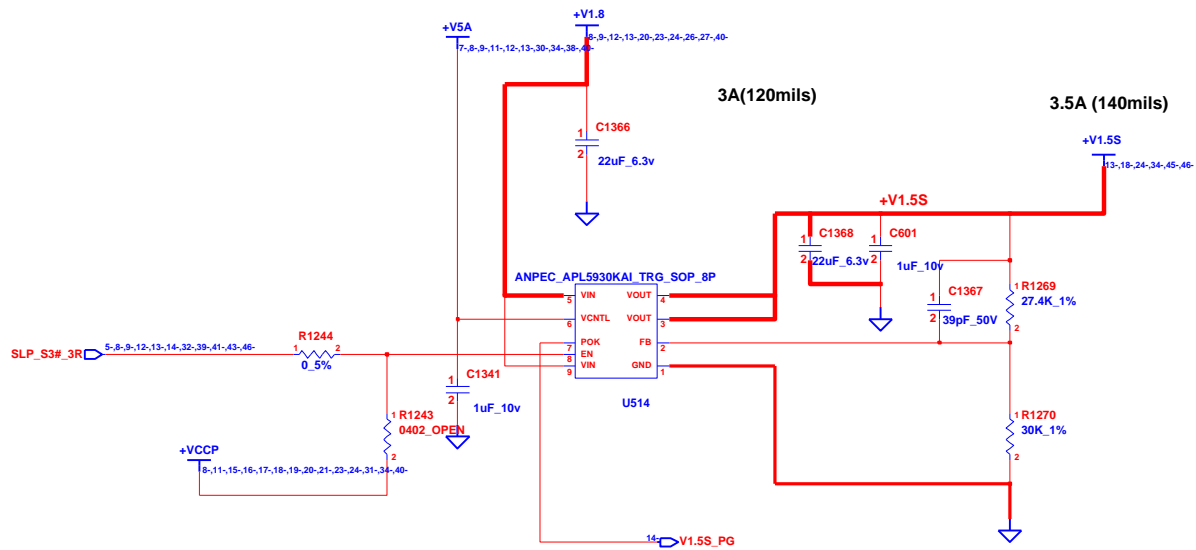
INVENTEC

TITLE: **INVICTA Cycle1**
 Graphic Power (+VDD_CORE & +VPCIE)

SIZE	CODE	DOC NUMBER	REV
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CHANGE by: *Drawer Name* 17-Mar-2009

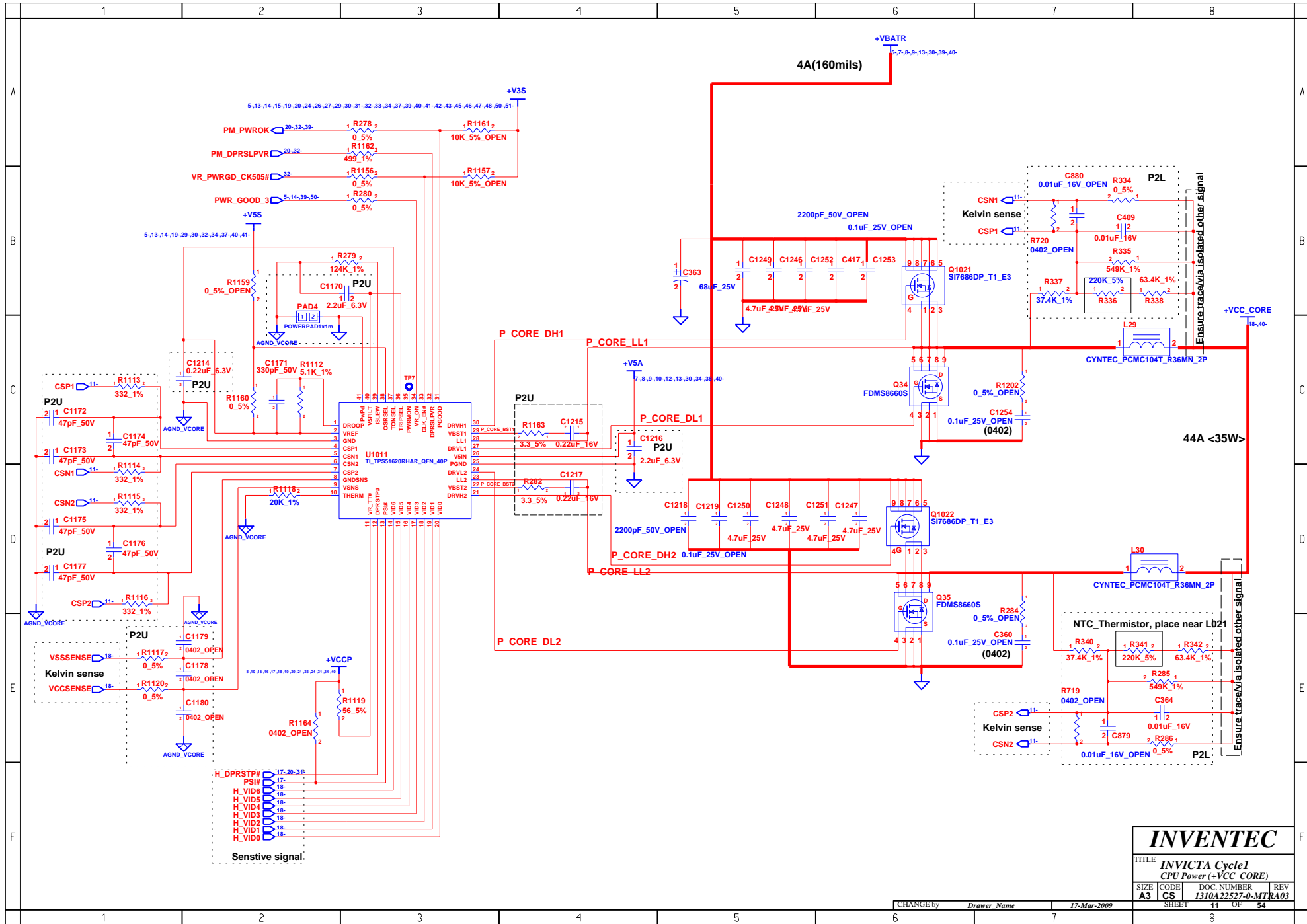
SHEET 9 OF 54



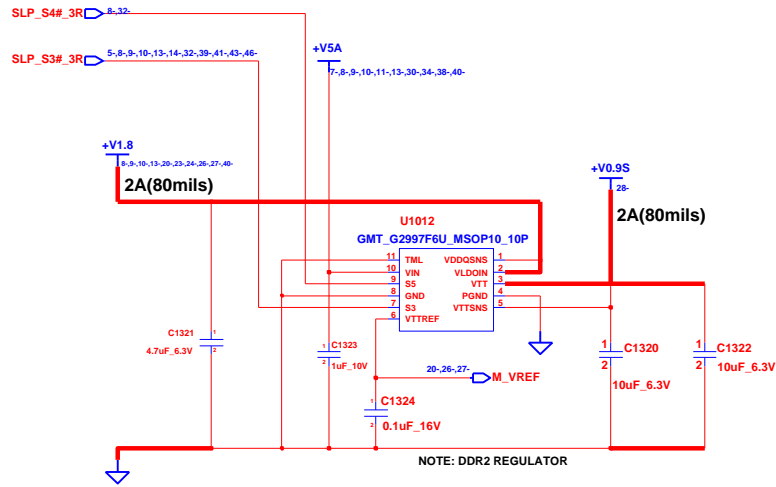
INVENTEC

TITLE			
INVICTA Cycle1			
System Power (+V1.5S)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22527-0-MTR	A03
CHANGE by		SHEET	
Drawer Name		10 OF 54	

17-Mar-2009



INVENTEC				
TITLE: INVICTA Cycle1 CPU Power (+VCC_CORE)				
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22527-0-MTR	REV: R03	
CHANGE by: Drawer Name		17-Mar-2009	SHEET: 11	OF: 54

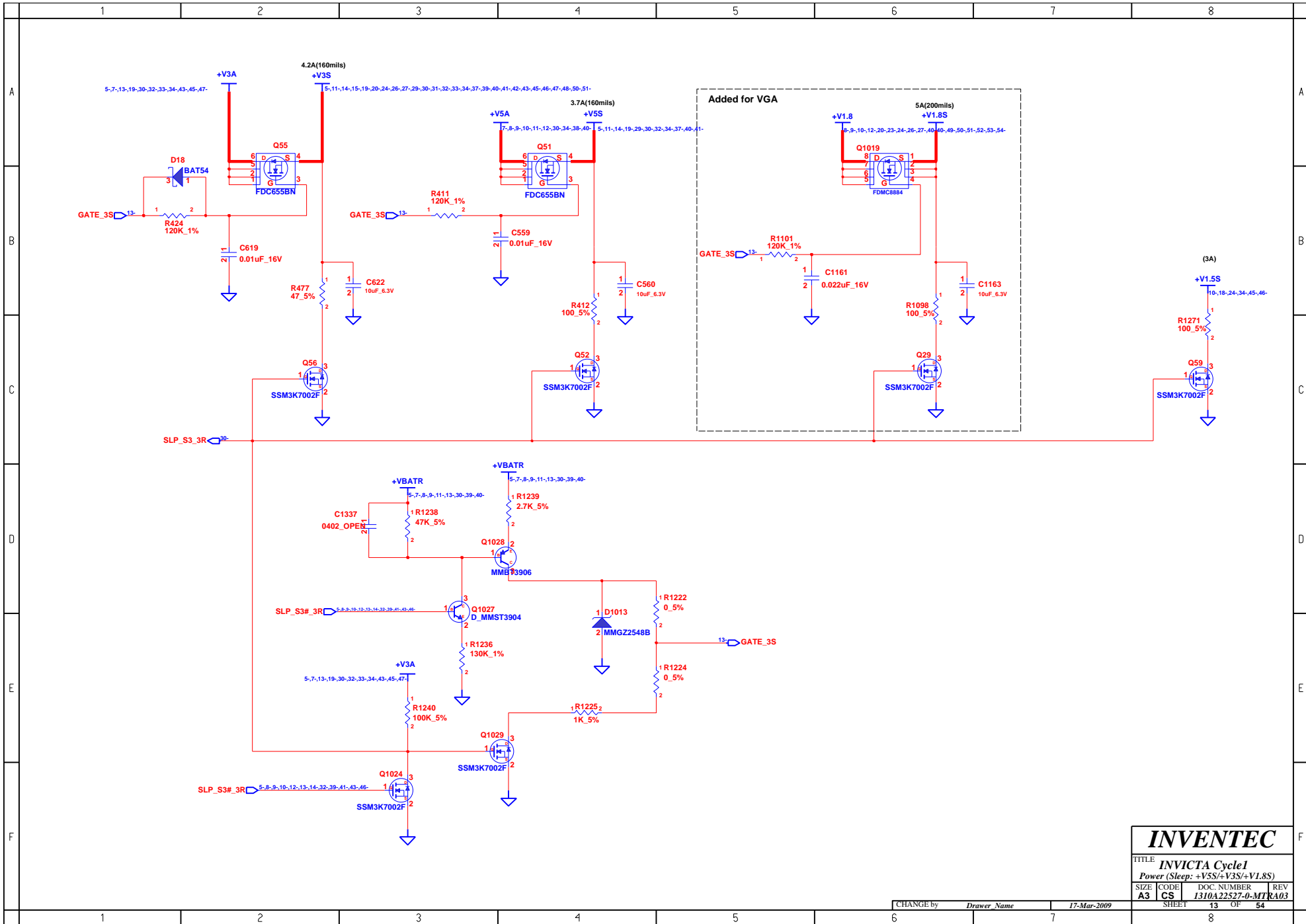


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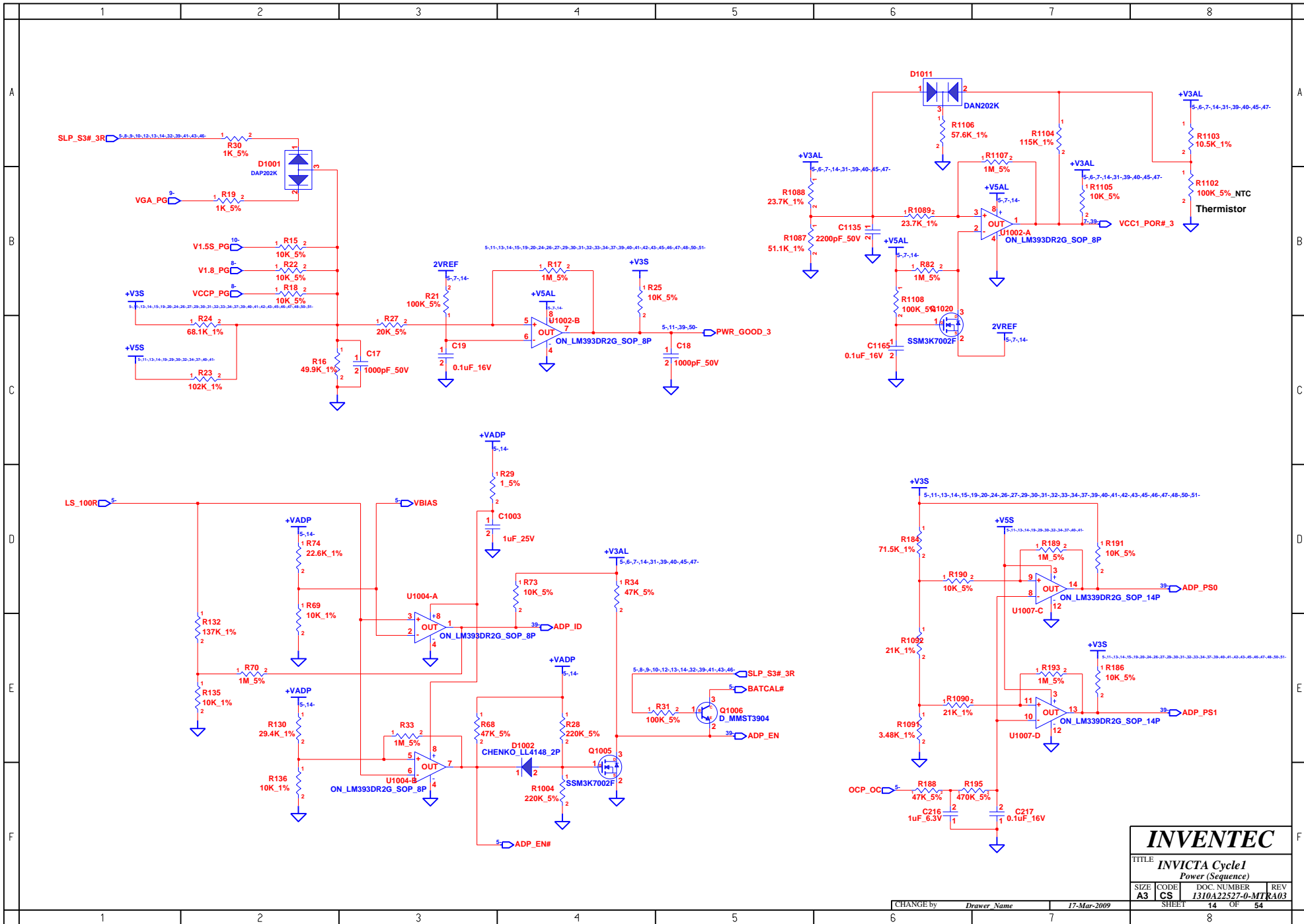
TITLE **INVICTA Cycle1**
DDR Termination Voltage (+V0.9S)

SIZE A3	CODE CS	DOC. NUMBER I310A22527-0-MT	REV RA03
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CHANGE by *Drawer Name* 17-Mar-2009 SHEET 12 OF 54



INVENTEC			
TITLE <i>INVICTA Cycle1</i>			
Power (Sleep: +VSS/+V3S/+V1.8S)			
SIZE A3	CODE CS	DOC NUMBER I310A22527-0-MTR	REV A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	
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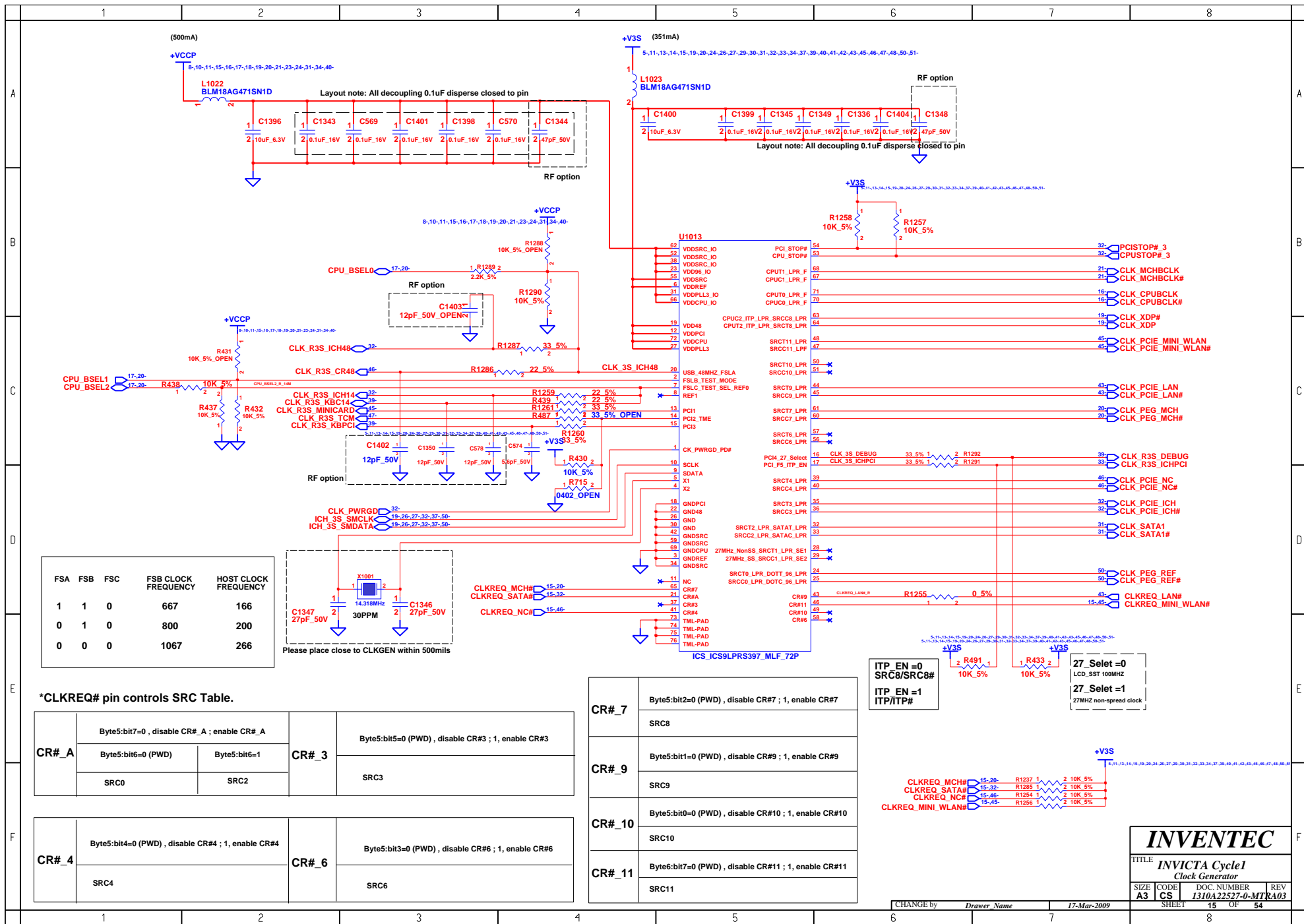
INVENTEC

TITLE
INVICTA Cycle1
Power (Sequence)

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

CHANGE by *Drawer Name* 17-Mar-2009

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FSA	FSB	FSC	FSB CLOCK FREQUENCY	HOST CLOCK FREQUENCY
1	1	0	667	166
0	1	0	800	200
0	0	0	1067	266

*CLKREQ# pin controls SRC Table.

