Galileo

MV BUILD

DATE	CHANGE NO.	REV

	EE	DATE	POWER	DATE
DRAWER				
DESIGN				
CHECK				
RESPONSIBLE				

SIZE = 3 VER :

FILE NAME : XXXX-XXXXXX-XX

P/N XXXXXXXXXXX

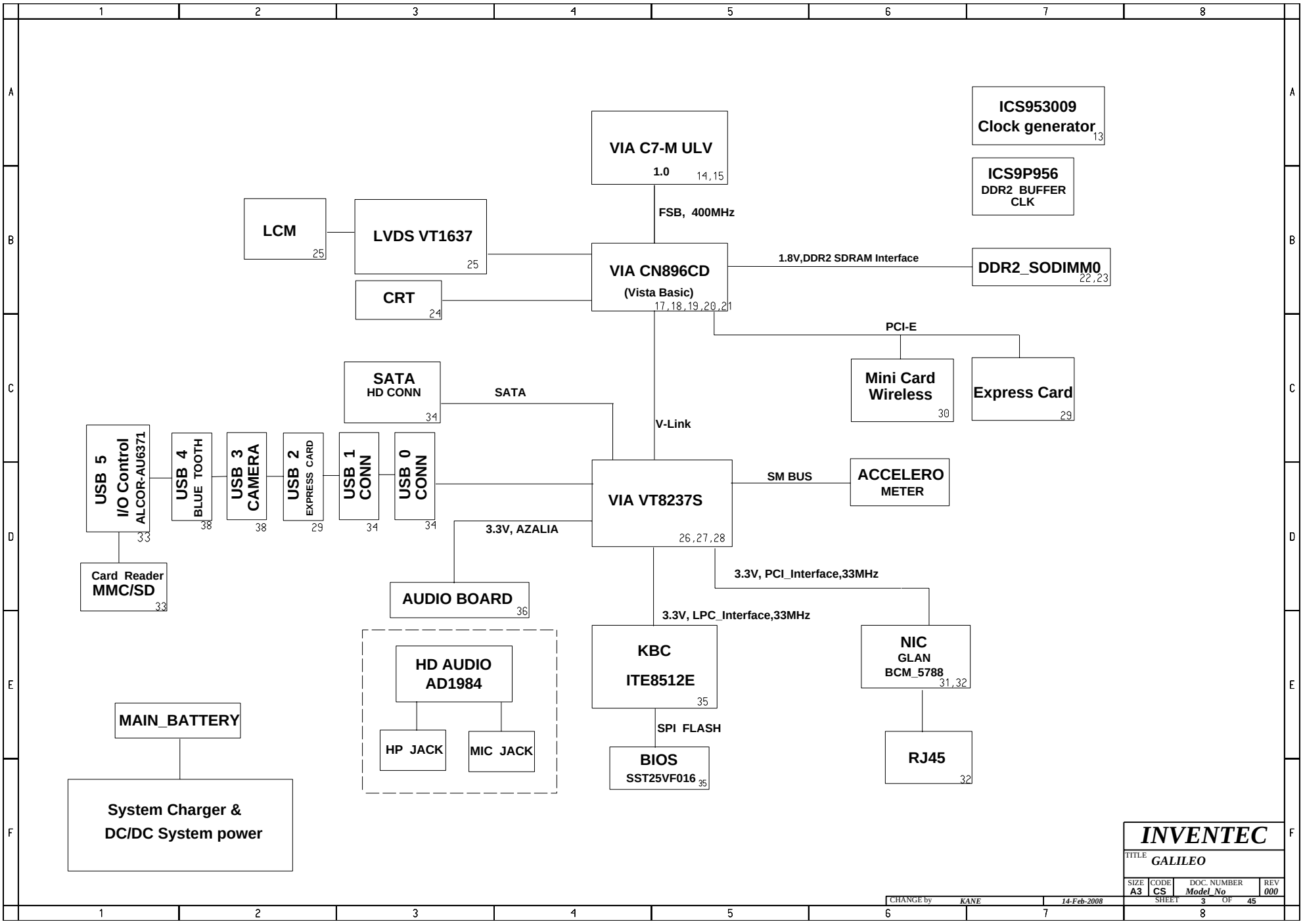
INVENTEC

TITLE ***GALILEO***

SIZE	CODE	DOC. NUMBER	REV
A3	CS		*000*

SHEET 1 OF 45

TABLE OF CONTENTS



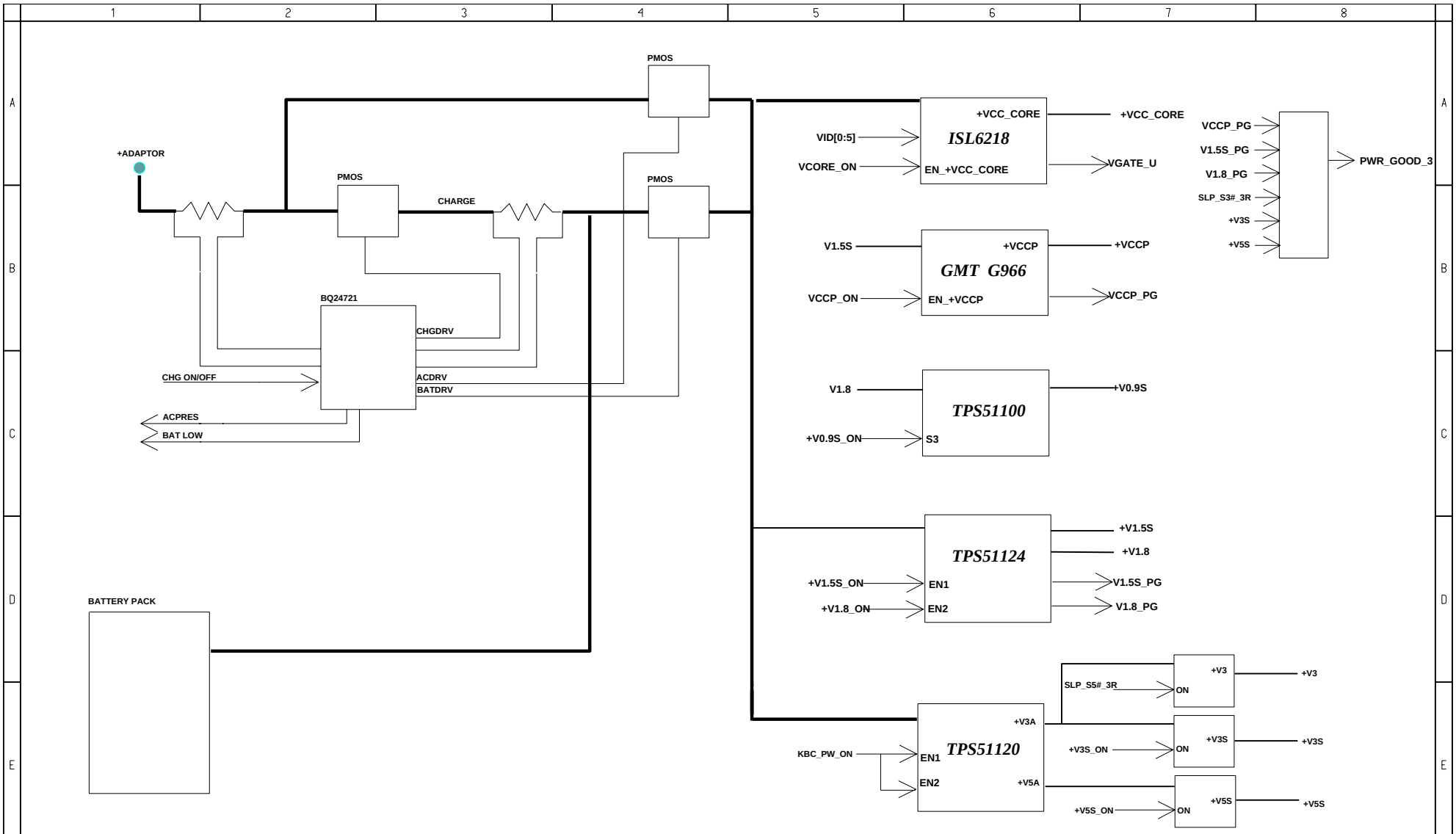
CHANGE by	KANE	14-Feb-2008		

INVENTEC

TITLE: *GALILEO*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 3 OF 45

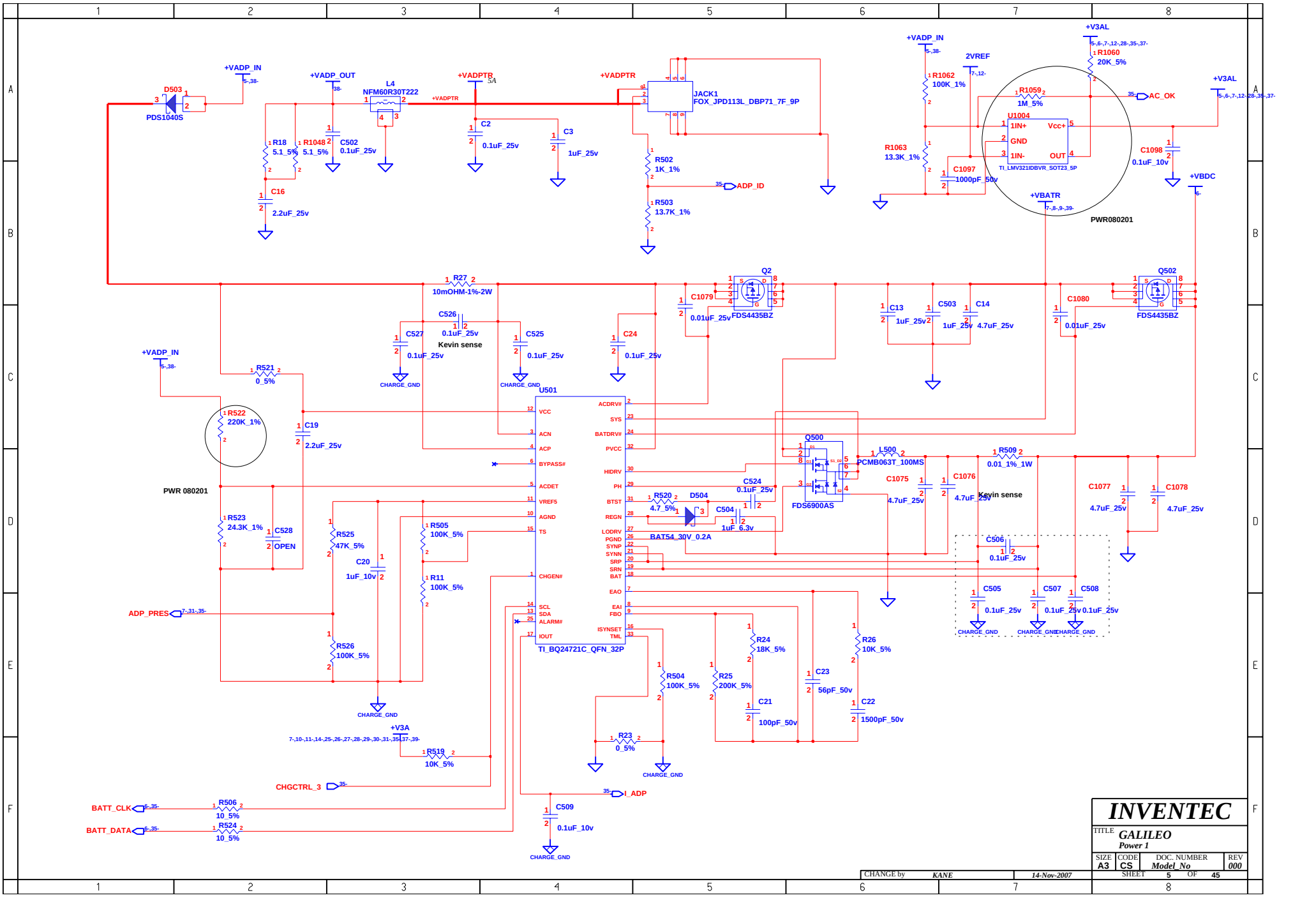


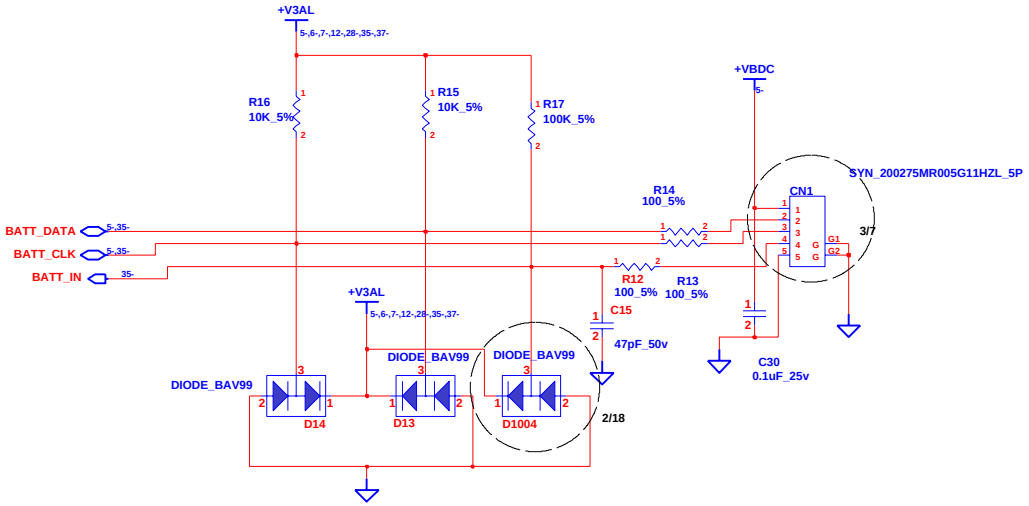
CHANGE by	KANE	30-Oct-2007	SHEET 4 OF 45	

INVENTEC

TITLE *GALILEO*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*


+VADP_IN
D503
PDS1040S
+VADP_OUT
L4
NFM60R30T222
+VADPTR
JACK1
FOX_JPD113L_DBP71_7F_9P
R18
5.1_5%
R1048
5.1_5%
C502
0.1uF_25v
C16
2.2uF_25v
C2
0.1uF_25v
C3
1uF_25v
R502
1K_1%
R503
13.7K_1%
ADP_ID
+V3AL
R1062
100K_1%
2VREF
R1060
20K_5%
R1059
1M_5%
AC_OK
U1004
TI_LMV321IDBVR_SOT23_5P
R1063
13.3K_1%
C1097
1000pF_50v
C1098
0.1uF_10v
+VBDC
+VBATR
PWR080201
R27
10mOHM-1%-2W
Q2
FDS4435BZ
C1079
0.01uF_25v
C526
0.1uF_25v
Kevin sense
C527
0.1uF_25v
C525
0.1uF_25v
C24
0.1uF_25v
C13
1uF_25v
C503
1uF_25v
C14
4.7uF_25v
Q502
C1080
0.01uF_25v
R521
0_5%
R522
220K_1%
C19
2.2uF_25v
U501
TI_BQ24721C_QFN_32P
VCC
ACN
ACP
BYPASS#
ACDET
VREF5
AGND
TS
CHGEN#
SCL
SDA
ALARM#
IOUT
ACDRV#
SYS
BATDRV#
PVCC
HIDRV
PH
BTST
REGN
LODRV
PGND
SYNP
SYNN
SRP
SRN
BAT
EAO
EAI
FBO
ISYNSET
TMI
Q500
FDS6900AS
L500
PCMB063T_100MS
R509
0.01_1%_1W
C1075
4.7uF_25v
C1076
4.7uF_25v
Kevin sense
C1077
4.7uF_25v
C1078
4.7uF_25v
R520
4.7_5%
D504
BAT54_30V_0.2A
C504
1uF_6.3v
C524
0.1uF_25v
C506
0.1uF_25v
C505
0.1uF_25v
C507
0.1uF_25v
C508
0.1uF_25v
R523
24.3K_1%
C528
OPEN
R525
47K_5%
C20
1uF_10v
R505
100K_5%
R11
100K_5%
R526
100K_5%
R504
100K_5%
R24
18K_5%
R25
200K_5%
R26
10K_5%
C23
56pF_50v
C21
100pF_50v
C22
1500pF_50v
R23
0_5%
+V3A
R519
10K_5%
CHGCTRL_3
I_ADP
C509
0.1uF_10v
BATT_CLK
BATT_DATA
R506
10_5%
R524
10_5%
ADP_PRES
CHARGE_GND
INVENTEC
TITLE
GALILEO
Power 1
SIZE
A3
CODE
CS
DOC. NUMBER
Model_No
REV
000
SHEET
5
OF
45
CHANGE by
KANE
14-Nov-2007



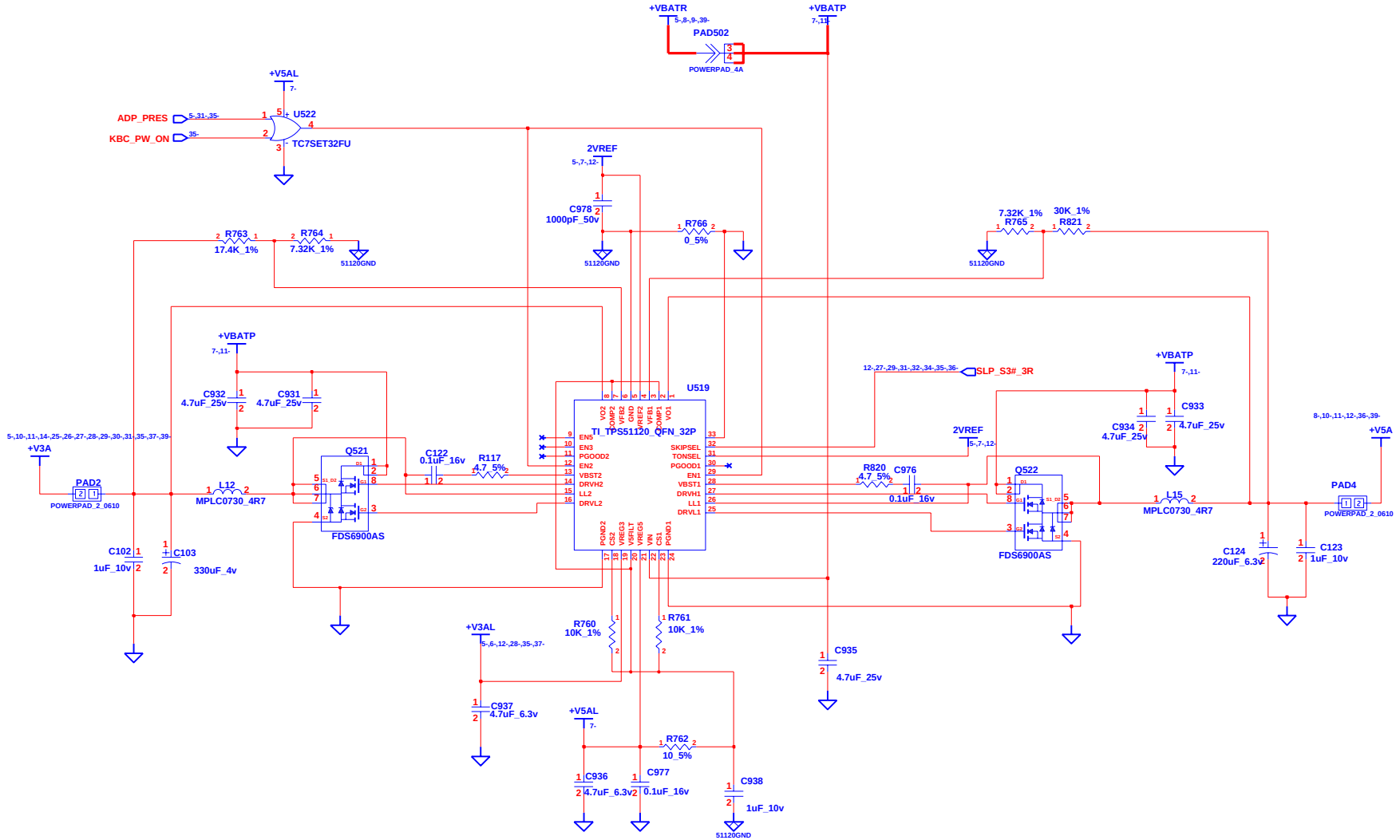
CHANGE by	KANE	7-Mar-2008		

INVENTEC

TITLE: *GALILEO*
Power 2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 6 OF 45



