

# OSAKA 30

## MP BUILD 2004-0830

DATE	CHANGE NO.	REV

DRAWER	EE	DATE	POWER	DATE	<b>INVENTEC</b> TITLE <i>OSAKA 30</i>
DESIGN					
CHECK					
RESPONSIBLE					
SIZE =	3	VER :			SIZE <b>A3</b> CODE <b>CS</b> DOC NUMBER <b>TC730ZAA000</b> REV <b>A05</b>
FILE NAME :	XXXX-XXXXXX-XX				SHEET 47 OF 54
P/N	XXXXXXXXXXXX				

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5-13.SYSTEM POWER	37.S/B STRAPPING
14.CLOCK GENERATOR	38.K/B CONTROLLER
15.CPU(1/2)	39.SUPER I/O
16.CPU(2/2)	40.SERIAL & PARALLEL PORT
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18.FAN & THERMAL CONTROLLER	42.AC97 CODEC
19.N/B(1/5)	43.AUDIO AMP & PHONE JACK
20.N/B(2/5)	44.MDC CONN
21.N/B(3/5)	45.HDD CONN
22.N/B(4/5)	46.ODD CONN
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26.DDR CHIP TERMINATOR	50.MINIPCI CONN
27.DDR CHIP(1/2)	51.1394 CONTROLLER
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30.DDR DIMM0 DAMPING	54.SWITCH & D/B
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32.CRT& SVEDIO CONN	

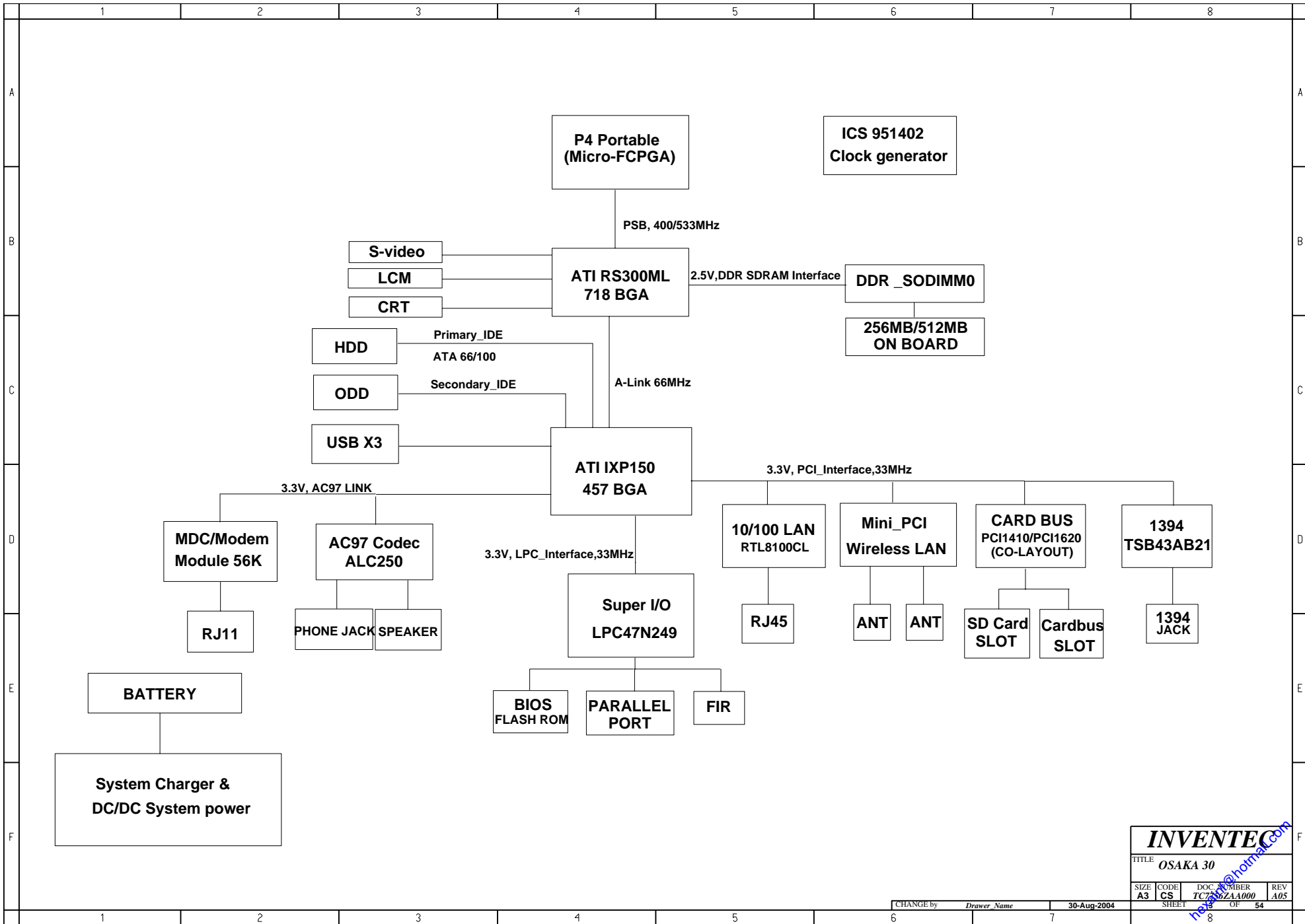
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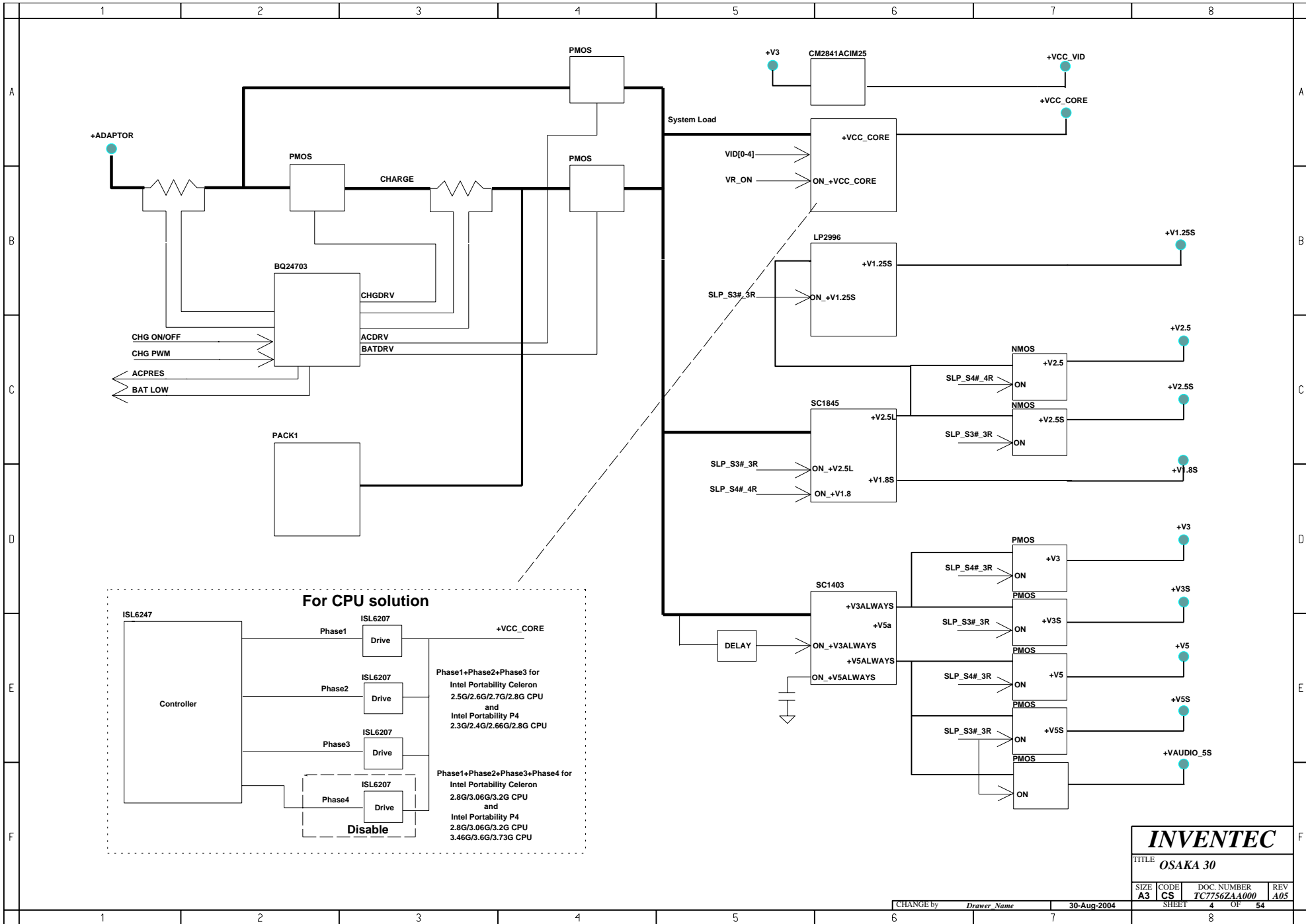
TITLE *OSAKA 30*

SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <i>TC7756ZAA000</i>	REV <b>A05</b>
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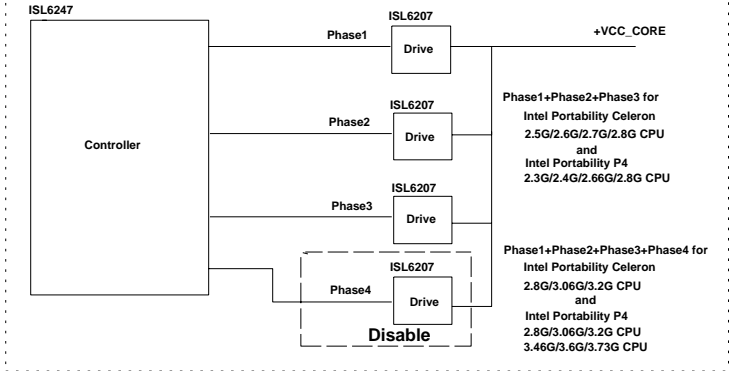
CHANGE by *Drawer Name* 30-Aug-2004

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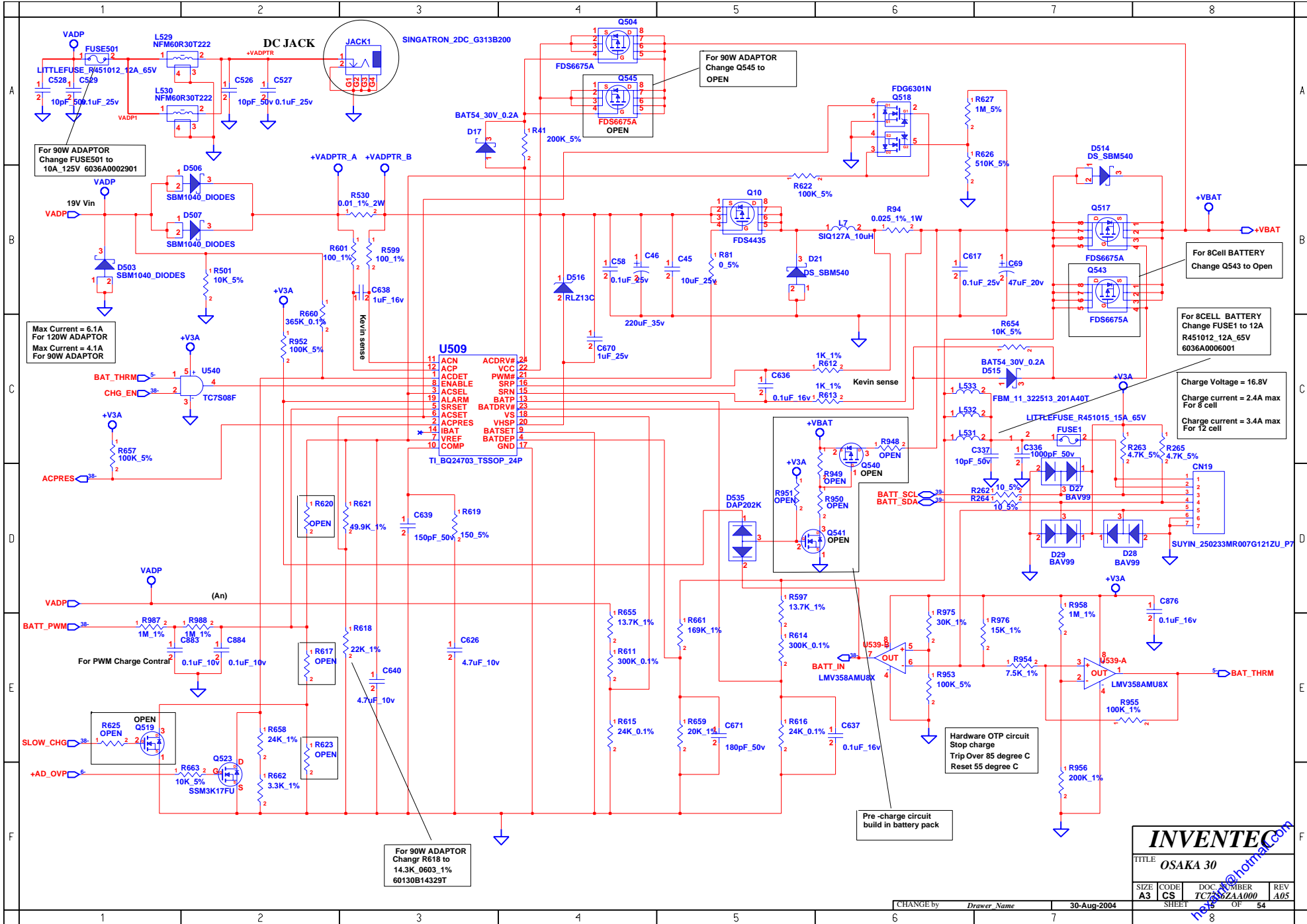
**For CPU solution**



**INVENTEC**

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For 90W ADAPTOR  
Change FUSE501 to  
10A\_125V 6036A0002901

Max Current = 6.1A  
For 120W ADAPTOR  
Max Current = 4.1A  
For 90W ADAPTOR

For 90W ADAPTOR  
Change Q545 to  
OPEN

For 8Cell BATTERY  
Change Q543 to Open

For 8CELL BATTERY  
Change FUSE1 to 12A  
R451012\_12A\_65V  
6036A0006001

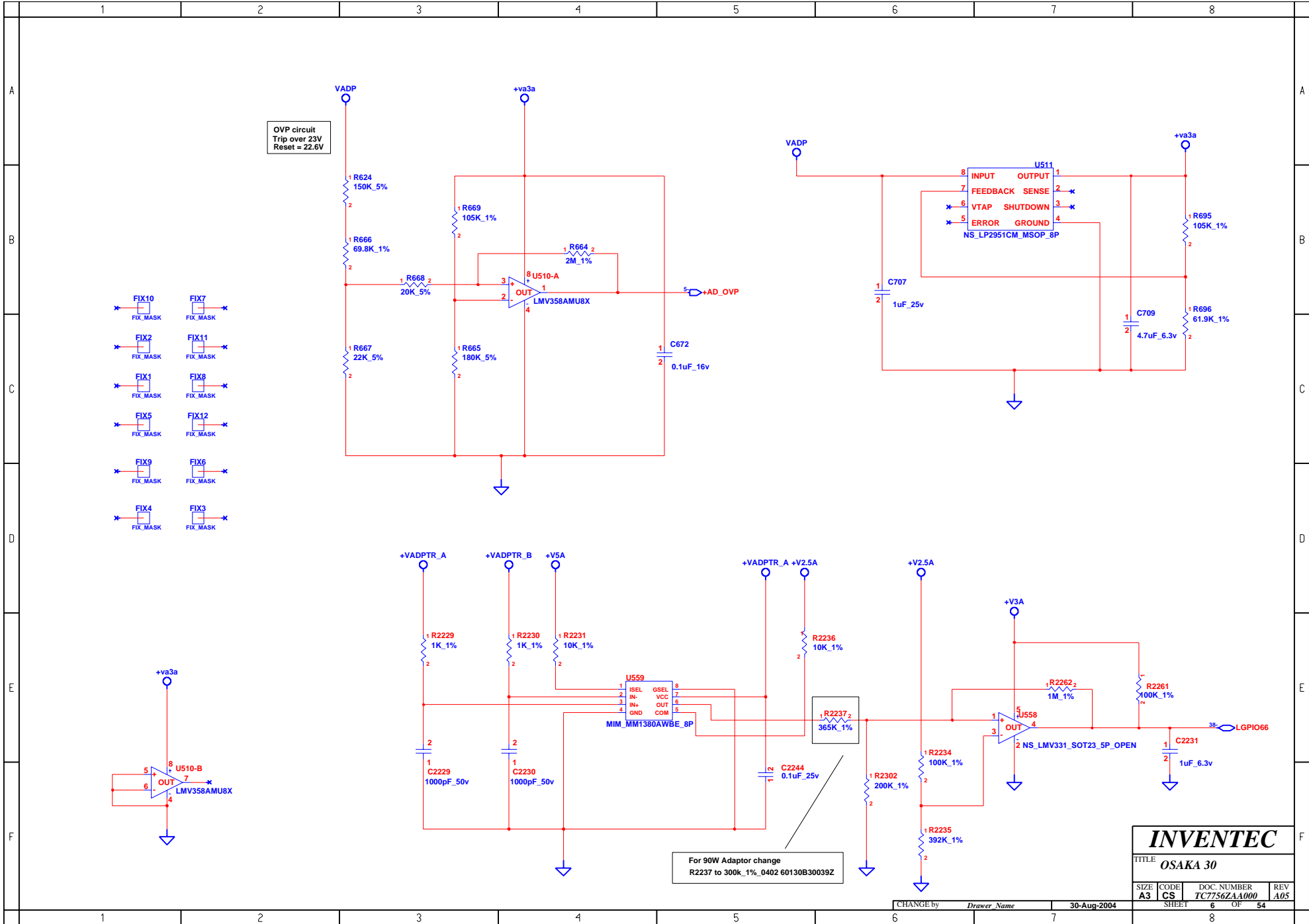
Charge Voltage = 16.8V  
Charge current = 2.4A max  
For 8 cell  
Charge current = 3.4A max  
For 12 cell

Hardware OTP circuit  
Stop charge  
Trip Over 85 degree C  
Reset 55 degree C

Pre-charge circuit  
build in battery pack

For 90W ADAPTOR  
Change R618 to  
14.3K 0603\_1%  
60130B14329T

<b>INVENTEC</b>			
TITLE <b>OSAKA 30</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>TC7352AA000</b>	REV <b>A05</b>
CHANGE by <i>Drawer Name</i>		30-Aug-2004	
SHEET <b>15</b>		OF <b>54</b>	



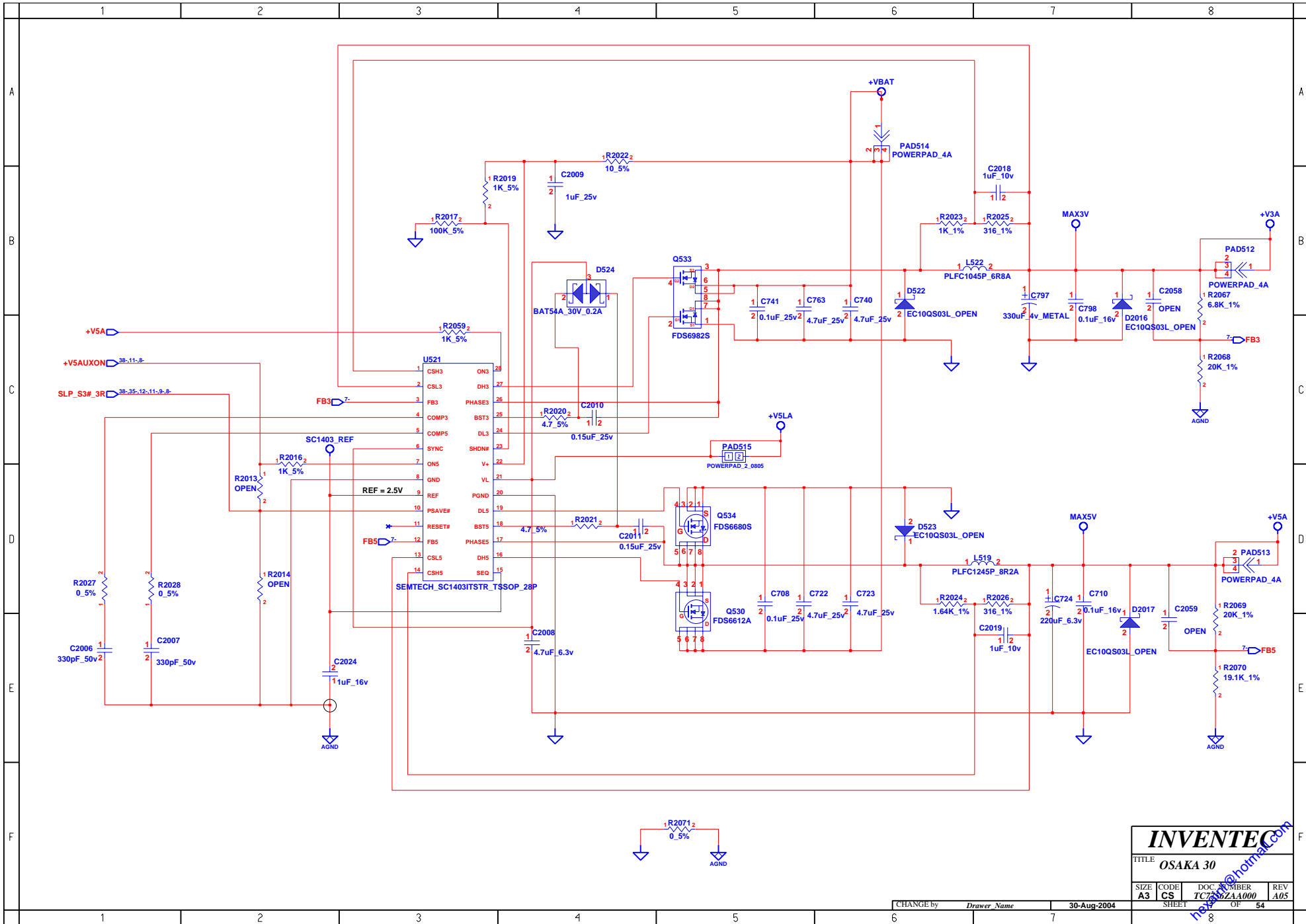
OVP circuit  
 Trip over 23V  
 Reset = 22.6V

