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5	POWER & OSC/CRYSTAL
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Revisions			
Rev	DESCRIPTION	DATE	APPROVED
A	Release	11/13/14	
A1	Update InfraRed circuitry.	3/3/15	
B	Release	3/19/15	
C	Release	5/11/15	

TWR-KM34Z75M


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

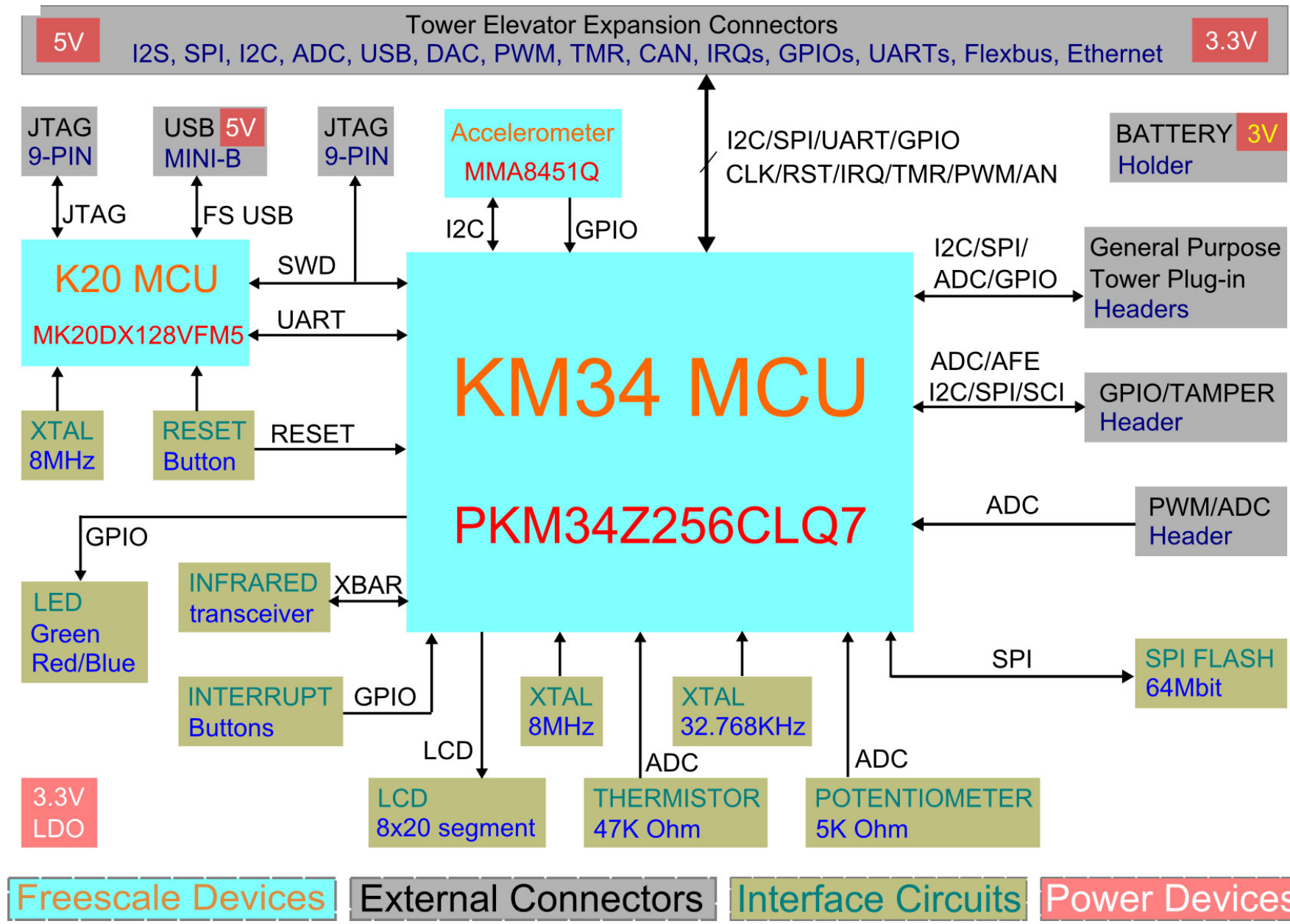
2. Interrupted lines coded with the same letter or letter combinations are electrically connected.

