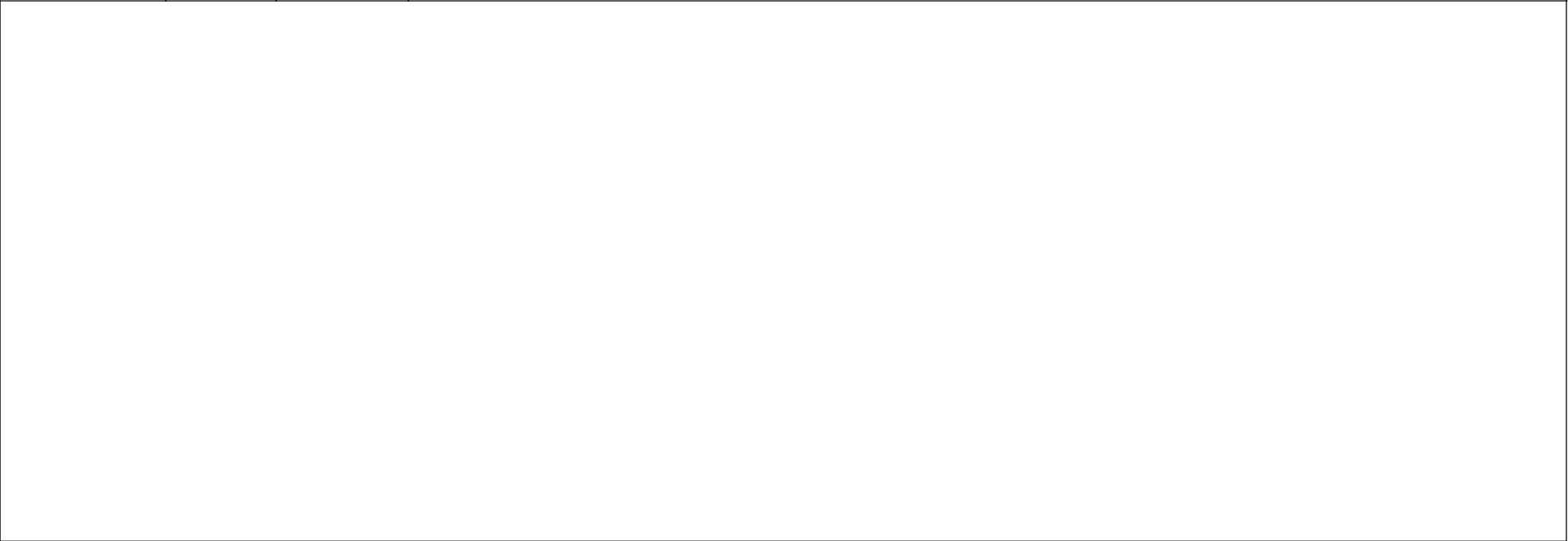


# ATM3430E EVALUATION BOARD

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



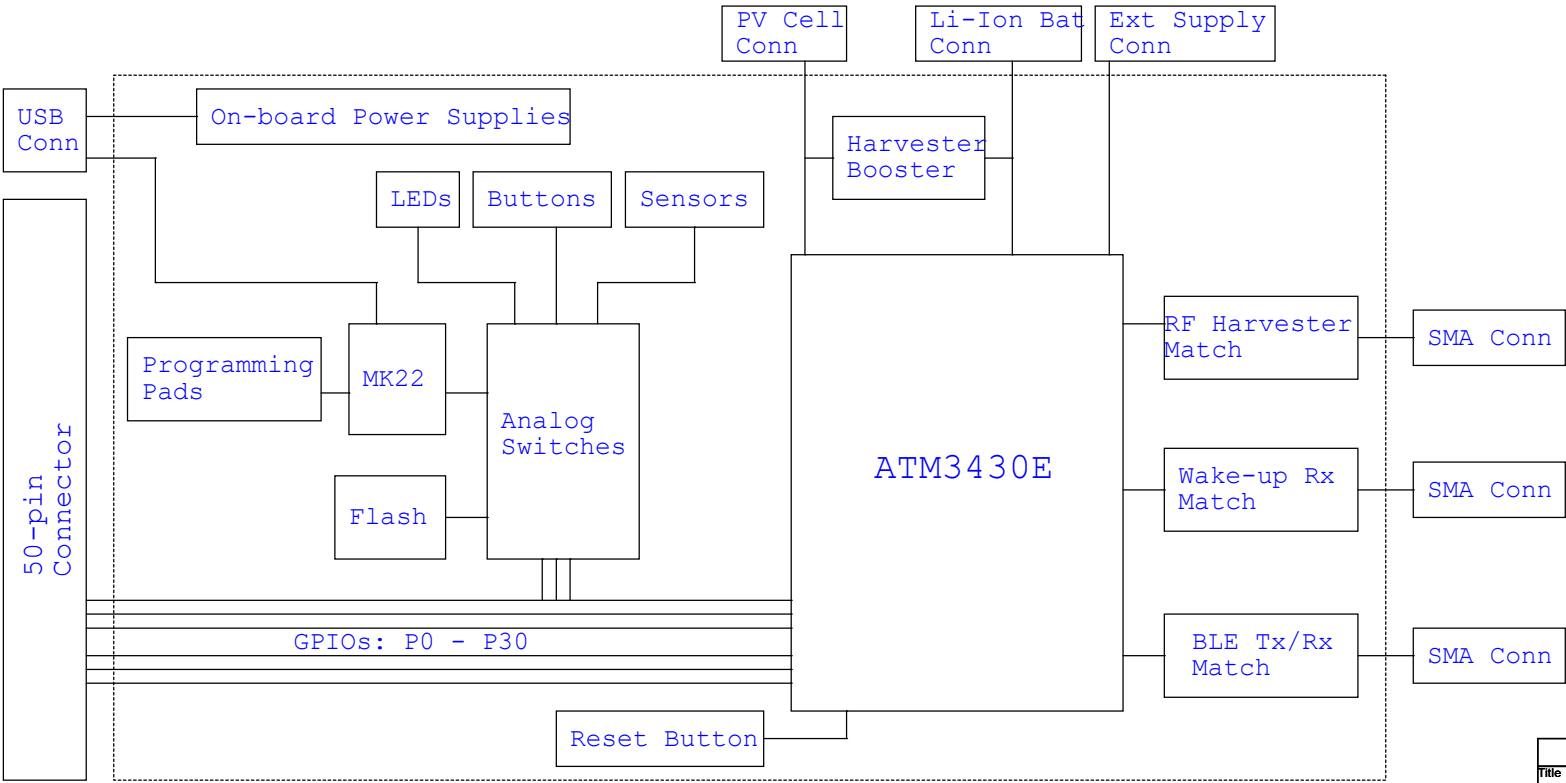
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2105 South Bascom Avenue, Suite 220  
