

1	2	3	4	5	6	7	8
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HSF Property : **Halogen-Free**

# STYX

## MV BUILD

**2011.04.15**

DATE	CHANGE NO.	REV
1		2

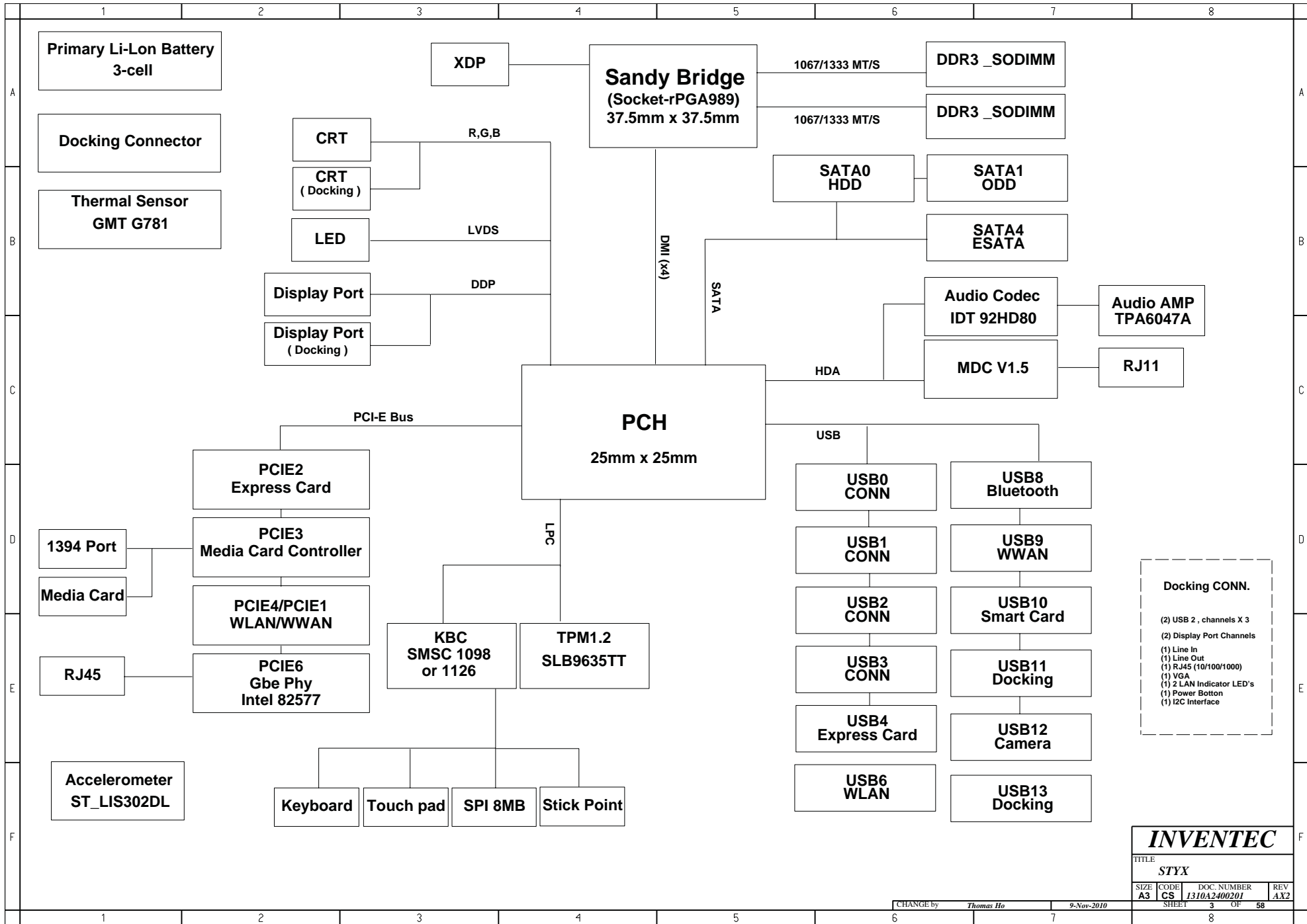
DRAWER	EE	DATE	POWER	DATE	<b>INVENTEC</b>
DESIGN					
CHECK					
RESPONSIBLE					
TITLE					<b>STYX</b>
SIZE =	3	VER :			SIZE CODE
FILE NAME :	XXXX-XXXXXX-XX				<b>A3 CS</b>
P/N	XXXXXXXXXXXX				DOC. NUMBER
					<b>1310A2400201</b>
					REV
					<b>AX2</b>
					SHEET
					<b>1</b>
					OF
					<b>58</b>

1	2	3	4	5	6	7	8
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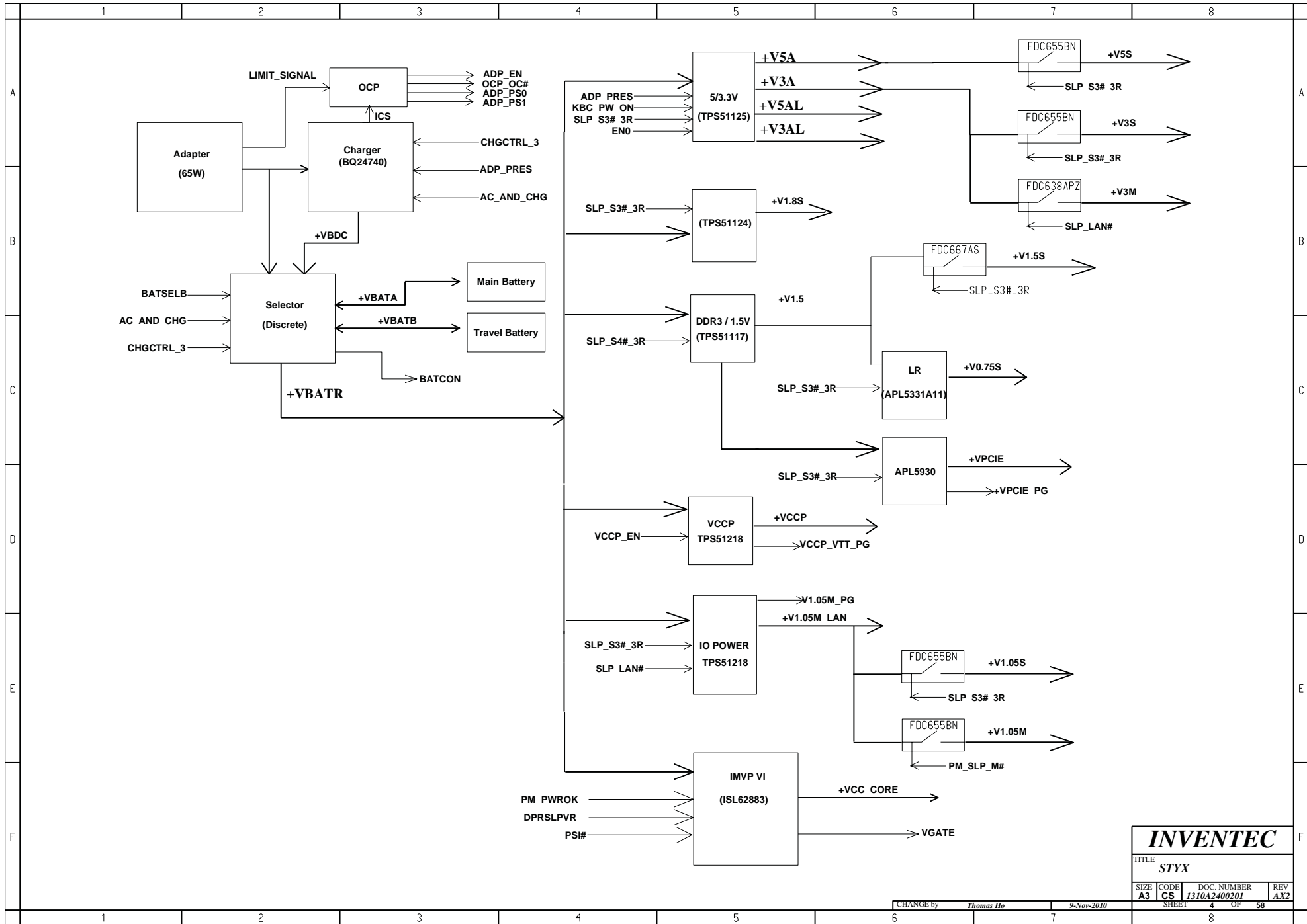
**TABLE OF CONTENTS**

<b>5- DC&amp; BATTERY CHARGER</b>	<b>27- PCH1</b>
<b>6- SELECT &amp; BATTERY CONN</b>	<b>28- PCH2</b>
<b>7- SYSTEM POWER(3V/5V)</b>	<b>29- PCH3</b>
<b>8- SYSTEM POWER(+V1.5/+V1.05M_LAN)</b>	<b>30- PCH4</b>
<b>9- POWER(+V1.8S)</b>	<b>31- PCH5</b>
<b>10- SYSTEM POWER(+VCCP)</b>	<b>32- PCH6</b>
<b>11- CPU POWER(+V0.85S)</b>	<b>33- PCH7-POWER</b>
<b>12- CPU POWER(+VCC_CORE)</b>	<b>34- PCH8-POWER</b>
<b>13- CPU POWER(+VGFX)</b>	<b>35- PCH9</b>
<b>14- POWER(SLEEP)</b>	<b>36- CRT / DISPLAY PORT CNTR</b>
<b>15- POWER(SEQUENCE)</b>	<b>37- EDP &amp; WEBCAM</b>
<b>16- FAN &amp; THERMAL</b>	<b>38- SATA &amp; ODD CNTR</b>
<b>17- XDP CONN</b>	<b>39- USB &amp; ESATA COMBO</b>
<b>18- SANDY BRIDGE1</b>	<b>40- BLANK</b>
<b>19- SANDY BRIDGE2</b>	<b>41- BLUE TOOTH &amp; FINGER PRINTER CNTR</b>
<b>20- SANDY BRIDGE4</b>	<b>42- ACCELEMETOR</b>
<b>21- SANDY BRIDGE3</b>	<b>43- KBC / SPI</b>
<b>22- SANDY BRIDGE5</b>	<b>44- Keyboard/ Point Stick/Touch pad</b>
<b>23- SANDY BRIDGE6</b>	<b>46- LAN INTERFACE</b>
<b>24- DDR3-DIMM0</b>	<b>47- LAN RJ45 CNTR</b>
<b>25- DDR3-DIMM1</b>	<b>45- TPM/MDC</b>
<b>26- BLANK</b>	<b>48- WWAN/WLAN/SIM</b>
	<b>49- Docking</b>
	<b>50- WLAN/ WWAN / BT LED</b>
	<b>51- SCREW</b>
	<b>52-Quick button</b>
	<b>53-Smart card</b>
	<b>54-EXPRESS CARD</b>
	<b>55- CODEC</b>
	<b>56- MIC &amp; Hearphone JACK</b>
	<b>57- CARD READER</b>
	<b>58- HALL SENSOR</b>

<b>INVENTEC</b>			
TITLE <b>STYX</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		15-Nov-2010	
SHEET <b>2</b>		OF <b>58</b>	

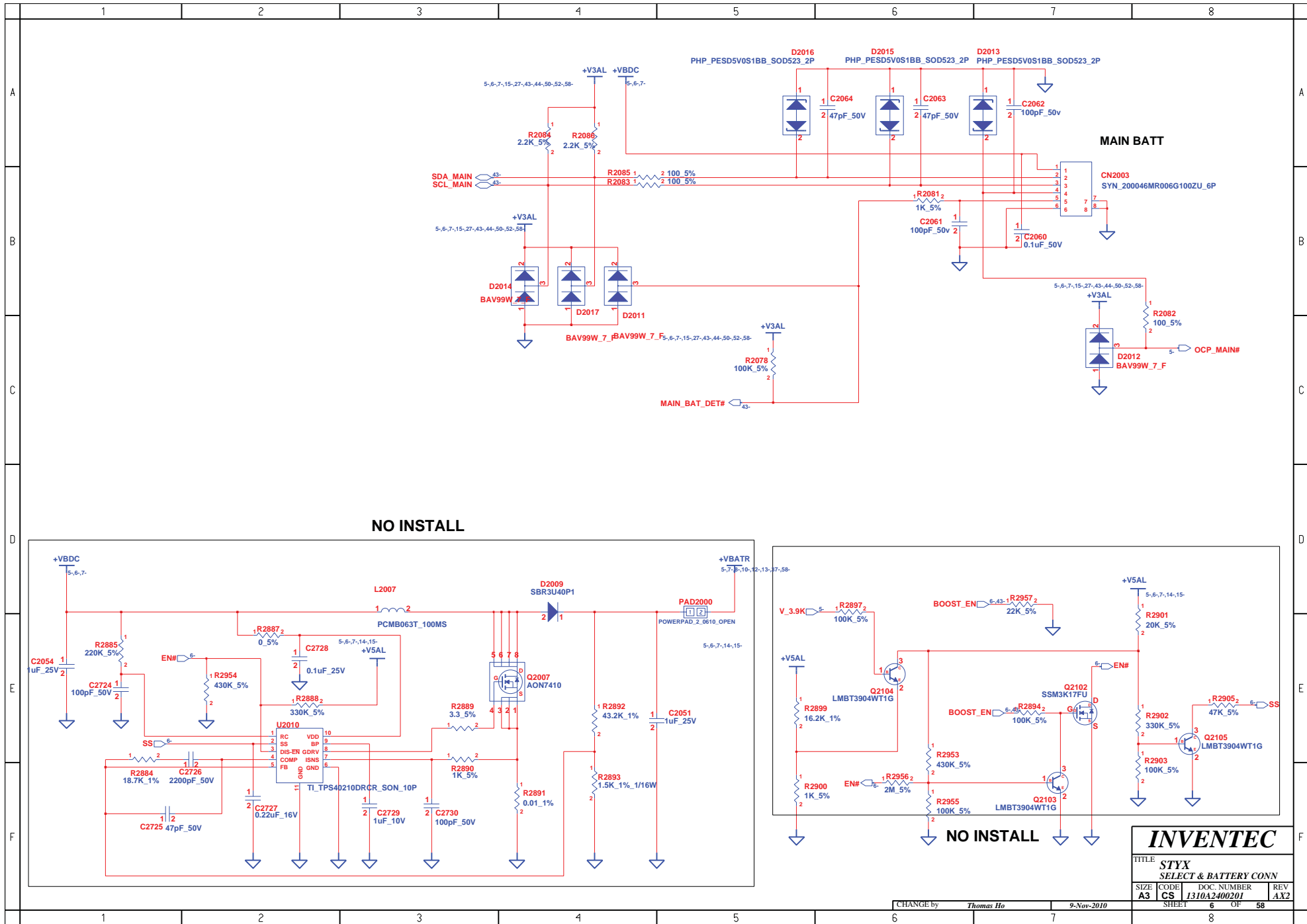


<b>INVENTEC</b>			
TITLE			
STYX			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
CHANGE by		9-Nov-2010	
Thomas Ho		SHEET 3 OF 58	



<b>INVENTEC</b>			
TITLE <b>STYX</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	SHEET 4 OF 58





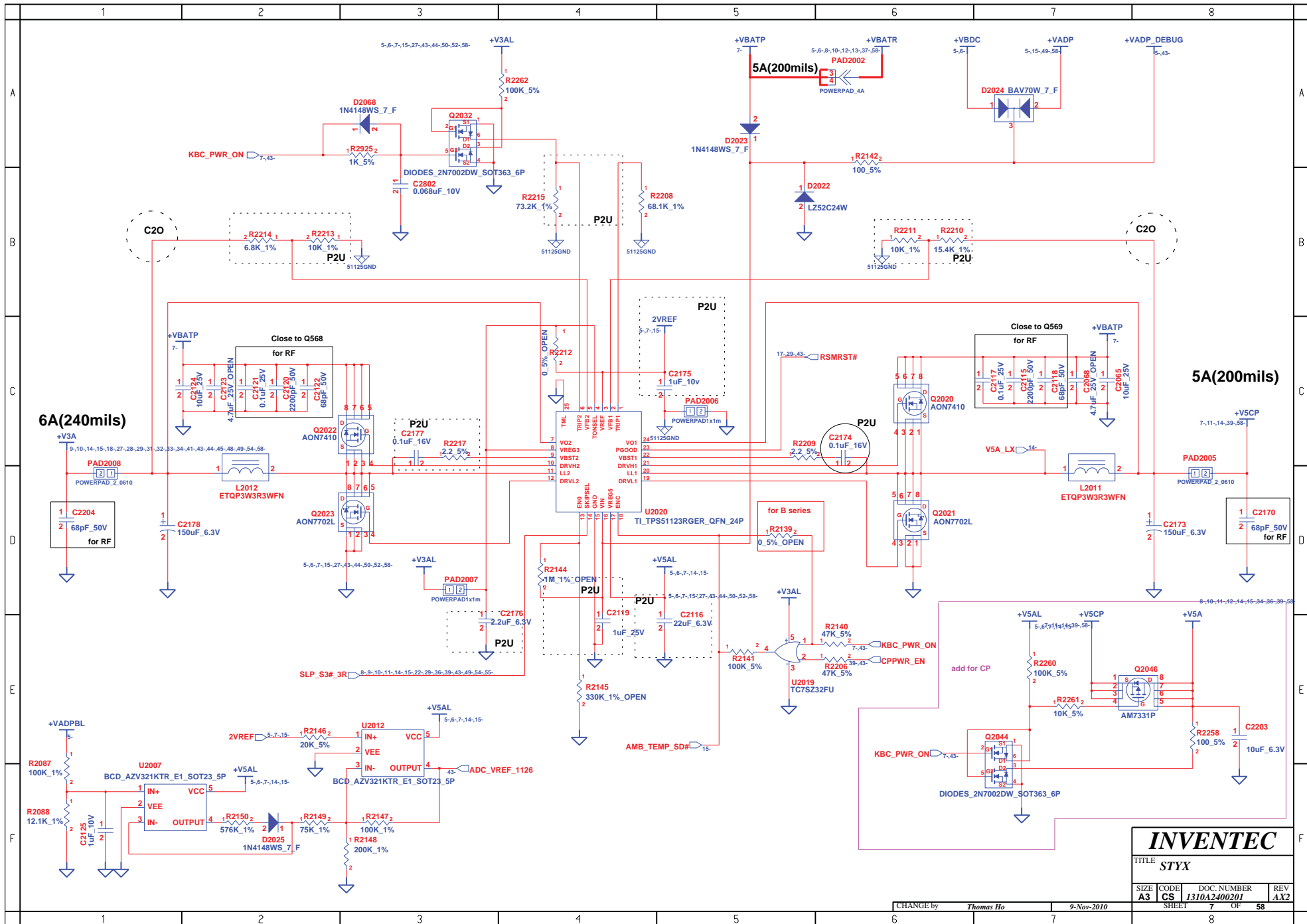
**NO INSTALL**

**NO INSTALL**

**INVENTEC**

TITLE			
STYX			
SELECT & BATTERY CONN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		OF	
8		58	

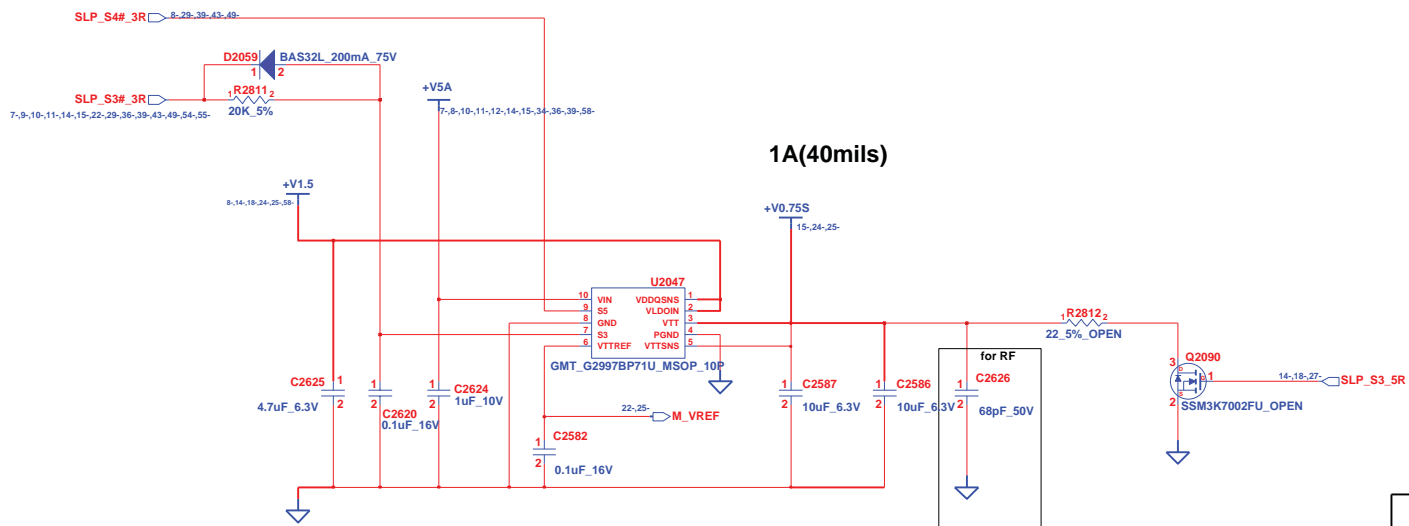
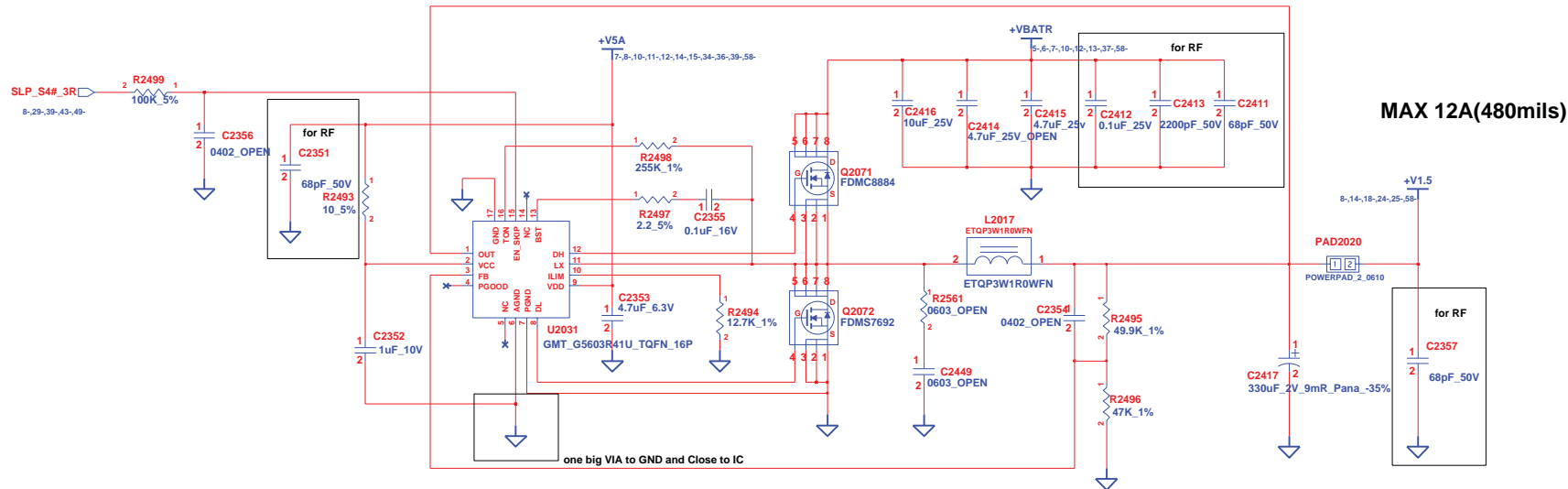
CHANGE by Thomas Ho 9-Nov-2010



# INVENTEC

TITLE				STYX
SIZE	CODE	DOC. NUMBER	REV	
A3	CS	J310A2400201	AX2	
SHEET			7	OF 58

CHANGE by Thomas Ho 9-Nov-2010



NOTE: DDR3 REGULATOR

MAX 12A(480mils)