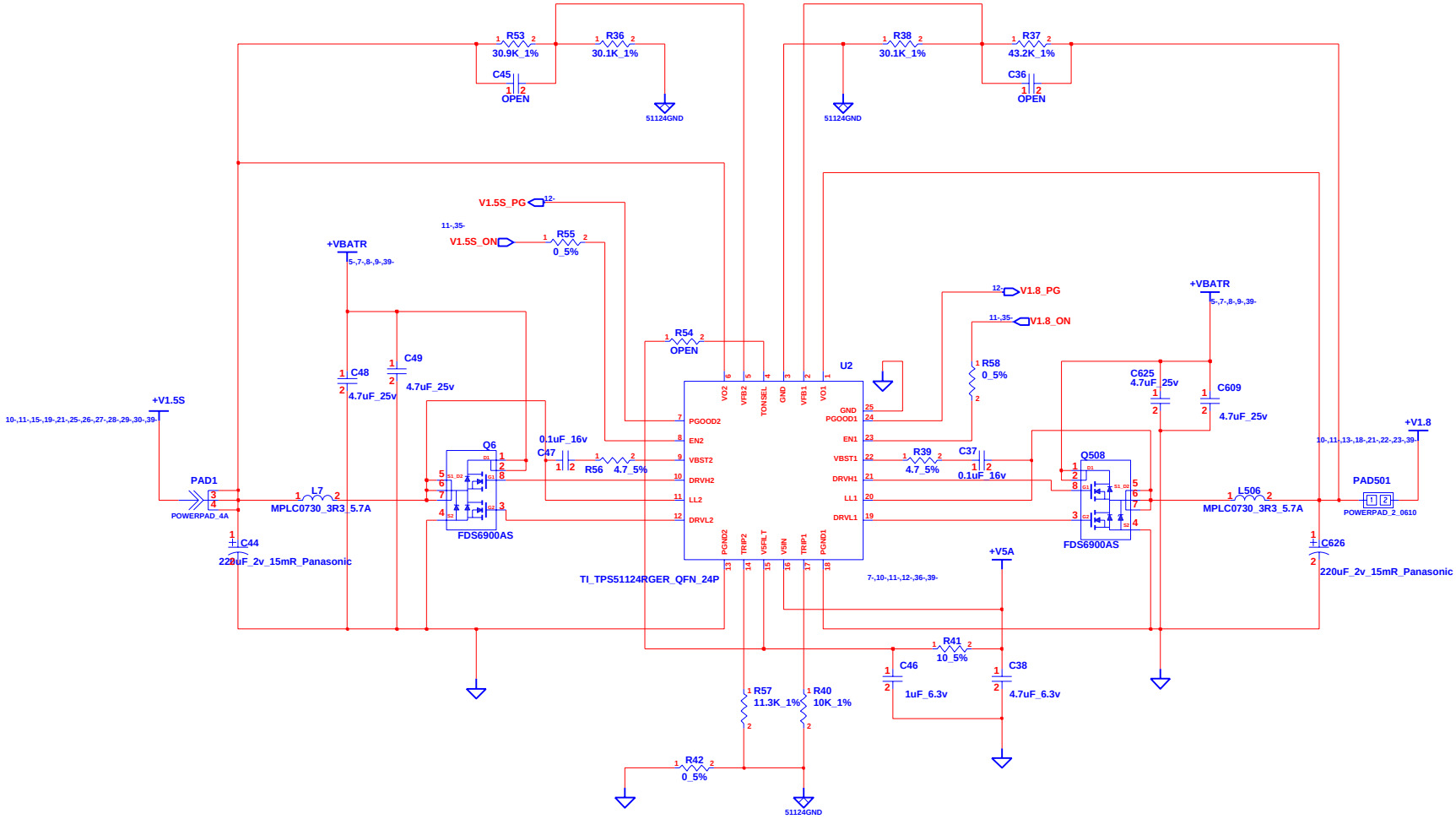
CHANGE by	KANE	17-Sep-2007	

INVENTEC

TITLE: *GALILEO*
Power 3

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 7 OF 45



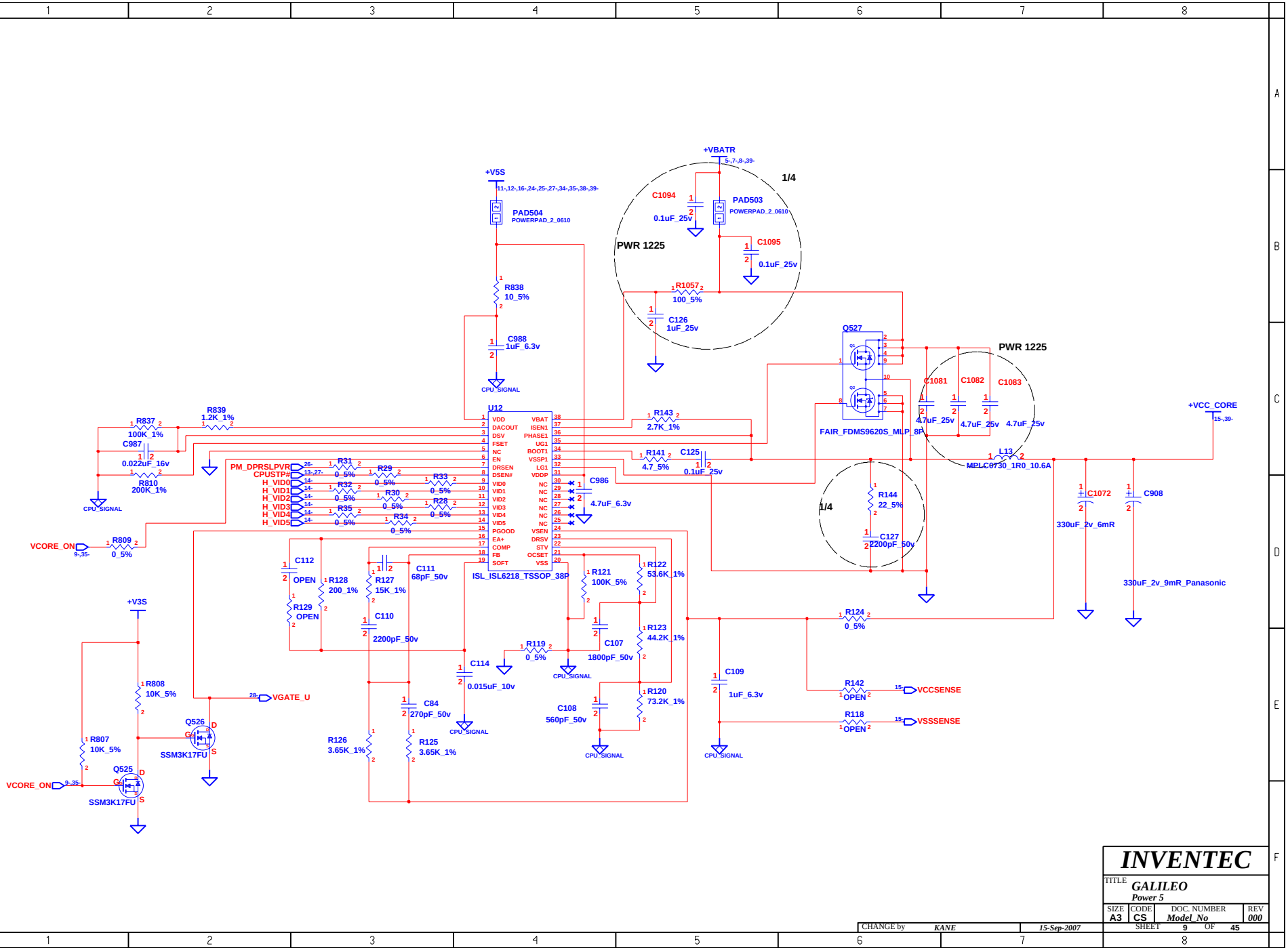
CHANGE by	KANE	26-Dec-2007		

INVENTEC

TITLE: *GALILEO*
Power 4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 8 OF 45



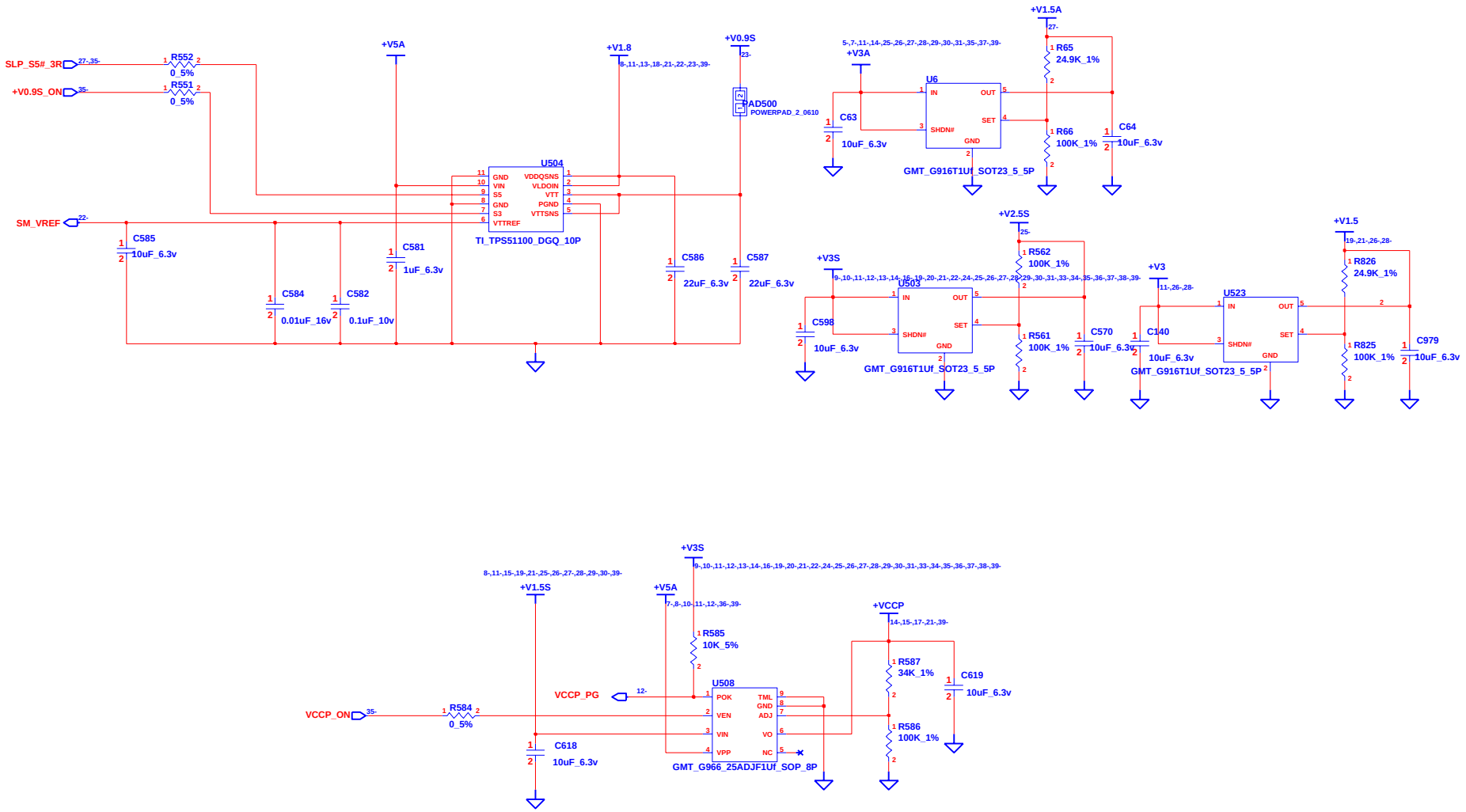
CHANGE by	KANE	15-Sep-2007	

INVENTEC

TITLE: *GALILEO*
Power 5

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 9 OF 45



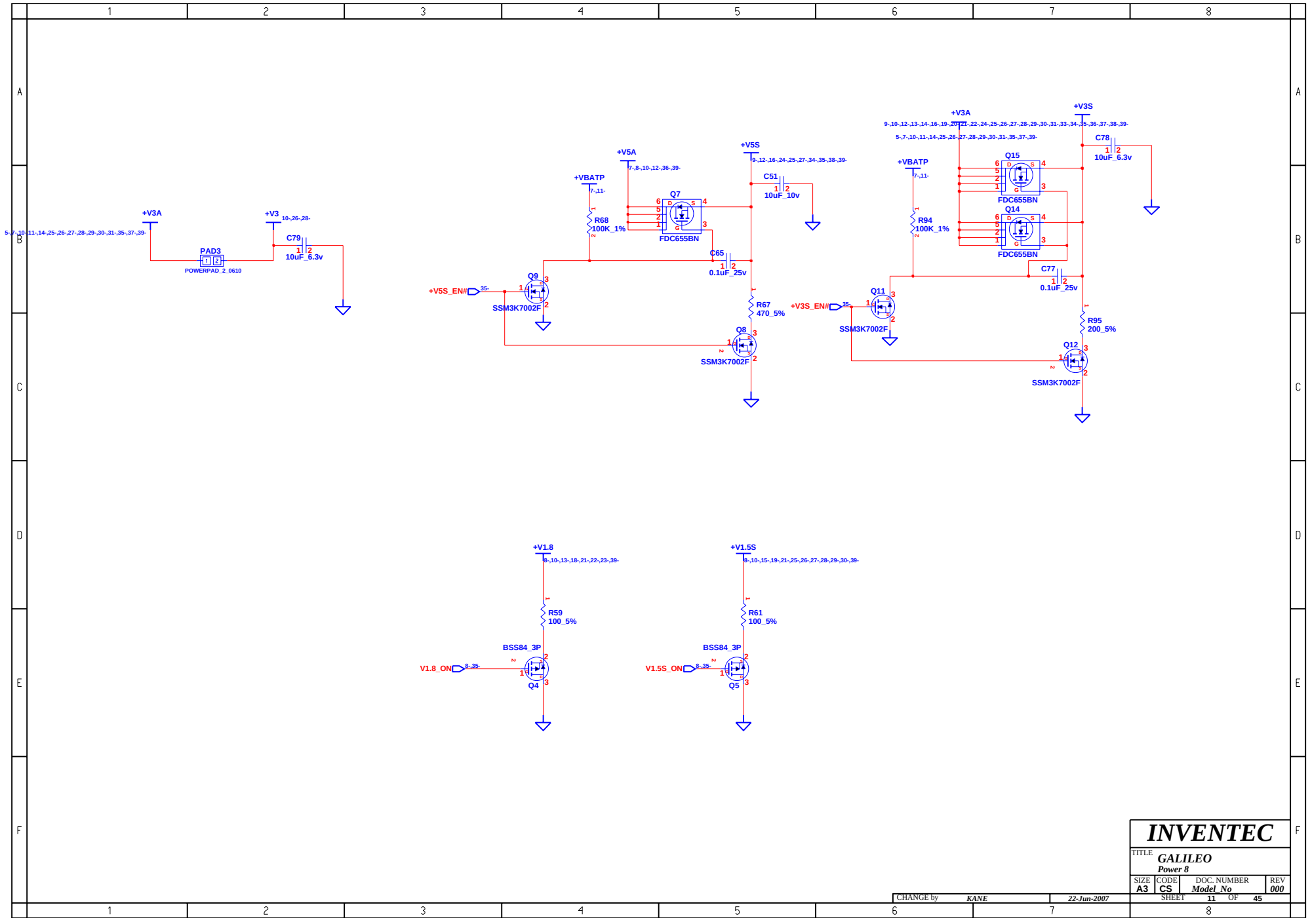
CHANGE by	KANE	15-Sep-2007	

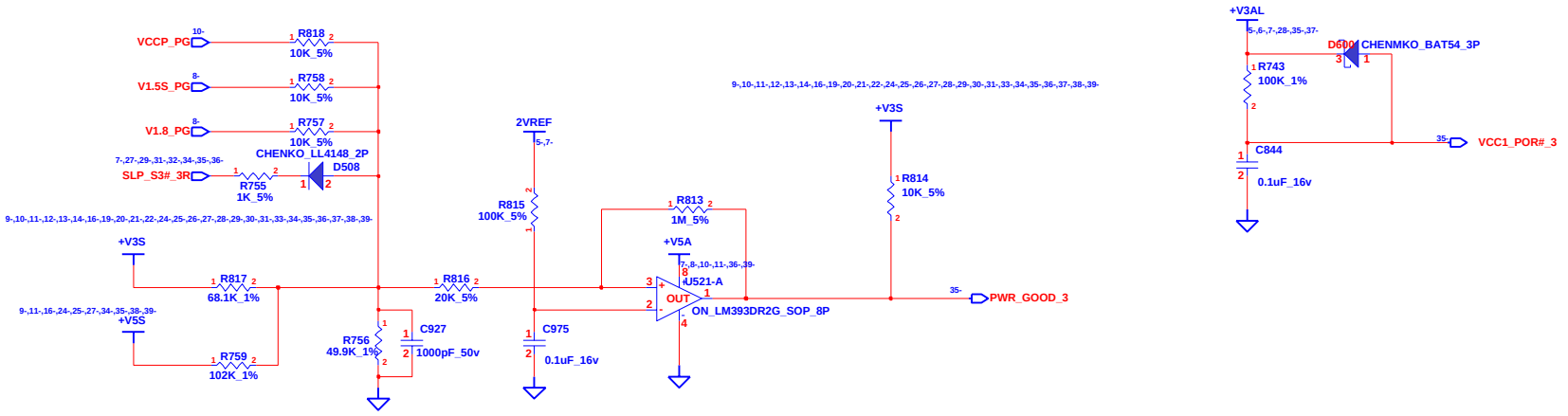
INVENTEC

TITLE: *GALILEO*
Power 6

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 10 OF 45


+V3A
+V3
10-,26-,28-
C79
10uF_6.3v
PAD3
POWERPAD_2_0610
+V5A
+V5S
9-,12-,16-,24-,25-,27-,34-,35-,38-,39-
C51
10uF_10v
+VBATP
Q7
R68
100K_1%
FDC655BN
C65
0.1uF_25v
+V5S_EN#
Q9
SSM3K7002F
R67
470_5%
Q8
SSM3K7002F
+V3S
C78
10uF_6.3v
Q15
Q14
R94
100K_1%
C77
0.1uF_25v
+V3S_EN#
Q11
SSM3K7002F
R95
200_5%
Q12
SSM3K7002F
+V1.8
R59
100_5%
BSS84_3P
V1.8_ON
Q4
+V1.5S
R61
100_5%
V1.5S_ON
Q5
INVENTEC
TITLE
GALILEO
Power 8
SIZE A3
CODE CS
DOC. NUMBER Model_No
REV 000
CHANGE by KANE
22-Jun-2007
SHEET 11 OF 45

