ATM3405 BGA Eval Board (JLink OB)

Release Date	Revision	Design Eng.	Design Notes
11/04/24	-00	Chris TsaiLin	Initial release, based on the latest Perth 3430e EVB, with VDDIO-VCCIO tracking circuit added
3/18/25	-01	Andy Dao	L14 changed to 3.3nH; C2, C8 changed to DNS, C68 to 1uF; Channel Sounding: C11=4.7uF, C13=10uF;
6/27/25	-02	Joe Chen	1. C6 changed from 1.0uF(0402) to 4.7uF(0402) 2. C11 changed from 4.7uF(0402) to 1.0uF(0402) 3. C68 changed from 1uF(0402) to 0ohm(0402)
12/17/25	-04	Andy Dao	1. C5 changed from 4.7uF(0402) to 10uF(0402) 2. C6 changed from 4.7uF(0402) to 10uF(0402) 3. Correct pin names F10 and G10 of U1 to NC (traces to these pins will be removed in next pcb rev)

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ATMOSIC TECHNOLOGIES INC

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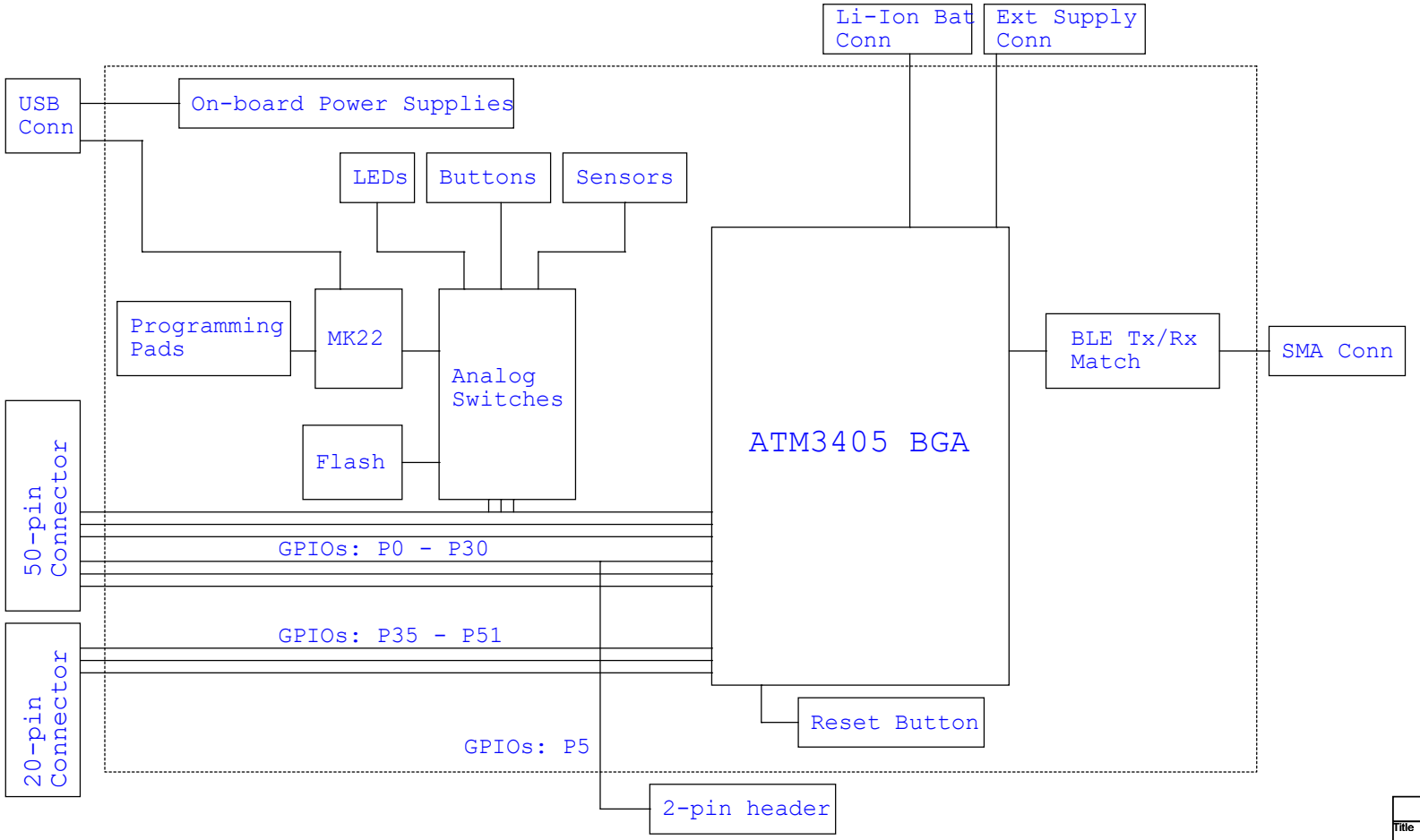
Block Diagram