CR#_A	Byte5:bit7=0 (PWD), disable CR#_A; enable CR#_A	Byte5:bit6=0 (PWD)	Byte5:bit6=1	CR#_3	Byte5:bit5=0 (PWD), disable CR#3; 1, enable CR#3
	SRC0				SRC3

CR#_4	Byte5:bit4=0 (PWD), disable CR#4; 1, enable CR#4	CR#_6	Byte5:bit3=0 (PWD), disable CR#6; 1, enable CR#6
	SRC4		SRC6

CR#_7	Byte5:bit2=0 (PWD), disable CR#7; 1, enable CR#7
	SRC8
CR#_9	Byte5:bit1=0 (PWD), disable CR#9; 1, enable CR#9
	SRC9
CR#_10	Byte5:bit0=0 (PWD), disable CR#10; 1, enable CR#10
	SRC10
CR#_11	Byte6:bit7=0 (PWD), disable CR#11; 1, enable CR#11
	SRC11

ITP_EN=0 SRC8/SRC8#
ITP_EN=1 ITP/ITP#

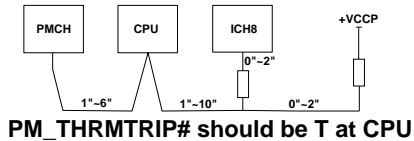
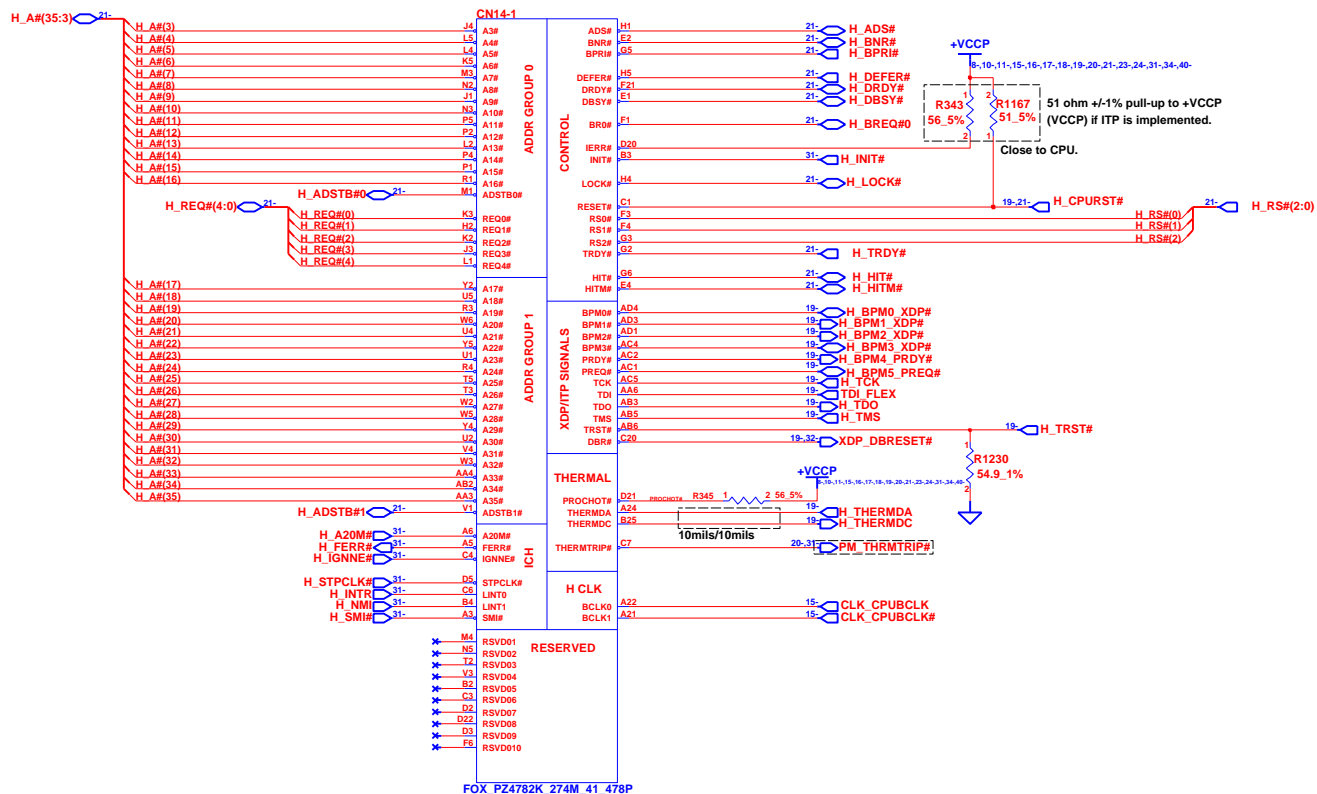
27_Selet=0
LCD_SST 100MHz
27_Selet=1
27MHz non-spread clock

CLKREQ_MCH# 15-20 R1237 2 10K 5%
CLKREQ_SATA# 15-32 R1285 2 10K 5%
CLKREQ_NC# 15-46 R1254 2 10K 5%
CLKREQ_MINI_WLAN# 15-45 R1256 2 10K 5%

INVENTEC

TITLE INVICTA Cycle1
Clock Generator

SIZE A3	CODE CS	DOC NUMBER 1310A22527-0-MTR	REV A03
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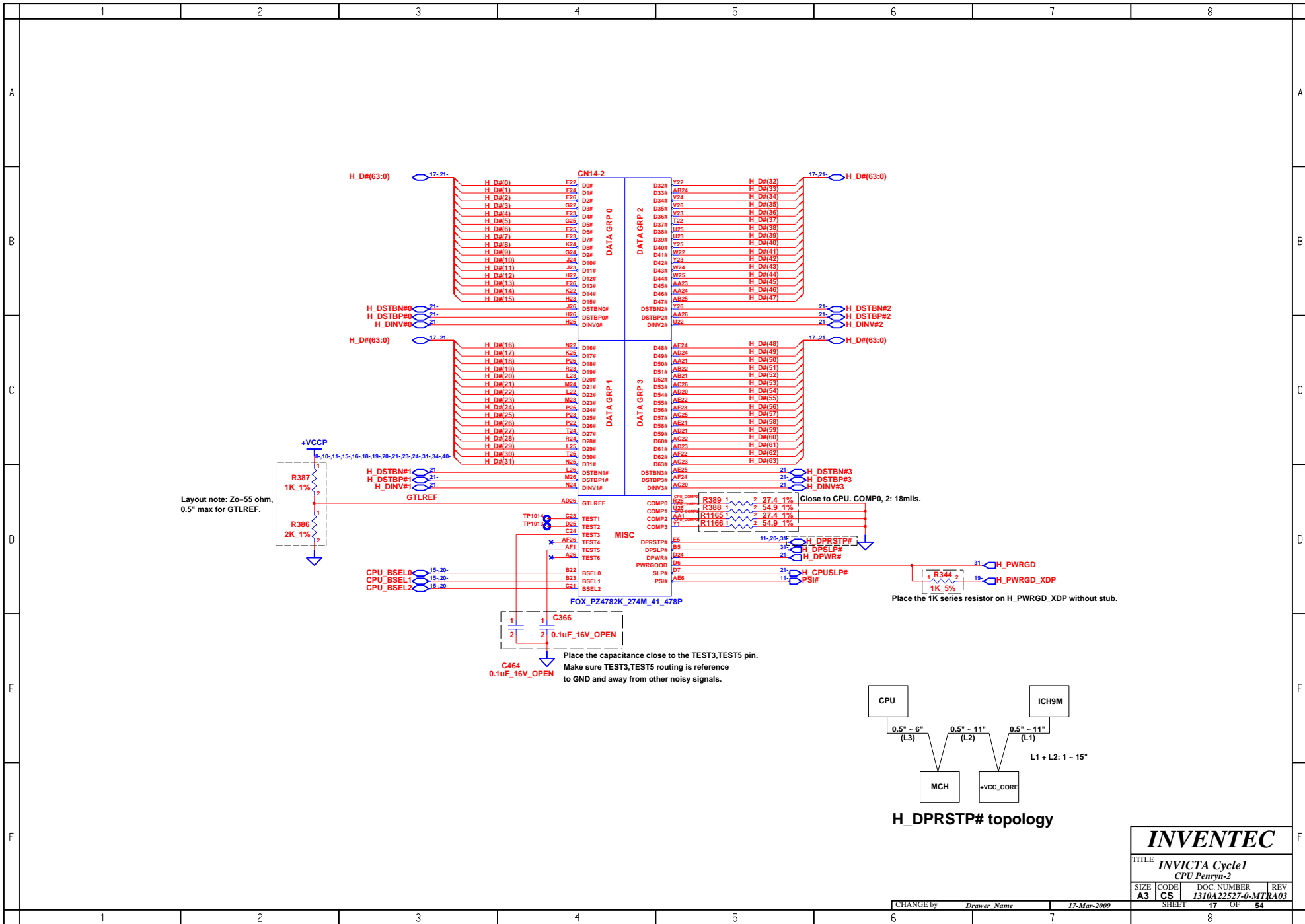
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TITLE *INVICTA Cycle1
CPU Penryn-1*

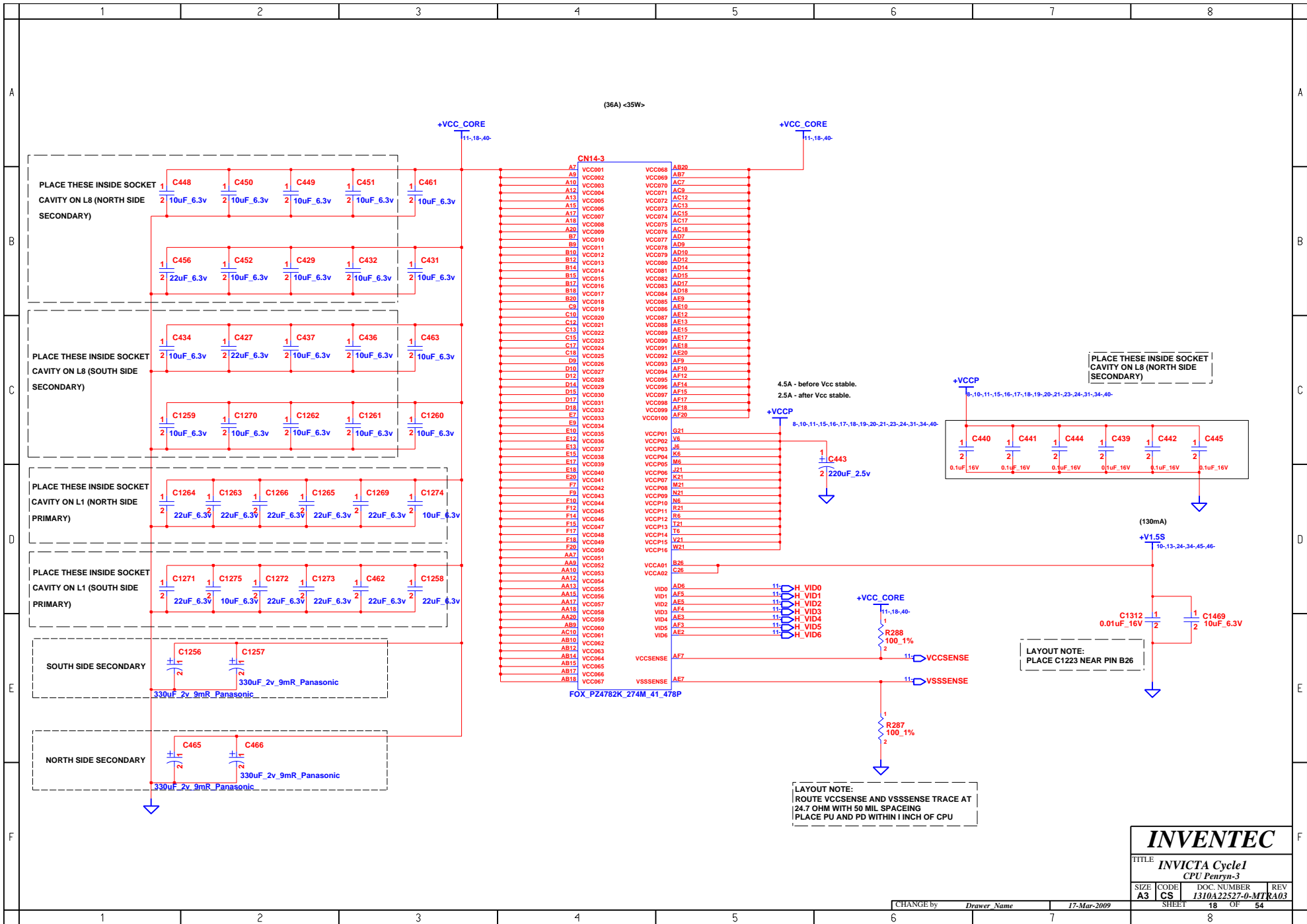
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

CHANGE by *Drawer Name* 17-Mar-2009

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INVENTEC			
TITLE INVICTA Cycle1			
CPU Penryn-2			
SIZE A3	CODE CS	DOC NUMBER 1310A22527-0-MTR	REV A03
CHANGE by Drawer Name		17-Mar-2009	SHEET 17 OF 54

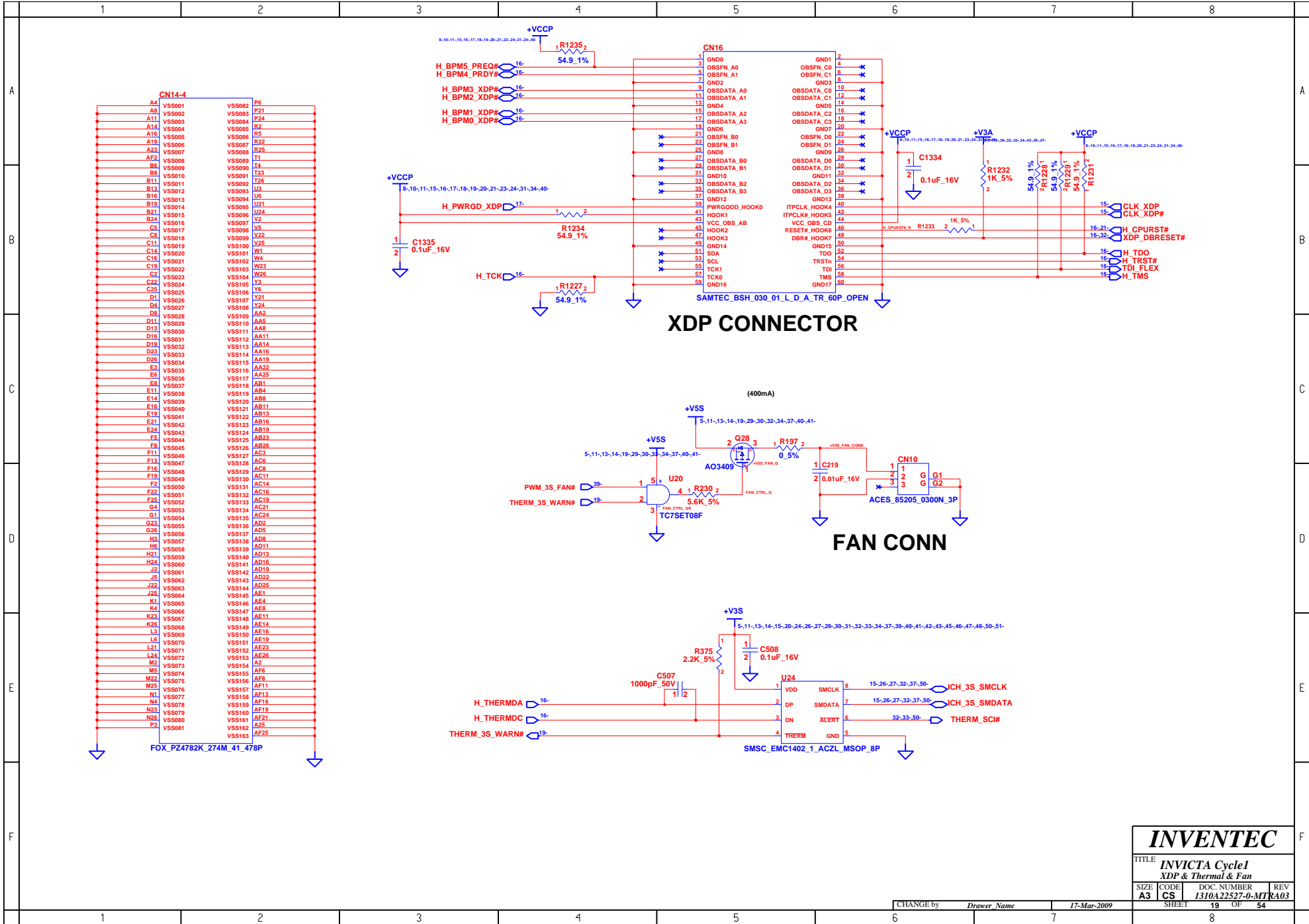


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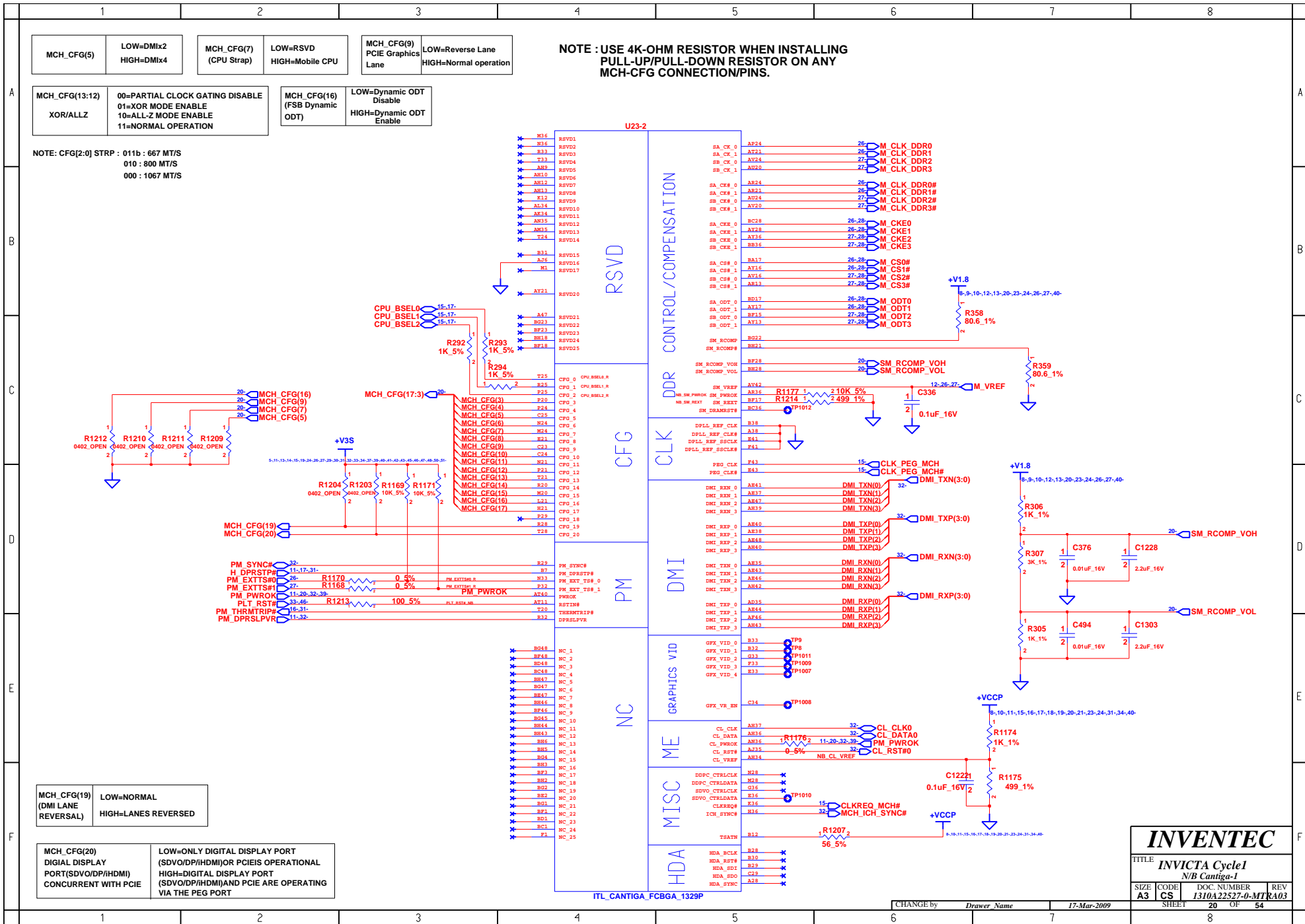
TITLE: *INVICTA Cycle1 CPU Penryn-3*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22527-0-MTR	A03

CHANGE by: *Drawer Name* 17-Mar-2009 SHEET 18 OF 54

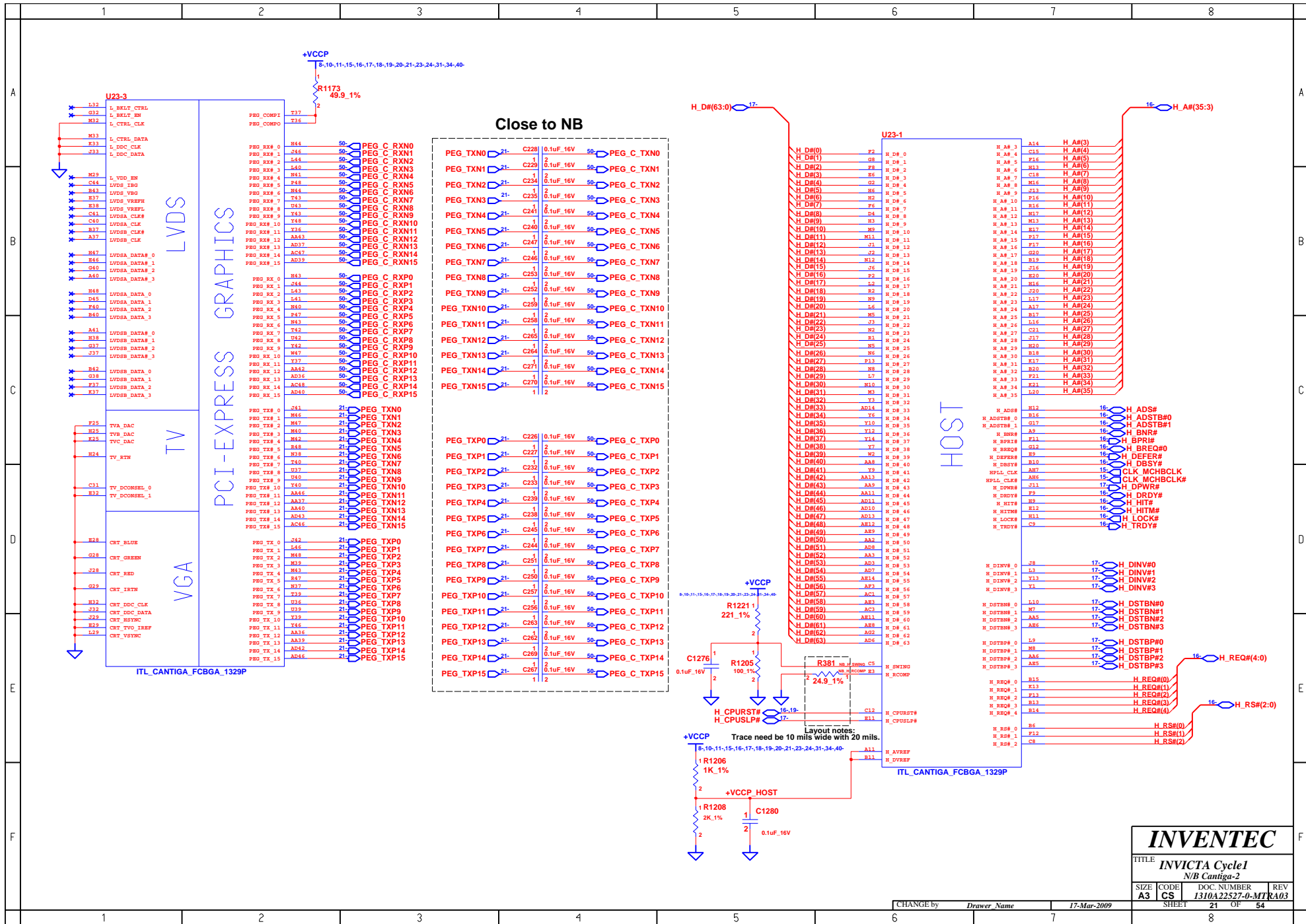


INVENTEC			
TITLE: INVICTA Cycle1 XDP & Thermal & Fan			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22527-0-MTR	REV: RA03
CHANGE by: Drawer Name		17-Mar-2009	
SHEET: 19		OF: 54	



