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Revisions

Rev	Description	Date	Approved
X1	First Draft	2-FEB-21	Lucie Hernandez
A	Original Release	25-FEB-21	Lucie Hernandez

KITFS4508CAEEVM

Analog Sensor Product Group
6501 William Cannon Drive West
Austin, TX 78735-8598

ICAP Classification: CP: IUO: X PUBL

Designer: F. Islas	Drawing Title: KITFS4508CAEEVM
Drawn by: F. Islas	Page Title: TITLE, TOC & REV
Approved: L. Hernandez	Size C; Document Number SCH-48221 PDF: SPF-48221; Rev A
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JUMPER TABLE

REF DES	*JUMPER*	*PAGE NAME*
J2,J12	1-2 3-4	03 - FS4508
J26,J18,J9,J1,J27,J3,J43,J11, J28,J16,J21,J5,J25,J40,J32, J35,J14,J15,J39	1-2	03 - FS4508
J38,J22	2-3	03 - FS4508
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J10,J6,J8	OFF	03 - FS4508
J24	1-2 3-4 5-6 7-8	04 - INTERFACE
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DNP TABLE

REF DES	*ASSY_OPT*	*PAGE NAME*
R10,C4,J7,R12,TP8,TP4,TP6, J10,L4,R29,J41,C58,C7,TP2, C55,J42,R57,D7,C26,C11,C63, C59,R17,C3,C92,C10,TP10,R8, C5,C19,C15,C54,R6,C9,R107, C52,C14,R56	DNP	03 - FS4508
R91	DNP	04 - INTERFACE

SWITCH TABLE

REF DES	*SWITCH*	*PAGE NAME*
SW1	1: OFF 2:OFF 3:OFF 4:OFF	03 - FS4508
SW5	1: OFF 2:ON 3:OFF 4:OFF	03 - FS4508
SW3	1:OFF 2:OFF 3:OFF 4:OFF 5:OFF 6:OFF	04 - INTERFACE
SW6	1:OFF 2:OFF 3:OFF 4:OFF	04 - INTERFACE

Notes :
This Schematic is intended to support FS45XX and FS65XX family.
All the famillies will be supported on the same PCB.
As a consequence, the variation at schematic level are managed with components maked as "DNP"

Board configured for MC33FS4508CAE
(Vcore DC/DC 2.2A - FS0b (no FS1b) - LDT - CAN & LIN)