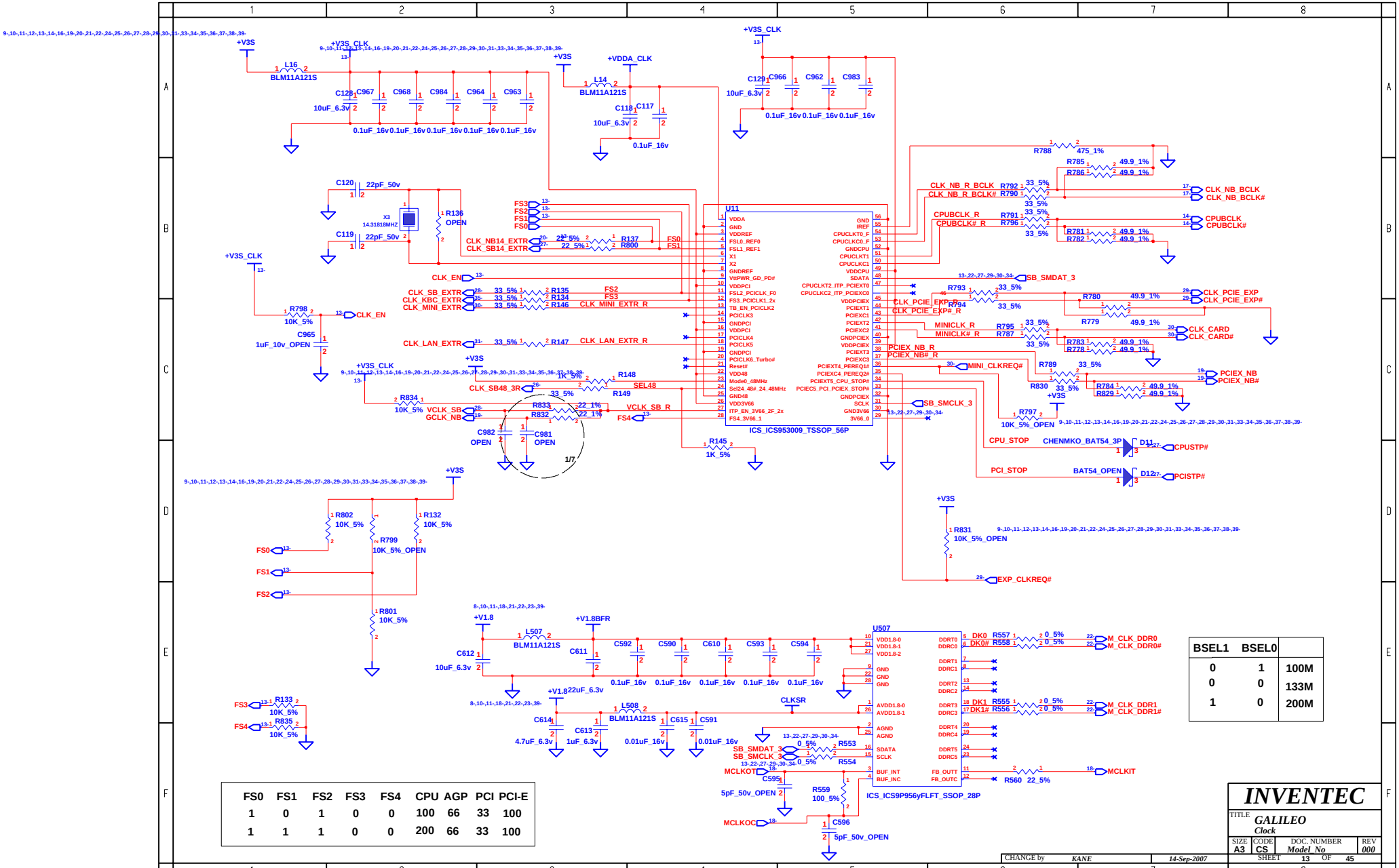


CHANGE by	GALILEO	26-Dec-2007	SHEET 12 OF 45	

INVENTEC

TITLE: *GALILEO-MB-X01-EE*

SIZE	CODE	DOC. NUMBER	REV
A3	CS		



FS0	FS1	FS2	FS3	FS4	CPU	AGP	PCI	PCI-E
1	0	1	0	0	100	66	33	100
1	1	1	0	0	200	66	33	100

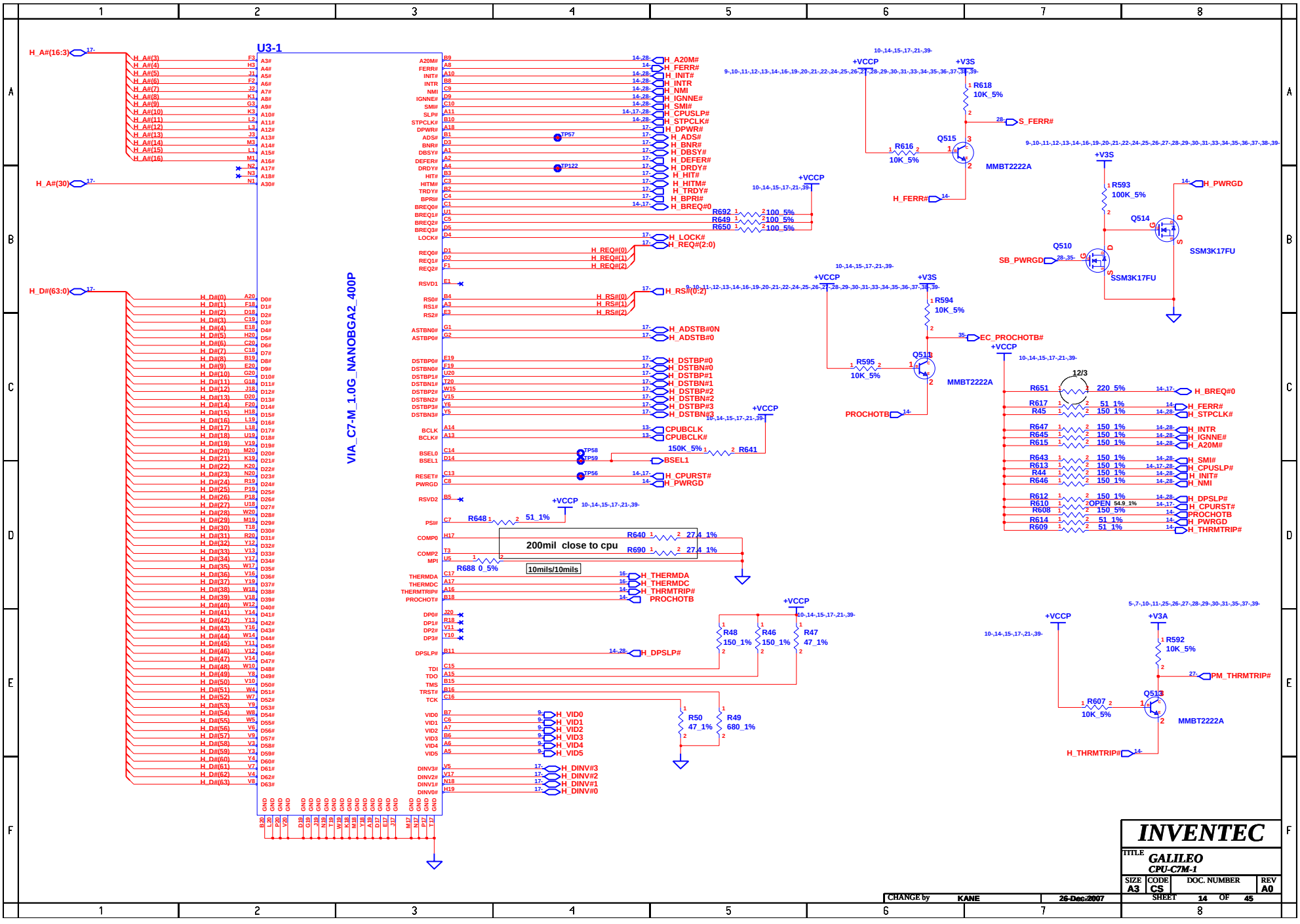
BSEL1	BSEL0	
0	1	100M
0	0	133M
1	0	200M

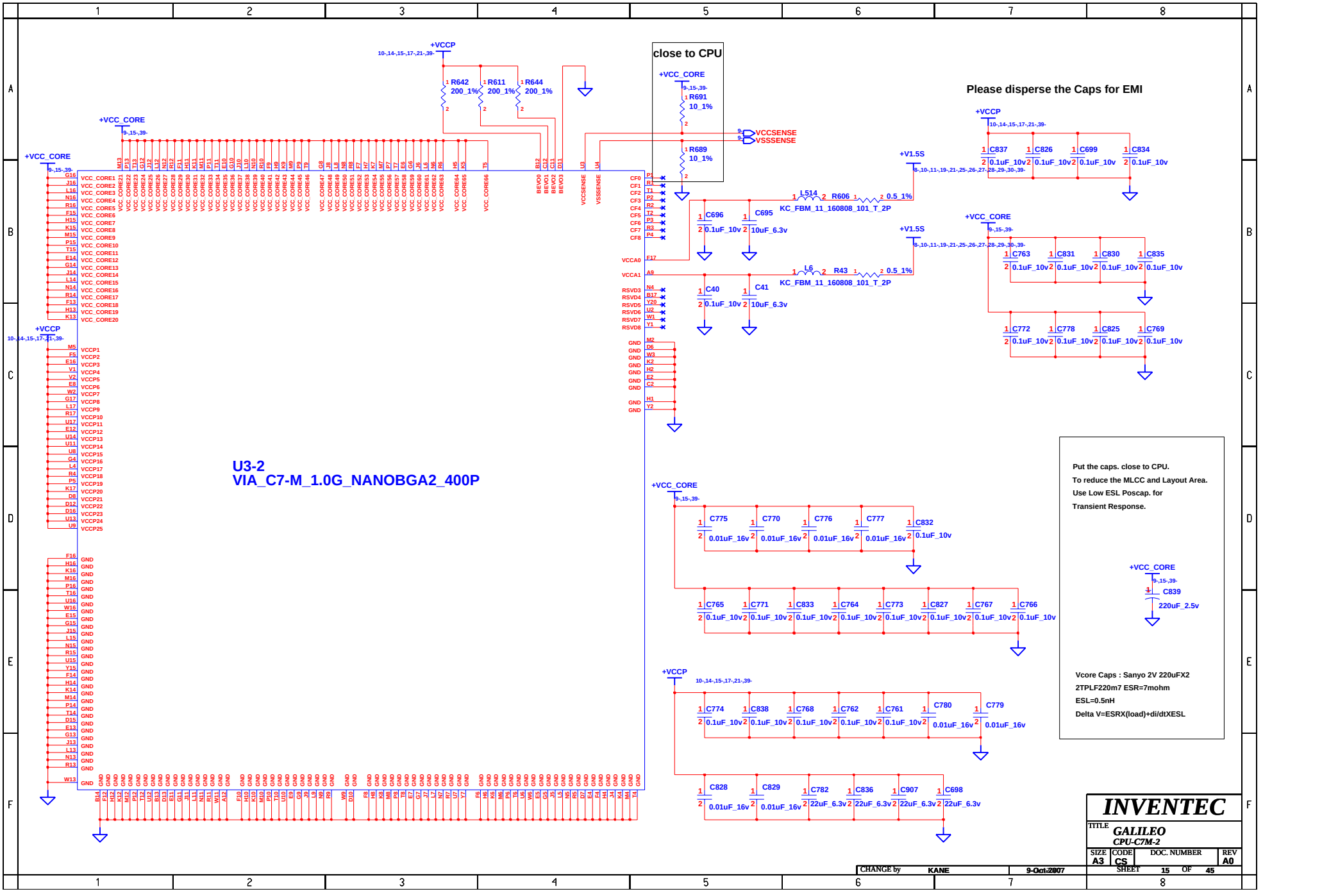
CHANGE by	KANE	14-Sep-2007	SHEET	13 OF 45

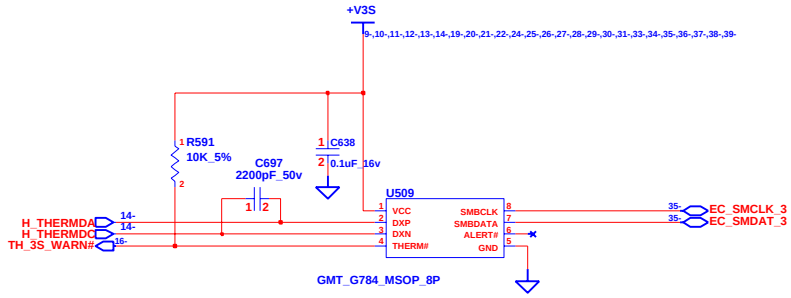
INVENTEC

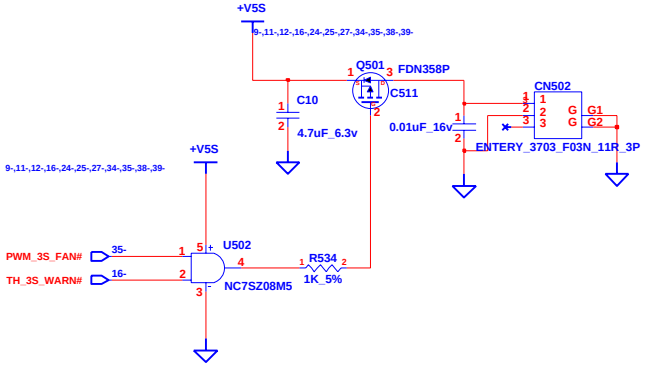
TITLE: GALILEO Clock

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model_No	000

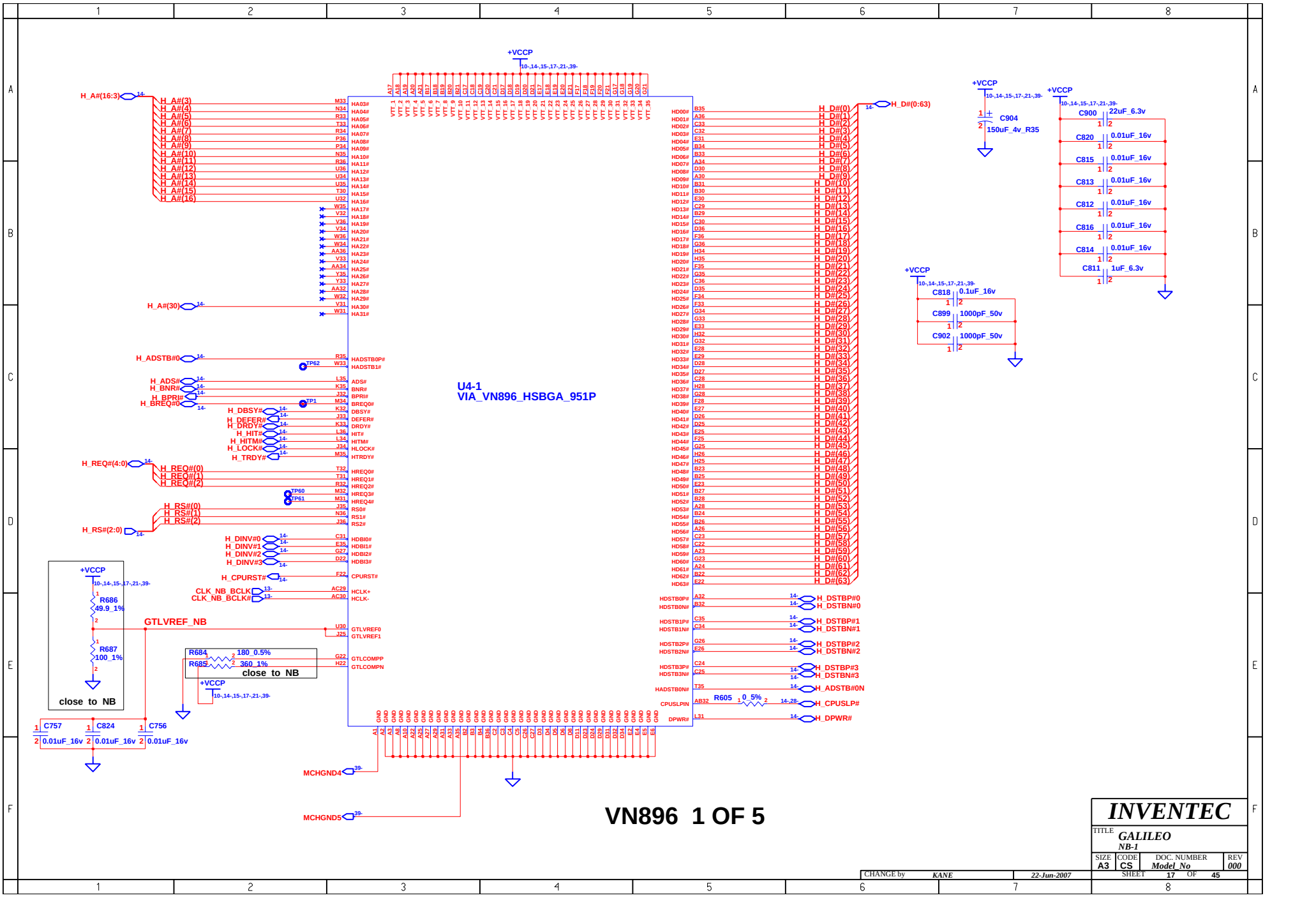

U3-1
VIA_C7-M_1.0G_NANOBGA2_400P
200mil close to cpu
10mils/10mils
INVENTEC
TITLE
GALILEO
CPU-C7M-1
SIZE A3
CODE CS
DOC. NUMBER
REV A0
CHANGE by KANE
26-Dec-2007
SHEET 14 OF 45


close to CPU
Please disperse the Caps for EMI
U3-2
VIA_C7-M_1.0G_NANOBGA2_400P
+VCCP
+VCC_CORE
+V1.5S
VCCSENSE
VSSSENSE
R642 200_1%
R611 200_1%
R644 200_1%
R691 10_1%
R689 10_1%
L514 KC_FBM_11_160808_101_T_2P
L6 KC_FBM_11_160808_101_T_2P
R606 0.5_1%
R43 0.5_1%
C696 0.1uF_10v
C695 10uF_6.3v
C40 0.1uF_10v
C41 10uF_6.3v
C837 0.1uF_10v
C826 0.1uF_10v
C699 0.1uF_10v
C834 0.1uF_10v
C763 0.1uF_10v
C831 0.1uF_10v
C830 0.1uF_10v
C835 0.1uF_10v
C772 0.1uF_10v
C778 0.1uF_10v
C825 0.1uF_10v
C769 0.1uF_10v
C775 0.01uF_16v
C770 0.01uF_16v
C776 0.01uF_16v
C777 0.01uF_16v
C832 0.1uF_10v
C765 0.1uF_10v
C771 0.1uF_10v
C833 0.1uF_10v
C764 0.1uF_10v
C773 0.1uF_10v
C827 0.1uF_10v
C767 0.1uF_10v
C766 0.1uF_10v
C774 0.1uF_10v
C838 0.1uF_10v
C768 0.1uF_10v
C762 0.1uF_10v
C761 0.1uF_10v
C780 0.01uF_16v
C779 0.01uF_16v
C828 0.01uF_16v
C829 0.01uF_16v
C782 22uF_6.3v
C836 22uF_6.3v
C907 22uF_6.3v
C698 22uF_6.3v
C839 220uF_2.5v
Put the caps. close to CPU.
To reduce the MLCC and Layout Area.
Use Low ESL Poscap. for
Transient Response.
Vcore Caps : Sanyo 2V 220uFX2
2TPLF220m7 ESR=7mohm
ESL=0.5nH
Delta V=ESRX(load)+di/dtXESL
INVENTEC
TITLE GALILEO
CPU-C7M-2
SIZE A3
CODE CS
DOC. NUMBER
REV A0
CHANGE by KANE
9-Oct-2007
SHEET 15 OF 45





INVENTEC			
TITLE: GALILEO Fan And Thermal			
SIZE: A3	CODE: CS	DOC. NUMBER: Model_No	REV: 000
CHANGE by: KANE		SHEET 16 OF 45	



