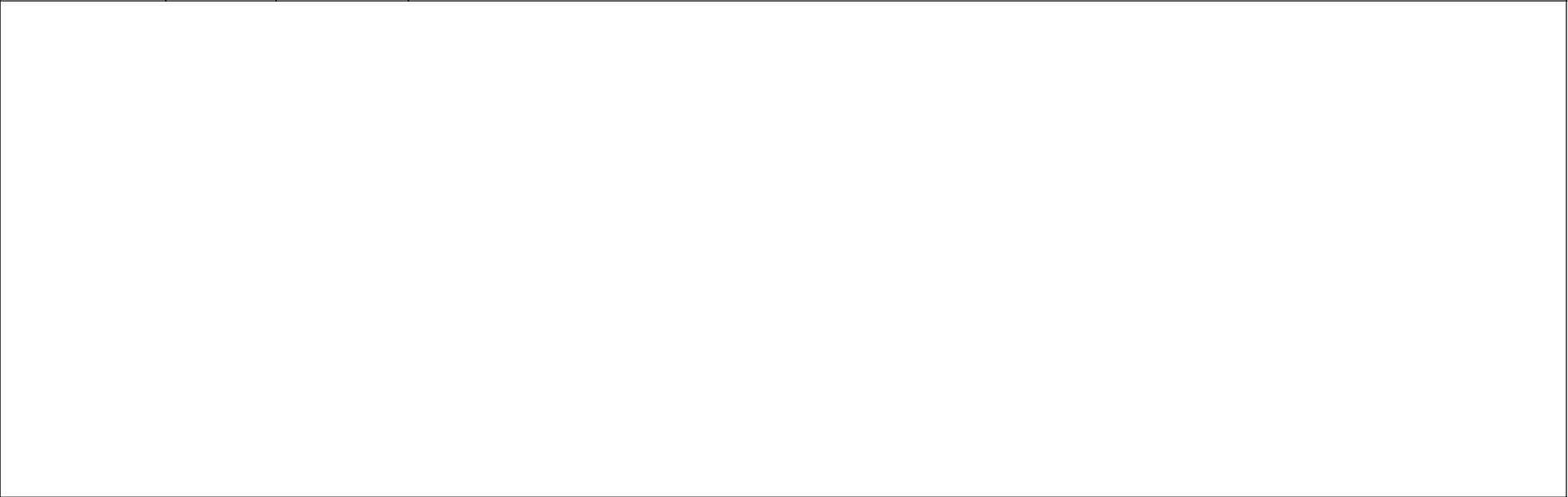


ATM3430E EVALUATION BOARD

Release Date	Revision	Design Eng.	Design Notes
07/26/23	-00	AD	Initial release, based on the latest Paris 7x7 EVB, with VDDIO-VCCIO tracking circuit added
10/10/23	-10	AD	Added pull-down R123 on BENIGN_BOOT; Ext Flash NL by default; Y1 footprint change; L13 = 47uH
9/18/24	-11	JoeC	Add Notes for "Li-Ion Charging Ckts".
12/04/24	-20	AD	1. Added Connector to control Antenna Daughterboard 2. Changed LED_2 control from P9 to P4 and LED_3 control from P10 to P7 for PWM feature
9/29/25	-23	AD	1. Changed C5 and C6 to 10uF
12/17/25	-25	AD	1. Changed C13 to 10uF