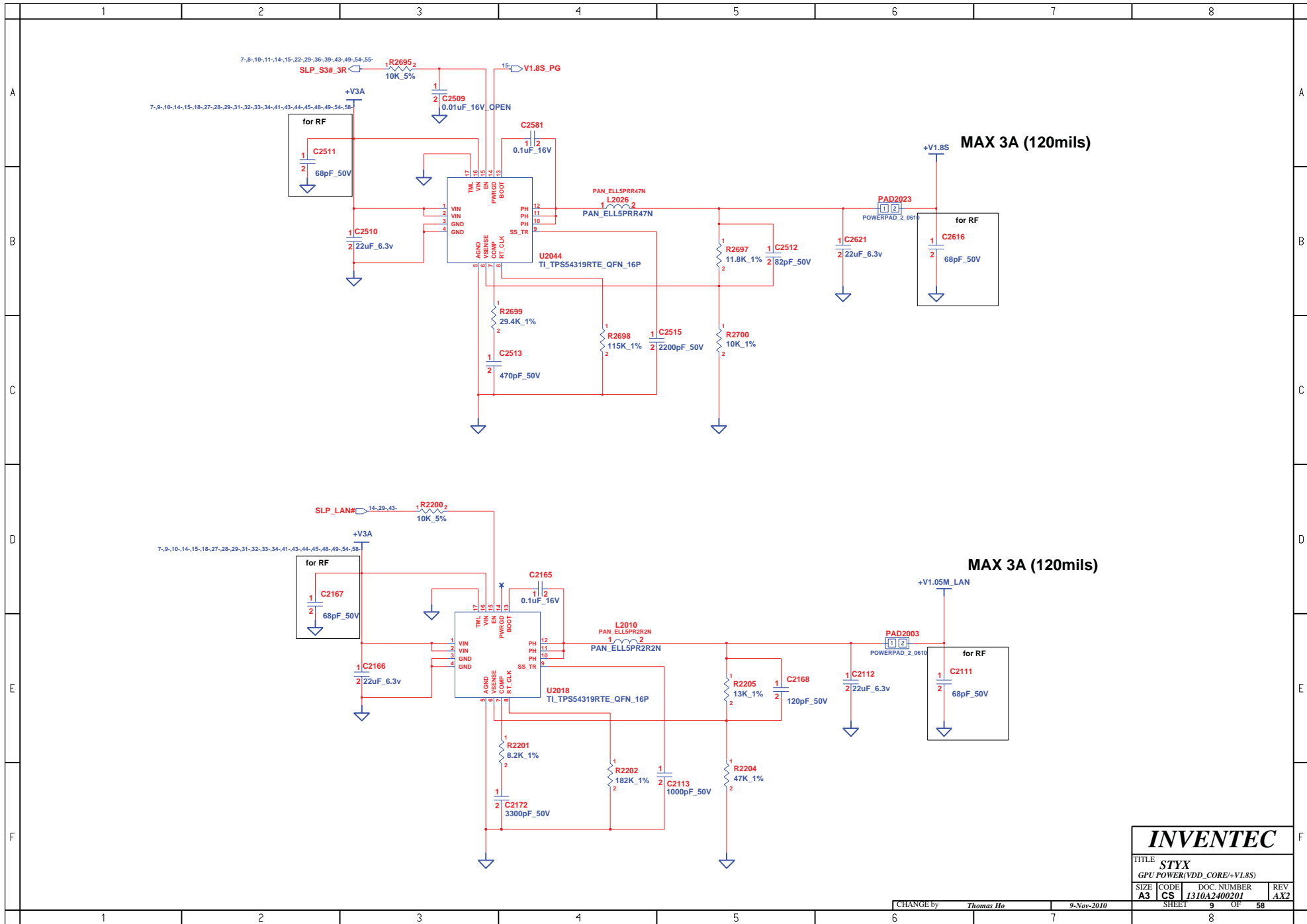
1A(40mils)

**INVENTEC**

TITLE			
STYX			
SYSTEM POWER(+V1.05M/+V1.5)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by	Thomas Ho	9-Nov-2010	SHEET	8	OF	58
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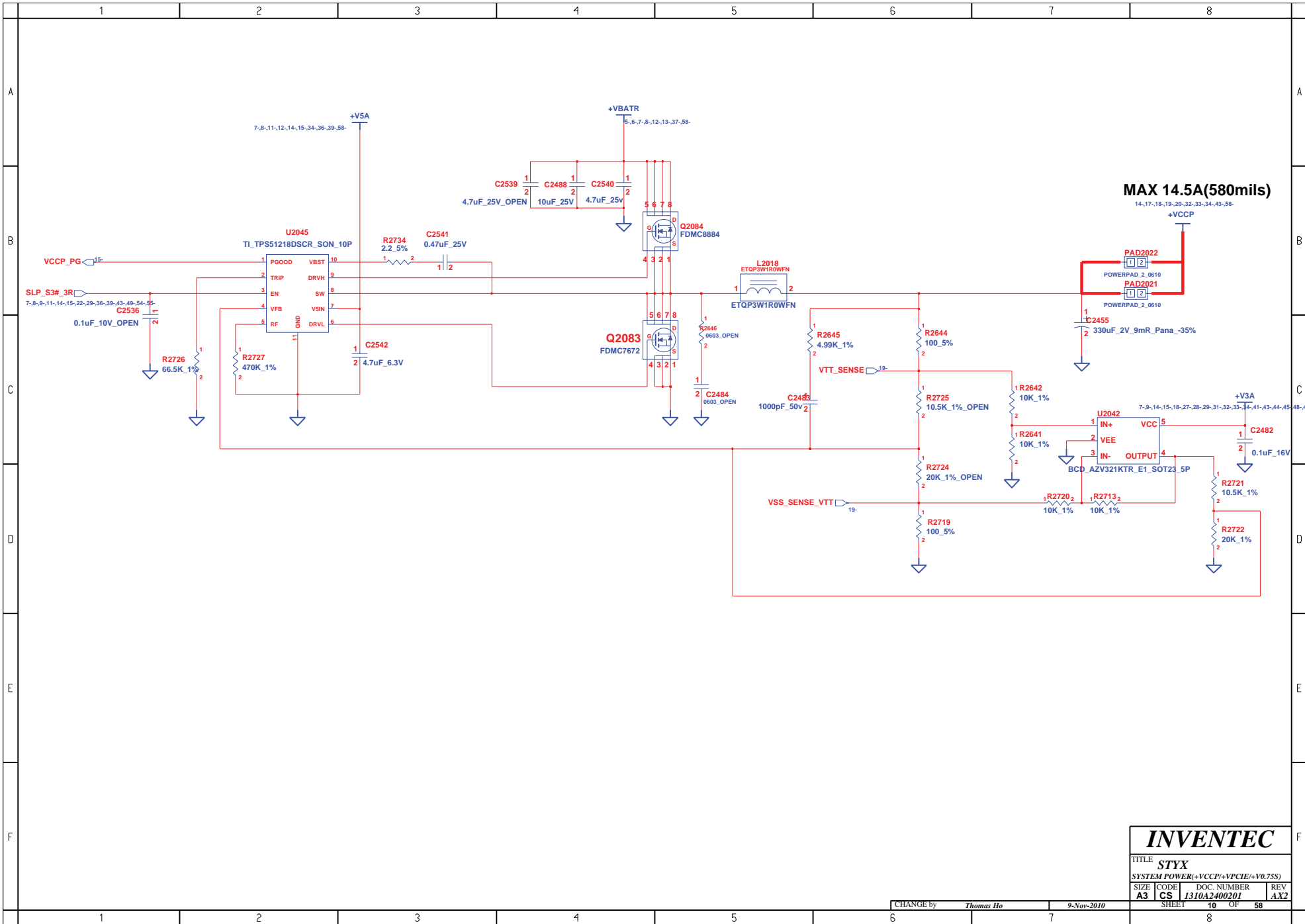




# INVENTEC

TITLE			
STYX			
GPU POWER(VDD_CORE/+V1.8S)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2400201	AX2
SHEET		9	OF 58

CHANGE by Thomas Ho 9-Nov-2010

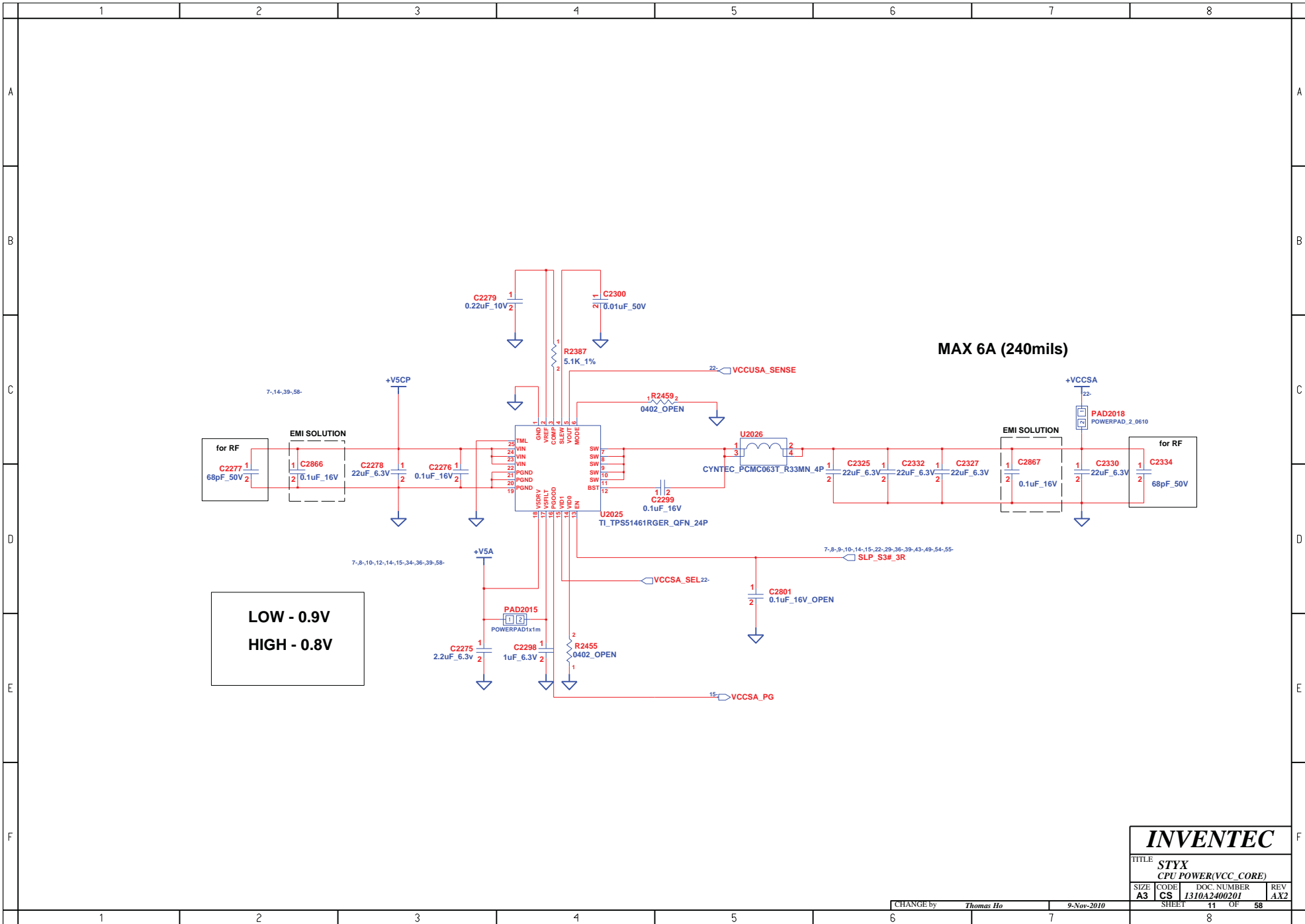


**MAX 14.5A(580mils)**  
14-17-18-19-20-32-33-34-43-58-

**INVENTEC**

TITLE			
STYX			
SYSTEM POWER(+VCCP/+VPCIE/+V0.75S)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET			OF
10			58

CHANGE by *Thomas Ho* 9-Nov-2010



**LOW - 0.9V**  
**HIGH - 0.8V**

**MAX 6A (240mils)**

**INVENTEC**

TITLE  
**STYX  
CPU POWER(VCC\_CORE)**

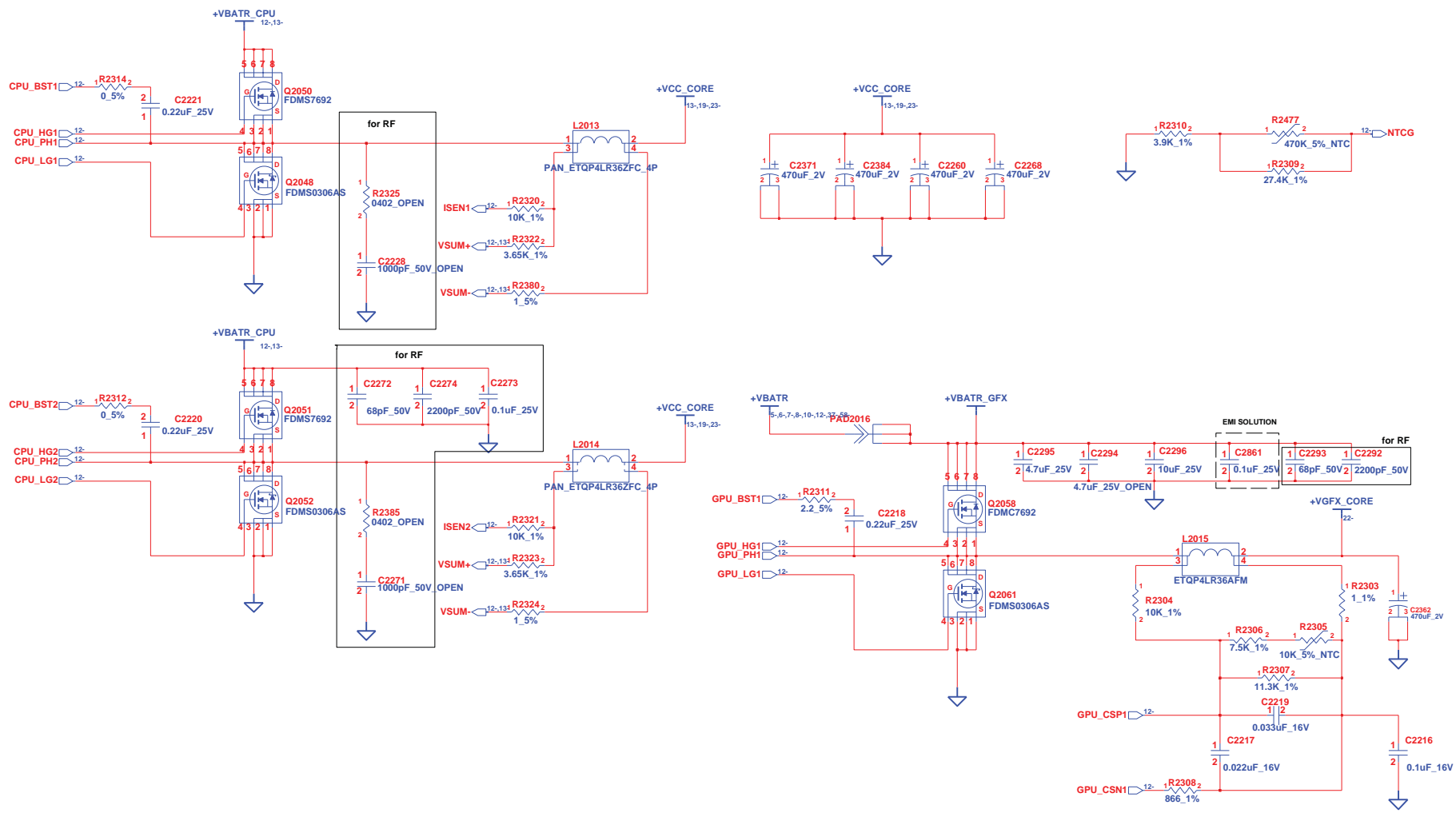
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
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CHANGE by *Thomas Ho* 9-Nov-2010

SHEET 11 OF 58



# VCC\_CORE (SV 35W-->MAX 53A)



**INVENTEC**

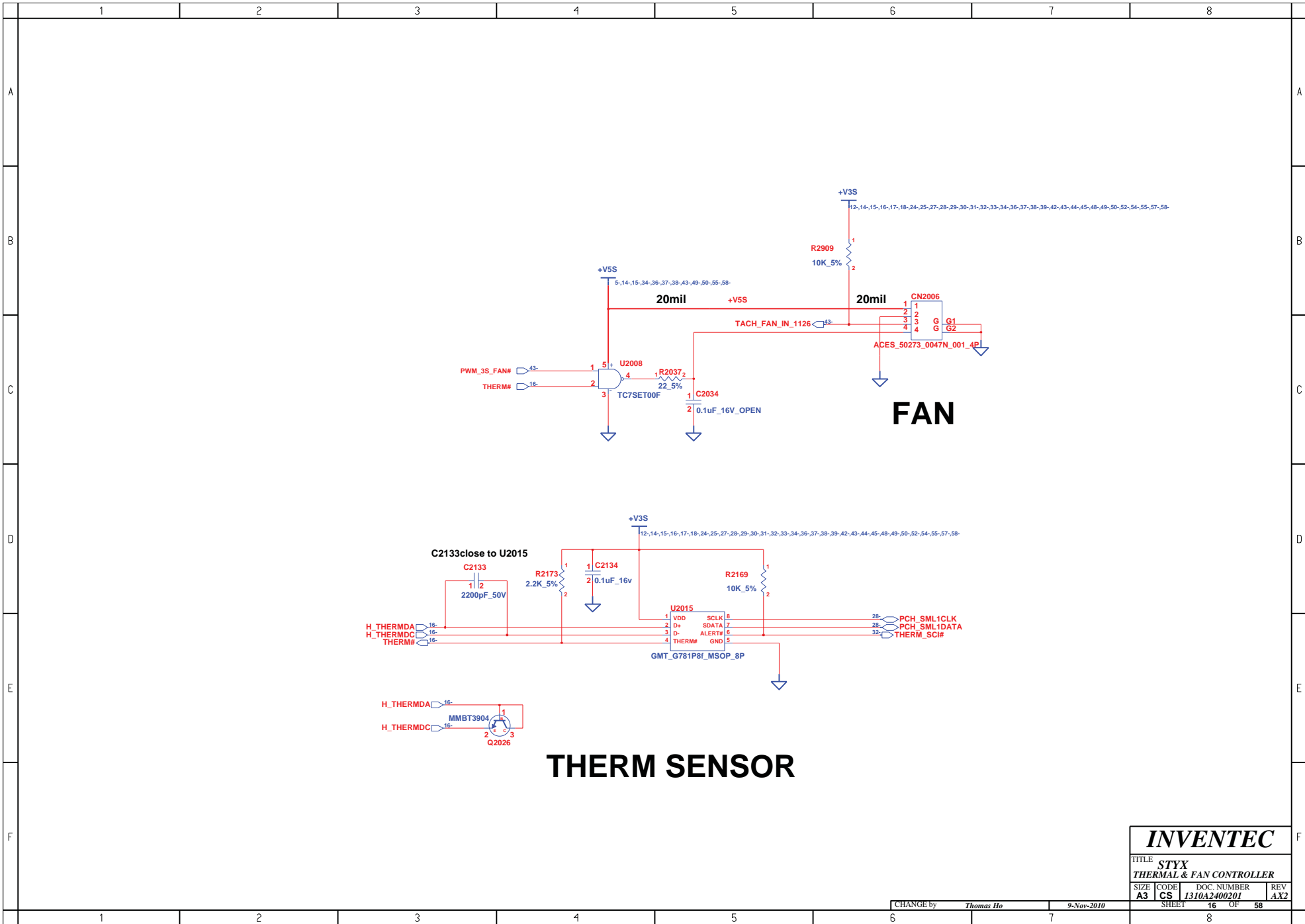
TITLE STYX

SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
SHEET		13	OF 58

CHANGE by Thomas Ho 9-Nov-2010





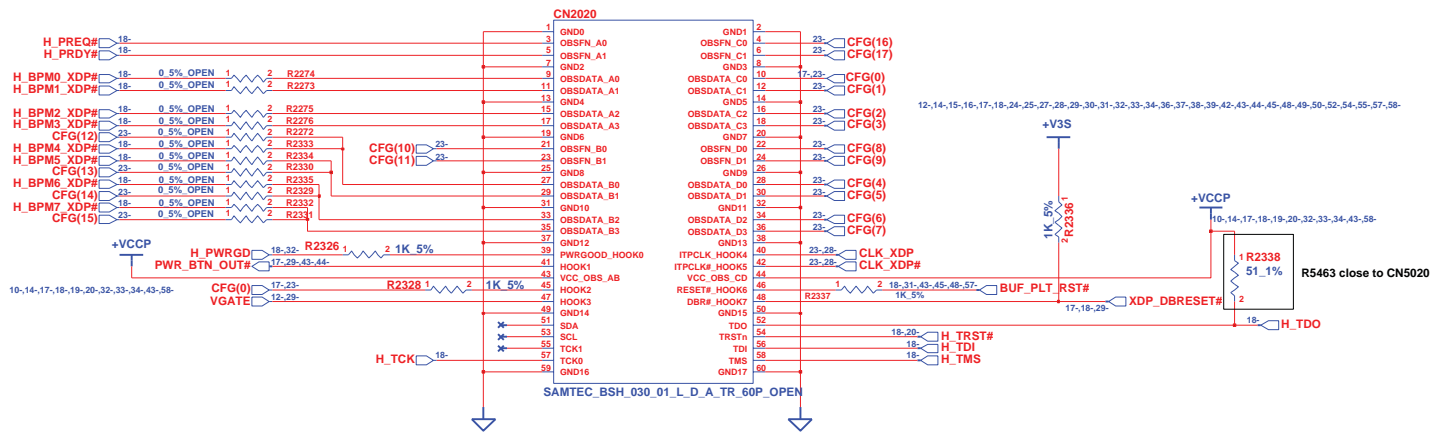


**INVENTEC**

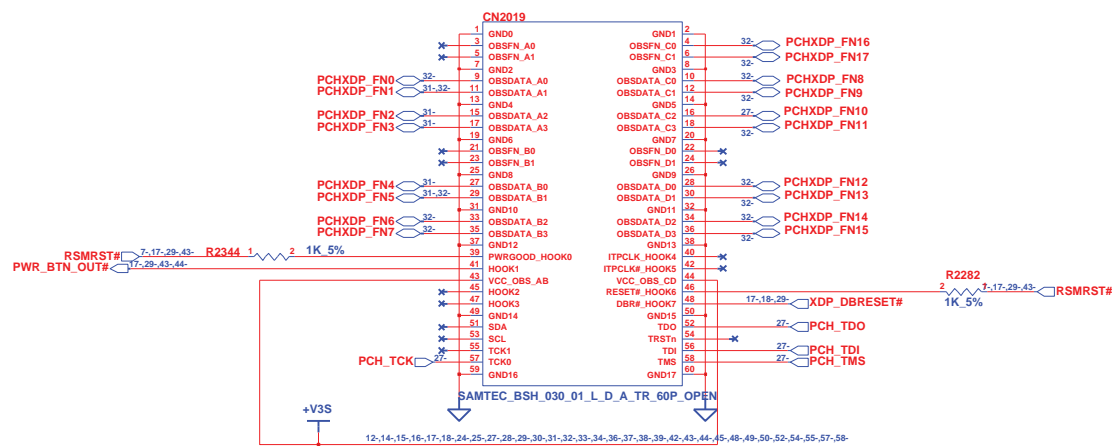
TITLE			
STYX			
THERMAL & FAN CONTROLLER			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2400201	AX2
SHEET		16	OF 58

