

# ATM34 BTCS Tag Reference Design

Release Date	SCH Revision	PCB Revision	Design Eng.	Design Notes
04/06/25	-0	V0	Chris TsaiLin	Initial release, based on the latest Perth ATM34X5 5x5 QFN EVB
06/13/25	-0.1	V0	Chris TsaiLin	#1: R167 removed and R168 installed #2: C8 changed to 0ohm #3: C11 changed to 1uF from 4.7uF #4: RF matching modification. C21 changed to 1.8pF, C20 changed to 1.6pF, L11 changed to 2.7nH, L12 changed to 3nH #5: R6 change to 2ohm
07/22/25	-1	V1	Chris TsaiLin	#1: RF matching modification - C20 changed to 1.8pF for better 2nd harmonic #2: ANT matching modification - R154 change to 3nH, R155 change to 2.7nH, C82 and C84 change to 0.3pF #3: Correct SPI interface to MicroBus - P17 connected to SCK, P18 connected to MOSI, P19 connected to MISO and P20 connected to CS #4 Power source of RF Switch changed to P29 - LED DS15 removed, and connect P25 to D4 #5 Change switch button for TAG housing #6 Change P4 to dedicate for Analog of MicroBus, and connect P30 to DS14
11/04/25	-1.1	V1	Joe Chen	#1: C5 and C6 changed from 4.7uF to 10uF . #2: R154 and R155 changed to 27pF(0201). C82 amd C84 changed to DNS. #3: R6 changed from 2 ohm to 1ohm(0201). #4: C97 add a 1000pF capacitor(0201). #5: R172, R181 and R188 changed from 100 ohm to 560 ohm(0201).

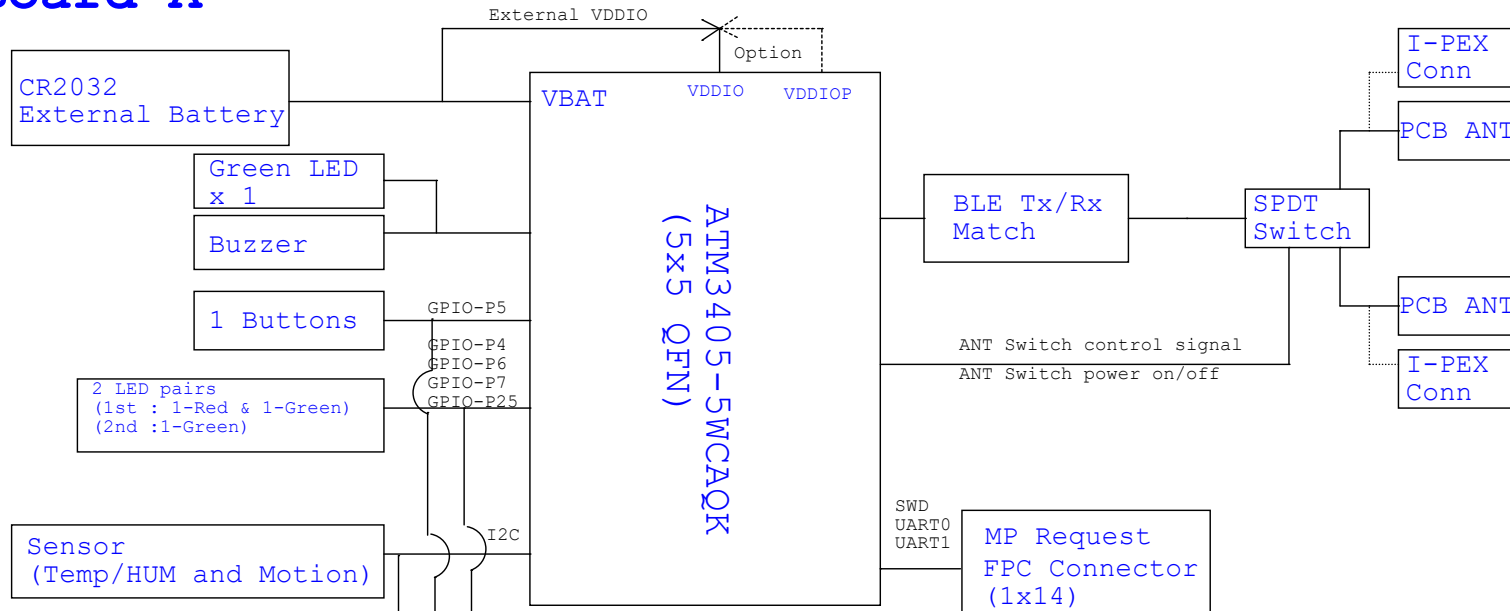
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# Block Diagram