INVENTEC			
TITLE INVICTA Cycle1 N/B Cantiga-1			
SIZE A3	CODE CS	DOC NUMBER 1310A22527-0-MTR	REV A03
SHEET 20		OF 54	

CHANGE by Drawer Name 17-Mar-2009



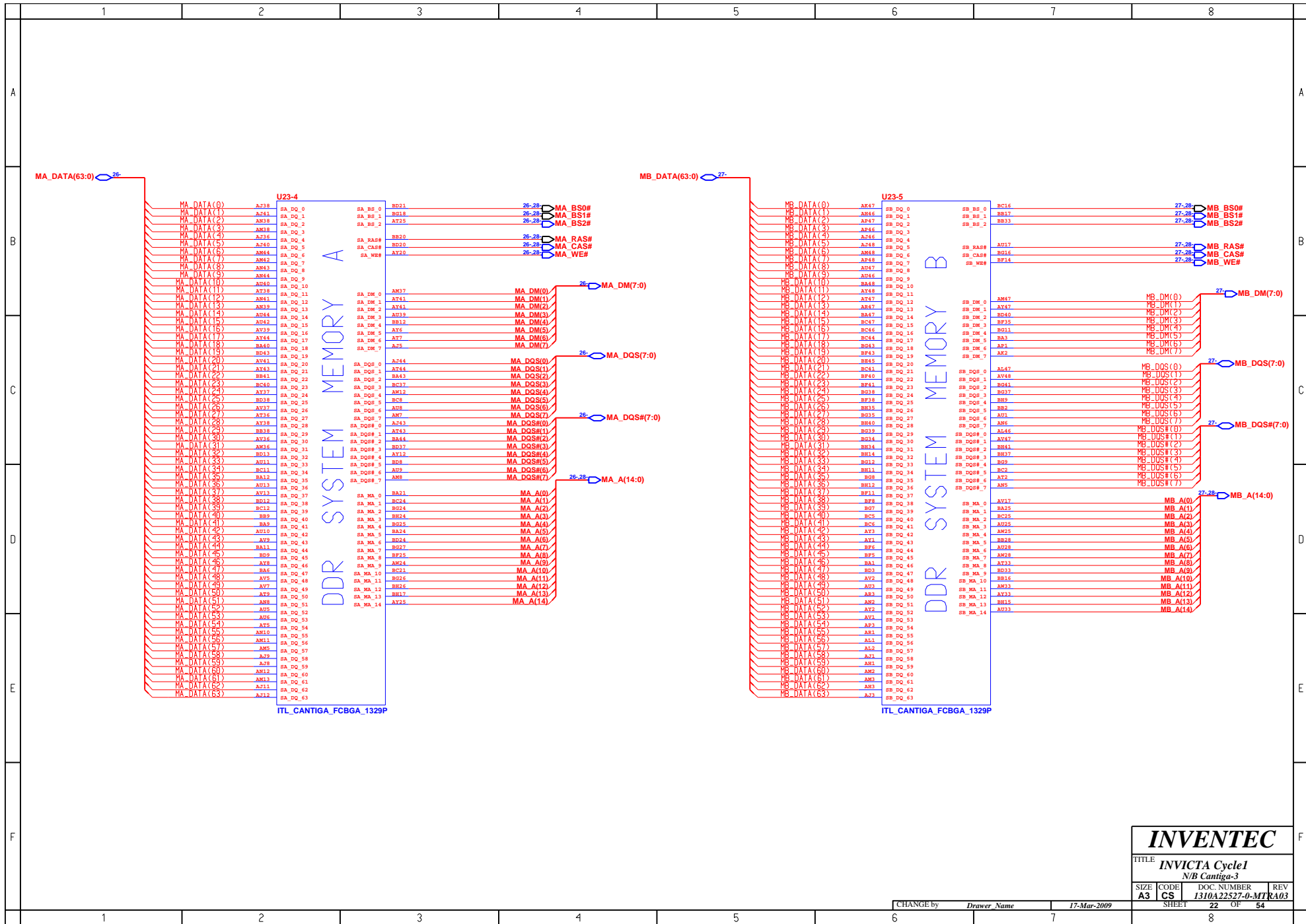
INVENTEC

TITLE: INVICTA Cycle1
N/B Cantiga-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

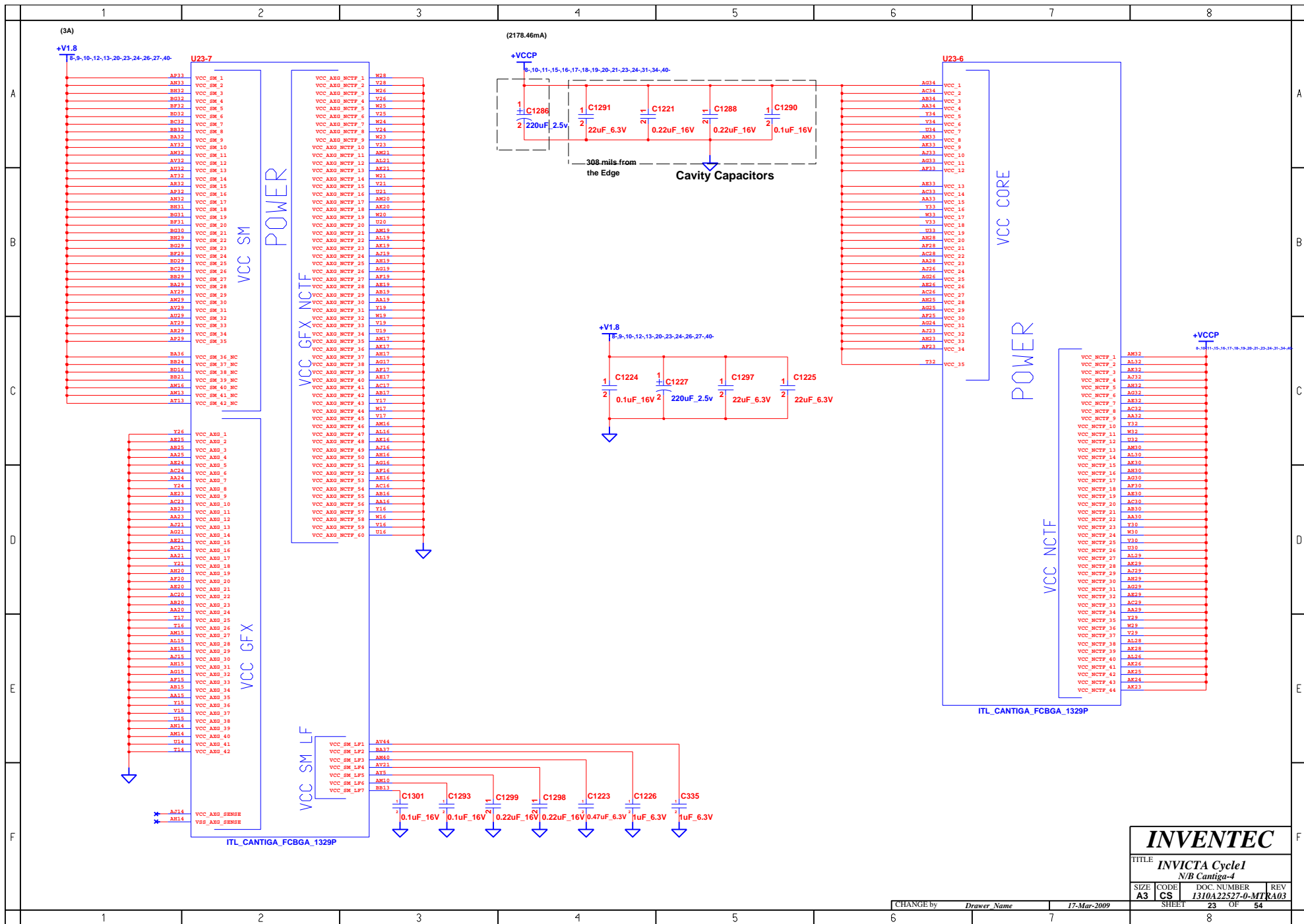
CHANGE by: Drawer Name 17-Mar-2009

SHEET 21 OF 54

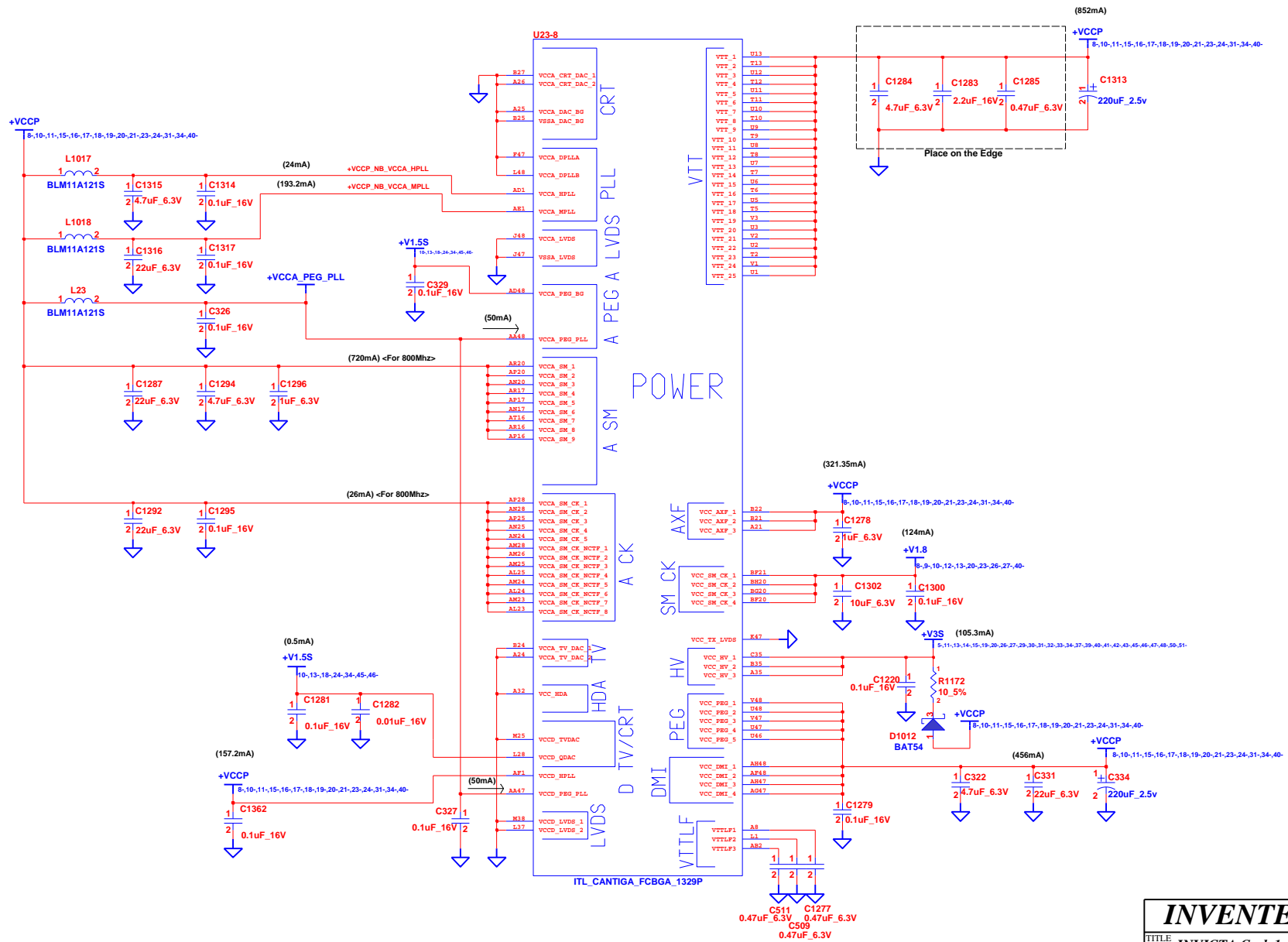


INVENTEC
 TITLE: INVICTA Cycle1
 N/B Cantiga-3
 SIZE CODE DOC. NUMBER REV
 A3 CS 1310A22527-0-MTR A03
 SHEET 22 OF 54

CHANGE by Drawer Name 17-Mar-2009



INVENTEC			
TITLE INVICTA Cycle1 <i>N/B Cantiga-4</i>			
SIZE A3	CODE CS	DOC NUMBER I310A22527-0-MTR	REV A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	
SHEET 23		OF 54	



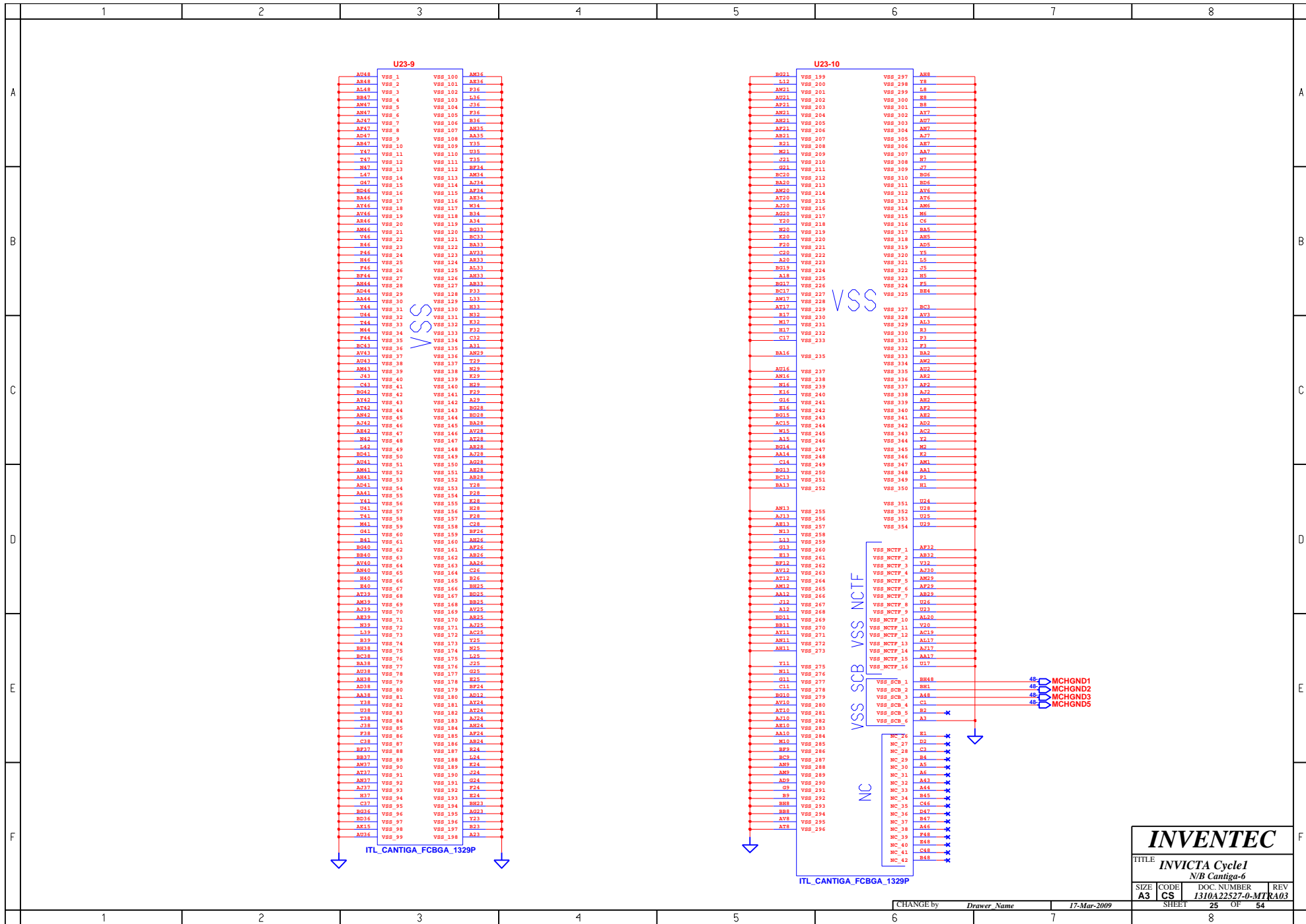
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TITLE: INVICTA Cycle1
N/B Cantiga-5

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

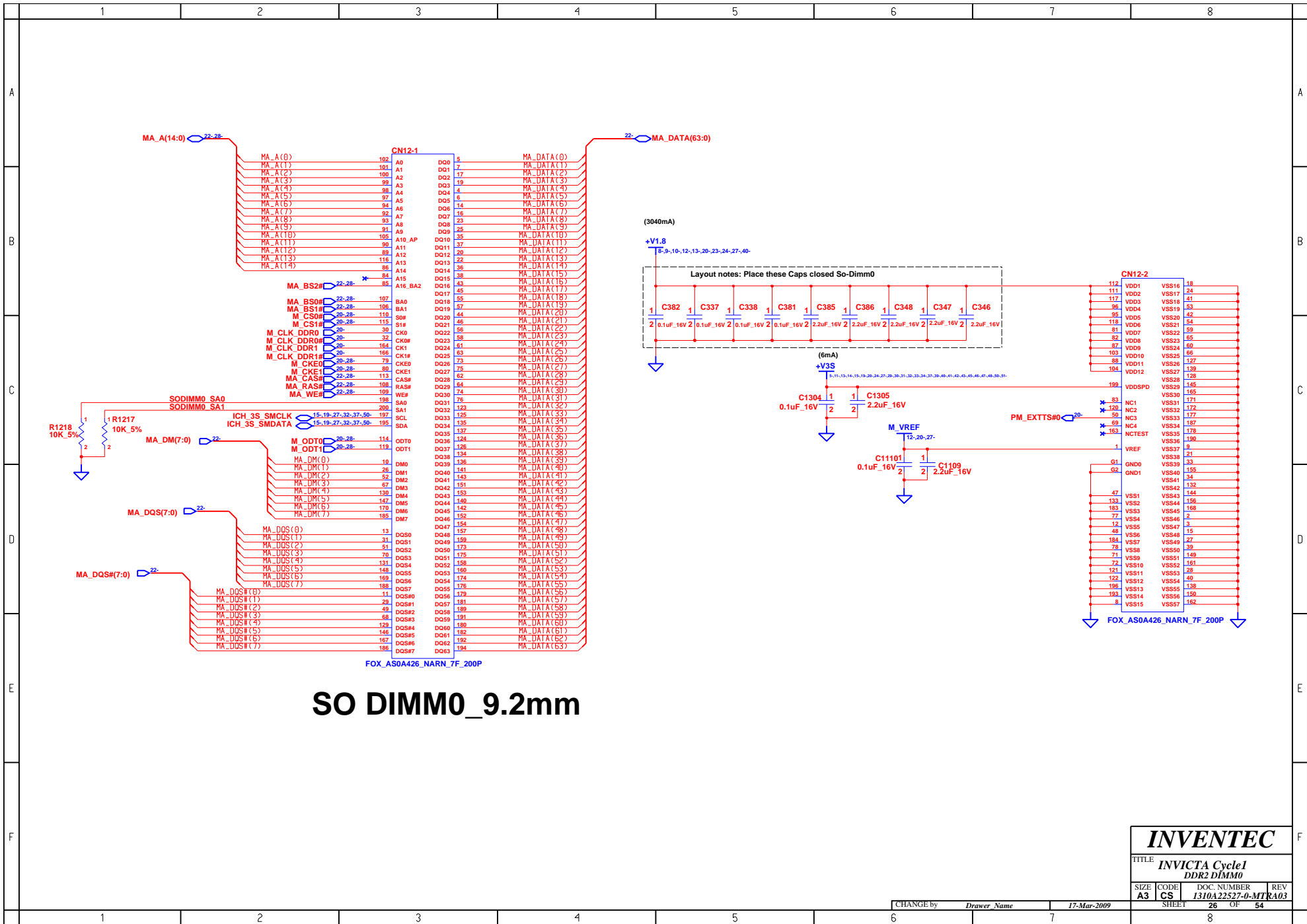
CHANGE by: Drawer Name 17-Mar-2009

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CHANGE by Drawer Name 17-Mar-2009

