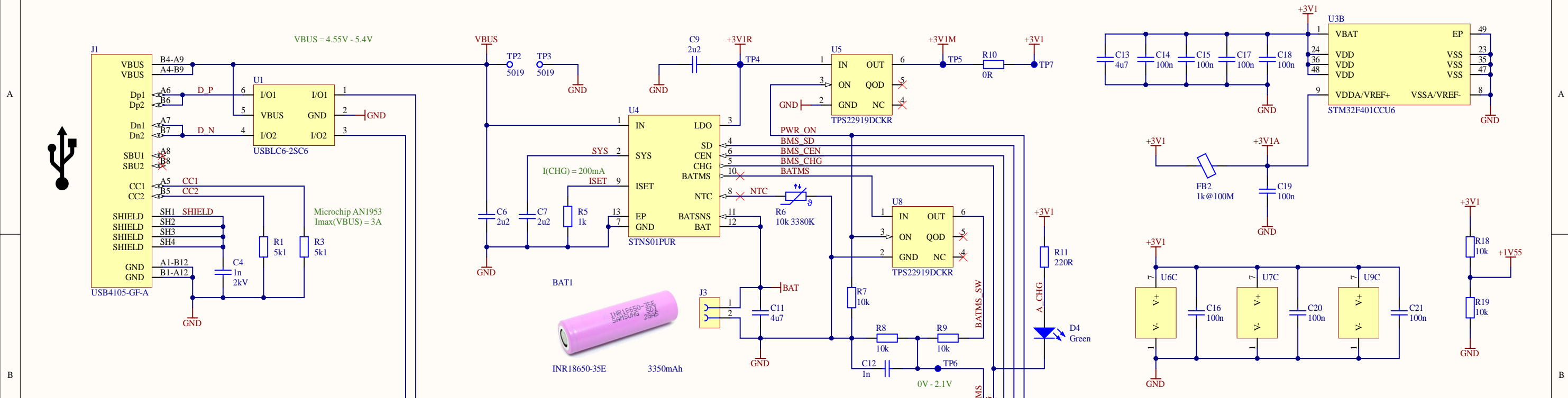
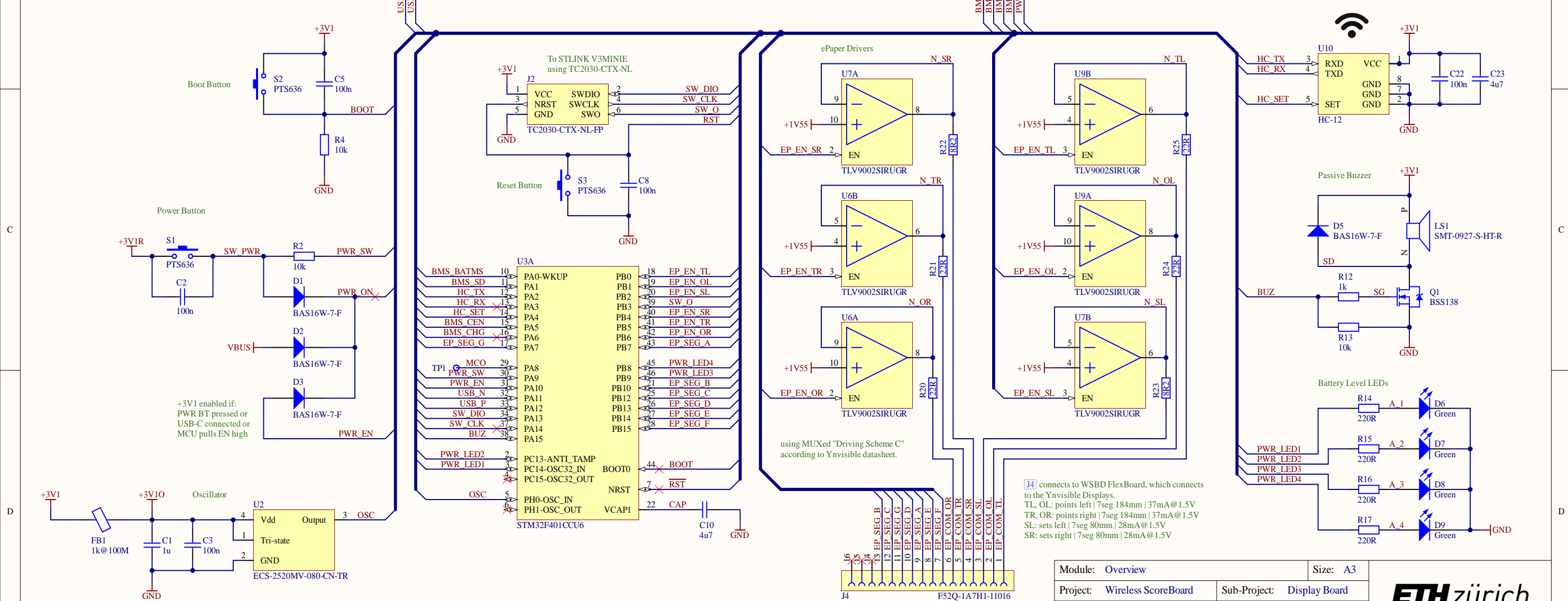