VN896 1 OF 5

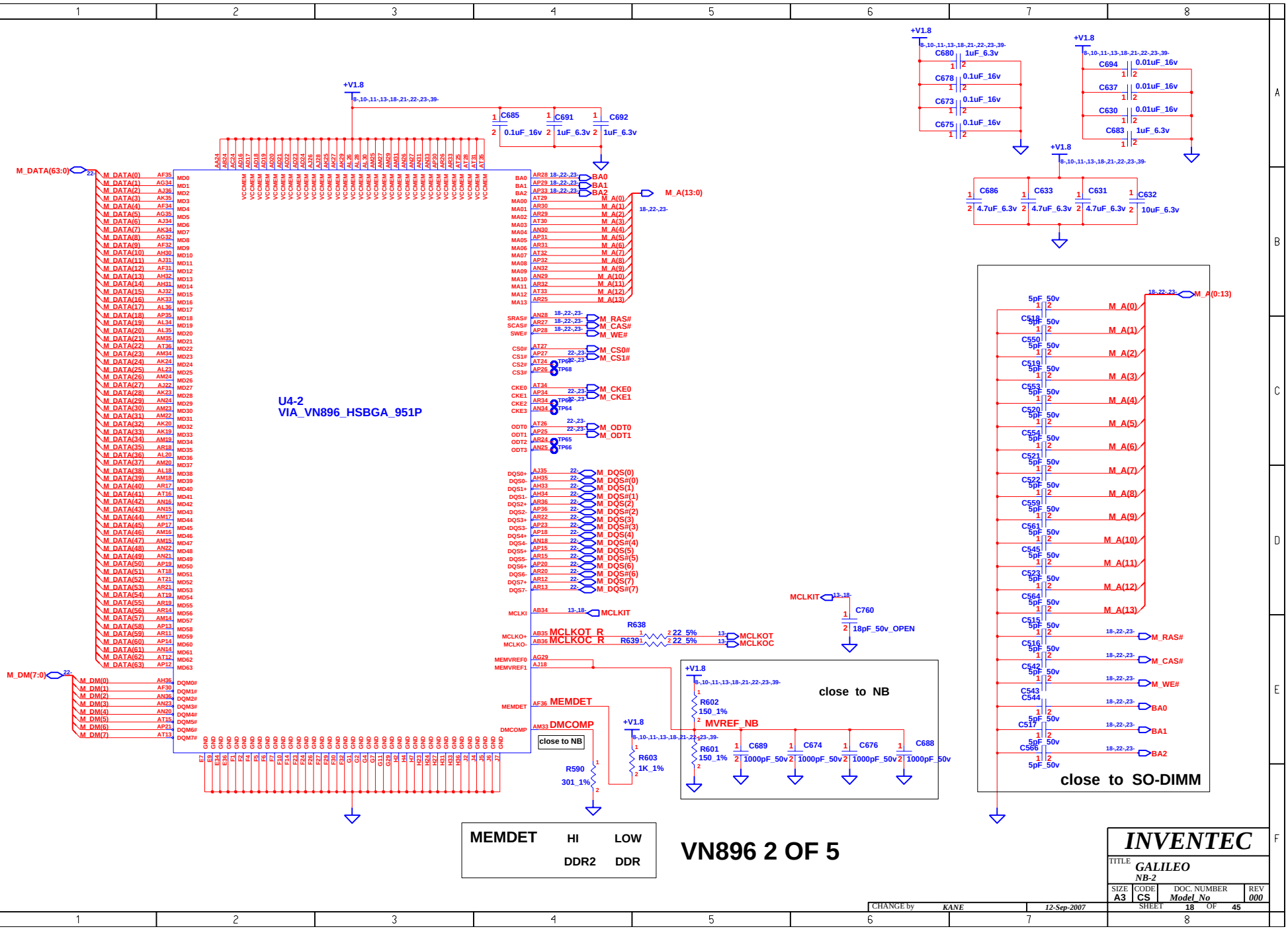
CHANGE by	KANE	22-Jun-2007	

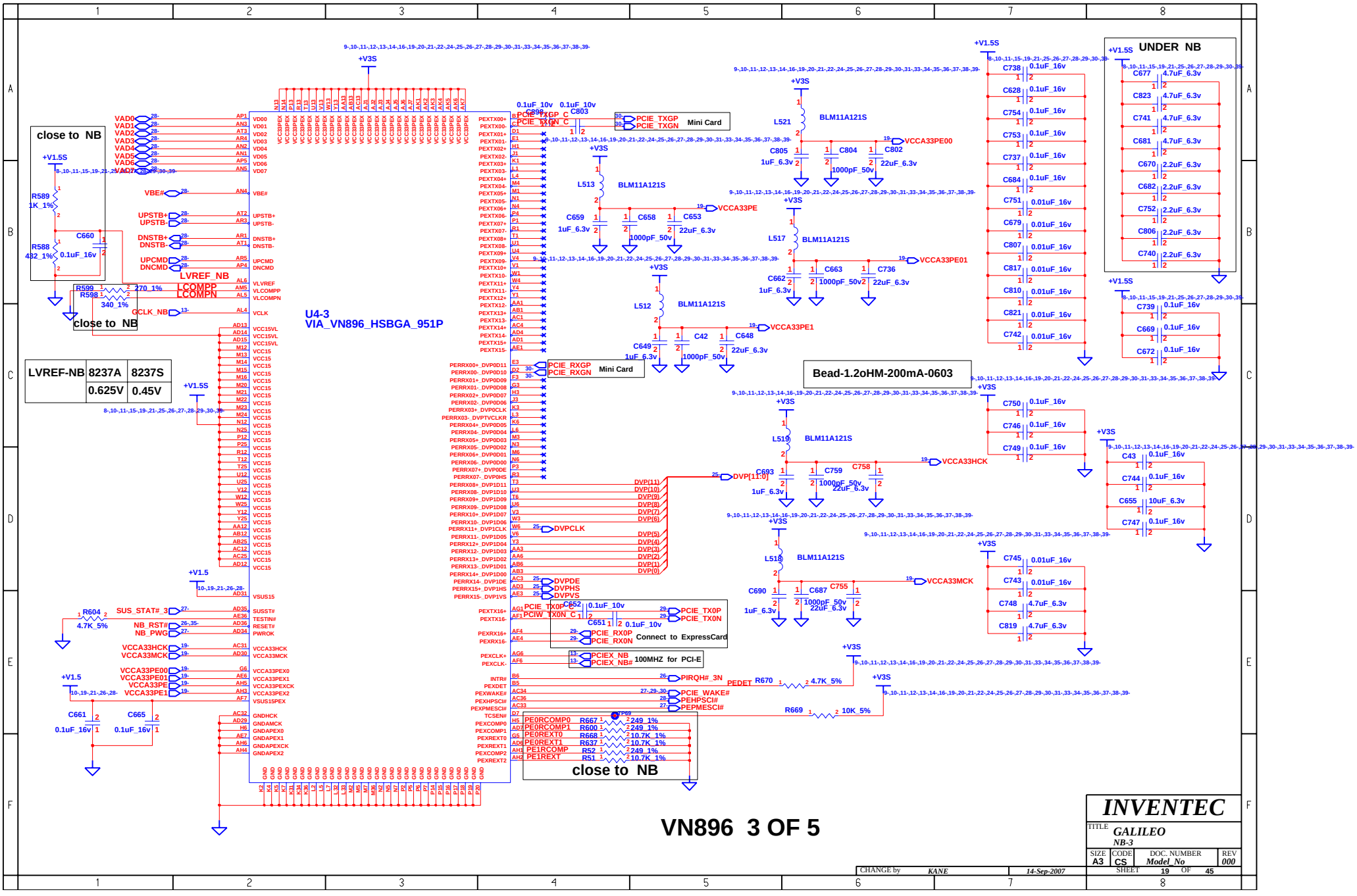
INVENTEC

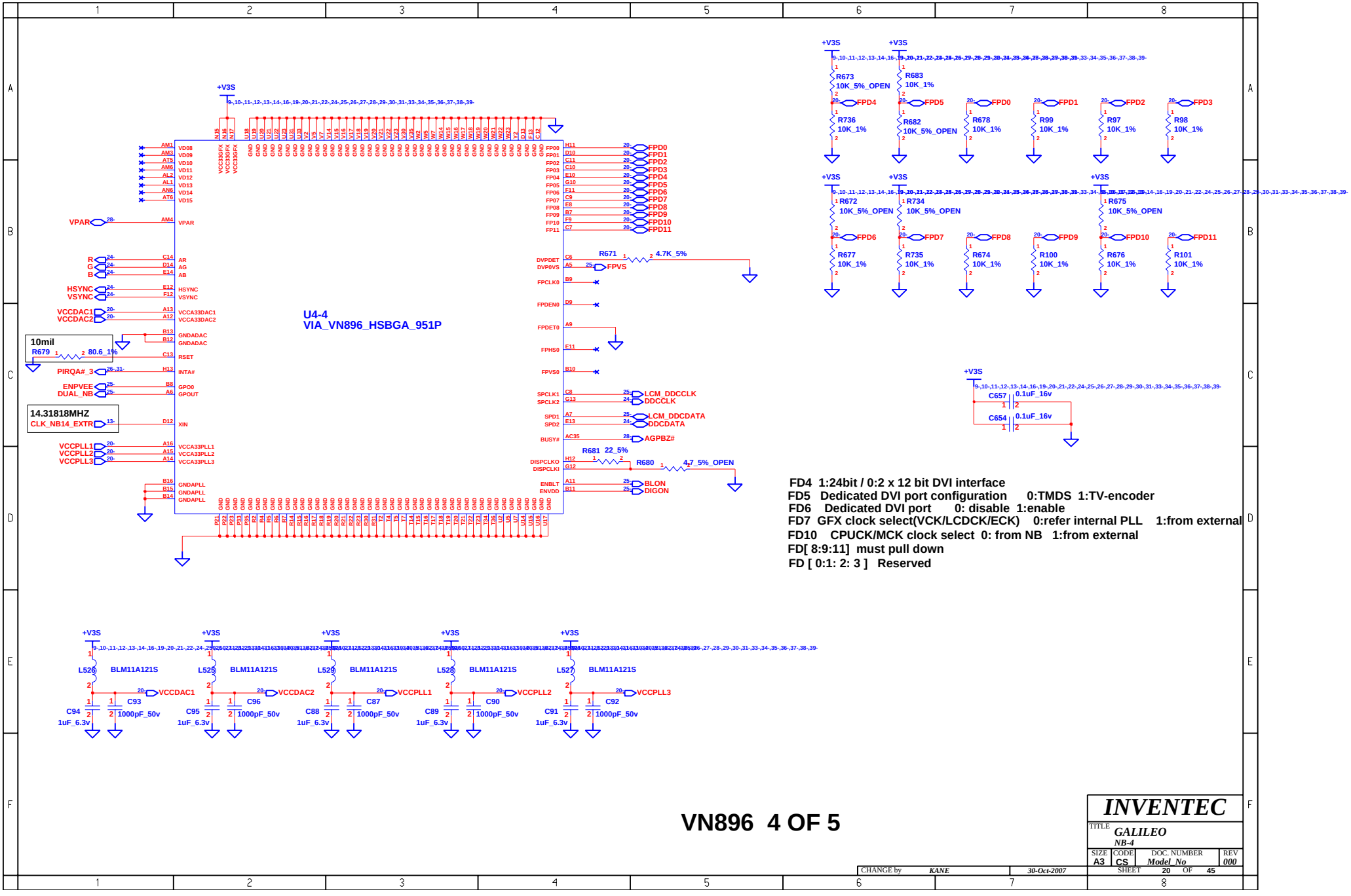
TITLE: GALILEO NB-1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model_No	000

SHEET 17 OF 45


U4-2
VIA_VN896_HSBGA_951P
M_DATA(63:0)
M_DM(7:0)
M_A(13:0)
M_A(0:13)
M_RAS#
M_CAS#
M_WE#
BA0
BA1
BA2
M_CS0#
M_CS1#
M_CKE0
M_CKE1
M_ODT0
M_ODT1
M_DQS(0)
M_DQS#(0)
M_DQS(1)
M_DQS#(1)
M_DQS(2)
M_DQS#(2)
M_DQS(3)
M_DQS#(3)
M_DQS(4)
M_DQS#(4)
M_DQS(5)
M_DQS#(5)
M_DQS(6)
M_DQS#(6)
M_DQS(7)
M_DQS#(7)
MCLKIT
MCLKOT
MCLKOC
MCLKOT_R
MCLKOC_R
MEMDET
DMCOMP
MVREF_NB
close to NB
close to SO-DIMM
MEMDET HI LOW
DDR2 DDR
VN896 2 OF 5
INVENTEC
GALILEO
NB-2
SIZE A3
CODE CS
DOC. NUMBER Model_No
REV 000
SHEET 18 OF 45
CHANGE by KANE
12-Sep-2007

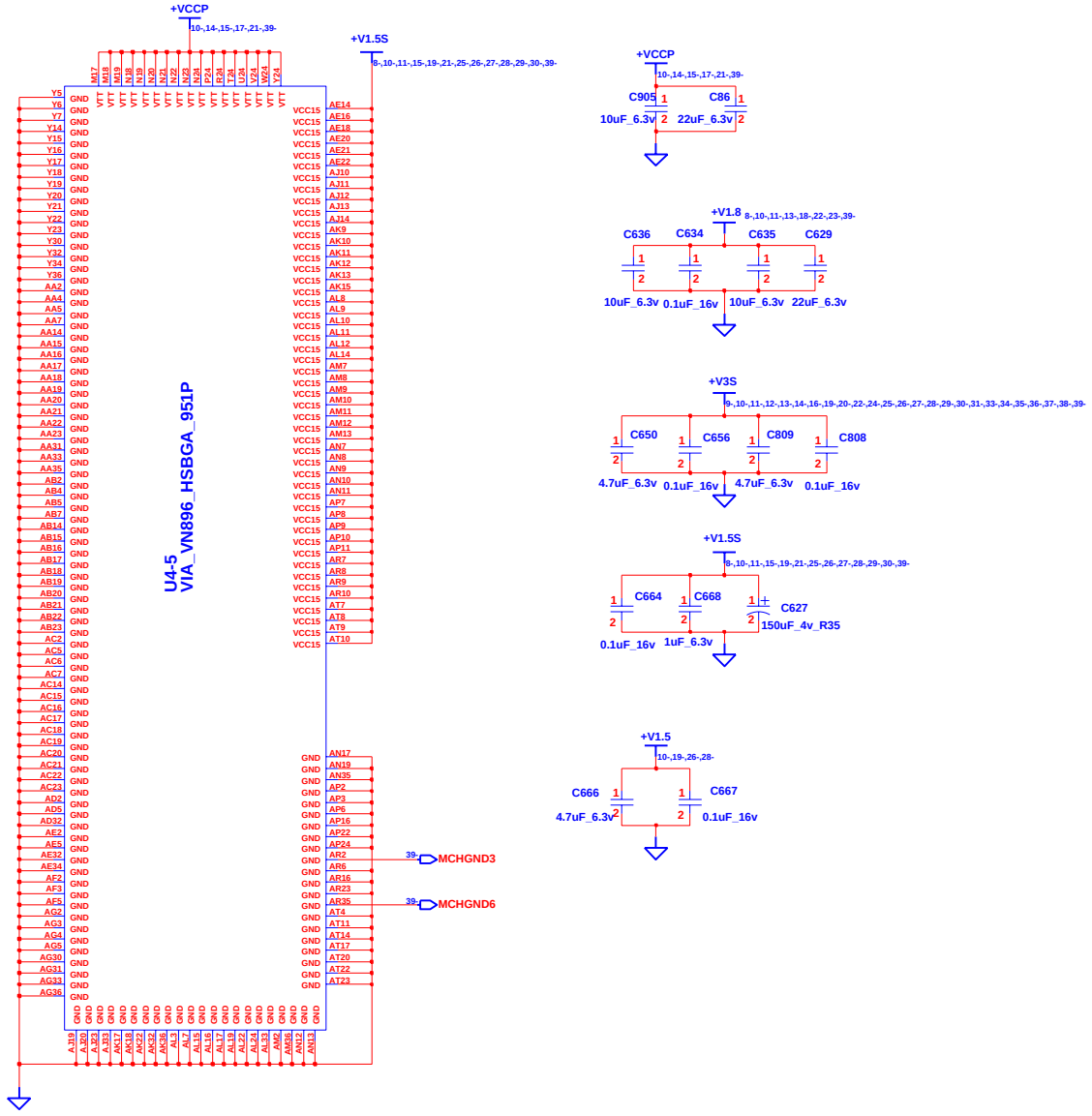

close to NB
close to NB
close to NB
U4-3
VIA_VN896_HSBGA_951P
LVREF-NB
8237A
8237S
0.625V
0.45V
Mini Card
Mini Card
Connect to ExpressCard
100MHZ for PCI-E
Bead-1.2oHM-200mA-0603
UNDER NB
VN896 3 OF 5
INVENTEC
GALILEO
NB-3
DOC. NUMBER
Model_No
REV
000
SIZE
A3
CODE
CS
SHEET
19
OF
45
CHANGE by
KANE
14-Sep-2007



FD4 1:24bit / 0:2 x 12 bit DVI interface
FD5 Dedicated DVI port configuration 0:TMDS 1:TV-encoder
FD6 Dedicated DVI port 0: disable 1:enable
FD7 GFX clock select(VCK/LCDCK/ECK) 0:refer internal PLL 1:from external
FD10 CPUCK/MCK clock select 0: from NB 1:from external
FD[8:9:11] must pull down
FD [0:1: 2: 3] Reserved

VN896 4 OF 5

INVENTEC			
TITLE: GALILEO NB-4			
SIZE: A3	CODE: CS	DOC. NUMBER: Model_No	REV: 000
CHANGE by: KANE	30-Oct-2007	SHEET 20 OF 45	

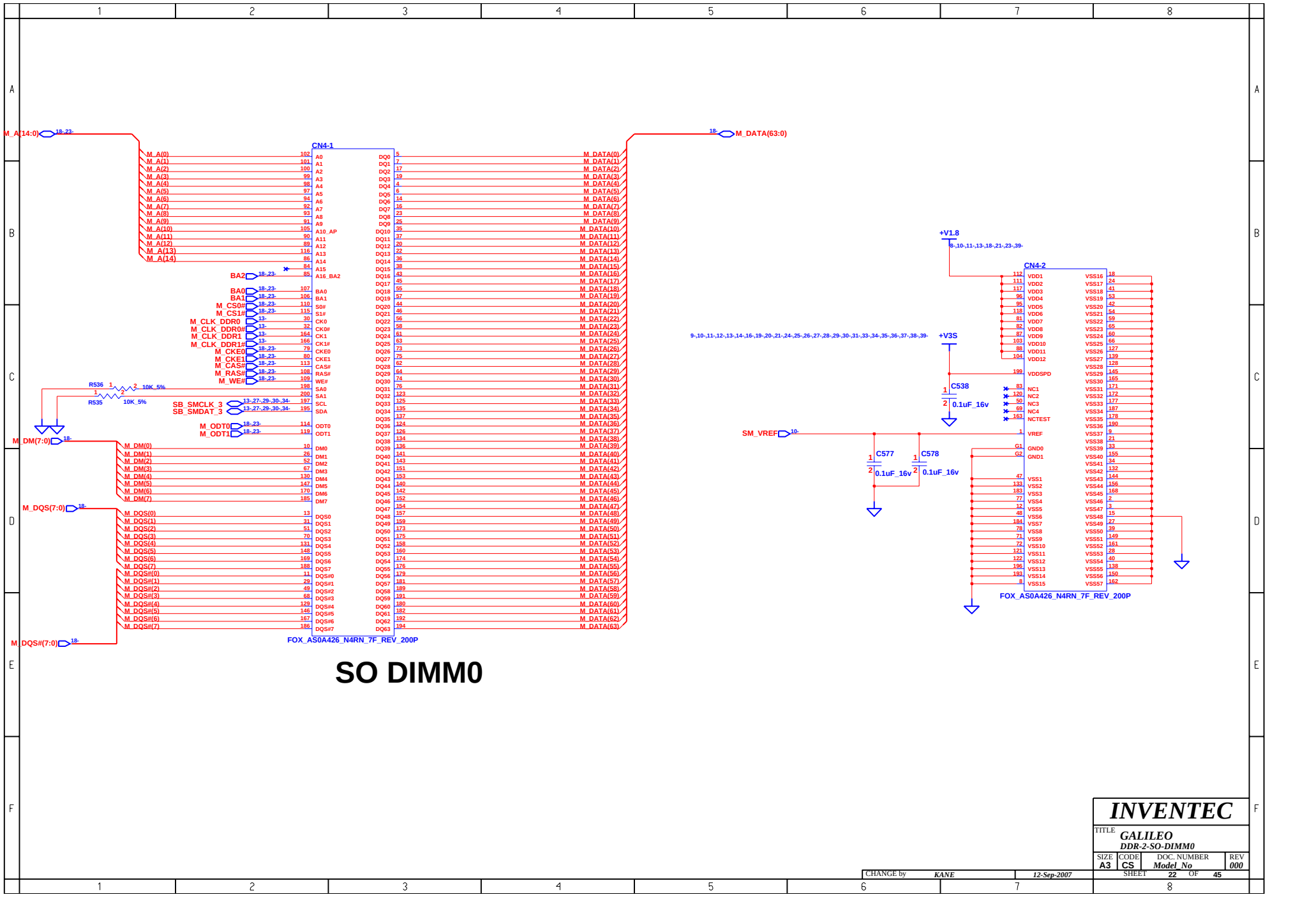


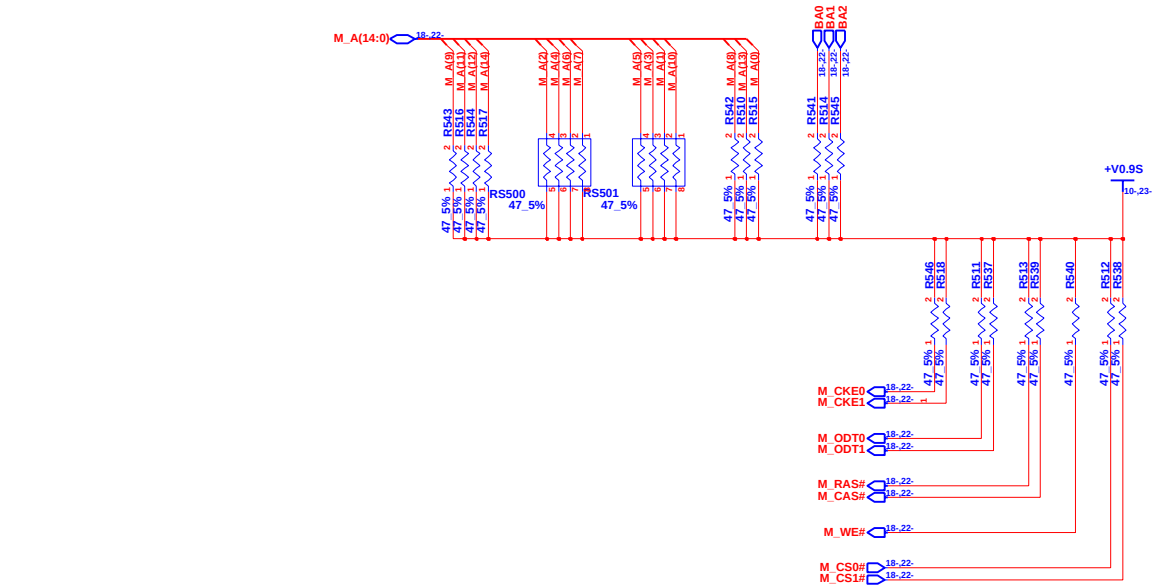
VN896 5 OF 5

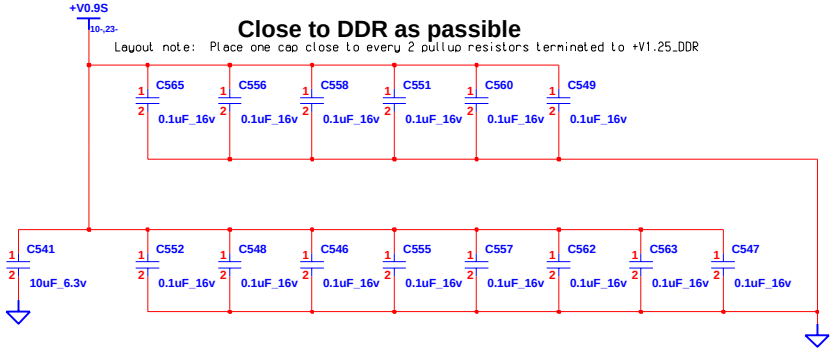
CHANGE by	KANE	18-Jul-2007	

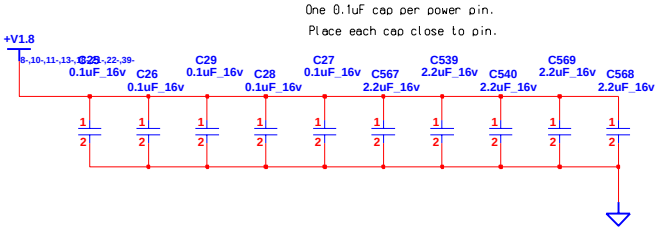
INVENTEC

TITLE	GALILEO NB-5		
SIZE A3	CODE CS	DOC. NUMBER Model_No	REV 000
SHEET 21 OF 45			


M_A(14:0)
M_DATA(63:0)
CN4-1
FOX_AS0A426_N4RN_7F_REV_200P
M_DM(7:0)
M_DQS(7:0)
M_DQS#(7:0)
BA2
BA0
BA1
M_CS0#
M_CS1#
M_CLK_DDR0
M_CLK_DDR0#
M_CLK_DDR1
M_CLK_DDR1#
M_CKE0
M_CKE1
M_CAS#
M_RAS#
M_WE#
R536
R535
10K_5%
SB_SMCLK_3
SB_SMDAT_3
M_ODT0
M_ODT1
+V1.8
+V3S
SM_VREF
C538
C577
C578
0.1uF_16v
CN4-2
FOX_AS0A426_N4RN_7F_REV_200P
SO DIMM0
INVENTEC
TITLE
GALILEO
DDR-2-SO-DIMM0
SIZE
A3
CODE
CS
DOC. NUMBER
Model_No
REV
000
CHANGE by
KANE
12-Sep-2007
SHEET
22
OF
45



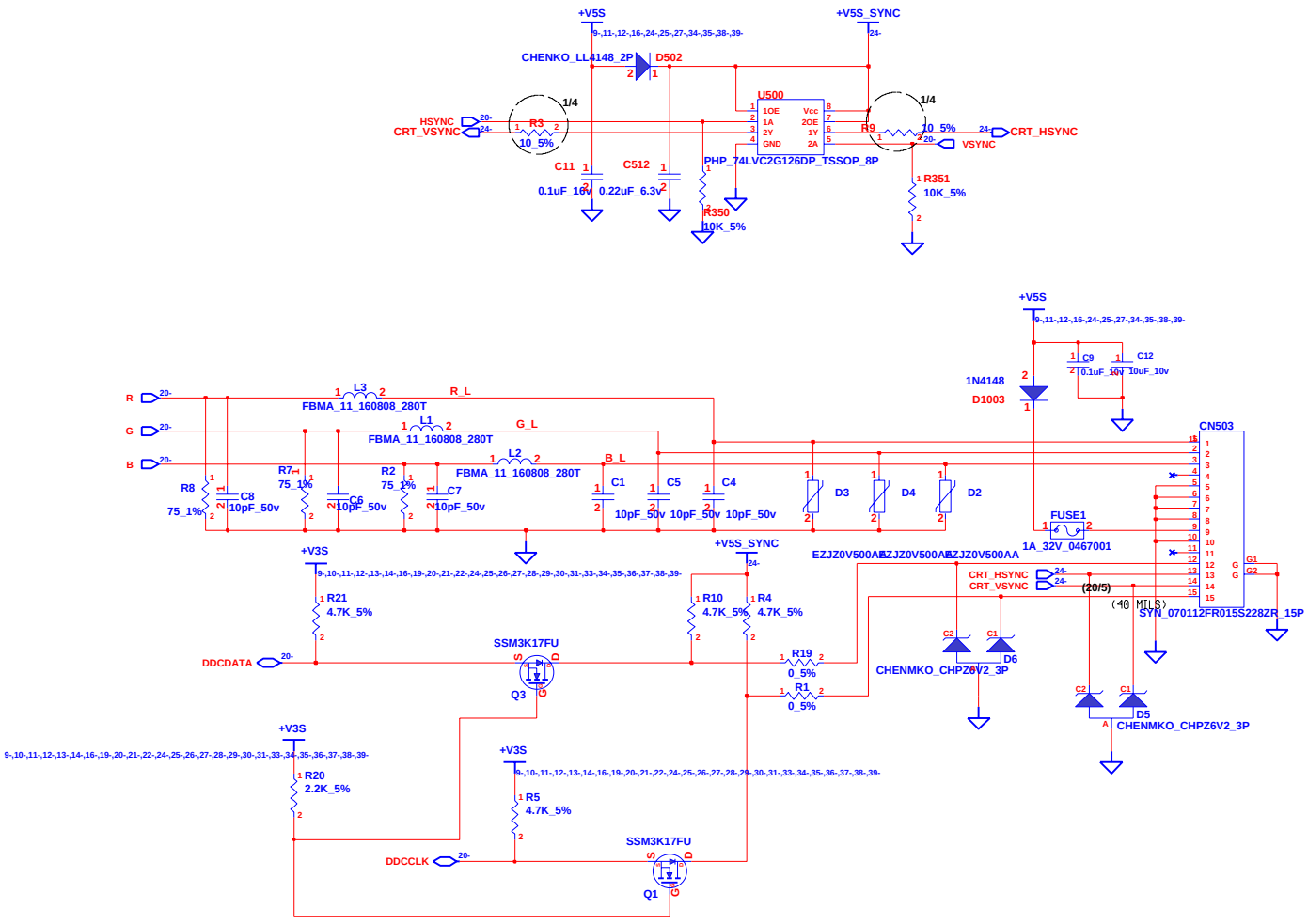




Layout note: Place capacitors between and near DDR connector if possible.

