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Revisions

Rev	DESCRIPTION	DATE	APPROVED
X1	Initial Draft	02/29/12	Eduardo Viramontes
X2	Pins reassignment, 2nd TWRPI GP removed	03/12/12	Eduardo Viramontes
X3	32.678 kHz oscillator added for K25, pin reassignment for TWR PI's, & Elevator. Adding a 2x5 HDR for SWD/ JTAG on K25	03/20/12	Eduardo Viramontes
X4	User LEDs resistors changed to 330 ohms. 0 ohms resistors were populated on Primary Elev : B10, B11, B47, B48, B21, A63 A57. PTB9 & PTB10 connected to A11 & A10 pins on Primary Elev with 0 ohm resistors	03/21/12	Eduardo Viramontes
X5	Replacing the 1x2 HDRs on User LED's and infrared interface with a Dip Switch. Replacing TVS diodes to improve the differential nets routing	03/22/12	Eduardo Viramontes
A	Release for Production	03/22/12	Eduardo Viramontes
AX1	U502 section updated J11 replaced by 210-76001 U3 replaced with PKL25Z128VLK4(TMP-WF-16610) U4 replaced with Sub assembly - '750-77323' U504 K20 power supply and it's pull up, JTAG supply changed to 'VOUT33_K20' from 'V_BRD' U504 VBAT changed to 'VOUT33_K20' from 'V_BRD' For UART signals a buffer added (U507) For the signals between K20 to K25 , bi -directional level translator(U11- 312-79834) added. BOM optimisation done. NSP foot print used for U4 and U11 unused pins tied to GND A070 Release Eduardo and Alistair's f/b implemented: * U507 - removed * U11- Signals swapped betn A and Y * U504 -XTAl and EXTAL pins made NC * U504 - Reset is connected to VOUT33_K20 U11 - Y5 to Y8 made NC J10,J16 replaced by 210-07961-00 J7 - Default Jumper option added	05/25/12 05/28/12 05/30/12 05/31/12 06/01/12 06/04/12 06/05/12 06/07/12	Alberto Carrillo/ Eduardo Viramontes
B	A085 Release	06/11/12	Alberto Carrillo/ Eduardo Viramontes
BX1	Added RESET circuitry from 170-27547 Rev.B Changed U504 Level Shifter from TXB0101 to new TXS0101 R546 & R546 set DNP; R546 -> changed to 2K2 Net changes: USB_SI_VOUT33 -> VOUT33_K20 & VDD_PULL -> V_BRD. Added level shifters & Cfg Jumpers for UART, OPENSDA & TWR signals. Chnaged Y500 to 230-75345 & RefDes Re-sequence	08/17/12	Alberto Carrillo/ Eduardo Viramontes
C	Production Release	08/17/12	Alberto Carrillo/ Eduardo Viramontes
C1	Updated P part silicon to M part	09/26/12	Alberto Carrillo/ Eduardo Viramontes

freescale semiconductor
Microcontroller Solutions Group
6501 William Cannon Drive West
Austin, TX 78735-8598

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ICAP Classification: FCP: FIUO: X PUBI:

Designer: <Designer>	Drawing Title: TWR-K25LN128		
Drawn by: K.S Chelvi	Page Title: TABLE OF CONTENTS		
Approved: Alberto Carrillo	Size C	Document Number SCH-27472 PDF: SPF-27472	Rev C1
	Date: Monday, October 01, 2012	Sheet 1 of 9	

