

TABLE OF CONTENTS

Revisions			Approvals			
REV	ECN NO.	Description Of Change	DATE	DFTG.	ENGR.	REL.

PAGE

- 4 - CLOCK GENERATOR**
- 5-8 - DOTHAN PROCESSOR**
- 9-13 - ALVISO**
- 14-17 - DDR**
- 18-20 - ATI_M24_P**
- 21-22 - VGA DDR**
- 23-27- ICH6-M**
- 28 -LCD INTERFACE**
- 29 - HDD CONNECTOR**
- 30 - CD-ROM CONNECTOR**
- 31 - USB PORT & CIR USB CONTROLLER**
- 32 - LAN INTERFACE**
- 33 - LAN POWER**
- 34- RJ45 CONN**
- 35- CHVIAS II**
- 36 - FLASH ROM & IR/CIR**
- 37- 1394 CONTROLLER**

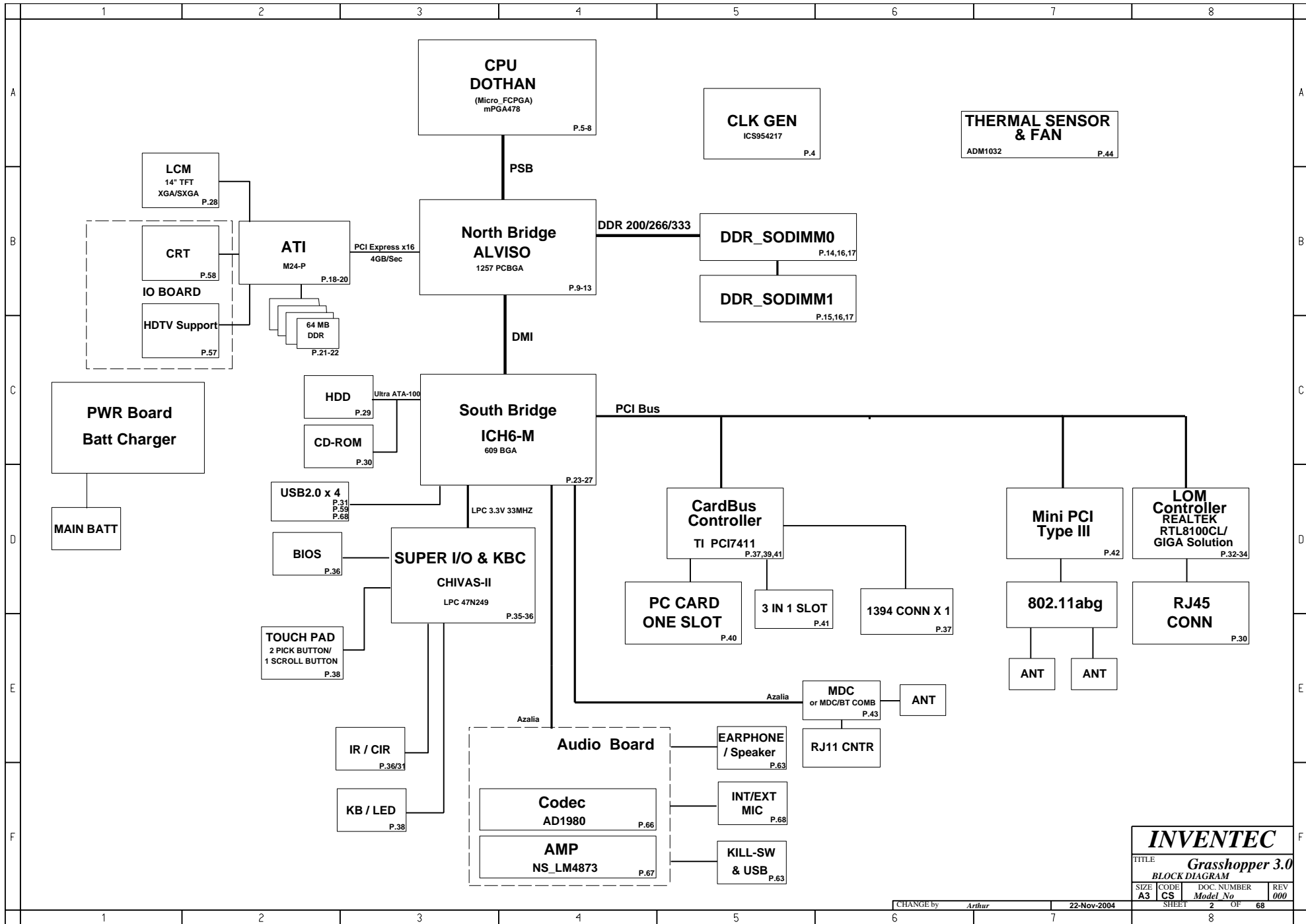
PAGE

- 38 - KEYBOARD CONNECTOR & TOUCH PAD & LED**
- 39 - CARDBUS CONTROLLER**
- 40 - PC CARD CONNECTOR**
- 41- CARD READER 3 IN 1**
- 42 - MINI PCI**
- 43 - MDC / BT INTERFACE & MIC**
- 44 - THERMAL SENSOR & FAN**
- 45 - DECOUPLING CAPS & BOARD TO BOARD CONN**
- 46 - DRILL HOLE**
- 47 - PULL UPS**
- 48-55 - POWER**
- 56-60 - IO BOARD - DC IN/TV OUT/CRT/USB/HOTKEY/B CN**
- 61 - TOUCH PAD BUTTON BOARD**
- 62-64 - HOTKEY BOARD - PWR/LID SW/HOTKEY**
- 65 - OPTIONAL HOTKEY BOARD**
- 66-67 - AUDIO DAUGHTER BOARD**
- 68 - AUDIO I/O DAUGHTER BOARD**

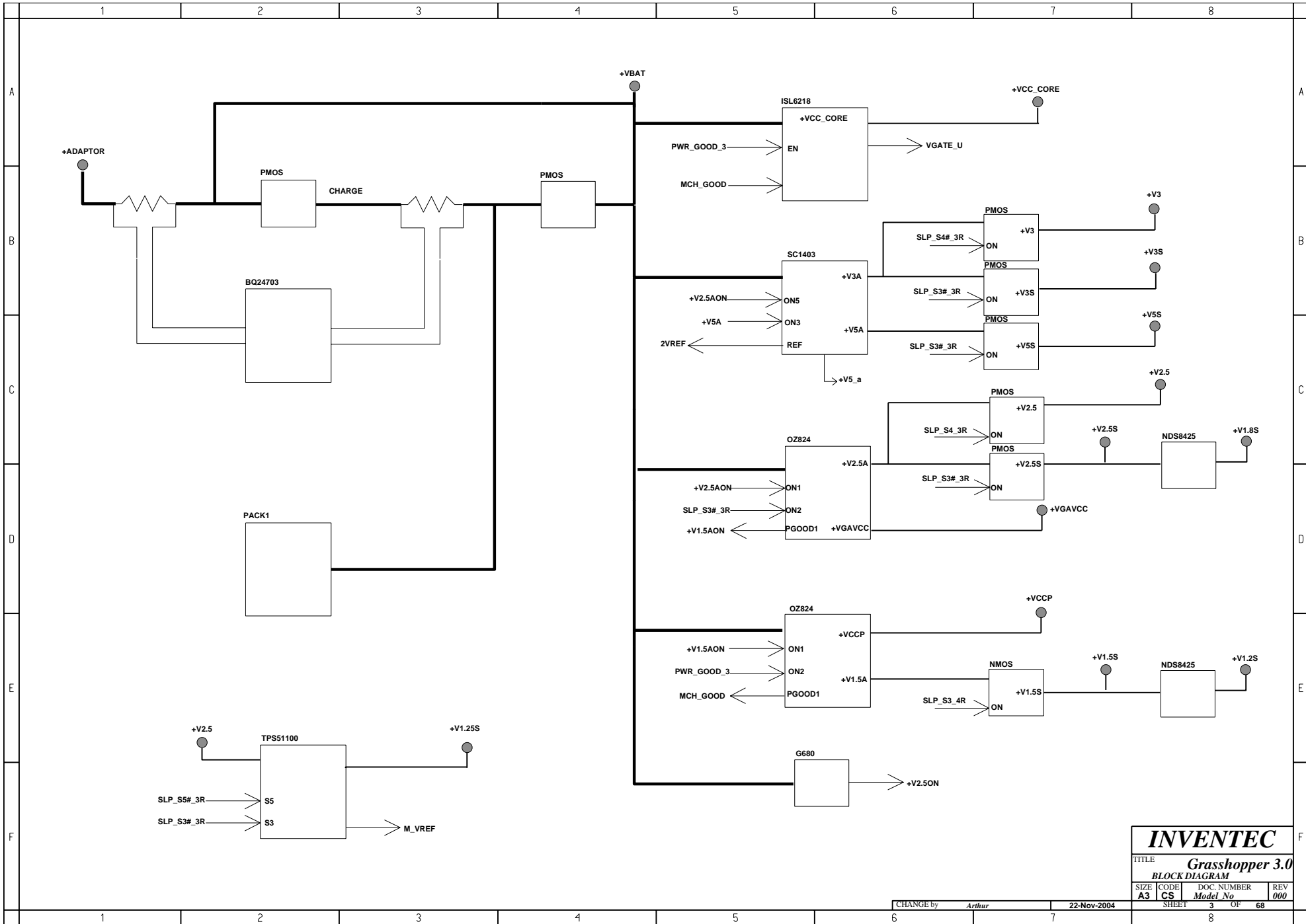
DATE	CHANGE NO.	REV

DRAWER	EE	DATE	POWER	DATE	INVENTEC			
CHECK								
DESIGN								
RESPOSFOR								
TITLE					Grasshopper 3.0			
SIZE =	B	VER :						
FILE NAME :	XXXX-XXXXXX-XX				SIZE	CODE	DOC. NUMBER	REV
P/N	XXXXXXXXXXXX	DATE BEGINNING :	dd / mm / yyyy	SHEET	1	OF	68	000

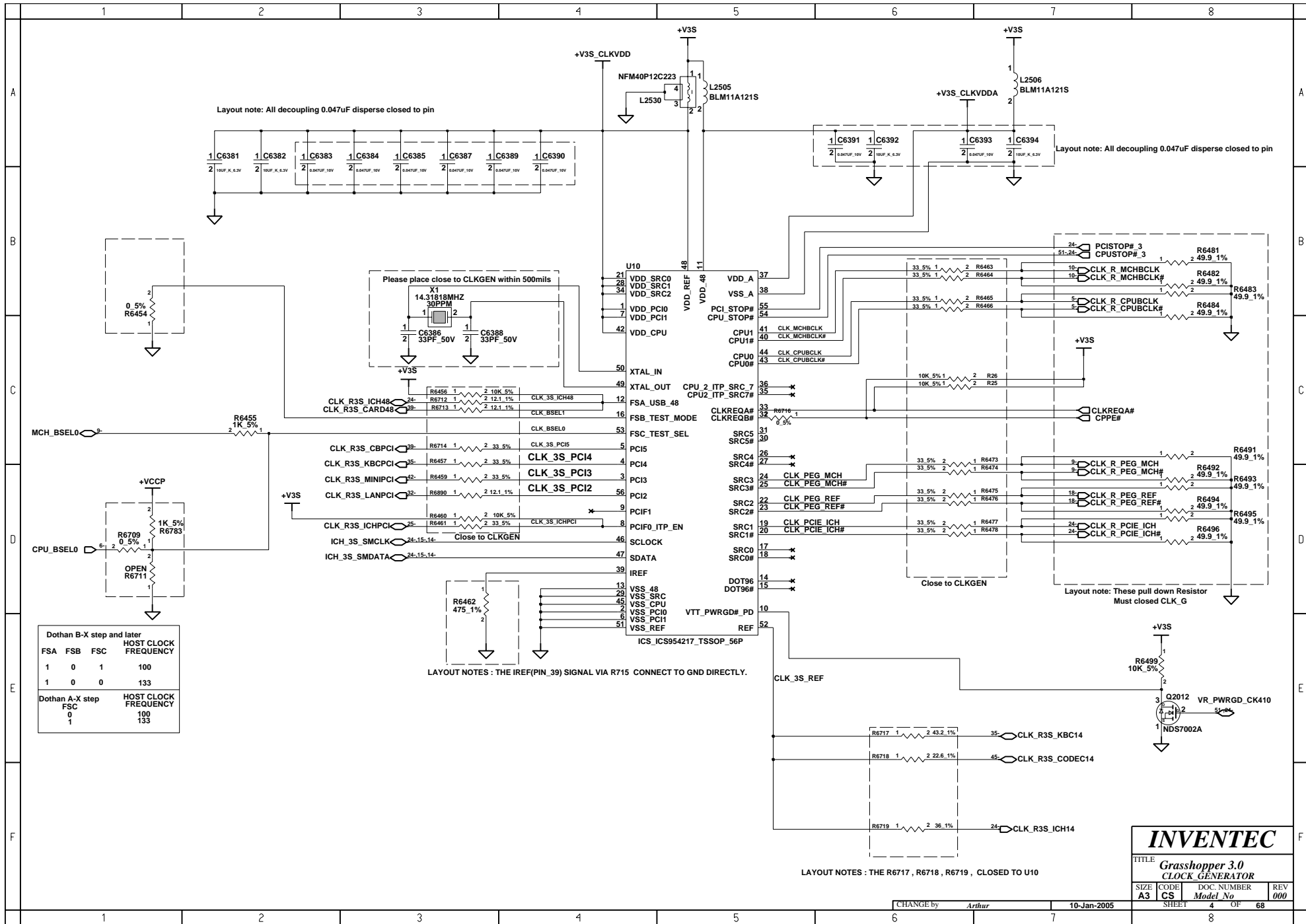
1	2	3	4	5	6	7	8
A							A
B							B
C							C
D							D
E							E
F							F
1	2	3	4	5	6	7	8



INVENTEC			
TITLE Grasshopper 3.0			
BLOCK DIAGRAM			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by <i>Arthur</i>		22-Nov-2004	SHEET 2 OF 68



INVENTEC			
TITLE Grasshopper 3.0			
BLOCK DIAGRAM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		22-Nov-2004	SHEET 3 OF 68



Layout note: All decoupling 0.047uF disperse closed to pin

Layout note: All decoupling 0.047uF disperse closed to pin

Please place close to CLKGEN within 500mils

Close to CLKGEN

Close to CLKGEN

Layout note: These pull down Resistor Must closed CLK_G

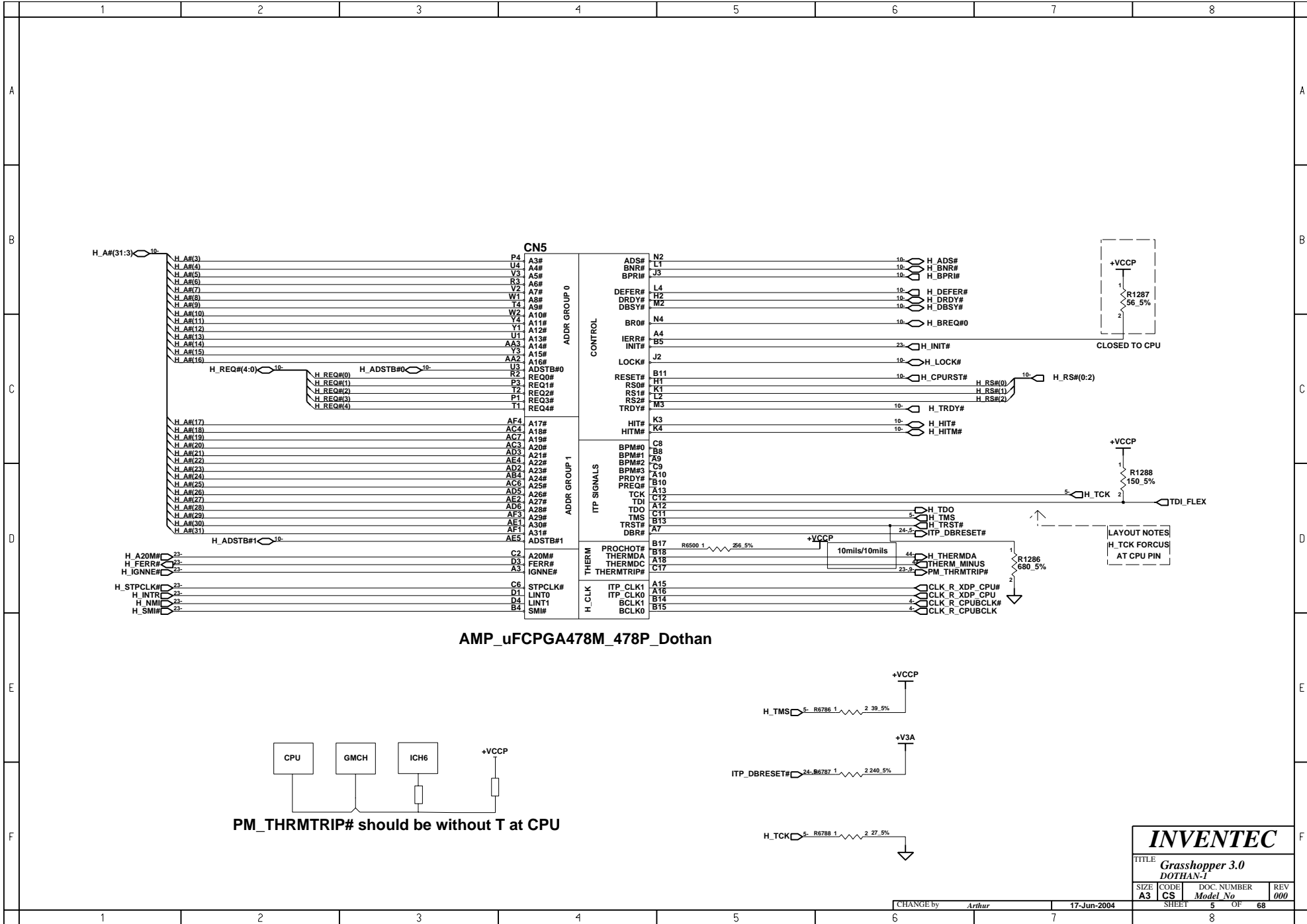
LAYOUT NOTES : THE IREF(PIN_39) SIGNAL VIA R715 CONNECT TO GND DIRECTLY.

LAYOUT NOTES : THE R6717 , R6718 , R6719 , CLOSED TO U10

Dothan B-X step and later			
FSA	FSB	FSC	HOST CLOCK FREQUENCY
1	0	1	100
1	0	0	133

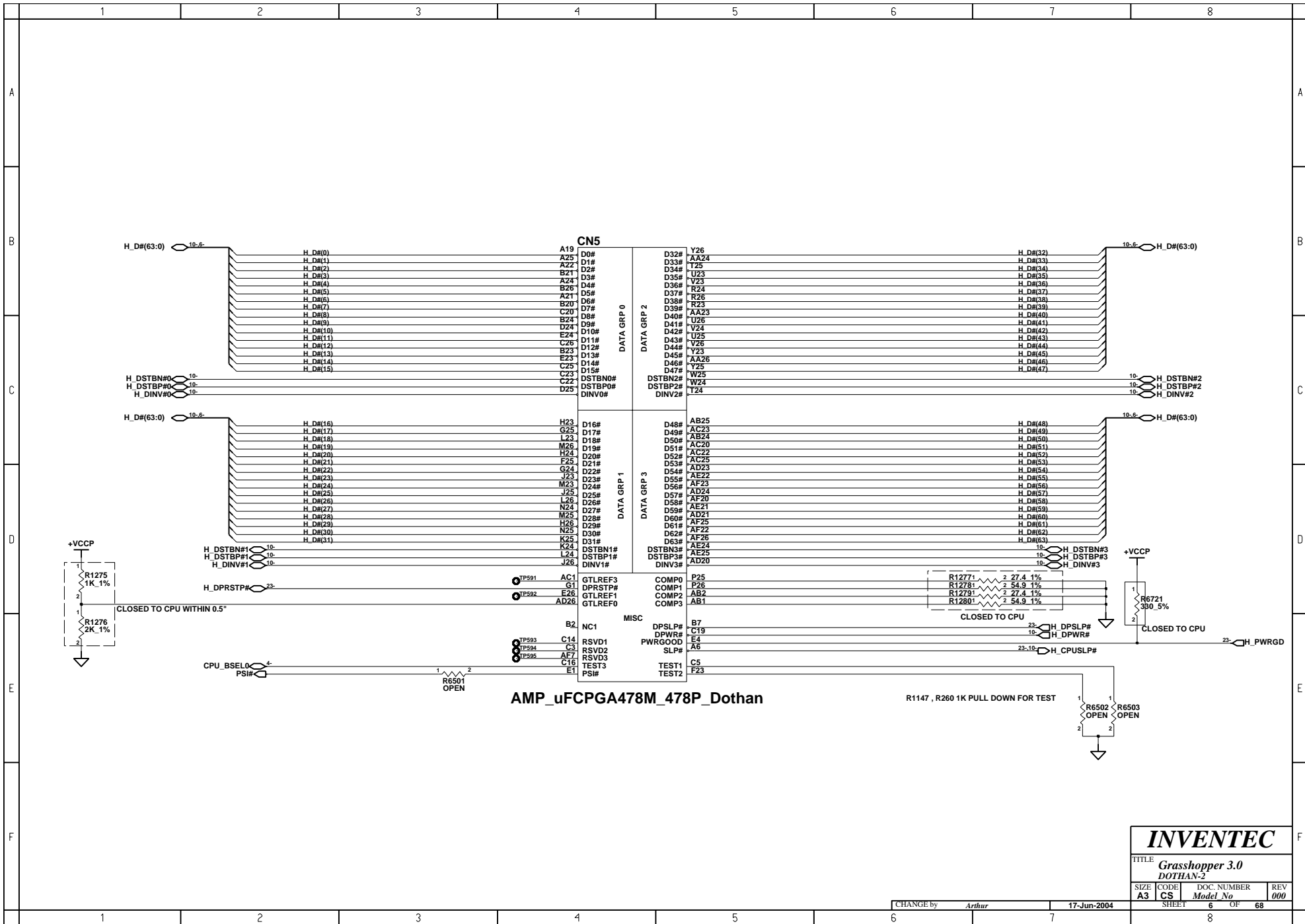
Dothan A-X step			
FSC	HOST CLOCK FREQUENCY		
0	100		
1	133		

INVENTEC			
TITLE Grasshopper 3.0 CLOCK GENERATOR			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
CHANGE by <i>Arthur</i>		10-Jan-2005	
SHEET 4		OF 68	

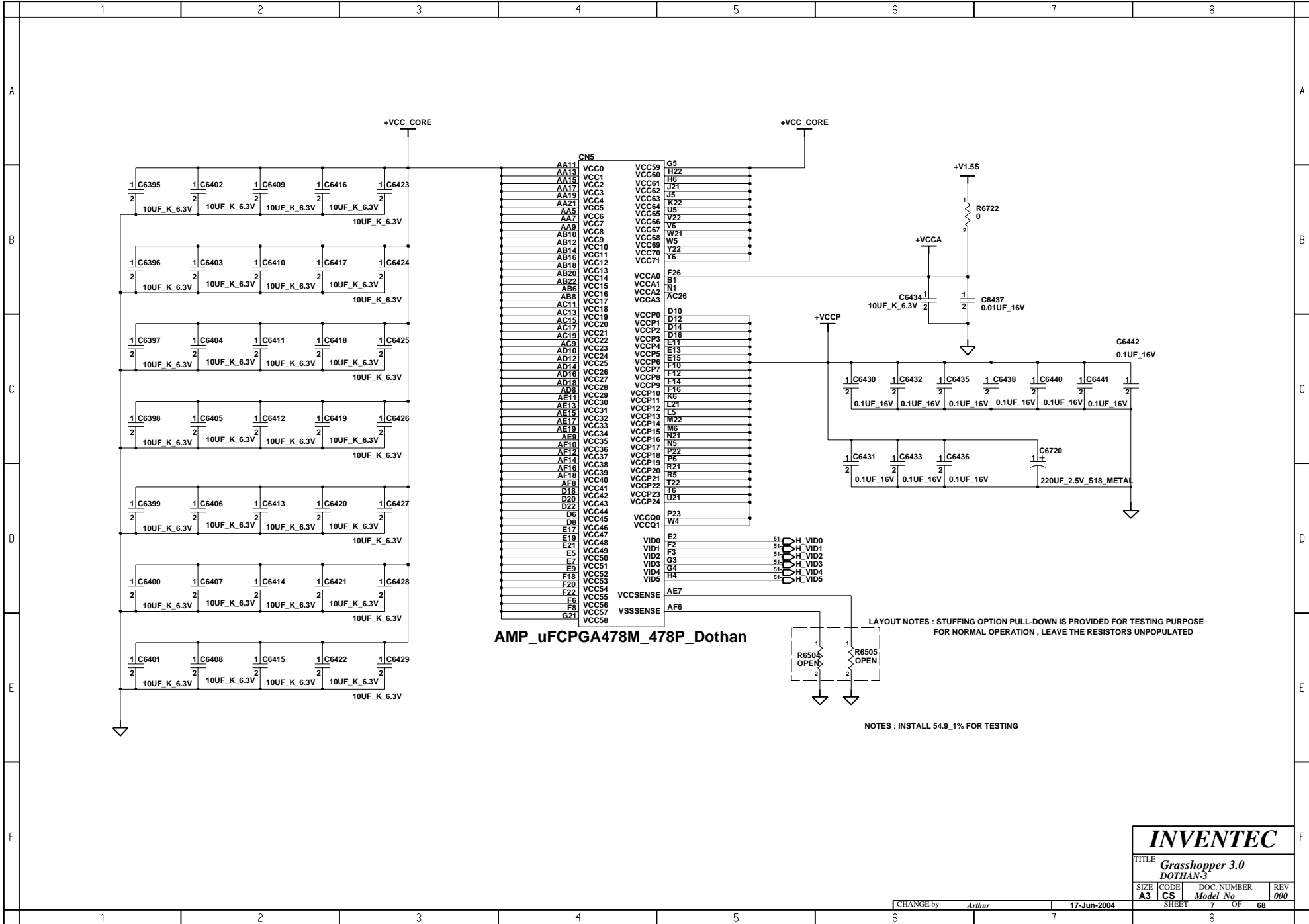


AMP_uFCPGA478M_478P_Dothan

INVENTEC			
TITLE Grasshopper 3.0 DOTHAN-1			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		17-Jun-2004	
SHEET 5		OF 68	



INVENTEC			
TITLE Grasshopper 3.0 DOTHAN-2			
SIZE A3	CODE CS	DOC. NUMBER Doc. No.	REV 000
CHANGE by <i>Arthur</i>		17-Jun-2004	
SHEET 6		OF 68	



INVENTEC

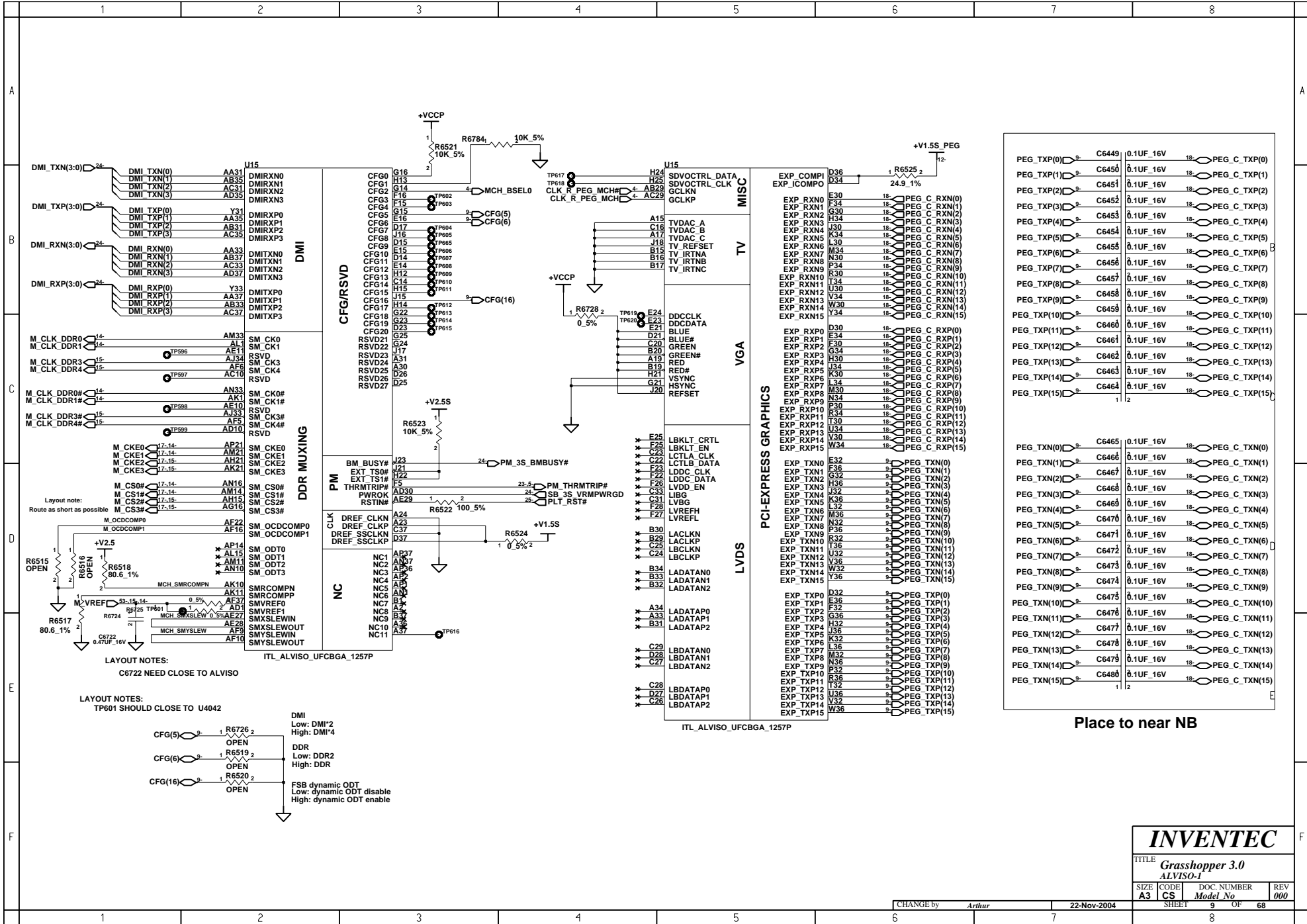
TITLE			
Grasshopper 3.0			
DOTHAN-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