For 90W Adaptor change  
 R2237 to 300k\_1%\_0402 60130B30039Z

**INVENTEC**

TITLE  
 OSAKA 30

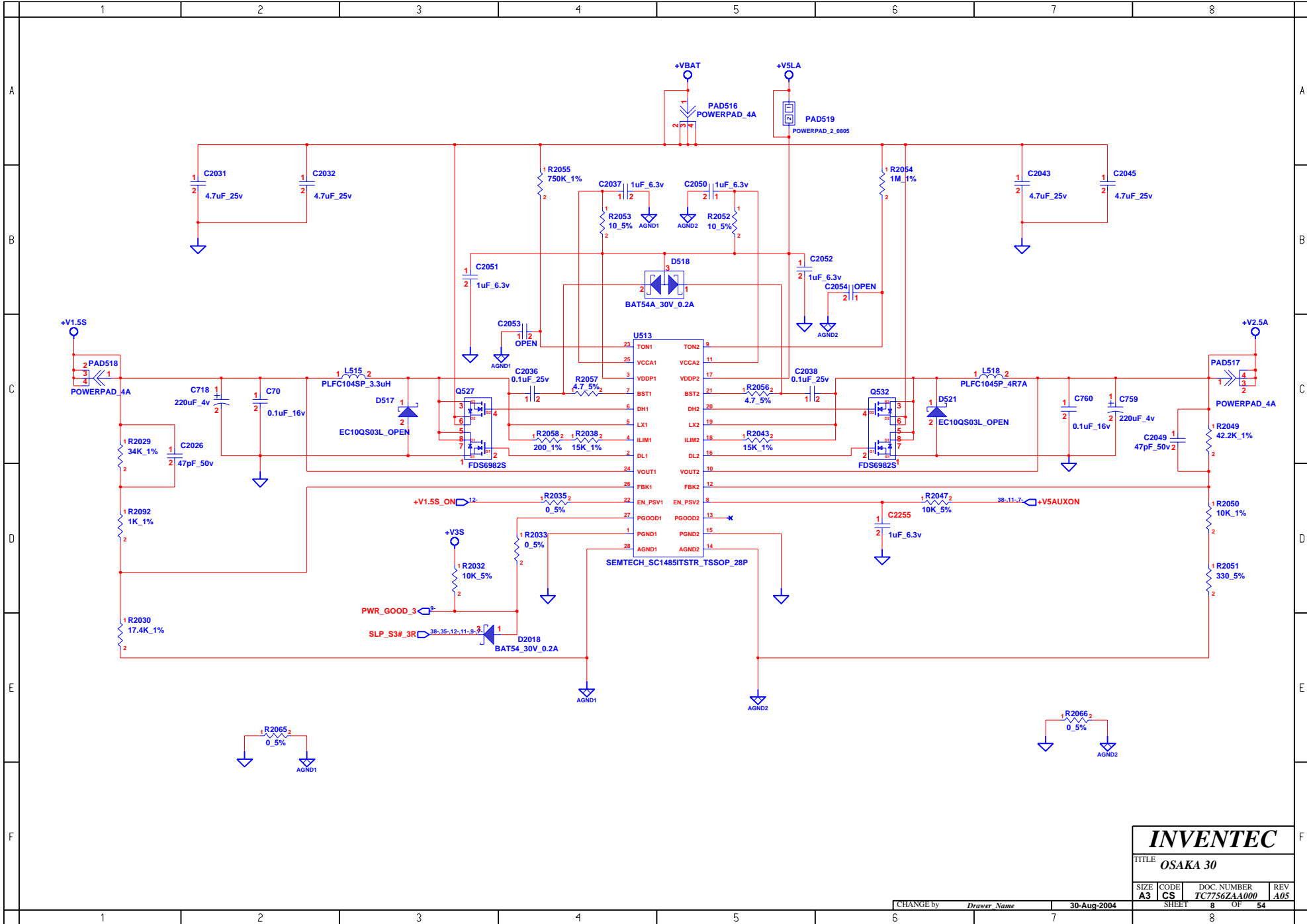
SIZE A3	CODE CS	DOC. NUMBER TC7756ZAA000	REV A05
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**INVENTEC**

TITLE  
**OSAKA 30**

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CHANGE by <i>Drawer Name</i>		DATE <b>30-Aug-2004</b>	SHEET OF <b>54</b>

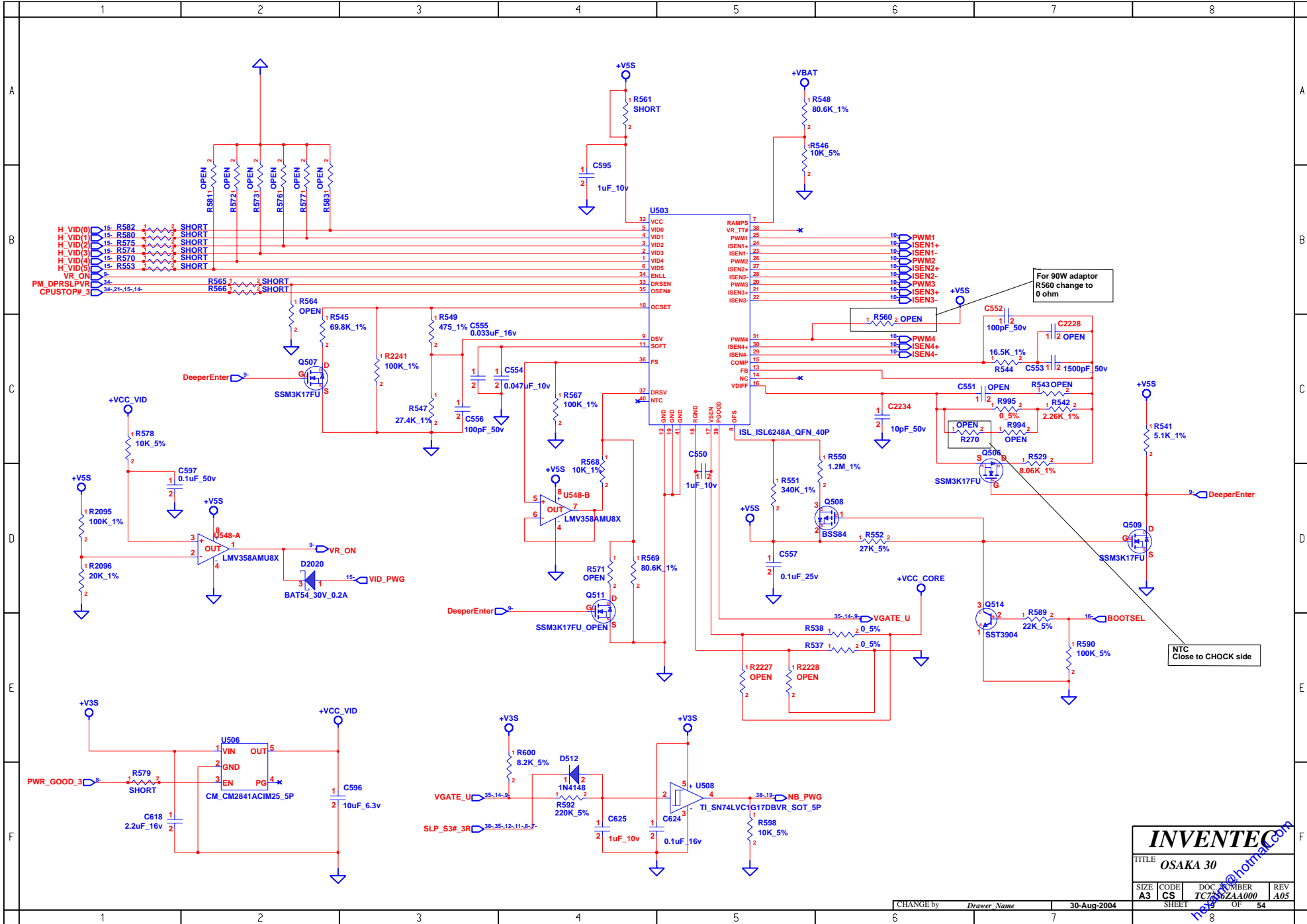


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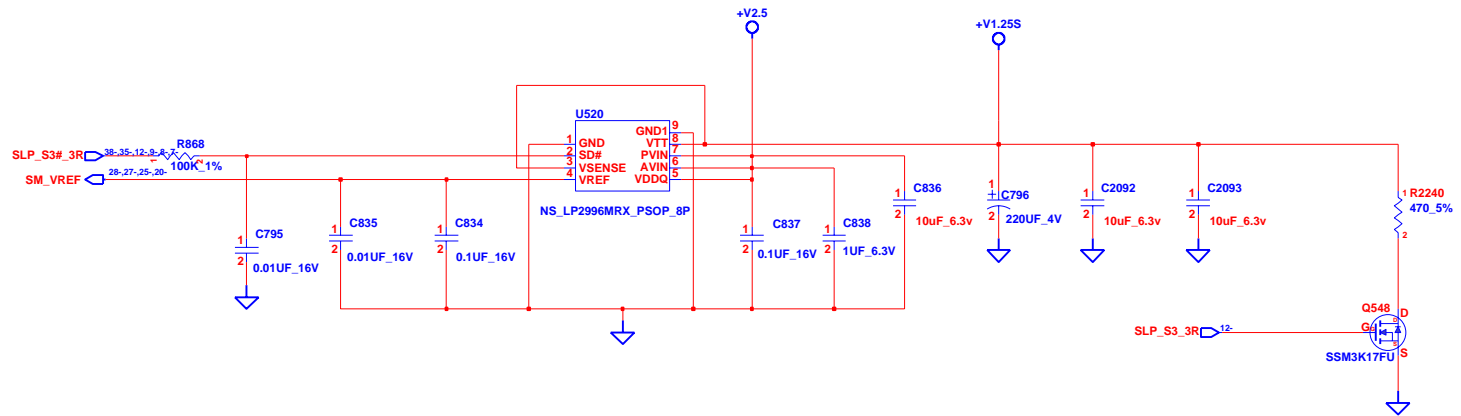
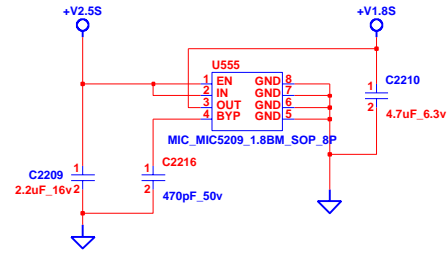
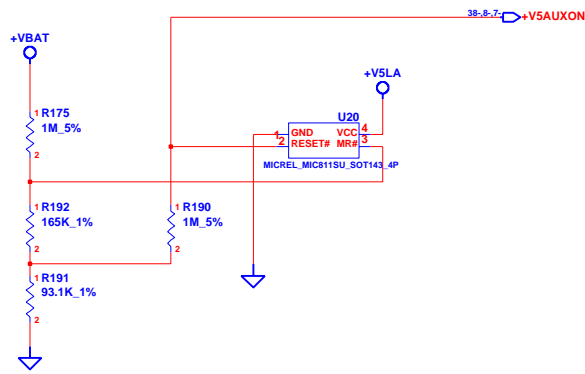
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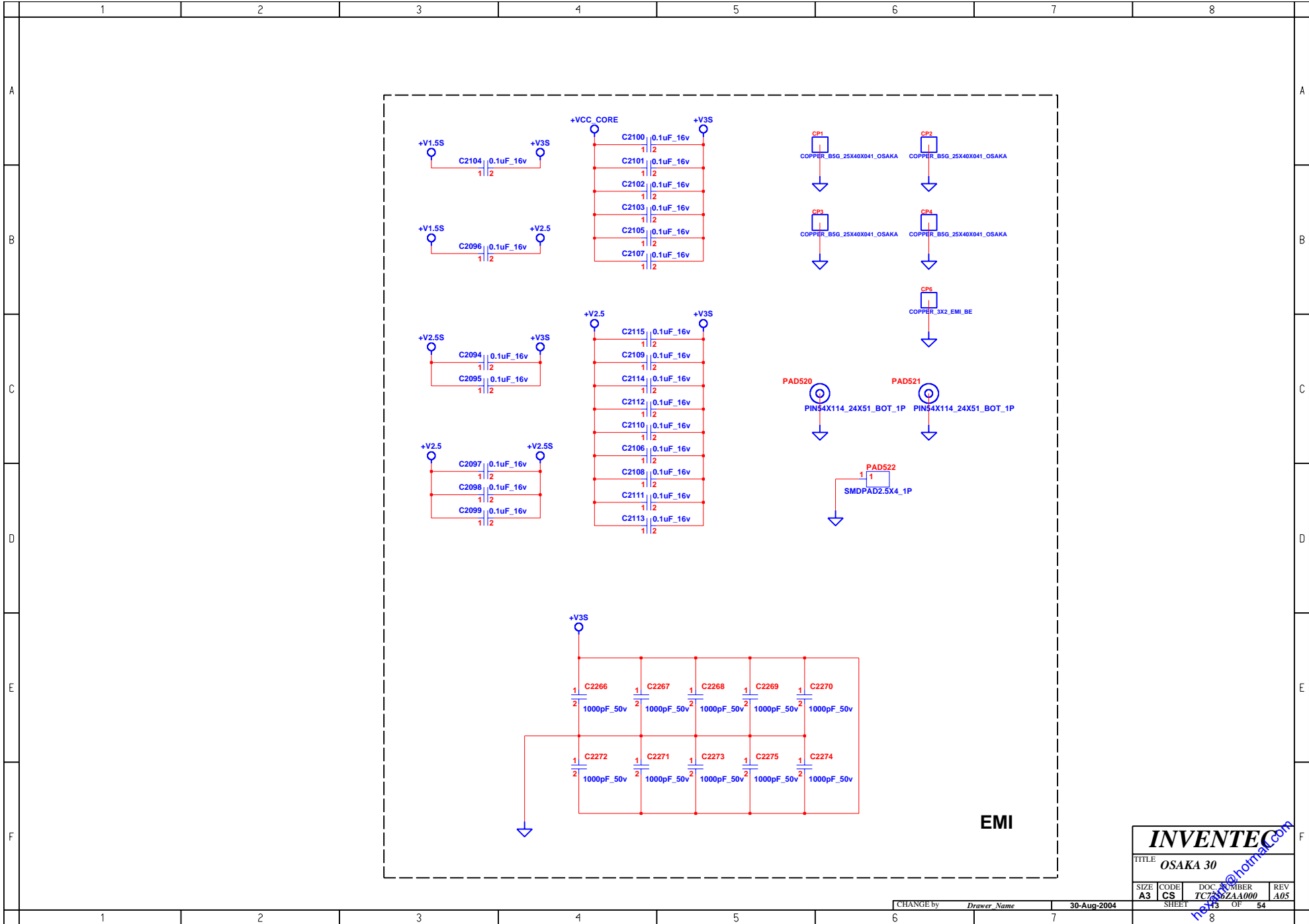
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<b>INVENTEC</b>			
TITLE <b>OSAKA 30</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>TC7352AA000</b>	REV <b>A05</b>
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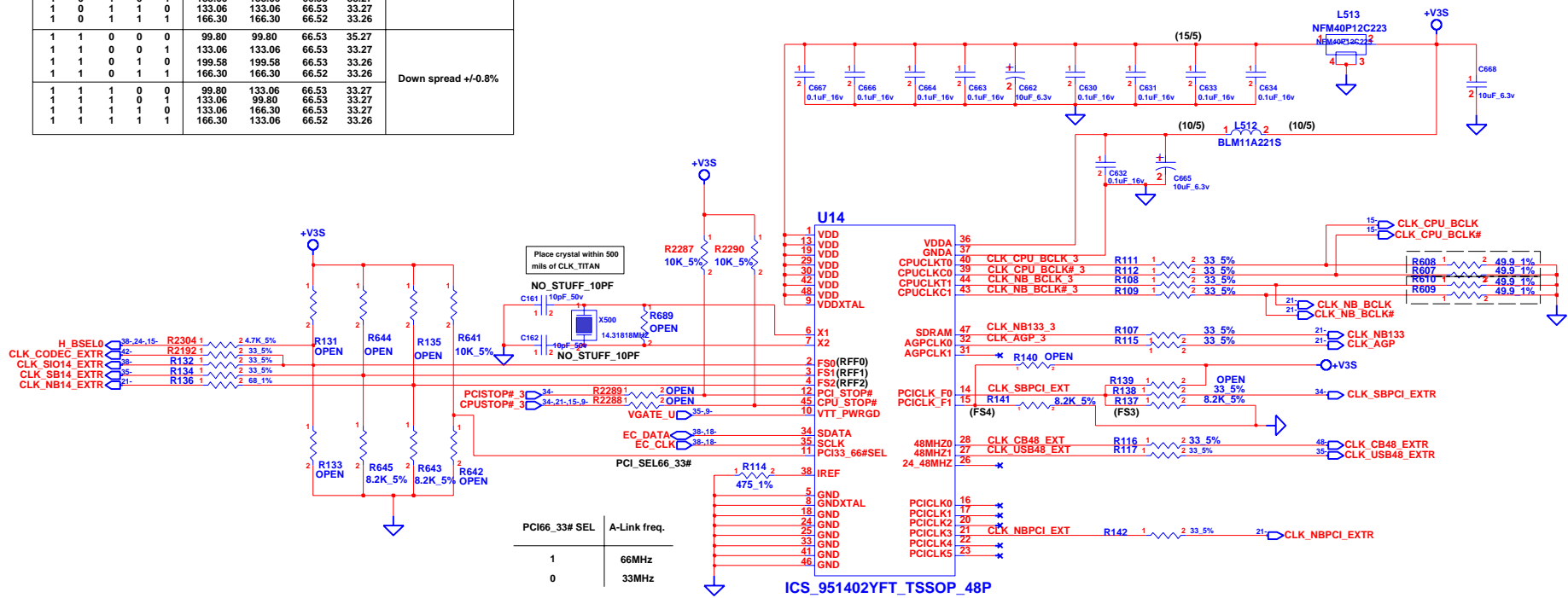




<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC NUMBER TC756ZAA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	SHEET 13 OF 54

EXT CLK FREQUENCY SELECT TABLE

FS4	FS3	FS2	FS1	FS0	CPU MHz	MEM MHz	66MHz	PCI MHz	With Spread Enabled...
0	0	0	0	0	100.01	100.01	66.67	33.34	Spread OFF OR Center spread +/-0.3%
0	0	0	0	1	133.33	133.33	66.67	33.33	
0	0	0	1	0	200.01	200.01	66.67	33.34	
0	0	0	1	1	166.64	166.64	66.66	33.33	
0	0	1	0	0	100.01	133.34	66.67	33.34	
0	0	1	0	1	133.34	100.01	66.67	33.34	
0	0	1	1	0	133.16	166.45	66.58	33.29	
0	0	1	1	1	166.45	133.16	66.58	33.29	
0	1	0	0	0	105.00	105.00	70.00	35.00	
0	1	0	0	1	140.00	140.00	70.00	35.00	
0	1	0	1	0	66.67	66.67	66.67	33.34	
0	1	0	1	1	175.00	175.00	70.00	35.00	
0	1	1	0	0	109.99	109.99	73.33	36.66	
0	1	1	0	1	146.66	146.66	73.33	36.67	
0	1	1	1	0	201.00	201.00	70.00	35.00	
0	1	1	1	1	183.27	183.27	73.31	36.65	
1	0	0	0	0	99.80	99.80	66.53	33.27	
1	0	0	0	1	133.06	133.06	66.53	33.27	
1	0	0	1	0	199.58	199.58	66.53	33.26	
1	0	0	1	1	166.30	166.30	66.52	33.26	
1	0	1	0	0	99.80	133.06	66.53	33.27	
1	0	1	0	1	133.06	133.06	66.53	33.27	
1	0	1	1	0	133.06	133.06	66.53	33.27	
1	0	1	1	1	166.30	166.30	66.52	33.26	
1	1	0	0	0	99.80	99.80	66.53	35.27	
1	1	0	0	1	133.06	133.06	66.53	33.27	
1	1	0	1	0	199.58	199.58	66.53	33.26	
1	1	0	1	1	166.30	166.30	66.52	33.26	
1	1	1	0	0	99.80	133.06	66.53	33.27	
1	1	1	0	1	133.06	99.80	66.53	33.27	
1	1	1	1	0	133.06	166.30	66.53	33.27	
1	1	1	1	1	166.30	133.06	66.52	33.26	



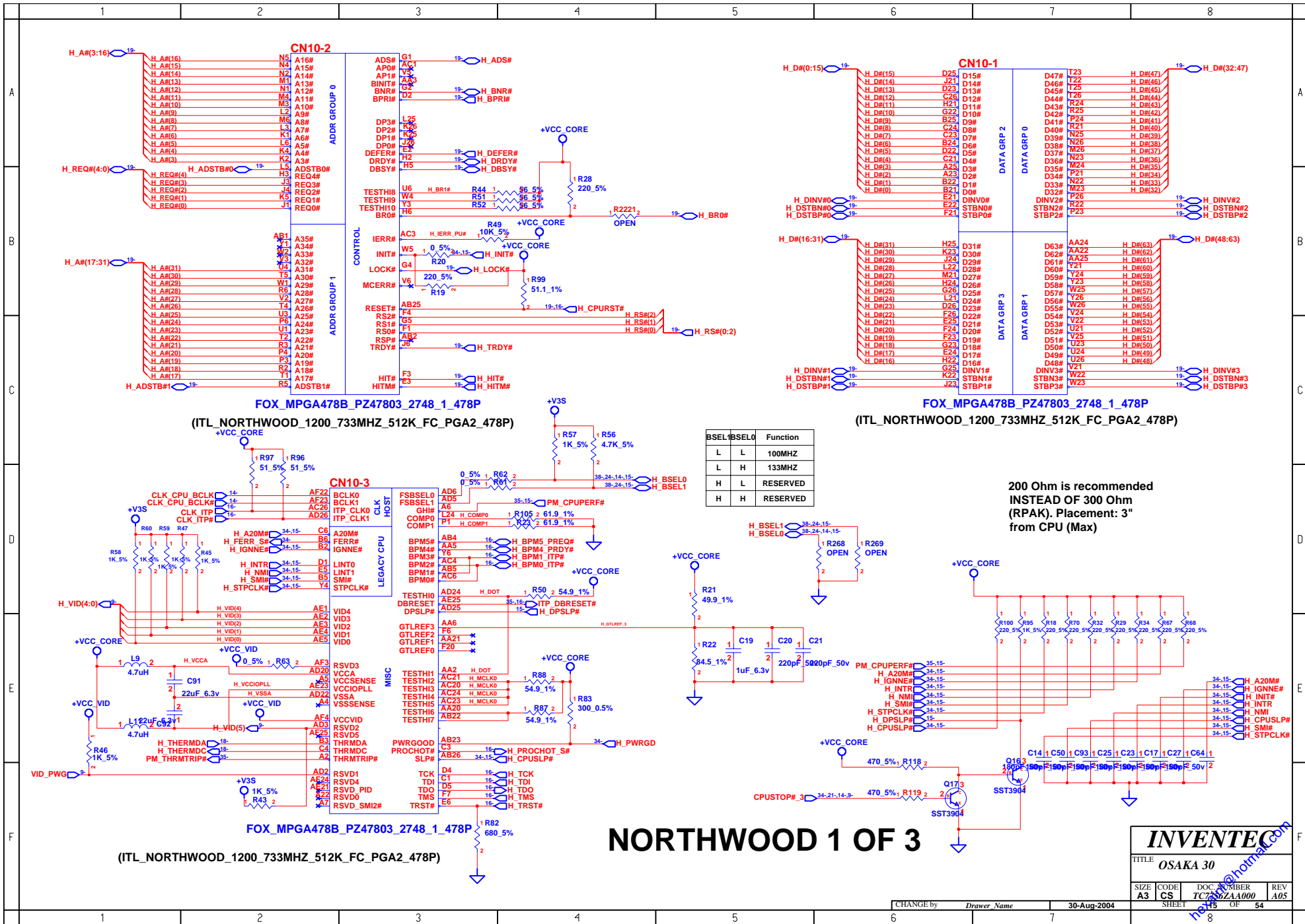
PCI66_33# SEL	A-Link freq.
1	66MHz
0	33MHz