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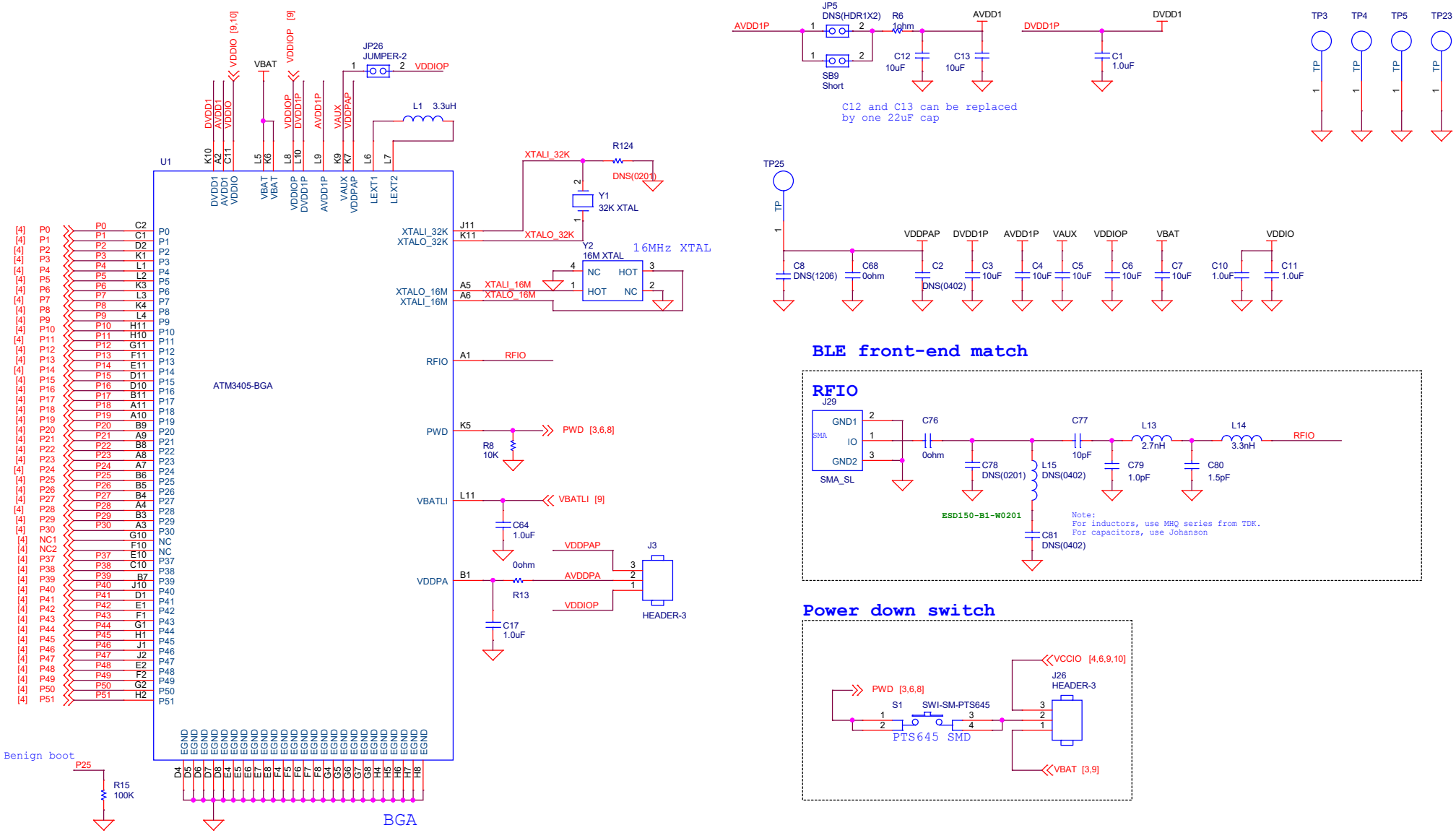