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

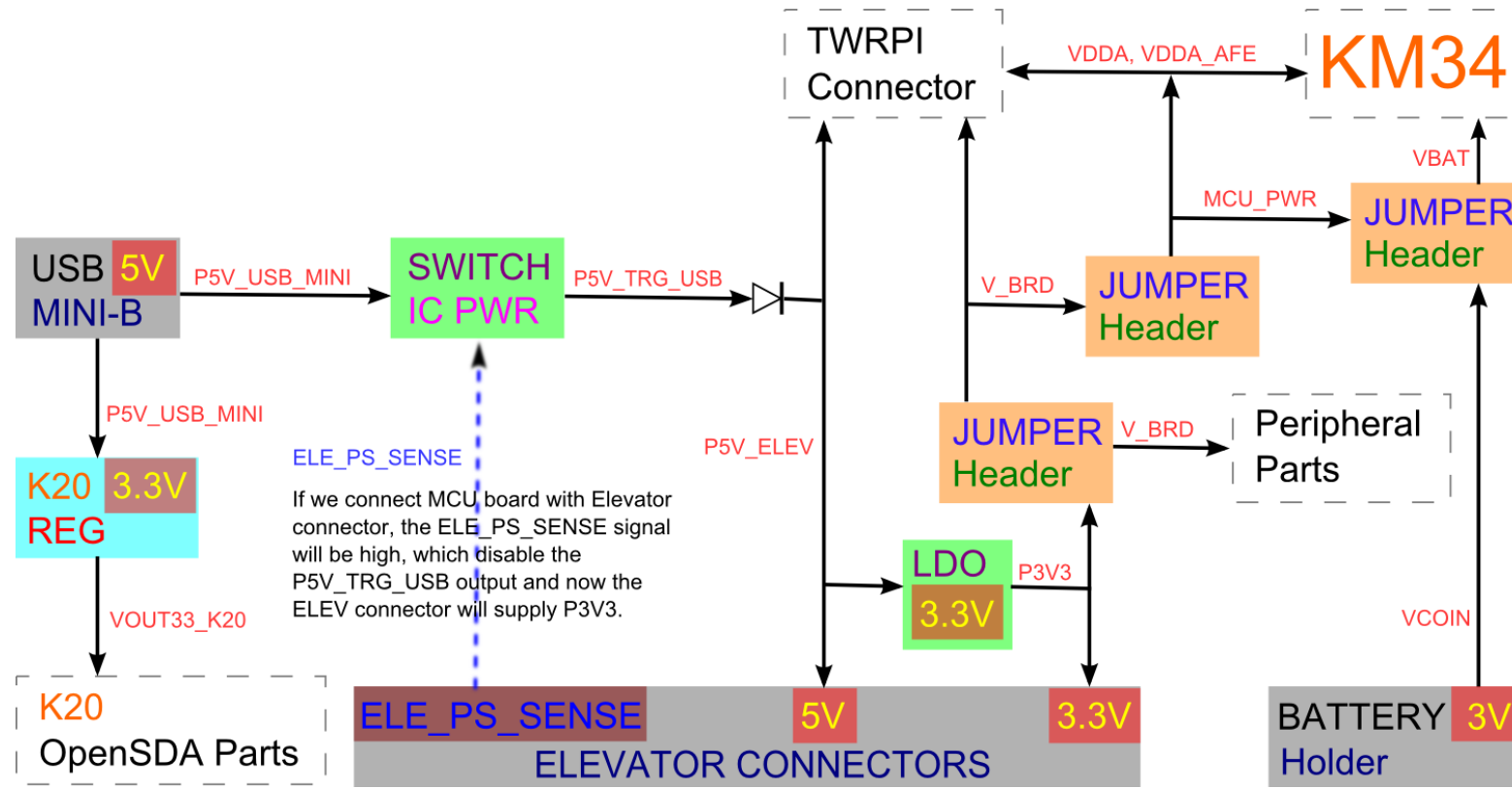
4. Special signal usage:
 _B Denotes - Active-Low Signal
 <> or [] Denotes - Vectored Signals