	1	2	3	4	5	6	7	8	
A		<p>CN5</p> <p>A2 VSS0 D13 A5 VSS1 D15 A8 VSS2 VSS98 D17 A11 VSS3 VSS100 D19 A14 VSS4 VSS101 D21 A17 VSS5 VSS102 D23 A20 VSS6 VSS103 D26 A23 VSS7 VSS104 E8 A26 VSS8 VSS105 E8 AA1 VSS9 VSS106 E10 AA4 VSS10 VSS107 E12 AA6 VSS11 VSS108 E14 AA8 VSS12 VSS109 E16 AA10 VSS13 VSS110 E18 AA12 VSS14 VSS111 E20 AA14 VSS15 VSS112 E22 AA16 VSS16 VSS113 E25 AA18 VSS17 VSS114 F1 AA20 VSS18 VSS115 F4 AA22 VSS19 VSS116 F5 AA24 VSS20 VSS117 F7 AB3 VSS21 VSS118 F9 AB5 VSS22 VSS119 F11 AB7 VSS23 VSS120 F13 AB9 VSS24 VSS121 F15 AB11 VSS25 VSS122 F17 AB13 VSS26 VSS123 F19 AB15 VSS27 VSS124 F21 AB17 VSS28 VSS125 F24 AB19 VSS29 VSS126 F24 AB21 VSS30 VSS127 G6 AB23 VSS31 VSS128 G22 AB26 VSS32 VSS129 G23 AC2 VSS33 VSS130 G26 AC5 VSS34 VSS131 H3 AC8 VSS35 VSS132 H5 AC10 VSS36 VSS133 H21 AC12 VSS37 VSS134 H25 AC14 VSS38 VSS135 J1 AC16 VSS39 VSS136 J4 AC18 VSS40 VSS137 J6 AC21 VSS41 VSS138 J22 AC24 VSS42 VSS139 J24 AD1 VSS43 VSS140 K2 AD4 VSS44 VSS141 K5 AD7 VSS45 VSS142 K21 AD9 VSS46 VSS143 K23 AD11 VSS47 VSS144 K26 AD13 VSS48 VSS145 L3 AD15 VSS49 VSS146 L5 AD17 VSS50 VSS147 L22 AD19 VSS51 VSS148 L25 AD22 VSS52 VSS149 M1 AD25 VSS53 VSS150 M4 AE3 VSS54 VSS151 M5 AE6 VSS55 VSS152 M21 AE8 VSS56 VSS153 M24 AE10 VSS57 VSS154 N3 AE12 VSS58 VSS155 N6 AE14 VSS59 VSS156 N22 AE16 VSS60 VSS157 N23 AE18 VSS61 VSS158 N26 AE20 VSS62 VSS159 P2 AE23 VSS63 VSS160 P5 AE26 VSS64 VSS161 P21 AF2 VSS65 VSS162 P24 AF5 VSS66 VSS163 R1 AF9 VSS67 VSS164 R4 AF11 VSS68 VSS165 R6 AF13 VSS69 VSS166 R22 AF15 VSS70 VSS167 R25 AF17 VSS71 VSS168 T3 AF19 VSS72 VSS169 T5 AF21 VSS73 VSS170 T21 AF24 VSS74 VSS171 T23 B3 VSS75 VSS172 T26 B6 VSS76 VSS173 U2 B9 VSS77 VSS174 U6 B12 VSS78 VSS175 U22 B16 VSS79 VSS176 U24 B19 VSS80 VSS177 V1 B22 VSS81 VSS178 V4 B25 VSS82 VSS179 V5 C1 VSS83 VSS180 V21 C4 VSS84 VSS181 V25 C7 VSS85 VSS182 W3 C10 VSS86 VSS183 W6 C13 VSS87 VSS184 W22 C15 VSS88 VSS185 W23 C18 VSS89 VSS186 W26 C21 VSS90 VSS187 Y2 C24 VSS91 VSS188 Y5 D5 VSS92 VSS189 Y21 D6 VSS93 VSS190 Y24 D7 VSS94 VSS191 D9 VSS95 D11 VSS96</p>							
B									
C									
D									
E									
F									

AMP_uFCPGA478M_478P_Dothan

INVENTEC

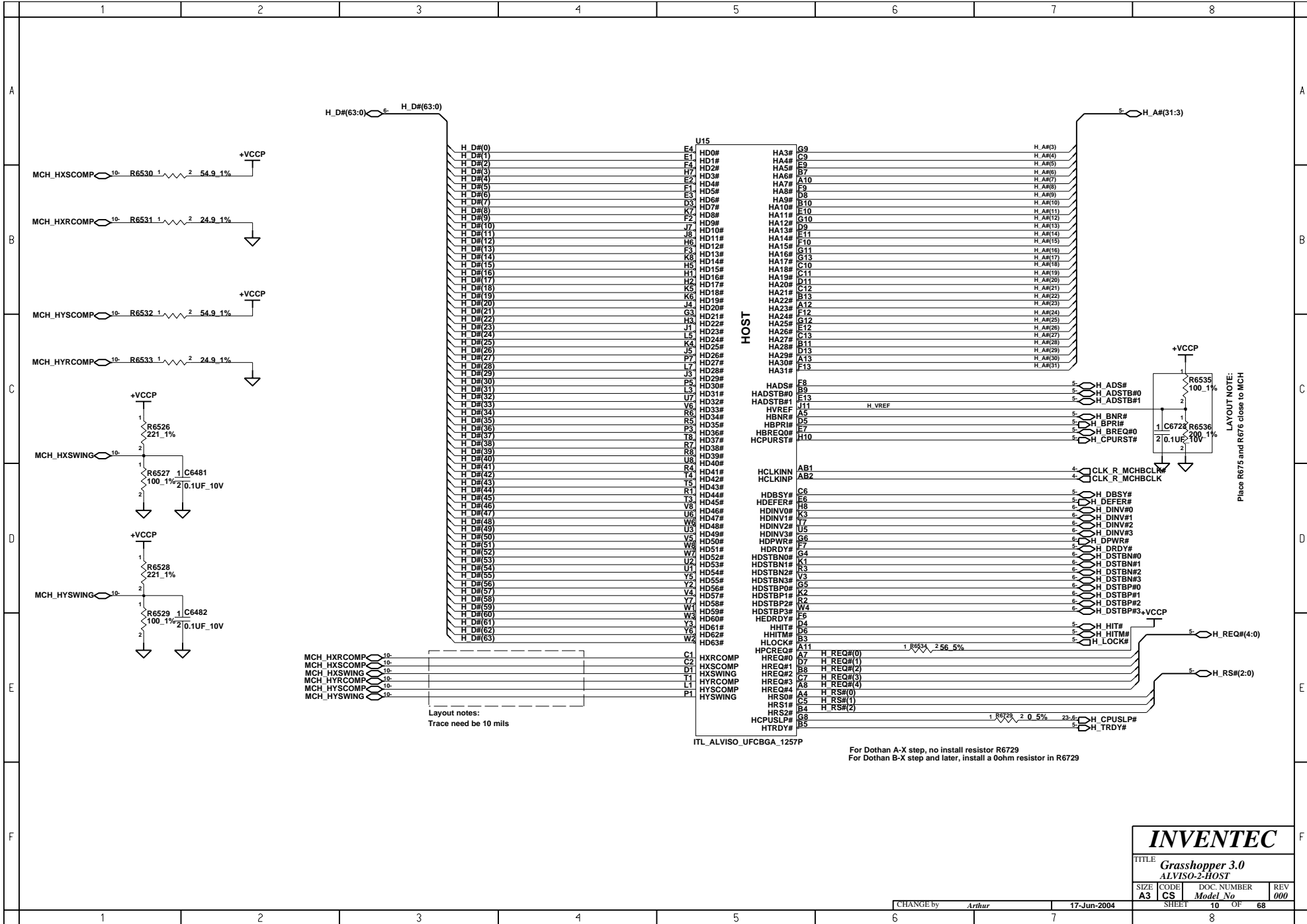
TITLE			
Grasshopper 3.0			
DOTHAN-4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000



PEG_TXP(0)	C6449	0.1UF_16V	18	PEG_C_TXP(0)
PEG_TXP(1)	C6450	0.1UF_16V	18	PEG_C_TXP(1)
PEG_TXP(2)	C6451	0.1UF_16V	18	PEG_C_TXP(2)
PEG_TXP(3)	C6452	0.1UF_16V	18	PEG_C_TXP(3)
PEG_TXP(4)	C6453	0.1UF_16V	18	PEG_C_TXP(4)
PEG_TXP(5)	C6454	0.1UF_16V	18	PEG_C_TXP(5)
PEG_TXP(6)	C6455	0.1UF_16V	18	PEG_C_TXP(6)
PEG_TXP(7)	C6456	0.1UF_16V	18	PEG_C_TXP(7)
PEG_TXP(8)	C6457	0.1UF_16V	18	PEG_C_TXP(8)
PEG_TXP(9)	C6458	0.1UF_16V	18	PEG_C_TXP(9)
PEG_TXP(10)	C6459	0.1UF_16V	18	PEG_C_TXP(10)
PEG_TXP(11)	C6460	0.1UF_16V	18	PEG_C_TXP(11)
PEG_TXP(12)	C6461	0.1UF_16V	18	PEG_C_TXP(12)
PEG_TXP(13)	C6462	0.1UF_16V	18	PEG_C_TXP(13)
PEG_TXP(14)	C6463	0.1UF_16V	18	PEG_C_TXP(14)
PEG_TXP(15)	C6464	0.1UF_16V	18	PEG_C_TXP(15)
PEG_TXN(0)	C6465	0.1UF_16V	18	PEG_C_TXN(0)
PEG_TXN(1)	C6466	0.1UF_16V	18	PEG_C_TXN(1)
PEG_TXN(2)	C6467	0.1UF_16V	18	PEG_C_TXN(2)
PEG_TXN(3)	C6468	0.1UF_16V	18	PEG_C_TXN(3)
PEG_TXN(4)	C6469	0.1UF_16V	18	PEG_C_TXN(4)
PEG_TXN(5)	C6470	0.1UF_16V	18	PEG_C_TXN(5)
PEG_TXN(6)	C6471	0.1UF_16V	18	PEG_C_TXN(6)
PEG_TXN(7)	C6472	0.1UF_16V	18	PEG_C_TXN(7)
PEG_TXN(8)	C6473	0.1UF_16V	18	PEG_C_TXN(8)
PEG_TXN(9)	C6474	0.1UF_16V	18	PEG_C_TXN(9)
PEG_TXN(10)	C6475	0.1UF_16V	18	PEG_C_TXN(10)
PEG_TXN(11)	C6476	0.1UF_16V	18	PEG_C_TXN(11)
PEG_TXN(12)	C6477	0.1UF_16V	18	PEG_C_TXN(12)
PEG_TXN(13)	C6478	0.1UF_16V	18	PEG_C_TXN(13)
PEG_TXN(14)	C6479	0.1UF_16V	18	PEG_C_TXN(14)
PEG_TXN(15)	C6480	0.1UF_16V	18	PEG_C_TXN(15)

Place to near NB

INVENTEC			
TITLE Grasshopper 3.0 ALVISO-1			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		22-Nov-2004	
SHEET 9		OF 68	

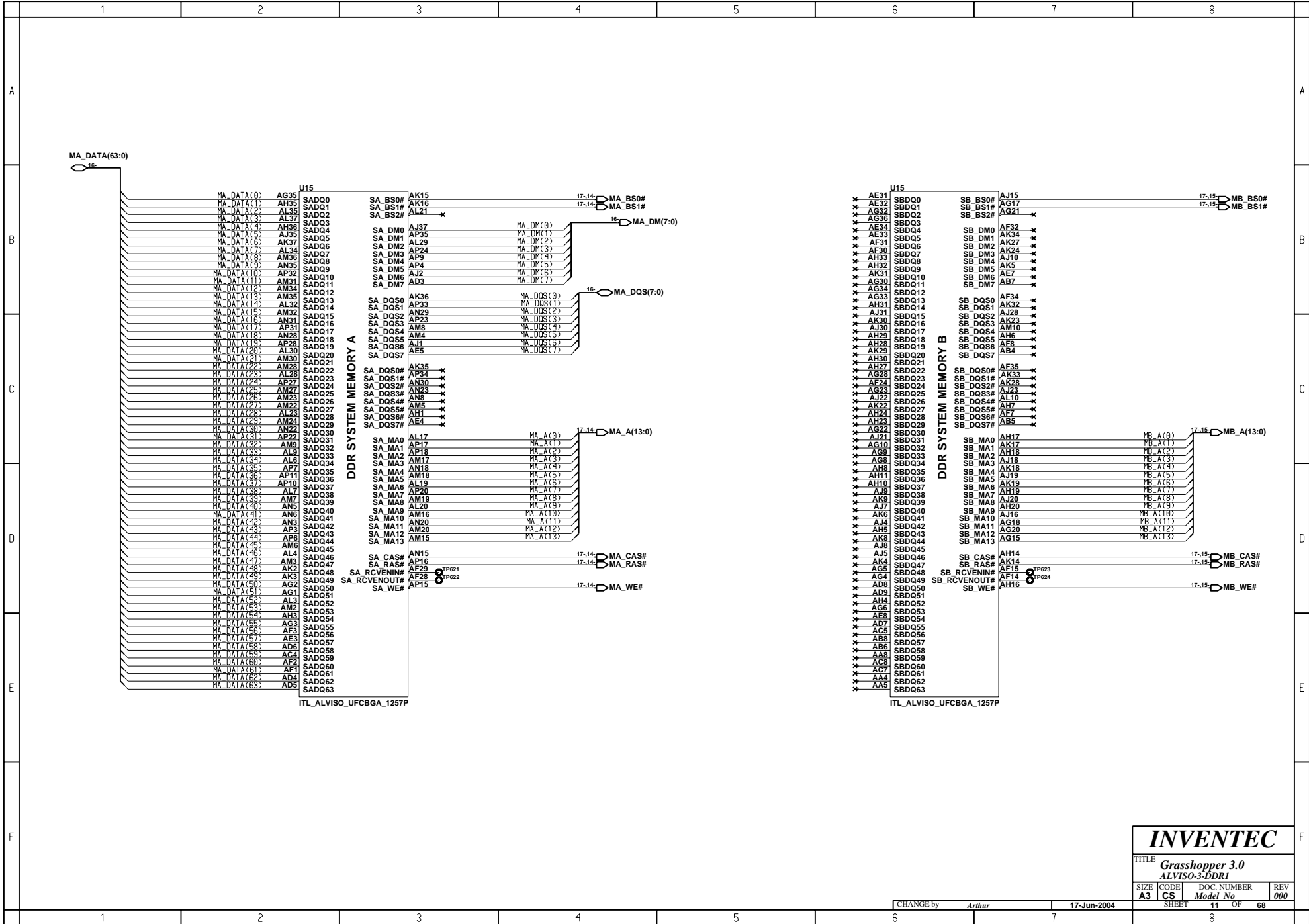


INVENTEC

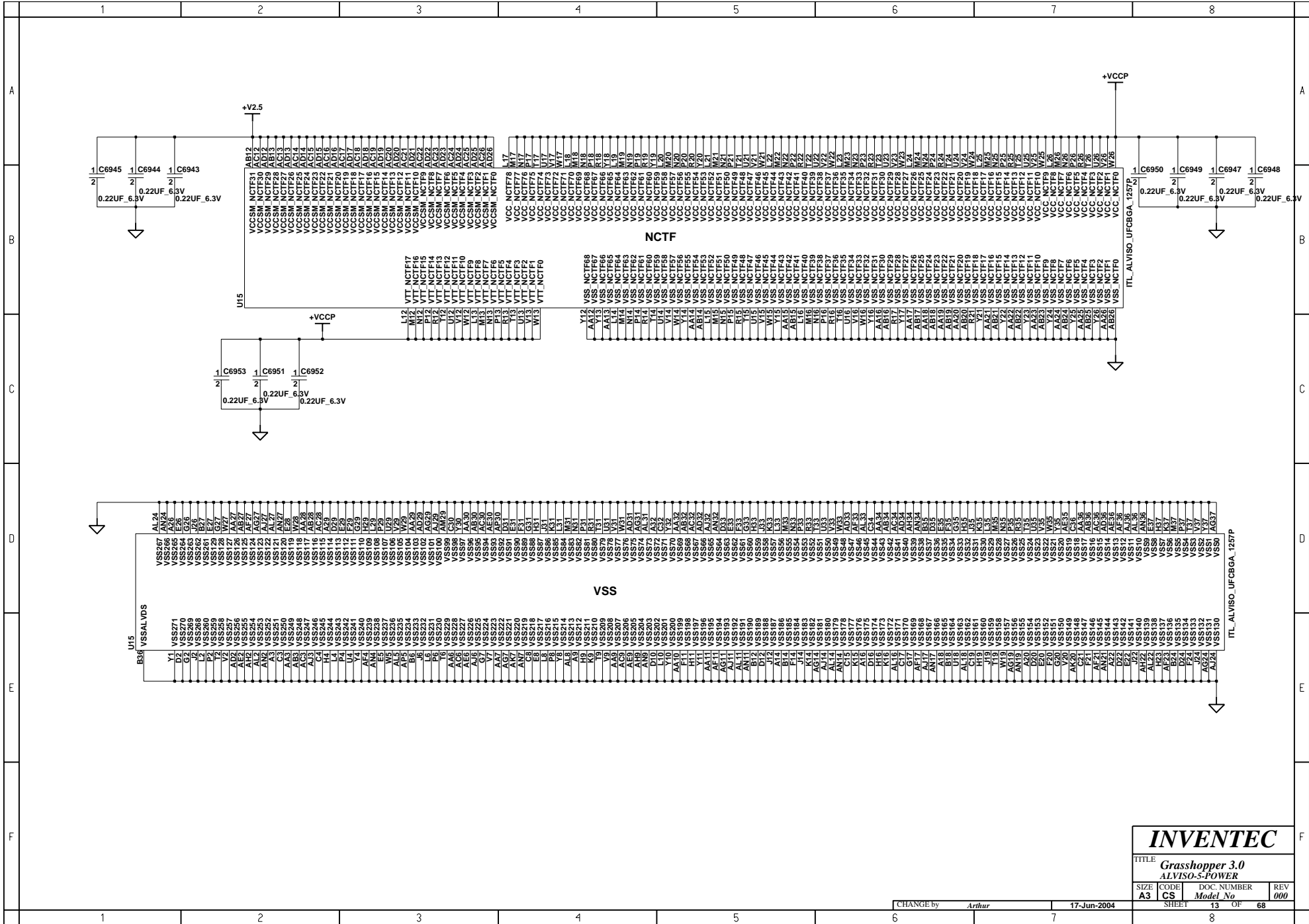
TITLE
Grasshopper 3.0
ALVISO-2-HOST

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by Arthur 17-Jun-2004 SHEET 10 OF 68



INVENTEC			
TITLE Grasshopper 3.0 ALVISO-3-DDR1			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by <i>Arthur</i>		17-Jun-2004	
SHEET 11		OF 68	