BLE front-end match

RFIO

Power down switch

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GPIO MUX

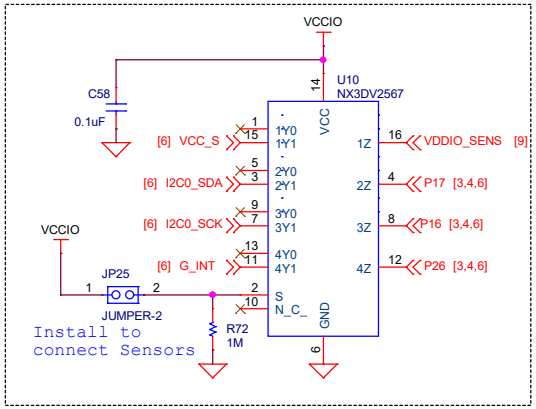
[3,6] P0_GPIO — P0 [3,4,6]
[3,6] P1_GPIO — P1 [3,4,6]
[3,6] P2_GPIO — P2 [3,6]
[3,6] P3_GPIO — P3 [3,6]
[3,6] P4_GPIO — P4 [3,6]
[3,6] P5_GPIO — P5 [3,4,6]
[3,6] P6_GPIO — P6 [3,4,6]
[3,6] P7_GPIO — P7 [3,6]
[3,6,7] P8_GPIO — P8 [3,6,7]
[3,6] P9_GPIO — P9 [3,4,6]
[3,6] P10_GPIO — P10 [3,4,6]
[3,6] P11_GPIO — P11 [3,6]

[3,6] P12_GPIO — P12 [3,4,6]
[3,6] P13_GPIO — P13 [3,4,6]
[3,6] P14_GPIO — P14 [3,6]

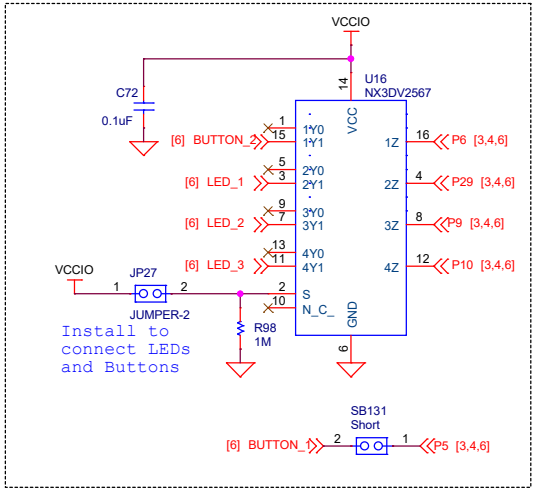
[3,6] P15_GPIO — P15 [3,4,6]
[3,6] P16_GPIO — P16 [3,4,6]
[3,6] P17_GPIO — P17 [3,4,6]
[3,6] P18_GPIO — P18 [3,4,6]
[3,6] P19_GPIO — P19 [3,4,6]
[3,6] P20_GPIO — P20 [3,4,6]
[3,6] P21_GPIO — P21 [3,4,6]
[3,6] P22_GPIO — P22 [3,4,6]
[3,6] P23_GPIO — P23 [3,4,6]
[3,6] P24_GPIO — P24 [3,6]

[3,6] P25_GPIO — P25 [3,4,6]
[3,6] P26_GPIO — P26 [3,4,6]
[3,6] P27_GPIO — P27 [3,4,6]
[3,6] P28_GPIO — P28 [3,6]
[3,6] P29_GPIO — P29 [3,4,6]
[3,6] P30_GPIO — P30 [3,4,6]
[5] NC1_CON — NC1 [3,4,6]
[5] NC2_CON — NC2 [3,4,6]
[5] P37_GPIO — P37 [3,4,6]
[5] P38_GPIO — P38 [3,4,6]
[5] P39_GPIO — P39 [3,4,6]
[5] P40_GPIO — P40 [3,4,6]
[5] P41_GPIO — P41 [3,4,6]
[5] P42_GPIO — P42 [3,4,6]
[5] P43_GPIO — P43 [3,4,6]
[5] P44_GPIO — P44 [3,4,6]
[5] P45_GPIO — P45 [3,4,6]
[5] P46_GPIO — P46 [3,4,6]
[5] P47_GPIO — P47 [3,4,6]
[5] P48_GPIO — P48 [3,4,6]
[5] P49_GPIO — P49 [3,4,6]
[5] P50_GPIO — P50 [3,4,6]
[5] P51_GPIO — P51 [3,4,6]