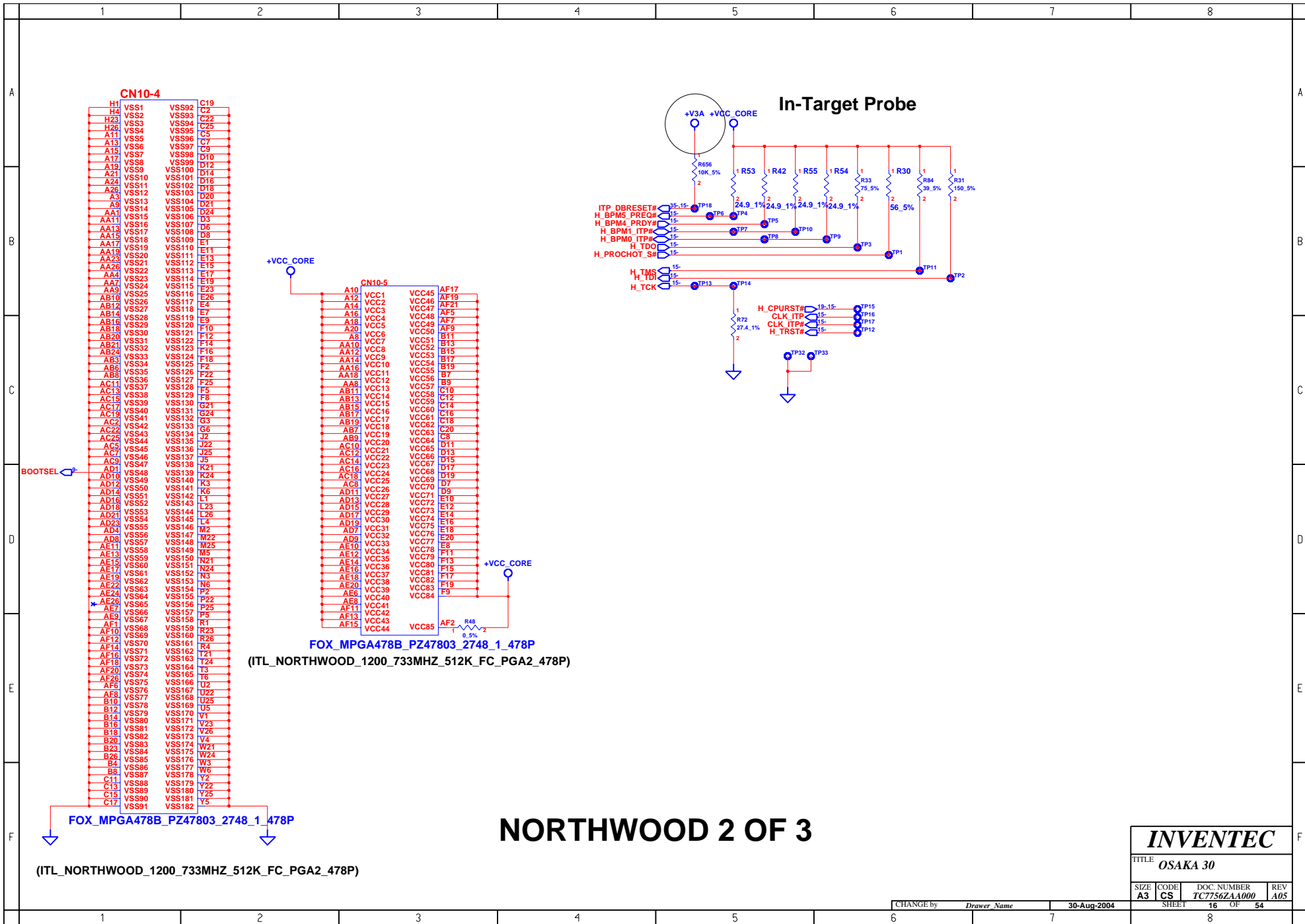
**INVENTEC**

TITLE  
OSAKA 30

SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
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# NORTHWOOD 2 OF 3

**INVENTEC**

TITLE OSAKA 30

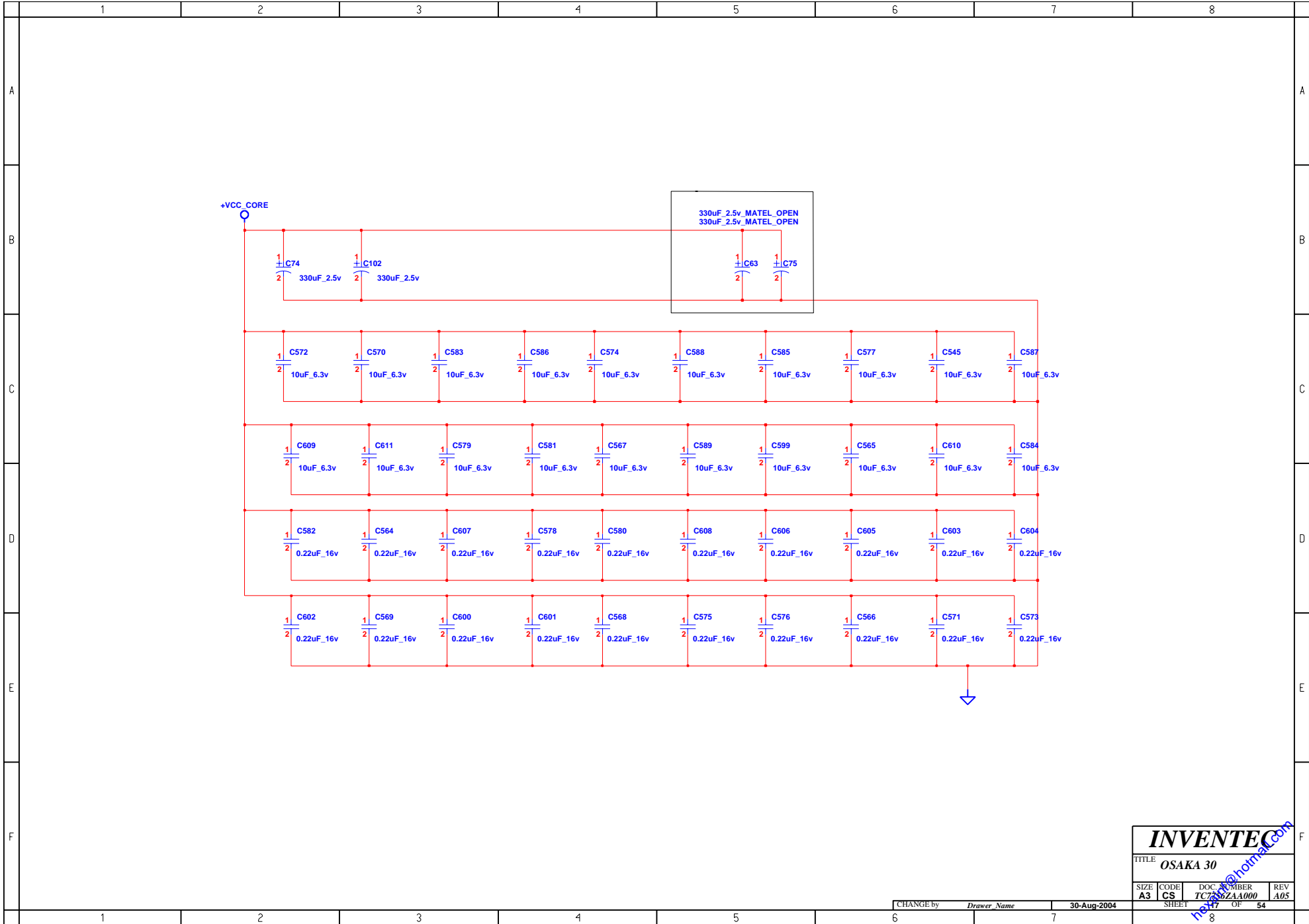
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CHANGE by Drawer Name 30-Aug-2004

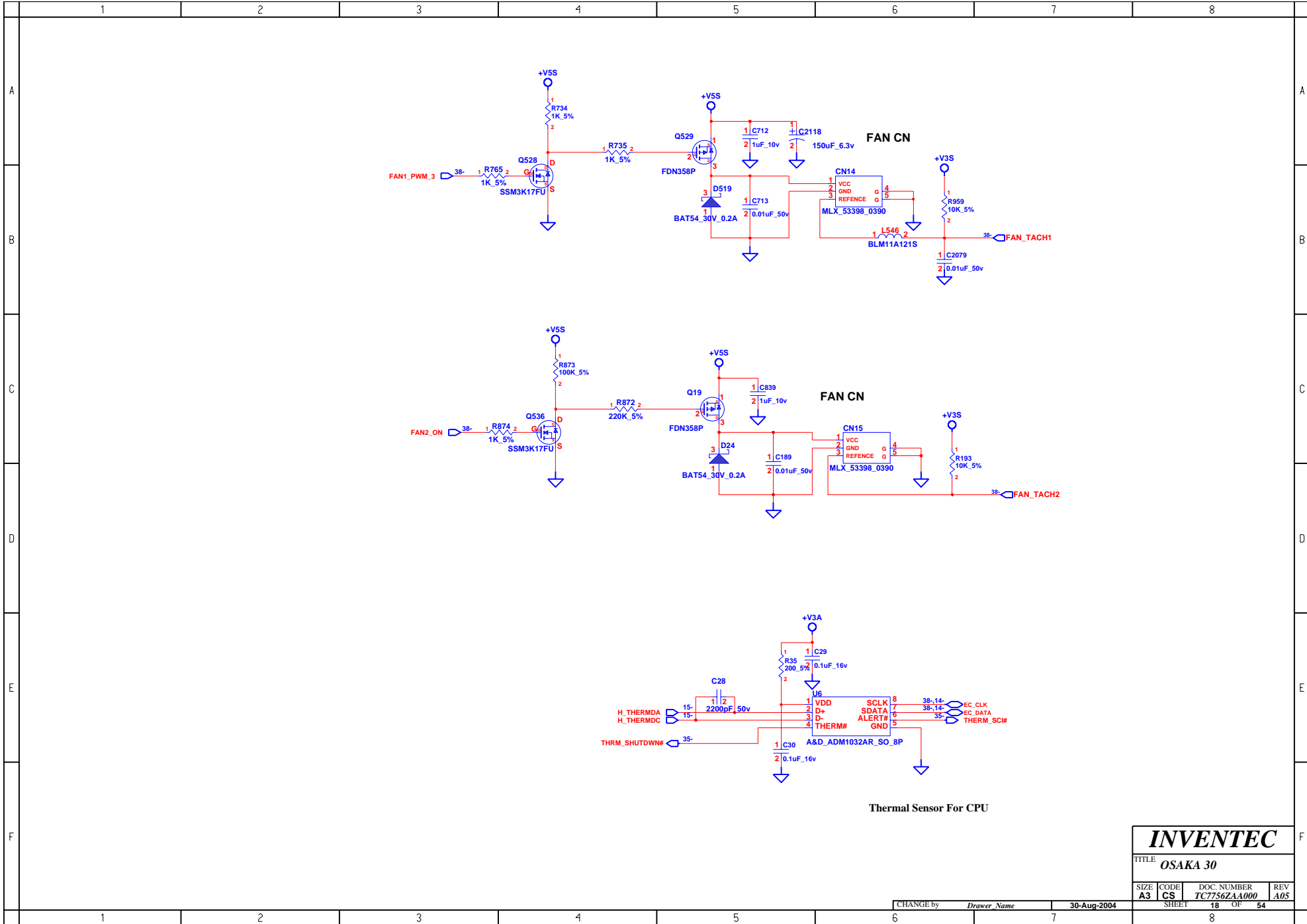
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(ITL\_NORTHWOOD\_1200\_733MHZ\_512K\_FC\_PGA2\_478P)





**INVENTEC**  
 TITLE OSAKA 30  
 SIZE A3 CODE CS DOC NUMBER TC7362AA000 REV A05  
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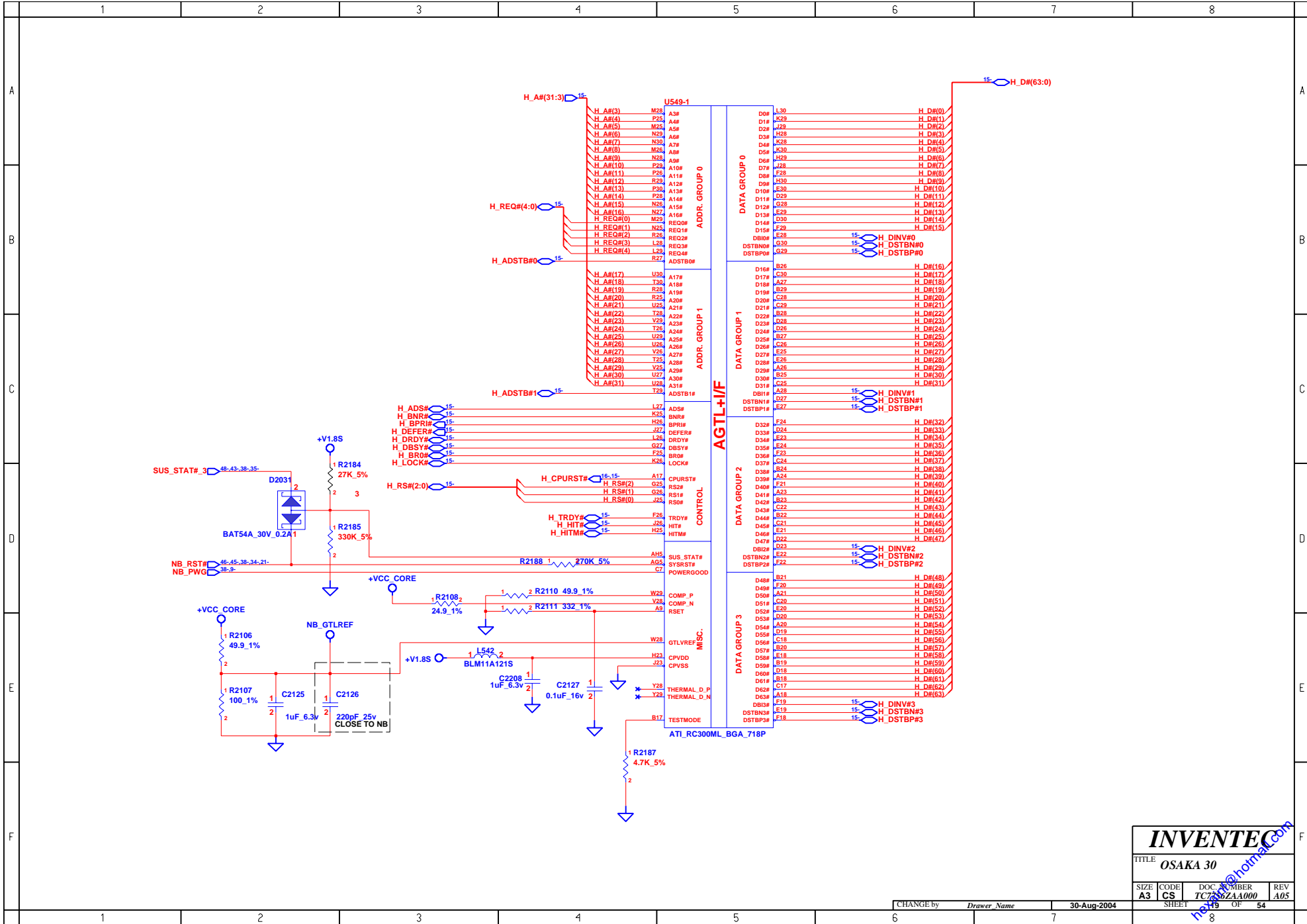
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OSAKA 30

SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
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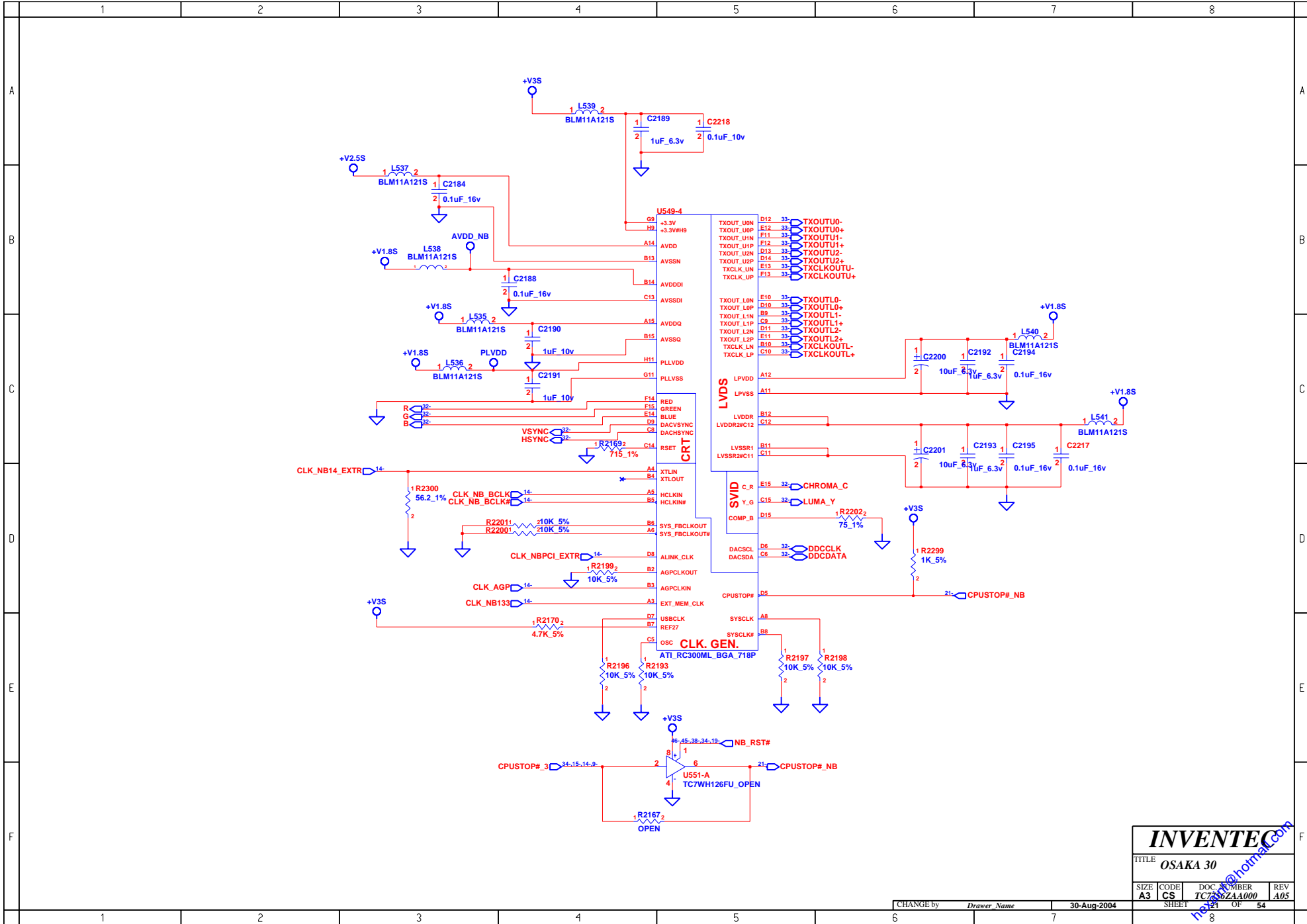
**INVENTEC**

