
	
CONTENTS	
3	Block Diagram
4	PK25LN128VLK4 (80LQFP)
5	PWR
6	PERIPHERALS
7	TWRPI MODULES
8	ELEVATOR CONNECTOR

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 All & 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	05/25/12	Alberto Carrillo/ Eduardo Viramontes
	J11 replaced by 210-76001	05/28/12	
	U3 replaced with PKL252128VLK4 (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.	05/30/12		
BOM optimisation done.			
NSP foot print used for U4 and U11 unused pins tied to GND	05/31/12		
A070 Release			
Eduardo and Alistair's f/b implemented:			
* U507 - removed	06/01/12		
* U11- Signals swapped betn A and Y			
* U504 -XTAL and EXTAL pins made NC	06/04/12		
* U504 - Reset is connected to VOUT33_K20			
U11 - Y5 to Y8 made NC	06/05/12		
J10,J16 replaced by 210-07961-00			
J7 - Default Jumper option added	06/07/12		
B	A085 Release	06/11/12	Alberto Carrillo/ Eduardo Viramontes
C	Production Release	08/17/12	Alberto Carrillo/ Eduardo Viramontes

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Designer: <Designer>		ICAP Classification: FCP: FILE: X PUB:	
Drawing Title: XTWR-K25LN128			
Drawn by: K.S Chevi		Page Title: TABLE OF CONTENTS	
Approved: Alberto Carrillo	Size C	Document Number SGH-27472 PDF: SPF-27472	Rev C
Date: Friday, August 17, 2012		Sheet 1 of 9	

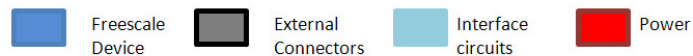
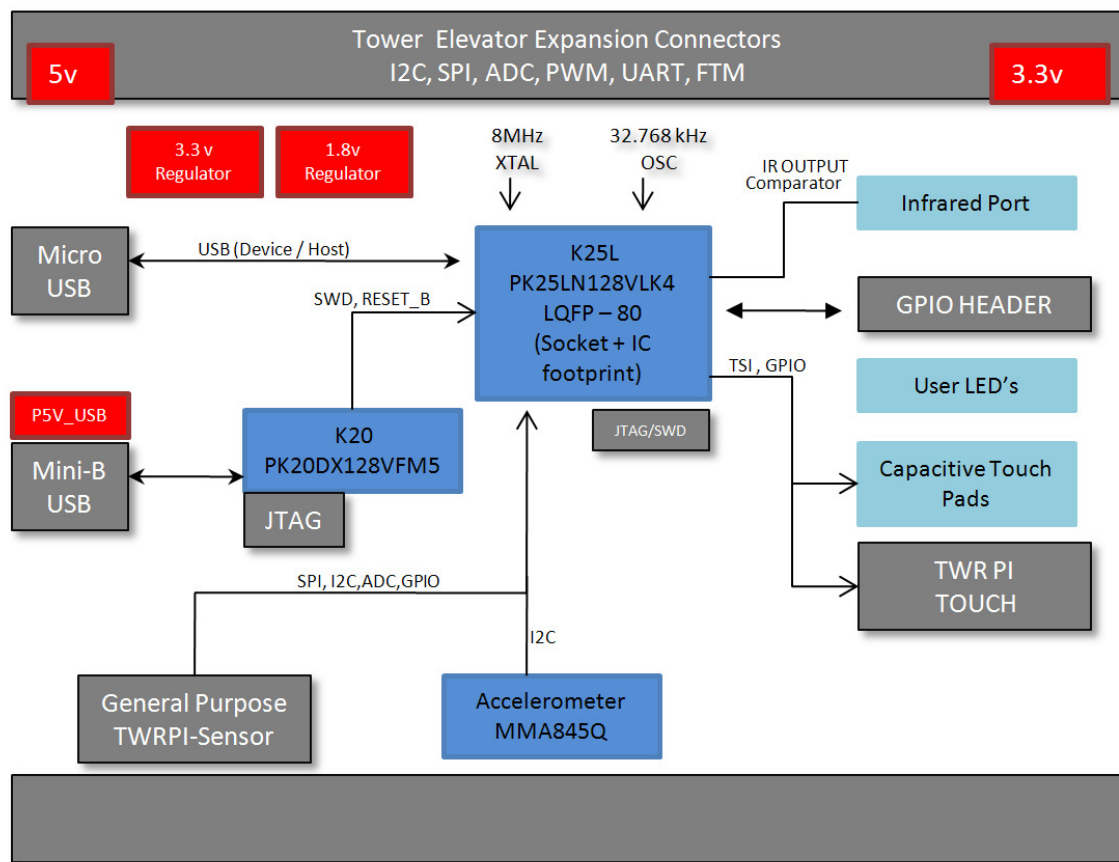
wise Specified:

All resistors are in ohms
 All capacitors are in uF
 All voltages are DC

- Interrupted lines coded with the same letter or letter combinations are electrically connected.
- Device type number is for reference only. The number varies with the manufacturer.
- Special signal usage:
 _B Denotes - Active-Low Signal
 <> or [] Denotes - Vectored Signals
- Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

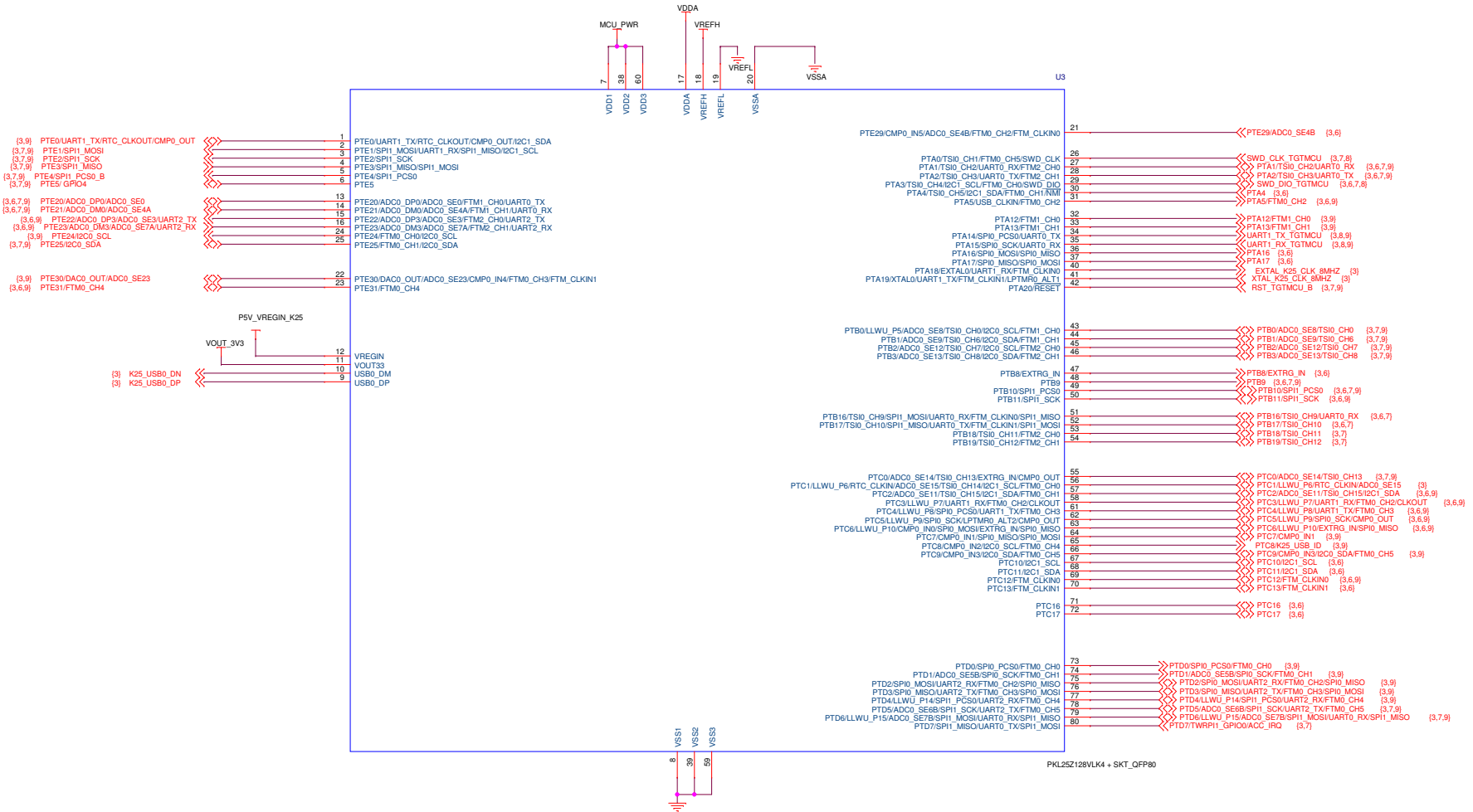
Power & Ground Nets

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.





K25 - SUB ASSEMBLY



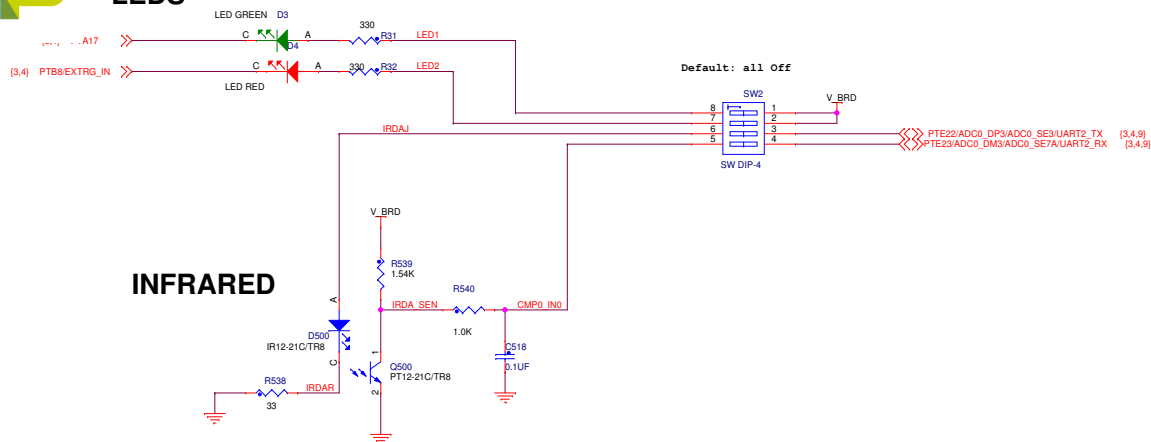
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 Drawing Title: **XTWR-K25LN128**
 Page Title: **PK25LN128VKL4 SUB ASSEMBLY**

Size C	Document Number	SCH-27472 PDF: SPF-27472	Rev C
Date:	Friday, August 17, 2012	Sheet 4 of 9	