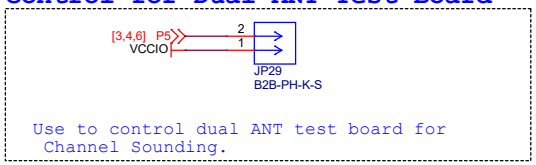
CONNECT SENSORS TO ATM3405 BGA



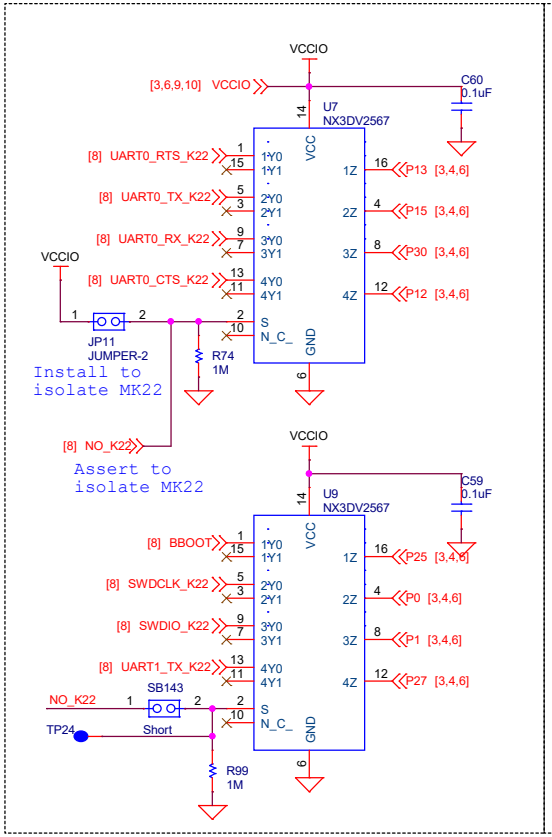
CONNECT LEDS/BUTTONS TO ATM3405 BGA



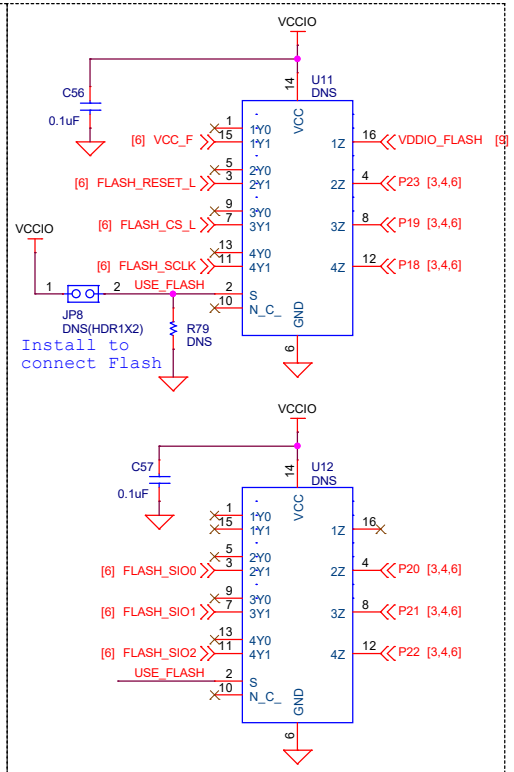
Control for Dual ANT Test Board



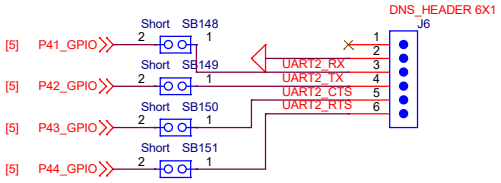
ISOLATE MK22 FROM ATM3405 BGA



CONNECT FLASH TO ATM3405 BGA



Connected to external USB dongle for UART2



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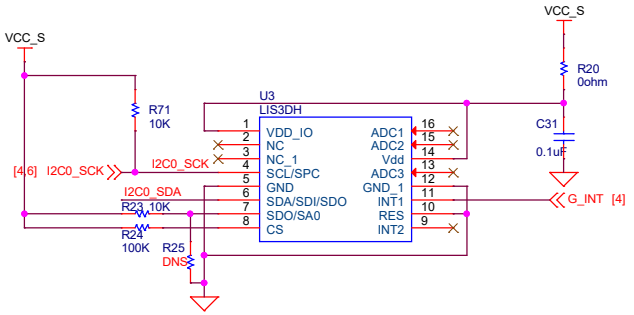
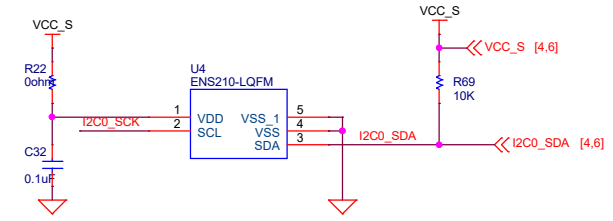
MOTION SENSOR



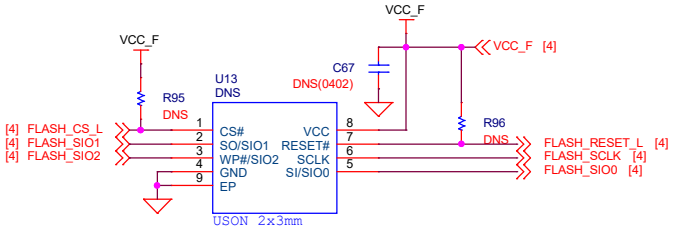
SA0: I2C less significant bit of the device address.
High: 0x19
Default: input with internal pull-up

