

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

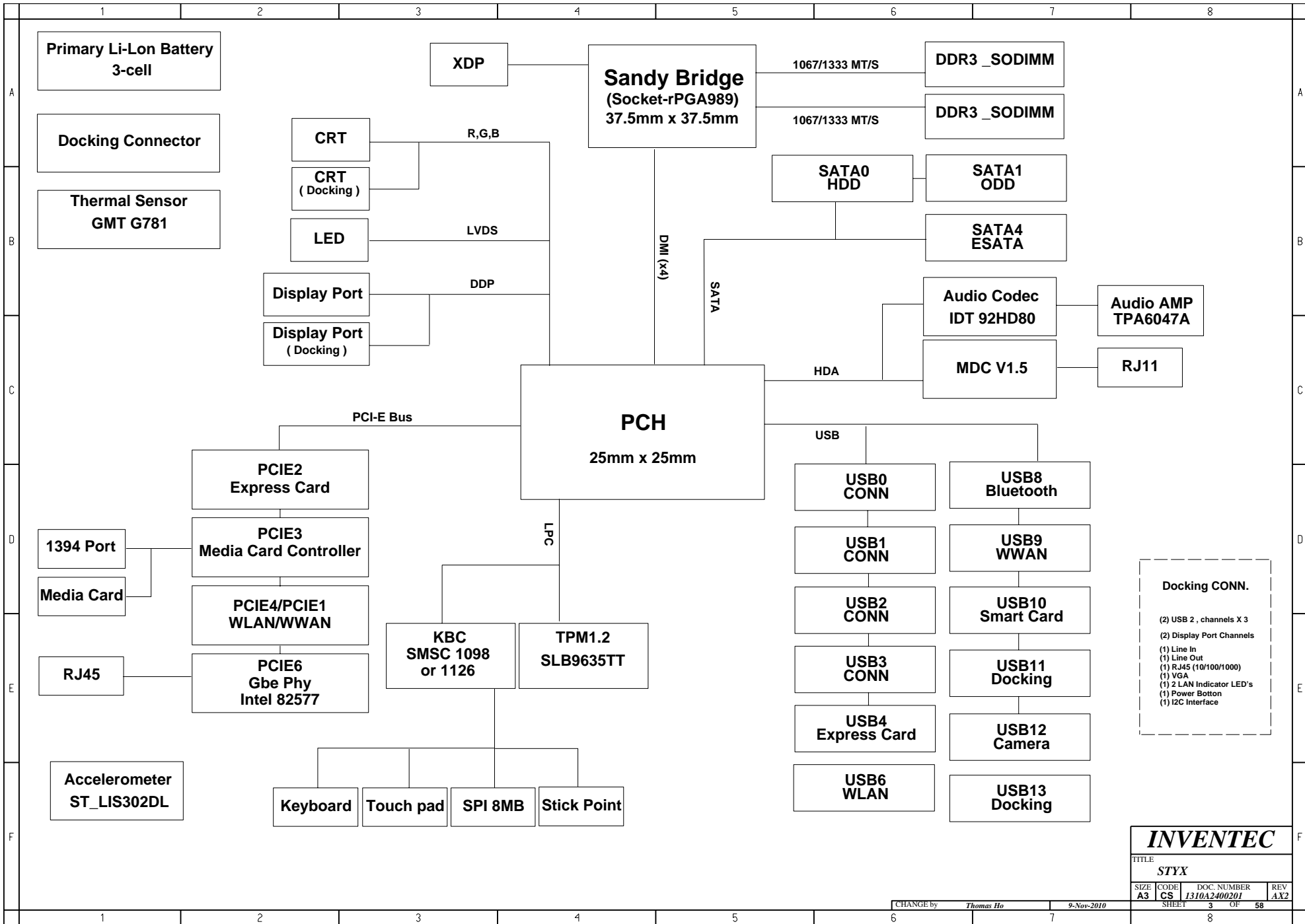
DRAWER	EE	DATE	POWER	DATE	INVENTEC			
DESIGN								
CHECK								
RESPONSIBLE								
TITLE					STYX			
SIZE =	3	VER :						
FILE NAME :	XXXX-XXXXXX-XX				SIZE	CODE	DOC. NUMBER	REV
P/N	XXXXXXXXXXXX				A3	CS	1310A2400201	AX2
					SHEET	1	OF	58

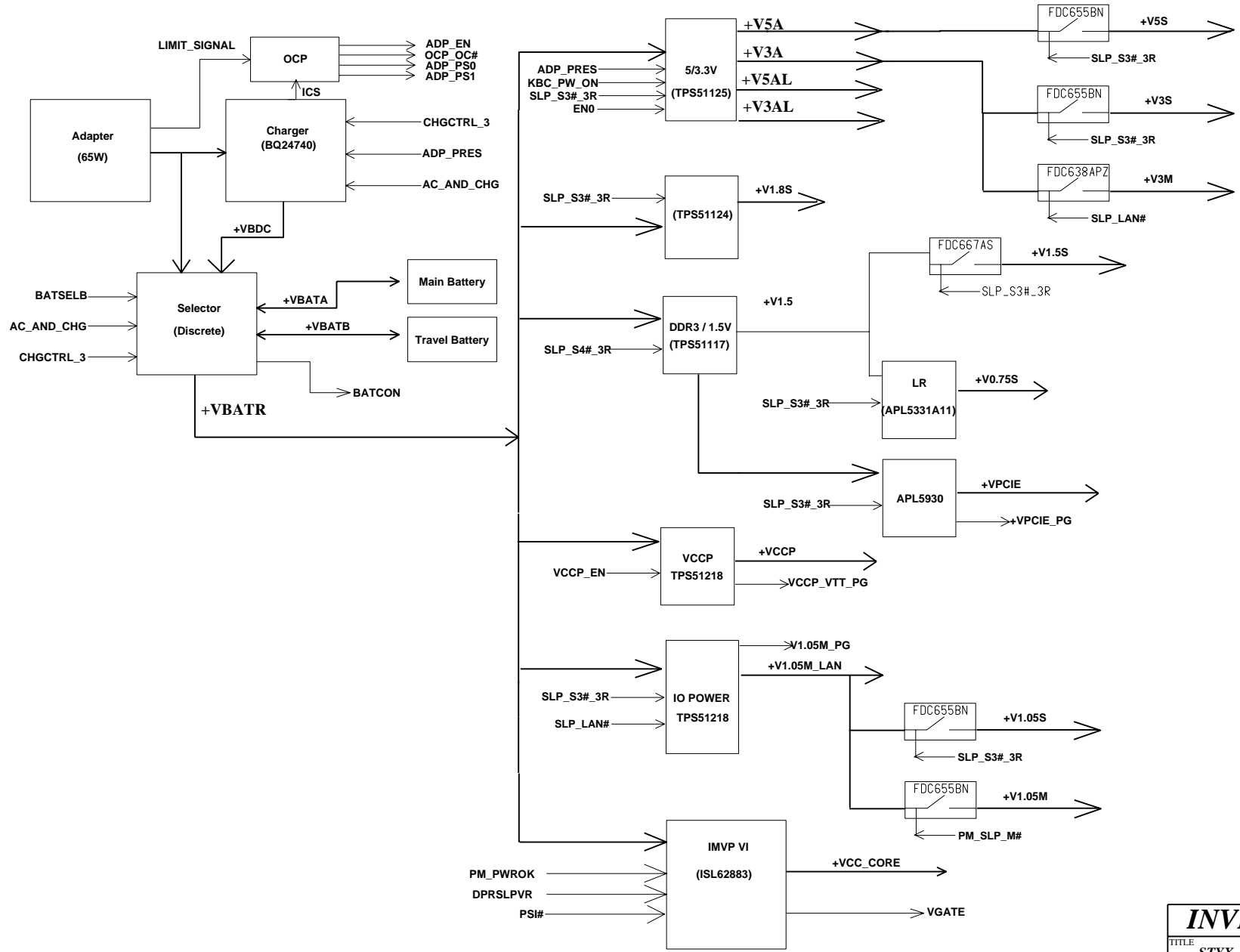
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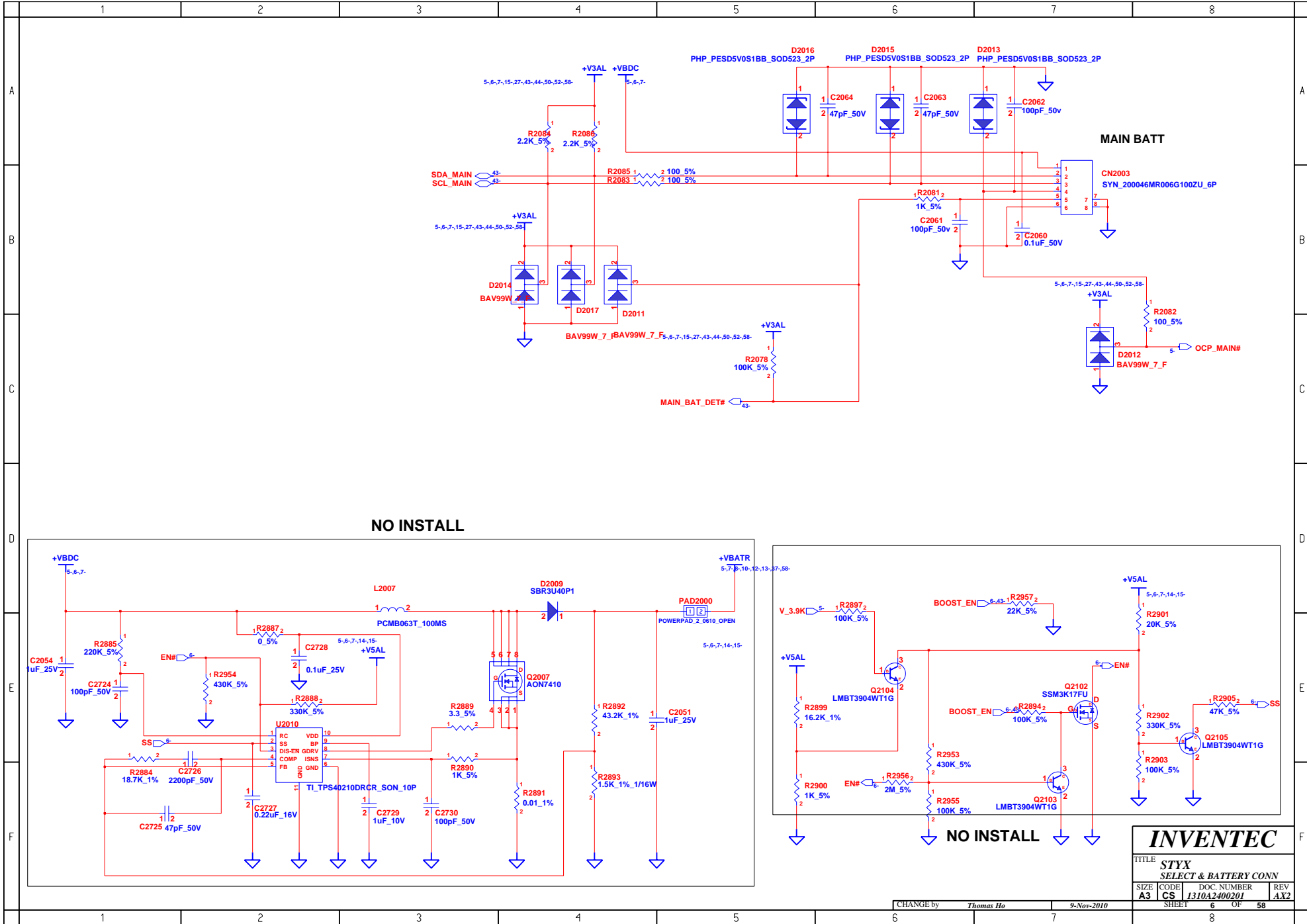
<p>5- DC& BATTERY CHARGER</p> <p>6- SELECT & BATTERY CONN</p> <p>7- SYSTEM POWER(3V/5V)</p> <p>8- SYSTEM POWER(+V1.5/+V1.05M_LAN)</p> <p>9- POWER(+V1.8S)</p> <p>10- SYSTEM POWER(+VCCP)</p> <p>11- CPU POWER(+V0.85S)</p> <p>12- CPU POWER(+VCC_CORE)</p> <p>13- CPU POWER(+VGFX)</p> <p>14- POWER(SLEEP)</p> <p>15- POWER(SEQUENCE)</p> <p>16- FAN & THERMAL</p> <p>17- XDP CONN</p> <p>18- SANDY BRIDGE1</p> <p>19- SANDY BRIDGE2</p> <p>20- SANDY BRIDGE4</p> <p>21- SANDY BRIDGE3</p> <p>22- SANDY BRIDGE5</p> <p>23- SANDY BRIDGE6</p> <p>24- DDR3-DIMM0</p> <p>25- DDR3-DIMM1</p> <p>26- BLANK</p>	<p>27- PCH1</p> <p>28- PCH2</p> <p>29- PCH3</p> <p>30- PCH4</p> <p>31- PCH5</p> <p>32- PCH6</p> <p>33- PCH7-POWER</p> <p>34- PCH8-POWER</p> <p>35- PCH9</p> <p>36- CRT / DISPLAY PORT CNTR</p> <p>37- EDP & WEBCAM</p> <p>38- SATA & ODD CNTR</p> <p>39- USB & ESATA COMBO</p> <p>40- BLANK</p> <p>41- BLUE TOOTH & FINGER PRINTER CNTR</p> <p>42- ACCELEMETOR</p> <p>43- KBC / SPI</p> <p>44- Keyboard/ Point Stick/Touch pad</p> <p>46- LAN INTERFACE</p> <p>47- LAN RJ45 CNTR</p> <p>45- TPM/MDC</p> <p>48- WWAN/WLAN/SIM</p> <p>49- Docking</p> <p>50- WLAN/ WWAN / BT LED</p> <p>51- SCREW</p> <p>52-Quick button</p> <p>53-Smart card</p> <p>54-EXPRESS CARD</p> <p>55- CODEC</p> <p>56- MIC & Hearphone JACK</p> <p>57- CARD READER</p> <p>58- HALL SENSOR</p>
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INVENTEC			
TITLE STYX			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		15-Nov-2010	
SHEET 2		OF 58	





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



NO INSTALL

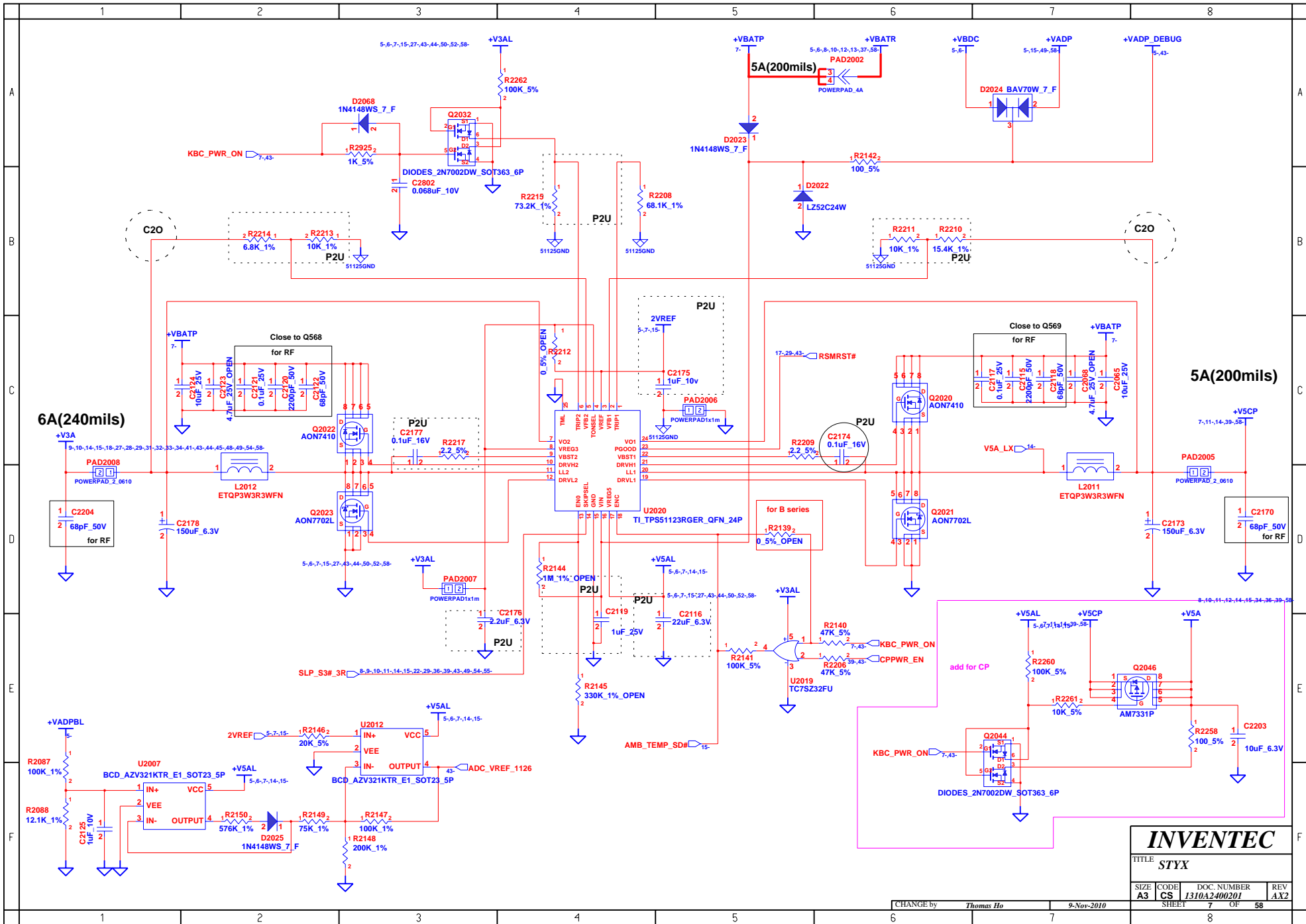
NO INSTALL

INVENTEC

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

CHANGE by Thomas Ho 9-Nov-2010

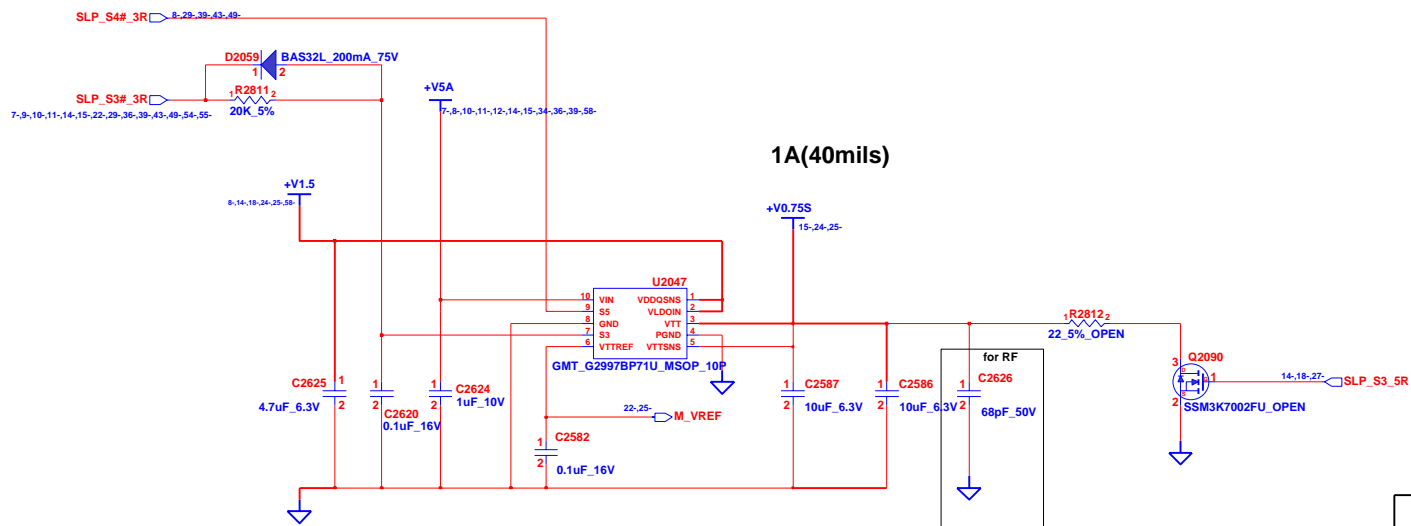
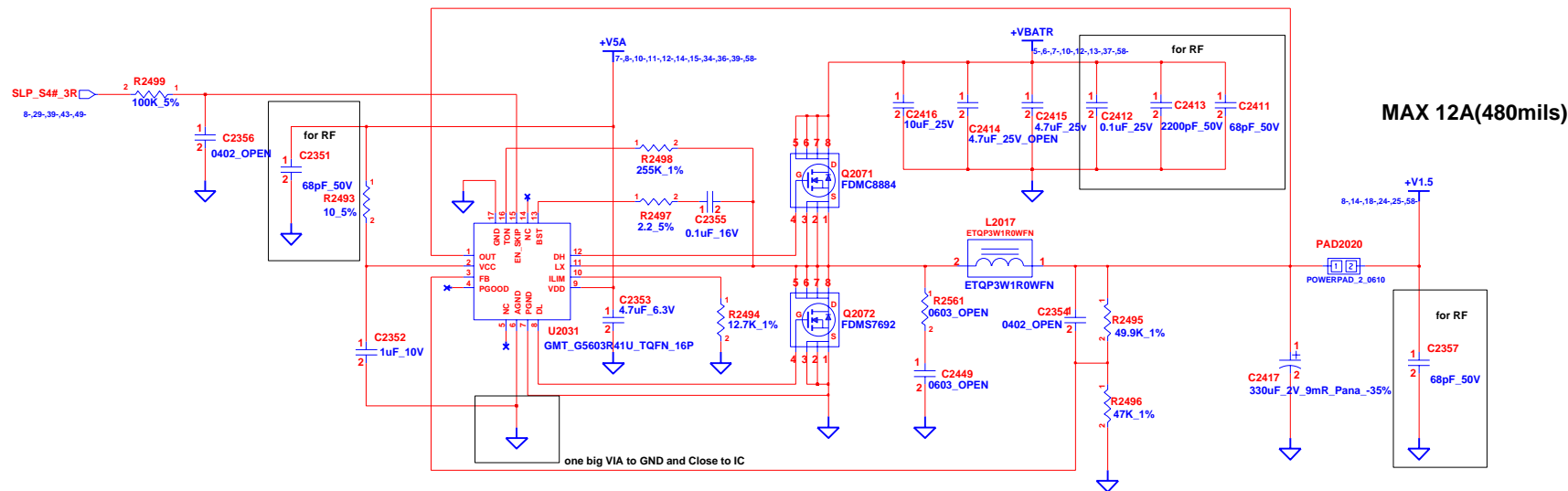
SHEET 6 OF 58



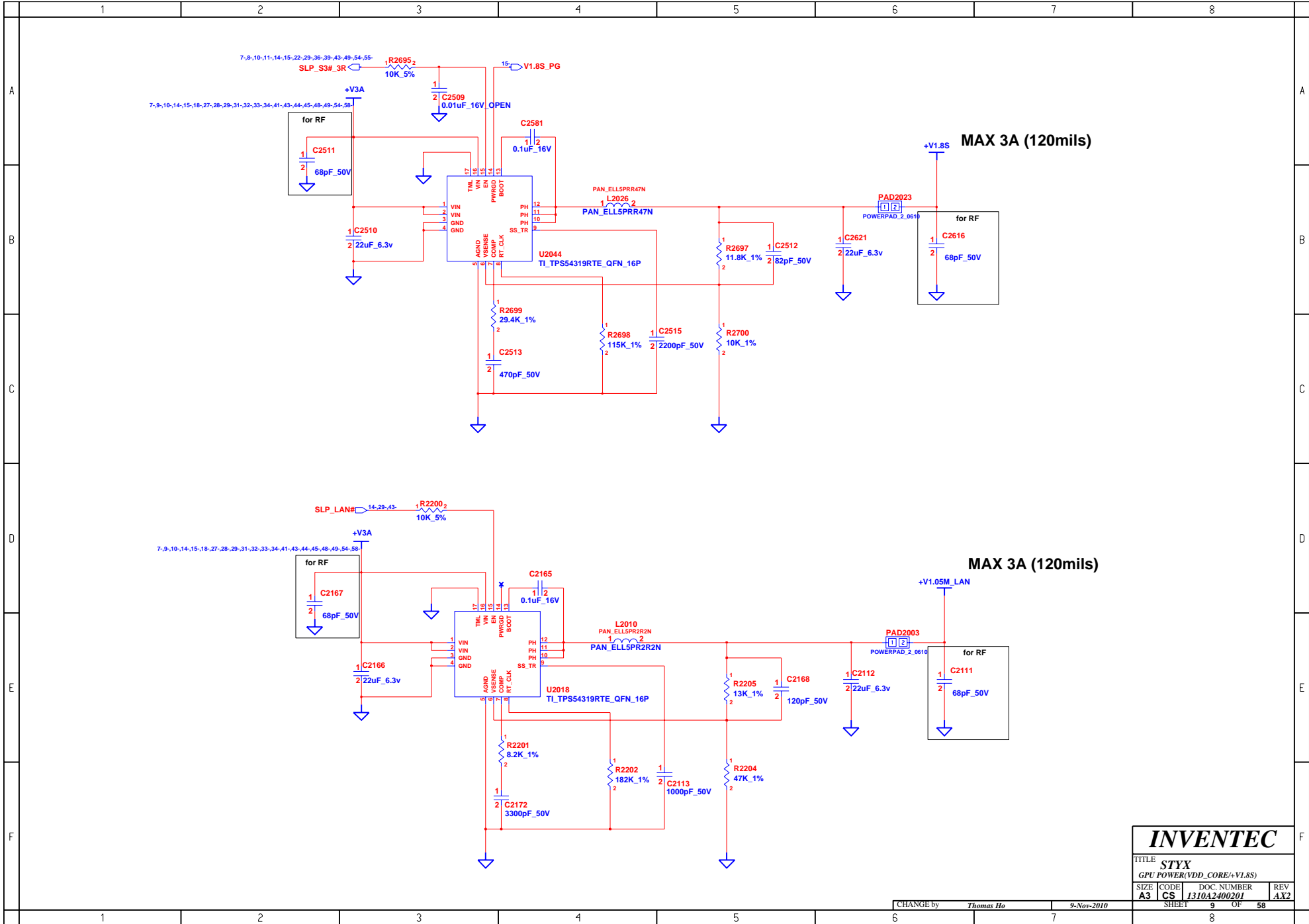
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TITLE **STYX**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2