1. Unless Otherwise Specified:
   All resistors are in ohms
   All capacitors are in uF
   All voltages are DC

2. Interrupted lines coded with the same letter or letter combinations are electrically connected.

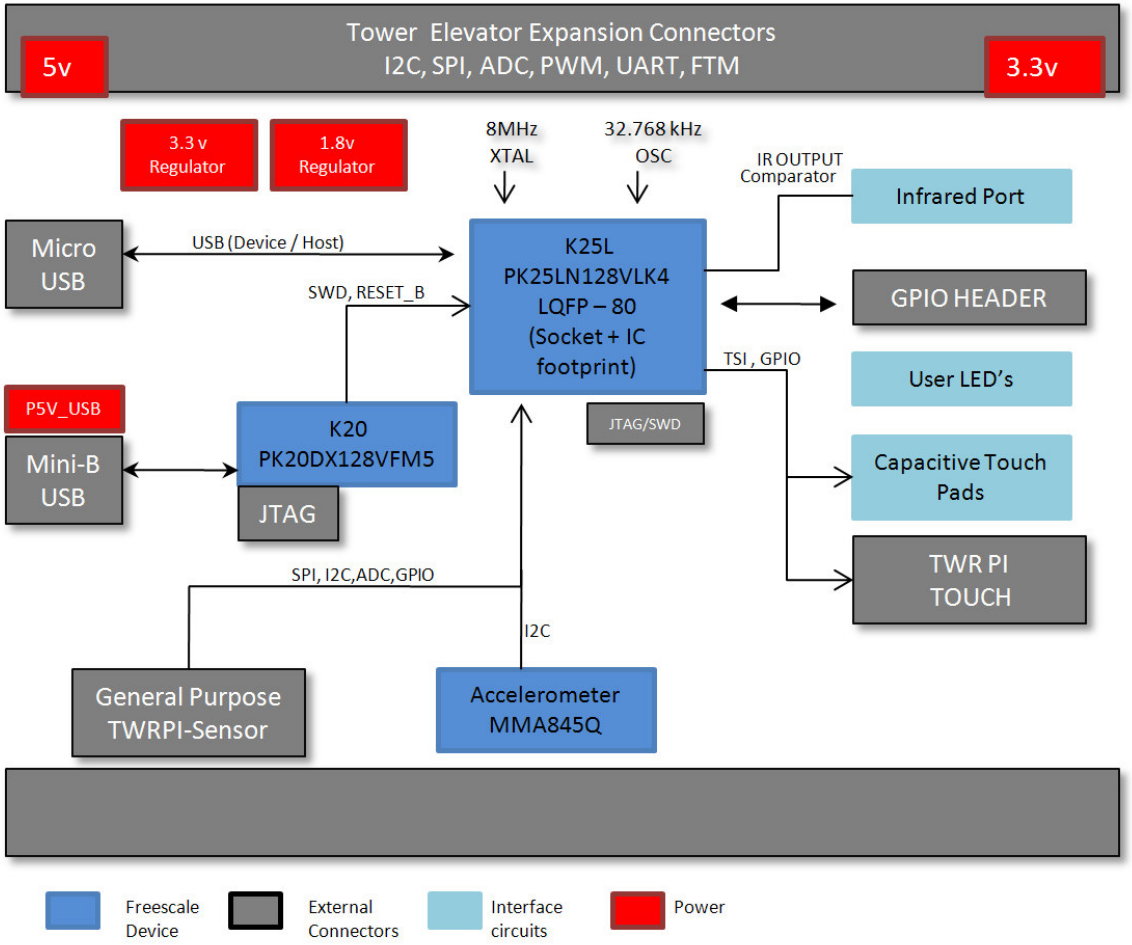
3. Device type number is for reference only. The number varies with the manufacturer.

4. Special signal usage:
   _B Denotes - Active-Low Signal
   <> or [] Denotes - Vectored Signals

5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

Power & Ground Nets

NET	VOLTAGE	DESCRIPTION
P5V_USB	5V	Primary input power. Filtered from USB connector. Input to USB power switch.
P5V_TRG_USB	5V	Output of USB power switch controlled by the VTRG_EN signal from the JM60 MCU. Provides input to regulator.
P3V3_REG	3.3V	Output of regulator U503 or from the Elevator connector
P1V8	1.8V	Output of regulator U504
V_BRD	3.3v or 1.8v	MCU & Interface circuit input power
VDDA	3.3V	VDDA power for MCU and analog circuits. Filtered from MCU_PWR.
VREFH	3.3V	Upper reference voltage for ADC on the MCU. Filtered from VDDA.
VREFL	0V	Lower reference voltage for ADC on the MCU. Filtered from VSSA.
VSSA	0V	VSSA power for MCU and analog circuits. Filtered from GND.
GND	0V	Digital Ground.