TEMP/HUM SENSOR

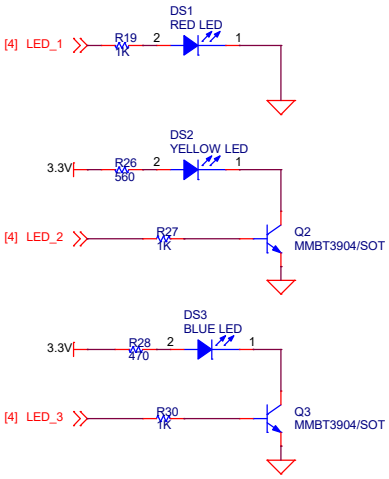


The I2C slave device address of ENS210: 0x43

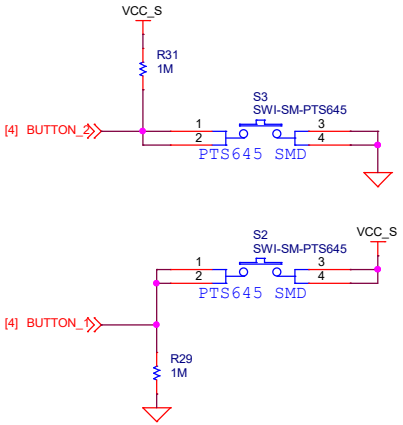
FLASH



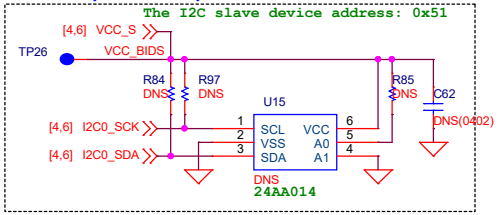
LEDS



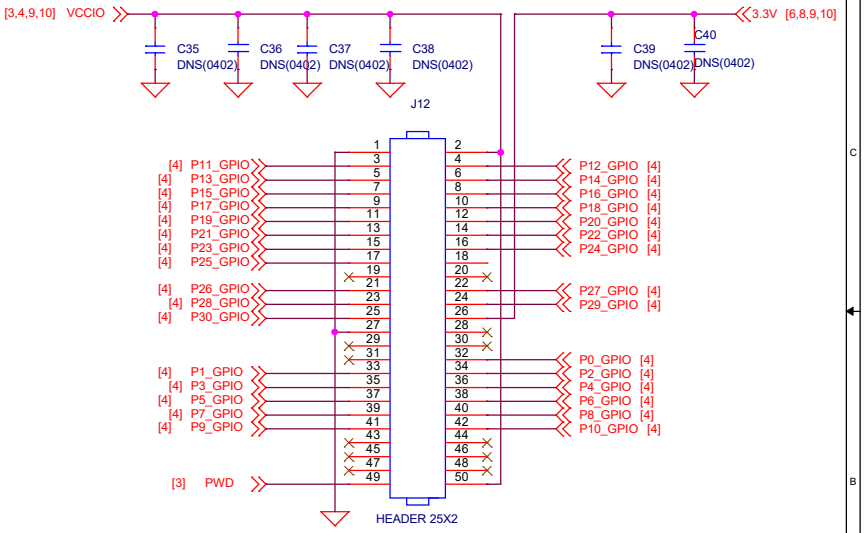
PUSH BUTTONS



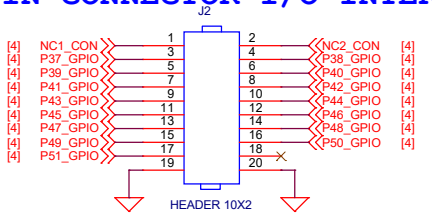
