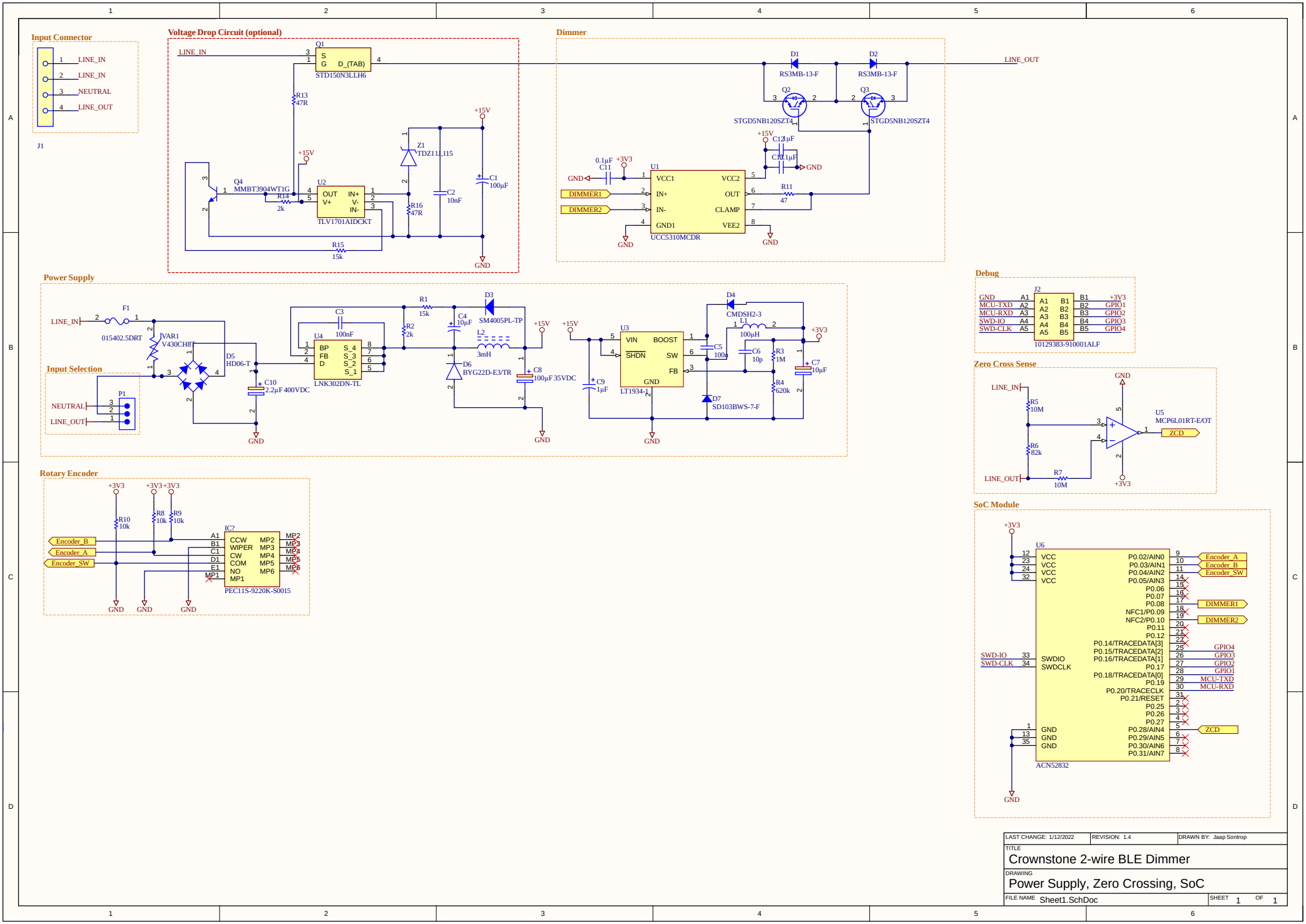
Input Connector
LINE_IN
LINE_IN
NEUTRAL
LINE_OUT
J1
Voltage Drop Circuit (optional)
Q1
STD150N3LLH6
R13
47R
Q4
MMBT3904WT1G
R14
2k
U2
TLV1701AIDCKT
Z1
TDZ11,115
R16
47R
C2
10nF
C1
100µF
R15
15k
+15V
GND
Dimmer
D1
RS3MB-13-F
D2
RS3MB-13-F
Q2
STGD5NB120SZT4
Q3
STGD5NB120SZT4
C12
1µF
C13
1µF
0.1µF
C11
+3V3
U1
UCC5310MCDR
VCC1
IN+
IN-
GND1
VCC2
OUT
CLAMP
VEE2
DIMMER1
DIMMER2
R11
47
Power Supply
F1
015402.5DRT
VAR1
V430CH8T
D5
HD06-T
C10
2.2µF 400VDC
U4
LNK302DN-TL
C3
100nF
R1
15k
R2
2k
C4
10µF
D3
SM4005PL-TP
L2
3mH
D6
BYG22D-E3/TR
C8
100µF 35VDC
U3
LT1934-1
VIN
SHDN
BOOST
SW
FB
GND
C9
1µF
D4
CMDSH2-3
L1
100µH
C5
100p
C6
10p
R3
1M
R4
620k
D7
SD103BWS-7-F
C7
10µF
Input Selection
P1
NEUTRAL
LINE_OUT
Rotary Encoder
IC?
PEC11S-9220K-S0015
R10
10k
R8
10k
R9
10k
Encoder_B
Encoder_A
Encoder_SW
Debug
J2
10129383-910001ALF
GND
MCU-TXD
MCU-RXD
SWD-IO
SWD-CLK
+3V3
GPIO1
GPIO2
GPIO3
GPIO4
Zero Cross Sense
U5
MCP6L01RT-E/OT
R5
10M
R6
82k
R7
10M
ZCD
SoC Module
U6
ACN52832
VCC
GND
SWDIO
SWDCLK
P0.02/AIN0
P0.03/AIN1
P0.04/AIN2
P0.05/AIN3
P0.06
P0.07
P0.08
NFC1/P0.09
NFC2/P0.10
P0.11
P0.12
P0.14/TRACEDATA[3]
P0.15/TRACEDATA[2]
P0.16/TRACEDATA[1]
P0.17
P0.18/TRACEDATA[0]
P0.19
P0.20/TRACECLK
P0.21/RESET
P0.25
P0.26
P0.27
P0.28/AIN4
P0.29/AIN5
P0.30/AIN6
P0.31/AIN7
LAST CHANGE: 1/12/2022
REVISION: 1.4
DRAWN BY: Jaap Sontrop
TITLE
Crownstone 2-wire BLE Dimmer
DRAWING
Power Supply, Zero Crossing, SoC
FILE NAME Sheet1.SchDoc
SHEET 1 OF 1