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

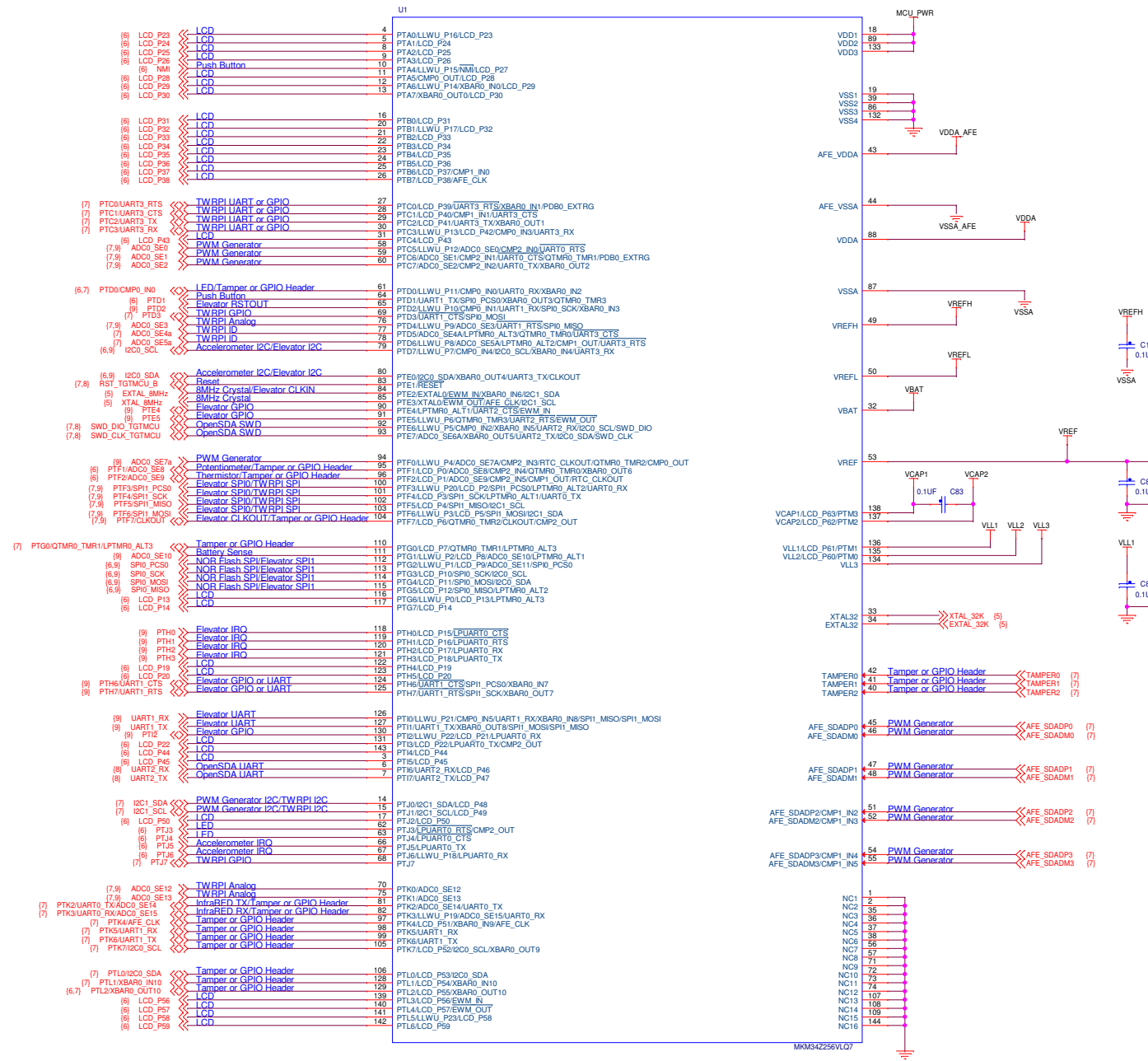
		Microcontroller Solutions Group	
		6501 William Cannon Drive West Austin, TX 78735-8598	
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Drawn by:		Page Title: TABLE OF CONTENTS	
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Power & Ground Nets



