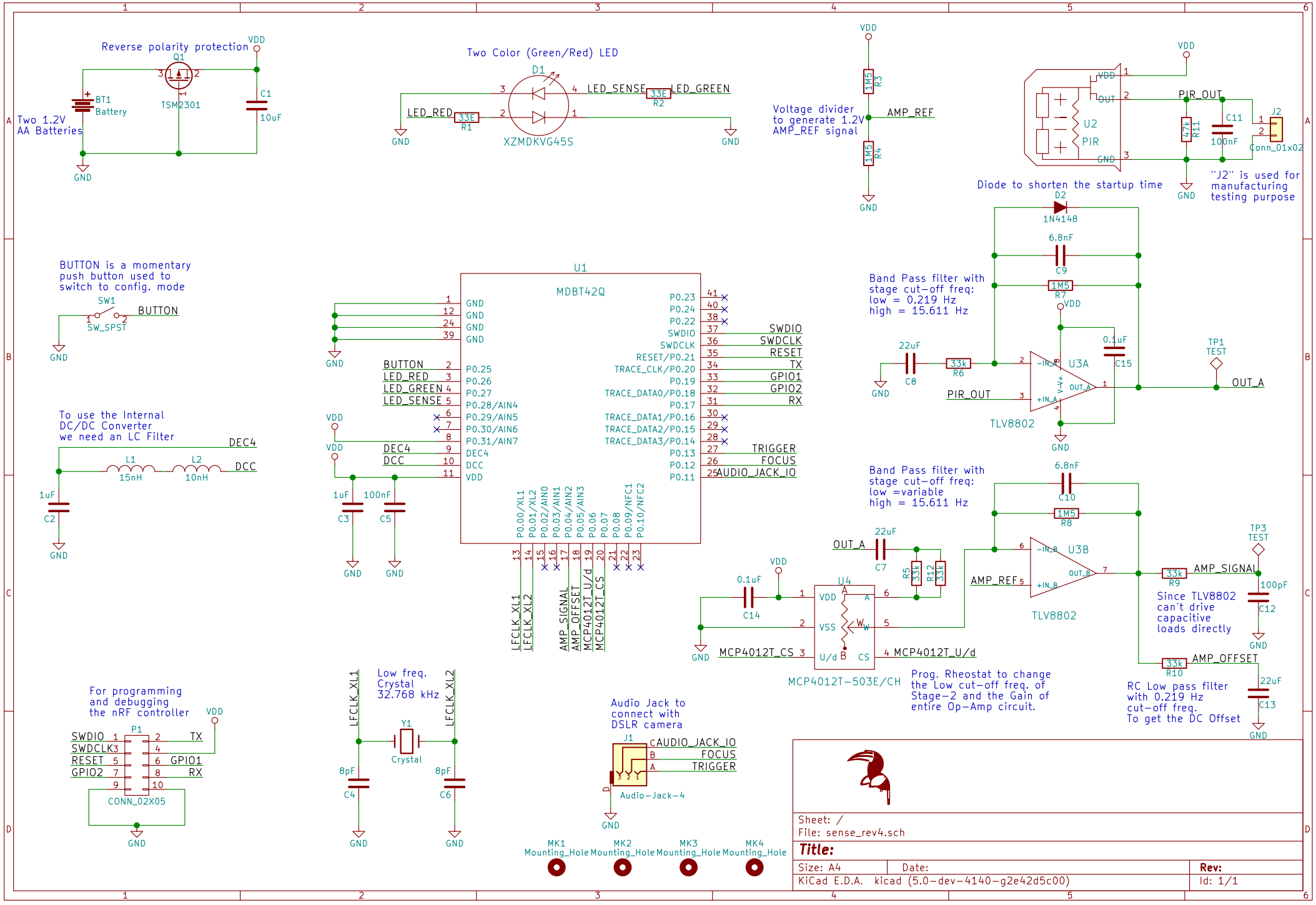
Reverse polarity protection
Q1
TSM2301
VDD
BT1
Battery
Two 1.2V
AA Batteries
C1
10uF
GND
Two Color (Green/Red) LED
D1
XZMDKVG45S
LED_SENSE
LED_GREEN
LED_RED
33E
R1
R2
Voltage divider
to generate 1.2V
AMP_REF signal
1M5
R3
R4
AMP_REF
U2
PIR
OUT
PIR_OUT
47k
R11
C11
100nF
J2
Conn_01x02
"J2" is used for
manufacturing
testing purpose
Diode to shorten the startup time
D2
1N4148
6.8nF
C9
Band Pass filter with
stage cut-off freq:
low = 0.219 Hz
high = 15.611 Hz
R7
22uF
C8
33k
R6
0.1uF
C15
U3A
TLV8802
TP1
TEST
OUT_A
BUTTON is a momentary
push button used to
switch to config. mode
SW1
SW_SPST
BUTTON
U1
MDBT42Q
GND
BUTTON
LED_RED
LED_GREEN
LED_SENSE
DEC4
DCC
VDD
P0.25
P0.26
P0.27
P0.28/AIN4
P0.29/AIN5
P0.30/AIN6
P0.31/AIN7
P0.23
P0.24
P0.22
SWDIO
SWDCLK
RESET/P0.21
TRACE_CLK/P0.20
P0.19
TRACE_DATA0/P0.18
P0.17
TRACE_DATA1/P0.16
TRACE_DATA2/P0.15
TRACE_DATA3/P0.14
P0.13
P0.12
P0.11
RESET
TX
GPIO1
GPIO2
RX
TRIGGER
FOCUS
AUDIO_JACK_IO
P0.00/XL1
P0.01/XL2
P0.02/AIN0
P0.03/AIN1
P0.04/AIN2
P0.05/AIN3
P0.06
P0.07
P0.08
P0.09/NFC1
P0.10/NFC2
LFCLK_XL1
LFCLK_XL2
AMP_SIGNAL
AMP_OFFSET
MCP4012T_U/d
MCP4012T_CS
To use the Internal
DC/DC Converter
we need an LC Filter
L1
15nH
L2
10nH
1uF
C2
C3
100nF
C5
Band Pass filter with
stage cut-off freq:
low =variable
high = 15.611 Hz
6.8nF
C10
1M5
R8
U3B
TLV8802
TP3
TEST
AMP_SIGNAL
33k
R9
100pF
C12
Since TLV8802
can't drive
capacitive
loads directly
AMP_OFFSET
R10
22uF
C13
RC Low pass filter
with 0.219 Hz
cut-off freq.
To get the DC Offset
OUT_A
C7
R5
33k
R12
33k
0.1uF
C14
U4
MCP4012T-503E/CH
MCP4012T_CS
MCP4012T_U/d
Prog. Rheostat to change
the Low cut-off freq. of
Stage-2 and the Gain of
entire Op-Amp circuit.
For programming
and debugging
the nRF controller
P1
SWDIO
SWDCLK
RESET
GPIO2
TX
GPIO1
RX
CONN_02X05
Low freq.
Crystal
32.768 kHz
Y1
Crystal
8pF
C4
C6
Audio Jack to
connect with
DSLR camera
J1
AUDIO_JACK_IO
FOCUS
TRIGGER
Audio-Jack-4
MK1
MK2
MK3
MK4
Mounting_Hole
Sheet: /
File: sense_rev4.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad (5.0-dev-4140-g2e42d5c00)
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