INVENTEC

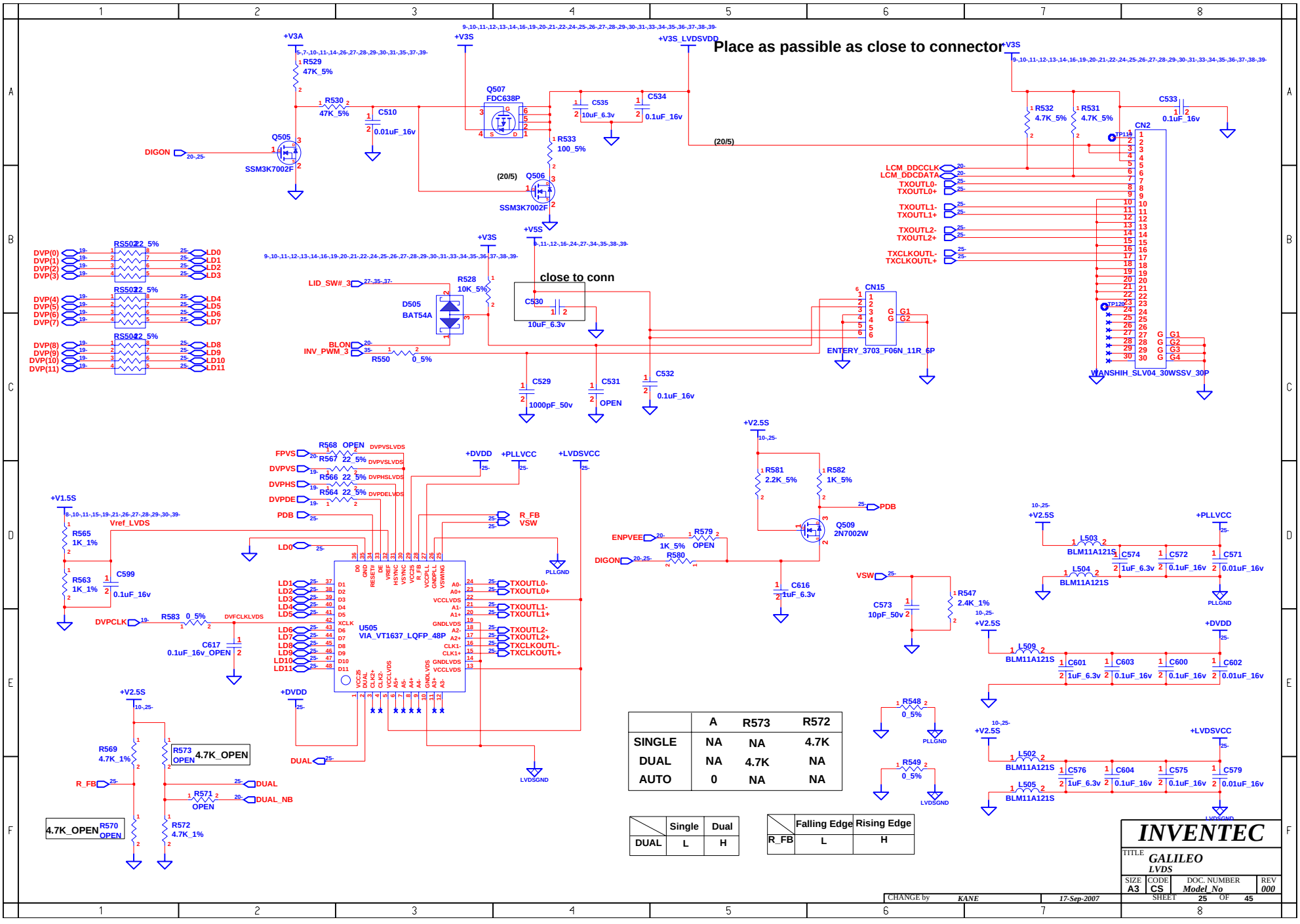
TITLE	GALILEO DDR-2-3			
SIZE A3	CODE CS	DOC. NUMBER Model_No		REV 000
CHANGE by KANE	12-Sep-2007	SHEET 23 OF 45		

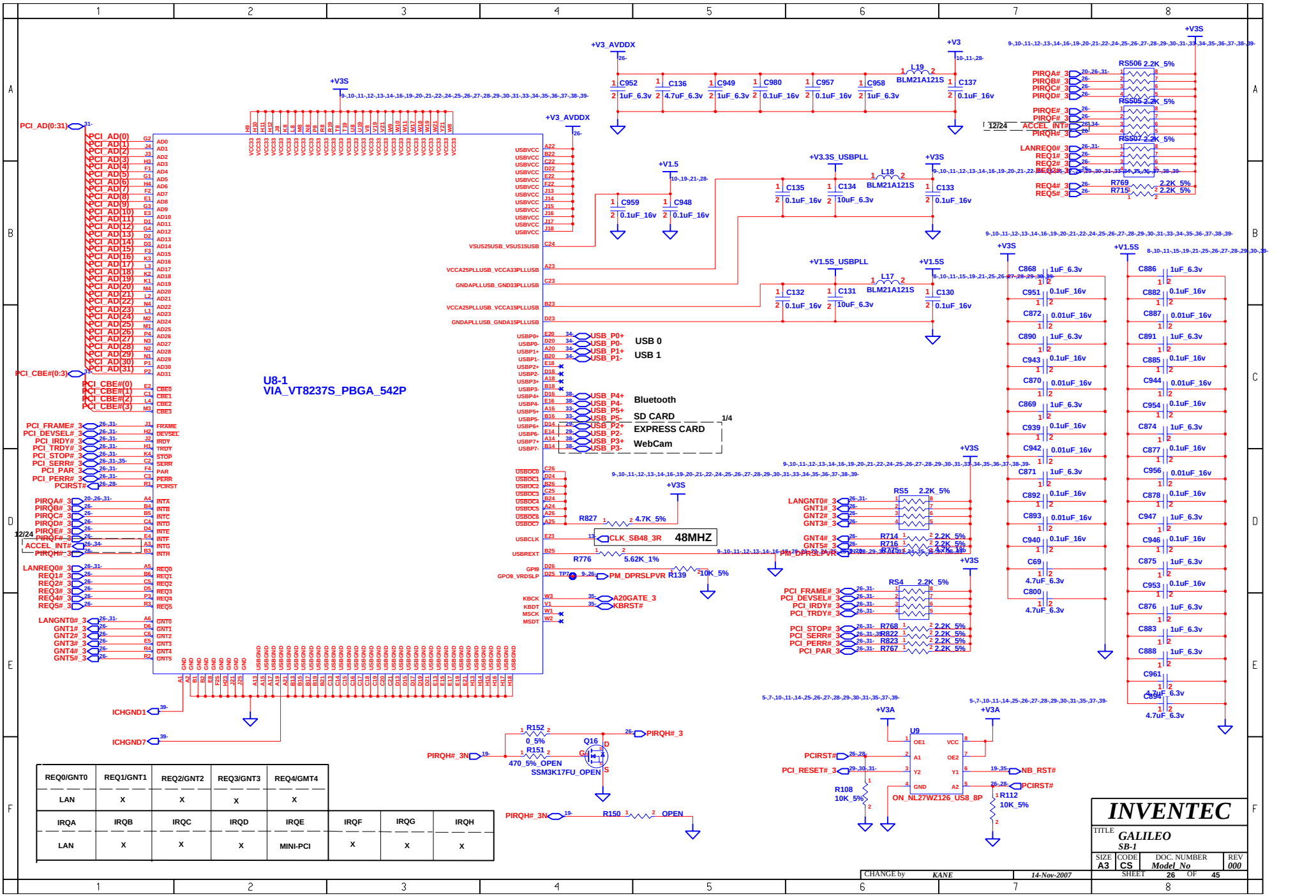


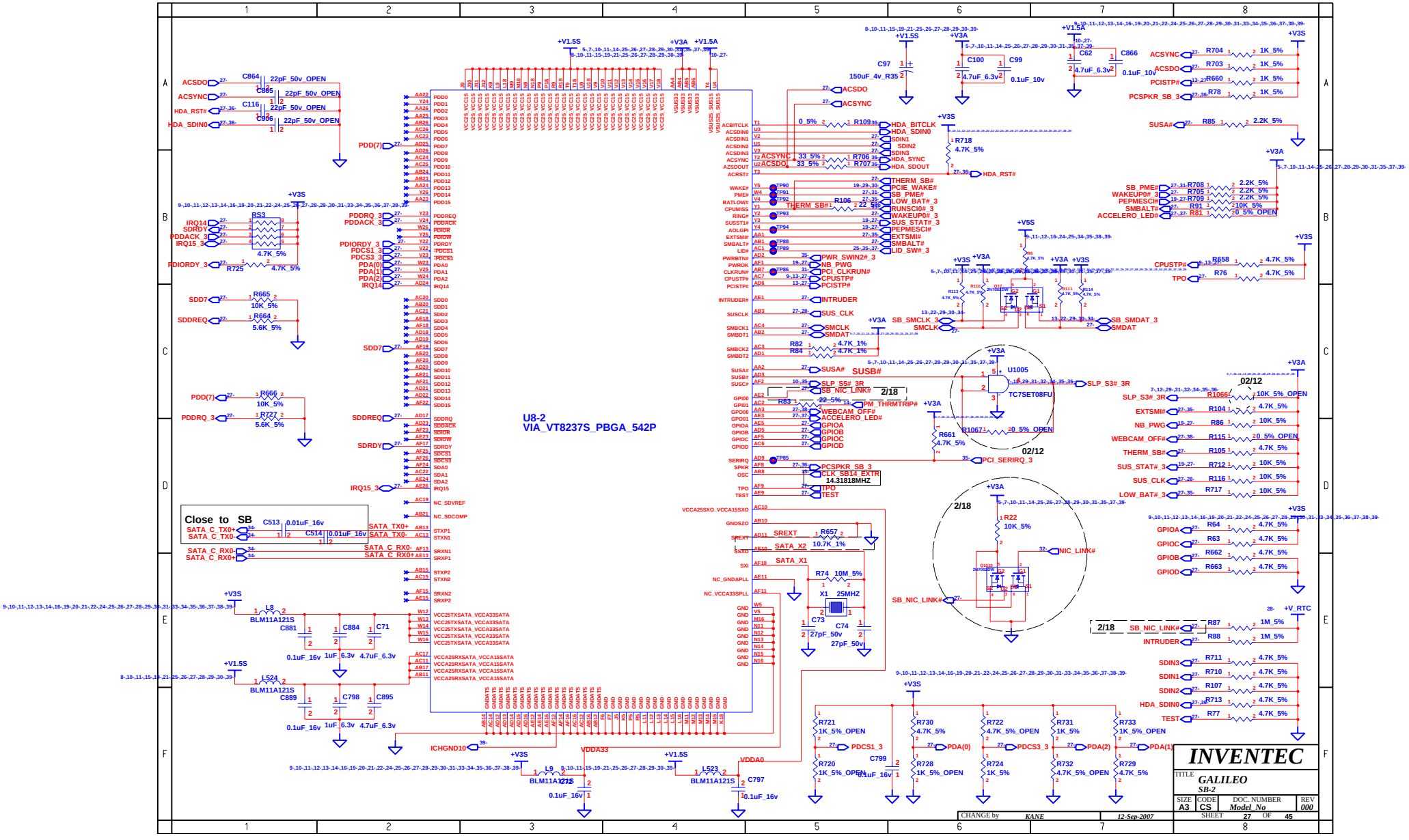
CHANGE by	*KANE*	*12-Sep-2007*	

INVENTEC

TITLE	*GALILEO CRT*		
SIZE A3	CODE CS	DOC. NUMBER *Model_No*	REV *000*
SHEET 24 OF 45			


Place as passible as close to connector
close to conn
+V3A
+V3S
+V3S_LVDSVDD
+V5S
+V2.5S
+V1.5S
+DVDD
+PLLVCC
+LVDSVCC
R529 47K_5%
R530 47K_5%
C510 0.01uF_16v
Q505 SSM3K7002F
Q506 SSM3K7002F
Q507 FDC638P
C535 10uF_6.3v
C534 0.1uF_16v
R533 100_5%
DIGON
(20/5)
R532 4.7K_5%
R531 4.7K_5%
C533 0.1uF_16v
CN2
LCM_DDCCLK
LCM_DDCDATA
TXOUTL0-
TXOUTL0+
TXOUTL1-
TXOUTL1+
TXOUTL2-
TXOUTL2+
TXCLKOUTL-
TXCLKOUTL+
WANSHIH_SLV04_30WSSV_30P
RS502 22_5%
DVP(0) DVP(1) DVP(2) DVP(3)
LD0 LD1 LD2 LD3
DVP(4) DVP(5) DVP(6) DVP(7)
LD4 LD5 LD6 LD7
DVP(8) DVP(9) DVP(10) DVP(11)
LD8 LD9 LD10 LD11
LID_SW#_3
R528 10K_5%
D505 BAT54A
C530 10uF_6.3v
BLON
INV_PWM_3
R550 0_5%
C529 1000pF_50v
C531 OPEN
C532 0.1uF_16v
CN15
ENTERY_3703_F06N_11R_6P
FPVS
DVPVS
DVPHS
DVPDE
PDB
R568 OPEN
R567 22_5%
R566 22_5%
R564 22_5%
DVPVSLVDS
DVPHSLVDS
DVPDELVDS
R_FB
VSW
Vref_LVDS
R565 1K_1%
R563 1K_1%
C599 0.1uF_16v
DVPCLK
R583 0_5%
DVFCLKLVDS
C617 0.1uF_16v_OPEN
U505 VIA_VT1637_LQFP_48P
LD0 LD1 LD2 LD3 LD4 LD5 LD6 LD7 LD8 LD9 LD10 LD11
TXOUTL0- TXOUTL0+
TXOUTL1- TXOUTL1+
TXOUTL2- TXOUTL2+
TXCLKOUTL- TXCLKOUTL+
PLLGND
LVDSGND
DUAL
R581 2.2K_5%
R582 1K_5%
Q509 2N7002W
PDB
ENPVEE
R579 1K_5% OPEN
R580
C616 1uF_6.3v
C573 10pF_50v
R547 2.4K_1%
R548 0_5%
R549 0_5%
L503 BLM11A121S
L504 BLM11A121S
L509 BLM11A121S
L502 BLM11A121S
L505 BLM11A121S
C574 1uF_6.3v
C572 0.1uF_16v
C571 0.01uF_16v
C601 1uF_6.3v
C603 0.1uF_16v
C600 0.1uF_16v
C602 0.01uF_16v
C576 1uF_6.3v
C604 0.1uF_16v
C575 0.1uF_16v
C579 0.01uF_16v
R569 4.7K_1%
R573 OPEN 4.7K_OPEN
R571 OPEN
R572 4.7K_1%
4.7K_OPEN R570 OPEN
DUAL_NB
A R573 R572
SINGLE NA NA 4.7K
DUAL NA 4.7K NA
AUTO 0 NA NA
Single Dual
DUAL L H
Falling Edge Rising Edge
R_FB L H
INVENTEC
TITLE GALILEO LVDS
SIZE A3 CODE CS DOC. NUMBER Model_No REV 000
SHEET 25 OF 45
CHANGE by KANE 17-Sep-2007


U8-1
VIA_VT8237S_PBGA_542P
PCI_AD(0:31)
PCI_CBE#(0:3)
USB 0
USB 1
Bluetooth
SD CARD
EXPRESS CARD
WebCam
1/4
CLK_SB48_3R
48MHZ
U9
ON_NL27WZ126_US8_8P
REQ0/GNT0
REQ1/GNT1
REQ2/GNT2
REQ3/GNT3
REQ4/GMT4
LAN
X
IRQA
IRQB
IRQC
IRQD
IRQE
IRQF
IRQG
IRQH
MINI-PCI
INVENTEC
TITLE
GALILEO
SB-1
SIZE
A3
CODE
CS
DOC. NUMBER
Model_No
REV
000
SHEET
26
OF
45
CHANGE by
KANE
14-Nov-2007


U8-2
VIA_VT8237S_PBGA_542P
Close to SB
INVENTEC
TITLE
GALILEO
SB-2
SIZE A3
CODE CS
DOC. NUMBER Model_No
REV 000
SHEET 27 OF 45
CHANGE by KANE
12-Sep-2007

GPIOC GPIOA
LL: 100MHz
LH: 133MHz
HL: 200MHz
HH: Auto (166MHz can be obtained) ✱

GPIOB = IOQ Depth
L: 8 Level ✱
H: 1 Level

GPIOD = AGTL + internal Pullups
L: Enable ✱
H: Disable

PDA(0) = Vlink compensation
L: Auto mode
H : Manual mode ✱

PDA(1) = V4-Lite Capability
L: Disable ✱
H : Enable

PDA(2) = V4 Capability
L: Disable
H : Enable ✱

PDCS3_3 = V-Link reference
L: 0.75 (8251) ✱
H : 0.9V (8237)

NB Strapping

PDDACK_3
V-Link 4X mode
L: Auto mode
H : Manual mode ✱

PDCS1_3
SATA Stagger Spin Up
L: Disable
H : Enable ✱

ACSYNC
LPC FWH command
L: Enable
H: Disable ✱

ACSDO
Auto Reboot
L: Enable
H: Disable ✱

PCISTP#
100MHz VLink clock
L: Enable
H: Disable ✱

SEEDI
LAN shadow EEPROM
L: Disable ✱
H : Enable

PCSPKR_SB_3
CPU FREQ Strapping
L: Enable
H: Disable ✱

SUSA#
LAN PHY Reset
L: Mobile mode ✱
H: Desktop mode

LAN_LOW_PWR
SPI ROM function
L : Disable ✱
H : Enable

SB Strapping

LVREF	8237A	8237S
	0.456	0.45

U8-3
VIA_VT8237S_PBGA_542P

Close to SB

Close to SB

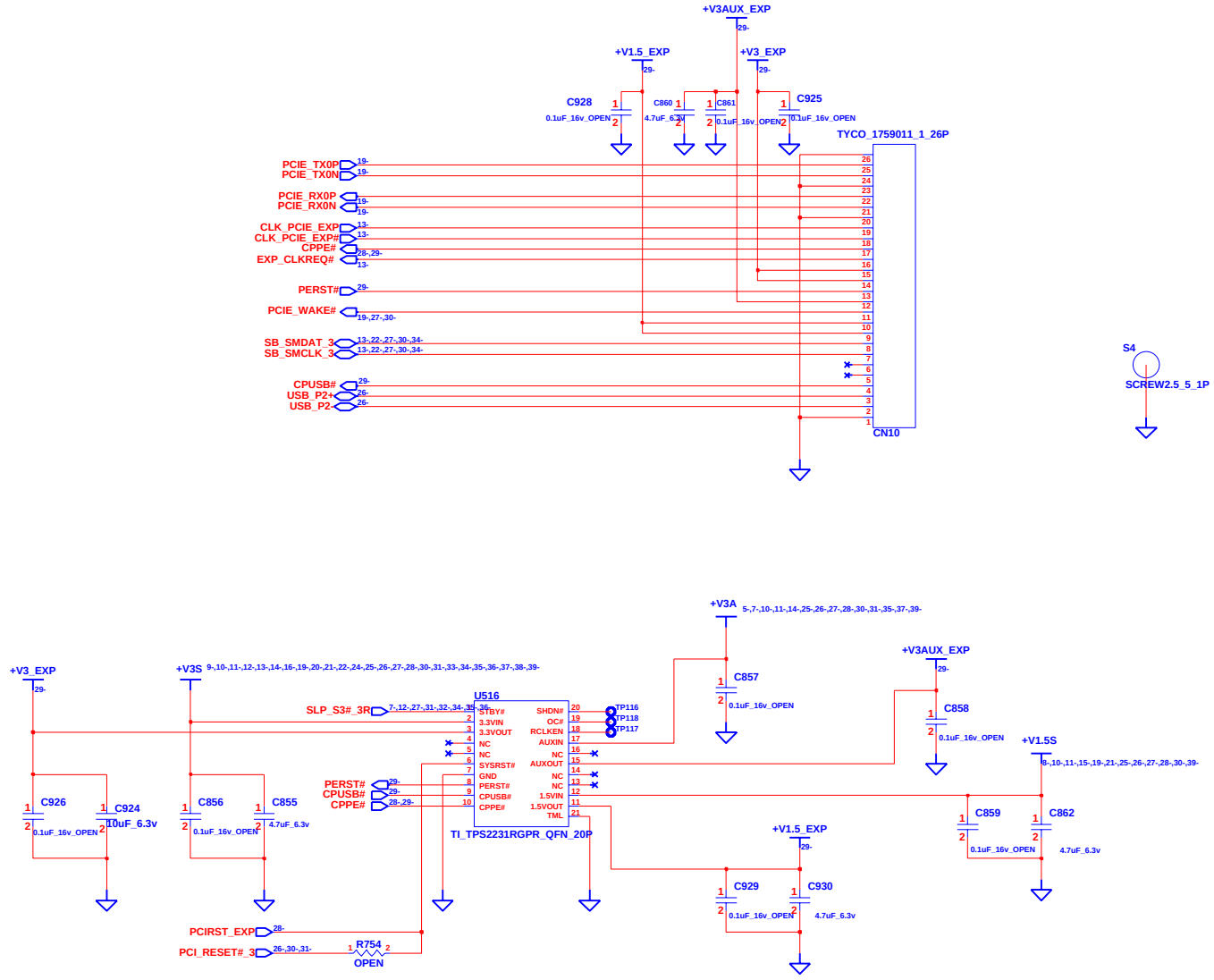
V-Link 66MHZ

RTC BATTERY

CHANGE by	KANE	15-Oct-2007	
SIZE A3	CODE CS	DOC. NUMBER Model_No	REV 000
SHEET 28 OF 45			

INVENTEC

TITLE
GALILEO
SB-3



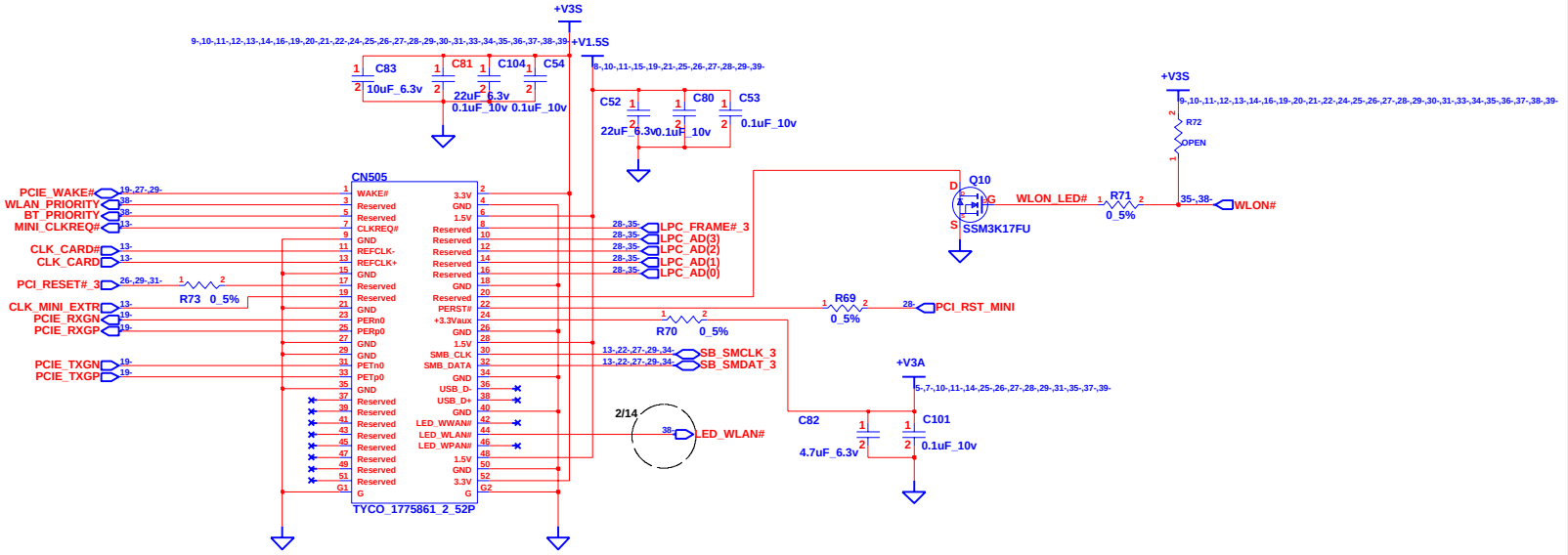
CHANGE by	KANE	4-Mar-2008	

INVENTEC

TITLE: *GALILEO*
Express Card

SIZE	CODE	DOC. NUMBER	REV
A3	CS		A0

SHEET 29 OF 45



For Wireless

CHANGE by	KANE	7-Sep-2007	

INVENTEC

TITLE: *GALILEO Mini CARD*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 30 OF 45