Campbell, CA 95008

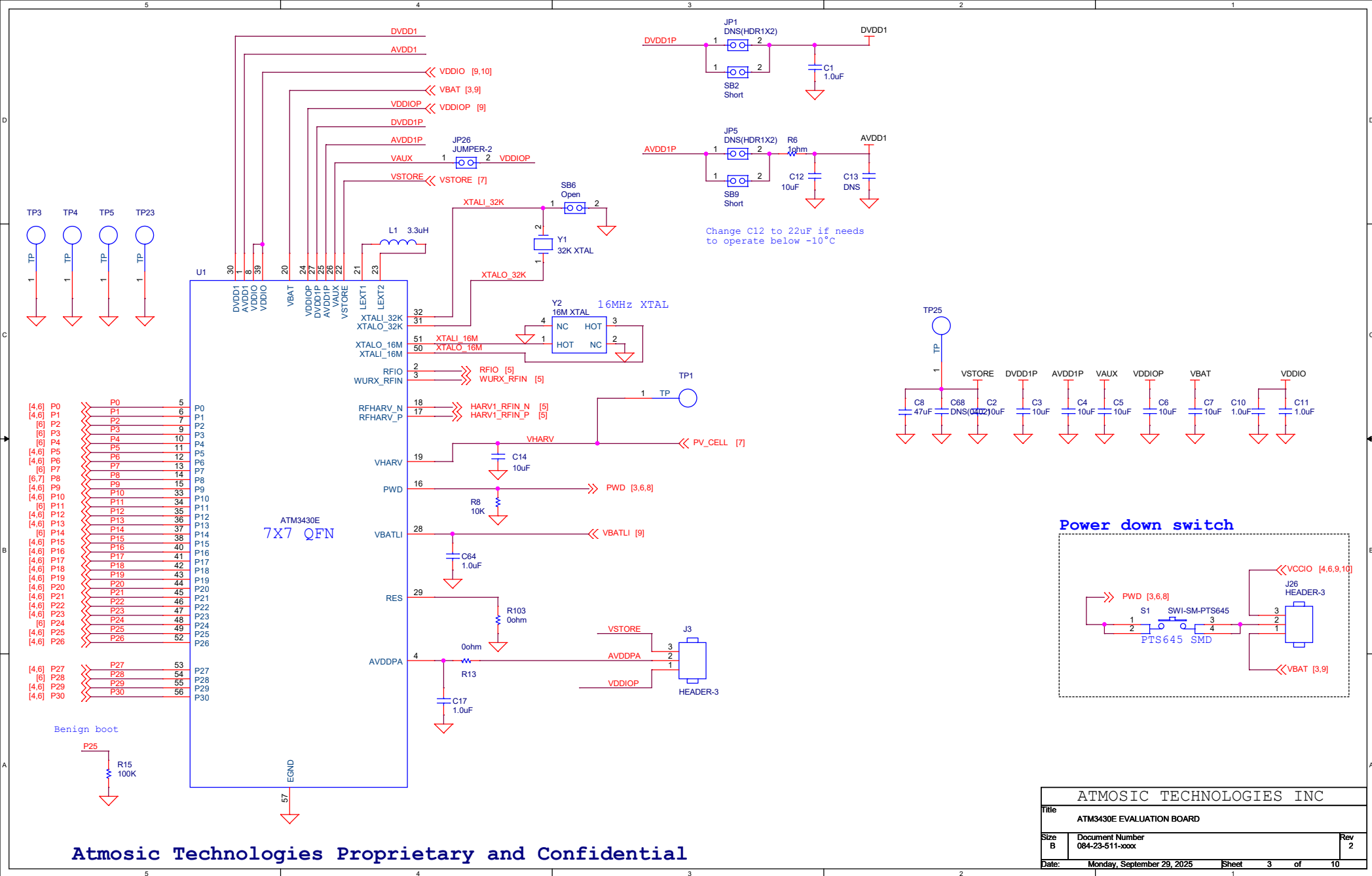
ATMOSIC TECHNOLOGIES INC		
Title ATM3430E EVALUATION BOARD		
Size B	Document Number 084-23-511-xxxx	Rev 2
Date: Monday, September 29, 2025      Sheet 1 of 10		