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Page Title: **NOTES**

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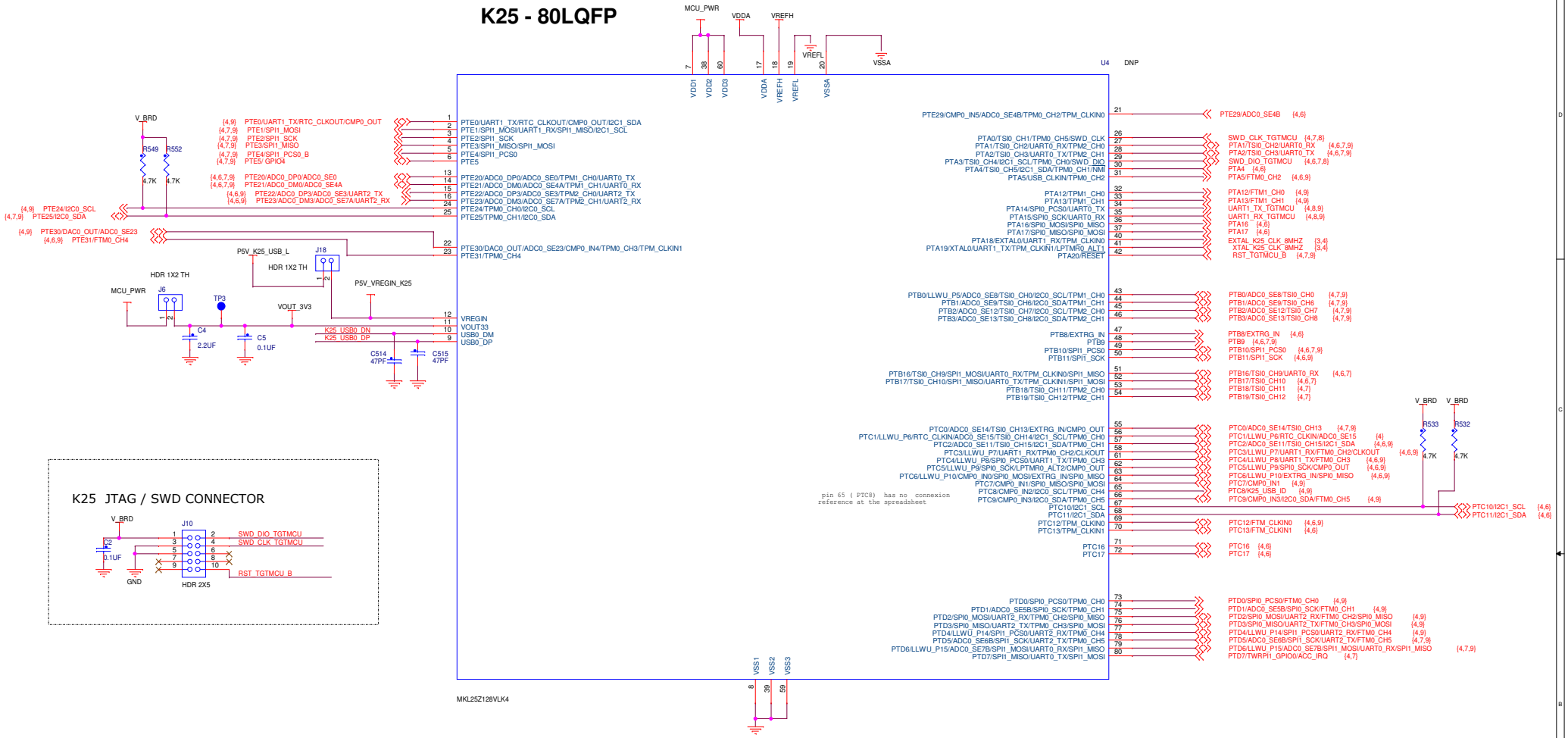
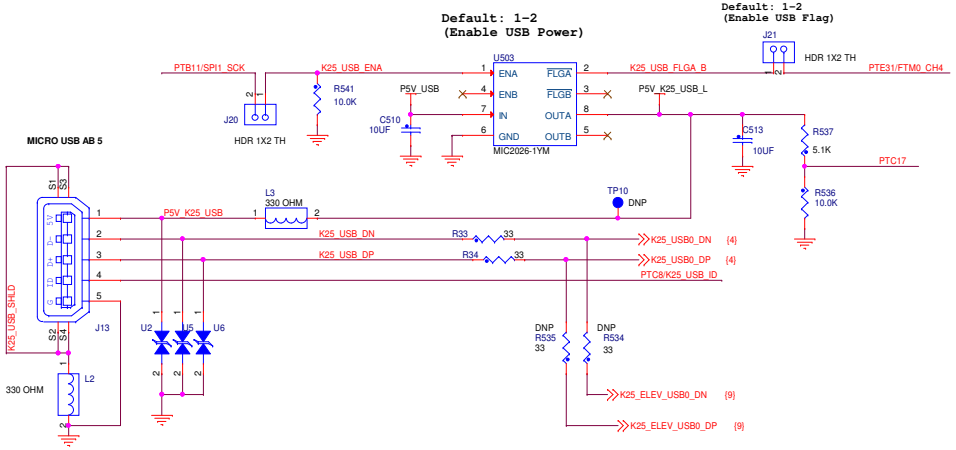
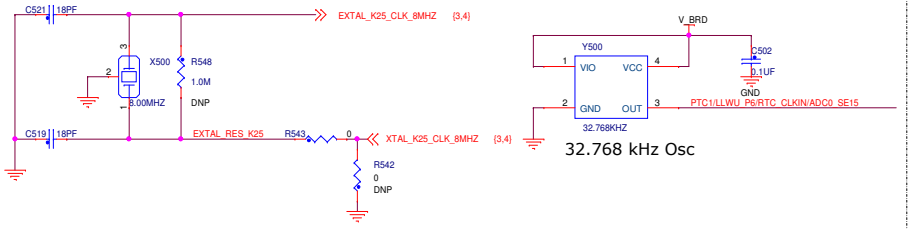
K25 - 80LQFP



K25 JTAG / SWD CONNECTOR

K25 USB Interface (Host, Device, OTG)