CHANGE by *Thomas Ho* 9-Nov-2010



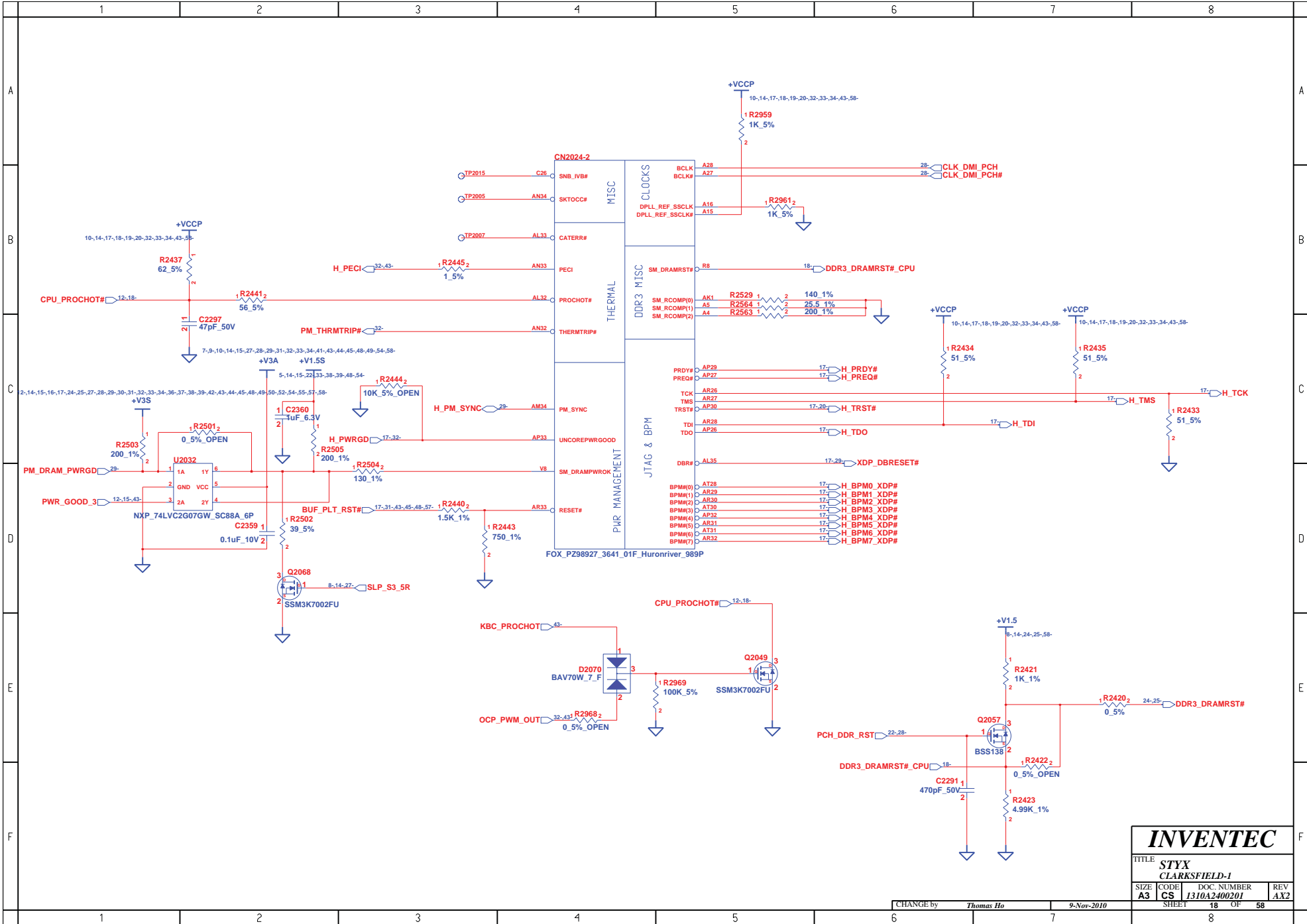


# CPU XDP CONNECTOR

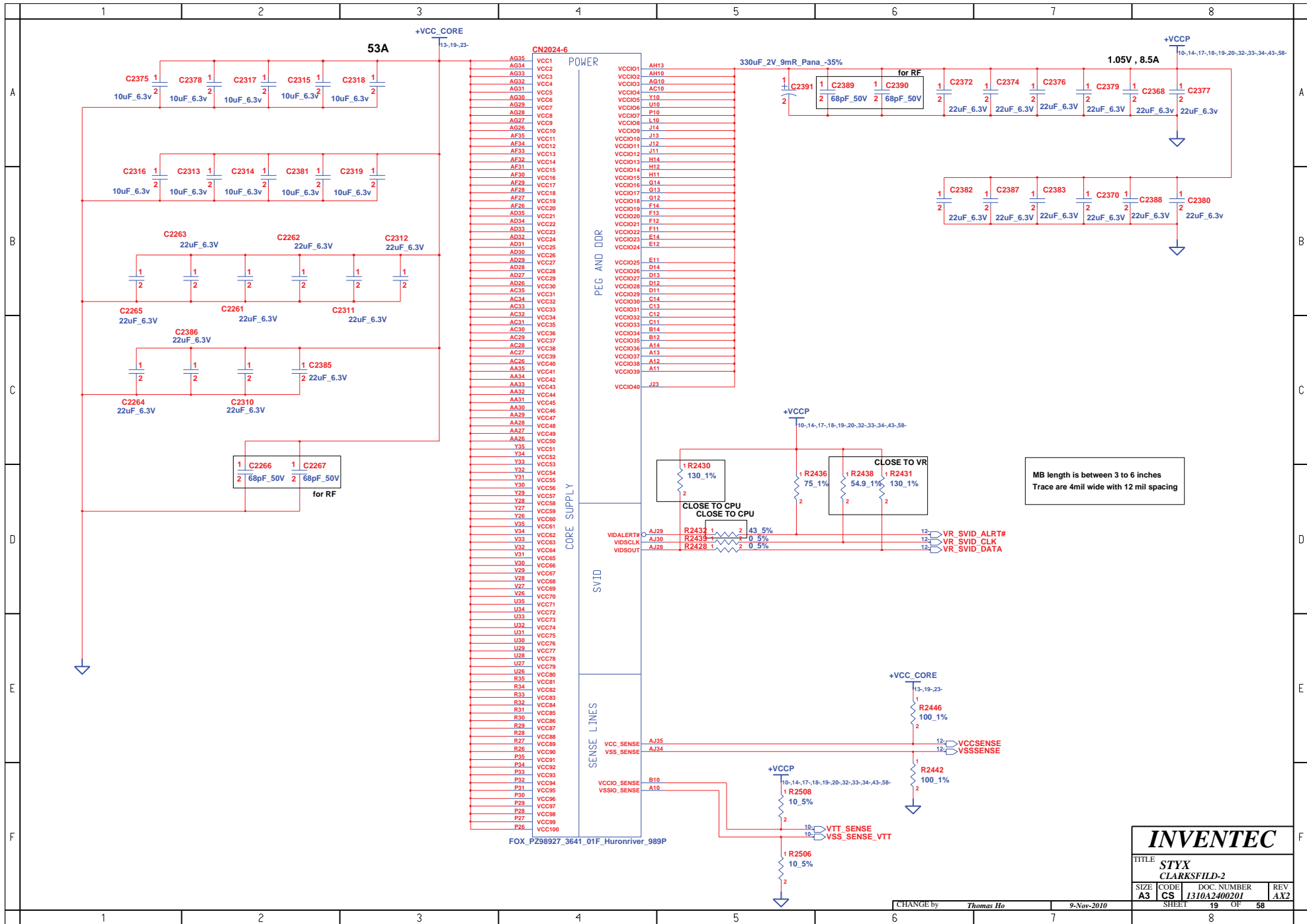


# PCH XDP CONNECTOR

<b>INVENTEC</b>			
TITLE STYX			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 17		OF 58	

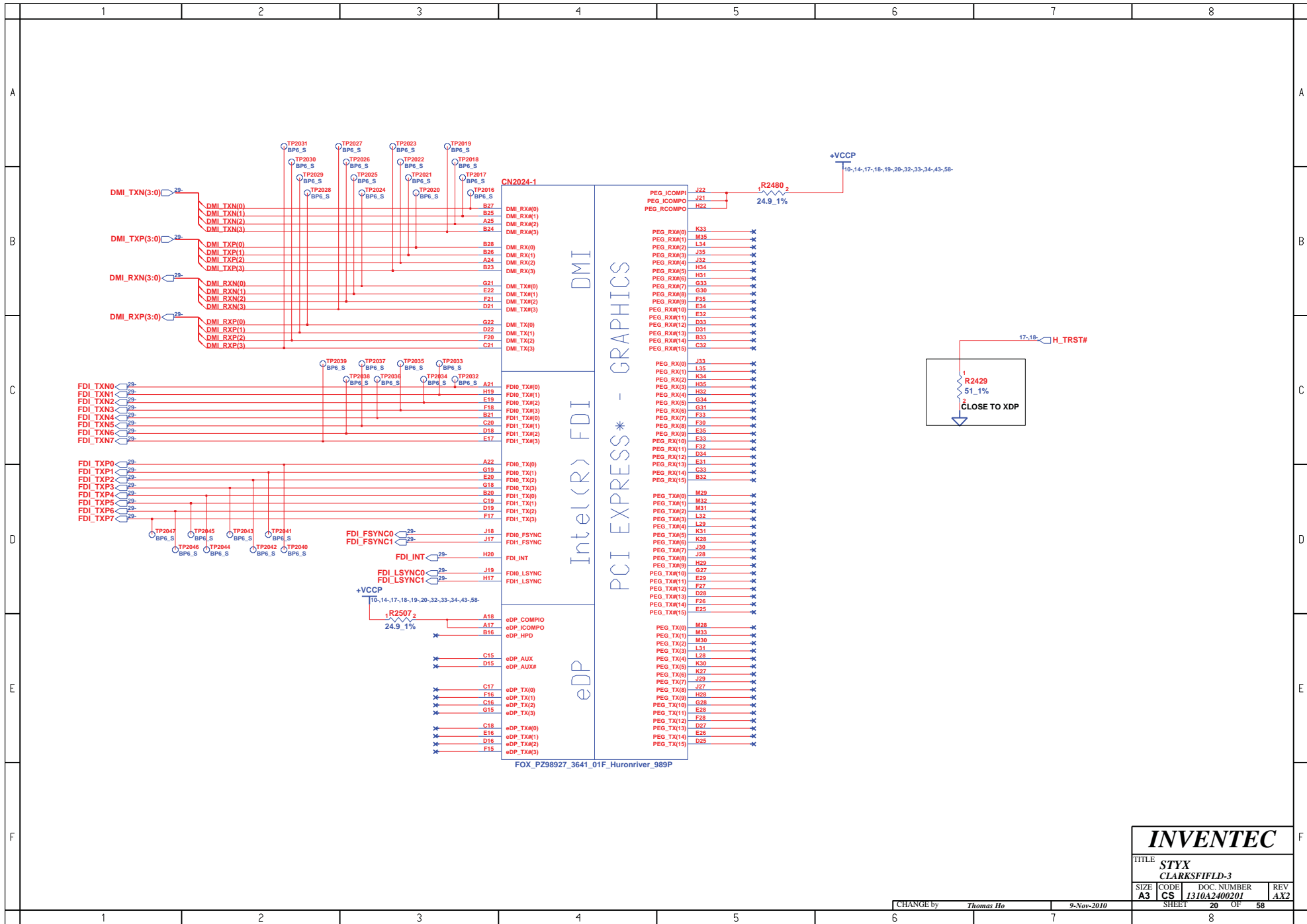


<b>INVENTEC</b>			
TITLE STYX CLARKSFIELD-1			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 18		OF 58	

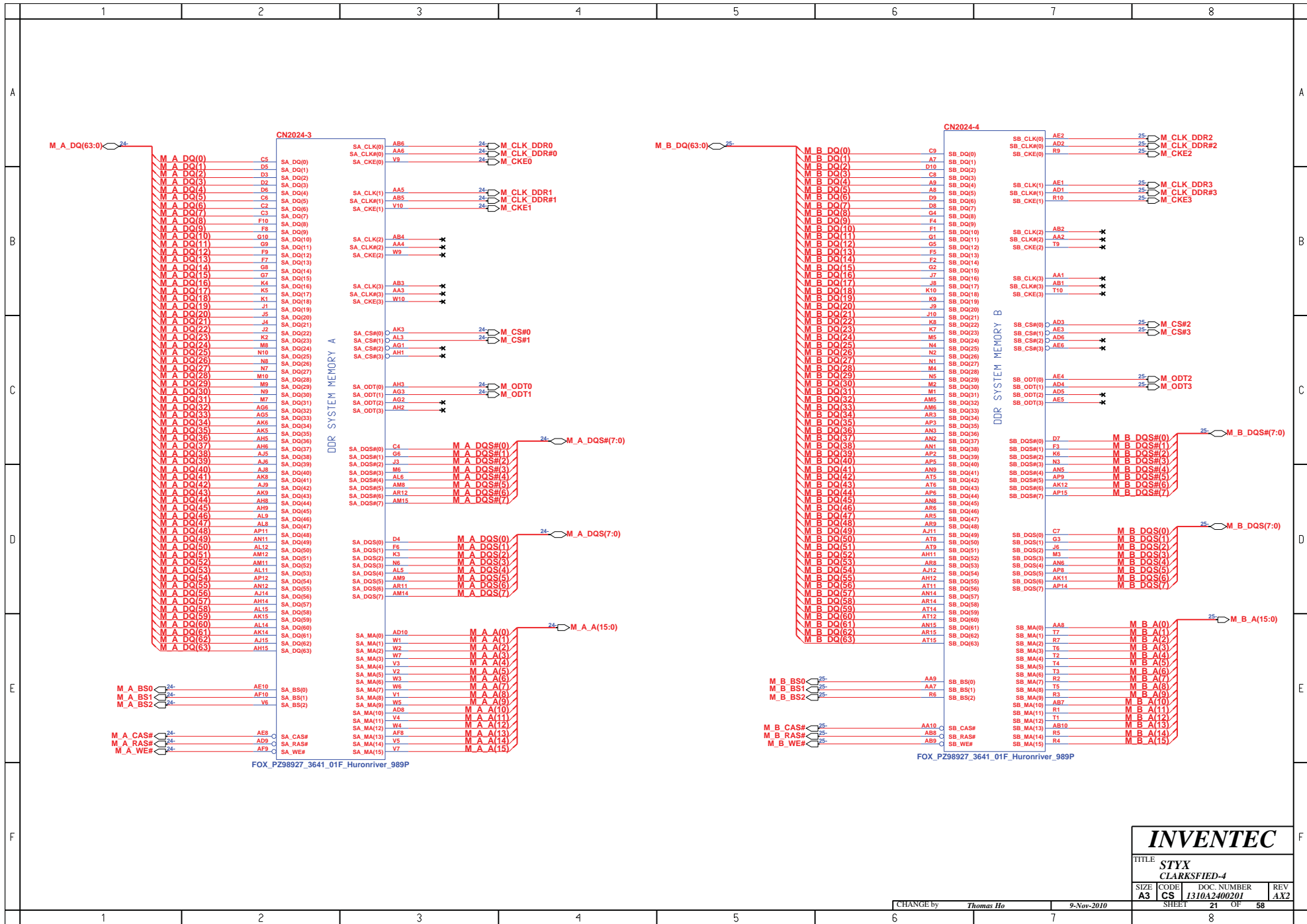


MB length is between 3 to 6 inches  
Trace are 4mil wide with 12 mil spacing

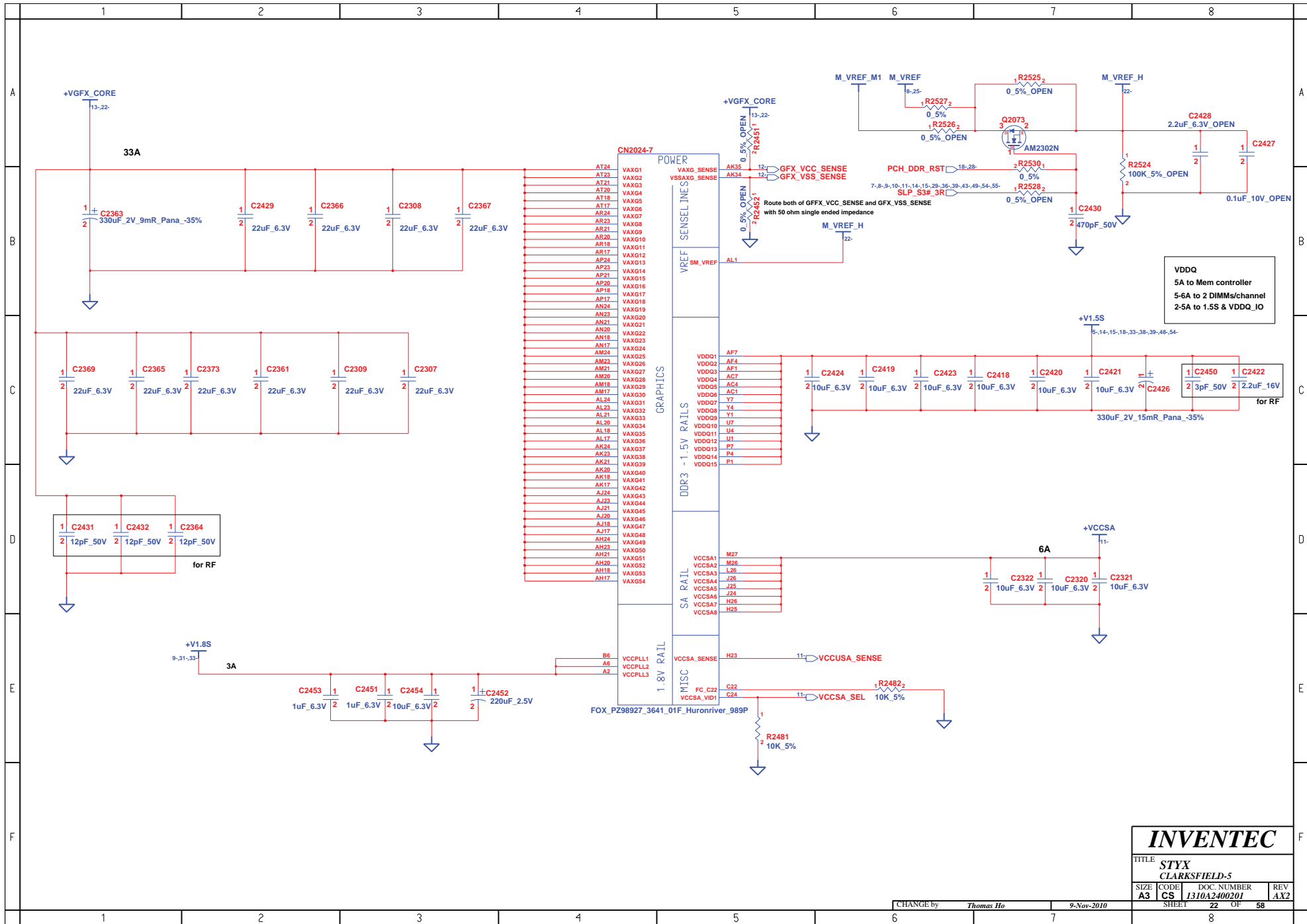
<b>INVENTEC</b>			
TITLE STYX CLARKSFILD-2			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 19		OF 58	



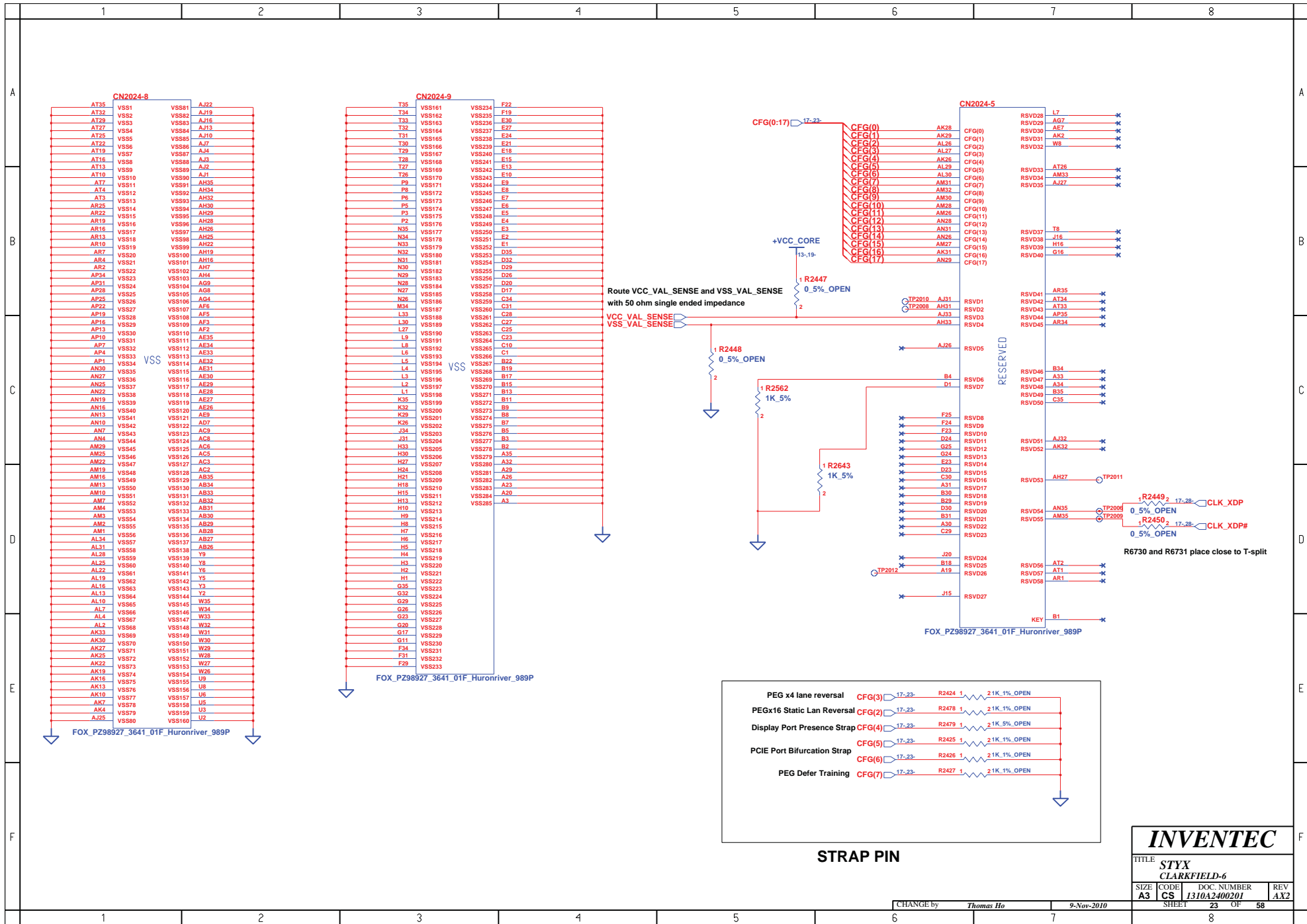
<b>INVENTEC</b>			
TITLE STYX CLARKSFIFLD-3			
SIZE A3	CODE CS	DOC. NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 20		OF 58	

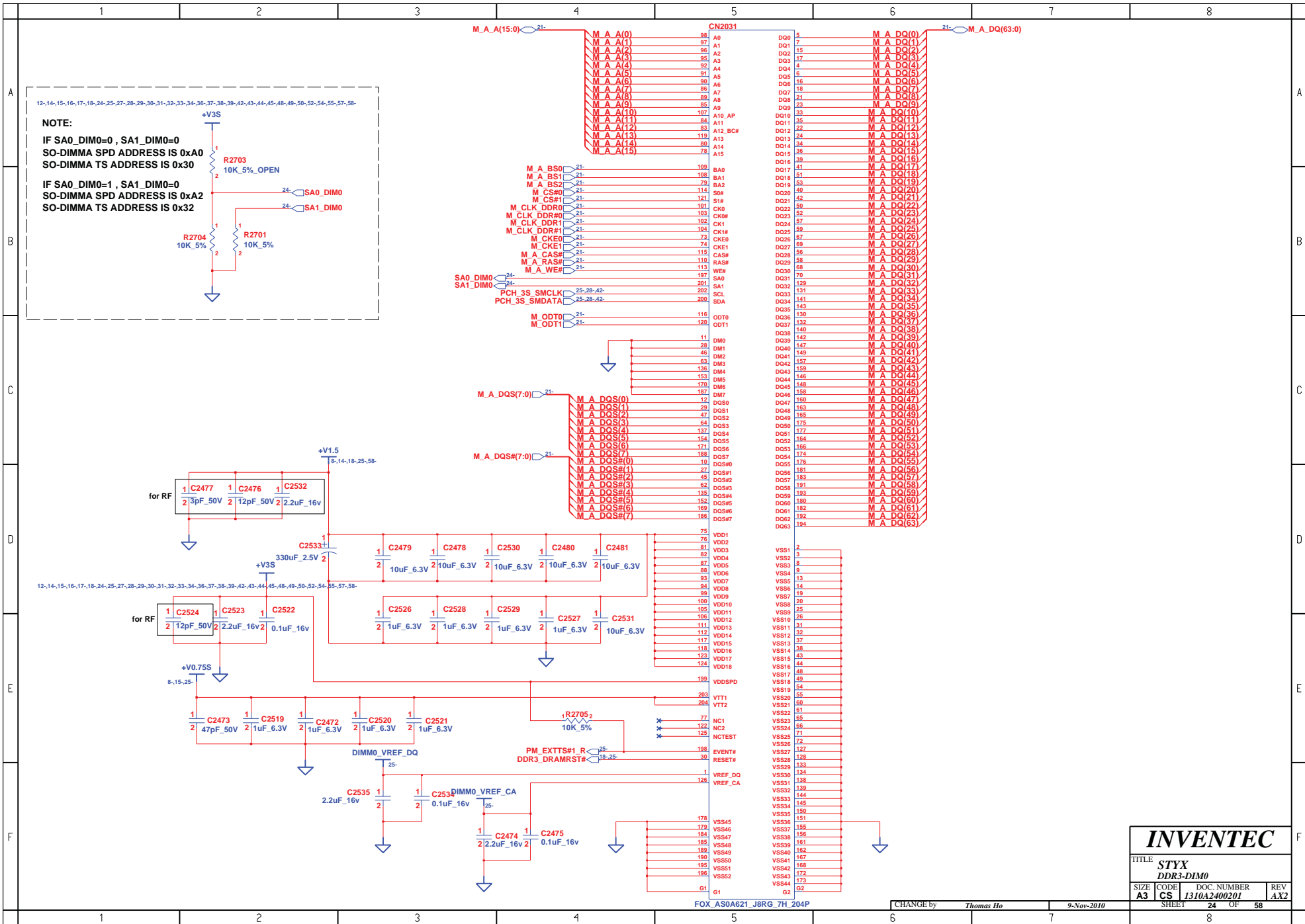


<b>INVENTEC</b>			
TITLE <b>STYX CLARKSFIED-4</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET <b>21</b>		OF <b>58</b>	