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

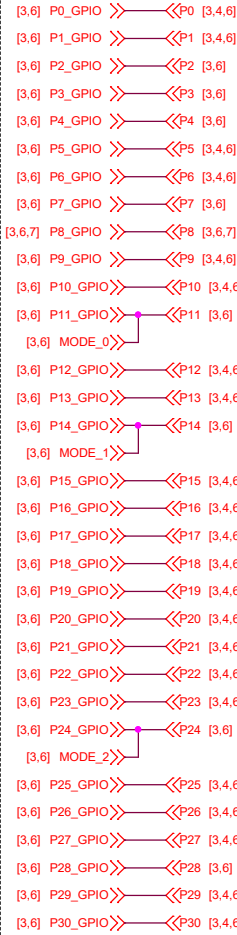
Block Diagram



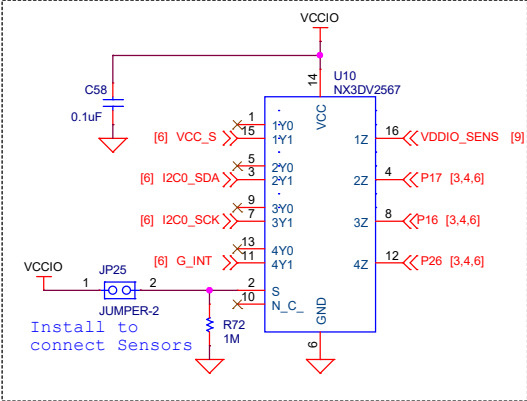
ATMOSIC TECHNOLOGIES INC		
Title ATM3430E EVALUATION BOARD		
Size B	Document Number 084-23-511-xxxx	Rev 2
Date:	Monday, September 29, 2025	Sheet 2 of 10



