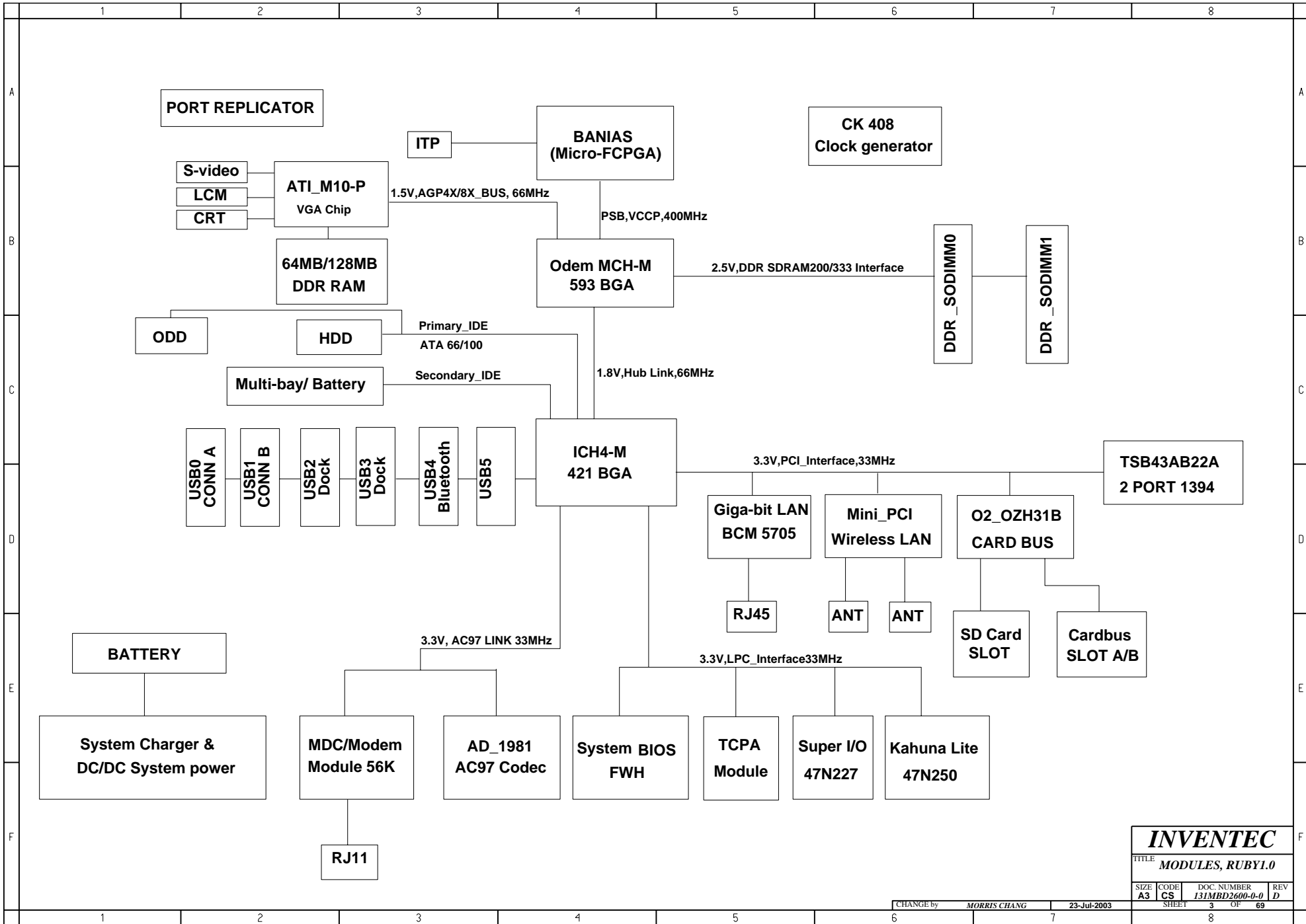
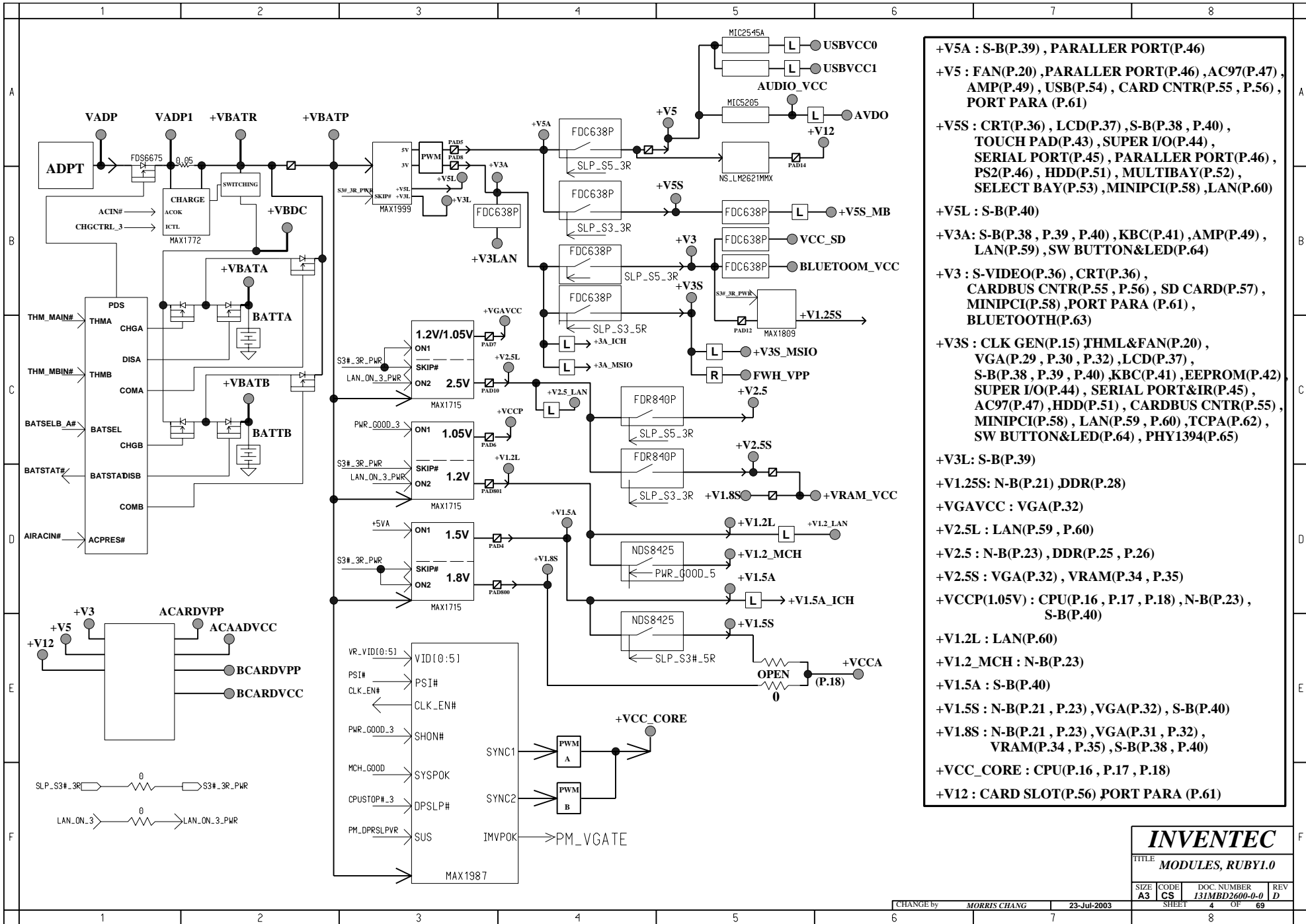


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6- SELECT & BATTERY CONN	28- DDR-SDRAM-4	49- AUDIO AMP&HP JACK
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8- SYSTEM POWER(1.5V/1.8V)	30- ATI-M10-P-2	51- HDD CONN
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10- SYSTEM POWER(2.5V/1.25V)	32- ATI-M10-P-4	53- SELECT BAY I/F
11- CPU POWER(VCC_CORE)	33- DAMPING	54- USB&IR CONN
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13- POWER(SLEEP)	35- VIDEO RAM-2	56- PC CARD SLOT
14- POWER(SEQUENCE)	36- CRT& SVEDIO CONN	57- SD CARD CONN
15- CLOCK_GENEATOR	37- LCD CONN	58- MINIPCI CONN
16- BANIAS-1	38- ICH4-1	59- LAN INTERFACE-1
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INVENTEC			
TITLE MODULES, RUBY1.0			
SIZE A3	CODE CS	DOC. NUMBER 131MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	SHEET 2 OF 69





- +V5A** : S-B(P.39) , PARALLER PORT(P.46)
- +V5** : FAN(P.20) , PARALLER PORT(P.46) , AC97(P.47) , AMP(P.49) , USB(P.54) , CARD CNTR(P.55 , P.56) , PORT PARA (P.61)
- +V5S** : CRT(P.36) , LCD(P.37) , S-B(P.38 , P.40) , TOUCH PAD(P.43) , SUPER I/O(P.44) , SERIAL PORT(P.45) , PARALLER PORT(P.46) , PS2(P.46) , HDD(P.51) , MULTIBAY(P.52) , SELECT BAY(P.53) , MINIPCI(P.58) , LAN(P.60)
- +V5L** : S-B(P.40)
- +V3A** : S-B(P.38 , P.39 , P.40) , KBC(P.41) , AMP(P.49) , LAN(P.59) , SW BUTTON&LED(P.64)
- +V3** : S-VIDEO(P.36) , CRT(P.36) , CARDBUS CNTR(P.55 , P.56) , SD CARD(P.57) , MINIPCI(P.58) , PORT PARA (P.61) , BLUETOOTH(P.63)
- +V3S** : CLK GEN(P.15) THML&FAN(P.20) , VGA(P.29 , P.30 , P.32) , LCD(P.37) , S-B(P.38 , P.39 , P.40) , KBC(P.41) , EEPROM(P.42) , SUPER I/O(P.44) , SERIAL PORT&IR(P.45) , AC97(P.47) , HDD(P.51) , CARDBUS CNTR(P.55) , MINIPCI(P.58) , LAN(P.59 , P.60) , TCPA(P.62) , SW BUTTON&LED(P.64) , PHY1394(P.65)
- +V3L** : S-B(P.39)
- +V1.25S** : N-B(P.21) , DDR(P.28)
- +VGA_VCC** : VGA(P.32)
- +V2.5L** : LAN(P.59 , P.60)
- +V2.5** : N-B(P.23) , DDR(P.25 , P.26)
- +V2.5S** : VGA(P.32) , VRAM(P.34 , P.35)
- +VCCP(1.05V)** : CPU(P.16 , P.17 , P.18) , N-B(P.23) , S-B(P.40)
- +V1.2L** : LAN(P.60)
- +V1.2_MCH** : N-B(P.23)
- +V1.5A** : S-B(P.40)
- +V1.5S** : N-B(P.21 , P.23) , VGA(P.32) , S-B(P.40)
- +V1.8S** : N-B(P.21 , P.23) , VGA(P.31 , P.32) , VRAM(P.34 , P.35) , S-B(P.38 , P.40)
- +VCCP(1.05V)** : CPU(P.16 , P.17 , P.18) , N-B(P.23) , S-B(P.40)
- +V12** : CARD SLOT(P.56) , PORT PARA (P.61)

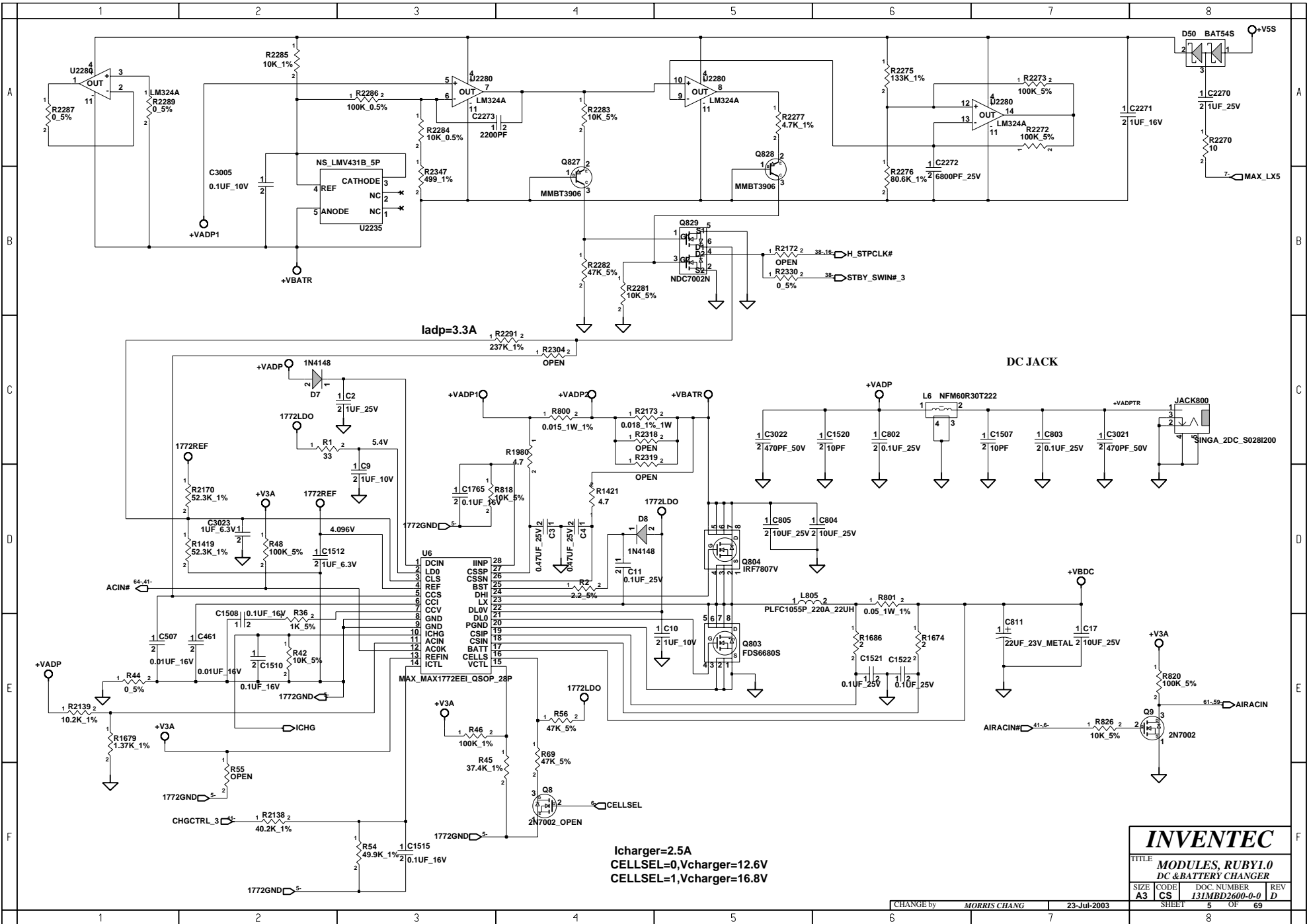
INVENTEC

TITLE **MODULES, RUBY1.0**

SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D

CHANGE by MORRIS CHANG 23-Jul-2003

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INVENTEC

TITLE: **MODULES, RUBY1.0**

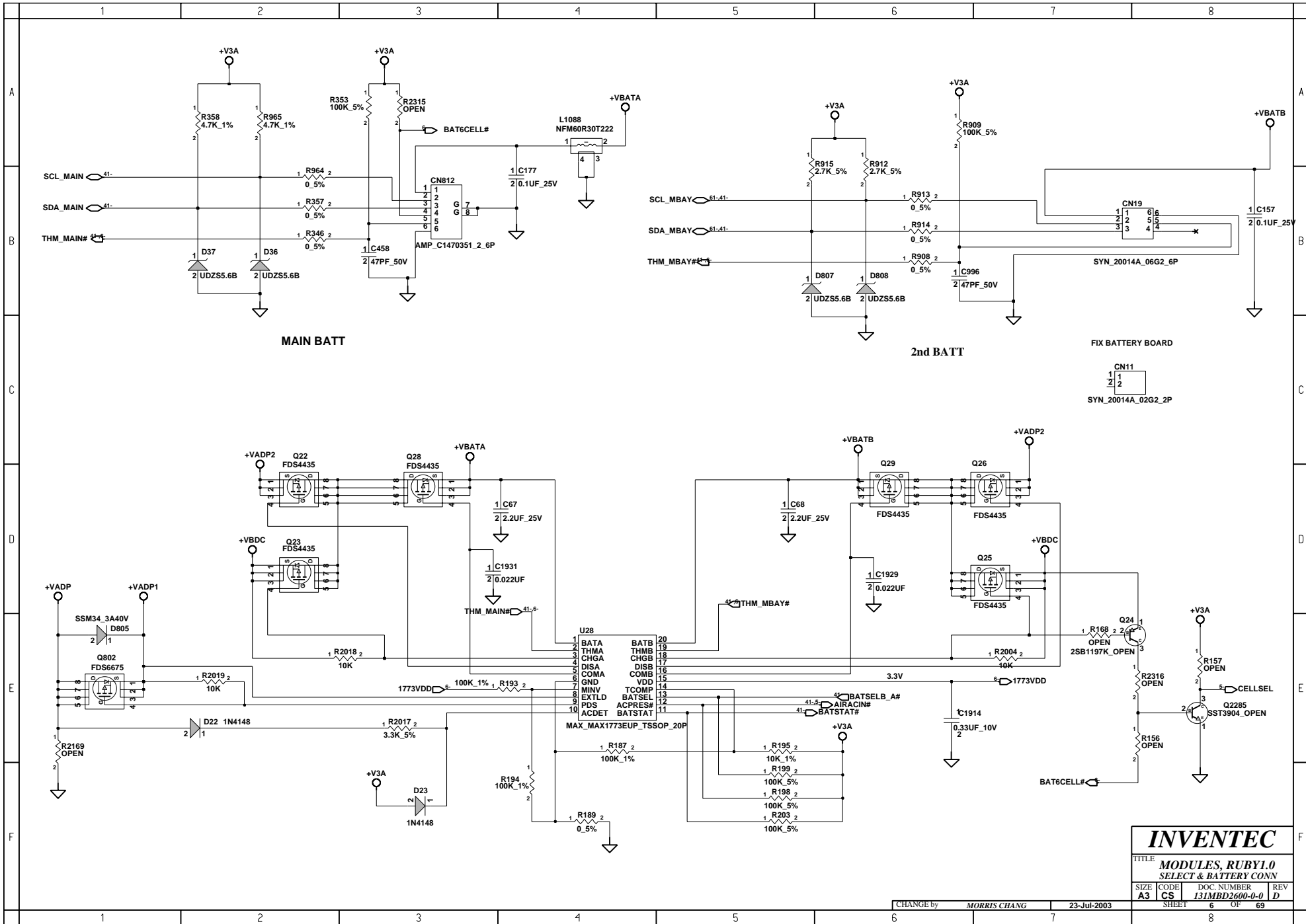
DC & BATTERY CHARGER

SIZE: A3
CODE: CS
DOC NUMBER: 131MBD2600-0-0

REV: D

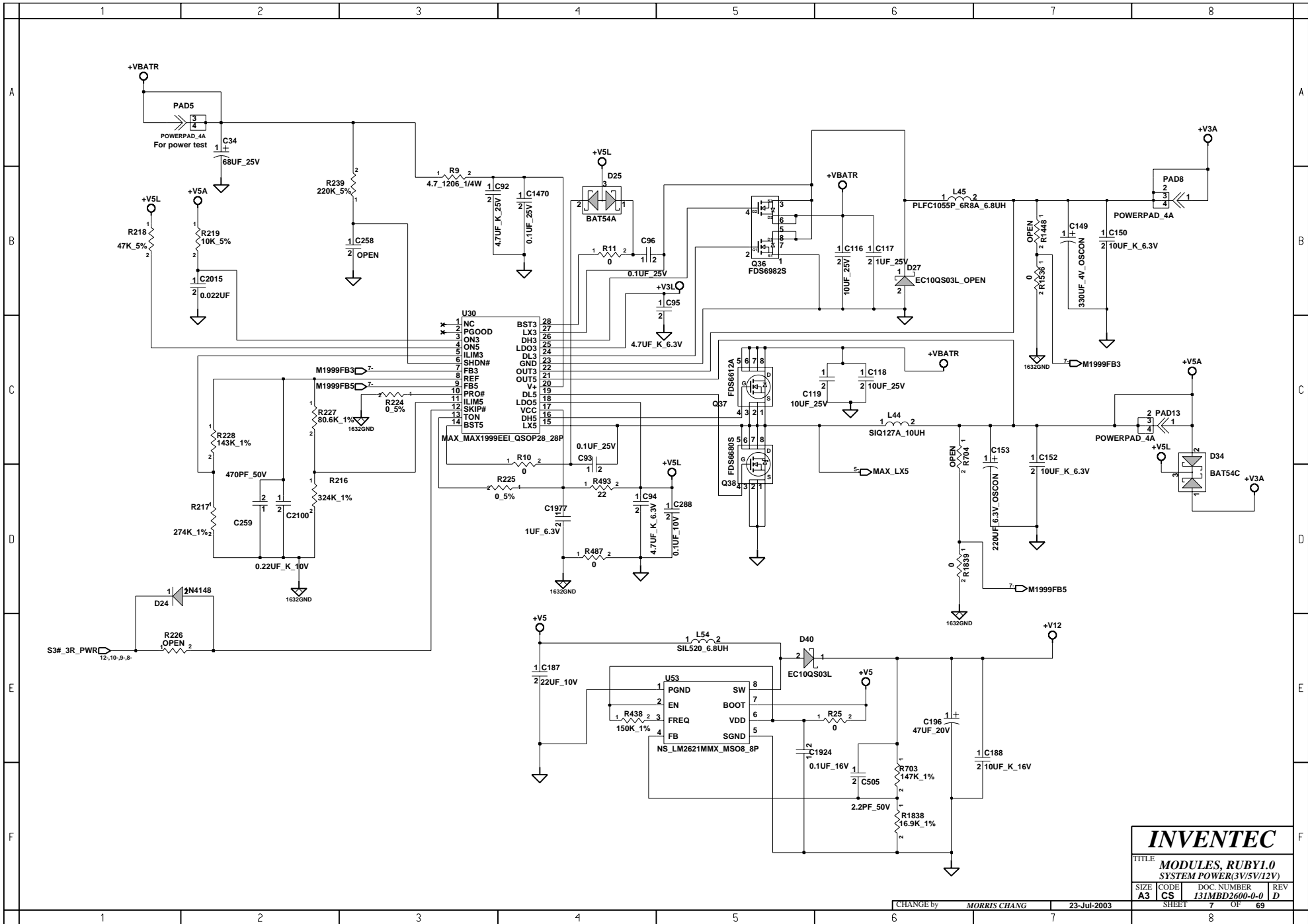
CHANGE by: MORRIS CHANG 23-Jul-2003

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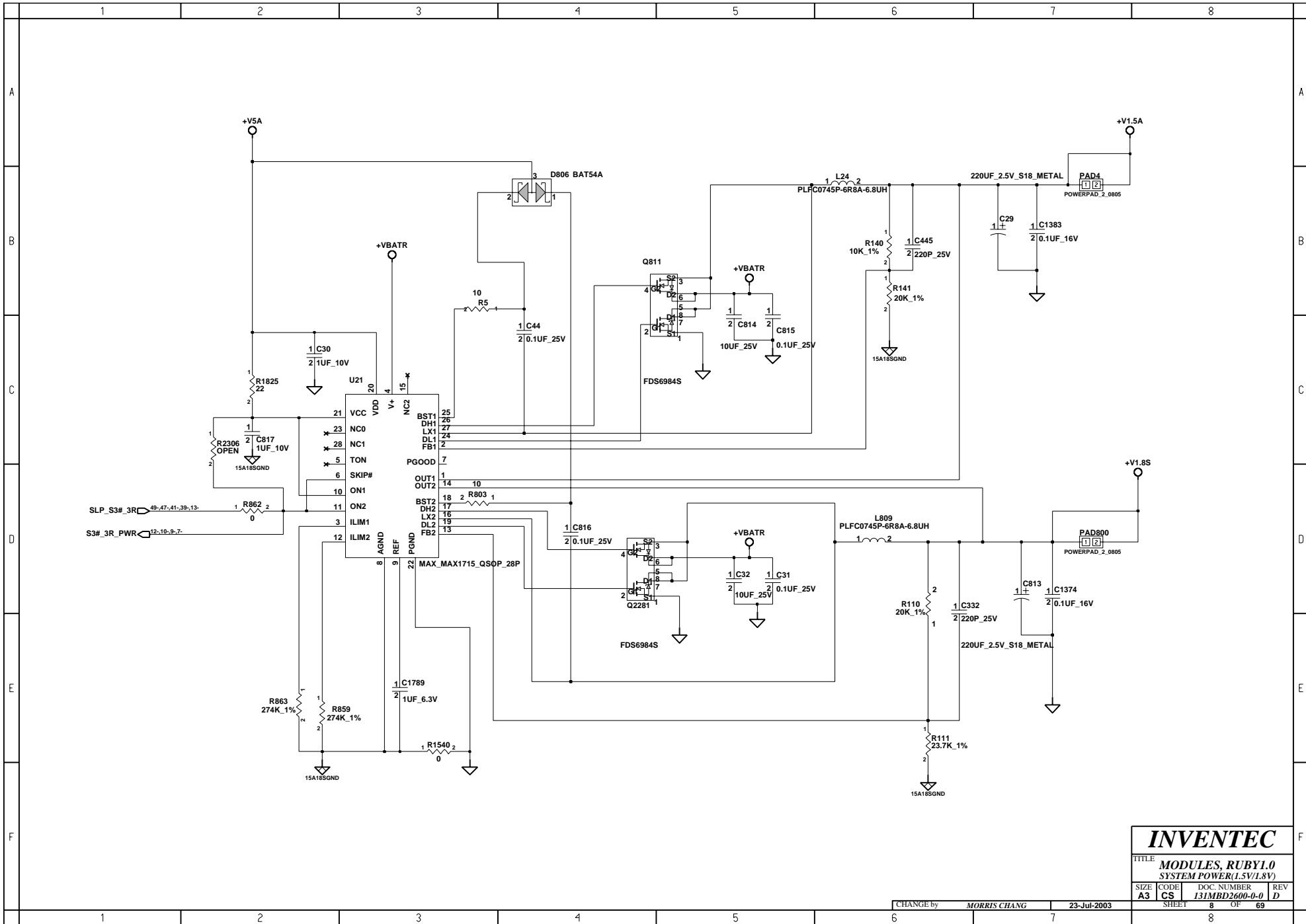


INVENTEC
 TITLE: **MODULES, RUBY1.0**
 SELECT & BATTERY CONN

SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D



INVENTEC			
TITLE: MODULES, RUBY1.0			
SYSTEM POWER(3V/5V/12V)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
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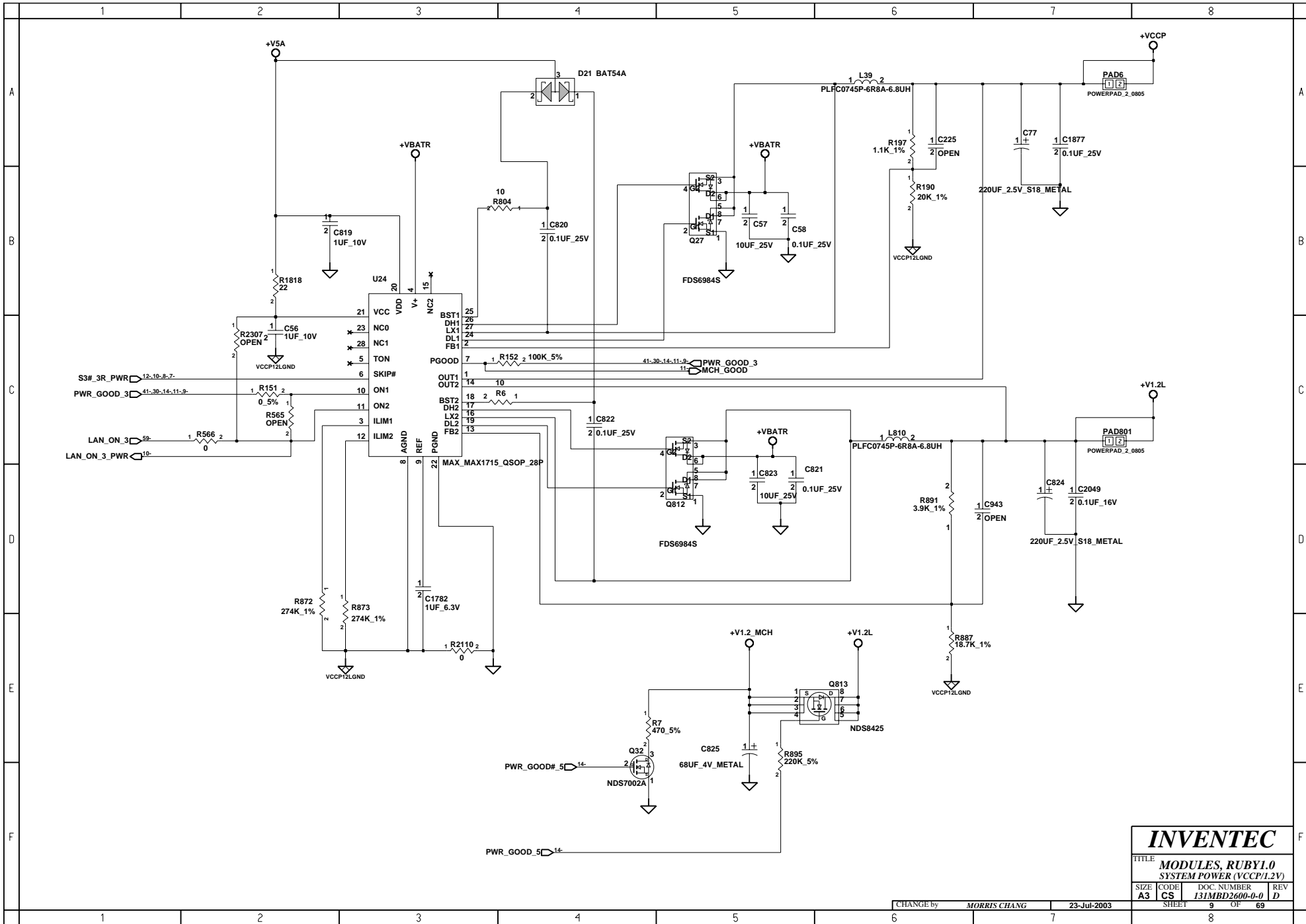
INVENTEC

TITLE: **MODULES, RUBY1.0 SYSTEM POWER(1.5V/1.8V)**

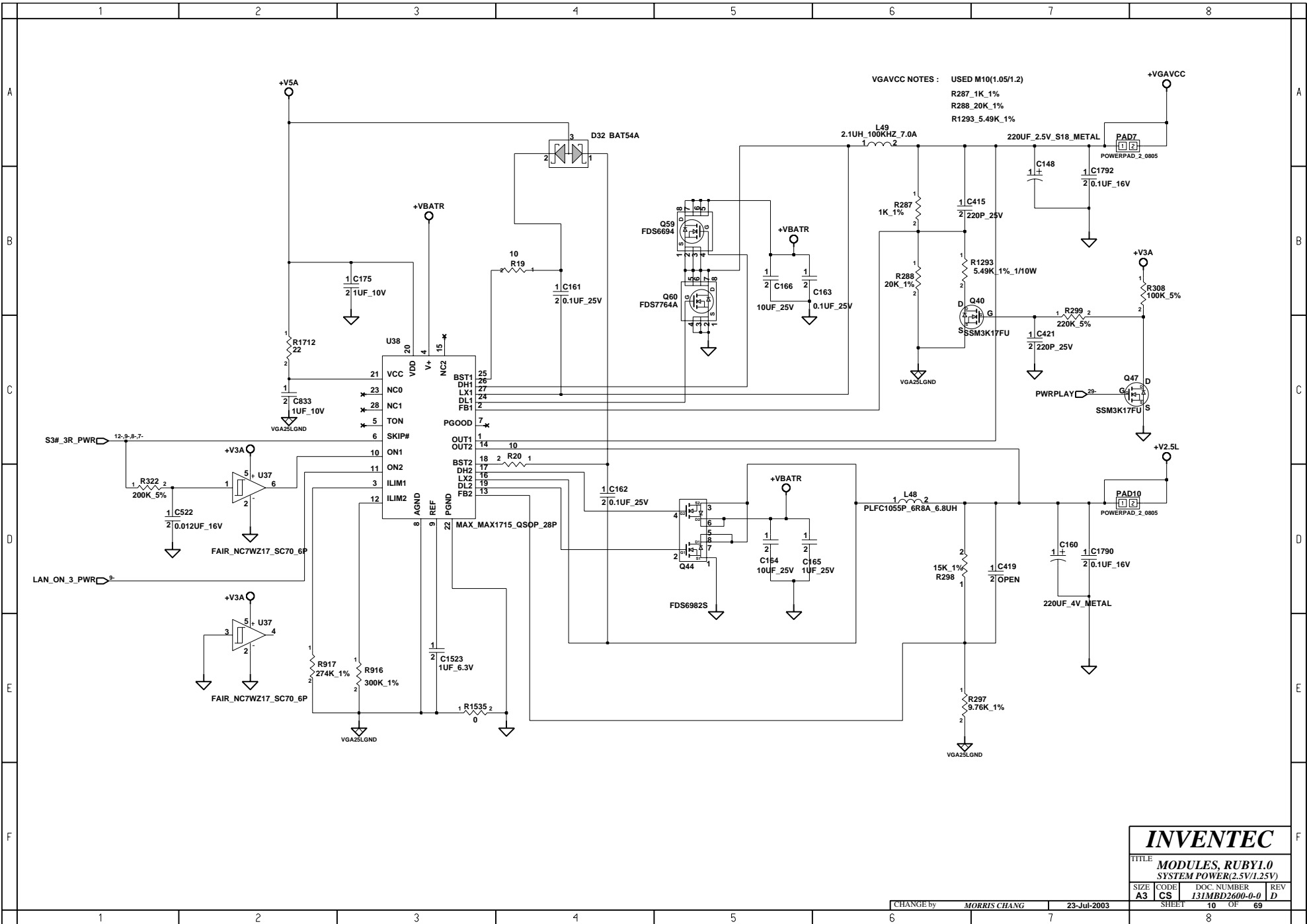
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D

