

A

A

B

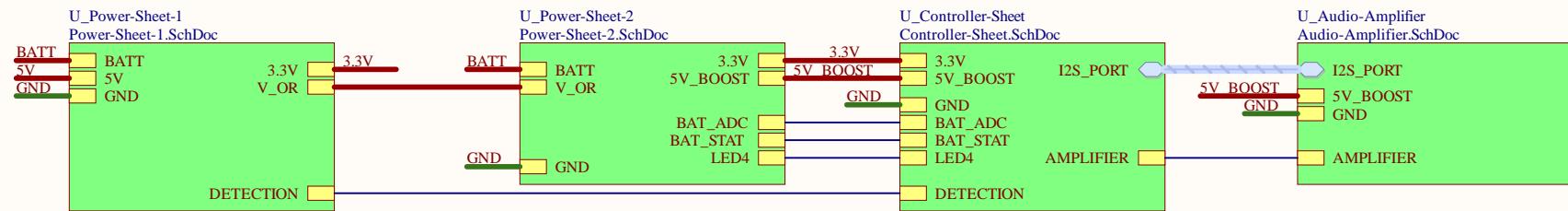
B

C

C

D

D



Title: Top-Sheet.SchDoc

File: IoT-Speaker-v1.3.PrjPcb

Date: 08/04/2024	Page Num: 1
------------------	-------------

Drawn By: Huzaifa Ali	Page Total: 5
-----------------------	---------------

VUSB trace current 2A

VUSB 5V CHARGE INPUT

VUSB

A4/B9
B4/A9VBUS
VBUSD+
D+D-
D-SHELL
SHELLSHELLS3
S4R69
1MC79
4.7nF

GND

CC1
CC2SBU1
SBU2GND
GNDS1
S2SHELL
SHELL

TYPE-C-31-M-12

A5 R1
B5 R2
5.1K
5.1K

GND

A8
B8

GND

A1/B12
B1/A12

GND

C4
C1210nF
10nF

GND

FB7

GND

C13
10uF

GND

5V

GND

Decoupling capacitors should be placed close to each VBUS pin

ESD Diode is to be placed in manner that it has minimum impedance path with VBUS

BATTERY INPUT

J1

1
2

B2B-XH-A(LF)(SN)

Battery Capacity =

4.2V 1500mA

GND

BATT

C2
100nFC1
10uF

GND

BATTERY CHARGING CIRCUIT

5V

C5
10uFC3
100nF

GND

GND

LED2
RED

DNP

DNP

STDBY

CHRG

R3
330R

R4

CHRG

TP4056-42-ESOP8

U1

VCC

CE

BAT

TEMP

PROG

GND

GND

9

R5
1.2K

GND

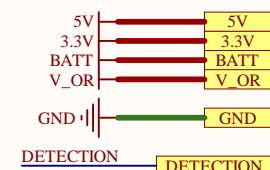
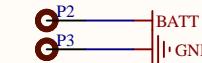
C6
10uF

GND

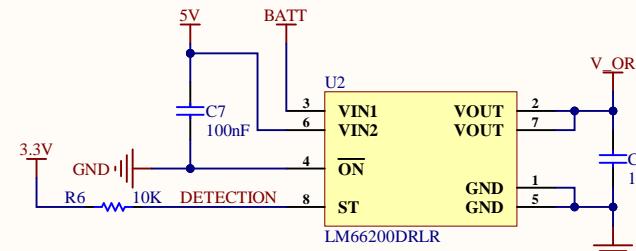
0.1uF capacitor should be placed closest to VCC pin