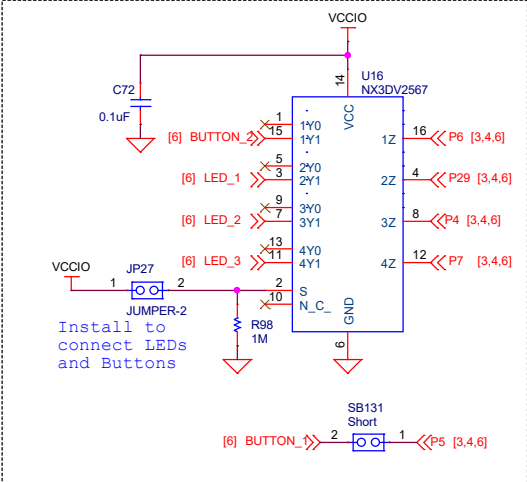
GPIO MUX



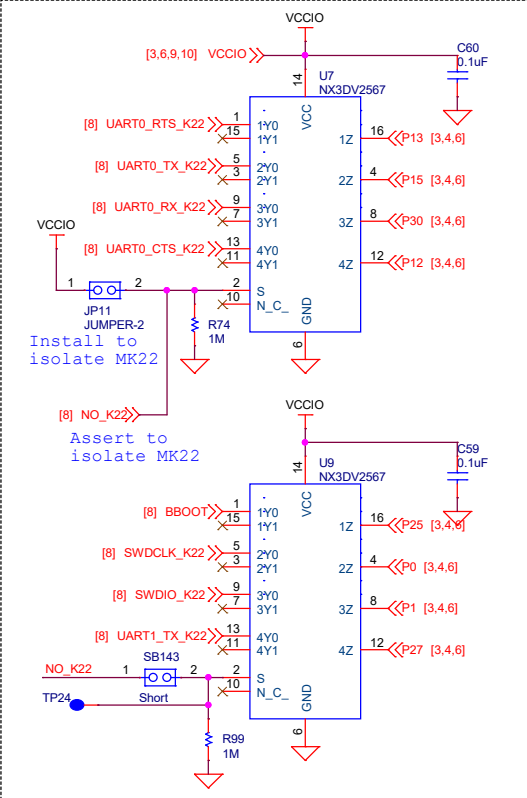
CONNECT SENSORS TO ATM3430



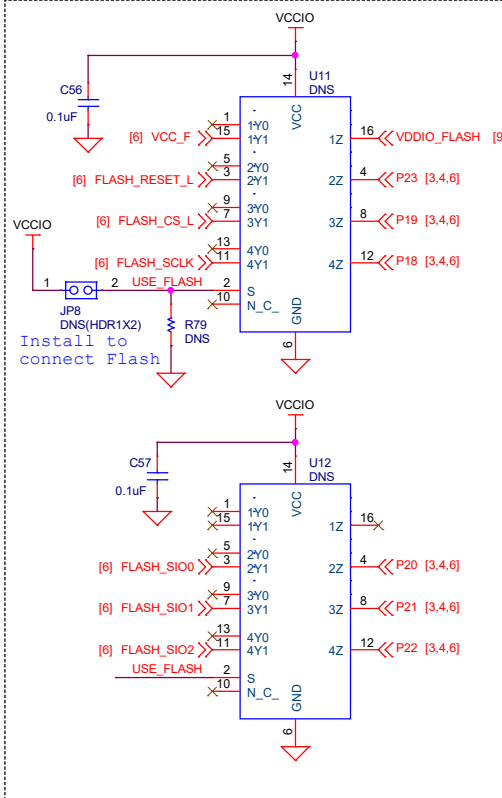
CONNECT LEDS/BUTTONS TO ATM3430



ISOLATE MK22 FROM ATM3430

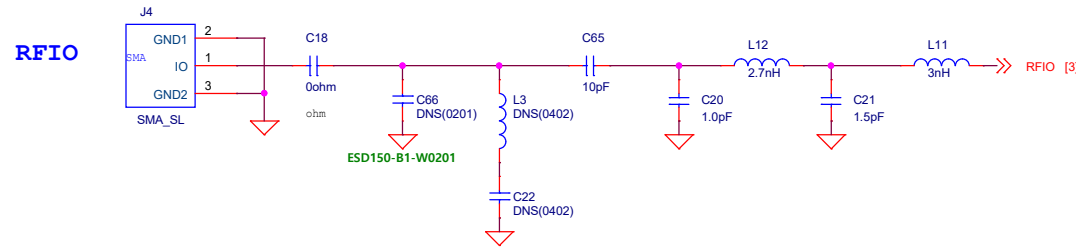


CONNECT FLASH TO ATM3430

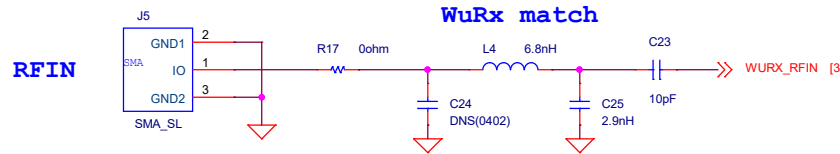