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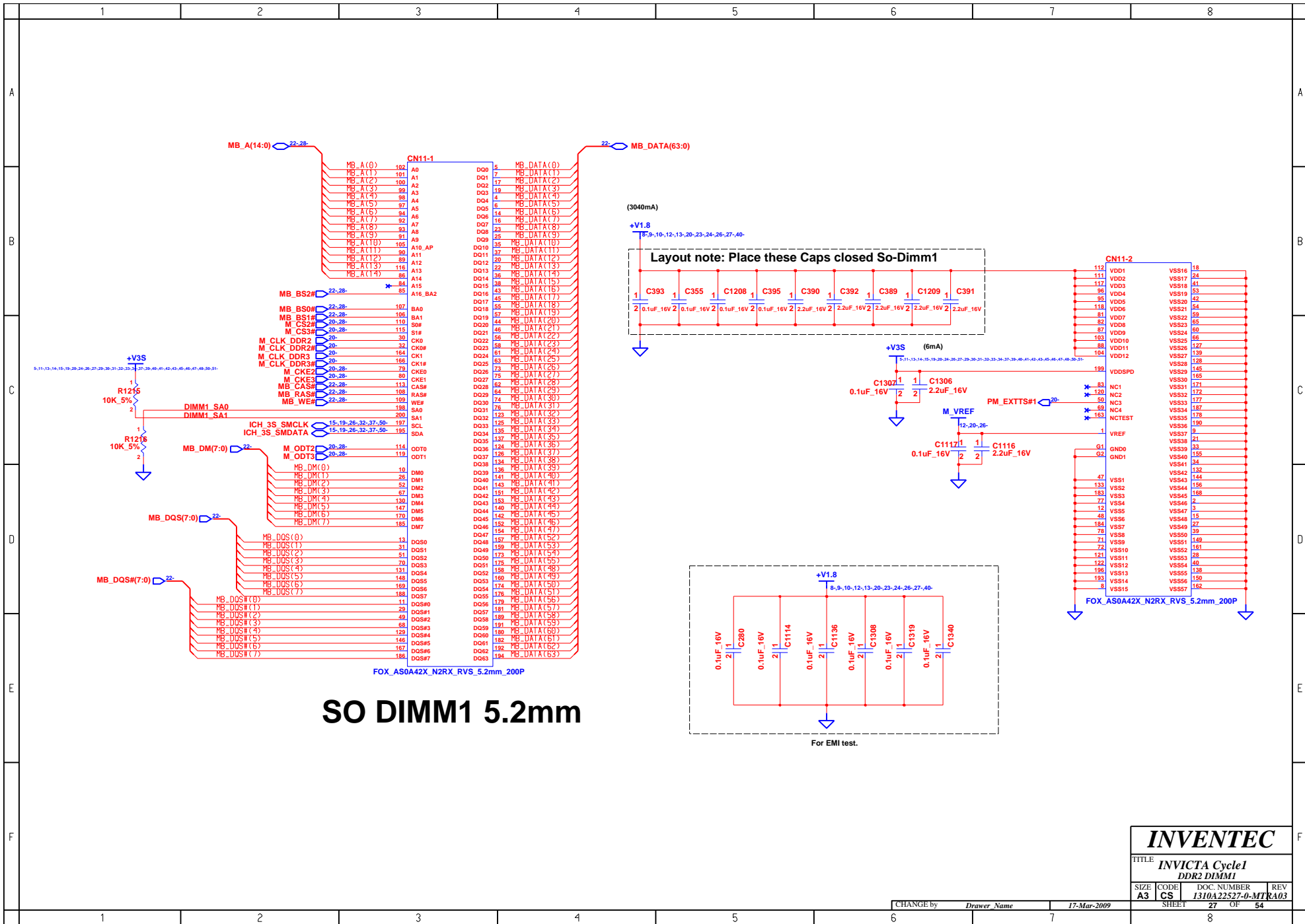


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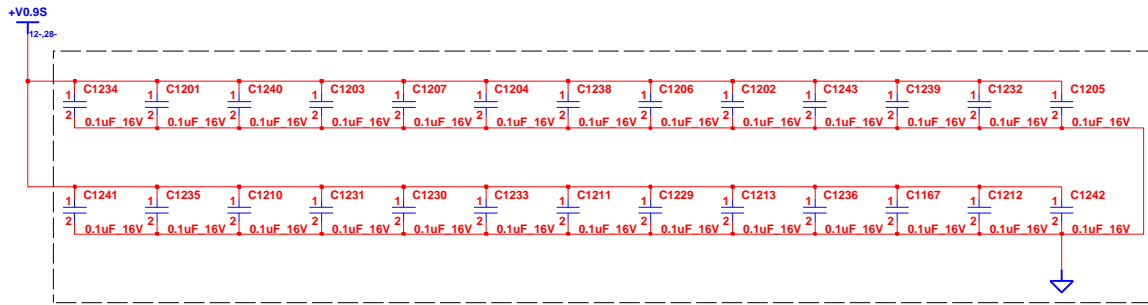
TITLE: **INVICTA Cycle1
DDR2 DIMM0**

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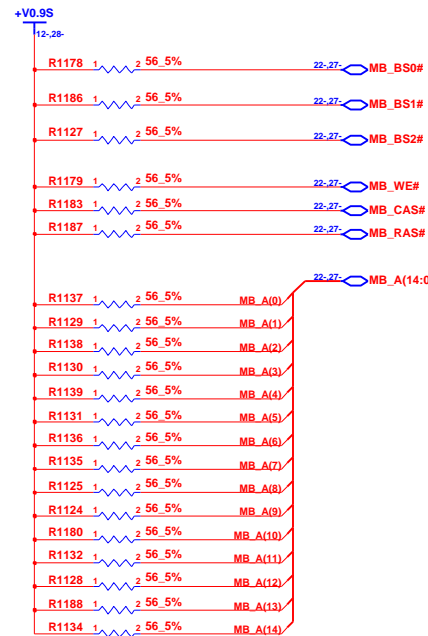
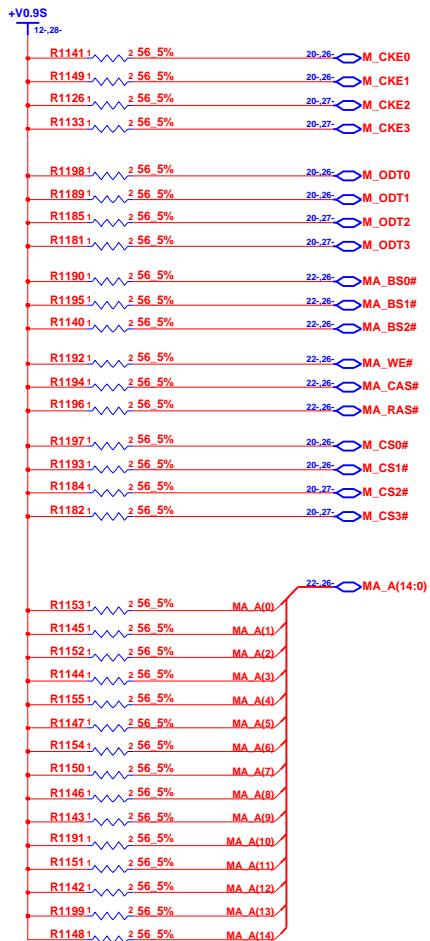
CHANGE by: *Drawer Name* 17-Mar-2009 SHEET: **26** OF: **54**



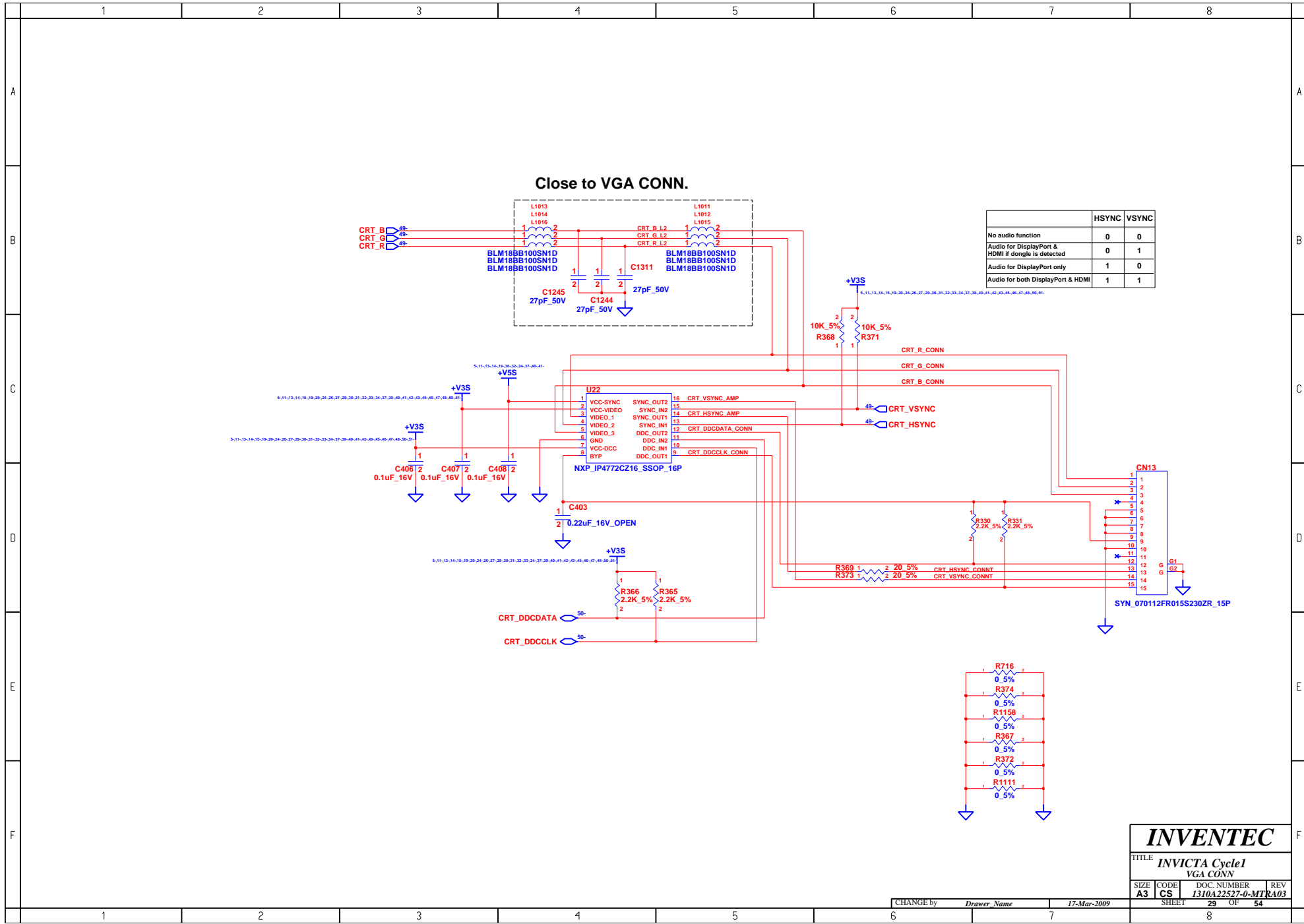
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TITLE: INVICTA Cycle1			
DDR2 DIMM1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MT	RA03
CHANGE by		Drawer Name	17-Mar-2009
SHEET		27	OF 54



Layout notes : Place one Cap close to every 2 pull up resistor terminated to +V0.9S.



INVENTEC			
TITLE INVICTA Cycle1 DDR2 termination			
SIZE A3	CODE CS	DOC. NUMBER I310A22527-0-MTR	REV A03
CHANGE by <i>Drawer Name</i>		27-Sep-2003	SHEET 28 OF 54



	HSYNC	VSYNC
No audio function	0	0
Audio for DisplayPort & HDMI if dongle is detected	0	1
Audio for DisplayPort only	1	0
Audio for both DisplayPort & HDMI	1	1

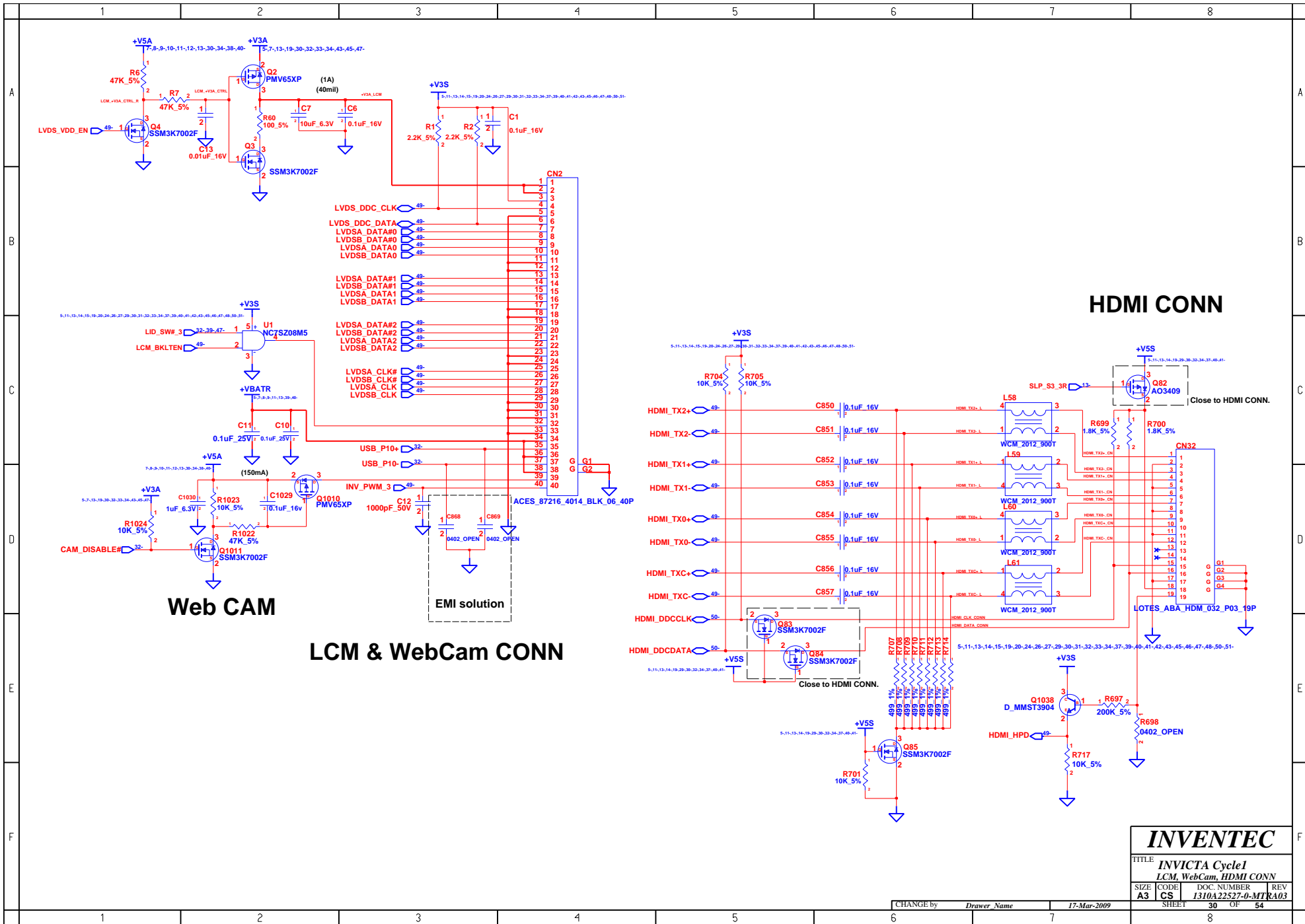
INVENTEC

TITLE: **INVICTA Cycle1**
VGA CONN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22527-0-MTR	A03

CHANGE by: *Drawer Name* 17-Mar-2009

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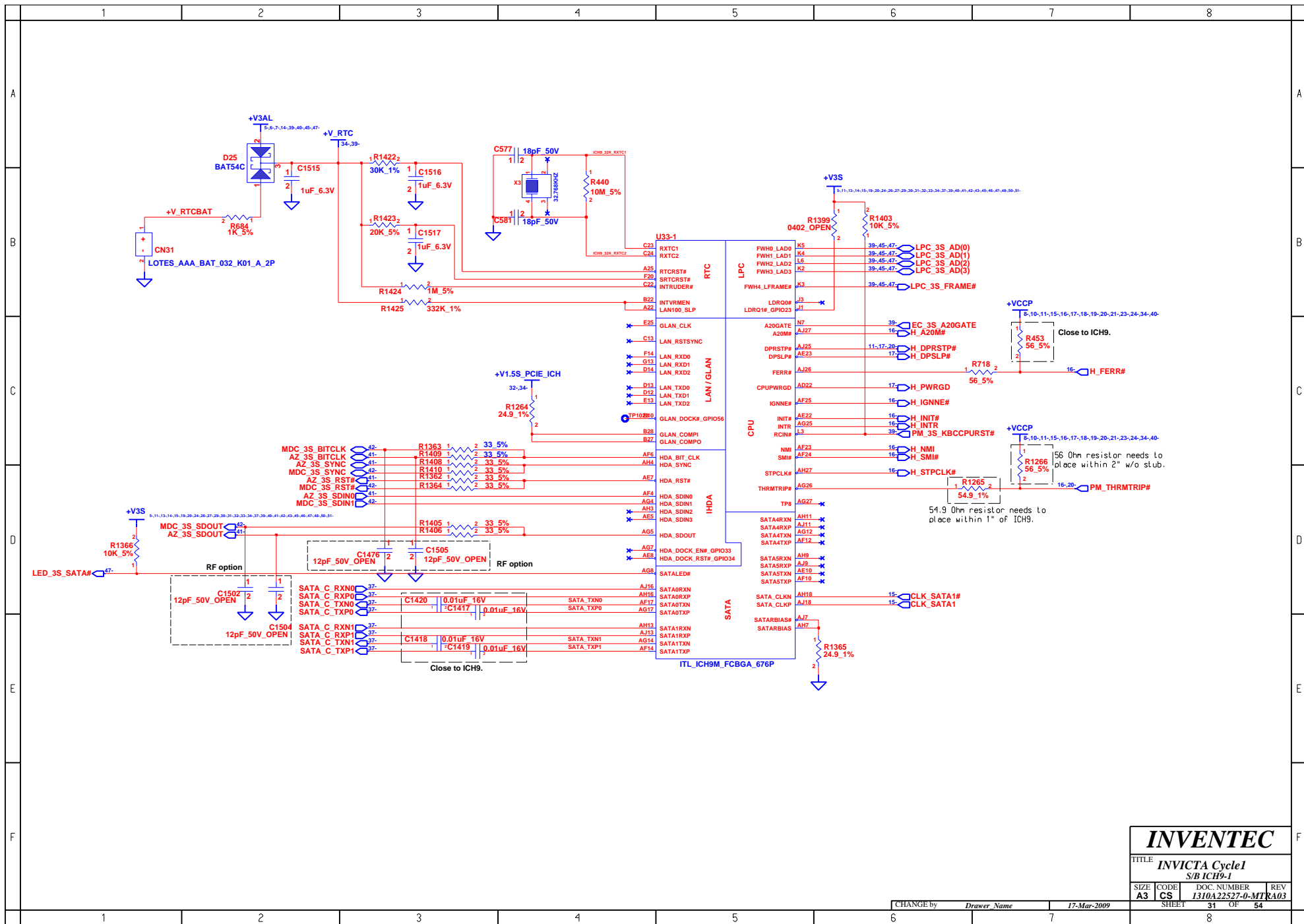
HDMI CONN

Web CAM

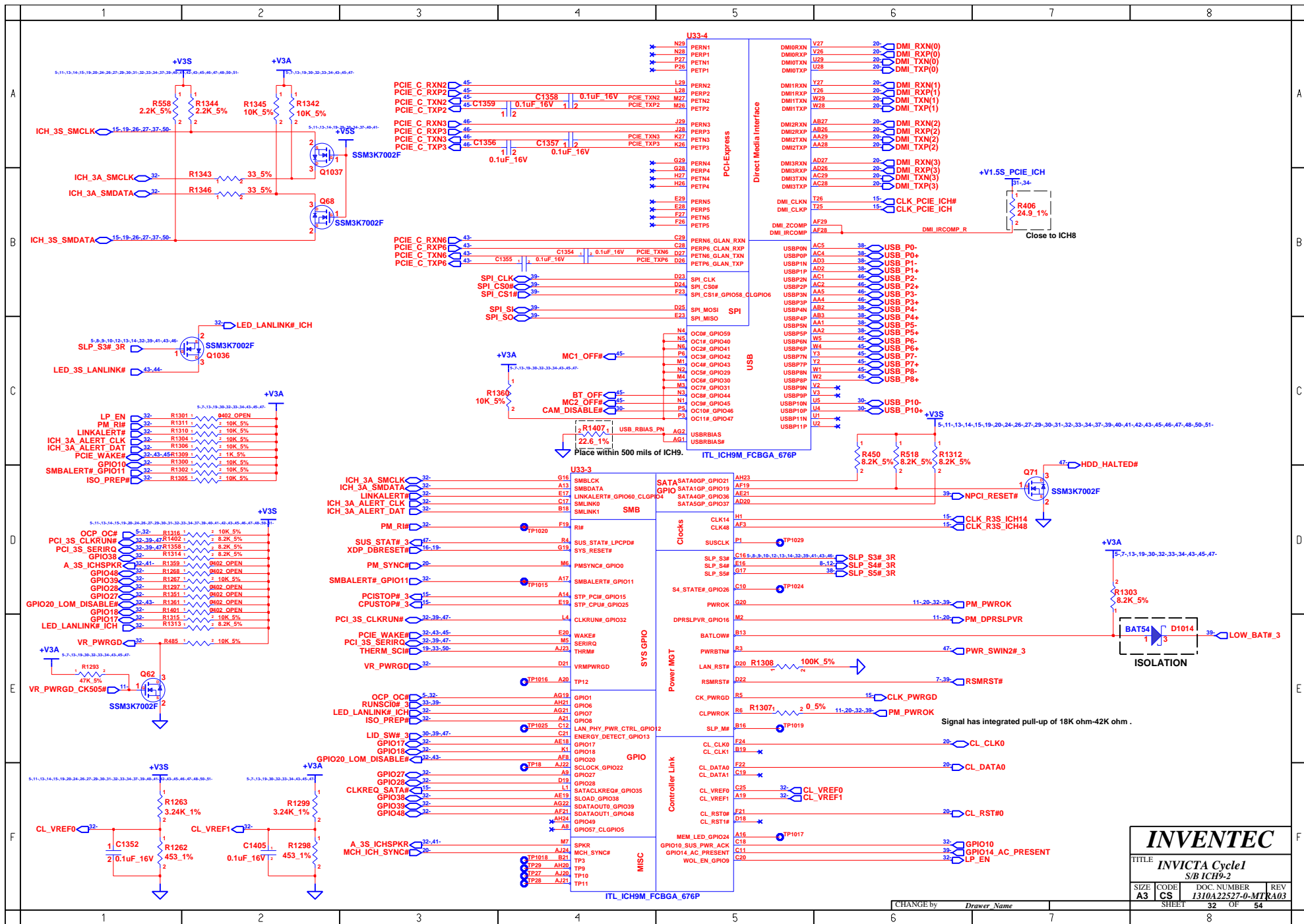
LCM & WebCam CONN

INVENTEC

TITLE INVICTA Cycle1			
LCM, WebCam, HDMI CONN			
SIZE A3	CODE CS	DOC NUMBER I310A22527-0-MTR	REV A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	SHEET 30 OF 54