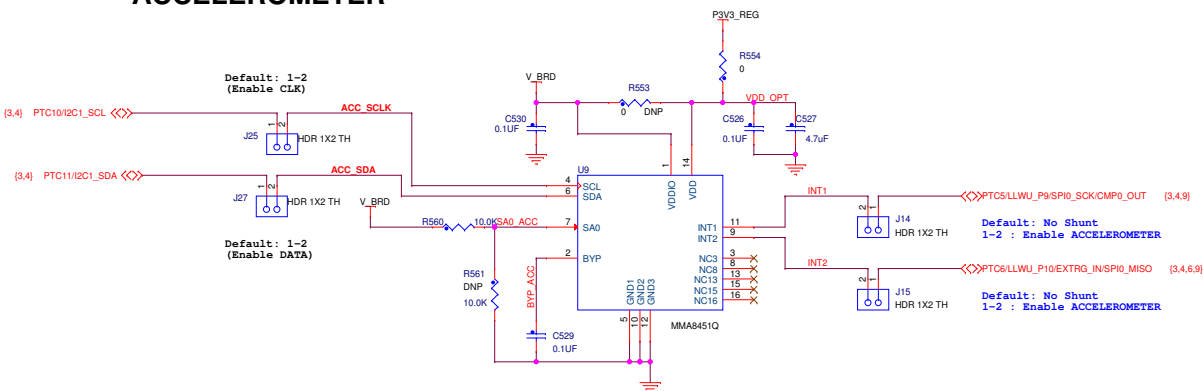
LEDS



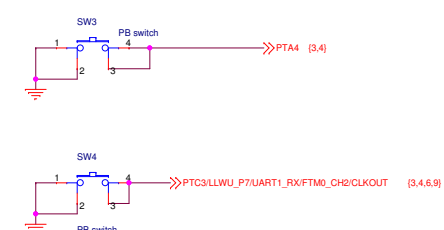
INFRARED

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

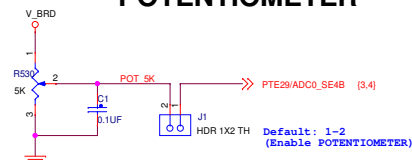
ACCELEROMETER



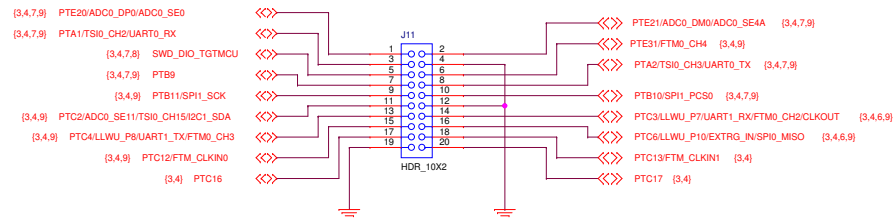
PUSH BUTTON



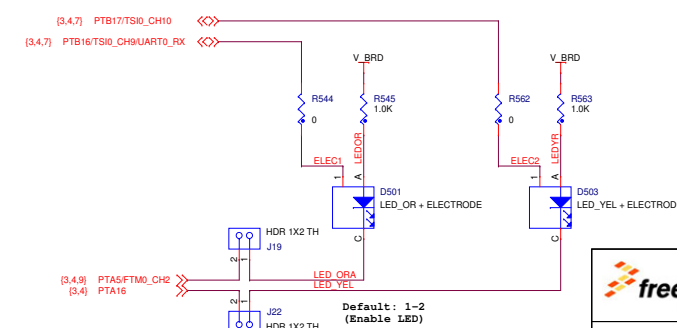
POTENTIOMETER



GPIO HDR



TOUCH ELECTRODES WITH LEDs



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Drawing Title: **XTWR-K25LN128**

Page Title: **PERIPHERALS**

Size C	Document Number SCH-27472 PDF: SPF-27472	Rev C
Date: Friday, August 17, 2012	Sheet 6 of 9	