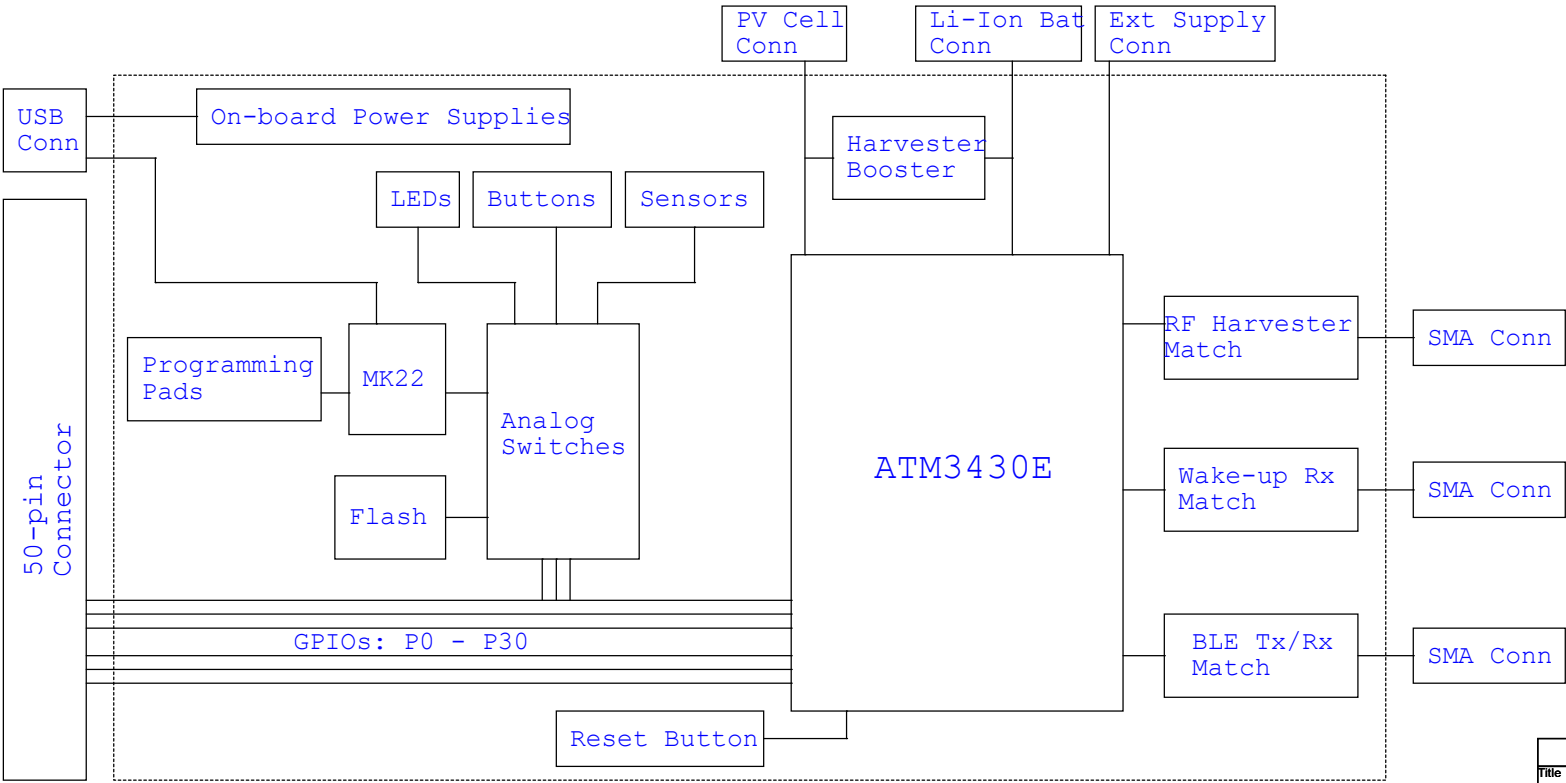
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Campbell, CA 95008

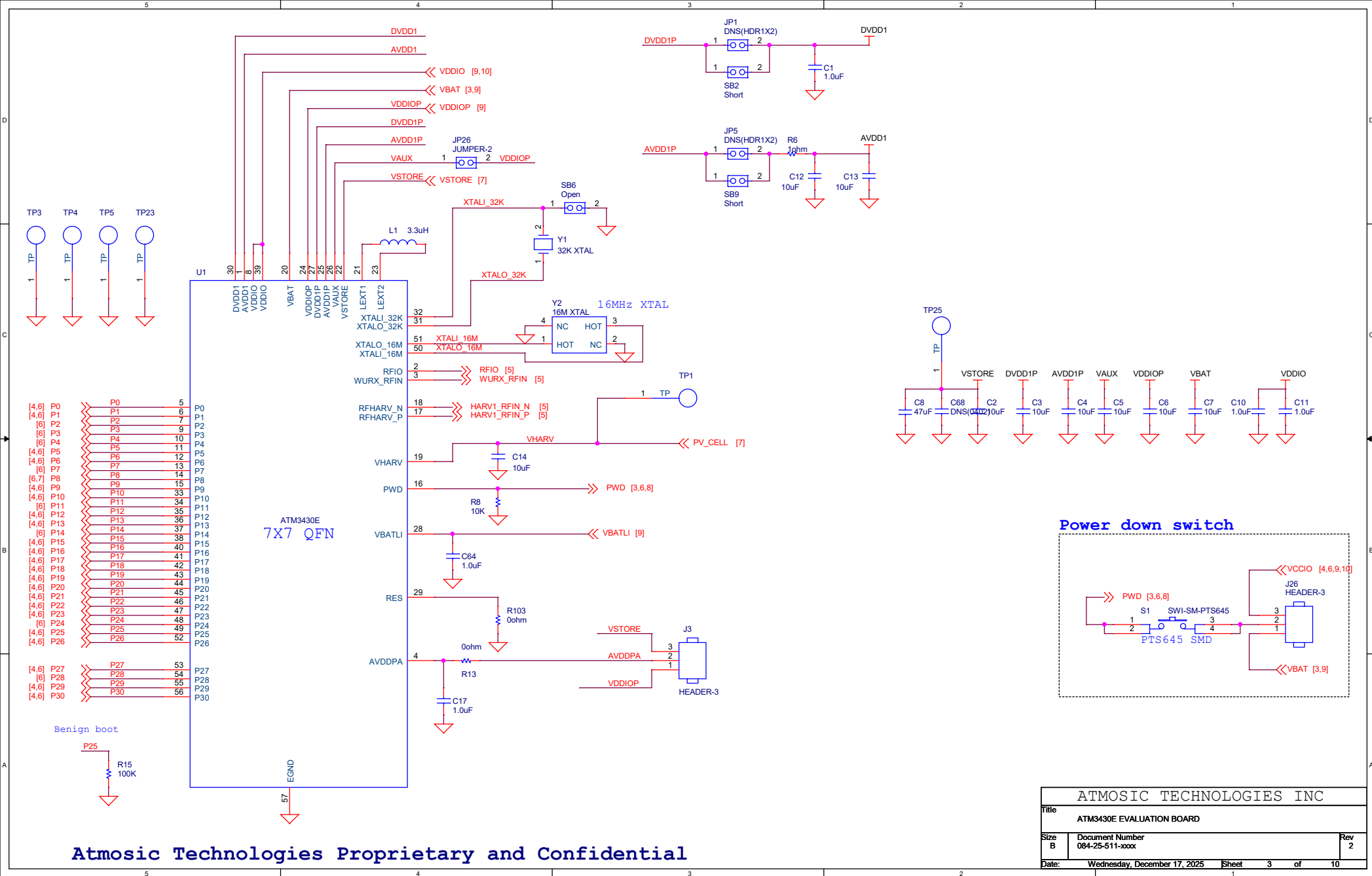
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Page 1 - Revision notes
Page 2 - Block diagram
Page 3 - ATM3430E, decoupling, Li-Ion charging ckt
Page 4 - GPIO Mapping, Analog switches
Page 5 - RF matching circuits
Page 6 - Sensors, Flash, LEDs, Buttons, I/O Interface Connector
Page 7 - Harvesting and Booster Ckt
Page 8 - MK22 Controller
Page 9 - Power supplies and configurations
Page 10 - VDDIO-VCCIO tracking circuit
Page 11 - Jumper settings for common Operation Modes