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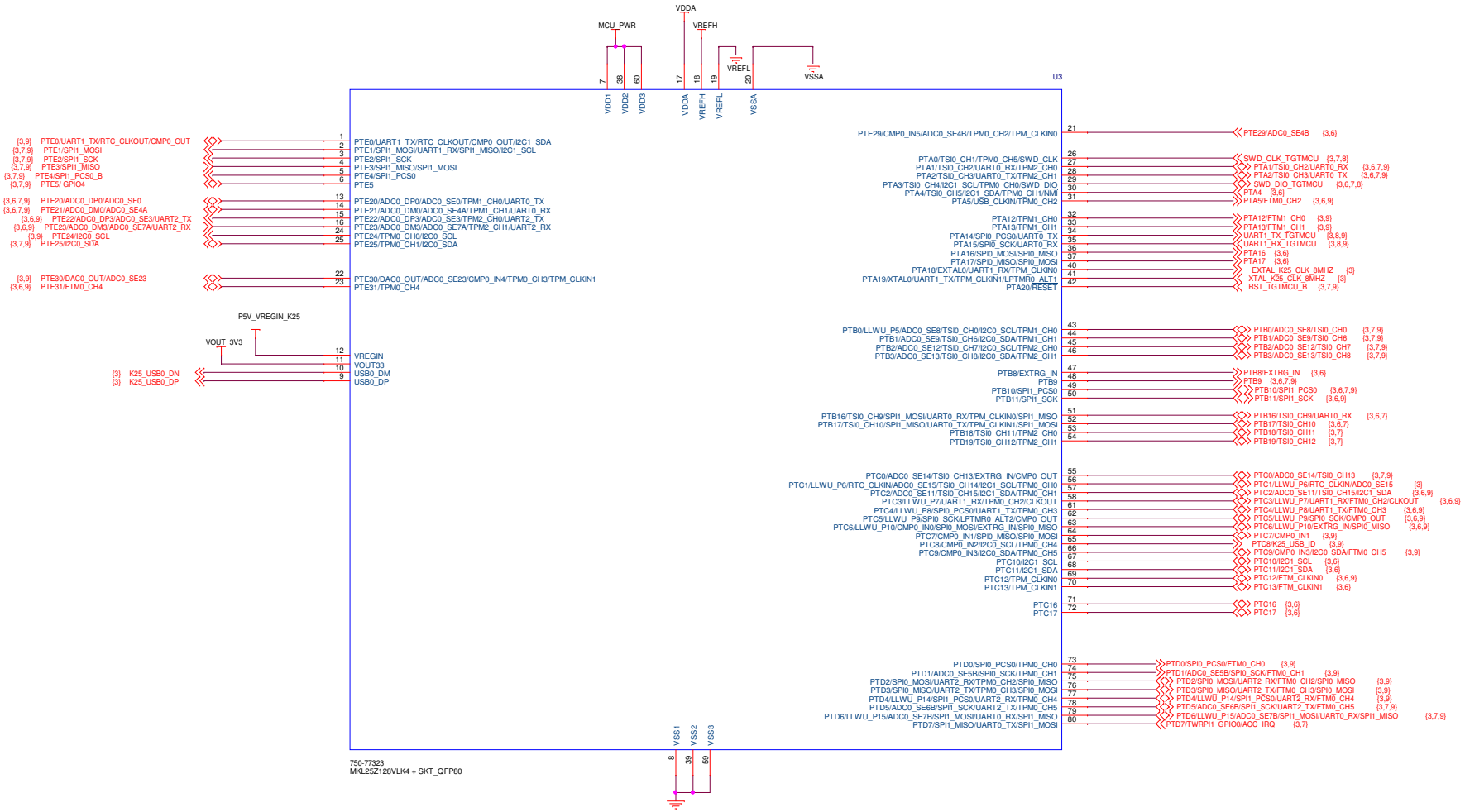
K25 - SUB ASSEMBLY



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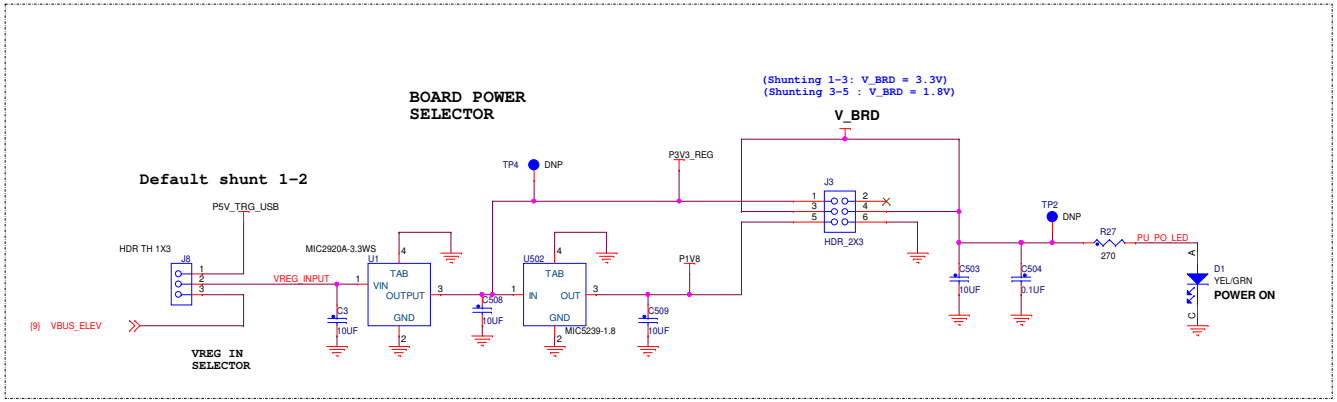