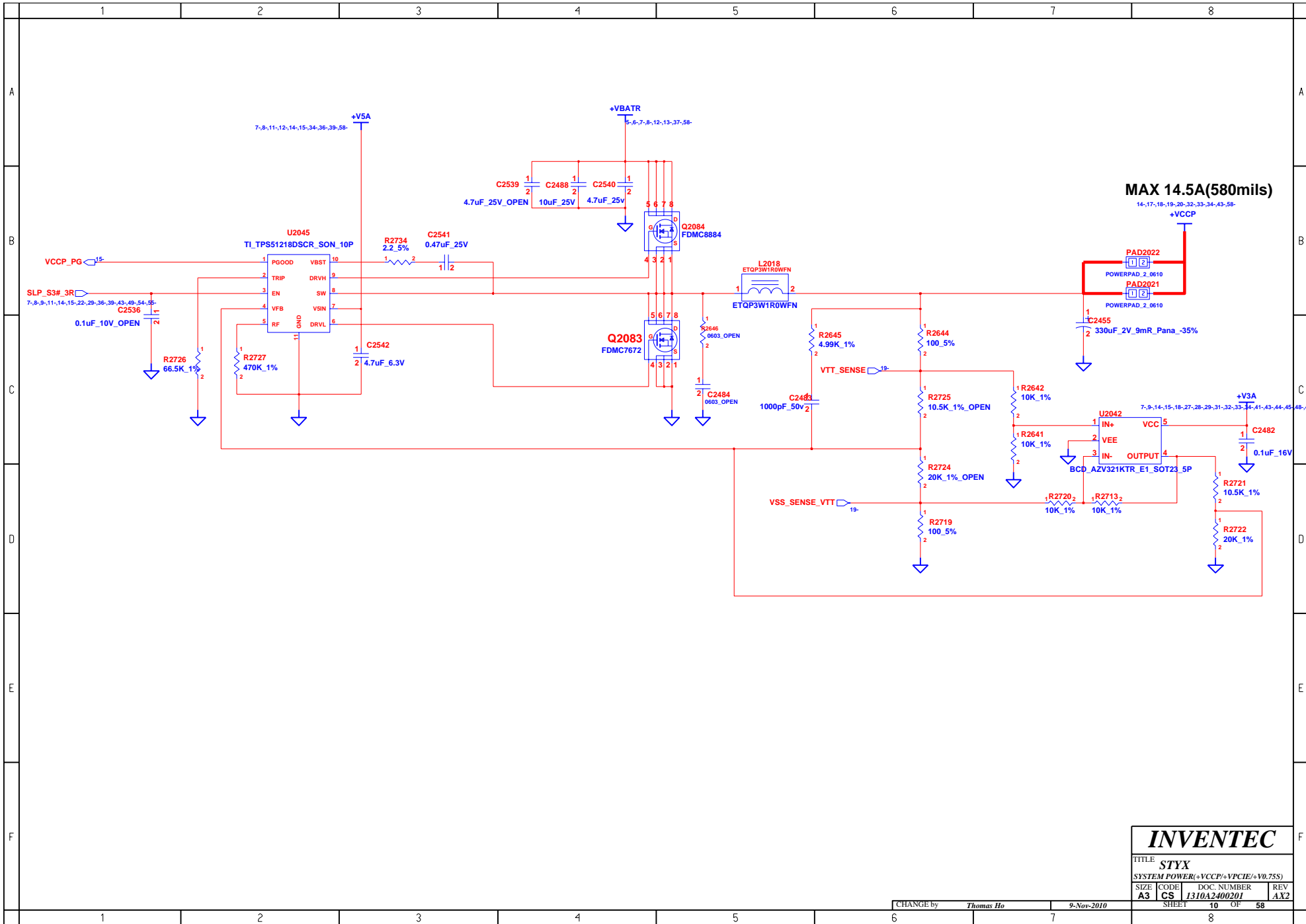


INVENTEC			
TITLE STYX			
SYSTEM POWER(+V1.05M/+V1.5)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 8		OF 58	



INVENTEC			
TITLE STYX			
GPU POWER(VDD_CORE/+V1.8S)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2
CHANGE by		SHEET	
Thomas Ho		9 OF 58	

9-Nov-2010



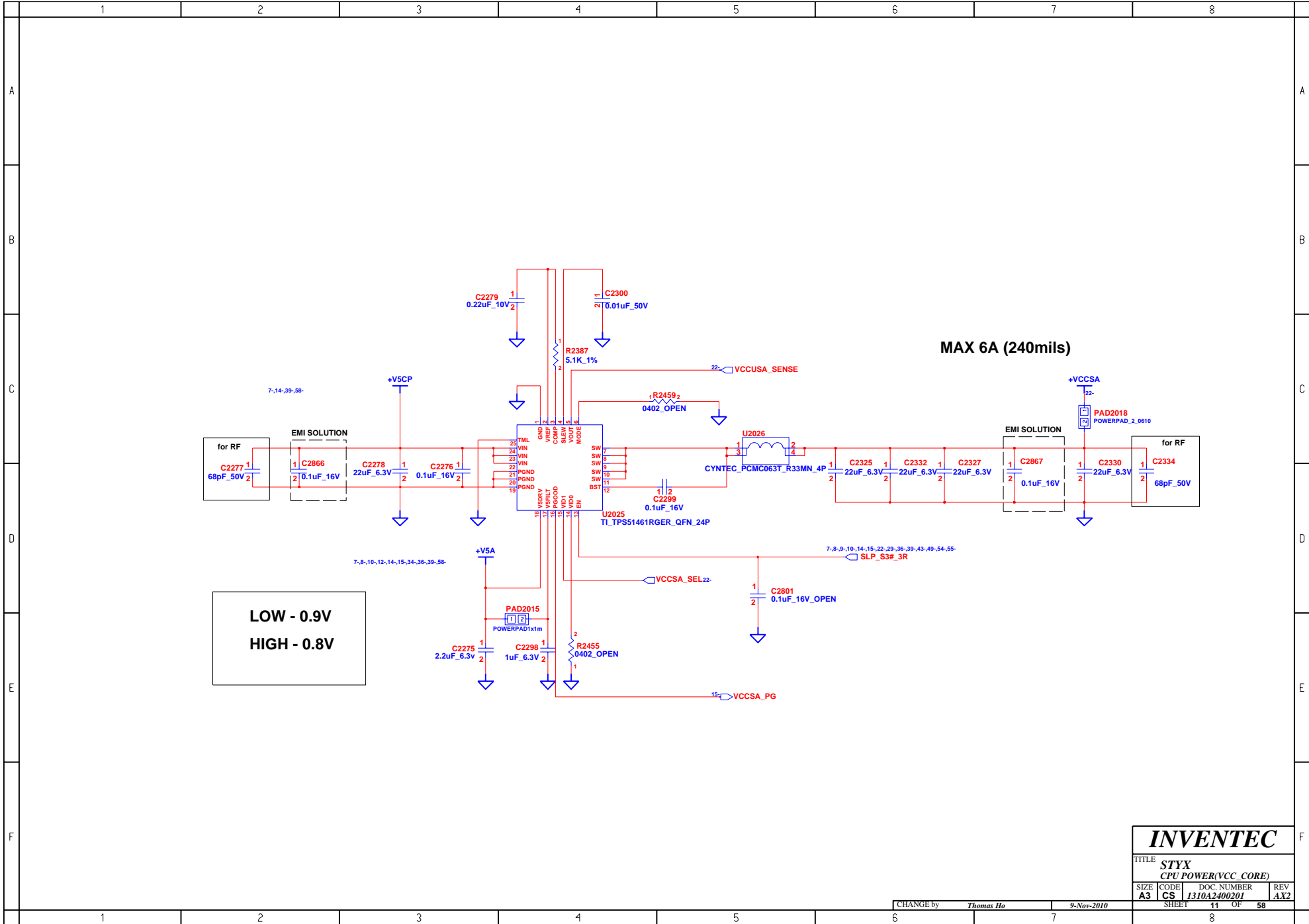
MAX 14.5A(580mils)
14-17-18-19-20-32-33-34-43-58

INVENTEC

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

CHANGE by Thomas Ho 9-Nov-2010

SHEET 10 OF 58



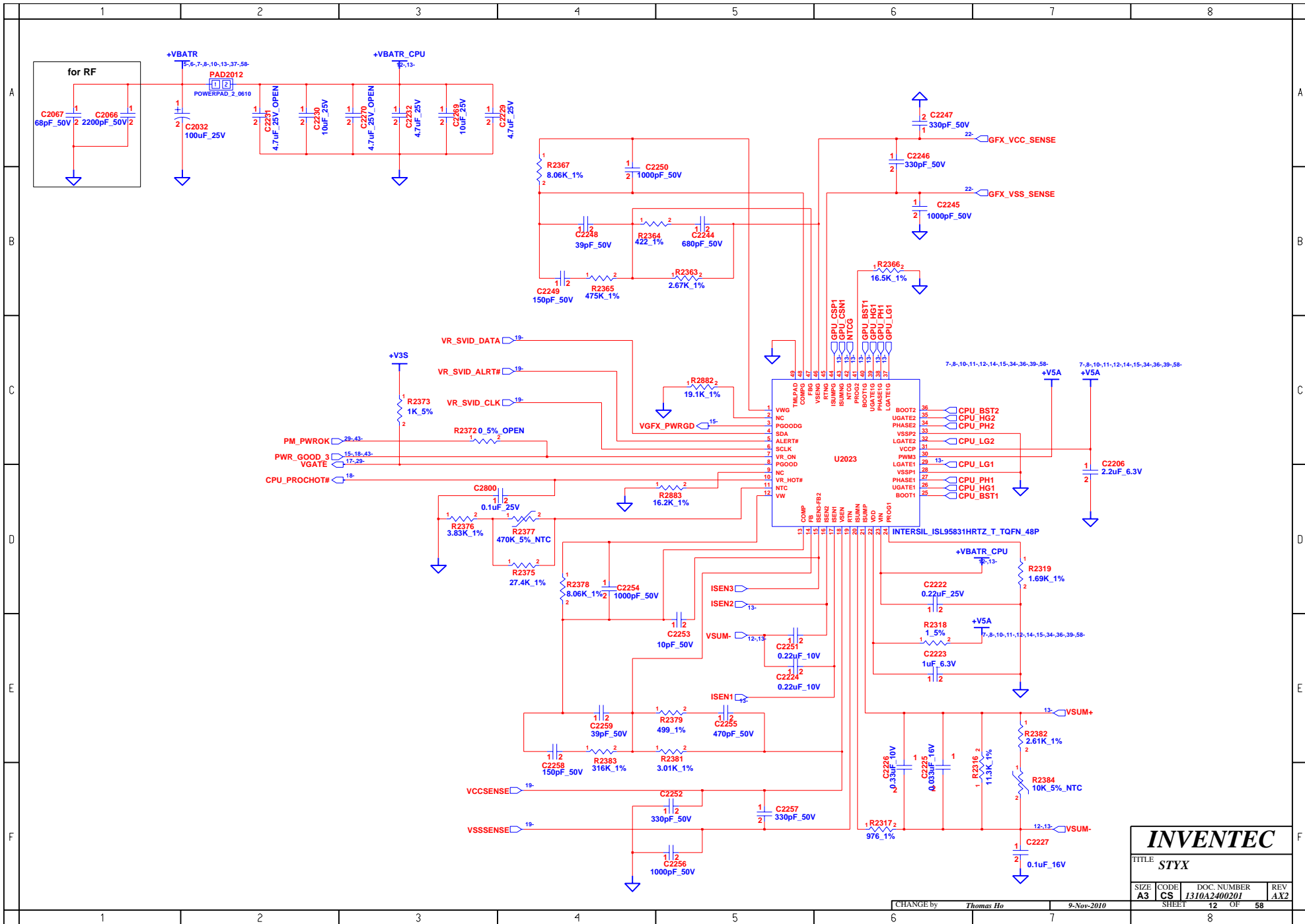
LOW - 0.9V
HIGH - 0.8V

MAX 6A (240mils)

INVENTEC

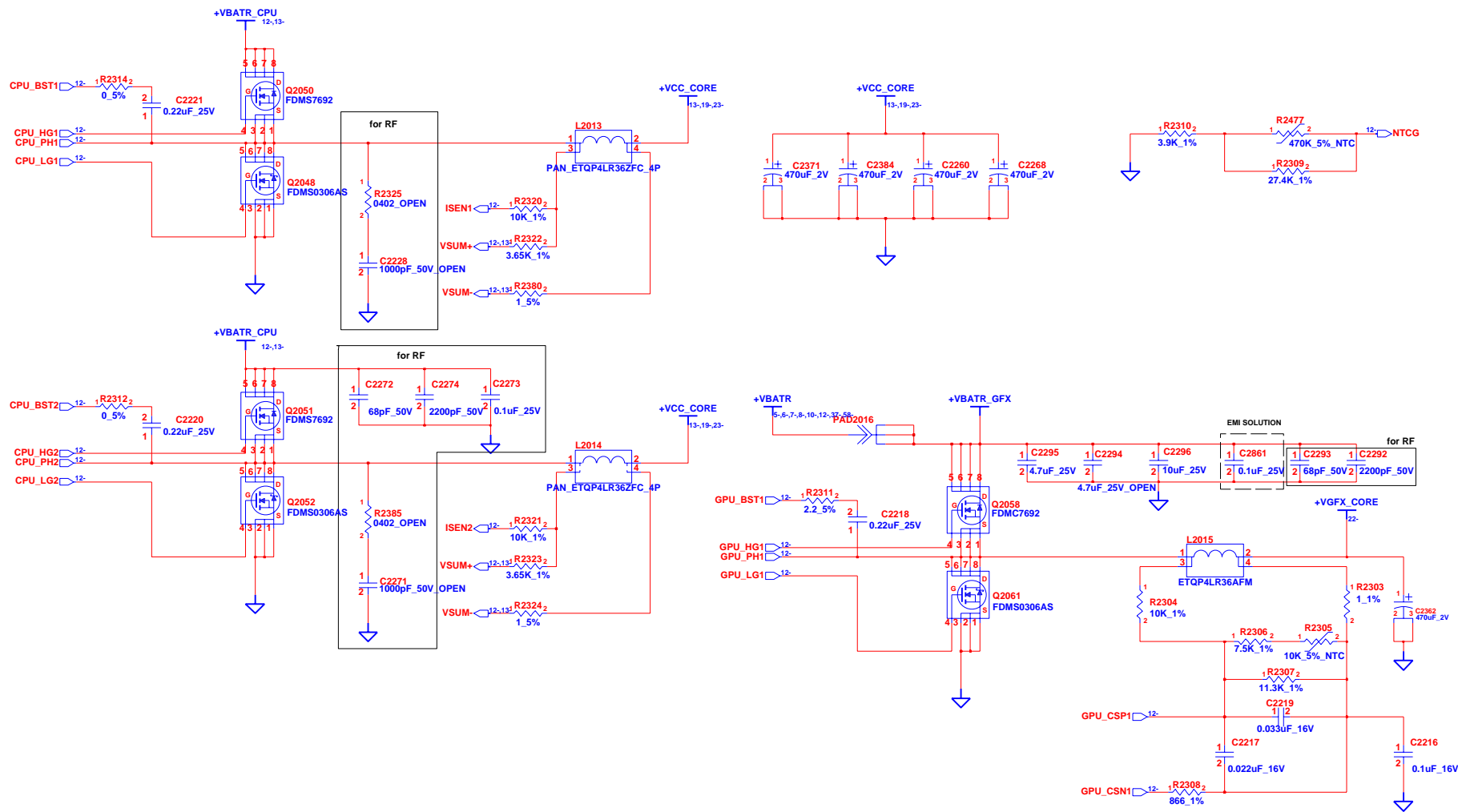
TITLE			
STYX			
CPU POWER(VCC_CORE)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by	Thomas Ho	9-Nov-2010	SHEET	11	OF	58
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INVENTEC			
TITLE STYX			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 12		OF 58	

VCC_CORE (SV 35W-->MAX 53A)



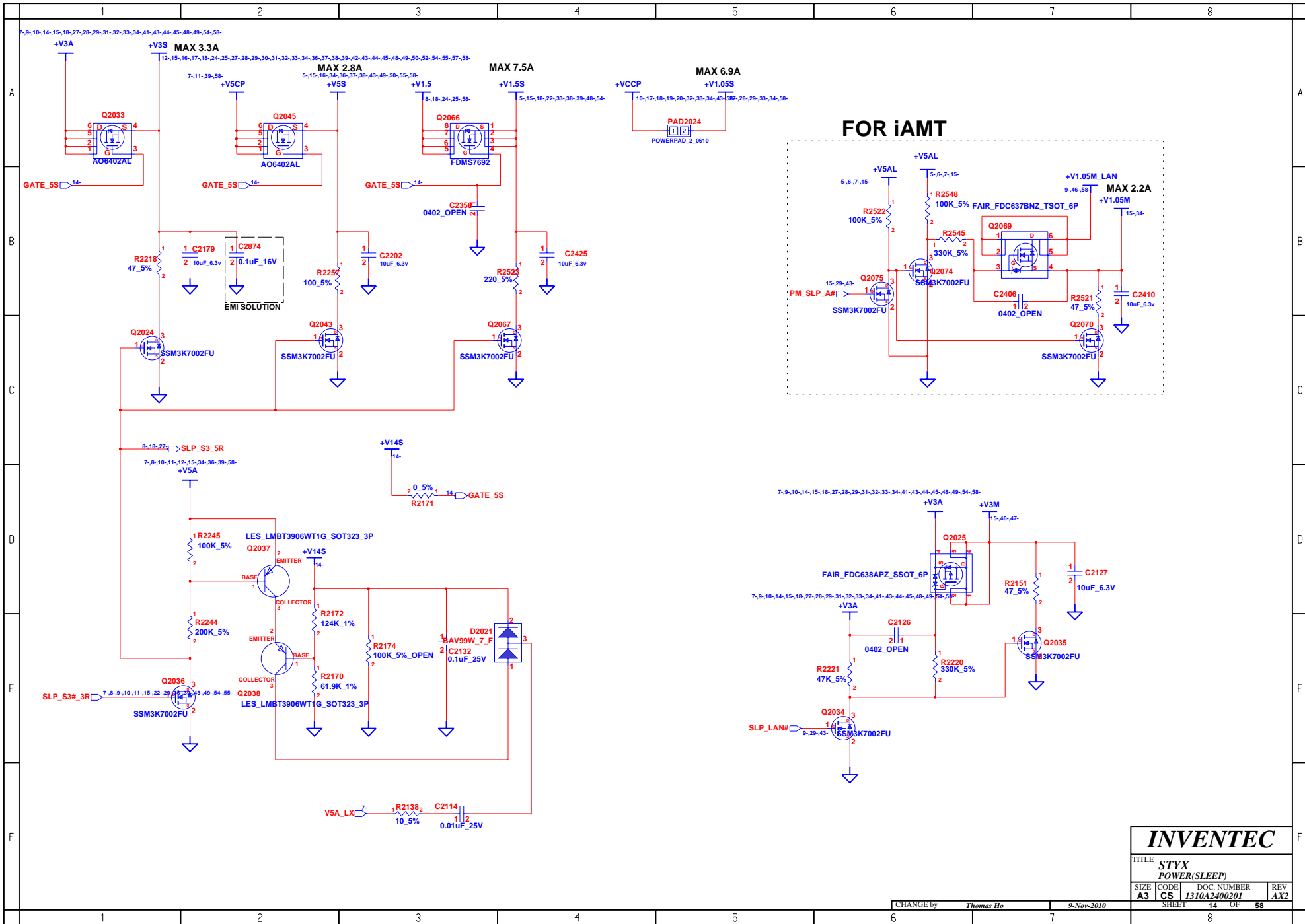
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TITLE STYX

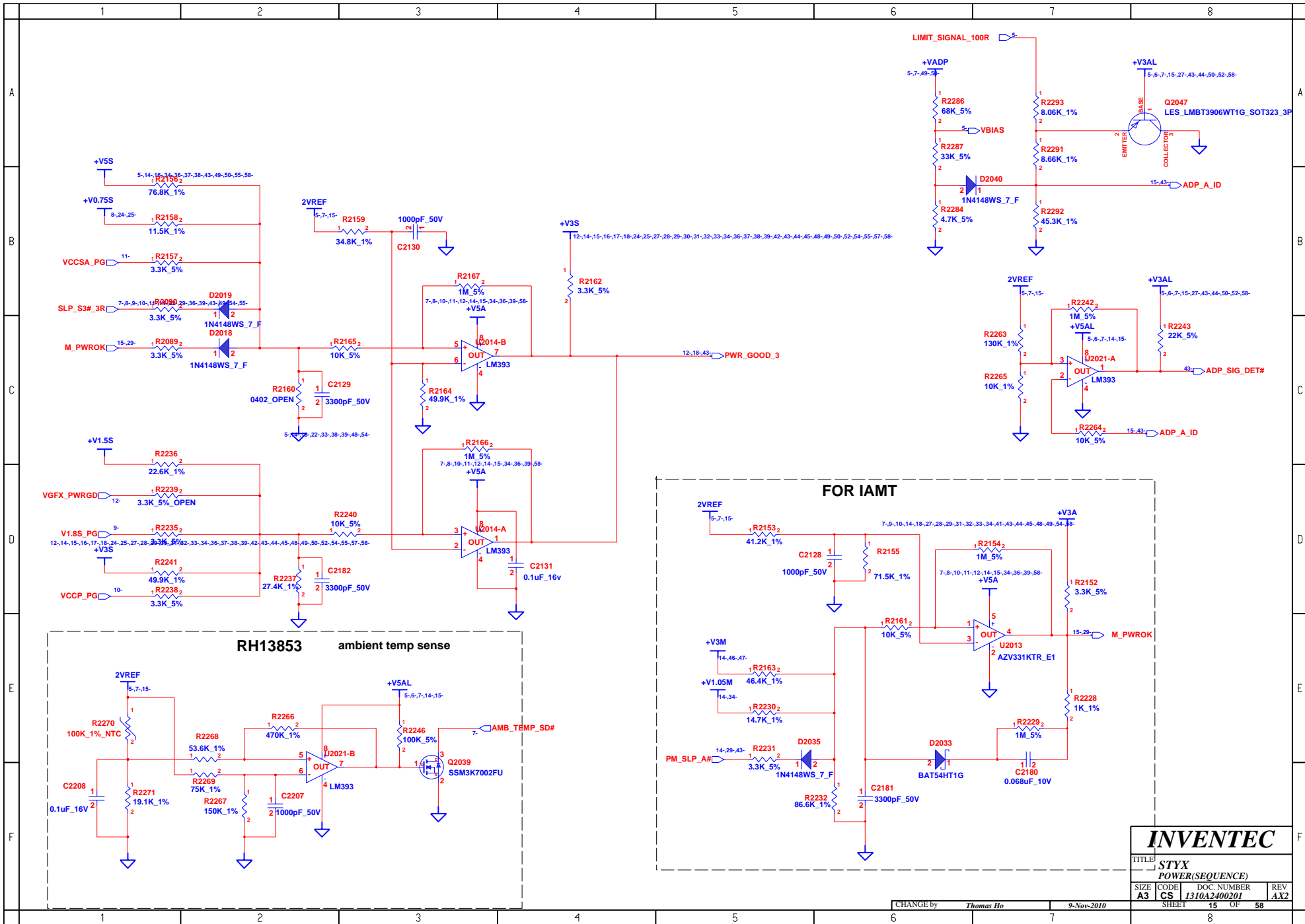
SIZE CODE CS DOC. NUMBER 1310A2400201 REV AX2