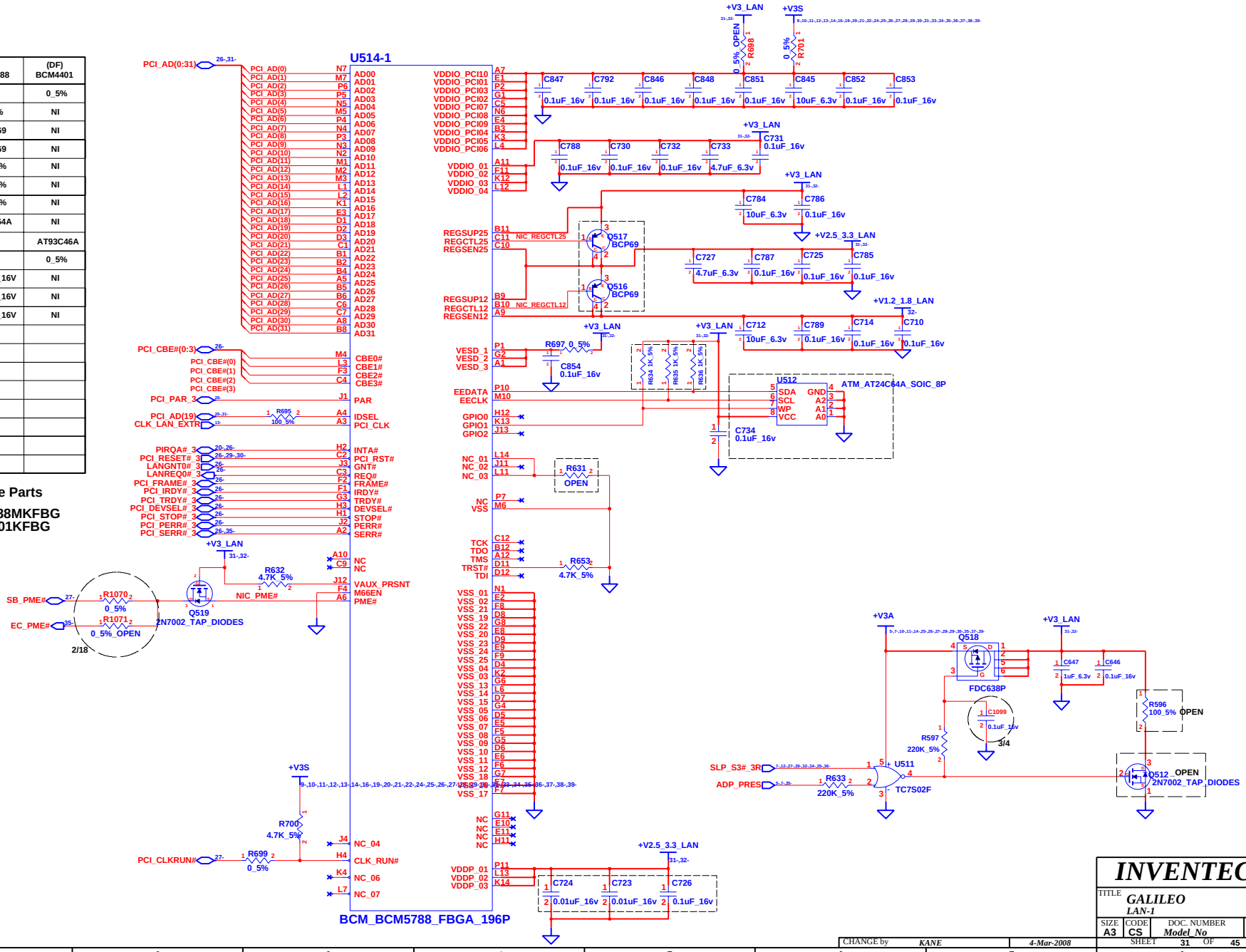
REF (U23)	(FF) BCM5788	(DF) BCM4401
R698	NI	0_5%
R701	0_5%	NI
Q517	BCP69	NI
Q516	BCP69	NI
R634	1K_5%	NI
R635	1K_5%	NI
R636	1K_5%	NI
U512	AT24C64A	NI
U30	NI	AT93C46A
R631	NI	0_5%
C724	0.01uF_16V	NI
C723	0.01uF_16V	NI
C726	0.01uF_16V	NI

Lead Free Parts

FF:BCM5788MKFBG
DF:BCM4401KFBG

U514-1

BCM_BCM5788_FBGA_196P



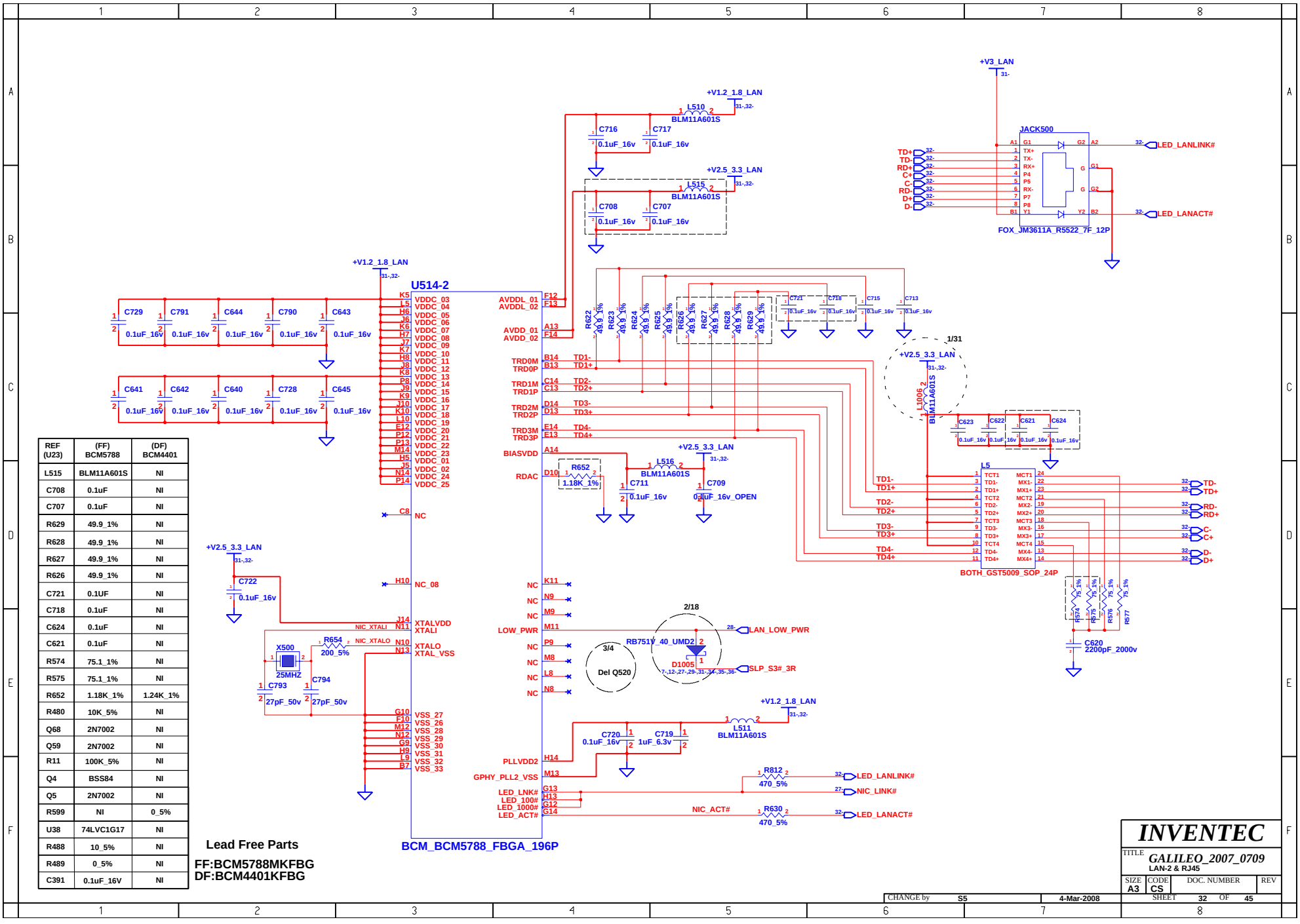
CHANGE by	KANE	4-Mar-2008

INVENTEC

TITLE: *GALILEO LAN-1*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 31 OF 45



REF (U23)	(FF) BCM5788	(DF) BCM4401
L515	BLM11A601S	NI
C708	0.1uF	NI
C707	0.1uF	NI
R629	49.9_1%	NI
R628	49.9_1%	NI
R627	49.9_1%	NI
R626	49.9_1%	NI
C721	0.1UF	NI
C718	0.1uF	NI
C624	0.1uF	NI
C621	0.1uF	NI
R574	75.1_1%	NI
R575	75.1_1%	NI
R652	1.18K_1%	1.24K_1%
R480	10K_5%	NI
Q68	2N7002	NI
Q59	2N7002	NI
R11	100K_5%	NI
Q4	BSS84	NI
Q5	2N7002	NI
R599	NI	0_5%
U38	74LVC1G17	NI
R488	10_5%	NI
R489	0_5%	NI
C391	0.1uF_16V	NI

Lead Free Parts

FF:BCM5788MKFBG
DF:BCM4401KFBG

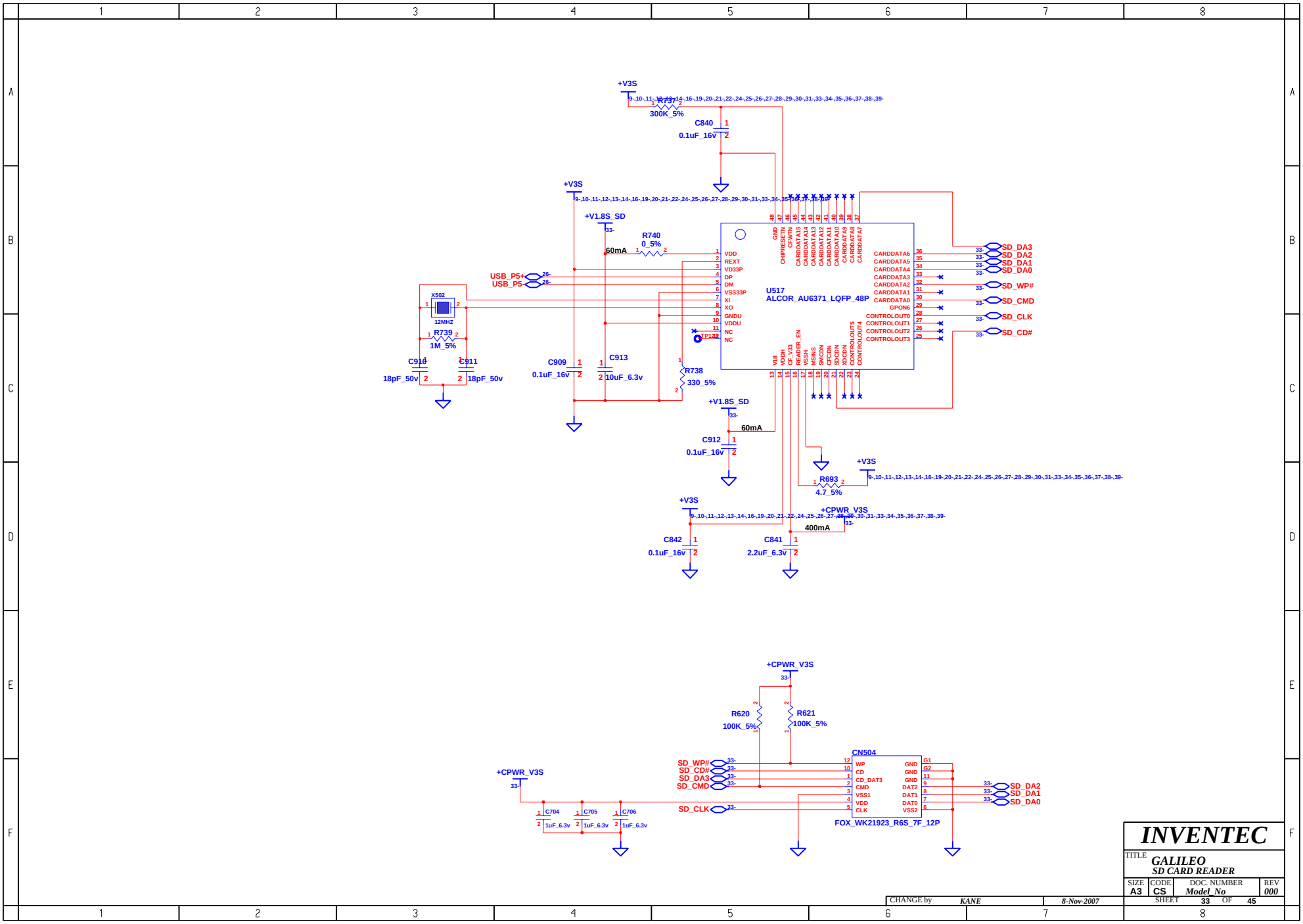
CHANGE by	S5	4-Mar-2008

INVENTEC

TITLE: *GALILEO_2007_0709*
LAN-2 & RJ45

SIZE	CODE	DOC. NUMBER	REV
A3	CS		

SHEET 32 OF 45



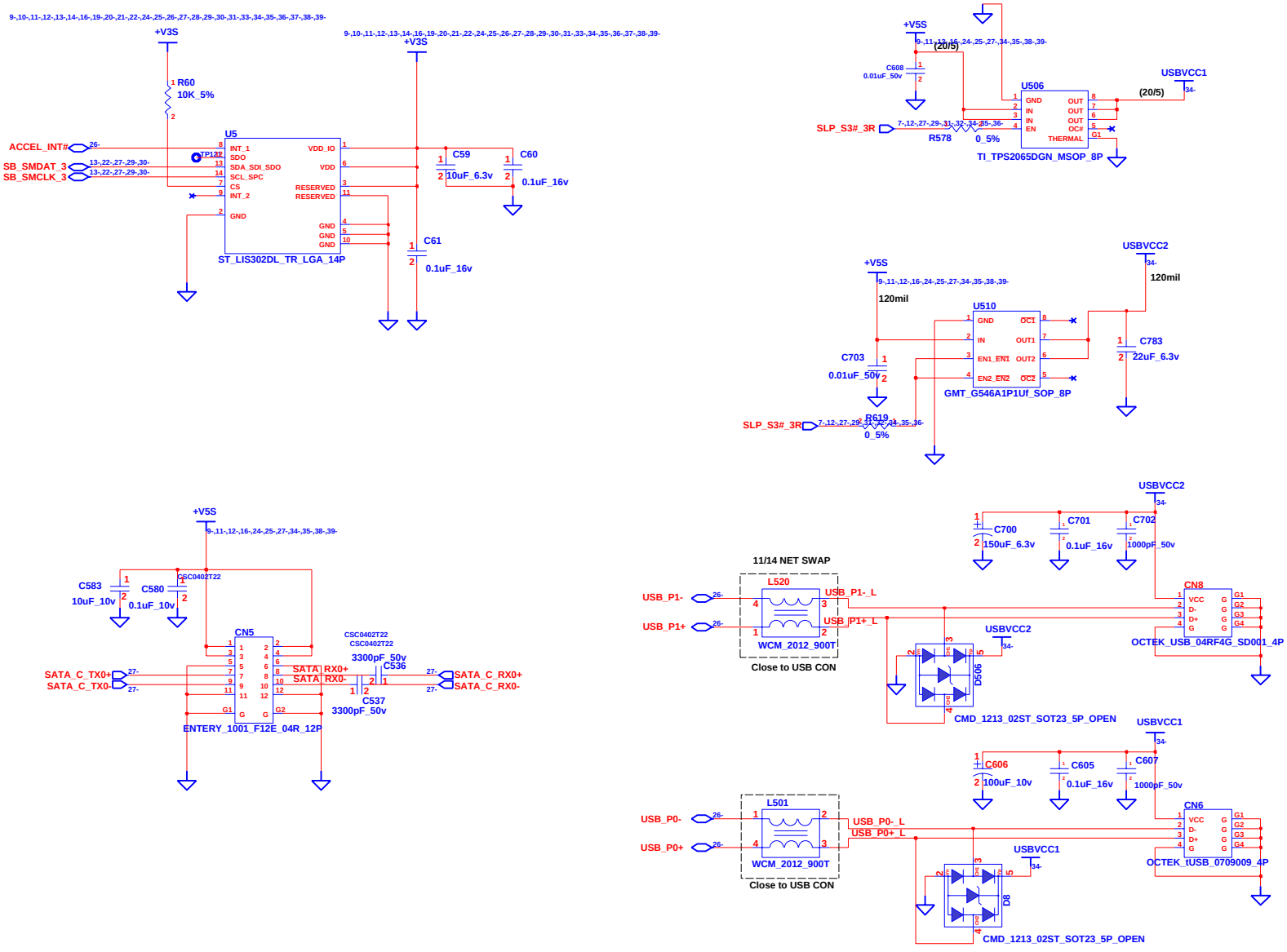
CHANGE by	KANE	8-Nov-2007	

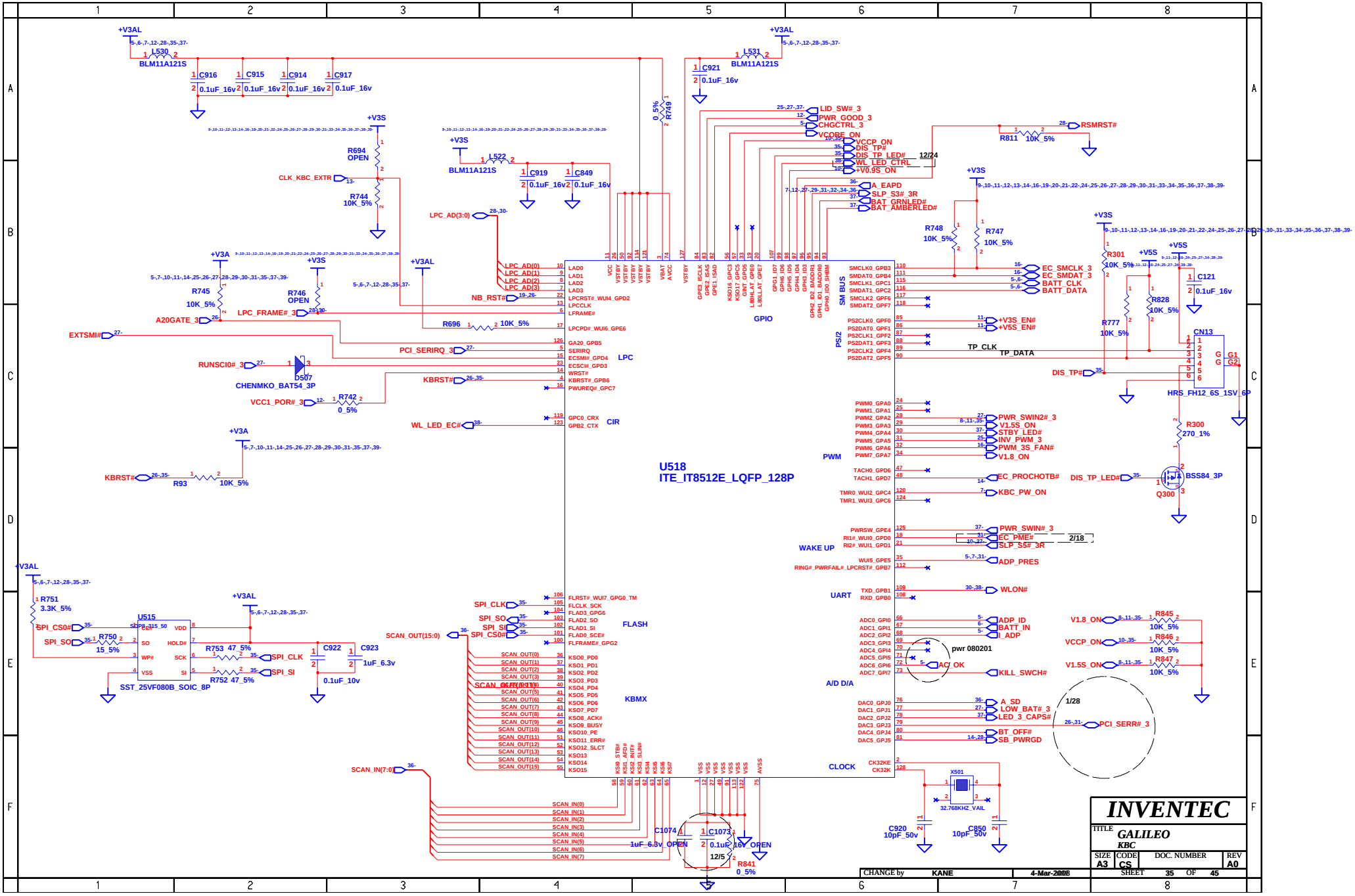
INVENTEC

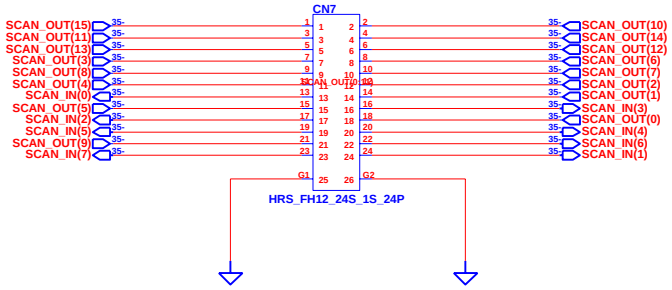
TITLE: *GALILEO*
SD CARD READER

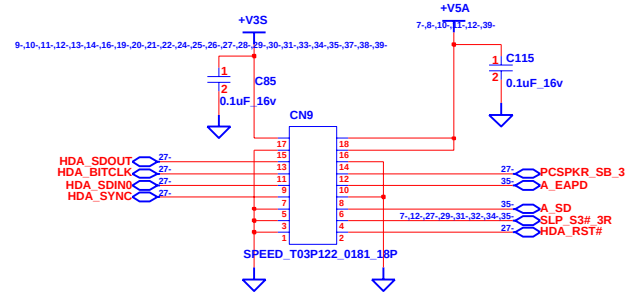
SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 33 OF 45