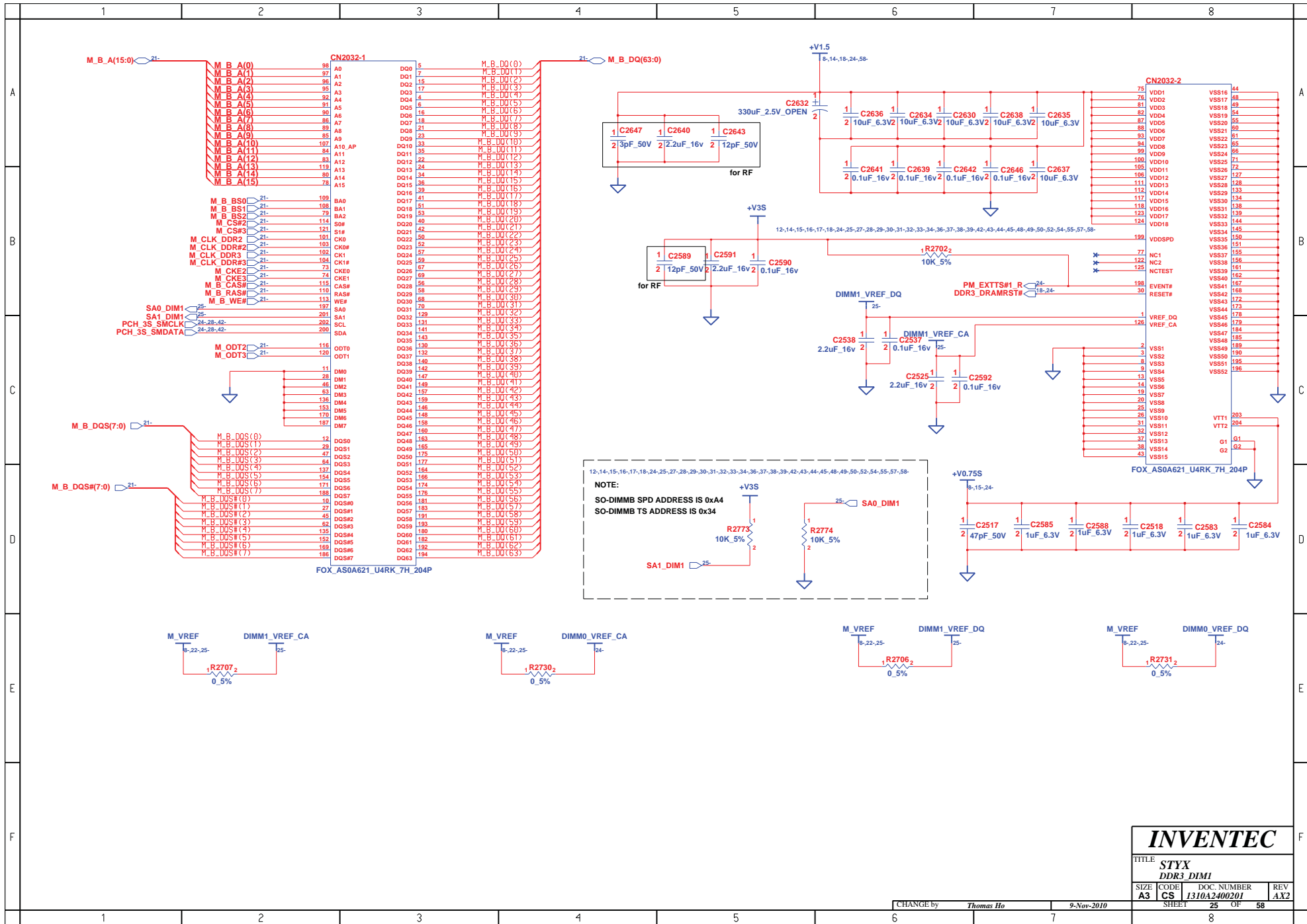
<b>INVENTEC</b>			
TITLE STYX CLARKSFIELD-5			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	SHEET 22 OF 58





<b>INVENTEC</b>			
TITLE STYX DDR3-DIM0			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
SHEET 24		OF 58	

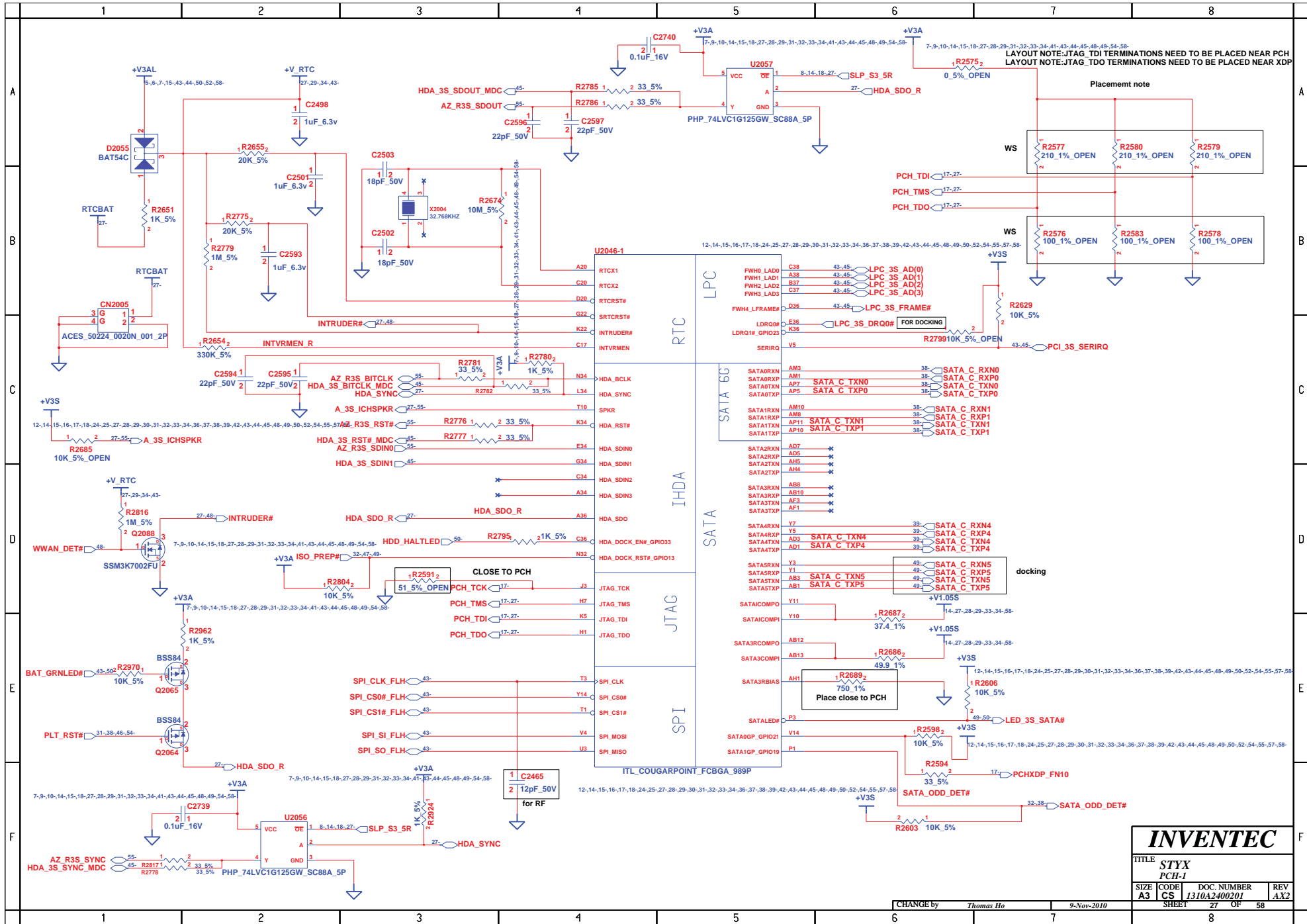




<b>INVENTEC</b>			
TITLE <b>STYX DDR3 DIM1</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET <b>25</b>		OF <b>58</b>	

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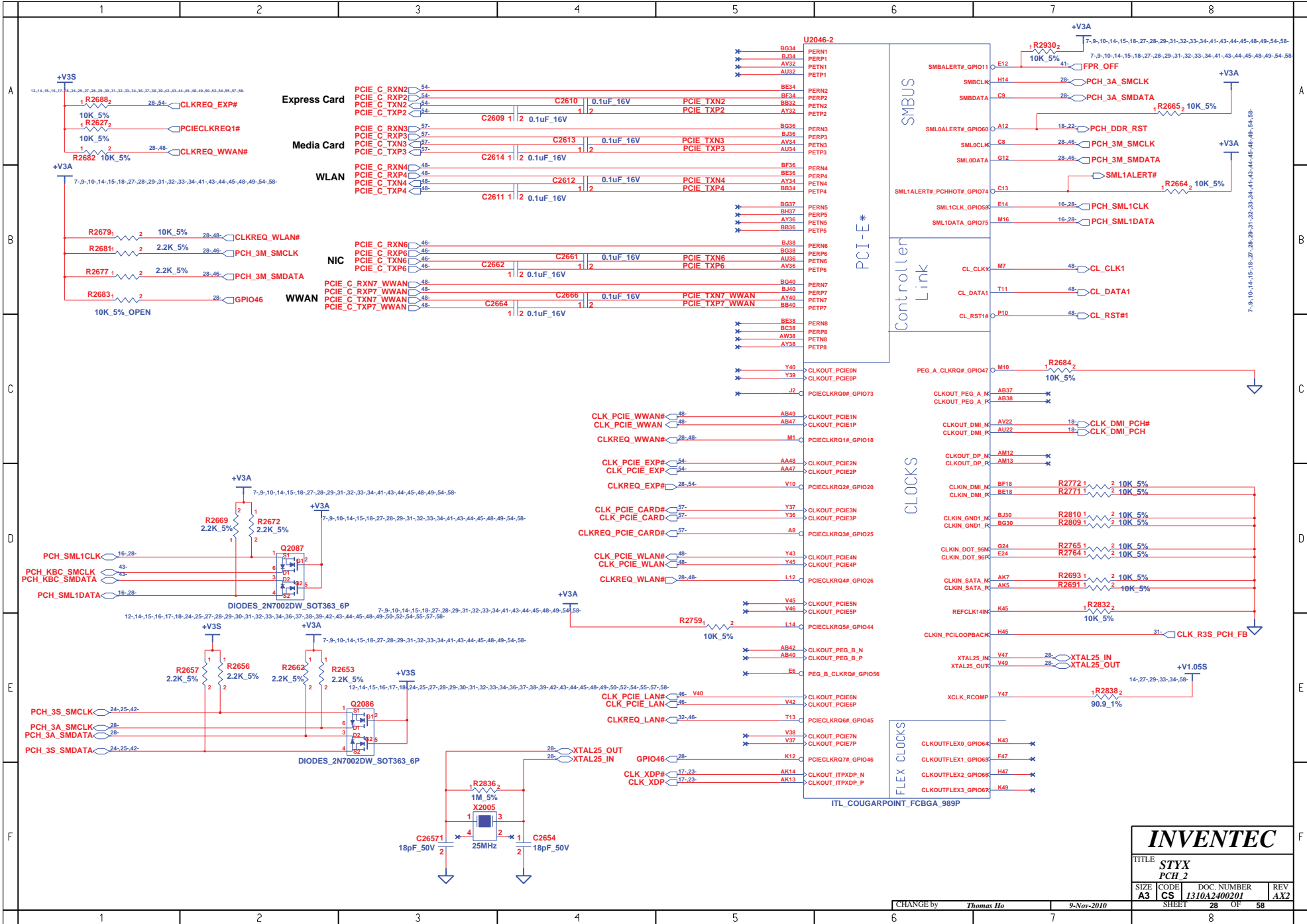
<b>INVENTEC</b>			
TITLE <i>STYX BLANK</i>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <i>1310A2400201</i>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET		26	OF 58



**INVENTEC**

TITLE			
STYX			
PCH-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		27 OF 58	

CHANGE by Thomas Ho 9-Nov-2010

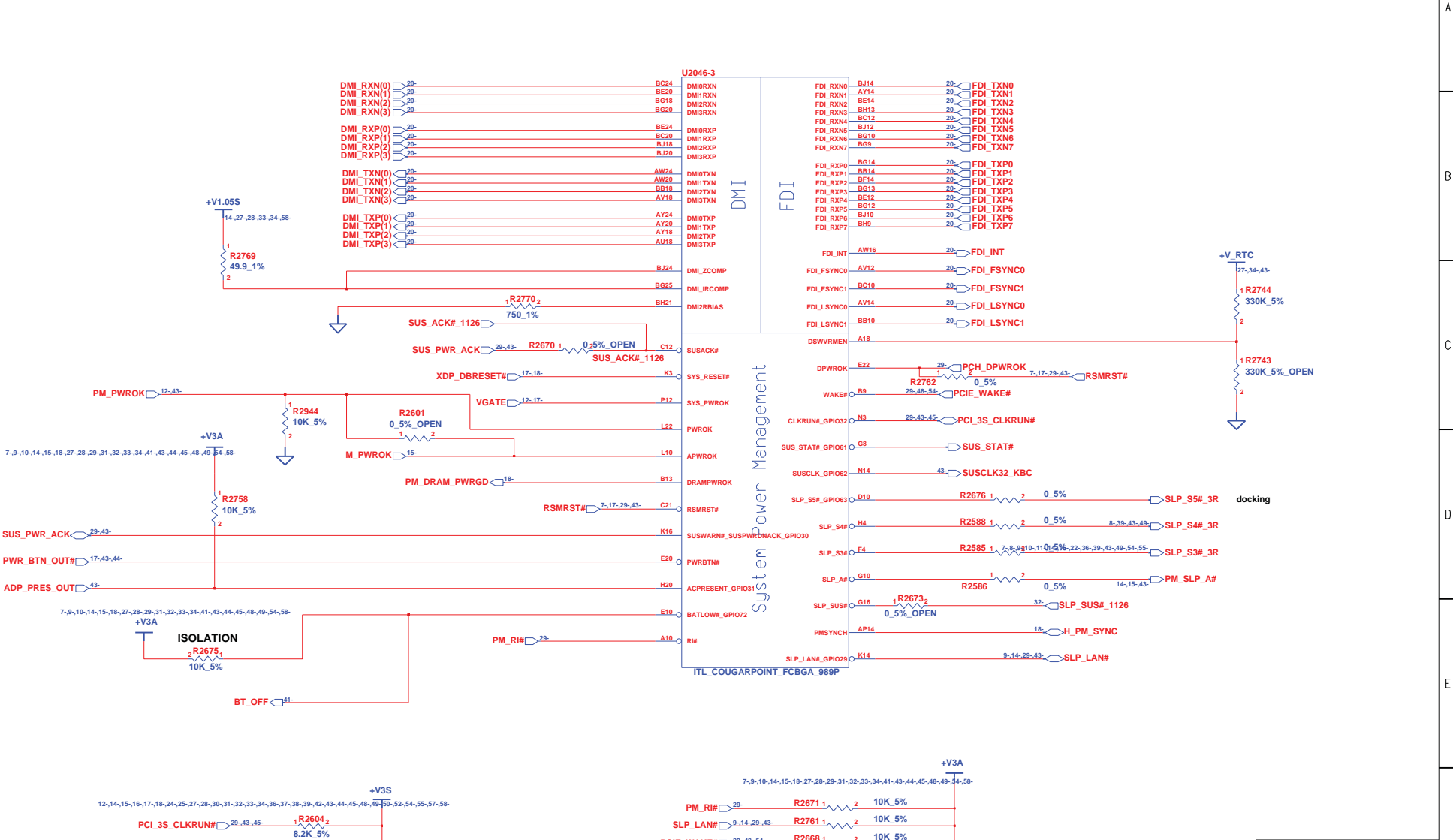


**INVENTEC**

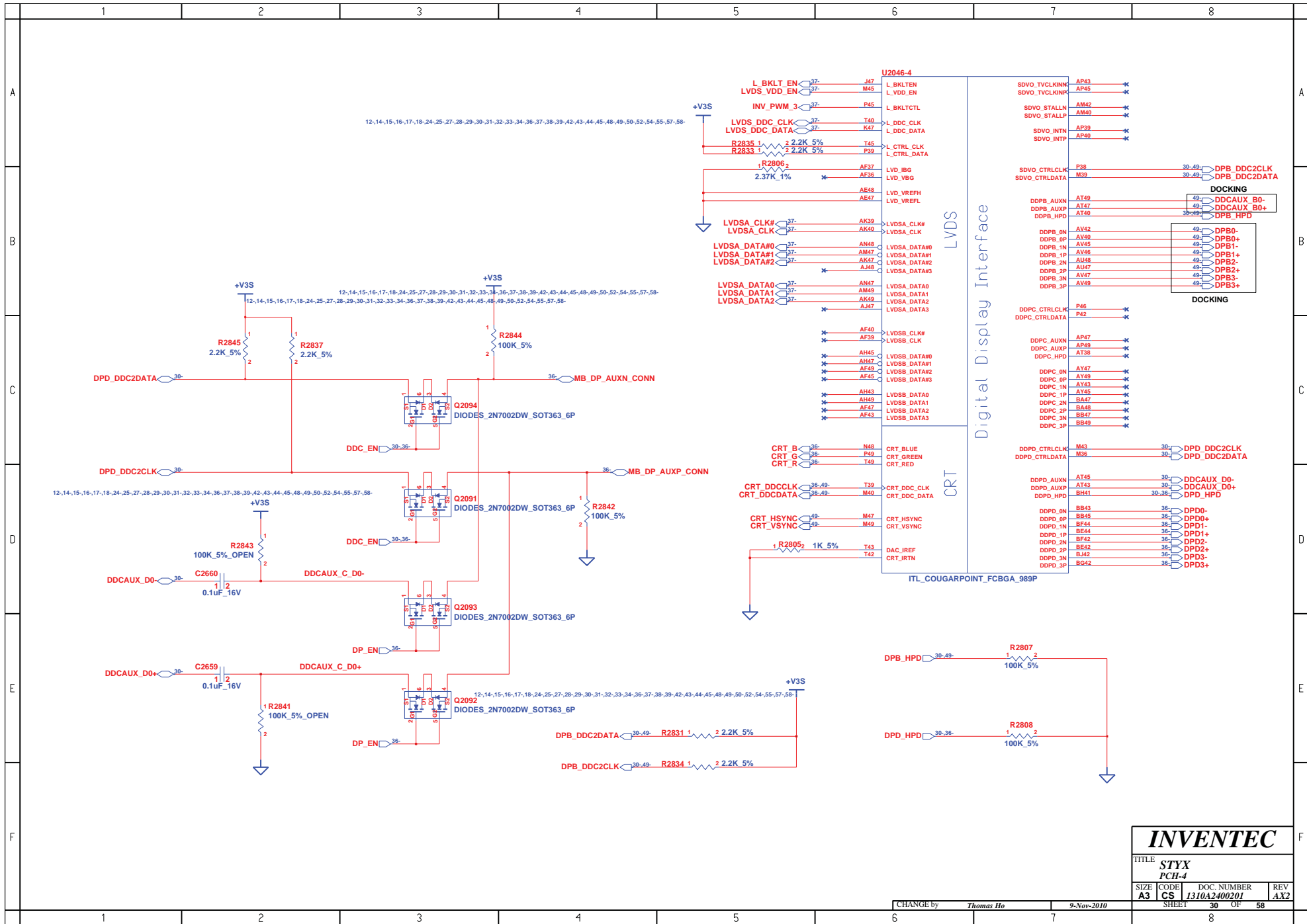
TITLE			
STYX PCH 2			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		28	OF 58

CHANGE by *Thomas Ho* 9-Nov-2010

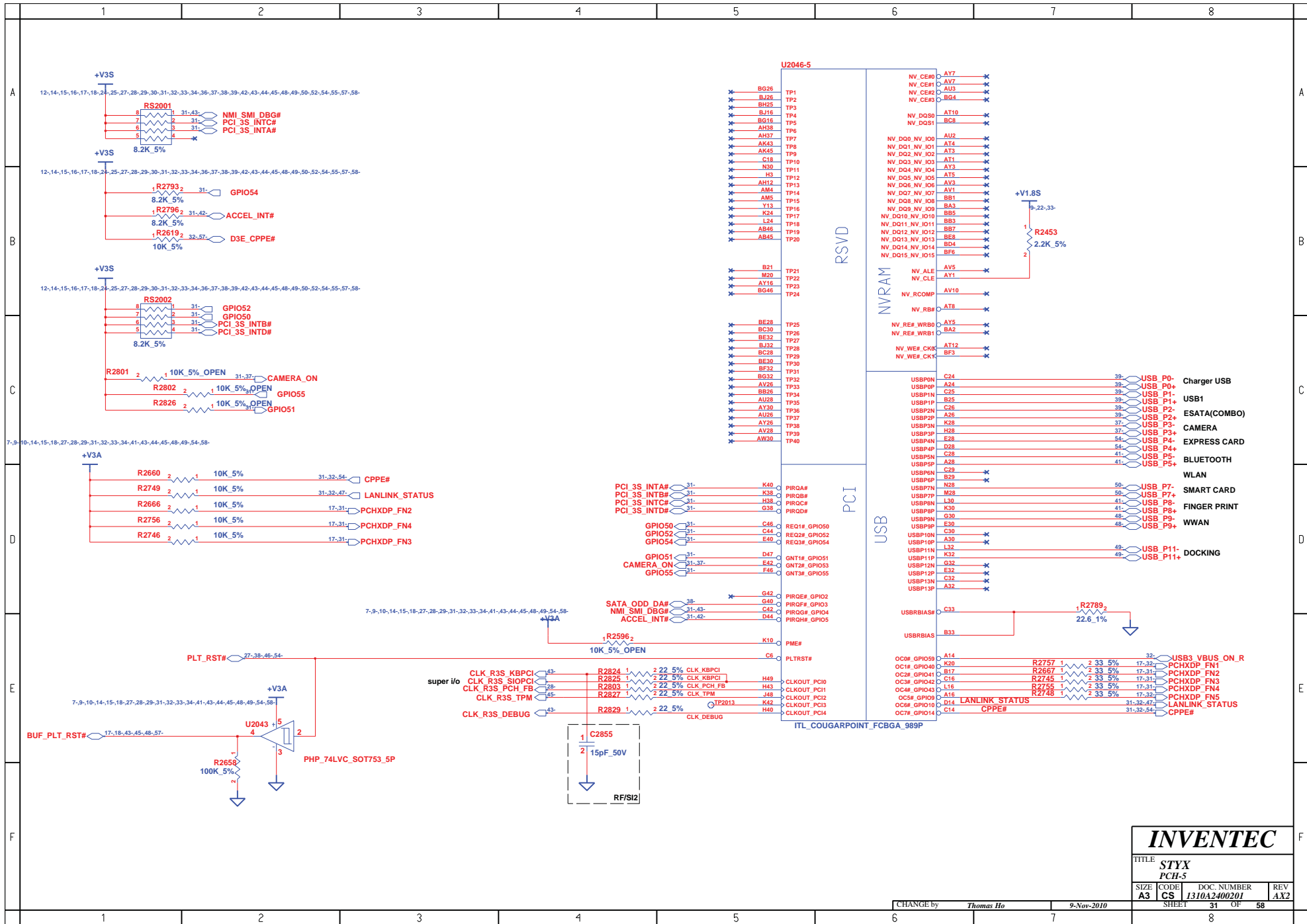
Note: 1.SLP\_SUS and SUSACK# are NC if DSW is not supported  
 2.DPWROK should connect to RSMRST# if DSW not supported  
 3.PCH\_DPWROK pull up to +V3S enables DSW support. No install R5261 to disable DSW