CHANGE by Thomas Ho 9-Nov-2010

SHEET 13 OF 58

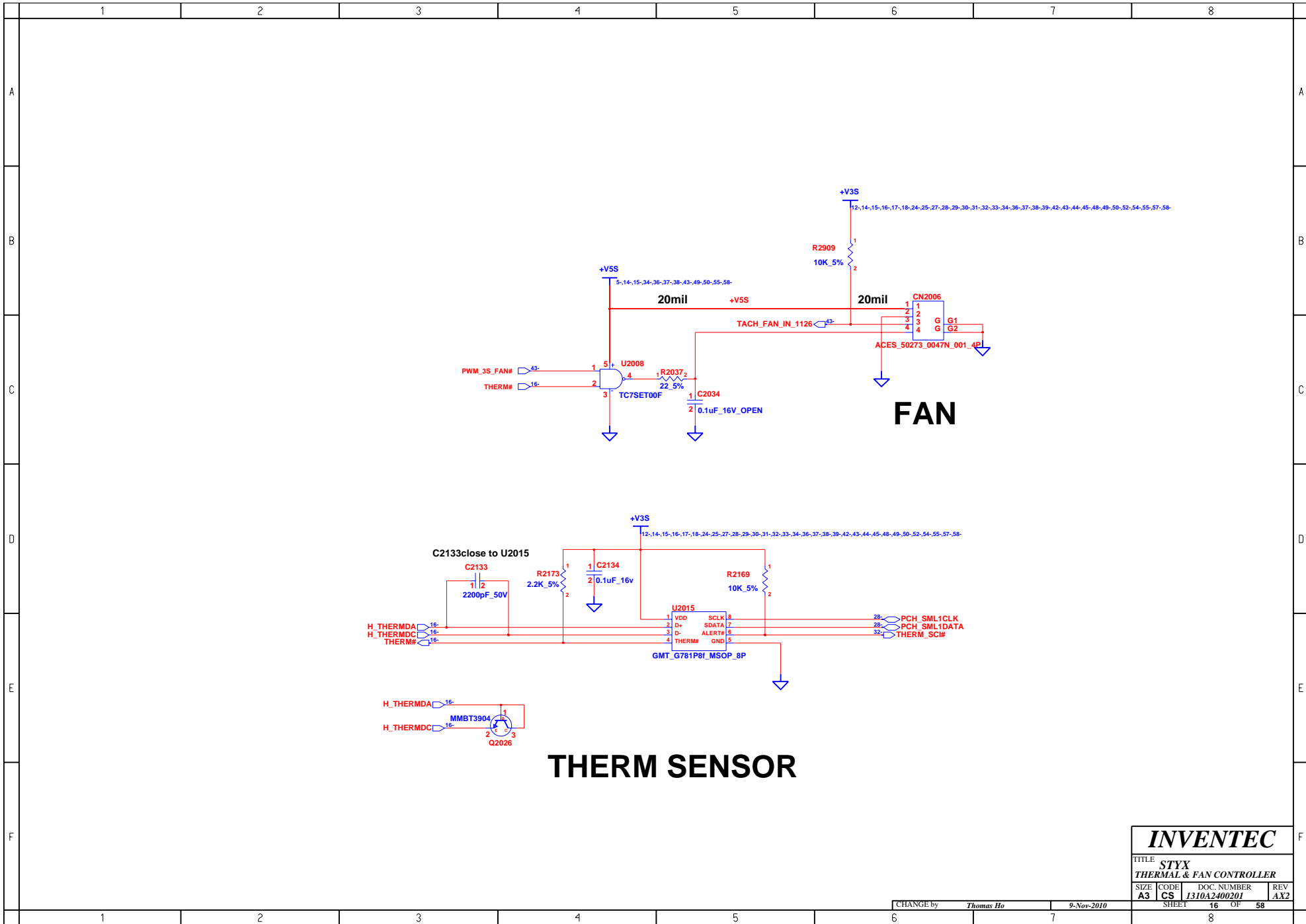


INVENTEC			
TITLE STYX POWER(SLEEP)			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 14		OF 58	



INVENTEC			
TITLE: STYX POWER(SEQUENCE)			
SIZE: A3	CODE: CS	DOC NUMBER: 1310A2400201	REV: AX2
SHEET: 15		OF: 58	

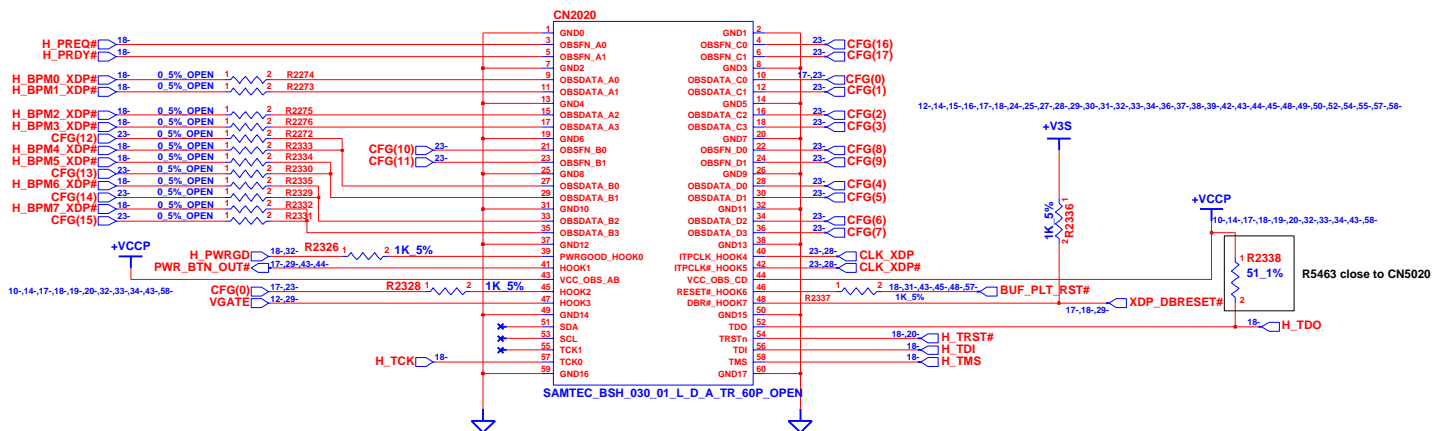
CHANGE by Thomas Ho 9-Nov-2010



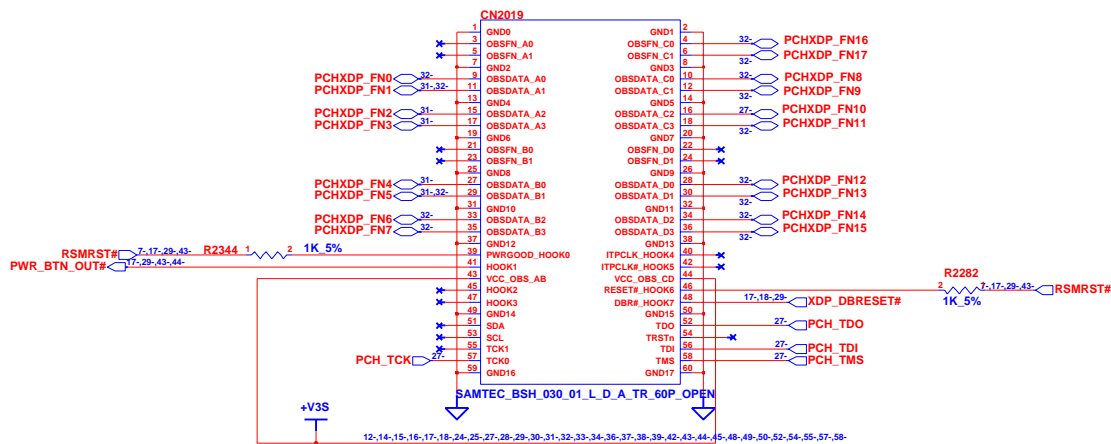
INVENTEC

TITLE			
STYX			
THERMAL & FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		16	OF 58

CHANGE by Thomas Ho 9-Nov-2010



CPU XDP CONNECTOR



PCH XDP CONNECTOR

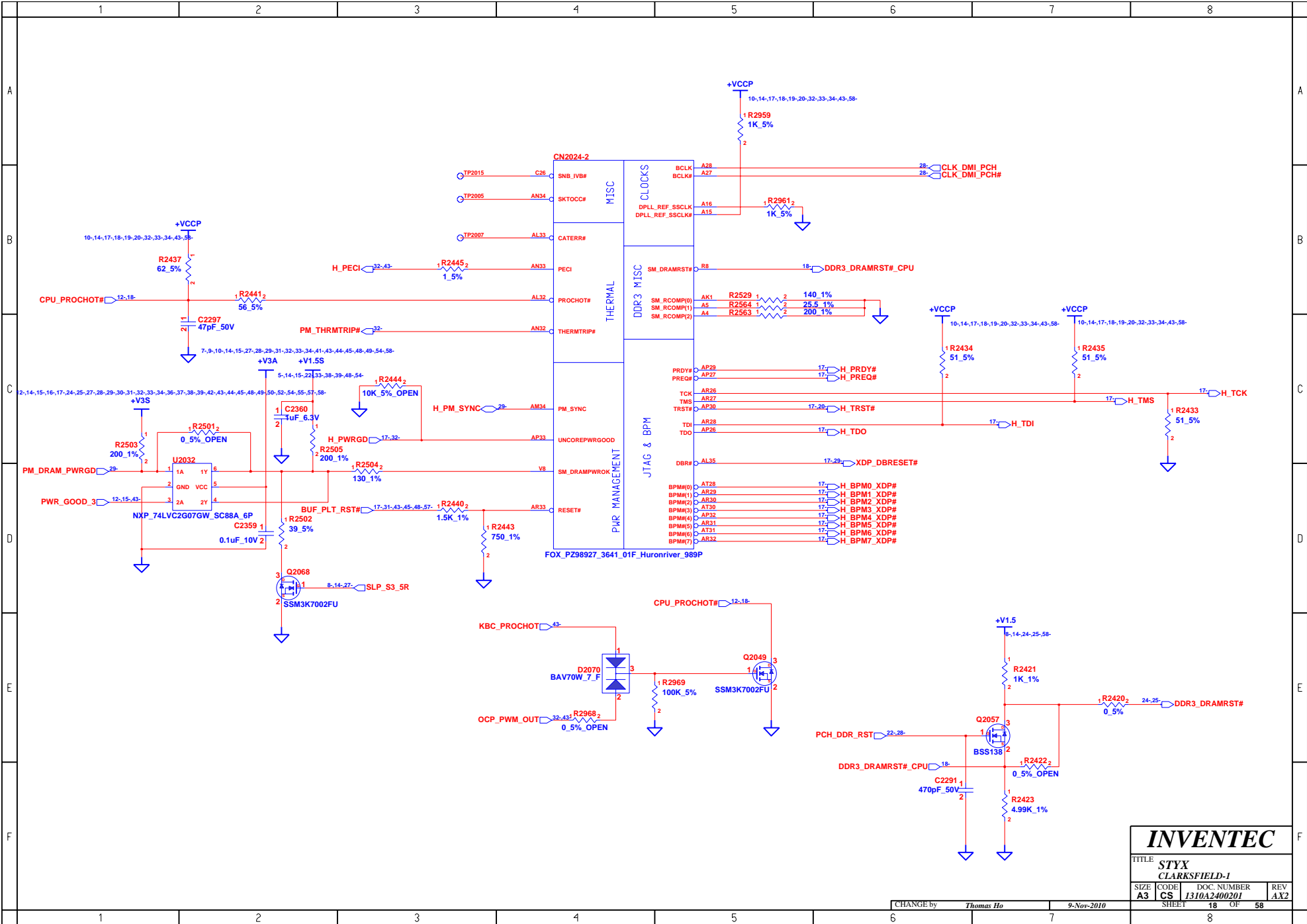
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TITLE STYX

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2

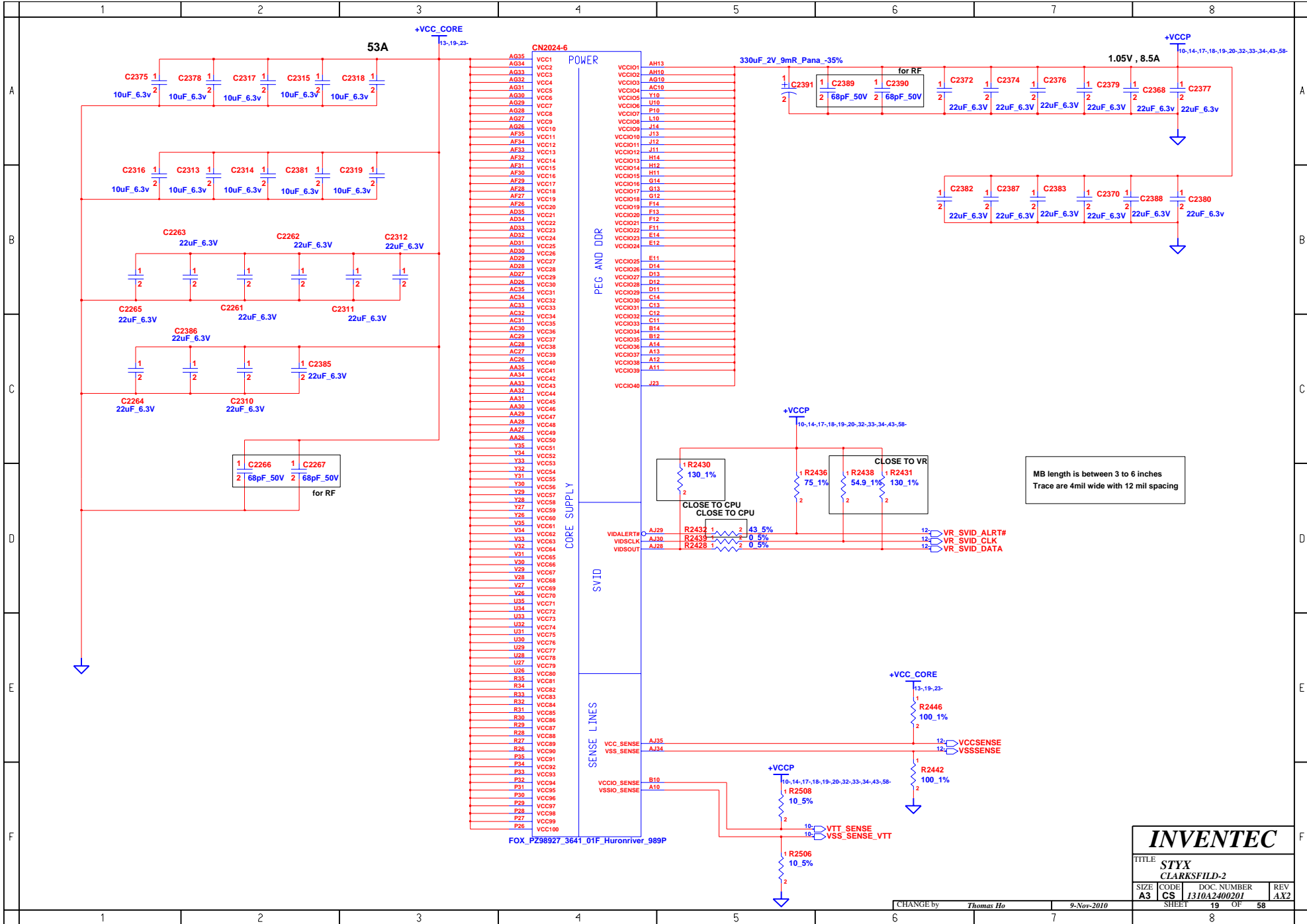
CHANGE by Thomas Ho 9-Nov-2010

SHEET 17 OF 58



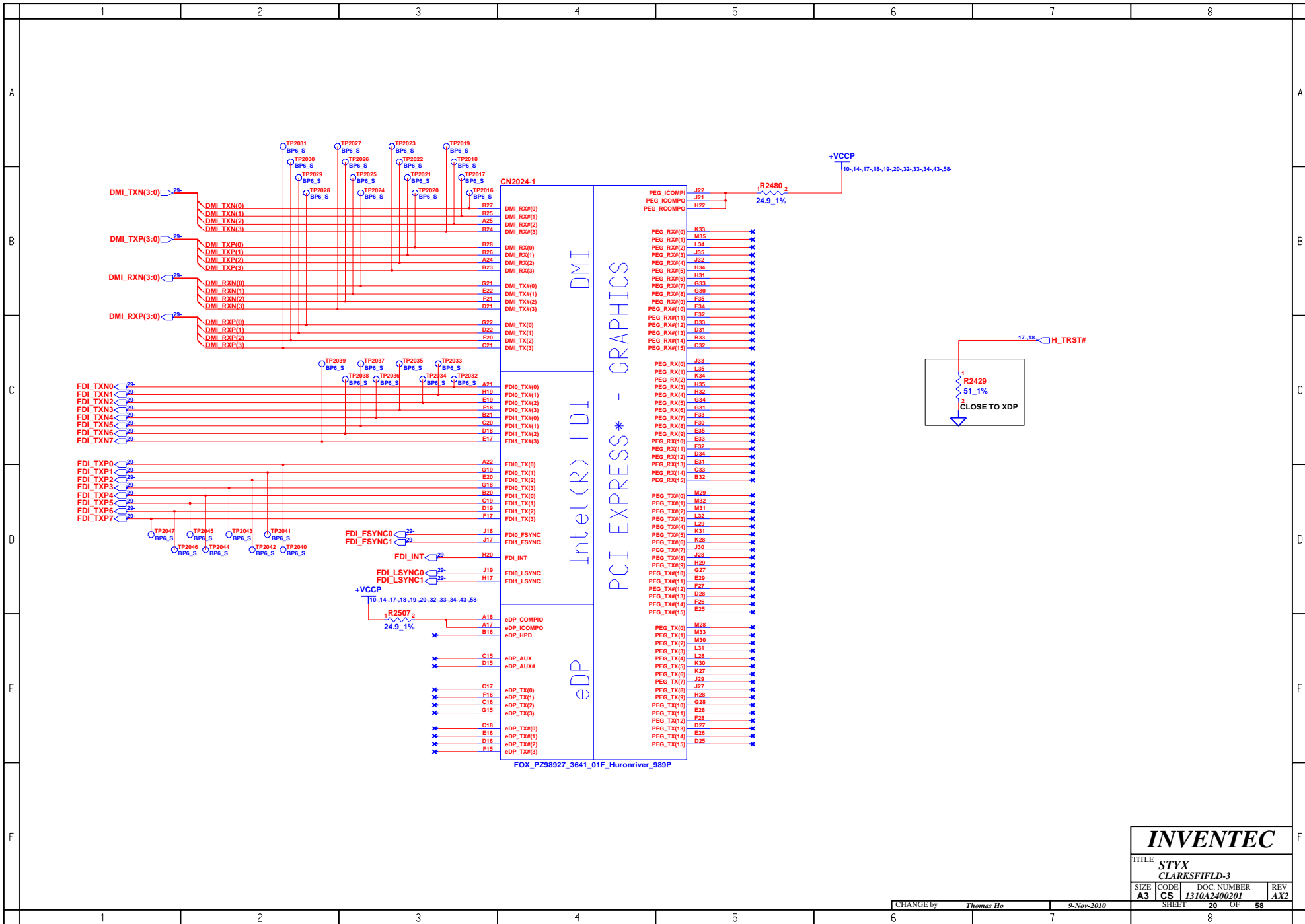
INVENTEC

TITLE			
STYX CLARKSFIELD-1			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2



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

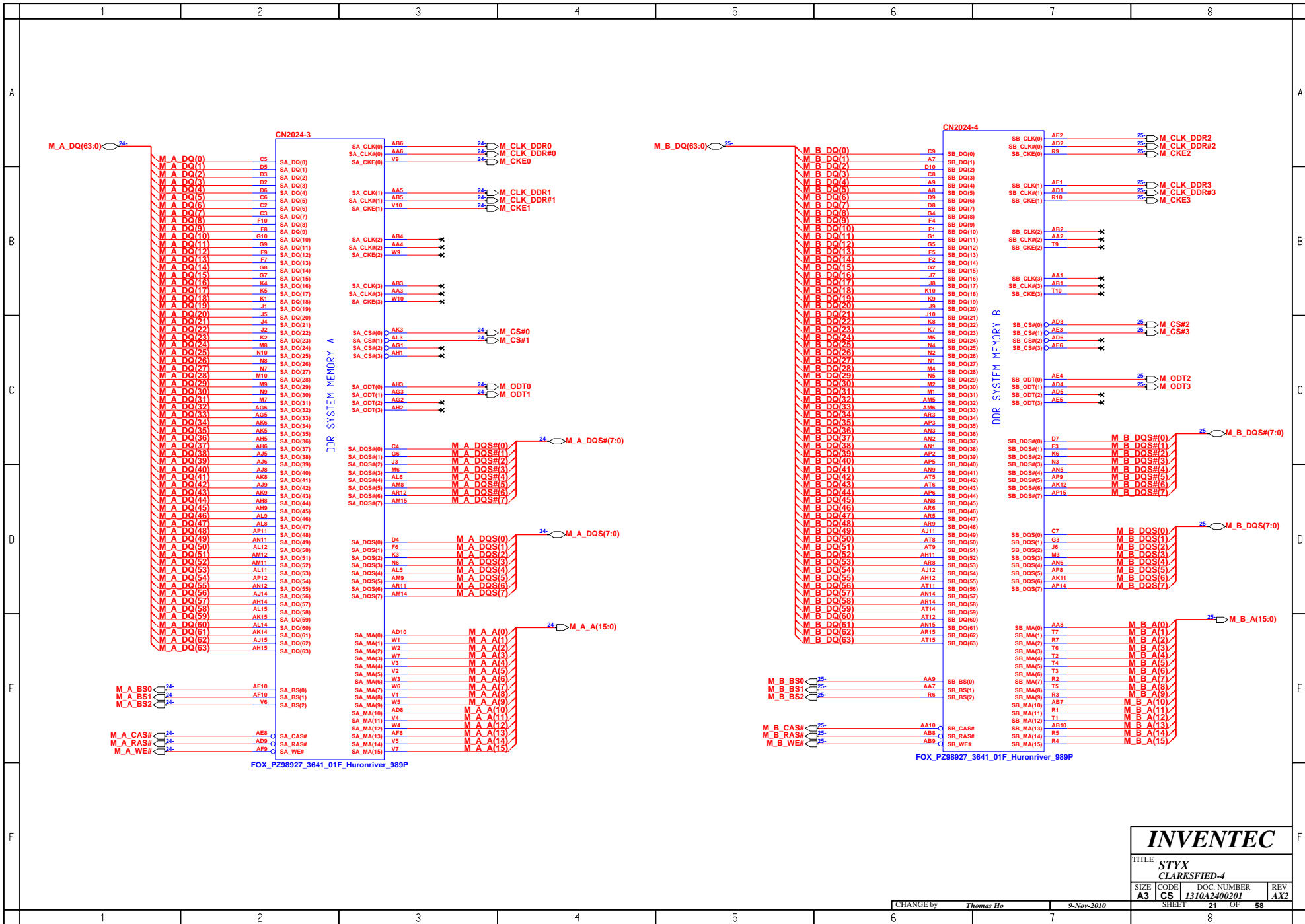
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TITLE STYX CLARKSFILD-2			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
SHEET 19		OF 58	



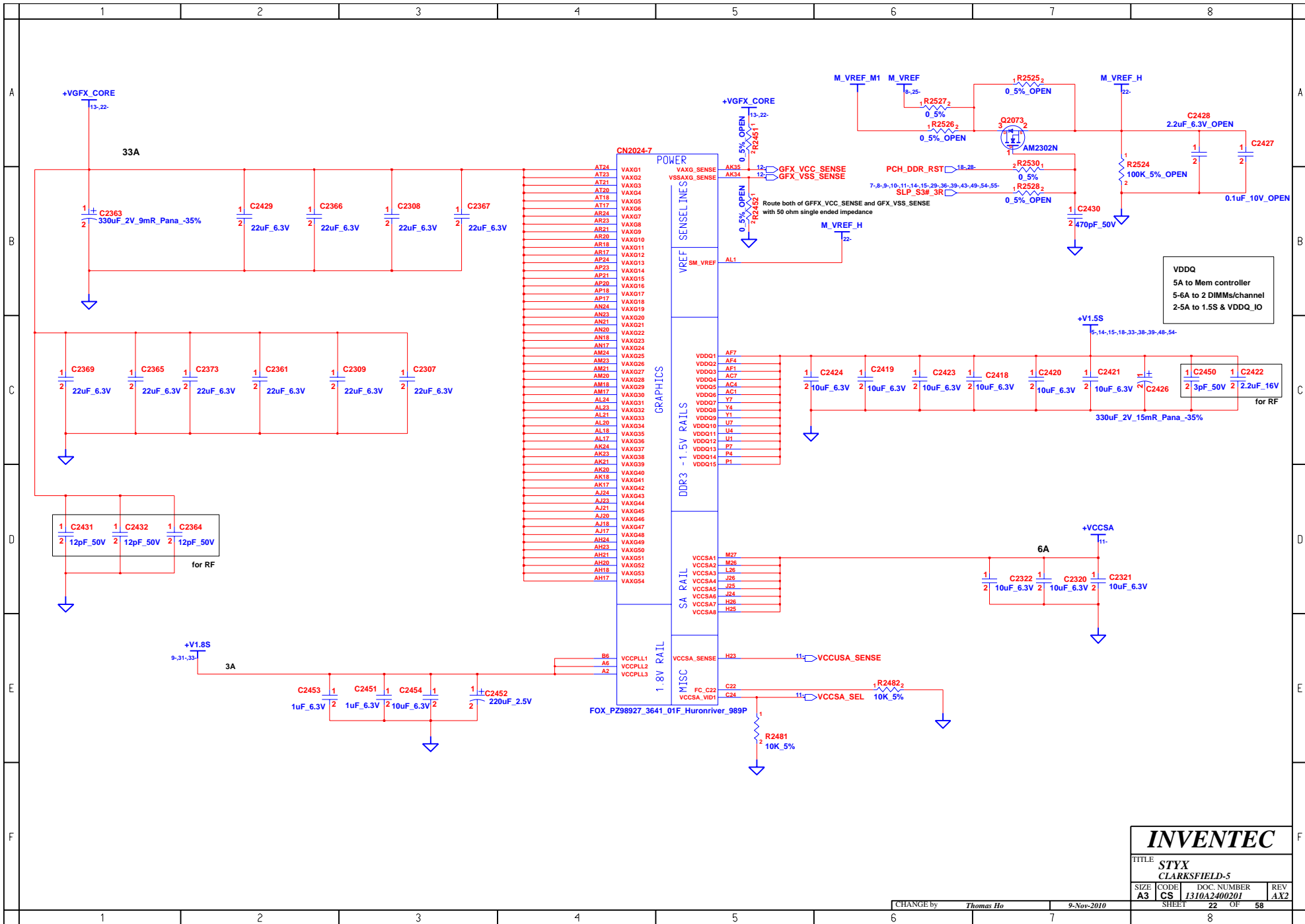
INVENTEC

TITLE			
STYX CLARKSFIFLD-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		20	OF 58