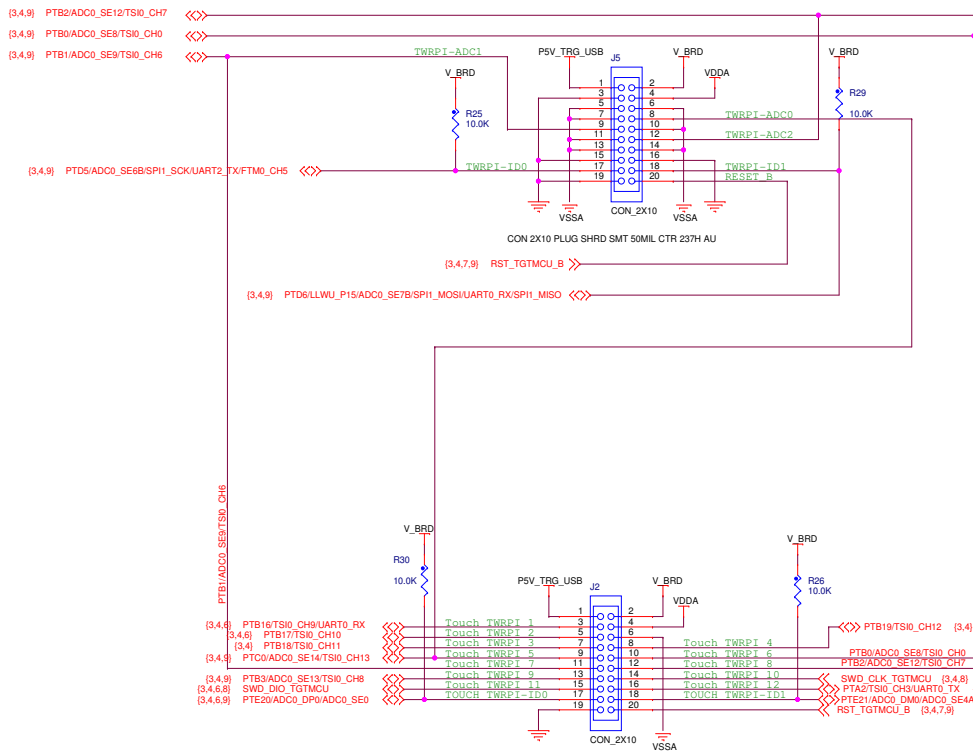


GENERAL PURPOSE TWRPI 1

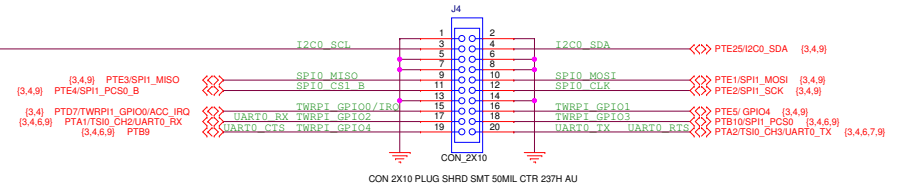
Note: The TWRPI connectors are powered by V_BRD which may be 1.8V or 3.3V.

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.