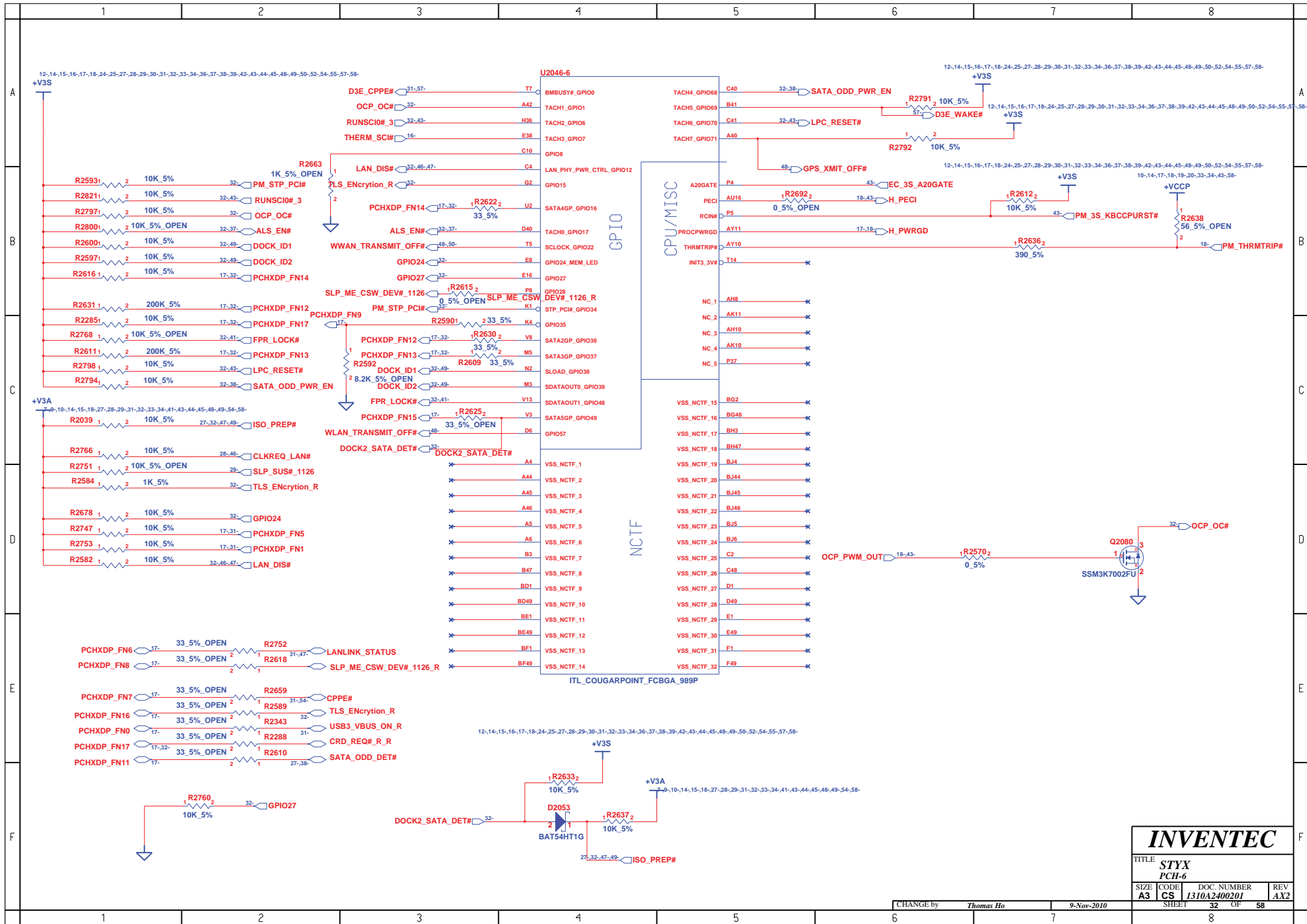
<b>INVENTEC</b>			
TITLE STYX PCH-3			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 29		OF 58	



<b>INVENTEC</b>			
TITLE <b>STYX PCH-4</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET		30 OF 58	

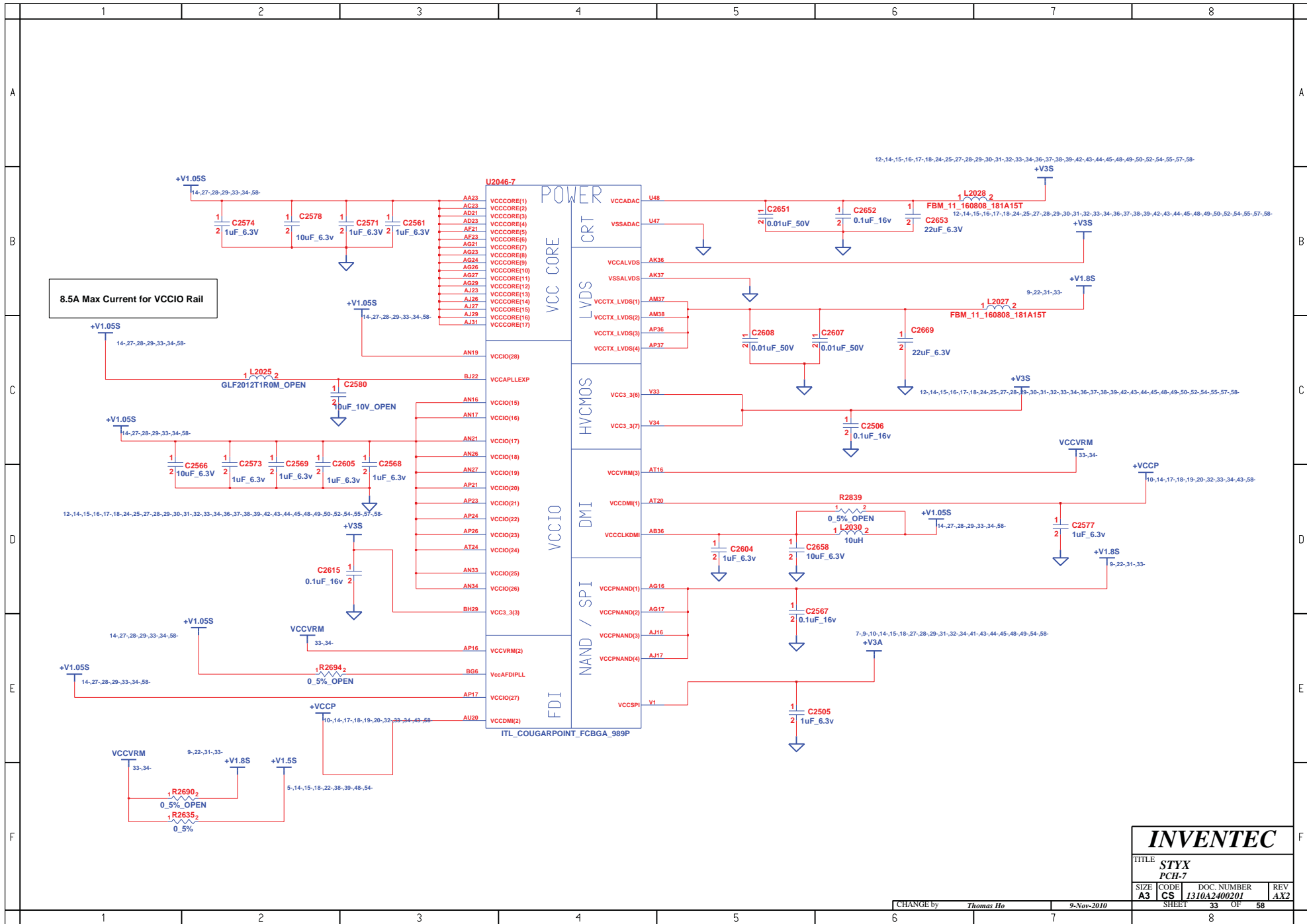


<b>INVENTEC</b>			
TITLE <b>STYX PCH-5</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 31		OF 58	

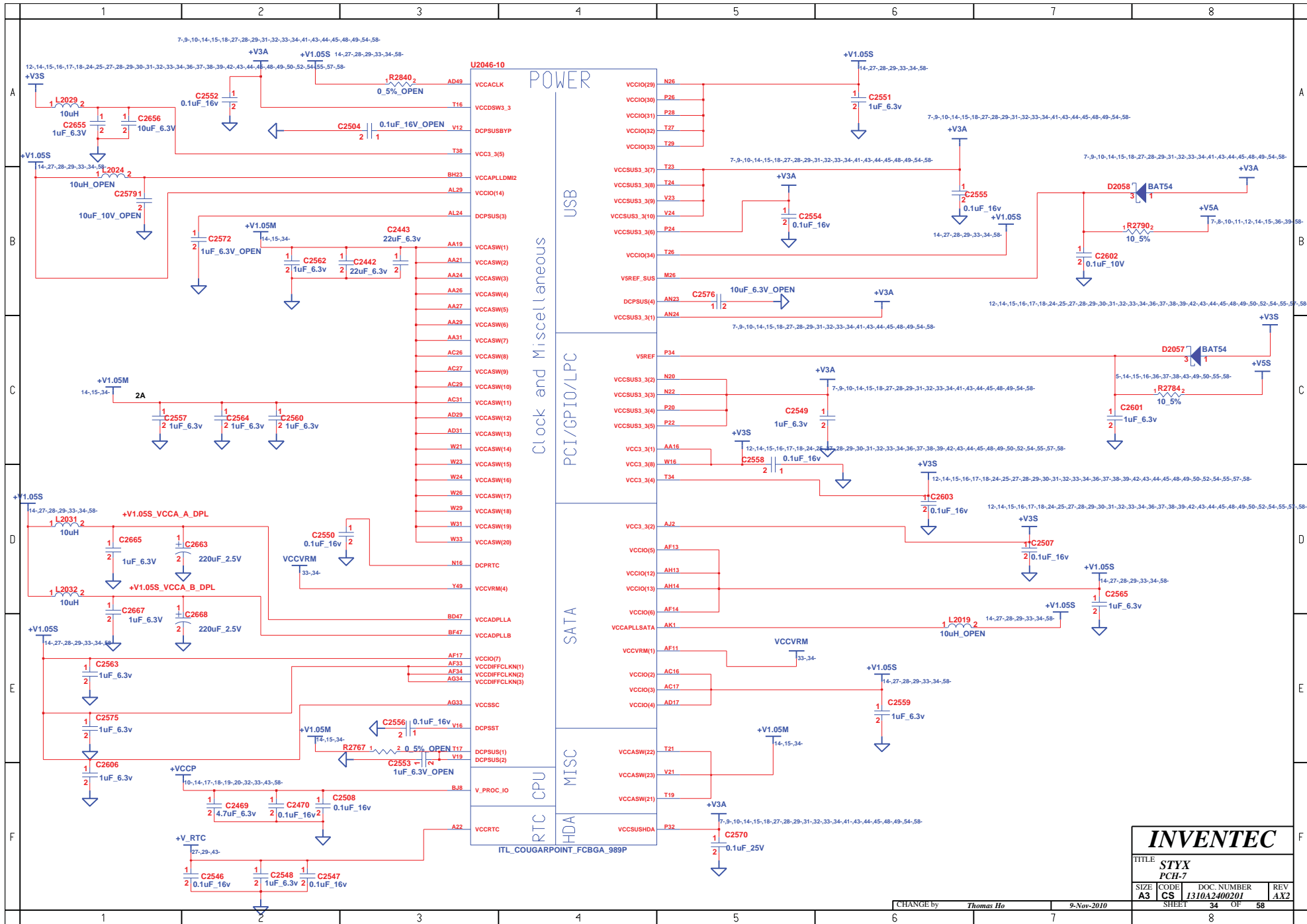


<b>INVENTEC</b>			
TITLE STYX PCH-6			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 32		OF 58	



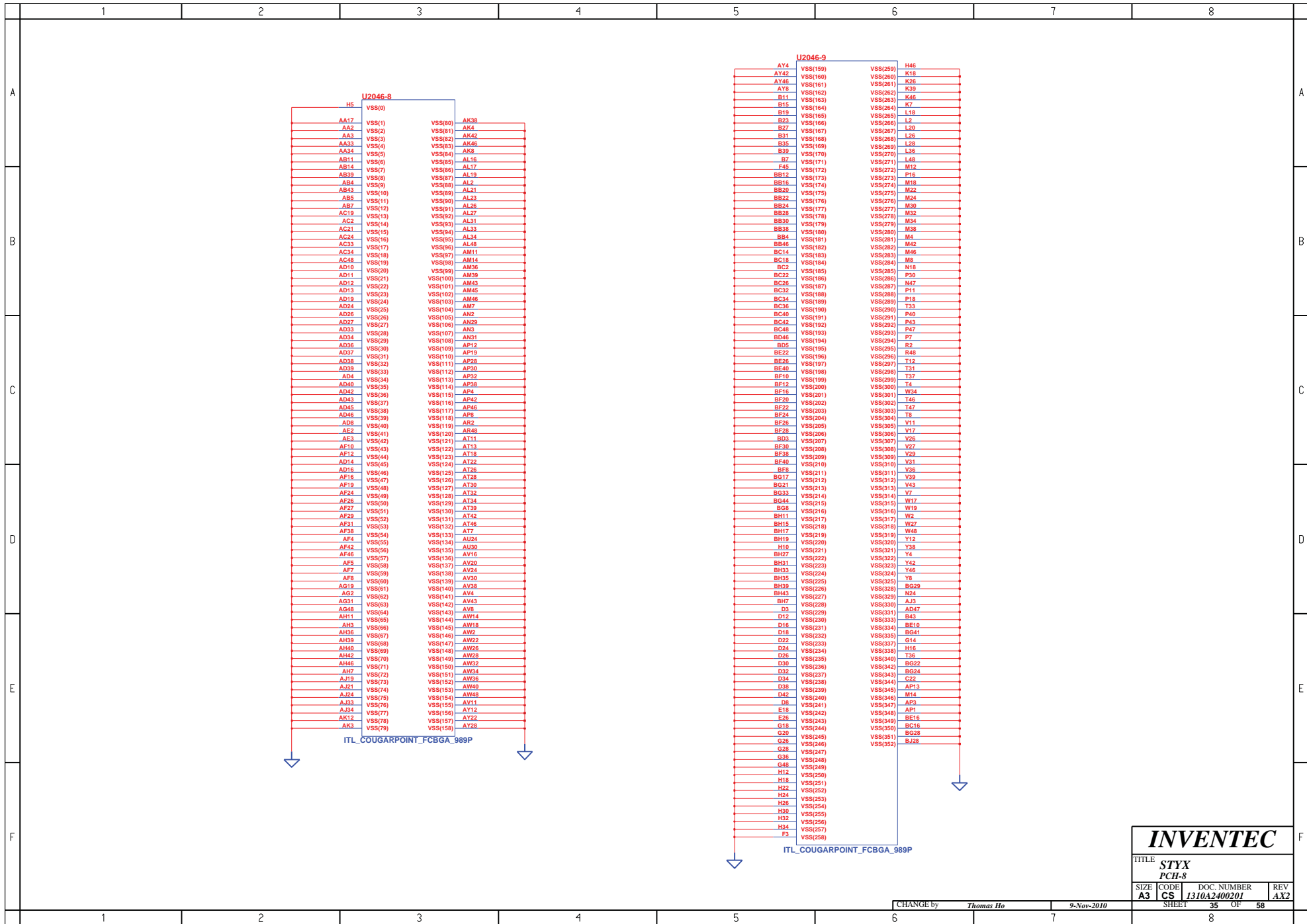


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TITLE STYX PCH-7			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 33		OF 58	



<b>INVENTEC</b>			
TITLE STYX PCH-7			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
SHEET 34		OF 58	

CHANGE by Thomas Ho 9-Nov-2010

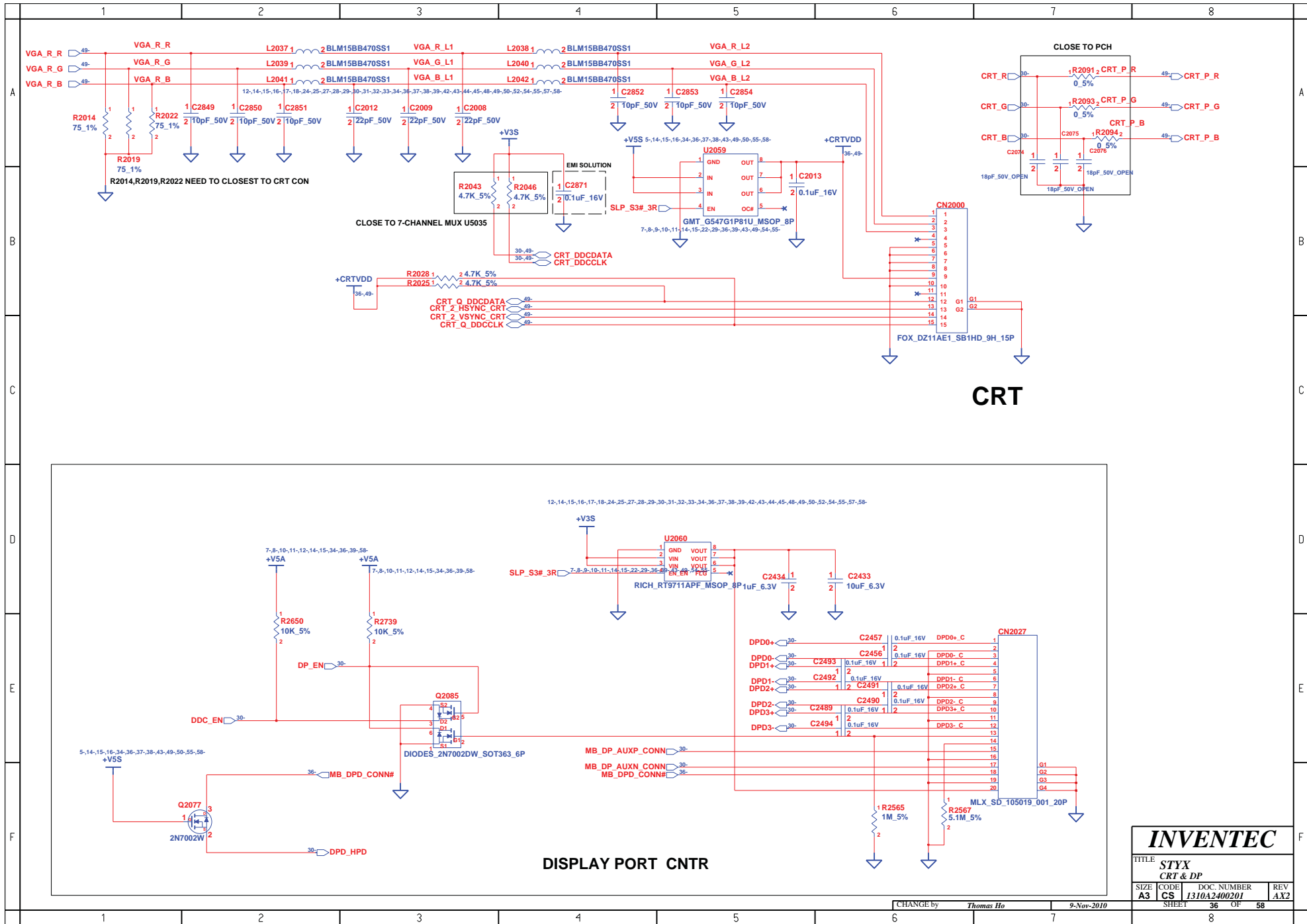


**INVENTEC**

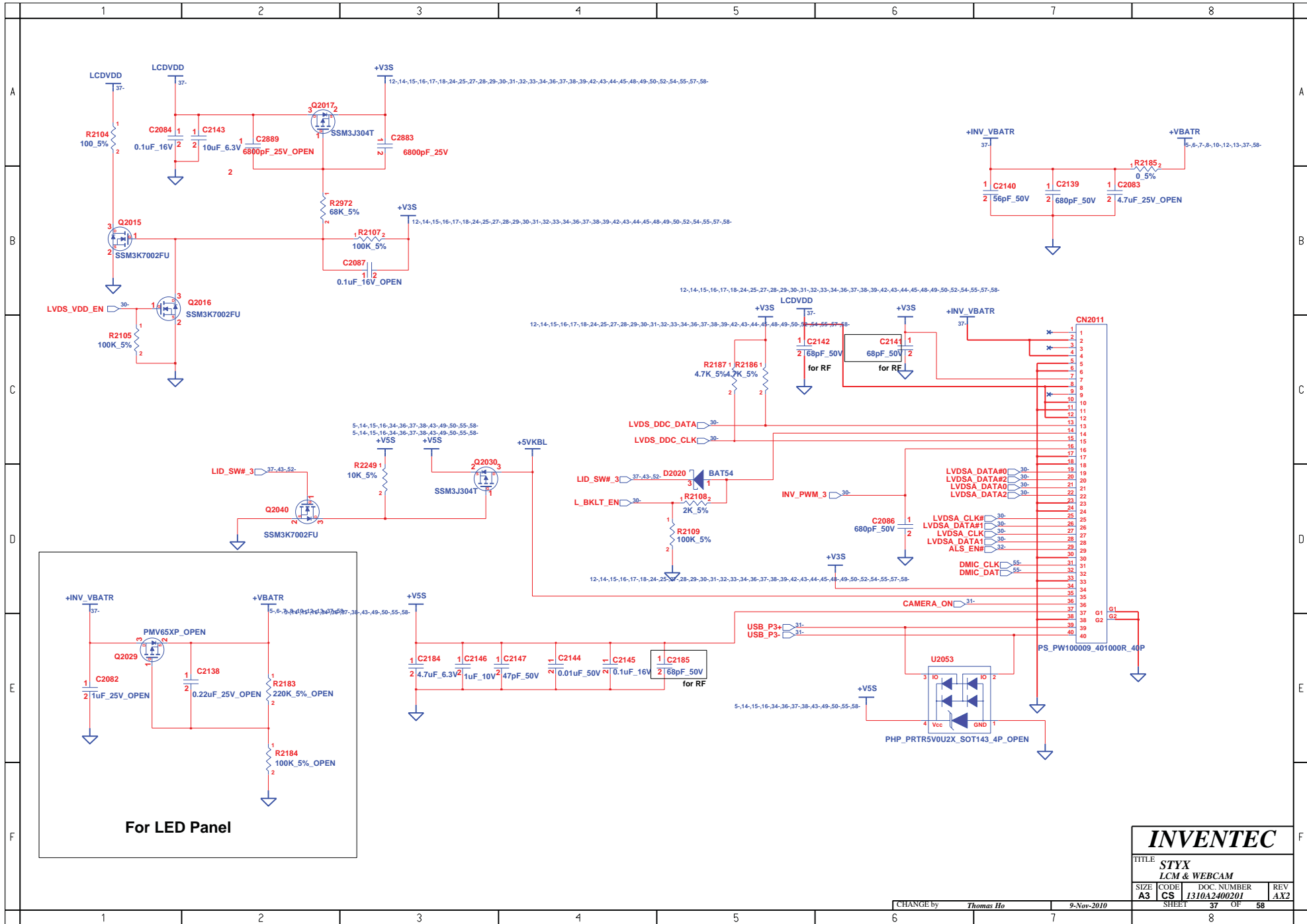
TITLE  
**STYX  
PCH-8**

SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
SHEET		OF	
		35	58

CHANGE by *Thomas Ho* 9-Nov-2010



<b>INVENTEC</b>			
TITLE <b>STYX CRT &amp; DP</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 36		OF 58	