TITLE  
OSAKA 30

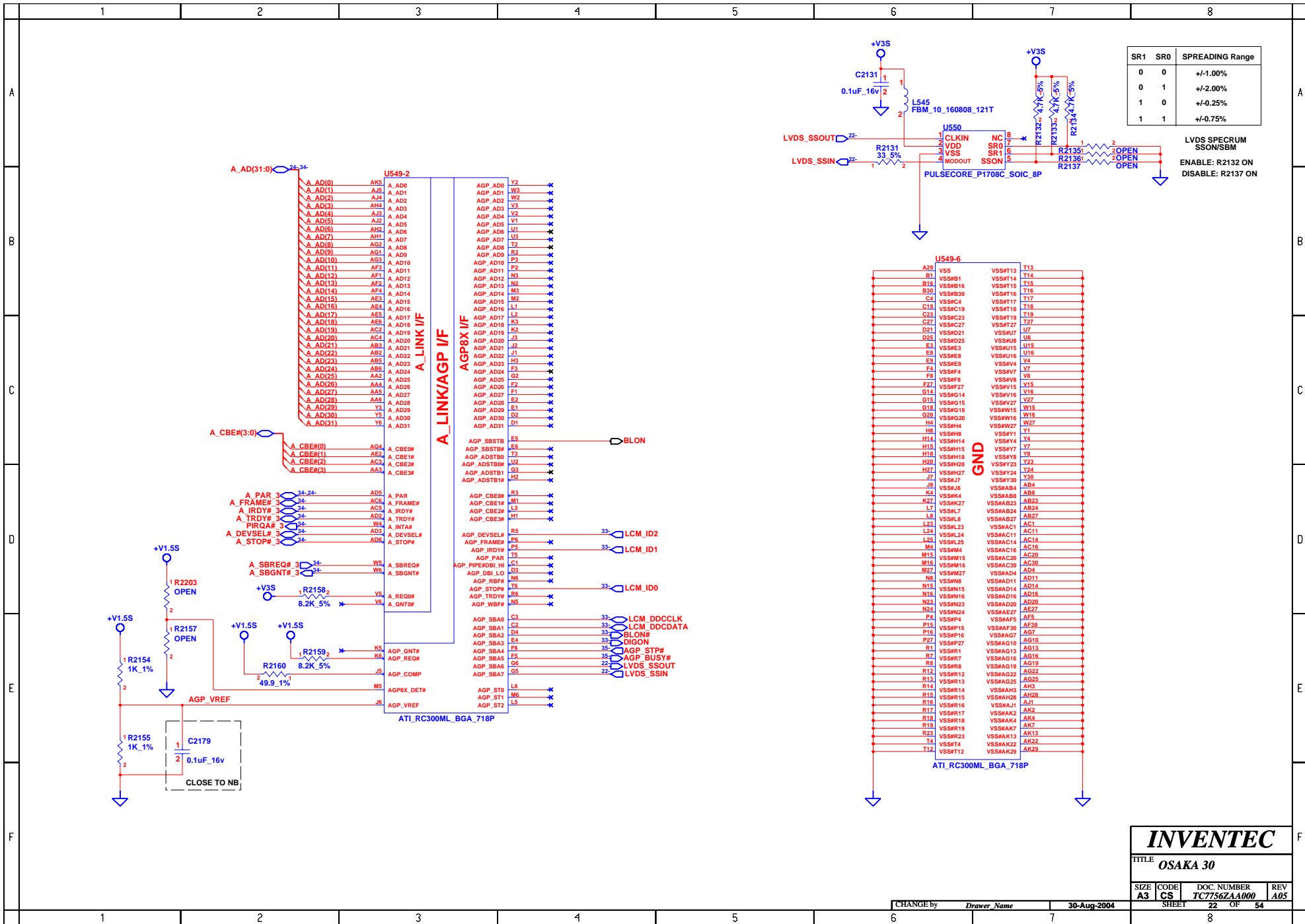
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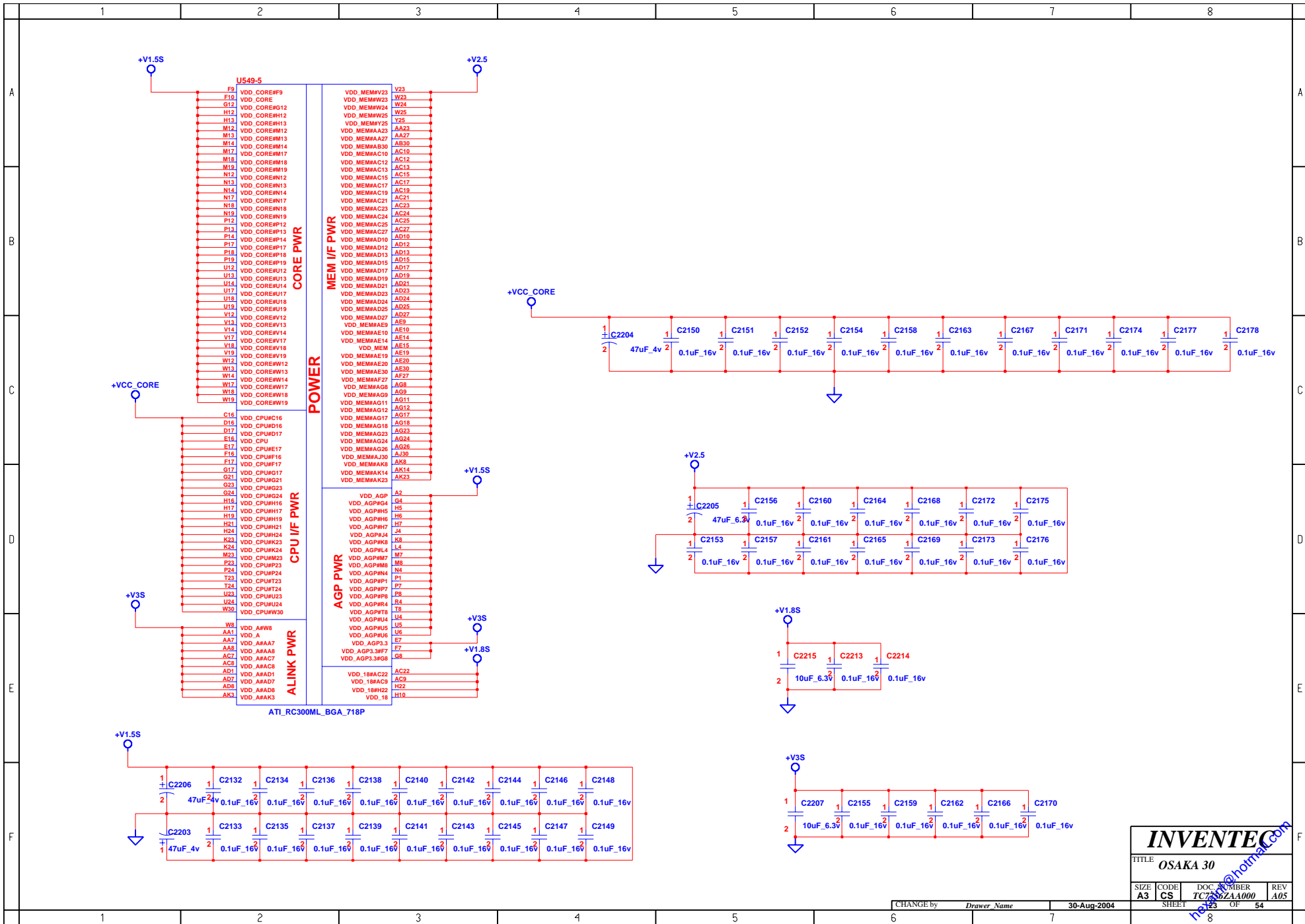




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TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7352AA000	REV A05
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<b>INVENTEC</b>			
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CHANGE by Drawer Name		30-Aug-2004	
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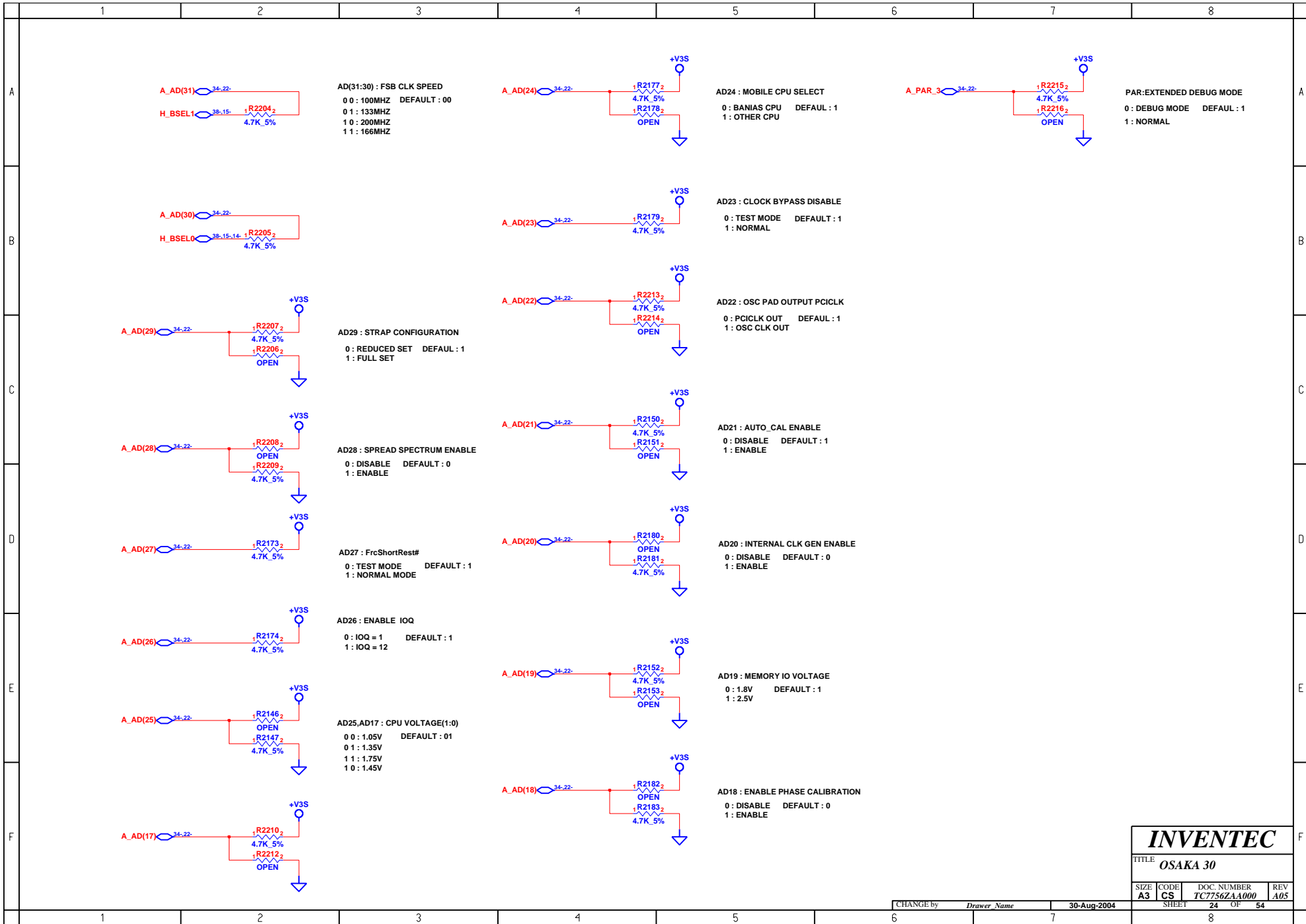


**INVENTEC**

TITLE: OSAKA 30

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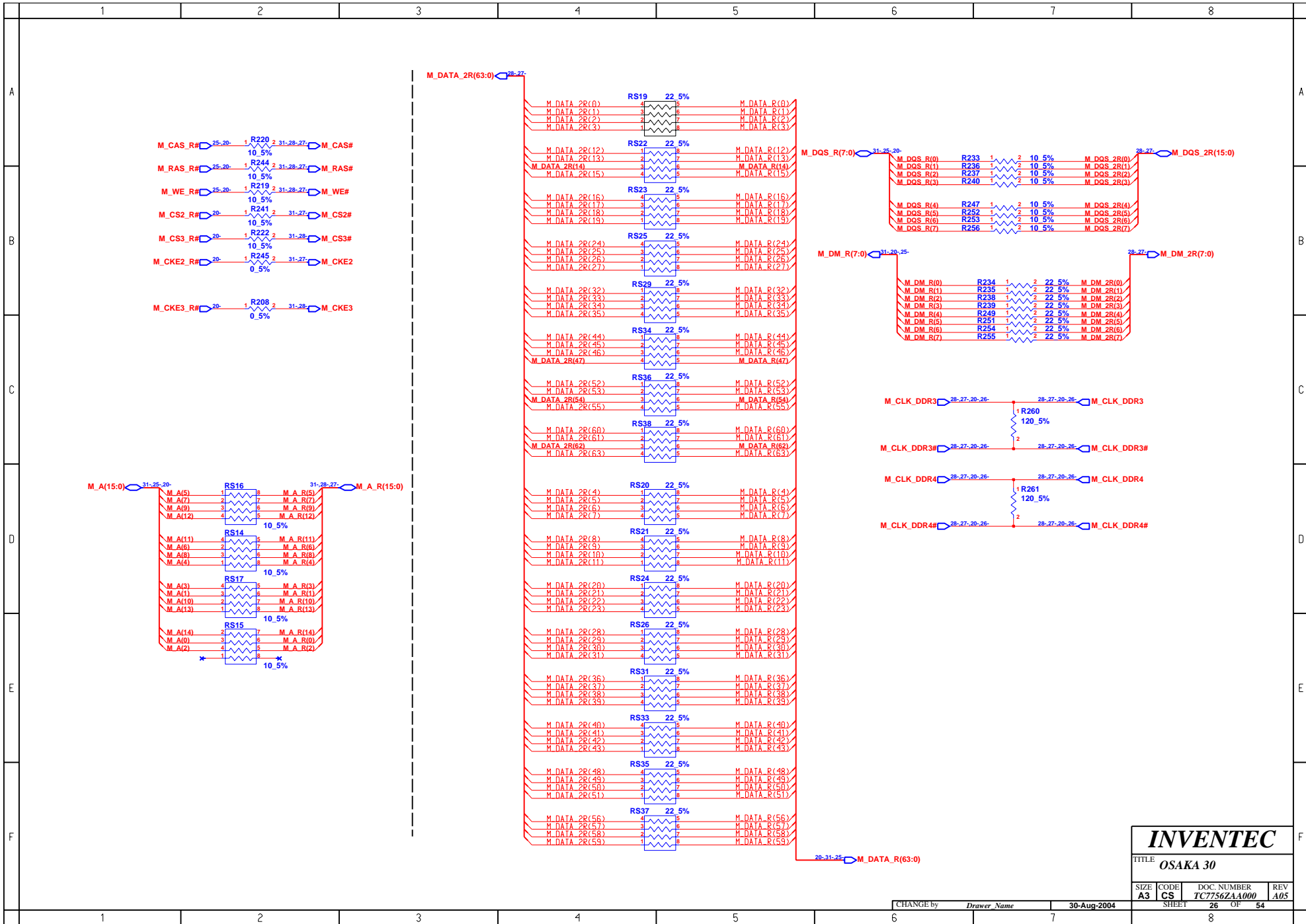
CHANGE by: *Drawer Name* 30-Aug-2004 SHEET 123 OF 54



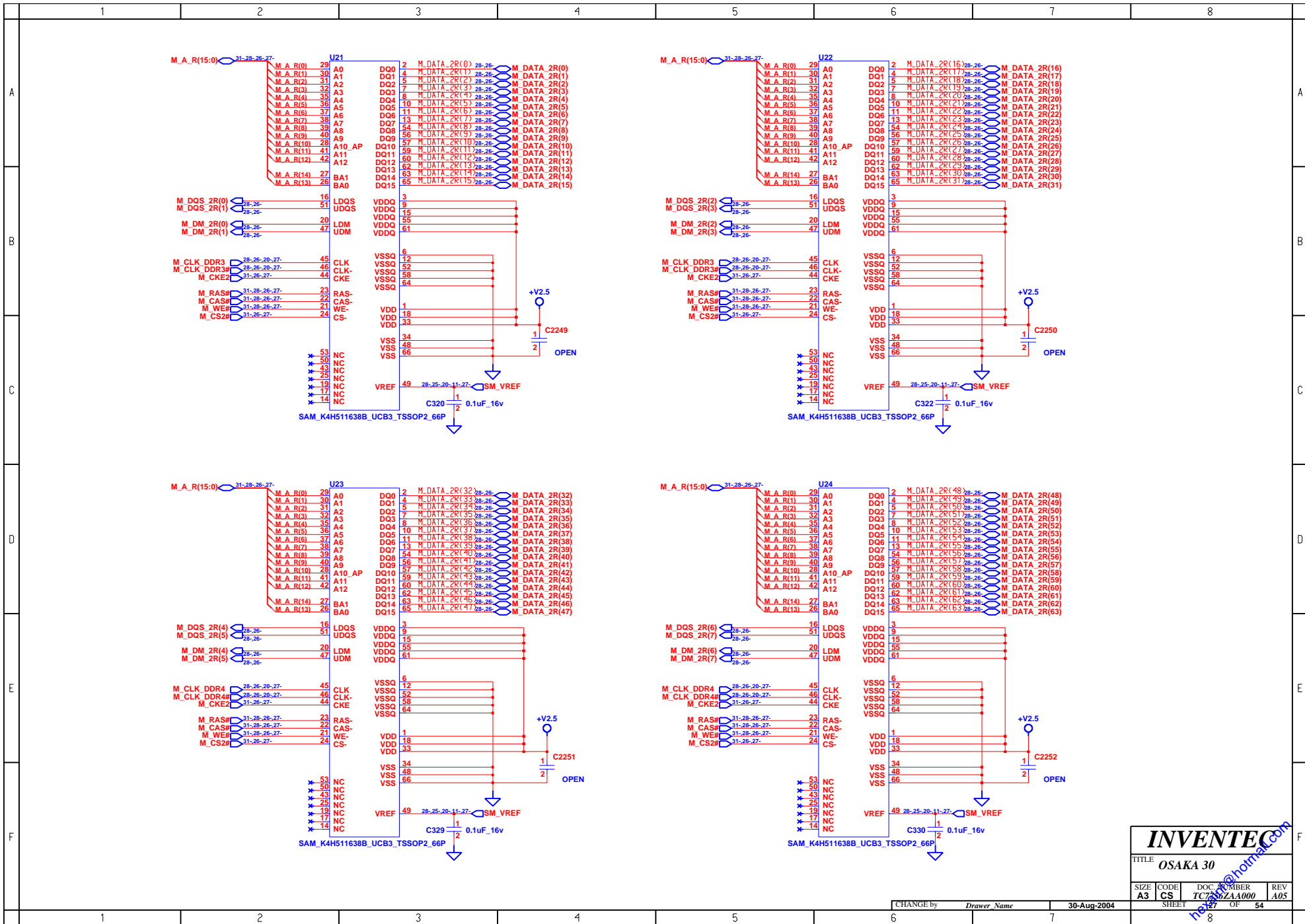
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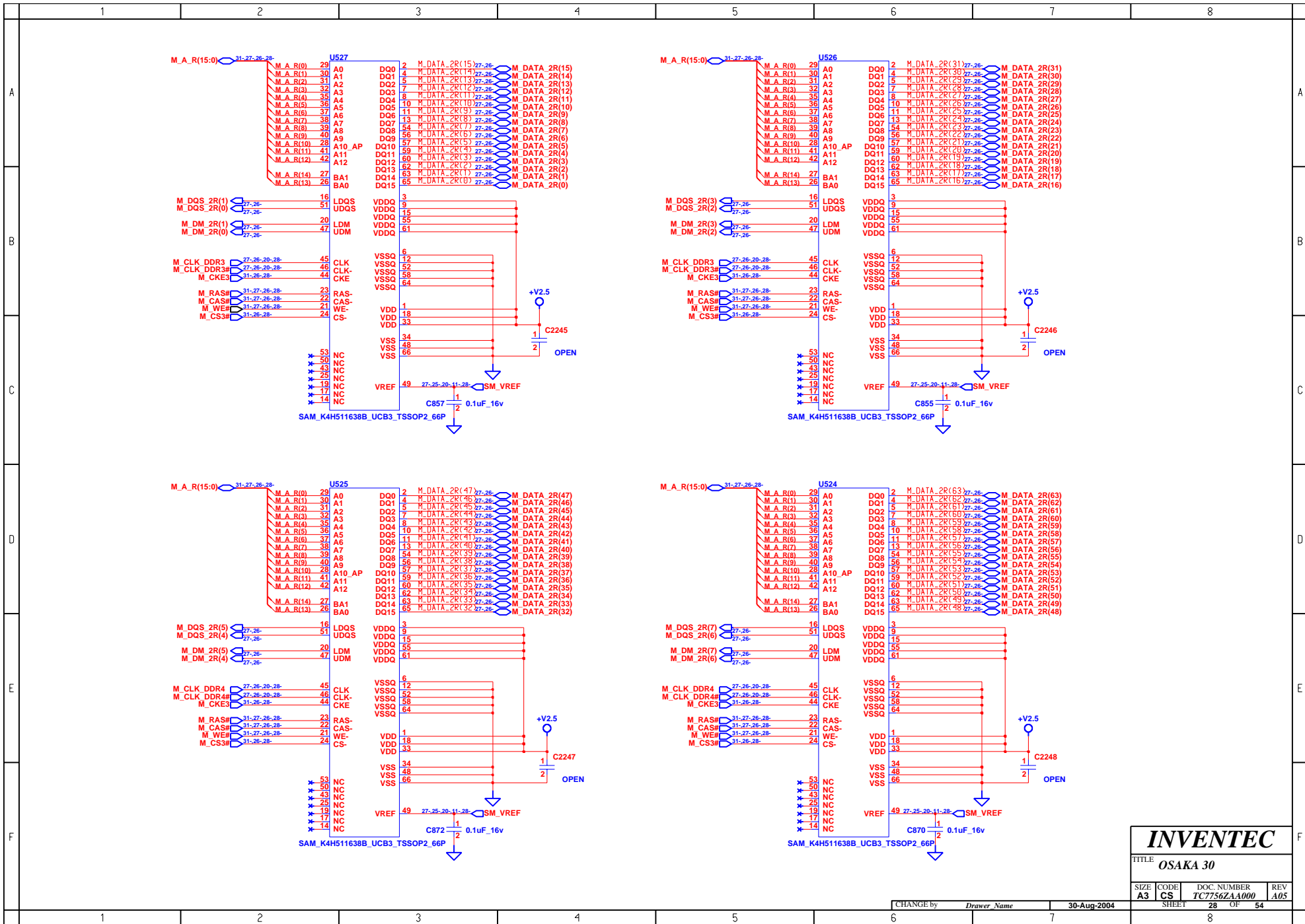




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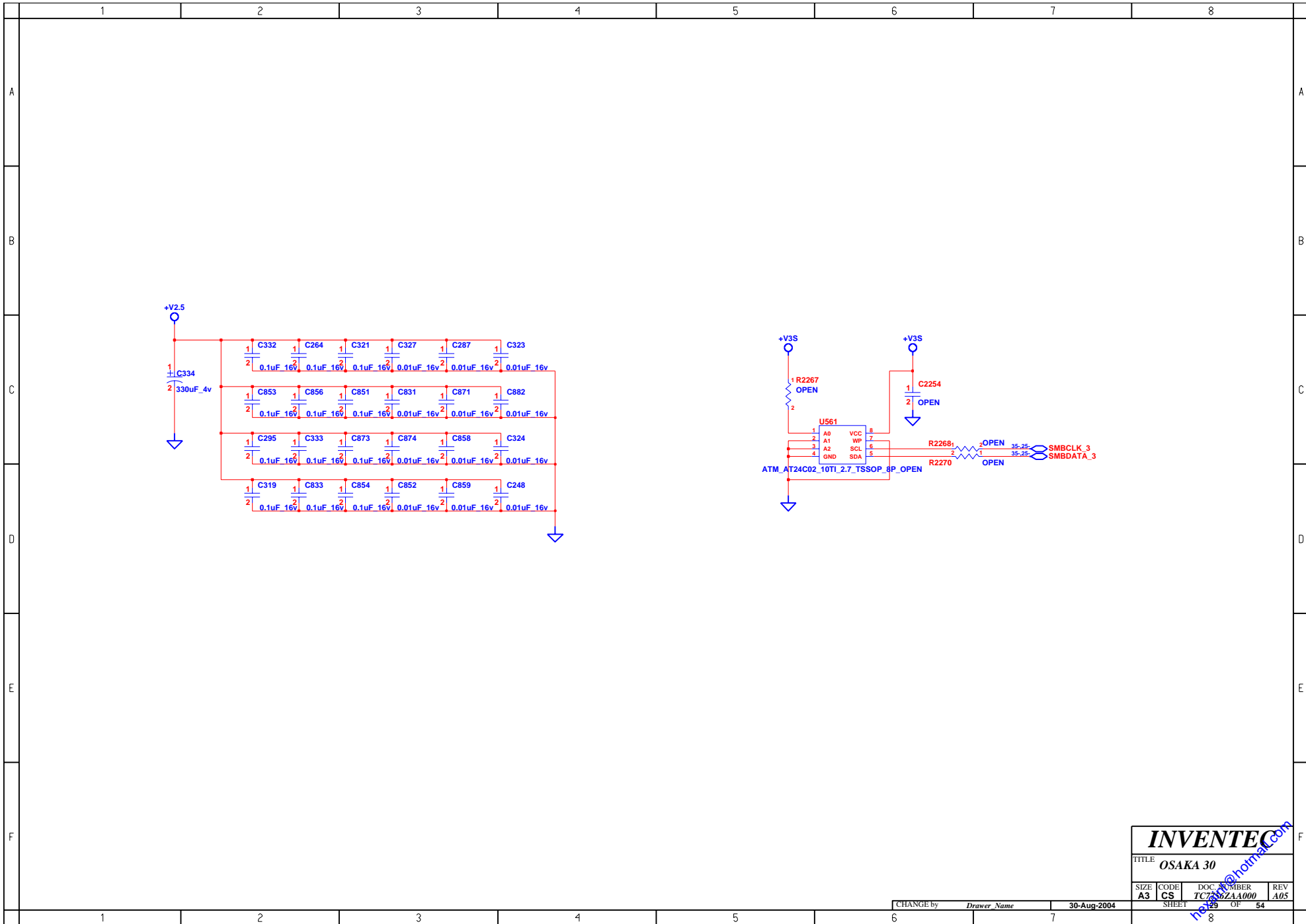
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 TITLE: OSAKA 30  
 SIZE: A3 CODE: CS DOC. NUMBER: TC755ZAA000 REV: A05  
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**INVENTEC**