Block Diagram



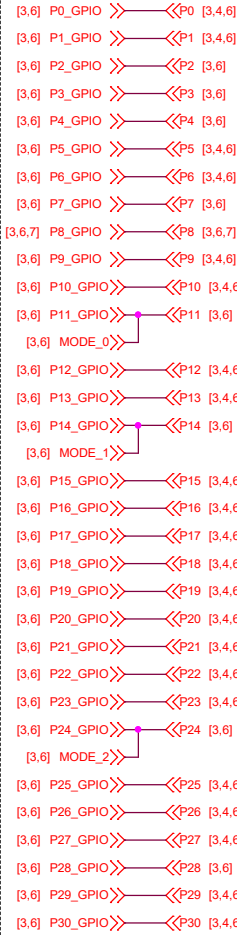
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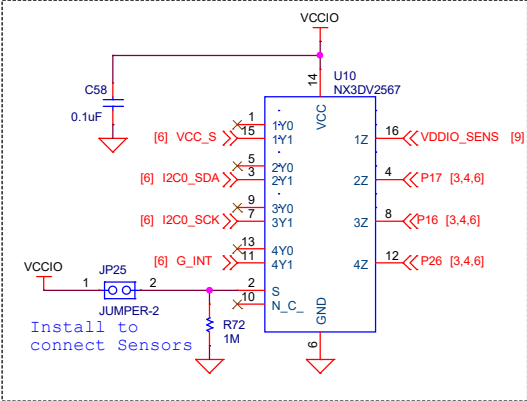
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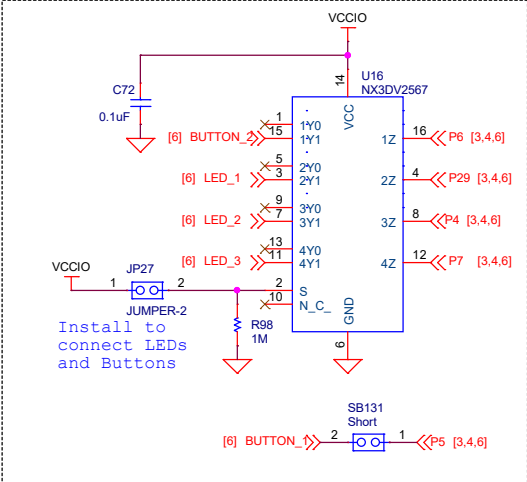
GPIO MUX