+V3S
R60
10K_5%
U5
ACCEL_INT#
SB_SMDAT_3
SB_SMCLK_3
INT_1
SDO
SDA_SDI_SDO
SCL_SPC
CS
INT_2
GND
VDD_IO
VDD
RESERVED
RESERVED
GND
GND
GND
ST_LIS302DL_TR_LGA_14P
C59
10uF_6.3v
C60
0.1uF_16v
C61
0.1uF_16v
+V5S
(20/5)
C608
0.01uF_50v
U506
USBVCC1
SLP_S3#_3R
R578
0_5%
TI_TPS2065DGN_MSOP_8P
U510
USBVCC2
120mil
C703
0.01uF_50v
C783
22uF_6.3v
GMT_G546A1P1Uf_SOP_8P
R619
0_5%
C583
10uF_10v
C580
0.1uF_10v
CN5
SATA_C_TX0+
SATA_C_TX0-
SATA_RX0+
SATA_RX0-
C536
C537
3300pF_50v
SATA_C_RX0+
SATA_C_RX0-
ENTERY_1001_F12E_04R_12P
11/14 NET SWAP
L520
USB_P1-
USB_P1+
USB_P1-_L
USB_P1+_L
WCM_2012_900T
Close to USB CON
D506
CMD_1213_02ST_SOT23_5P_OPEN
C700
150uF_6.3v
C701
0.1uF_16v
C702
1000pF_50v
CN8
OCTEK_USB_04RF4G_SD001_4P
L501
USB_P0-
USB_P0+
USB_P0-_L
USB_P0+_L
C606
100uF_10v
C605
0.1uF_16v
C607
1000pF_50v
CN6
OCTEK_tUSB_0709009_4P
D6
INVENTEC
TITLE
GALILEO
USB & SATA CONN
SIZE
A3
CODE
CS
DOC. NUMBER
REV
CHANGE by
SHEET
34
OF
43


U518
ITE_IT8512E_LQFP_128P
SST_25VF080B_SOIC_8P
CHENMKO_BAT54_3P
BSS84_3P
HRS_FH12_6S_1SV_6P
32.768KHZ_VAIL
SM BUS
GPIO
PS/2
LPC
CIR
PWM
FLASH
KBMX
WAKE UP
UART
A/D D/A
CLOCK
INVENTEC
TITLE
GALILEO
KBC
SIZE A3
CODE CS
DOC. NUMBER
REV A0
CHANGE by KANE
4-Mar-2008
SHEET 35 OF 45





CHANGE by	KANE	4-Mar-2008	

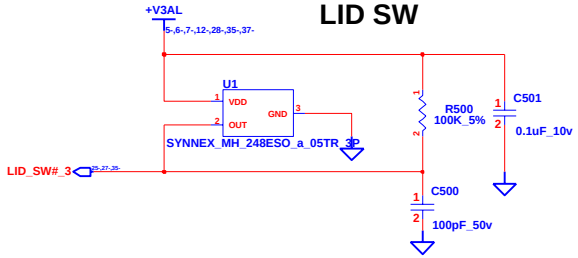
INVENTEC

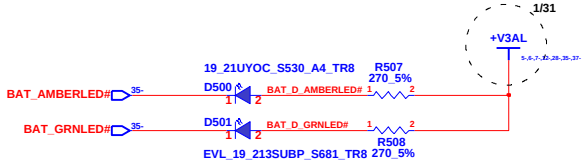
TITLE: *GALILEO*
Keyboard

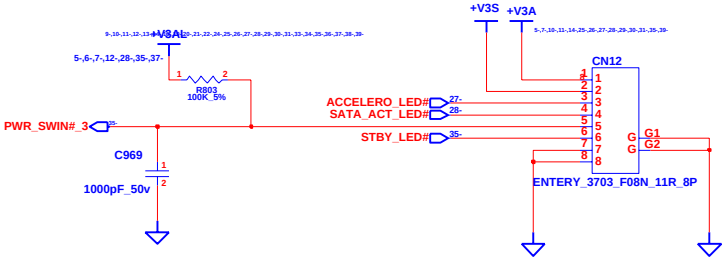
SIZE	CODE	DOC. NUMBER	REV
A3	CS	*Model_No*	*000*

SHEET 36 OF 45

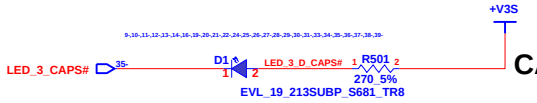
LID SW







POWER SWITCH CONN



CAP LOCK LED

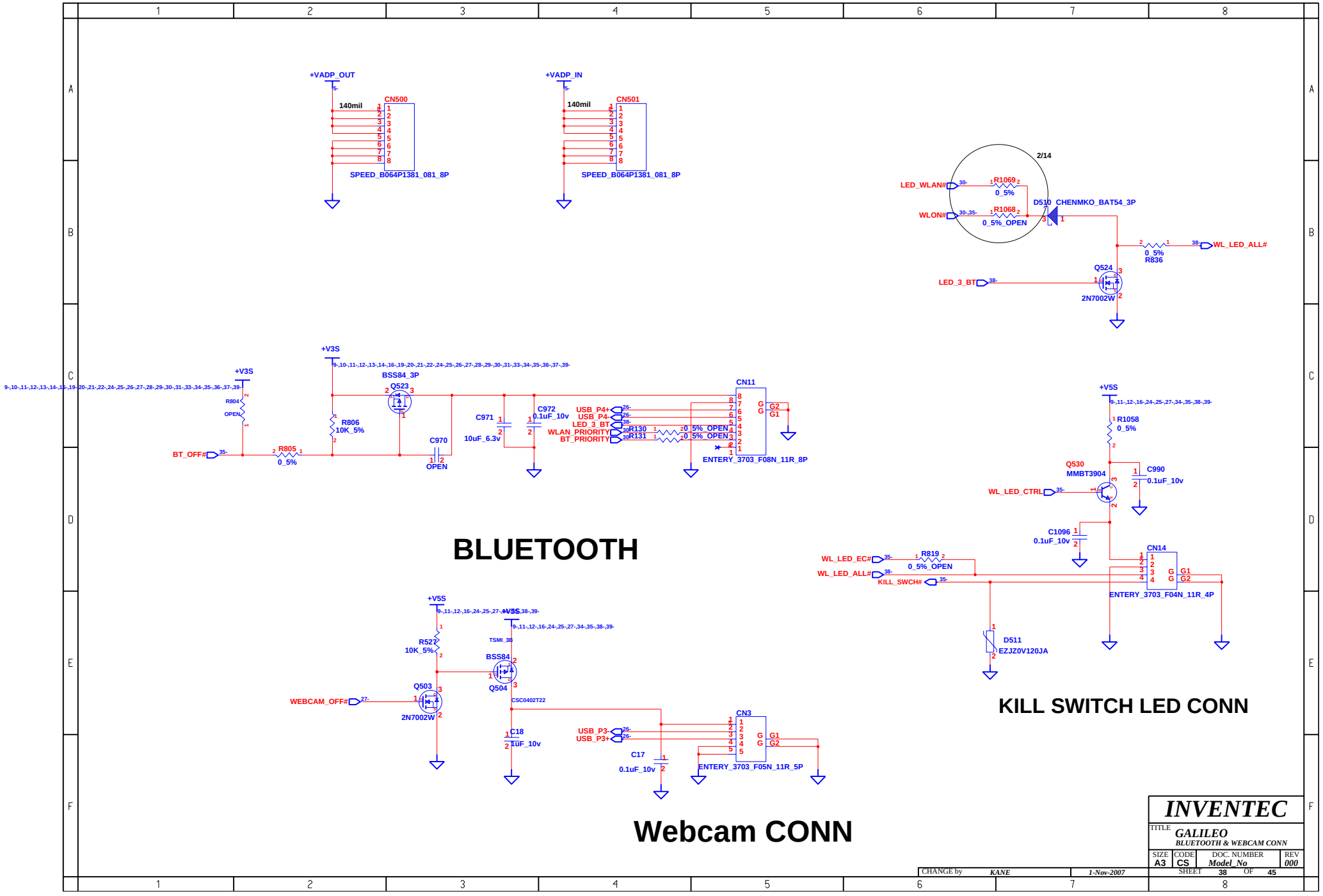
CHANGE by	GALILEO	4-Mar-2008	

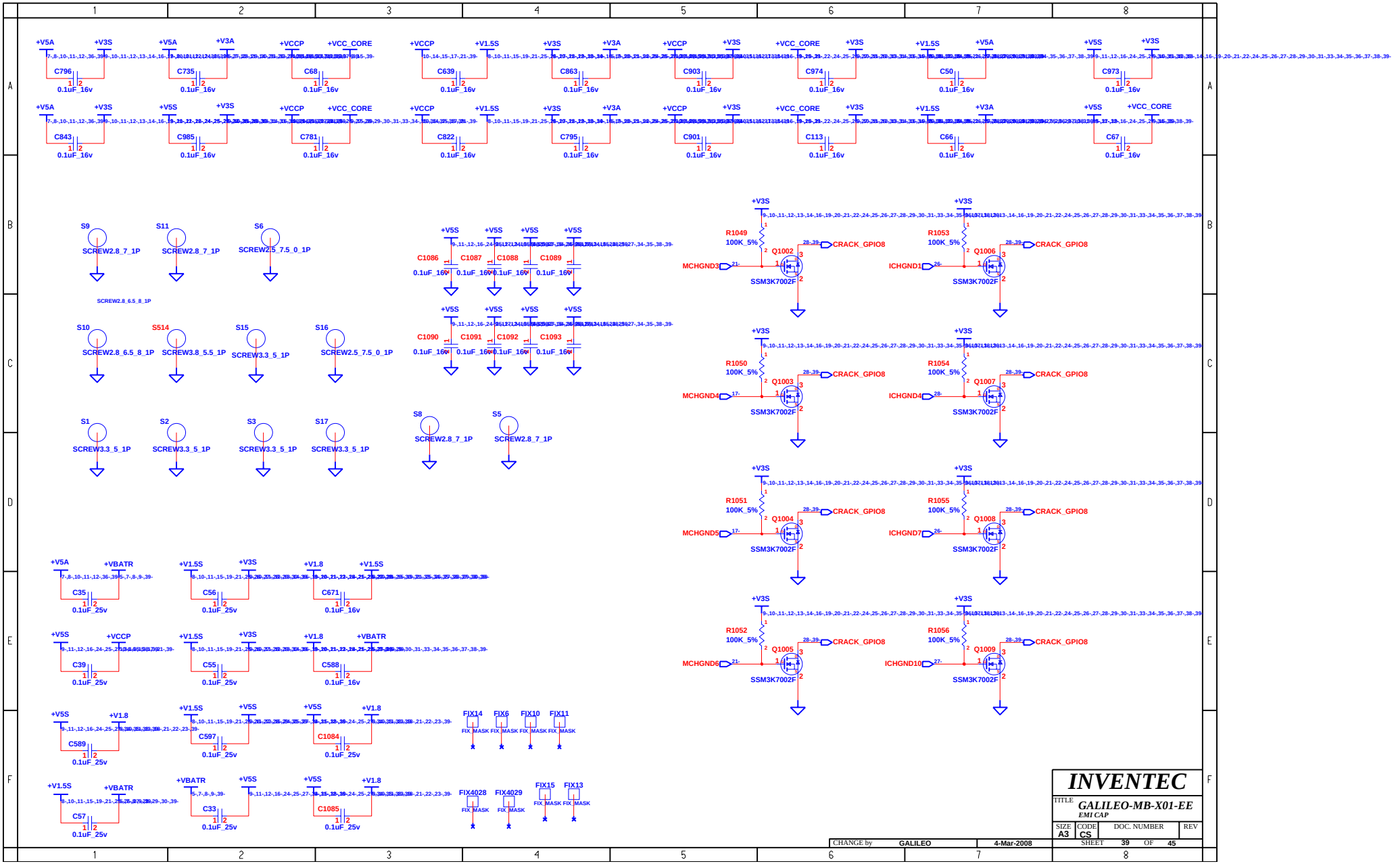
INVENTEC

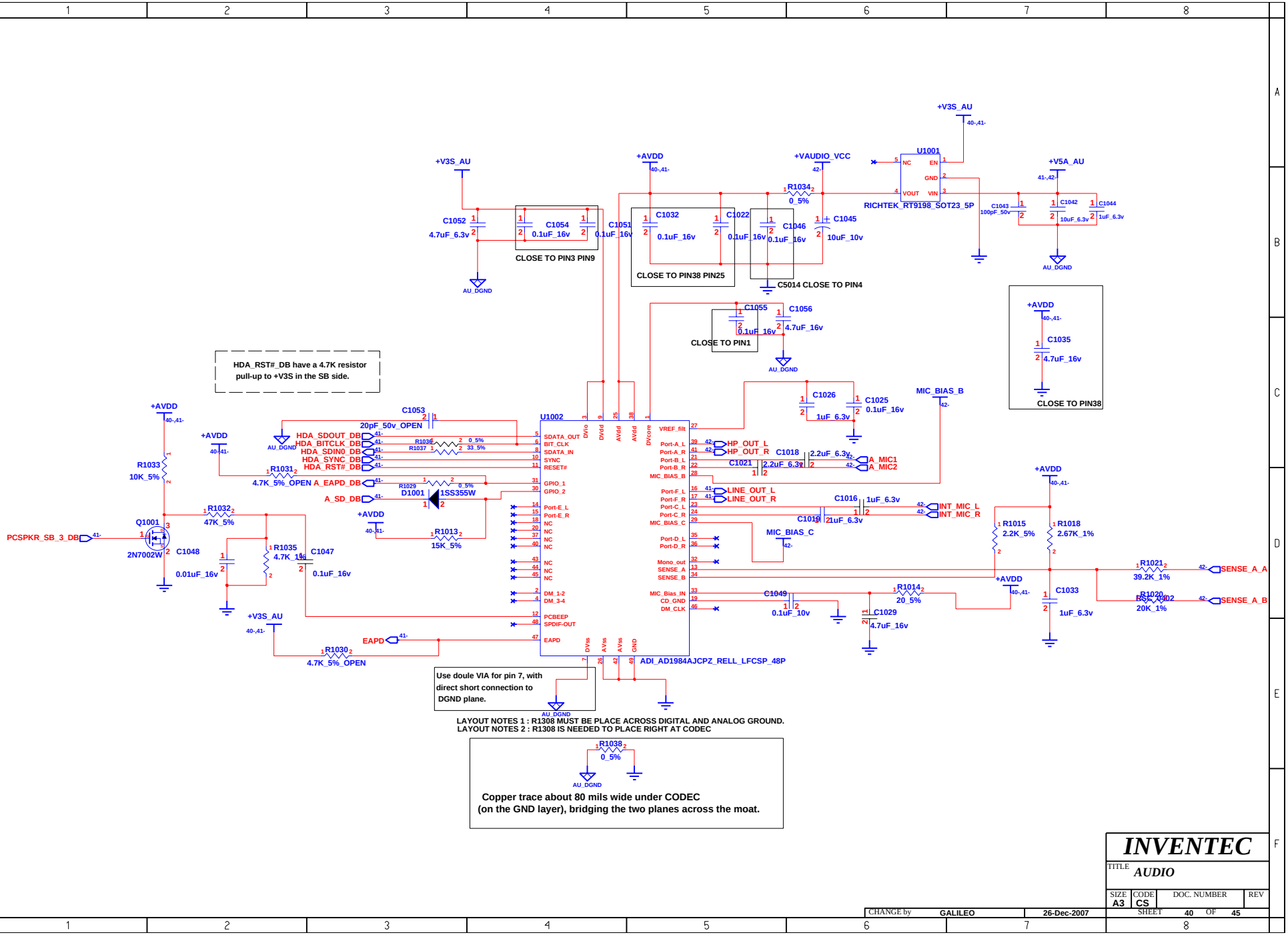
TITLE: *GALILEO-MB-X01-EE*
Button Board

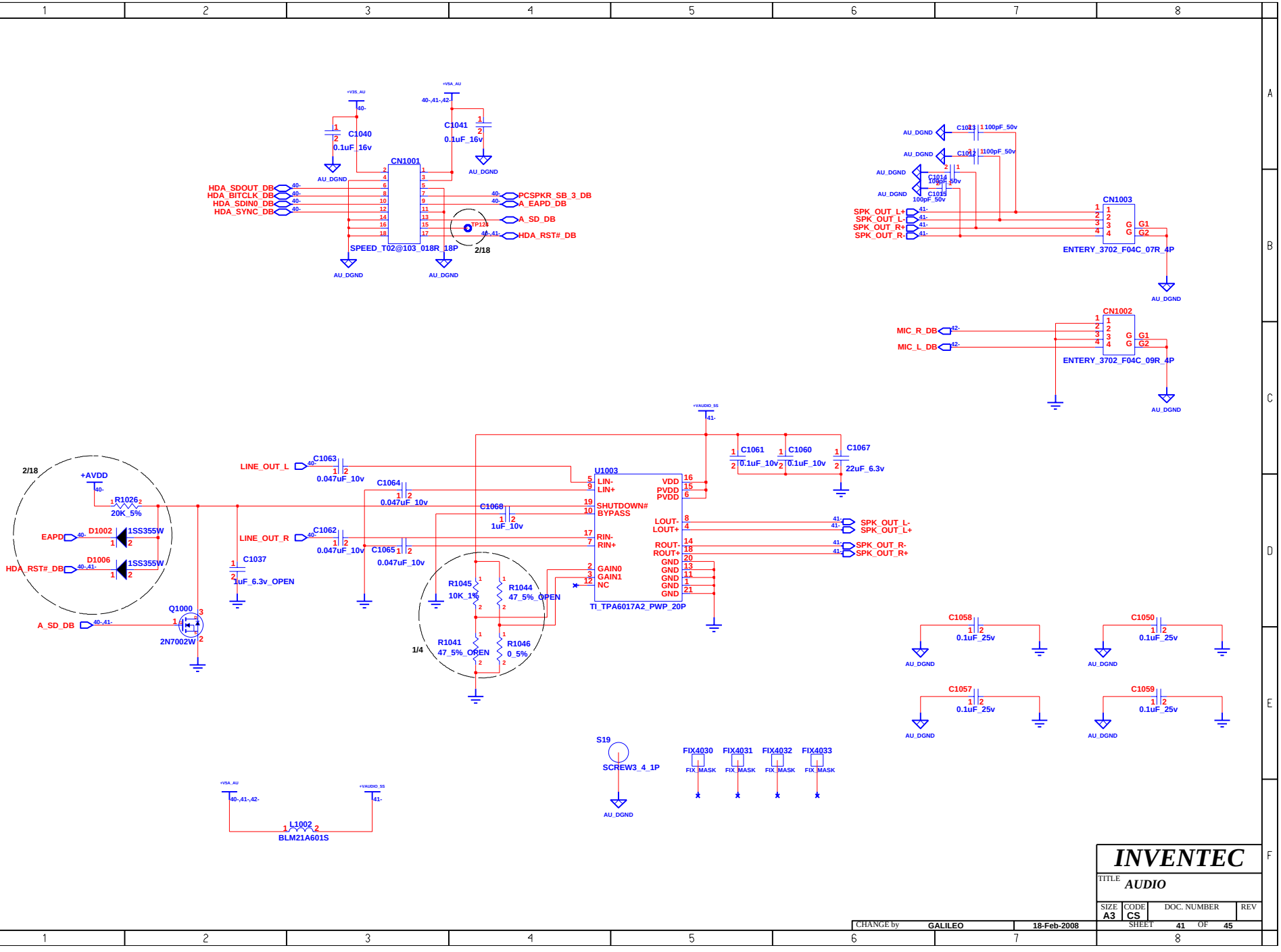
SIZE	CODE	DOC. NUMBER	REV
A3	CS		

SHEET 37 OF 45


+VADP_OUT
CN500
140mil
SPEED_B064P1381_081_8P
+VADP_IN
CN501
140mil
SPEED_B064P1381_081_8P
2/14
LED_WLAN#
R1069
0_5%
WLON#
R1068
0_5%_OPEN
D510 CHENMKO_BAT54_3P
WL_LED_ALL#
0_5%
R836
Q524
2N7002W
LED_3_BT
+V3S
BSS84_3P
Q523
R806
10K_5%
C971
10uF_6.3v
C972
0.1uF_10v
C970
OPEN
R804
OPEN
R805
0_5%
BT_OFF#
USB_P4+
USB_P4-
LED_3_BT
WLAN_PRIORITY
BT_PRIORITY
R130
R131
0_5%_OPEN
CN11
ENTERY_3703_F08N_11R_8P
BLUETOOTH
+V5S
R1058
0_5%
Q530
MMBT3904
C990
0.1uF_10v
WL_LED_CTRL
C1096
0.1uF_10v
R819
0_5%_OPEN
WL_LED_EC#
WL_LED_ALL#
KILL_SWCH#
CN14
ENTERY_3703_F04N_11R_4P
D511
EZJZ0V120JA
KILL SWITCH LED CONN
+V5S
R522
10K_5%
BSS84
Q504
Q503
2N7002W
WEBCAM_OFF#
C18
1uF_10v
C17
0.1uF_10v
USB_P3-
USB_P3+
CN3
ENTERY_3703_F05N_11R_5P
Webcam CONN
INVENTEC
TITLE
GALILEO
BLUETOOTH & WEBCAM CONN
SIZE A3
CODE CS
DOC. NUMBER Model_No
REV 000
SHEET 38 OF 45
CHANGE by KANE
1-Nov-2007

