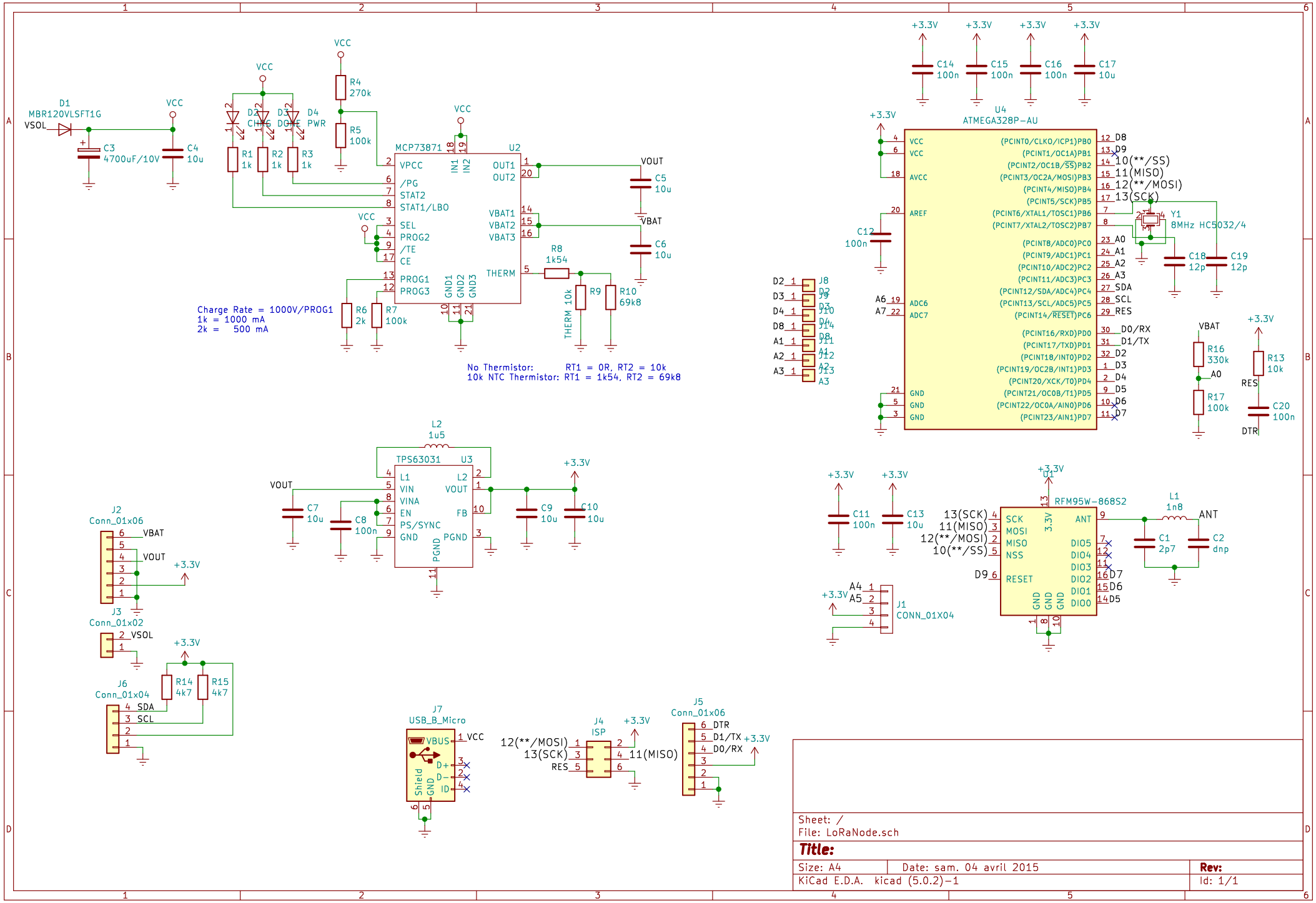
D1
MBR120VLSFT1G
VSOL
VCC
C3
4700uF/10V
C4
10u
D2
CHRG
D3
DONE
D4
PWR
R1
1k
R2
1k
R3
1k
R4
270k
R5
100k
MCP73871
U2
VPCC
/PG
STAT2
STAT1/LBO
SEL
PROG2
/TE
CE
PROG1
PROG3
IN1
IN2
OUT1
OUT2
VBAT1
VBAT2
VBAT3
THERM
GND1
GND2
GND3
VOUT
VBAT
C5
10u
C6
10u
R8
1k54
R9
THERM 10k
R10
69k8
R6
2k
R7
100k
Charge Rate = 1000V/PROG1
1k = 1000 mA
2k = 500 mA
No Thermistor: RT1 = 0R, RT2 = 10k
10k NTC Thermistor: RT1 = 1k54, RT2 = 69k8
+3.3V
C14
100n
C15
100n
C16
100n
C17
10u
U4
ATMEGA328P-AU
VCC
AVCC
AREF
ADC6
ADC7
GND
(PCINT0/CLKO/ICP1)PB0
(PCINT1/OC1A)PB1
(PCINT2/OC1B/SS)PB2
(PCINT3/OC2A/MOSI)PB3
(PCINT4/MISO)PB4
(PCINT5/SCK)PB5
(PCINT6/XTAL1/TOSC1)PB6
(PCINT7/XTAL2/TOSC2)PB7
(PCINT8/ADC0)PC0
(PCINT9/ADC1)PC1
(PCINT10/ADC2)PC2
(PCINT11/ADC3)PC3
(PCINT12/SDA/ADC4)PC4
(PCINT13/SCL/ADC5)PC5
(PCINT14/RESET)PC6
(PCINT16/RXD)PD0
(PCINT17/TXD)PD1
(PCINT18/INT0)PD2
(PCINT19/OC2B/INT1)PD3
(PCINT20/XCK/T0)PD4
(PCINT21/OC0B/T1)PD5
(PCINT22/OC0A/AIN0)PD6
(PCINT23/AIN1)PD7
D8
D9
10(**/SS)
11(MISO)
12(**/MOSI)
13(SCK)
A0
A1
A2
A3
SDA
SCL
RES
D0/RX
D1/TX
D2
D3
D4
D5
D6
D7
Y1
8MHz HC5032/4
C12
100n
C18
12p
C19
12p
J8
VBAT
R16
330k
R17
100k
R13
10k
C20
100n
DTR
L2
1u5
TPS63031
U3
L1
VIN
VINA
EN
PS/SYNC
GND
L2
VOUT
FB
PGND
C7
10u
C8
100n
C9
10u
C10
10u
J2
Conn_01x06
J3
Conn_01x02
J6
Conn_01x04
R14
4k7
R15
4k7
C11
100n
C13
10u
U1
RFM95W-868S2
SCK
MOSI
MISO
NSS
RESET
ANT
DIO5
DIO4
DIO3
DIO2
DIO1
DIO0
L1
1n8
C1
2p7
C2
dnp
J1
CONN_01X04
J7
USB_B_Micro
VBUS
Shield
GND
D+
D-
ID
J4
ISP
J5
Conn_01x06
Sheet: /
File: LoRaNode.sch
Title:
Size: A4
Date: sam. 04 avril 2015
Rev:
KiCad E.D.A. kicad (5.0.2)-1
Id: 1/1