INVENTEC			
TITLE INVICTA Cycle1			
S/B ICH9-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MT	RA03
CHANGE by		Drawer Name	17-Mar-2009
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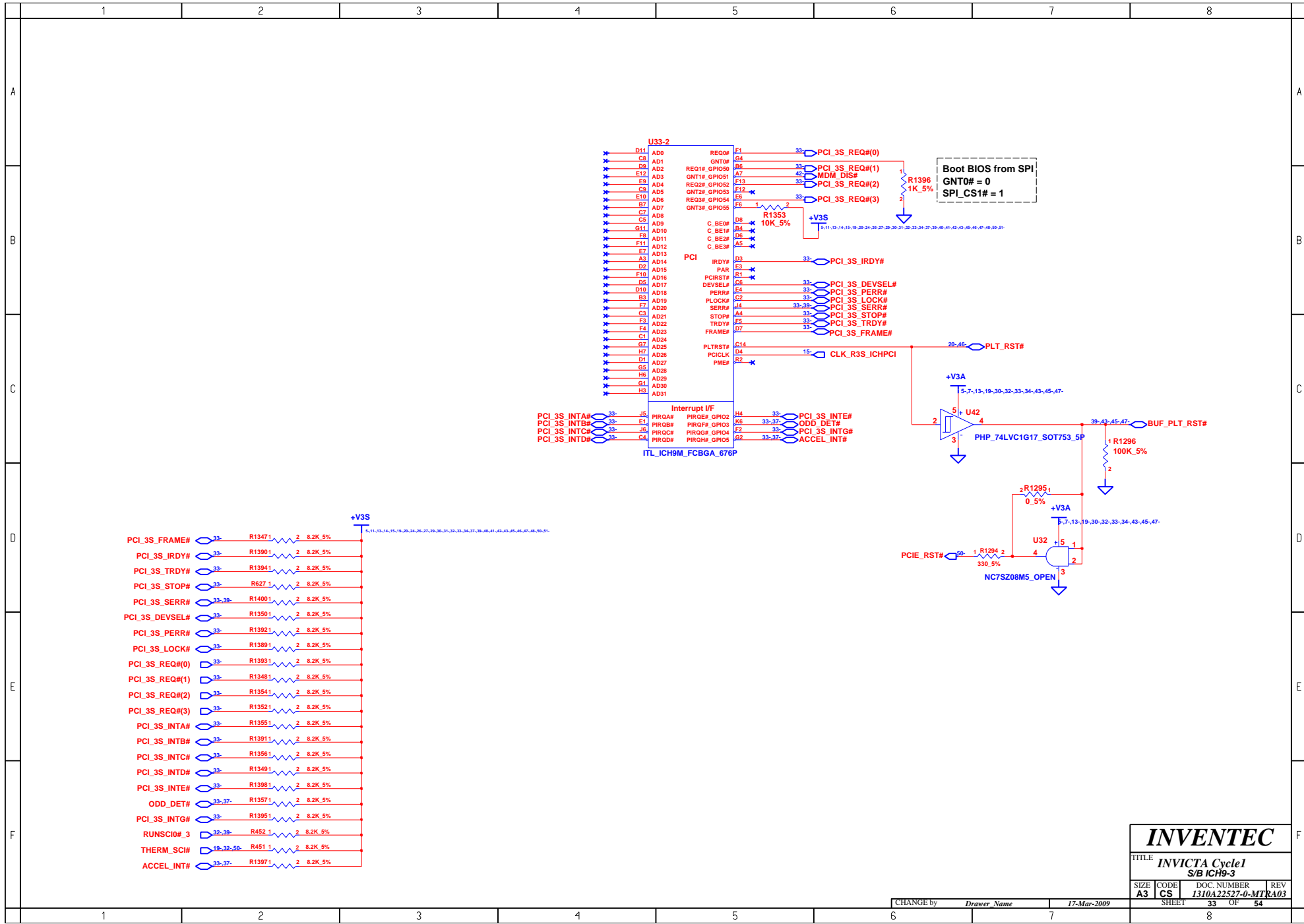


INVENTEC

TITLE: INVICTA Cycle1
S/B ICH9-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

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INVENTEC			
TITLE INVICTA Cycle1 S/B ICH9-3			
SIZE A3	CODE CS	DOC NUMBER I310A22527-0-MTR	REV A03
CHANGE by Drawer Name		17-Mar-2009	
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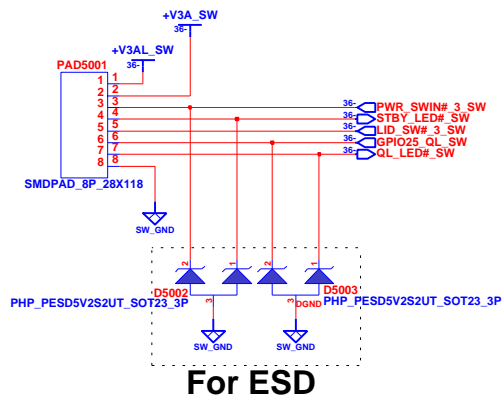
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A	U33-5							
				AA26 VSS001	VSS107	H5		
				AA27 VSS002	VSS108	J23		
				AA3 VSS003	VSS109	J26		
				AA6 VSS004	VSS110	J27		
				AB1 VSS005	VSS111	AC22		
				AA23 VSS006	VSS112	K28		
				AB28 VSS007	VSS113	K29		
				AB29 VSS008	VSS114	L13		
				AB4 VSS009	VSS115	L15		
B				AB5 VSS010	VSS116	L2		
				AC17 VSS011	VSS117	L26		
				AG20 VSS012	VSS118	L5		
				AC27 VSS013	VSS119	L5		
				AG3 VSS014	VSS120	L7		
				AD1 VSS015	VSS121	M12		
				AD10 VSS016	VSS122	M13		
				AD12 VSS017	VSS123	M14		
				AD13 VSS018	VSS124	M15		
				AD14 VSS019	VSS125	M16		
C				AD17 VSS020	VSS126	M17		
				AD18 VSS021	VSS127	M23		
				AD21 VSS022	VSS128	M28		
				AD28 VSS023	VSS129	M29		
				AD29 VSS024	VSS130	N11		
				AD4 VSS025	VSS131	N12		
				AD5 VSS026	VSS132	N13		
				AD6 VSS027	VSS133	N14		
				AD7 VSS028	VSS134	N15		
				AD9 VSS029	VSS135	N16		
D				AE12 VSS030	VSS136	N17		
				AE13 VSS031	VSS137	N18		
				AE14 VSS032	VSS138	N26		
				AE16 VSS033	VSS139	N27		
				AE17 VSS034	VSS140	P12		
				AE21 VSS035	VSS141	P13		
				AE20 VSS036	VSS142	P14		
				AE24 VSS037	VSS143	P15		
				AE3 VSS038	VSS144	P16		
				AE4 VSS039	VSS145	P17		
E				AE6 VSS040	VSS146	P2		
				AE9 VSS041	VSS147	P23		
				AF13 VSS042	VSS148	P28		
				AF16 VSS043	VSS149	P29		
				AF18 VSS044	VSS150	P4		
				AF22 VSS045	VSS151	P7		
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				AF26 VSS047	VSS153	R12		
				AF27 VSS048	VSS154	R13		
				AF5 VSS049	VSS155	R14		
F				AF7 VSS050	VSS156	R15		
				AF9 VSS051	VSS157	R16		
				AG13 VSS052	VSS158	R17		
				AG16 VSS053	VSS159	R18		
				AG18 VSS054	VSS160	R28		
				AG20 VSS055	VSS161	T12		
				AG23 VSS056	VSS162	T13		
				AG3 VSS057	VSS163	T14		
				AG6 VSS058	VSS164	T15		
				AG9 VSS059	VSS165	T16		
			AH12 VSS060	VSS166	T17			
			AH14 VSS061	VSS167	T23			
			AH17 VSS062	VSS168	U18			
			AH19 VSS063	VSS169	U12			
			AH2 VSS064	VSS170	U13			
			AH22 VSS065	VSS171	U14			
			AH25 VSS066	VSS172	U15			
			AH28 VSS067	VSS173	U16			
			AH5 VSS068	VSS174	U17			
			AH8 VSS069	VSS175	AD23			
			AJ12 VSS070	VSS176	U24			
			AJ14 VSS071	VSS177	U27			
			AJ17 VSS072	VSS178	U3			
			AJ8 VSS073	VSS179	V1			
			B11 VSS074	VSS180	V13			
			B14 VSS075	VSS181	V15			
			B17 VSS076	VSS182	V23			
			B2 VSS077	VSS183	V28			
			B20 VSS078	VSS184	V29			
			B23 VSS079	VSS185	V4			
			B5 VSS080	VSS186	V5			
			B8 VSS081	VSS187	W23			
			C26 VSS082	VSS188	W27			
			C27 VSS083	VSS189	W3			
			E11 VSS084	VSS190	Y1			
			E14 VSS085	VSS191	Z8			
			E18 VSS086	VSS192	Y29			
			E2 VSS087	VSS193	Y4			
			E4 VSS088	VSS194	Y5			
			E4 VSS089	VSS195	AD28			
			E5 VSS090	VSS196	AH6			
			E8 VSS091	VSS197	AF2			
			F16 VSS092	VSS198	B25			
			F29 VSS093	VSS199	A1			
			F29 VSS094	VSS200	A2			
			G12 VSS095	VSS201	A2			
			G14 VSS096	VSS202	A28			
			G18 VSS097	VSS203	A29			
			G21 VSS098	VSS204	AH1			
			G24 VSS099	VSS205	AH29			
			G26 VSS100	VSS206	AJ2			
			G27 VSS101	VSS207	AJ28			
			G8 VSS102	VSS208	AJ28			
			H2 VSS103	VSS209	B1			
			H23 VSS104	VSS210	B1			
			H28 VSS105	VSS211	B2			
			H29 VSS106	VSS212	B2			
			ITL_ICH9M_FCBGA_676P					
				VSS_NCTF1	A1	48-ICHGND1		
				VSS_NCTF2	A2			
				VSS_NCTF3	A28	48-ICHGND4		
				VSS_NCTF4	A29			
				VSS_NCTF5	AH1			
				VSS_NCTF6	AH29			
				VSS_NCTF7	AJ2	48-ICHGND7		
				VSS_NCTF8	AJ28			
				VSS_NCTF9	AJ28			
				VSS_NCTF10	B1	48-ICHGND10		
				VSS_NCTF11	B1			
				VSS_NCTF12	B2			
CHANGE by <i>Drawer Name</i> 17-Mar-2009						SHEET 35 OF 54		

INVENTEC

TITLE **INVICTA Cycle 1**
S/B ICH9-5

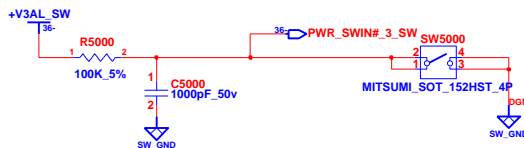
SIZE A3	CODE CS	DOC. NUMBER 1310A22527-0-MTR	REV A03
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PWR SW B/B CONN

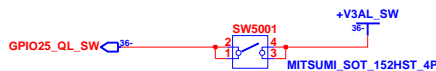


For ESD

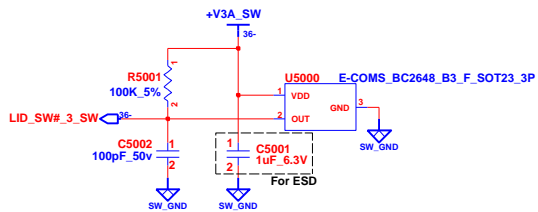
Power Button



Quick Look Button



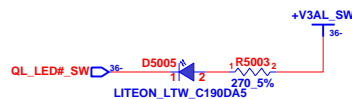
LID Switch



Power / Standby LED



Quick Look LED



- FIX5000
- FIX_MASK
- FIX5001
- FIX_MASK
- FIX5002
- FIX_MASK
- FIX5003
- FIX_MASK
- FIX5004
- FIX_MASK
- FIX5005
- FIX_MASK

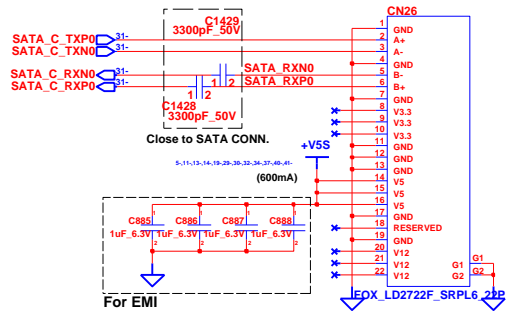
Power & LID Switch Board

INVENTEC

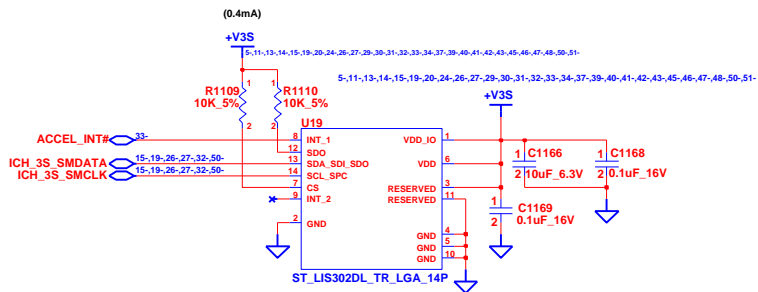
TITLE *INVICTA Cycle1*
PWR, LID, APP SW/Bs

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

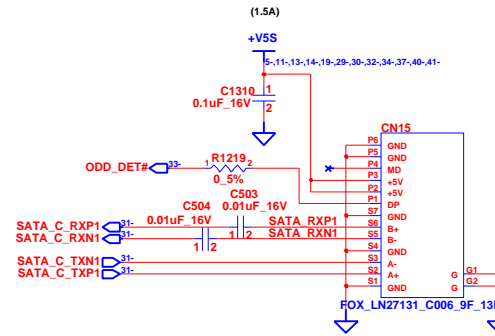
CHANGE by *Drawer Name* 17-Mar-2009 SHEET 36 OF 54