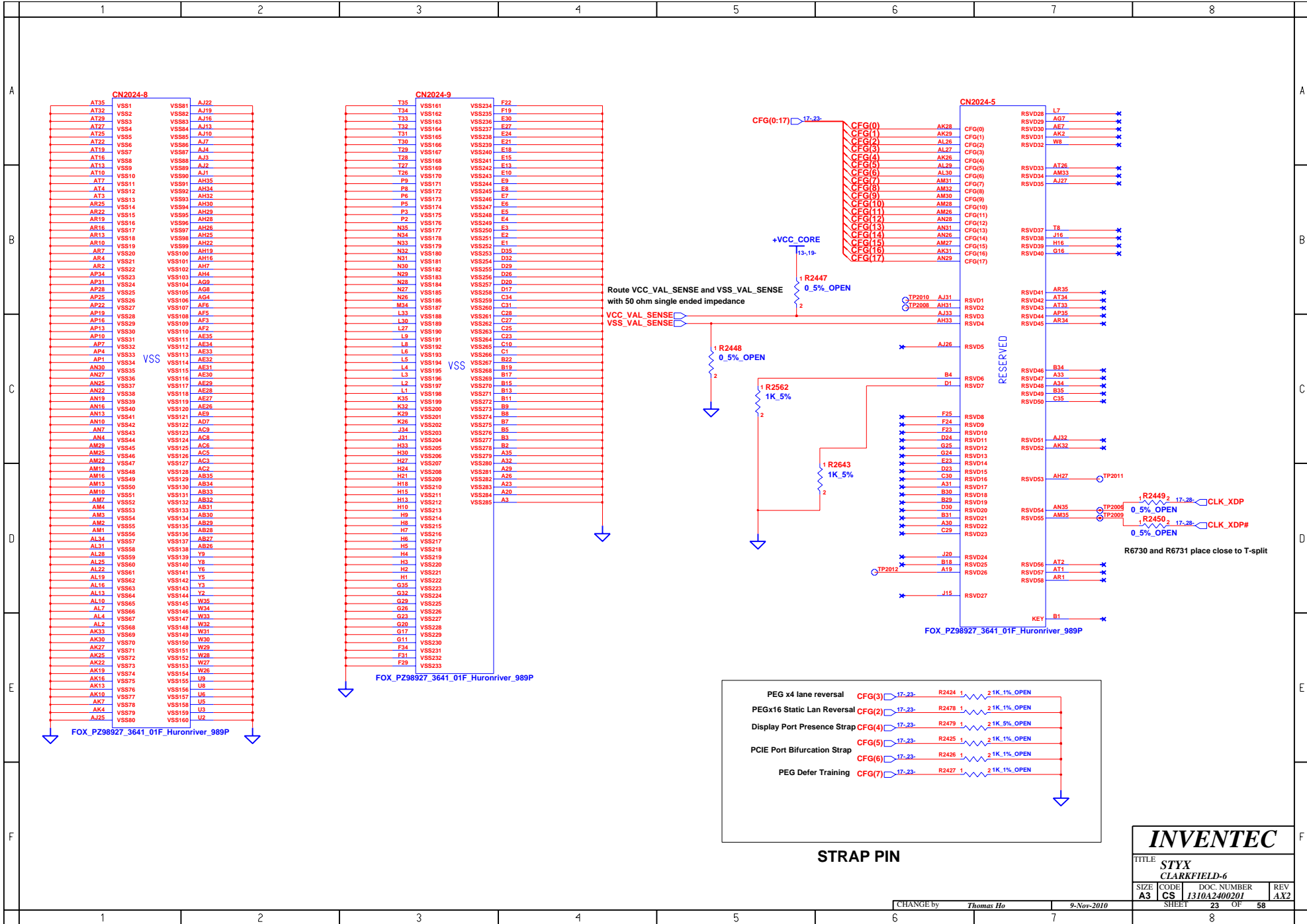
CHANGE by *Thomas Ho* 9-Nov-2010



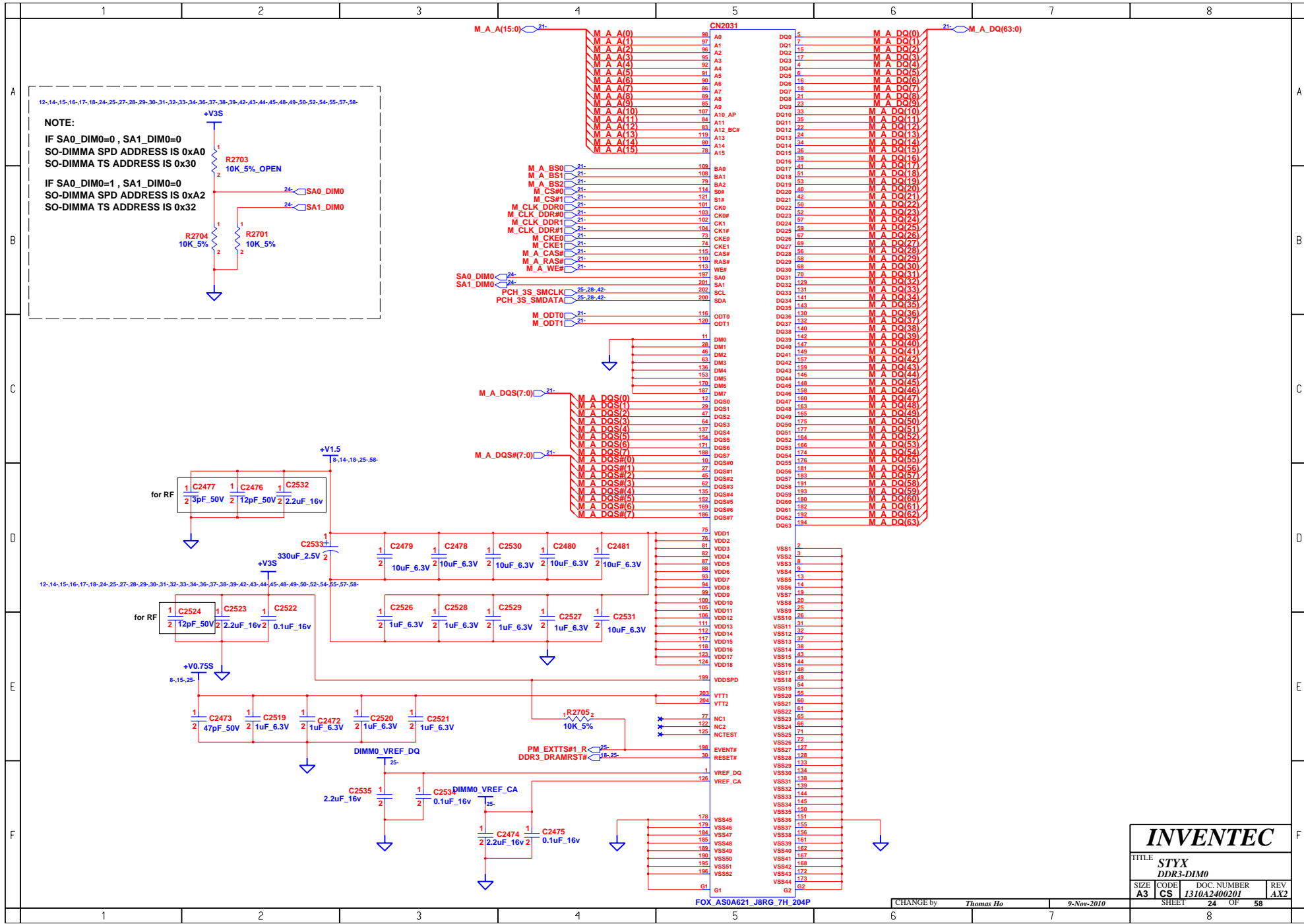
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TITLE STYX CLARKSFIED-4			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 21		OF 58	



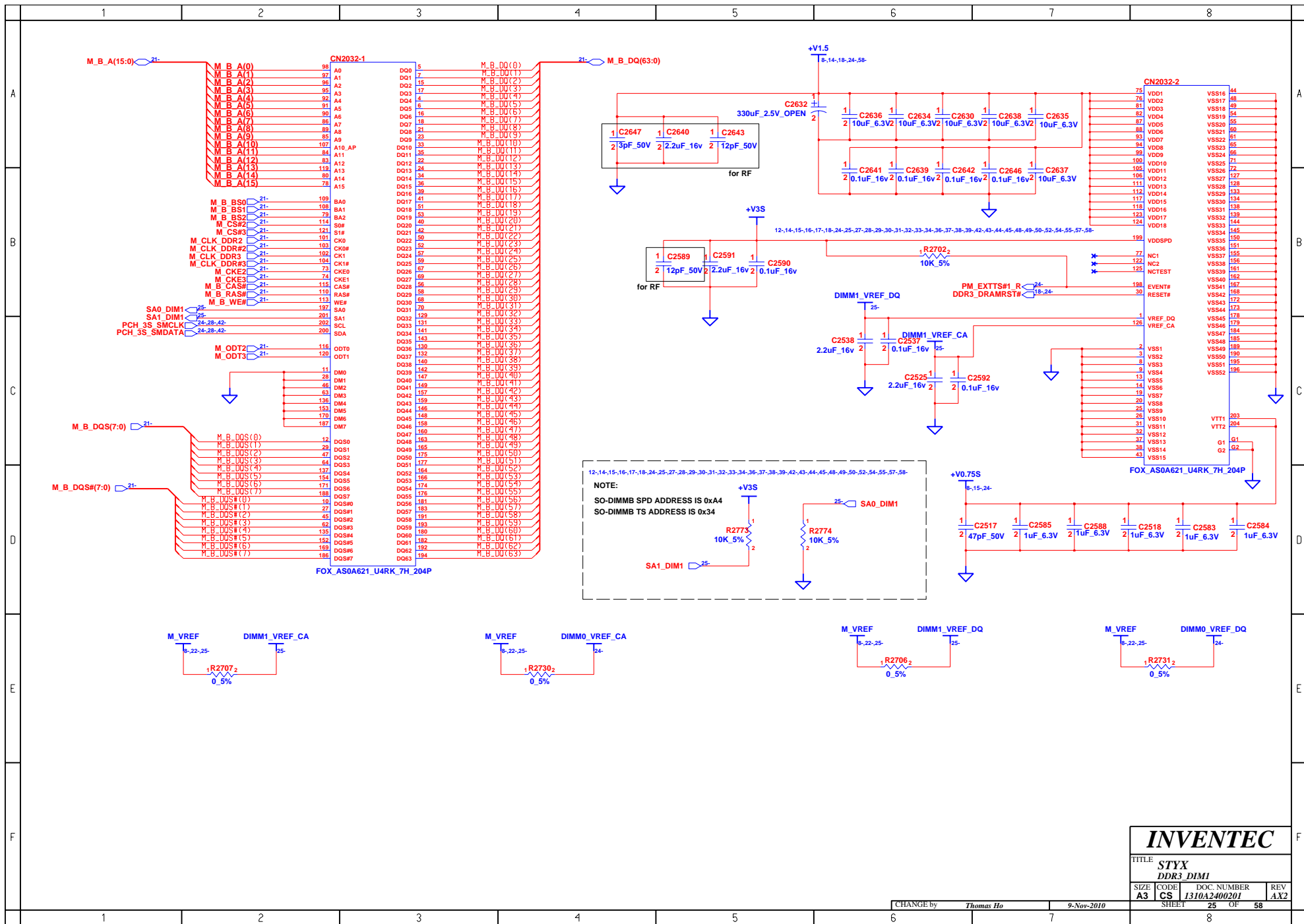
INVENTEC			
TITLE STYX CLARKSFIELD-5			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 22		OF 58	



INVENTEC			
TITLE STYX CLARKFIELD-6			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 23		OF 58	



INVENTEC			
TITLE STYX DDR3-DIM0			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
SHEET 24		OF 58	

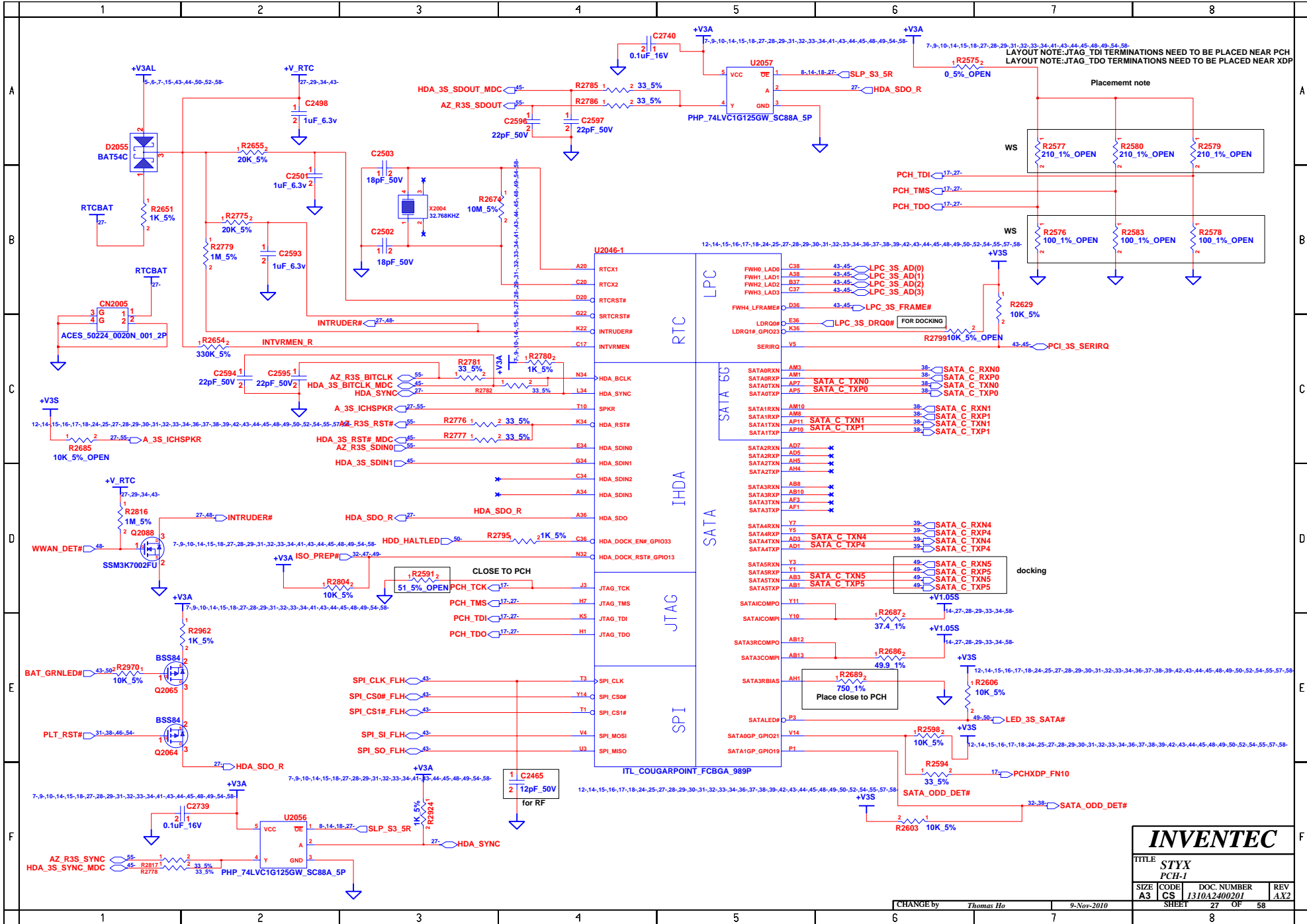


INVENTEC			
TITLE STYX DDR3_DIM1			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 25		OF 58	

BLANK

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



LAYOUT NOTE: JTAG TDI TERMINATIONS NEED TO BE PLACED NEAR PCH
LAYOUT NOTE: JTAG_TDO TERMINATIONS NEED TO BE PLACED NEAR XDP

Placement note

WS R2577 210 1% OPEN
R2580 210 1% OPEN
R2579 210 1% OPEN

WS R2576 100 1% OPEN
R2583 100 1% OPEN
R2578 100 1% OPEN

- FWH0_LAD0 C38 43-45 LPC_3S_AD(0)
- FWH1_LAD1 A38 43-45 LPC_3S_AD(1)
- FWH2_LAD2 B37 43-45 LPC_3S_AD(2)
- FWH3_LAD3 C37 43-45 LPC_3S_AD(3)
- FWH4_LFRAME# D36 43-45 LPC_3S_FRAME#
- LDRO0# E36 LPC_3S_DRQ0# FOR DOCKING
- LDRO1# GPIO23 K36
- SERIRQ V5 R2799 10K 5% OPEN

- SATA0RXN AM3 38 SATA_C_RXN0
- SATA0RXP AM1 38 SATA_C_RXP0
- SATA0TXN AD7 38 SATA_C_TXN0
- SATA0TXP AP3 38 SATA_C_TXP0
- SATA1RXN AM10 38 SATA_C_RXN1
- SATA1RXP AM9 38 SATA_C_RXP1
- SATA1TXN AP11 38 SATA_C_TXN1
- SATA1TXP AP10 38 SATA_C_TXP1

- SATA2RXN AD7 *
- SATA2RXP AD5 *
- SATA2TXN AH5 *
- SATA2TXP AH4 *
- SATA3RXN AB8 *
- SATA3RXP AB10 *
- SATA3TXN AE3 *
- SATA3TXP AF1 *

- SATA4RXN Y7 39 SATA_C_RXN4
- SATA4RXP Y5 39 SATA_C_RXP4
- SATA4TXN AD3 39 SATA_C_TXN4
- SATA4TXP AD1 39 SATA_C_TXP4
- SATA5RXN Y3 49 SATA_C_RXN5
- SATA5RXP Y1 49 SATA_C_RXP5
- SATA5TXN AB1 49 SATA_C_TXN5
- SATA5TXP AB1 49 SATA_C_TXP5

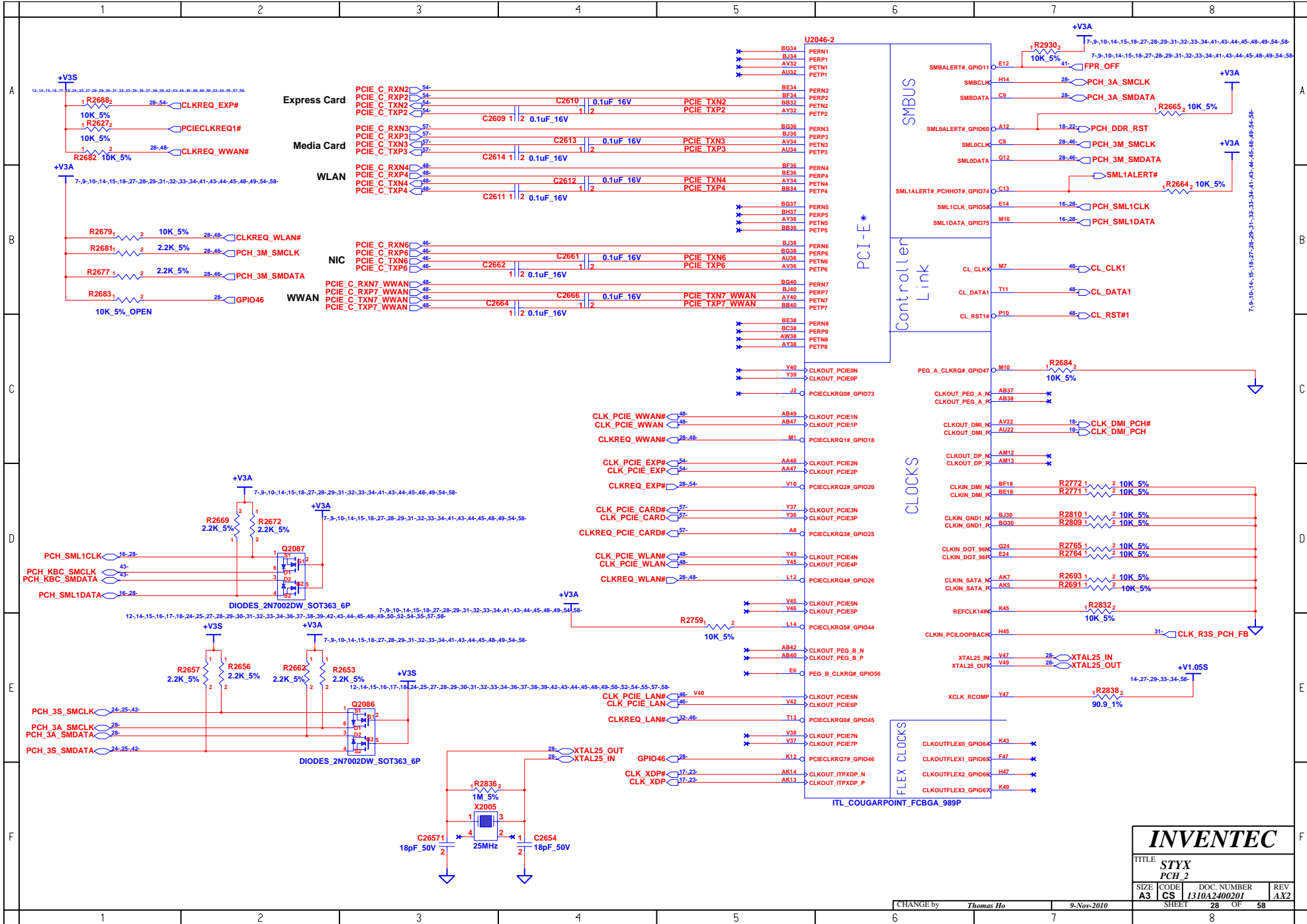
docking

- SATAICOMPO Y11 +V1.05S
- SATAICOMP Y10 37.4 1% +V1.05S
- SATA3RCOMPO AB12 +V3S
- SATA3COMP AB13 49.9 1% +V3S

- SATA5BIAS AH1 750 1% Place close to PCH
- SATALED# P3 49.50 LED_3S_SATA#

- SATAAGP_GPIO2 V14 10K 5% +V3S
- SATA1GP_GPIO19 P1 33 5% +V3S
- SATA_ODD_DET# 32-38

INVENTEC			
TITLE STYX PCH-1			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	SHEET 27 OF 58



