

1

2

3

4

A

A

B

B

C

C

D

D

Title		
Size	Number	Revision
A4		
Date:	11/14/2025	Sheet of
File:	C:\Users\..\Top_Level.SchDoc	Drawn By:

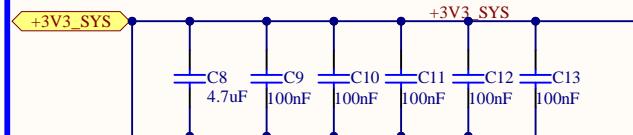
1

2

3

4

MCU (STM32WB55), SWD Debug & RF (BLE) — BLEC-SCH-0003



IC2

VDD
VDD
VDD
VDDA
VDDRF
VDDSMS
VDDUSB
VFBSMPS
VLXSMPS
VBAT

RF1
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15

AT0
AT1

PC14-OSC32 IN
PC15-OSC32 OUT

PH3-BOOT0
PE4
EP
VSSRF
VSSSMS

RST
NRESET
R_HSE_OUT
OR
C23 (100nF)

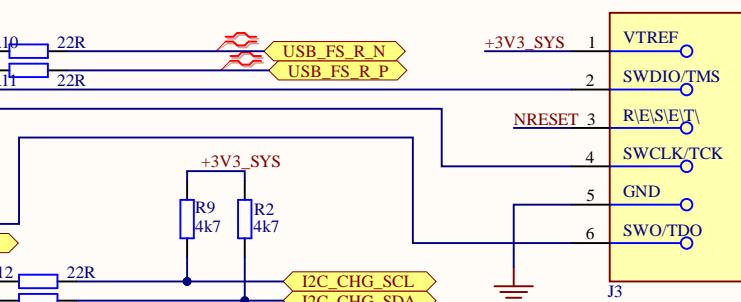
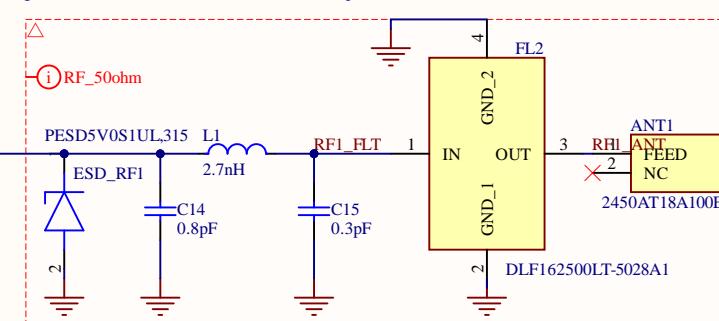
Y1
GND_2
CRYSTAL_2
GND_1
32MHz

Y2
32.768kHz

C21 (10pF)

C22 (10pF)

For RF HW design follow AN5165_rf_hardware_STM32WB.pdf



Y2
32.768kHz

C21 (10pF)

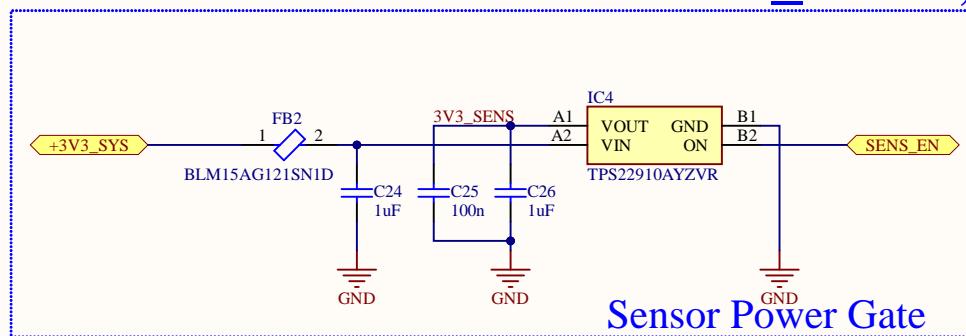
C22 (10pF)

Title BLE-Control Wearable — Schematic Set (AD25)