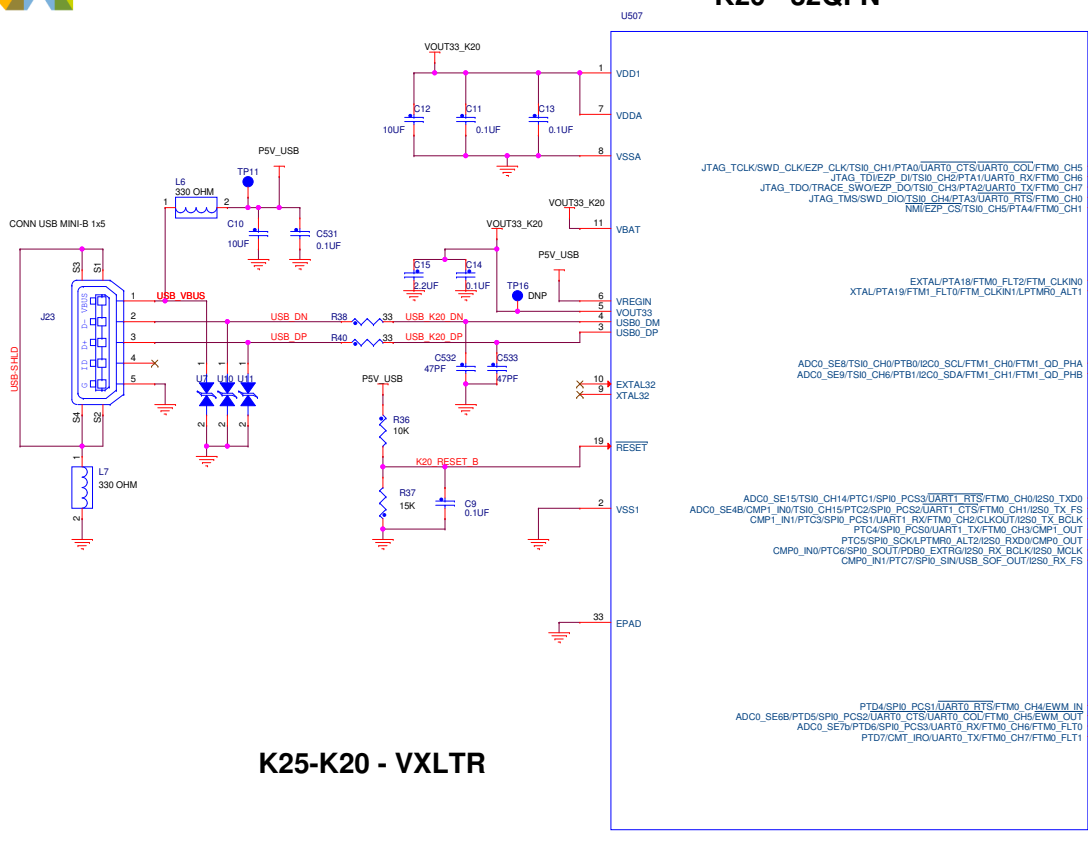
TOUCH PAD TWRPI



ICAP Classification: FCP: FIUC: X PUB: _____
 Drawing Title: **XTWR-K25LN128**
 Page Title: **TWRPI MODULES**
 Size C Document Number SCH-27472 PDF: SPF-27472 Rev C
 Date: Friday, August 17, 2012 Sheet 7 of 9