# BLE front-end match

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

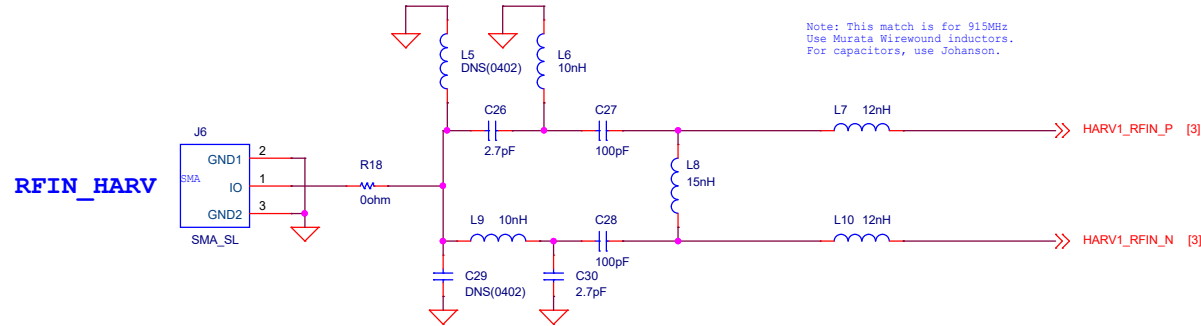


# WuRx match

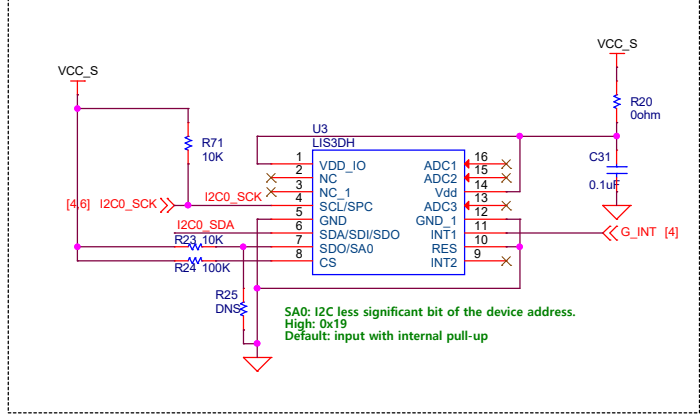


# RF Harvester front-end & ANT

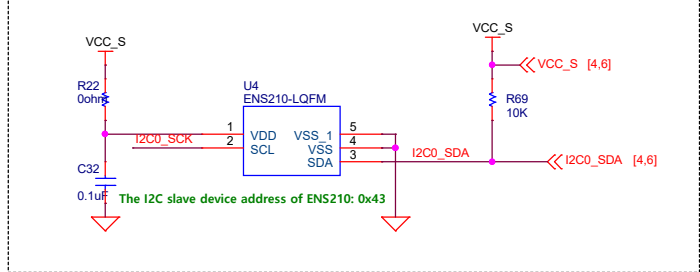
Note: This match is for 915MHz  
Use Murata Wirewound inductors.  
For capacitors, use Johanson.