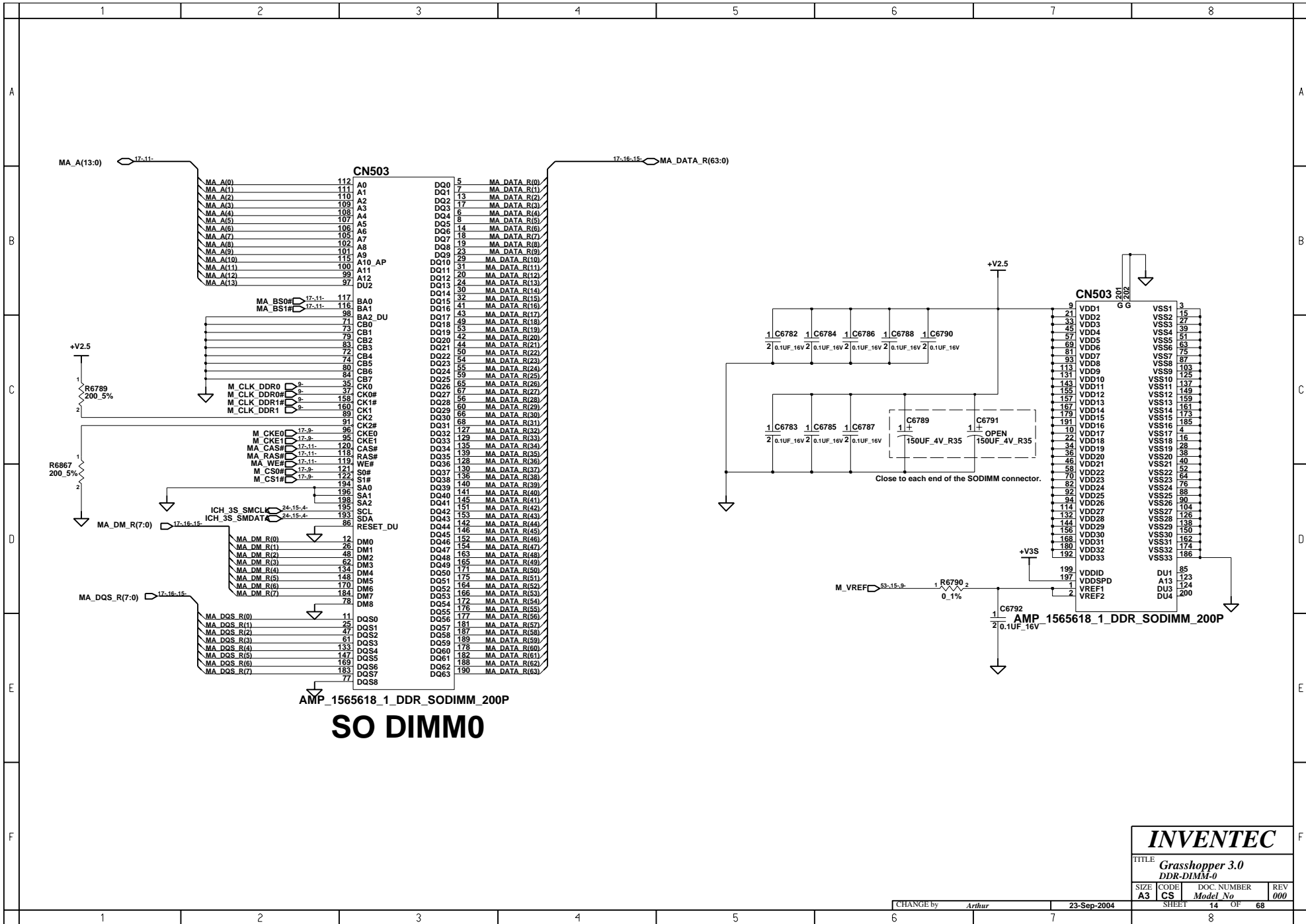
INVENTEC

TITLE: Grasshopper 3.0
ALVISO-5-POWER

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No.	000

CHANGE by Arthur 17-Jun-2004

SHEET 13 OF 68



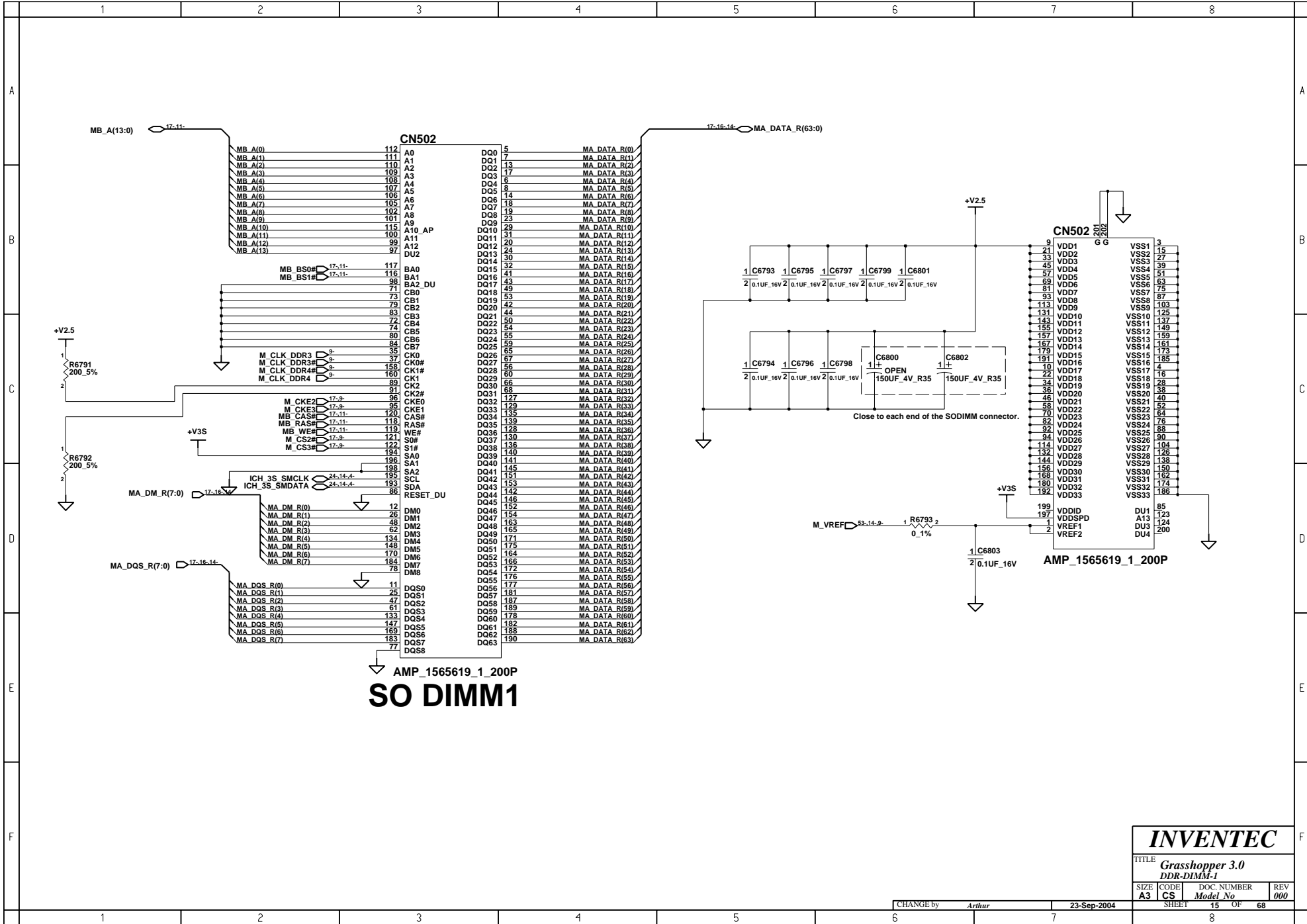
AMP_1565618_1 DDR SODIMM 200P

SO DIMM0

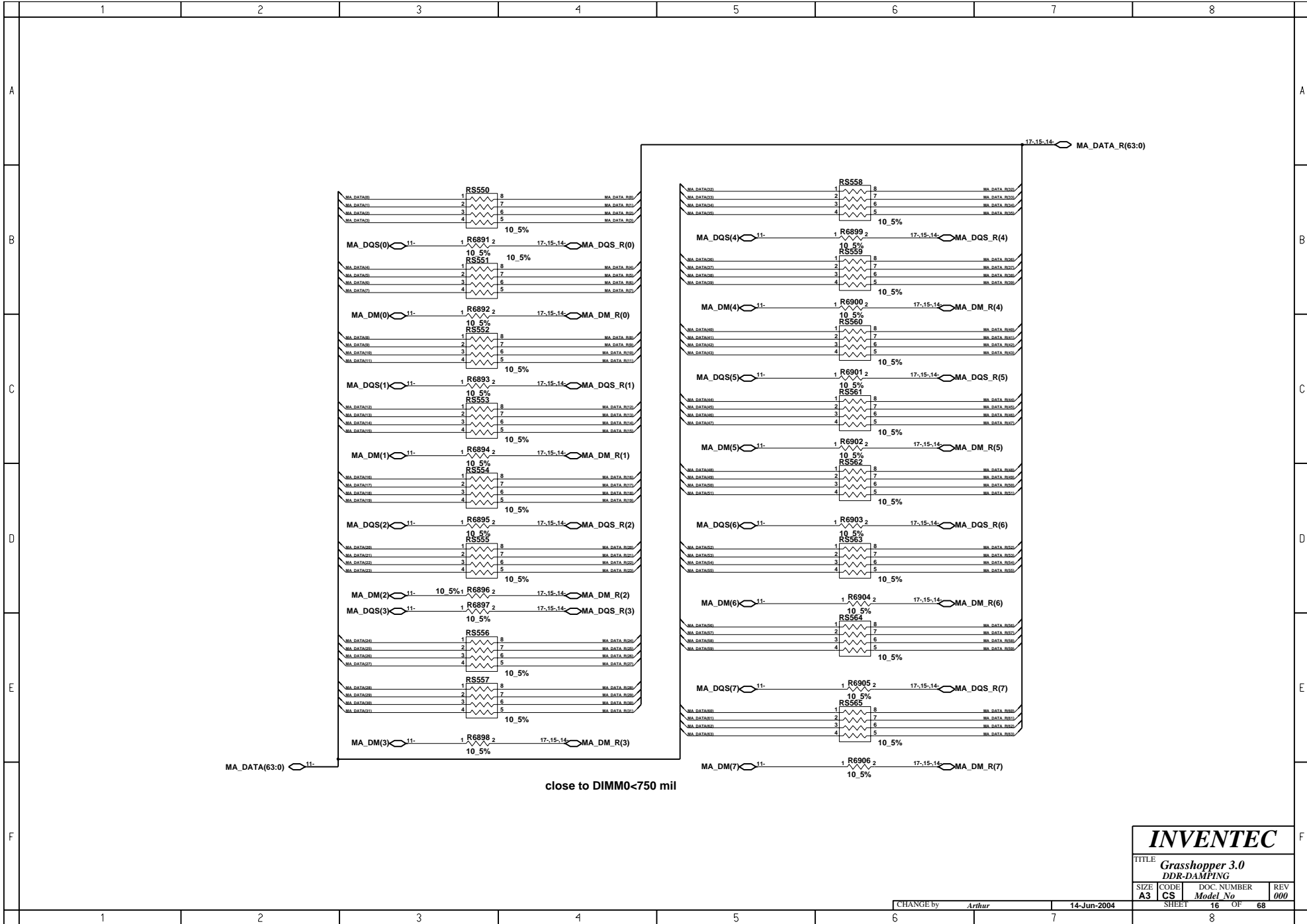
INVENTEC

TITLE: Grasshopper 3.0
DDR-DIMM-0

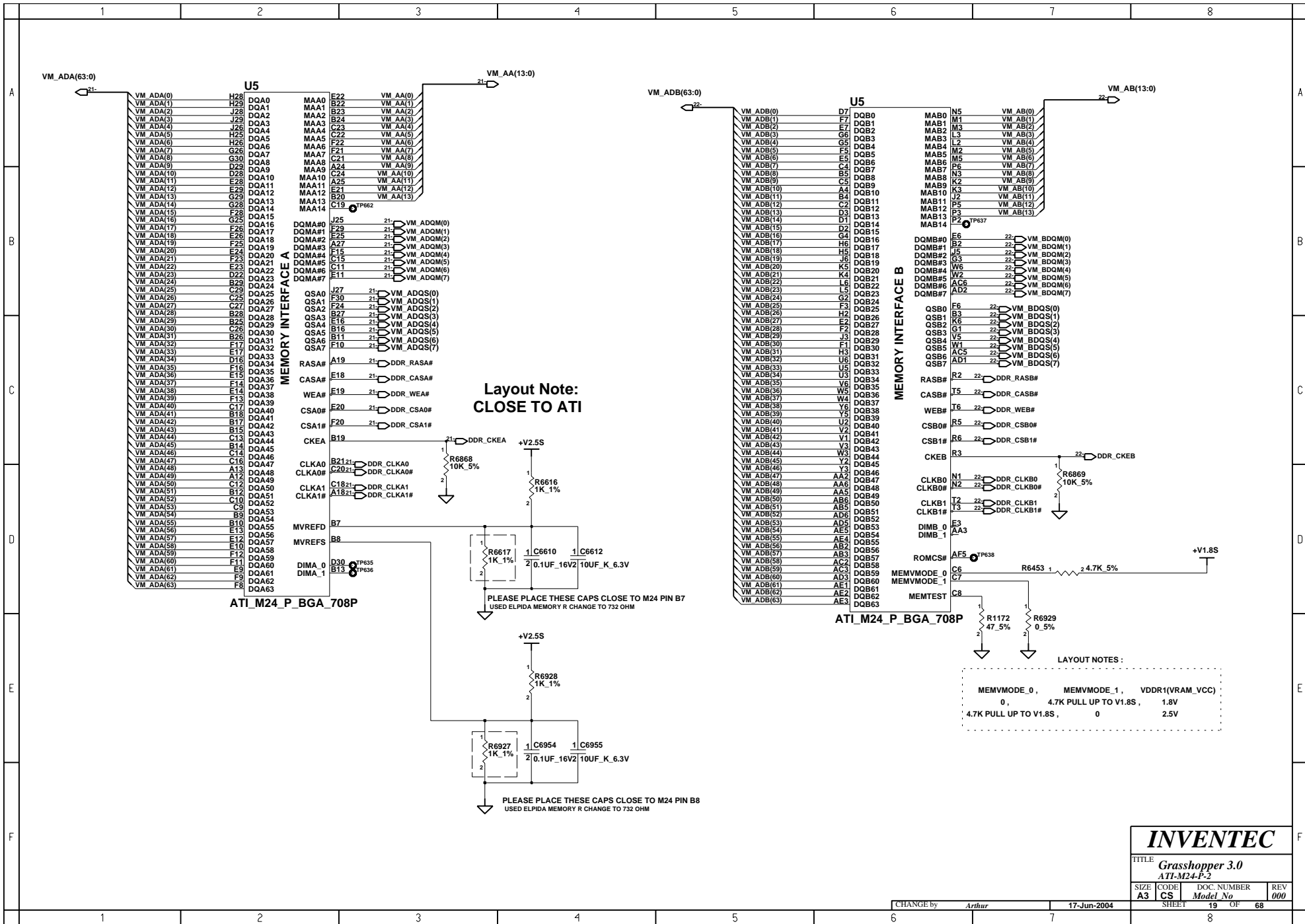
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000



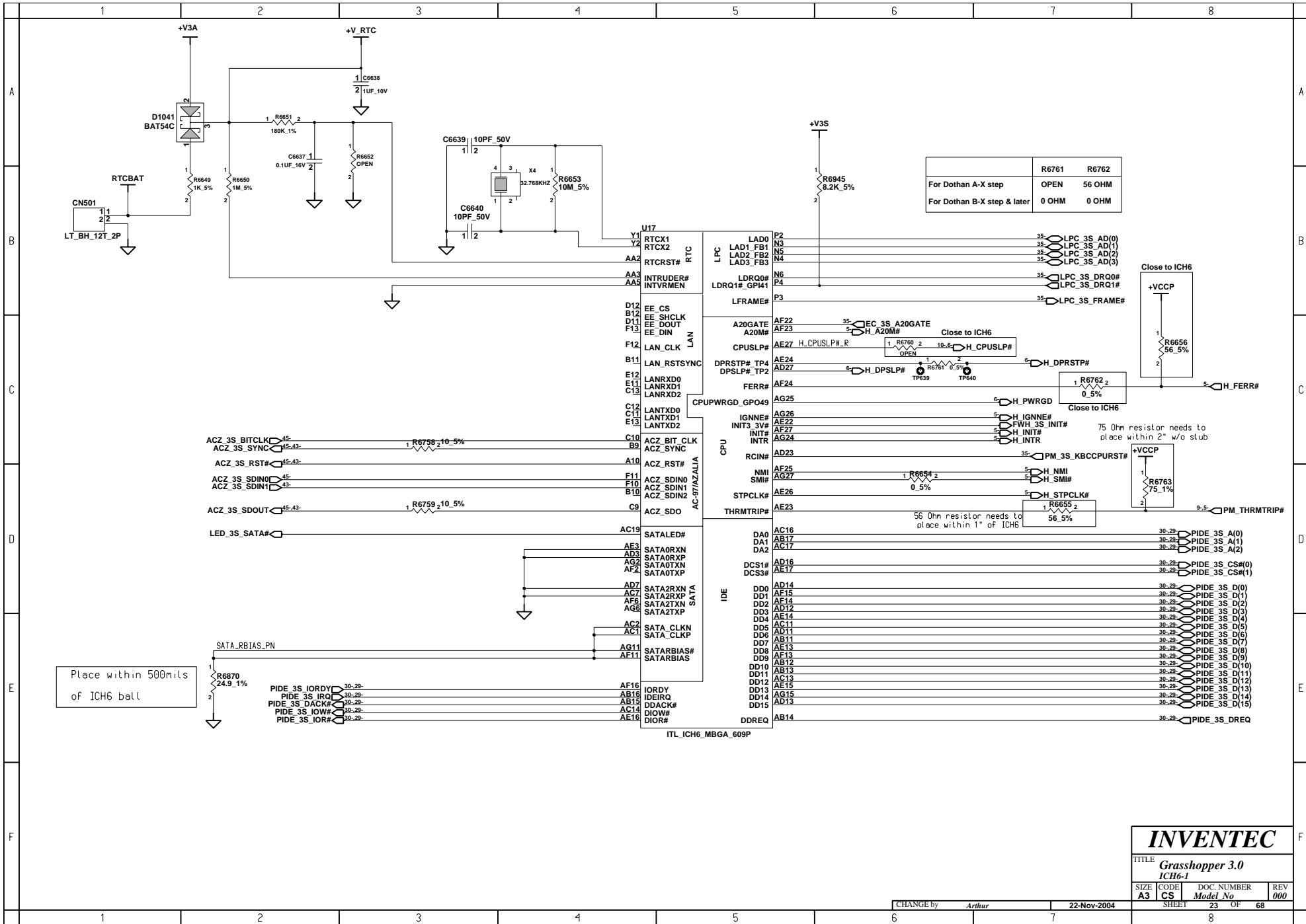
INVENTEC			
TITLE Grasshopper 3.0 DDR-DIMM-1			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		23-Sep-2004	
SHEET 15		OF 68	



INVENTEC			
TITLE Grasshopper 3.0			
DDR-DAMPING			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i> 14-Jun-2004			SHEET 16 OF 68



INVENTEC			
TITLE Grasshopper 3.0 ATI-M24-P-2			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		17-Jun-2004	
SHEET 19		OF 68	



	R6761	R6762
For Dothan A-X step	OPEN	56 OHM
For Dothan B-X step & later	0 OHM	0 OHM

Place within 500mils of ICH6 ball

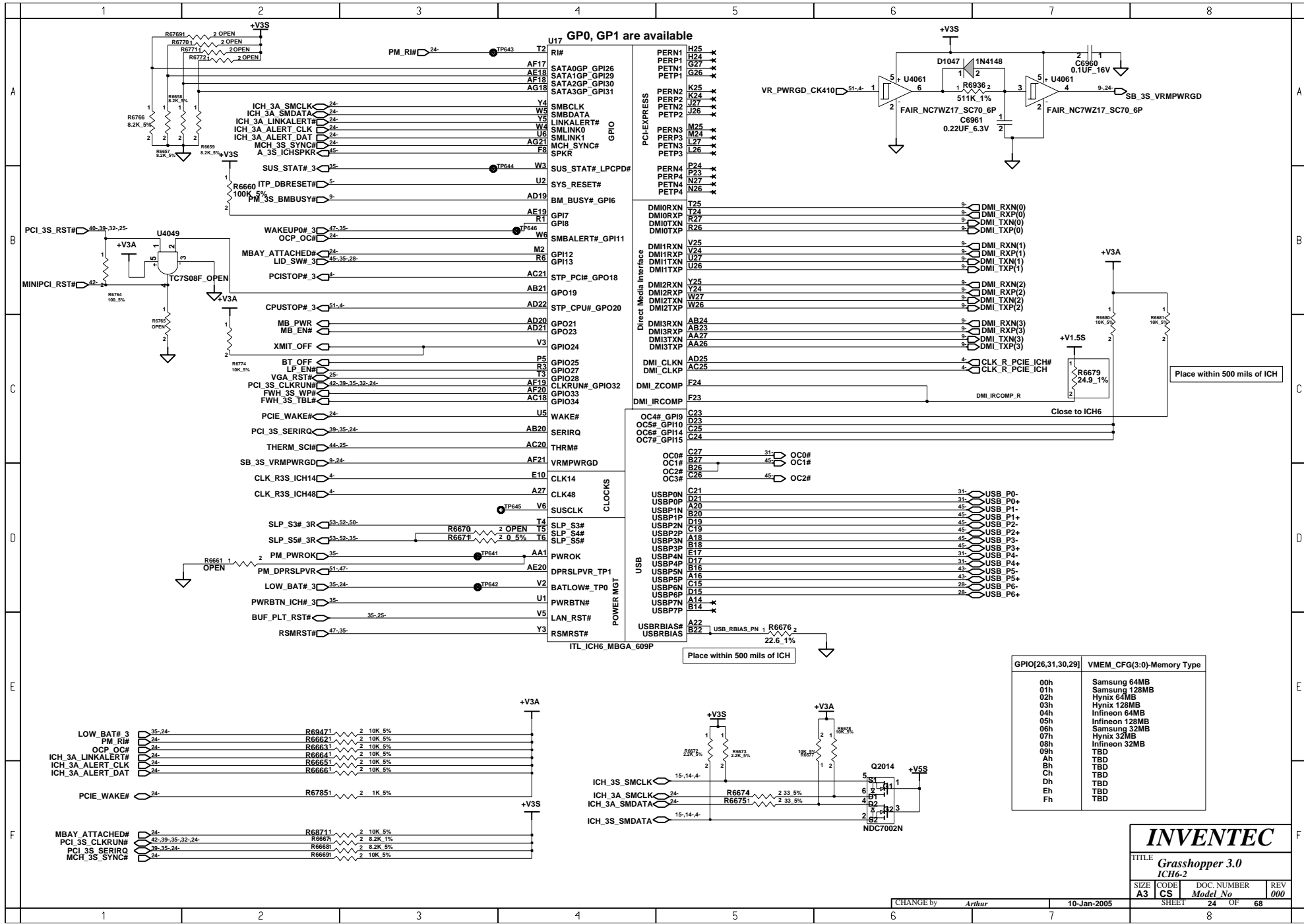
75 Ohm resistor needs to place within 2" w/o stub

56 Ohm resistor needs to place within 1" of ICH6

INVENTEC

TITLE
Grasshopper 3.0
ICH6-1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000



GP0, GP1 are available

PERN1	H25	x	DMIORXN	T25	9	DMIRXN	V25	9	DMIRXN(0)	T25	9	DMIRXN(1)	V25	9	DMIRXN(2)	Y25	9	DMIRXN(3)	AB24	9	DMIRXN(0)	T25	9	DMIRXN(1)	V25	9	DMIRXN(2)	Y25	9	DMIRXN(3)	AB24	9																					
PERP1	H24	x	DMIORXP	T24	9	DMIRXP	V24	9	DMIRXP(0)	T24	9	DMIRXP(1)	V24	9	DMIRXP(2)	Y24	9	DMIRXP(3)	AB23	9	DMIRXP(0)	T24	9	DMIRXP(1)	V24	9	DMIRXP(2)	Y24	9	DMIRXP(3)	AB23	9																					
PETN1	G26	x	DMIOTXN	R27	9	DMITXN	U27	9	DMITXN(0)	R27	9	DMITXN(1)	U27	9	DMITXN(2)	W27	9	DMITXN(3)	AA27	9	DMITXN(0)	R27	9	DMITXN(1)	U27	9	DMITXN(2)	W27	9	DMITXN(3)	AA27	9																					
PETP1	G26	x	DMIOTXP	R26	9	DMITXP	U26	9	DMITXP(0)	R26	9	DMITXP(1)	U26	9	DMITXP(2)	W26	9	DMITXP(3)	AA26	9	DMITXP(0)	R26	9	DMITXP(1)	U26	9	DMITXP(2)	W26	9	DMITXP(3)	AA26	9																					
PERN2	K25	x	DMIO2RXN	Y25	9	DMIO2RXN	Y25	9	DMIO2RXN(0)	Y25	9	DMIO2RXN(1)	Y25	9	DMIO2RXN(2)	Y25	9	DMIO2RXN(3)	Y25	9	DMIO2RXN(0)	Y25	9	DMIO2RXN(1)	Y25	9	DMIO2RXN(2)	Y25	9	DMIO2RXN(3)	Y25	9																					
PERP2	K24	x	DMIO2RXP	Y24	9	DMIO2RXP	Y24	9	DMIO2RXP(0)	Y24	9	DMIO2RXP(1)	Y24	9	DMIO2RXP(2)	Y24	9	DMIO2RXP(3)	Y24	9	DMIO2RXP(0)	Y24	9	DMIO2RXP(1)	Y24	9	DMIO2RXP(2)	Y24	9	DMIO2RXP(3)	Y24	9																					
PETN2	J26	x	DMIO2TXN	W27	9	DMIO2TXN	W27	9	DMIO2TXN(0)	W27	9	DMIO2TXN(1)	W27	9	DMIO2TXN(2)	W27	9	DMIO2TXN(3)	W27	9	DMIO2TXN(0)	W27	9	DMIO2TXN(1)	W27	9	DMIO2TXN(2)	W27	9	DMIO2TXN(3)	W27	9																					
PETP2	J26	x	DMIO2TXP	W26	9	DMIO2TXP	W26	9	DMIO2TXP(0)	W26	9	DMIO2TXP(1)	W26	9	DMIO2TXP(2)	W26	9	DMIO2TXP(3)	W26	9	DMIO2TXP(0)	W26	9	DMIO2TXP(1)	W26	9	DMIO2TXP(2)	W26	9	DMIO2TXP(3)	W26	9																					
PERN3	M25	x	DMIO3RXN	AB24	9	DMIO3RXN	AB24	9	DMIO3RXN(0)	AB24	9	DMIO3RXN(1)	AB24	9	DMIO3RXN(2)	AB24	9	DMIO3RXN(3)	AB24	9	DMIO3RXN(0)	AB24	9	DMIO3RXN(1)	AB24	9	DMIO3RXN(2)	AB24	9	DMIO3RXN(3)	AB24	9																					
PERP3	M24	x	DMIO3RXP	AB23	9	DMIO3RXP	AB23	9	DMIO3RXP(0)	AB23	9	DMIO3RXP(1)	AB23	9	DMIO3RXP(2)	AB23	9	DMIO3RXP(3)	AB23	9	DMIO3RXP(0)	AB23	9	DMIO3RXP(1)	AB23	9	DMIO3RXP(2)	AB23	9	DMIO3RXP(3)	AB23	9																					
PETN3	L27	x	DMIO3TXN	AA27	9	DMIO3TXN	AA27	9	DMIO3TXN(0)	AA27	9	DMIO3TXN(1)	AA27	9	DMIO3TXN(2)	AA27	9	DMIO3TXN(3)	AA27	9	DMIO3TXN(0)	AA27	9	DMIO3TXN(1)	AA27	9	DMIO3TXN(2)	AA27	9	DMIO3TXN(3)	AA27	9																					
PETP3	L26	x	DMIO3TXP	AA26	9	DMIO3TXP	AA26	9	DMIO3TXP(0)	AA26	9	DMIO3TXP(1)	AA26	9	DMIO3TXP(2)	AA26	9	DMIO3TXP(3)	AA26	9	DMIO3TXP(0)	AA26	9	DMIO3TXP(1)	AA26	9	DMIO3TXP(2)	AA26	9	DMIO3TXP(3)	AA26	9																					
PERN4	P24	x	DMIO4RXN	AD25	9	DMIO4RXN	AD25	9	DMIO4RXN(0)	AD25	9	DMIO4RXN(1)	AD25	9	DMIO4RXN(2)	AD25	9	DMIO4RXN(3)	AD25	9	DMIO4RXN(0)	AD25	9	DMIO4RXN(1)	AD25	9	DMIO4RXN(2)	AD25	9	DMIO4RXN(3)	AD25	9																					
PERP4	P23	x	DMIO4RXP	AD24	9	DMIO4RXP	AD24	9	DMIO4RXP(0)	AD24	9	DMIO4RXP(1)	AD24	9	DMIO4RXP(2)	AD24	9	DMIO4RXP(3)	AD24	9	DMIO4RXP(0)	AD24	9	DMIO4RXP(1)	AD24	9	DMIO4RXP(2)	AD24	9	DMIO4RXP(3)	AD24	9																					
PETN4	N27	x	DMIO4TXN	AC25	9	DMIO4TXN	AC25	9	DMIO4TXN(0)	AC25	9	DMIO4TXN(1)	AC25	9	DMIO4TXN(2)	AC25	9	DMIO4TXN(3)	AC25	9	DMIO4TXN(0)	AC25	9	DMIO4TXN(1)	AC25	9	DMIO4TXN(2)	AC25	9	DMIO4TXN(3)	AC25	9																					
PETP4	N26	x	DMIO4TXP	AC24	9	DMIO4TXP	AC24	9	DMIO4TXP(0)	AC24	9	DMIO4TXP(1)	AC24	9	DMIO4TXP(2)	AC24	9	DMIO4TXP(3)	AC24	9	DMIO4TXP(0)	AC24	9	DMIO4TXP(1)	AC24	9	DMIO4TXP(2)	AC24	9	DMIO4TXP(3)	AC24	9																					
OC4#	GP19	C23	OC5#	GP10	C25	OC6#	GP14	C24	OC7#	GP15	C26	OC0#	C27	31	OC1#	B27	45	OC2#	B26	45	OC3#	C26	45	OC0#	C27	31	OC1#	B27	45	OC2#	B26	45	OC3#	C26	45																		
USBP0N	C21	31	USBP0P	D21	31	USBP1N	A20	45	USBP1P	B20	45	USBP2N	D19	45	USBP2P	C19	45	USBP3N	A18	45	USBP3P	B18	45	USBP4N	E17	31	USBP4P	D17	31	USBP5N	B16	45	USBP5P	A16	45	USBP6N	C15	45	USBP6P	D15	45	USBP7N	A14	x	USBP7P	B14	x	USBBIASN	A22	2	USBBIASP	B22	2
USBP0+	D21	31	USBP0-	A20	45	USBP1+	B20	45	USBP1-	D19	45	USBP2+	C19	45	USBP2-	A18	45	USBP3+	B18	45	USBP3-	E17	31	USBP4+	D17	31	USBP4-	B16	45	USBP5+	A16	45	USBP5-	C15	45	USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2
USBP1+	B20	45	USBP1-	D19	45	USBP2+	C19	45	USBP2-	A18	45	USBP3+	B18	45	USBP3-	E17	31	USBP4+	D17	31	USBP4-	B16	45	USBP5+	A16	45	USBP5-	C15	45	USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2						
USBP2+	C19	45	USBP2-	A18	45	USBP3+	B18	45	USBP3-	E17	31	USBP4+	D17	31	USBP4-	B16	45	USBP5+	A16	45	USBP5-	C15	45	USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2												
USBP3+	B18	45	USBP3-	E17	31	USBP4+	D17	31	USBP4-	B16	45	USBP5+	A16	45	USBP5-	C15	45	USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2																		
USBP4+	D17	31	USBP4-	B16	45	USBP5+	A16	45	USBP5-	C15	45	USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2																								
USBP5+	A16	45	USBP5-	C15	45	USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2																														
USBP6+	D15	45	USBP6-	A14	x	USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2																																				
USBP7+	B14	x	USBP7-	B14	x	USBBIAS	A22	2	USBBIAS	B22	2	USBBIAS	A22	2	USBBIAS	B22	2																																				
USBBIAS	A22	2	USBBIAS	B22	2	USBBIAS	A22	2	USBBIAS	B22	2	USBBIAS	A22	2	USBBIAS	B22	2																																				

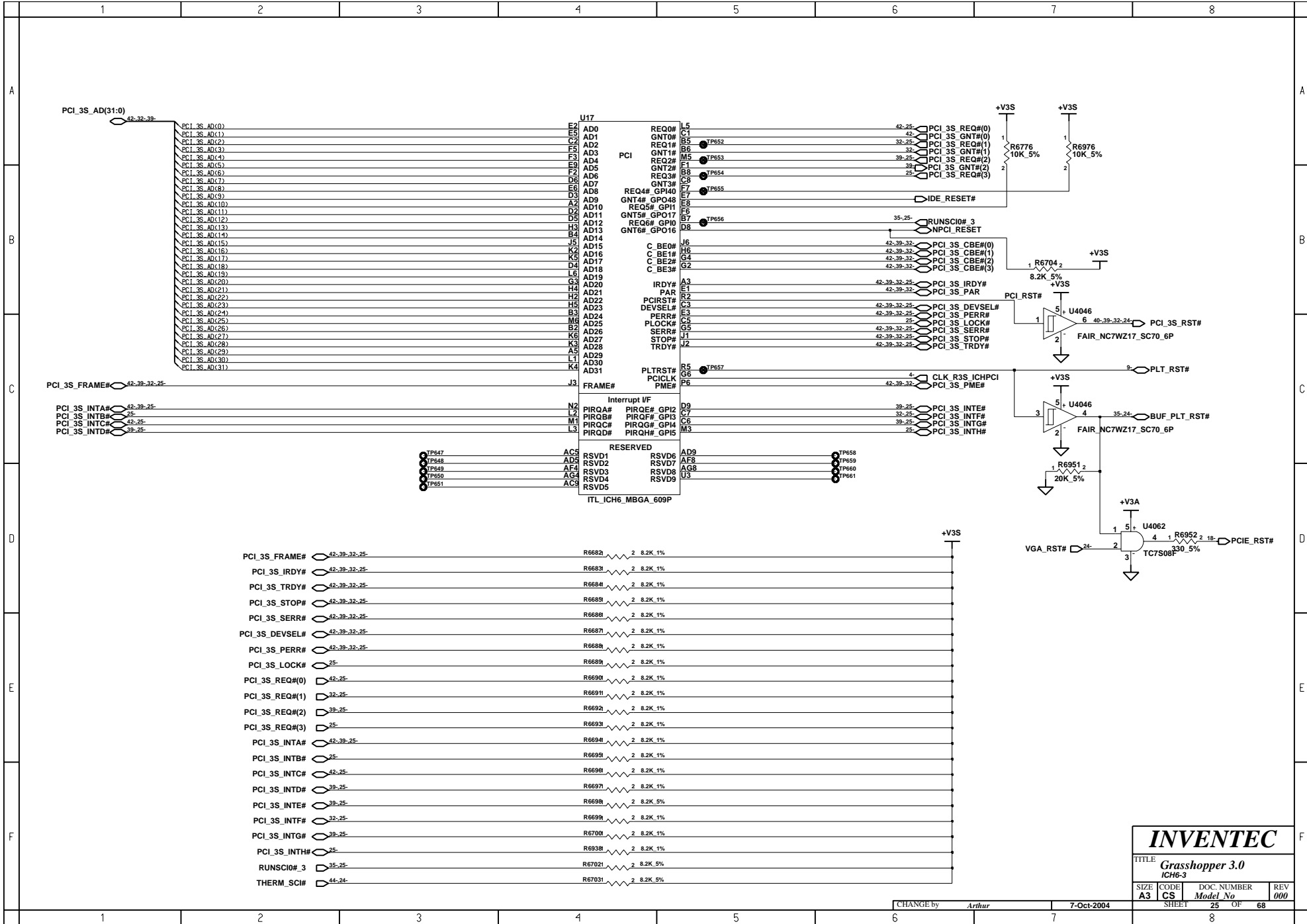
GPIO[26,31,30,29]	VMEM_CFG(3:0)-Memory Type
00h	Samsung 64MB
01h	Samsung 128MB
02h	Hynix 64MB
03h	Hynix 128MB
04h	Infineon 64MB
05h	Infineon 128MB
06h	Samsung 32MB
07h	Hynix 32MB
08h	Infineon 32MB
09h	TBD
Ah	TBD
Bh	TBD
Ch	TBD
Dh	TBD
Eh	TBD
Fh	TBD