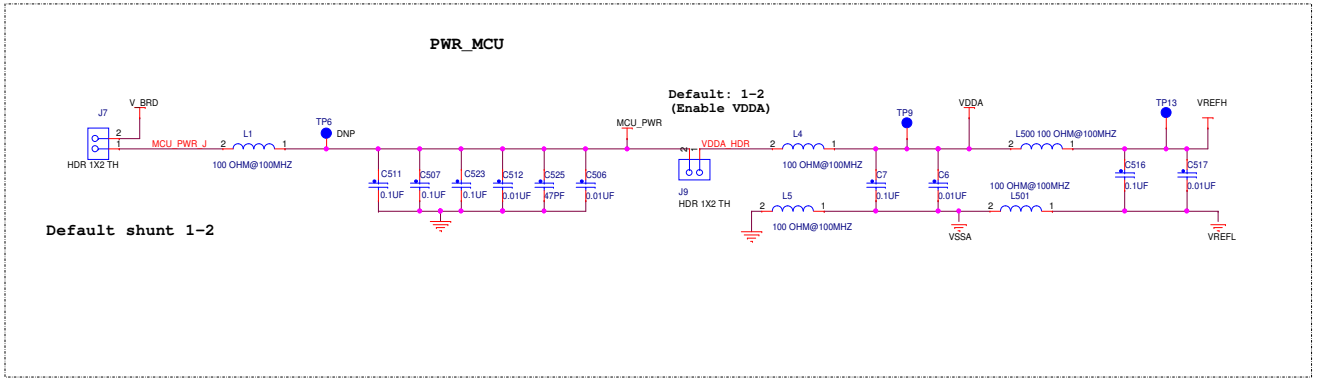

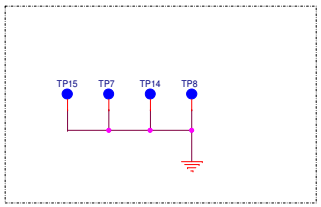

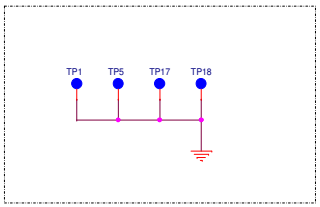

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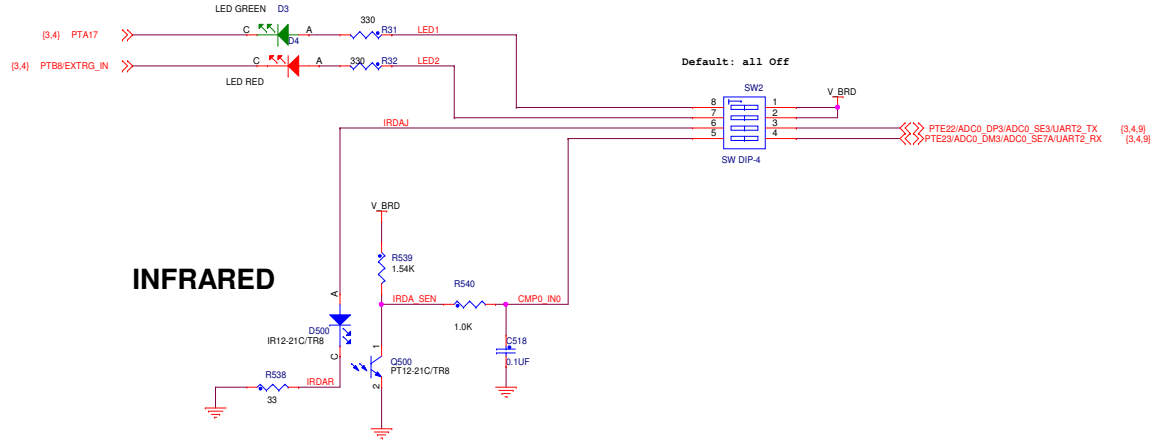
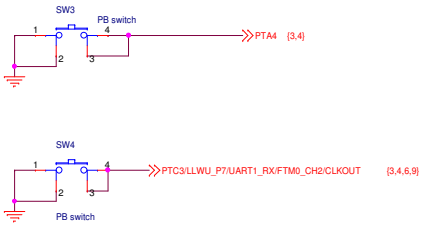
LEDS



INFRARED

Intensity will be different between V_BRD = 1.8V and 3.3V.

PUSH BUTTON



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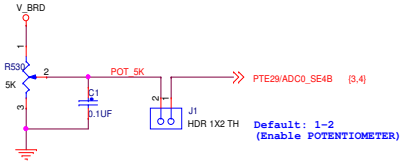