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Drawing Title: KITFS4508CAEEVM
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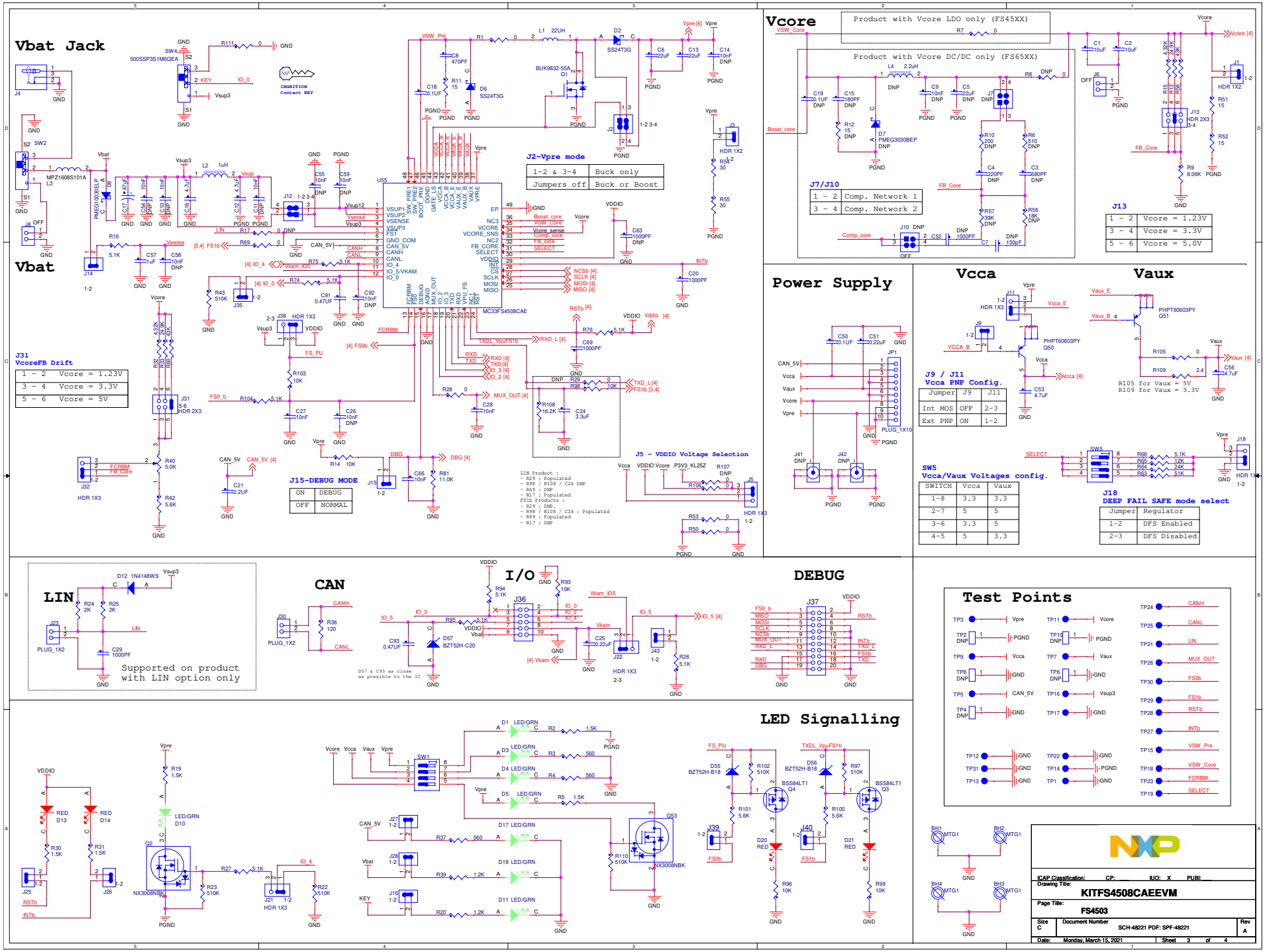
Vbat Jack
Vbat
Vcore
Product with Vcore LDO only (FS45XX)
Product with Vcore DC/DC only (FS65XX)
J7/J10
1 - 2 Comp. Network 1
3 - 4 Comp. Network 2
J13
1 - 2 Vcore = 1.23V
3 - 4 Vcore = 3.3V
5 - 6 Vcore = 5.0V
J2-Vpre mode
1-2 & 3-4 Buck only
Jumpers off Buck or Boost
J31
VcoreFB Drift
1 - 2 Vcore = 1.23V
3 - 4 Vcore = 3.3V
5 - 6 Vcore = 5V
J15-DEBUG MODE
ON DEBUG
OFF NORMAL
J5 - VDDIO Voltage Selection
Power Supply
Vcca
Vaux
J9 / J11
Vcca PNP Config.
Jumper J9 J11
Int MOS OFF 2-3
Ext PNP ON 1-2
SW5
Vcca/Vaux Voltages config.
SWITCH Vcca Vaux
1-8 3.3 3.3
2-7 5 5
3-6 3.3 5
4-5 5 3.3
J18
DEEP FAIL SAFE mode select
Jumper Regulator
1-2 DFS Enabled
2-3 DFS Disabled
R105 for Vaux = 5V
