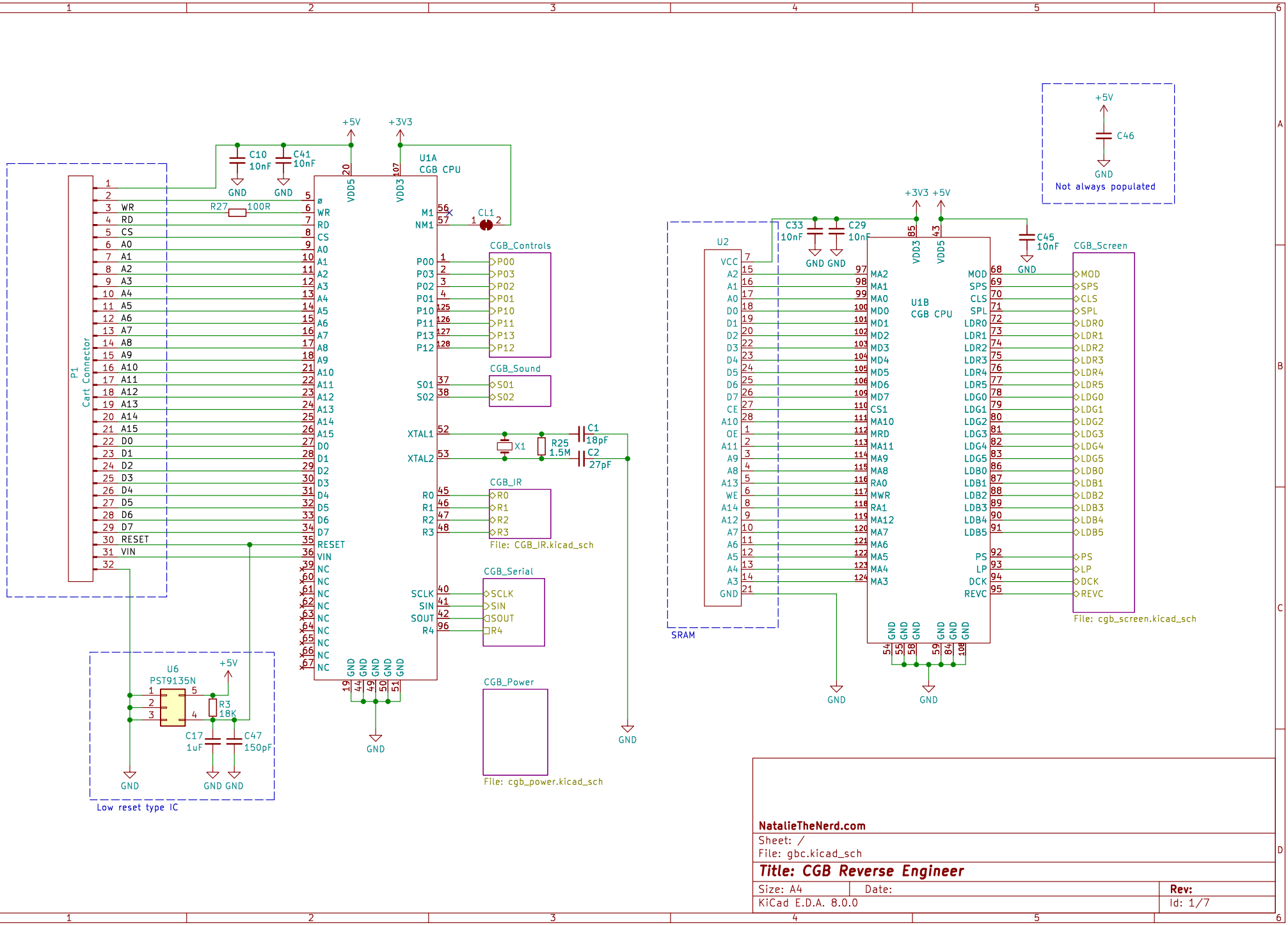
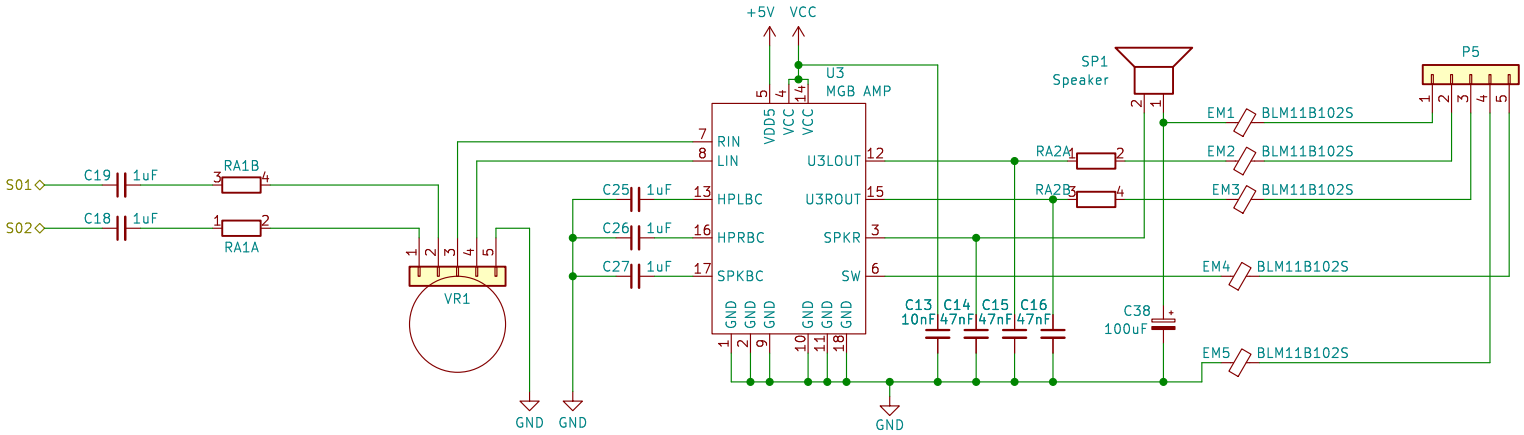