## Board A



MikroBus

LED and Button

Firmware programming interface

Notes:  
Board\_A and Board\_B can be broken-off.

## Board B

Expansion board

MikroBus

LED(yellow)

Button

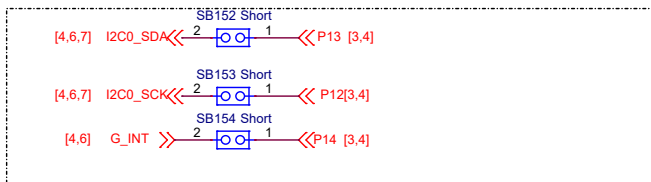
Firmware programming interface

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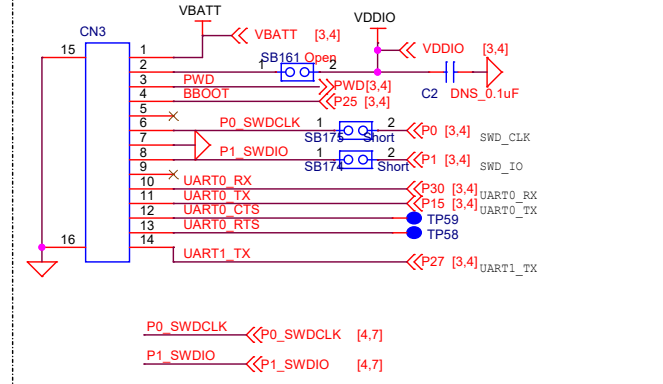
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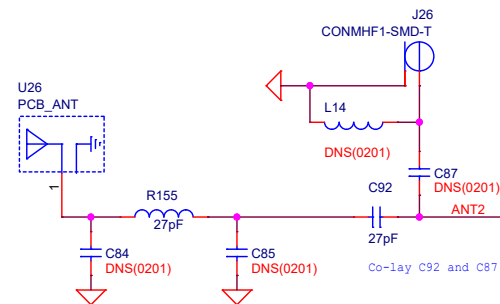
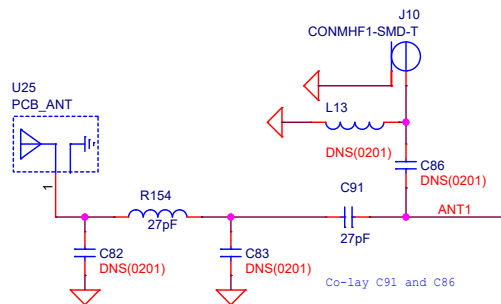
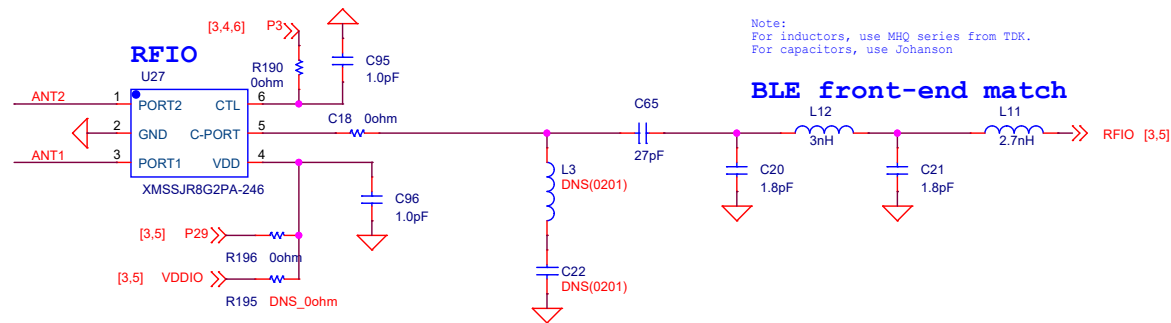