Place LED 2 close to USB port for visibility

Battery Charging current = 1000mA

TEST POINTS

DETECTION

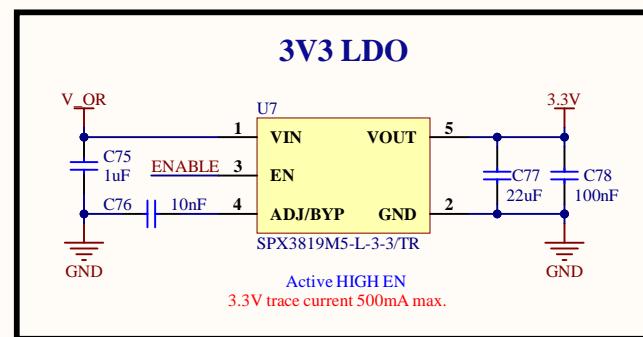
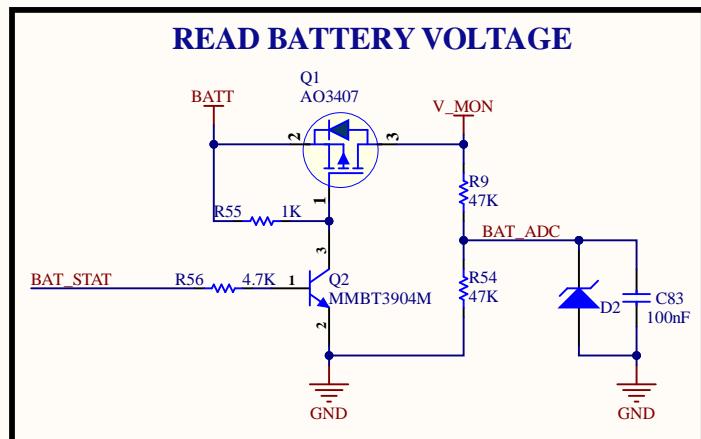
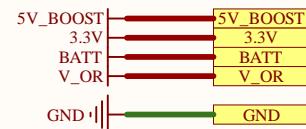
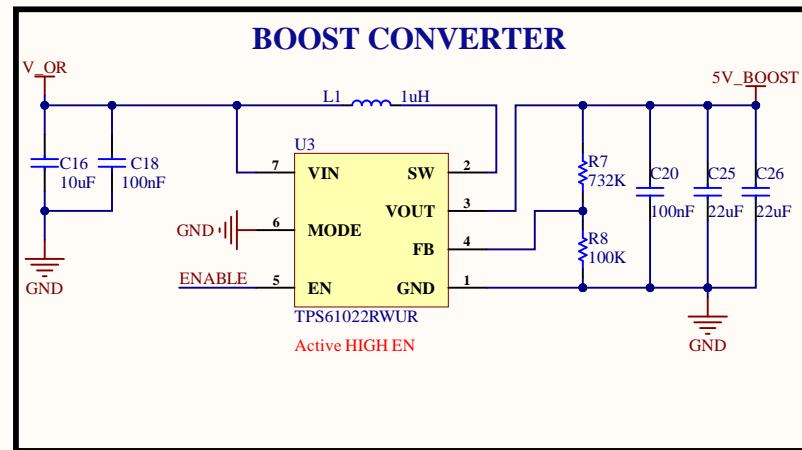
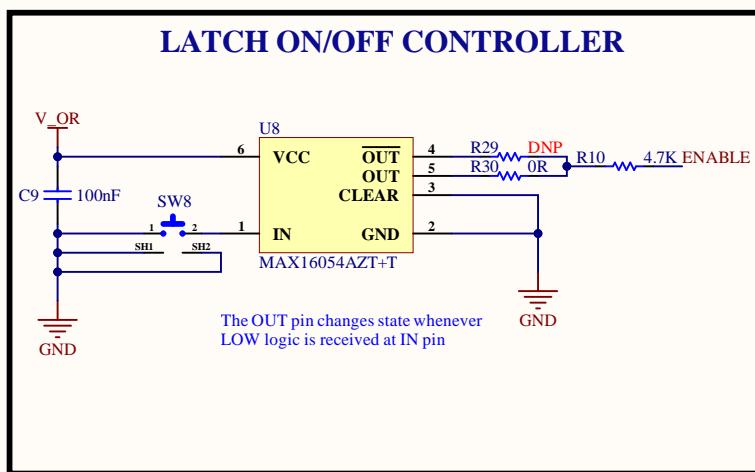
POWER SUPPLY ORING CIRCUITRY