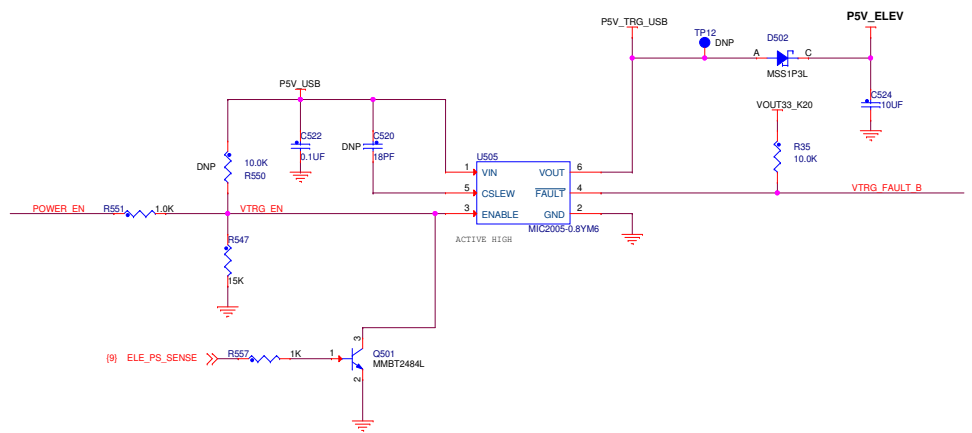
K20 - 32QFN



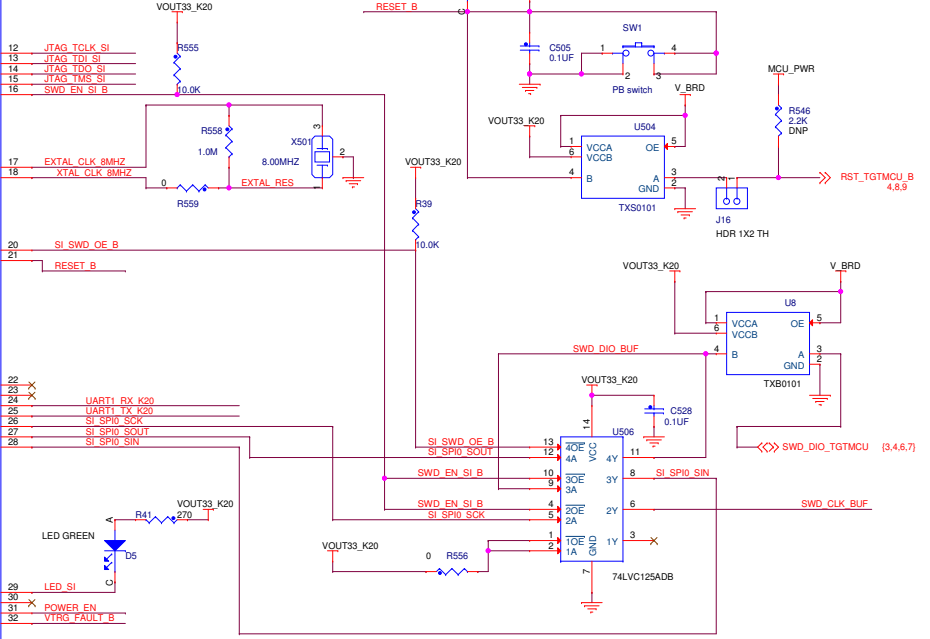
K25-K20 - VXLTR

TO USE TXS0101! DERIVE in DATABASE

PWR switch to enable 5v from USB connector

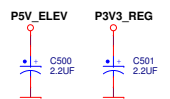
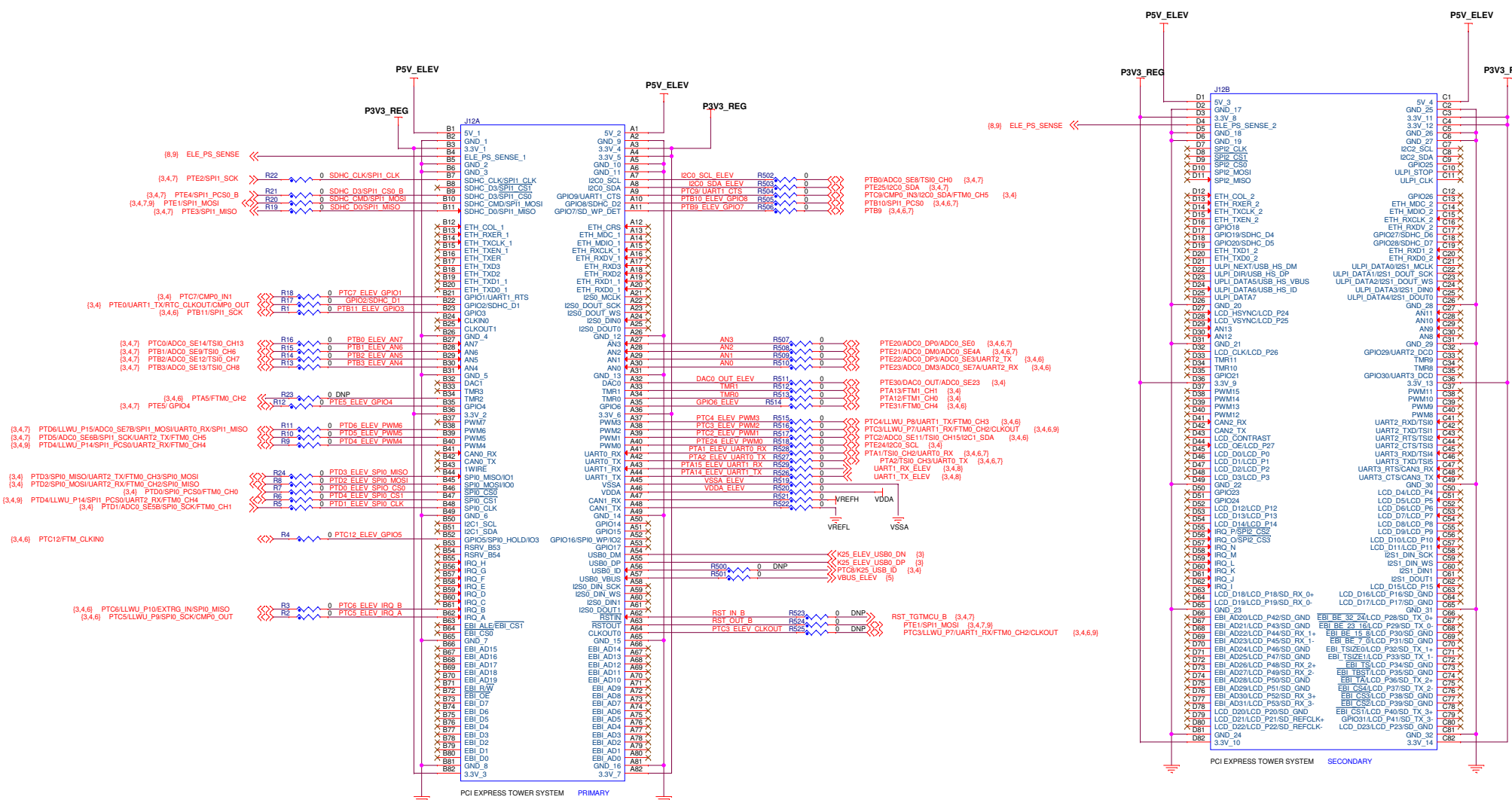


K20 USB-SERIAL INTERFACE JTAG CONNECTOR





ELEVATOR CONNECTOR



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Drawing Title: **XTWR-K25LN128**

Page Title: **ELEVATORS**

Size	Document Number	SCH-27472 PDF: SPF-27472	Rev
C			C

Date: Friday, August 17, 2012 Sheet 9 of 9