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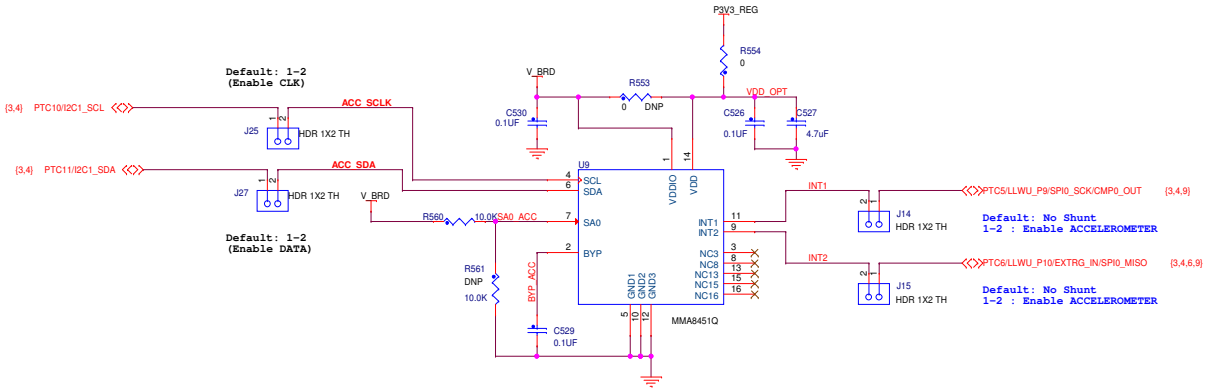
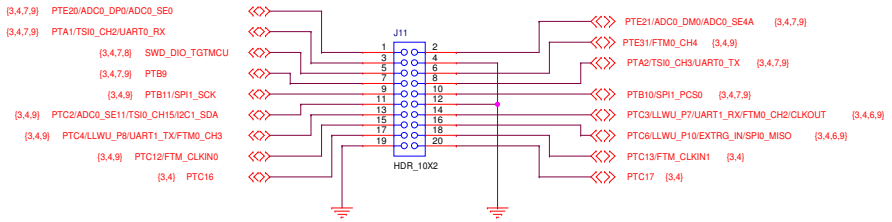
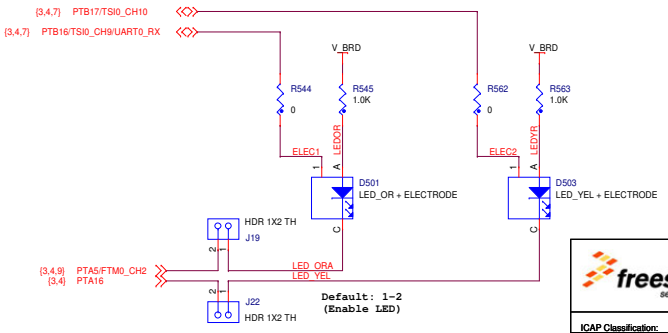


GPIO HDR



TOUCH ELECTRODES WITH LEDs



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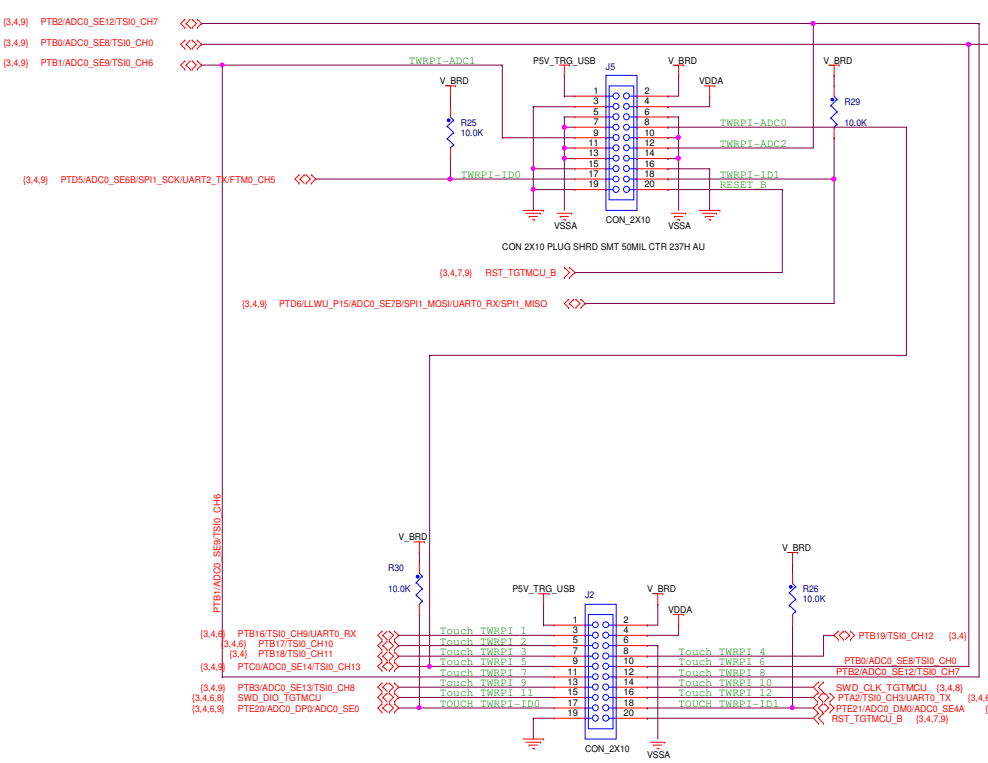
GENERAL PURPOSE TWRPI 1

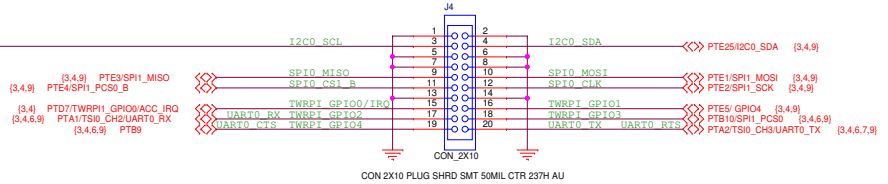
Note: The TWRPI connectors are powered by V_BRD which may be 1.8V or 3.3V.

Not all TWRPI boards will work at 1.8V.