BIDS (1Kbits)



50-PIN CONNECTOR I/O INTERFACE



20-PIN CONNECTOR I/O INTERFACE



ATMOSIC TECHNOLOGIES INC		
Title: Sensors, Flash, LEDs, Buttons, I/O Interface Connector		
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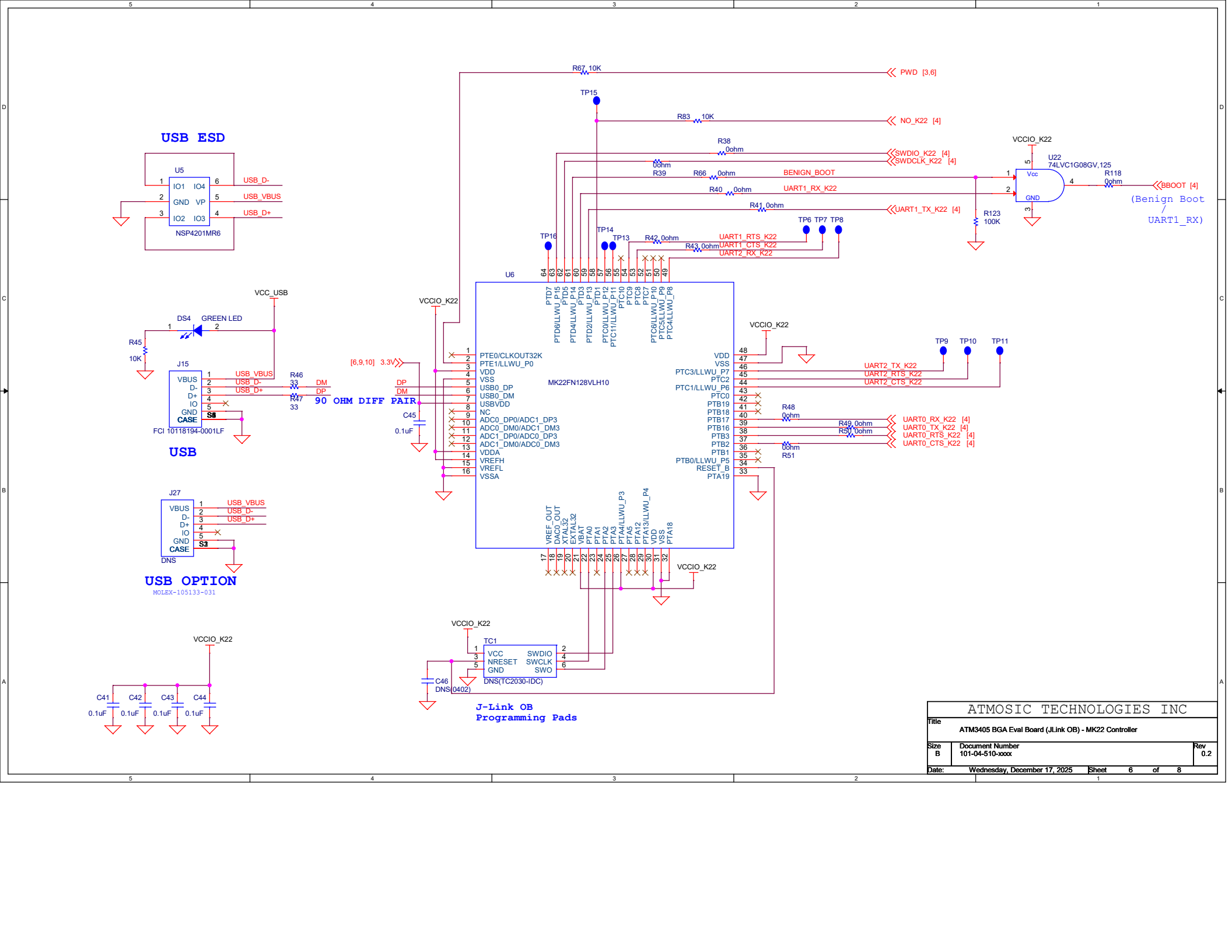