CHANGE by: MORRIS CHIANG 23-Jul-2003

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8	69



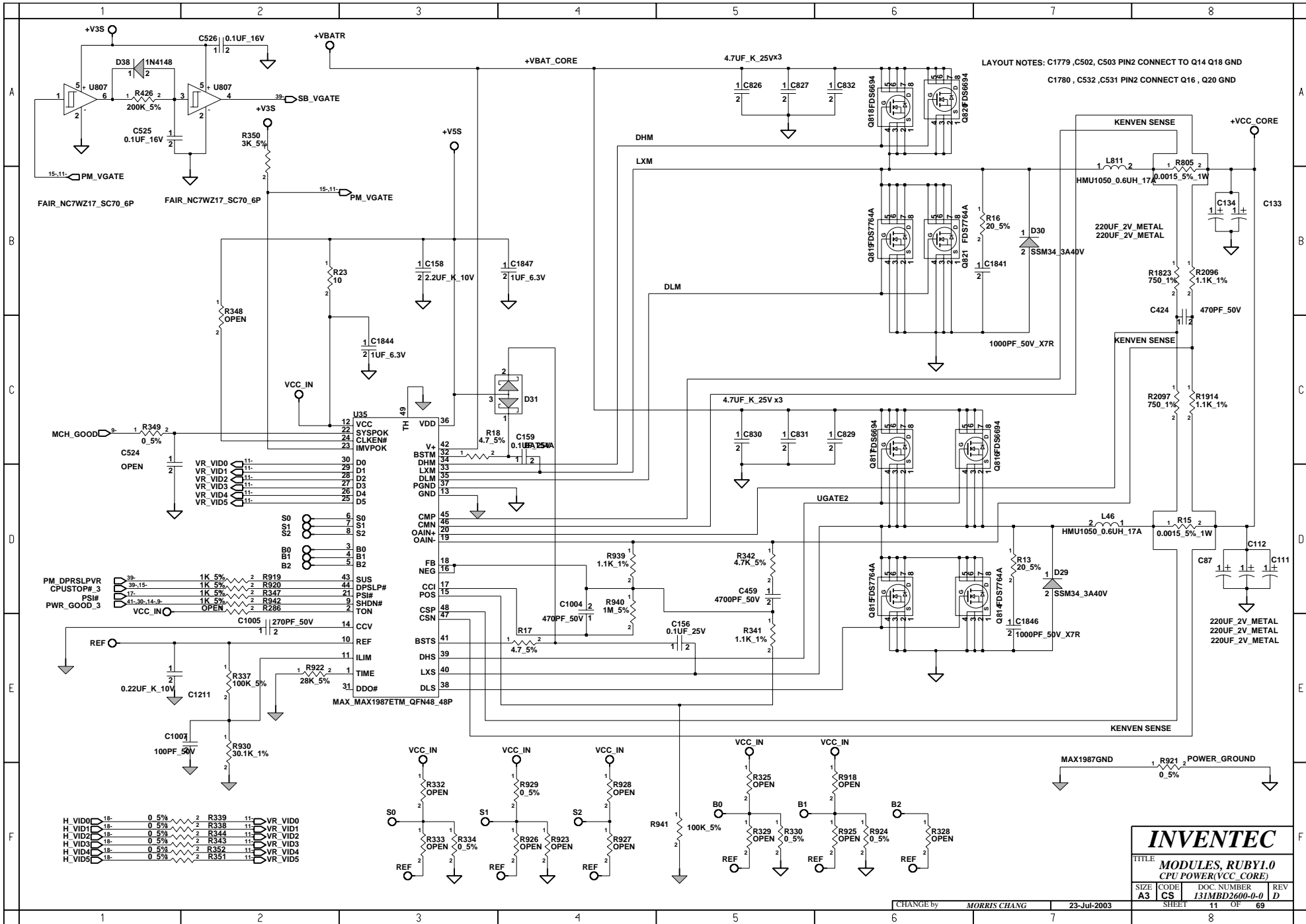
INVENTEC			
TITLE: MODULES, RUBY1.0			
SYSTEM POWER (VCCP/1.2V)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
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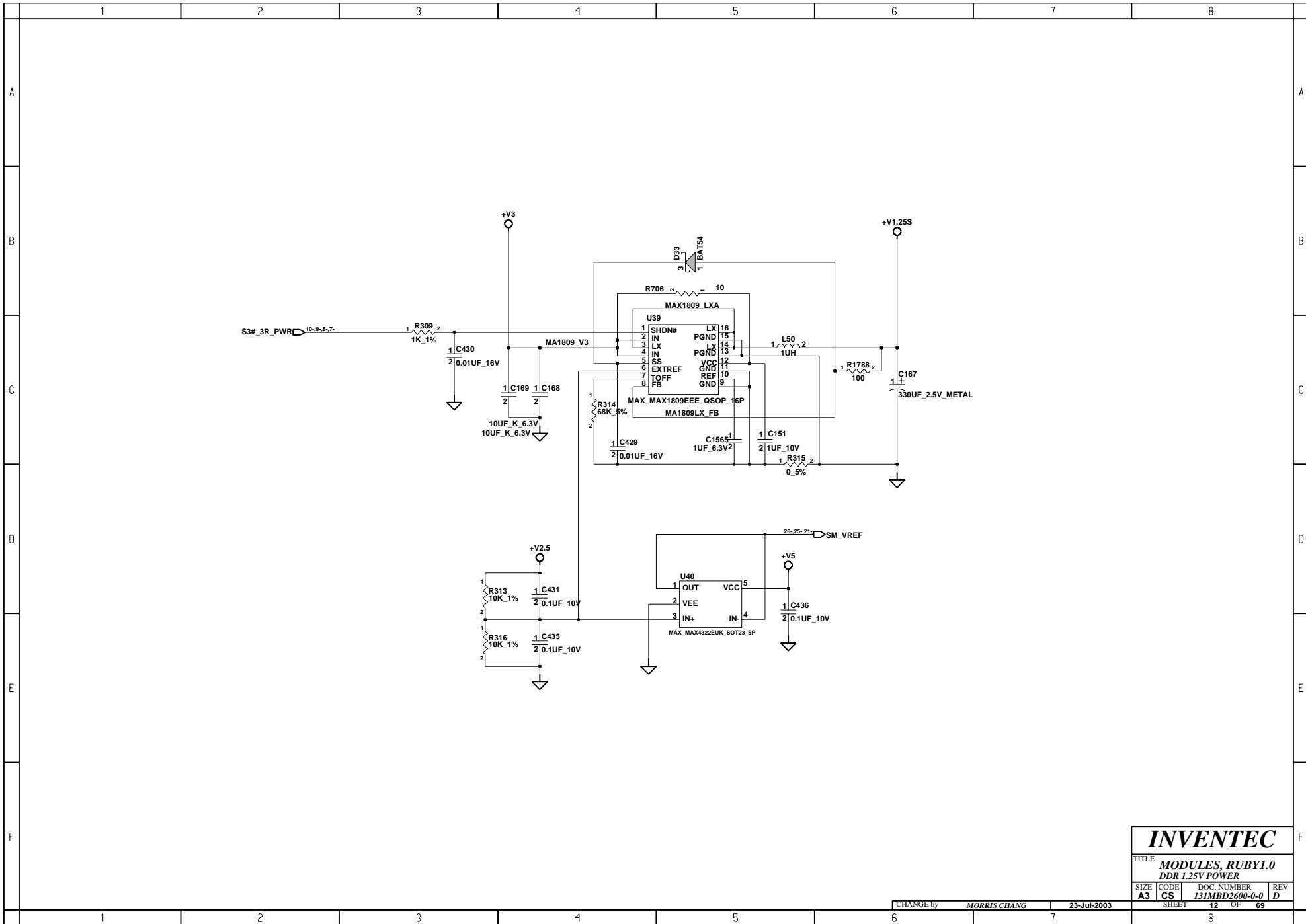
INVENTEC

TITLE **MODULES, RUBY1.0**
SYSTEM POWER(2.5V/1.25V)

SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		DATE 23-Jul-2003	SHEET 10 OF 69

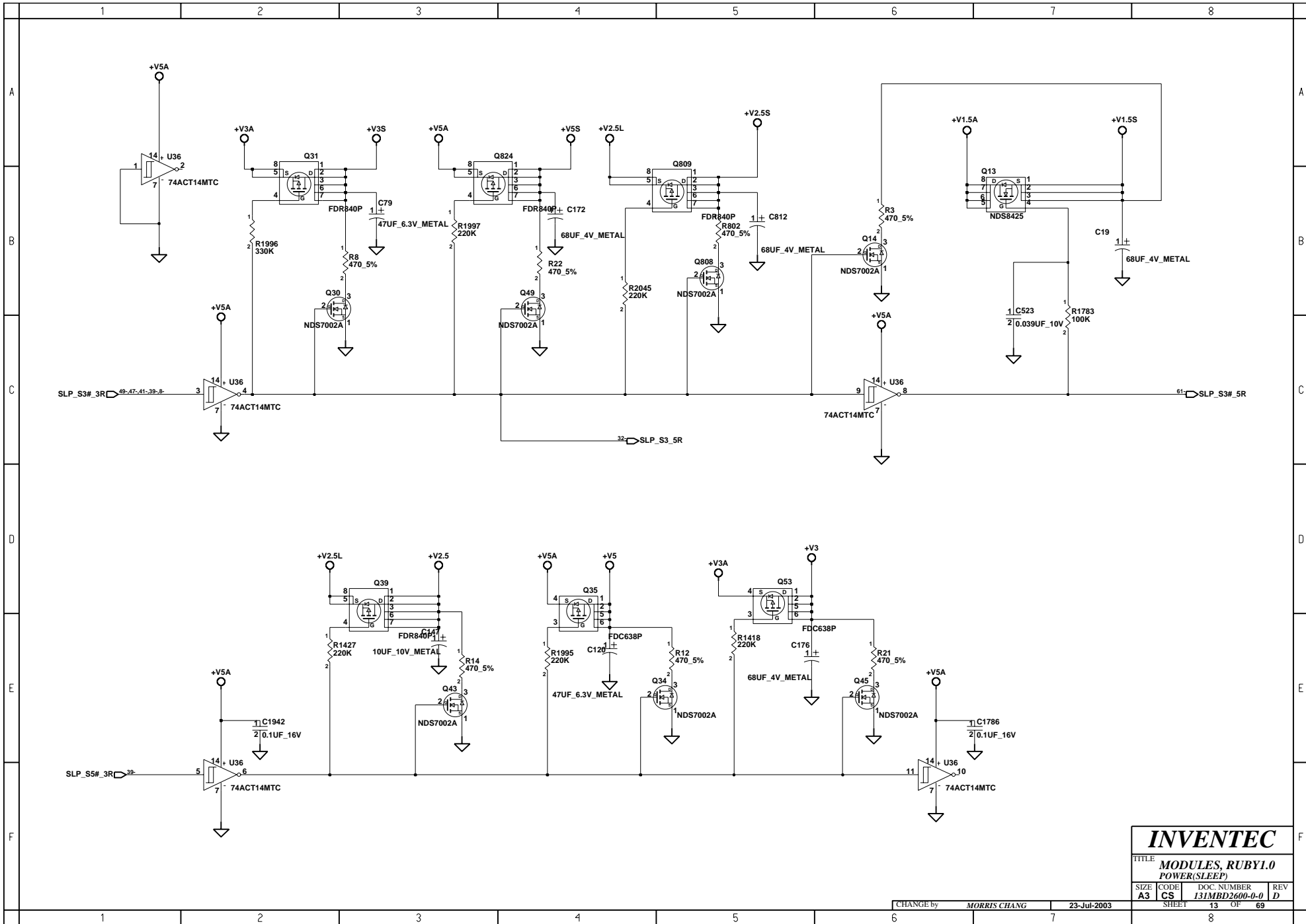


INVENTEC			
TITLE: MODULES, RUBY1.0 CPU POWER(VCC_CORE)			
SIZE: A3	CODE: CS	DOC NUMBER: 131MBD2600-0-0	REV: D
CHANGE by: MORRIS CHIANG		23-Jul-2003	
SHEET: 11		OF: 69	

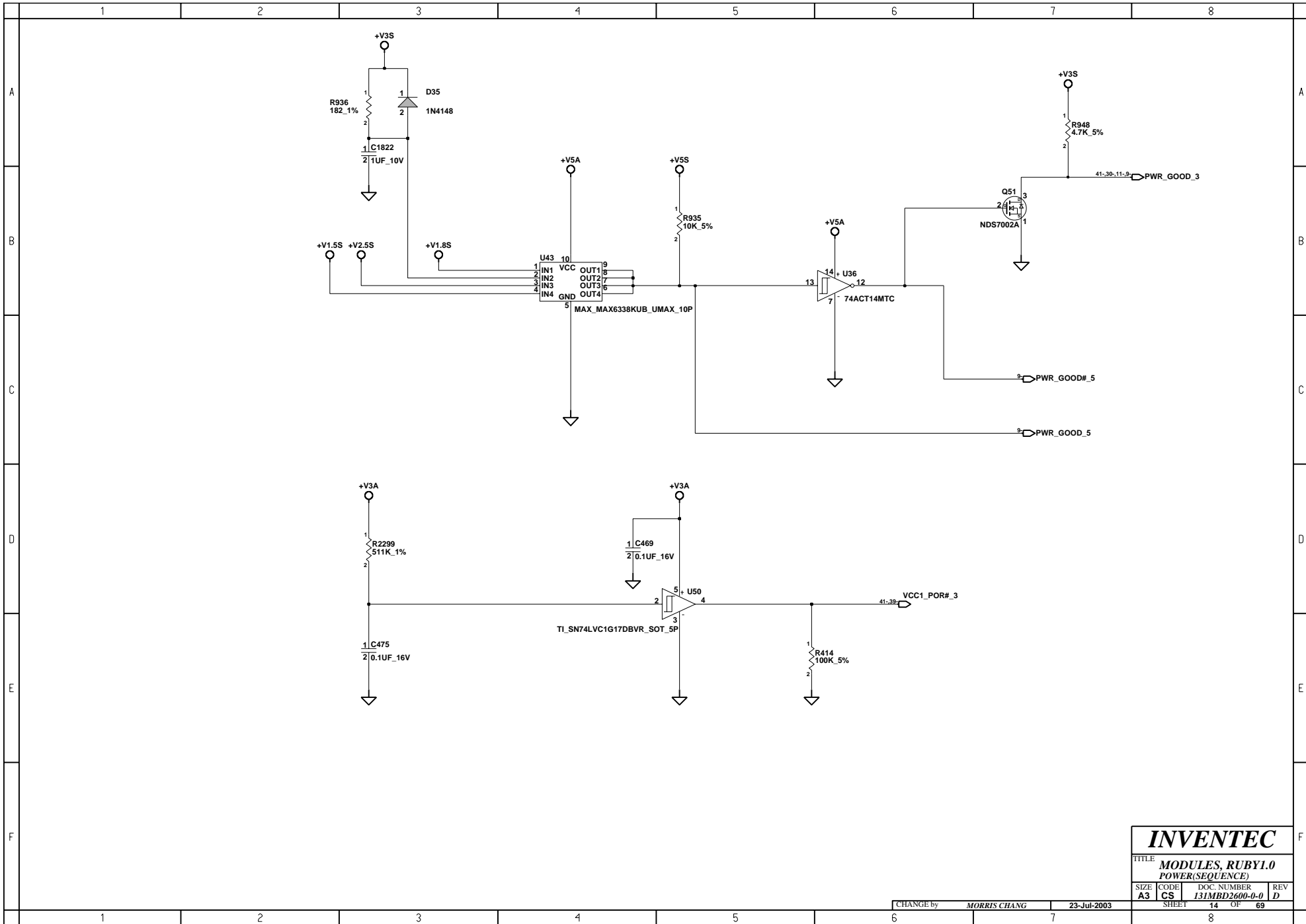


INVENTEC

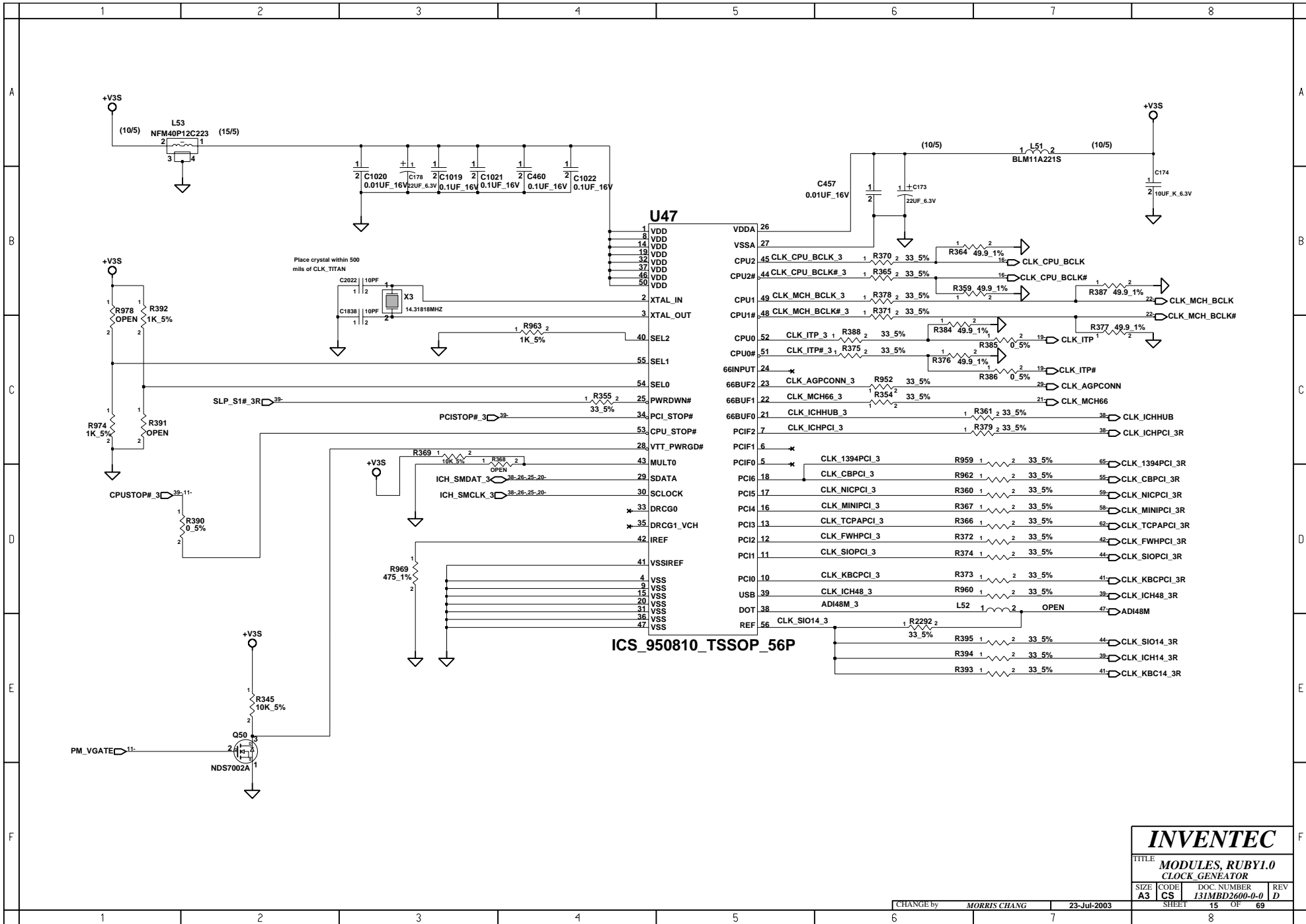
TITLE			
MODULES, RUBY1.0			
DDR 1.25V POWER			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		DATE	SHEET
MORRIS CHIANG		23-Jul-2003	12 OF 69

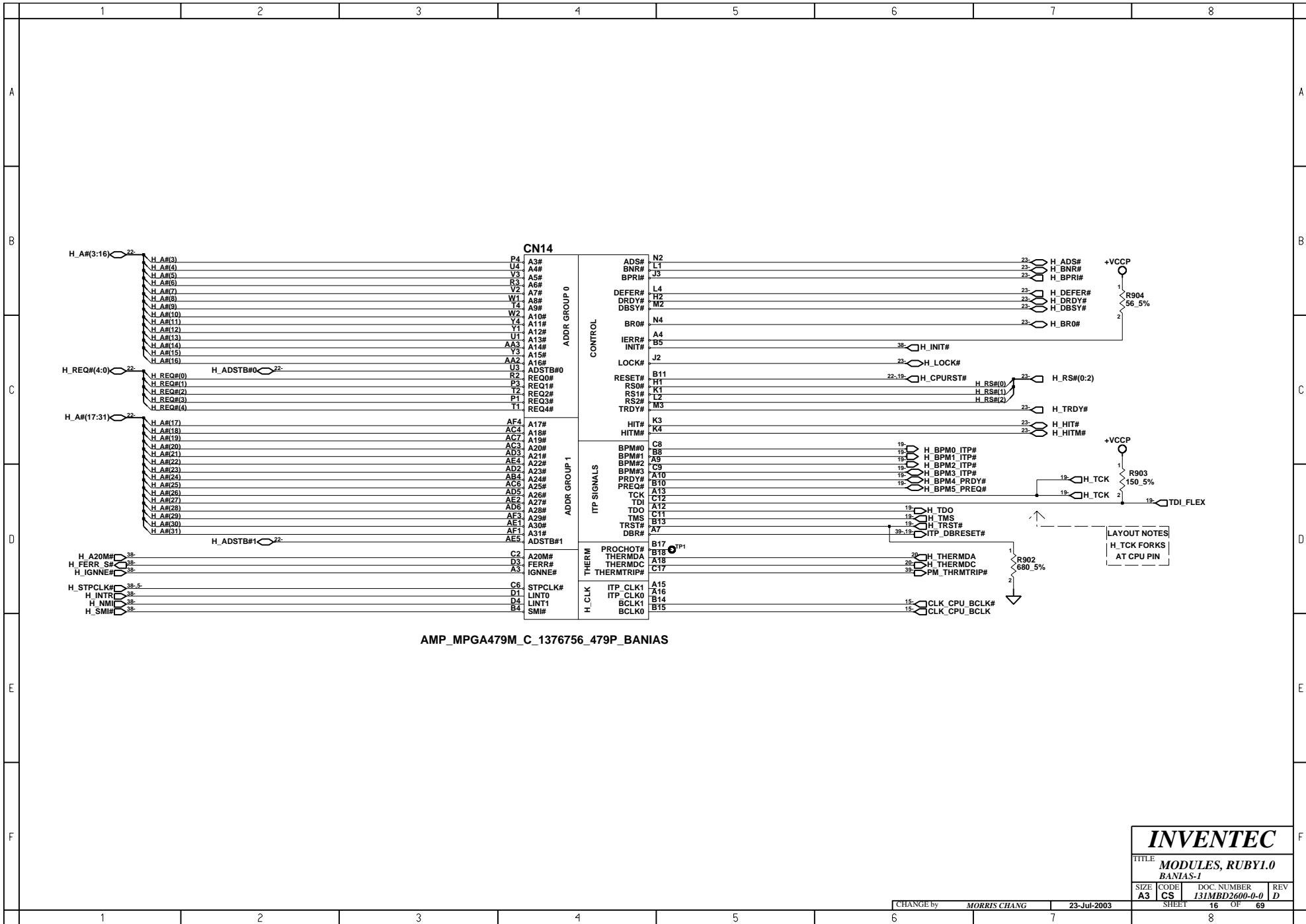


INVENTEC			
TITLE MODULES, RUBY1.0			
POWER(SLEEP)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		23-Jul-2003	SHEET 13 OF 69



INVENTEC			
TITLE: MODULES, RUBY1.0			
POWER(SEQUENCE)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		DATE	SHEET
MORRIS CHANG		23-Jul-2003	14 OF 69





AMP_MPGA479M_C_1376756_479P_BANIAS

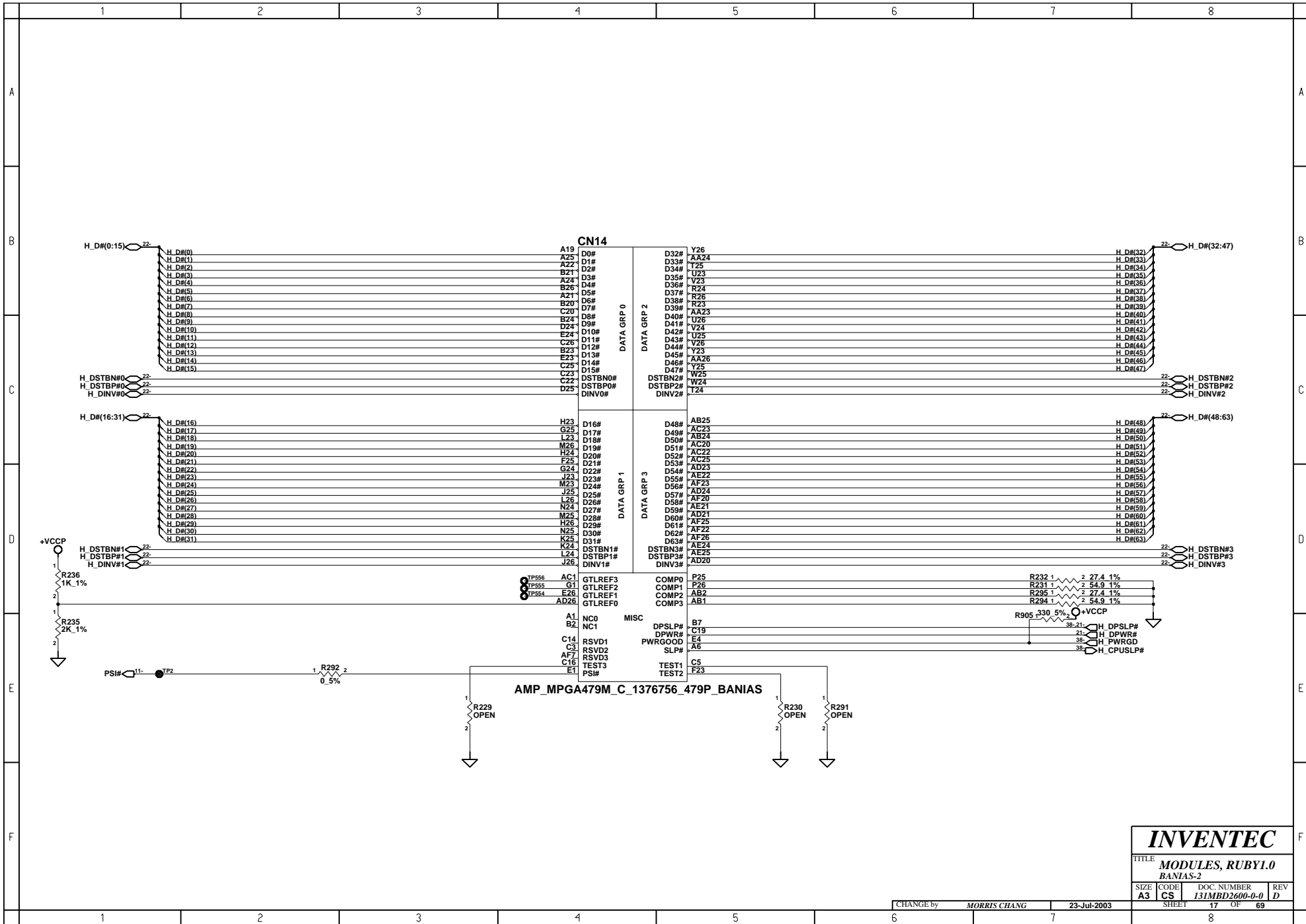
INVENTEC

TITLE
MODULES, RUBY1.0
 BANIAS-1

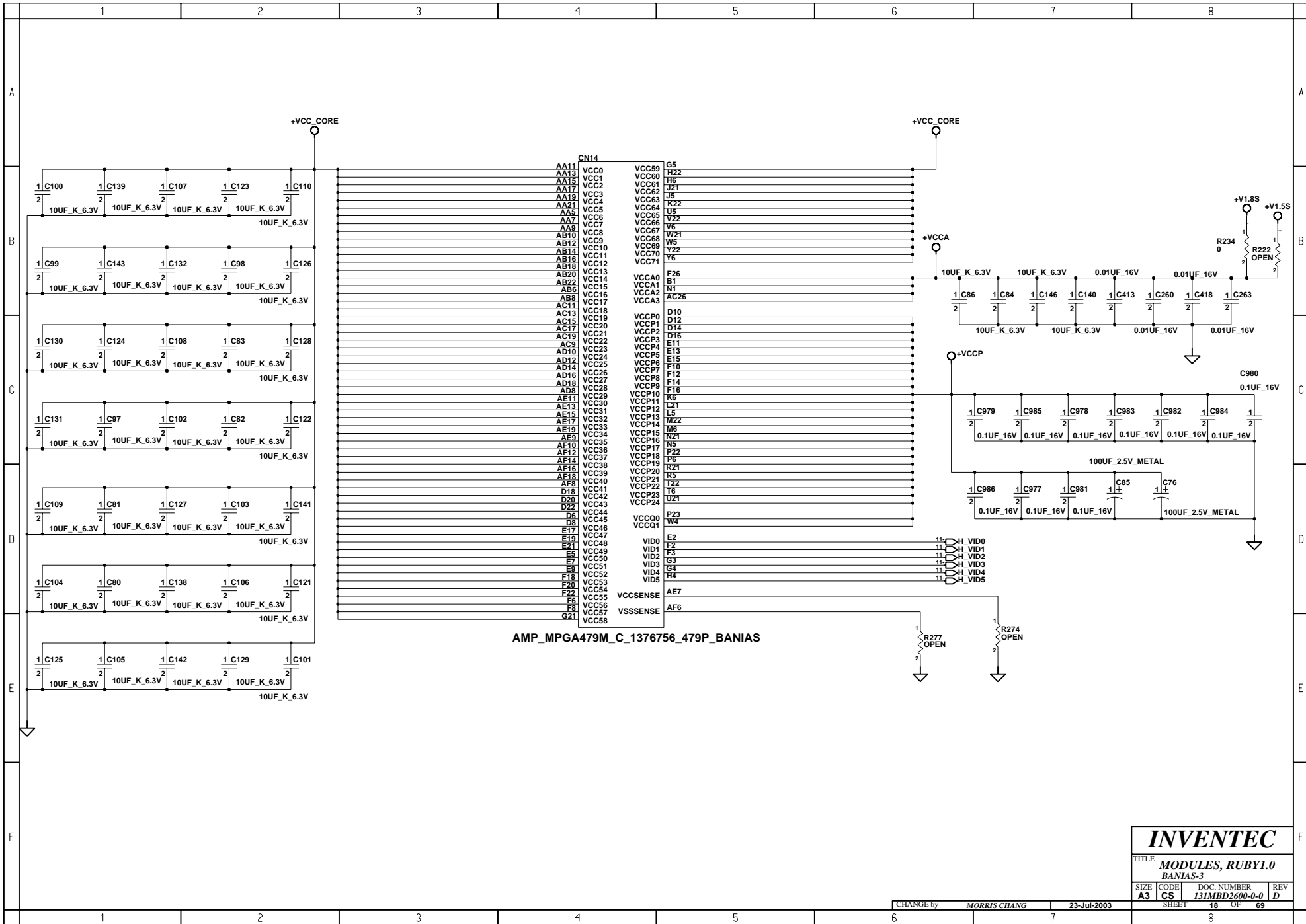
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A3	CS	131MBD2600-0-0	D

CHANGE by MORRIS CHIANG 23-Jul-2003

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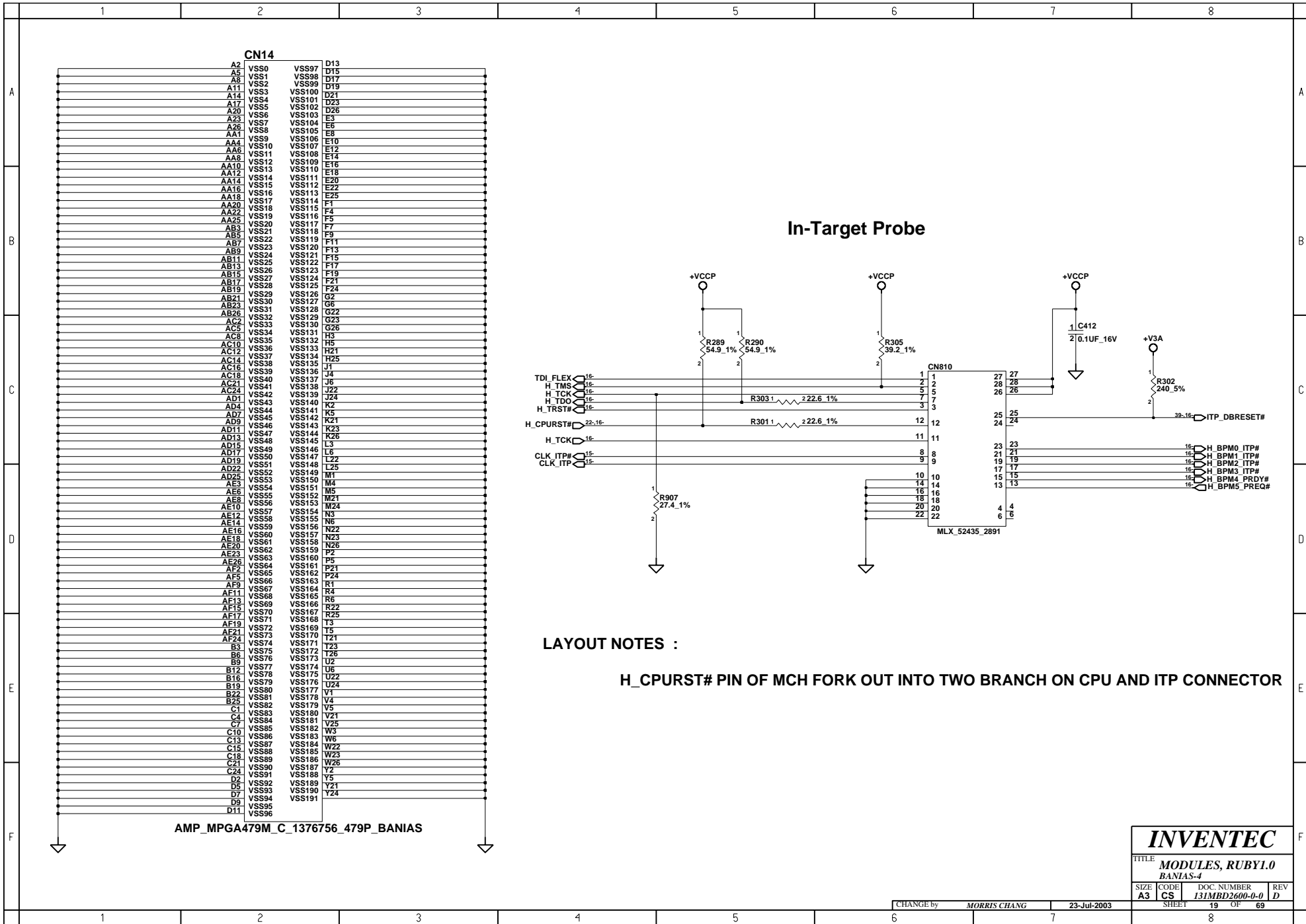