## POWER



## MCU



Module: <b>Overview</b>		Size: <b>A3</b>
Project: <b>Wireless ScoreBoard</b>	Sub-Project: <b>Display Board</b>	
Sheet: <b>1 / 1</b>	Author: <b>Joel Schaller</b>	
Revision: <b>1.0</b>	Date: <b>30.03.2024</b>	
File: <b>Overview.SchDoc</b>		

**ETH** zürich

Fitted	Designator	Comment	Value	Description	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number	Quantity
Fitted	BAT1	INR18650-35E	3350mAh	EMECH SINGLE BATTERY LIPO	Samsung	INR18650-35E	Conrad	1499572 - 62	1
Fitted	C1	C0805	1u	CERCAP 1u 25V 10% X7R0805	YAGEO	CC0805H40X7R8BB105	Digi-Key	311-1456-1-ND	1
Fitted	C2, C3, C5, C8, C14, C15, C16, C17, C18, C19, C20, C21, C22	C0402	100n	CERCAP 100n 50V 10% X7R0402	YAGEO	CC0402H40X7R9BB104	Digi-Key	311-3566-1-ND	13
Fitted	C4	C1206	1n	CERCAP 1n 2kV 10% X7R1206	Würth Elektronik	885342208024	Digi-Key	732-885342208024CT-ND	1
Fitted	C6, C7, C9	C0805	2u2	CERCAP 2u2 25V 10% X7R0805	YAGEO	CC0805H40X7R8BB225	Digi-Key	311-1884-1-ND	3
Fitted	C10, C11, C13, C23	C0805	4u7	CERCAP 4u7 25V 10% X7R0805	YAGEO	CC0805H40X7R8BB475	Digi-Key	311-1885-1-ND	4
Fitted	C12	C0402	1n	CERCAP 1n 50V 10% X7R0402	YAGEO	CC0402H40X7R9BB102	Digi-Key	311-1036-1-ND	1
Fitted	D1, D2, D3, D5	BAS16W-7-F		DIODE 200mW 75V 300mA SOT-323	Diodes Incorporated	BAS16W-7-F	Digi-Key	BAS16W-FDICT-ND	4
Fitted	D4, D6, D7, D8, D9	APHHS1005LZGCK-V	Green	LED GREEN 2mA 2.65V 0402	Kingbright	APHHS1005LZGCK-V	Digi-Key	754-2126-1-ND	5
Fitted	FB1, FB2	BLM15BD102SN1D	1k@100M	FERRITE 200mA-1k 0402	Murata Electronics	BLM15BD102SN1D	Digi-Key	490-1010-1-ND	2
Fitted	J1	USB4105-GF-A		CONN Female USB-C 16x Horizontal SMD	GCT	USB4105-GF-A	Digi-Key	2073-USB4105-GF-ACT-ND	1
Fitted	J4	F52Q-1A7H1-11016		CONN FPC TOP 16POS 1mm	Amphenol ICC (FCI)	F52Q-1A7H1-11016	Digi-Key	609-F52Q-1A7H1-11016CT-ND	1
Fitted	LS1	SMT-0927-S-HT-R		PASSIVE PIEZO_BUZZER 8.5x8.5x4.3mm	PUI Audio, Inc.	SMT-0927-S-HT-R	Digi-Key	668-SMT-0927-S-HT-RCT-ND	1