TITLE  
OSAKA 30

SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
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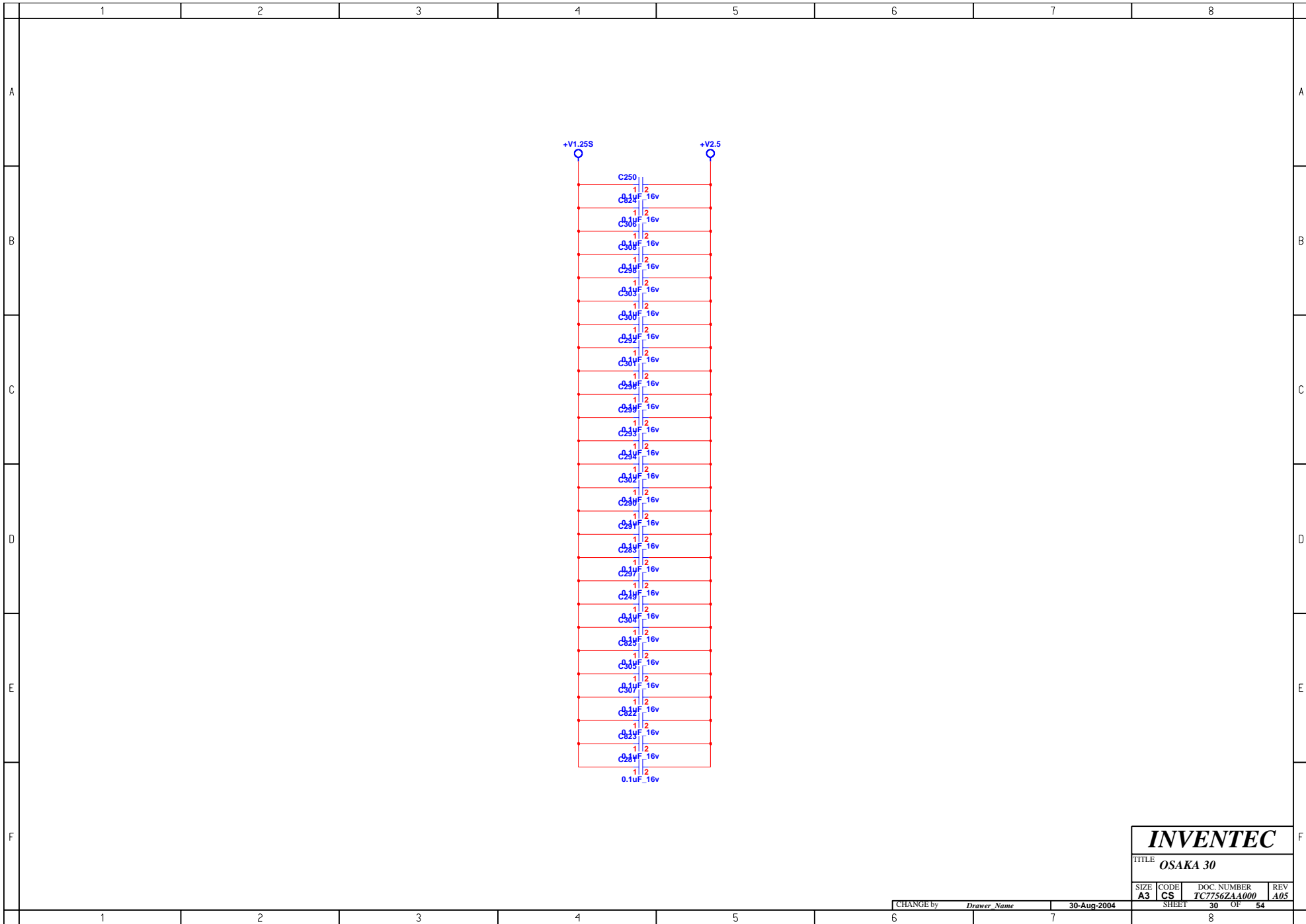


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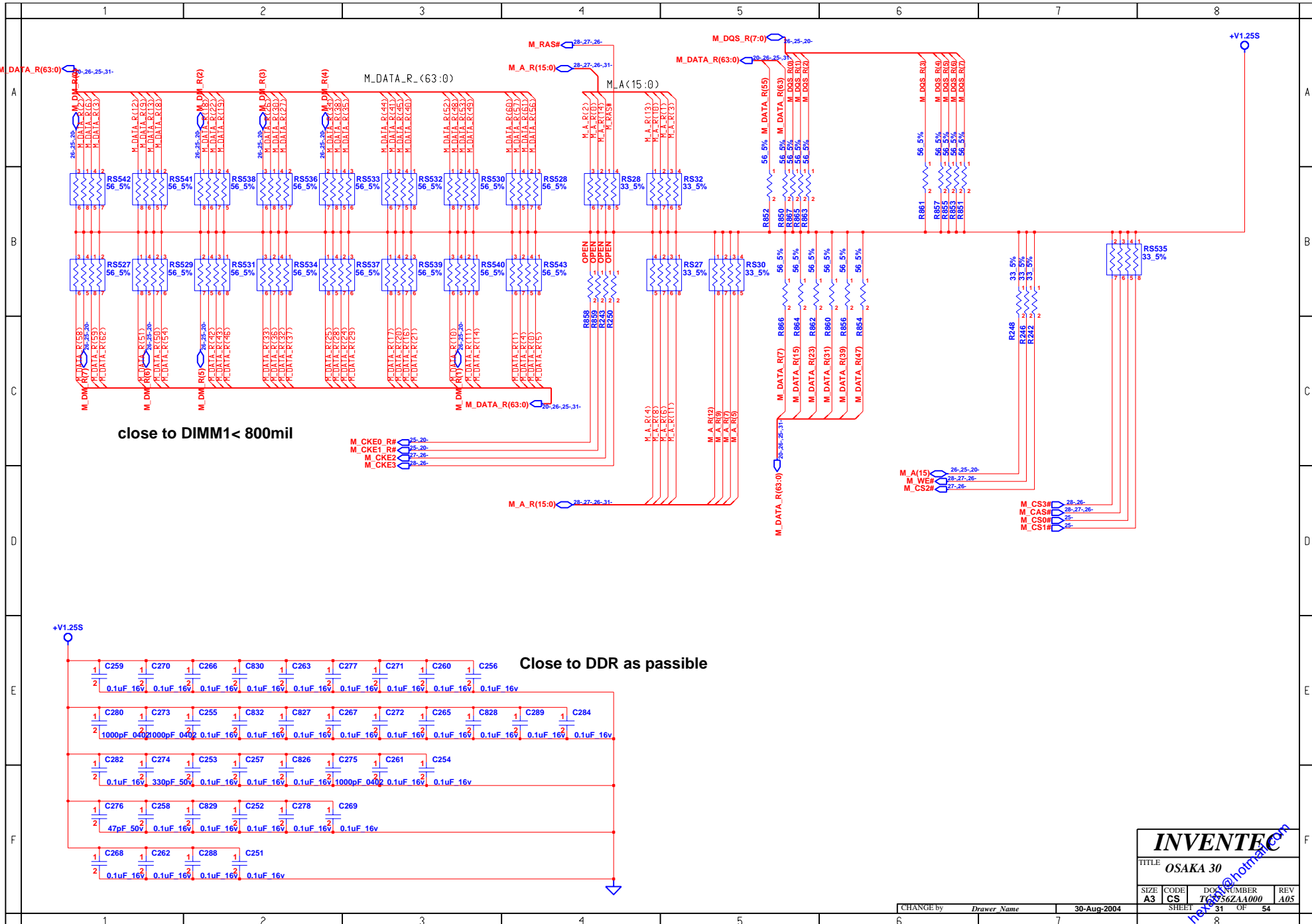
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OSAKA 30

SIZE A3	CODE CS	DOC. NUMBER TC755ZAA000	REV A05
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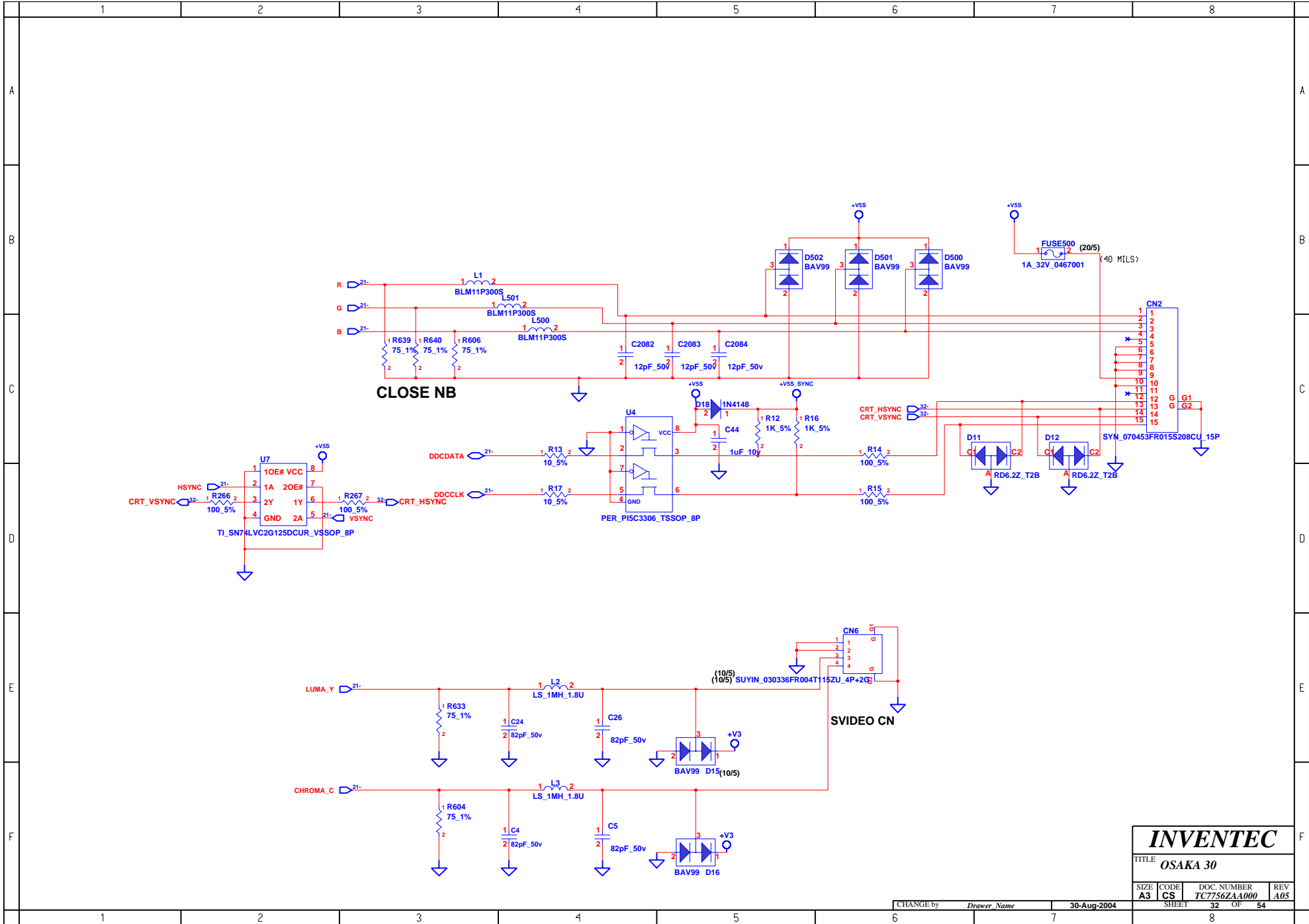
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TITLE <b>OSAKA 30</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>TC7756ZA000</b>	REV <b>A05</b>
CHANGE by <i>Drawer Name</i>		<b>30-Aug-2004</b>	SHEET <b>30</b> OF <b>54</b>



close to DIMM1 < 800mil

Close to DDR as possible

<b>INVENTEC</b>			
TITLE <b>OSAKA 30</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>TC6356ZAA000</b>	REV <b>A05</b>
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A

B

C

D

E

F

A

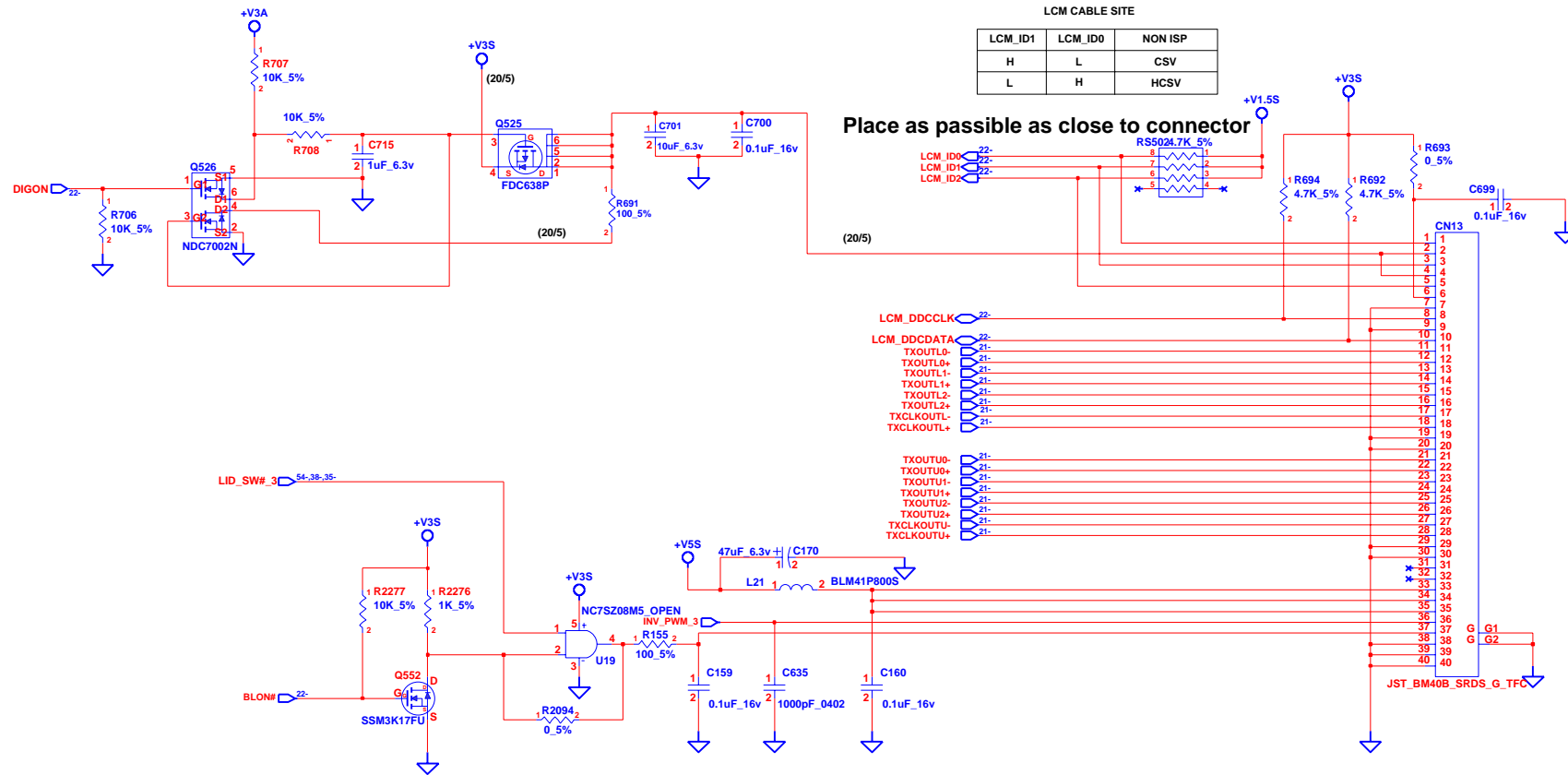
B

C

D

E

F



LCM CABLE SITE

LCM_ID1	LCM_ID0	NON ISP
H	L	CSV
L	H	HCSV

Place as possible as close to connector

- LCM\_DDCCLK
- LCM\_DDCDATA
- TXOUTL0-
- TXOUTL0+
- TXOUTL1-
- TXOUTL1+
- TXOUTL2-
- TXOUTL2+
- TXCLKOUTL-
- TXCLKOUTL+
- TXOUTU0-
- TXOUTU0+
- TXOUTU1-
- TXOUTU1+
- TXOUTU2-
- TXOUTU2+
- TXCLKOUTU-
- TXCLKOUTU+

**INVENTEC**

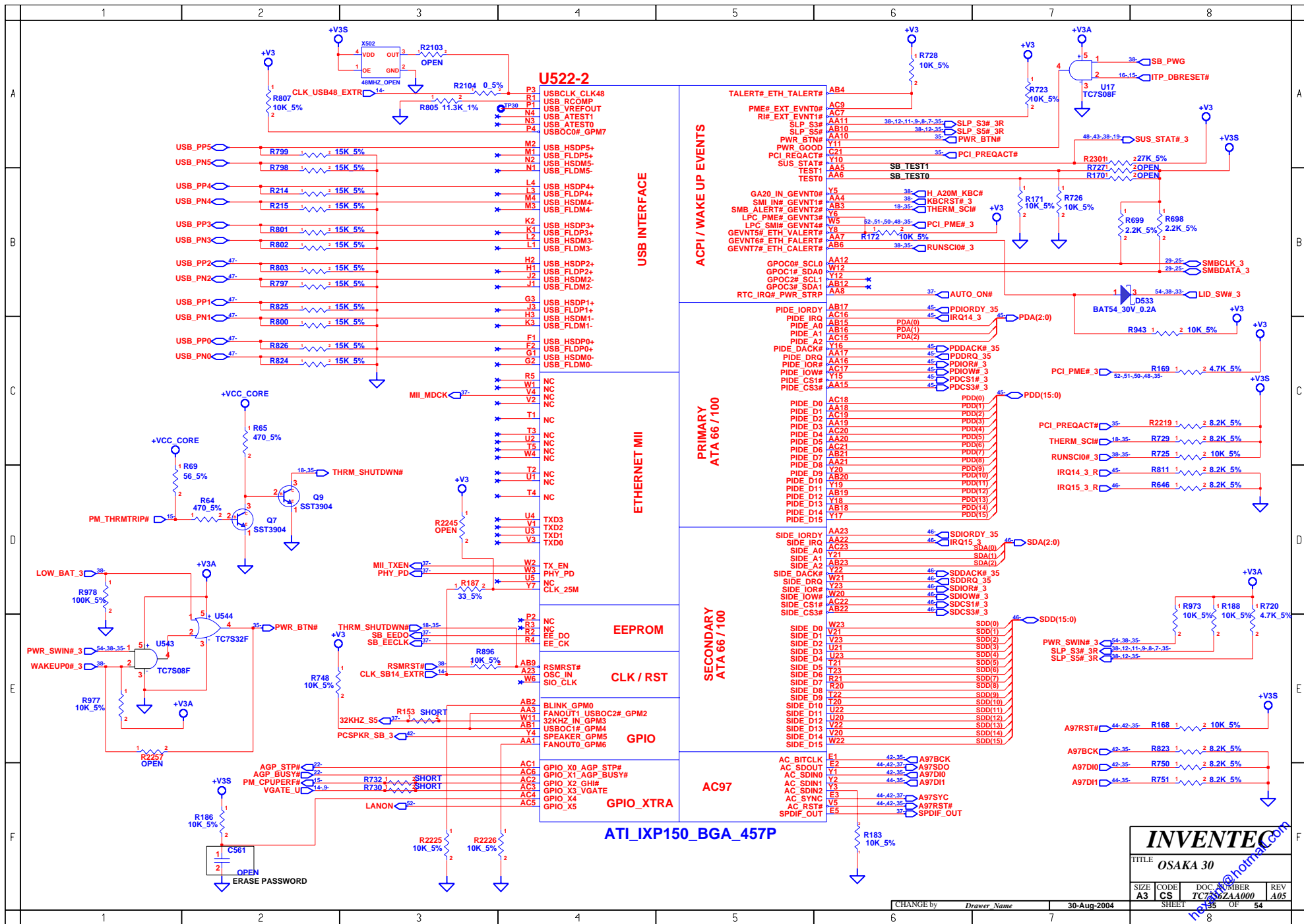
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OSAKA 30

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<http://www.inventec.com>





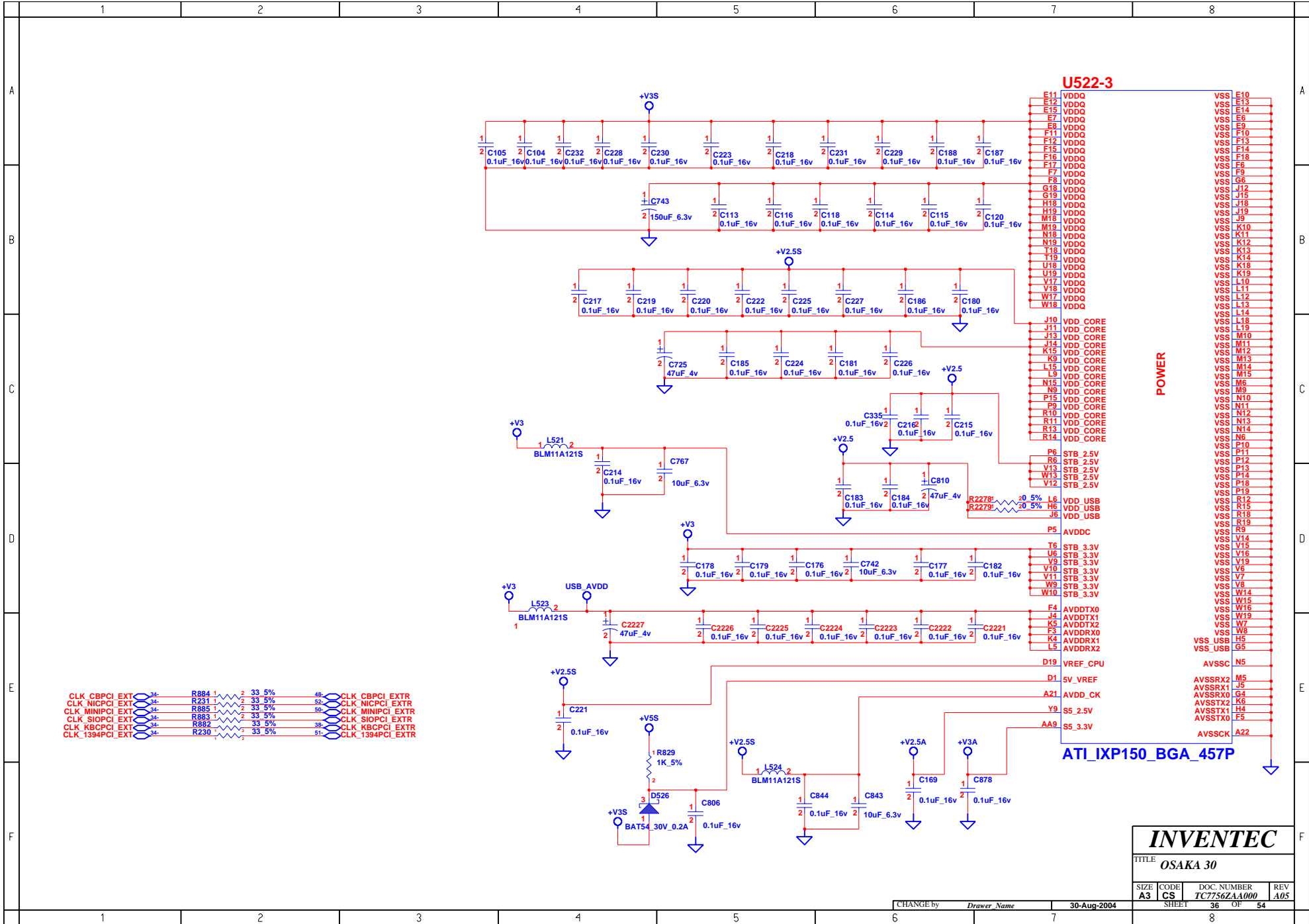
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TITLE: OSAKA 30