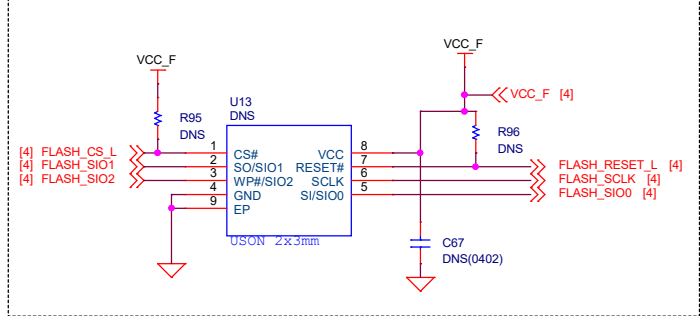
## MOTION SENSOR



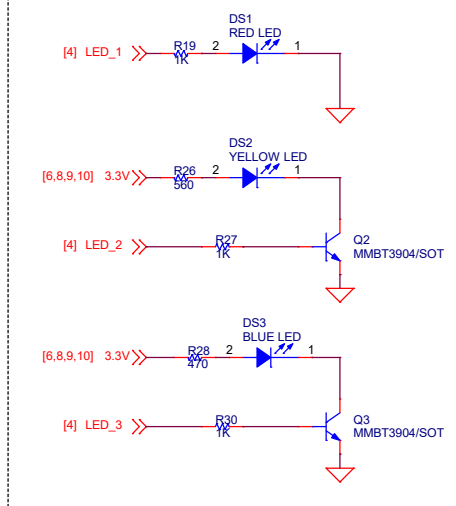
## TEMP/HUM SENSOR



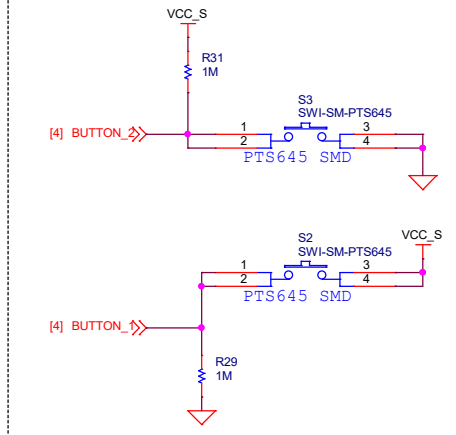
## FLASH



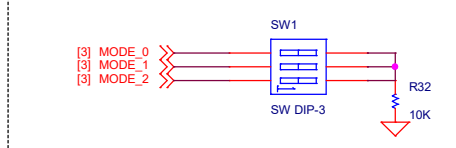
## LEDS



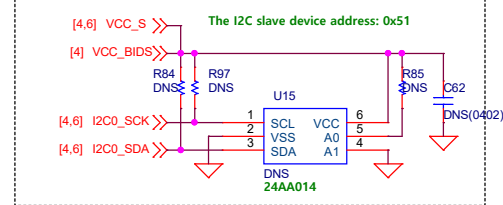
## PUSH BUTTONS



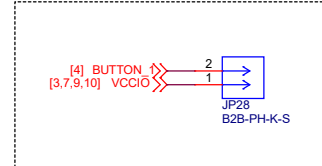
## HARV MODES



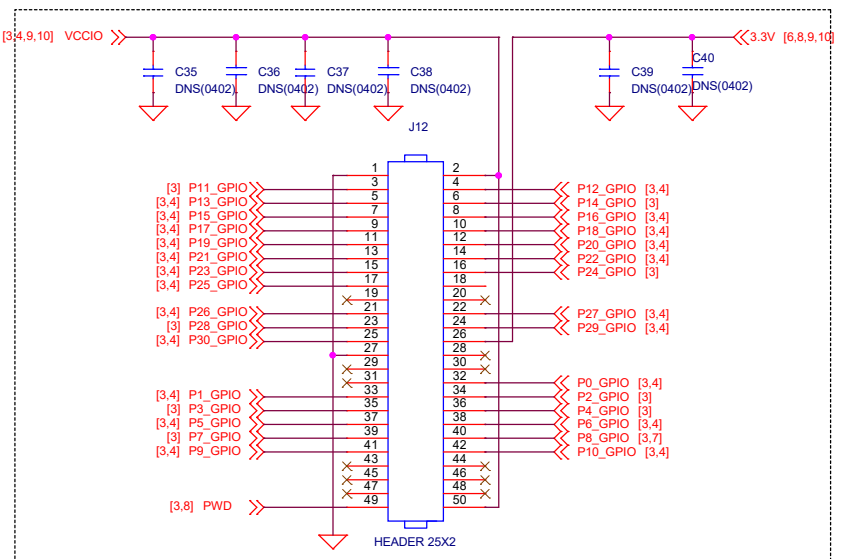
## BIDS (1Kbits)



## Antenna Board Control

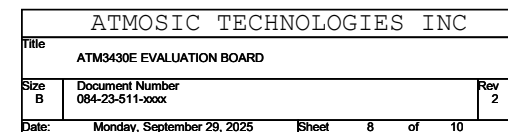
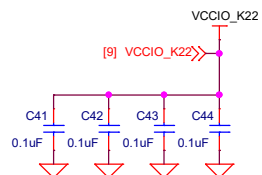