Title: Power-Sheet-1.SchDoc

File: IoT-Speaker-v1.3.PpjPcb

Date: 08/04/2024 Page Num: 2

Drawn By: Huzaifa Ali Page Total: 5

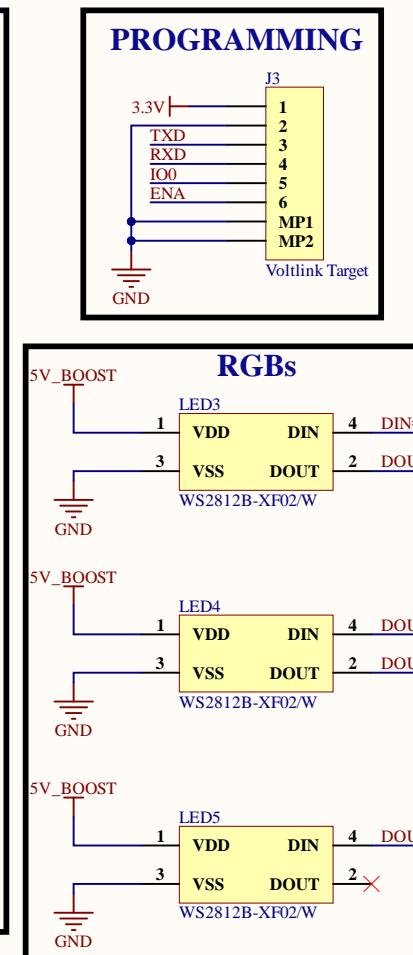
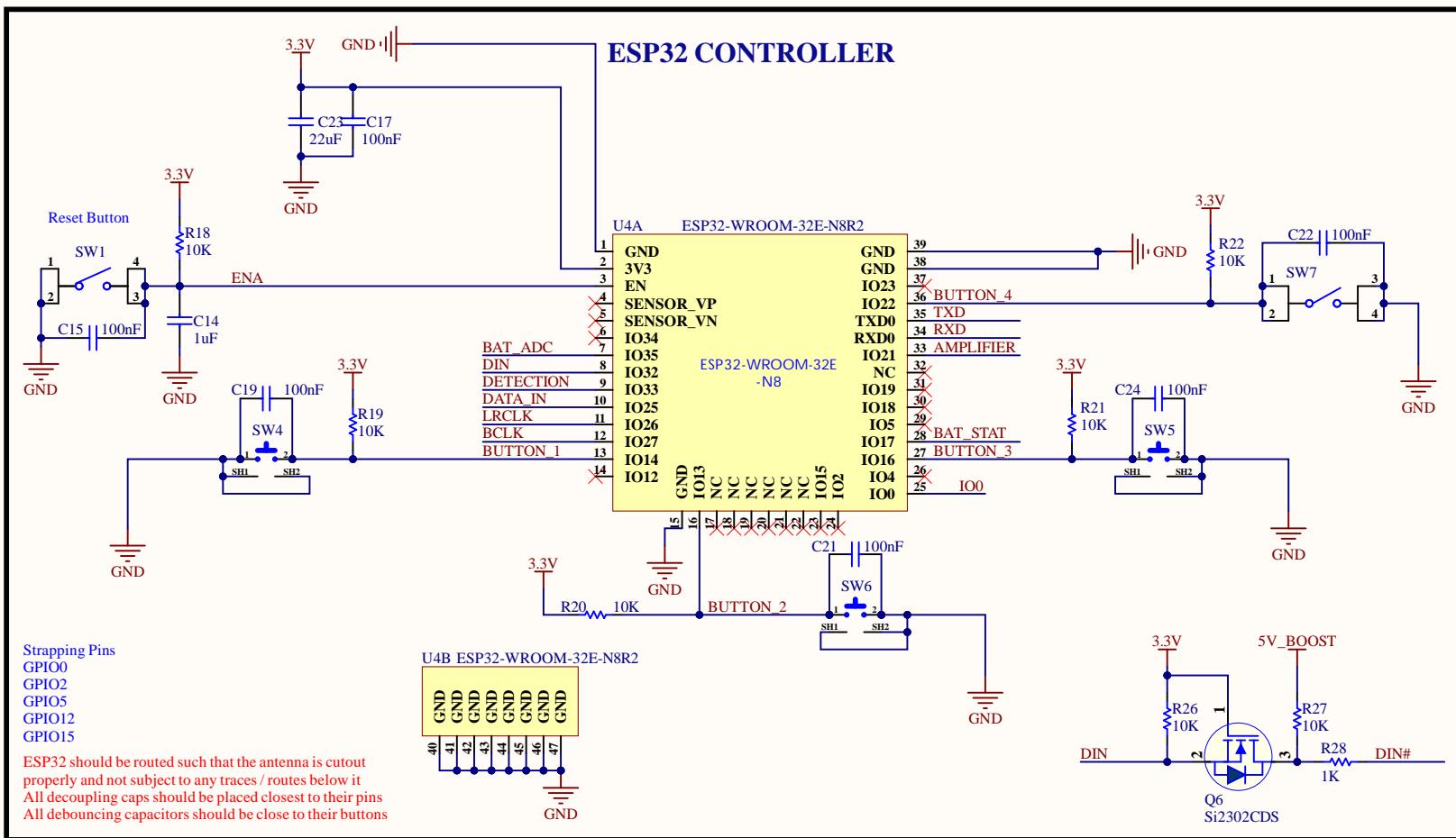


