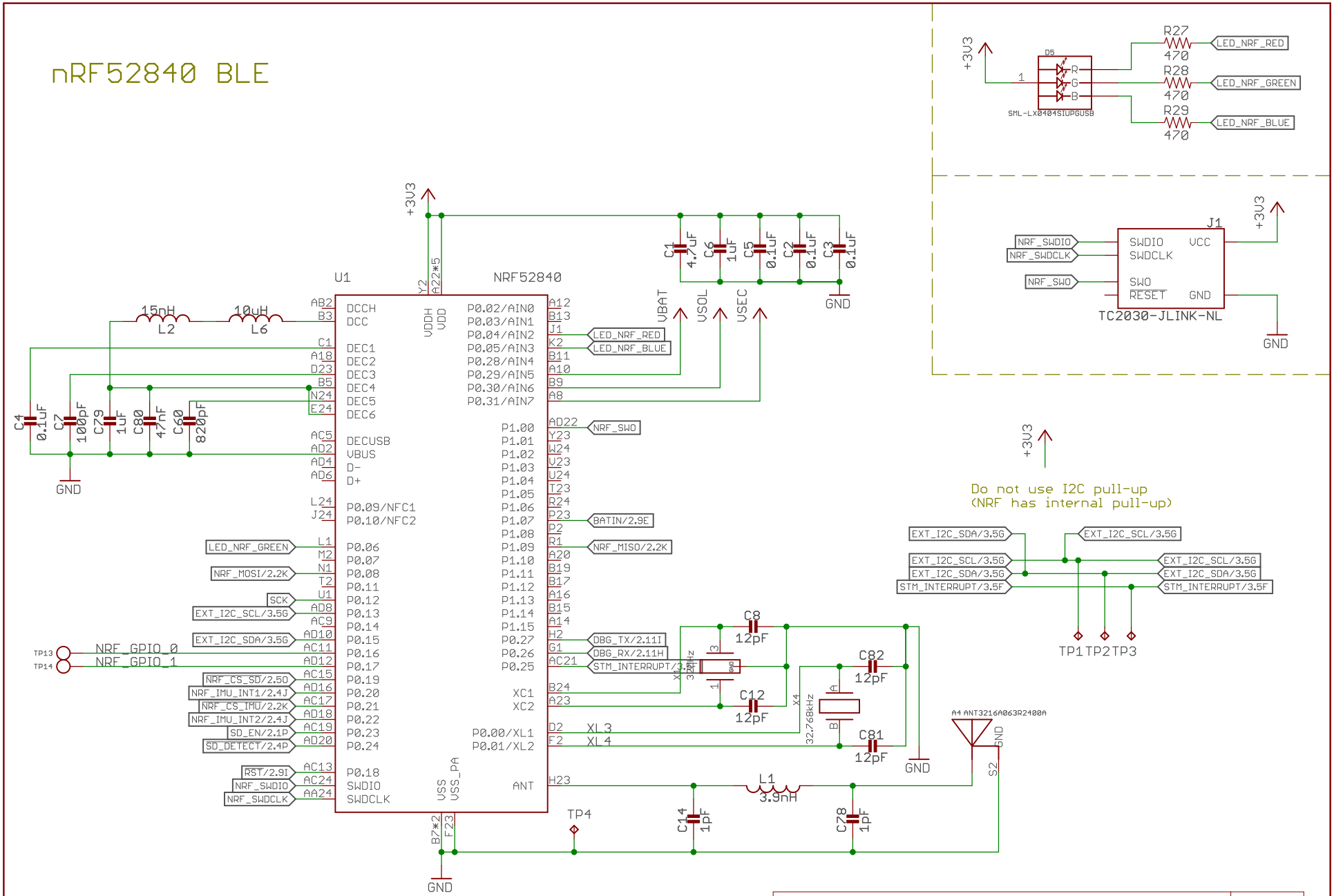
nRF52840 BLE



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Author: Andreas Biri		
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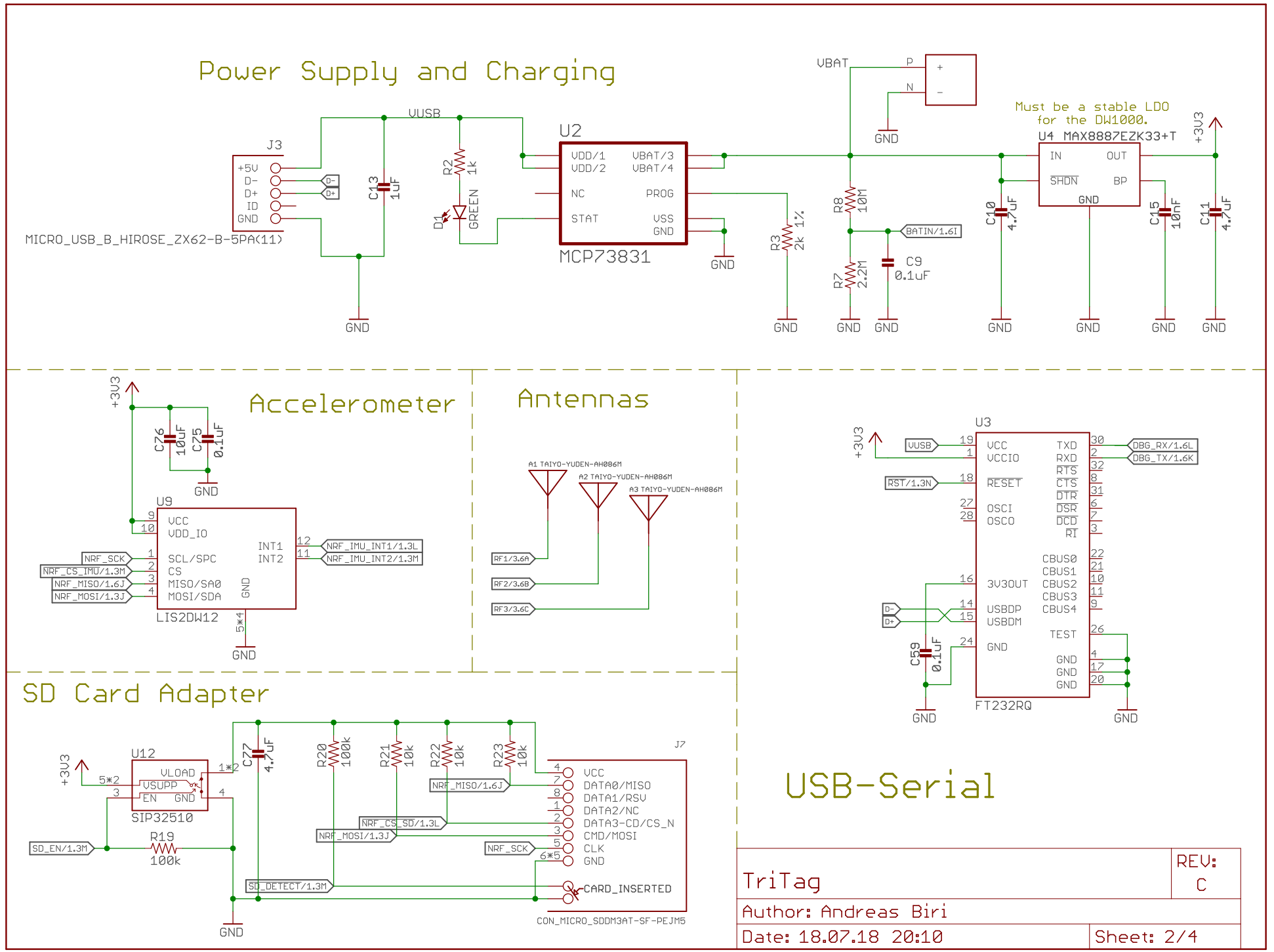
Power Supply and Charging
VUSB
J3
+5V
D-
D+
ID
GND
MICRO_USB_B_HIROSE_ZX62-B-5PA(11)
C13
1uF
R2
1k
D1
GREEN
U2
VDD/1
VDD/2
NC
STAT
VBAT/3
VBAT/4
PROG
VSS
GND
MCP73831
R3
2k 1%
VBAT
P
N
R8
10M
R7
2.2M
C9
0.1uF
BATIN/1.6I
Must be a stable LDO
for the DW1000.
U4 MAX8887EZK33+T
IN
OUT
SHDN
BP
C10
4.7uF
C15
10nF
C11
4.7uF
+3V3
Accelerometer
C76
10uF
C75
0.1uF
U9
VCC
VDD_IO
SCL/SPC
CS
MISO/SA0
MOSI/SDA
INT1
INT2
GND
NRF_SCK
NRF_CS_IMU/1.3M
NRF_MISO/1.6J
NRF_MOSI/1.3J
NRF_IMU_INT1/1.3L
NRF_IMU_INT2/1.3M
LIS2DW12
Antennas
A1 TAIYO-YUDEN-AH086M
A2 TAIYO-YUDEN-AH086M