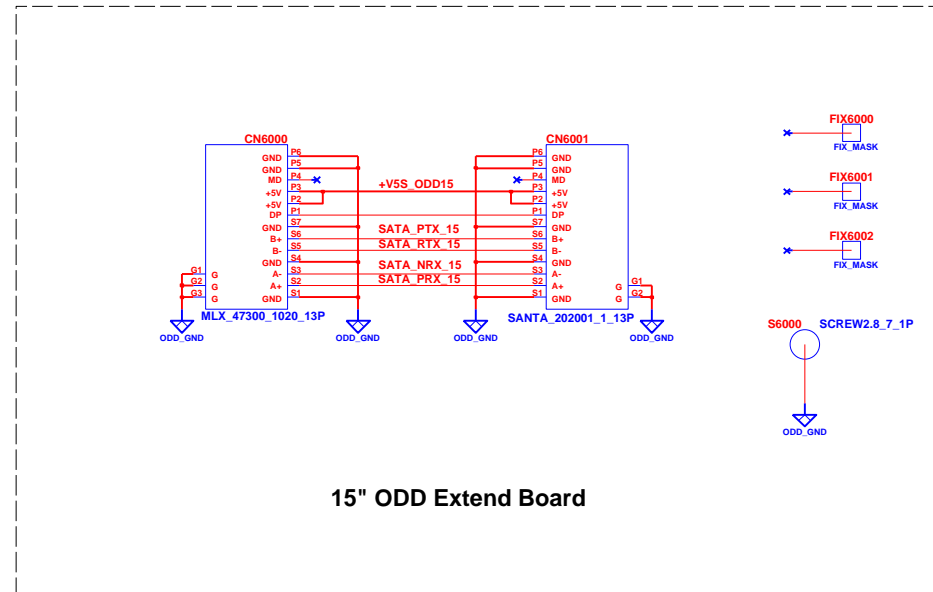
SATA HDD



Accelerometer



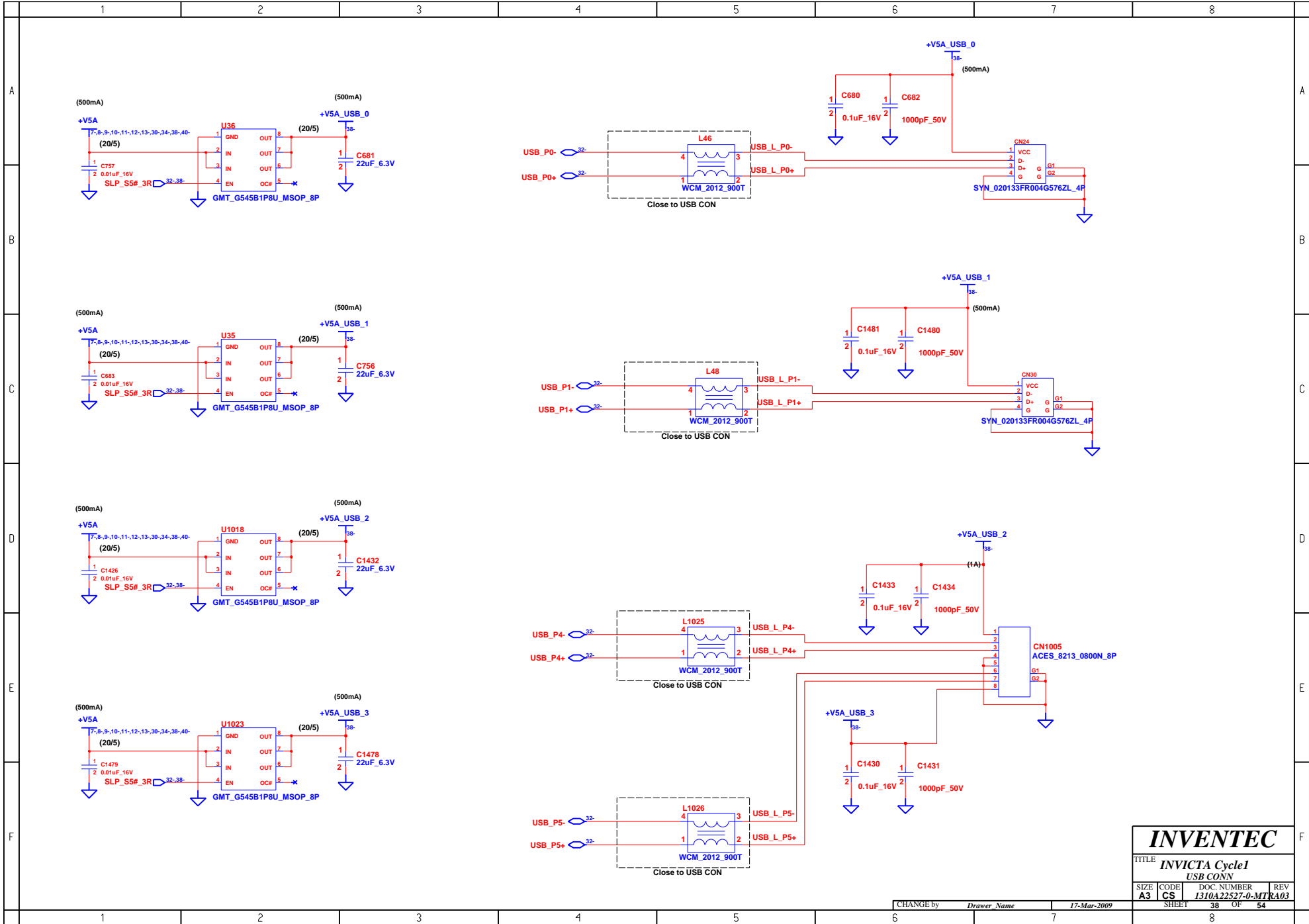
SATA ODD



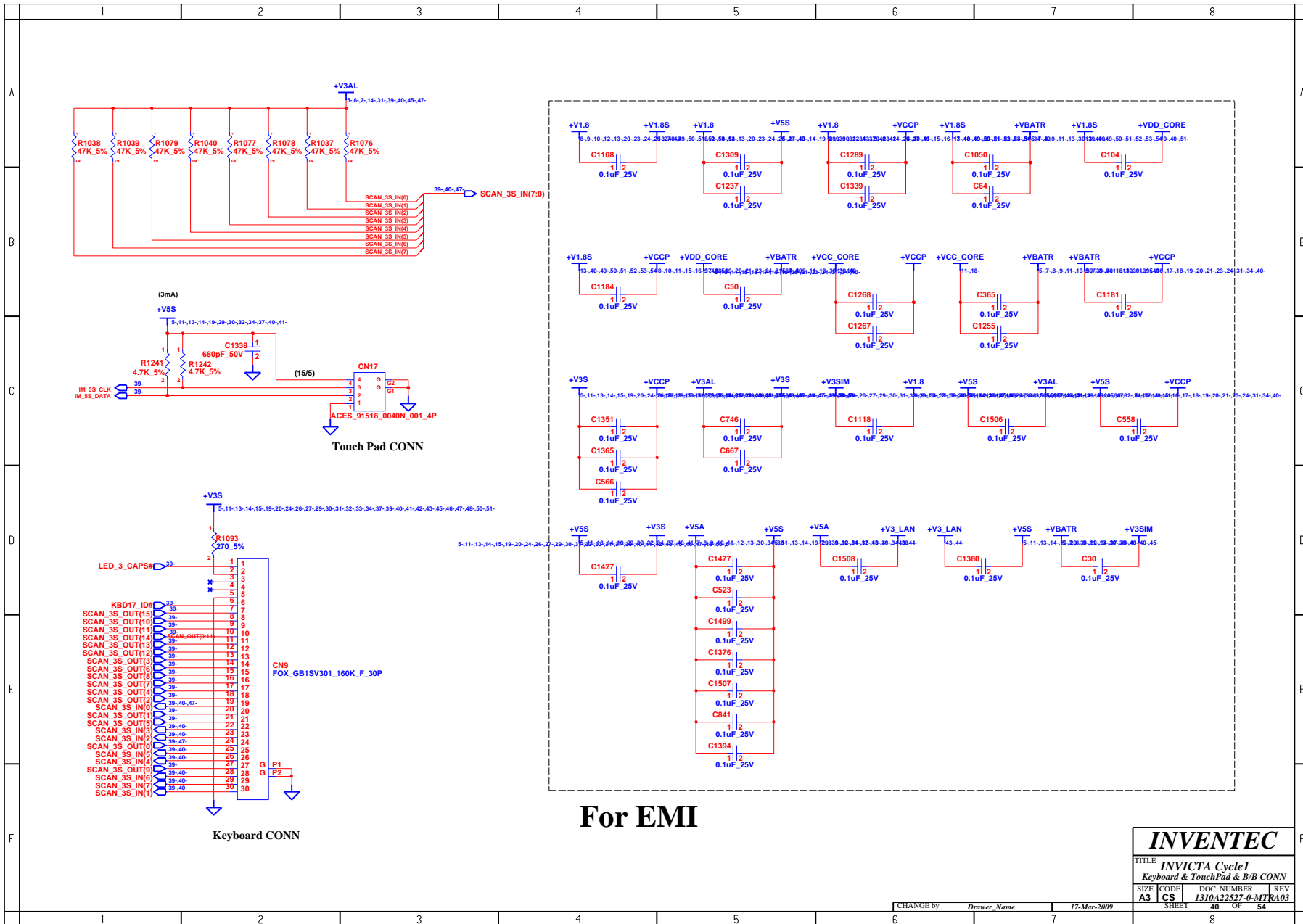
15" ODD Extend Board

INVENTEC

TITLE			
INVICTA Cycle1			
HDD & ODD CONN & Accelerometer & 15" ODD EXT B			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A22527-0-MTR	A03
CHANGE by		Drawer Name	17-Mar-2009
SHEET		37	OF 54



INVENTEC			
TITLE INVICTA Cycle1 USB CONN			
SIZE A3	CODE CS	DOC NUMBER I310A22527-0-MTR	REV A03
CHANGE by <i>Drawer Name</i>		17-Mar-2009	
SHEET 38		OF 54	



For EMI

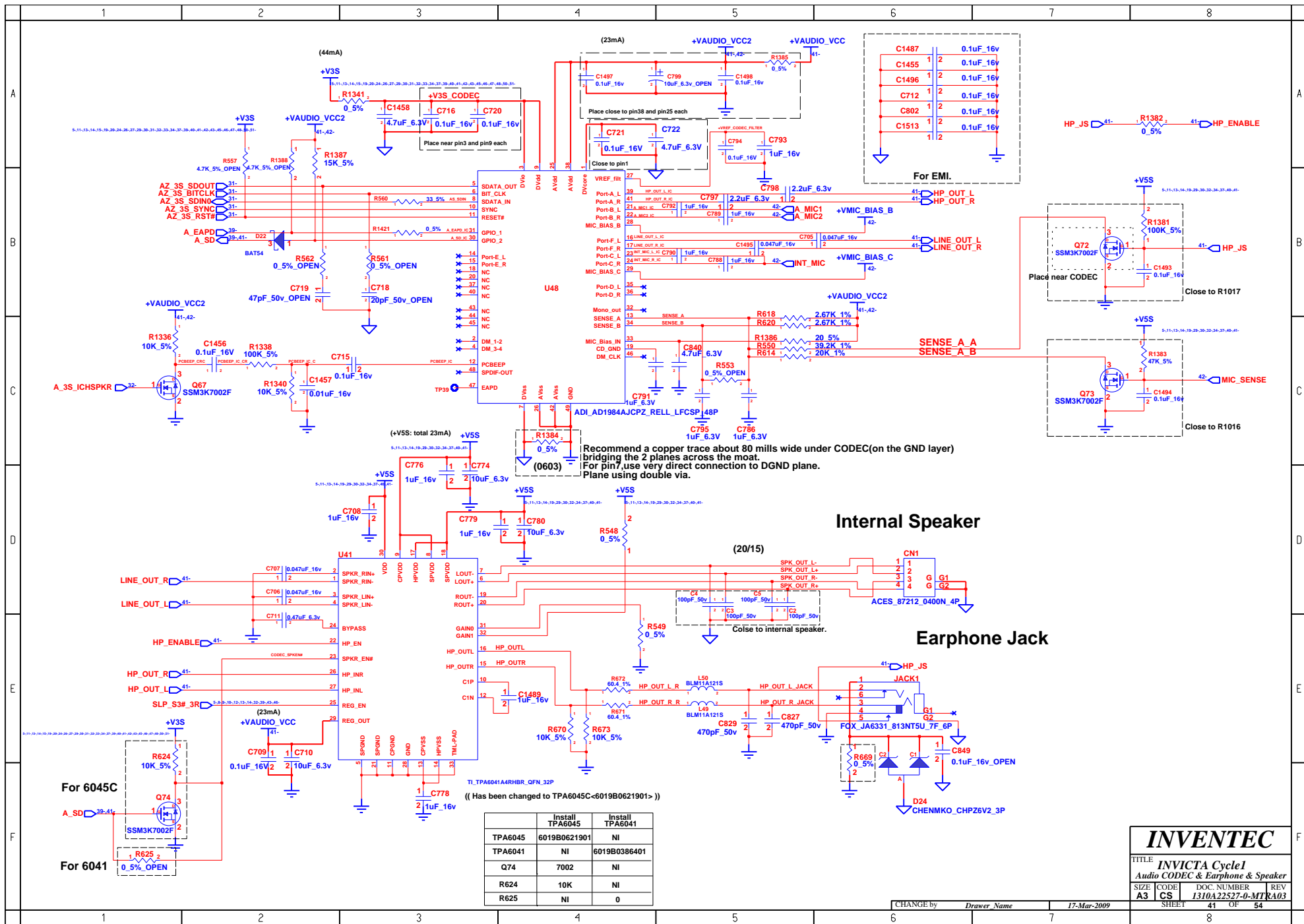
INVENTEC

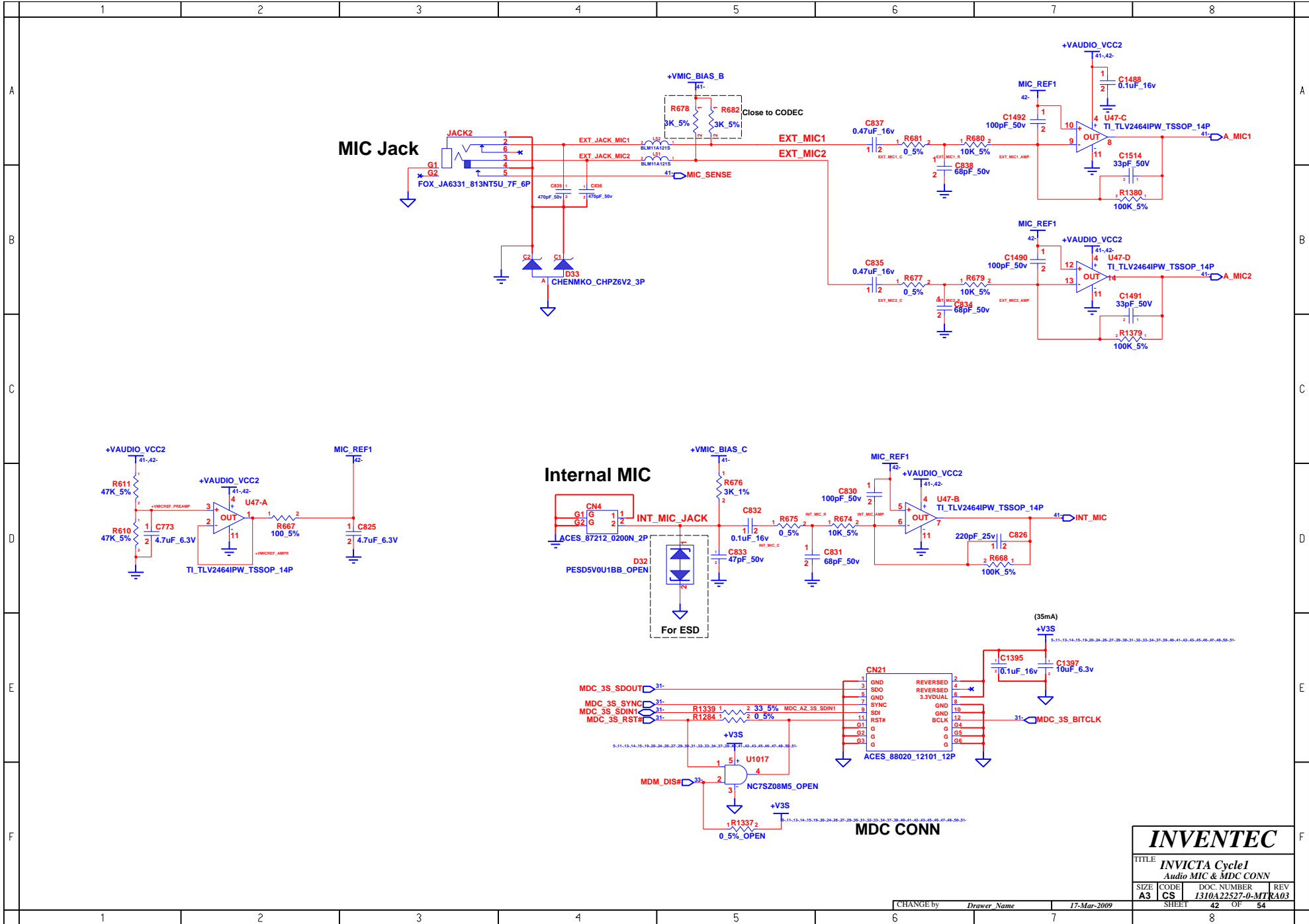
TITLE: INVICTA Cycle1
Keyboard & TouchPad & B/B CONN

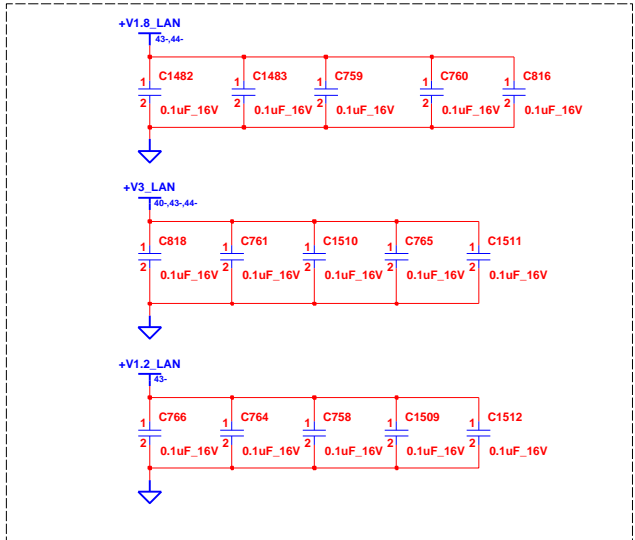
SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A22527-0-MTKA03	

SHEET 40 OF 54

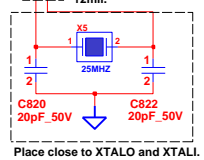
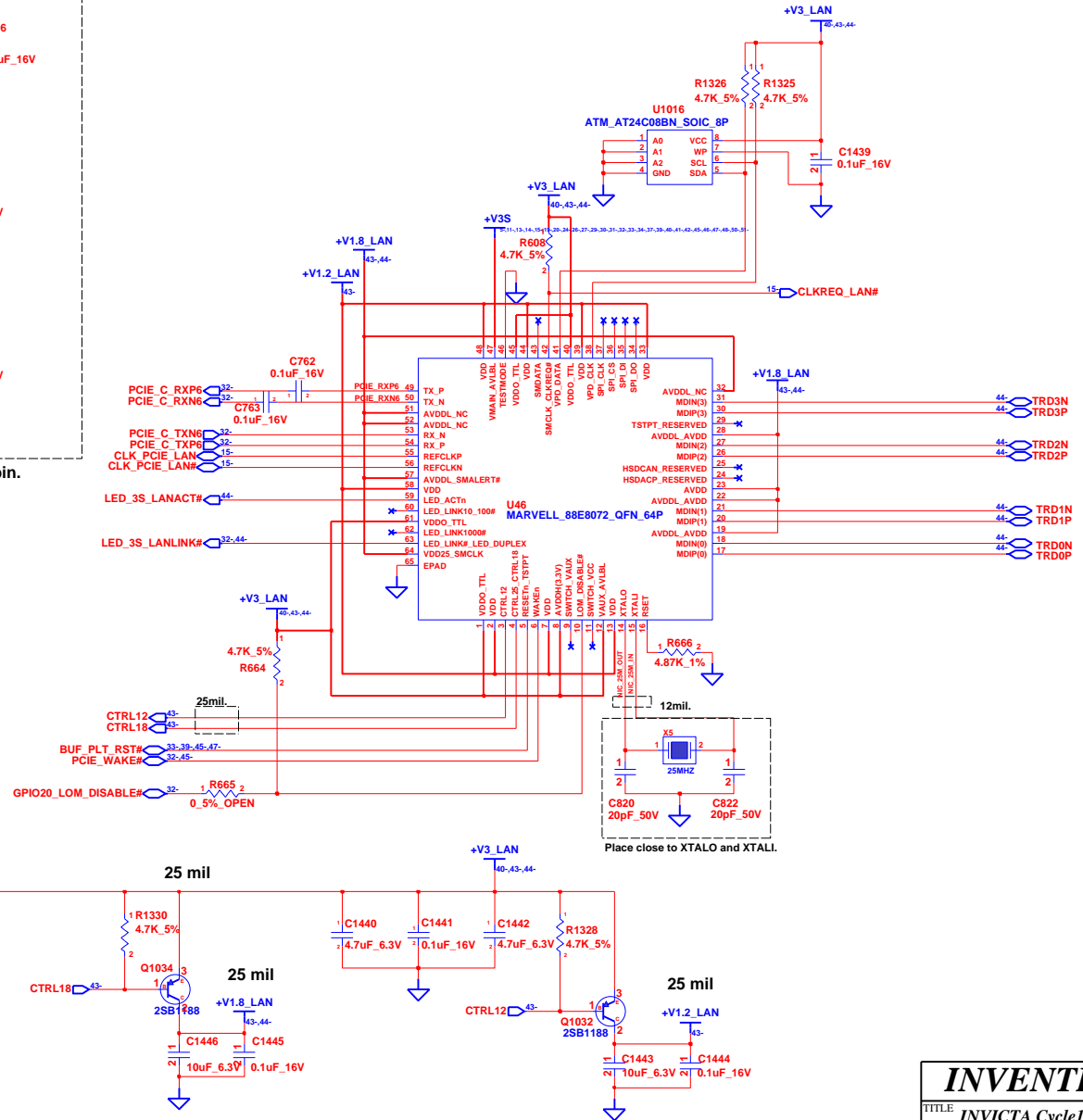
CHANGE by: Drawer Name 17-Mar-2009



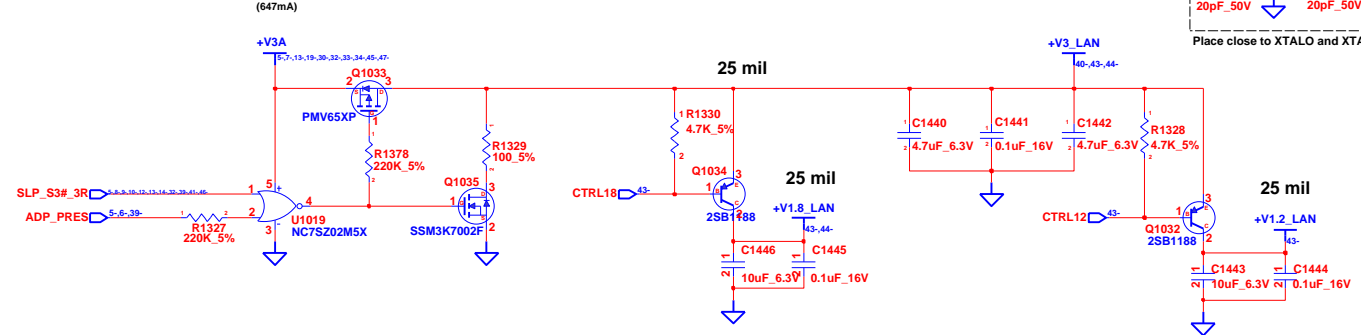




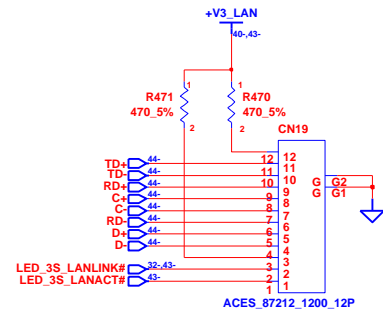
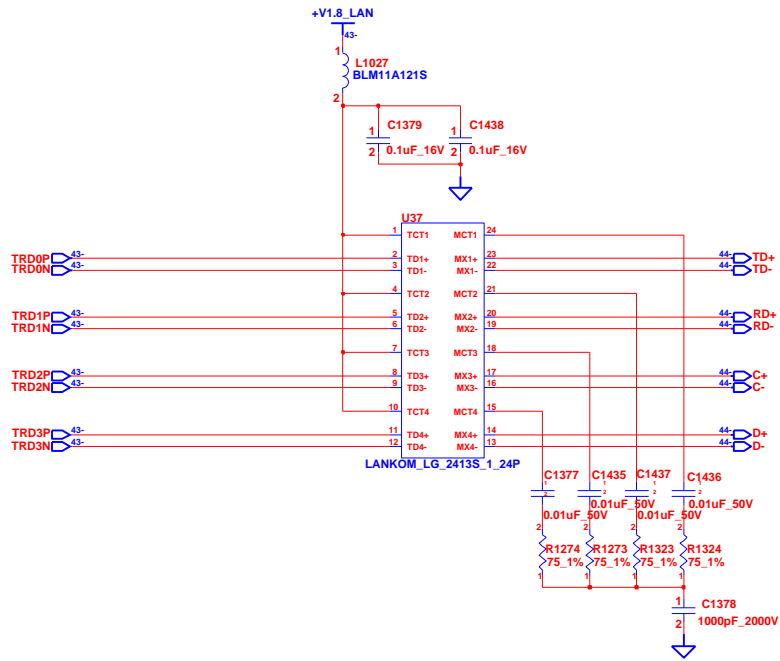
Place bypass cap as close as possible with every power pin.



Place close to XTAL0 and XTAL1.