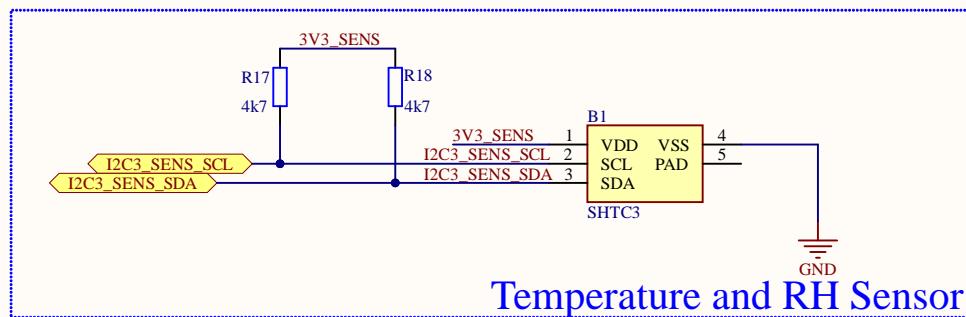
Size	Number	Revision
A4	BLEC-SCH-0003	A0 (EVT)
Date:	11/14/2025	Sheet of 3 of 4
File:	C:\Users\..\MCU_RF.SchDoc	Drawn By: Caoilte Donohoe

Sensors/IO: TPS22910A 3V3_SENS, Button, LEDs, I²C — BLEC-SCH-0004

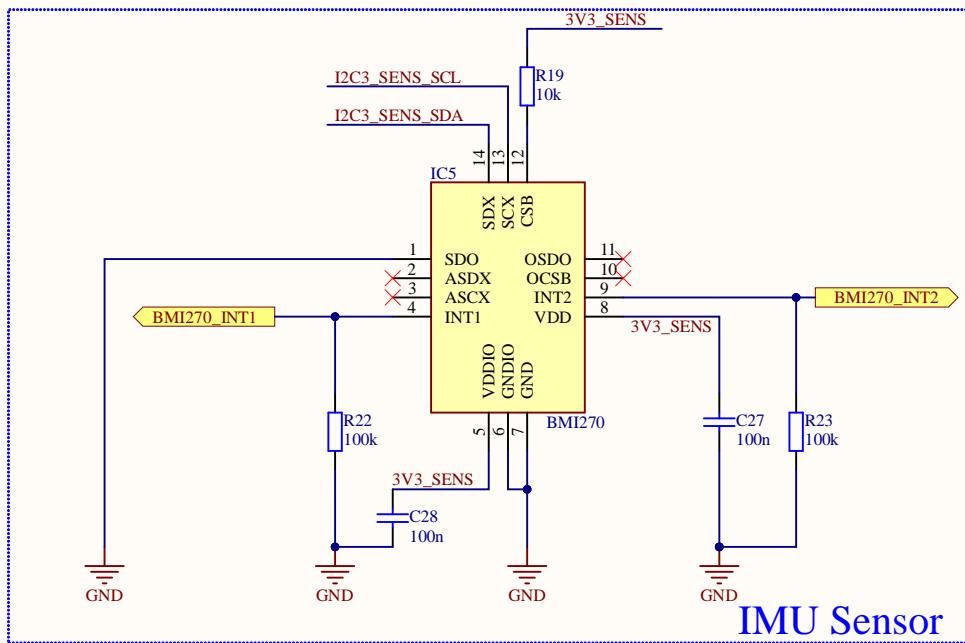
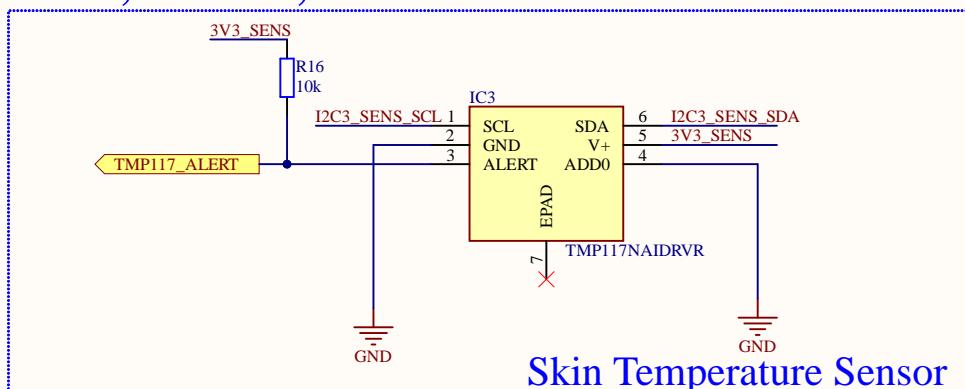
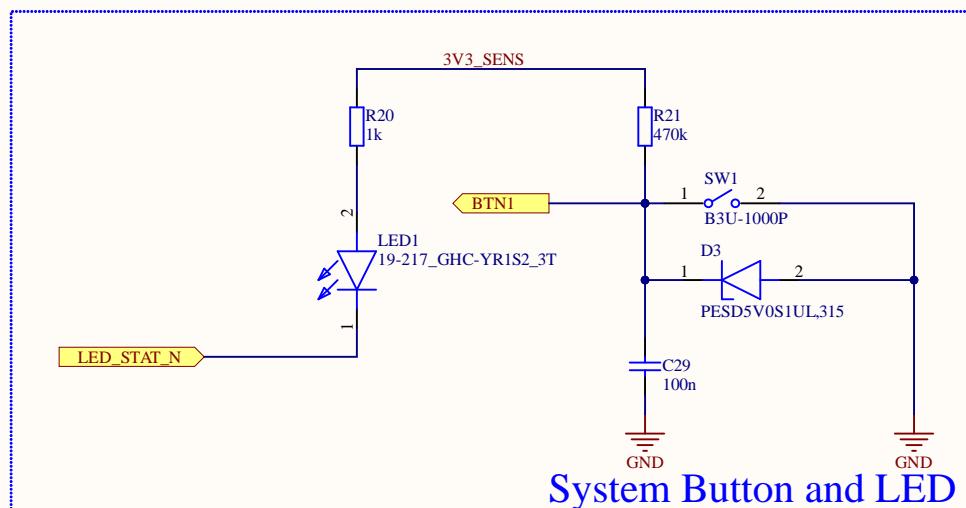
A