A3 TAIYO-YUDEN-AH086M
RF1/3.6A
RF2/3.6B
RF3/3.6C
U3
VUSB
RST/1.3N
VCC
VCCIO
RESET
OSCI
OSCO
3V3OUT
USBDP
USBDM
GND
TXD
RXD
RTS
CTS
DTR
DSR
DCD
RI
CBUS0
CBUS1
CBUS2
CBUS3
CBUS4
TEST
DBG_RX/1.6L
DBG_TX/1.6K
C59
0.1uF
FT232RQ
SD Card Adapter
U12
VLOAD
VUSPP
EN
GND
SIP32510
SD_EN/1.3M
R19
100k
C77
4.7uF
R20
100k
R21
10k
R22
10k
R23
10k
J7
VCC
DATA0/MISO
DATA1/RSV
DATA2/NC
DATA3-CD/CS_N
CMD/MOSI
CLK
GND
CARD_INSERTED
SD_DETECT/1.3M
CON_MICRO_SDDM3AT-SF-PEJM5
USB-Serial
TriTag
REV:
C
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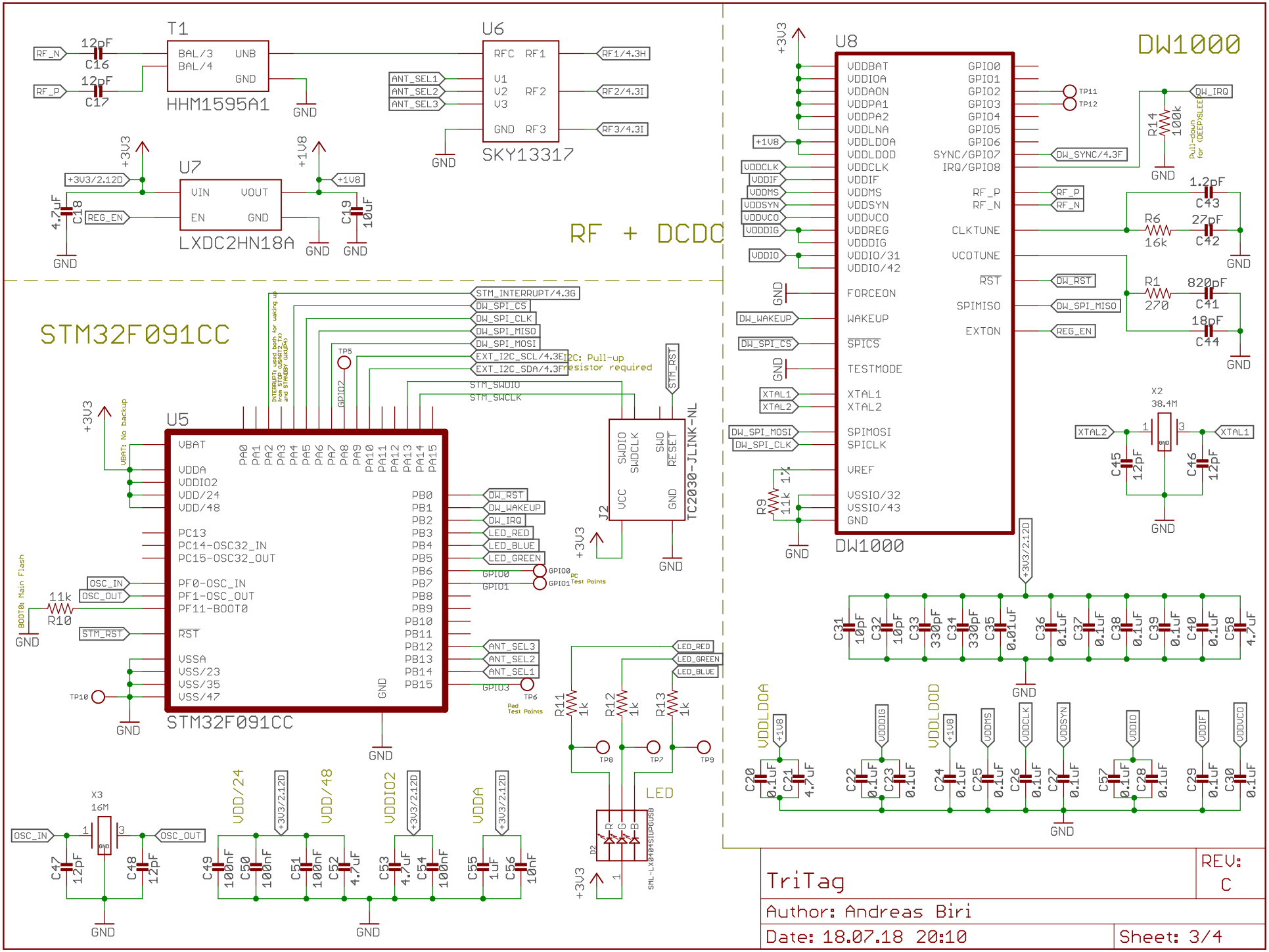
T1
HHM1595A1
U6
SKY13317
U7
LXDC2HN18A
RF + DCDC
STM32F091CC
U5
STM32F091CC
U8
DW1000
DW1000
TC2030-JLINK-NL
LED
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EXTERNAL SIGNALS

The following signals must be integrated into all des

Signals

EXT_I2C_SCL/3.5G

EXT_I2C_SDA/3.5G

Note: Additional I2C pull-up r

DW_SYNC/3.10C

STM_INTERRUPT/3.5F

Antennas

RF1/3.6A

RF2/3.6B

RF3/3.6C

Guarantee 120° offset in-between

RF traces should respect the kee
Furthermore, try to keep them as

Power Supply

+3V3/3.10K

Be aware that the DecaWave is v

We suggest using the "MAX8887EZ
You can find a reference layout

:igns using the design block:

resistors required to +3V3

antennas to maximize polarization difference and antenna diversity

epout zones and be surrounded by a via shield.
 short and straight as possible

ery sensitive regarding its power supply.

?K33+T" from Maxim Integrated.
 at github.com/lab11/polypoint/pcb/tritag.

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