INVENTEC			
TITLE: MODULES, RUBY1.0			
BANIAS-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
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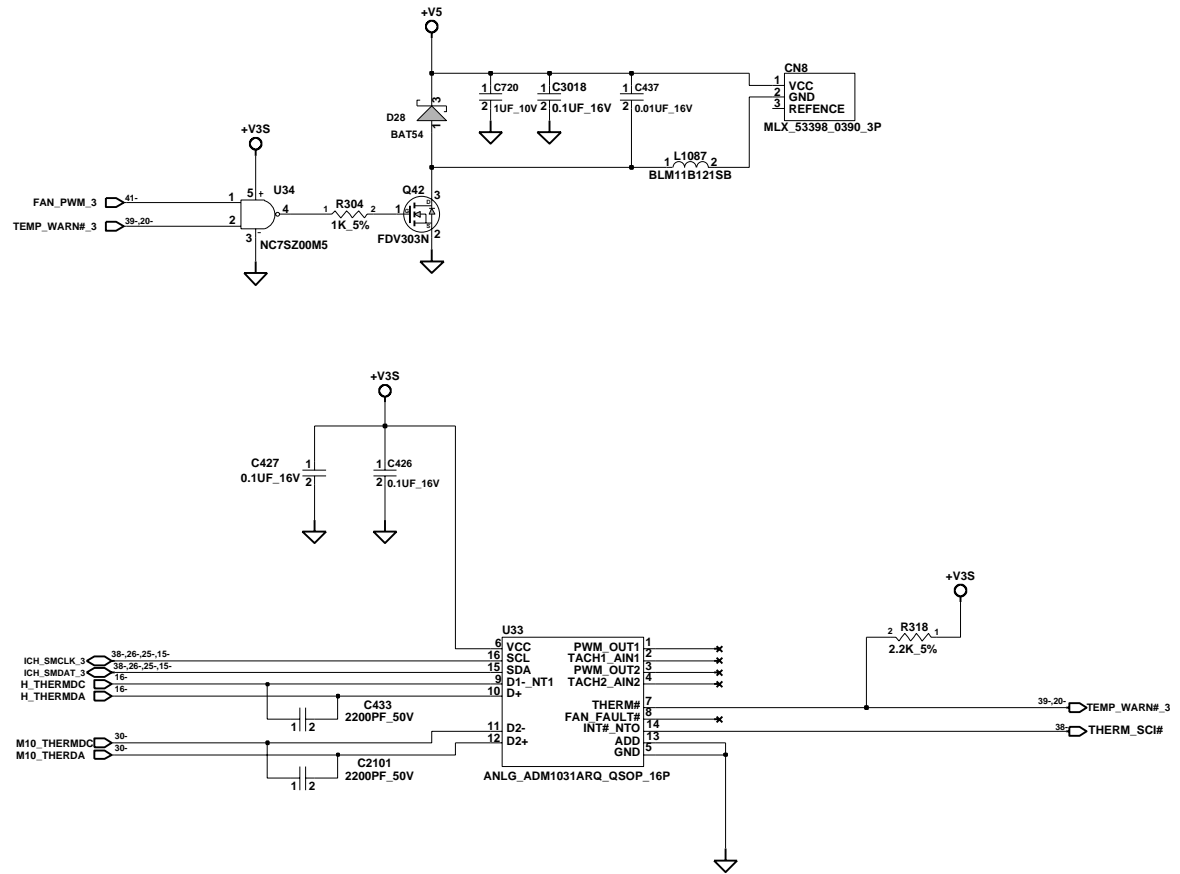


AMP_MPGA479M_C_1376756_479P_BANIAS

INVENTEC			
TITLE MODULES, RUBY1.0			
BANIAS-3			
SIZE	CODE	DOC. NUMBER	REV
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CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		18	OF 69

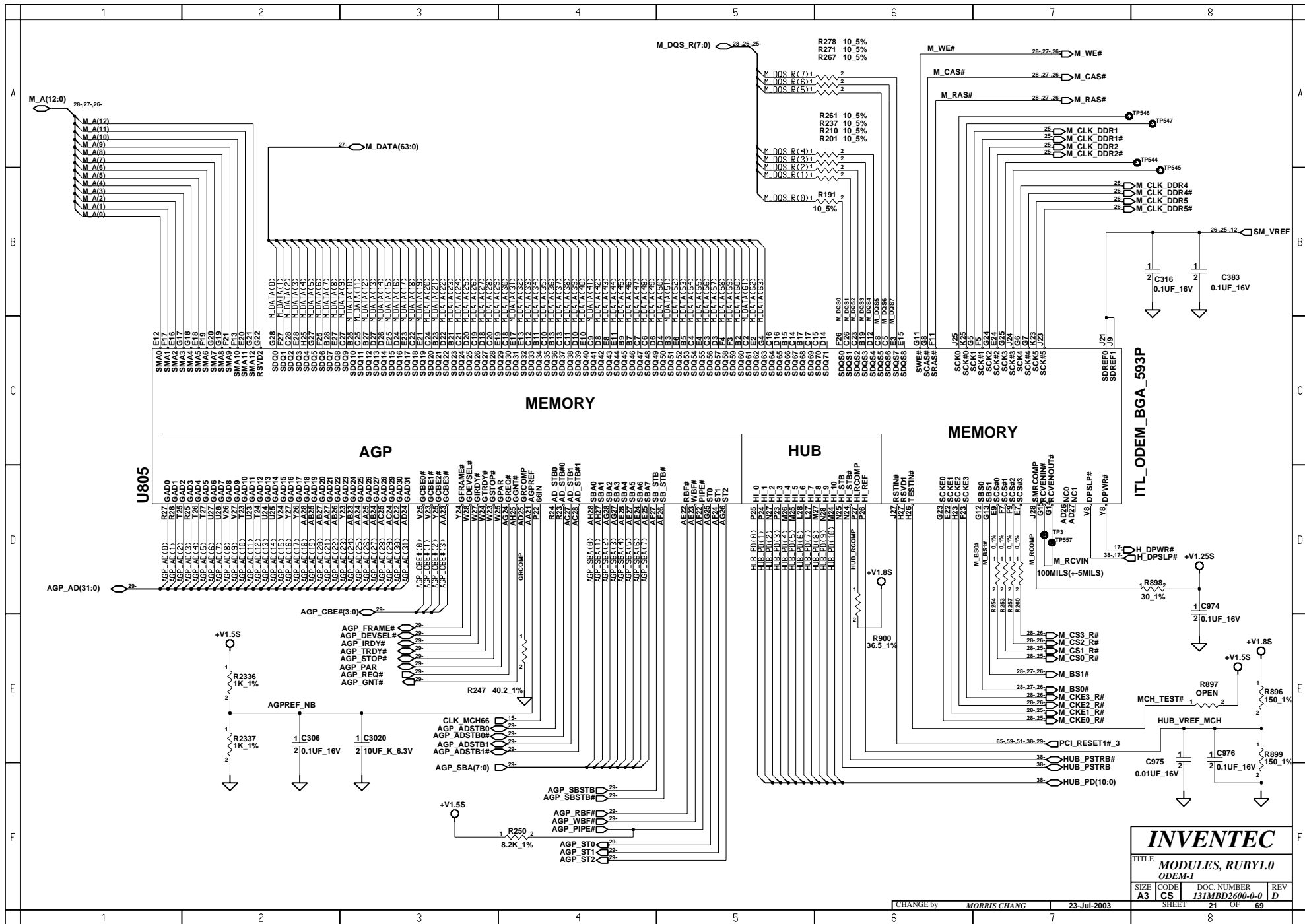


INVENTEC			
TITLE MODULES, RUBY1.0			
BANIAS-4			
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
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LAYOUT NOTES : PUT THE THERMAL SENSOR CLOSE TO CPU

INVENTEC			
TITLE MODULES, RUBY1.0			
THERMAL&FAN CONTROLLER			
SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		MORRIS CHANG	23-Jul-2003
SHEET		20	OF 69



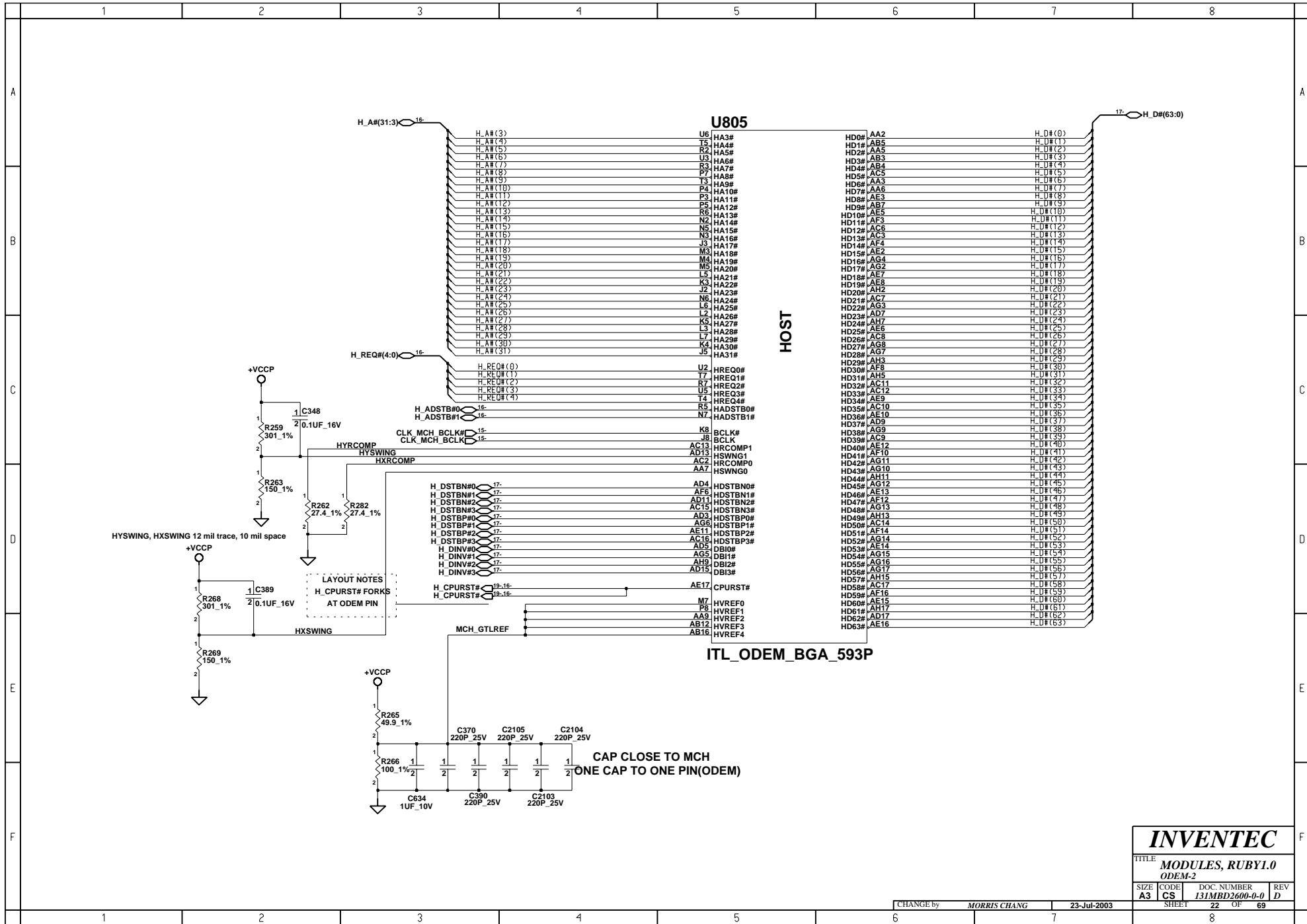
INVENTEC

TITLE: **MODULES, RUBY1.0 ODEM-1**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D

CHANGE by: MORRIS CHANG 23-Jul-2003

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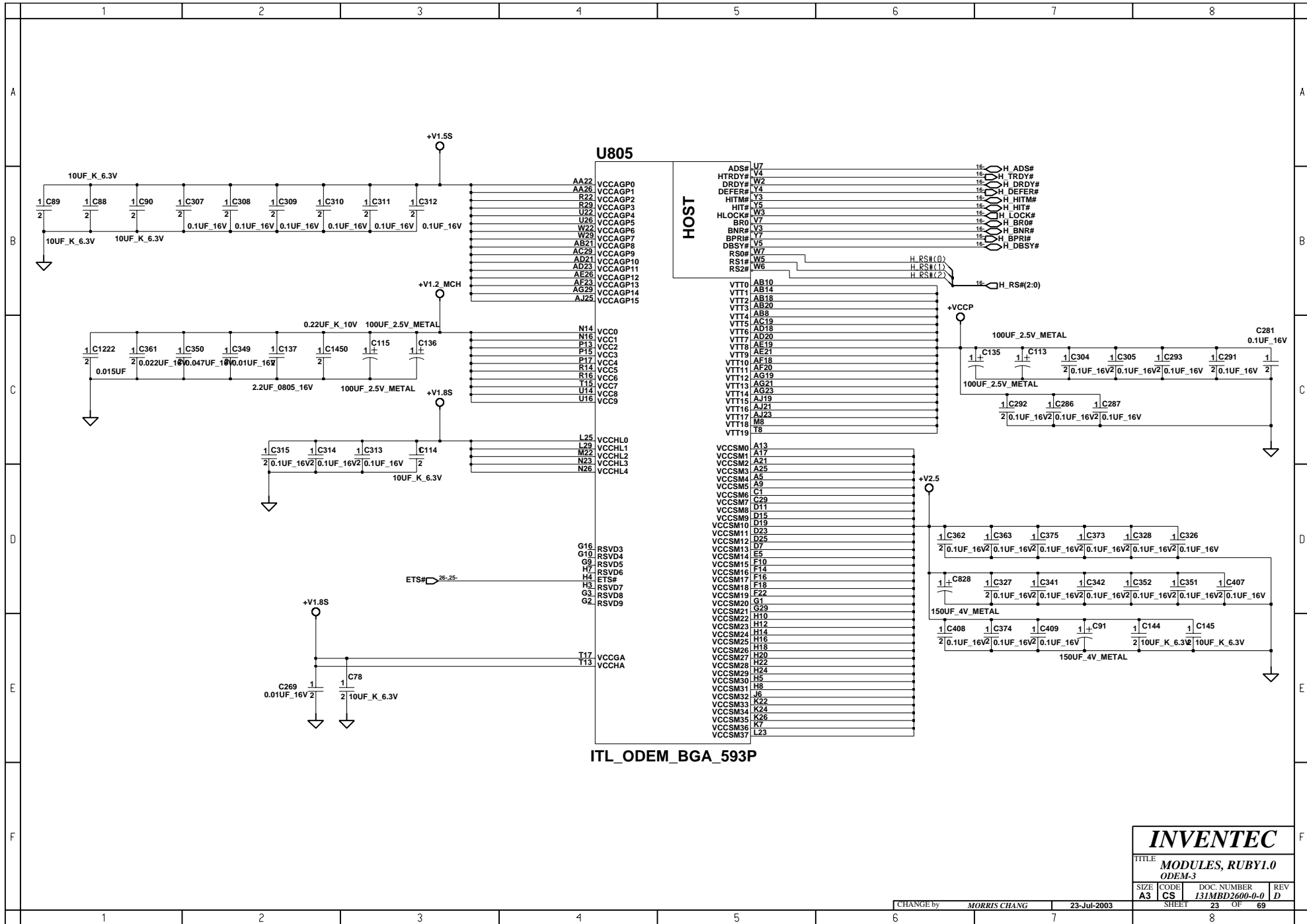


INVENTEC
 TITLE: **MODULES, RUBY1.0**
ODEM-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D

CHANGE by **MORRIS CHIANG** 23-Jul-2003

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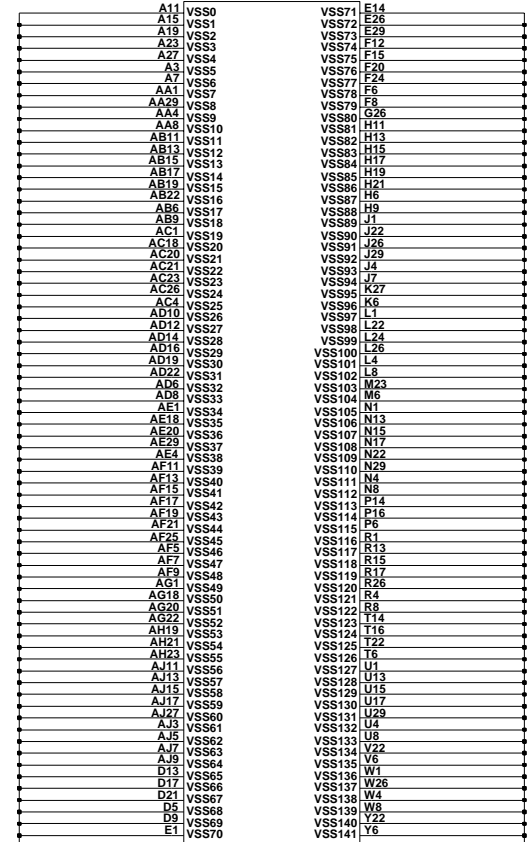
ITL_ODEM_BGA_593P

INVENTEC
 TITLE: MODULES, RUBY1.0
 ODEM-3

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D

CHANGE by MORRIS CHIANG 23-Jul-2003 SHEET 23 OF 69

U805



ITL_ODEM_BGA_593P

INVENTEC

TITLE **MODULES, RUBY1.0**
ODEM-4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D

CHANGE by **MORRIS CHIANG** 23-Jul-2003

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1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

B

C

D

E

F

1

2

3

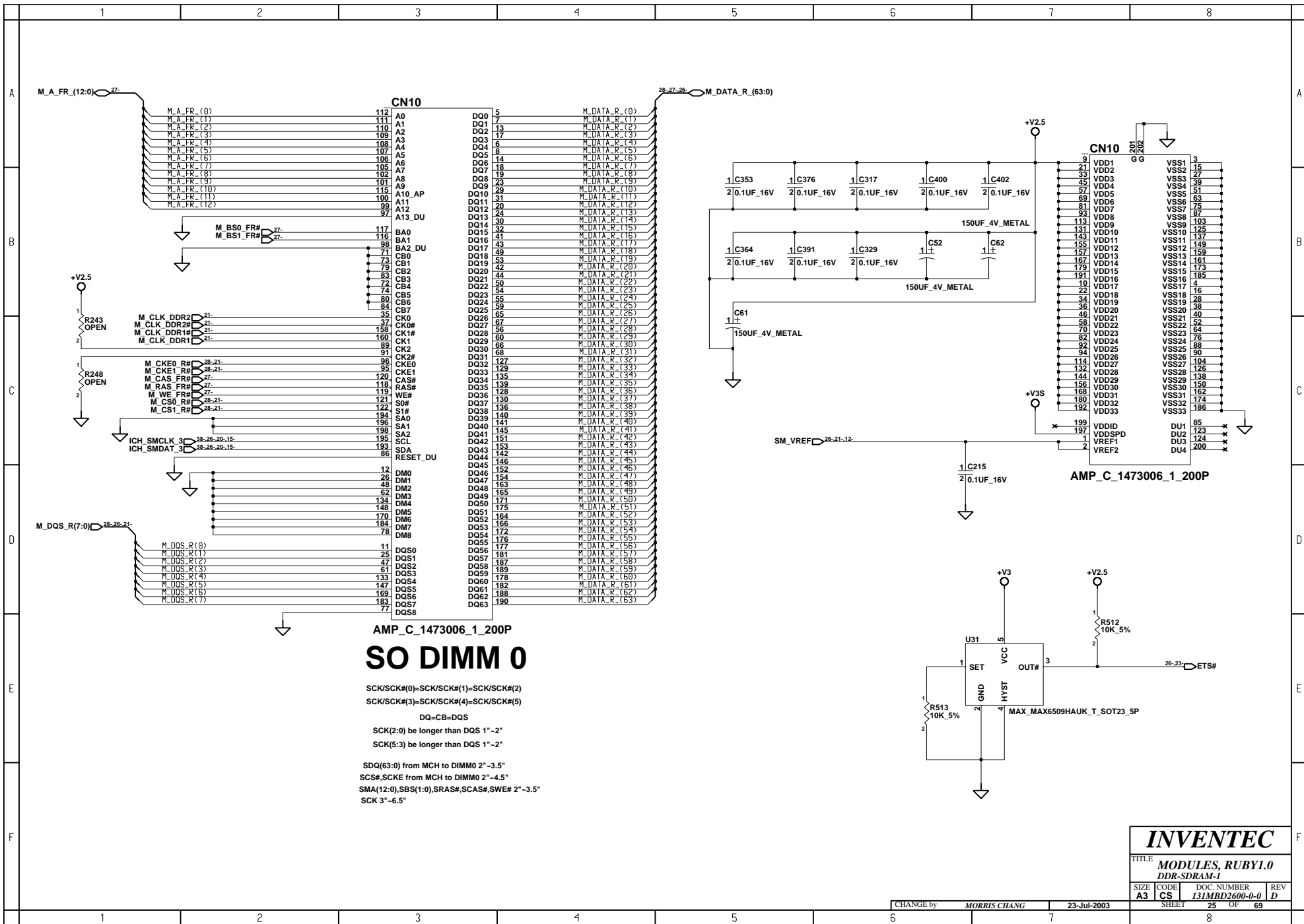
4

5

6

7

8

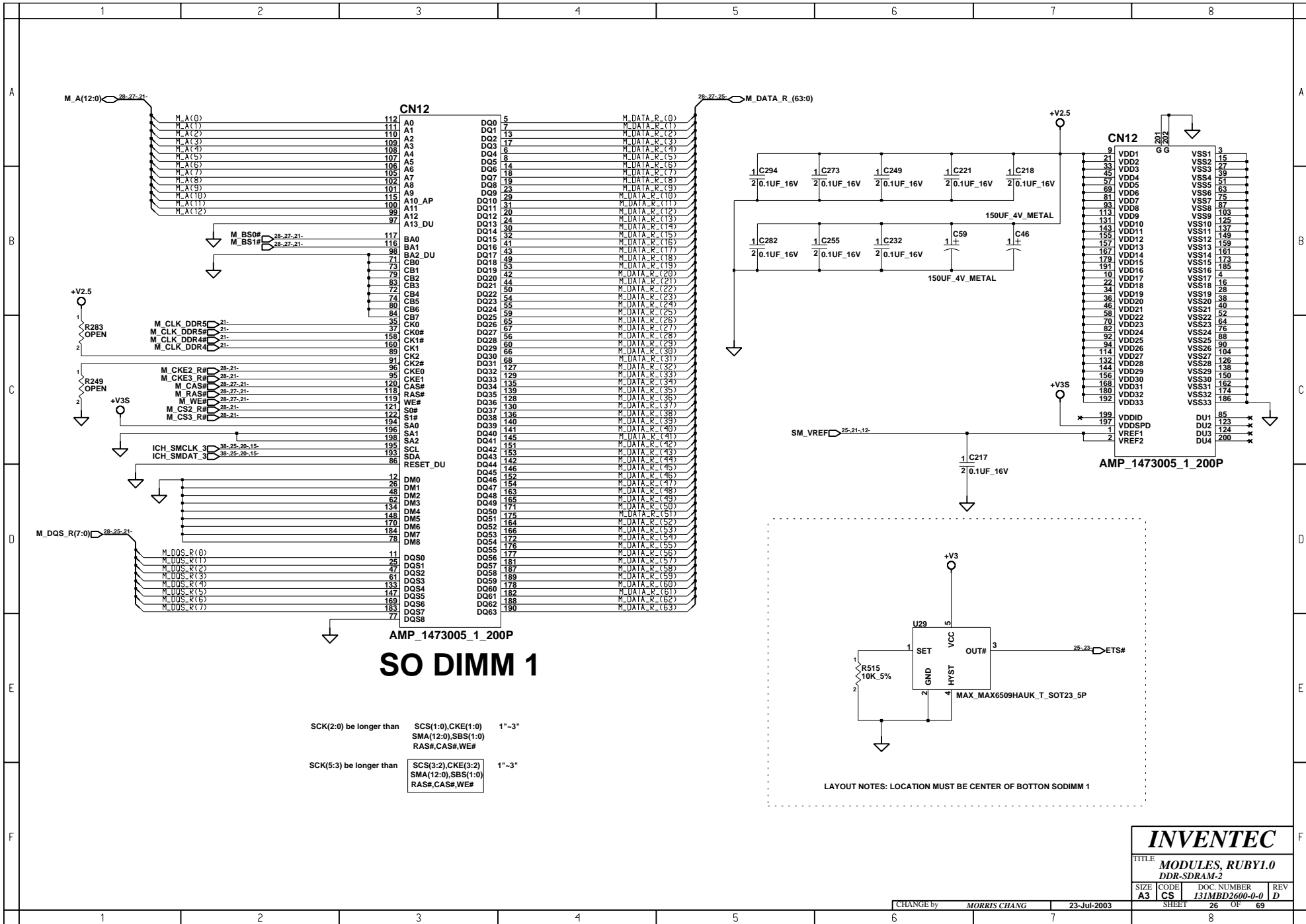


AMP_C_1473006_1_200P

SO DIMM 0

SCK/SCK#(0)=SCK/SCK#(1)=SCK/SCK#(2)
 SCK/SCK#(3)=SCK/SCK#(4)=SCK/SCK#(5)
 DQ=CB=DQS
 SCK(2:0) be longer than DQS 1"-2"
 SCK(5:3) be longer than DQS 1"-2"
 SDQ(63:0) from MCH to DIMM0 2"-3.5"
 SCS#,SCKE from MCH to DIMM0 2"-4.5"
 SMA(12:0),SBS(1:0),SRAS#,SCAS#,SWE# 2"-3.5"
 SCK 3"-6.5"

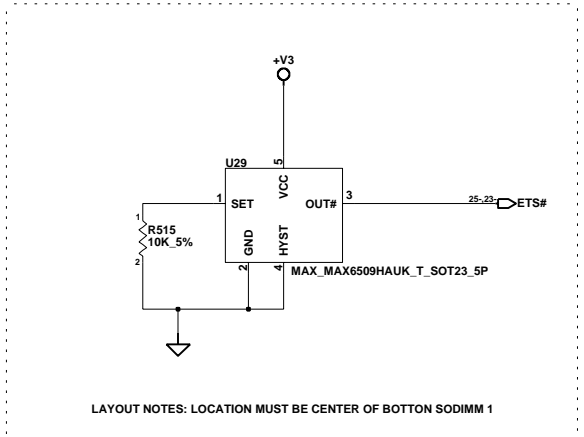
INVENTEC			
TITLE MODULES, RUBY1.0			
DDR-SDRAM-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		25	OF 69



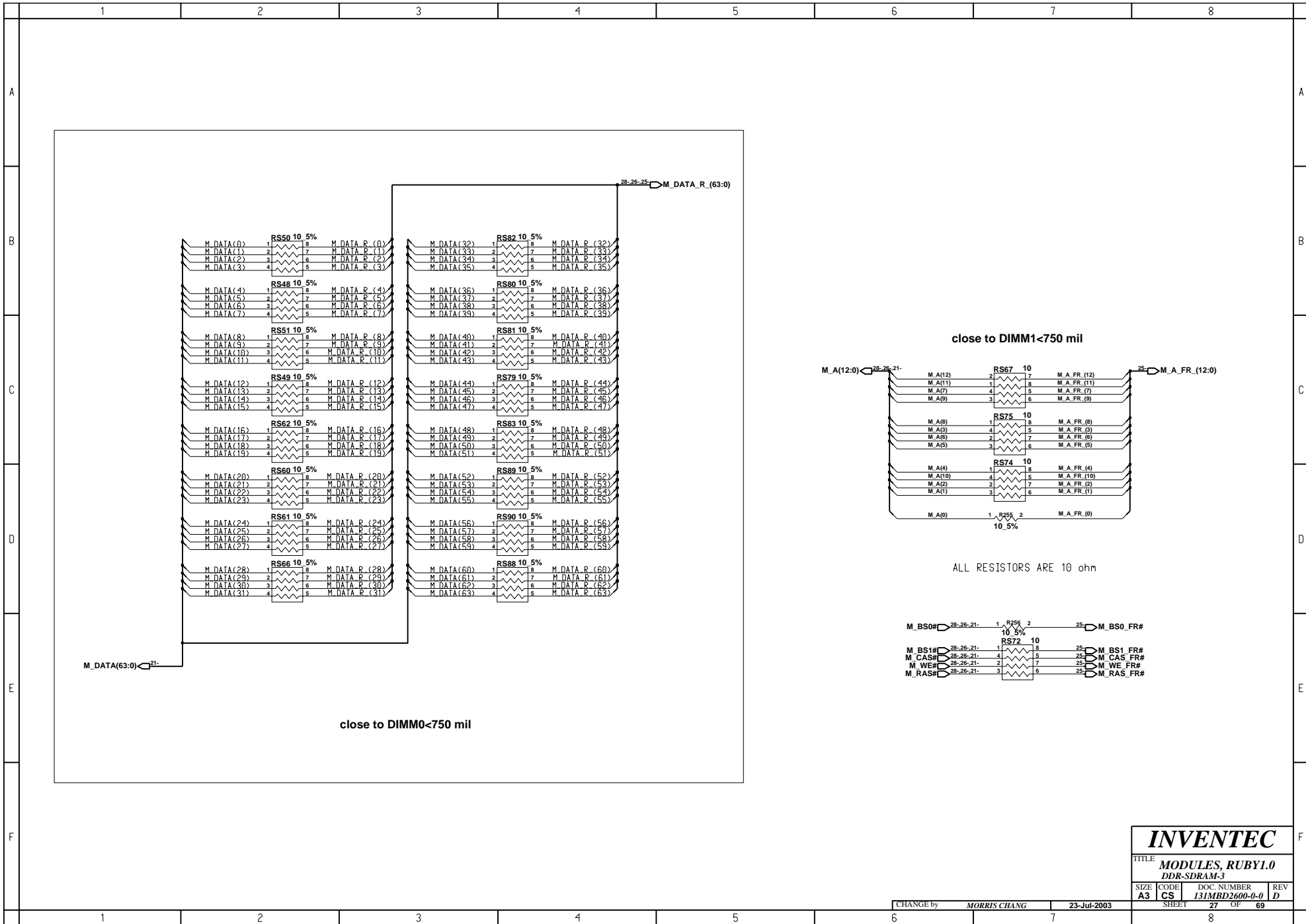
AMP_1473005_1_200P
SO DIMM 1

SCK(2:0) be longer than SCS(1:0),CKE(1:0) 1"-3"
SMA(12:0),SBS(1:0)
RAS#,CAS#,WE#

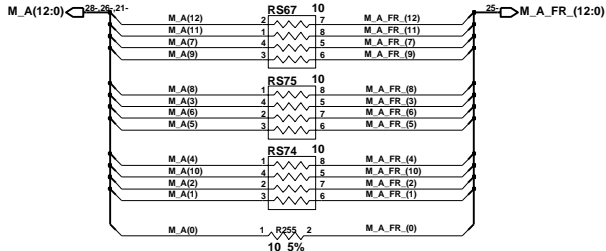
SCK(5:3) be longer than SCS(3:2),CKE(3:2) 1"-3"
SMA(12:0),SBS(1:0)
RAS#,CAS#,WE#



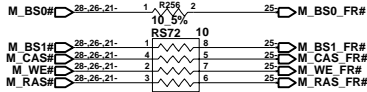
INVENTEC			
TITLE: MODULES, RUBY1.0			
DDR-SDRAM-2			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
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close to DIMM1<750 mil