P1
Cart Connector
U1A
CGB CPU
U1B
CGB CPU
U2
SRAM
U6
PST9135N
Low reset type IC
CGB_Controls
CGB_Sound
CGB_IR
CGB_Serial
CGB_Power
CGB_Screen
File: CGB_IR.kicad_sch
File: cgb_power.kicad_sch
File: cgb_screen.kicad_sch
Not always populated
C10 10nF
C41 10nF
C33 10nF
C29 10nF
C45 10nF
C46
C1 18pF
C2 27pF
C17 1uF
C47 150pF
R25 1.5M
R27 100R
R3 18K
X1
CL1
+5V
+3V3
GND
NatalieTheNerd.com
Sheet: /
File: gbc.kicad_sch
Title: CGB Reverse Engineer
Size: A4
Date:
Rev:
KiCad E.D.A. 8.0.0
Id: 1/7



NOTES:

VCC = battery voltage

RA1A,B: RA1 resistor array 510R
RA2A,B: RA2 resistor array 15R
VR1 10K x2
EM1–5 1000Ω1000MHz ferrite bead

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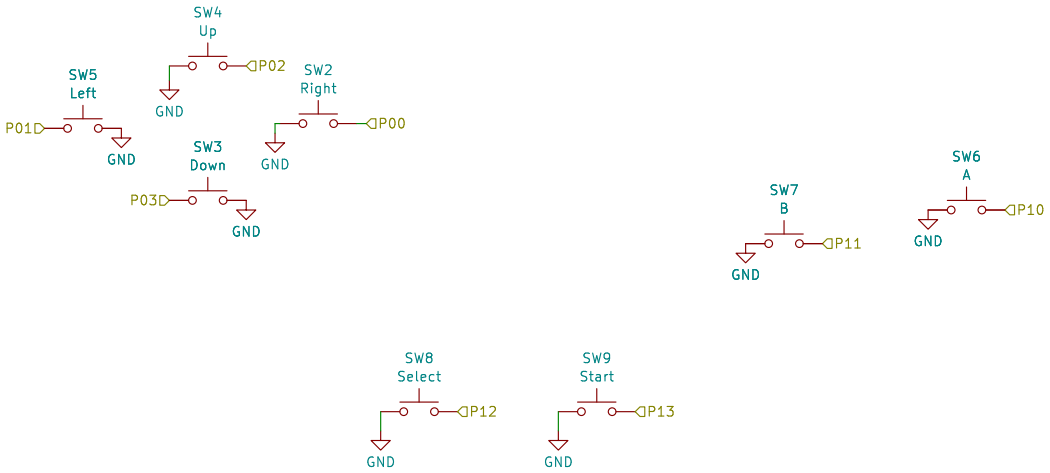
Sheet: /CGB_Sound/
File: CGB_Sound.kicad_sch