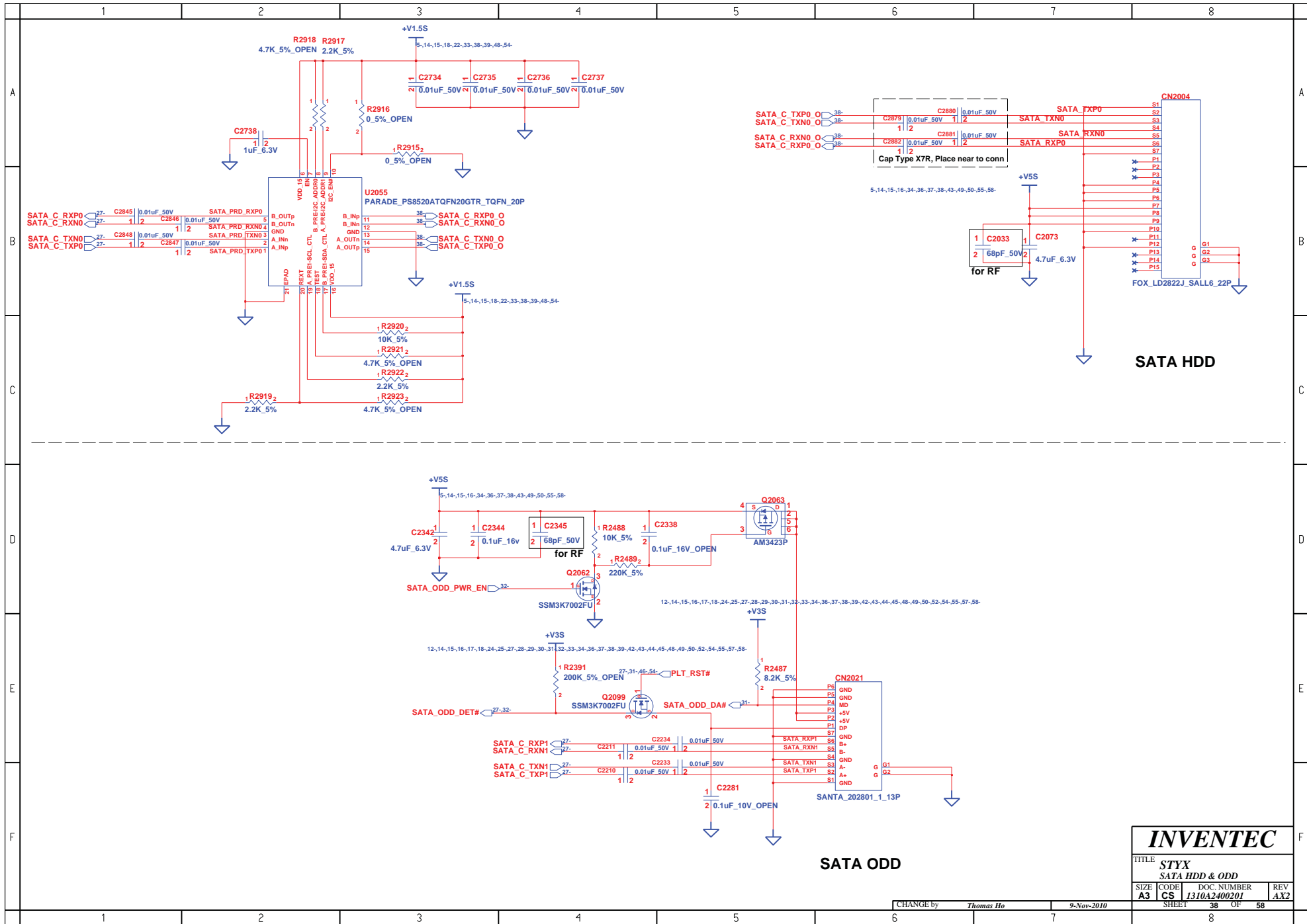
**INVENTEC**

TITLE  
**STYX  
 LCM & WEBCAM**

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by *Thomas Ho* 9-Nov-2010

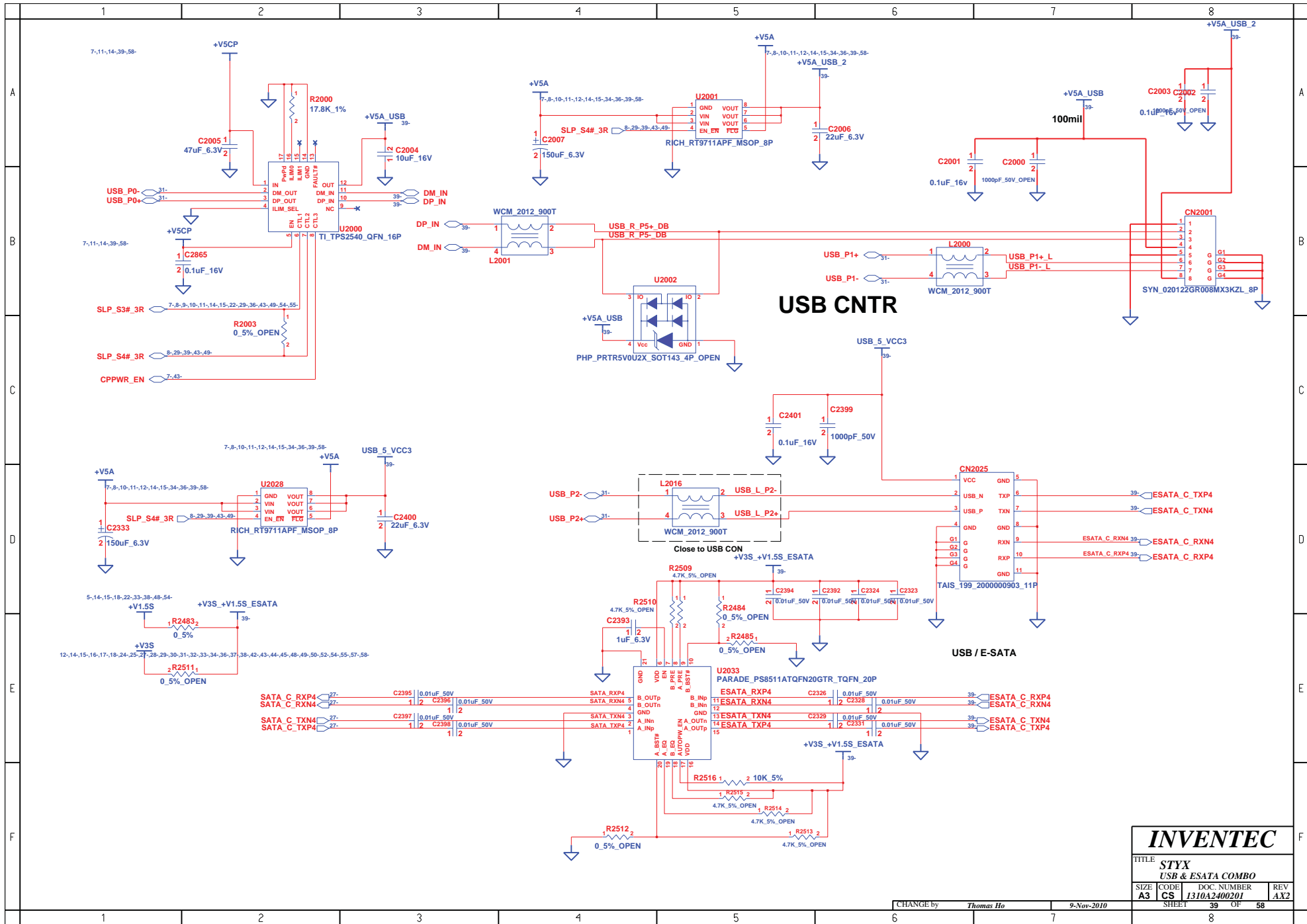
SHEET 37 OF 58



# INVENTEC

TITLE			
STYX			
SATA HDD & ODD			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		38	OF 58

CHANGE by *Thomas Ho* 9-Nov-2010



<b>INVENTEC</b>			
TITLE <b>STYX</b> <b>USB &amp; ESATA COMBO</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>I310A2400201</b>	REV <b>AX2</b>
SHEET <b>39</b>		OF <b>58</b>	

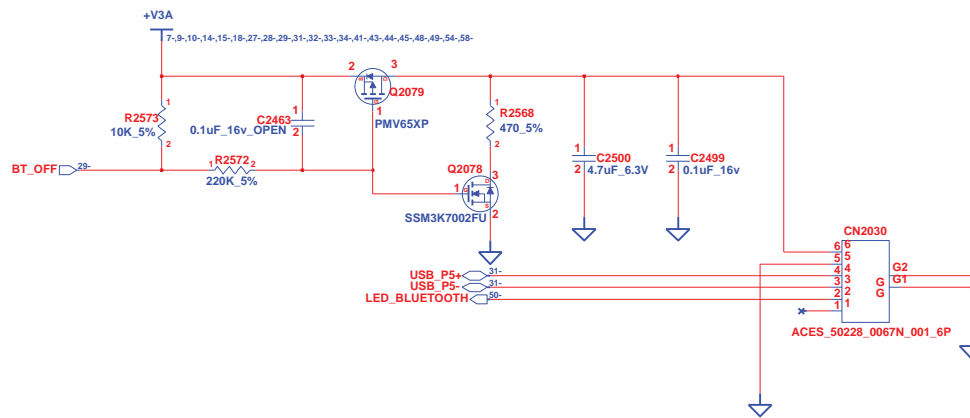
CHANGE by *Thomas Ho* 9-Nov-2010

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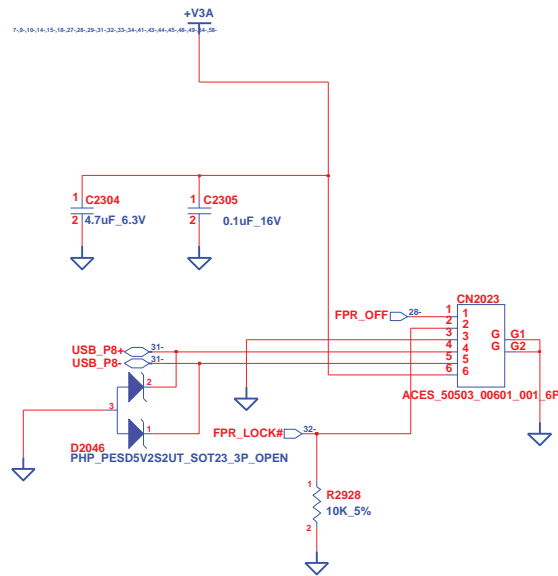
<b>INVENTEC</b>			
TITLE			
STYX BLANK			
SIZE	CODE	DOC. NUMBER	REV.
A3	CS	1310A2400201	AX2
CHANGE by		11-Nov-2010	
Thomas Ho			
SHEET		40 OF 58	

	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	





## BLUETOOTH



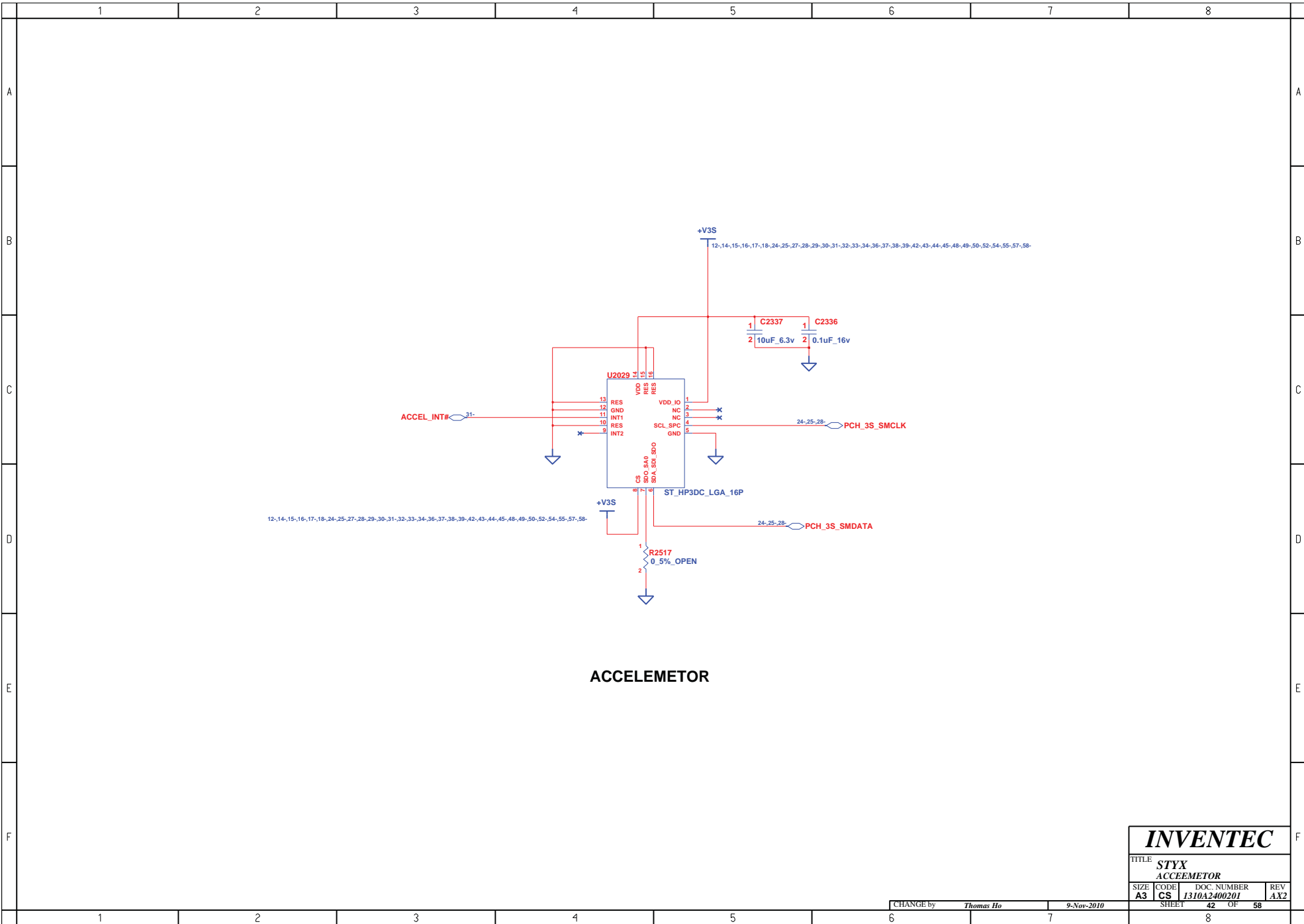
## FINGER PRINTER CNTR

**INVENTEC**

TITLE			
STYX			
BLUETOOTH & FINGER PRINTER			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		41	OF 58

CHANGE by *Thomas Ho* 9-Nov-2010

8

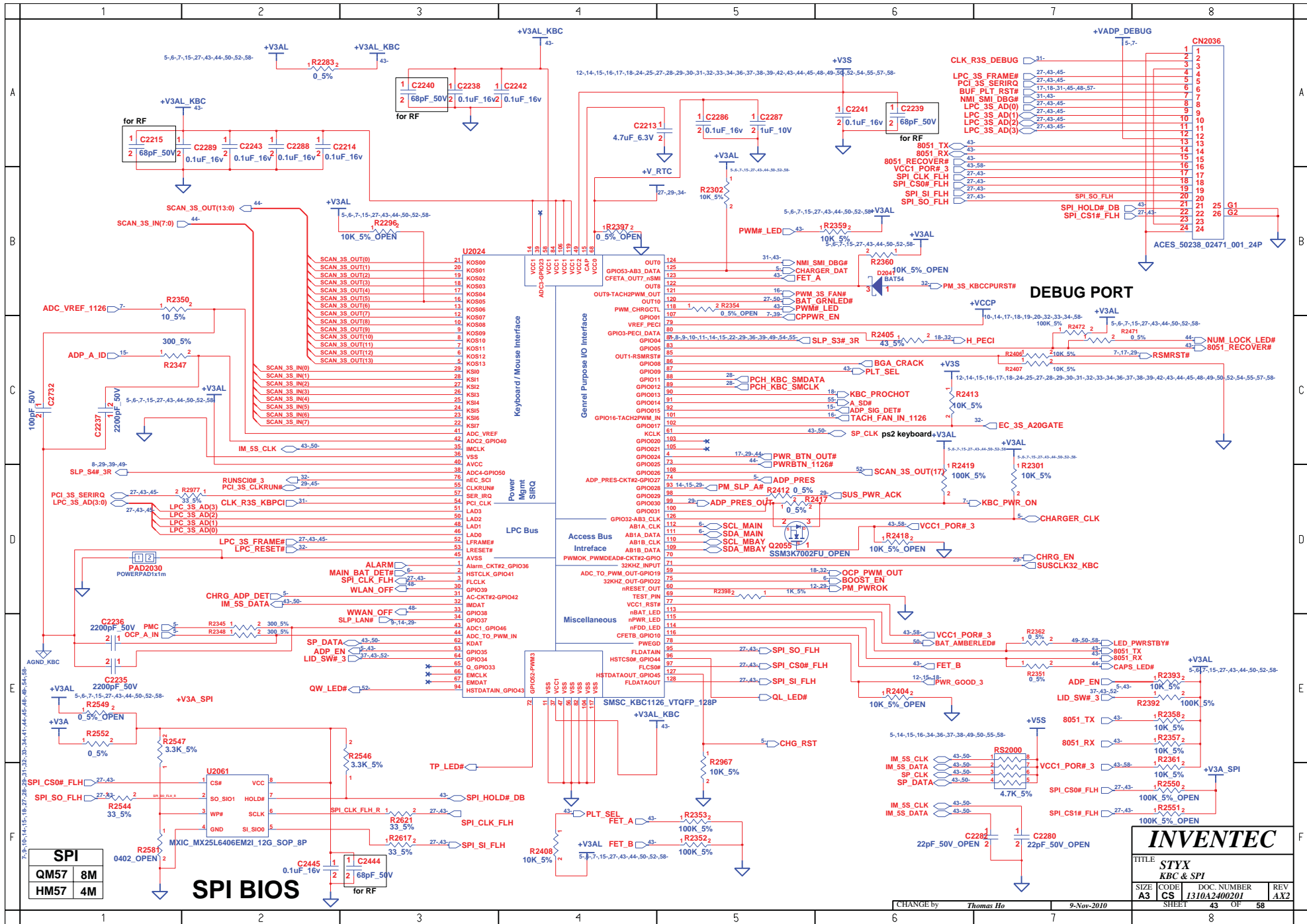


ACCELEMETOR

**INVENTEC**

TITLE  
**STYX  
 ACCEMETOR**

SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET		42	OF 58



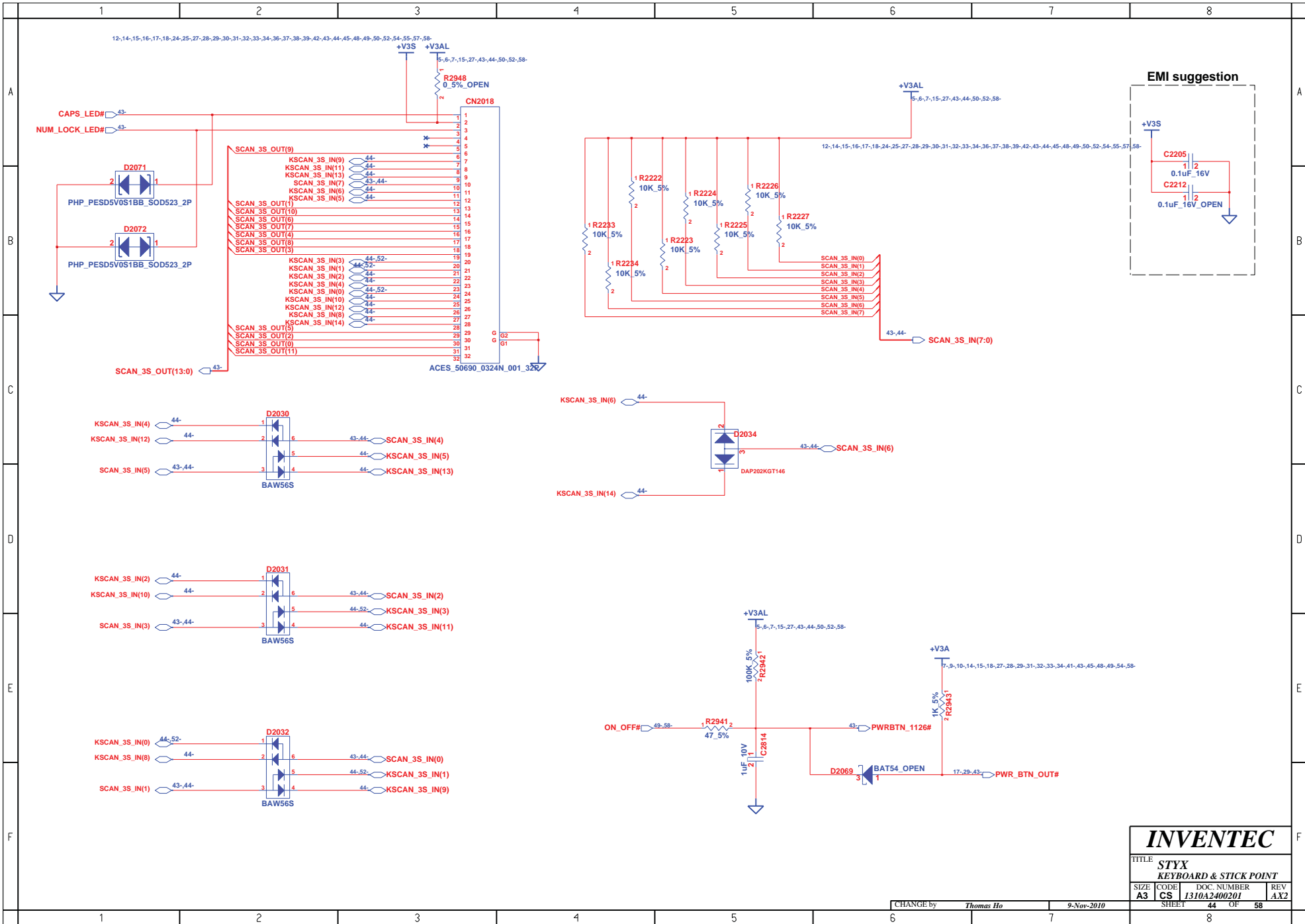
SPI	
QM57	8M
HM57	4M

### SPI BIOS

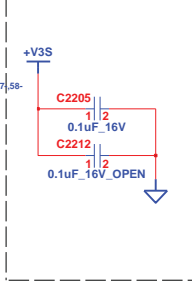


TITLE			
STYX KBC & SPI			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	J310A2400201	AX2
SHEET		43	OF 58

CHANGE by	Thomas Ho	9-Nov-2010
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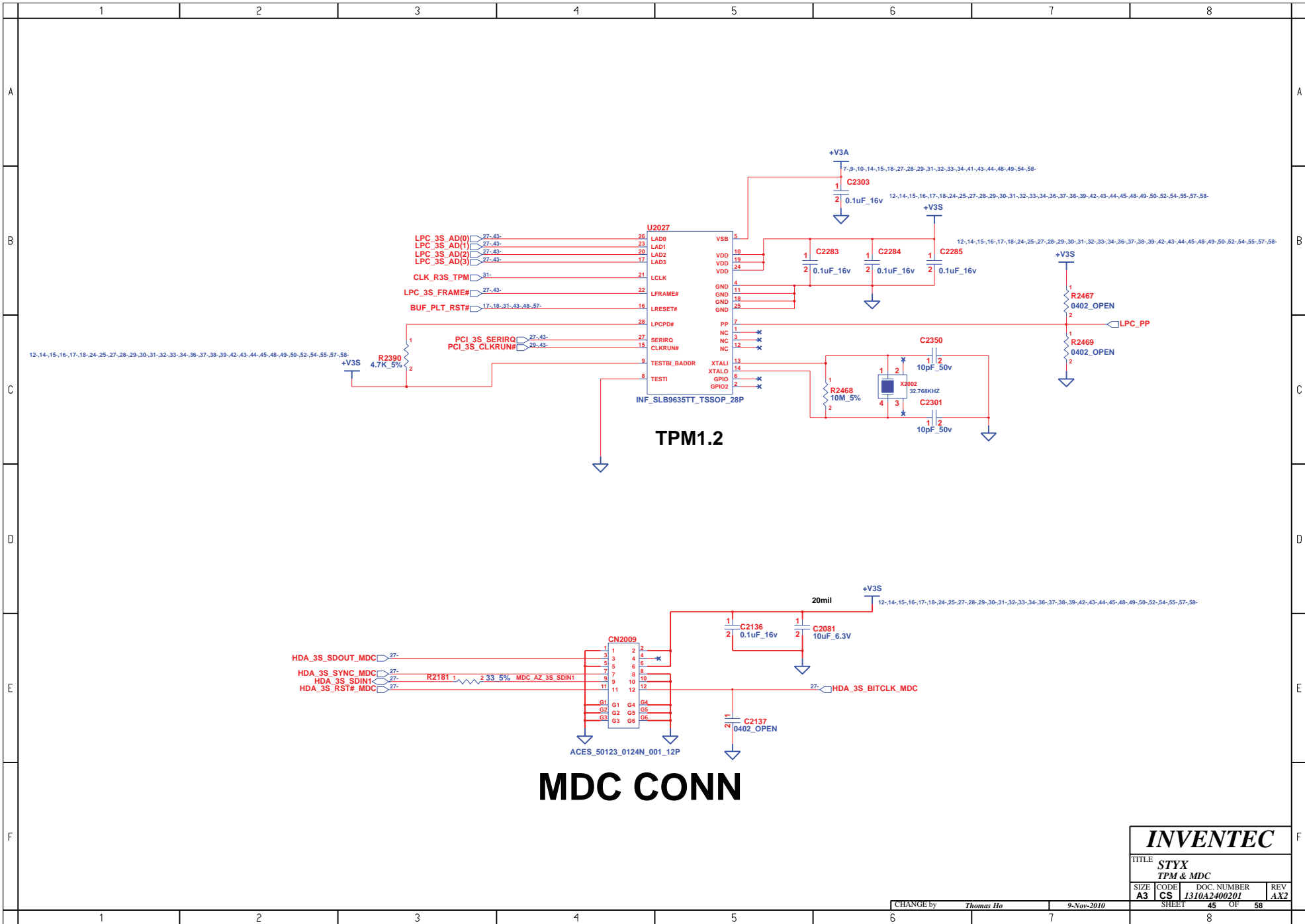
**EMI suggestion**



**INVENTEC**

TITLE			
STYX KEYBOARD & STICK POINT			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		44	OF 58