INVENTEC			
TITLE: INVICTA Cycle1 Giga LAN Controller			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A22527-0-MTR	REV: A03
CHANGE by: Drawer Name		17-Mar-2009	
SHEET: 43		OF: 54	



INVENTEC

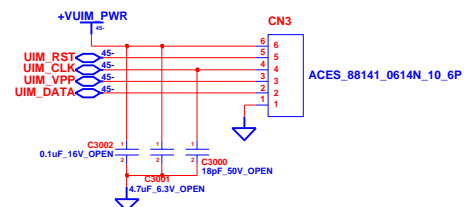
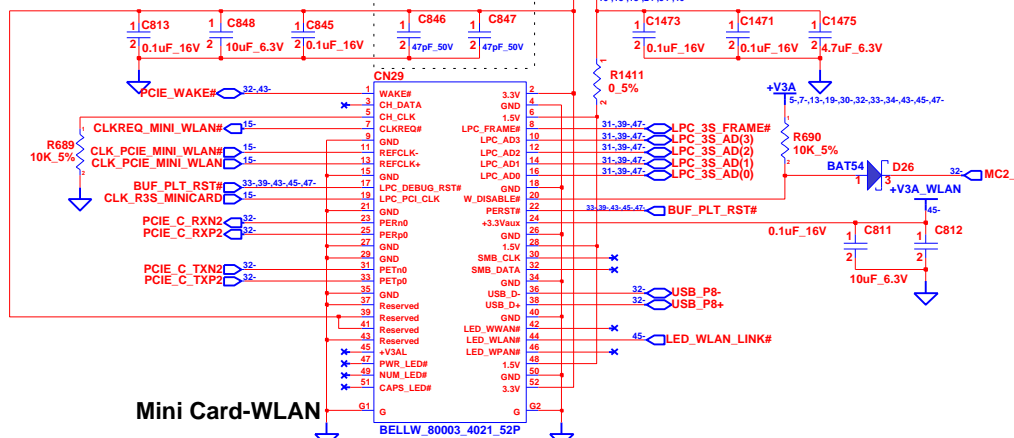
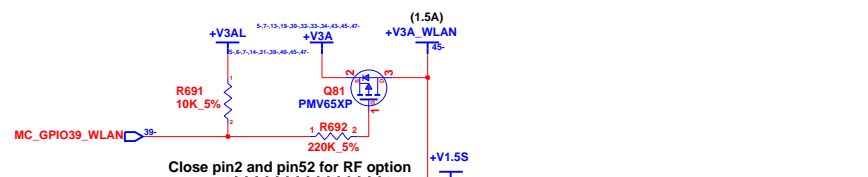
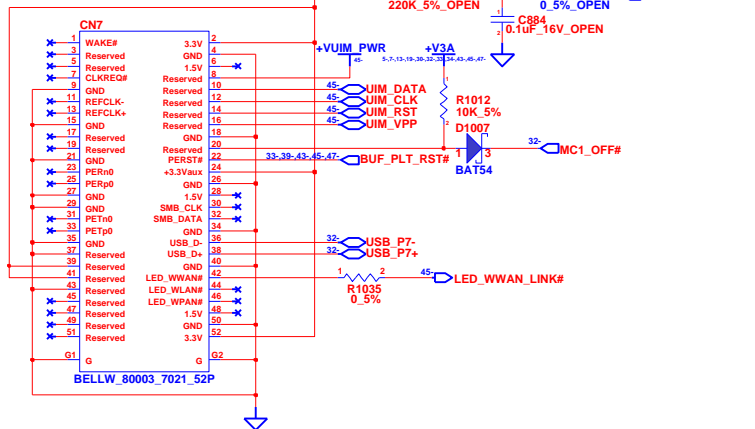
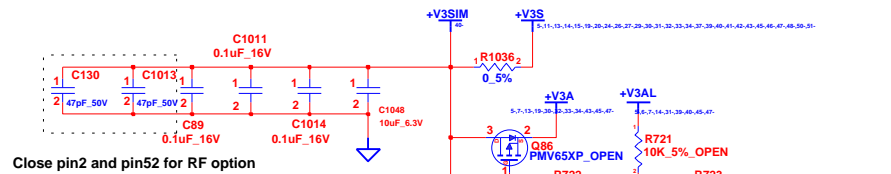
TITLE *INVICTA Cycle1*
Magnetic & RJ45 CONN

SIZE A3	CODE CS	DOC. NUMBER 1310A22527-0-MT	REV RA03
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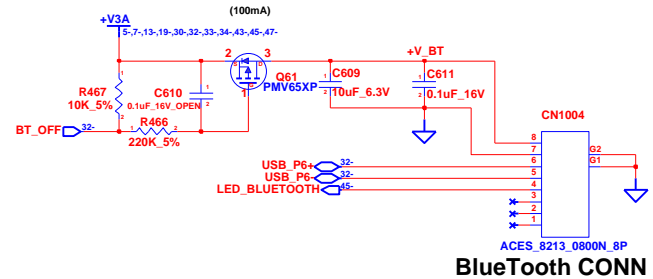
CHANGE by *Drawer Name* 17-Mar-2009

SHEET 44 OF 54

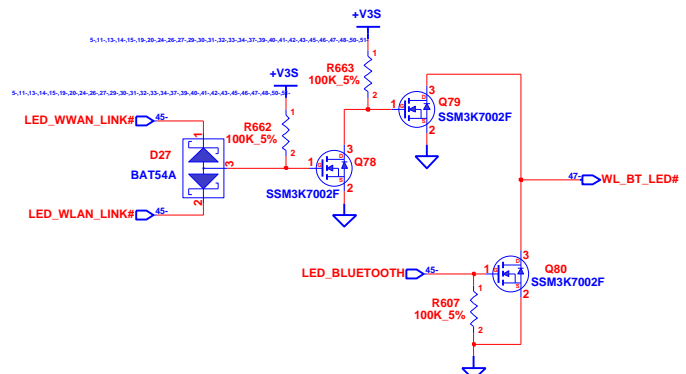
MINI Card-WWAN



SIM Card B2B MB side CONN

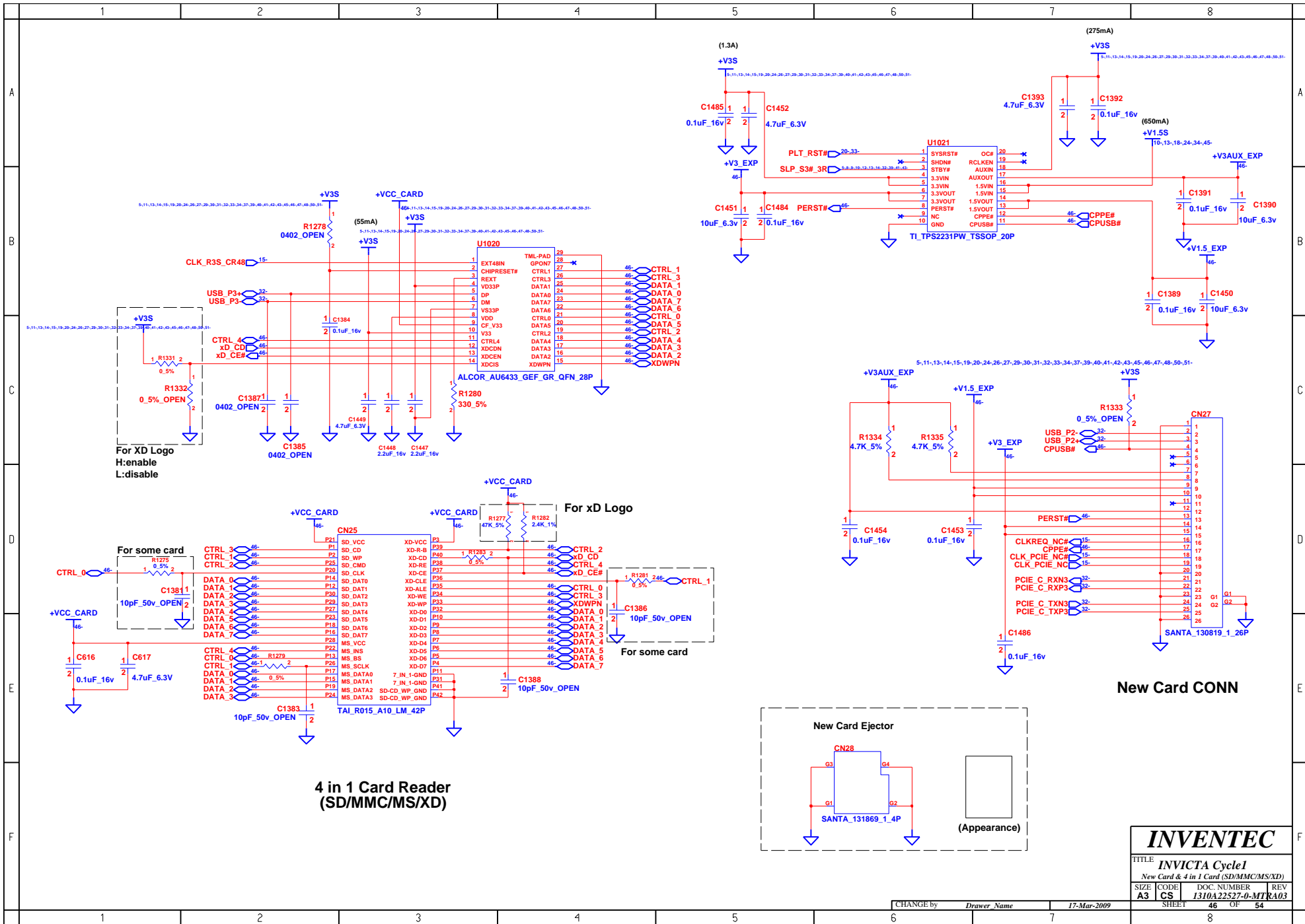


BlueTooth CONN

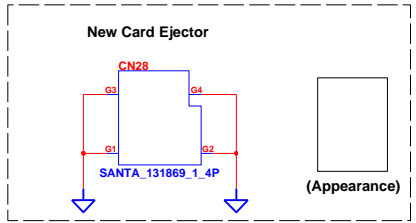


Mini Card-WLAN

INVENTEC			
TITLE: INVICTA Cycle1			
Mini Card (WLAN/WWAN) / BT			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22527-0-MTR	A03
CHANGE by		Drawer Name	17-Mar-2009
SHEET		45	OF 54

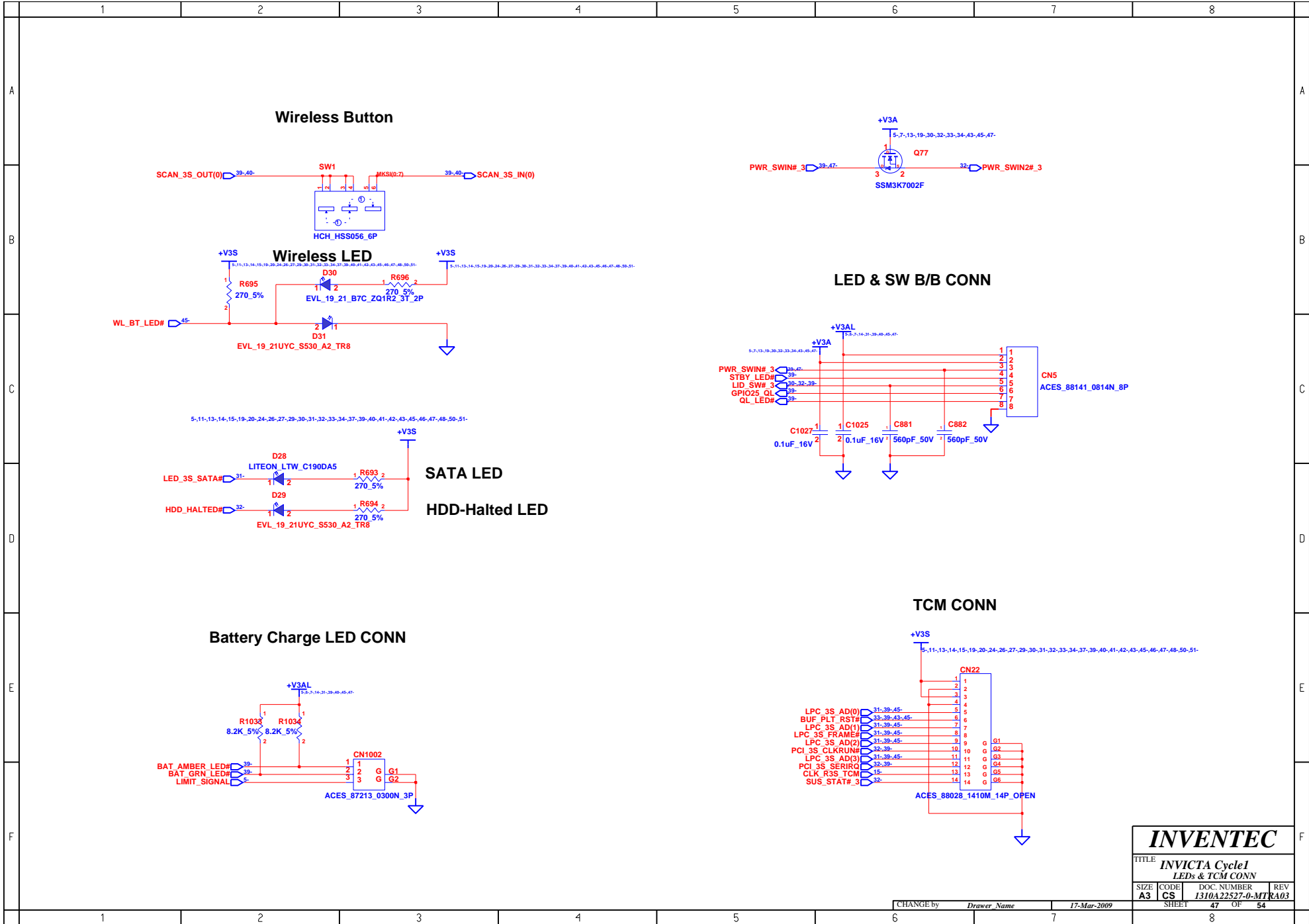


4 in 1 Card Reader
(SD/MMC/MS/XD)

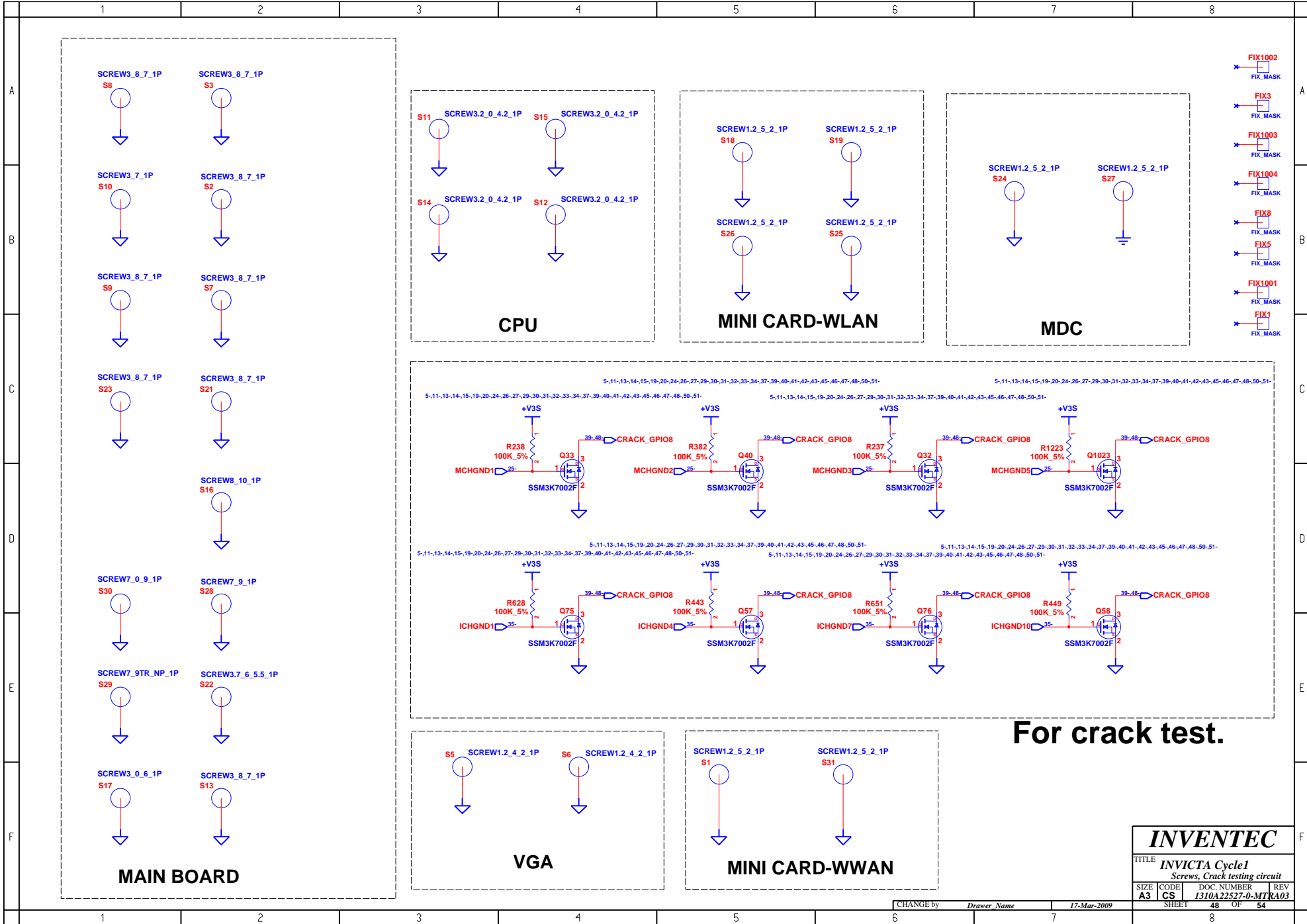


New Card CONN

INVENTEC
 TITLE: INVICTA Cycle1
 New Card & 4 in 1 Card (SD/MMC/MS/XD)
 SIZE: A3 CS CODE: DOC. NUMBER: 1310A22527-0-MTR REV: A03
 CHANGE by: Drawer Name 17-Mar-2009 SHEET: 46 OF 54



INVENTEC			
TITLE: INVICTA Cycle1			
LEDs & TCM CONN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A22527-0-MTR	A03
CHANGE by		Drawer Name	17-Mar-2009
SHEET		47	OF 54



For crack test.

INVENTEC			
TITLE <i>INVICTA Cycle1</i>			
Screws, Crack testing circuit			
SIZE A3	CODE CS	DOC NUMBER 1310A22527-0-MTR	REV A03

STRAPS	PIN	Description of default settings	
TX_PWRS_ENB	GPIO0	PCIe full TX output swing.	1
TX_DEEMPH_EN	GPIO1	PCIe transmitter de-emphasis enabled.	1
BIF_DEBUG_ACCESS	GPIO4	Debug signals muxed out.	0
ROMIDCFG(0:3)	GPIO[11:13,9]	Memory aperture type	X X X X

X = DESIGN DEPENDANT
 0 = DO NOT INSTALL RESISTOR
 1 = INSTALL 10K RESISTOR

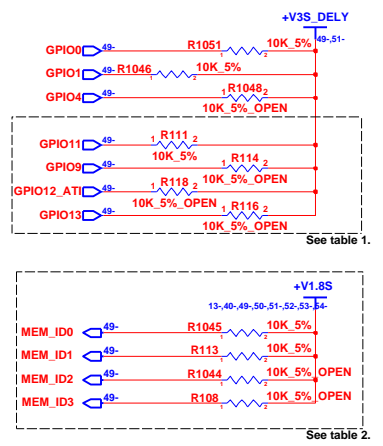
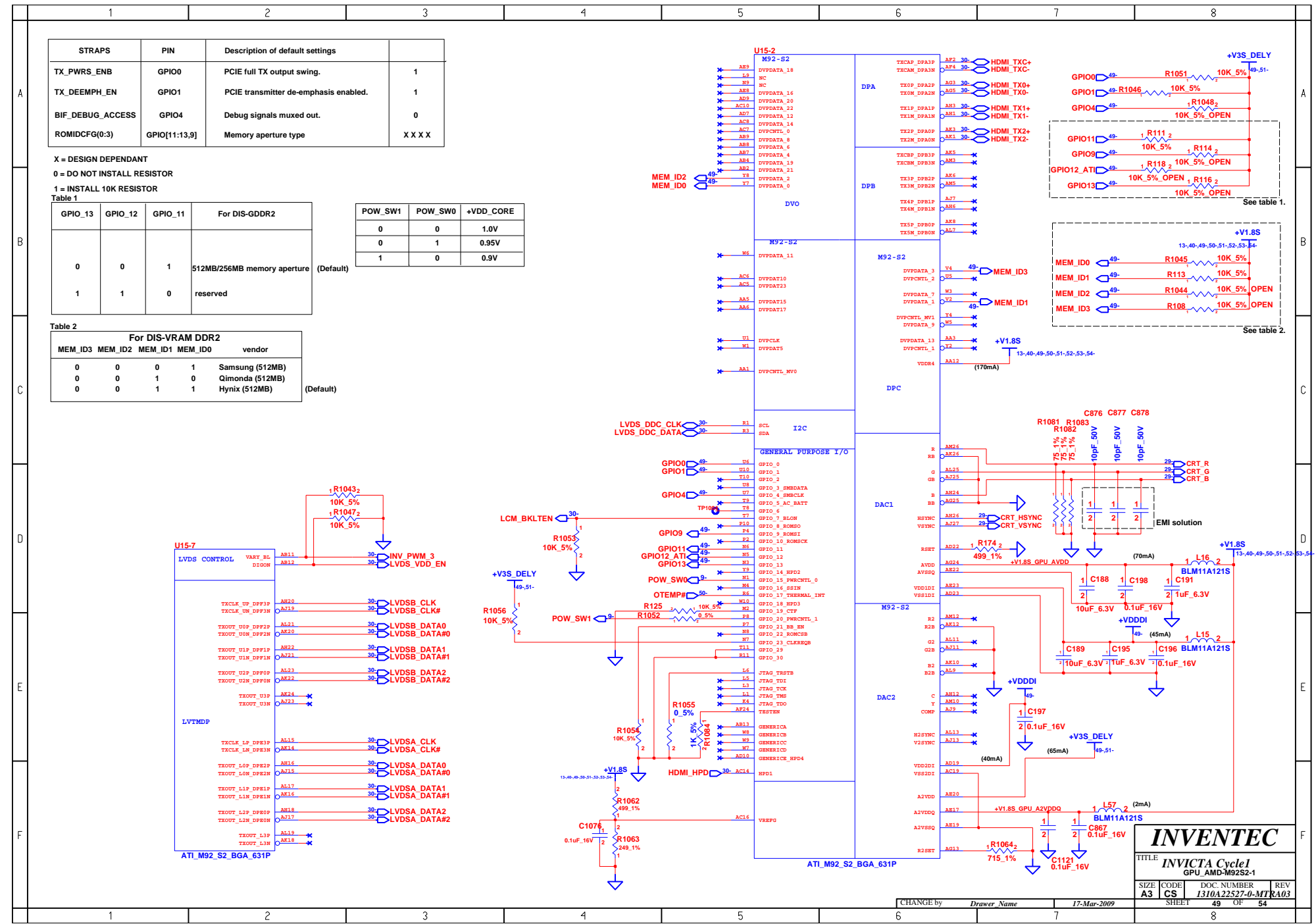
Table 1