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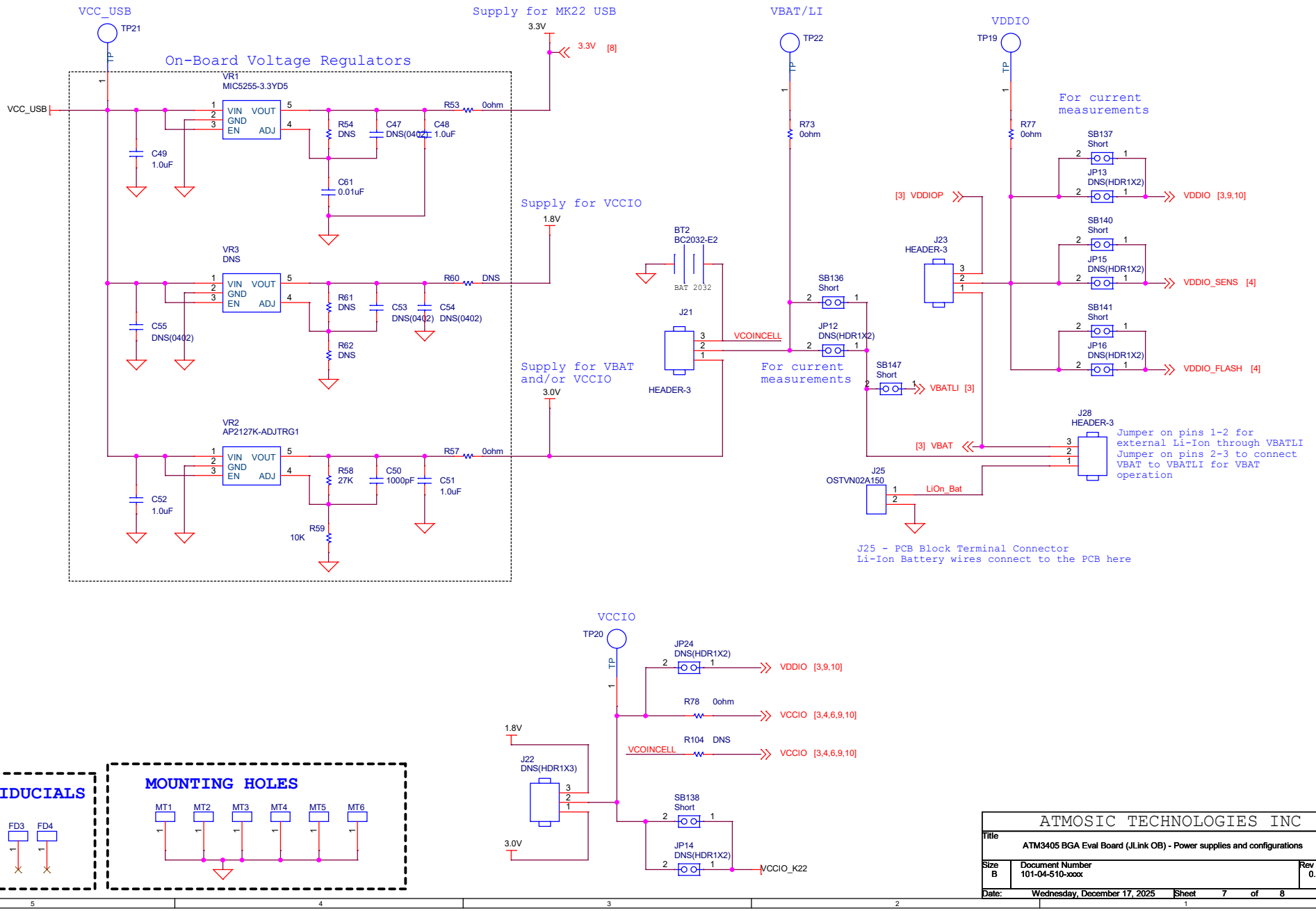