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

A

B

C

D

E

F

A

B

C

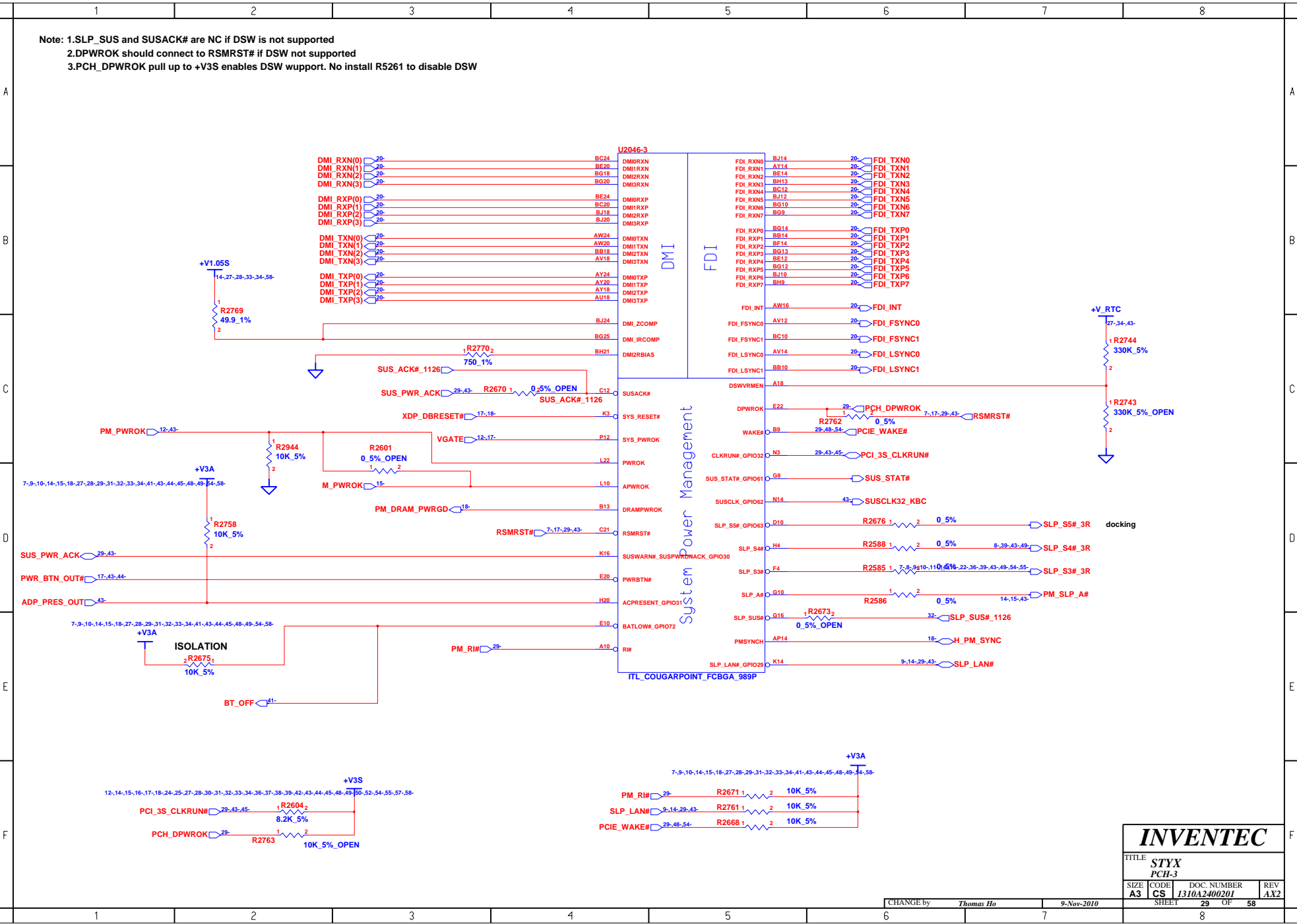
D

E

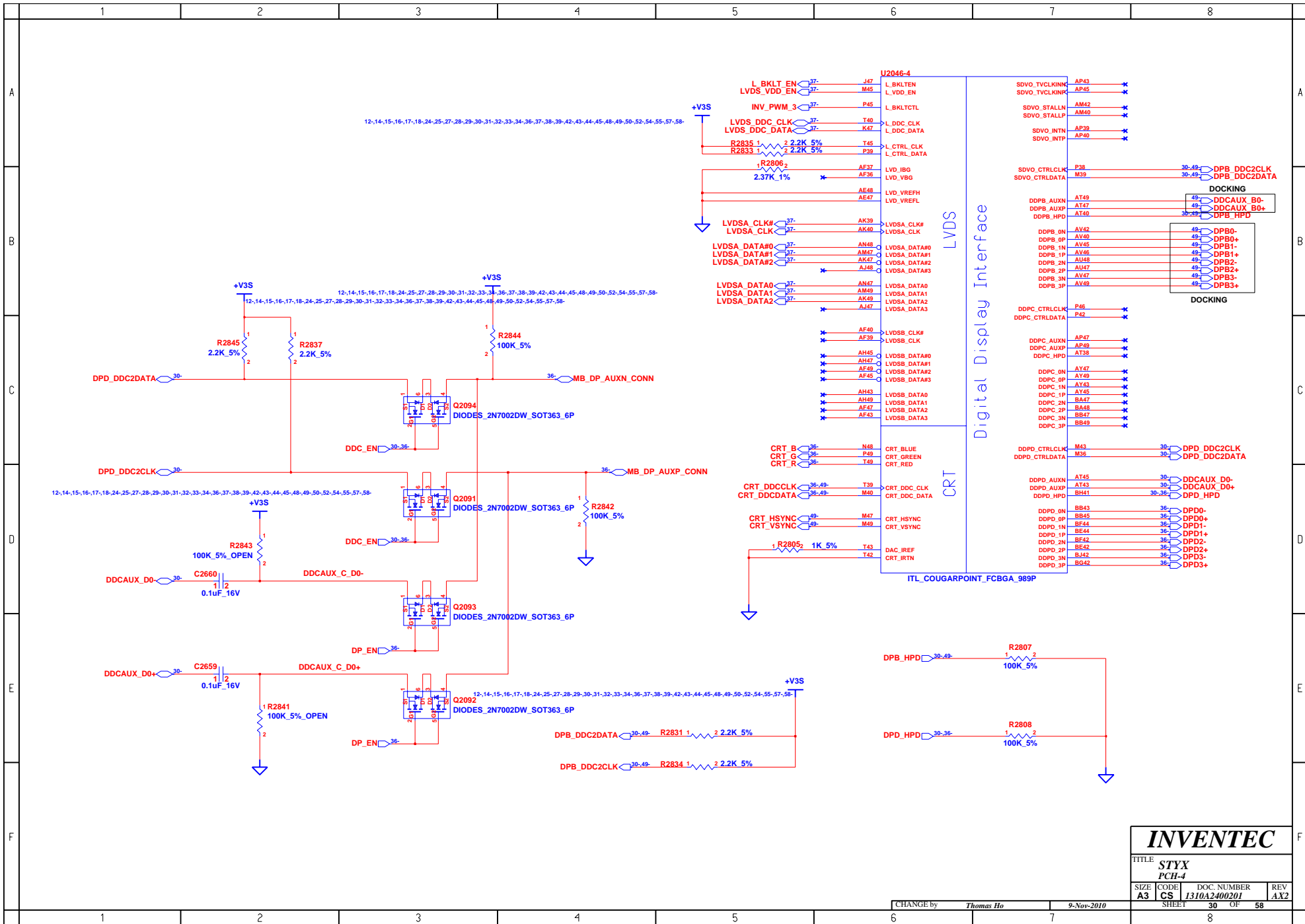
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1 2 3 4 5 6 7 8

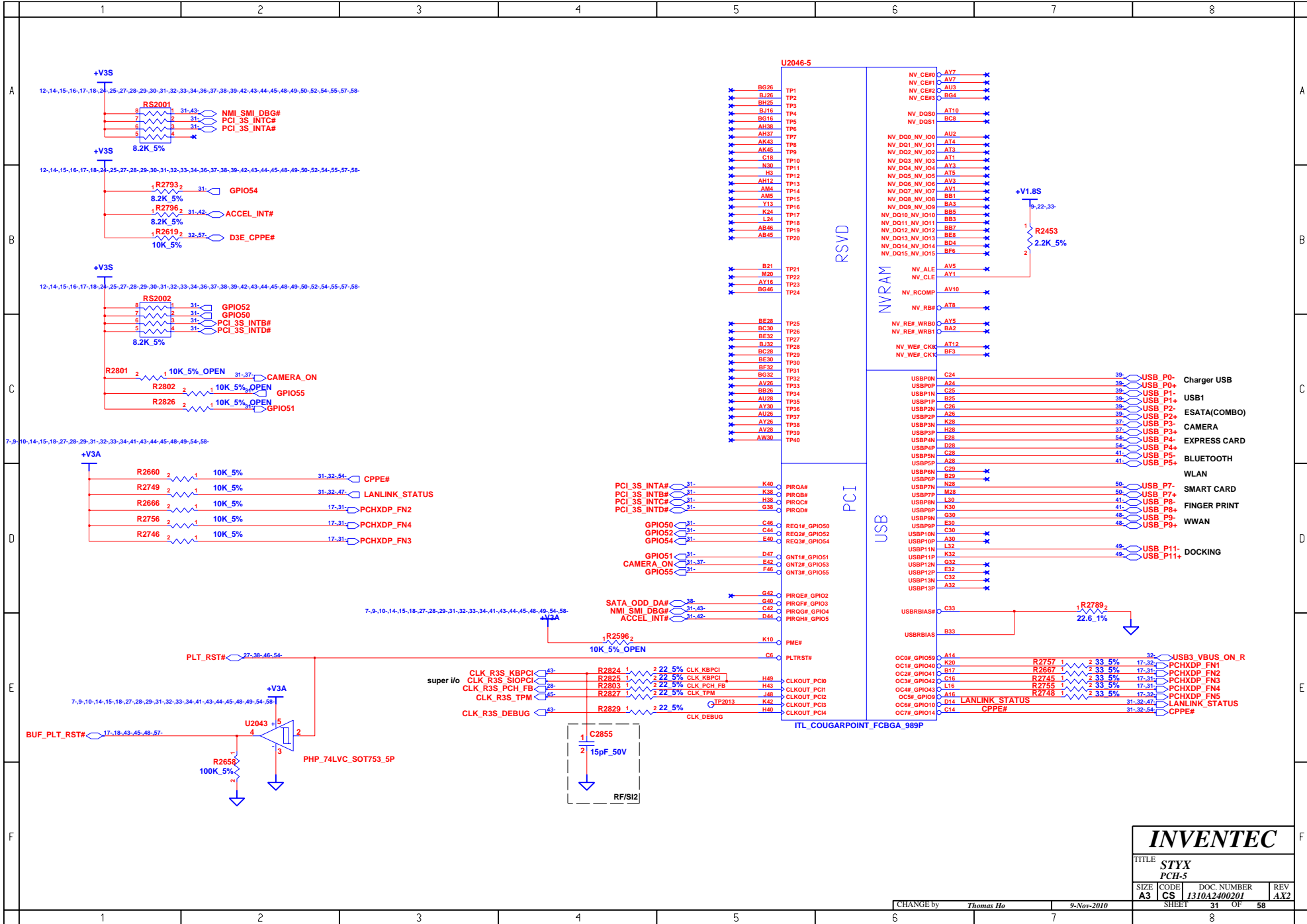
1 2 3 4 5 6 7 8



INVENTEC			
TITLE STYX PCH-3			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
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INVENTEC			
TITLE STYX PCH-4			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 30		OF 58	



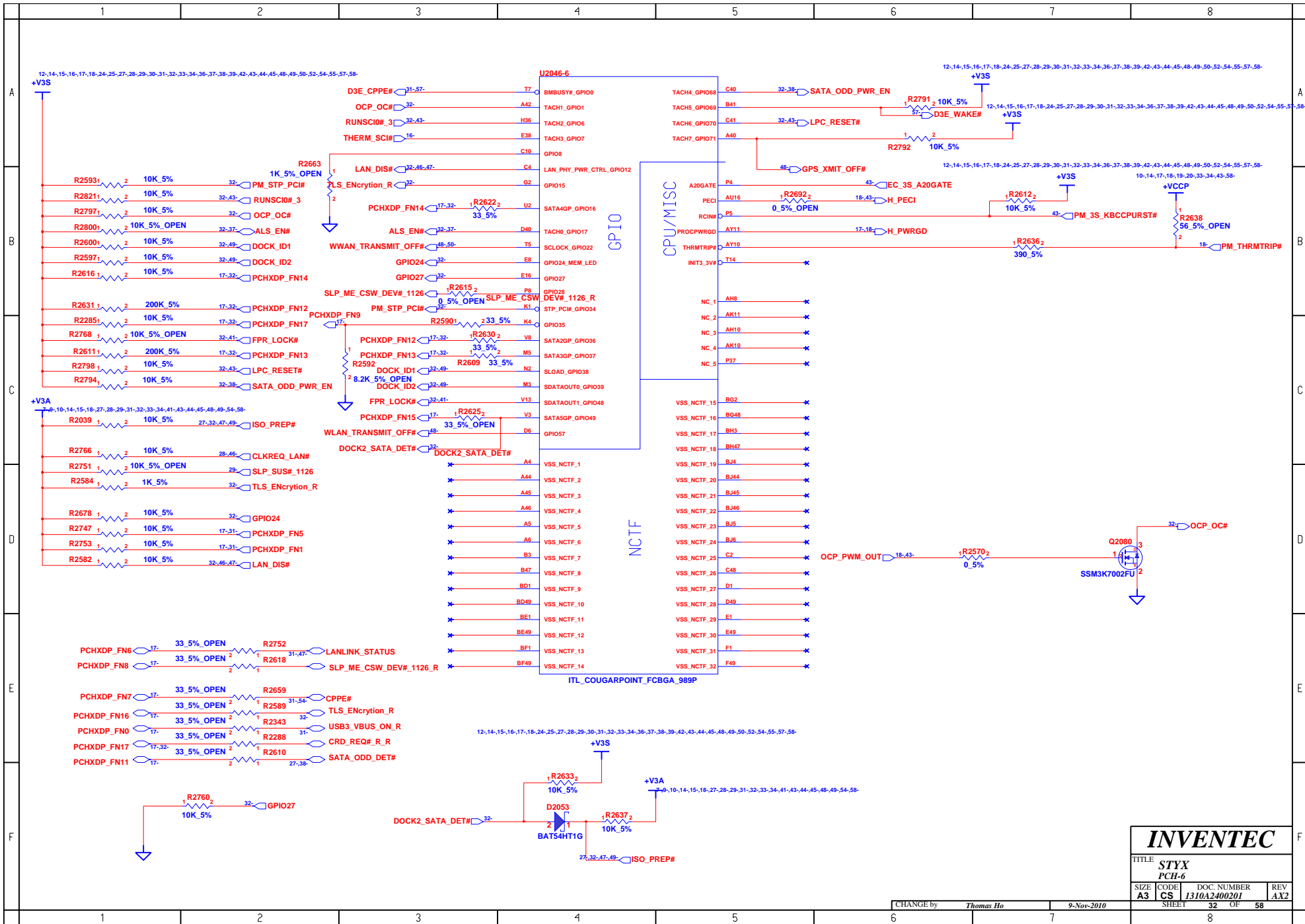
INVENTEC

TITLE
**STYX
 PCH-5**

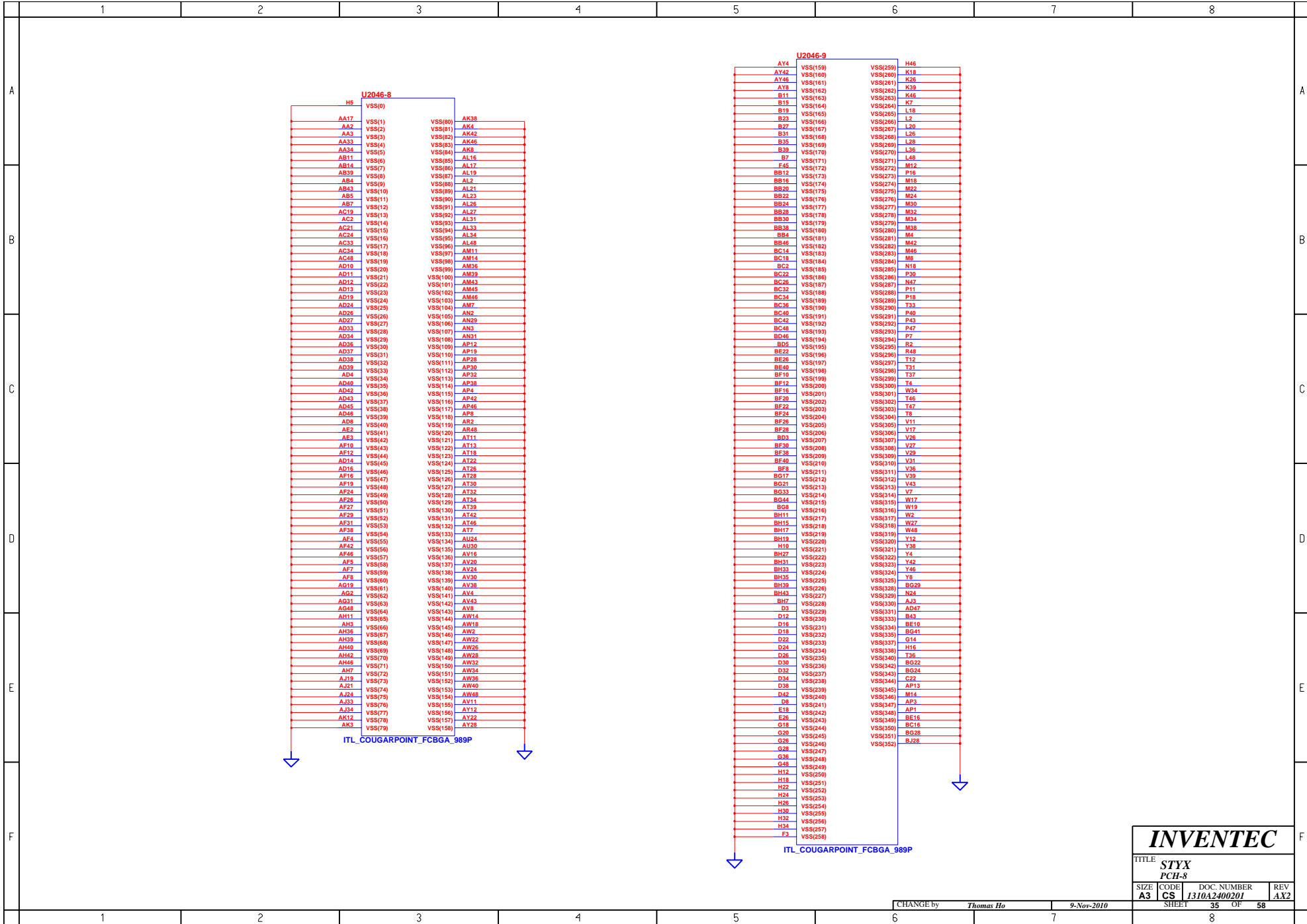
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by *Thomas Ho* 9-Nov-2010

SHEET	OF
31	58

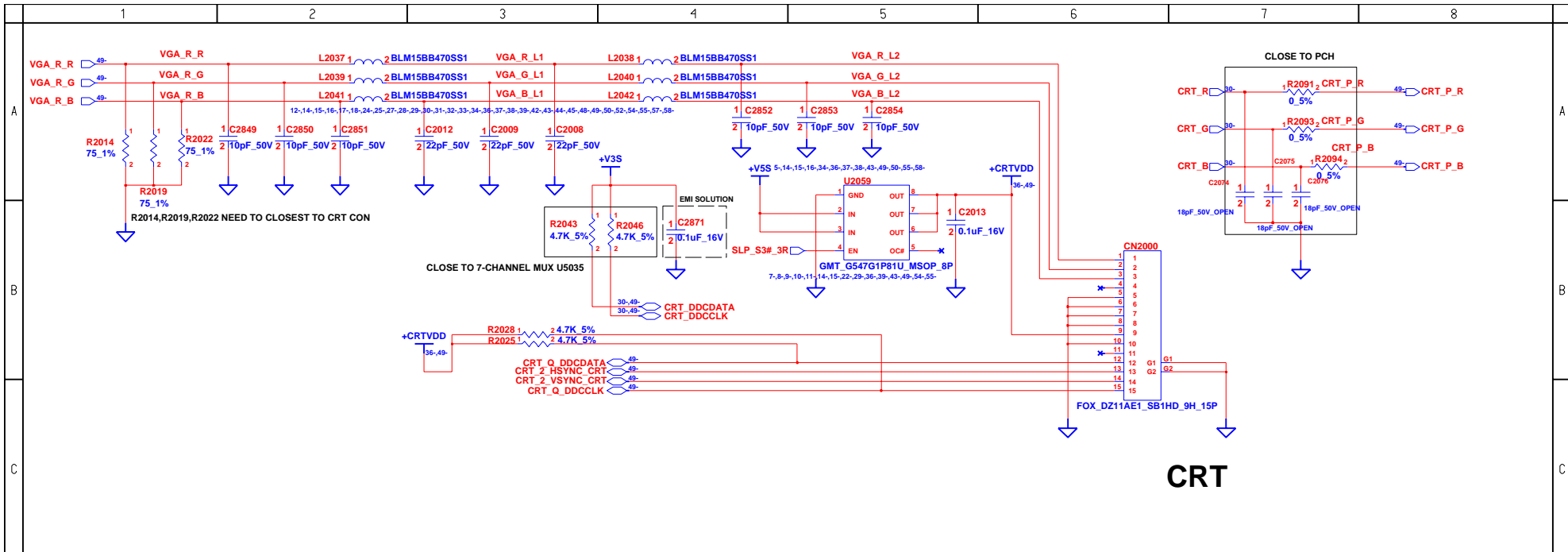


INVENTEC			
TITLE STYX PCH-6			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
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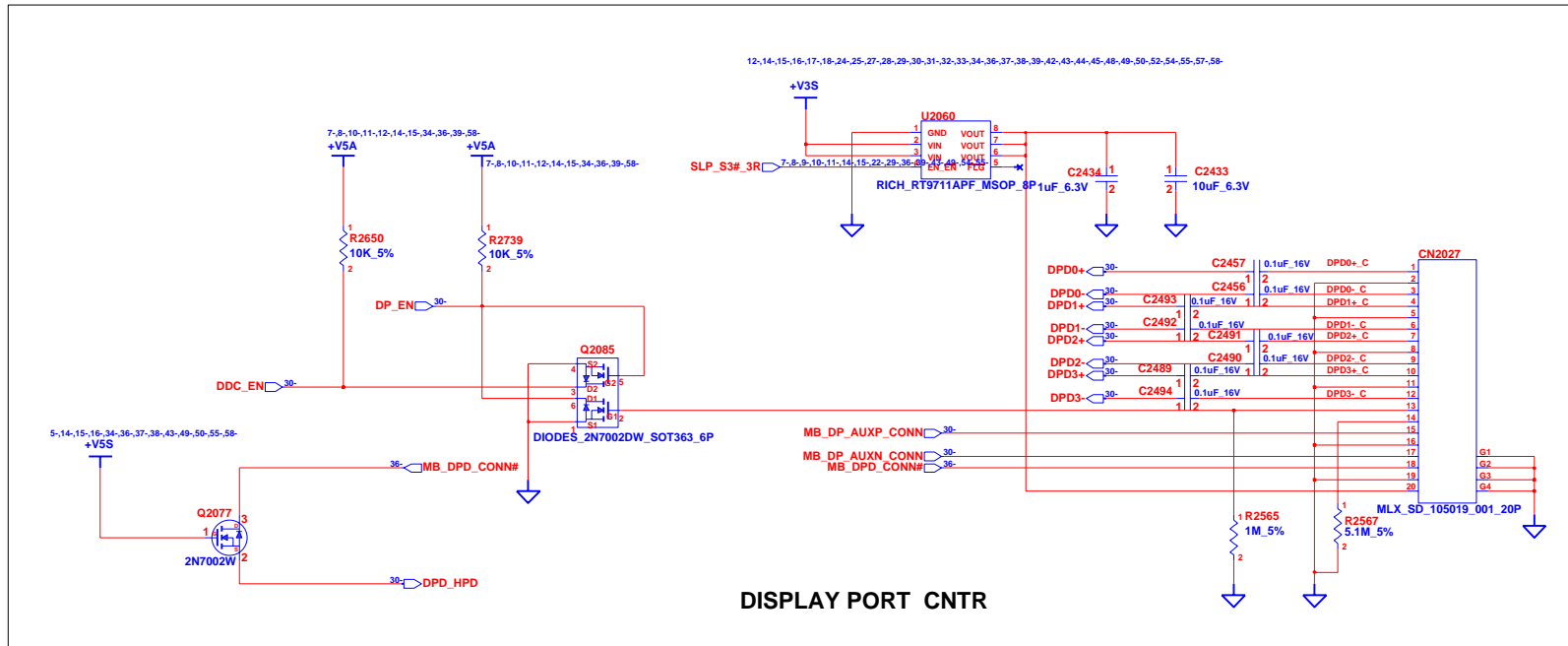


INVENTEC			
TITLE STYX			
PCH-8			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
SHEET 35		OF 58	