CHANGE by Thomas Ho 9-Nov-2010



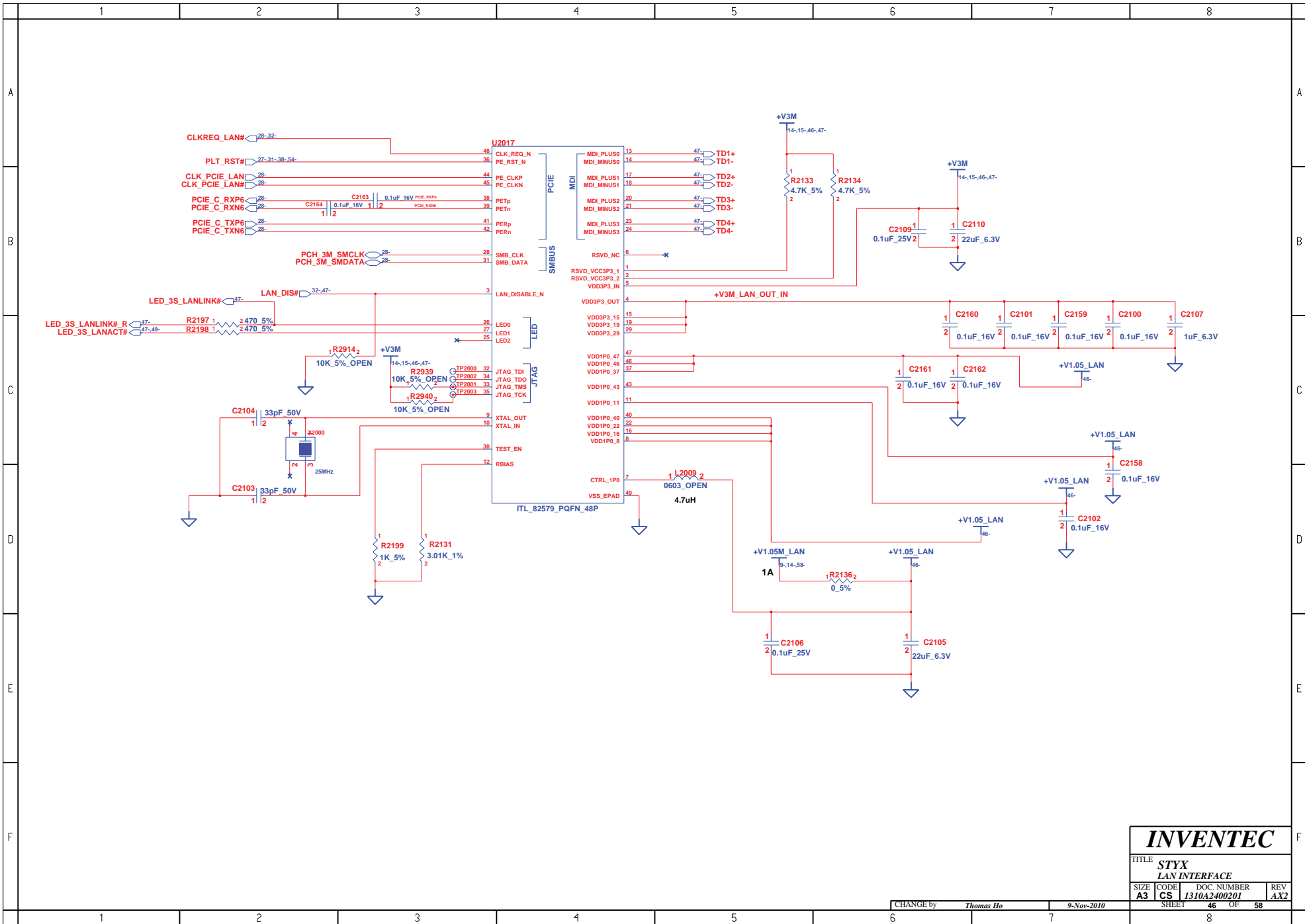
**TPM1.2**

**MDC CONN**

**INVENTEC**

TITLE			
STYX			
TPM & MDC			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		45	OF 58

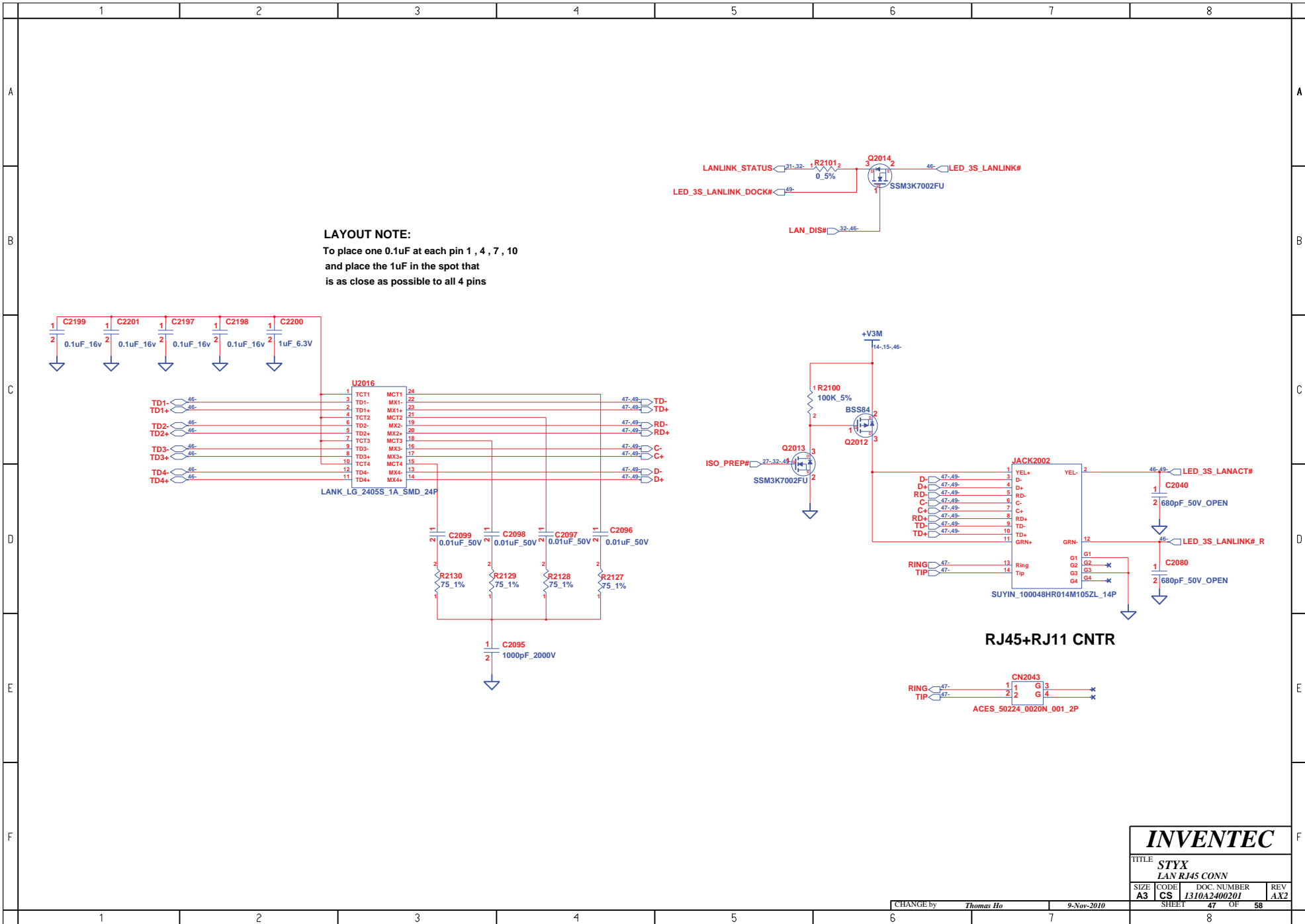
CHANGE by *Thomas Ho* 9-Nov-2010

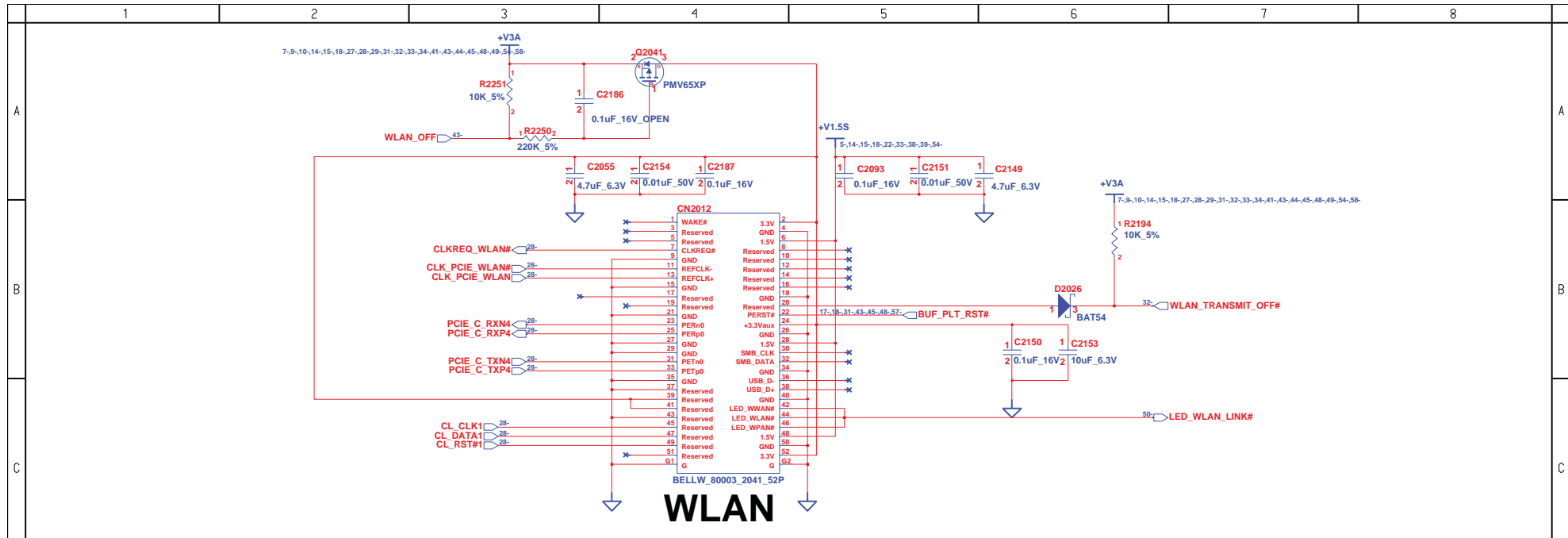


# INVENTEC

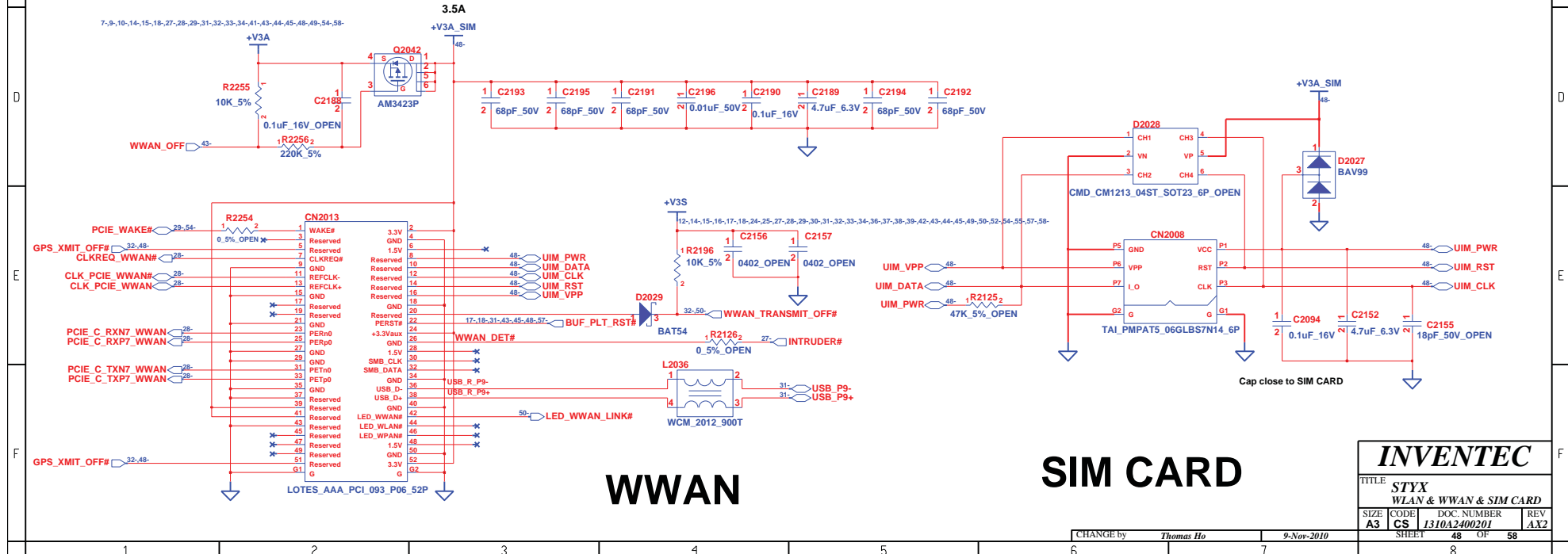
TITLE			
STYX LAN INTERFACE			
SIZE	CODE	DOC. NUMBER	REV.
A3	CS	J310A2400201	AX2
SHEET		46	OF 58

CHANGE by *Thomas Ho* 9-Nov-2010





# WLAN



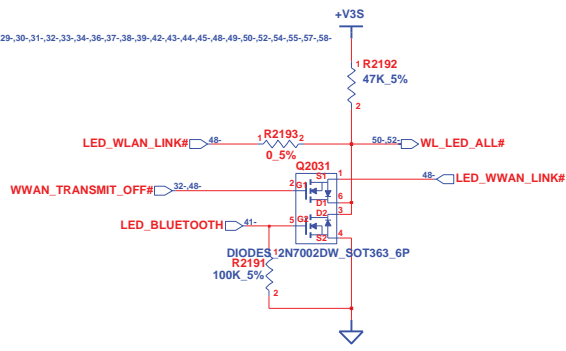
# WWAN

# SIM CARD

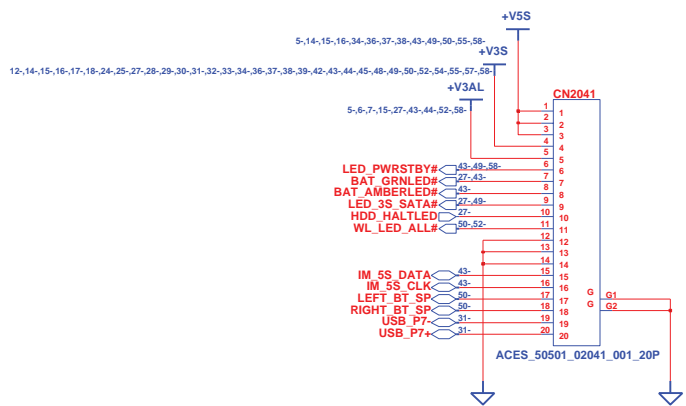
<b>INVENTEC</b>			
TITLE STYX WLAN & WWAN & SIM CARD			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 48		OF 58	



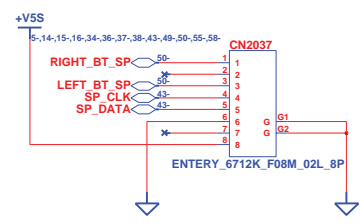




WLAN\_WWAN\_Bluetooth\_LED



SMART CARD

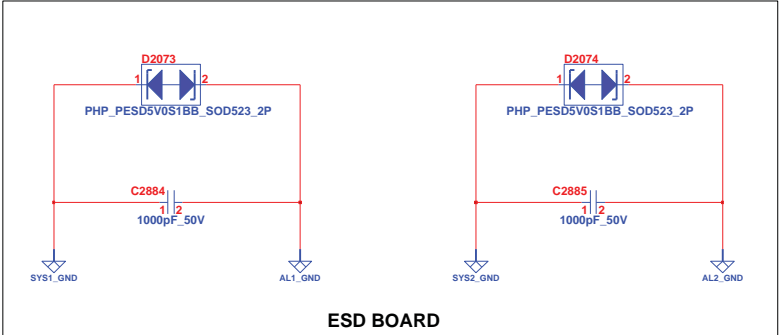
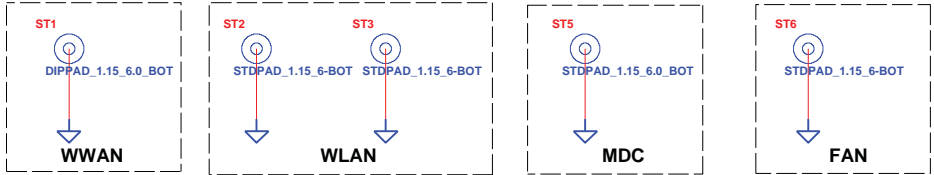
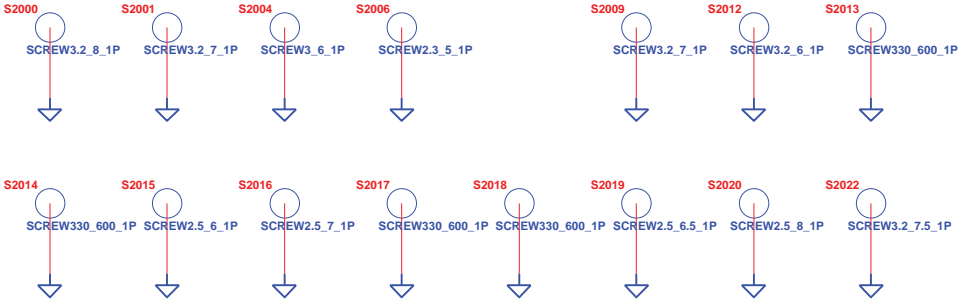
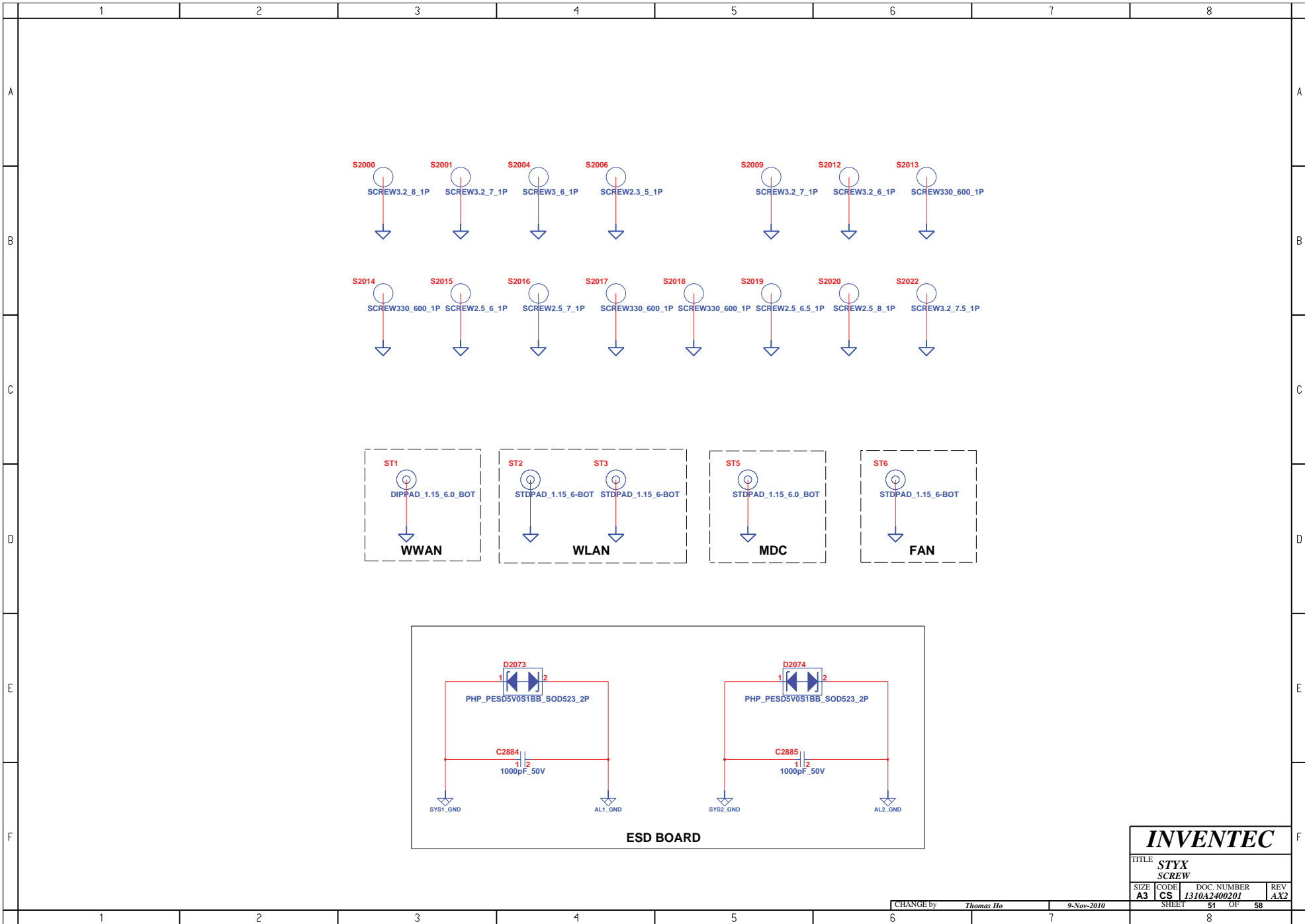


STICK POINT

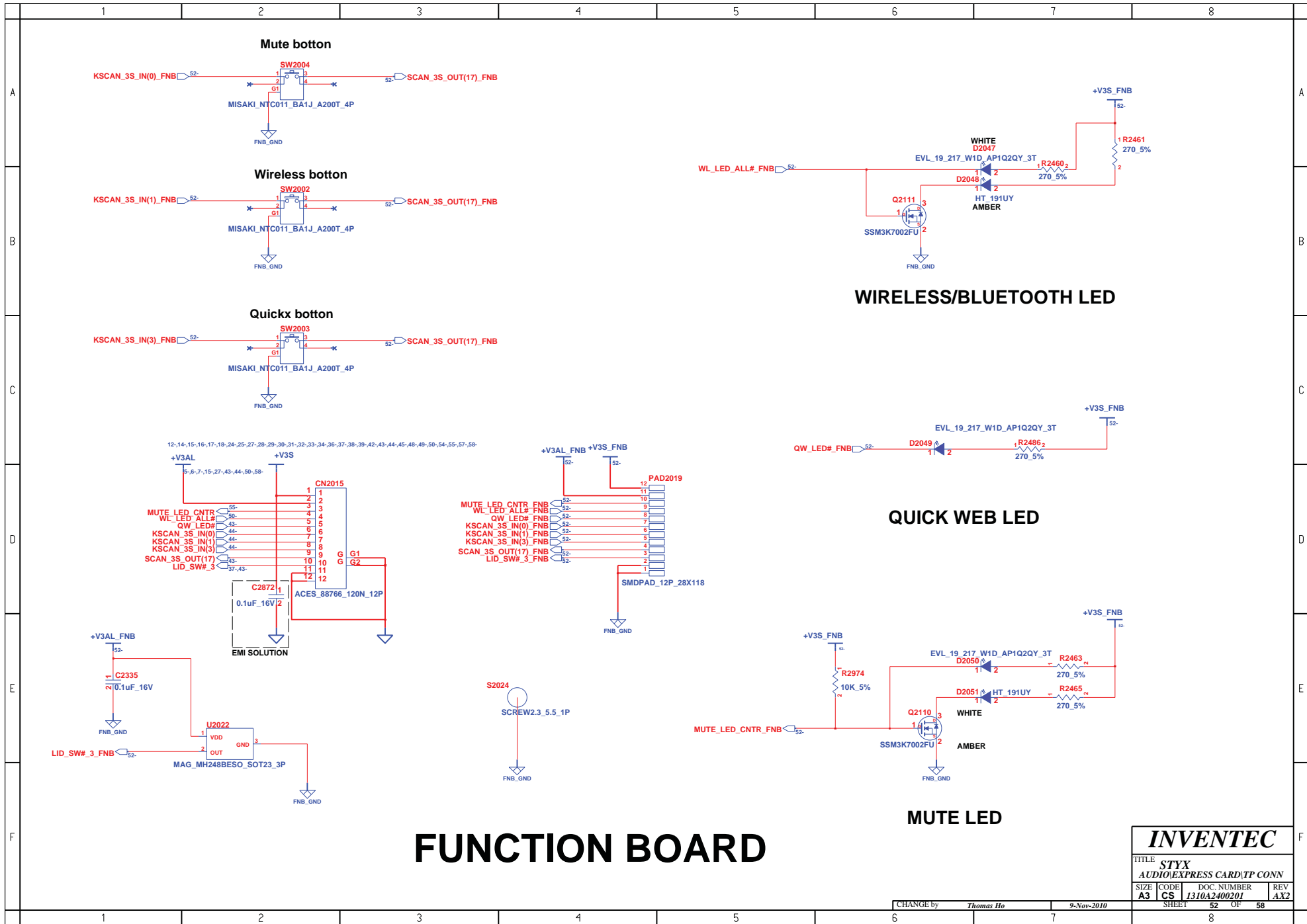
**INVENTEC**

TITLE			
STYX			
power/wlan/wlan/Bt LED			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
CHANGE by		SHEET	
Thomas Ho		50 OF 58	