Title: CGB Reverse Engineer

Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.0		Id: 2/7



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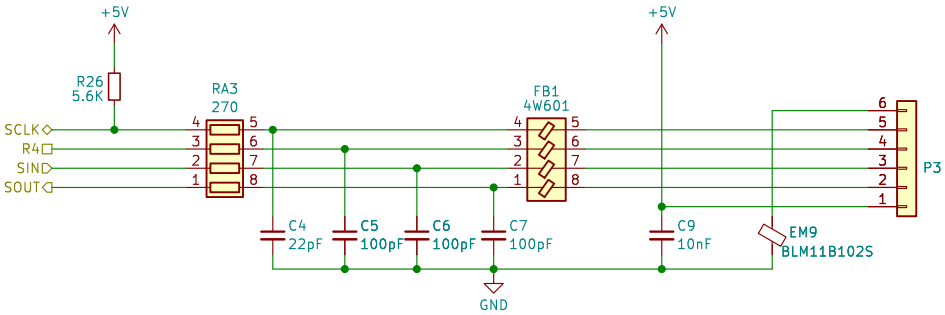
Sheet: /CGB_Controls/
File: CGB_Controls.kicad_sch

Title: CGB Reverse Engineer

Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.0		Id: 3/7



NOTES:

FB1 600Ω100MHz ferrite bead array
EM9 1000Ω 1000MHz ferrite bead

NatalieTheNerd.com		
Sheet: /CGB_Serial/		
File: CGB_Serial.kicad_sch		
Title: CGB Reverse Engineer		
Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.0		Id: 4/7

IR diode circuit

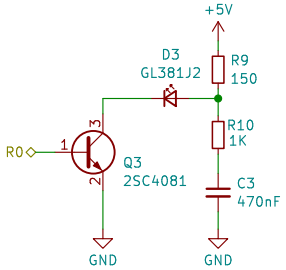
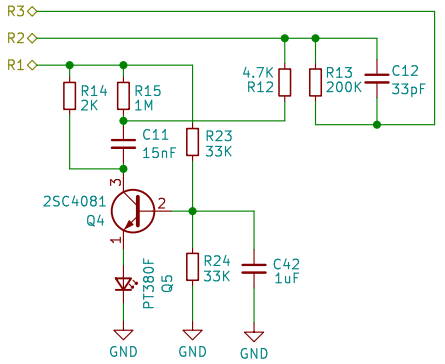


photo transistor circuit



NOTES:

D3 Infrared Emitting Diode
Q3,4 NPN transistor
Q5 photo transistor

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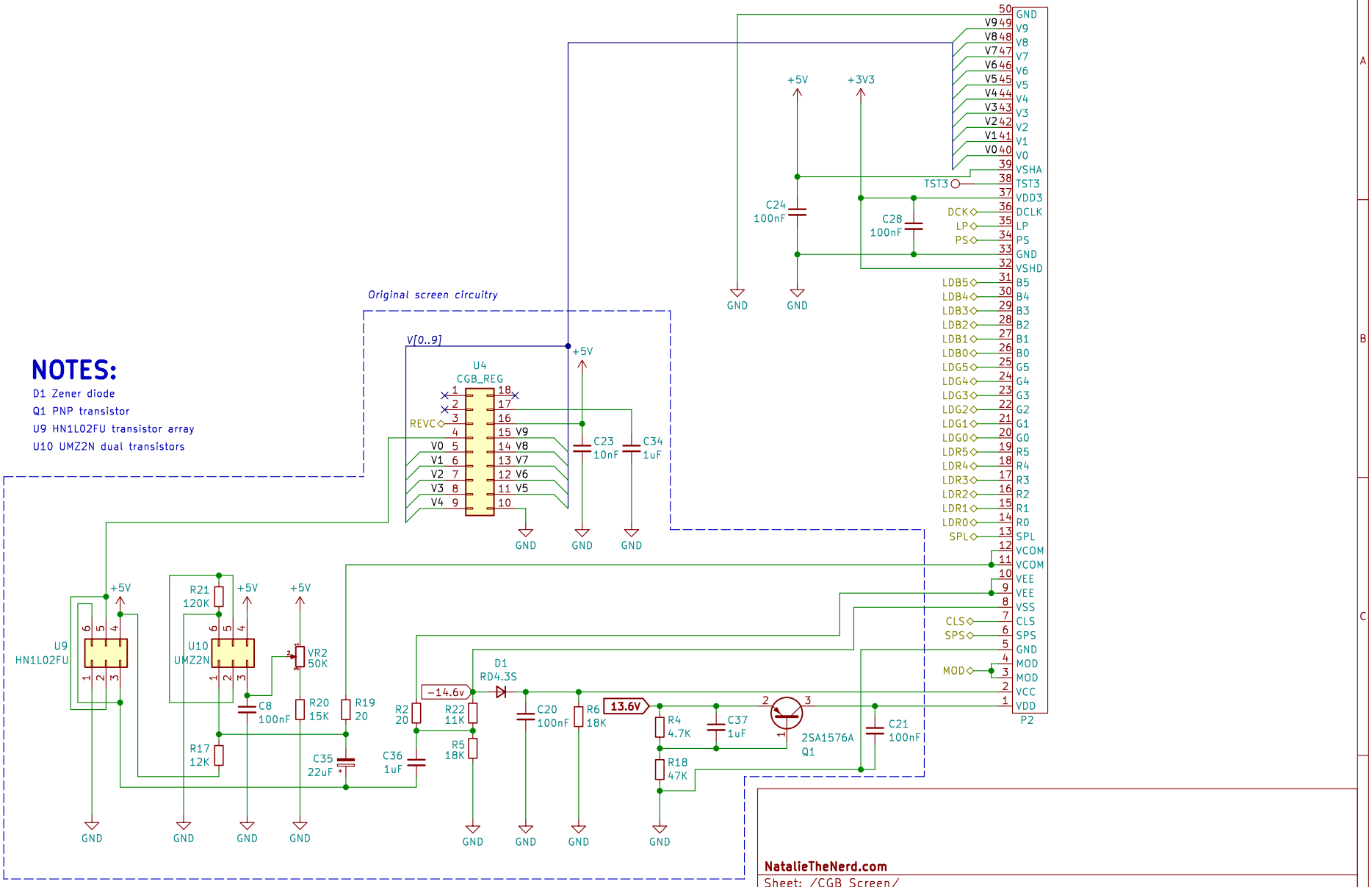
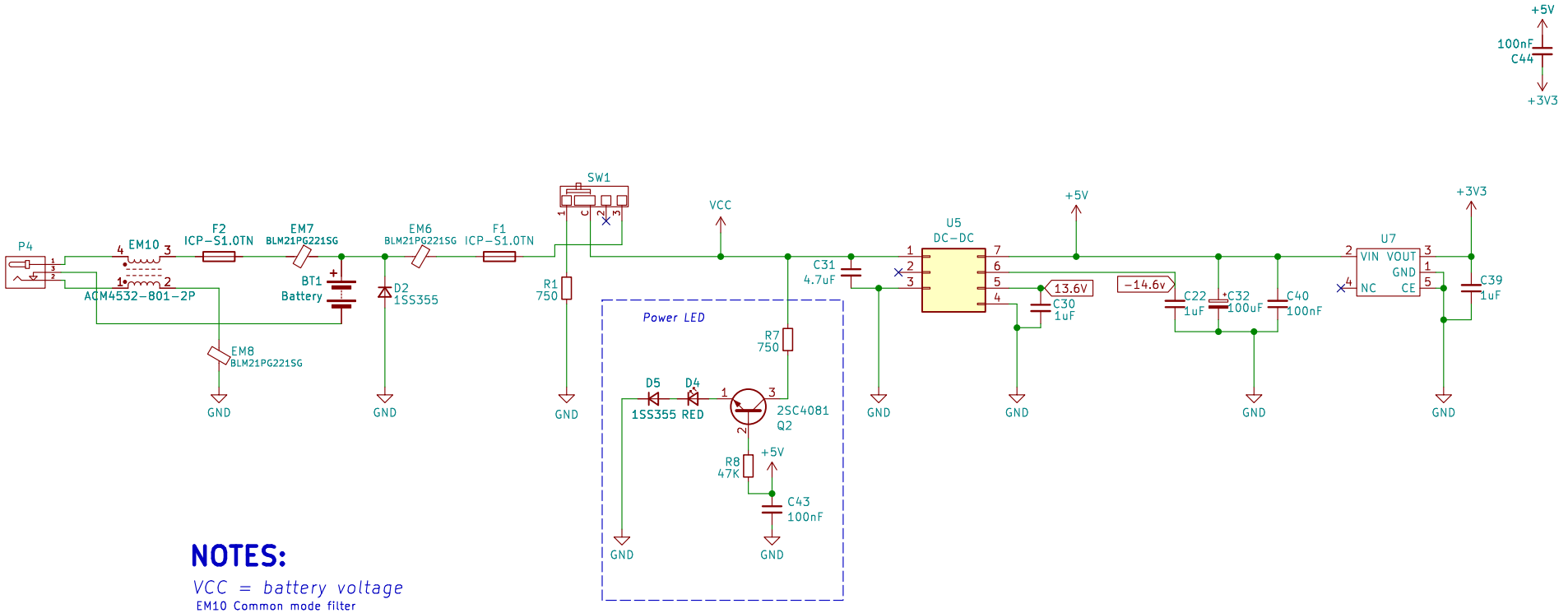
Sheet: /CGB_IR/
File: CGB_IR.kicad_sch