## 50-PIN CONNECTOR I/O INTERFACE

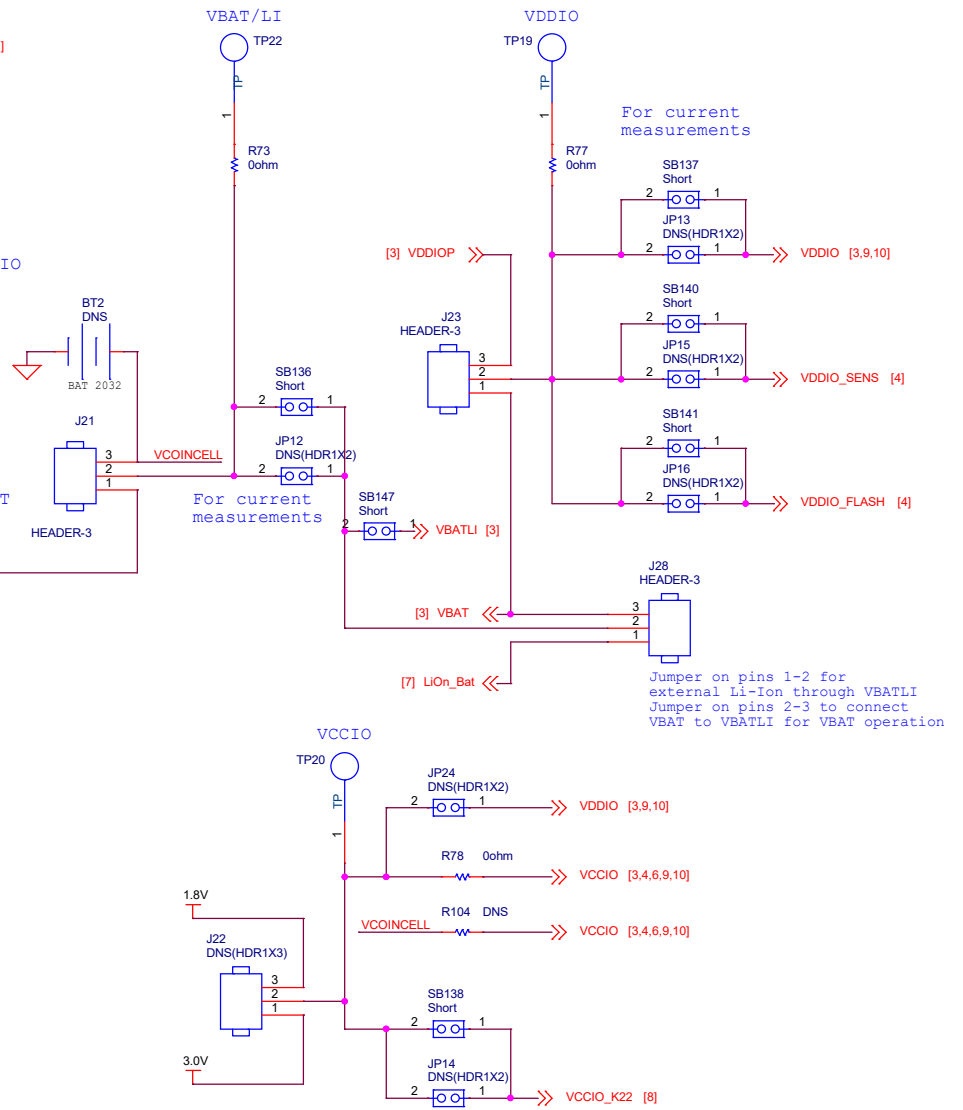
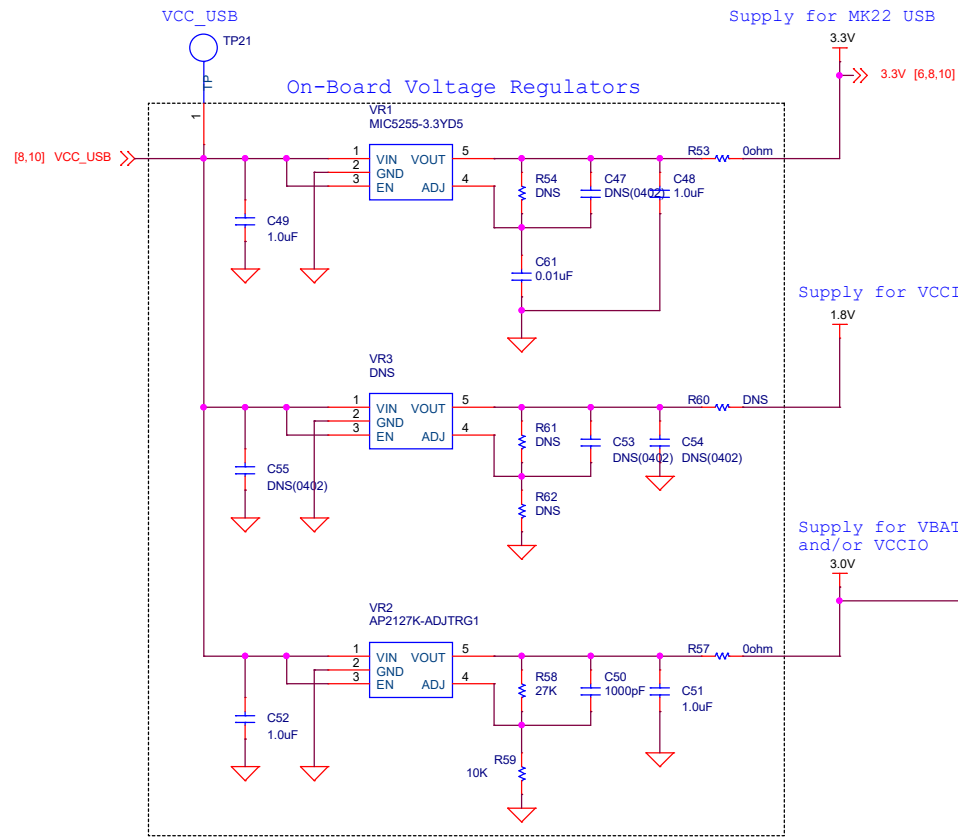