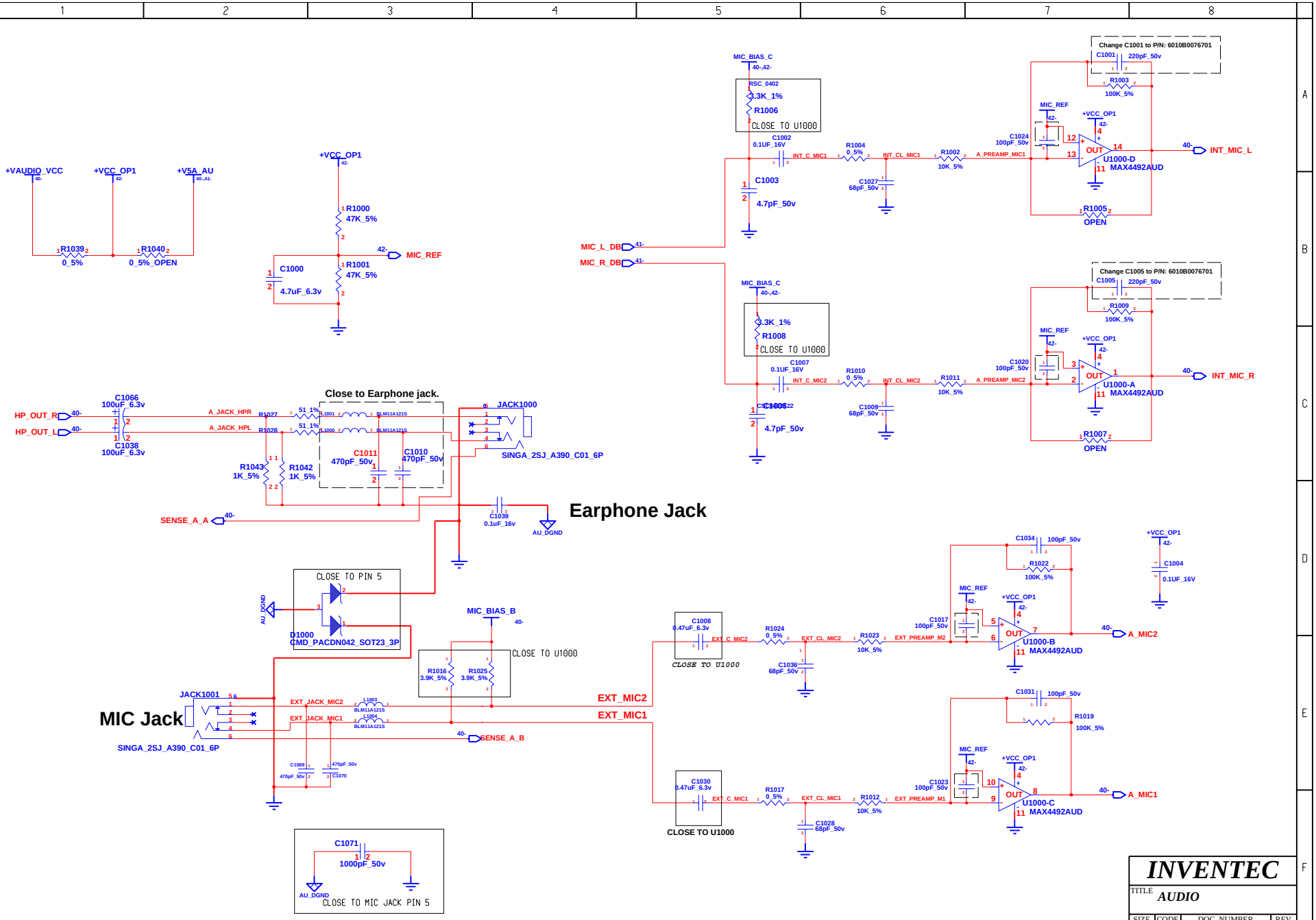

+V5A
+V3S
C796
0.1uF_16v
+V5A
+V3A
C735
0.1uF_16v
+VCCP
+VCC_CORE
C68
0.1uF_16v
+VCCP
+V1.5S
+V3S
+V3A
C639
C863
C903
0.1uF_16v
+VCC_CORE
+V3S
C974
0.1uF_16v
+V1.5S
+V5A
C50
0.1uF_16v
+V5S
+V3S
C973
0.1uF_16v
+V5A
+V3S
C843
0.1uF_16v
+V5S
+V3S
C985
0.1uF_16v
+VCCP
+VCC_CORE
C781
0.1uF_16v
+VCCP
+V1.5S
+V3S
+V3A
C822
C795
C901
0.1uF_16v
+VCC_CORE
+V3S
C113
0.1uF_16v
+V1.5S
+V3A
C66
0.1uF_16v
+V5S
+VCC_CORE
C67
0.1uF_16v
S9
SCREW2.8_7_1P
S11
SCREW2.8_7_1P
S6
SCREW2.5_7.5_0_1P
SCREW2.8_6.5_8_1P
S10
SCREW2.8_6.5_8_1P
S514
SCREW3.8_5.5_1P
S15
SCREW3.3_5_1P
S16
SCREW2.5_7.5_0_1P
S1
SCREW3.3_5_1P
S2
SCREW3.3_5_1P
S3
SCREW3.3_5_1P
S17
SCREW3.3_5_1P
+V5S
C1086
C1087
C1088
C1089
0.1uF_16v
C1090
C1091
C1092
C1093
S8
SCREW2.8_7_1P
S5
SCREW2.8_7_1P
+V3S
R1049
100K_5%
Q1002
SSM3K7002F
CRACK_GPIO8
MCHGND3
R1053
100K_5%
Q1006
SSM3K7002F
CRACK_GPIO8
ICHGND1
R1050
100K_5%
Q1003
SSM3K7002F
CRACK_GPIO8
MCHGND4
R1054
100K_5%
Q1007
SSM3K7002F
CRACK_GPIO8
ICHGND4
R1051
100K_5%
Q1004
SSM3K7002F
CRACK_GPIO8
MCHGND5
R1055
100K_5%
Q1008
SSM3K7002F
CRACK_GPIO8
ICHGND7
R1052
100K_5%
Q1005
SSM3K7002F
CRACK_GPIO8
MCHGND6
R1056
100K_5%
Q1009
SSM3K7002F
CRACK_GPIO8
ICHGND10
+V5A
+VBATR
C35
0.1uF_25v
+V1.5S
+V3S
C56
0.1uF_25v
+V1.8
+V1.5S
C671
0.1uF_16v
+V5S
+VCCP
C39
0.1uF_25v
+V1.5S
+V3S
C55
0.1uF_25v
+V1.8
+VBATR
C588
0.1uF_16v
+V5S
+V1.8
C589
0.1uF_25v
+V1.5S
+V5S
C597
0.1uF_25v
+V5S
+V1.8
C1084
0.1uF_25v
FIX14
FIX_MASK
FIX6
FIX_MASK
FIX10
FIX_MASK
FIX11
FIX_MASK
+V1.5S
+VBATR
C57
0.1uF_25v
+VBATR
+V5S
C33
0.1uF_25v
+V5S
+V1.8
C1085
0.1uF_25v
FIX4028
FIX_MASK
FIX4029
FIX_MASK
FIX15
FIX_MASK
FIX13
FIX_MASK
INVENTEC
TITLE
GALILEO-MB-X01-EE
EMI CAP
SIZE
A3
CODE
CS
DOC. NUMBER
REV
CHANGE by
GALILEO
4-Mar-2008
SHEET
39
OF
45


HDA_RST#_DB have a 4.7K resistor pull-up to +V3S in the SB side.
CLOSE TO PIN3 PIN9
CLOSE TO PIN38 PIN25
C5014 CLOSE TO PIN4
CLOSE TO PIN1
CLOSE TO PIN38
RICHTEK_RT9198_SOT23_5P
ADI_AD1984AJCPZ_RELL_LFCSP_48P
Use doule VIA for pin 7, with direct short connection to DGND plane.
LAYOUT NOTES 1 : R1308 MUST BE PLACE ACROSS DIGITAL AND ANALOG GROUND.
LAYOUT NOTES 2 : R1308 IS NEEDED TO PLACE RIGHT AT CODEC
Copper trace about 80 mils wide under CODEC
(on the GND layer), bridging the two planes across the moat.
INVENTEC
AUDIO
CHANGE by GALILEO 26-Dec-2007
SIZE A3 CODE CS DOC. NUMBER REV
SHEET 40 OF 45



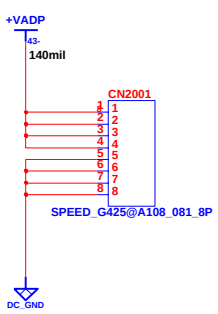
TITLE	AUDIO			
SIZE	CODE	DOC. NUMBER		REV
A3	CS			
CHANGE by	GALILEO	18-Feb-2008	SHEET 41 OF 45	

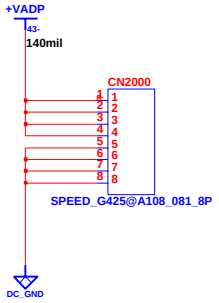
INVENTEC



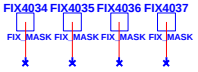
TITLE	AUDIO
SIZE	A3
CODE	CS
DOC. NUMBER	
REV	
SHEET	42 OF 45
CHANGE by	GALILEO
	4-Mar-2008

INVENTEC





POWER CONNECTOR BOARD



CHANGE by	GALILEO	26-Dec-2007	

INVENTEC

TITLE: *DC BOARD*

SIZE	CODE	DOC. NUMBER	REV
A3	CS		

SHEET 43 OF 45

VERSION DB TO SI

10/30
1. PAGE 8 --- change R57 to 11.3K
2. PAGE 9 --- Add R28~R35 (0 ohm_5%)
3. PAGE 9 --- Add C1072 (330uF_OPEN) . Add a POWERPAD
4. PAGE 11 --- Delete R17(47ohm) , R15 (100K), C17 (0.1uF_25V)
5. PAGE 11 --- Delete Q753, Q748(NMOS), Q4 (PMOS)
6. PAGE 11 --- Add a PAD and connects +V3A and +V3
7. PAGE 14 --- Q510, Q514 change to NMOS (SSM3K17FU)
8. PAGE 28 --- change R659 to 1K
9. PAGE 28 --- change SEEDI from GND to +V3S
10. PAGE 34 --- change C700,C606 to 150uF_6.3V
11. PAGE 20 --- change R673 to OPEN, change R736 to 10K_1%
12. PAGE 35 --- change U515 to SST25V080B (1M FLASH)
13. PAGE 38 --- change pin1 from +V3A to +V3S

11/1
1. PAGE 25 --- Add CN15 (6 pin connector) for LVDS
2. PAGE 38 --- change CN14 to 4pin connector

11/2
1. PAGE 41 --- change 8 pin connector to 4pin connector*2 for SPK and MIC
2. PAGE 28 --- Delete R89 ; change D10 to BAT54C
3. PAGE 28 --- Change R90 to 1K ohm ; change R92 to 510 ohm.

11/5
1. PAGE 30 --- Add Q20(PMOS), change R23 to R1047(100K)
2. PAGE 37 --- Delete D509
3. PAGE 24 --- Add D1003

11/6
1. PAGE 25 --- change pin 3,4 and pin 5,6 of CN15
2. PAGE 5 --- add R1048
3. PAGE 5 --- change c24 to 0.1UF
4. PAGE 5 --- change C16 to 2.2uF
5. PAGE 35 --- change KBRST#, A20GATE pull high to +V3A

11/7
1. PAGE 6 --- R12 change to 100ohms
2. PAGE 6 --- add D1006
3. PAGE 6 --- add D1007
4. PAGE 6 --- change C15 47PF

11/8
1. PAGE 27 --- change ACCELERO_LED# pull high to +V3A

11/9
1. PAGE 38 --- LED_3_WLAN change to WLON#
2. PAGE 38 --- Delete U520, KILL_SWCH#. R805 change to 0 ohm
3. PAGE 34 --- ACCEL_INT# change to ACCEL_INT#_L
4. PAGE 30 --- CN505 pin 44 NC. Delete U7, R71 change to 0 ohm
5. PAGE 27 --- Delete R115, R81 . Add Q303, R307.
6. PAGE 27 --- SMCLK, SMDAT change pull high to +V3S
7. PAGE 13 --- C981, C982 change to 15pF

11/14
1. PAGE 34 --- C606 change to 100uF_10V (Low ESR)
2. PAGE 34 --- C700 change to 150uF_6.3V (Low ESR)
3. PAGE 39 --- Del S1
4. PAGE 34 --- SWAP L520 D+ D-
5. PAGE 41 --- CHANGE CN1002 TO 6012B0239001 (BLACK)
6. PAGE 32 --- SWAP LED_LANACT# & LED_LANLINK#
7. PAGE 27 --- CHANGE R81 ,R115 TO 0402 TYPE

11/16
1 PAGE 5 --- D503 change to PDS1040S
2. PAGE 9 --- C987 change to 22nF ; R128 change to 200ohm
3. PAGE 24 --- C11 change to 0.1uF_6.3V ; C512 change to 0.22uF_6.3V
4. PAGE 24 --- R3,R9 change to 33ohm ; R5, R21 change to 4.7Kohm
5. PAGE 24 --- U500 change to 74LVC2G126DP
6. PAGE 24 --- Q1,Q3 change to SSM3K17FU
7. PAGE 24 --- Add R350,R351 (10Kohm) ; Add R121 (100Kohm)
8. PAGE 24 --- D502 change to LL4148
9. PAGE 24 --- Delete R6,R22 (10ohm)
10. PAGE 24 --- Change R1,R19 to 0 ohm ; R4,R10 change to 4.7Kohm

11/19
1. PAGE 31 --- R698, R701 change size to 0805
2. PAGE 41 --- C1050,C1057,C1058,C1059 change to 1000pF_50V

11/21
1. PAGE 12 --- Delete U513, C918, R741
2. PAGE 12 --- Add D600 (CHENMDO_BAT54_3P)
3. PAGE 39 --- S14change to SCREW3.8_5.5 size
4. PAGE 41 --- S18,S19 change to SCREW3_4 size

VERSION SI TO SI-2

11/26
1. PAGE 27 --- R110, R111 change to 4.7K_5% and pull high to +V3A
2. PAGE 27 --- Add Q17(2N7002DW)
3. PAGE 27 --- Add R6 (4.7K_5%)
4. PAGE 28 --- WL_OFF# change to WL_OFF
5. PAGE 30 --- Q20 Change to NMOS (2N7002W)
6. PAGE 30 --- WL_OFF# change to WL_OFF
7. PAGE 35 --- U518 change to IT8512E

12/3
1. PAGE 25 --- change CN15 pin name
2. PAGE 24 --- change CN503 (6012B0244701)
3. PAGE 23 --- change C539,C540,C567,C568,C569 (6010B0075501)
4. PAGE 14 --- R651 change to 220_5%
5. PAGE 5 --- change C3 (6010B067601)
6. PAGE 30 --- Delete Q13,Q20,R1047
7. PAGE 30 --- +V3S_WL change to +V3S
8. PAGE 11 --- R67 change to 470 ohm(60130B4710ZT)
9. PAGE 11 --- R95 change to 200 ohm(6013A0051201)
10. PAGE 25 --- R583 change to 0 ohm(60130B0000ZT)
11. PAGE 30 --- C83 change to 10 uF(6010B0044901)

12/4
1. PAGE 9 --- delete PAD505

12/5
1. PAGE 35 --- add C989(0.1uF),C990(1uF),R841(0 ohm)
2. PAGE 34 --- change CN8
3. PAGE 39 --- add S1

12/7
1. PAGE 34 --- change CN5
2. PAGE 39 --- Add Q1002~Q1009(SSM3k7002)
3. PAGE 39 --- Add R1049~R1056(100Kohm)

VERSION SI-2 TO PV

12/21
1. PAGE 6 --- CN1 change geometry
2. PAGE 27 --- +VBATR change to +V3S
3. PAGE 27 --- Delete Q303 , R307
4. PAGE 29 ---U516 change geometry
5. PAGE 40 ---U1002 change geometry
6. PAGE 37 ---U1 change to MH248ES0

12/24
1. PAGE 39 --- S14 change to S514
2. PAGE 27 --- R6 pin1 change pull high to +V5S
3. PAGE 35 --- Add a signal (WL_LED_CTRL) from U518 pin99
4. PAGE 38 --- Add Q530 , C990
5. PAGE 26 --- Pin A3(INTG#) connect to ACCEL_INT#
6. PAGE 27 --- Pin AE2(GPI0) connect to NIC_LINK#.
7. PAGE 28 --- NC Pin R25
8. PAGE 34 --- CN6,CN8 update geometry
9. PAGE 27 --- Pin AB1 connect to SMBALT#

12/25
1. PAGE 5 --- Del C31,C32,C105,C106
2. PAGE 5,9 --- Add C1075,C1076,C1077,C1078,C1081,C1082,C1083
3. PAGE 9 --- Add C1079,C1080
4. PAGE 9 --- Add R1057

12/27
1. PAGE 34 --- CN5 change to 1001-F12E-04R
2. PAGE 36 --- CN9 change to T03P122-0181
3. PAGE 41 --- CN1001(24pin) change to 18 pin

1/4
1. PAGE 9 --- Add 0.1uF capacitor in PAD503's pin1,2
2. PAGE 9 --- Add C1049,C1050,R144,C127
3. PAGE 26 --- Change USB port
4. PAGE 42 --- C1011,C1010 change to 470uF
5. PAGE 39 --- Add C1084~C1093. (10 pcs capacitor)
6. PAGE 40 --- EMI capacitor change to 0.1uF_25V
7. PAGE 35 --- V1.8_ON add 10Kohm to DGND
8. PAGE 41 --- Add R1045, R1046 ; Del R1041, R1044
9. PAGE 42 --- C1038,C1066 change to 100uF_6.3V
10. PAGE 42 --- Change MIC net name

1/7
1. PAGE 13 --- R833,R832 change to 22ohm ; Delete C981,C982
2. PAGE 38 --- Q530(NMOS change to BJT) ; Add C1096, R1085
3. PAGE 38 --- R1085 pin 1 connect to +V5S
4. PAGE 41 --- Delete C1037

1/8
1. PAGE 35 --- V1.5S_ON, VCCP_ON connect 10Kohm to GND

INVENTEC

TITLE *History*

SIZE	CODE	DOC. NUMBER	REV
A3	CS		

CHANGE by GALILEO 4-Feb-2008

SHEET 44 OF 45

VERSION PV TO PVR

1/28 1. PAGE 35 --- U518 PIN 79 connects to PCI_SERR#_3

1/31 1. PAGE 32 --- L5 power +V2.5_3.3_LAN add BLM11A601S
2. PAGE 37 --- D500 and D501 power change to +V3AL

2/12 1. PAGE 27 --- U1005 and R1067 for the Susb# buffer
2. PAGE 32 --- R1066 for the SLP_S3#_3R pull high

2/14 1. PAGE30 --- Add a signal "LED_WLAN#" at CN505 pin 44
2. PAGE38 --- Add R1069 and connect to LED_WLAN#

2/18 1. PAGE35 --- Add a signal "EC_PME#" at pin 18
2. PAGE31 --- Add 0 ohm resistor, and 0ohm_OPEN connect to EC_PME#
3. PAGE6 --- Add a diode D1004
4. PAGE32 --- Add a diode D1005
5. PAGE41 --- Del SLP_S3#_3R_DB and add a test point.
6. PAGE41 --- Add a diode D1006 and connect to HDA_RST#_DB
7. PAGE41 --- R1026 pin1 change to connets +AVDD
8. PAGE27 --- Add Q1010. R22

VERSION PVR TO MV

3/4 1. PAGE 31 --- Add C1099
2. PAGE 31 --- OPEN the R596, Q512
3. PAGE 31 --- Del Q520

CHANGE by	GALILEO	4-Mar-2008		

INVENTEC

TITLE *GALILEO-6050A2174901-MB-A02-power*

SIZE	CODE	DOC. NUMBER	REV
A3	CS		

SHEET 45 OF 45