INVENTEC

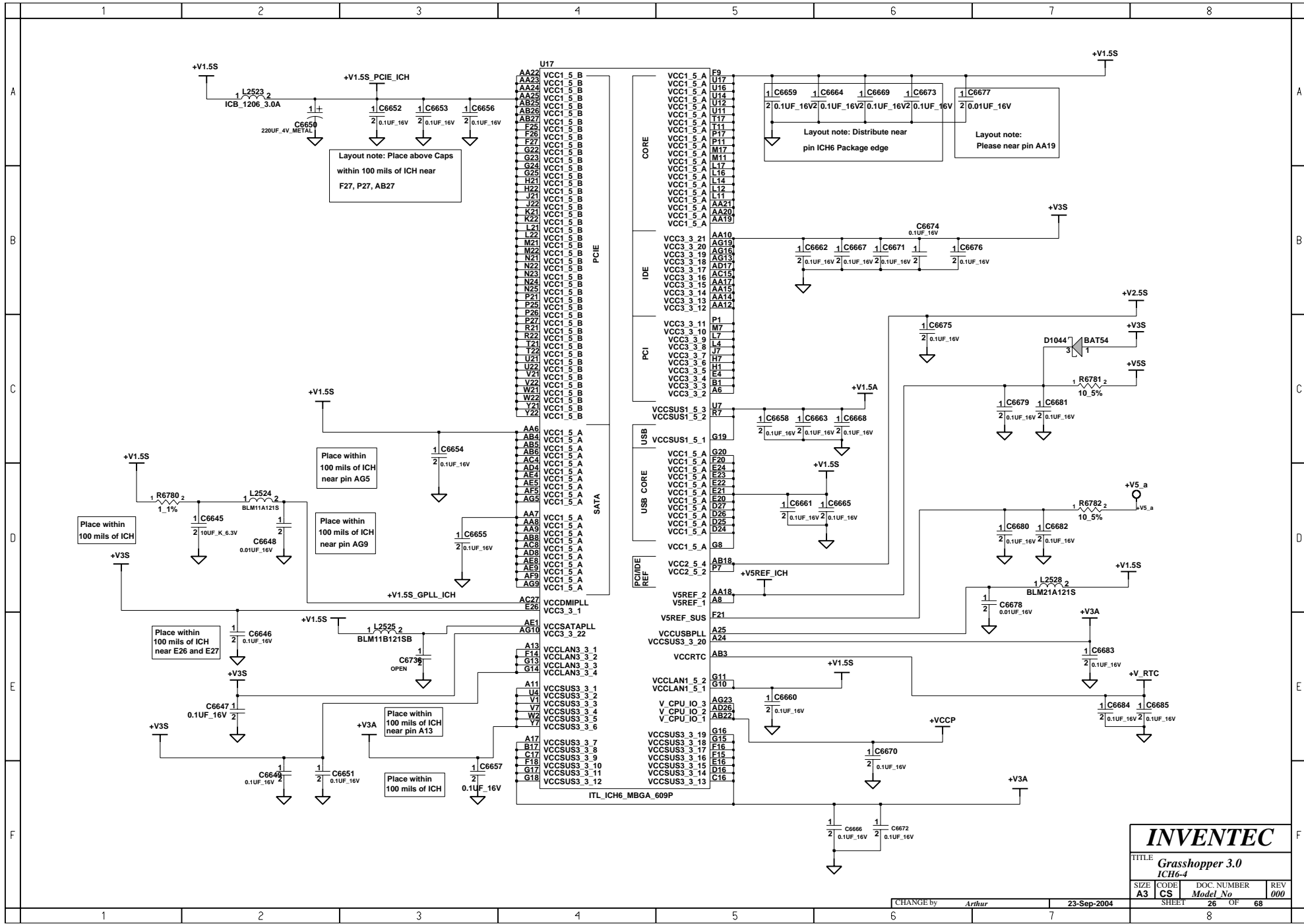
TITLE
Grasshopper 3.0
ICH6-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by Arthur 10-Jan-2005 SHEET 24 OF 68



INVENTEC			
TITLE Grasshopper 3.0			
ICH6-3			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
CHANGE by <i>Arthur</i>		7-Oct-2004	
SHEET 25		OF 68	



INVENTEC

TITLE
Grasshopper 3.0
ICH6-4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by *Arthur* 23-Sep-2004

SHEET 26 OF 68

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

U17

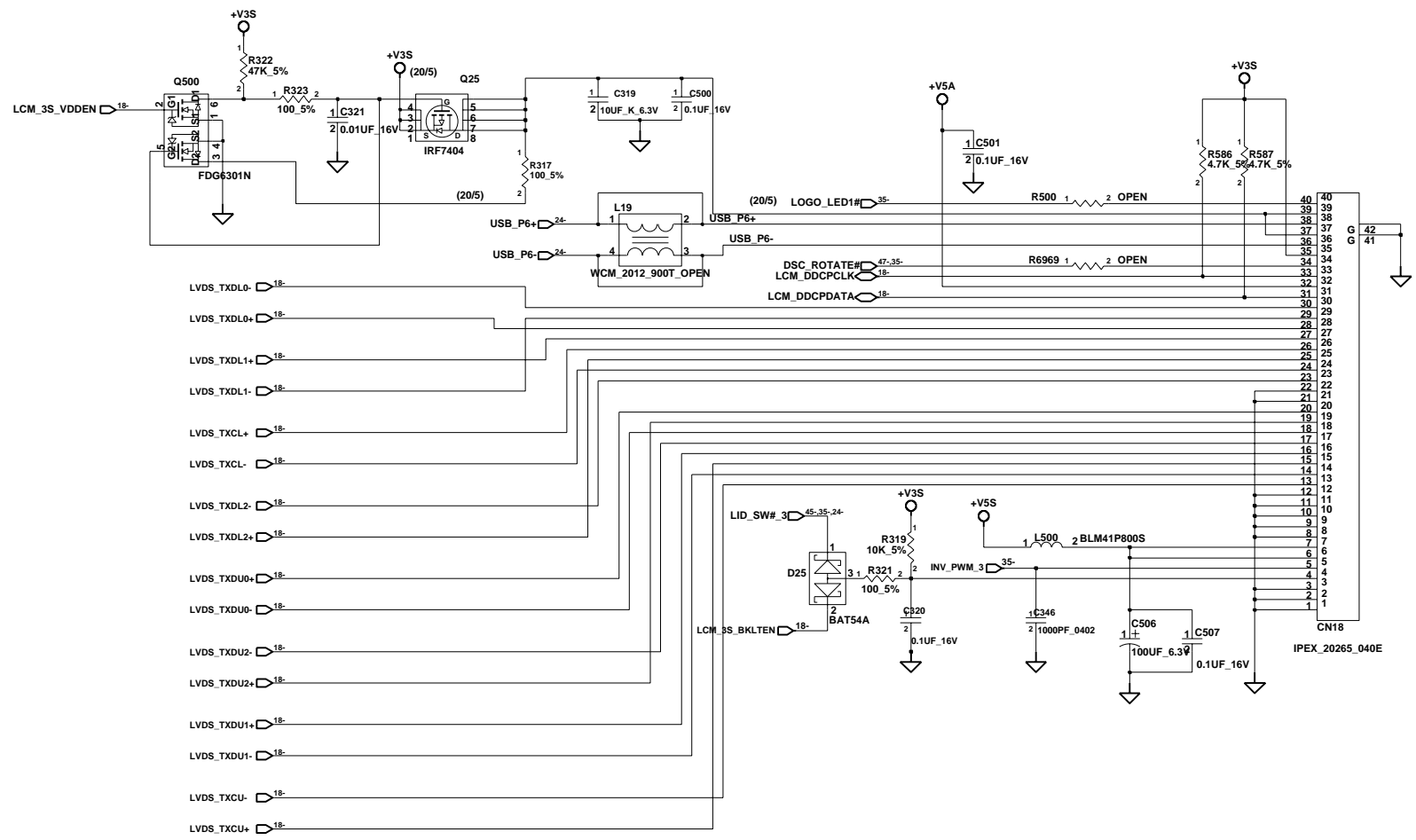
E27	VSS172	VSS86	F4
Y6	VSS171	VSS85	F22
Y7	VSS170	VSS84	F19
Y26	VSS169	VSS83	F17
Y23	VSS168	VSS82	E25
W7	VSS167	VSS81	E19
W25	VSS166	VSS80	E18
W24	VSS165	VSS79	E15
W23	VSS164	VSS78	E14
W1	VSS163	VSS77	D22
V4	VSS162	VSS76	D20
V27	VSS161	VSS75	D18
V26	VSS160	VSS74	D14
V25	VSS159	VSS73	D13
U28	VSS158	VSS72	D10
U24	VSS157	VSS71	D1
U23	VSS156	VSS70	C1
U19	VSS155	VSS69	C22
U13	VSS154	VSS68	C20
T7	VSS153	VSS67	C18
T27	VSS152	VSS66	C14
T26	VSS151	VSS65	B25
T23	VSS150	VSS64	B24
T16	VSS149	VSS63	B23
T15	VSS148	VSS62	B21
T14	VSS147	VSS61	B19
T13	VSS146	VSS60	B15
T12	VSS145	VSS59	B13
T1	VSS144	VSS58	AG7
R4	VSS143	VSS57	AG3
R25	VSS142	VSS56	AG22
R24	VSS141	VSS55	AG20
R23	VSS140	VSS54	AG17
R17	VSS139	VSS53	AG14
R16	VSS138	VSS52	AG12
R15	VSS137	VSS51	AG1
R14	VSS136	VSS50	AF7
R13	VSS135	VSS49	AF3
R12	VSS134	VSS48	AF26
R11	VSS133	VSS47	AF12
P22	VSS132	VSS46	AF10
P16	VSS131	VSS45	AF1
P15	VSS130	VSS44	AE6
P14	VSS129	VSS43	AE25
P13	VSS128	VSS42	AE21
P12	VSS127	VSS41	AE2
N7	VSS126	VSS40	AE12
N17	VSS125	VSS39	AE11
N16	VSS124	VSS38	AE10
N15	VSS123	VSS37	AD6
N14	VSS122	VSS36	AD24
N13	VSS121	VSS35	AD2
N12	VSS120	VSS34	AD18
N11	VSS119	VSS33	AD15
N1	VSS118	VSS32	AD10
M4	VSS117	VSS31	AD1
M27	VSS116	VSS30	AC6
M26	VSS115	VSS29	AC26
M23	VSS114	VSS28	AC24
M18	VSS113	VSS27	AC23
M15	VSS112	VSS26	AC22
M14	VSS111	VSS25	AC12
M13	VSS110	VSS24	AC10
M12	VSS109	VSS23	AB9
L23	VSS108	VSS22	AB7
L24	VSS107	VSS21	AB2
L15	VSS106	VSS20	AB19
L13	VSS105	VSS19	AB10
K7	VSS104	VSS18	AA1
K27	VSS103	VSS17	AA4
K26	VSS102	VSS16	AA16
K23	VSS101	VSS15	AA13
K1	VSS100	VSS14	AA11
J5	VSS99	VSS13	AA9
J4	VSS98	VSS12	AA7
J25	VSS97	VSS11	AA4
J24	VSS96	VSS10	AA2
J23	VSS95	VSS9	AA1
H27	VSS94	VSS8	A26
H26	VSS93	VSS7	A23
H23	VSS92	VSS6	A21
G9	VSS91	VSS5	A19
G7	VSS90	VSS4	A15
G21	VSS89	VSS3	A12
G12	VSS88	VSS2	A1
G1	VSS87	VSS1	A1

ITL_ICH6_MBGA_609P



INVENTEC			
TITLE Grasshopper 3.0			
ICH6-5			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		17-Jun-2004	
SHEET 27		OF 68	

	1	2	3	4	5	6	7	8	
--	---	---	---	---	---	---	---	---	--

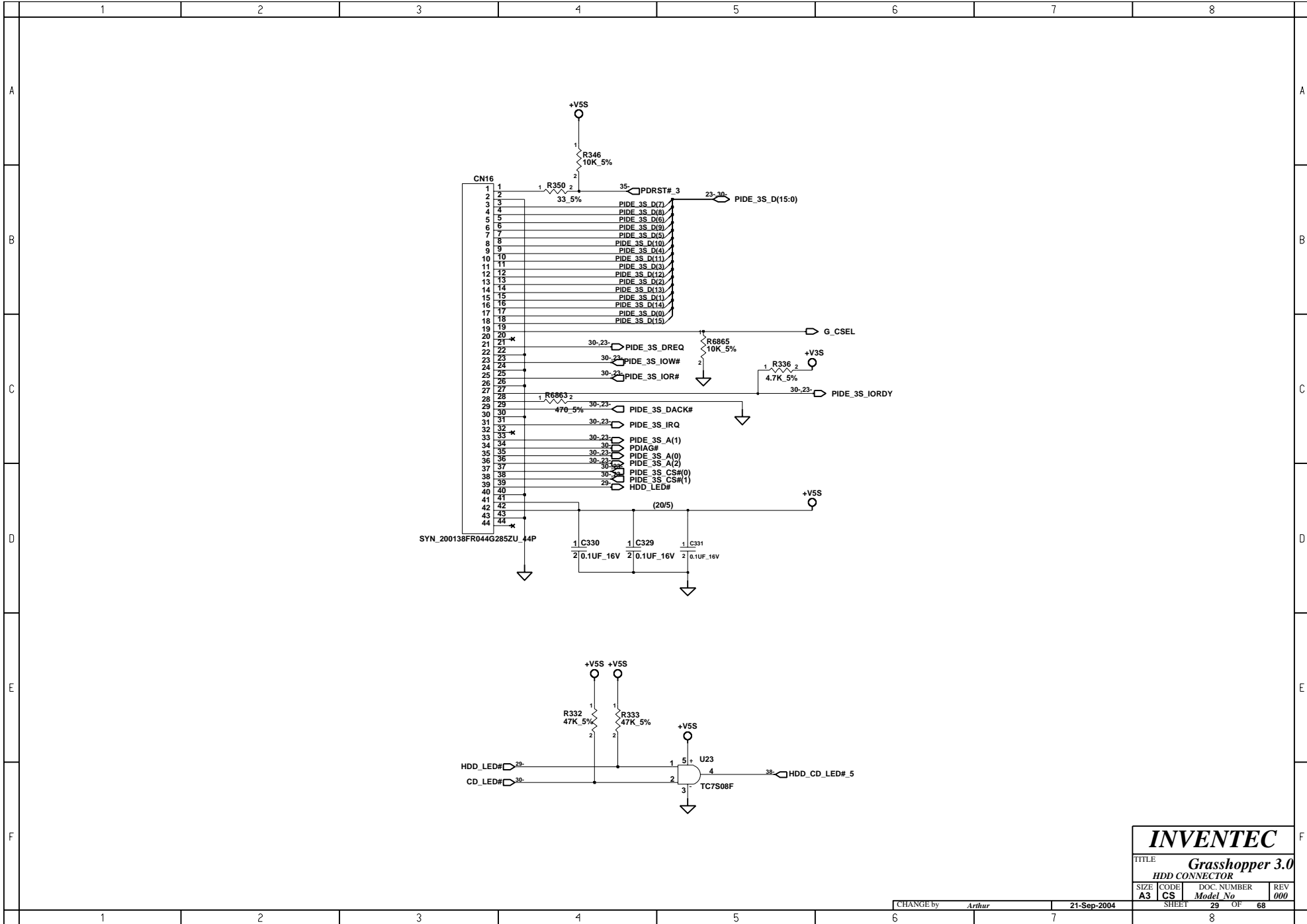


INVENTEC

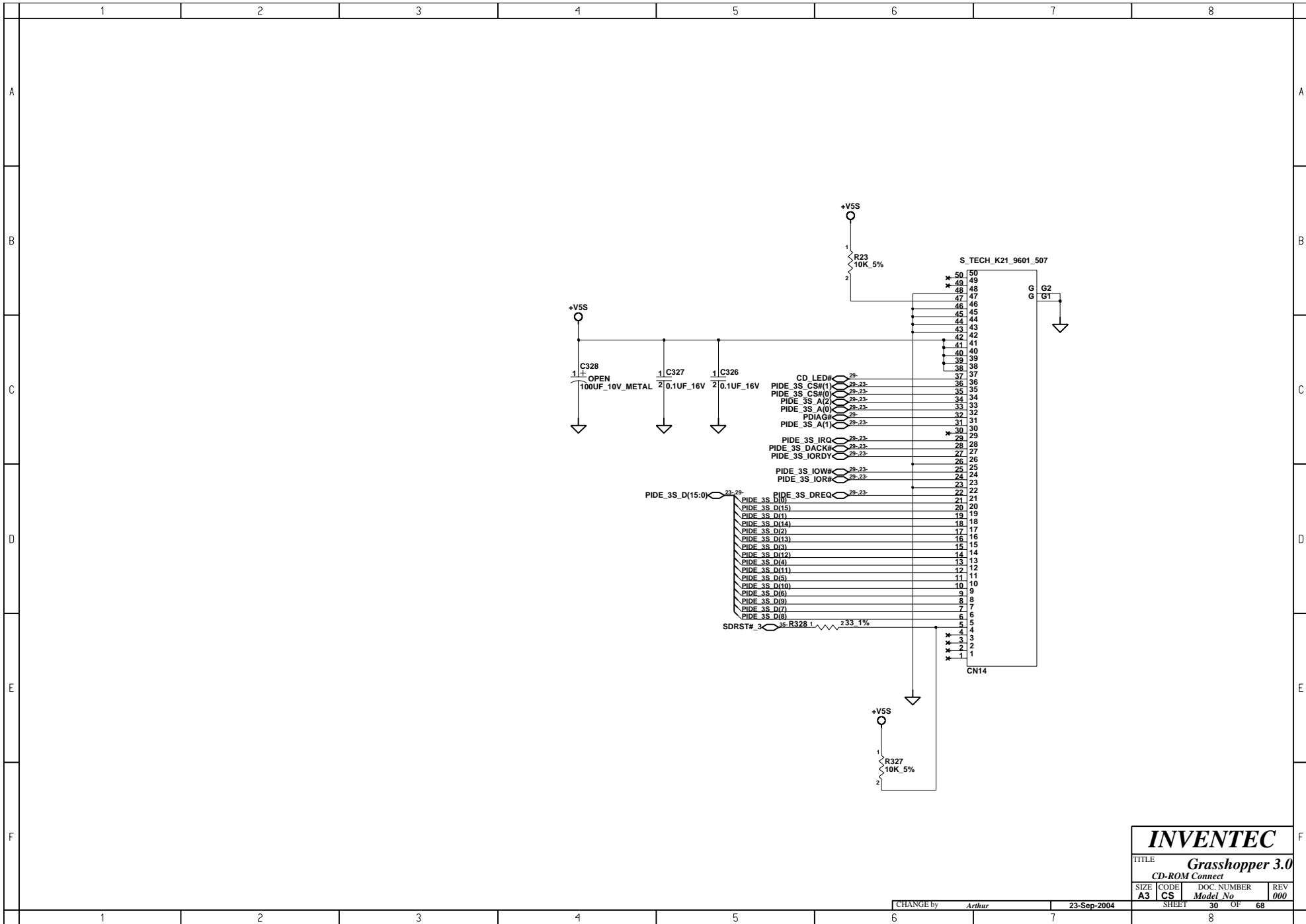
TITLE **Grasshopper 3.0**
LCD CONNECTOR I/F

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by *Arthur* 21-Sep-2004 SHEET 28 OF 68



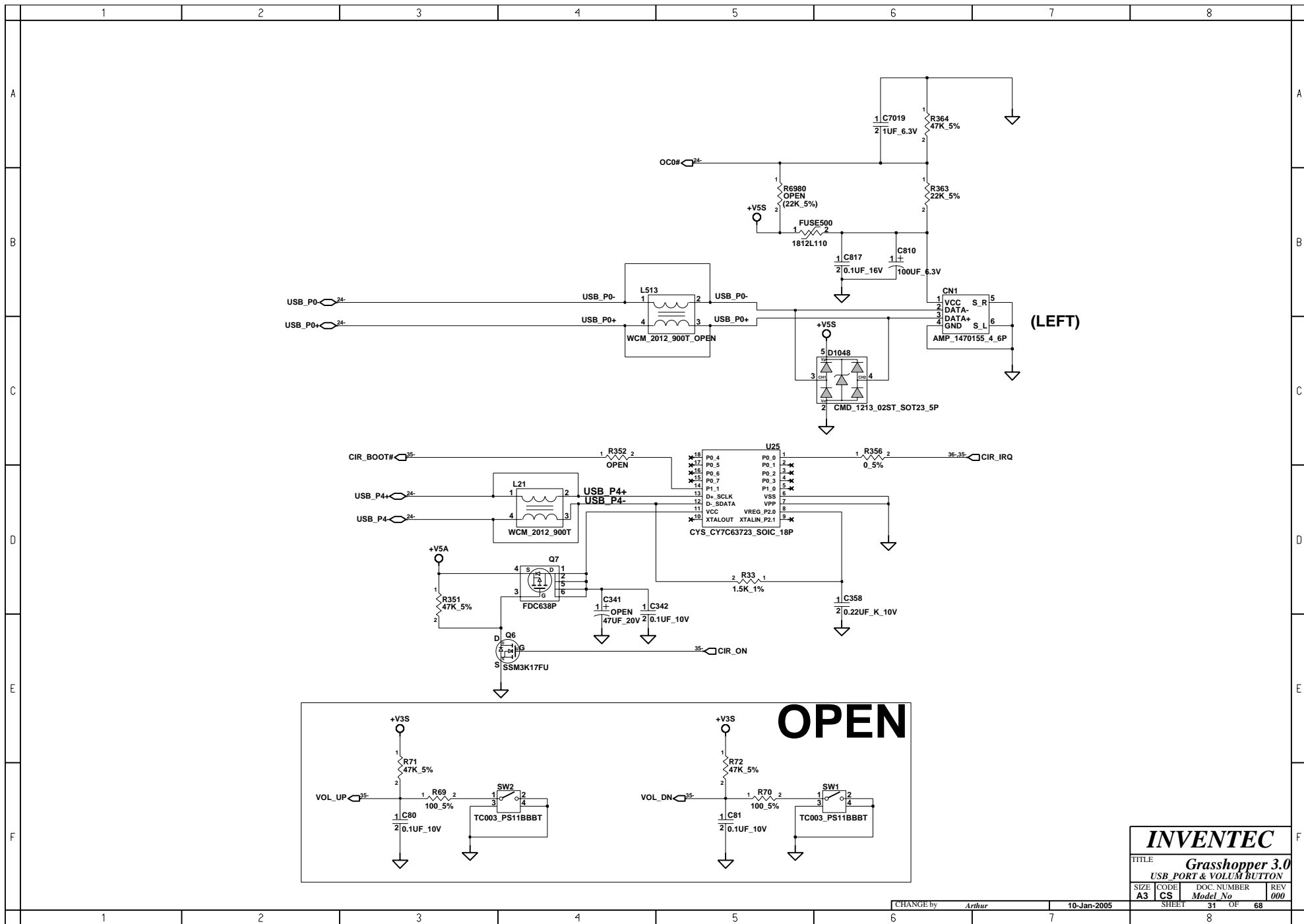
INVENTEC			
TITLE Grasshopper 3.0			
HDD CONNECTOR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		21-Sep-2004	SHEET 29 OF 68



INVENTEC

TITLE **Grasshopper 3.0**
CD-ROM Connect

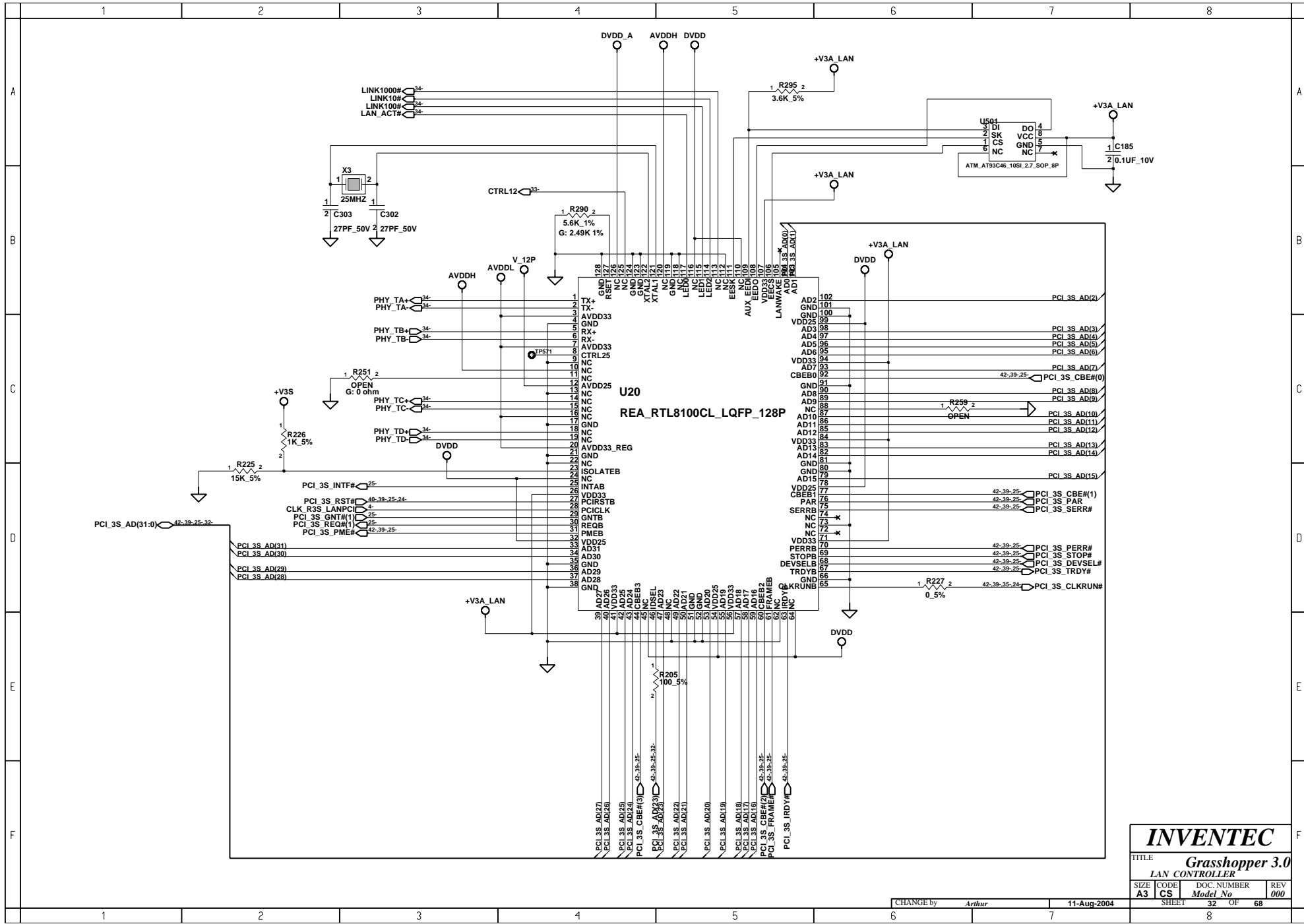
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
-------------------	-------------------	--------------------------------	-------------------