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 SWD K20 MCU. Provides input to regulator.
P5V_ELEV	5V	Secondary input power from primary elevator connector. Provides input to regulator.
P3V3	3.3V	Output from LDO or from the Elevator connector
V_BRD	3.3V	MCU & Interface circuit input power
MCU_PWR	3.3V	MCU circuit input power. Filtered from V_BRD.
VDDA	3.3V	Power for ADC Filtered from MCU_PWR.
VREFH	1.2V	Upper reference voltage for ADC. Generated internally by MCU.
VREFL	0.4V	Lower reference voltage for ADC. Generated internally by MCU.
VDDA_AFE	3.3V	Power for AFE-ADC Filtered from MCU_PWR.
VBAT	3.3V	Power from Coin battery.
VSSA	0V	Analog ground for ADC. Filtered from GND.
VSSA_AFE	0V	Analog ground for AFE-ADC. Filtered from GND.
GND	0V	Digital Ground (common)



Default: No Shunt
1-2 : Enable RBIAS mode

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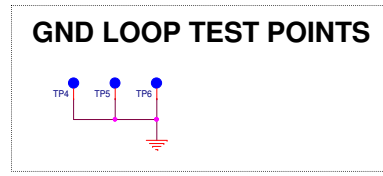
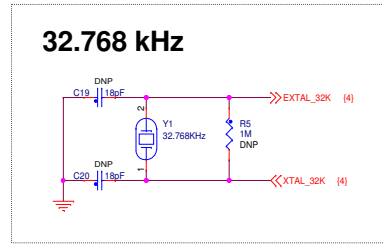
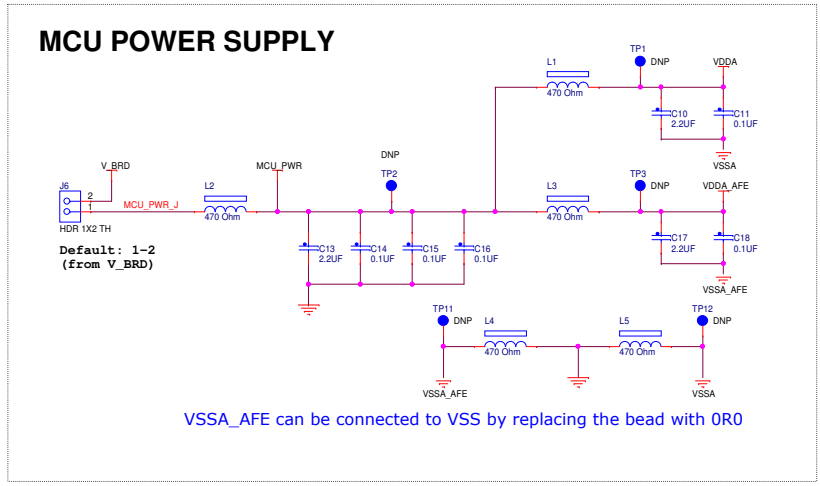
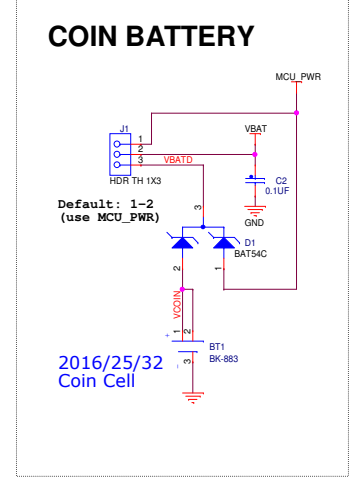
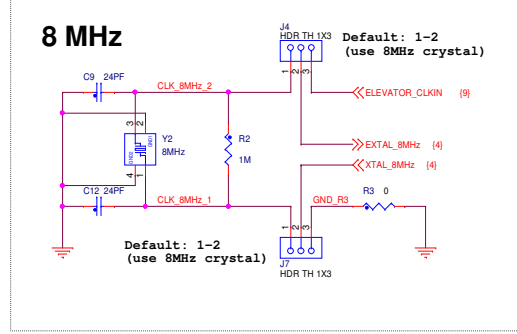
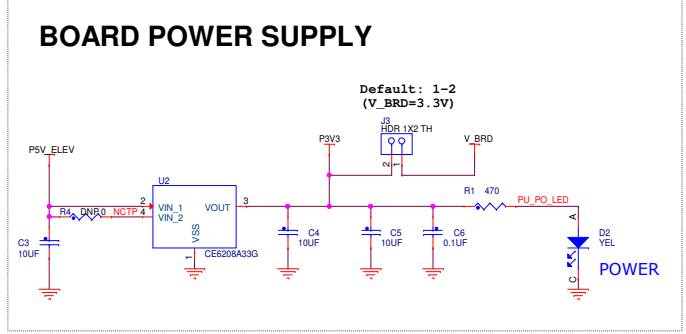
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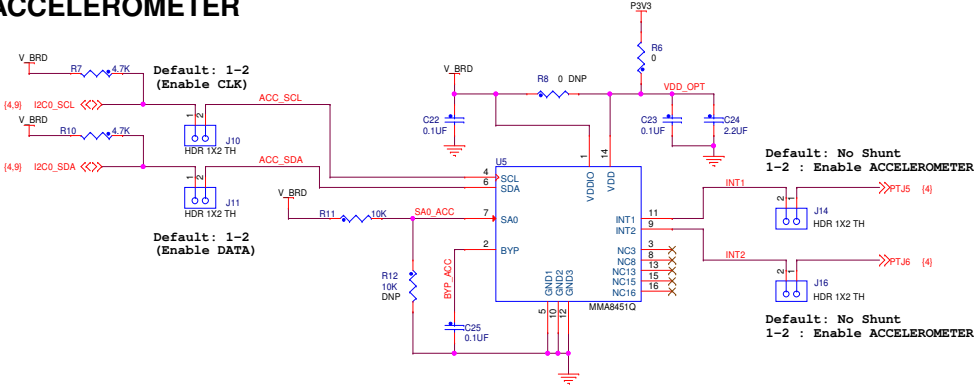
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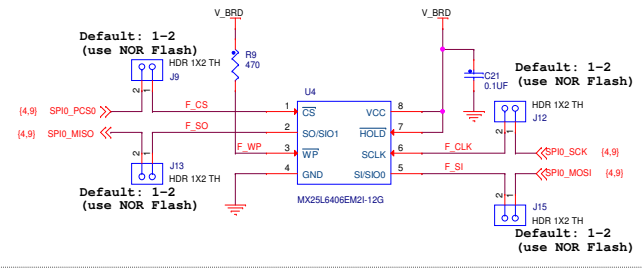
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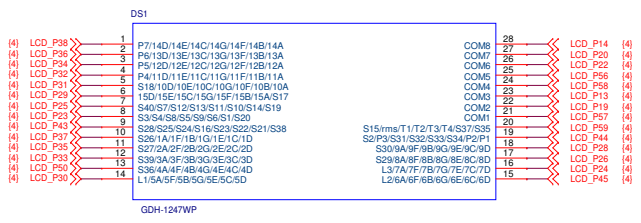
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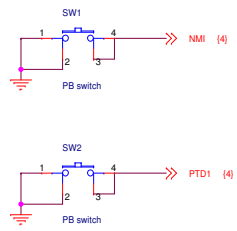
SPI NOR FLASH