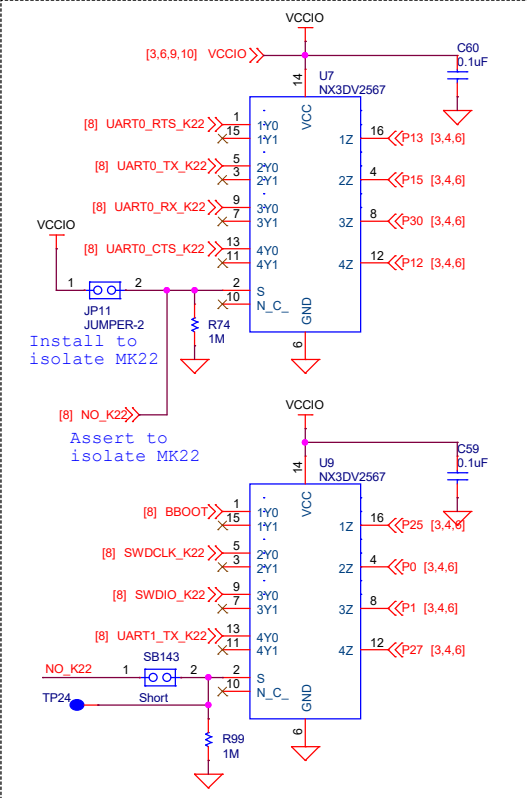
CONNECT SENSORS TO ATM3430



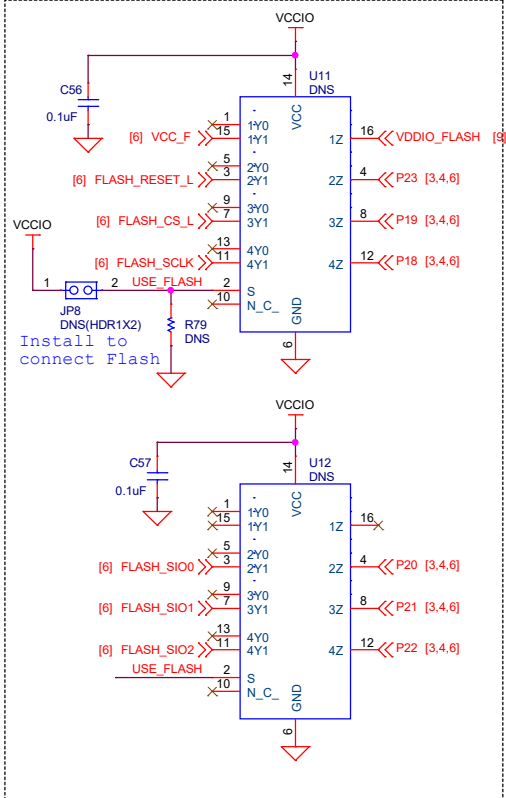
CONNECT LEDS/BUTTONS TO ATM3430



ISOLATE MK22 FROM ATM3430



CONNECT FLASH TO ATM3430

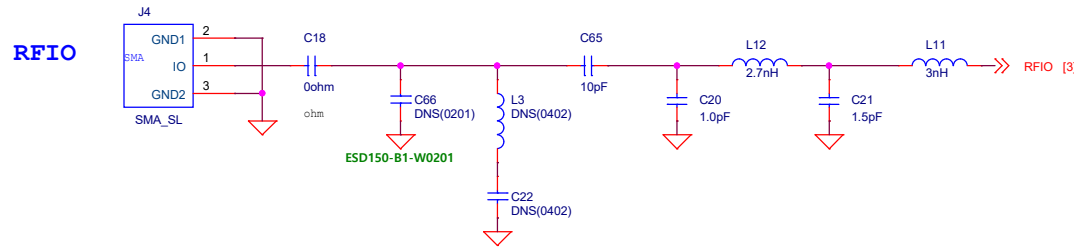


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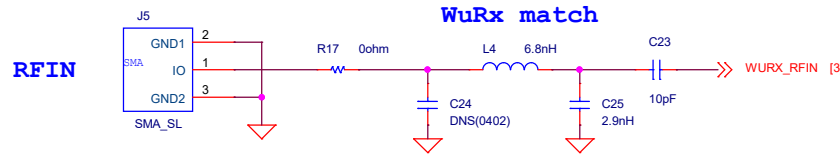
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BLE front-end match

Note:
For inductors, use MHQ series from TDK.
For capacitors, use Johanson

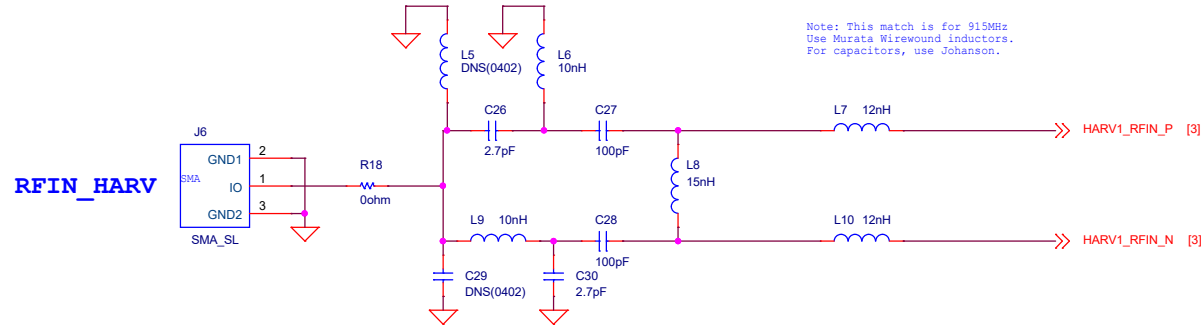


WuRx match



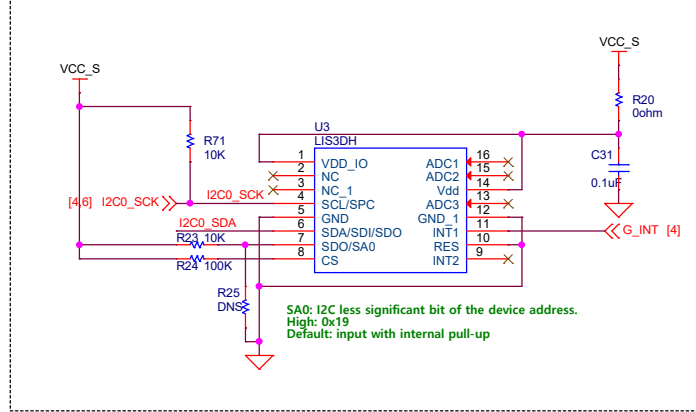
RF Harvester front-end & ANT

Note: This match is for 915MHz
Use Murata Wirewound inductors.
For capacitors, use Johanson.