Check that the TWRPI board will work at 1.8V before using it when this board is set for 1.8V.



TOUCH PAD TWRPI



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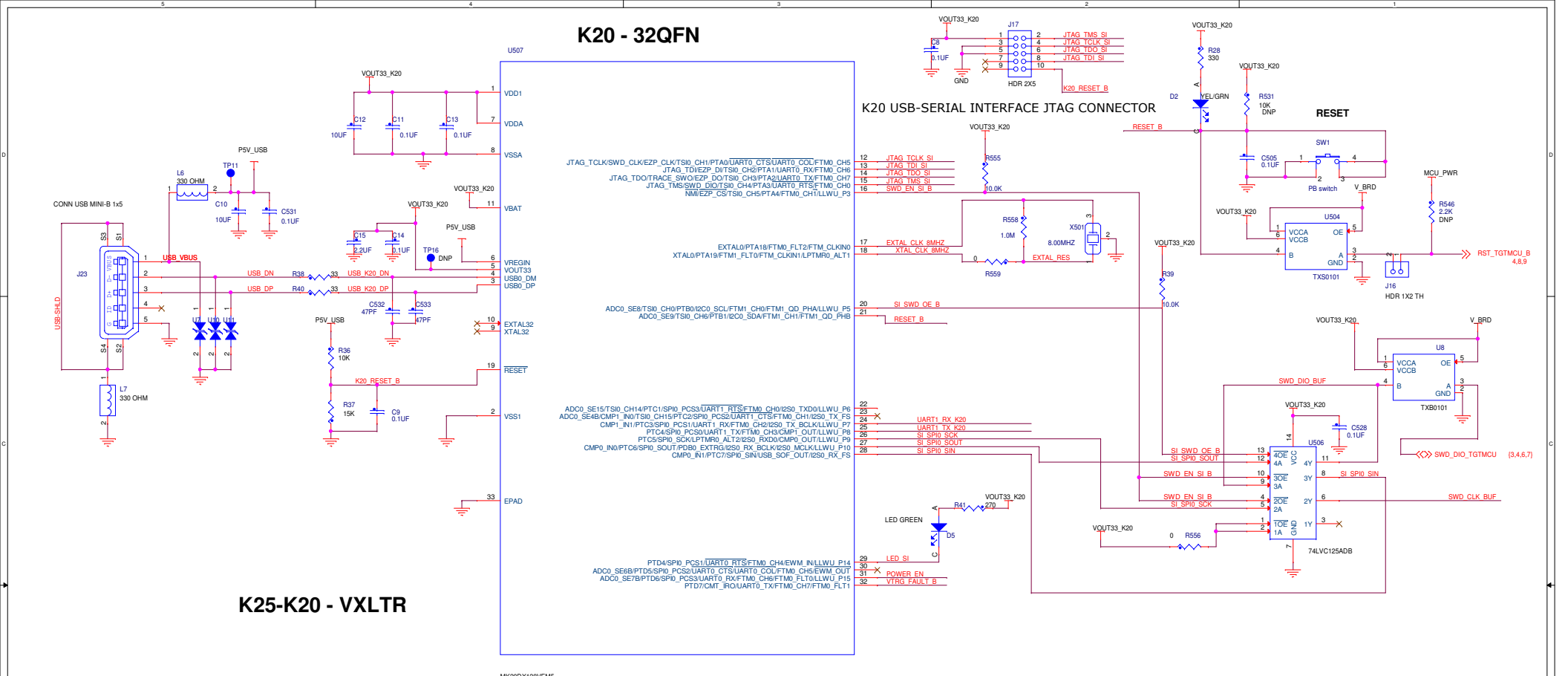
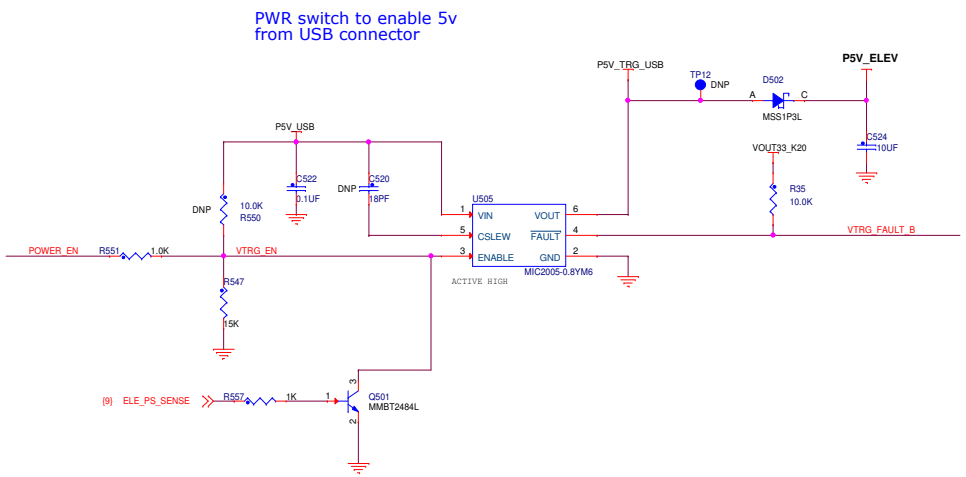
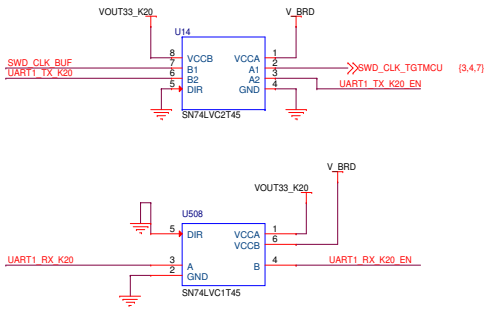
K20 - 32QFN