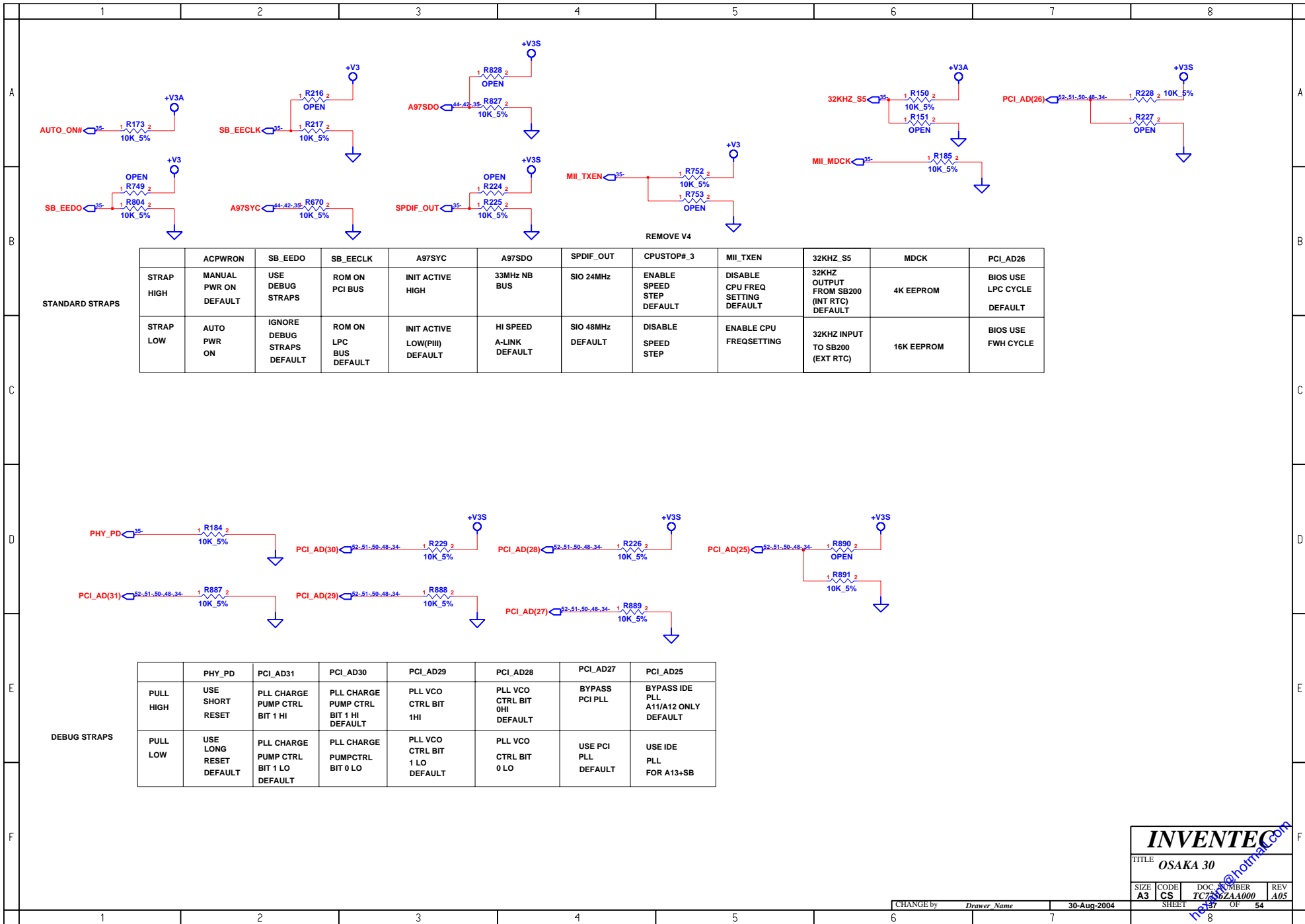
SIZE	CODE	DOC. NUMBER	REV
A3	CS	TC752AA000	A05

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<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
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STANDARD STRAPS

	ACPWON	SB_EEDO	SB_EECLK	A97SYC	A97SDO	SPDIF_OUT	CPUSTOP#_3	MIITXEN	32KHZ_S5	MDCK	PCI_AD26
STRAP HIGH	MANUAL PWR ON DEFAULT	USE DEBUG STRAPS	ROM ON PCI BUS	INIT ACTIVE HIGH	33MHz NB BUS	SIO 24MHz	ENABLE SPEED STEP DEFAULT	DISABLE CPU FREQ SETTING DEFAULT	32KHZ OUTPUT FROM SB200 (INT RTC) DEFAULT	4K EEPROM	BIOS USE LPC CYCLE DEFAULT
STRAP LOW	AUTO PWR ON	IGNORE DEBUG STRAPS DEFAULT	ROM ON LPC BUS DEFAULT	INIT ACTIVE LOW(PHII) DEFAULT	HI SPEED A-LINK DEFAULT	SIO 48MHz DEFAULT	DISABLE SPEED STEP	ENABLE CPU FREQSETTING	32KHZ INPUT TO SB200 (EXT RTC)	16K EEPROM	BIOS USE FW CYCLE

DEBUG STRAPS

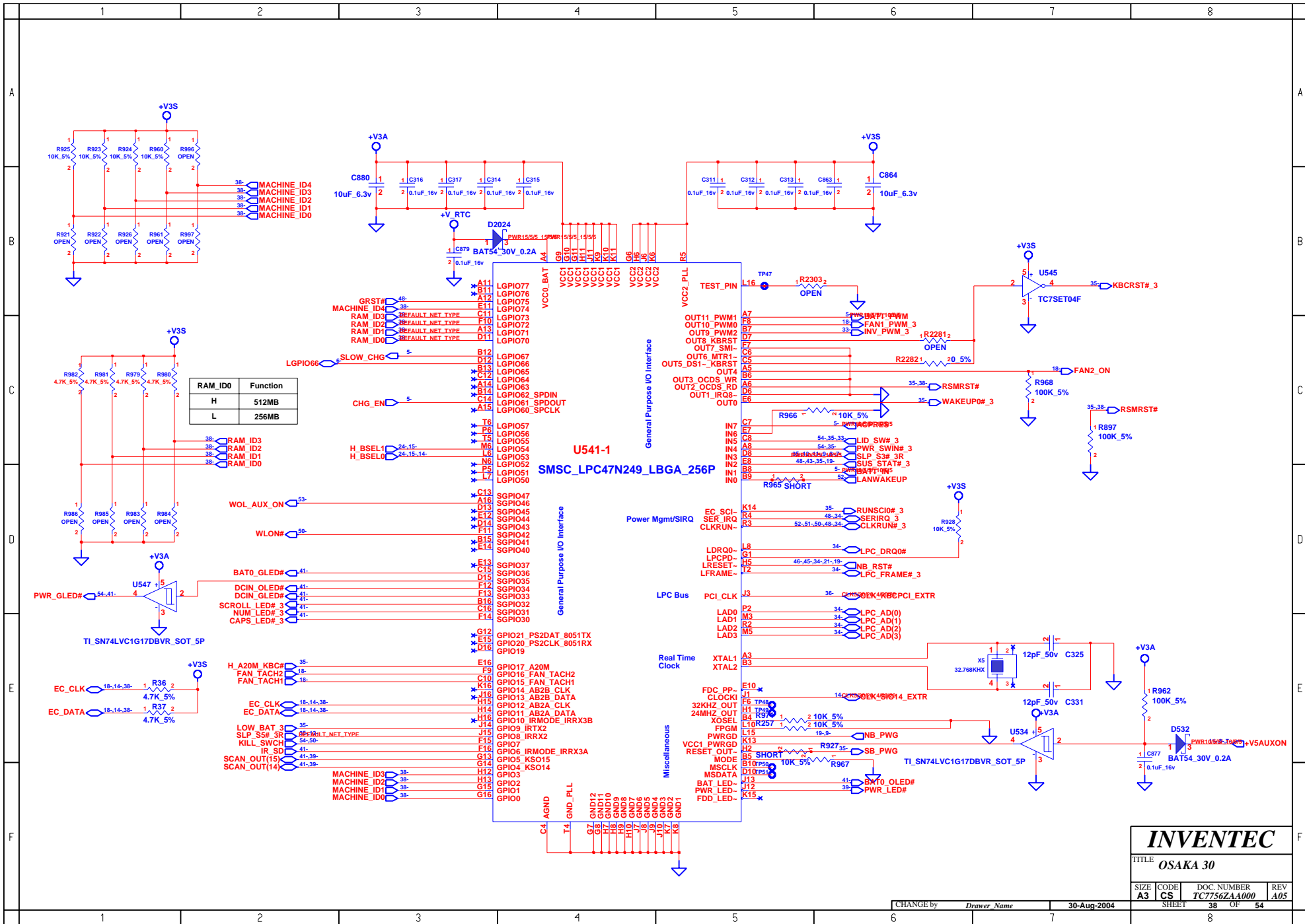
	PHY_PD	PCI_AD31	PCI_AD30	PCI_AD29	PCI_AD28	PCI_AD27	PCI_AD25
PULL HIGH	USE SHORT RESET	PLL CHARGE PUMP CTRL BIT 1 HI	PLL CHARGE PUMP CTRL BIT 1 HI DEFAULT	PLL VCO CTRL BIT 1HI	PLL VCO CTRL BIT 0HI DEFAULT	BYPASS PCI PLL	BYPASS IDE PLL A11/A12 ONLY DEFAULT
PULL LOW	USE LONG RESET DEFAULT	PLL CHARGE PUMP CTRL BIT 1 LO DEFAULT	PLL CHARGE PUMPCTRL BIT 0 LO	PLL VCO CTRL BIT 1 LO DEFAULT	PLL VCO CTRL BIT 0 LO	USE PCI PLL DEFAULT	USE IDE PLL FOR A13+SB

**INVENTEC**

TITLE: OSAKA 30

SIZE: A3	CODE: CS	DOC. NUMBER: TC7562AA000	REV: A05
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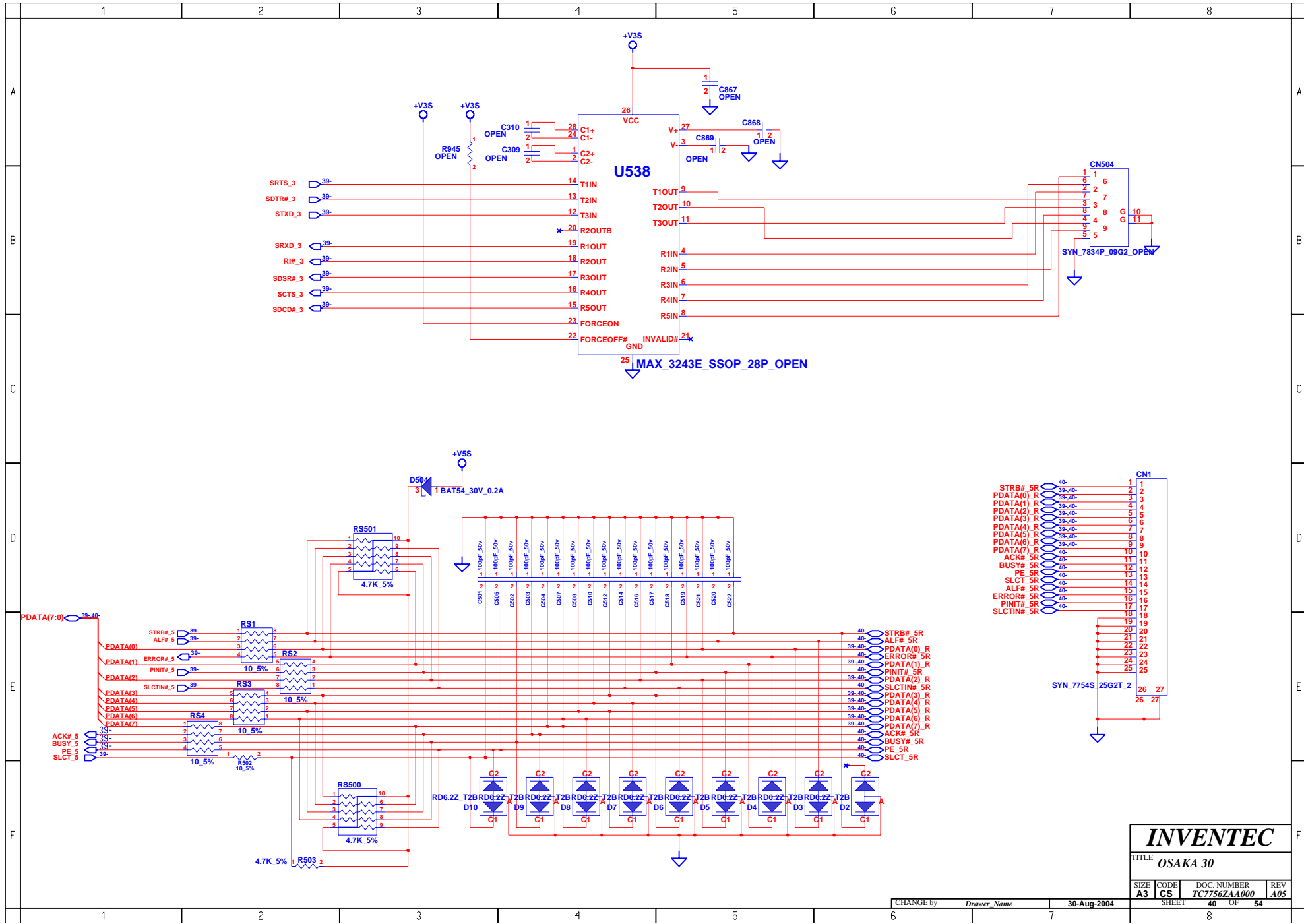
*http://normal.com*



RAM_ID0	Function
H	512MB
L	256MB

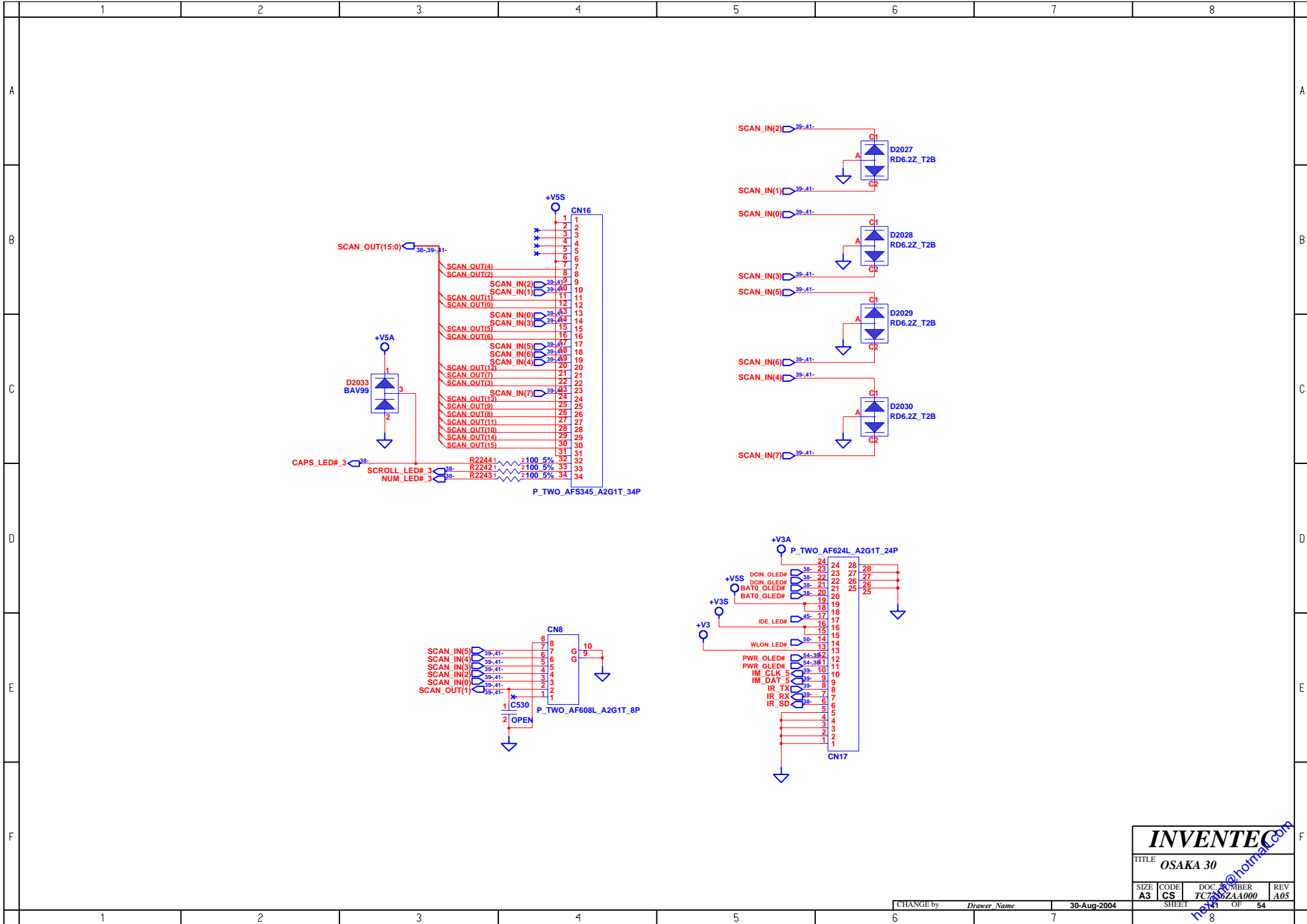
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SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
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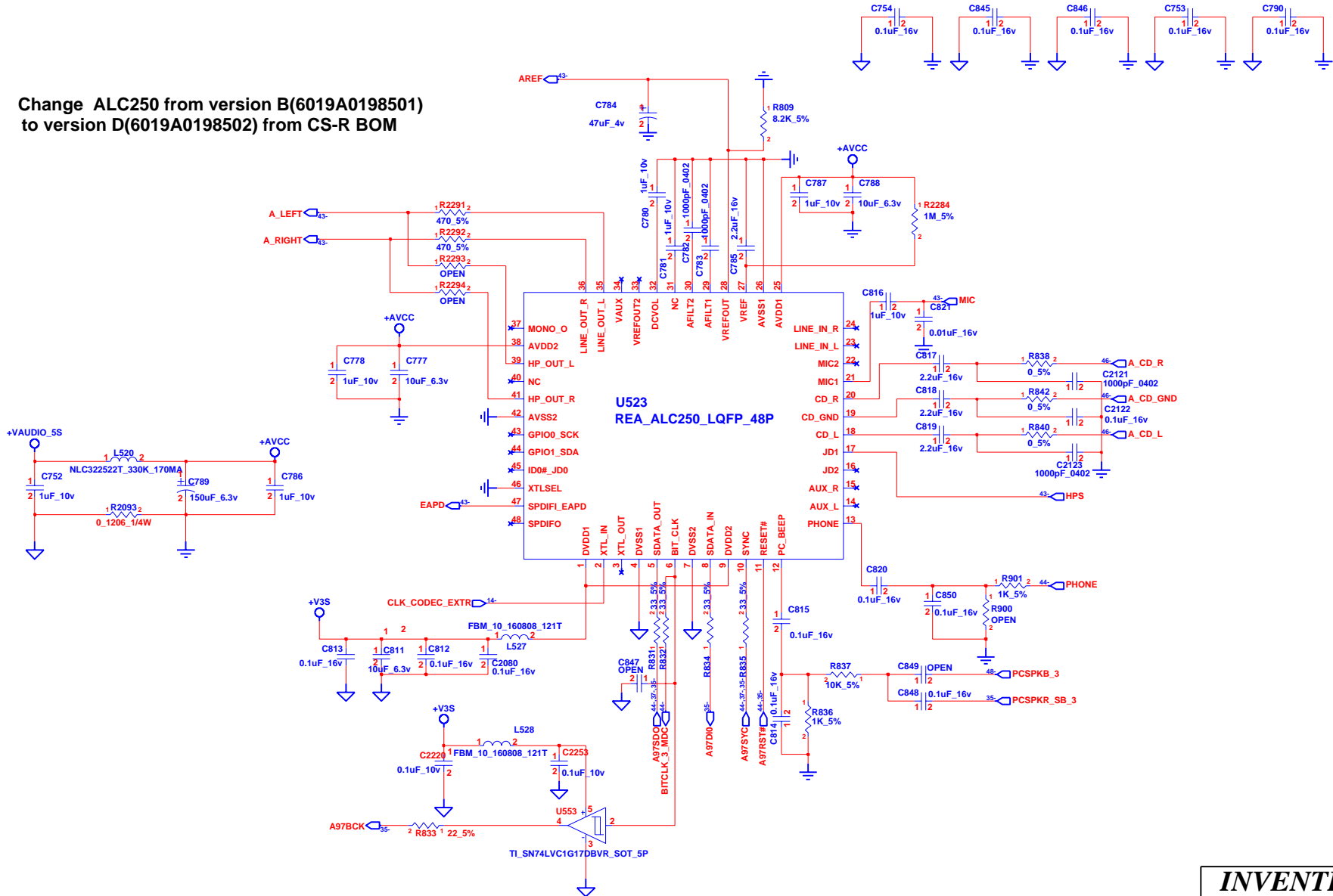