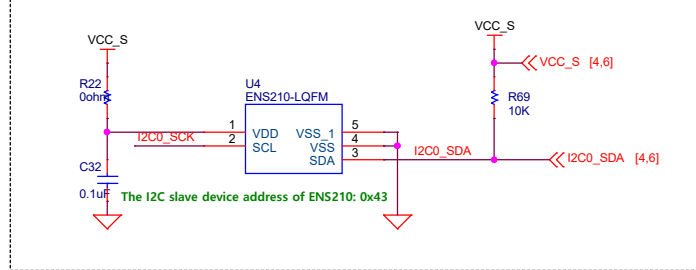


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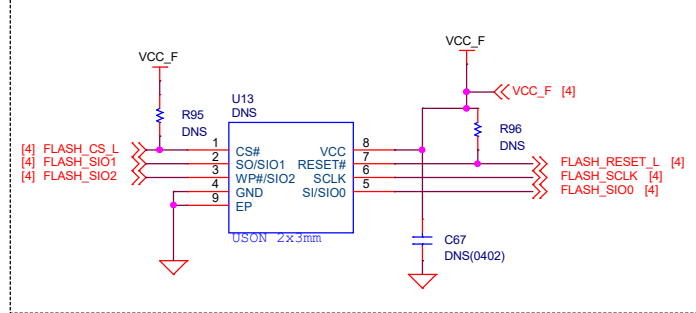
MOTION SENSOR



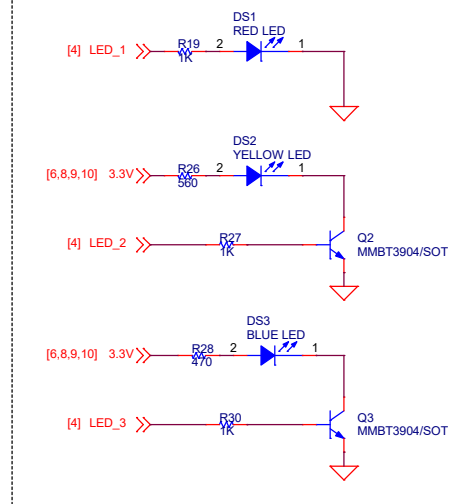
TEMP/HUM SENSOR



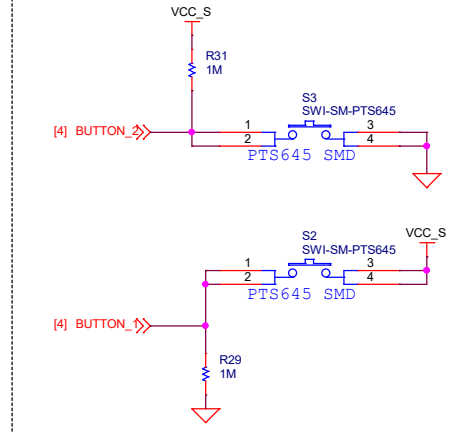
FLASH



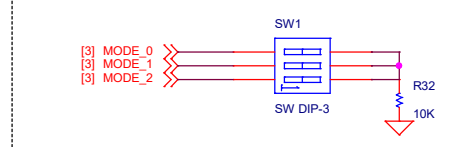
LEDS



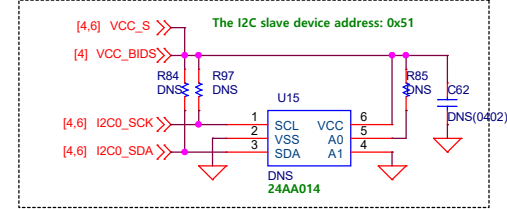
PUSH BUTTONS



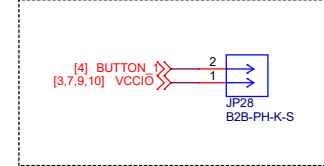
HARV MODES



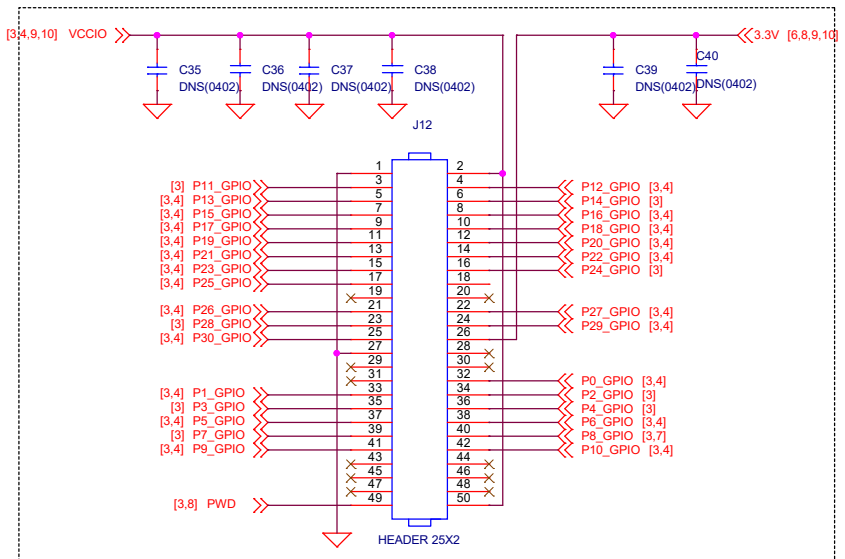
BIDS (1Kbits)