CHANGE by *Thomas Ho* 9-Nov-2010

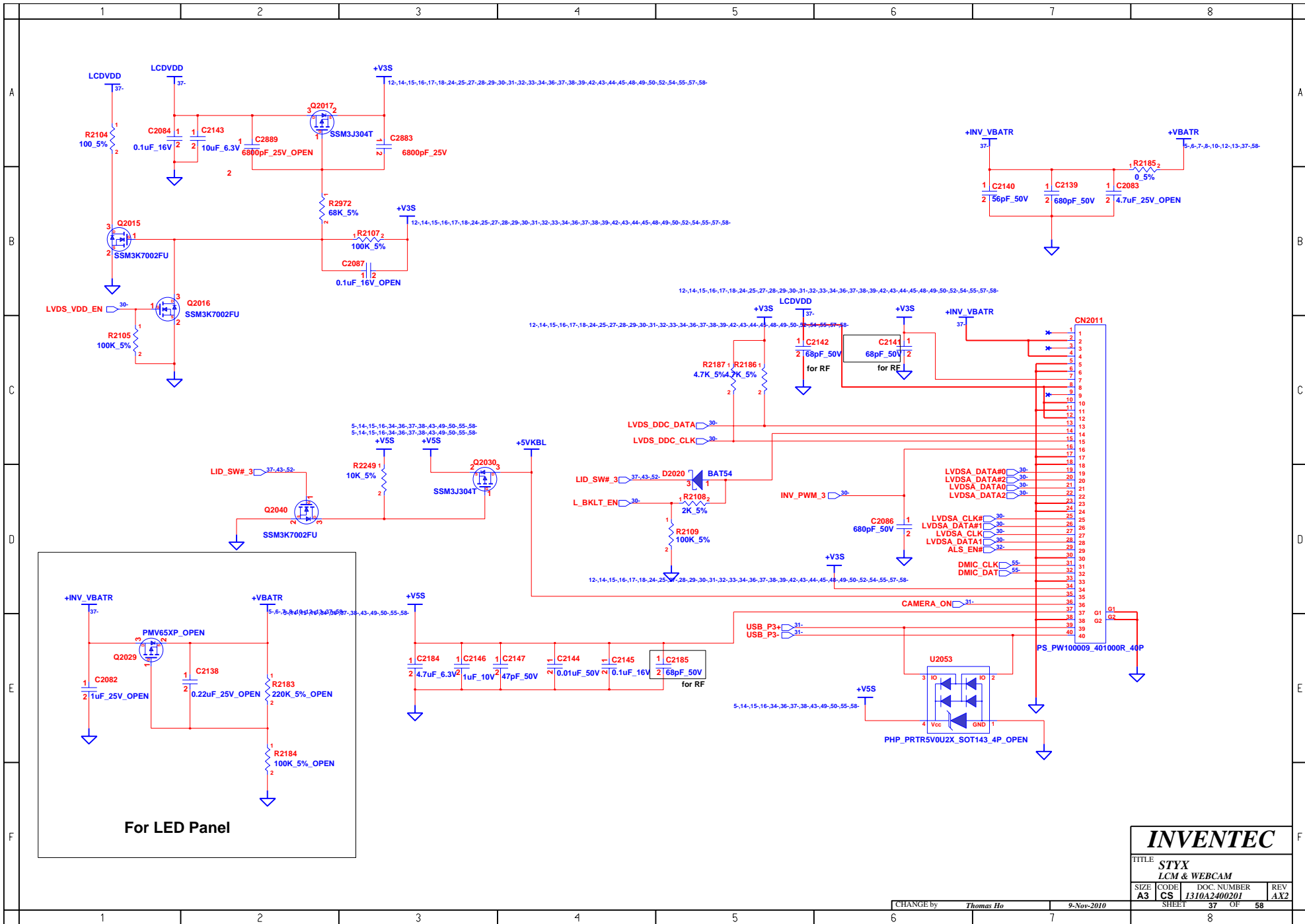


CRT



DISPLAY PORT CNTR

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

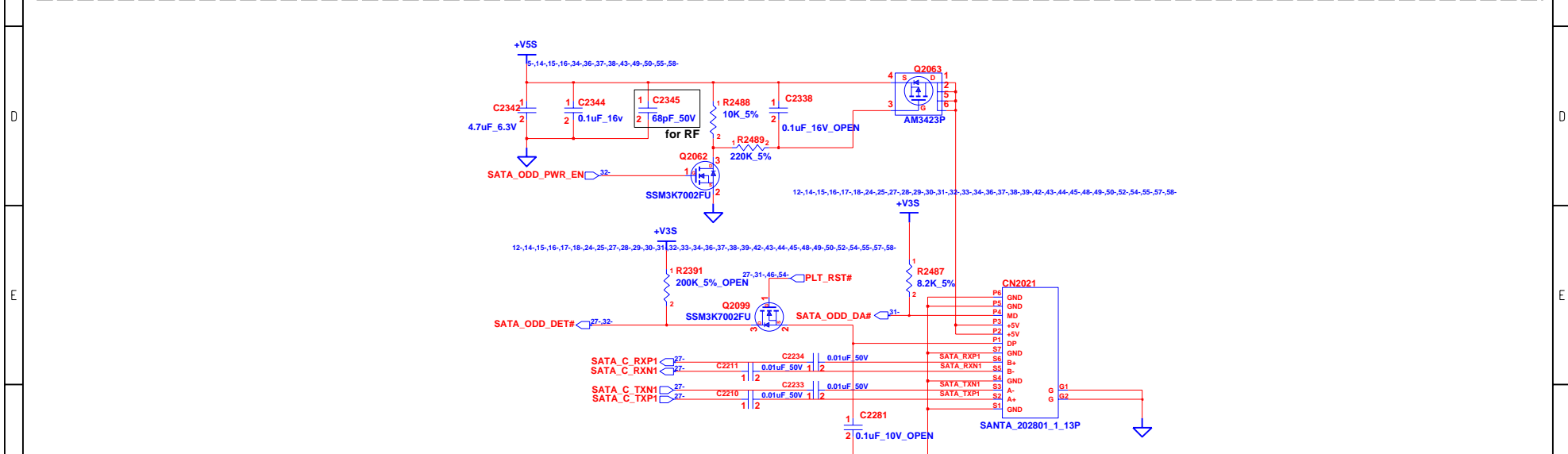
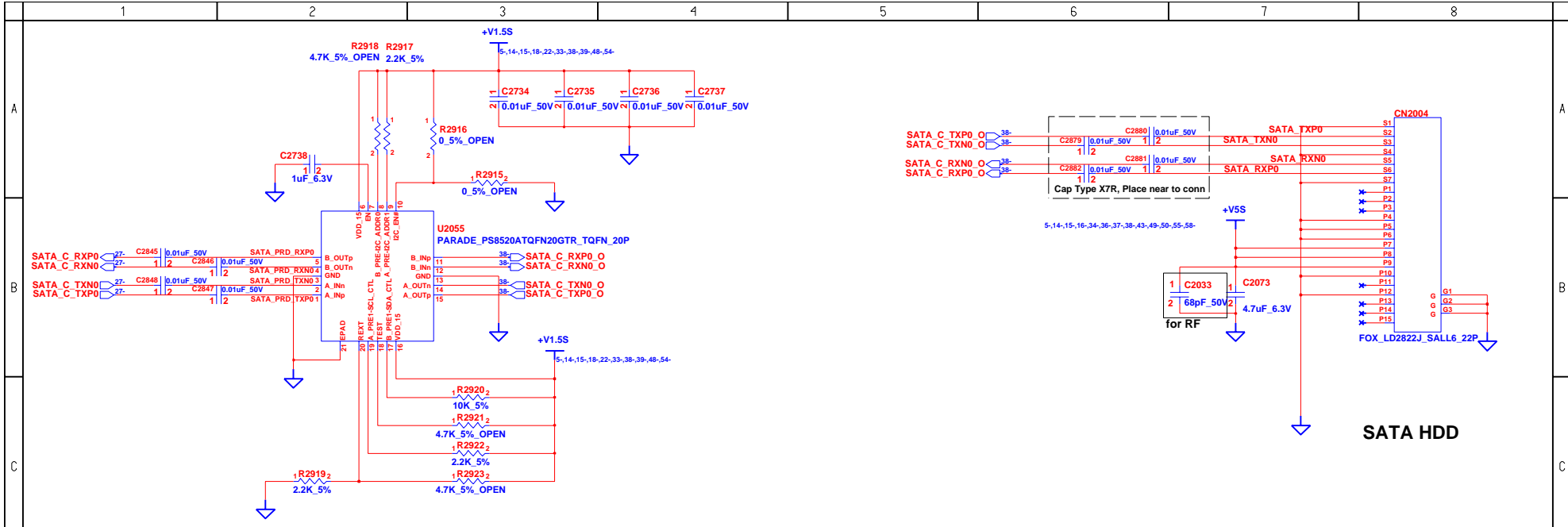


INVENTEC

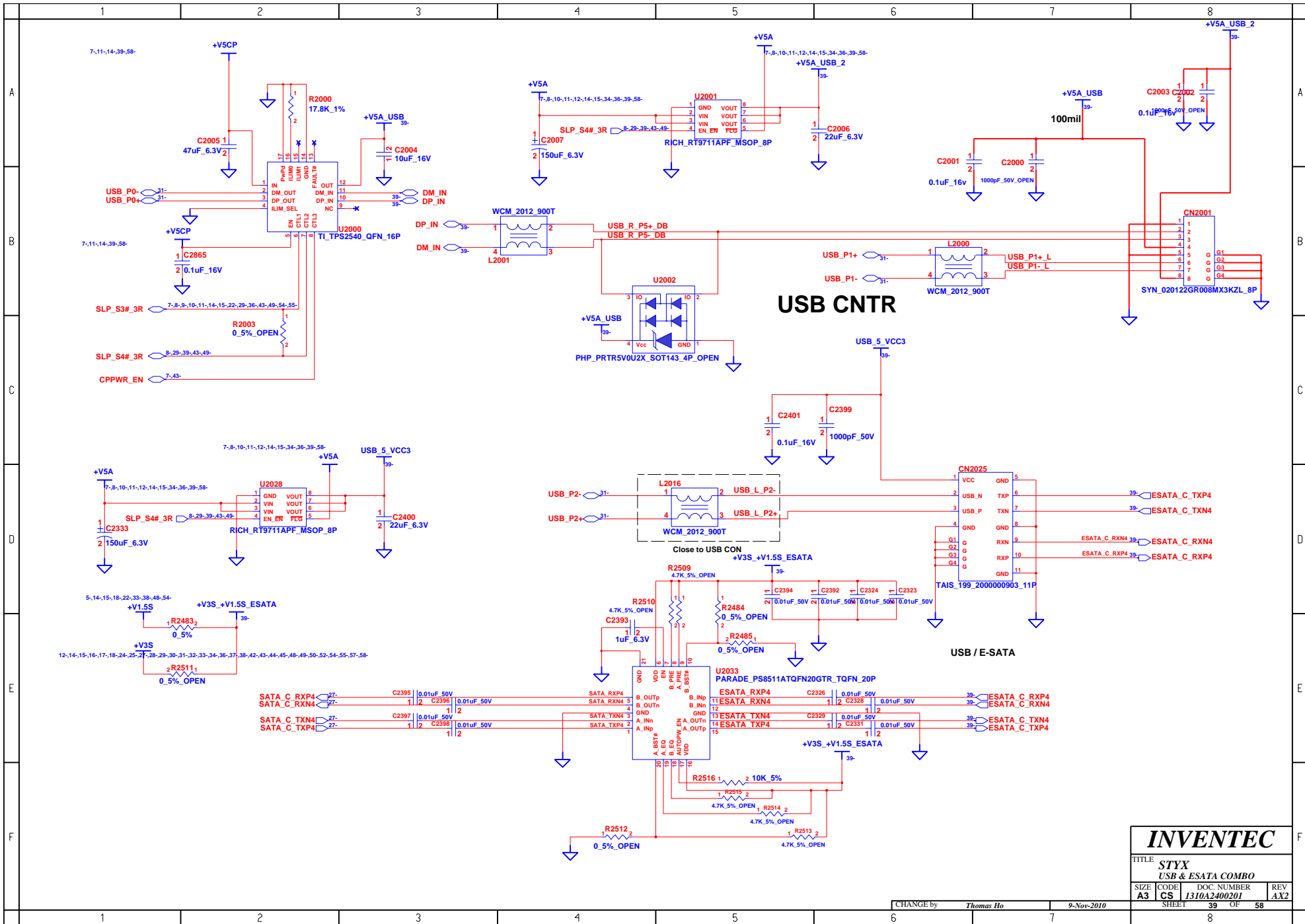
TITLE
STYX
 LCM & WEBCAM

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by *Thomas Ho* 9-Nov-2010



INVENTEC			
TITLE STYX SATA HDD & ODD			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 38		OF 58	

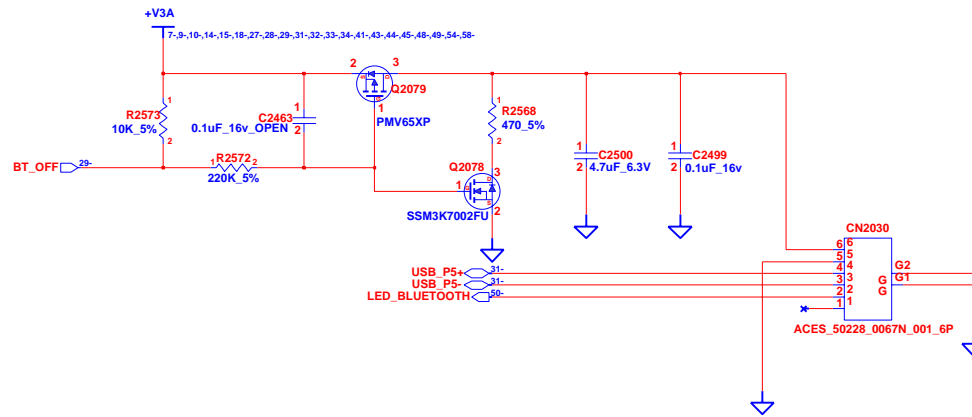


INVENTEC			
TITLE STYX USB & ESATA COMBO			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 39		OF 58	

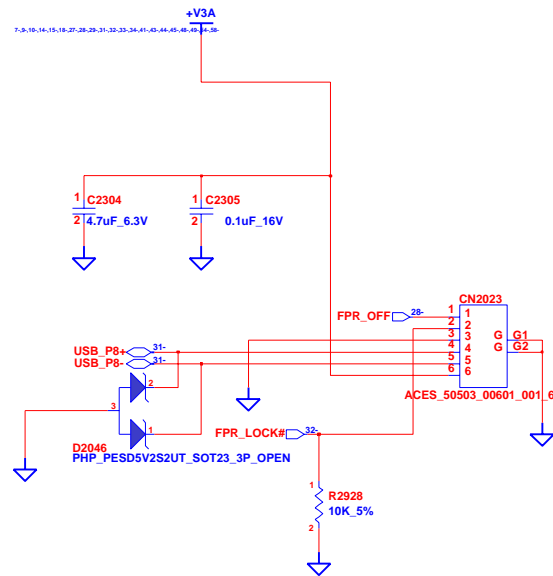
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SIZE A3	CODE CS	DOC. NUMBER <i>1310A2400201</i>	REV AX2
CHANGE by <i>Thomas Ho</i>		11-Nov-2010	
SHEET		40	OF 58

	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

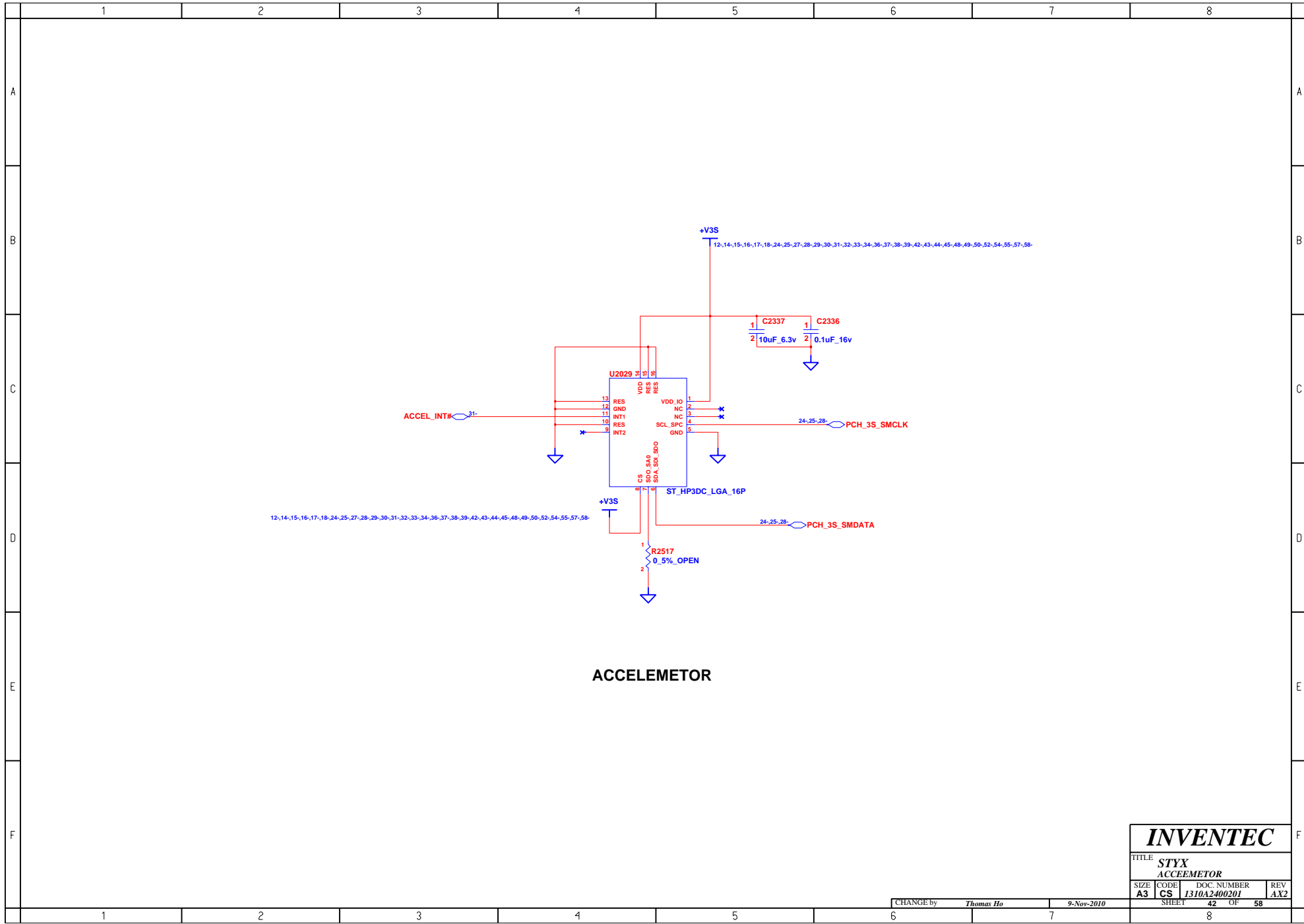


FINGER PRINTER CNTR

INVENTEC

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

CHANGE by *Thomas Ho* 9-Nov-2010



ACCELEMETOR

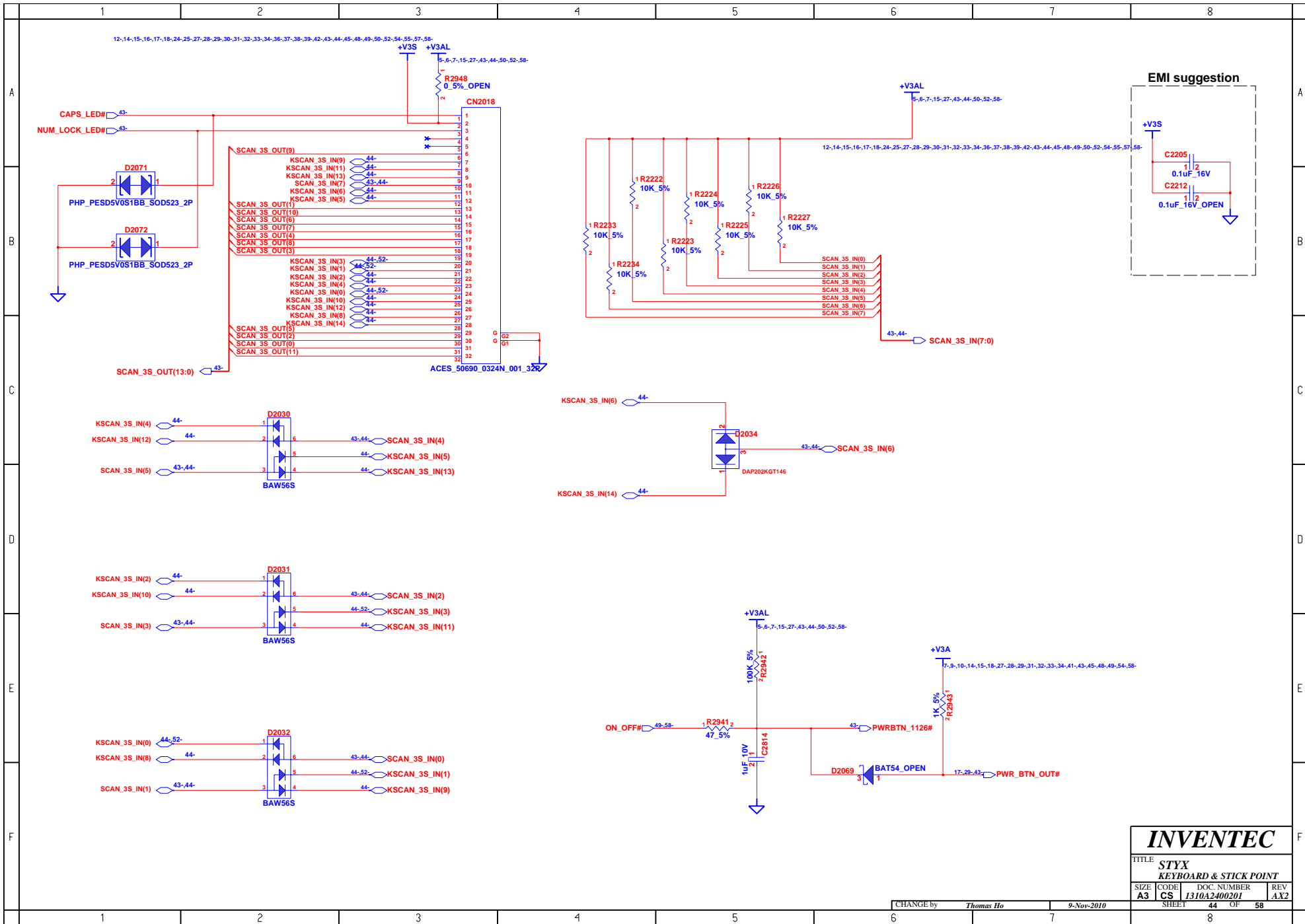
INVENTEC

TITLE
**STYX
 ACCELEMETOR**

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

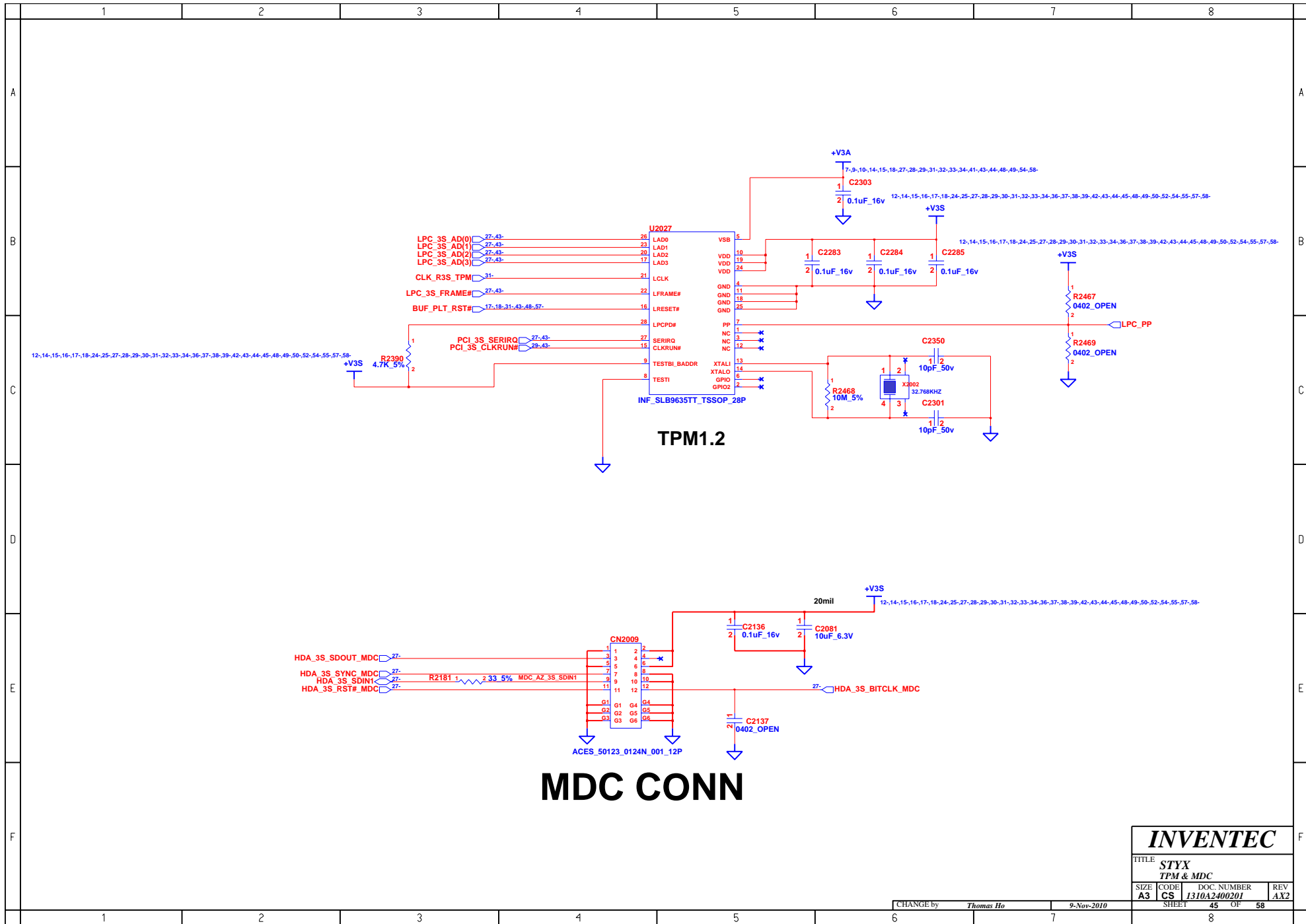
SHEET 42 OF 58

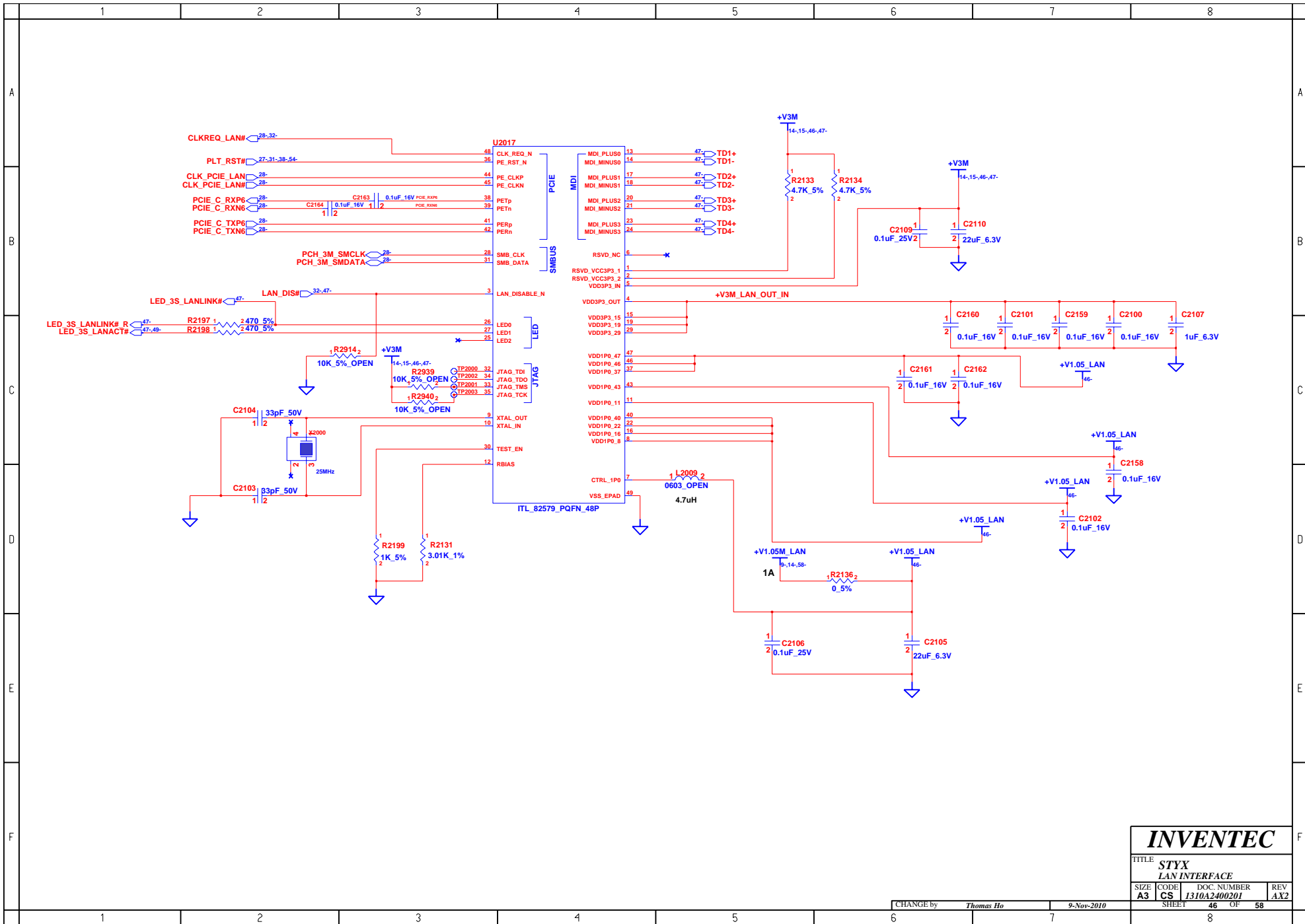


INVENTEC

TITLE
**STYX
 KEYBOARD & STICK POINT**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2