<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	SHEET 40 OF 54

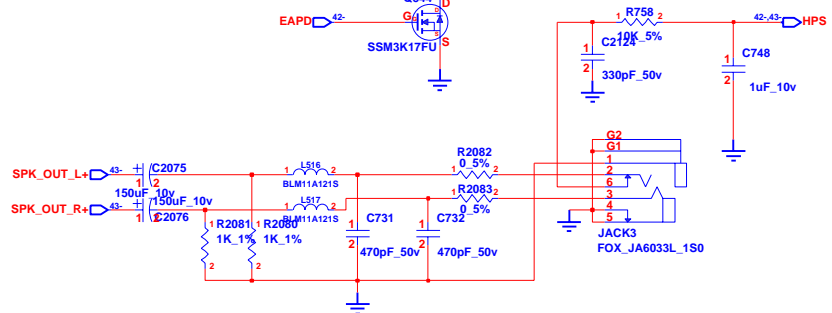
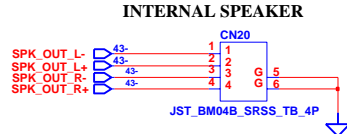
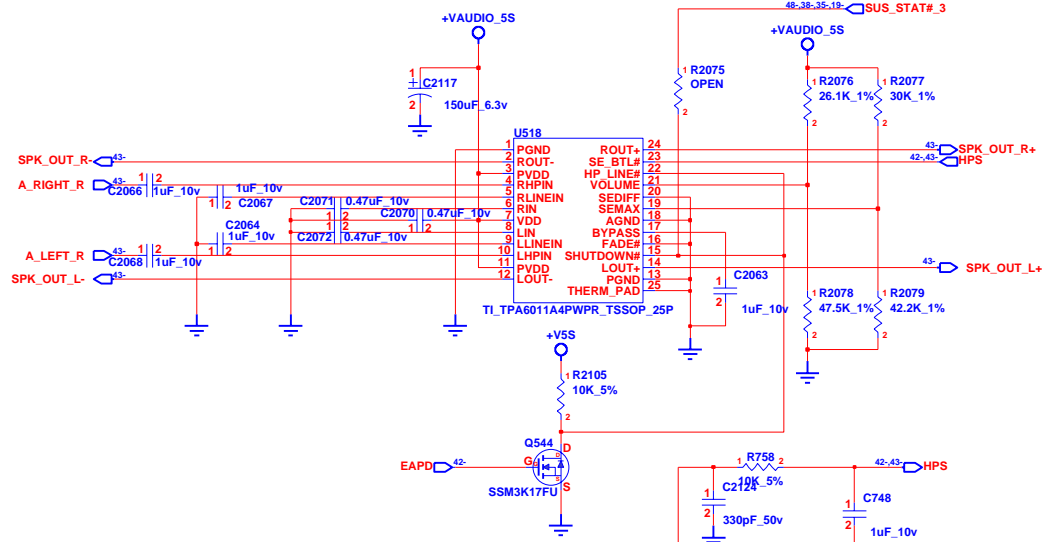
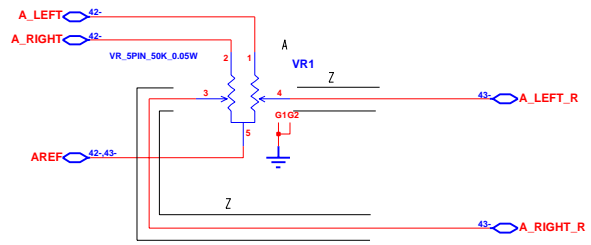
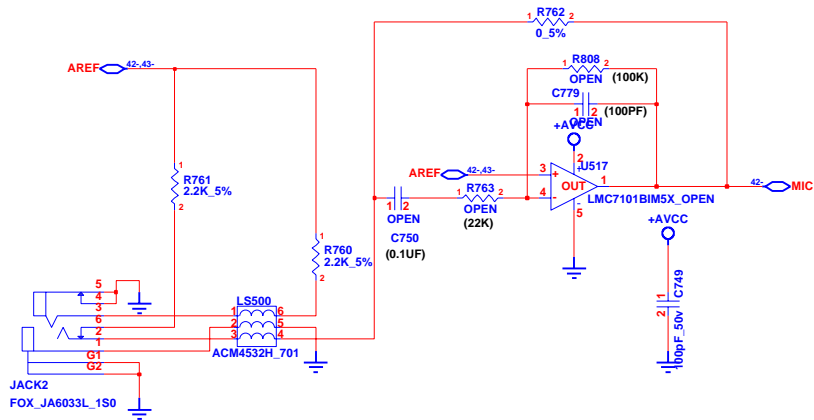




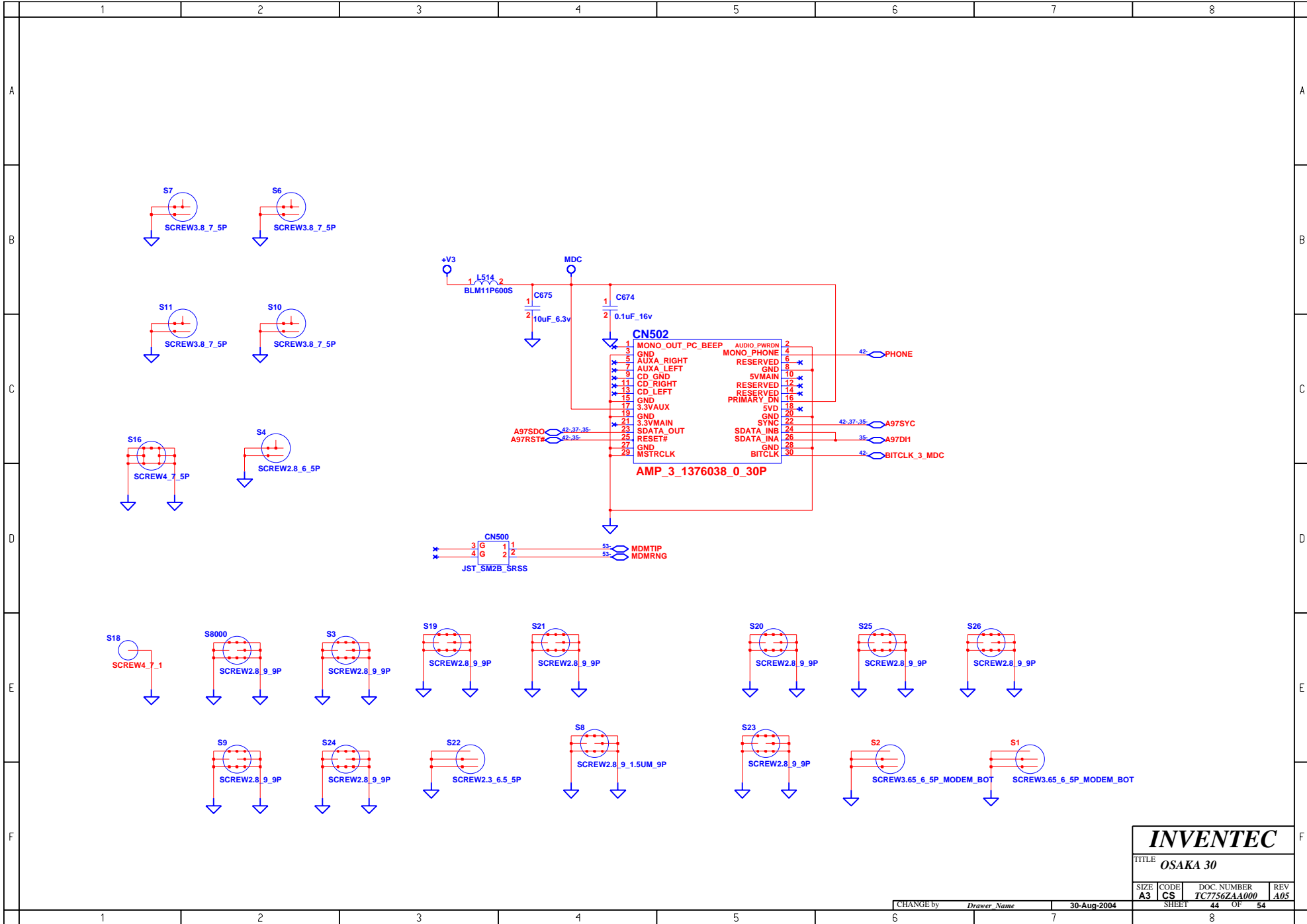
Change ALC250 from version B(6019A0198501)  
to version D(6019A0198502) from CS-R BOM



<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	
SHEET 42		OF 54	

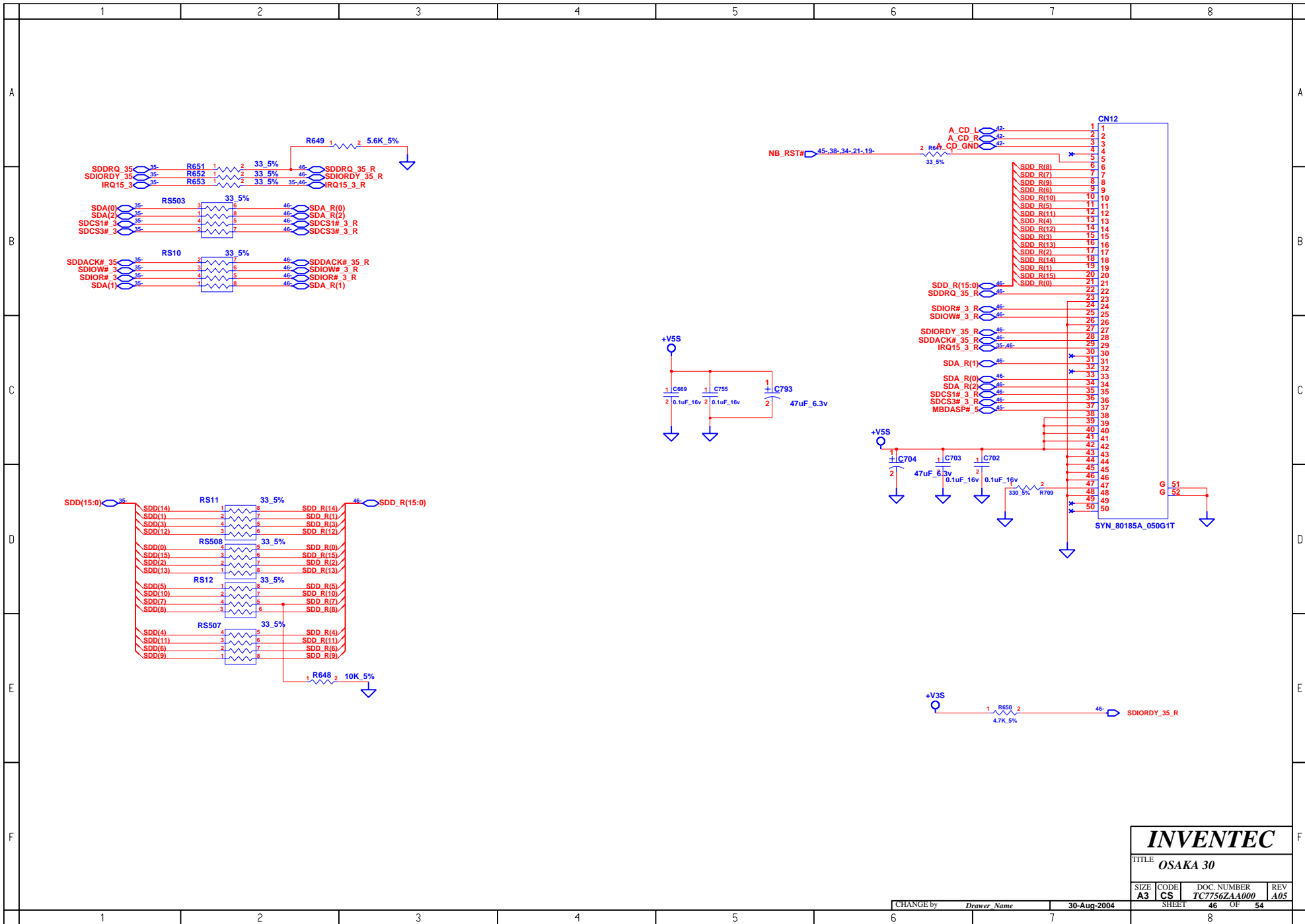


<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7352AA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	SHEET 43 OF 54



<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7756ZAA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	SHEET 44 OF 54





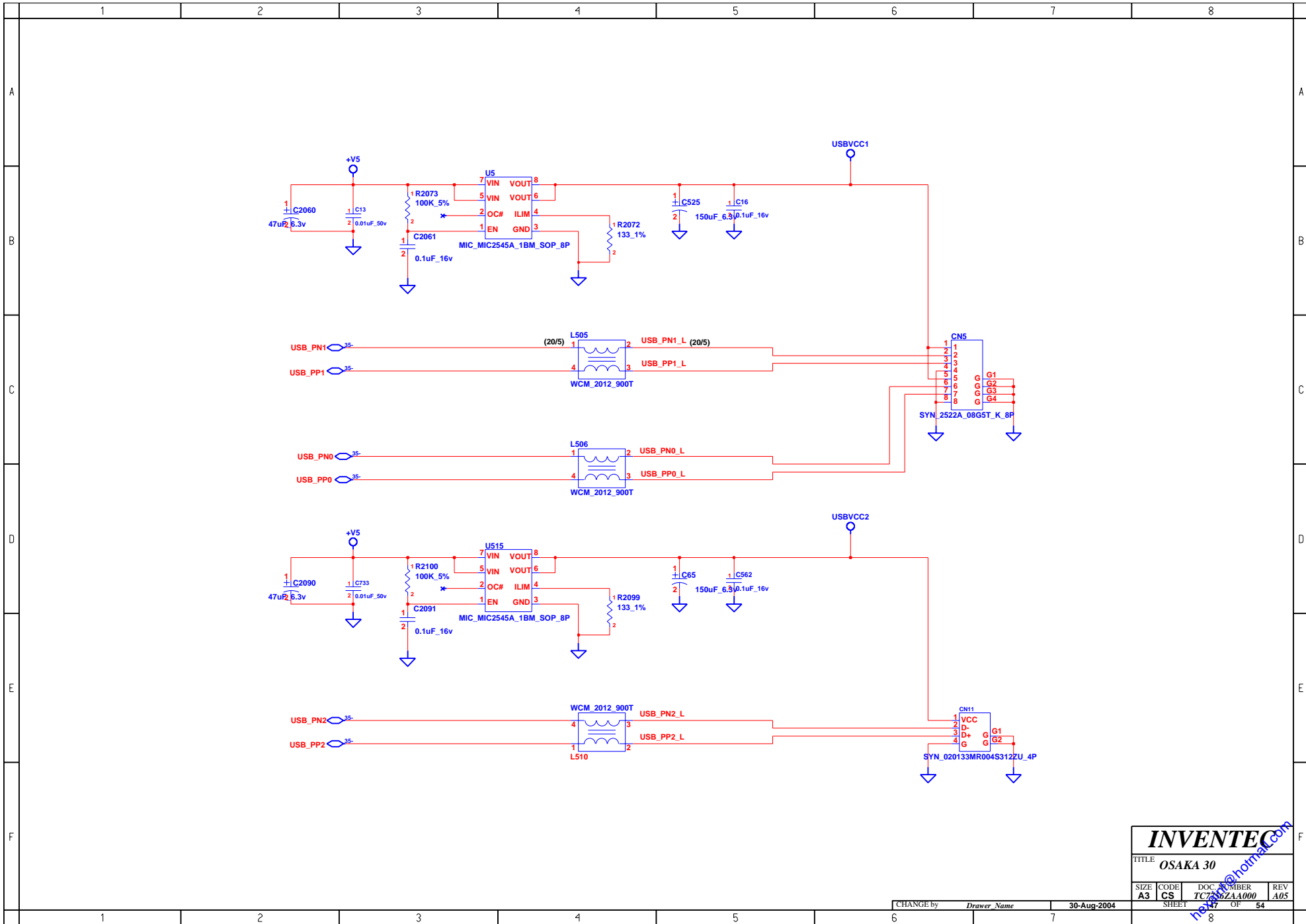
# INVENTEC

TITLE  
OSAKA 30

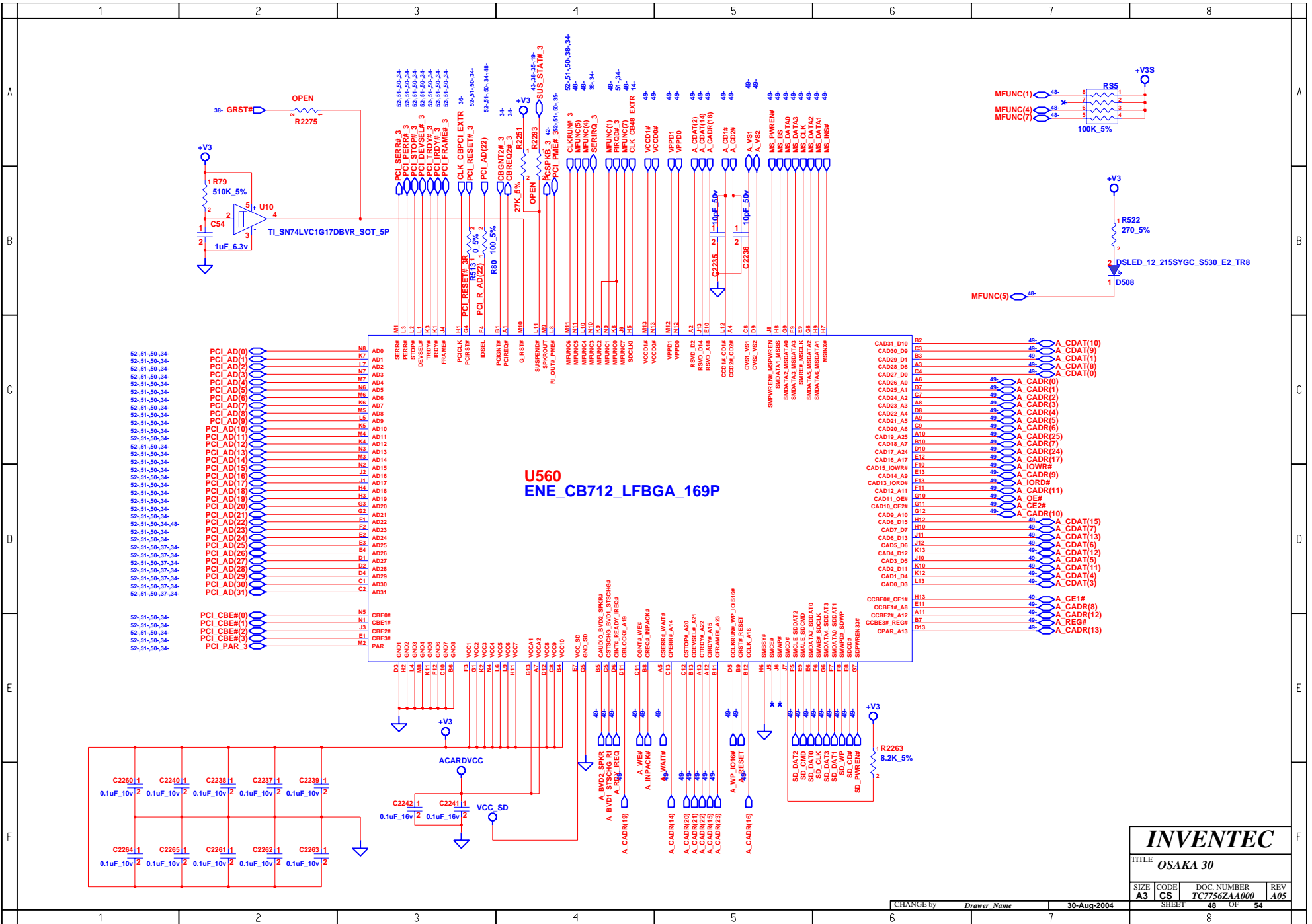
SIZE	CODE	DOC. NUMBER	REV
A3	CS	TC7756ZAA000	A05

CHANGE by *Drawer Name* 30-Aug-2004

SHEET 46 OF 54



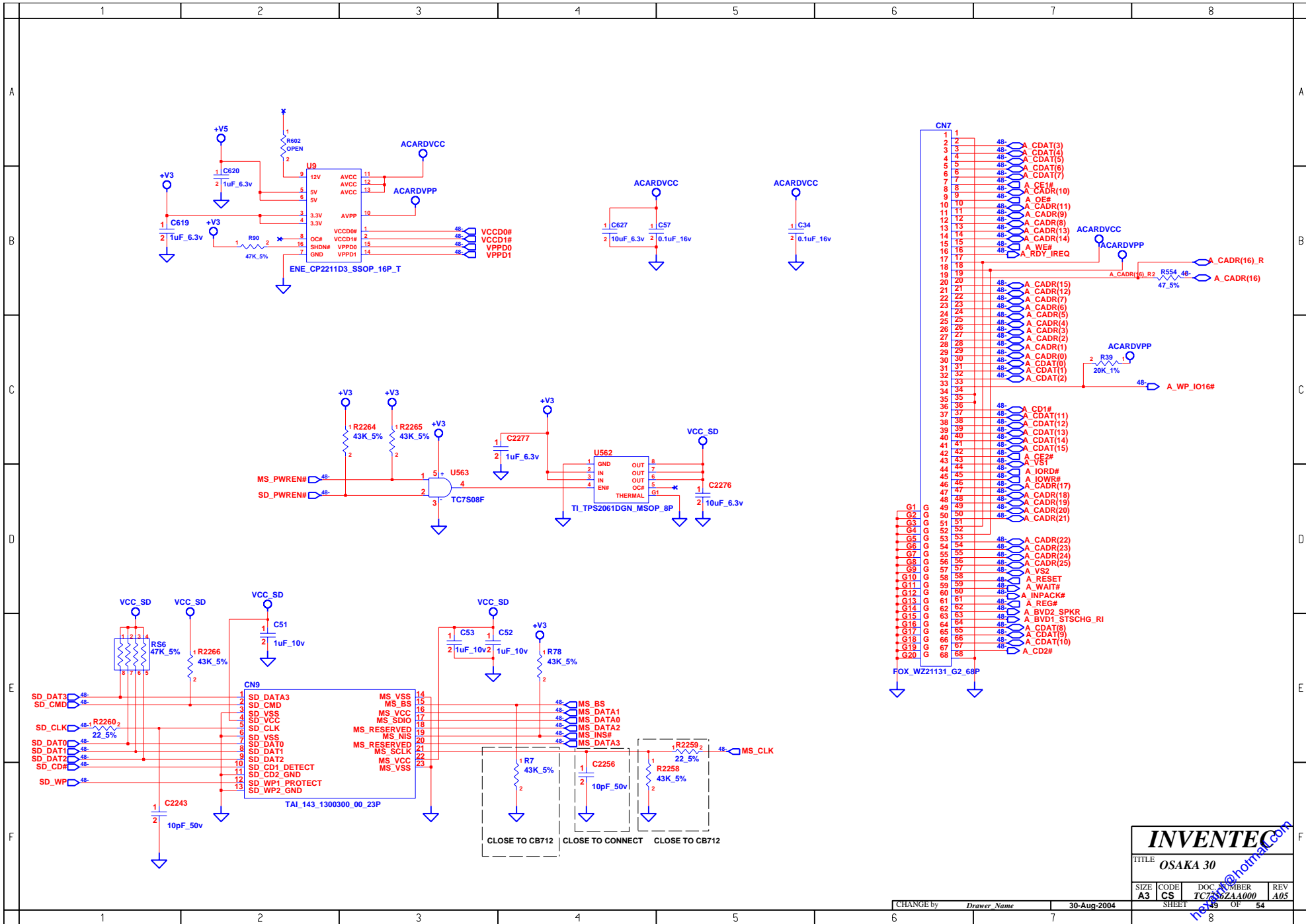
<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7562AA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	SHEET 47 OF 54