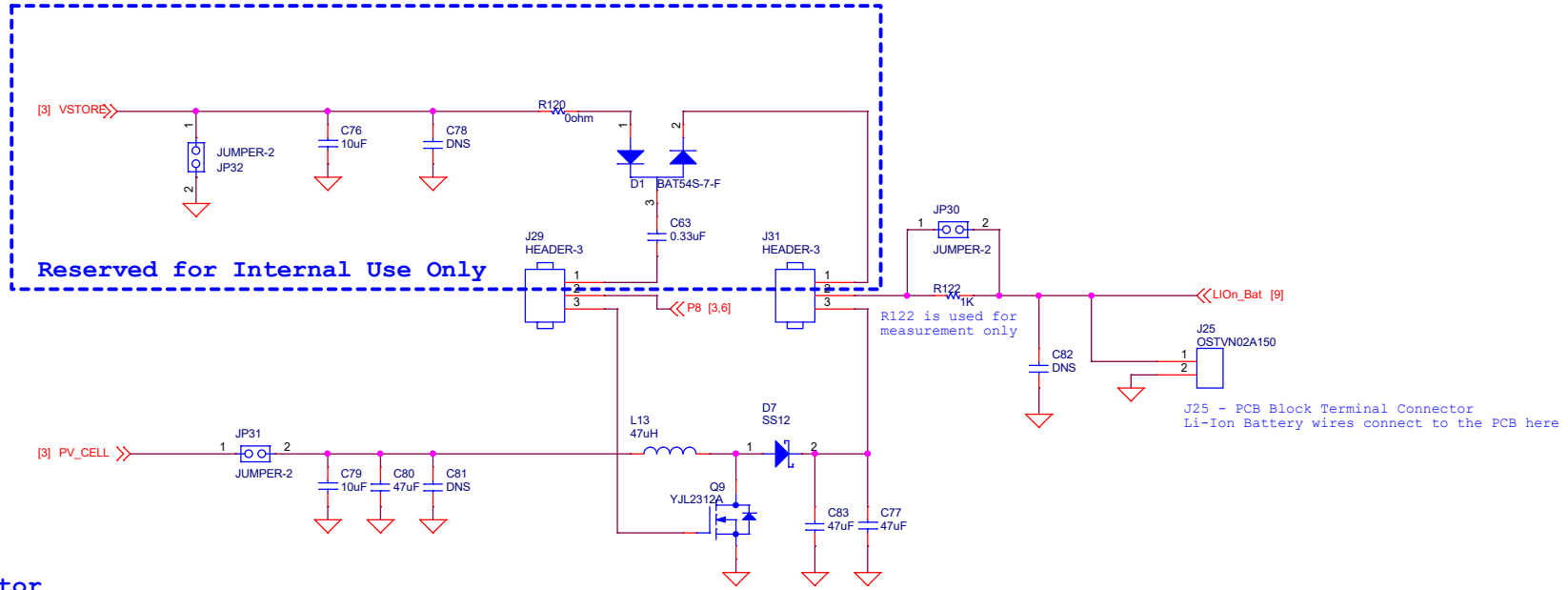
Antenna Board Control



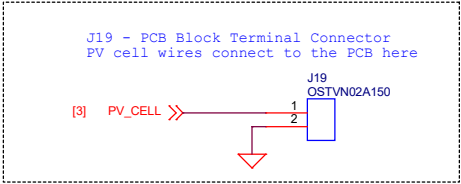
50-PIN CONNECTOR I/O INTERFACE



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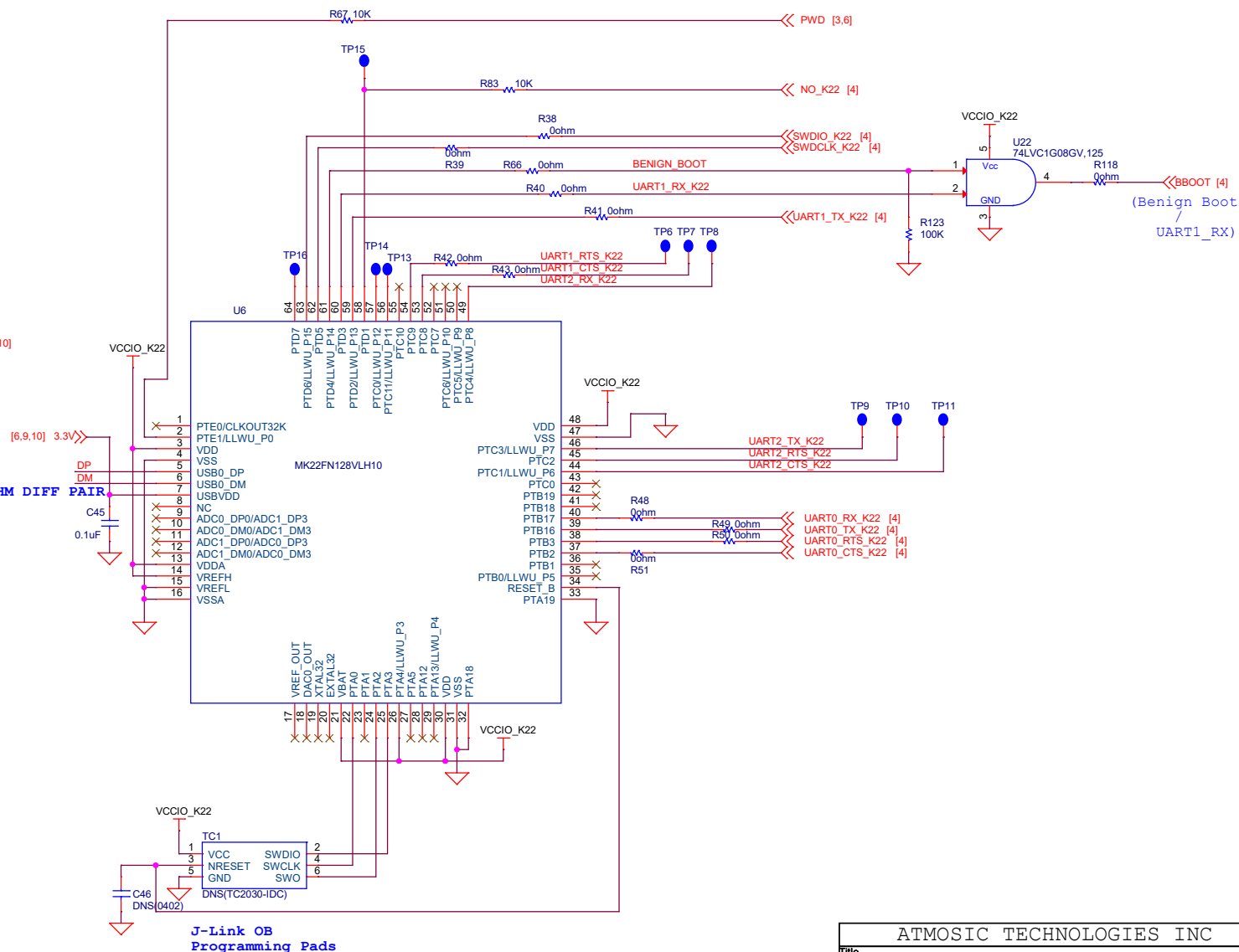
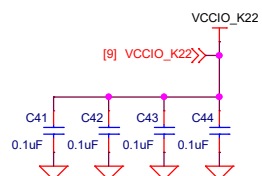