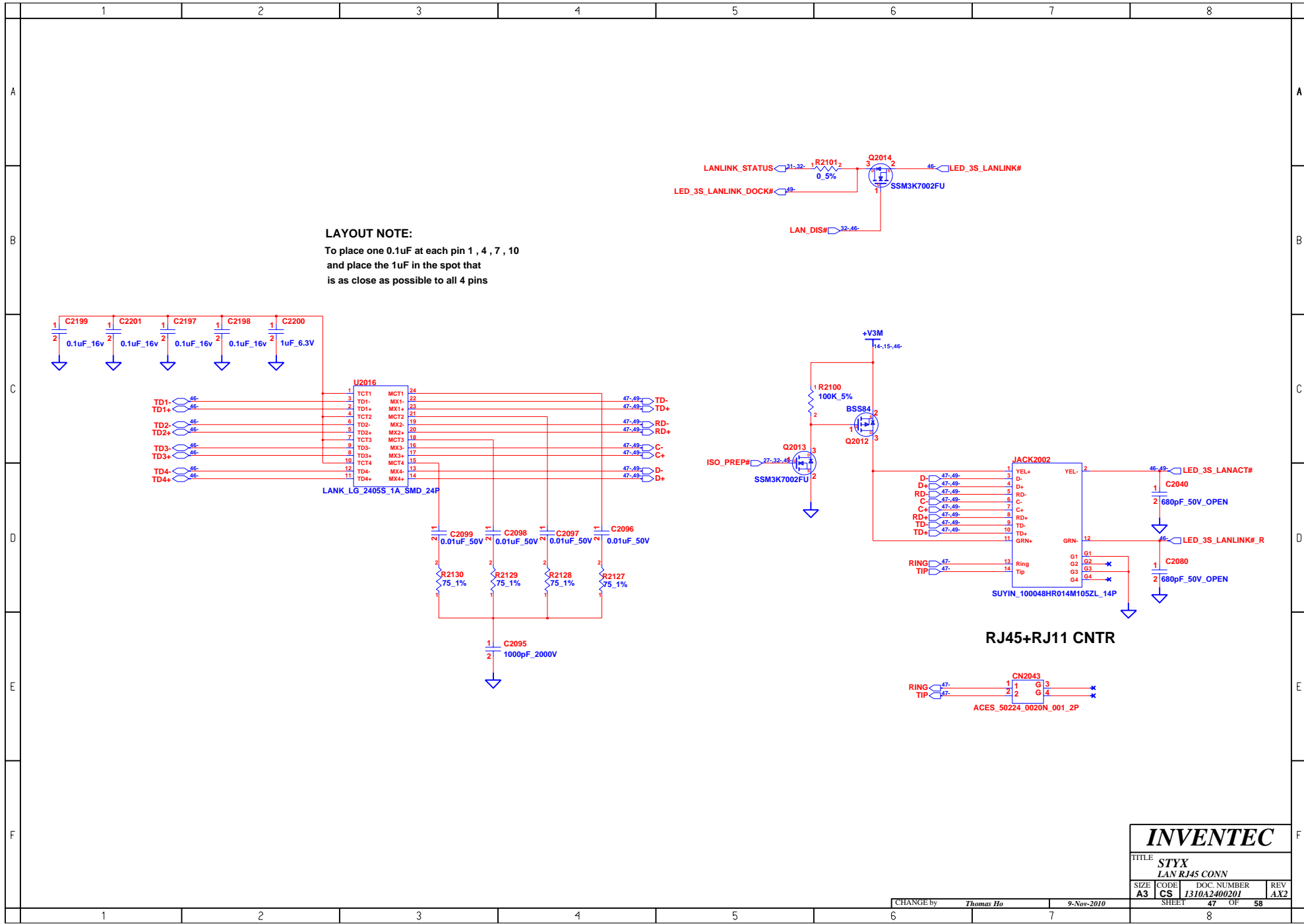




INVENTEC

TITLE			
STYX LAN INTERFACE			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2
CHANGE by		SHEET	OF
Thomas Ho		46	58

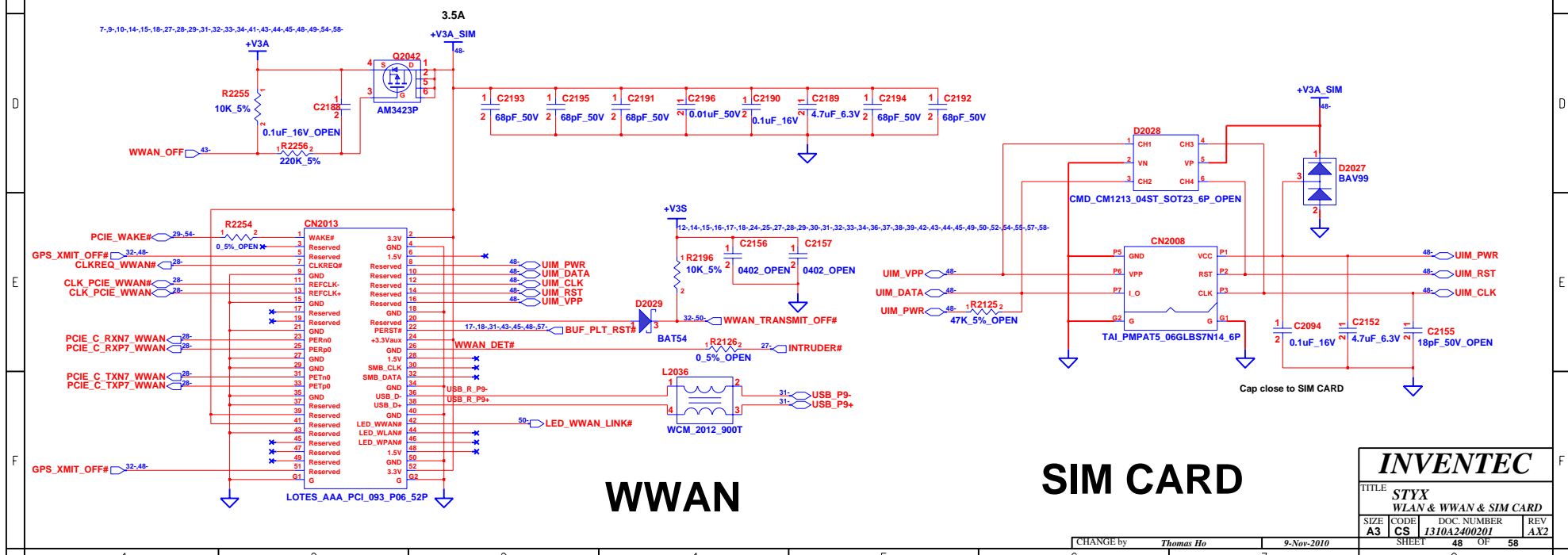
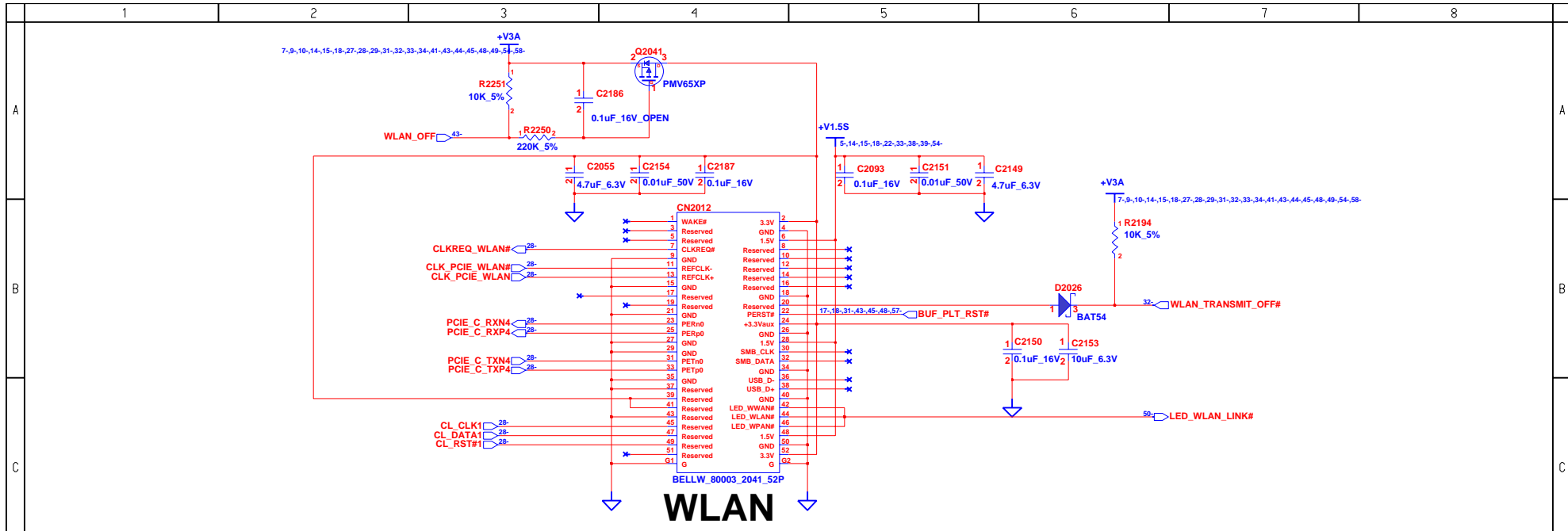
9-Nov-2010



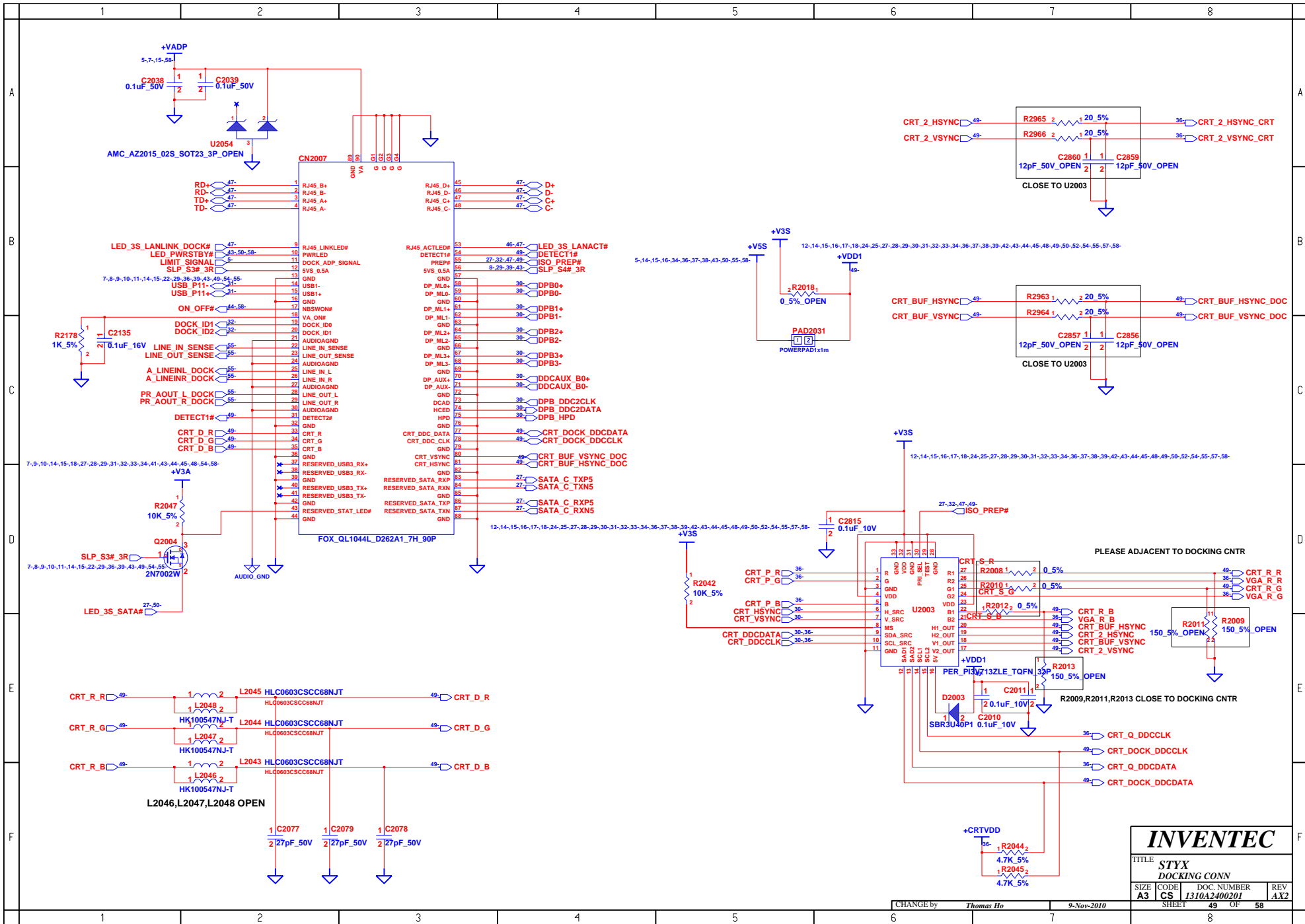
LAYOUT NOTE:
 To place one 0.1uF at each pin 1, 4, 7, 10
 and place the 1uF in the spot that
 is as close as possible to all 4 pins

RJ45+RJ11 CNTR

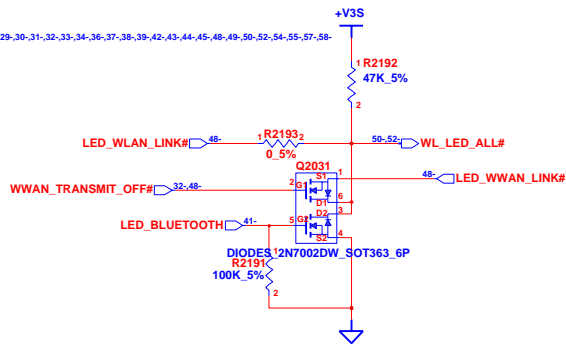
INVENTEC			
TITLE STYX LAN RJ45 CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
		SHEET 47 OF 58	



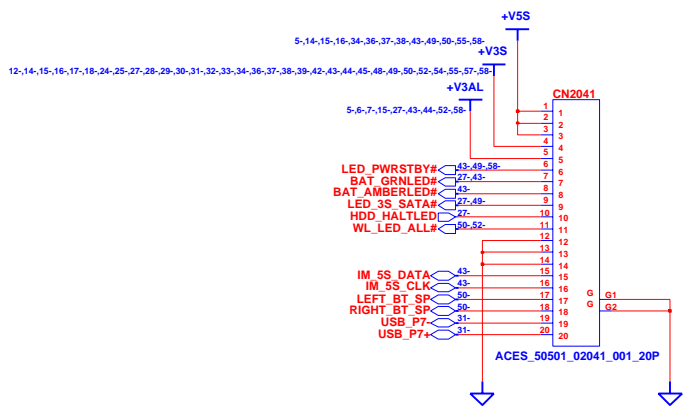
INVENTEC			
TITLE STYX			
WLAN & WWAN & SIM CARD			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	
SHEET 48		OF 58	



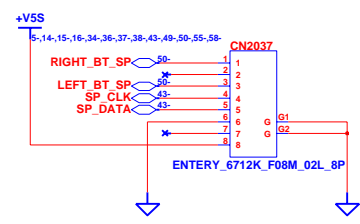
INVENTEC			
TITLE STYX DOCKING CONN			
SIZE A3	CODE CS	DOC NUMBER 1310A240201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 49		OF 58	



WLAN_WWAN_Bluetooth_LED

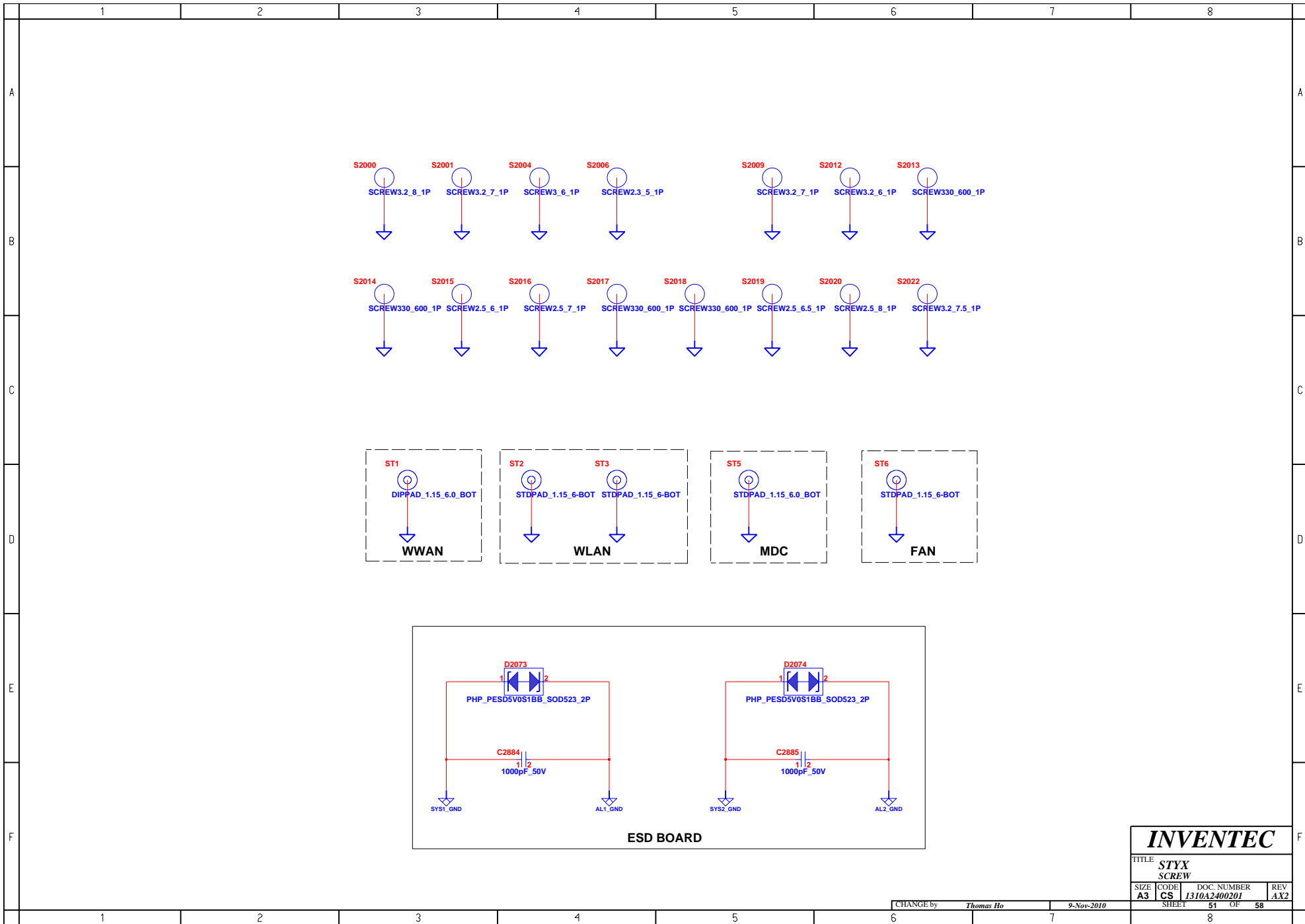


SMART CARD

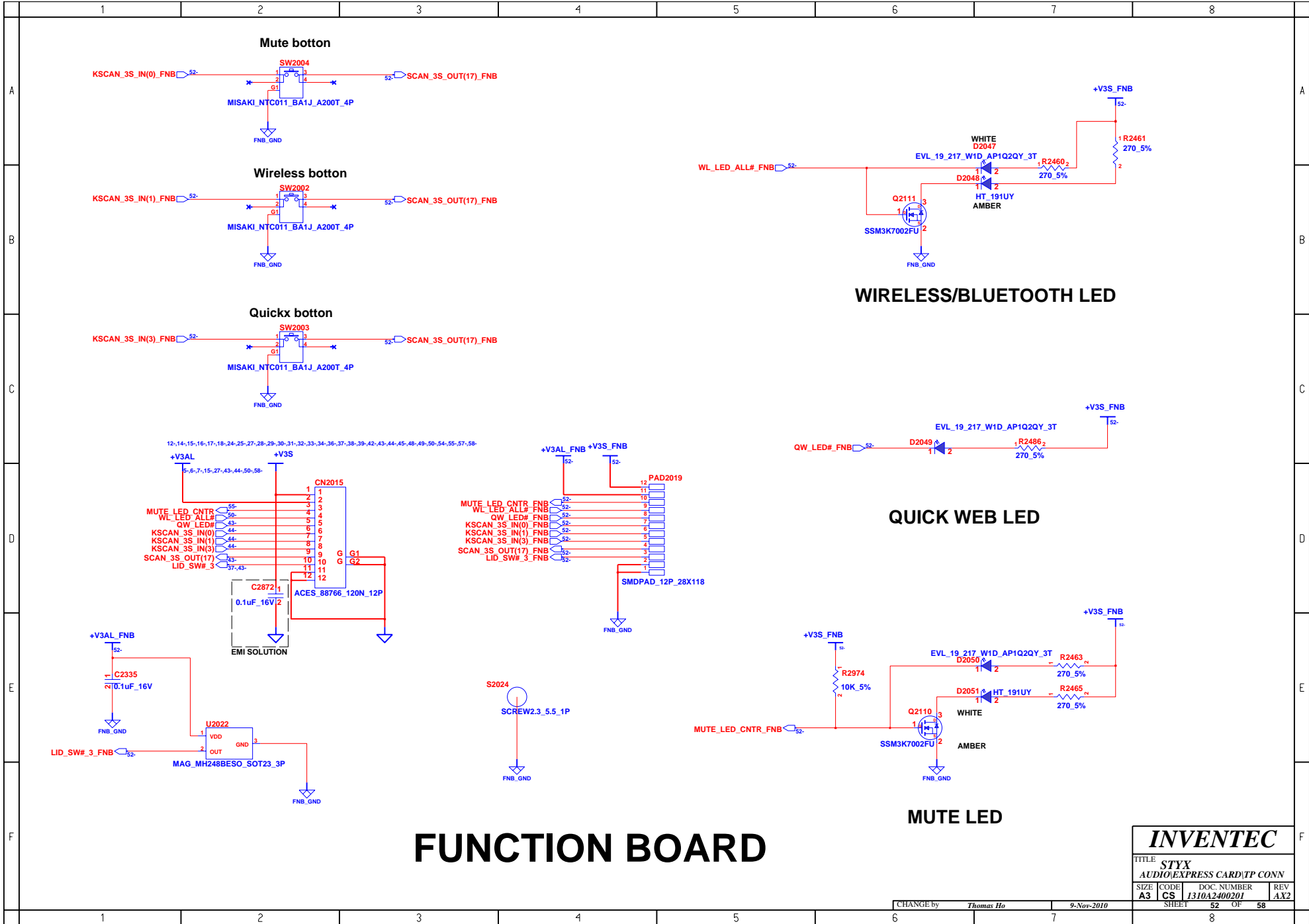


STICK POINT

INVENTEC			
TITLE STYX			
power/wlan/wlan/Bt LED			
SIZE A3	CODE CS	DOC NUMBER 1310A2400201	REV AX2
CHANGE by <i>Thomas Ho</i>		9-Nov-2010	
SHEET 50		OF 58	