**INVENTEC**

TITLE			
OSAKA 30			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	TC7756ZA000	A05
CHANGE by		Drawer Name	30-Aug-2004
SHEET	48	OF	54



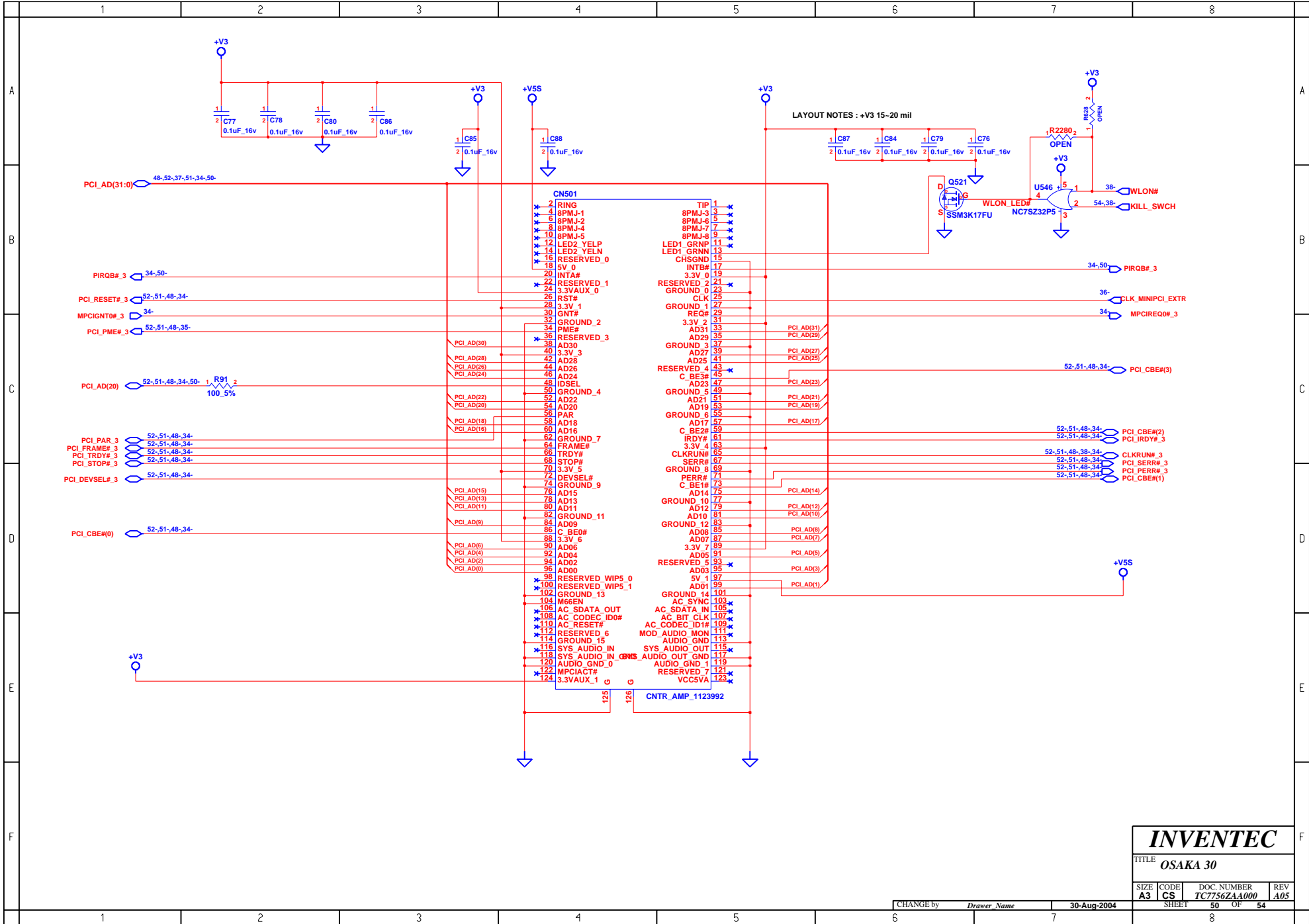


**INVENTEC**

TITLE  
**OSAKA 30**

SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>TC7562AA000</b>	REV <b>A05</b>
CHANGE by <i>Drawer Name</i>		DATE <b>30-Aug-2004</b>	SHEET <b>19</b> OF <b>54</b>

http://normal.com



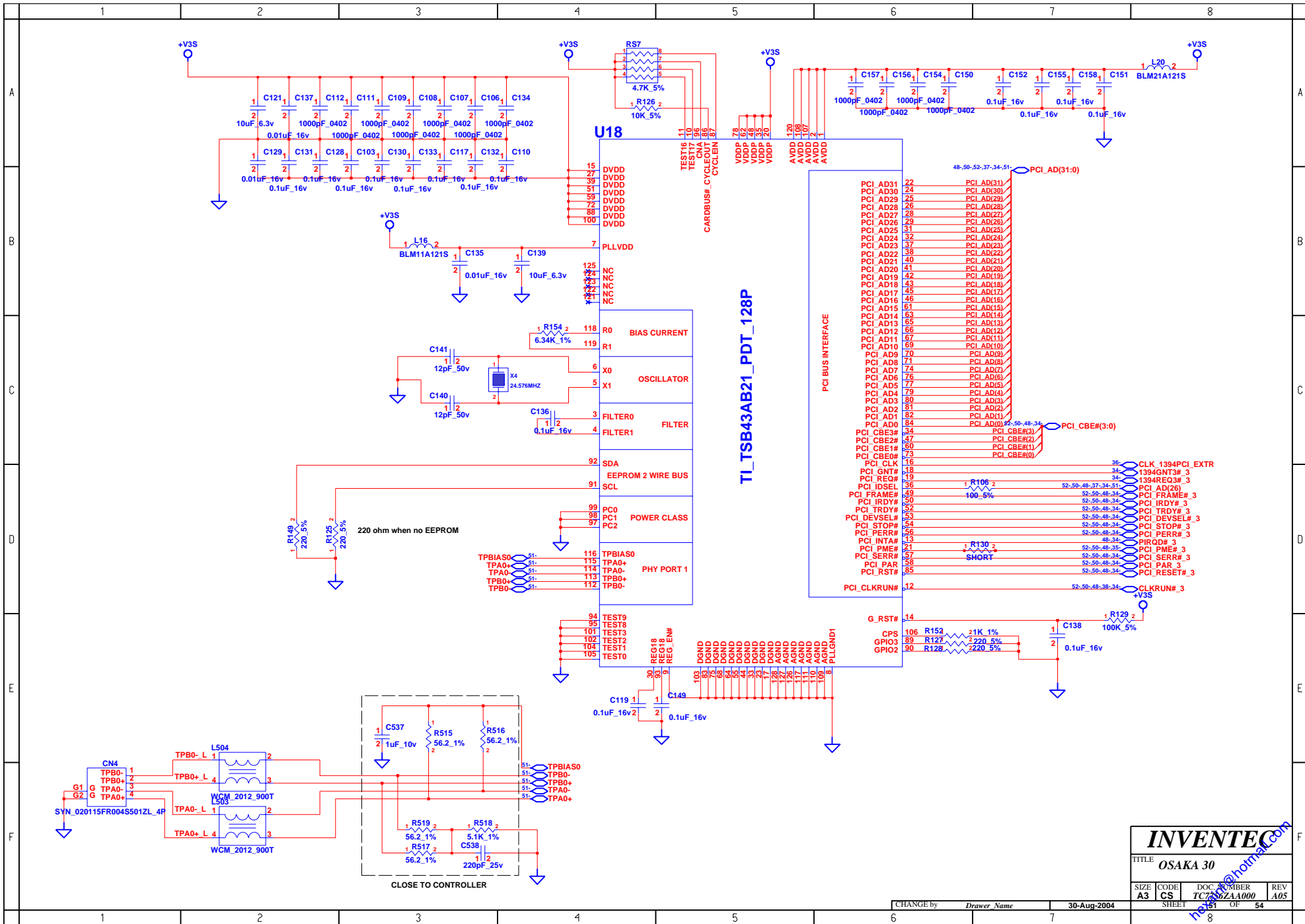
# INVENTEC

TITLE OSAKA 30

SIZE A3	CODE CS	DOC. NUMBER TC7756ZAA000	REV A05
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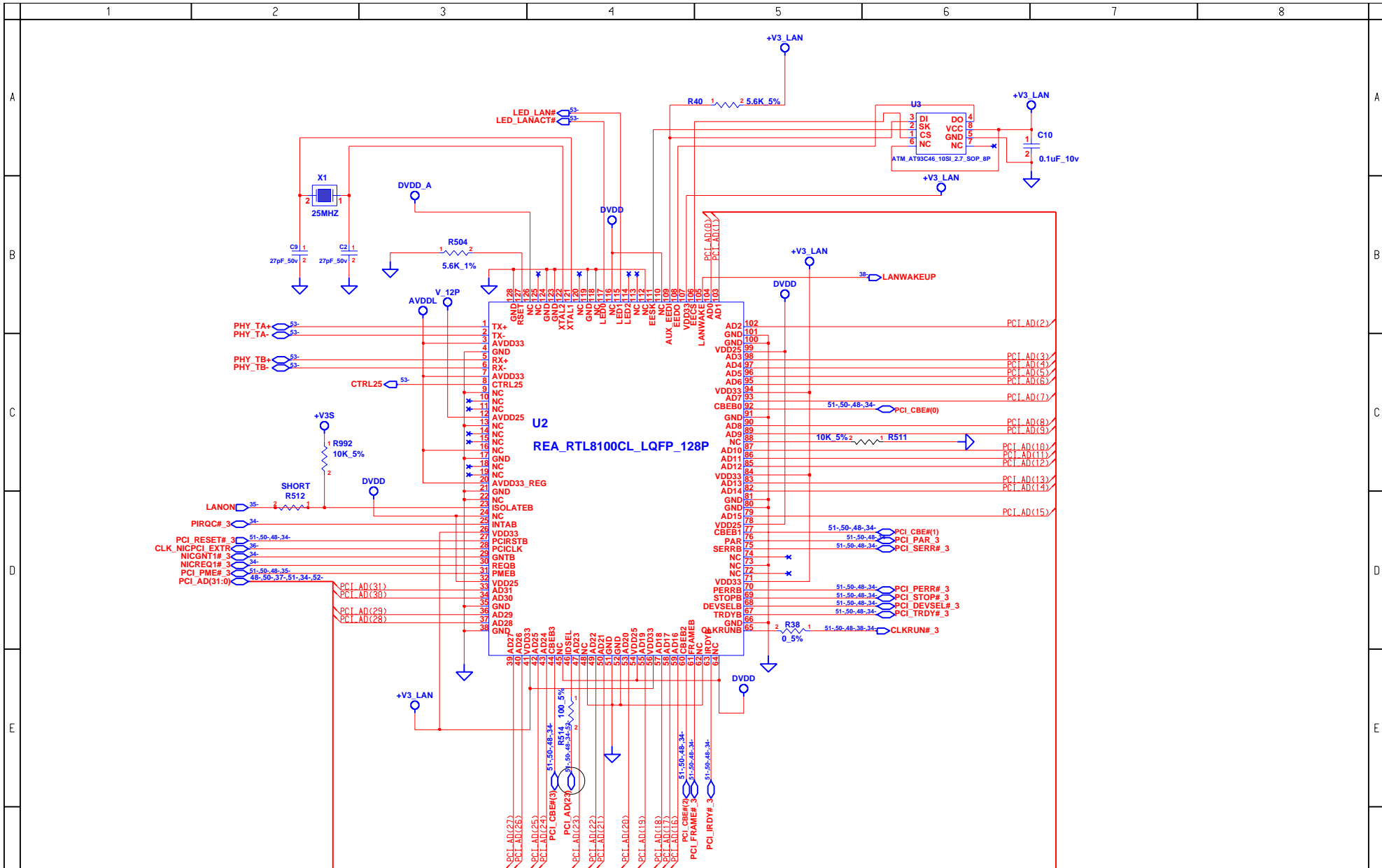
CHANGE by Drawer Name 30-Aug-2004

SHEET 50 OF 54



TI\_TS43AB21\_PDT\_128P

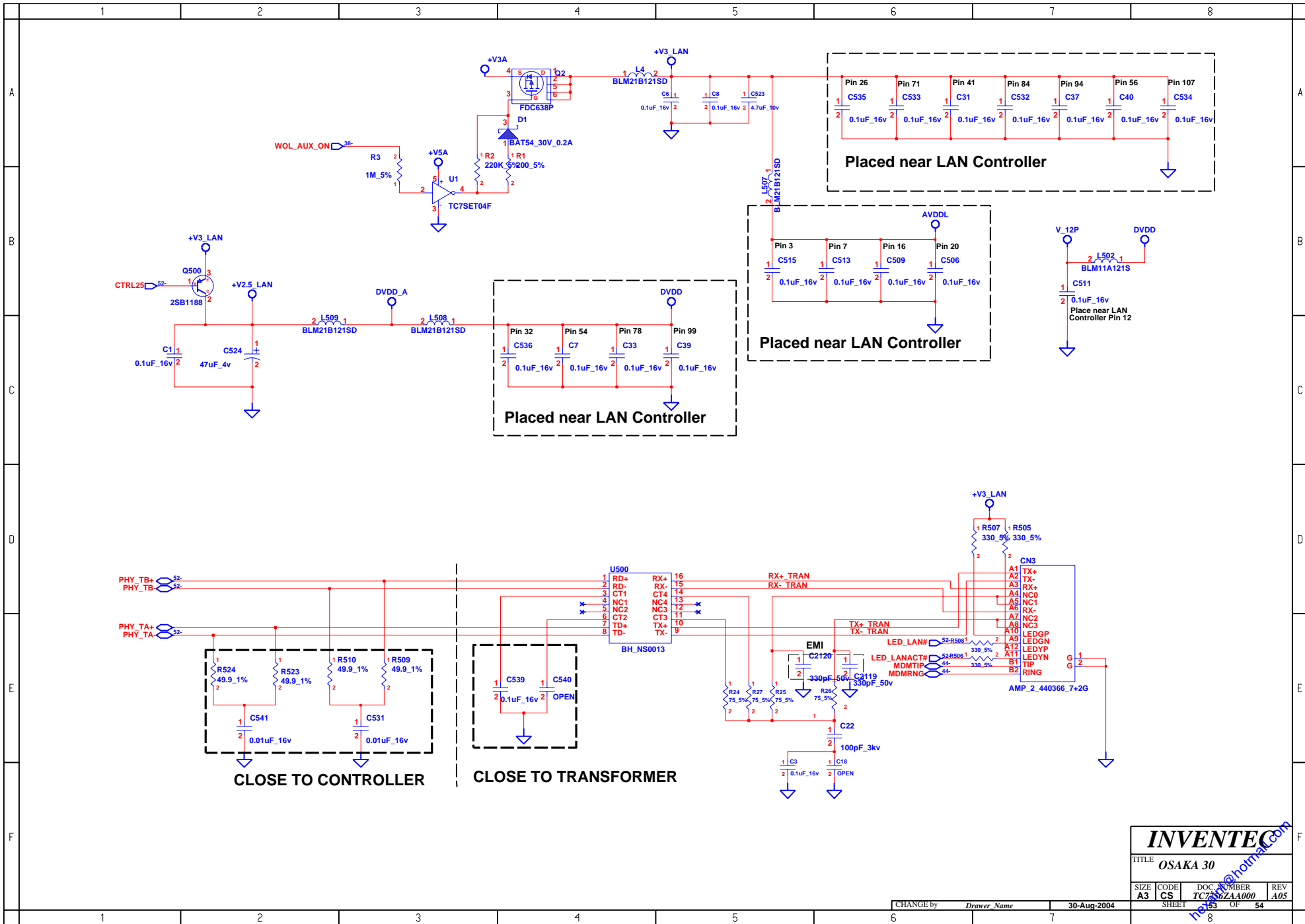
<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC NUMBER TC755ZAA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	SHEET 151 OF 54



# INVENTEC

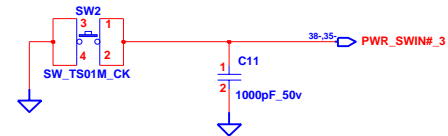
TITLE  
OSAKA 30

SIZE	CODE	DOC. NUMBER	REV
A3	CS	TC7756ZA000	A05

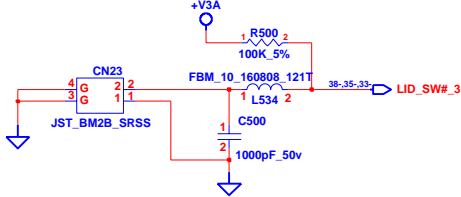


<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC755ZAA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	
SHEET 153		OF 54	

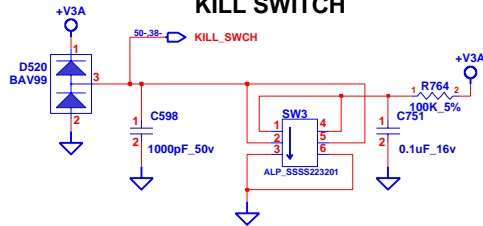
### POWER SWITCH



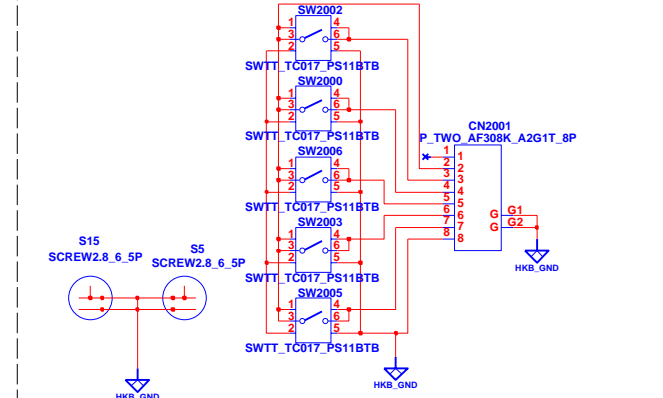
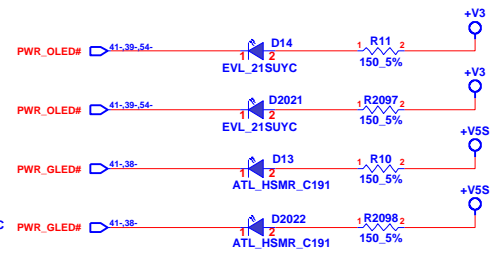
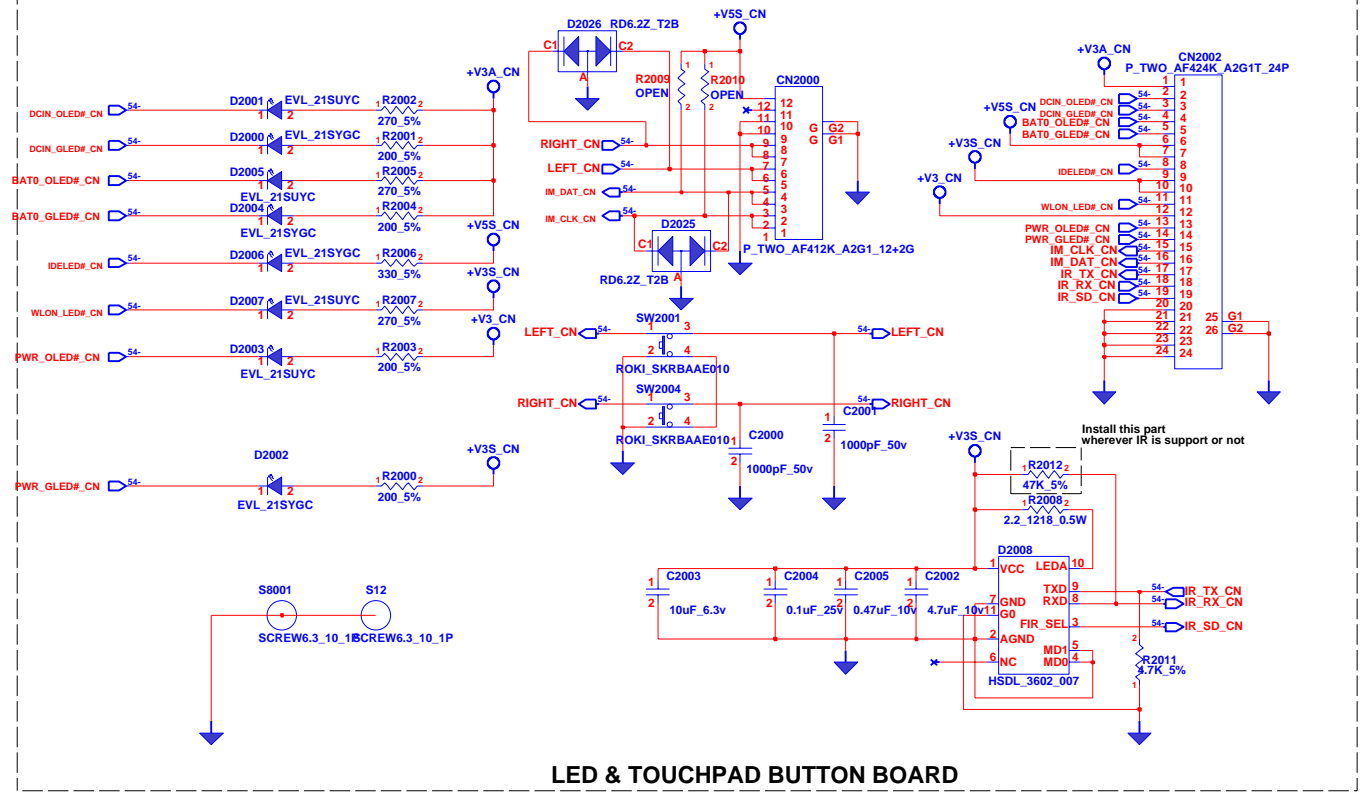
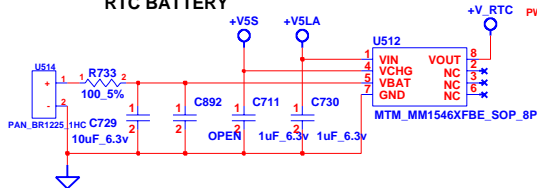
### LID SWITCH



### KILL SWITCH



### RTC BATTERY



<b>INVENTEC</b>			
TITLE OSAKA 30			
SIZE A3	CODE CS	DOC. NUMBER TC7756ZA000	REV A05
CHANGE by Drawer Name		30-Aug-2004	
SHEET 54		OF 54	