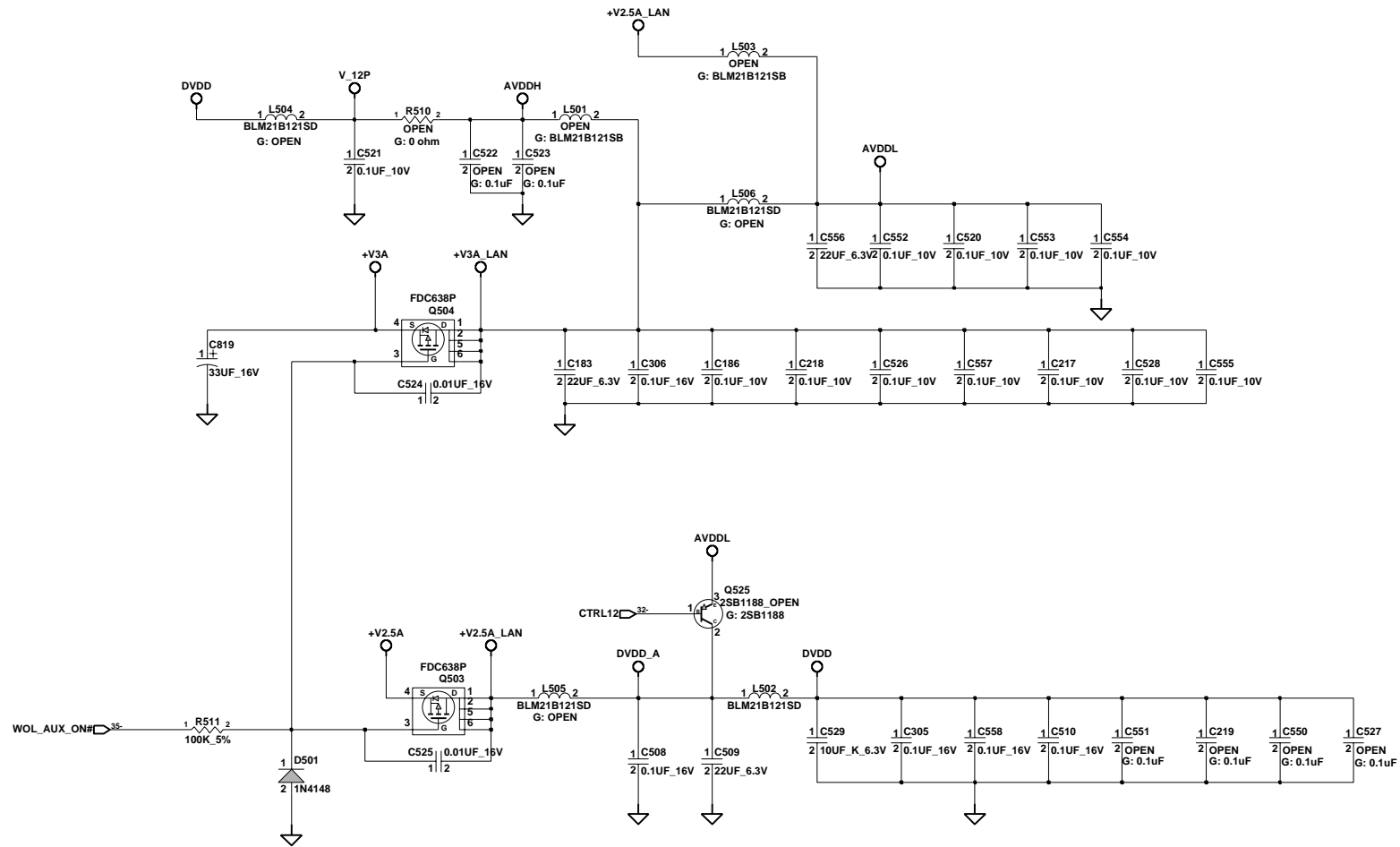
(LEFT)

OPEN

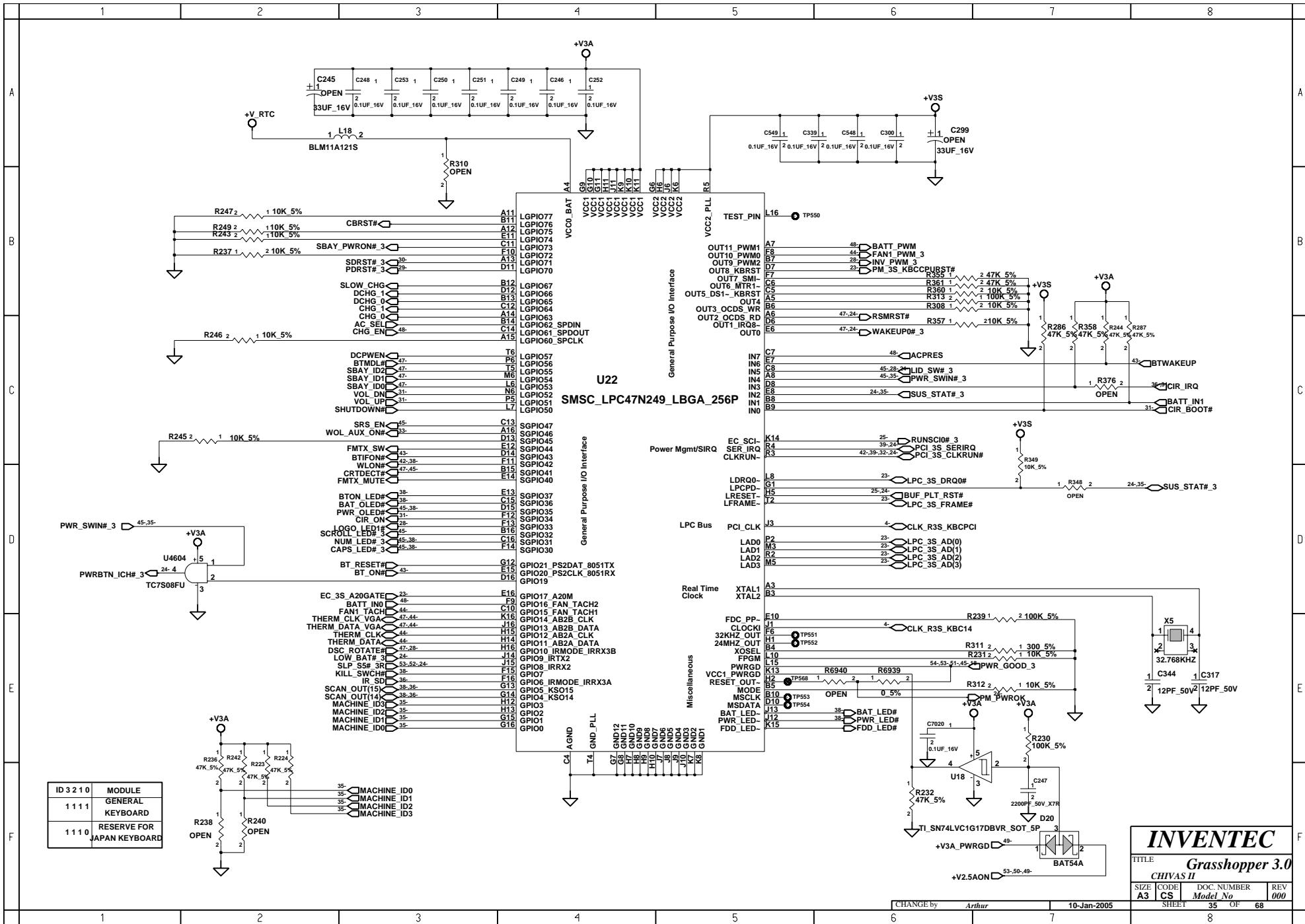
INVENTEC			
TITLE Grasshopper 3.0			
USB PORT & VOLUM BUTTON			
SIZE	CODE	DOC NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		10-Jan-2005	SHEET 31 OF 68



INVENTEC			
TITLE Grasshopper 3.0			
LAN CONTROLLER			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		11-Aug-2004	
SHEET 32		OF 68	

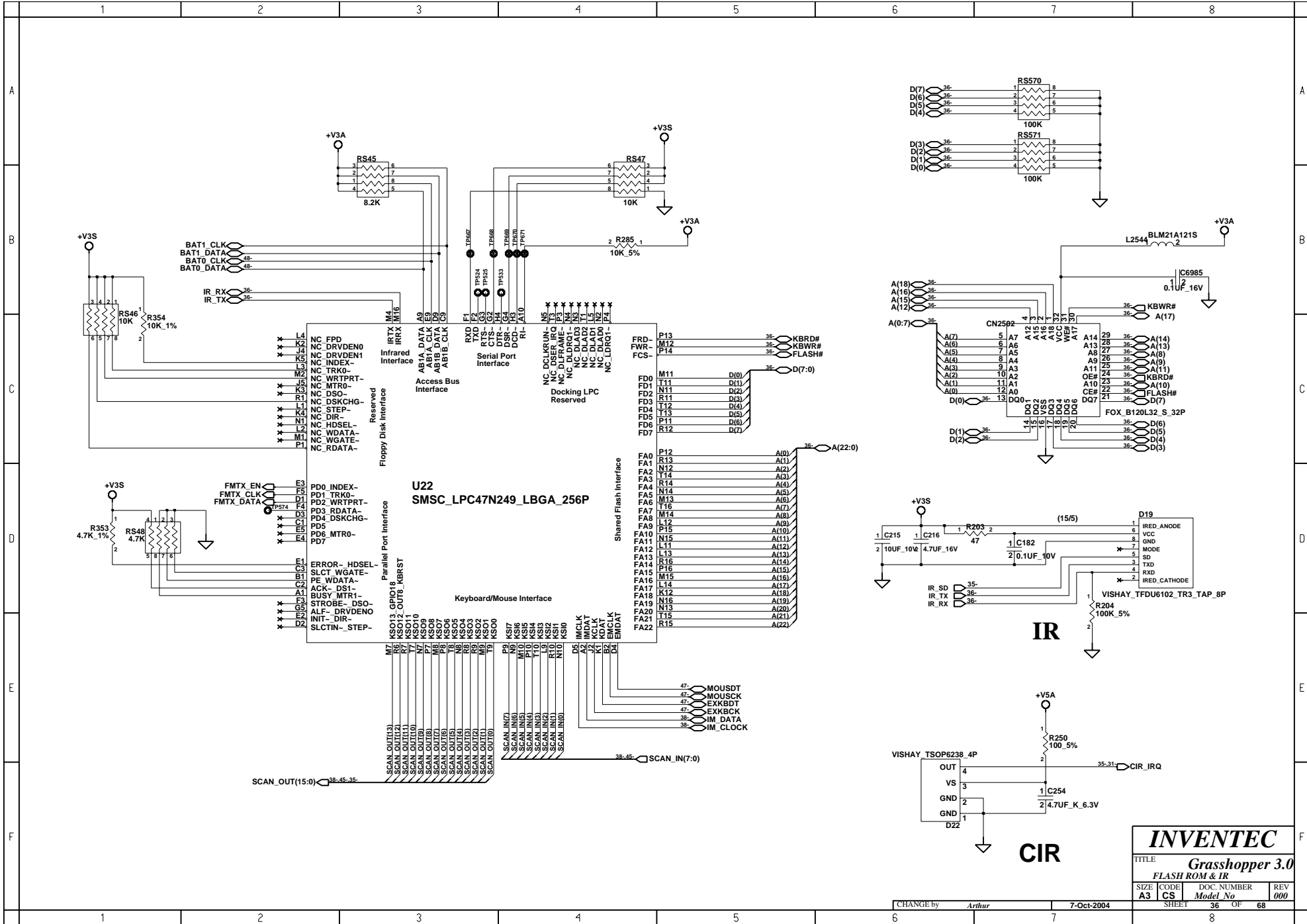


INVENTEC			
TITLE Grasshopper 3.0			
LAN POWER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		17-Jun-2004	SHEET 33 OF 68

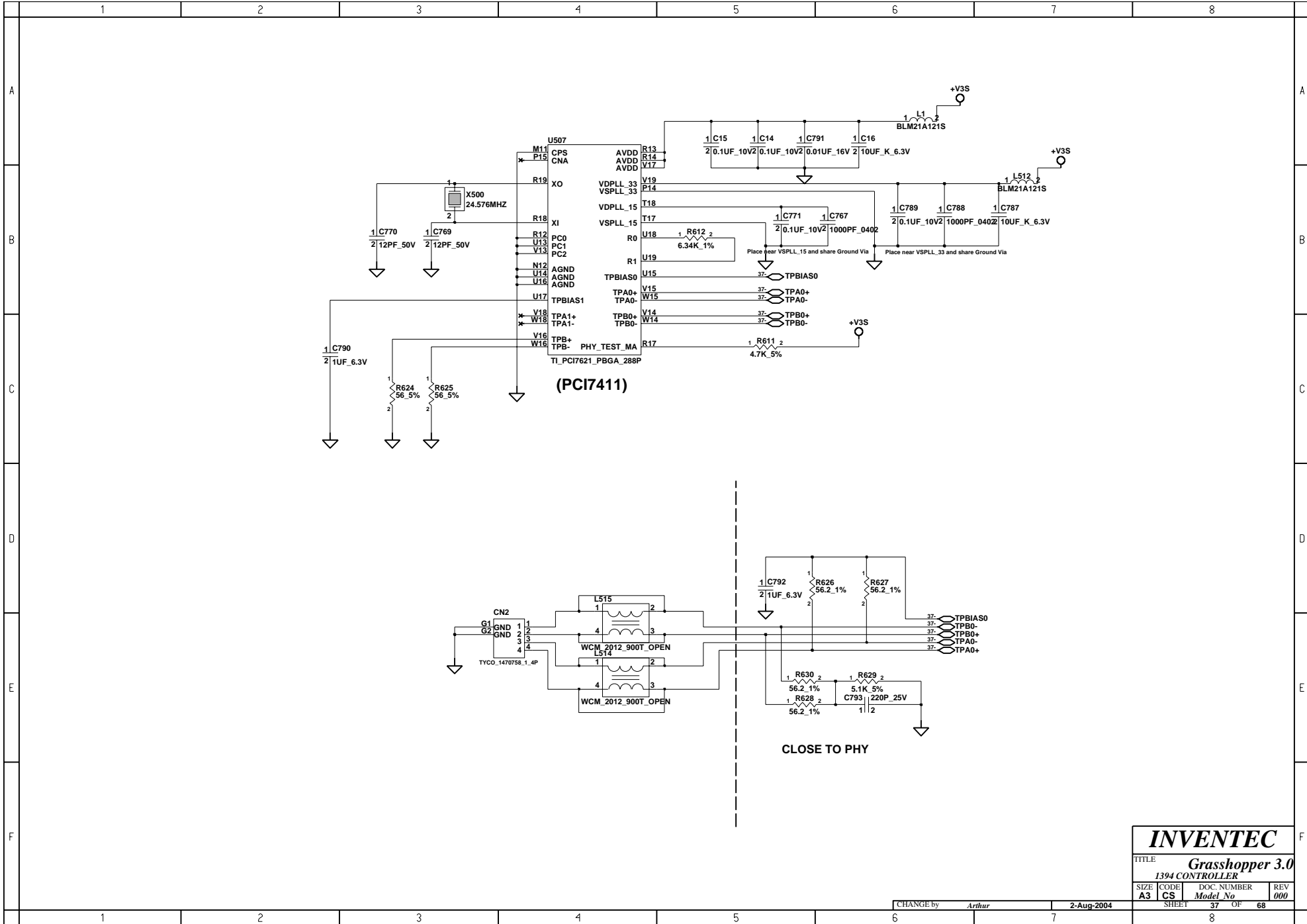


CHANGE by Arthur 10-Jan-2005

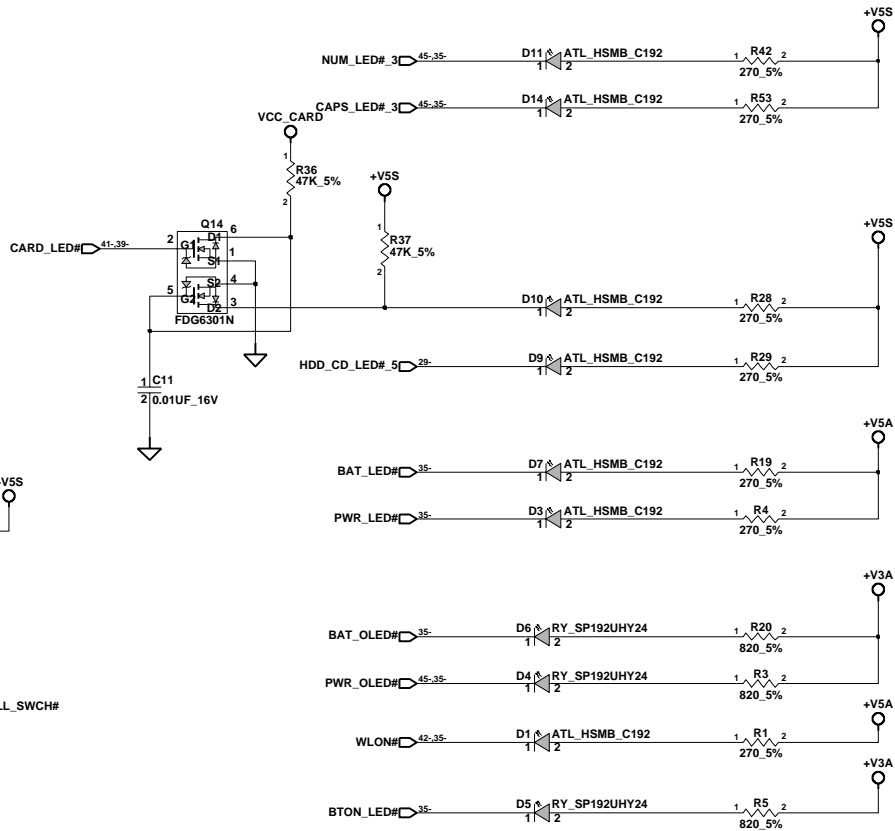
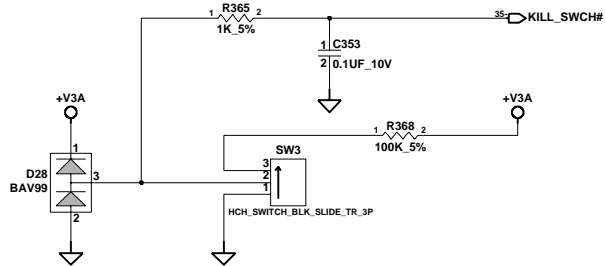
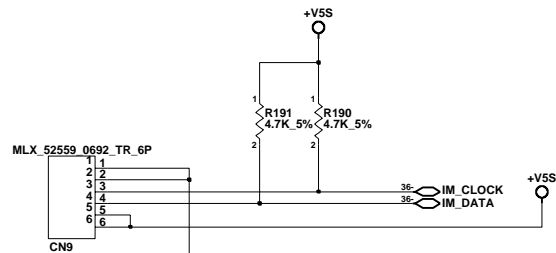
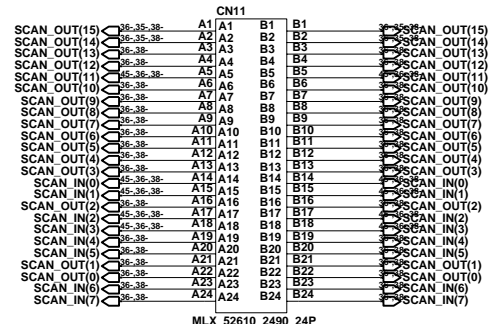
INVENTEC
 TITLE: Grasshopper 3.0
 CHIVAS II
 SIZE: A3, CODE: CS, DOC. NUMBER: Model No, REV: 000
 SHEET: 35 OF 68



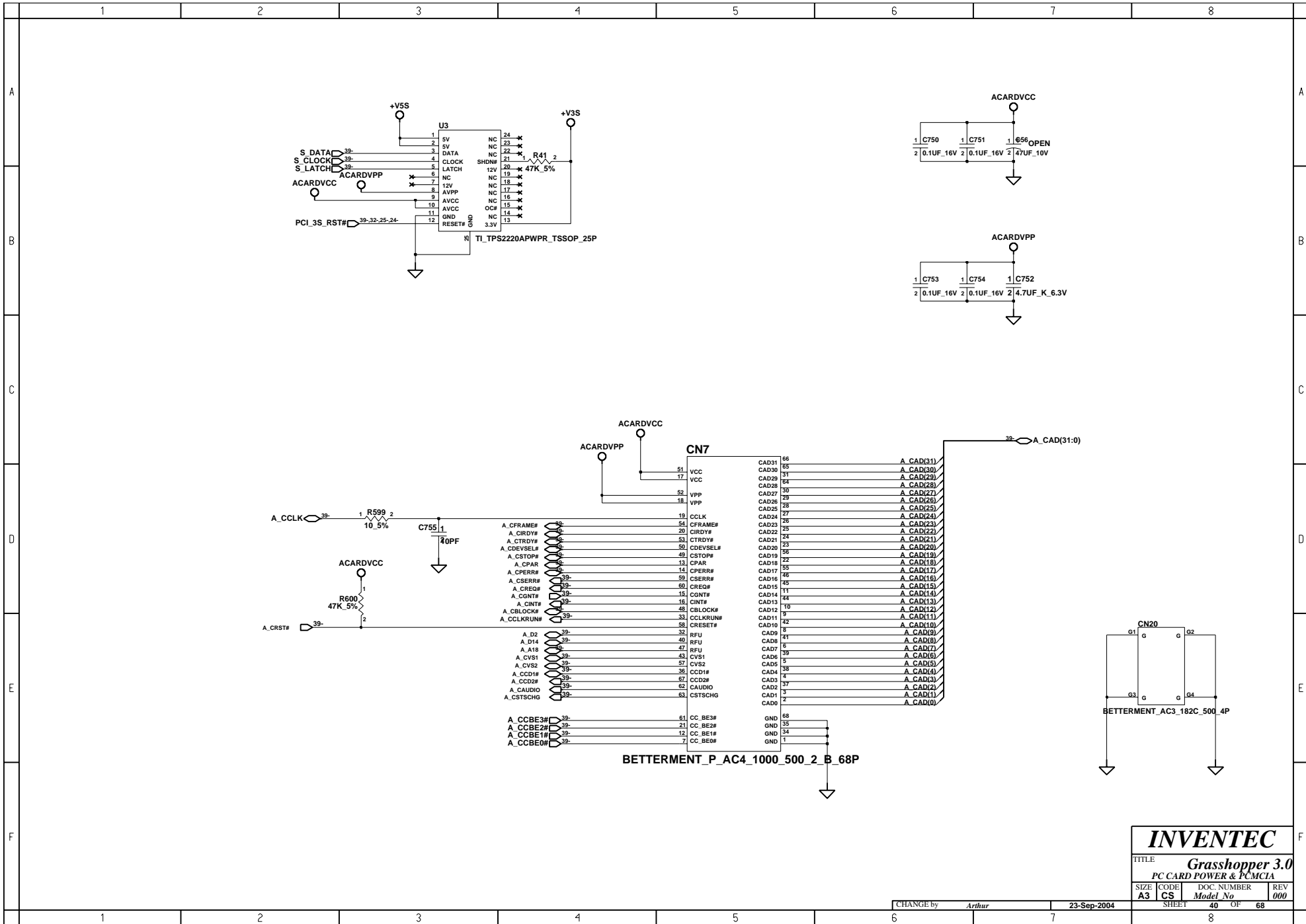
INVENTEC			
TITLE Grasshopper 3.0			
FLASH ROM & IR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		7-Oct-2004	
SHEET 36		OF 68	



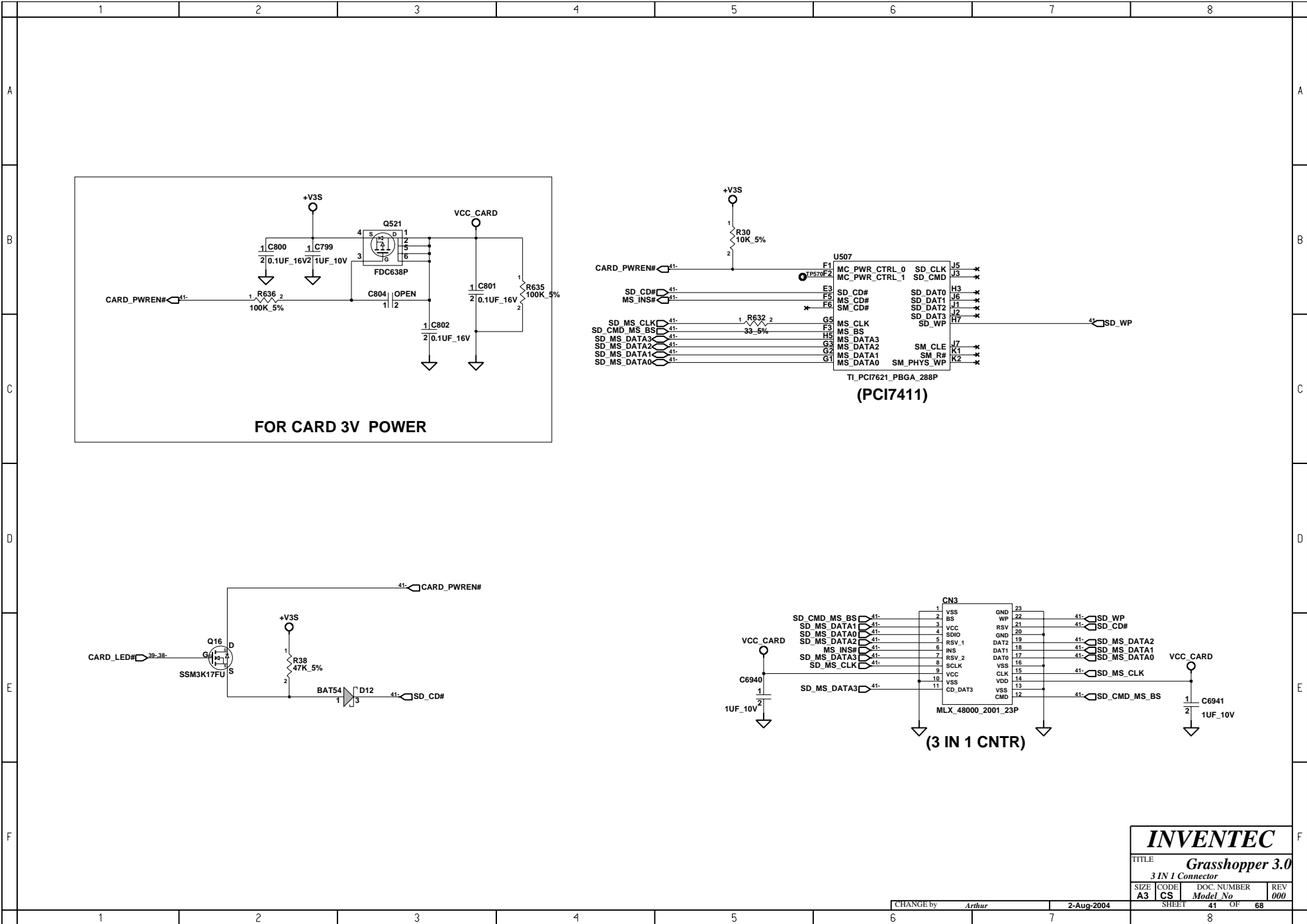
INVENTEC			
TITLE Grasshopper 3.0			
1394 CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		2-Aug-2004	SHEET 37 OF 68



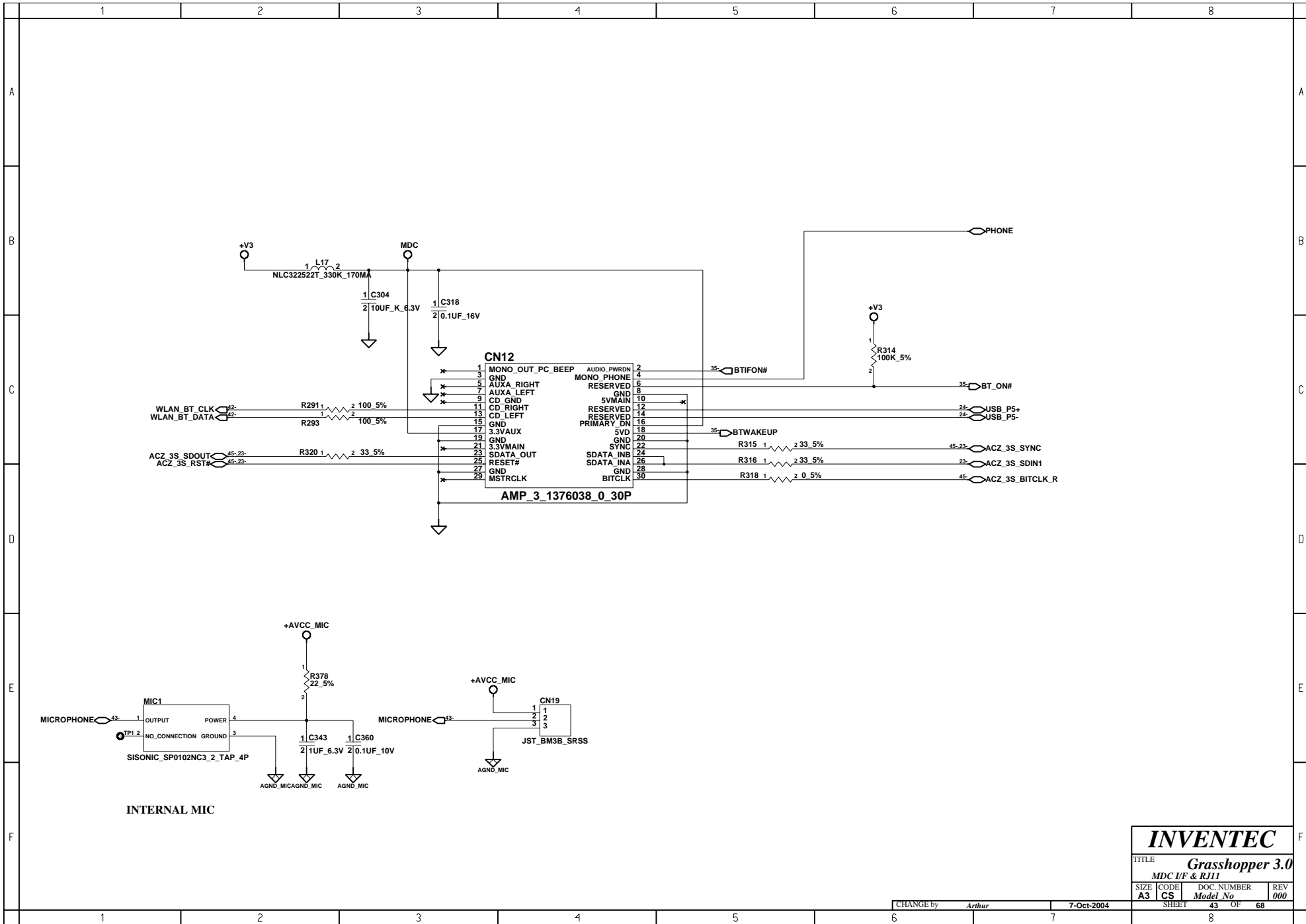
INVENTEC			
TITLE Grasshopper 3.0			
KB I/F & TOUCH PAD & LED			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		2-Aug-2004	
SHEET 38		OF 68	