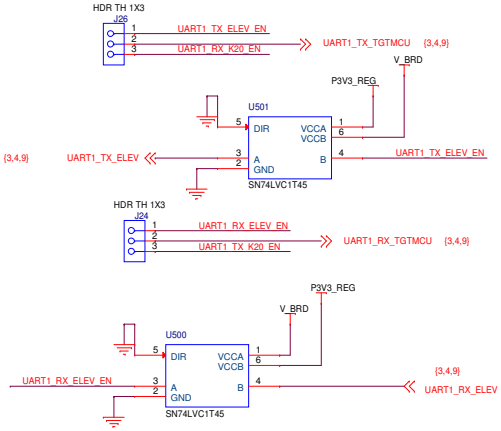


K25-K20 - VXLTR

PWR switch to enable 5v from USB connector







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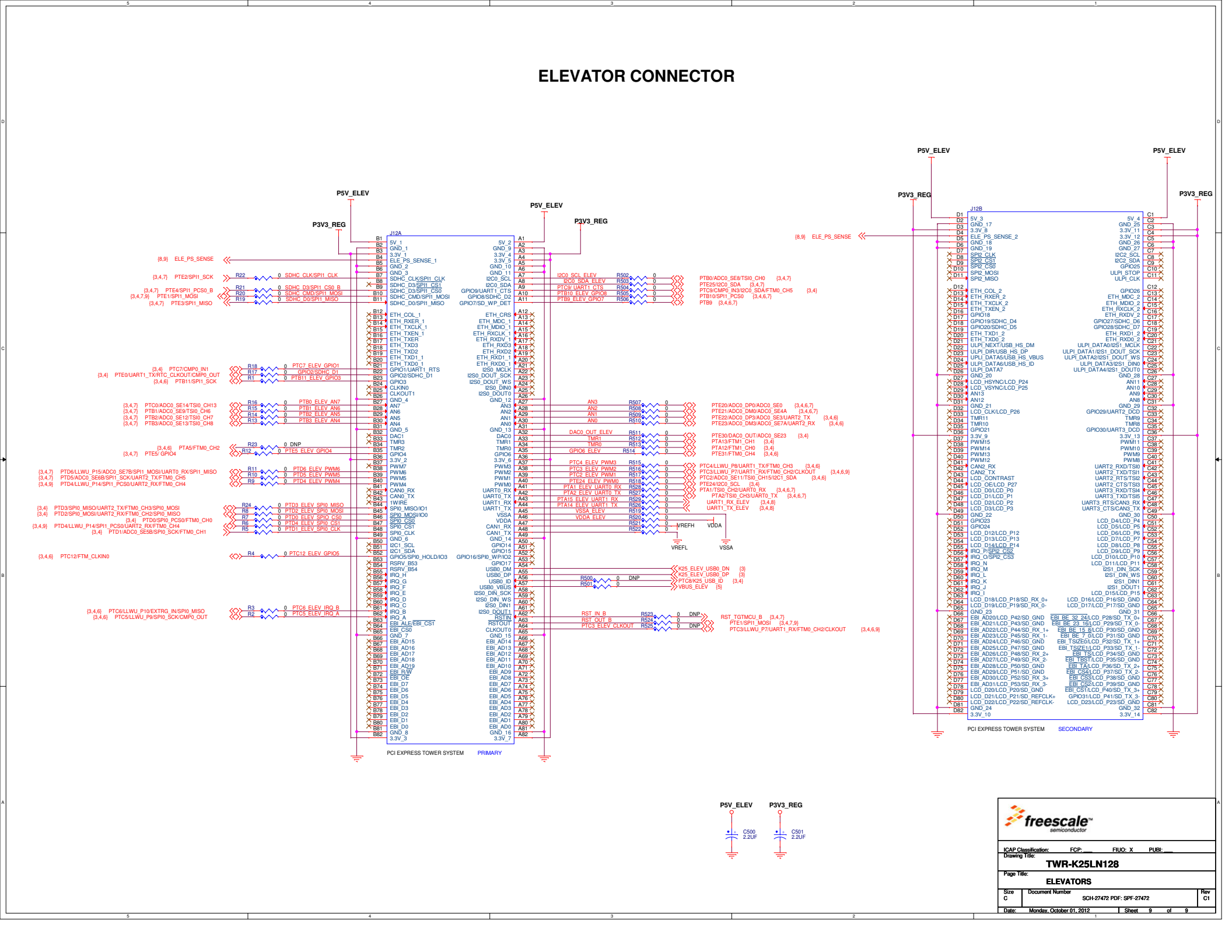
ELEVATOR CONNECTOR



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