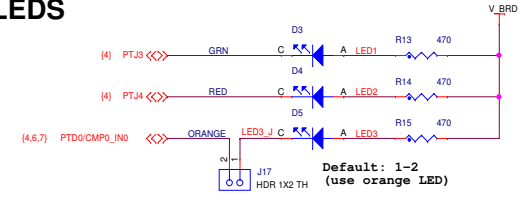
LCD



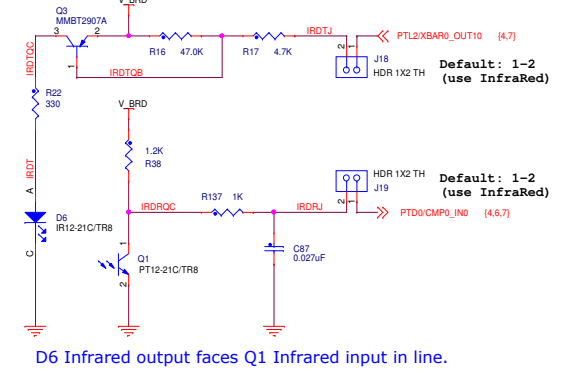
PUSH BUTTON



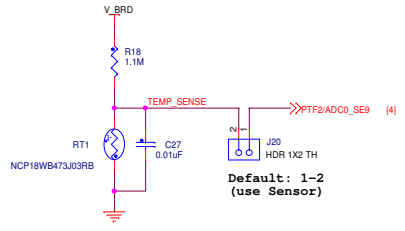
LEDS



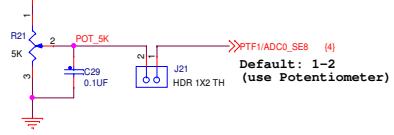
INFRARED



TEMP SENSOR

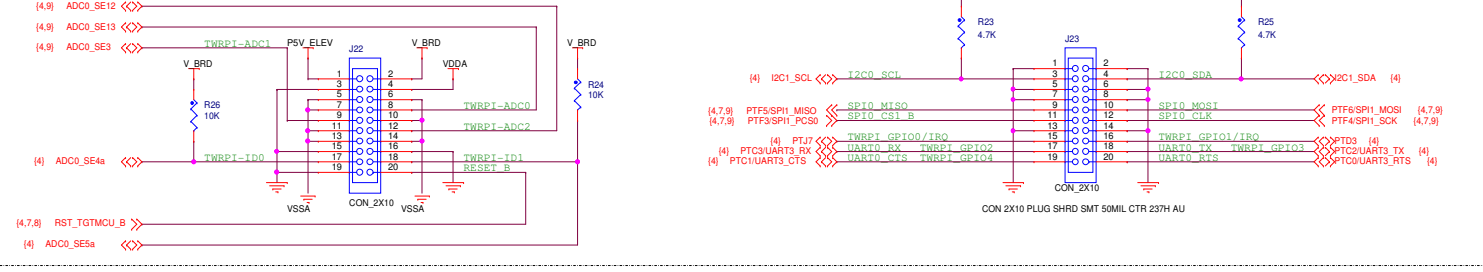


POTENTIOMETER

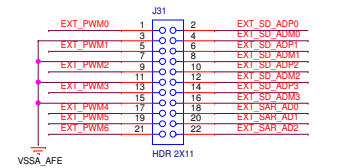




GENERAL PURPOSE TWRPI

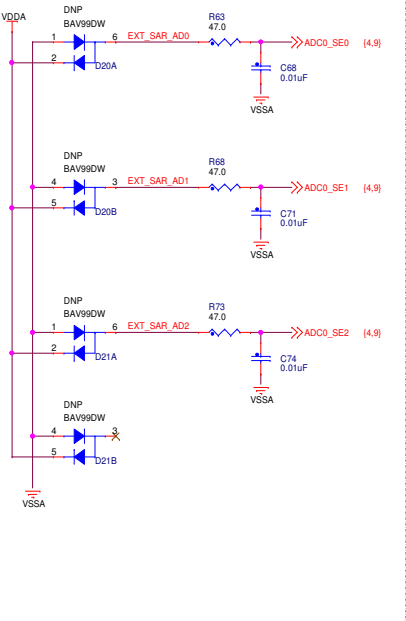
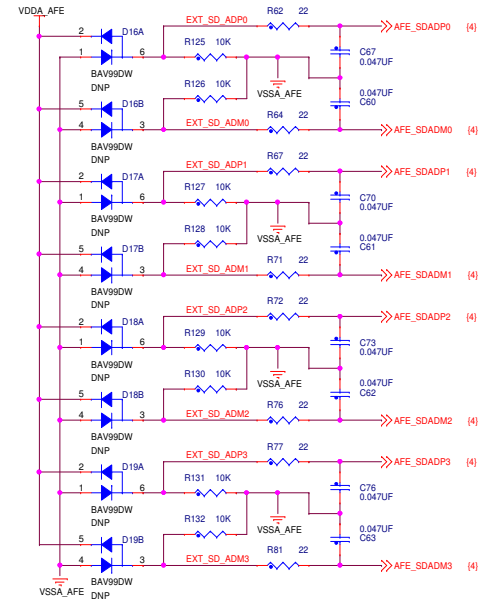
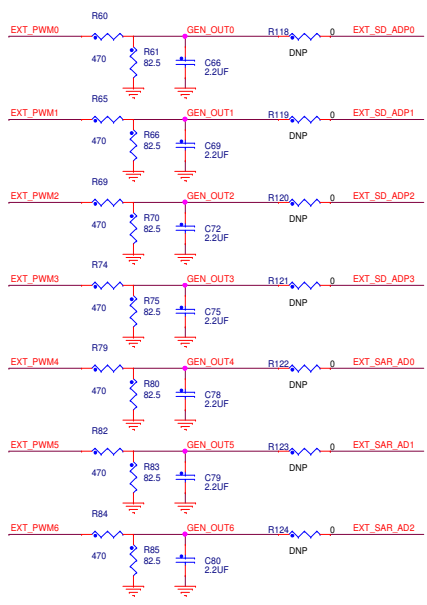


PWM HDR