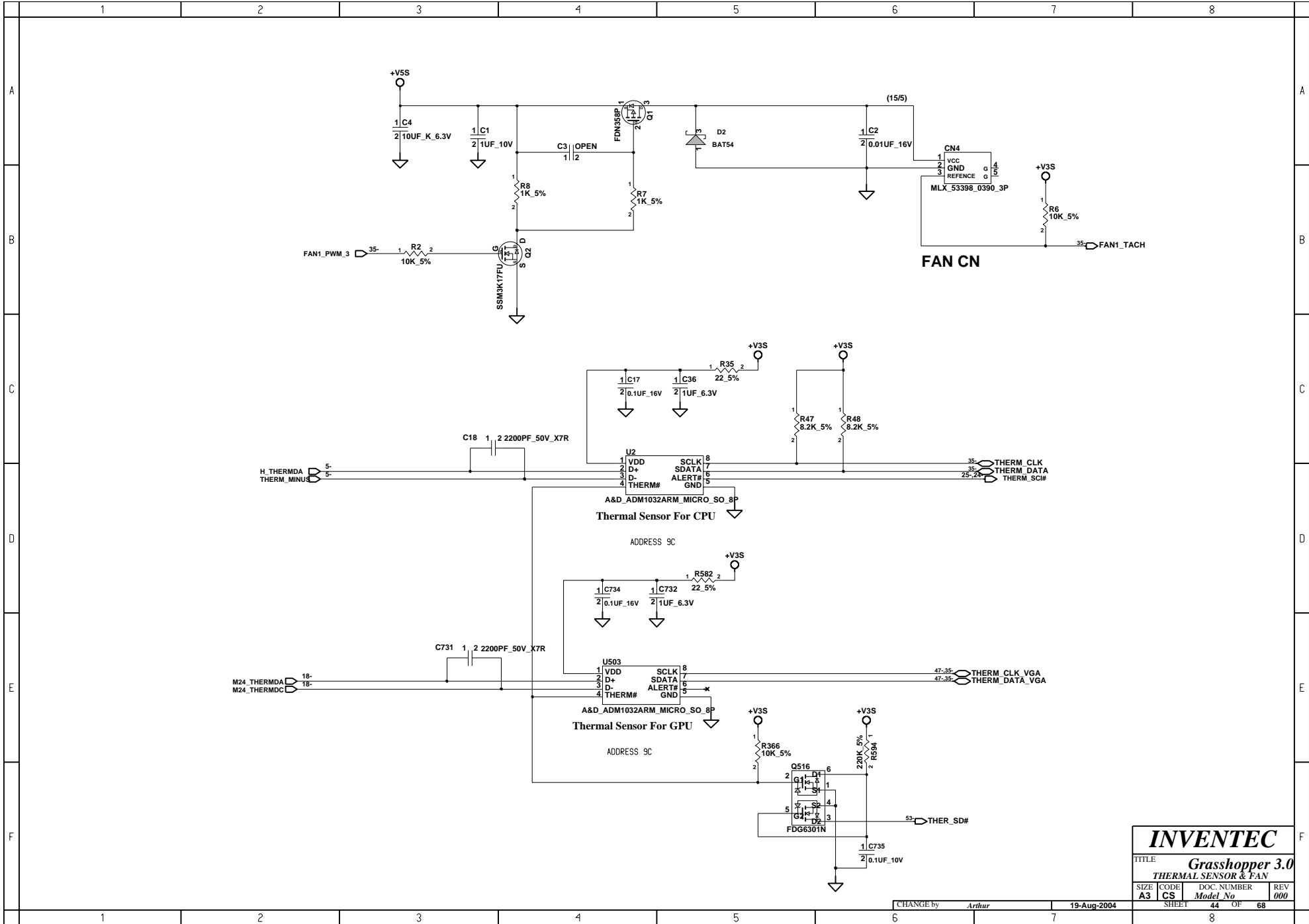
INVENTEC			
TITLE Grasshopper 3.0			
PC CARD POWER & PCMCIA			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		23-Sep-2004	SHEET 40 OF 68



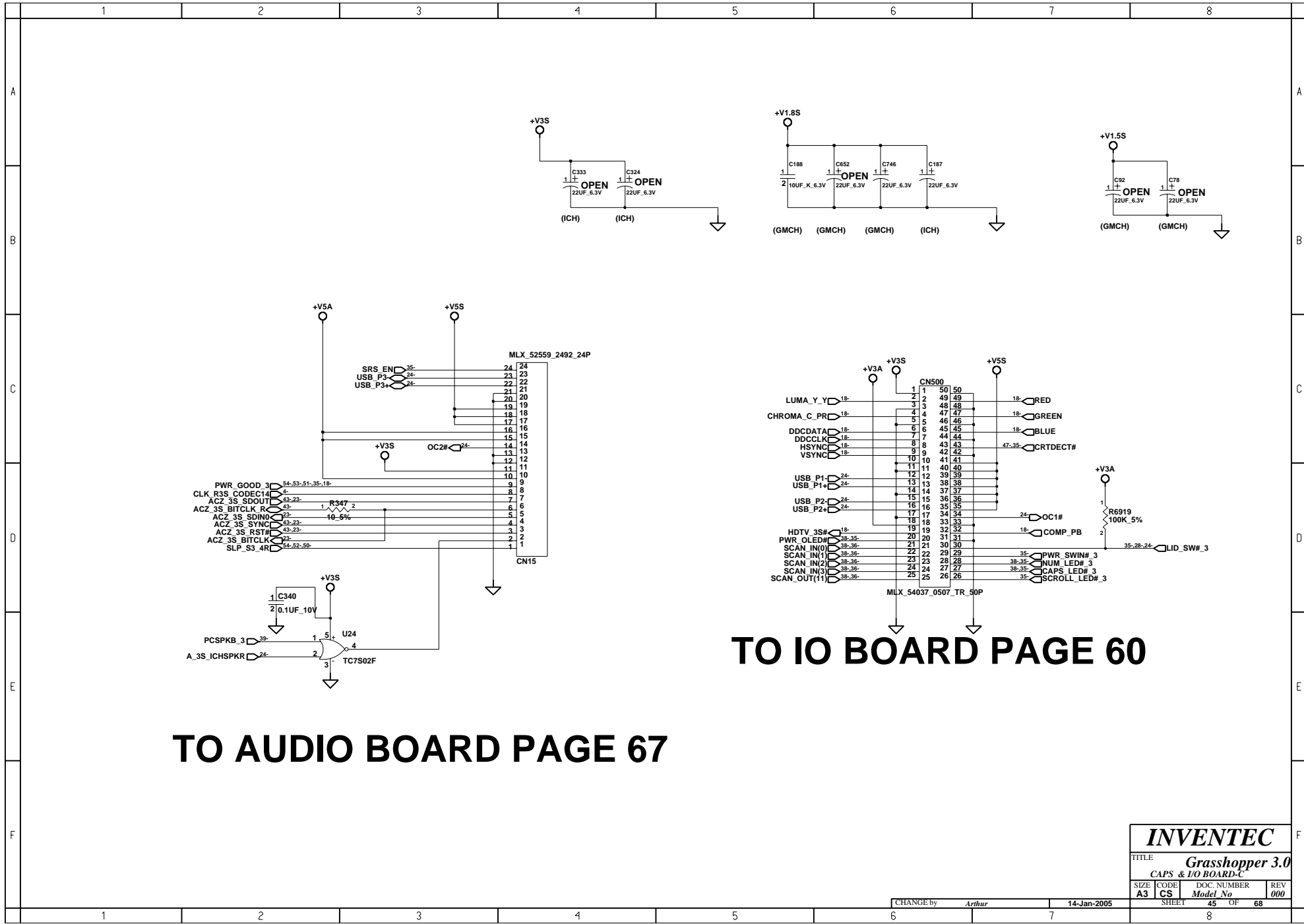
INVENTEC			
TITLE Grasshopper 3.0			
3 IN 1 Connector			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000



INVENTEC			
TITLE Grasshopper 3.0			
MDC I/F & RJ11			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Arthur		7-Oct-2004	SHEET 43 OF 68



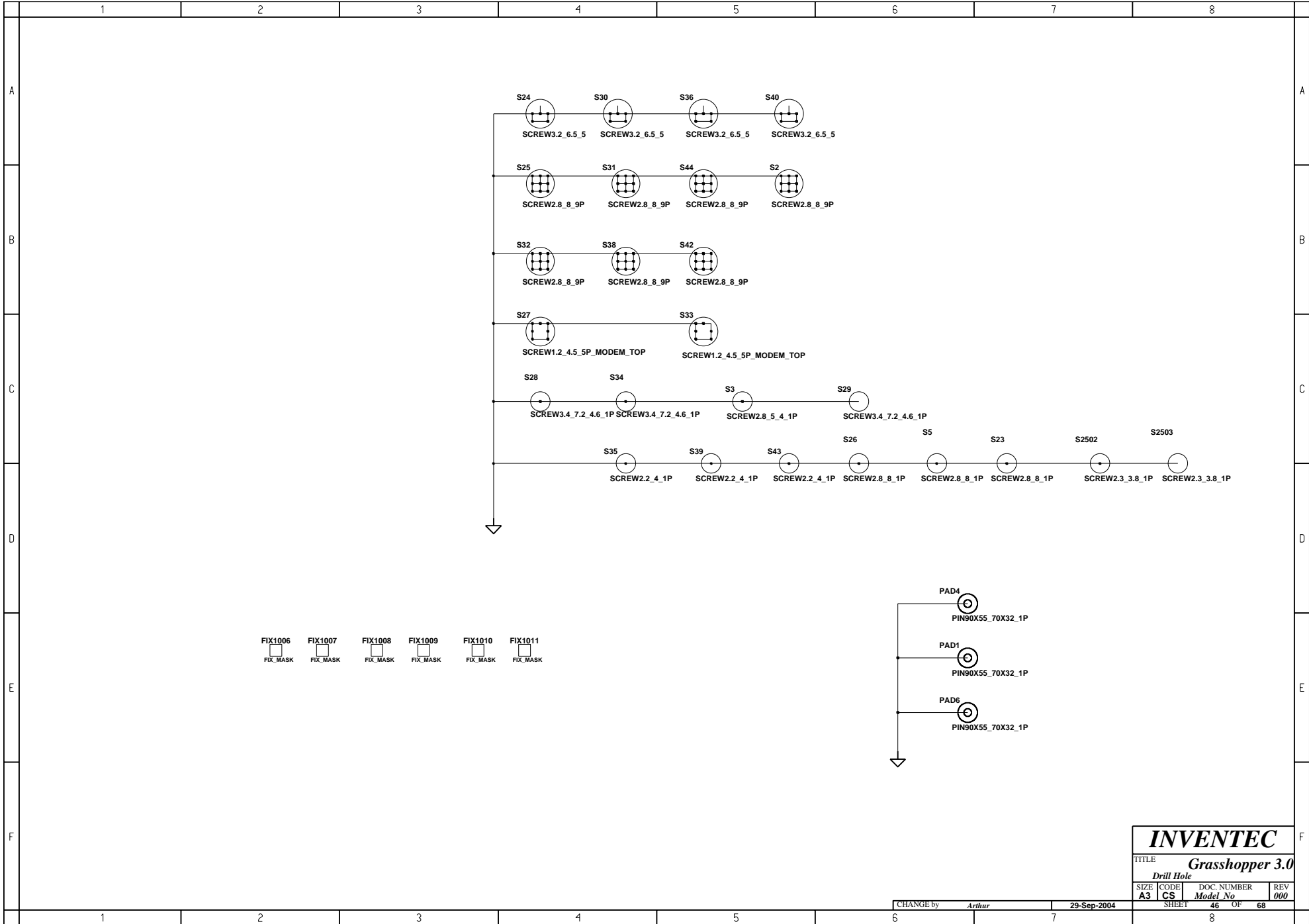
INVENTEC			
TITLE Grasshopper 3.0			
THERMAL SENSOR & FAN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		19-Aug-2004	SHEET 44 OF 68



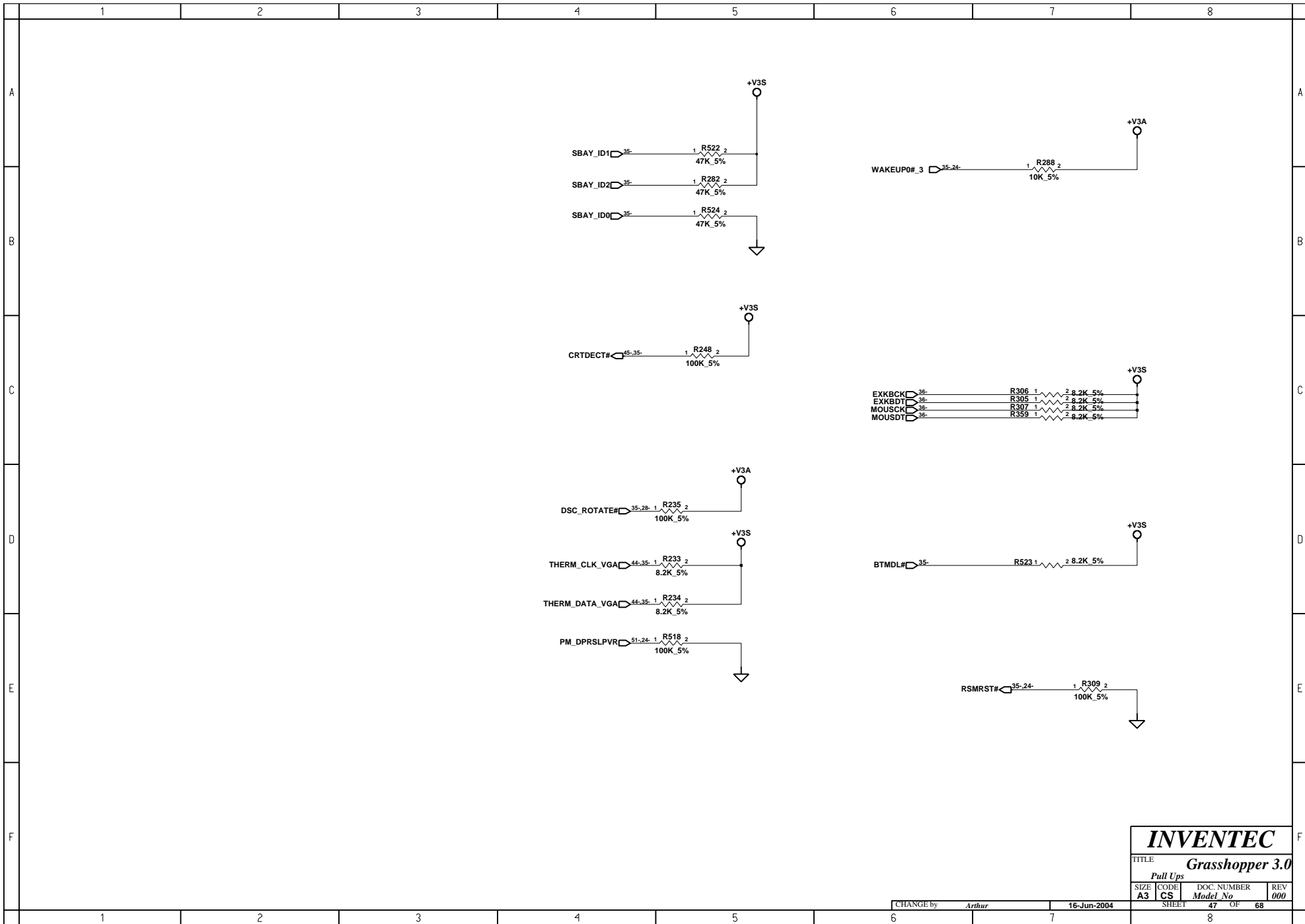
TO AUDIO BOARD PAGE 67

TO IO BOARD PAGE 60

INVENTEC			
TITLE Grasshopper 3.0			
CAPS & I/O BOARD-C			
SIZE A3	CODE CS	DOC NUMBER <i>Model No</i>	REV 000
CHANGE by <i>Arthur</i>		14-Jan-2005	
SHEET 45		OF 68	



INVENTEC			
TITLE Grasshopper 3.0			
Drill Hole			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000



INVENTEC

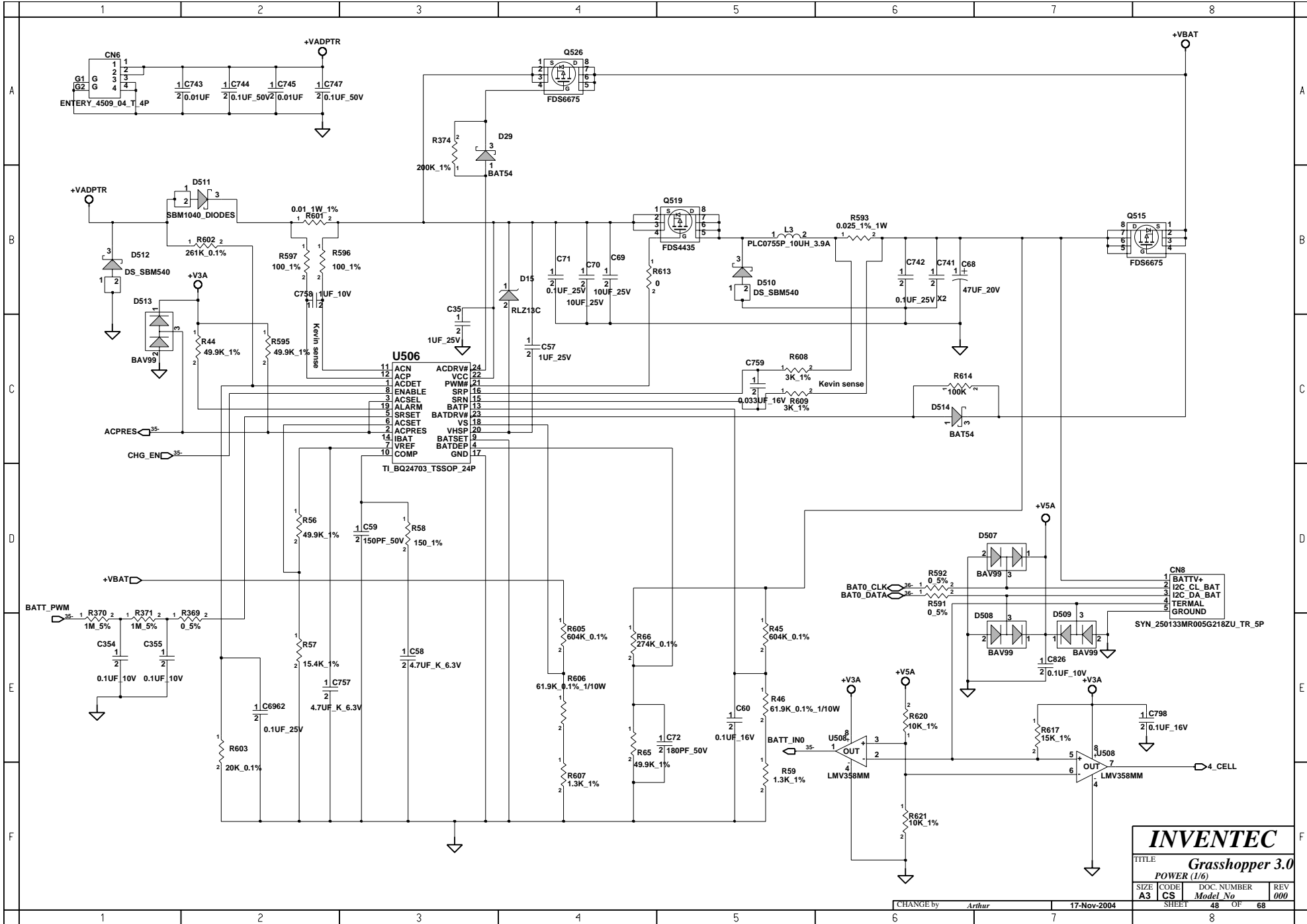
TITLE **Grasshopper 3.0**

Pull Ups

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

SHEET 47 OF 68

CHANGE by Arthur 16-Jun-2004



INVENTEC

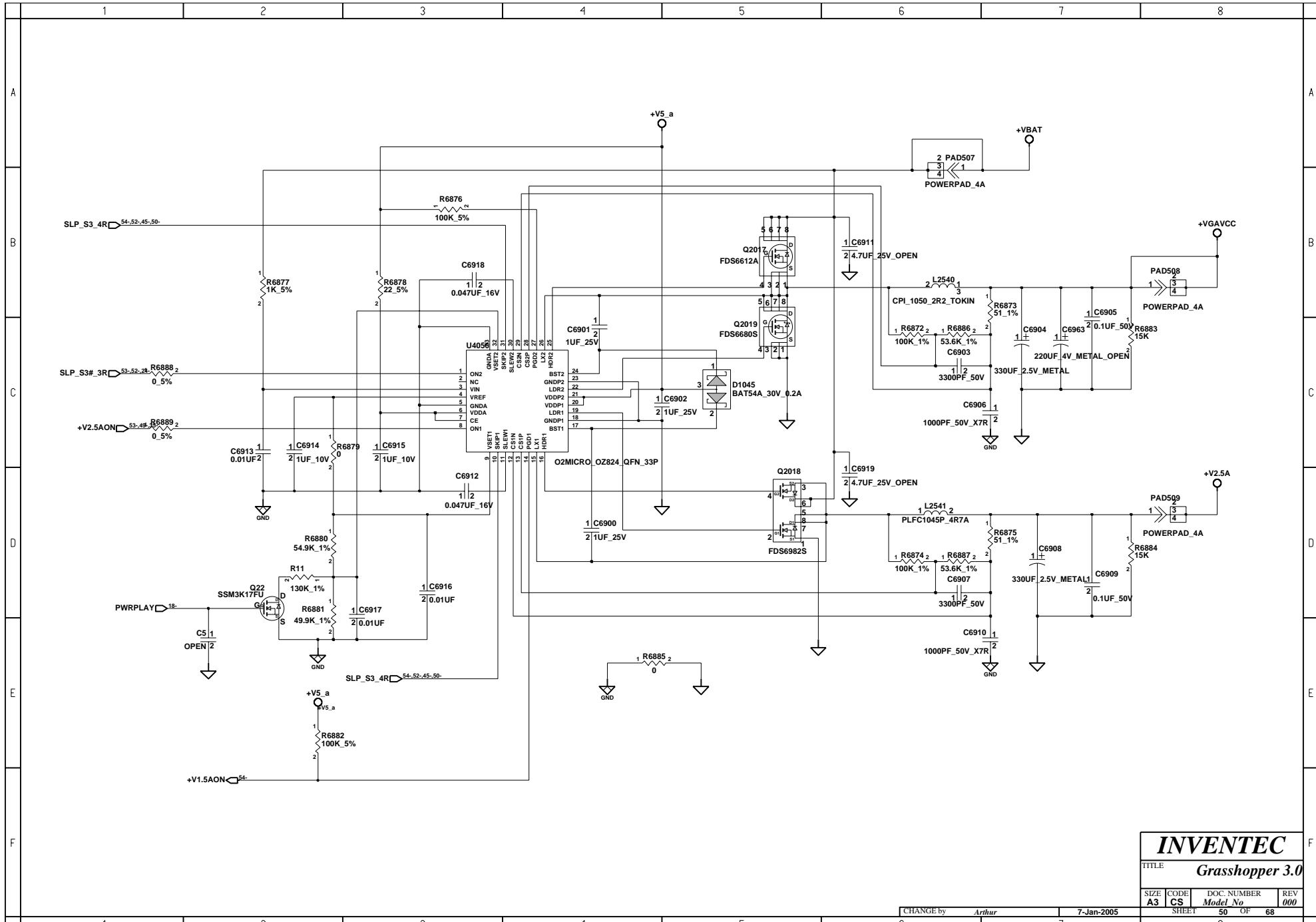
TITLE **Grasshopper 3.0**

POWER (1/6)

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

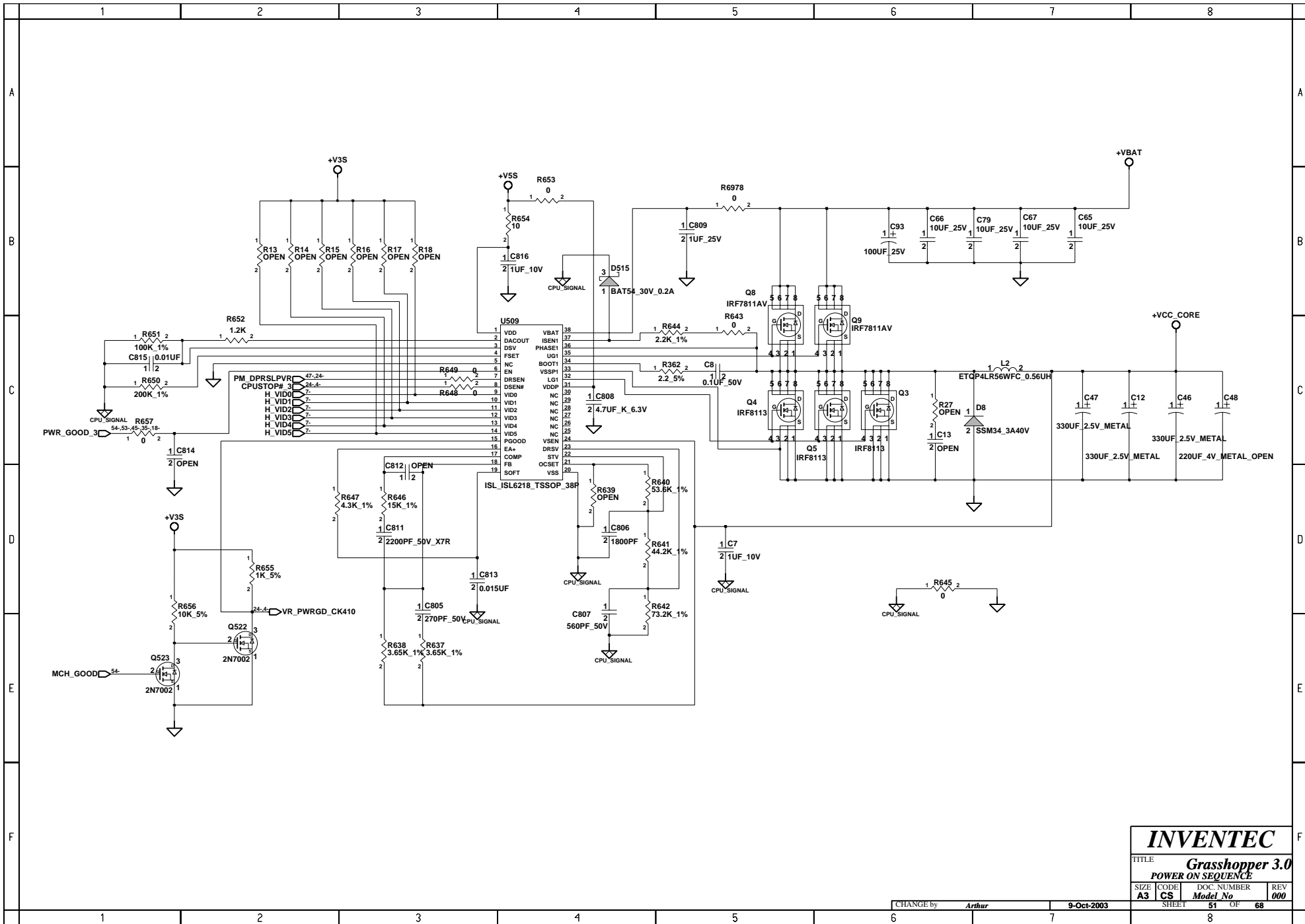
CHANGE by *Arthur* 17-Nov-2004

SHEET 48 OF 68

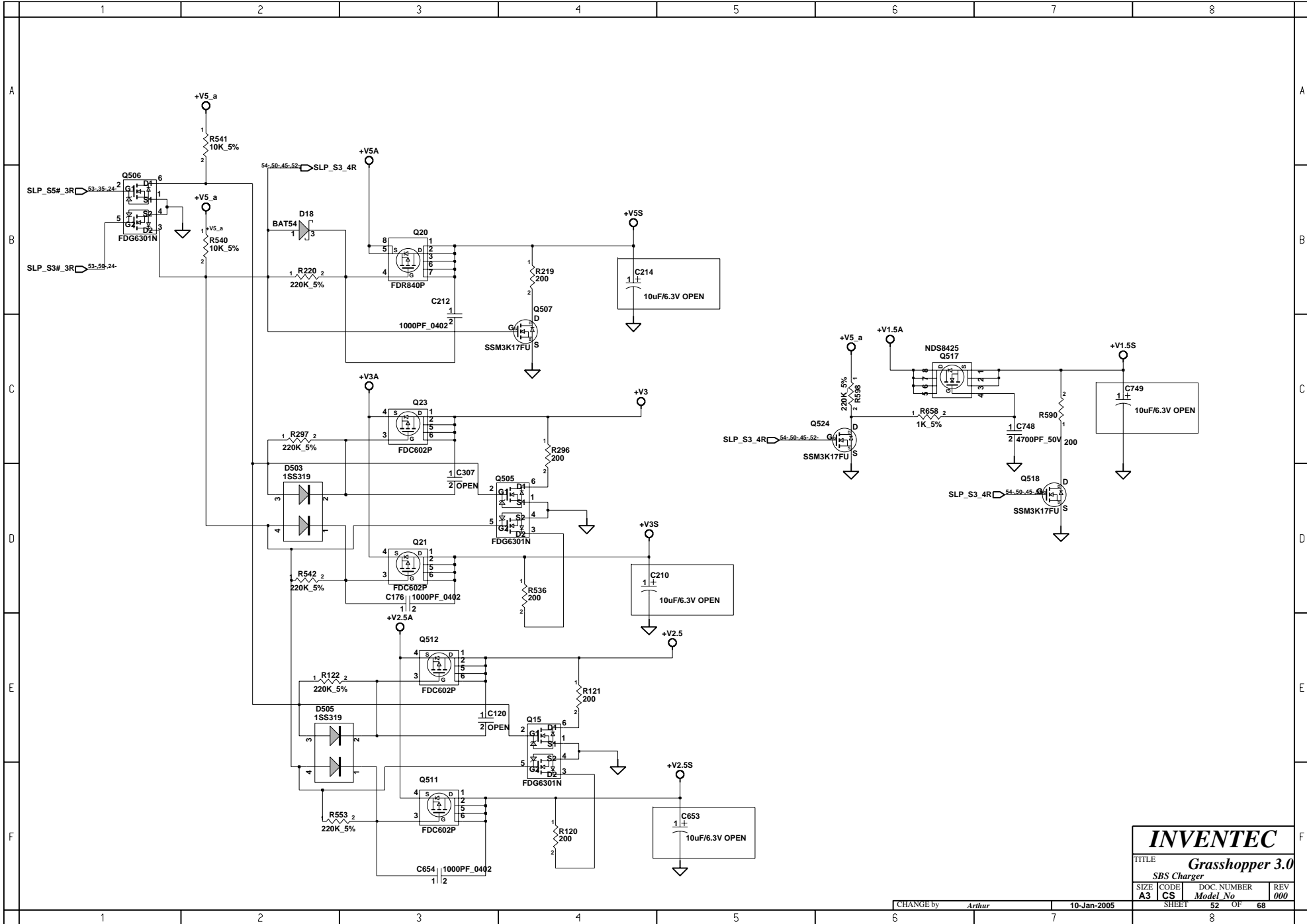


INVENTEC
 TITLE *Grasshopper 3.0*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