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



FUNCTION BOARD

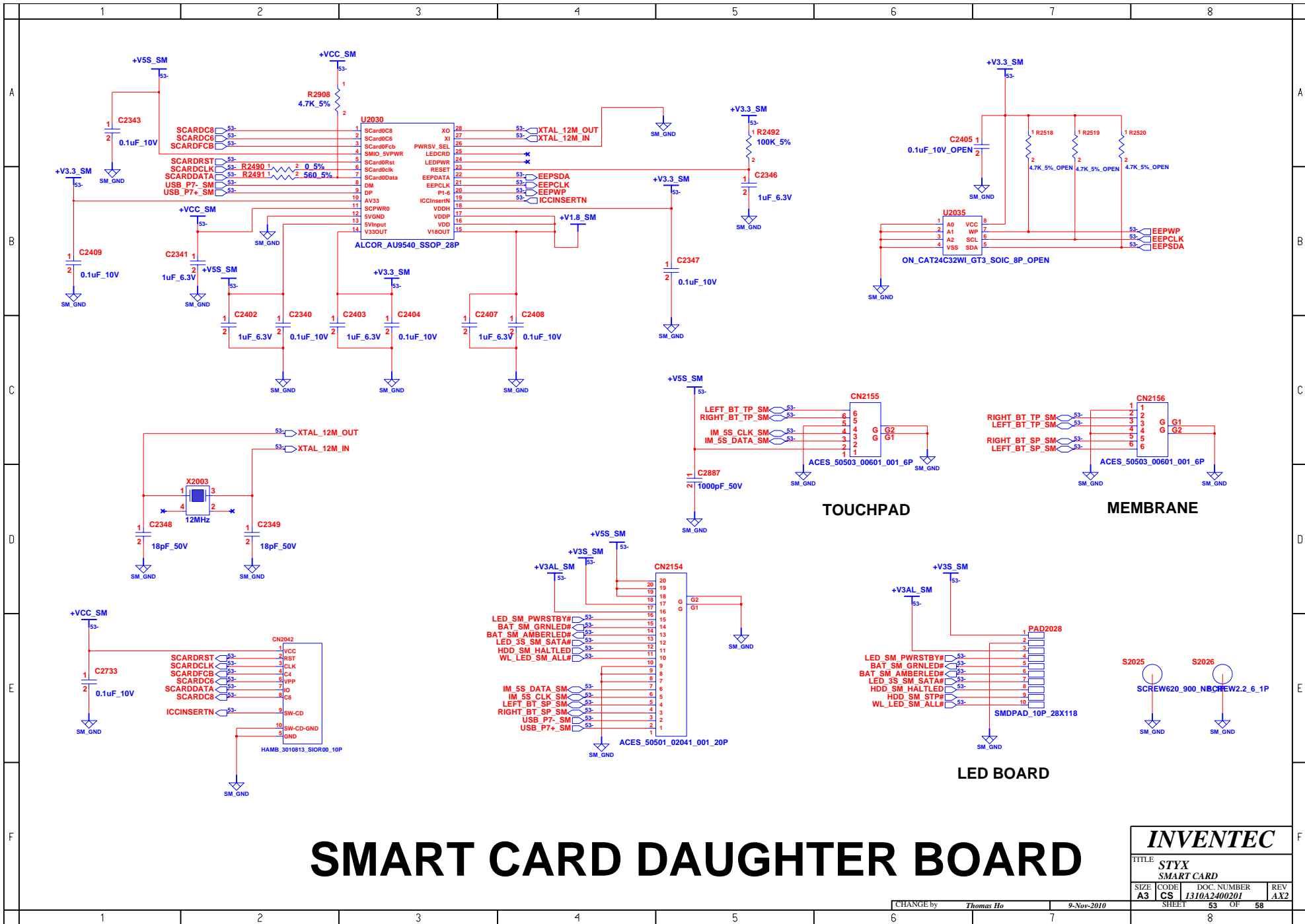
INVENTEC

TITLE **STYX**
AUDIO EXPRESS CARD TP CONN

SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
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CHANGE by *Thomas Ho* 9-Nov-2010

SHEET 52 OF 58



SMART CARD DAUGHTER BOARD

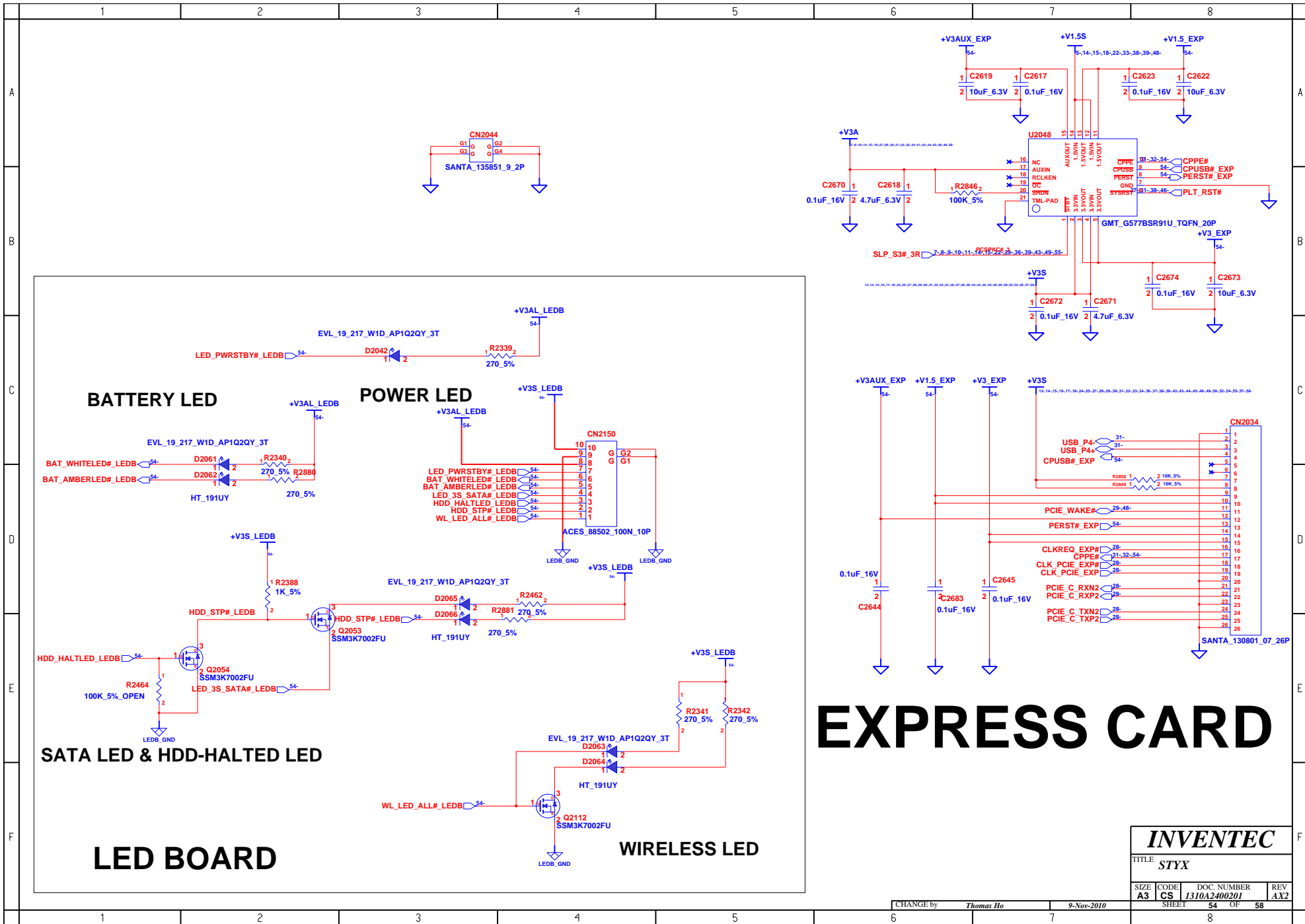
INVENTEC

TITLE
STYX
SMART CARD

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2400201	AX2

CHANGE by Thomas Ho 9-Nov-2010

SHEET 53 OF 58



EXPRESS CARD

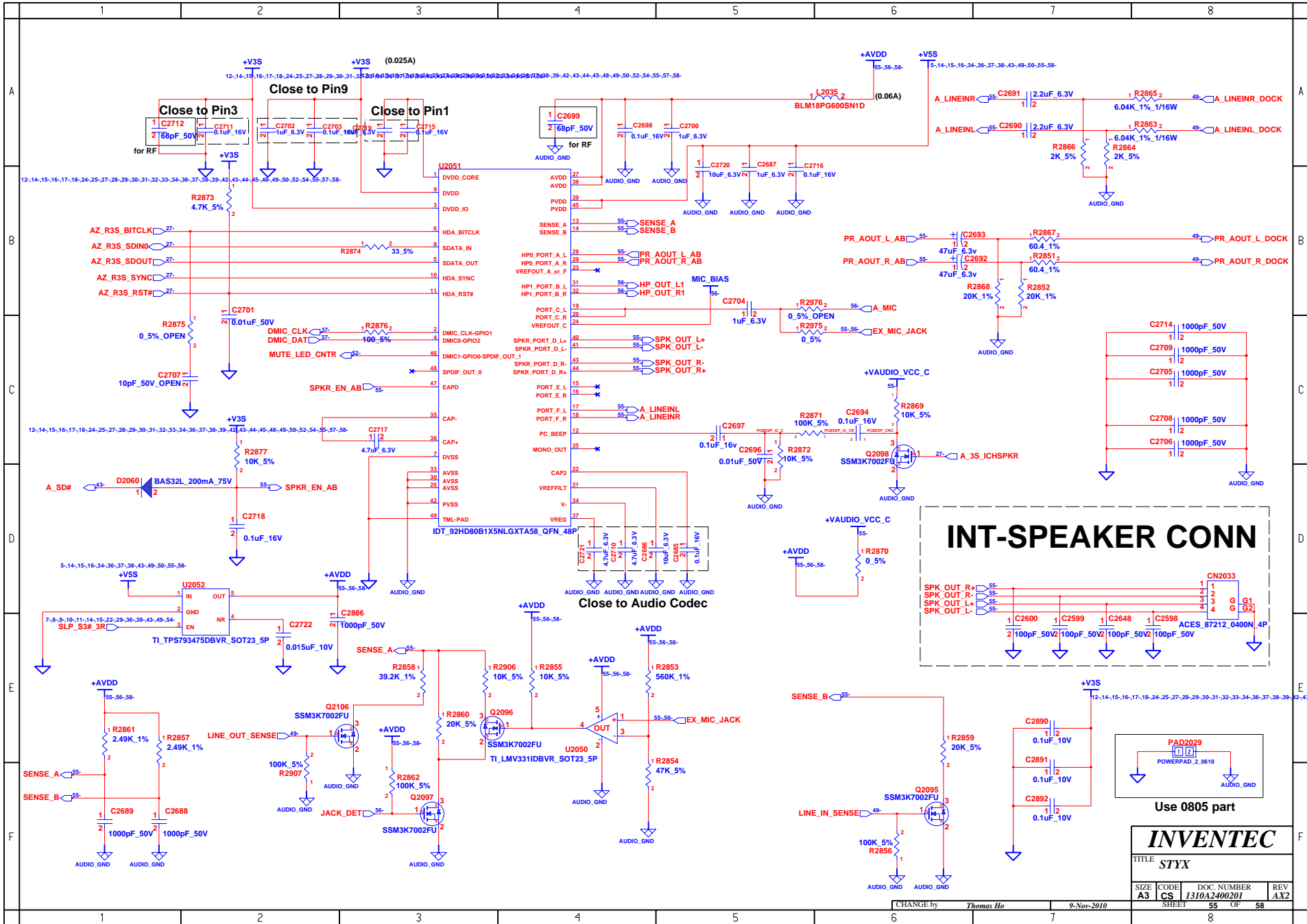
INVENTEC

TITLE *STYX*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2

SHEET	54	OF	58
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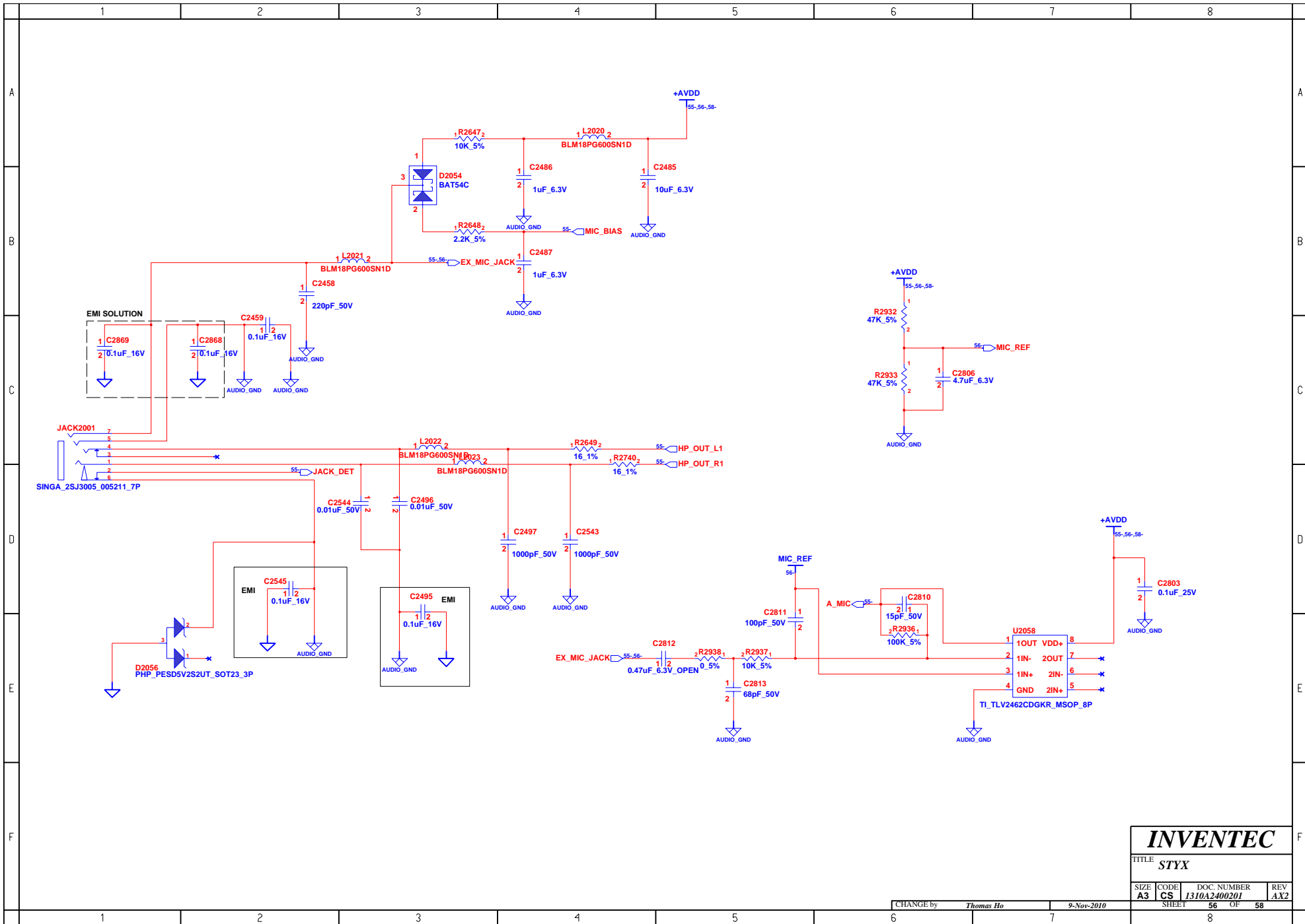
CHANGE by *Thomas Ho* 9-Nov-2010



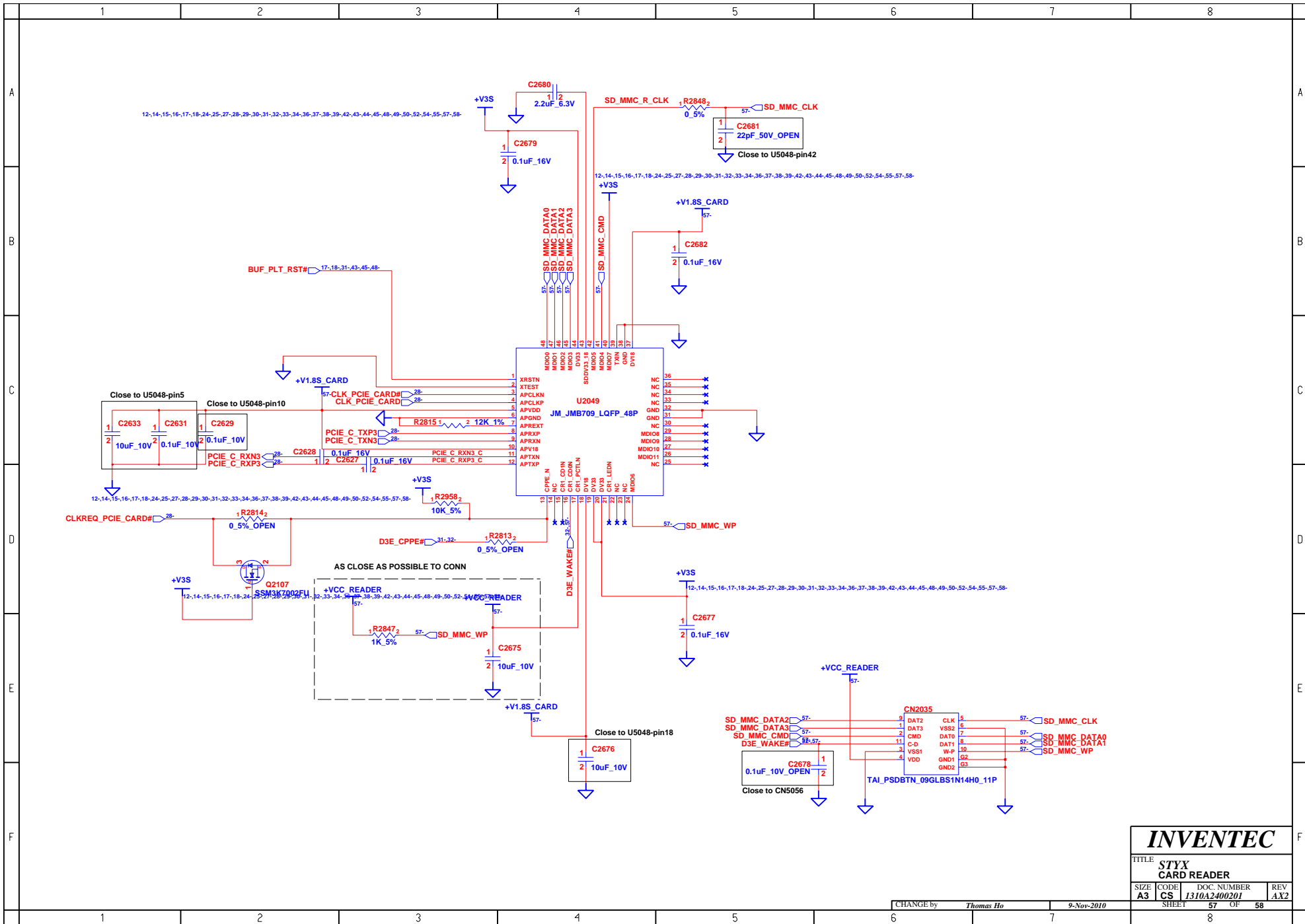
INVENTEC

TITLE: STYX

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2400201	AX2
SHEET		OF	58



INVENTEC			
TITLE STYX			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
CHANGE by Thomas Ho		9-Nov-2010	SHEET 56 OF 58



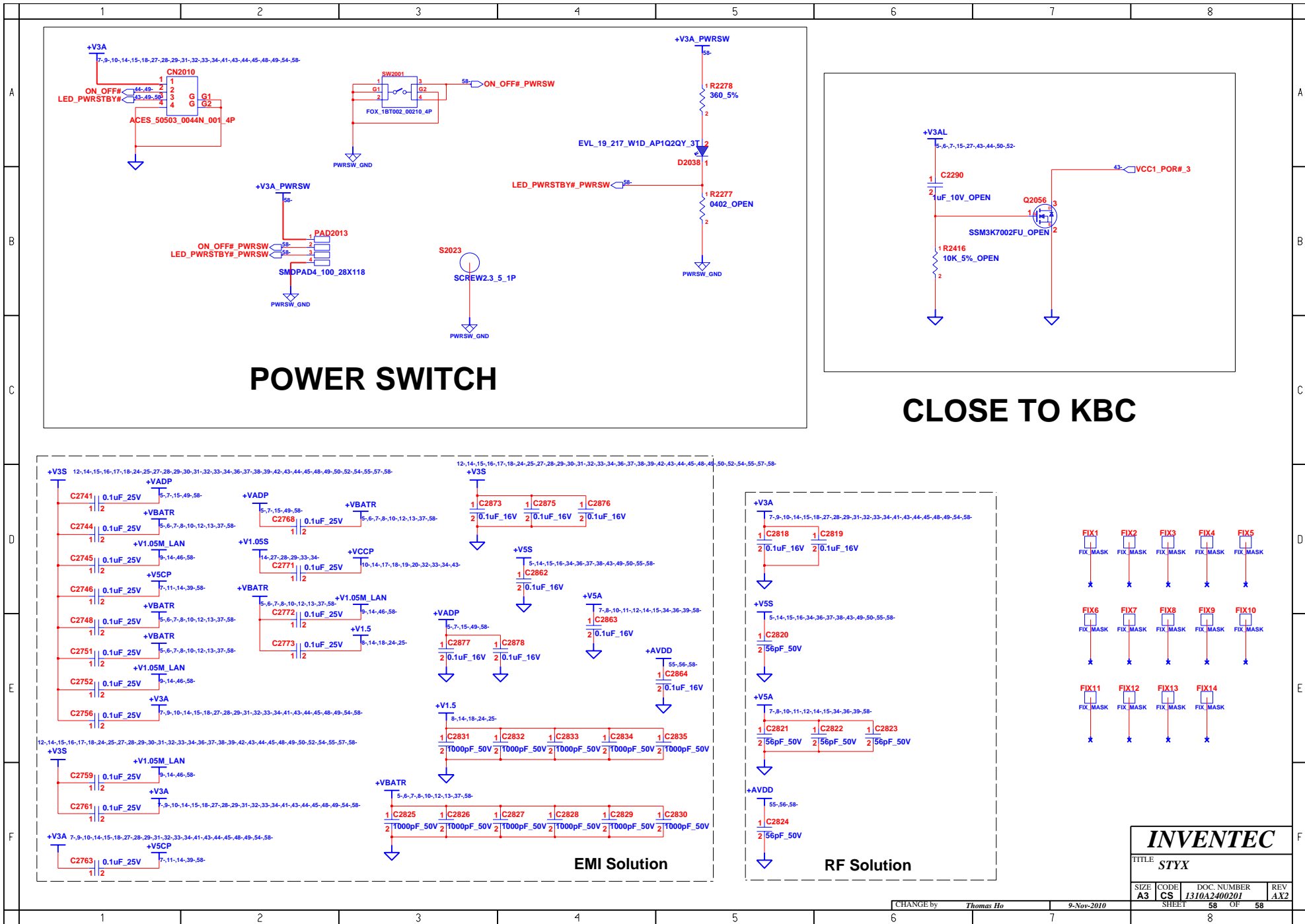
INVENTEC

TITLE
**STYX
 CARD READER**

SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
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CHANGE by *Thomas Ho* 9-Nov-2010

SHEET 57 OF 58



POWER SWITCH

CLOSE TO KBC

EMI Solution

RF Solution

INVENTEC			
TITLE STYX			
SIZE A3	CODE CS	DOC. NUMBER 1310A2400201	REV AX2
SHEET 58		OF 58	