PV Cell connector

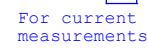
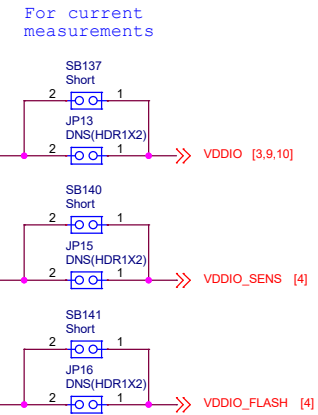
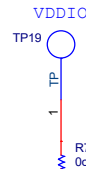
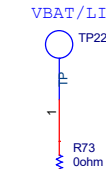
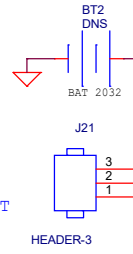
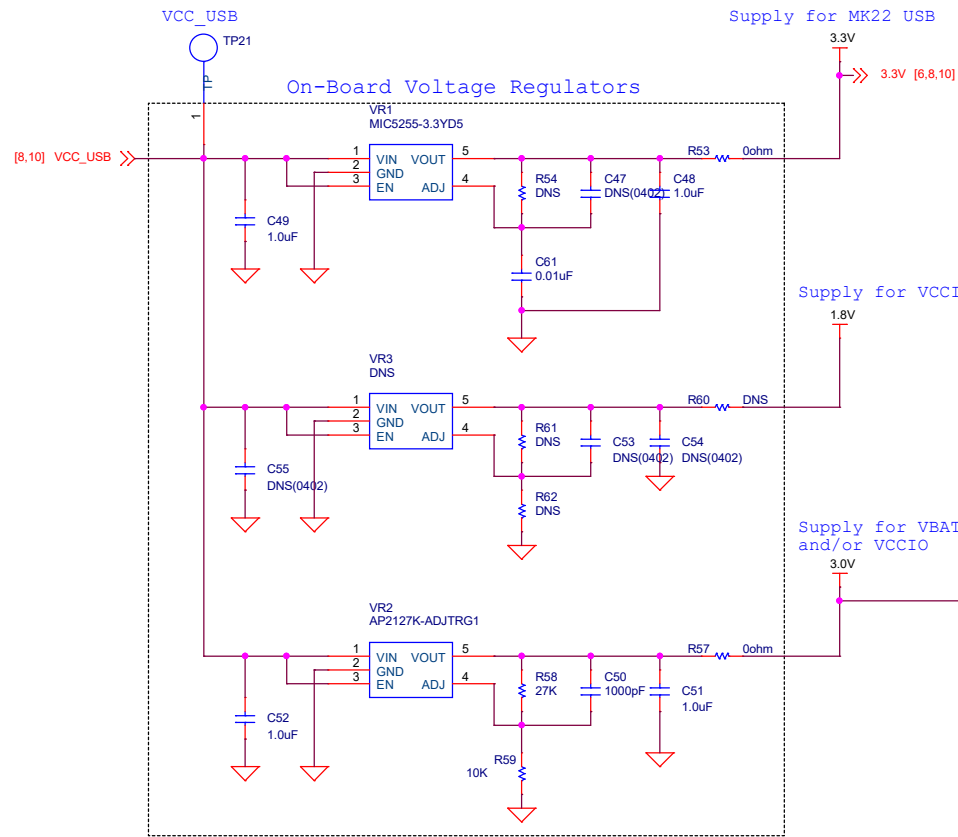