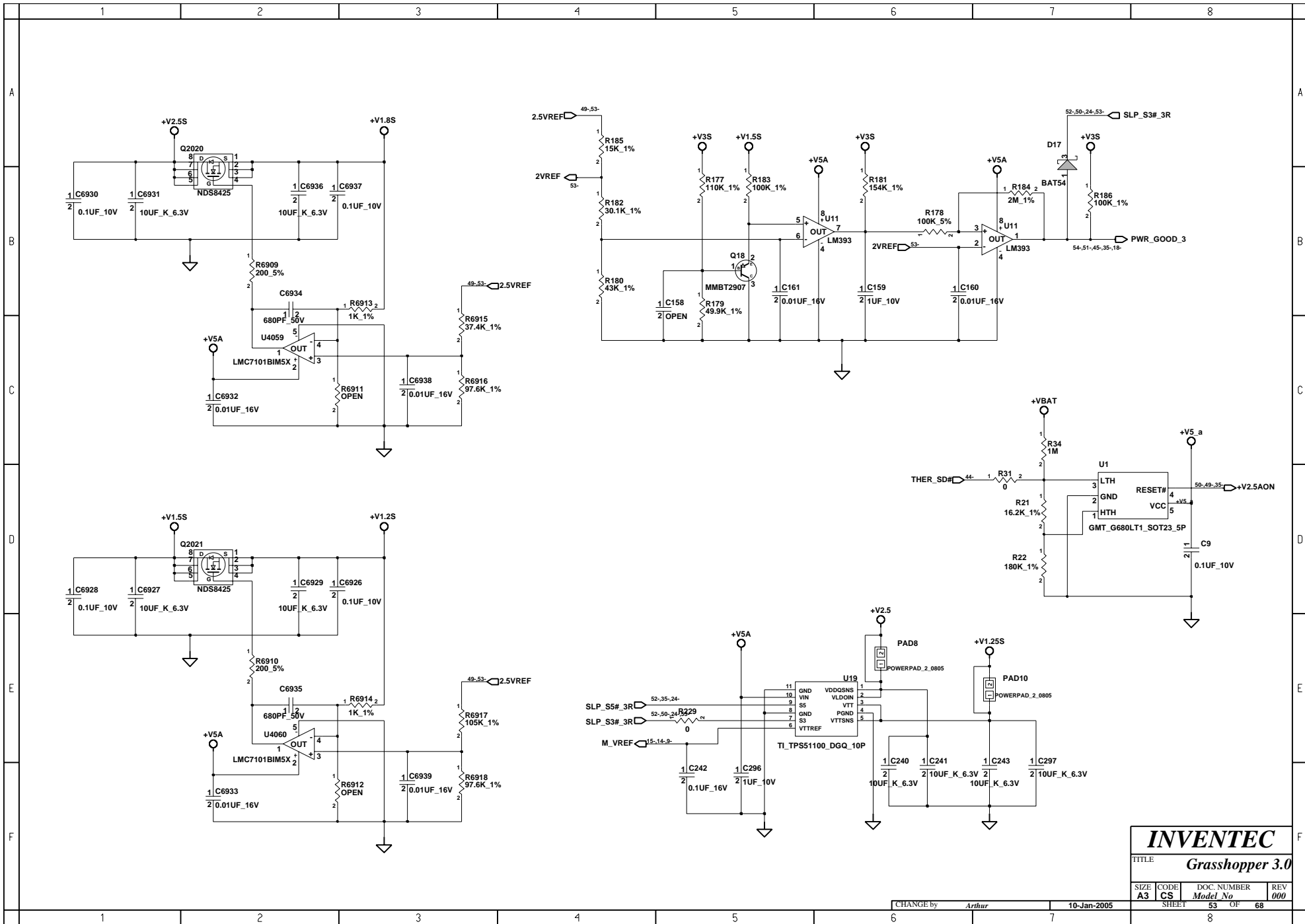


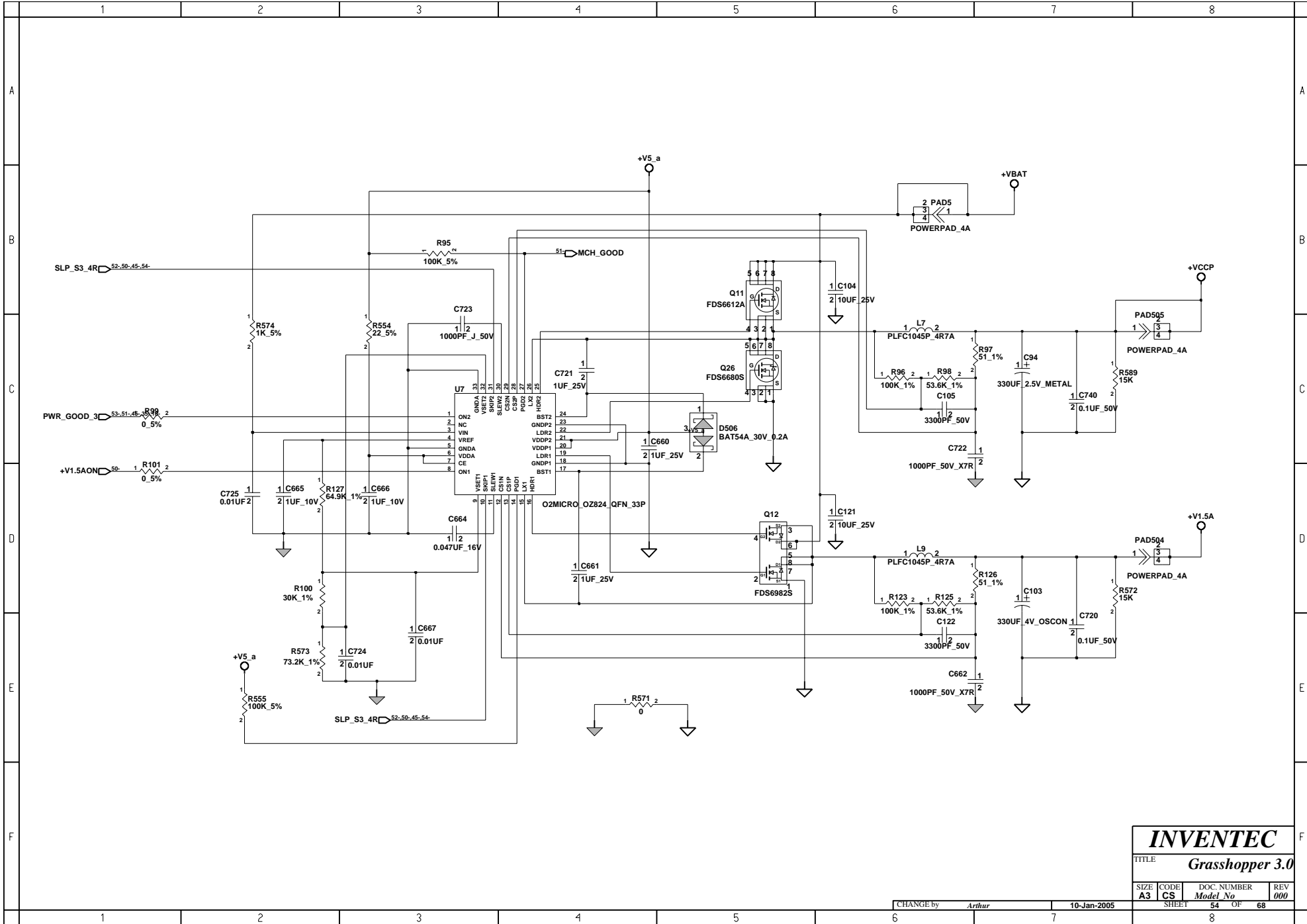
INVENTEC			
TITLE Grasshopper 3.0			
POWER ON SEQUENCE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by		9-Oct-2003	SHEET 51 OF 68
1	2	7	8



INVENTEC			
TITLE Grasshopper 3.0			
SBS Charger			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by		SHEET	
Arthur		52 OF 68	

CHANGE by Arthur 10-Jan-2005





INVENTEC			
TITLE <i>Grasshopper 3.0</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		10-Jan-2005	SHEET 54 OF 68

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

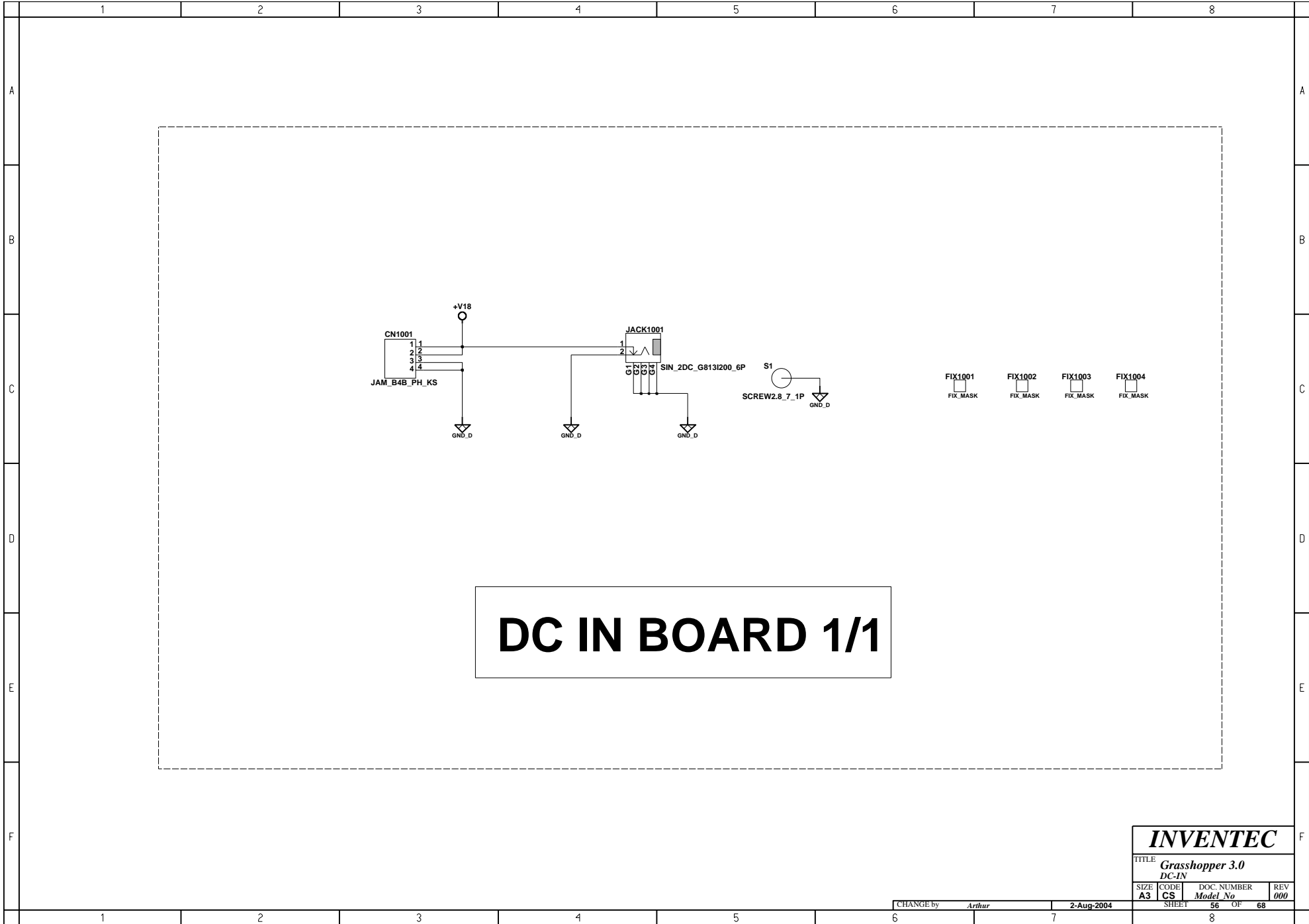
INVENTEC

TITLE **Grasshopper 3.0**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by *Arthur* 3-Jun-2004

SHEET 55 OF 68



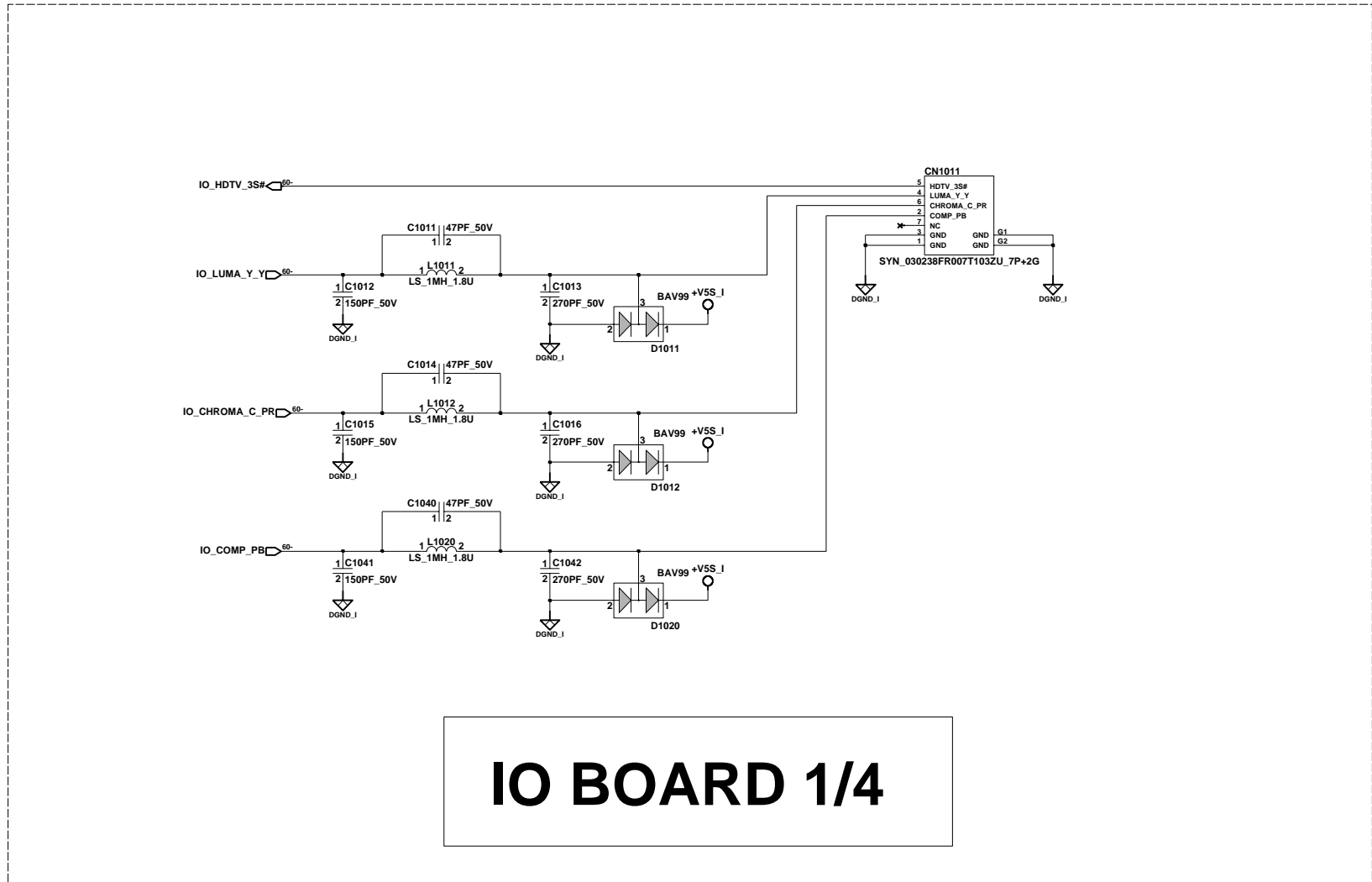
DC IN BOARD 1/1

INVENTEC

TITLE *Grasshopper 3.0*
DC-IN

SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
-------------------	-------------------	--------------------------------	-------------------

CHANGE by <i>Arthur</i>	2-Aug-2004	SHEET 56 OF 68	8
-------------------------	------------	------------------------------	---



IO BOARD 1/4

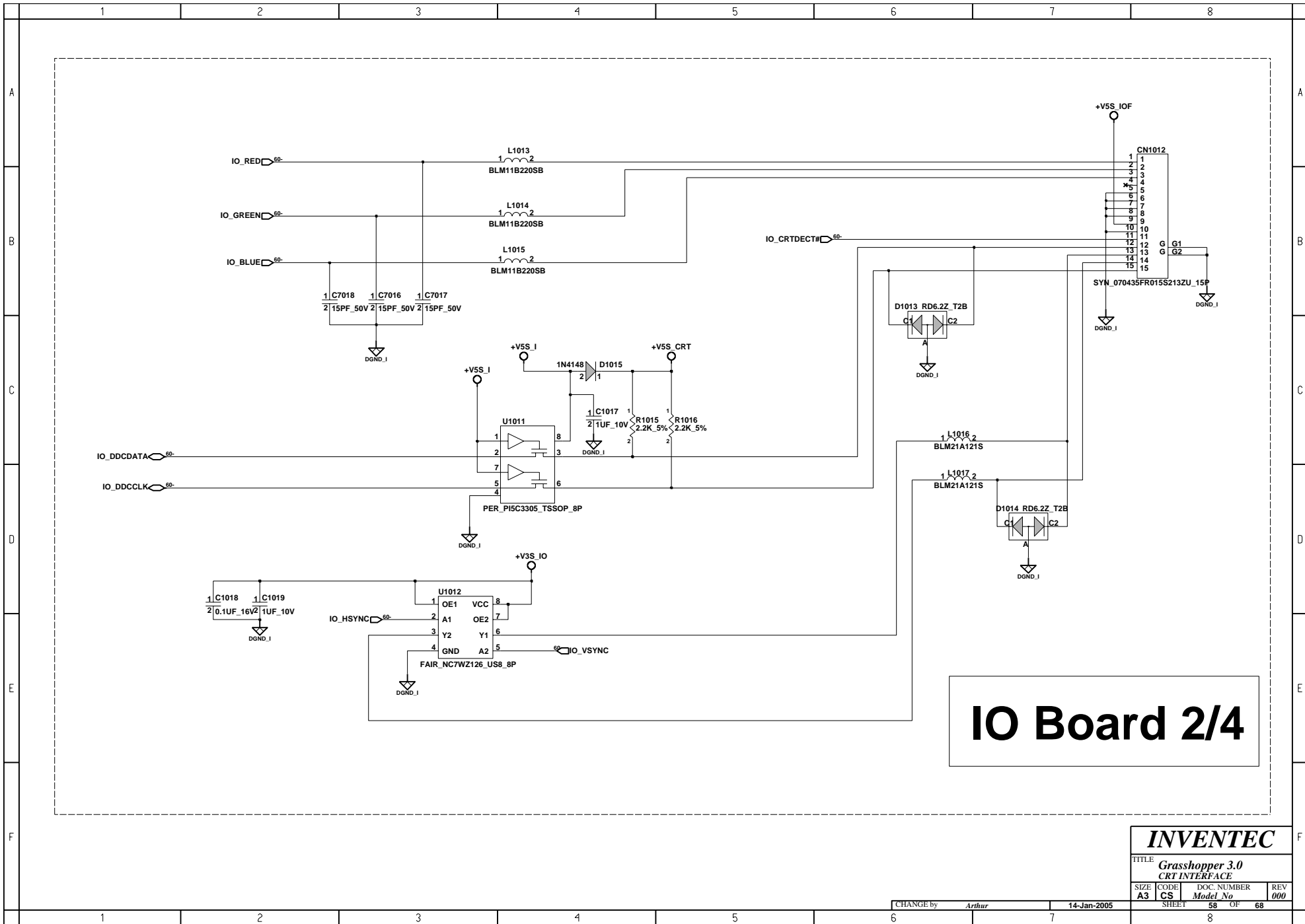
INVENTEC

TITLE
**Grasshopper 3.0
IO BOARD**

SIZE A3	CODE CS	DOC. NUMBER <i>Model No.</i>	REV 000
-------------------	-------------------	---------------------------------	-------------------

CHANGE by *Arthur* 20-Aug-2004

SHEET 57 OF 68



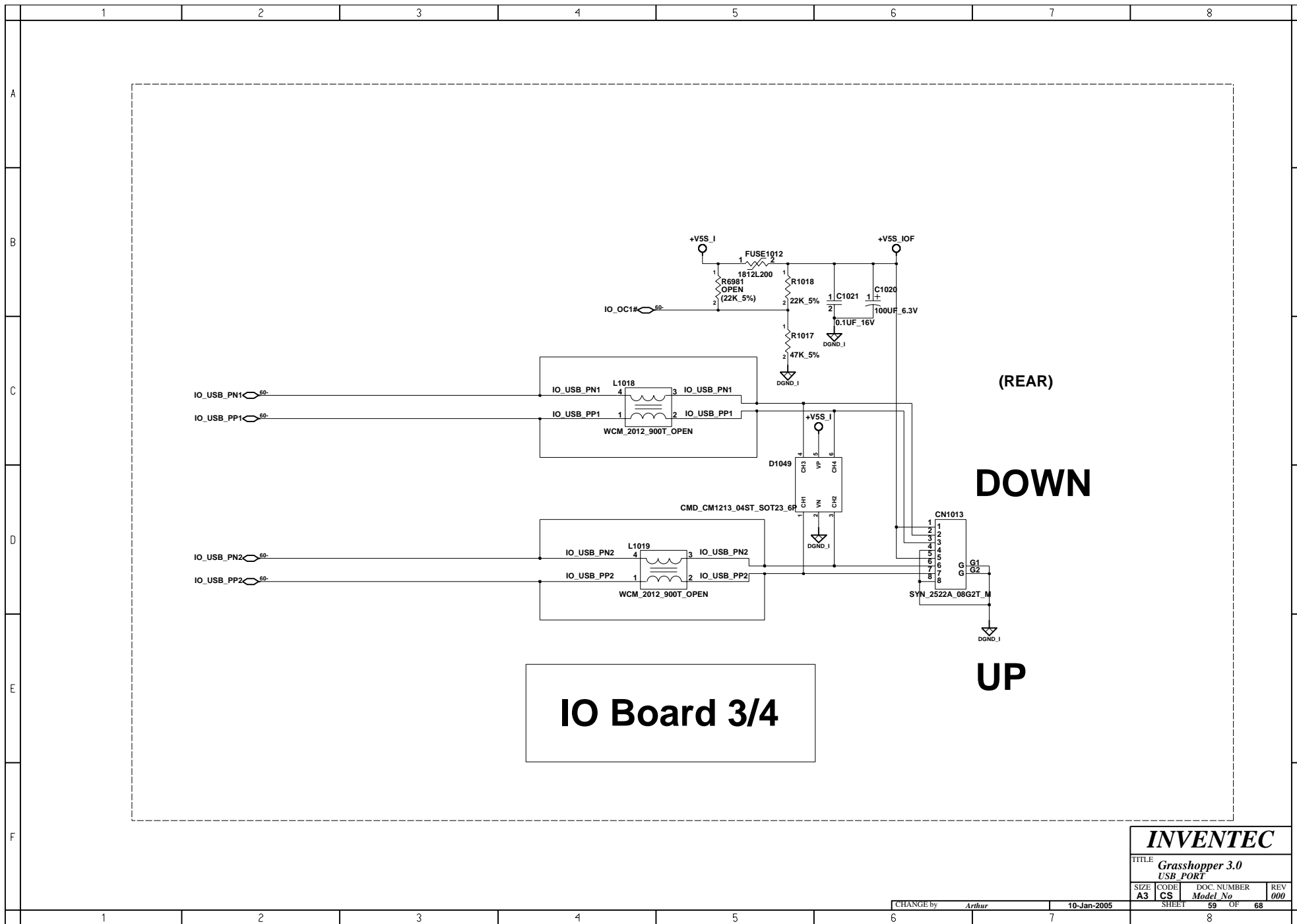
IO Board 2/4

INVENTEC

TITLE
**Grasshopper 3.0
 CRT INTERFACE**

SIZE A3	CODE CS	DOC. NUMBER Model No.	REV 000
-------------------	-------------------	--------------------------	-------------------