R109 for Vaux = 3.3V
LIN
Supported on product with LIN option only
CAN
I/O
DEBUG
LED Signalling
Test Points
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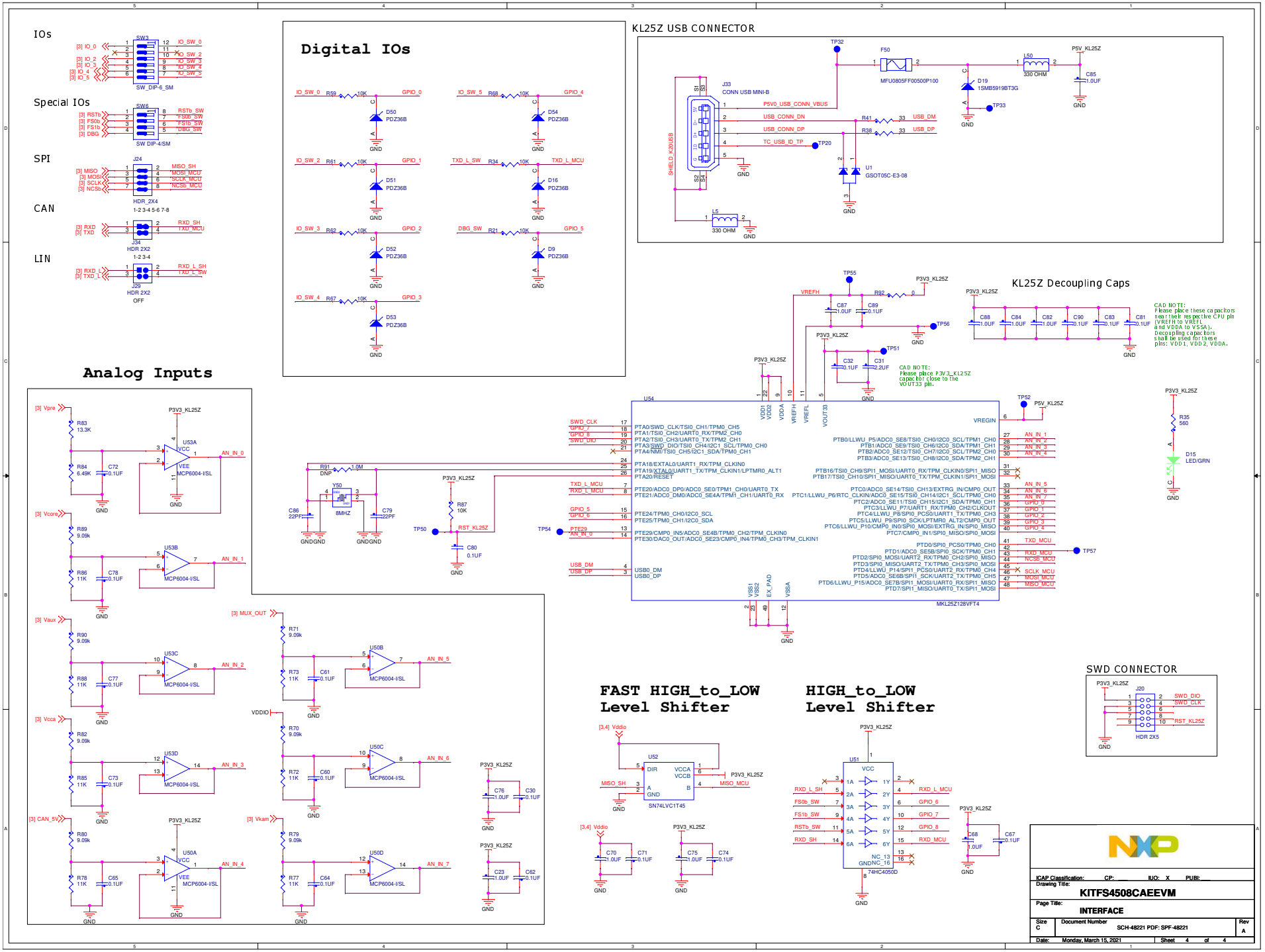
IOs
SW3
SW_DIP-6_SM
Special IOs
SW6
SW DIP-4/SM
SPI
J24
HDR_2X4
CAN
J34
HDR 2X2
LIN
J29
HDR 2X2
OFF
Digital IOs
KL25Z USB CONNECTOR
J33
CONN USB MINI-B
SHIELD_K20USB
MFU0805FF00500P100
1SMB5919BT3G
330 OHM
GSOT05C-E3-08
KL25Z Decoupling Caps
CAD NOTE:
Please place these capacitors near their respective CPU pin (VREFH to VREFL and VDDA to VSSA). Decoupling capacitors shall be used for these pins: VDD1, VDD2, VDDA.
CAD NOTE:
Please place P3V3_KL25Z capacitor close to the VOUT33 pin.
MK25Z128VFT4
Analog Inputs
MCP6004-I/SL
FAST HIGH_to_LOW
Level Shifter
SN74LVC1T45
HIGH_to_LOW
Level Shifter
74HC4050D
SWD CONNECTOR
HDR 2X5
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