GPIO_13	GPIO_12	GPIO_11	For DIS-GDDR2
0	0	1	512MB/256MB memory aperture (Default)
1	1	0	reserved

POW_SW1	POW_SW0	+VDD_CORE
0	0	1.0V
0	1	0.95V
1	0	0.9V

Table 2

For DIS-VRAM DDR2				
MEM_ID3	MEM_ID2	MEM_ID1	MEM_ID0	vendor
0	0	0	1	Samsung (512MB)
0	0	1	0	Qimonda (512MB)
0	0	1	1	Hynix (512MB) (Default)

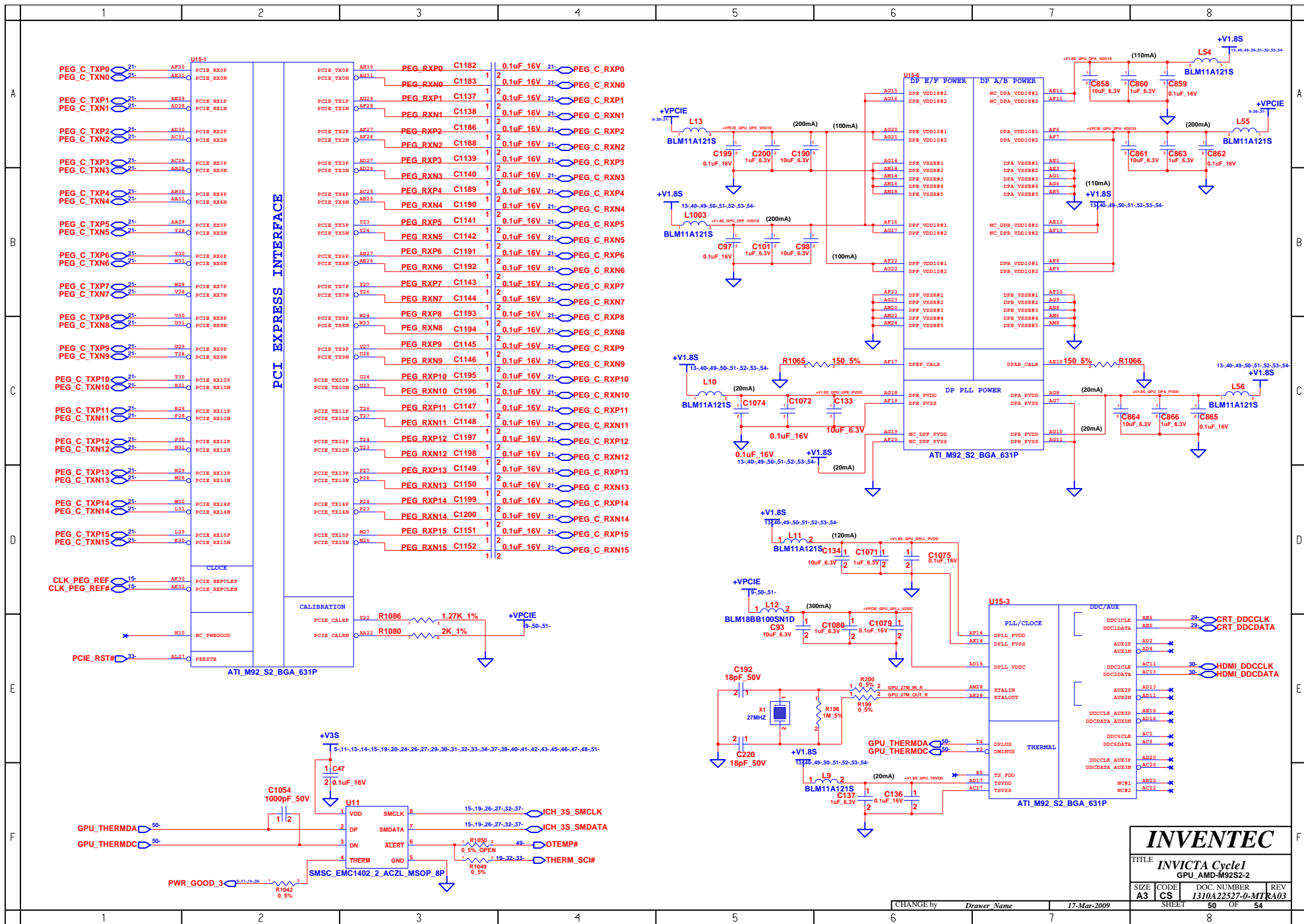


CHANGE by		Drawer Name	17-Mar-2009	SHEET		49 OF 54	
1	2	3	4	5	6	7	8

INVENTEC

TITLE: *INVICTA Cycle1*
GPU_AMD-M92S2-1

SIZE: A3 CODE: CS DOC. NUMBER: I310A22527-0-MTR A03 REV: 13



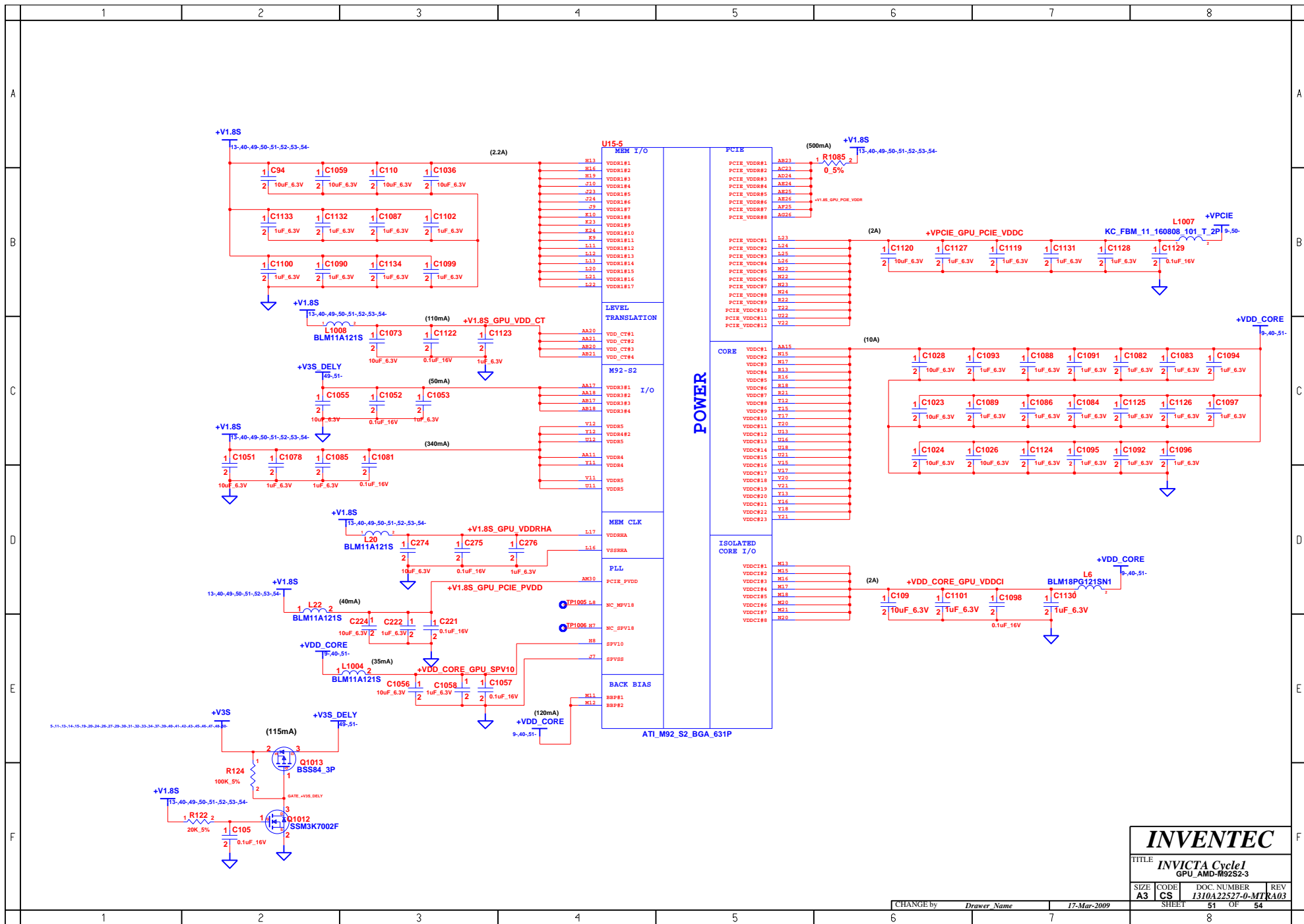
INVENTEC

TITLE: **INVICTA Cycle1**
GPU_AMD-M92S2-2

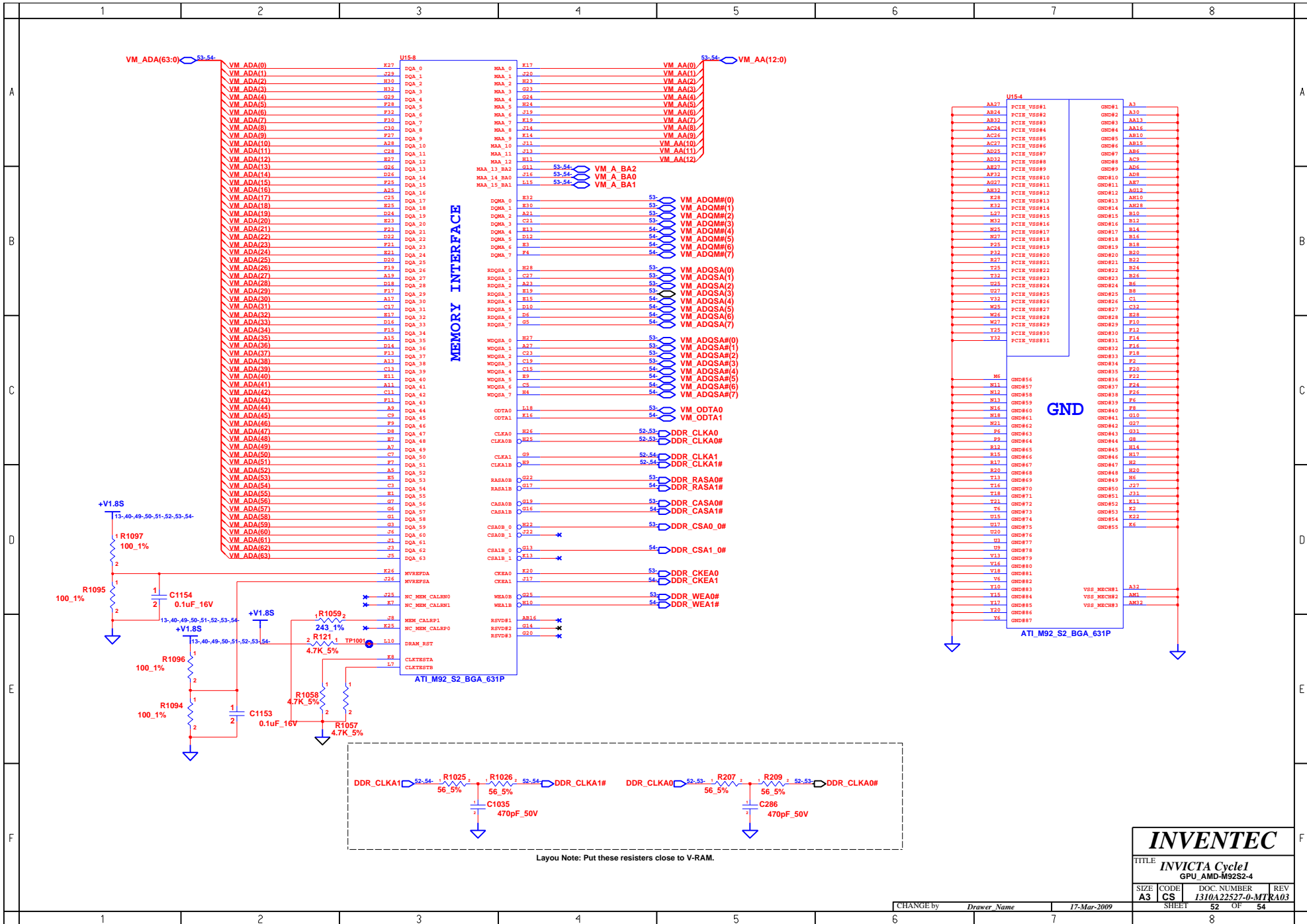
SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A22527-0-MTR	A03

CHANGE by: *Drawer Name* 17-Mar-2009

SHEET 50 OF 54



INVENTEC			
TITLE: INVICTA Cycle1 GPU_AMD-M92S2-3			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A22527-0-MTR	REV: A03
CHANGE by: Drawer Name		17-Mar-2009	
SHEET: 51		OF: 54	



INVENTEC

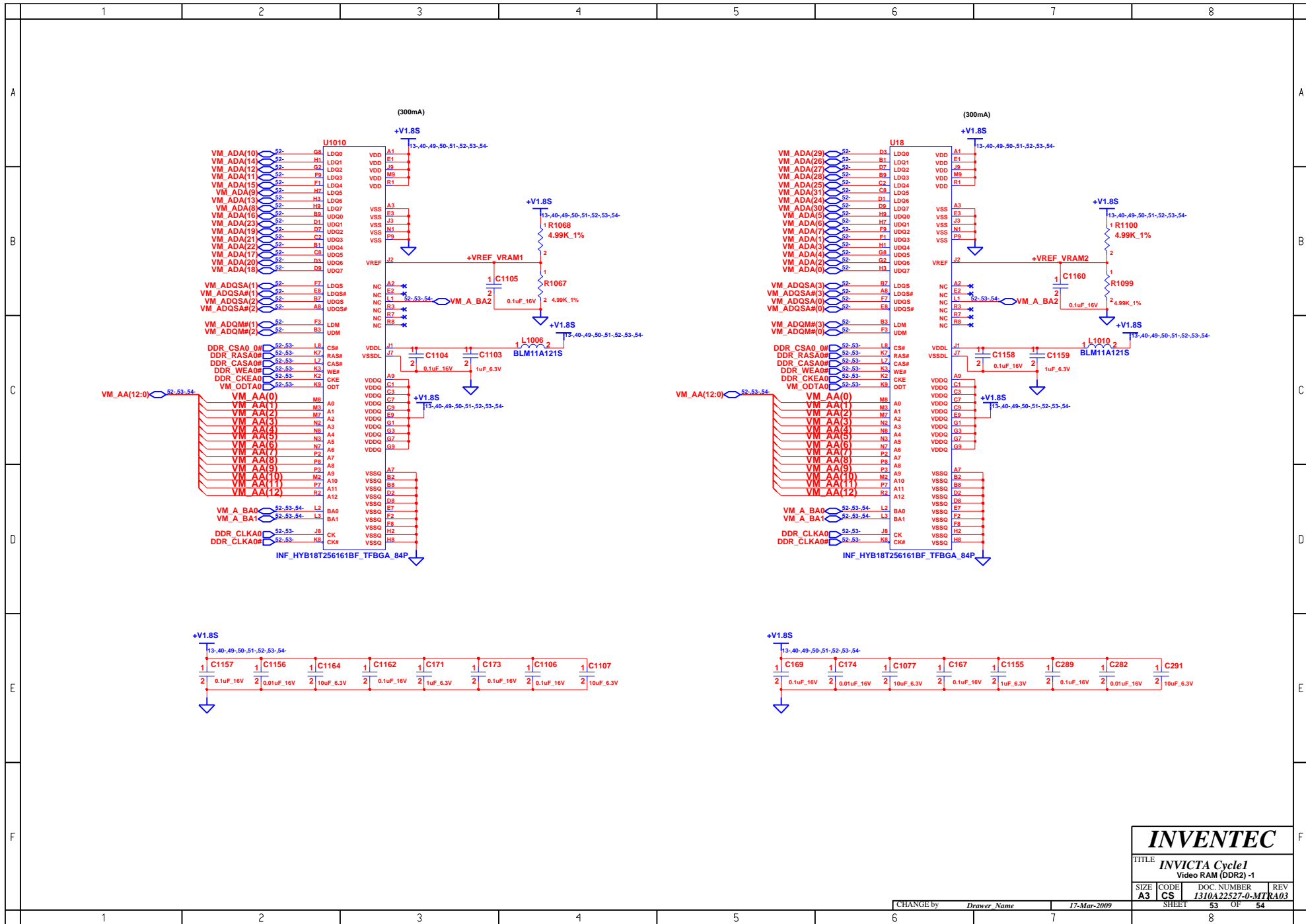
TITLE: **INVICTA Cycle1**
GPU_AMD-M92S2-4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

SHEET 52 OF 54

CHANGE by *Drawer Name* 17-Mar-2009

Layout Note: Put these resistors close to V-RAM.



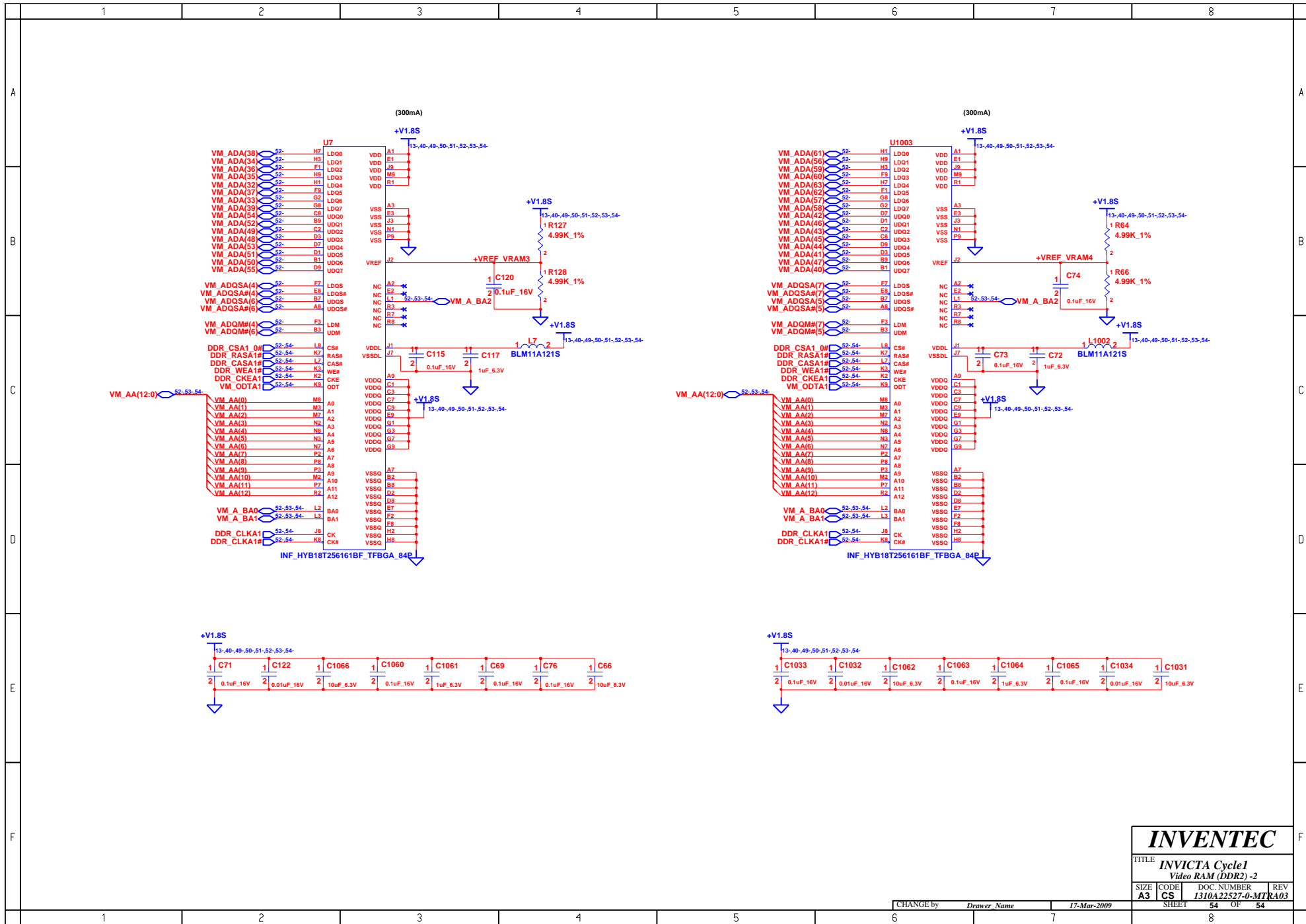
INVENTEC

TITLE: **INVICTA Cycle1**
Video RAM (DDR2) -1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A22527-0-MTR	A03

CHANGE by: *Drawer Name* 17-Mar-2009

SHEET 53 OF 54



INVENTEC

TITLE: **INVICTA Cycle1**
Video RAM (DDR2) -2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A22527-0-MTR	A03

CHANGE by: *Drawer Name* 17-Mar-2009

SHEET 54 OF 54