CHANGE by *Arthur* 14-Jan-2005 SHEET 58 OF 68



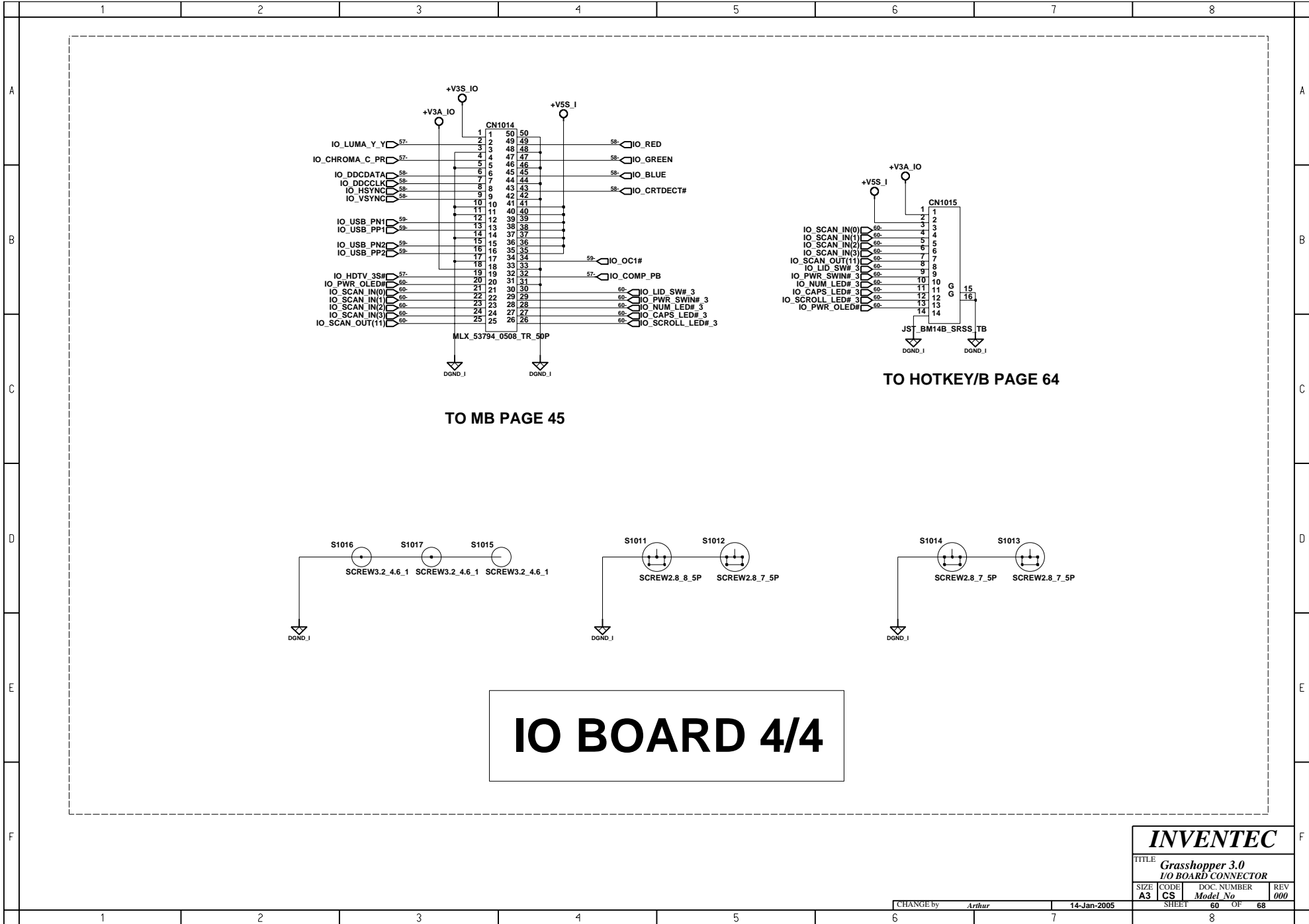
IO Board 3/4

INVENTEC

TITLE *Grasshopper 3.0*
USB_PORT

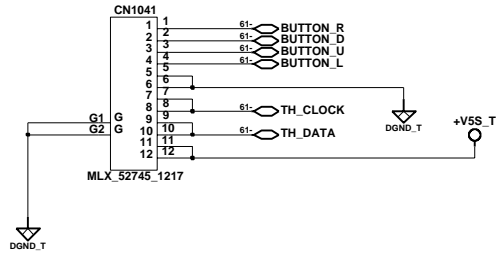
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by	Arthur	10-Jan-2005	SHEET 59 OF 68
-----------	--------	-------------	----------------

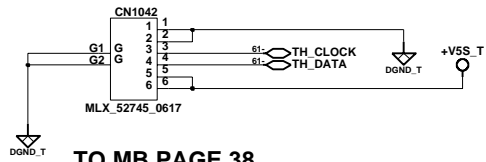


IO BOARD 4/4

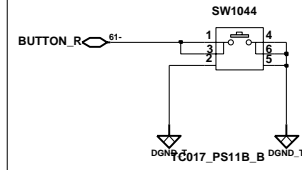
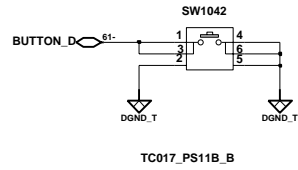
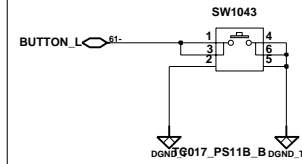
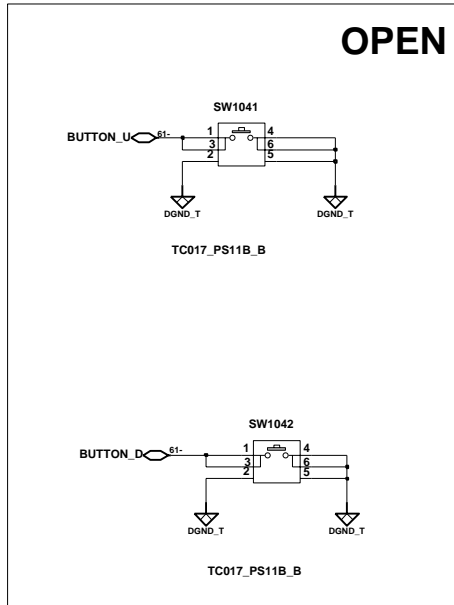
INVENTEC			
TITLE Grasshopper 3.0 I/O BOARD CONNECTOR			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No.</i>	REV 000
CHANGE by <i>Arthur</i>		14-Jan-2005	
SHEET 60		OF 68	



TO TOUCH PAD



TO MB PAGE 38

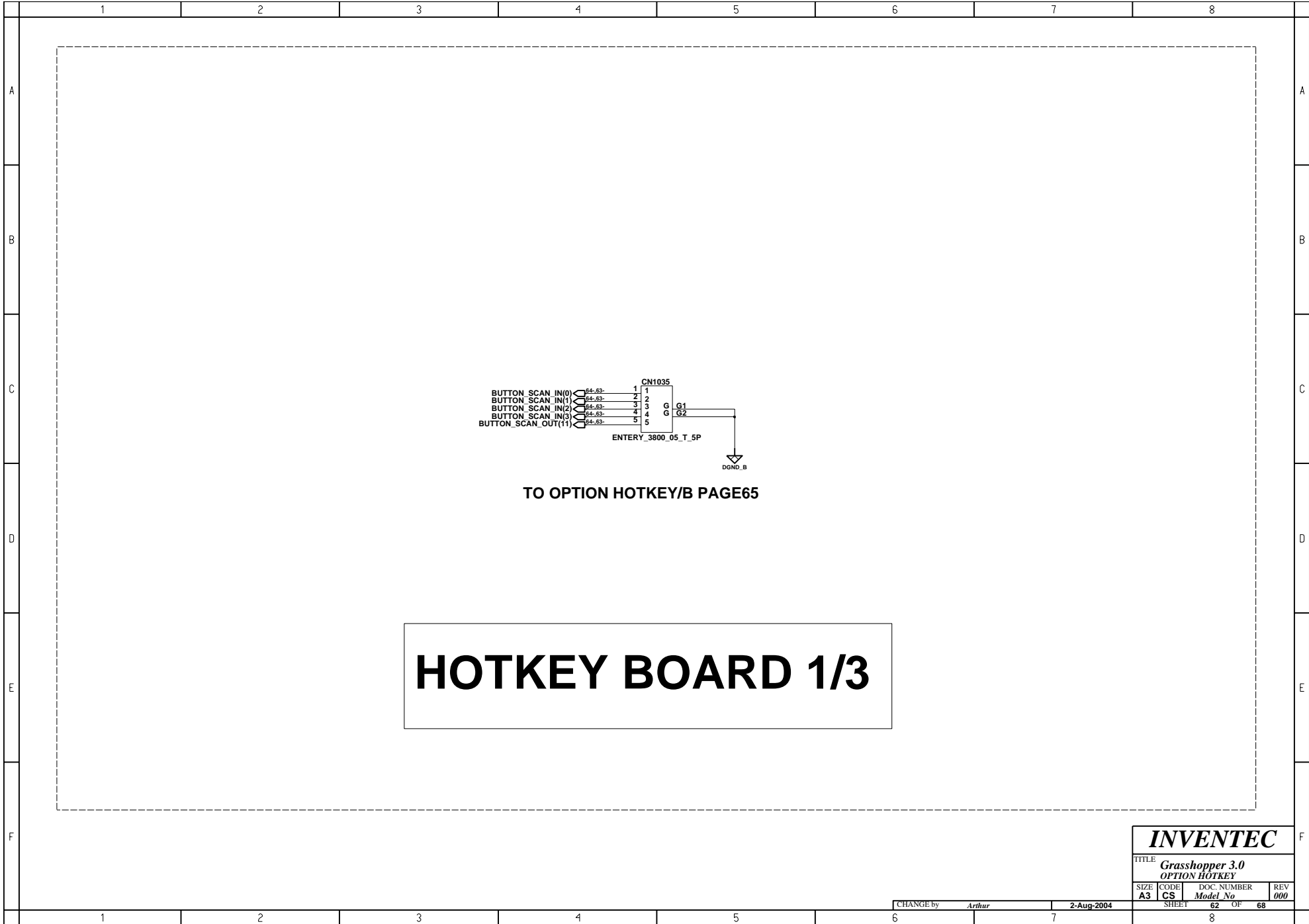


TOUCH PAD BUTTON BOARD 1/1

INVENTEC

TITLE			
Grasshopper 3.0 TOUCH PAD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		61	OF 68

CHANGE by Arthur 20-Aug-2004



TO OPTION HOTKEY/B PAGE65

HOTKEY BOARD 1/3

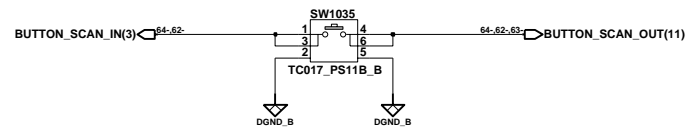
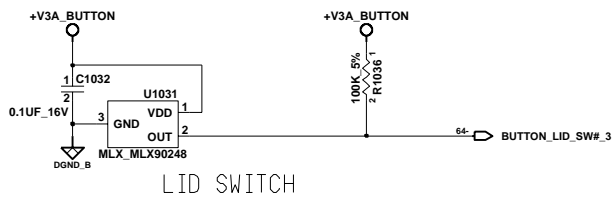
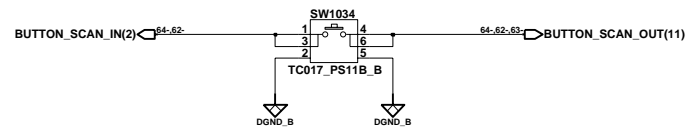
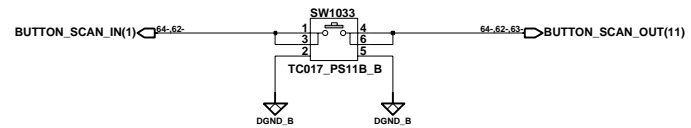
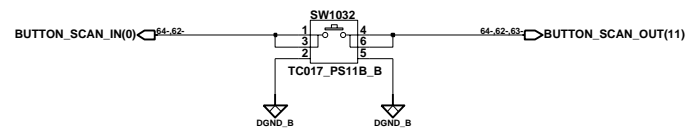
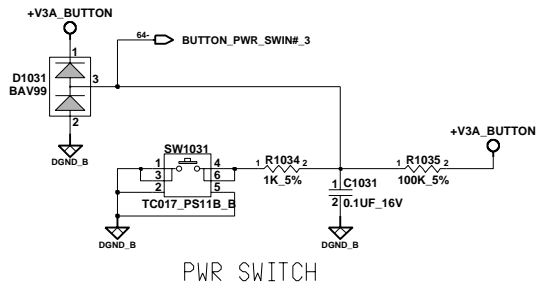
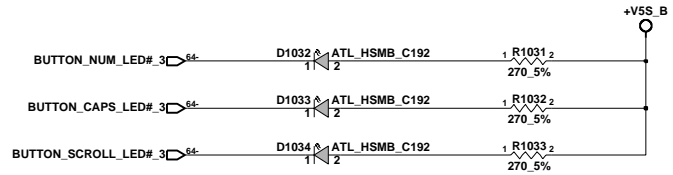
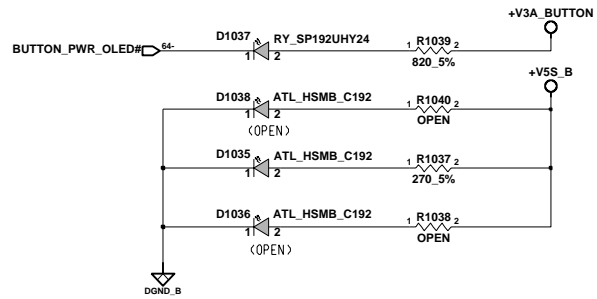
INVENTEC

TITLE *Grasshopper 3.0
OPTION HOTKEY*

SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
-------------------	-------------------	--------------------------------	-------------------

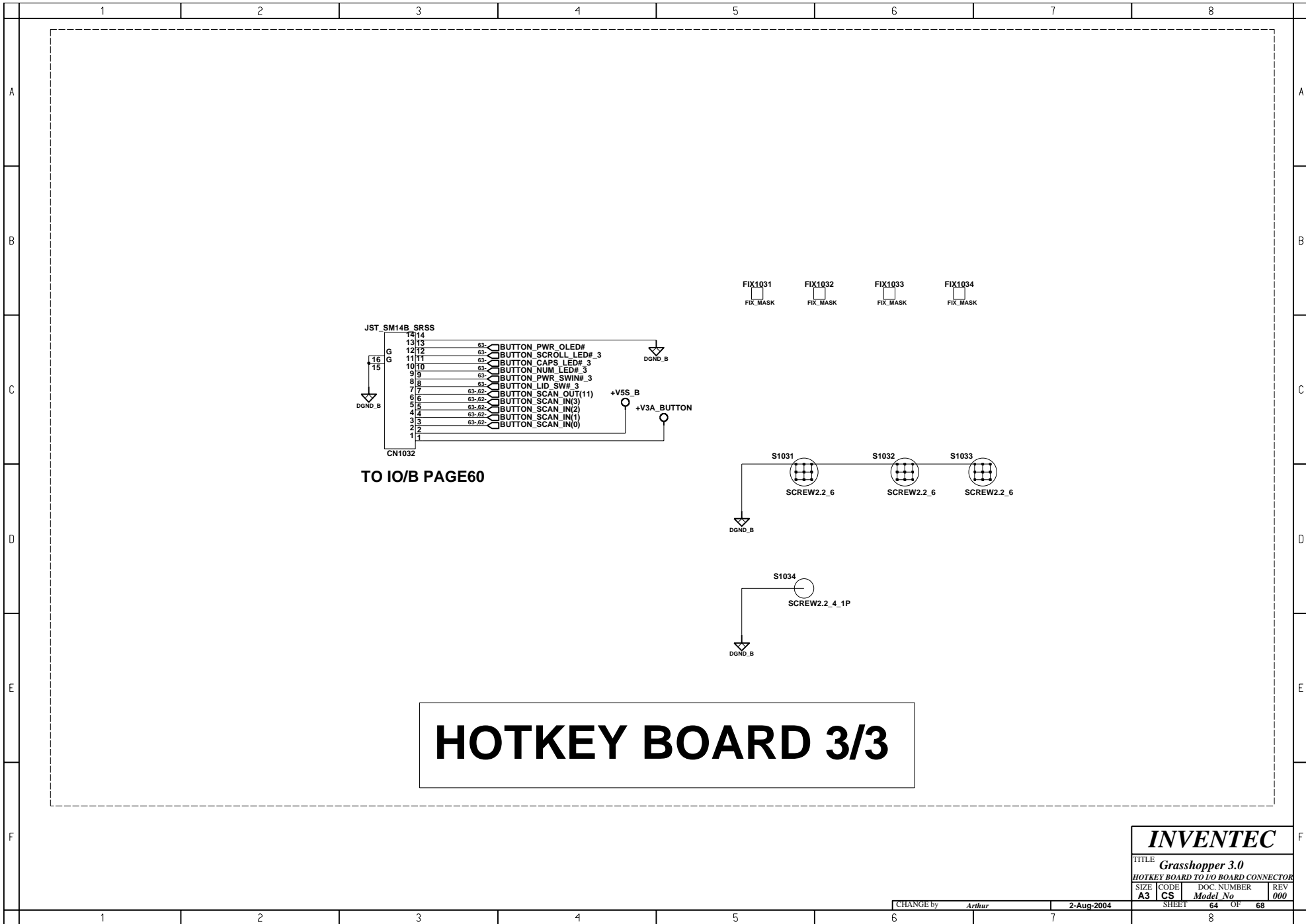
CHANGE by *Arthur* 2-Aug-2004

SHEET **62** OF **68**

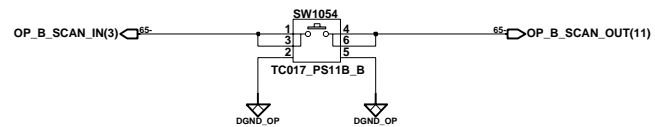
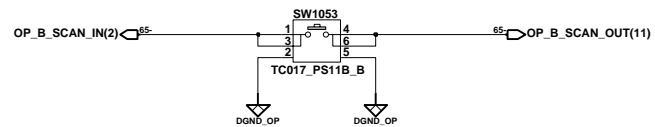
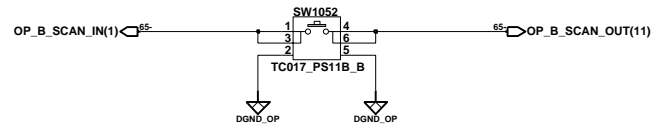
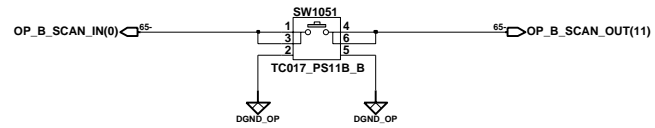
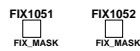
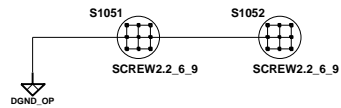
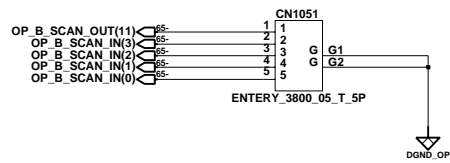


Hotkey Board 2/3

INVENTEC			
TITLE Grasshopper 3.0 SWITCHES & LEDS			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
CHANGE by <i>Arthur</i>		2-Aug-2004	
SHEET 63		OF 68	



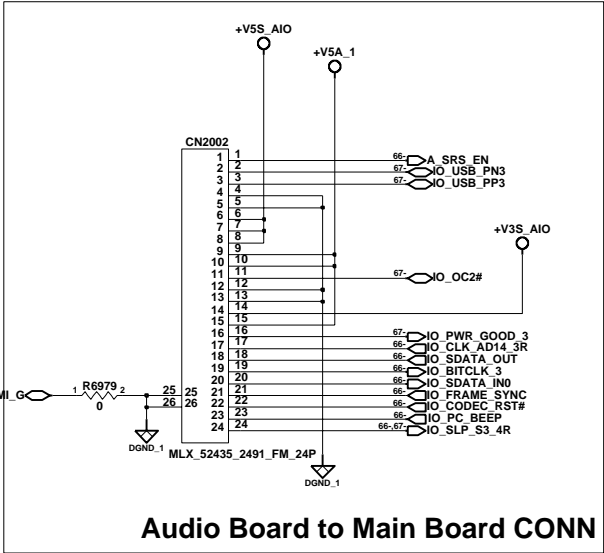
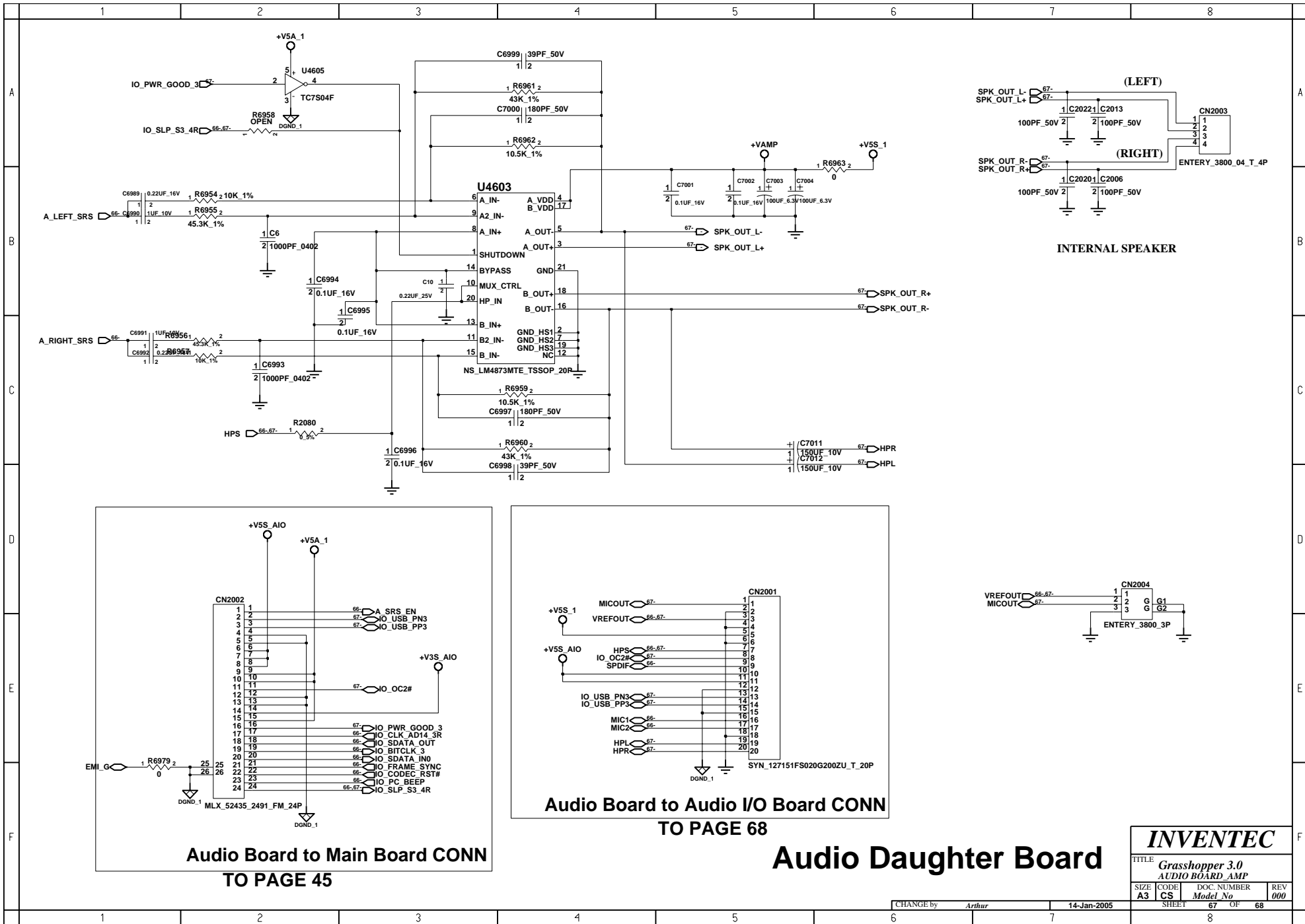
INVENTEC			
TITLE Grasshopper 3.0			
HOTKEY BOARD TO I/O BOARD CONNECTOR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by <i>Arthur</i>		2-Aug-2004	SHEET 64 OF 68



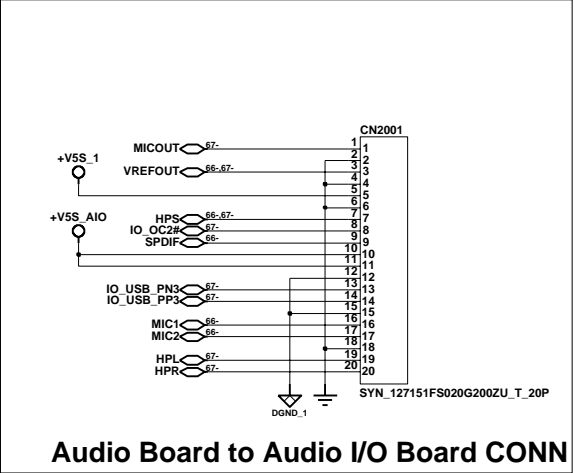
(OPEN)

Option Hotkey Board 1/1

INVENTEC			
TITLE <i>Grasshopper 3.0</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
CHANGE by <i>Arthur</i>		2-Aug-2004	
SHEET 65		OF 68	



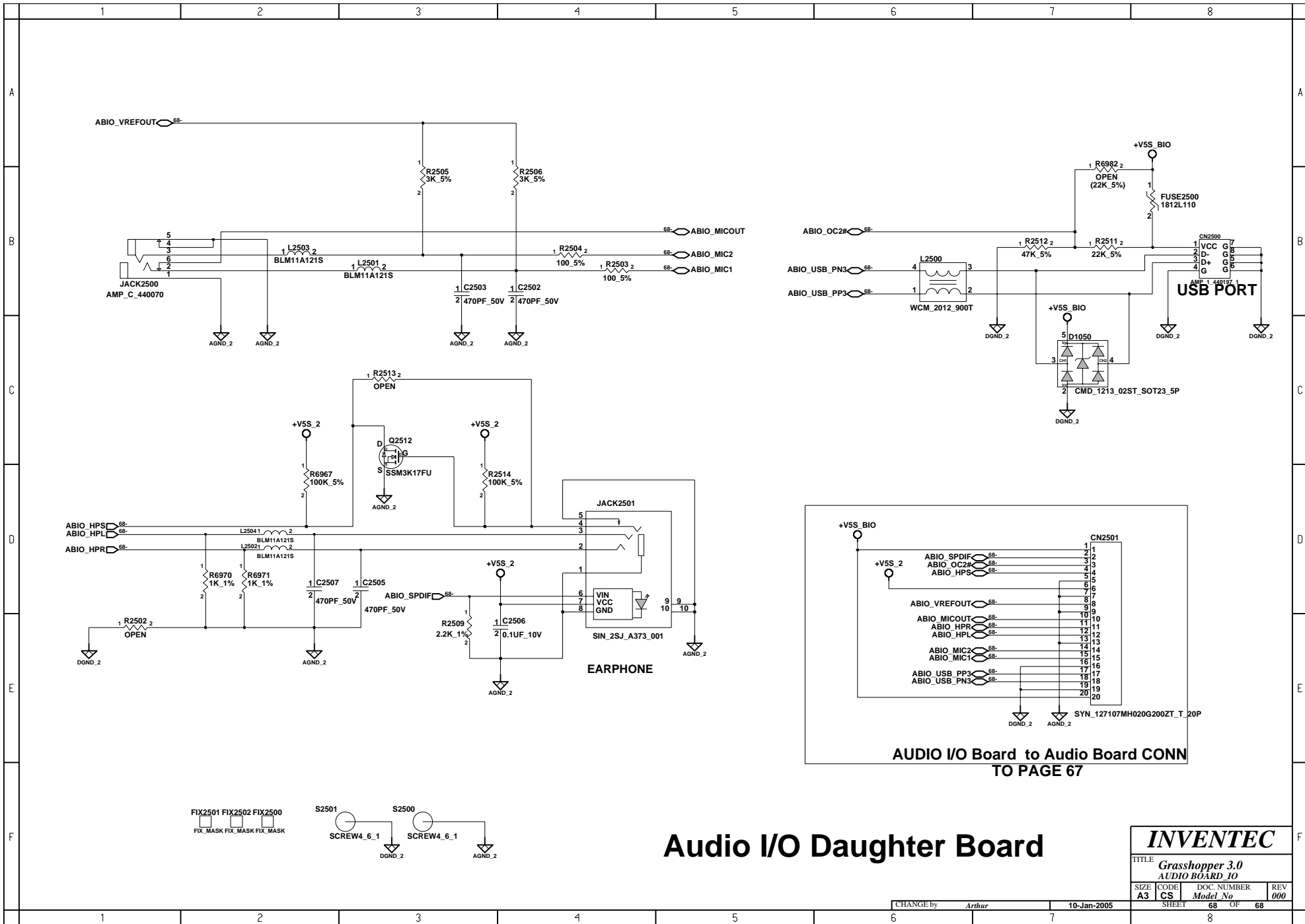
Audio Board to Main Board CONN
TO PAGE 45



Audio Board to Audio I/O Board CONN
TO PAGE 68

Audio Daughter Board

INVENTEC			
TITLE Grasshopper 3.0 AUDIO BOARD AMP			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No.</i>	REV 000
CHANGE by <i>Arthur</i>		14-Jan-2005	
SHEET 67		OF 68	



Audio I/O Daughter Board

INVENTEC			
TITLE Grasshopper 3.0 AUDIO BOARD IO			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
CHANGE by <i>Arthur</i>		10-Jan-2005	
SHEET 68		OF 68	