ALL RESISTORS ARE 10 ohm



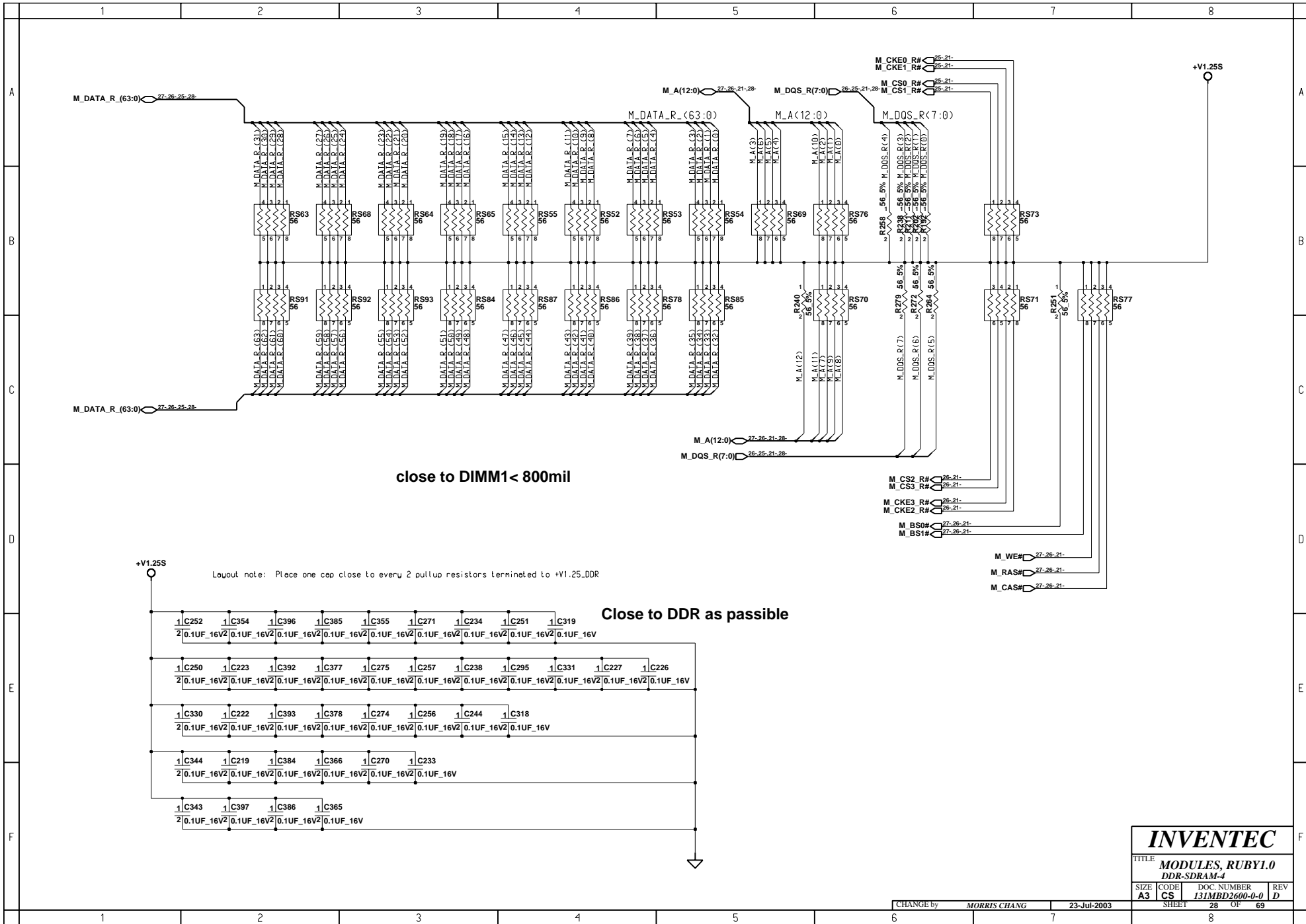
INVENTEC

TITLE **MODULES, RUBY1.0**
DDR-SDRAM-3

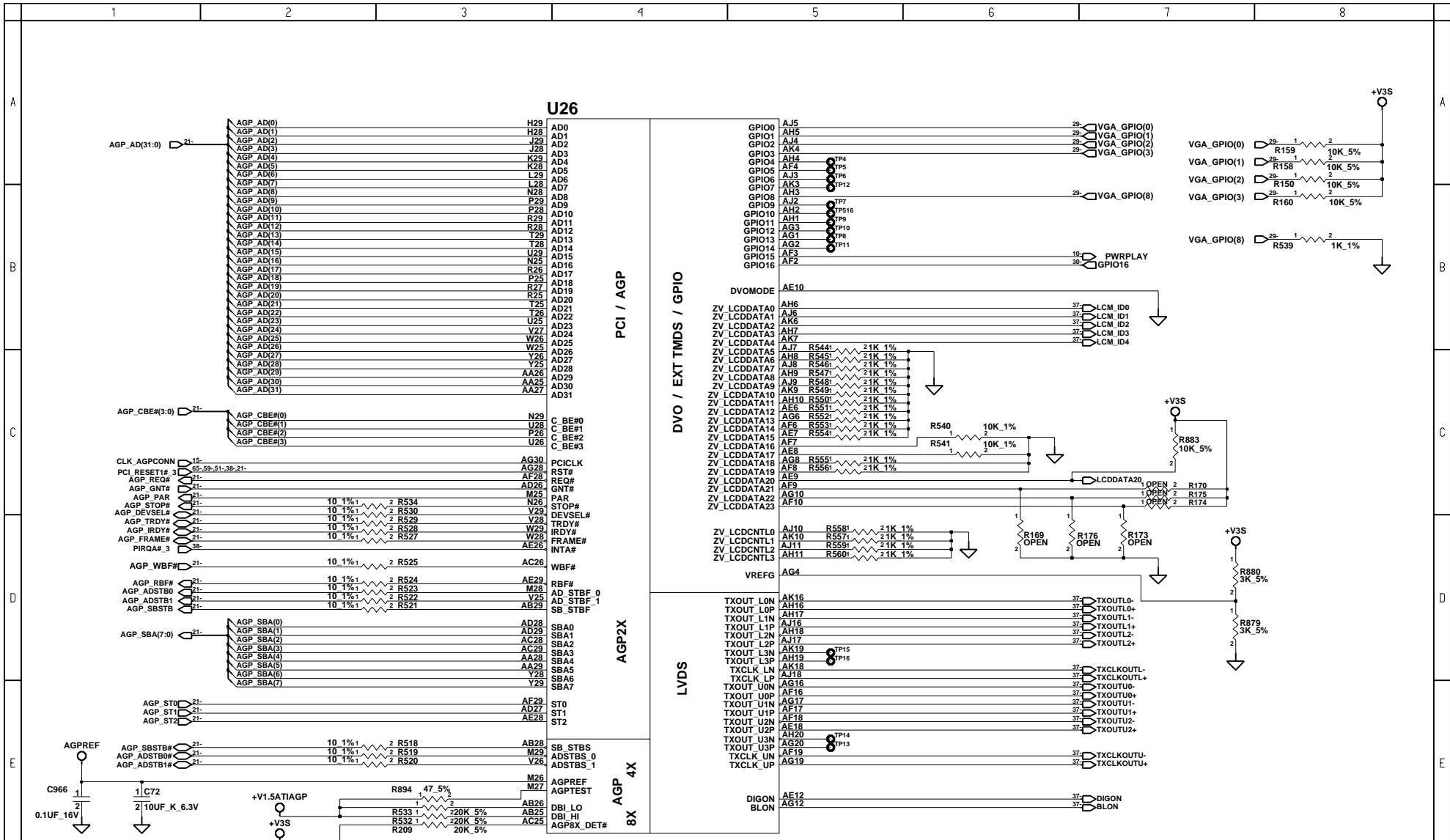
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D

CHANGE by **MORRIS CHIANG** 23-Jul-2003

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INVENTEC			
TITLE MODULES, RUBY1.0			
DDR-SDRAM-4			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		28	OF 69



ATI M10 P BGA 708P

INVENTEC

TITLE **MODULES, RUBY1.0**
ATI-M10-P-1

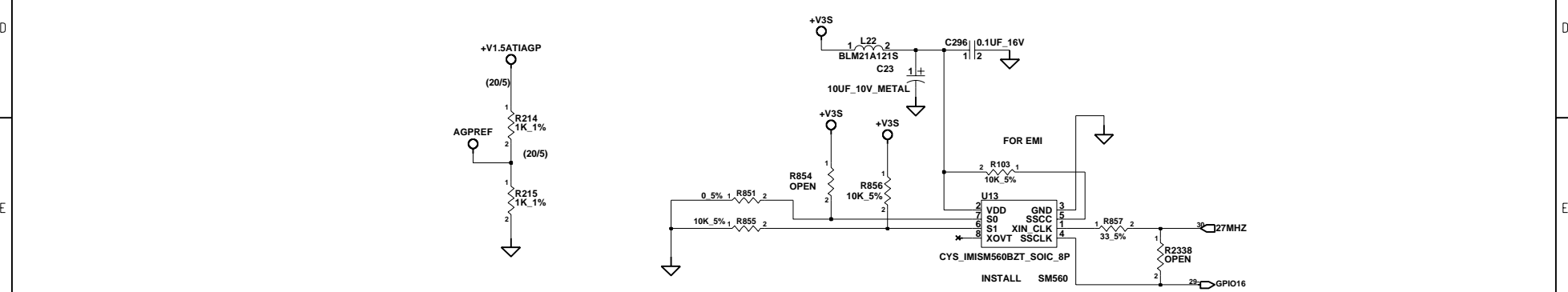
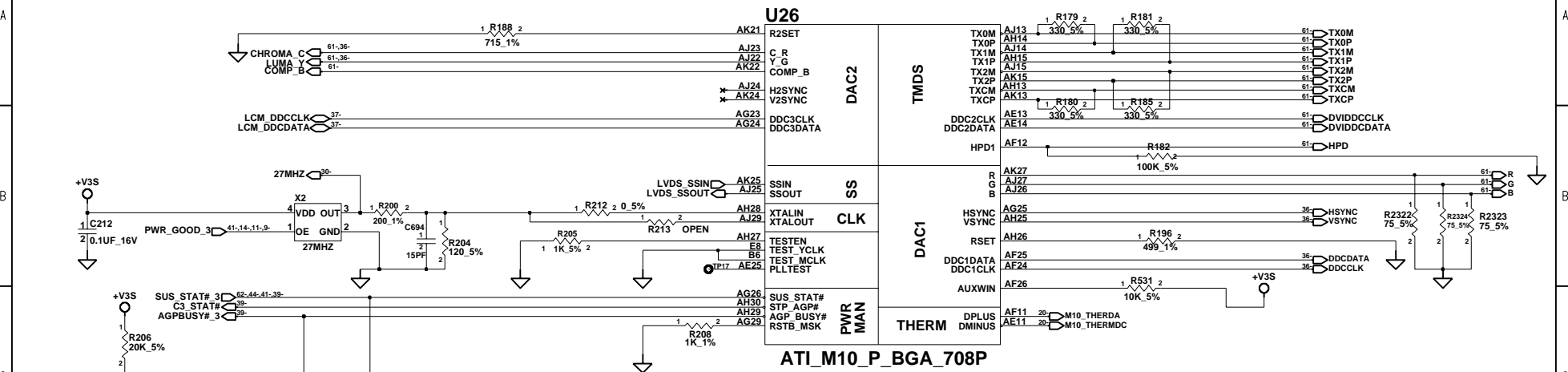
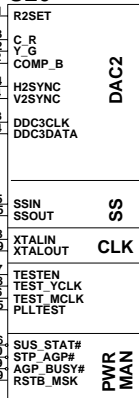
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D

CHANGE by MORRIS CHIANG 23-Jul-2003

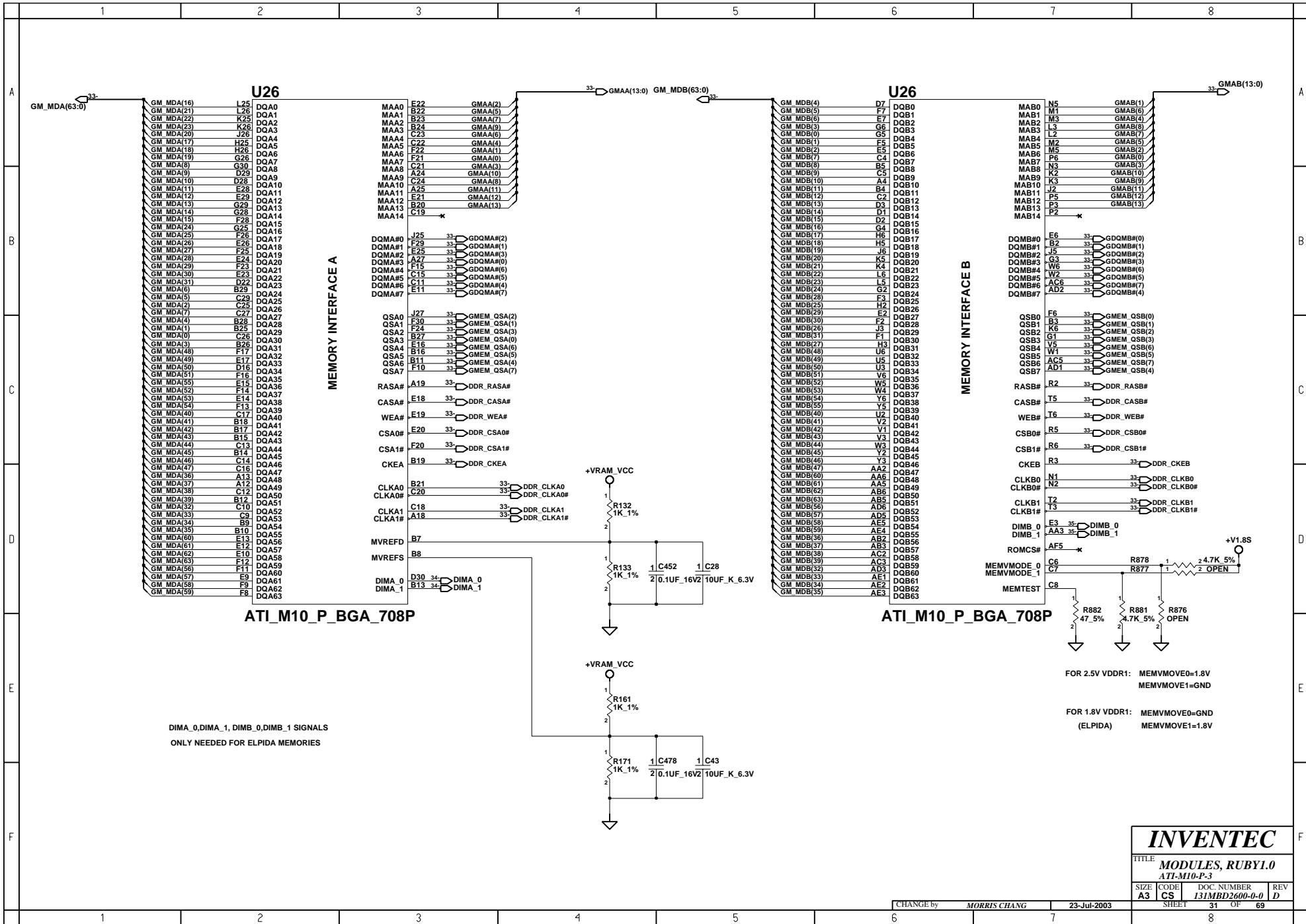
SHEET 29 OF 69

LAYOUT NOTES : R1359, R1361, R1360, R1362 CLOSE TO M10-P
TERMINATIONS TO TMS SIGNALS

U26



INVENTEC			
TITLE MODULES, RUBY1.0			
ATI-M10-P-2			
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
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U26

GM MDA(16)	L25	DQA0
GM MDA(21)	L26	DQA1
GM MDA(22)	K25	DQA2
GM MDA(23)	K26	DQA3
GM MDA(20)	J26	DQA4
GM MDA(17)	H25	DQA5
GM MDA(18)	H26	DQA6
GM MDA(19)	G25	DQA7
GM MDA(8)	G30	DQA8
GM MDA(9)	D29	DQA9
GM MDA(10)	D28	DQA10
GM MDA(11)	E28	DQA11
GM MDA(12)	E29	DQA12
GM MDA(13)	G29	DQA13
GM MDA(14)	G28	DQA14
GM MDA(15)	F28	DQA15
GM MDA(24)	G25	DQA16
GM MDA(25)	F26	DQA17
GM MDA(26)	E26	DQA18
GM MDA(27)	F25	DQA19
GM MDA(28)	E24	DQA20
GM MDA(29)	F23	DQA21
GM MDA(30)	E23	DQA22
GM MDA(31)	D22	DQA23
GM MDA(6)	B29	DQA24
GM MDA(5)	C28	DQA25
GM MDA(2)	C28	DQA26
GM MDA(7)	C27	DQA27
GM MDA(4)	B28	DQA28
GM MDA(1)	B25	DQA29
GM MDA(0)	C26	DQA30
GM MDA(3)	B26	DQA31
GM MDA(48)	F17	DQA32
GM MDA(49)	E17	DQA33
GM MDA(50)	F16	DQA34
GM MDA(51)	F16	DQA35
GM MDA(55)	E13	DQA36
GM MDA(52)	F14	DQA37
GM MDA(53)	E14	DQA38
GM MDA(54)	F13	DQA39
GM MDA(40)	C17	DQA40
GM MDA(41)	B18	DQA41
GM MDA(42)	B17	DQA42
GM MDA(43)	B15	DQA43
GM MDA(44)	C13	DQA44
GM MDA(45)	B14	DQA45
GM MDA(46)	C14	DQA46
GM MDA(47)	C16	DQA47
GM MDA(36)	A13	DQA48
GM MDA(37)	A12	DQA49
GM MDA(38)	C12	DQA50
GM MDA(39)	B12	DQA51
GM MDA(32)	C10	DQA52
GM MDA(33)	B9	DQA53
GM MDA(34)	B9	DQA54
GM MDA(35)	B10	DQA55
GM MDA(60)	E13	DQA56
GM MDA(61)	E12	DQA57
GM MDA(62)	E10	DQA58
GM MDA(63)	F12	DQA59
GM MDA(56)	F11	DQA60
GM MDA(57)	E9	DQA61
GM MDA(58)	F9	DQA62
GM MDA(59)	F8	DQA63

MEMORY INTERFACE A

ATI_M10_P_BGA_708P

DIMA_0, DIMA_1, DIMB_0, DIMB_1 SIGNALS
ONLY NEEDED FOR ELPIDA MEMORIES

U26

GM MDB(4)	D7	DQB0
GM MDB(5)	F7	DQB1
GM MDB(6)	F7	DQB2
GM MDB(3)	G6	DQB3
GM MDB(0)	G5	DQB4
GM MDB(1)	F5	DQB5
GM MDB(2)	E5	DQB6
GM MDB(7)	C4	DQB7
GM MDB(8)	B5	DQB8
GM MDB(9)	C5	DQB9
GM MDB(10)	A4	DQB10
GM MDB(11)	B4	DQB11
GM MDB(12)	C2	DQB12
GM MDB(13)	D3	DQB13
GM MDB(14)	D1	DQB14
GM MDB(15)	D2	DQB15
GM MDB(16)	G4	DQB16
GM MDB(17)	H6	DQB17
GM MDB(18)	H5	DQB18
GM MDB(19)	J6	DQB19
GM MDB(20)	K5	DQB20
GM MDB(21)	K4	DQB21
GM MDB(22)	L6	DQB22
GM MDB(23)	L5	DQB23
GM MDB(24)	G2	DQB24
GM MDB(28)	F2	DQB25
GM MDB(29)	H2	DQB26
GM MDB(30)	F2	DQB27
GM MDB(26)	J3	DQB28
GM MDB(31)	F1	DQB29
GM MDB(27)	H3	DQB30
GM MDB(48)	U6	DQB31
GM MDB(49)	U5	DQB32
GM MDB(50)	U3	DQB33
GM MDB(51)	V6	DQB34
GM MDB(52)	W5	DQB35
GM MDB(53)	W4	DQB36
GM MDB(54)	Y6	DQB37
GM MDB(55)	Y5	DQB38
GM MDB(41)	V2	DQB39
GM MDB(42)	V1	DQB40
GM MDB(43)	V3	DQB41
GM MDB(44)	W3	DQB42
GM MDB(45)	Y2	DQB43
GM MDB(46)	Y3	DQB44
GM MDB(47)	AA2	DQB45
GM MDB(60)	AA6	DQB46
GM MDB(61)	AA5	DQB47
GM MDB(62)	AB6	DQB48
GM MDB(63)	AB5	DQB49
GM MDB(56)	AD6	DQB50
GM MDB(57)	AD5	DQB51
GM MDB(58)	AE5	DQB52
GM MDB(59)	AE4	DQB53
GM MDB(36)	AB2	DQB54
GM MDB(37)	AB3	DQB55
GM MDB(38)	AC2	DQB56
GM MDB(39)	AC3	DQB57
GM MDB(32)	AD3	DQB58
GM MDB(33)	AE1	DQB59
GM MDB(34)	AE2	DQB60
GM MDB(35)	AE3	DQB61
		DQB62
		DQB63

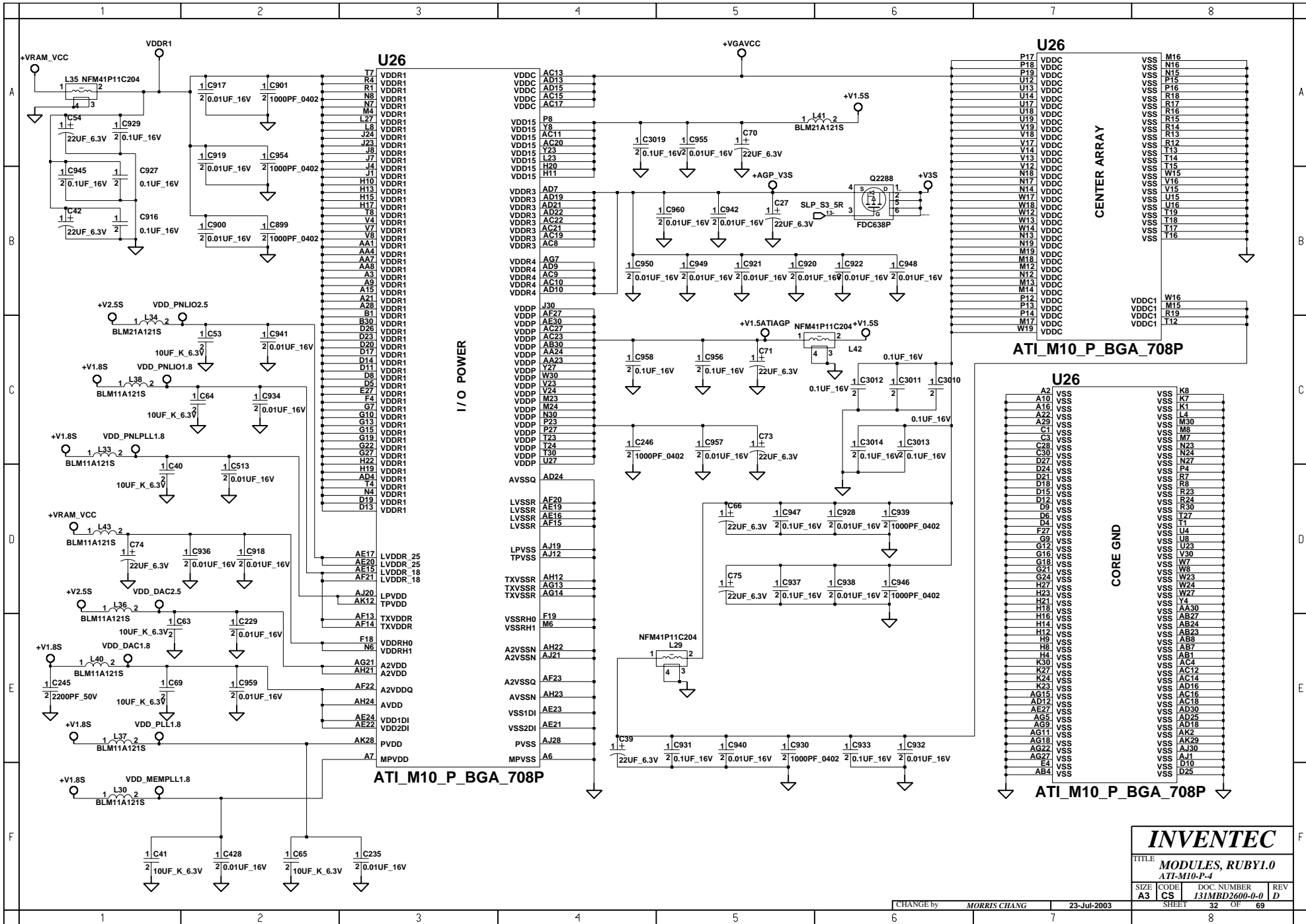
MEMORY INTERFACE B

ATI_M10_P_BGA_708P

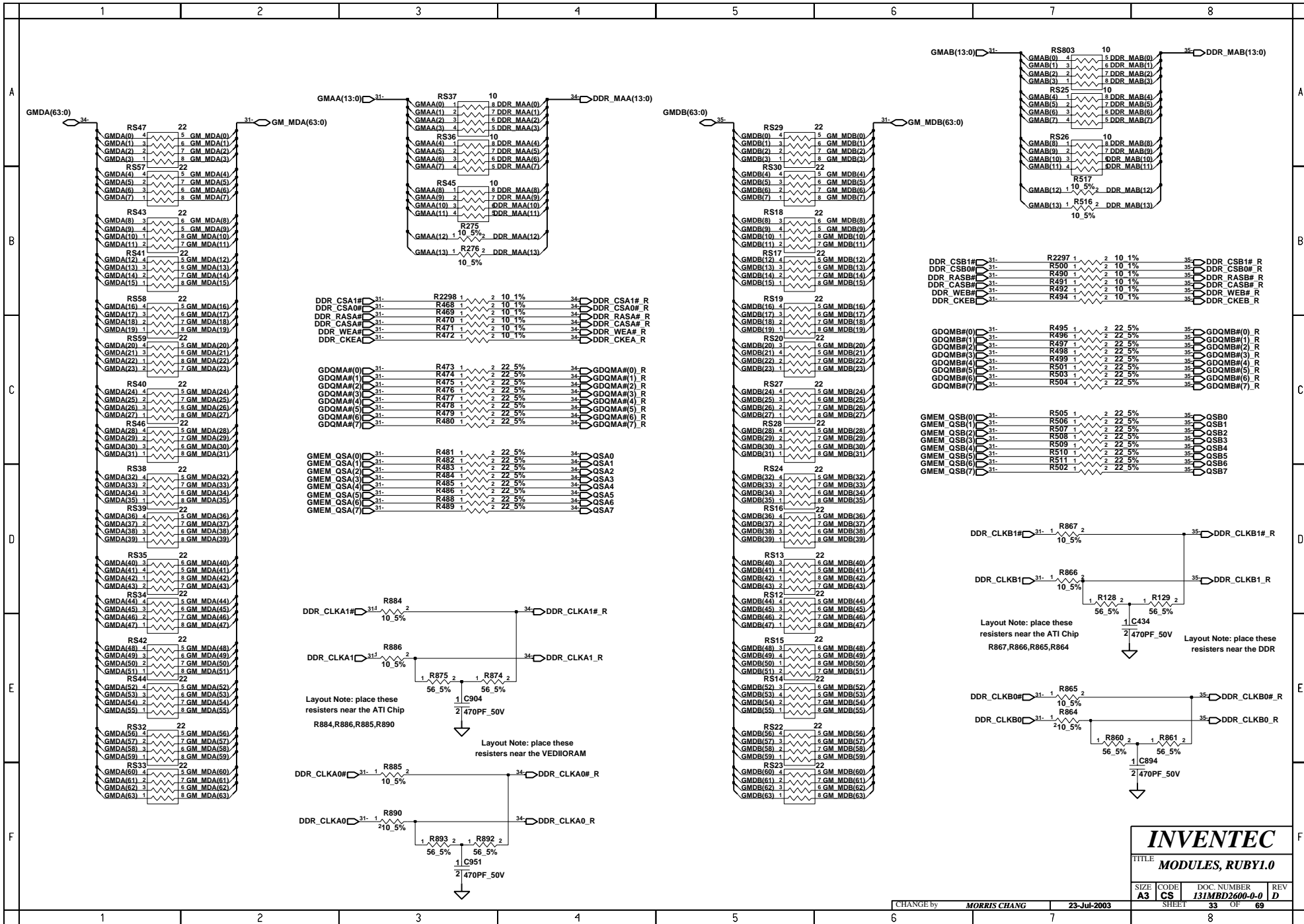
FOR 2.5V VDDR1: MEMVMODE0=1.8V
MEMVMODE1=GND

FOR 1.8V VDDR1: MEMVMODE0=GND
(ELPIDA) MEMVMODE1=1.8V

INVENTEC			
TITLE MODULES, RUBY1.0 ATI-M10-P-3			
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	SHEET 31 OF 69



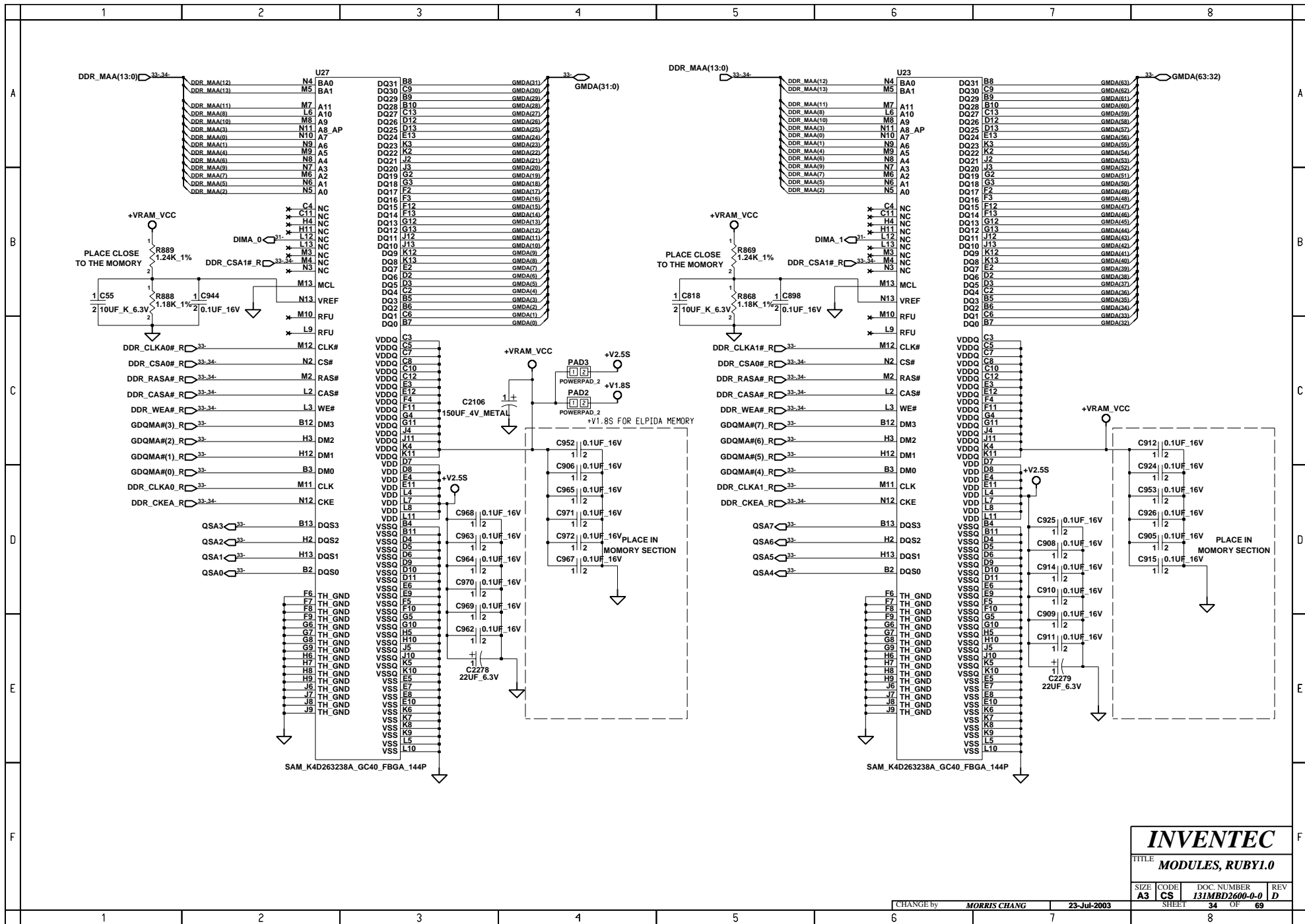
INVENTEC			
TITLE: MODULES, RUBY1.0			
ATI-M10-P-4			
SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		32	OF 69