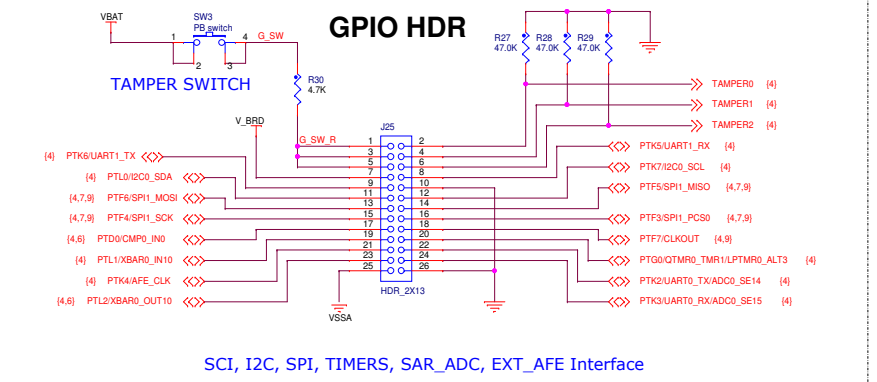


Default: external PWM is not used.
Solder R118~R124 to use external PWM.

PWM Iout max < 7mA
Lo-pass RC filter cut-off:
500 Hz (higher harmonic gen.)
Voltage divider ~ 1:7 (82 / 470 Ohm),
Uout < 500mV pk-to-pk

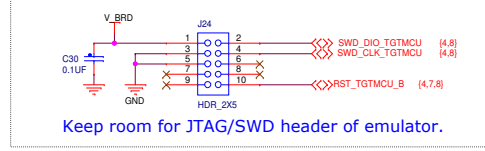


GPIO HDR



SCI, I2C, SPI, TIMERS, SAR_ADC, EXT_AFE Interface

KM34 JTAG / SWD CONNECTOR



Keep room for JTAG/SWD header of emulator.

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