B

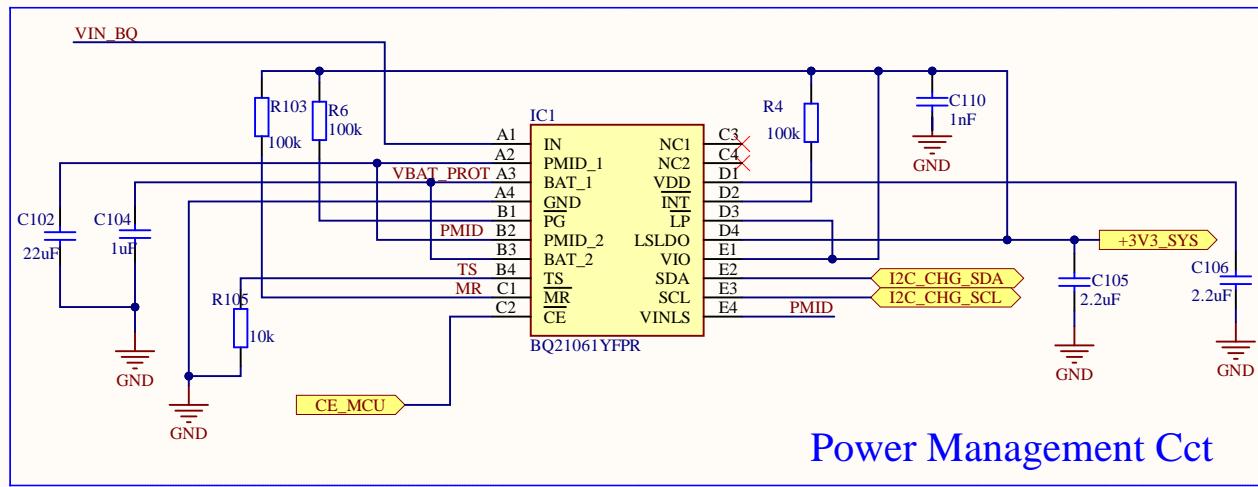


C

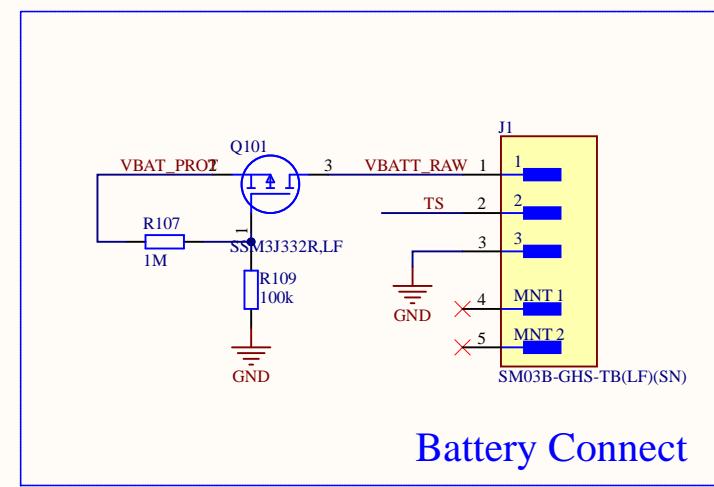


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Size	Number	Revision
A4	BLEC-SCH-0004	A0 (EVT)
Date:	11/14/2025	Sheet of 4 of 4
File:	C:\Users\..\Sensor_IO_Buttons_LED.Sch	Drawn By: Caoilte Donohoe

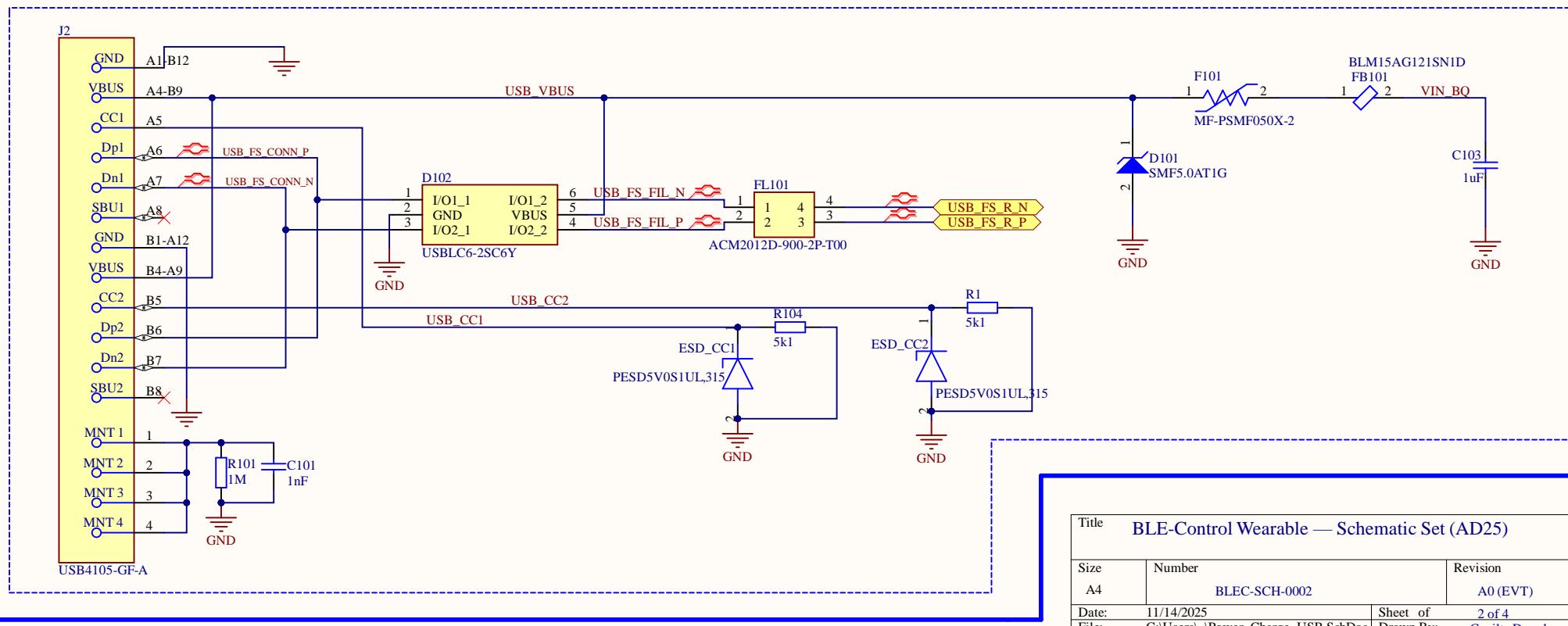
Power, Battery, USB-C & BQ21061 (Main 3V3) — BLEC-SCH-0002



Power Management Cct



Battery Connect



Title BJE Control Wearable Schematic Set (AD25)

Size	Number	Revision
A4	BLEC-SCH-0002	A0 (EVT)
Date:	11/14/2025	Sheet of 2 of 4
File:	C:\Users\.\Power_Charge_USB.SchDoc	Drawn By: Caoilte Donohoe