9-Nov-2010

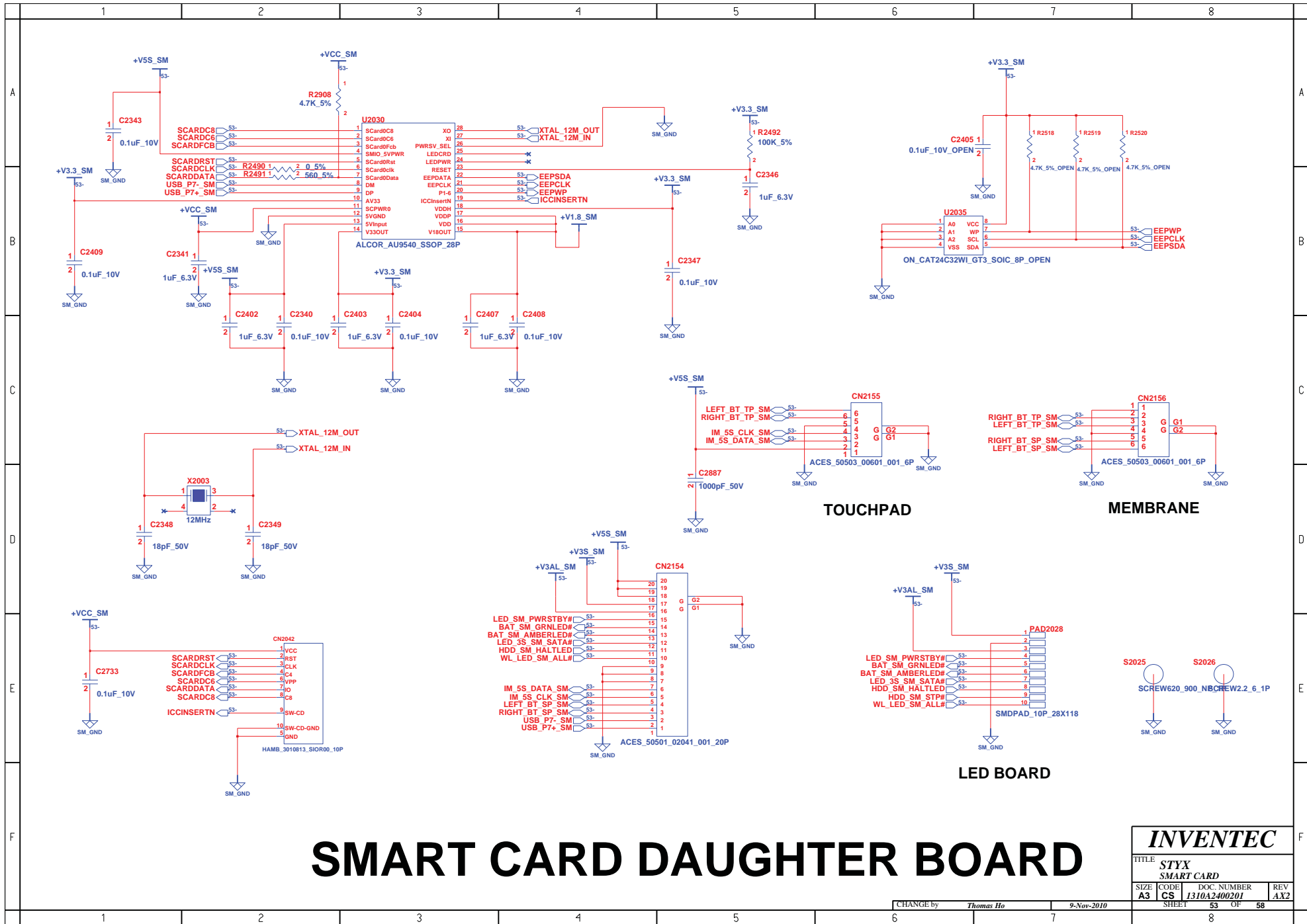


<b>INVENTEC</b>			
TITLE STYX SCREW			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 51		OF 58	



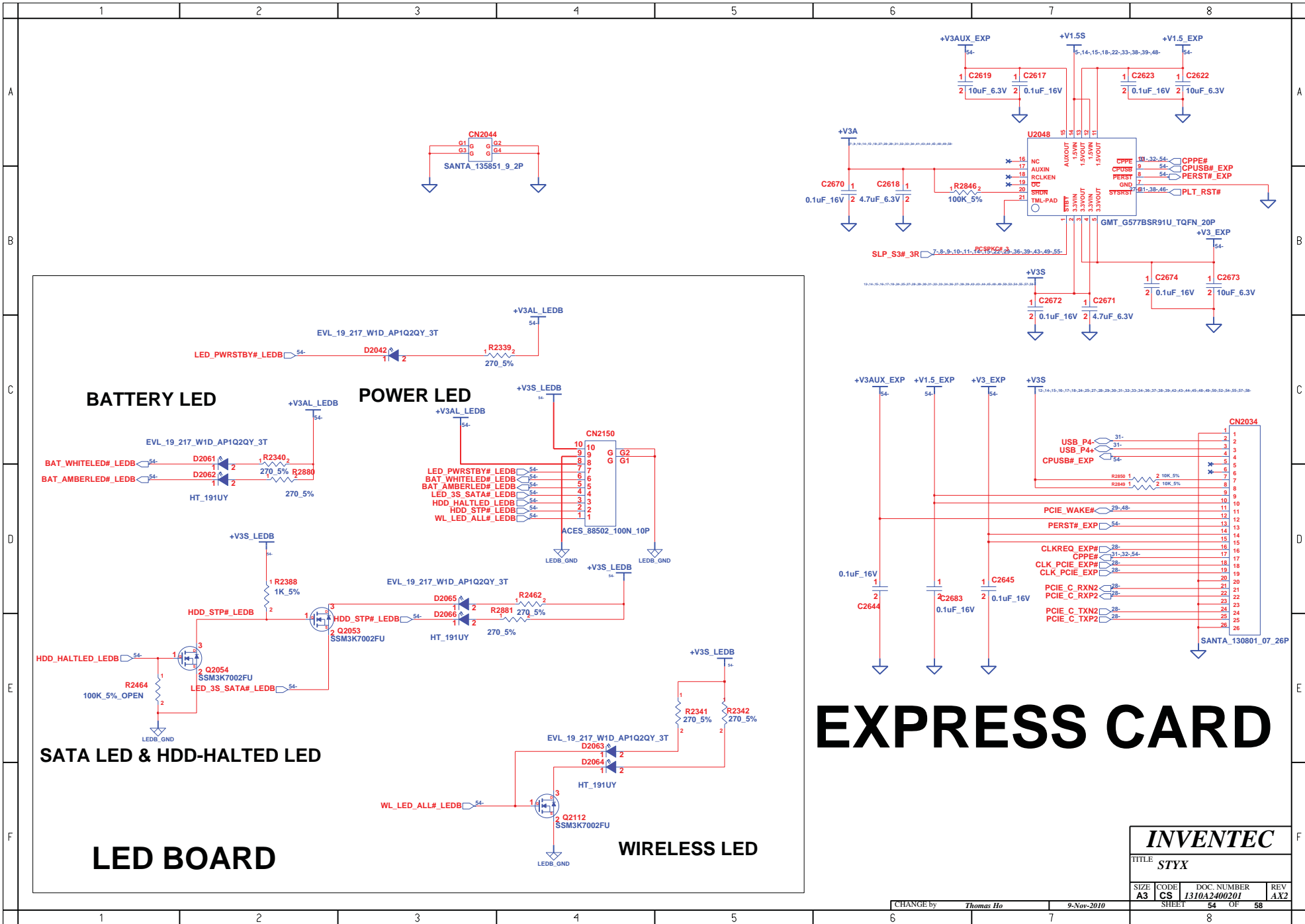
# FUNCTION BOARD

<b>INVENTEC</b>			
TITLE <b>STYX</b>			
AUDIO EXPRESS CARD (TP CONN)			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 52		OF 58	



# SMART CARD DAUGHTER BOARD

<b>INVENTEC</b>			
TITLE STYX SMART CARD			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 53		OF 58	



# EXPRESS CARD

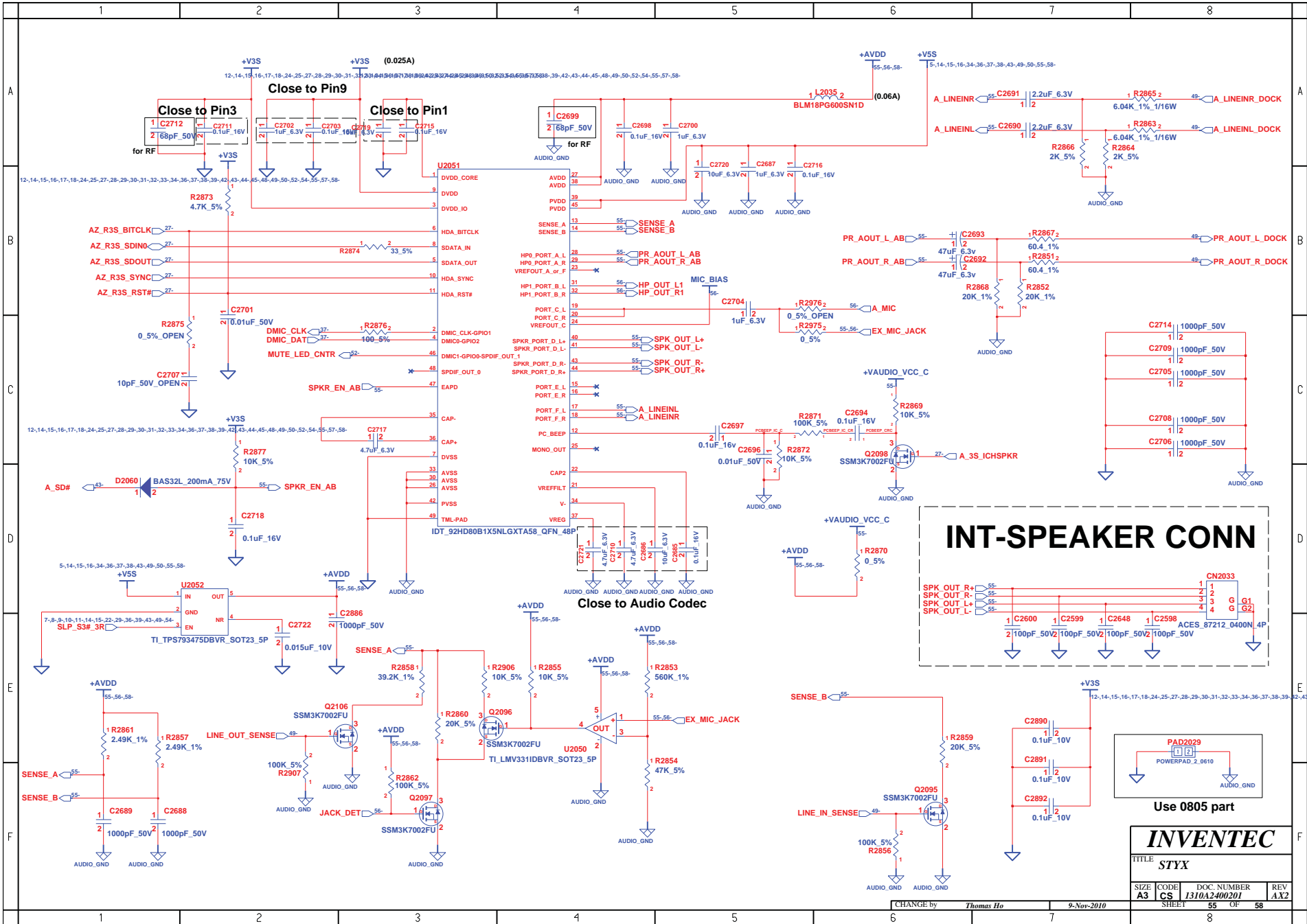
**INVENTEC**

TITLE **STYX**

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by *Thomas Ho* 9-Nov-2010

SHEET 54 OF 58



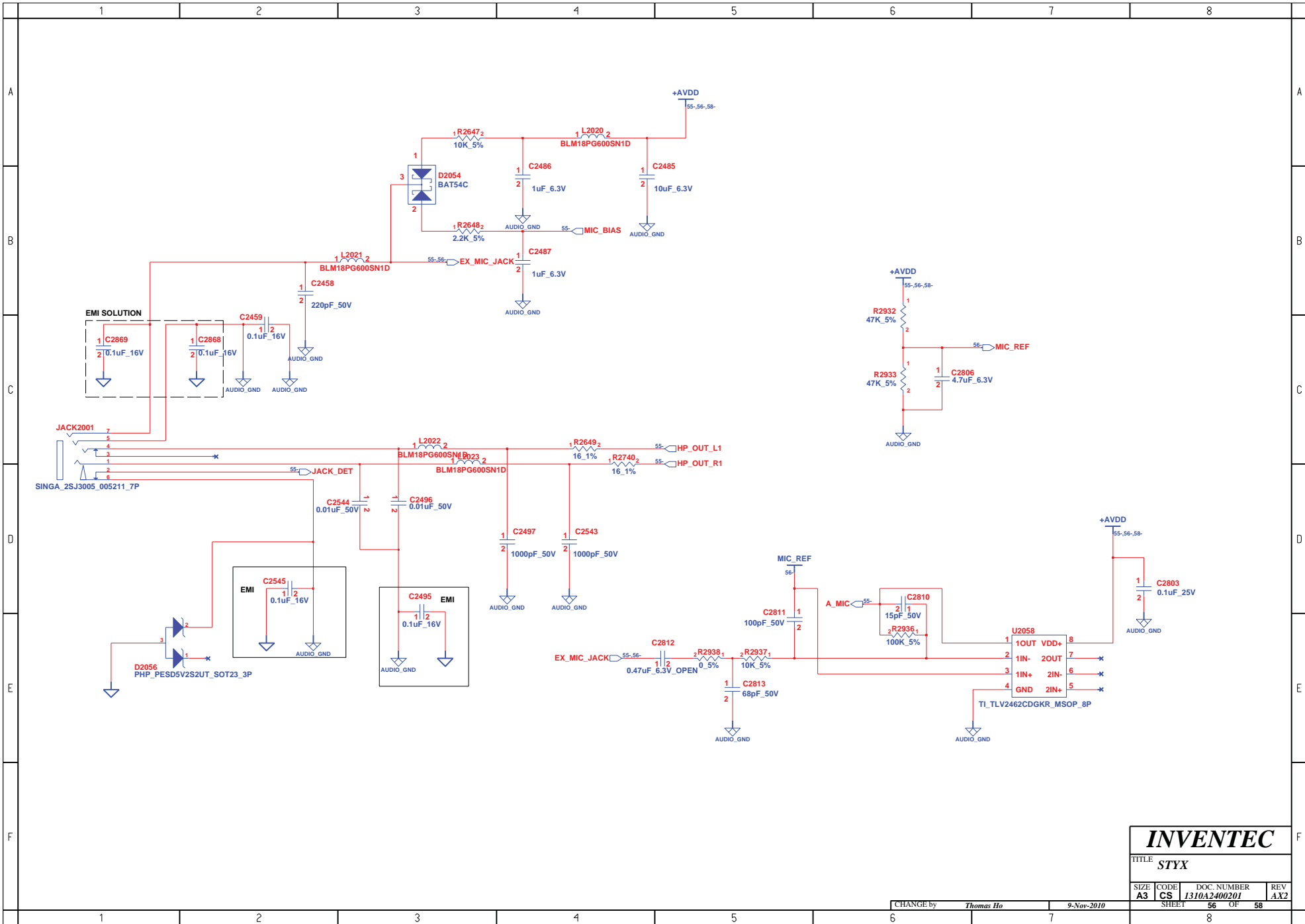
**INVENTEC**

TITLE: STYX

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2

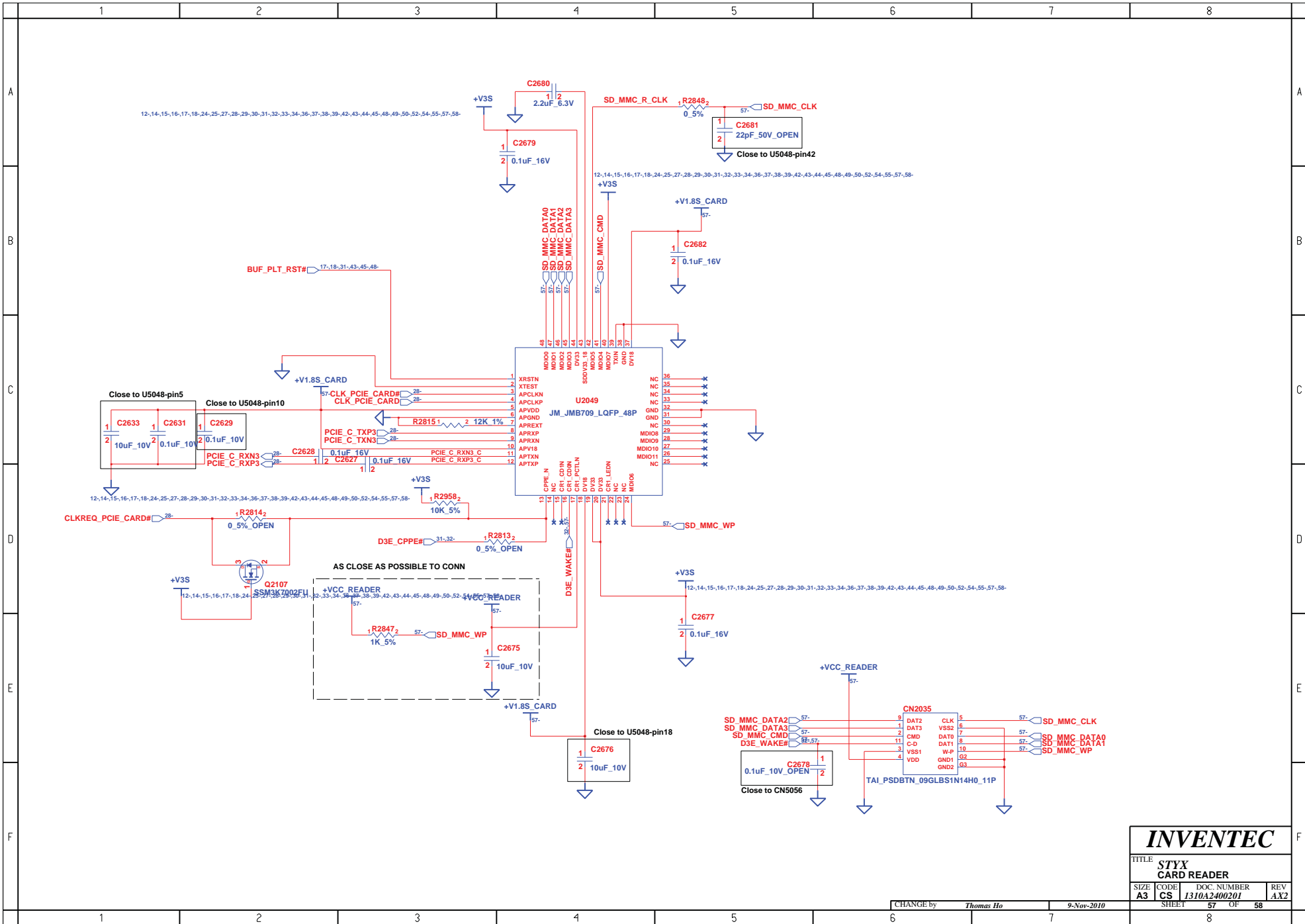
CHANGE by Thomas Ho 9-Nov-2010

SHEET	58	OF	58
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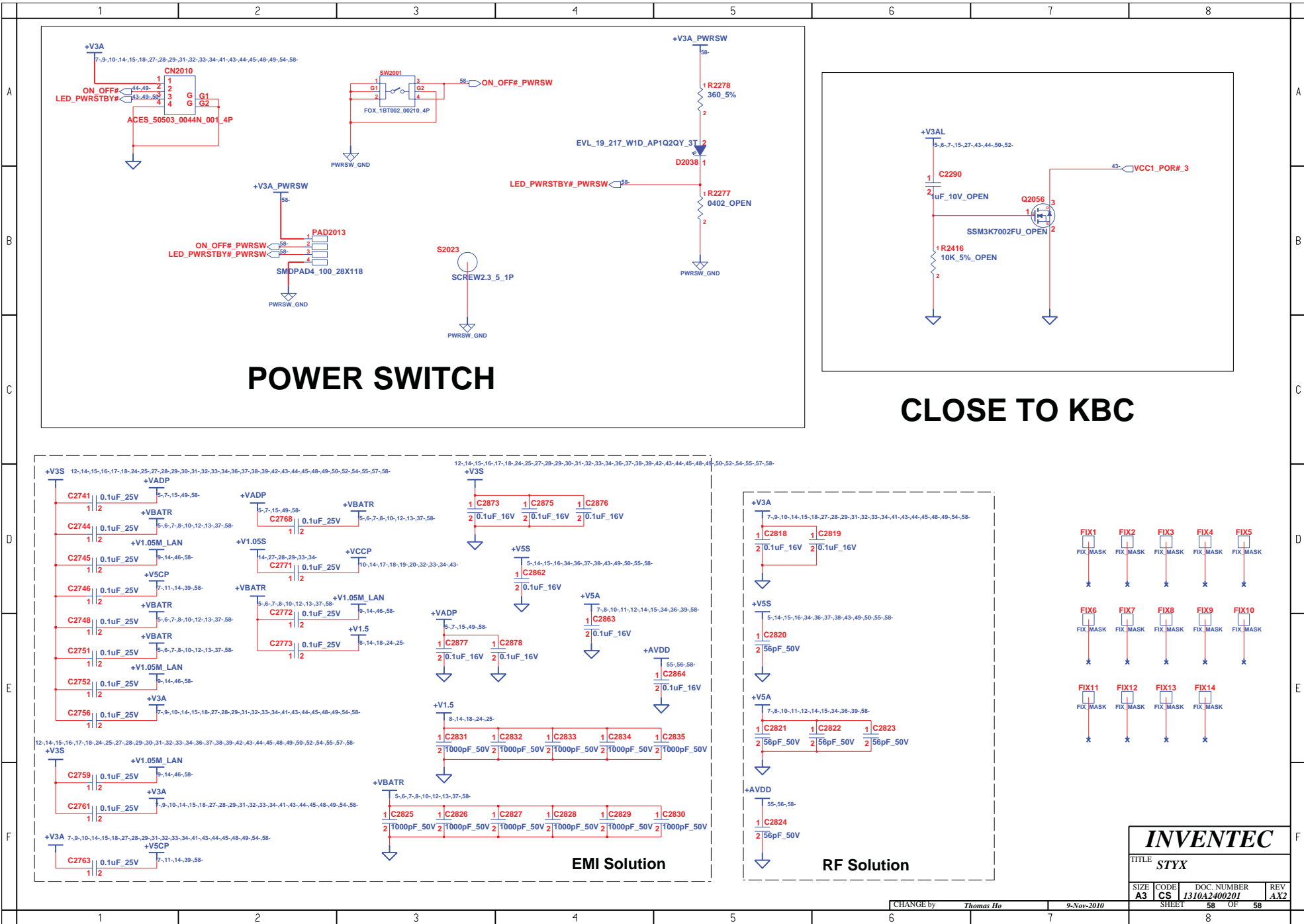


<b>INVENTEC</b>			
TITLE STYX			
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 56		OF 58	





<b>INVENTEC</b>			
TITLE <b>STYX CARD READER</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A2400201</b>	REV <b>AX2</b>
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 57		OF 58	

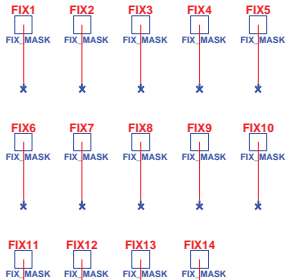


# POWER SWITCH

# CLOSE TO KBC

# EMI Solution

# RF Solution



<b>INVENTEC</b>				
TITLE STYX				
SIZE A3	CODE CS	DOC NUMBER J310A2400201	REV AX2	
SHEET 58		OF 58		

CHANGE by Thomas Ho 9-Nov-2010