INVENTEC

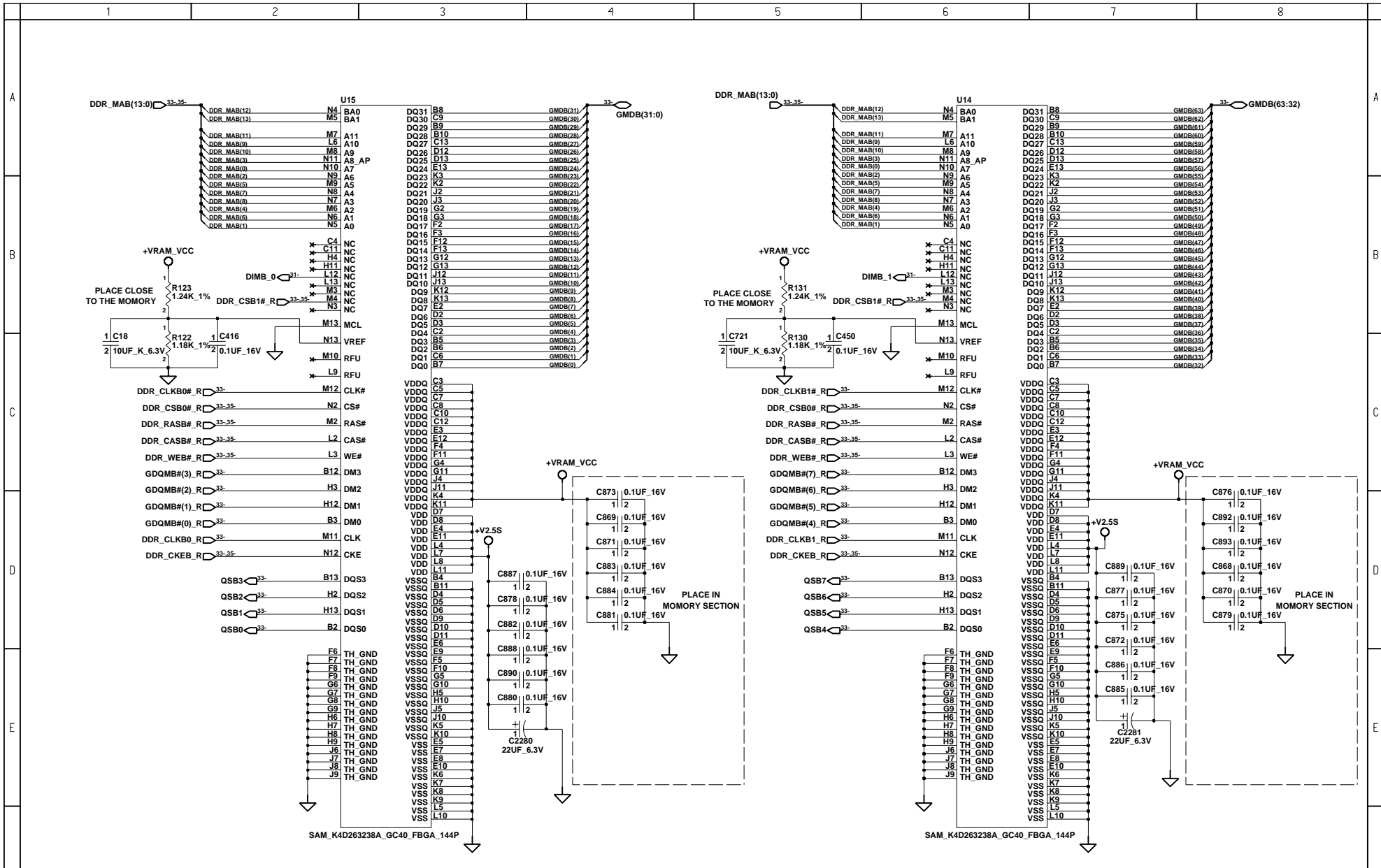
TITLE
MODULES, RUBY1.0

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D
SHEET	33		OF 69

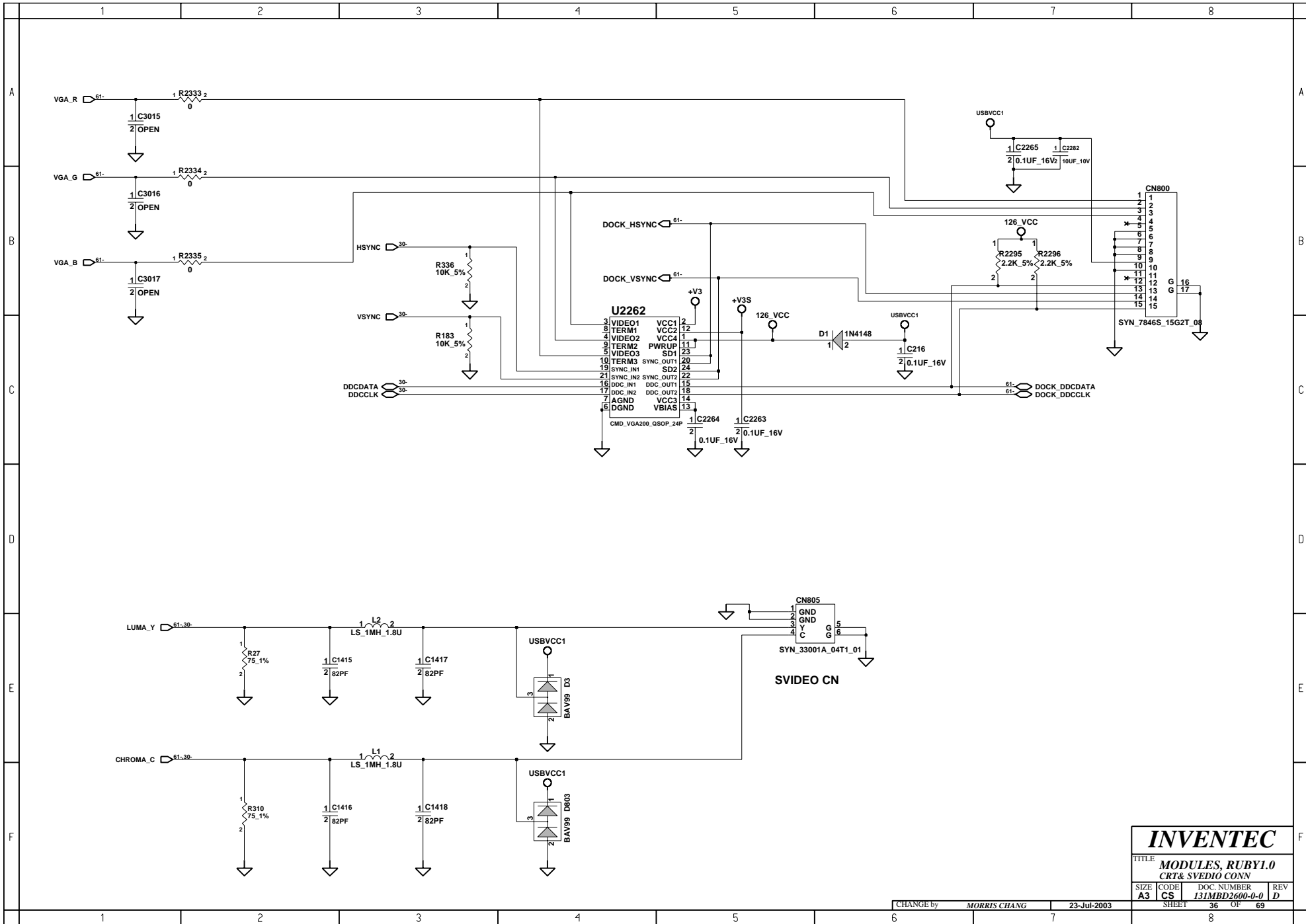


INVENTEC
 TITLE: **MODULES, RUBY1.0**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D



INVENTEC			
TITLE: MODULES, RUBY1.0			
VIDEO RAM-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		35	OF 69



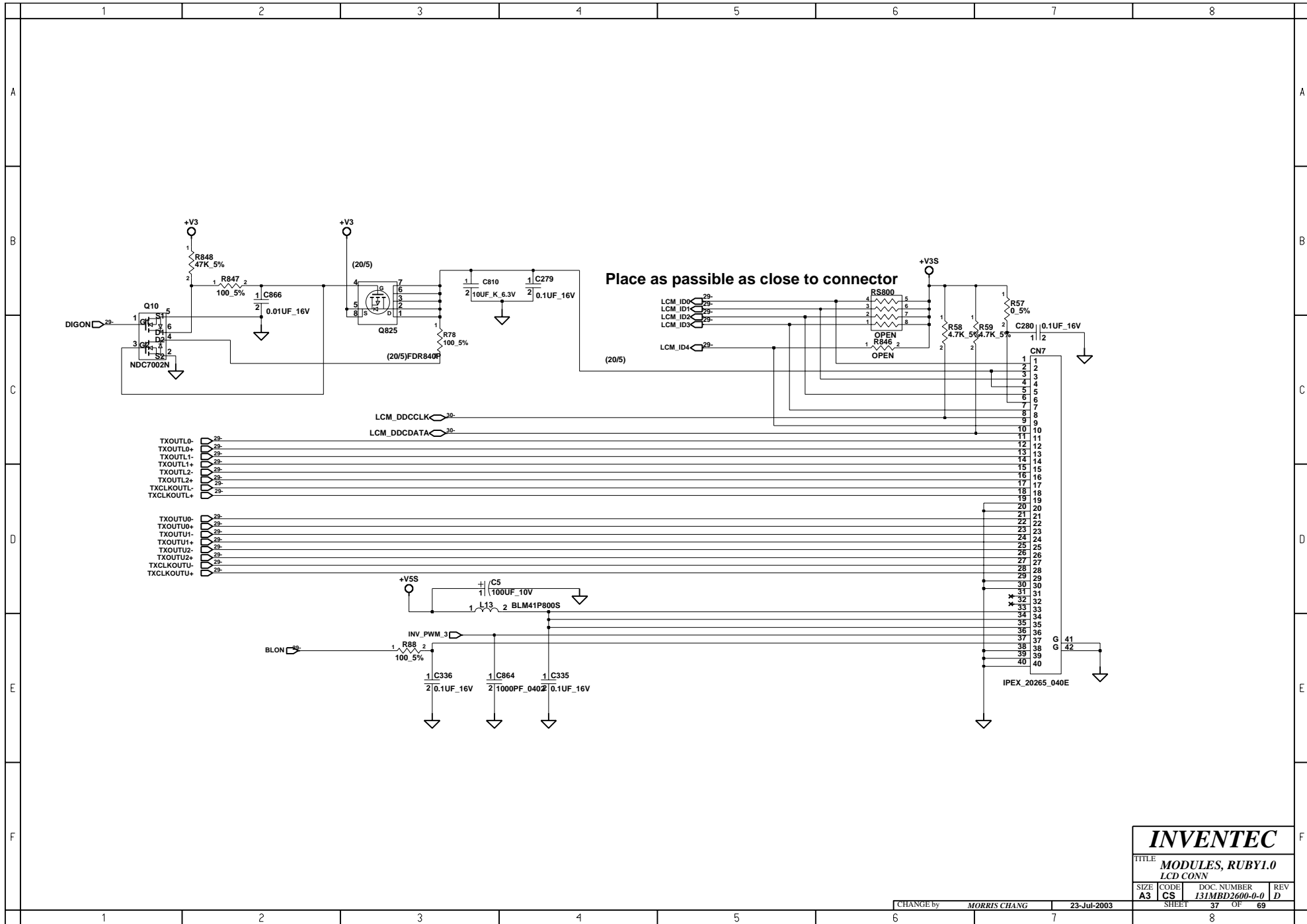
INVENTEC

TITLE: **MODULES, RUBY1.0
CRT & SVEDIO CONN**

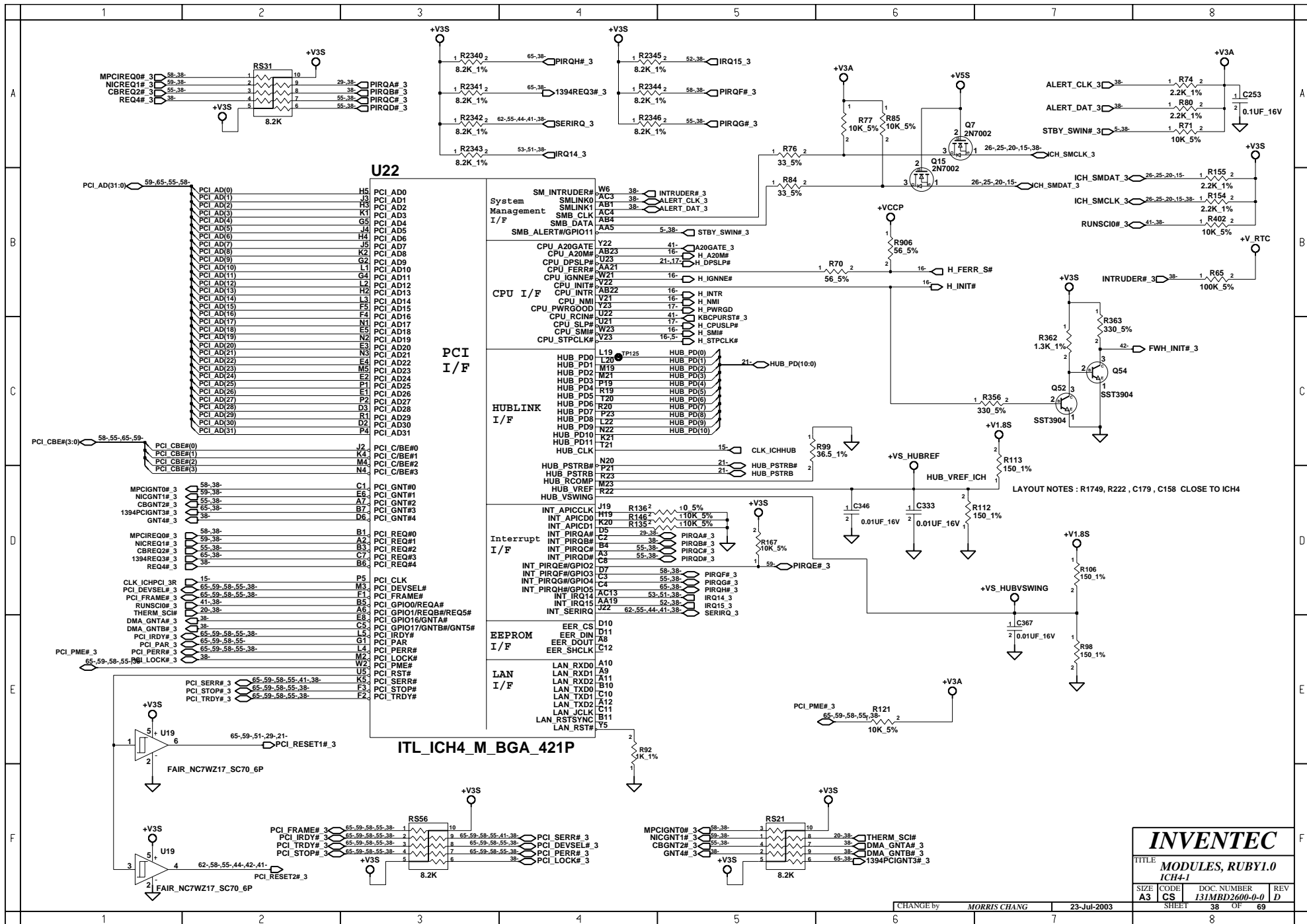
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D

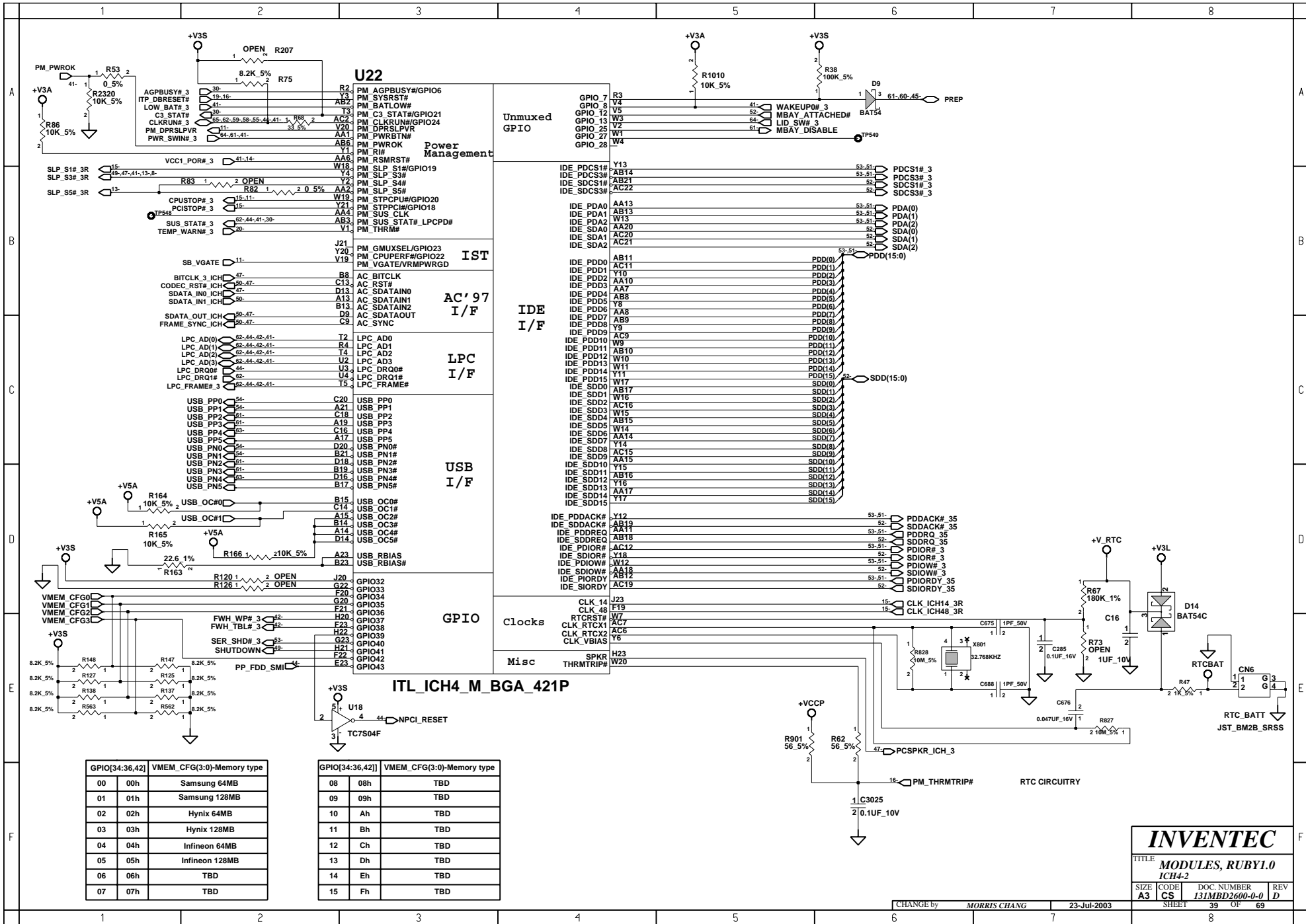
CHANGE by: MORRIS CHIANG 23-Jul-2003

SHEET 36 OF 69



INVENTEC			
TITLE MODULES, RUBY1.0 LCD CONN			
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	SHEET 37 OF 69

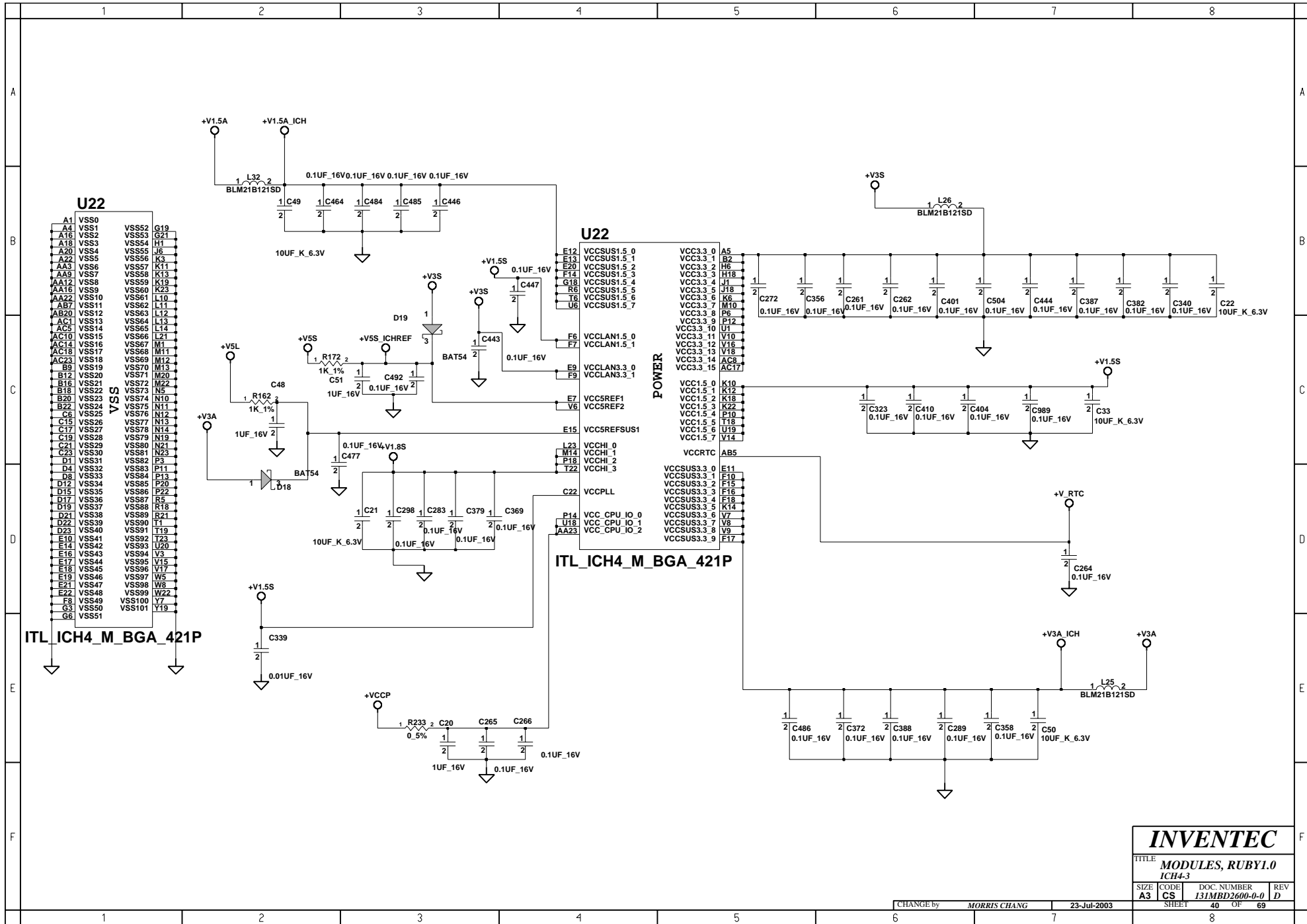




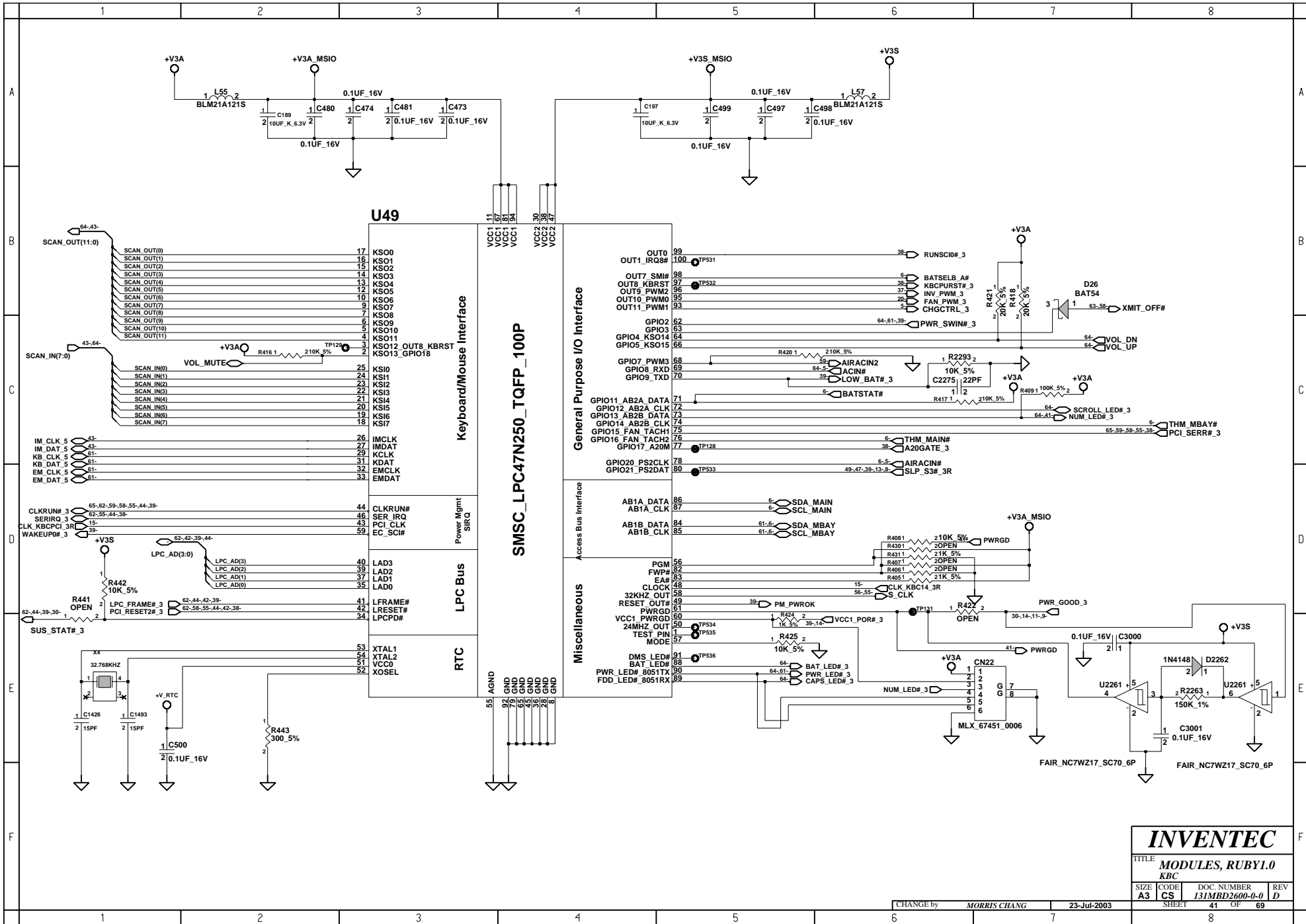
GPIO[34:36,42]	VMEM_CFG(3:0)-Memory type	
00	00h	Samsung 64MB
01	01h	Samsung 128MB
02	02h	Hynix 64MB
03	03h	Hynix 128MB
04	04h	Infineon 64MB
05	05h	Infineon 128MB
06	06h	TBD
07	07h	TBD

GPIO[34:36,42]	VMEM_CFG(3:0)-Memory type	
08	08h	TBD
09	09h	TBD
10	Ah	TBD
11	Bh	TBD
12	Ch	TBD
13	Dh	TBD
14	Eh	TBD
15	Fh	TBD

INVENTEC
 TITLE: **MODULES, RUBY1.0**
 ICH4-2
 SIZE: A3 CODE: CS DOC. NUMBER: 131MBD2600-0-0 REV: D
 SHEET: 39 OF 69



INVENTEC			
TITLE: MODULES, RUBY1.0			
ICH4-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		40	OF 69



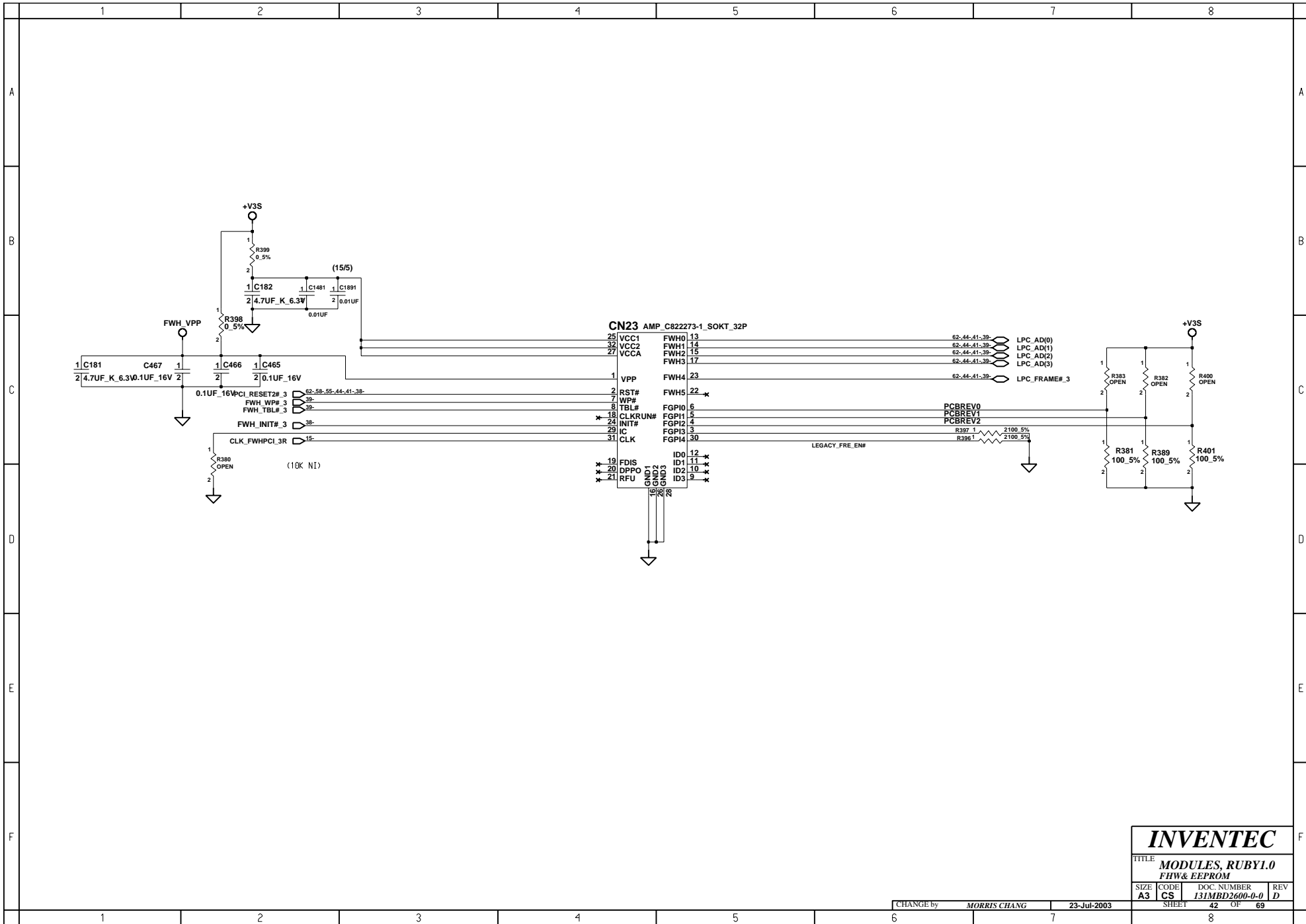
INVENTEC

TITLE: **MODULES, RUBY1.0**

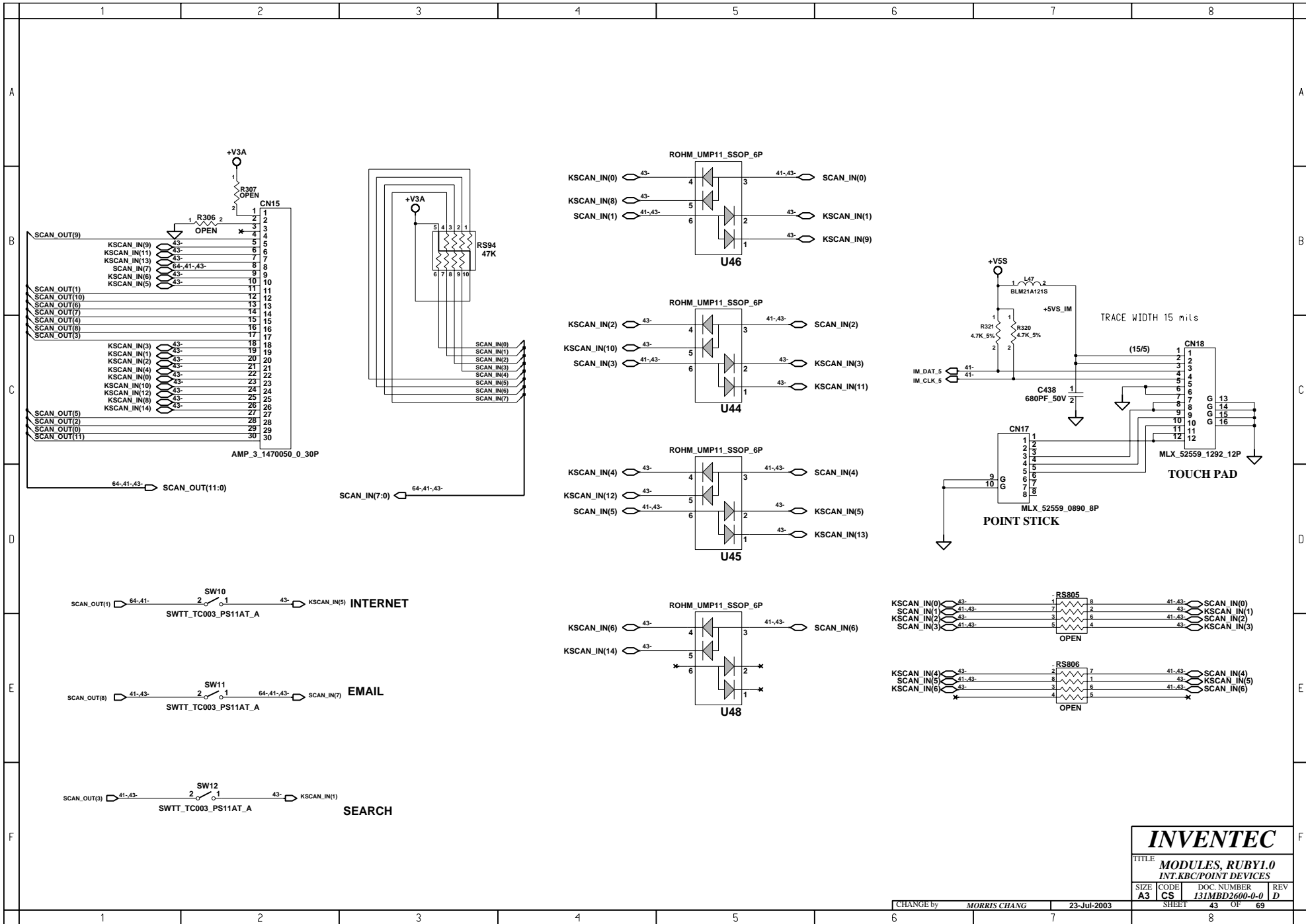
SIZE: **A3 CS** DOC. NUMBER: **131MBD2600-0-0** REV: **D**

SHEET: **41** OF: **69**

CHANGE by: **MORRIS CHIANG** 23-Jul-2003



INVENTEC			
TITLE MODULES, RUBY1.0			
FHW & EEPROM			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		DATE	SHEET
MORRIS CHIANG		23-Jul-2003	42 OF 69