## I2C control to ATM3405

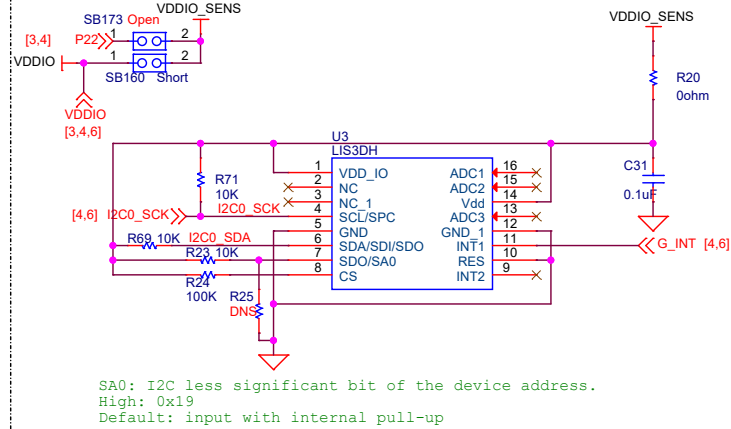


## FPC TEST CONNECTOR

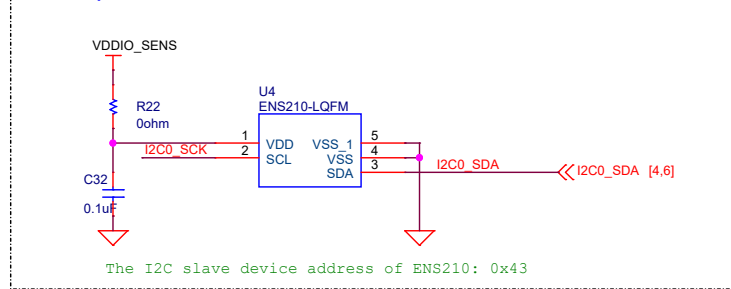




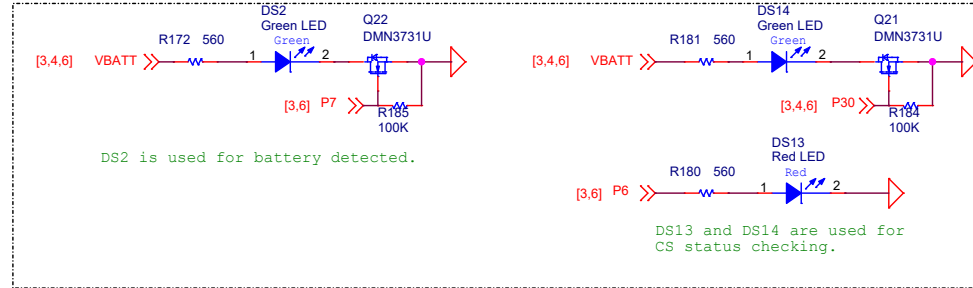
## MOTION SENSOR



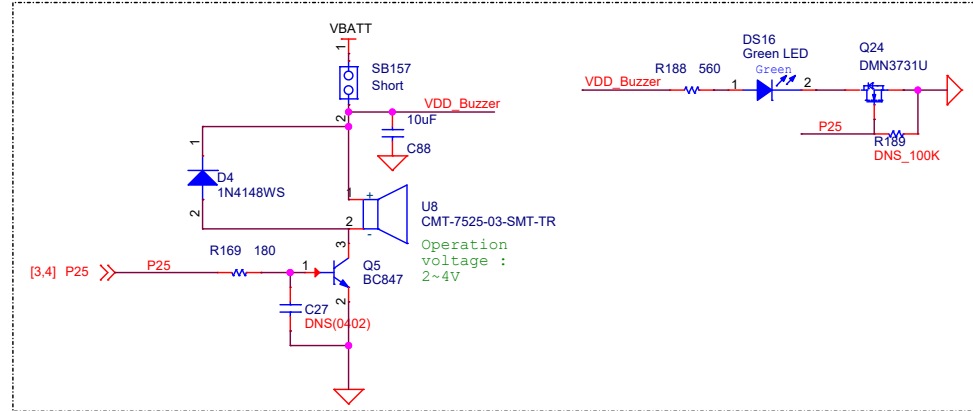
## TEMP/HUM SENSOR



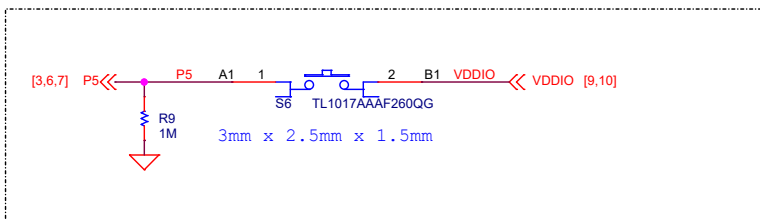
## LEDS



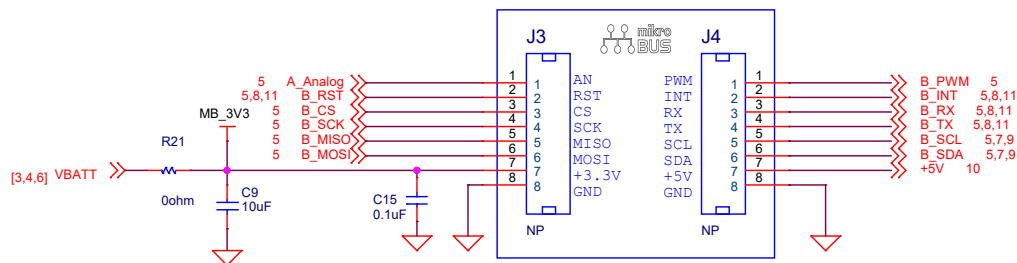