Title: CGB Reverse Engineer

Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.0		Id: 5/7


NOTES:
D1 Zener diode
Q1 PNP transistor
U9 HN1L02FU transistor array
U10 UMZ2N dual transistors
Original screen circuitry
V[0..9]
U4
CGB_REG
REVC
V0
V1
V2
V3
V4
V9
V8
V7
V6
V5
C23
10nF
C34
1uF
C24
100nF
C28
100nF
+5V
+3V3
GND
TST3
DCK
LP
PS
LDB5
LDB4
LDB3
LDB2
LDB1
LDB0
LDG5
LDG4
LDG3
LDG2
LDG1
LDG0
LDR5
LDR4
LDR3
LDR2
LDR1
LDR0
SPL
VCOM
VEE
VSS
CLS
SPS
MOD
VCC
VDD
P2
U9
HN1L02FU
U10
UMZ2N
R21
120K
VR2
50K
C8
100nF
R20
15K
R19
20
R17
12K
C35
22uF
C36
1uF
R2
20
R22
11K
R5
18K
D1
RD4.3S
-14.6v
C20
100nF
R6
18K
13.6V
R4
4.7K
C37
1uF
R18
47K
2SA1576A
Q1
C21
100nF
NatalieTheNerd.com
Sheet: /CGB_Screen/
File: cgb_screen.kicad_sch
Title: CGB Reverse Engineer
Size: A4
Date:
Rev:
KiCad E.D.A. 8.0.0
Id: 6/7



NOTES:

VCC = battery voltage

EM10 Common mode filter

F1,2 fuse 1A 50V

EM6-8 220Ω@100MHz ferrite bead

Q2 NPN transistor

D2 80V 1.2V@100mA

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Sheet: /CGB_Power/

File: cgb_power.kicad_sch

Title: CGB Reverse Engineer

Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.0		Id: 7/7