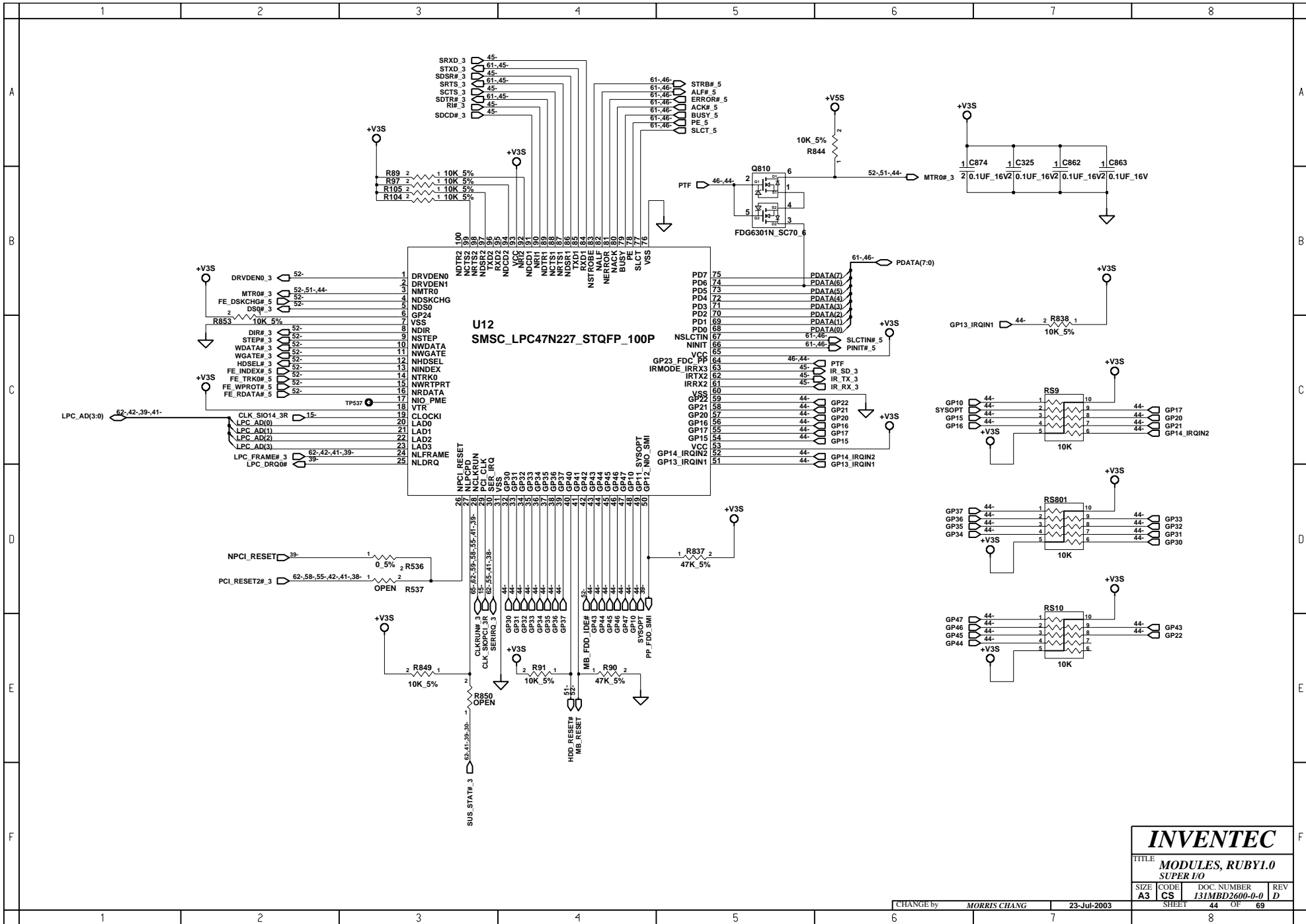
INVENTEC

TITLE **MODULES, RUBY1.0**
INT.KBC/POINT DEVICES

SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D

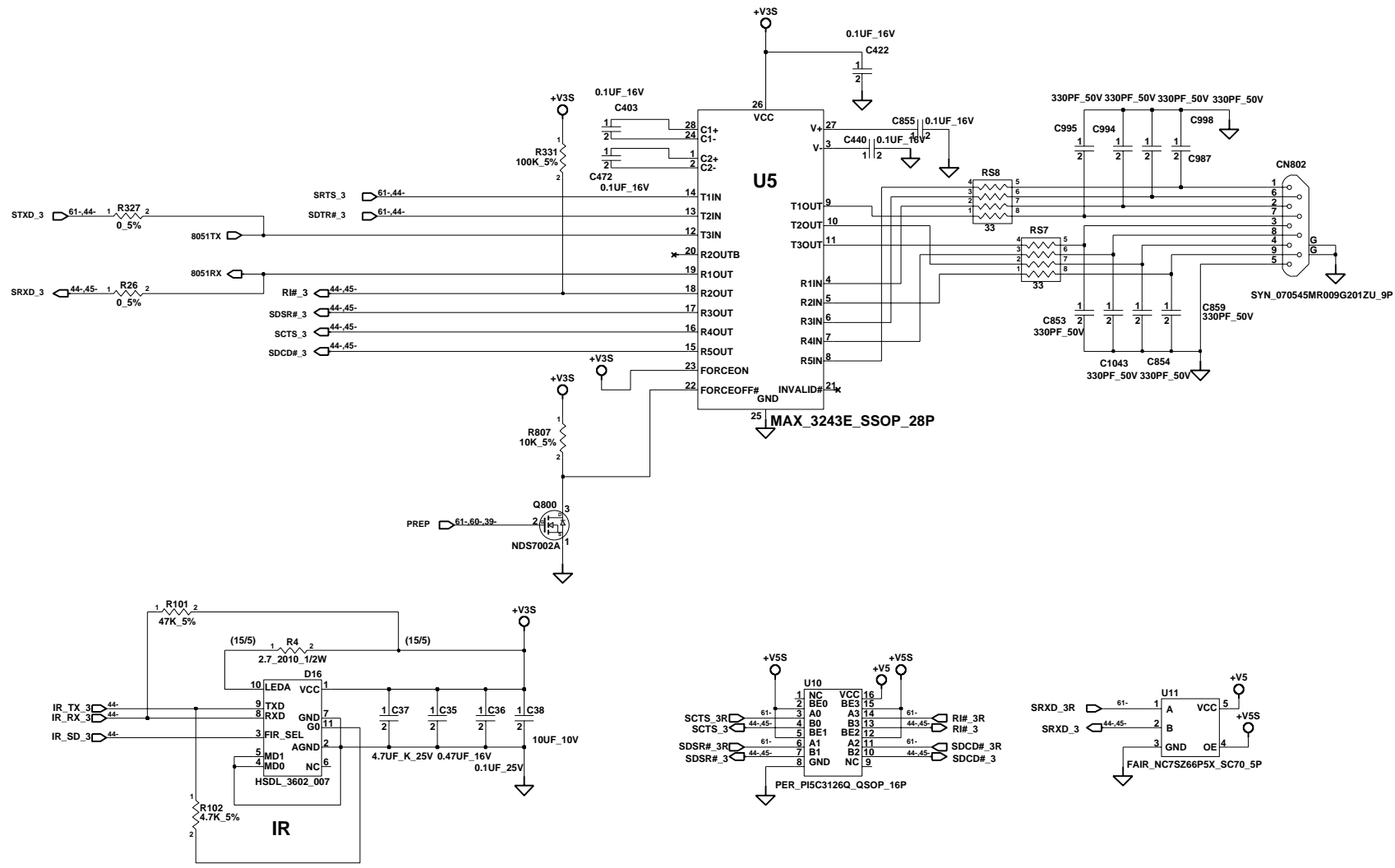
CHANGE by **MORRIS CHIANG** 23-Jul-2003

SHEET 43 OF 69



INVENTEC
 TITLE: **MODULES, RUBY1.0**
 SUPER I/O

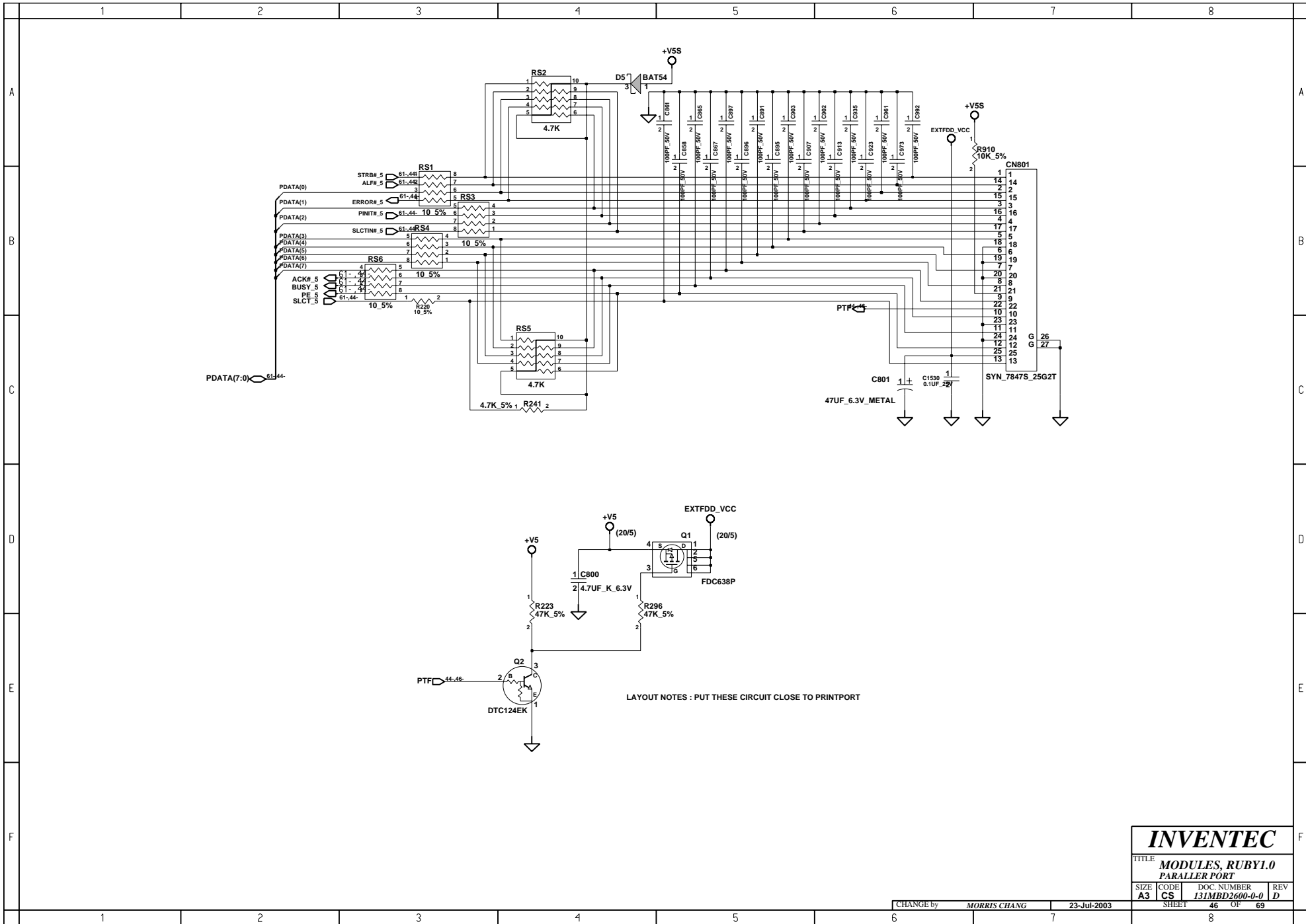
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I31MBD2600-0-0	D



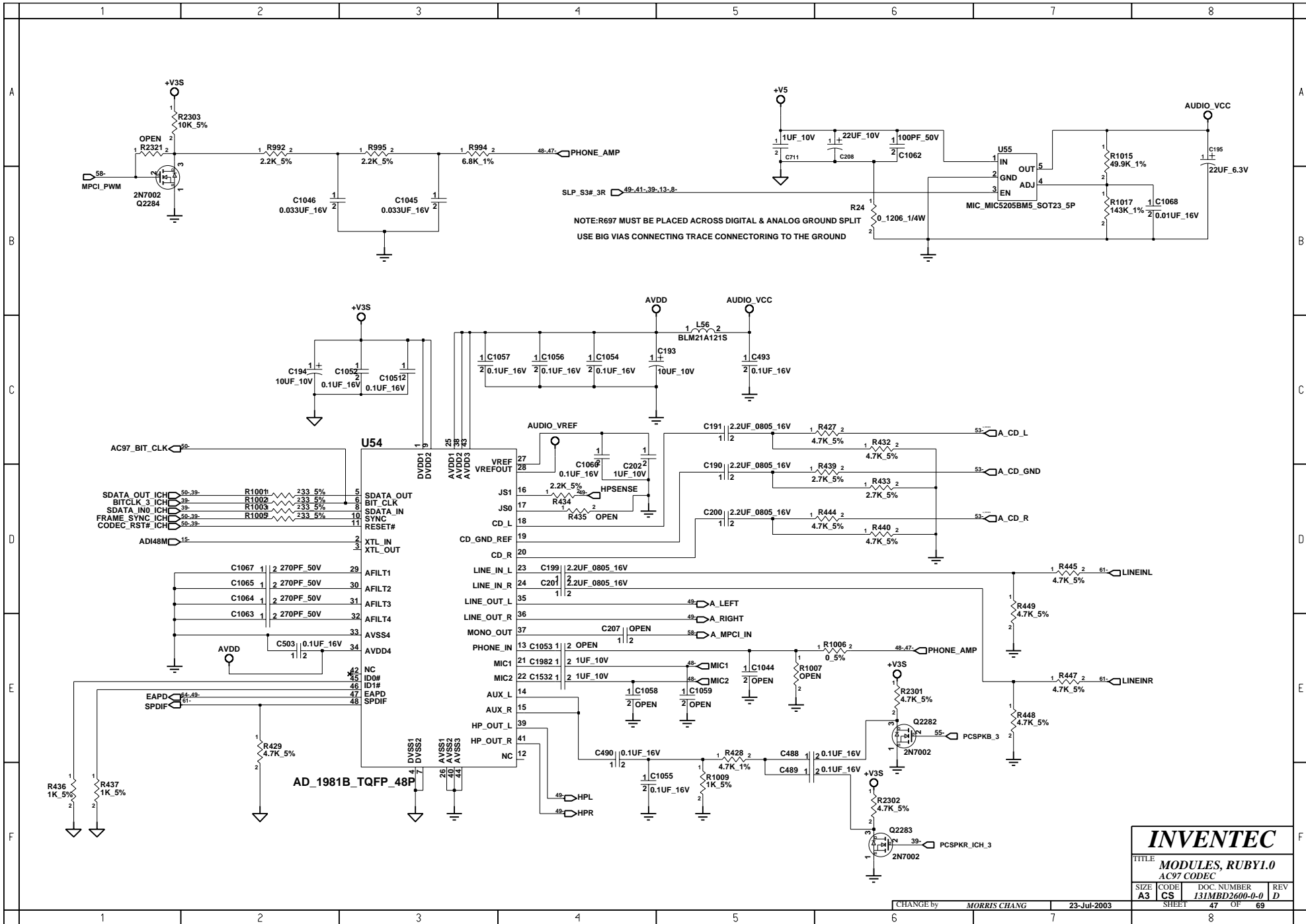
INVENTEC

TITLE **MODULES, RUBY1.0 SERIAL PORT&IR**

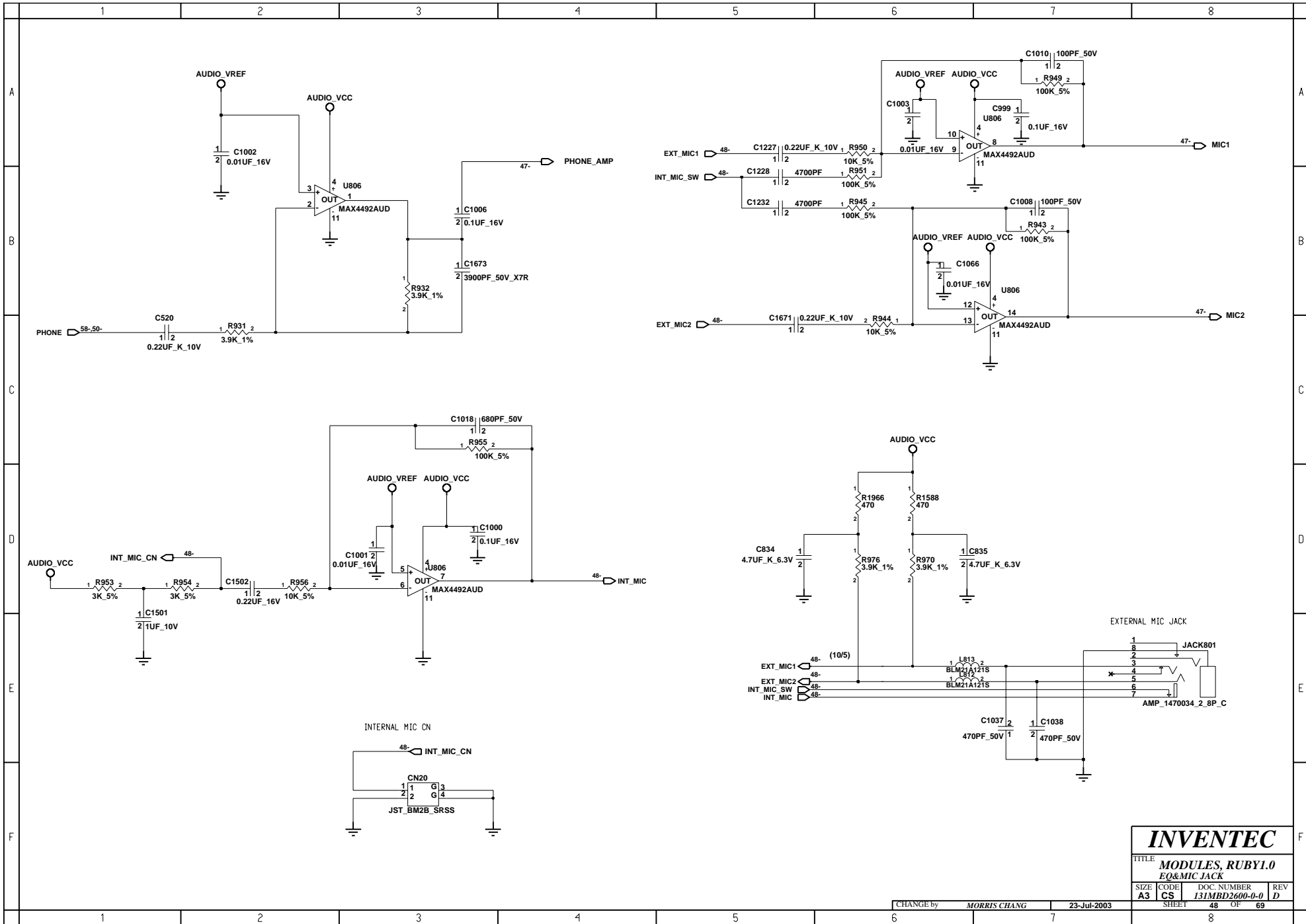
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
SHEET 45		OF 69	



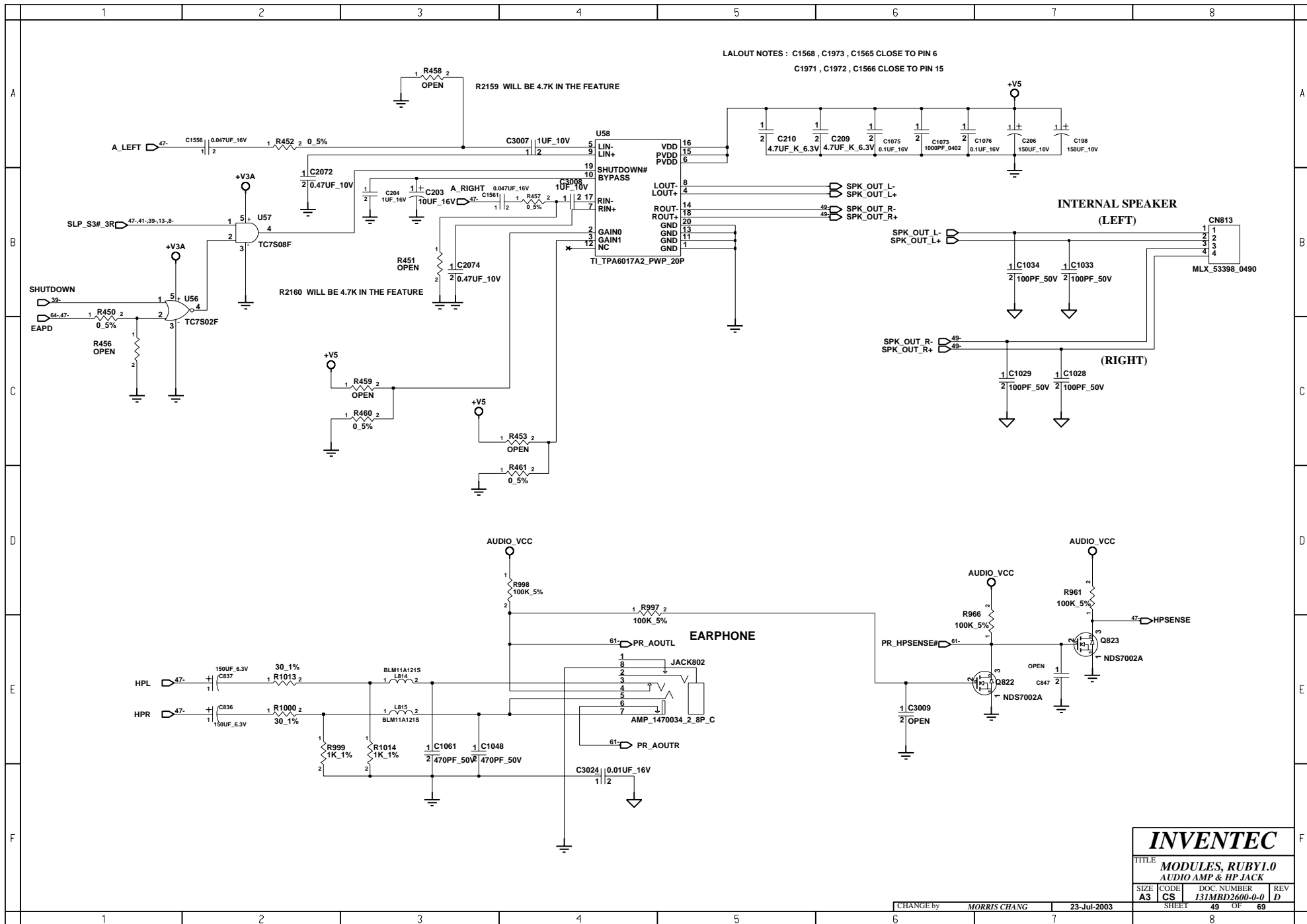
INVENTEC			
TITLE MODULES, RUBY1.0 PARALLEL PORT			
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
SHEET 46		OF 69	

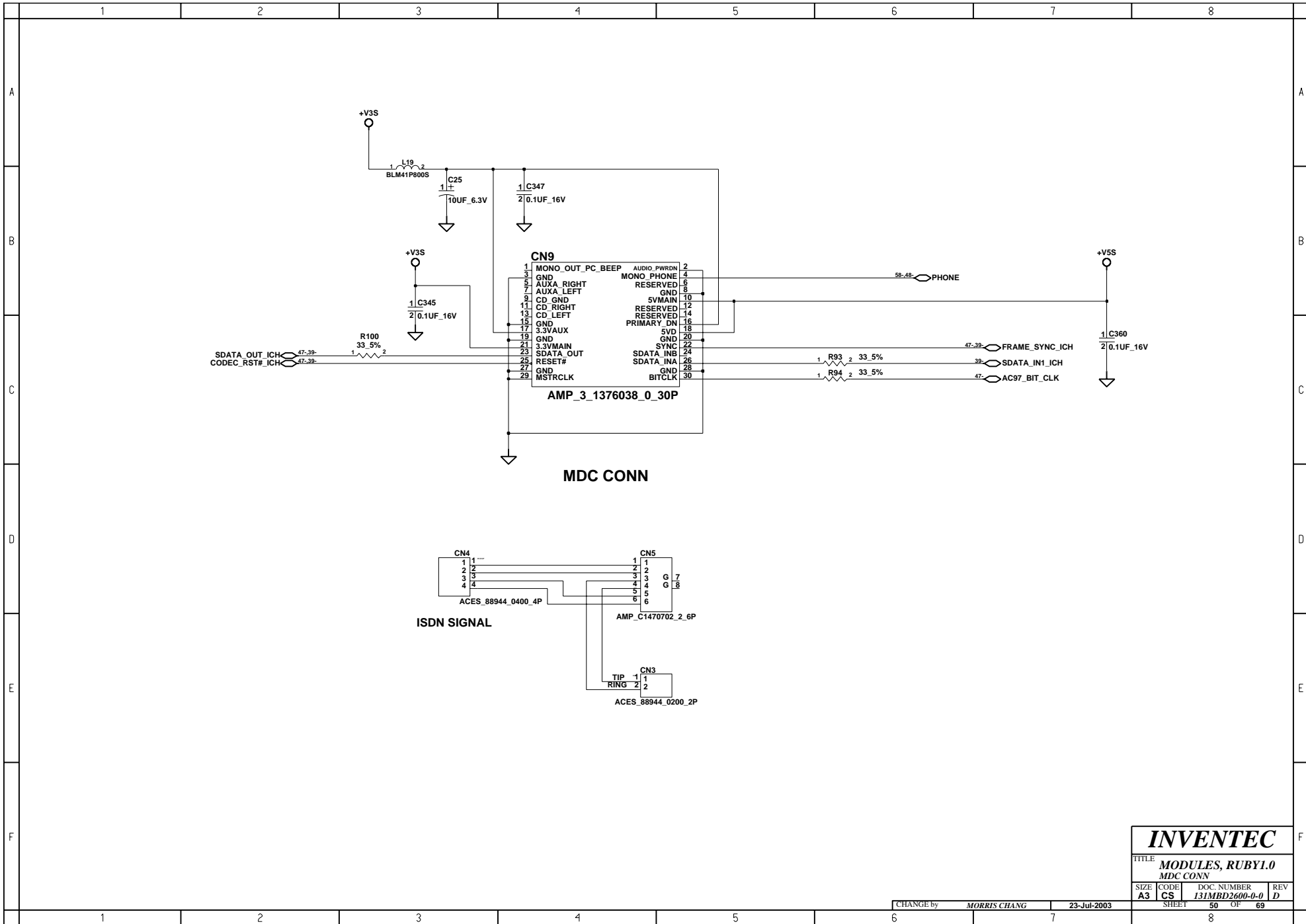


INVENTEC			
TITLE: MODULES, RUBY1.0			
AC97 CODEC			
SIZE: A3	CODE: CS	DOC NUMBER: I31MBD2600-0-0	REV: D
CHANGE by: MORRIS CHIANG		23-Jul-2003	
SHEET: 47		OF: 69	



INVENTEC			
TITLE MODULES, RUBY1.0			
EQ&MIC JACK			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		48	OF 69





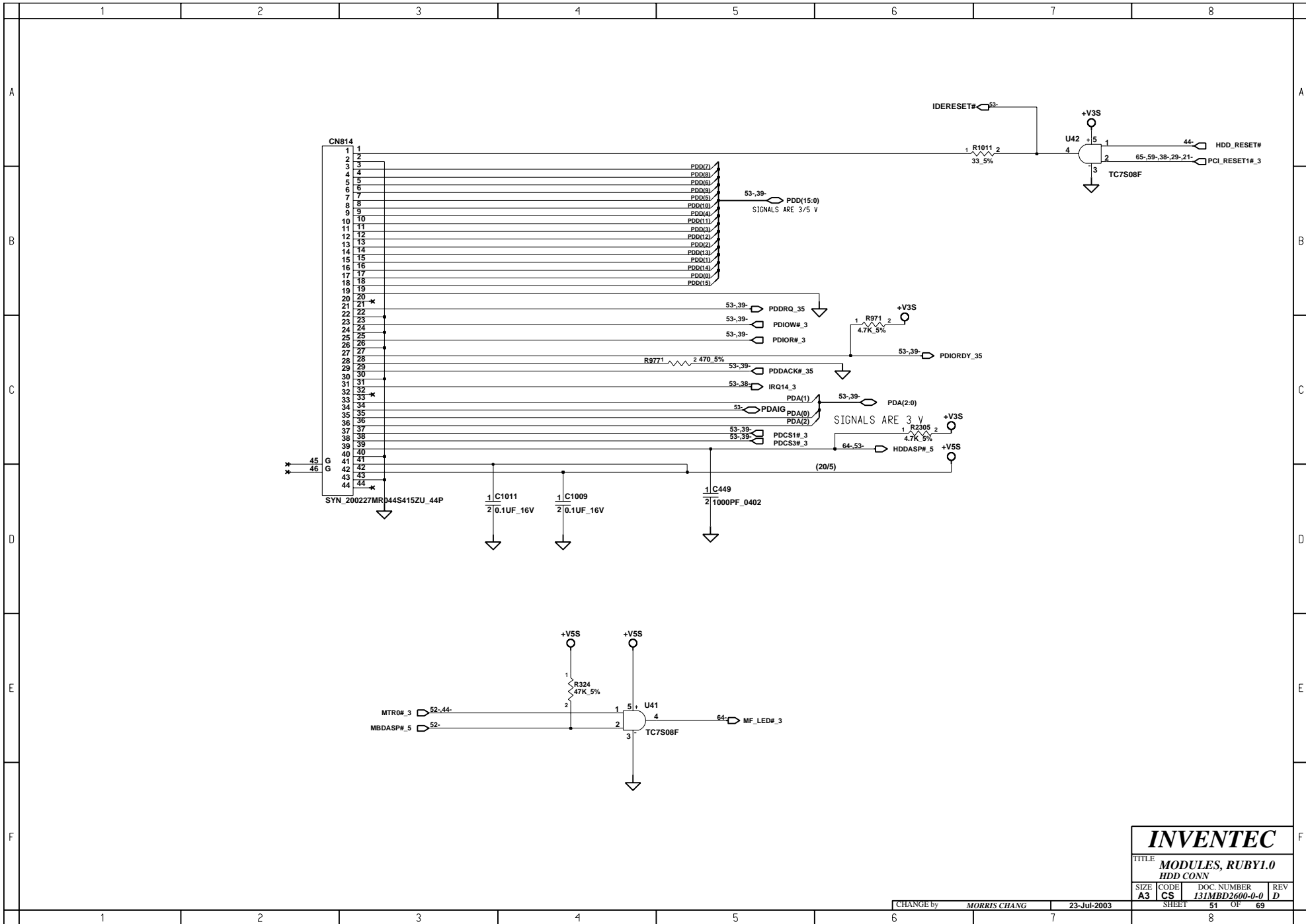
INVENTEC

TITLE **MODULES, RUBY1.0**
MDC CONN

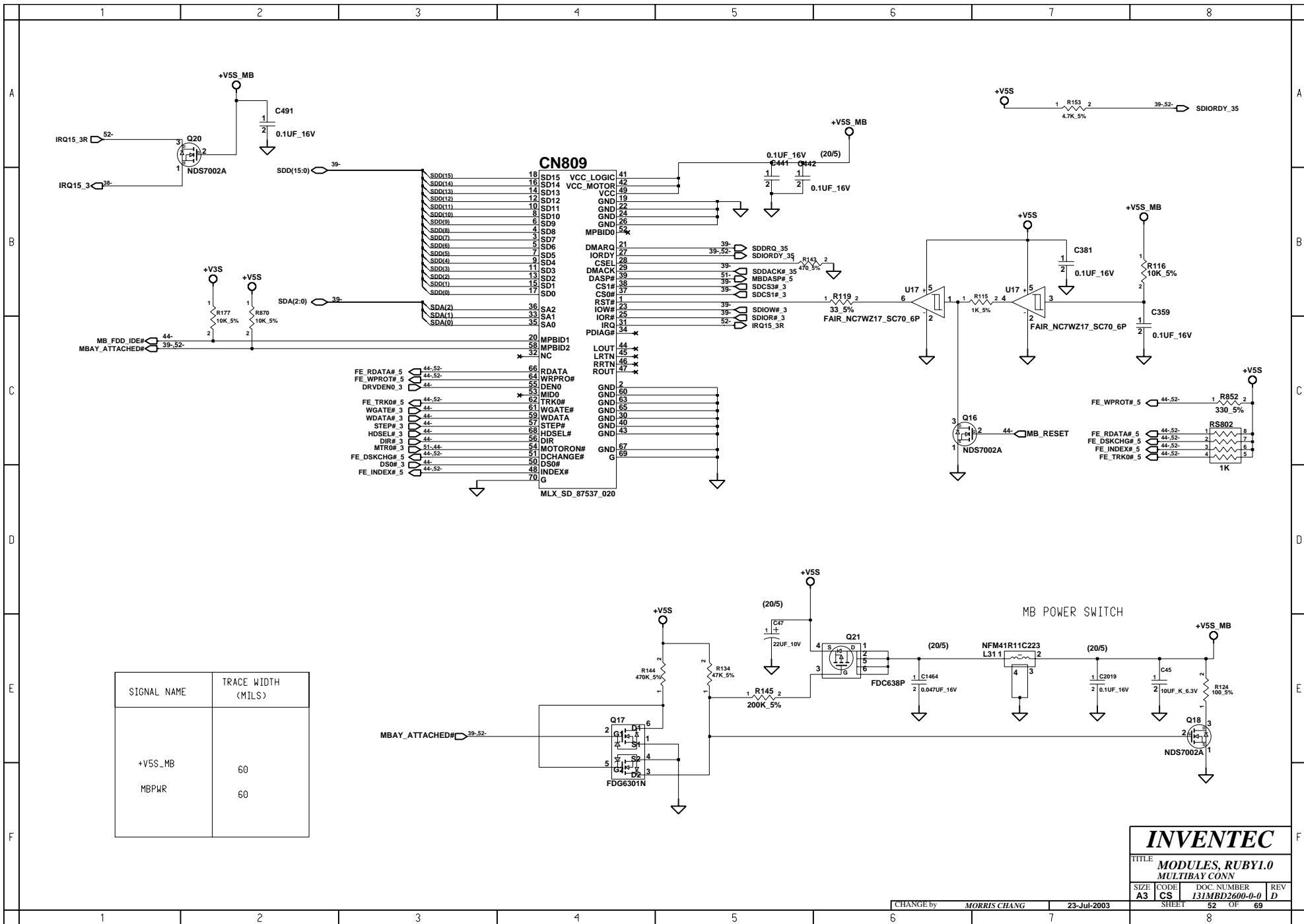
SIZE A3	CODE CS	DOC. NUMBER I31MBD2600-0-0	REV D
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CHANGE by **MORRIS CHIANG** 23-Jul-2003