## Buzzer



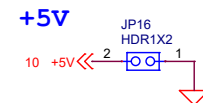
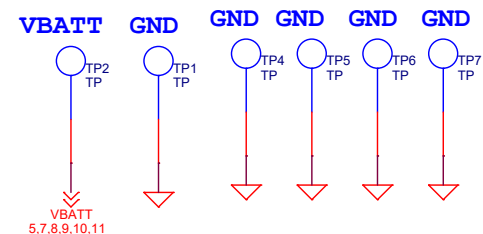
## Push Button



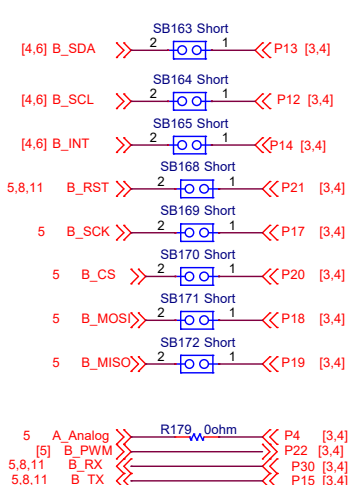
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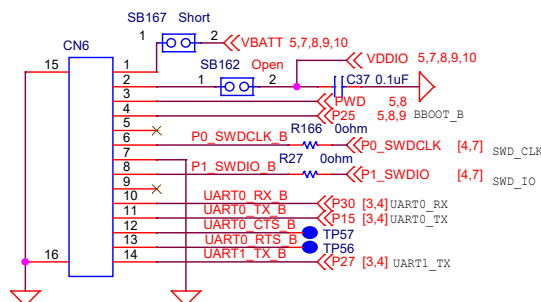
MikroBUS SOCKETS



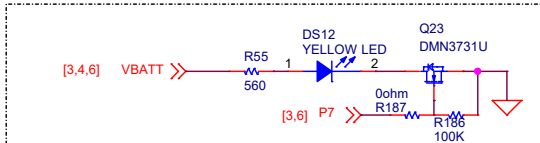
### GPIO MUX



### JTAG PROGRAMMING



### LED



### PUSH BUTTON