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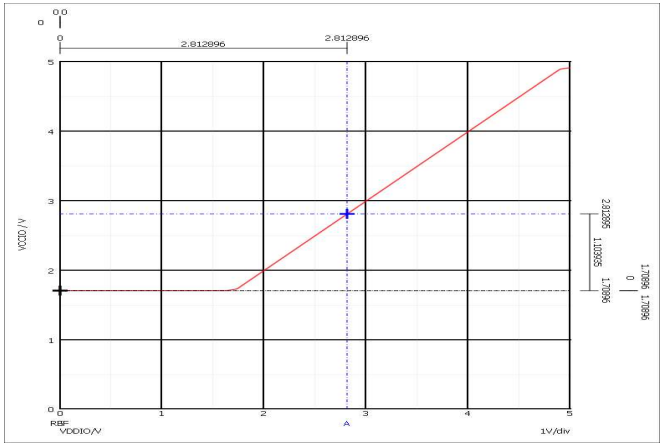
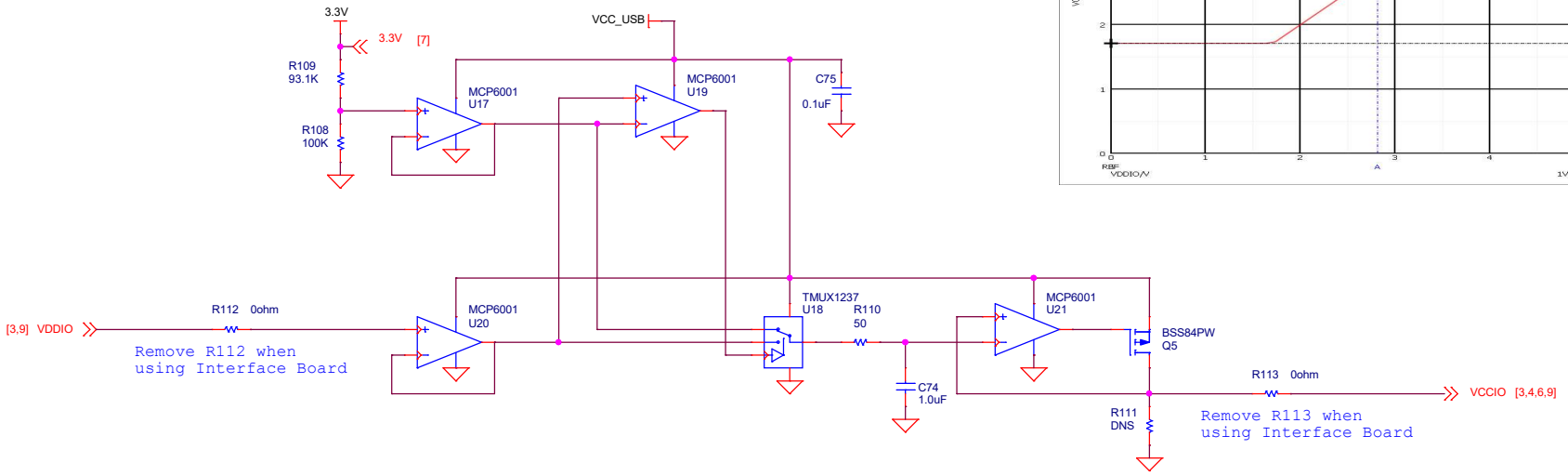
VDDIO < 1.72V: VCCIO = 1.71V
VDDIO >=1.72V: VCCIO = VDDIO





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