Li-Ion Charging Ckts

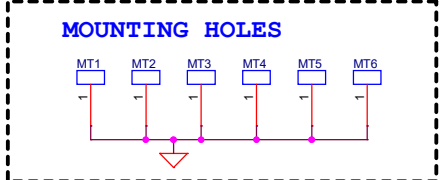
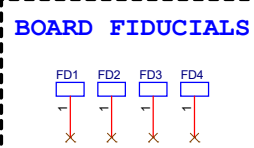
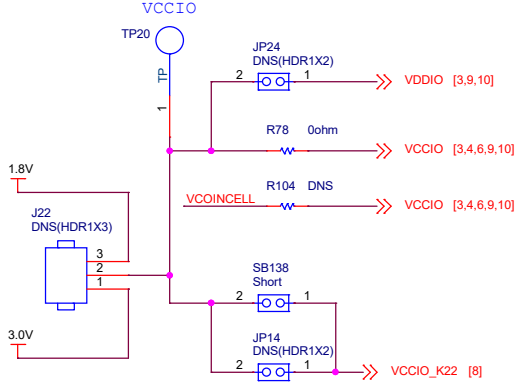
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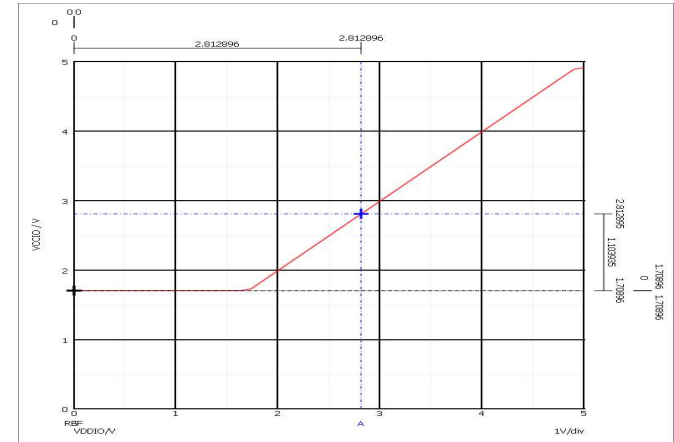
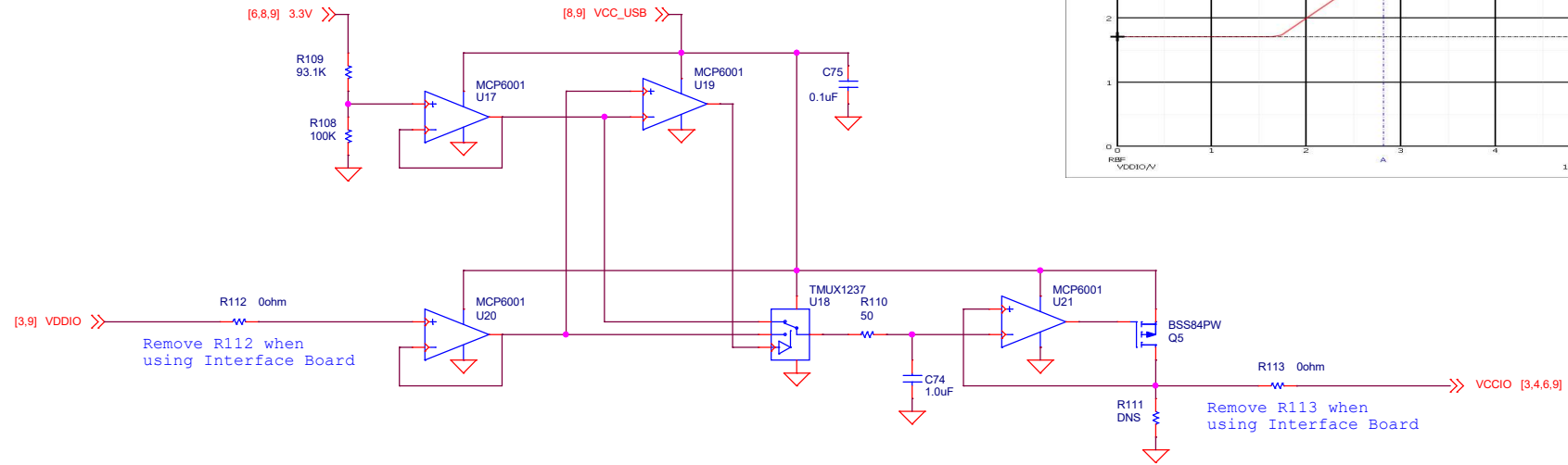


Jumper on pins 1-2 for external Li-Ion through VBATLI
 Jumper on pins 2-3 to connect VBAT to VBATLI for VBAT operation



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



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Common EVB Operation Modes

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