

[illegible][illegible]

**BATTERY AND BATTERY CHARGER**

47346-0001  
USB\_B\_Micro

BQ24012  
U1

47346-0001  
USB\_B\_Micro

Shield

D+

D-

ID

GND

3.6V

D2

100Ω

3.6V

D1

100Ω

PACK+

MIKROE-1120  
BT1

PACK-

BAT

GND

**VOLTAGE REGULATOR TO MCU**

MCU\_PWR

GND

C6  
20μF

GND

C4  
20μF

GND

L1  
3.3μH

BAT

C3  
10μF

GND

R4  
750kΩ

C5  
68pF

R2  
820kΩ

R3  
143kΩ

U2  
MP2155GQ-P

VOUT

SW2

PGND

SWI

VIN

FB

AGND

VCC

MODE/SYNC

EN

GND

GND

GND

GND

GND

**VOLTAGE REGULATOR TO DISP**

BAT

GND

C7  
4.7μF

U3  
TPS60151DRV

VIN

ENA

VOUT

CP+

CP-

GND

C8  
2.2μF

DISP\_PWR

C9  
2.2μF

**MCU AND DISPLAY**

MCU\_PWR

GND

C10  
100nF

R5  
45kΩ

C11  
100nF

NRST

BOOT0

PC14

PC15

PB0

PB1

PB2

PB3

PB4

PB5

PB6

PB7

PB8

PA0

PA1

PA2

PA3

PA4

PA5

PA6

PA7

PA8

PA9

PA10

PA11

PA12

PA13

PA14

PA15

VSS

U4  
STM32L051K6U6

GND

S1  
MCPL3-AC-V

COM

NO

G

C1

G1

DISP\_PWR

VCC

SCL

SDA

D/C

CS

GND

U5  
SKU\_DFR0650

**Sheet: 1/1**  
**File: EMISYProject.kicad\_sch**  
**Title: WRISTWATCH WITH OLED DISPLAY**  
**Size: A4** **Date:** **Rev:**  
**KiCad E.D.A. 8.0.2** **Id: 1/1**