Title: Power-Sheet-2.SchDoc

File: IoT-Speaker-v1.3.PpjPcb

Date: 08/04/2024 Page Num: 3

Drawn By: Huzaifa Ali Page Total: 5

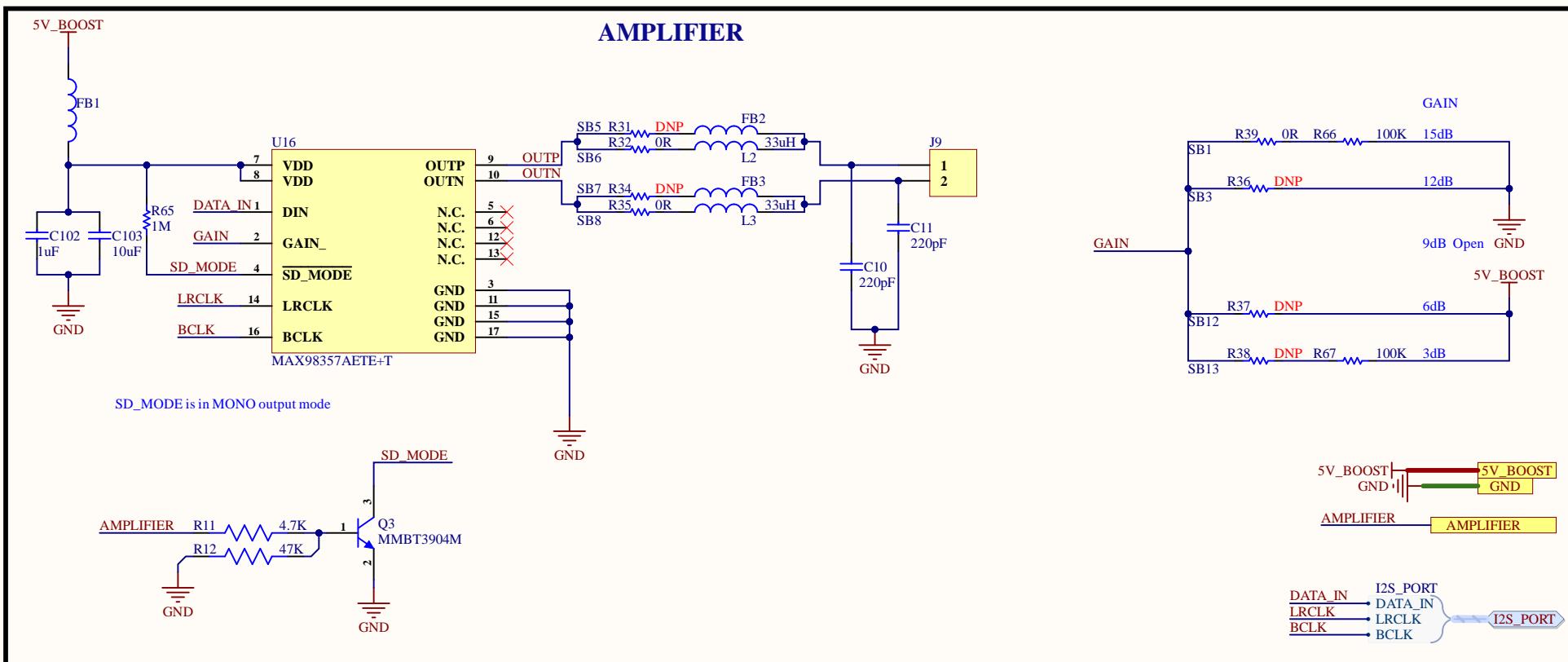


Title: Controller-Sheet.SchDoc

File: IoT-Speaker-v1.3.PpjPcb

Date: 08/04/2024 Page Num: 4

Drawn By: Huzaifa Ali Page Total: 5



Title: Audio-Amplifier.SchDoc

File: IoT-Speaker-v1.3.PrjPcb

Date: 08/04/2024	Page Num: 5
------------------	-------------

Drawn By: Huzaifa Ali	Page Total: 5
-----------------------	---------------