SHEET 50 OF 69



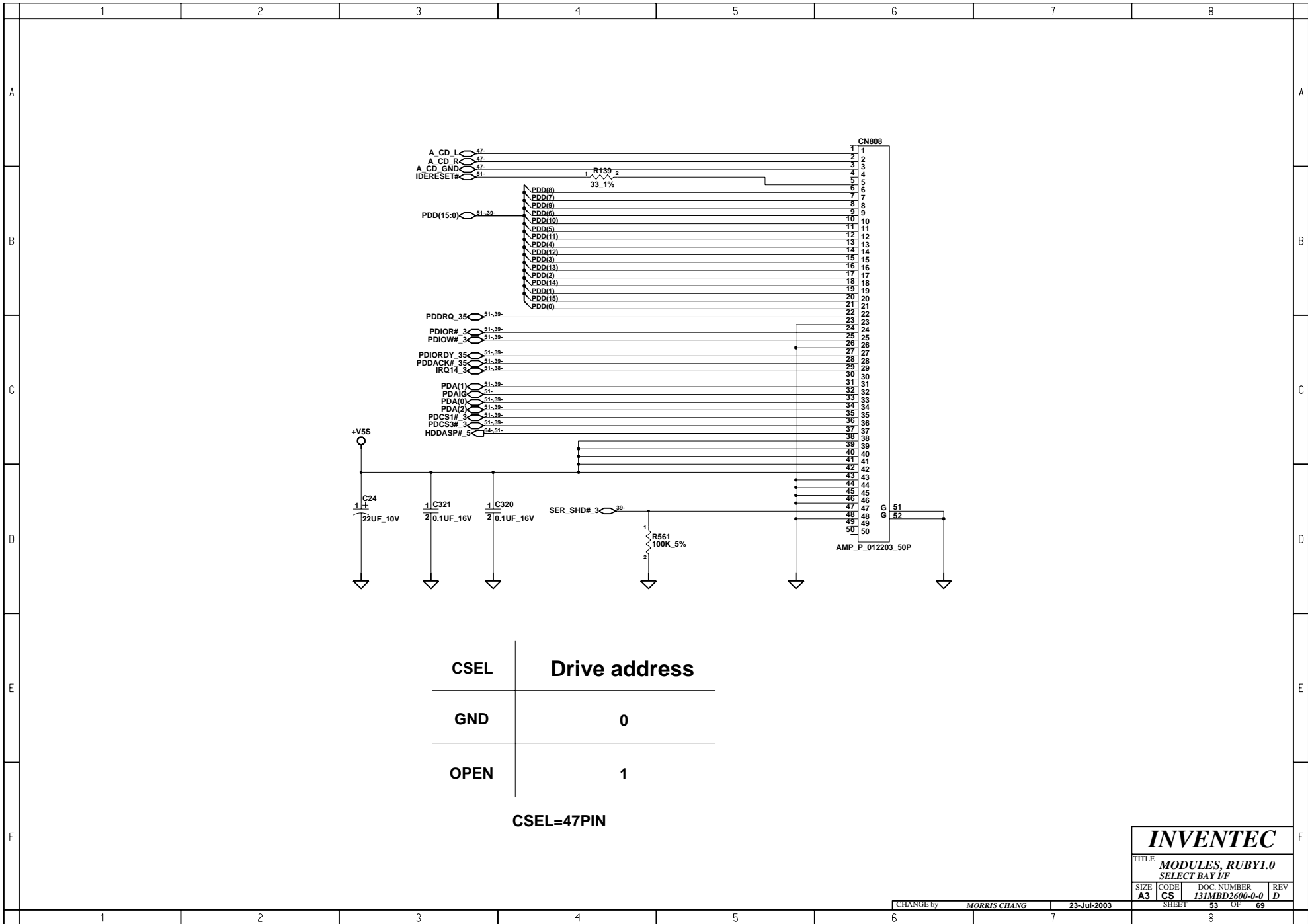
INVENTEC			
TITLE MODULES, RUBY1.0 HDD CONN			
SIZE A3	CODE CS	DOC NUMBER I31MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
SHEET 51		OF 69	



INVENTEC

TITLE: **MODULES, RUBY1.0**
MULTIBAY CONN

SIZE CODE CS DOC NUMBER REV
A3 CS I31MBD2600-0-0 D

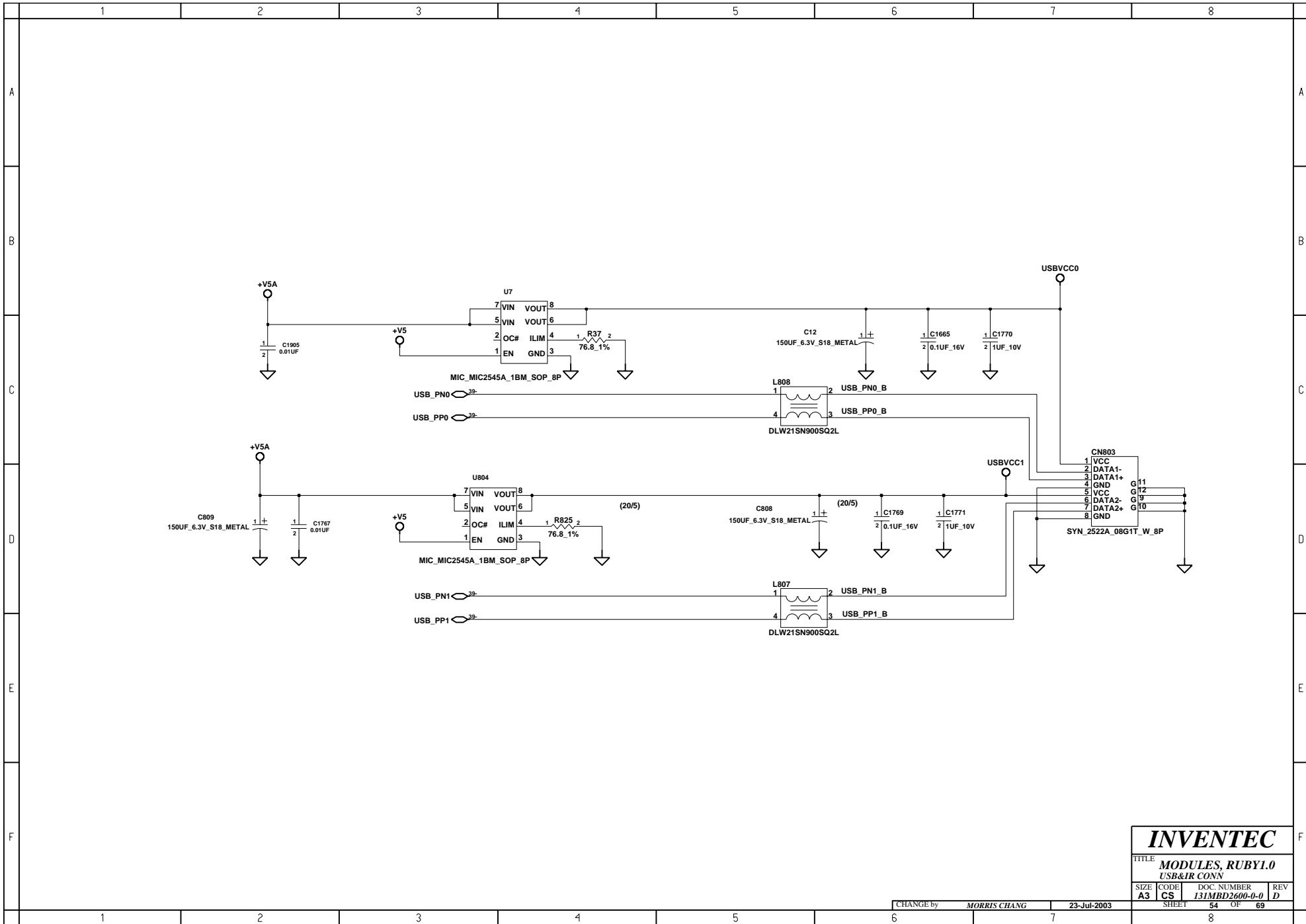


INVENTEC

TITLE: **MODULES, RUBY1.0
SELECT BAY I/F**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D

CHANGE by: MORRIS CHANG 23-Jul-2003 SHEET 53 OF 69



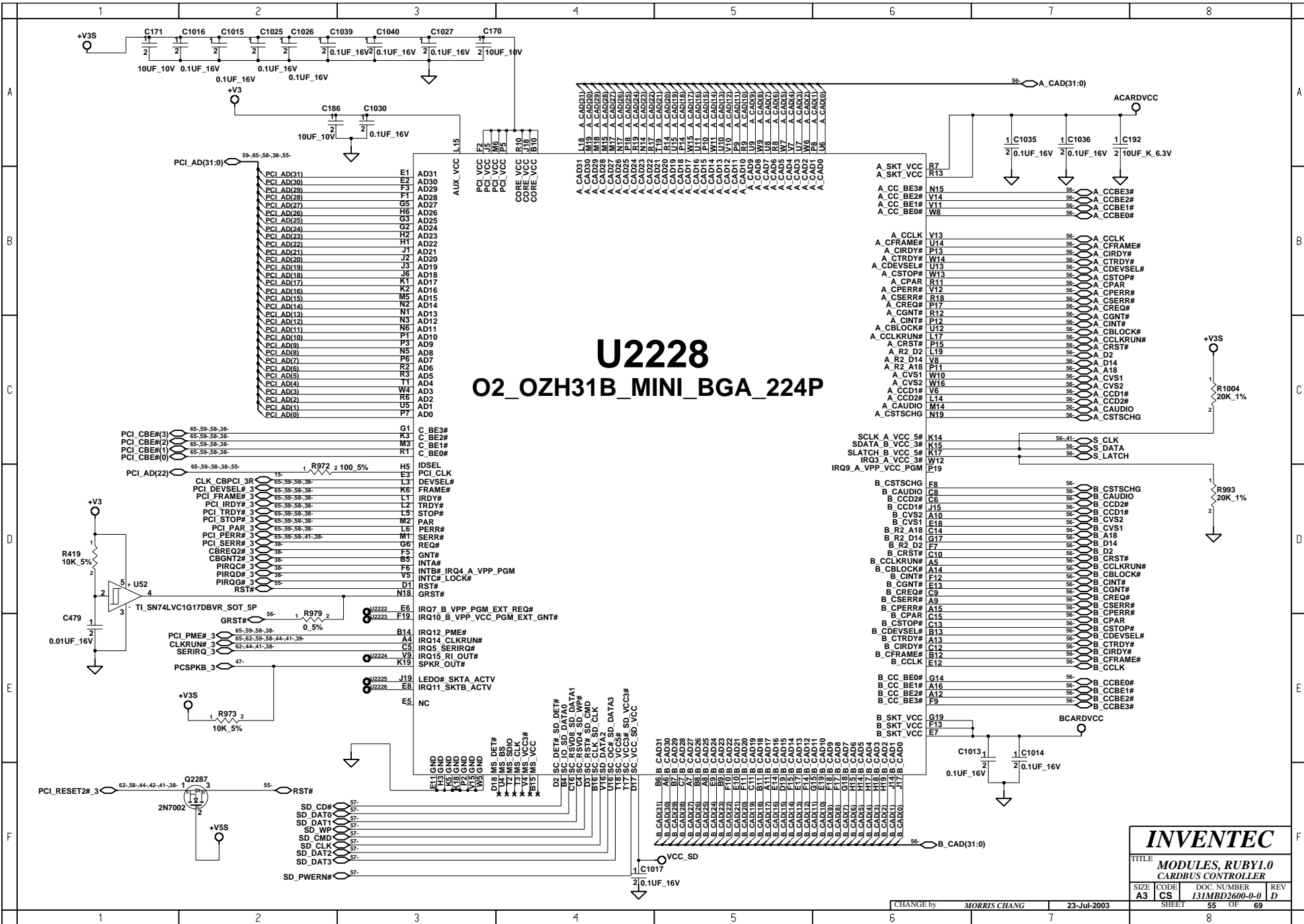
INVENTEC

TITLE: **MODULES, RUBY1.0**
USB&IR CONN

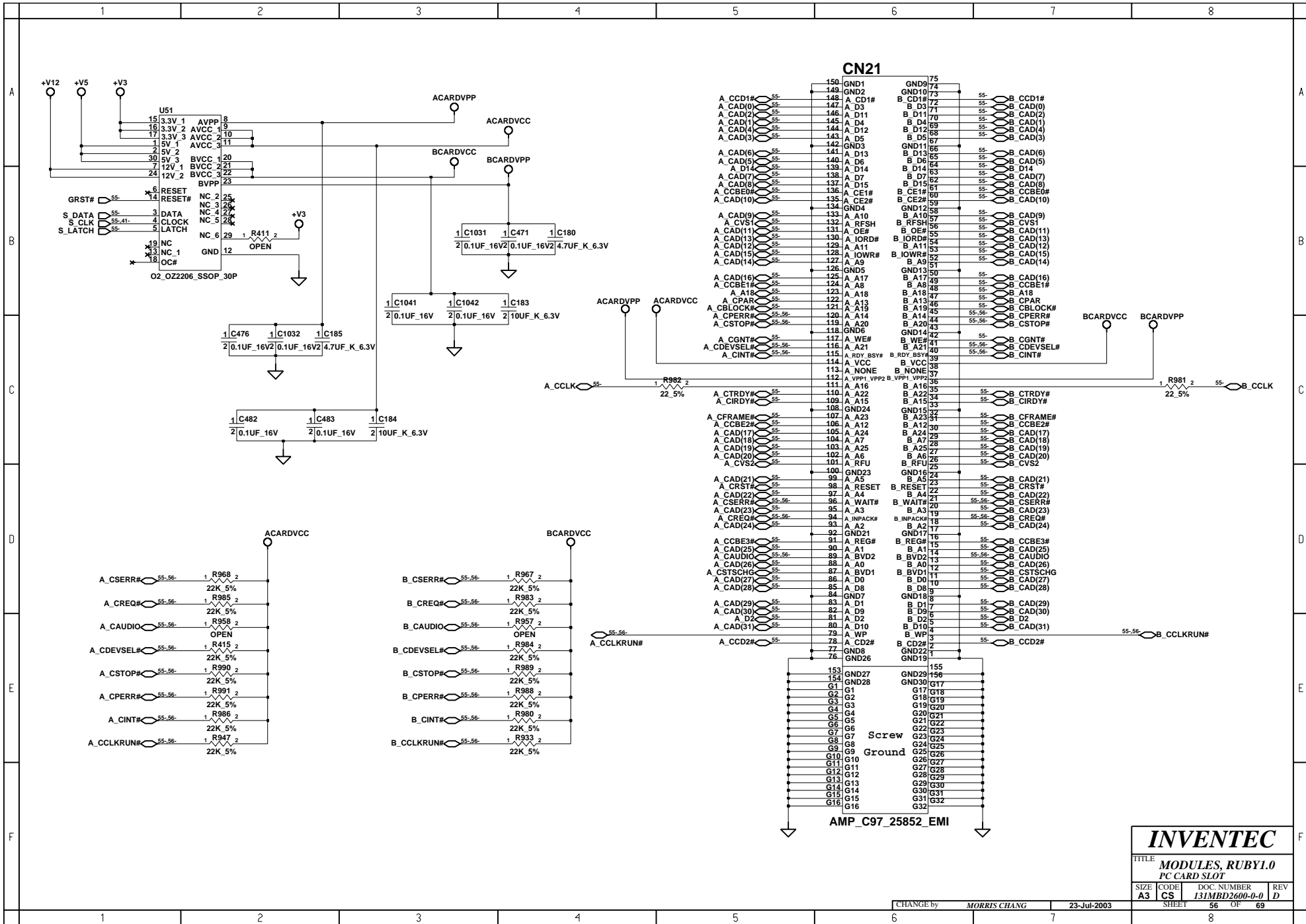
SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D

CHANGE by: MORRIS CHANG 23-Jul-2003

SHEET 54 OF 69



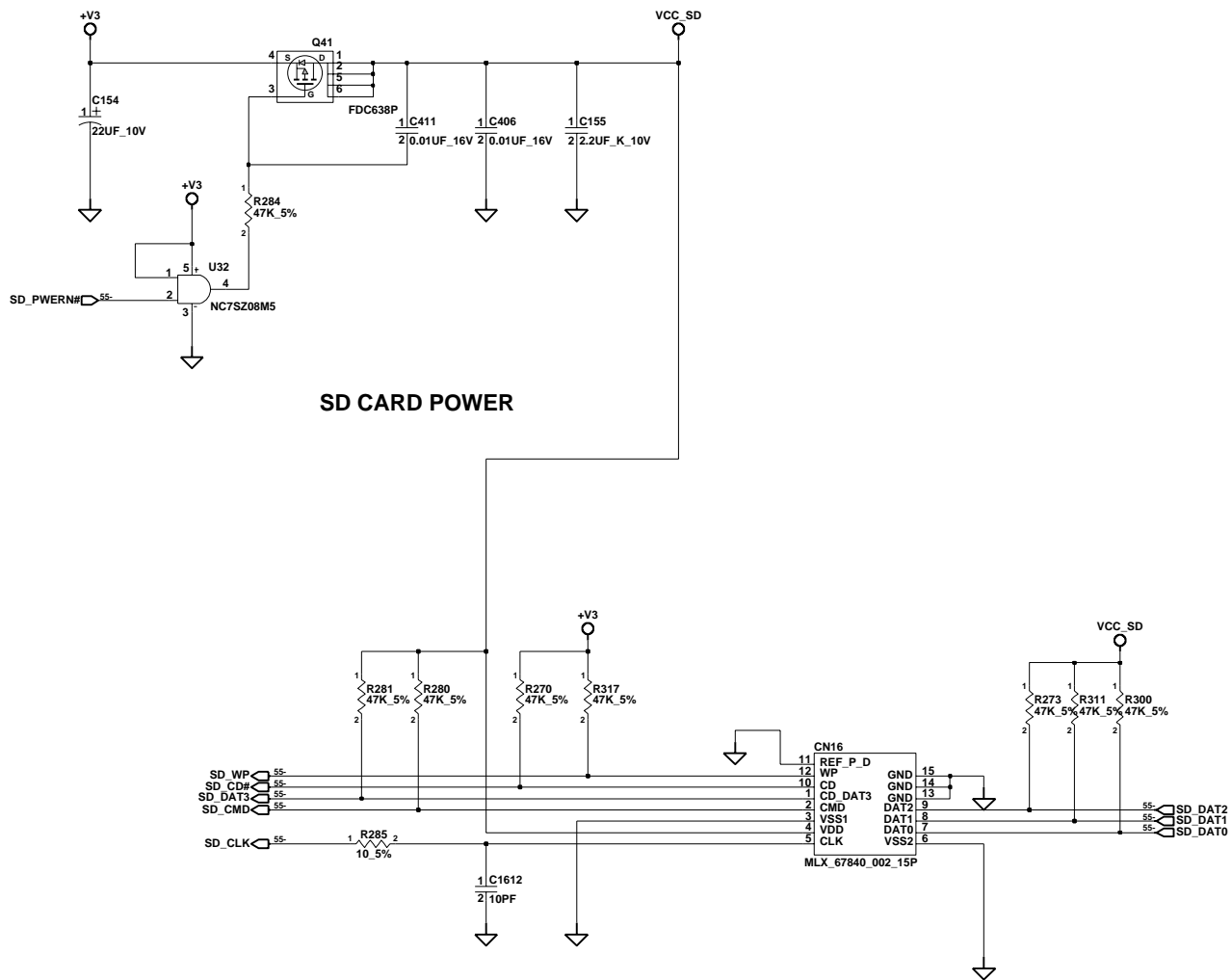
INVENTEC			
TITLE: MODULES, RUBY1.0 CARBUS CONTROLLER			
SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		55	OF 69



INVENTEC
 TITLE: **MODULES, RUBY1.0**
PC CARD SLOT

SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D

CHANGE by **MORRIS CHIANG** 23-Jul-2003 SHEET 56 OF 69

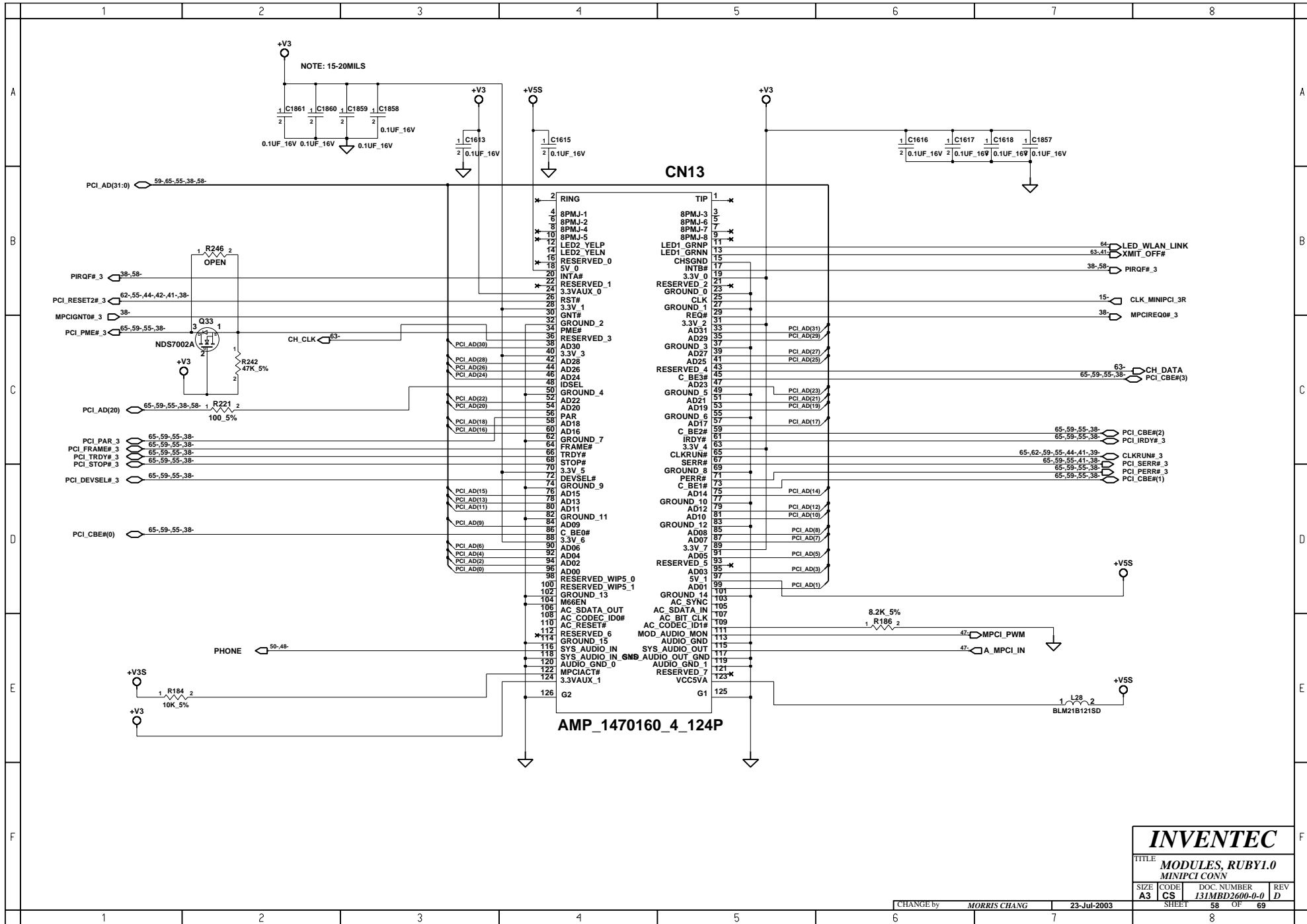


INVENTEC

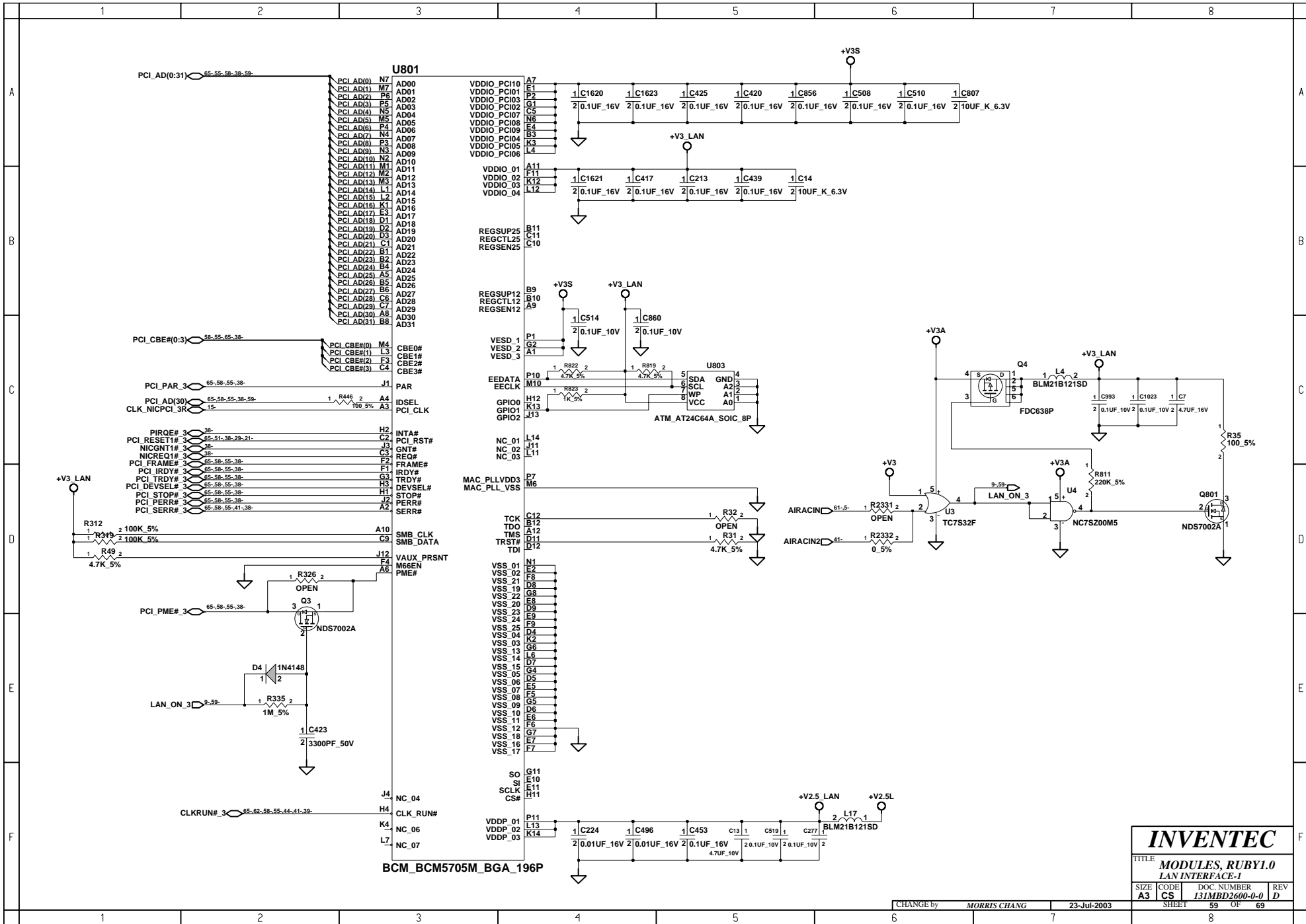
TITLE			
MODULES, RUBY1.0			
SD CARD CONN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D

CHANGE by MORRIS CHANG 23-Jul-2003

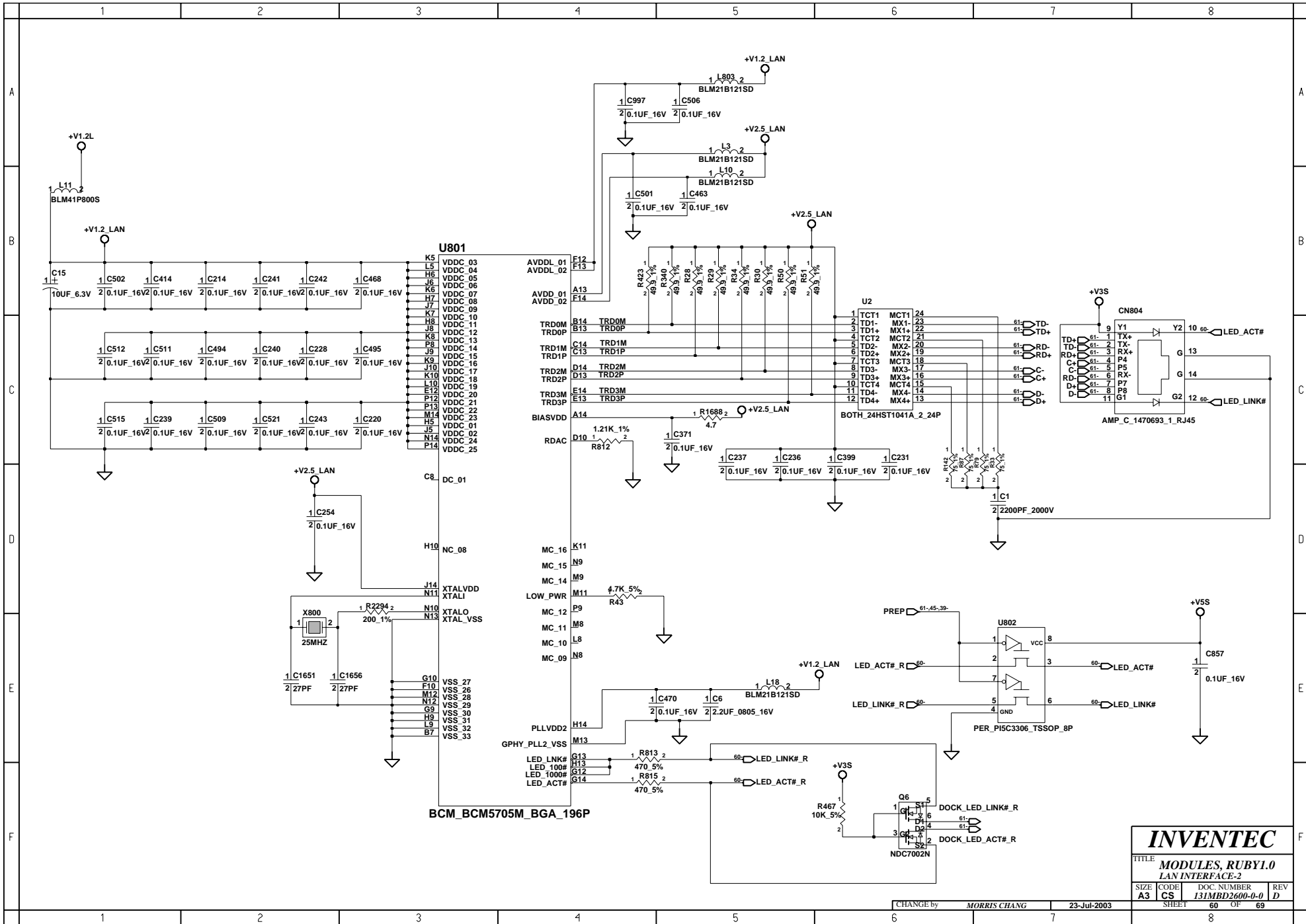
SHEET 57 OF 69



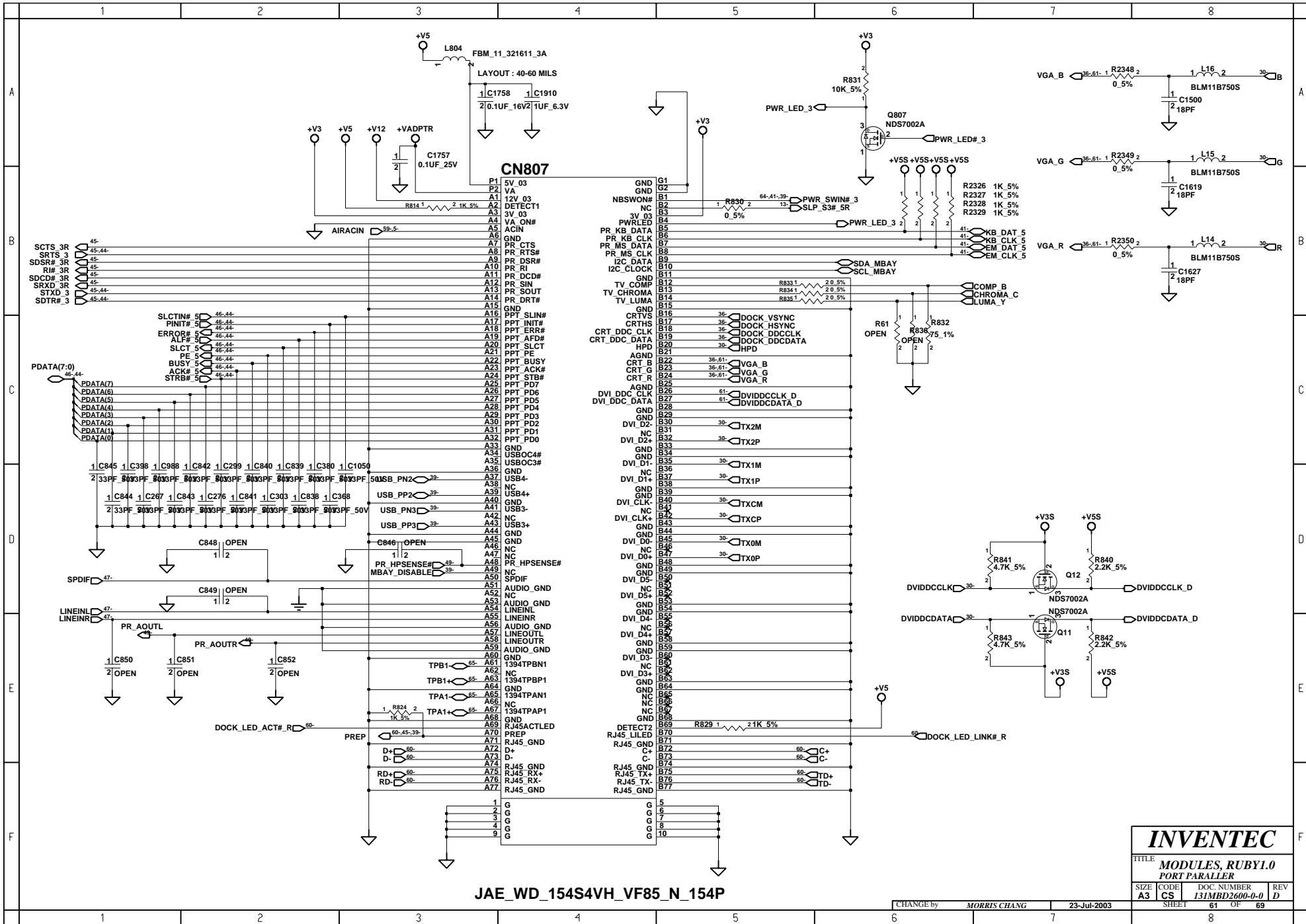
INVENTEC			
TITLE MODULES, RUBY1.0			
MINIPCI CONN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		58	OF 69