**BATTERY AND BATTERY CHARGER**

47346-0001  
USB\_B\_Micro

BQ24012  
U1

47346-0001  
USB\_B\_Micro

Shield

D+  
D-  
ID

GND

3.6V  
D2  
100Ω

3.6V  
D1  
100Ω

GND

STAT1  
STAT2  
PG  
ISET

STAT1  
STAT2  
PG

PACK+

PACK-

MIKROE-1120  
BT1

BAT

GND

**VOLTAGE REGULATOR TO MCU**

MCU\_PWR

GND

C6  
20μF

GND

C4  
20μF

GND

L1  
3.3μH

BAT

C3  
10μF

GND

R4  
750kΩ

C5  
68pF

R2  
820kΩ

R3  
143kΩ

U2  
MP2155GQ-P

VOUT  
SW2  
PGND  
SWI  
VIN

FB  
AGND  
VCC  
MODE/SYNC  
EN

GND

GND

GND

GND

GND

GND

**VOLTAGE REGULATOR TO DISP**

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4.7μF

U3  
TPS60151DRV

VIN

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CP+

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GND

C8  
2.2μF

C9  
2.2μF

DISP\_PWR

**MCU AND DISPLAY**

MCU\_PWR

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45kΩ

C11  
100nF

NRST

BOOT0

PC14

PC15

PB0

PB1

PB2

PB3

PB4

PB5

PB6

PB7

PB8

PA0

PA1

PA2

PA3

PA4

PA5

PA6

PA7

PA8

PA9

PA10

PA11

PA12

PA13

PA14

PA15

VSS

U4  
STM32L051K6U6

GND

C10  
100nF

MCU\_PWR

GND

S1  
MCPL3-AC-V

COM

NO

G

C1

GND

DISP\_PWR

VCC

SCL

SDA

D/C

CS

GND

U5  
SKU\_DFR0650

STAT1

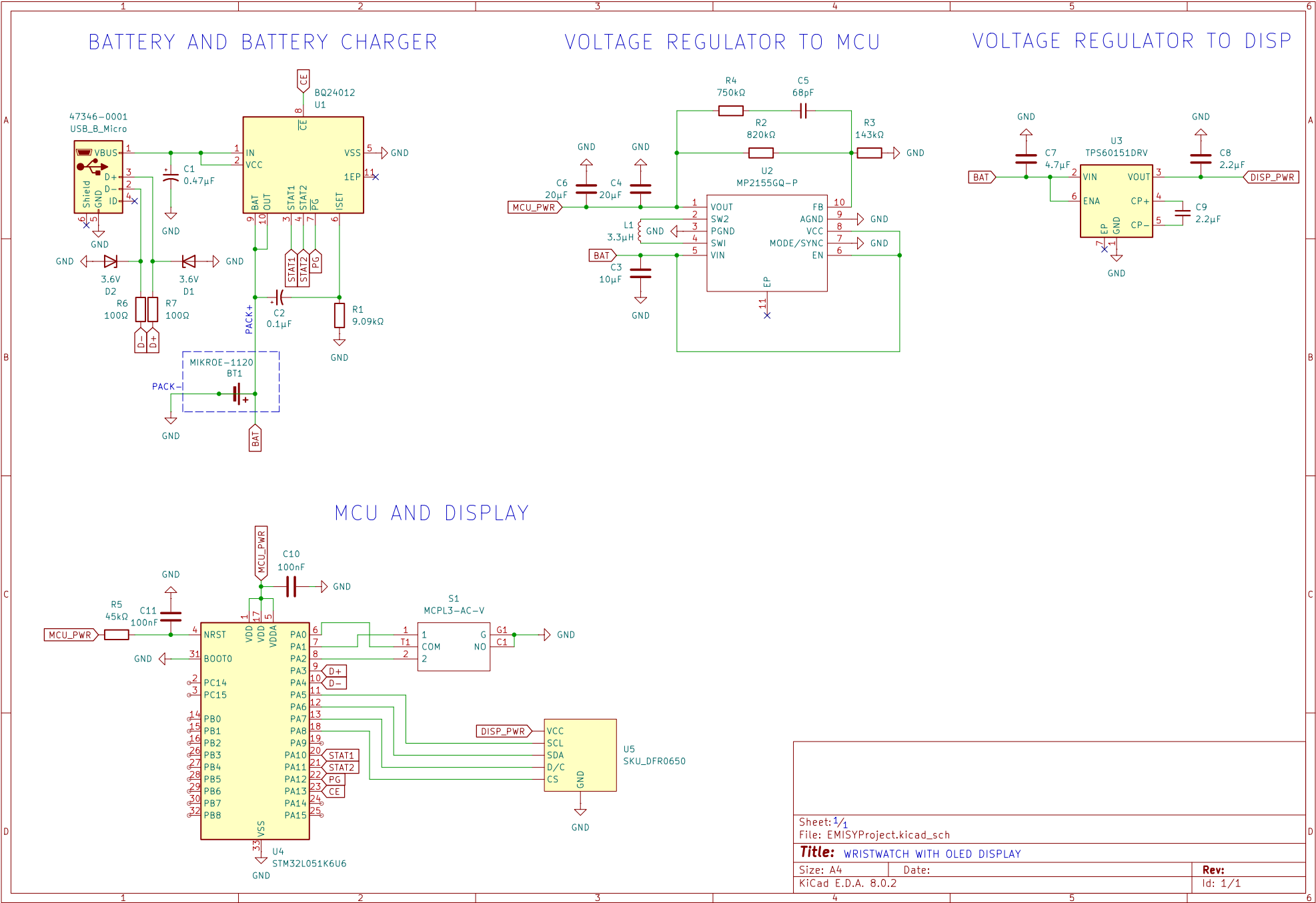
STAT2

PG

CE

GND

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MP2155GQ-P  
U2

**VOLTAGE REGULATOR TO DISP**

TPS60151DRV  
U3

**MCU AND DISPLAY**

MCPL3-AC-V  
S1

SKU\_DFR0650  
U5

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