ATMOSIC TECHNOLOGIES INC			
Title			
ATM3430E EVALUATION BOARD			
Size	Document Number	Rev	
B	084-23-511-xxxx	2	
Date:	Monday, September 29, 2025	Sheet	6 of 10

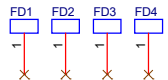




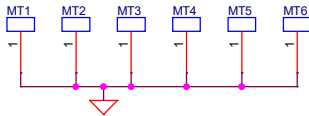




### BOARD FIDUCIALS



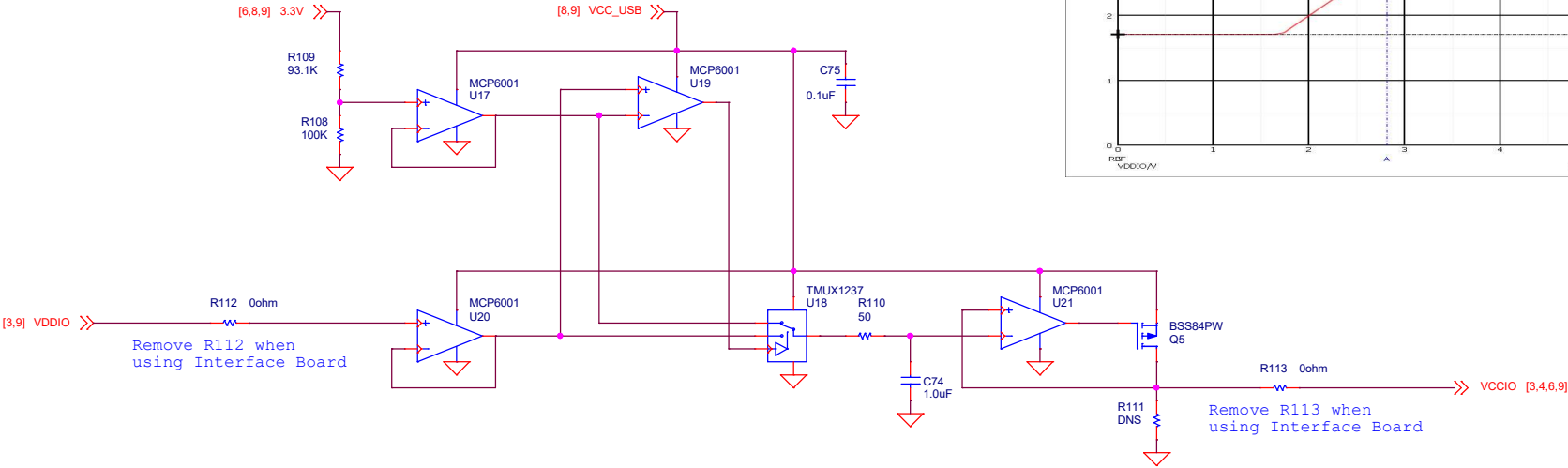
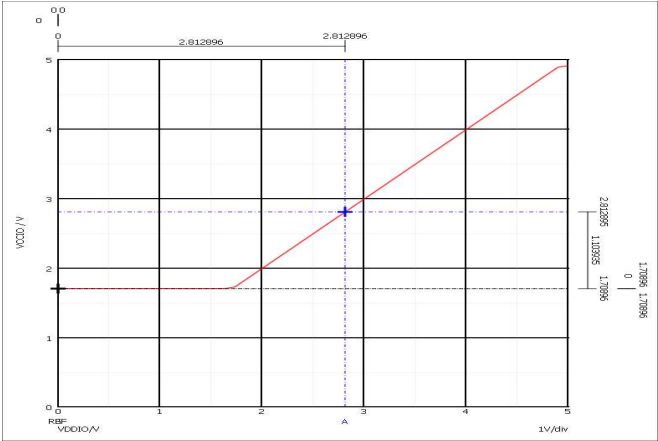
### MOUNTING HOLES



### ATMOSIC TECHNOLOGIES INC

Title		
ATM3430E EVALUATION BOARD		
Size	Document Number	Rev
B	084-23-511-xxxx	2
Date:	Monday, September 29, 2025	Sheet 9 of 10

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



Title			
ATM3430E EVALUATION BOARD			
Size	Document Number	Rev	
B	084-23-511-xxxx	2	
Date:	Monday, September 29, 2025	Sheet	10 of 11

# Common EVB Operation Modes

ATMOSIC TECHNOLOGIES INC		
Title ATM3430E EVALUATION BOARD		
Size B	Document Number 084-23-511-xxxx	Rev 2
Date:	Monday, September 29, 2025	Sheet 11 of 11