INVENTEC			
TITLE: MODULES, RUBY1.0			
LAN INTERFACE-1			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I31MBD2600-0-0	D
CHANGE by: MORRIS CHIANG		23-Jul-2003	
SHEET: 59		OF: 69	

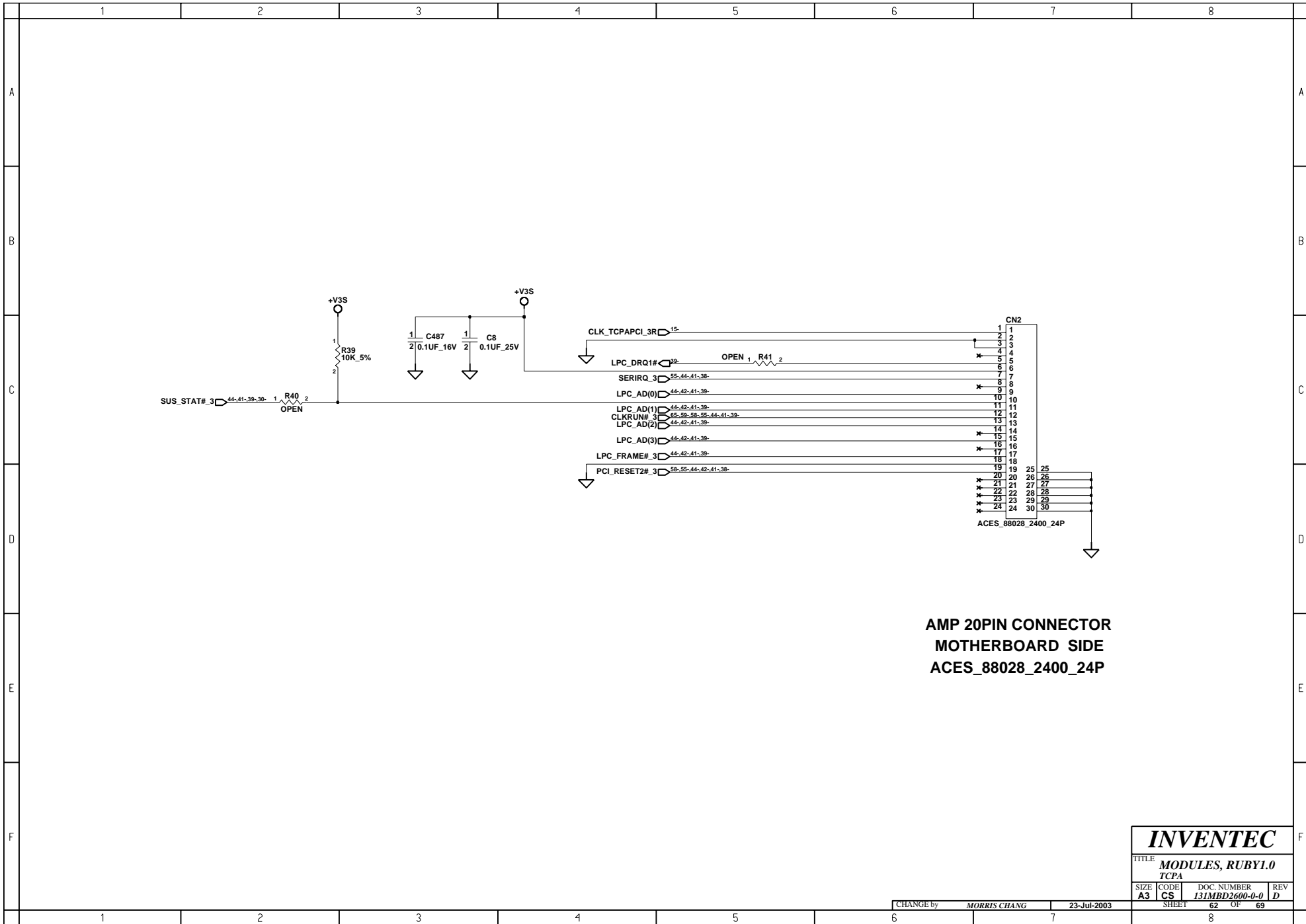


INVENTEC			
TITLE MODULES, RUBY1.0			
LAN INTERFACE-2			
SIZE	CODE	DOC NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		MORRIS CHIANG	23-Jul-2003
SHEET		60	OF 69



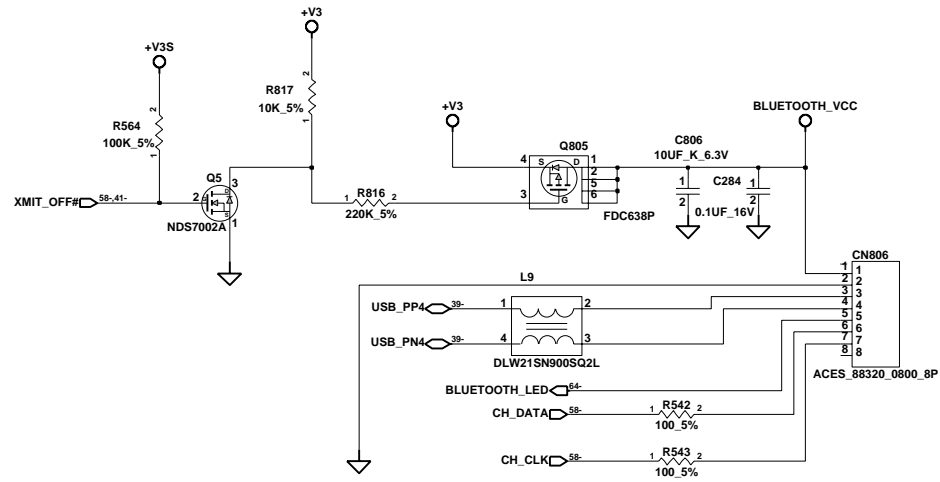
JAE_WD_154S4VH_VF85_N_154P

INVENTEC			
TITLE MODULES, RUBY1.0			
PORT PARALLEL			
SIZE A3	CODE CS	DOC NUMBER 131MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
SHEET 61		OF 69	



AMP 20PIN CONNECTOR
MOTHERBOARD SIDE
ACES_88028_2400_24P

INVENTEC			
TITLE: MODULES, RUBY1.0			
TCPA			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D
CHANGE by		23-Jul-2003	
MORRIS CHANG			
SHEET		62	OF 69



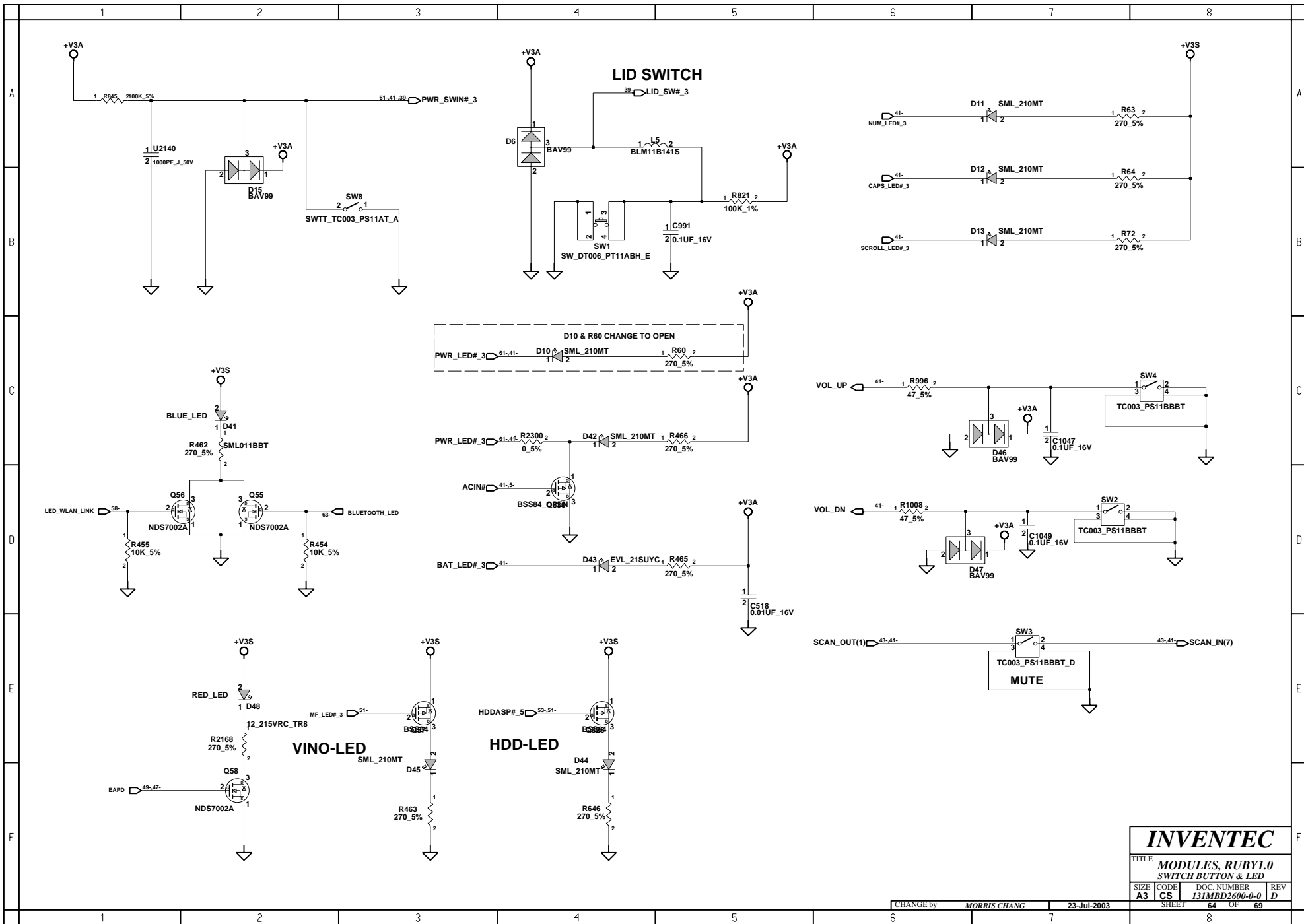
INVENTEC

TITLE **MODULES, RUBY1.0
BLUETOOTH**

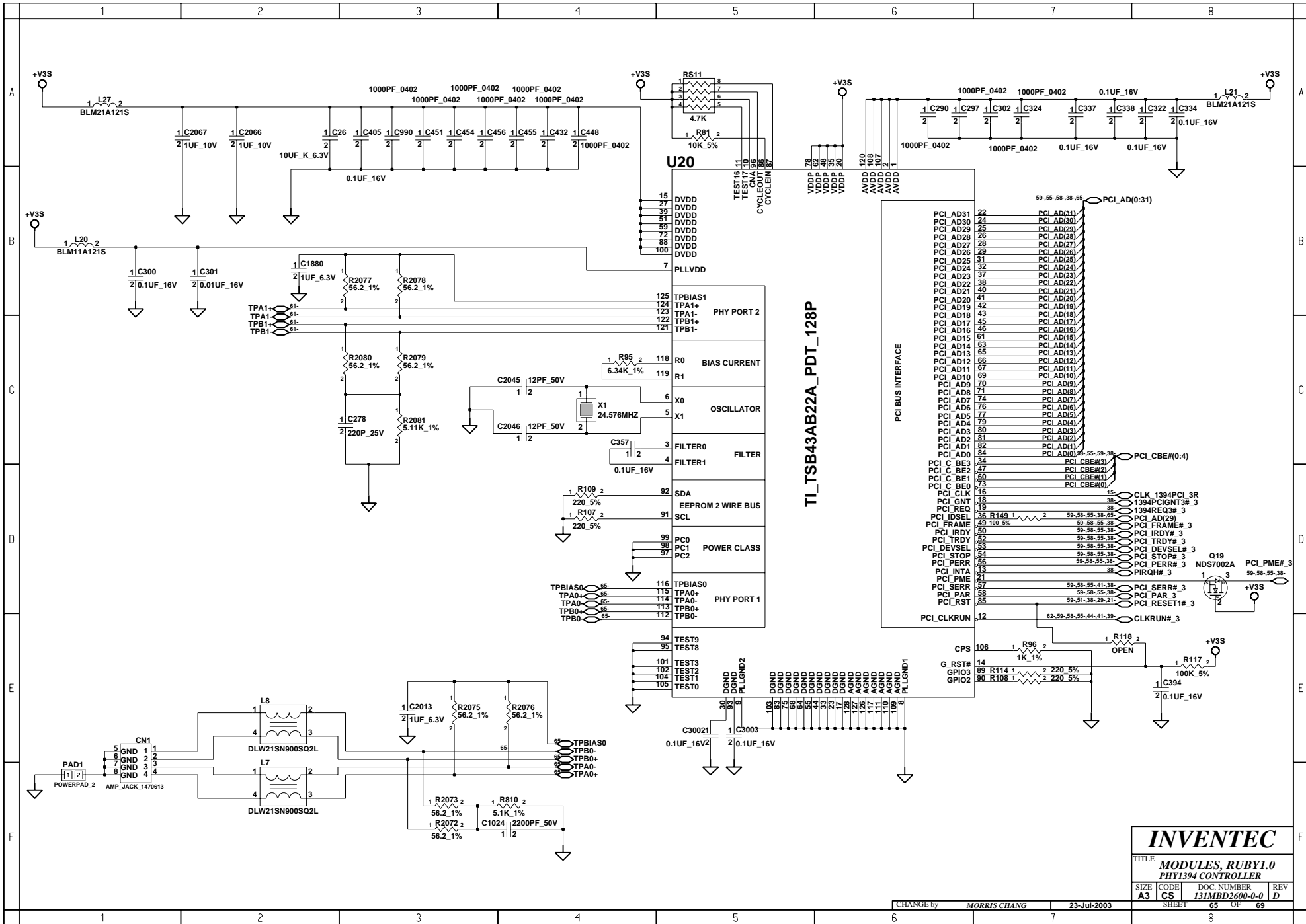
SIZE A3	CODE CS	DOC. NUMBER 131MBD2600-0-0	REV D
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CHANGE by **MORRIS CHANG** 23-Jul-2003

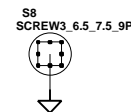
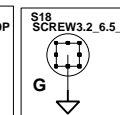
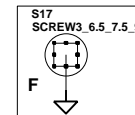
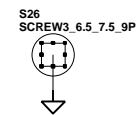
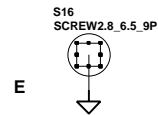
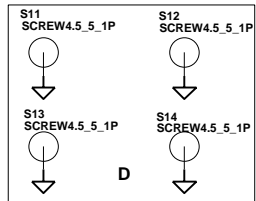
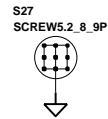
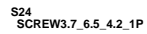
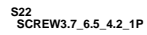
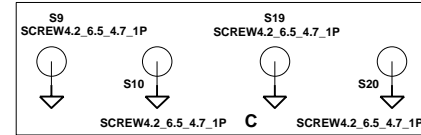
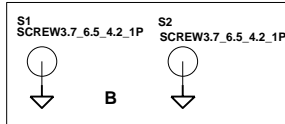
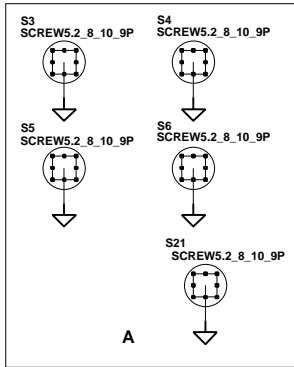
SHEET 63 OF 69



INVENTEC			
TITLE: MODULES, RUBY1.0 SWITCH BUTTON & LED			
SIZE: A3	CODE: CS	DOC NUMBER: I31MBD2600-0-0	REV: D
CHANGE by: MORRIS CHIANG		23-Jul-2003	
SHEET: 64		OF: 69	



INVENTEC			
TITLE MODULES, RUBY1.0 PHY1394 CONTROLLER			
SIZE A3	CODE CS	DOC NUMBER 131MBD2600-0-0	REV D
CHANGE by MORRIS CHIANG		23-Jul-2003	
SHEET 65		OF 69	



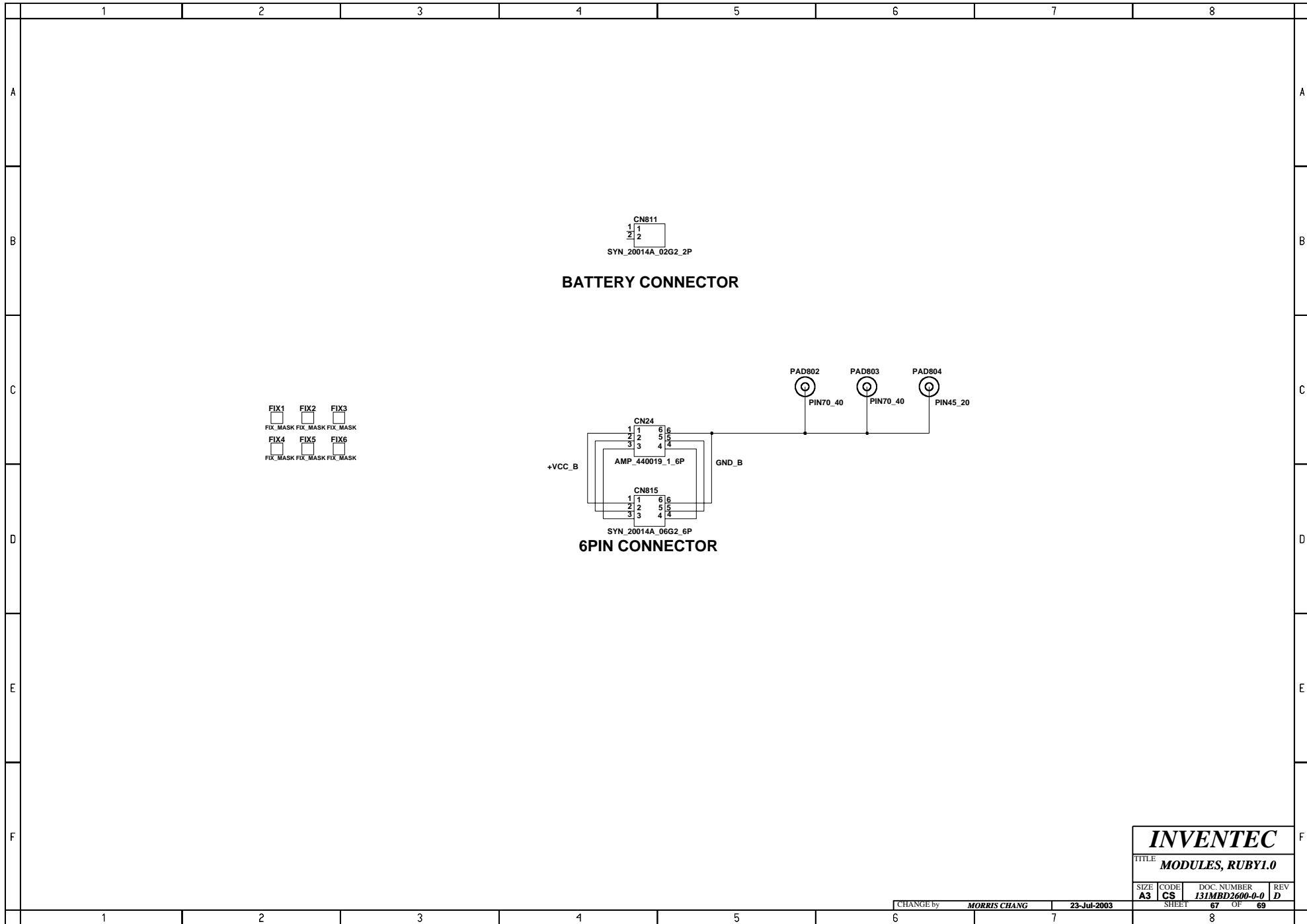
INVENTEC

TITLE **MODULES, RUBY1.0**
SCREW

SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D

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TITLE MODULES, RUBY1.0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	131MBD2600-0-0	D
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	1	2	3	4	5	6	7	8	
A	SHEET 10 1. R1293 CHANGE FROM 4.99K TO 5.6K 2. R322 CHANGE FROM 10K TO 200K AND ADD CAP(0.01UF) IN R322 PIN2 TO GND NOTE: FOR ATI POWER SEQUENCE SHEET 11 1. ADD PM_VGATE DELAY CIRCUIT : U46 , U58 ,R426 , C525 , C526 2. R349 CHANGE FROM 1K TO 0 (OHM) AND ADD CAP (0.01UF) IN R349 RIN2 TO GND NOTE : FOR PCI_RESET , PCI_CLOCK , PM_VGATE TIMING SHEET 13 1. R1783 CHANGE FROM 220K TO 100K AND ADD CAP(0.1UF) IN R1783 PIN1 TO GND NOTE : FOR ATI POWER SEQUENCE(ADJUSTED TIMING OF THE VDD15) SHEET 14 1. R936 (INPUT TO U40 PIN2) CHANGE FROM 36.5K TO 182(OHM) NOTE : FOR POWER SEQUENCE SHEET 15 1. REMOVE Q54 , R390 CHANGE FROM 10K TO 0(OHM) NOTE :SAME THE DIAMOND SYSTEM SHEET 17 1. R229 , R230 , R291 CHANGE FROM 0(OHM) TO OPEN NOTE: MEET THE INTEL RDDP SPEC. SHEET 20 1. CN8 (FAN CONNECT) CHANGE FROM 5PIN TO 3 PIN NOTE: MECHANICAL CHANGE SHEET 29 1. ADD SERIES RESISTORS ON SB_STDS (R518) , ADSTBS_O(R519),ADSSTBS_1(R520) 2. CHANGE R894 49.9 TO 40.2(OHM) 3. AGP8X_DETb PULL HIGH POWER RAIL CHANGE FROM +V1.SATIAGP TO +V3S 4 . ADD TEST POINT IN GPIO[4:7] GPIO[9:14] 5. VGA_GPIO[0:3] STATUS CHANGE FROM 10K PULL DOWN TO 10K PULL UP (+V3S) 6. ADD 1K PULL DOWN ON GPIO8 7. ADD 1K PULL DOWN RESISTOR TO PREVENT LEAKAGE FOR SOME ZV_LCDDATA , ZV_LCDCNTL IN (ZV_LCDDATA[5:15] , [18:19], ZV_LCDCNTL[0:3]) 8. ADD 10K PULL DOWN RESISTOR TO PREVENT LEAKAGE FOR ZV_LCDDATA[16:17] NOTE: ABOVE ITEMS FOR ATI RECOMMED 9. R879 , R880 CHANGE FROM 1K TO 3K NOTE: FOR +V3A POWER RAIL(ATI-VREFG)	SHEET 30 1. ADD 0 OHM SERIES RESISTOR ON THE PATH OF OSC OUTPUT TO XTALIN AND XTALOUT NOTE : SELECT FREQUENCY ENTER CHANNEL 2. ADD 10K(R531) PULL UP TO +V3S NOTE: FOR ATI RECOMMED SHEET 32 1. L36 CHANGE FROM BLM11A121S TO BLM21A121S NOTE: FOR ATI RECOMMED SHEET 33 1. ADD VGA DAMPING PESTISOR NOTE: FOR ATI RECOMMED SHEET 39 1. U22-V19(PM_VGATE/VMPWRGD) CHANGE FROM PM_VGATE TO SB_VGATE 2. (VMEM_CFG3)ADD OPEN(R513) PULL-UP TO +V3S AND 8.2K(R512) PULL-DOWN 3. CREATE RUBY VIDEO MEMORY CALL-BACK DEFINITION TABLE SHEET 43 1. ROTATE CN16(THE KEYBOARD CONNECT) : 180 POINT OF VIEW 2. ROTATE CN18(THE TOUCH-PAD CONNECT) : 180 POINT OF VIEW 3. CHANGE CN17(STICK POINT) GEOMETRIC(LAYOUT PATTERN) SHEET 48 1. CHANGE JACK801(MIC JACK) GEOMETRIC(LAYOUT PATTERN) SHEET 49 1. CHANGE JACK802(EAR-PHONE JACK) GEOMETRIC(LAYOUT PATTERN) SHEET 51 '53 1. IRQ14_3: CN808(PAGE53) PIN29 CONNECT TO CN814-PIN31(PAGE51) 2. PDCS1#: CN808(PAGE53) PI35 CONNECT TO CN814 -PIN37(PAGE51) 3. HDDASP#_5: CN808(PAGE53) PIN37 CONNECT TO U35-PIN1(PAGE51) 4. PDIAG#: CN808-PIN32(PAGE53) CONNECT TO CN814-PIN34(PAGE51) 5. IDERESET#: R139-PIN1(PAGE53) CONNECT TO U36-PIN4(PAGE51) NOTE : FOR OPTICAL DRIVE SHEET 55 1. SWAPPED BELOW SIGNAL : PCI_AD(7)&PCI_AD(8), B_CAD(10)&B_CAD(11), B_CAD(14)&B_CAD(15) SHEET 65 1. C126 CHANGE VALUE FROM 0.01UF TO 0.1UF NOTE : REFERENCE TI 1394 CIRCUIT SHEET 66 1. ADD BELOW SCREW (S21 , S22 , S24 , S26) 2. REMOVE BELOW SCREW (S15) NOTE: MECHANICAL CHANGE	02 11 CHANGE LIST SHEET 11 1. R348 TO OPEN SHEET 29 1. ADD (R521 ,R522 ,R523 ,R524 ,R525 , R527 , R528 ,R529 ,R530 ,R534) 0 (OHM) SERIES RESISTOR WOULD BE USEFUL IN TUNING AGP SHEET 53 1. OPTICAL DRIVE(CN808) CHANGE CONNECT TO AMP_P_012203_50P SHEET 65 1. U57 ,R526 , R535 RESERVE FOR GUID 02 12 CHANGE LIST SHEET 20 1. CHANGE CN8 PIN2 CONNECTION FROM GND TO Q43 PIN3 CN8 PIN3 CHANGE TO OPEN SHEET 39/44 1. ADD INVERTER BETWEEN , PIN H22(GPIO39) OF U22 AND NPCI RESET (PIN26) OF U10. PCI_RESET#_3 WILL NOT LONGER BE CONNECTED TO PIN 26 OF U10 02 14 CHANGE LIST SHEET 10 1. ADD SCHMITT BUFFER BETWEEN R322 PIN2 AND PIN10(ON1) OF U38 SHEET 26 1. ADD DDR-THERMAL SENSE PARTS(U57 , R512,R513) SHEET 29 1. ADD TEST POINT TO PINS AK19, AH19, AH20,AG20 SHEET 30 1. ADD TEST POINT TO PINS AE25 2. REMOVE C247,C248,R542,R543 3. CHANGE U17 FROM ICS_MK1707S TO SM560 SHEET 39 1. R512 , R513(REFERENCE) CHANGE TO R562 , R563 SHEET 49 1. ADD 0.1UF CAPACITOR BETWEEN ANALOG AND DIGITAL GROUND ON PIN8 OF JACK802 SHEET 53 1. ADD 1K RESISTOR PULL-DOWN TO PIN47 OF CN808 SHEET 65 1. ADD 1K RESISTOR PULL-DOWN TO PIN7 OF U57 2. CN1 PINOUTS ARE REVERSED 3. L9(BLM11A121S) CHANGE TO POWER_PAD2 4. U57(REFERENCE) CHANGE TO U61 SHEET 66 1. ADD SCREW (S15)) SHEET 39/53 1. U22 PIN G23(GPIO40) CONNECT TO CN808 PIN47 02 17 CHANGE LIST SHEET 53 1. R561 1K CHANGE TO 100K SHEET 68 1. CN15 PIN12 CONNECT TO GND	A					
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

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RUBY SI BUILD CHANGE LIST

1. ADD OPC CIRCUIT ON PAGE5.
2. R2169 CHANGE FROM 10K TO OPEN ---PAGE6
3. REMOVE D22 ---PAGE6
4. U28-PIN8 CONNECTION STATUS : CHANGE IT FROM R2169-PIN1 TO Q802-PIN1.2.3 ---PAGE6
5. Q22-PIN1.2.3 AND Q26-PIN1.2.3 POWER NAME, CHANGE IT FORM +VBATR TO +VADP2 ---PAGE6
6. REMOVE PAD9 ---PAGE11
7. REMOVE PAD11 AND PAD12 ---PAGE12
8. CHANGE MOSFET TO REDUCE RDS ON Q809 Q39 ---PAGE13
9. CHANGE THERMAL IC PART, FROM ADM1032 TO ADM 1031 FOR CPU&VAG ---PAGE20
10. ADD TEST-POINT (TP557) ---PAGE21
11. ADD CAP (220PF) 3 PCS BETWEEN THE MCH_GTLREF AND GND ---PAGE22
12. REMOVE C60 (150UF) ---PAGE26
13. DELETE THERMAL SENSOR CIRCUIT ---PAGE30
14. R468-R489, R490-R492, R494-R511 : CHANGE THESE RESISTOR FROM 0(OHM) TO 10(OHM) ---PAGE33
15. ADD CAP (150UF)BETWEEN THE +VRAM_VCC AND GND ---PAGE34
16. PIN1 OF D2,D3,D800,D801,D802,D803,D804 ARE CHANGE FROM +V3 TO USBCC1 ---PAGE36
17. A_CSTOP# , B_CSTOP# OF U2228 SIGNAL(PAGE55) CONNECT TO CN21(PAGE56)
18. CHANGE CN10 SYMBOL : PIN11 IS REF_P_D AND PIN12 IS WP ---PAGE57
19. REMOVE C230, C395, C1674, C1675. CHAISY_GND CHANGE TO DIGITAL_GND ---PAGE60
20. UPDATE CN807 FROM JAE_WD_154S4V_VF78_ML_154P TO JAE_WD_154S4VH_VF85_N_154P AND ADD D+, D-, C+, C- SIGNALS FROM U2(PAGE60) ---PAGE61
21. BREAKING PIN1 AND PIN3 CONNECTION FOR SW2, SW3, SW4 THEN ALL OF PIN3 CONNECT TO GND ---PAGE64
22. UPDATE CN1 SYMBOL, ADD GND SIGNAL OF PIN7, PIN8 THEN CONNECT TO GND ---PAGE65
23. ADD NAME PORT(MAX_LX5) IN L44-PIN1 ...PAGE7
24. REMOVE NONE-USE SIGNAL-PORT(SLP_S5#_5R) ...PAGE13
25. Q48 CHANGE FROM FDC638P TO FDR840P ...PAGE13
26. R293 CHANGE FROM 10K TO OPEN ...PAGE17
27. Q806 CHANGE FROM FDC638P TO FDR840P(Q825) ...PAGE37
28. R848-PIN1 AND Q825-PIN5,PIN8 POWER RAIL FROM +V3S TO +V3 ...PAGE37
29. R67 CHANGE VALUE FROM 180K TO 51K ...PAGE39
30. REMOVE D39 ...PAGE41
31. ADD DELAY CIRCUIT FOR THE PWR_GOOD3 ...PAGE41
32. ADD RNET FOR KAHUNA PROGRAMMING(RS850,RS860) ...PAGE43
33. REMOVE D17 ...PAGE52
34. U7 AND U804 PIN5,PIN7 POWER RAIL CHANGE FROM +V5 TO +V5A ; OC# SIGNAL OF THE PIN2 IS REMOVE EN SIGNAL OF THE PIN1 IS CONNECT TO +V5 ...PAGE54
35. REMOVE R934 R946 OF THE PULL-HIGH CIRCUIT ...PAGE56
36. CHANGE TURN ON CIRCUIT OF THE H.D.D-LED, USING A MOS-FET(Q286) TO CONTROL H.D.D-LED ...PAGE64
37. R1679 CHANGE VALUE FROM 20K TO 1.3K ; R2139 CHANGE VALUE FROM 150K TO 10K ...PAGE5
38. DELETE R514 ...PAGE26
39. FOLLOWIG RESISTORS ARE CHANGE VALUE FROM 10 OHM TO 24 OHM : RS12-RS20 , RS22-RS24 ; RS27-RS30 RS27-RS30 ; RS32-RS35 ; RS38-RS44 ; RS46-RS47 ; RS57-RS59 ; R481-R486 ; R488 , R489 ; R505-R511 ; R502 ...PAGE33
40. ADD CAP(22UF) BETWEEN THE +V2.5S AND GND IN U23 , U27 OF THE VRAM ...PAGE34
41. ADD CAP(22UF) BETWEEN THE +V2.5S AND GND IN U14 , U15 OF THE VRAM ...PAGE35
42. CHANGE CRT CIRCUIT, REFER TO THE DIAMOND CRT CIRCUIT ...PAGE36
43. R67 CHANGE VALUE 51K TO 180K ...PAGE39
44. POWER RAIL OF THE R223-PIN1, CHANGE VALUE FROM +V5A TO +V5 ...PAGE46
45. POWER RAIL OF THE U32-PIN5, CHANGE VALUE FROM +V5 TO +V3 ...PAGE57
46. C1620 , C1621 , C1623 CHANGE VALUE FROM 0.01UF TO 0.1UF ...PAGE59
47. C1651 , C1656 CHANGE VALUE FROM 22PF TO 27PF ...PAGE60
48. ADD 200 OHM SERIES RESISTOR BETWEEN XTALO AND PIN2 OF X800(CRYSTAL) ...PAGE60
49. D41 CHANGE FROM SML_210MT TO SML010BAT(BLUE-LED) ; D48 CHANGE FROM SML_210MT TO 12-215VRC_TR8(RED-LED) ...PAGE64
50. DELETE U8 , R526 , R535 , R538 ...PAGE65
51. CN1 CHANGE FROM AMP_JACK_440148 TO AMP_JACK_1470613 ...PAGE65
52. CN4 CHANGE FROM MLX_53398_0490 TO JST_BM4B_SRSS ...PAGE50

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