Fitted	Q1	BSS138		MOSFET N 0.2A 50V SOT323	Diodes Incorporated	BSS138W-7-F	Digi-Key	BSS138W-FDICT-ND	1
Fitted	R1, R3	R0402	5k1	RES 5k1 62.5mW 1% 0402	YAGEO	RC0402FR-075K1L	Digi-Key	311-5.10KL RCT-ND	2
Fitted	R2, R4, R7, R8, R9, R13, R18, R19	R0402	10k	RES 10k 62.5mW 1% 0402	YAGEO	RC0402FR-0710KL	Digi-Key	311-10.0KL RCT-ND	8
Fitted	R5, R12	R0402	1k	RES 1k 62.5mW 1% 0402	YAGEO	RC0402FR-071KL	Digi-Key	311-1.00KL RCT-ND	2
Fitted	R6	NCU15XH103F6SRC	10k 3380K	RESNTC 10k 3380K	Murata Electronics	NCU15XH103F6SRC	Digi-Key	490-NCU15XH103F6SRCT-ND	1
Fitted	R10	R0402	0R	RES 0R 0402	YAGEO	RC0402FR-070RL	Digi-Key	311-0.0L RCT-ND	1
Fitted	R11, R14, R15, R16, R17	R0402	220R	RES 220R 62.5mW 1% 0402	YAGEO	RC0402FR-07220RL	Digi-Key	311-220L RCT-ND	5
Fitted	R20, R21, R24, R25	R0402	22R	RES 22R 62.5mW 1% 0402	YAGEO	RC0402FR-0722RL	Digi-Key	311-22.0L RCT-ND	4
Fitted	R22, R23	R0402	8R2	RES 8R2 62.5mW 1% 0402	YAGEO	RC0402FR-078R2L	Digi-Key	13-RC0402FR-078R2LCT-ND	2
Fitted	S1, S2, S3	PTS636		BUTTON SPST 12V 50mA 6x3.5x4.3mm	C&K	PTS636 SF43 SMTR LFS	Digi-Key	CKN12311-1-ND	3
Fitted	TP2, TP3	5019		TP SMD 3.81x2.03mm	Keystone Electronics	5019	Digi-Key	36-5019CT-ND	2
Fitted	U1	USBL06-2SC6		IC Dual ESD Protection SOT23-6	STMicroelectronics	USBL06-2SC6	Digi-Key	497-5235-1-ND	1
Fitted	U2	ECS-2520MV-080-CN-TR		OSC 8MHz Enable/Disable 1.6V-3.6V 4-SMD 2.5x2mm	ECS Inc.	ECS-2520MV-080-CN-TR	Digi-Key	XC3029CT-ND	1
Fitted	U3	STM32F401CCU6		MCU ARM-Cortex-M4 256kB FLASH 64kB RAM 1.7-3.6V UQFPN48	STMicroelectronics	STM32F401CCU6	Digi-Key	497-17426-ND	1
Fitted	U4	STNS01PUR		Charger Single Lilon 5.4V 12-DFN	STMicroelectronics	STNS01PUR	Digi-Key	497-13880-1-ND	1
Fitted	U5, U8	TPS22919DCKR		POWER-DISTRIBUTION Single Switch 5.5V SOT363	Texas Instruments	TPS22919DCKR	Digi-Key	296-TPS22919DCKRCT-ND	2
Fitted	U6, U7, U9	TLV9002SIRUGR		OPAMP DUAL 1MHz 1.8-5.5V X2QFN	Texas Instruments	TLV9002SIRUGR	Digi-Key	296-TLV9002SIRUGRCT-ND	3
Fitted	U10	HC-12		RF Module UART	HC Tech	HC-12	AliExpress	HC-12	1

# WSBD V1.1

