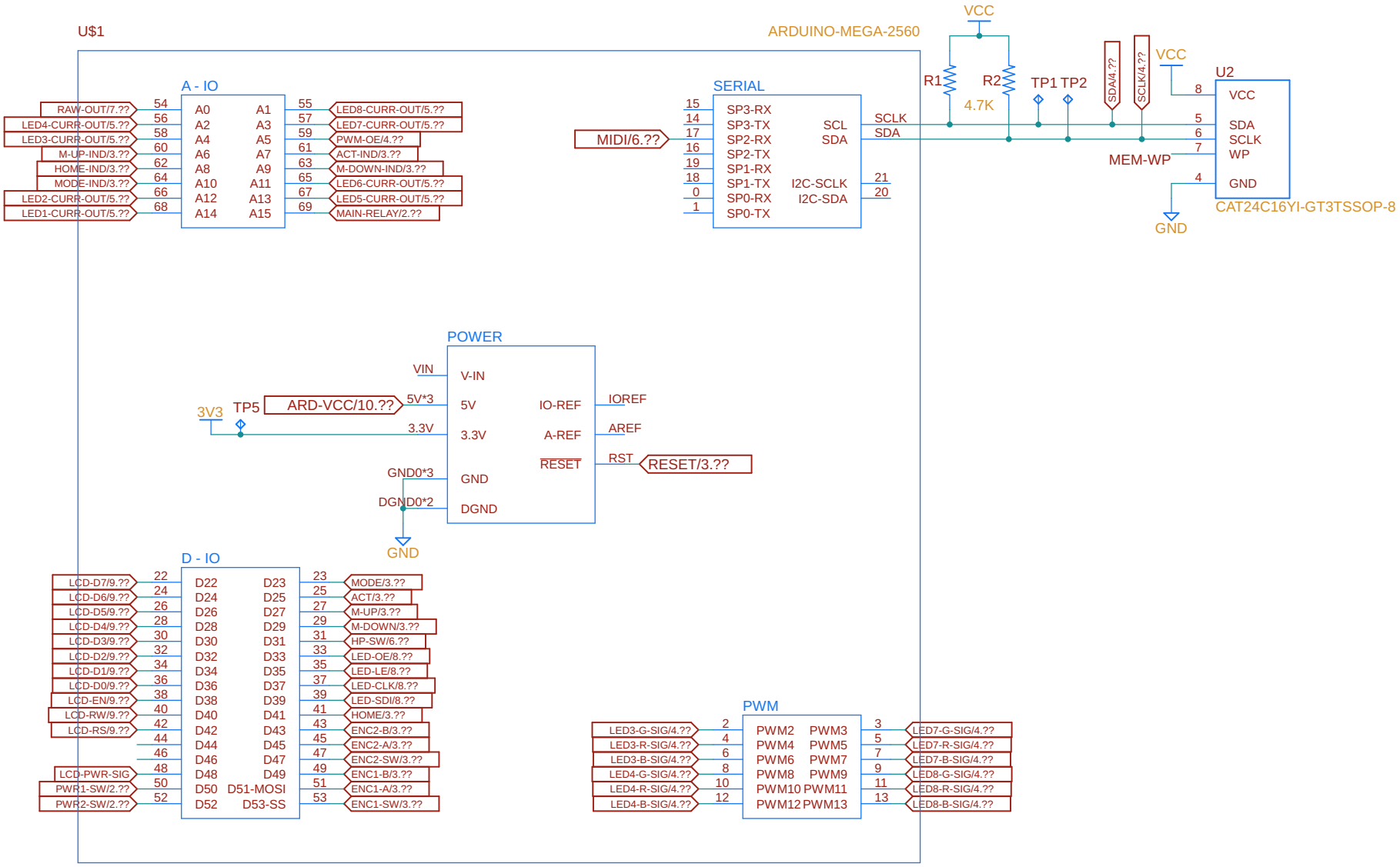
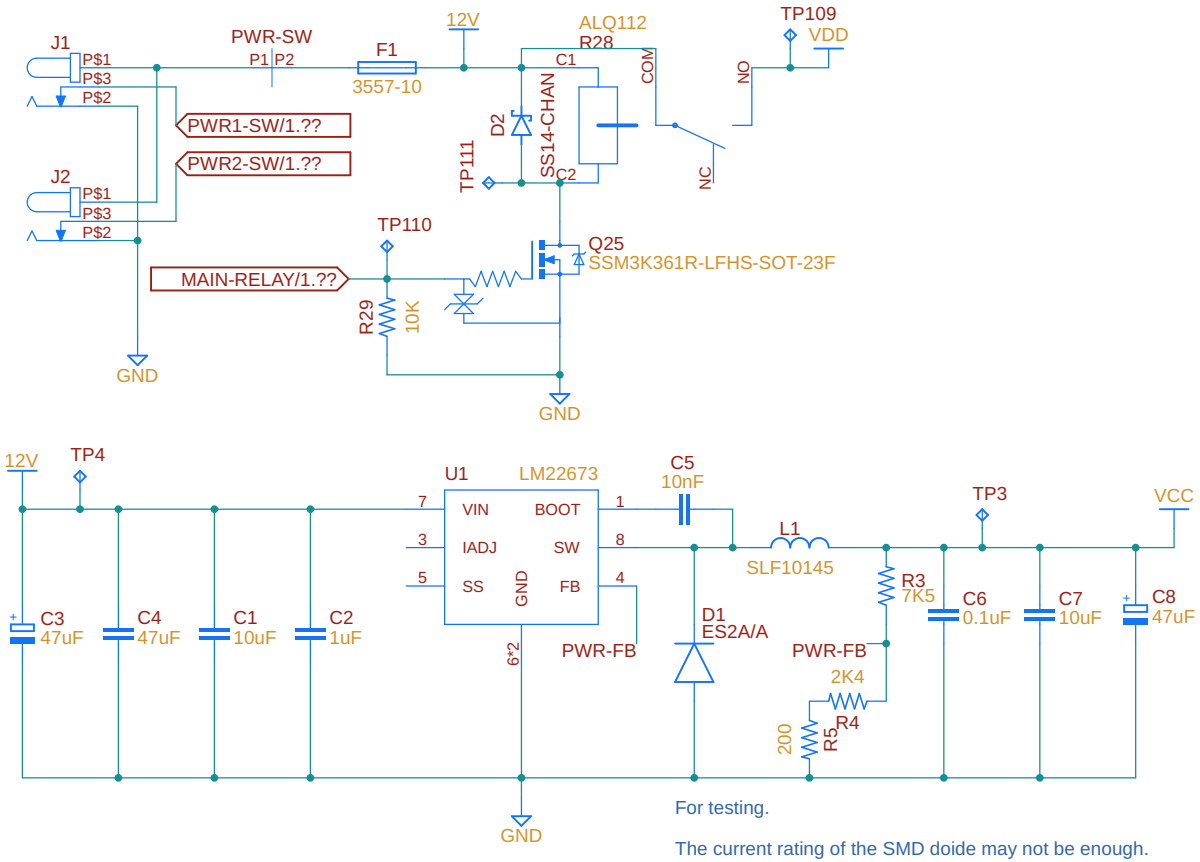
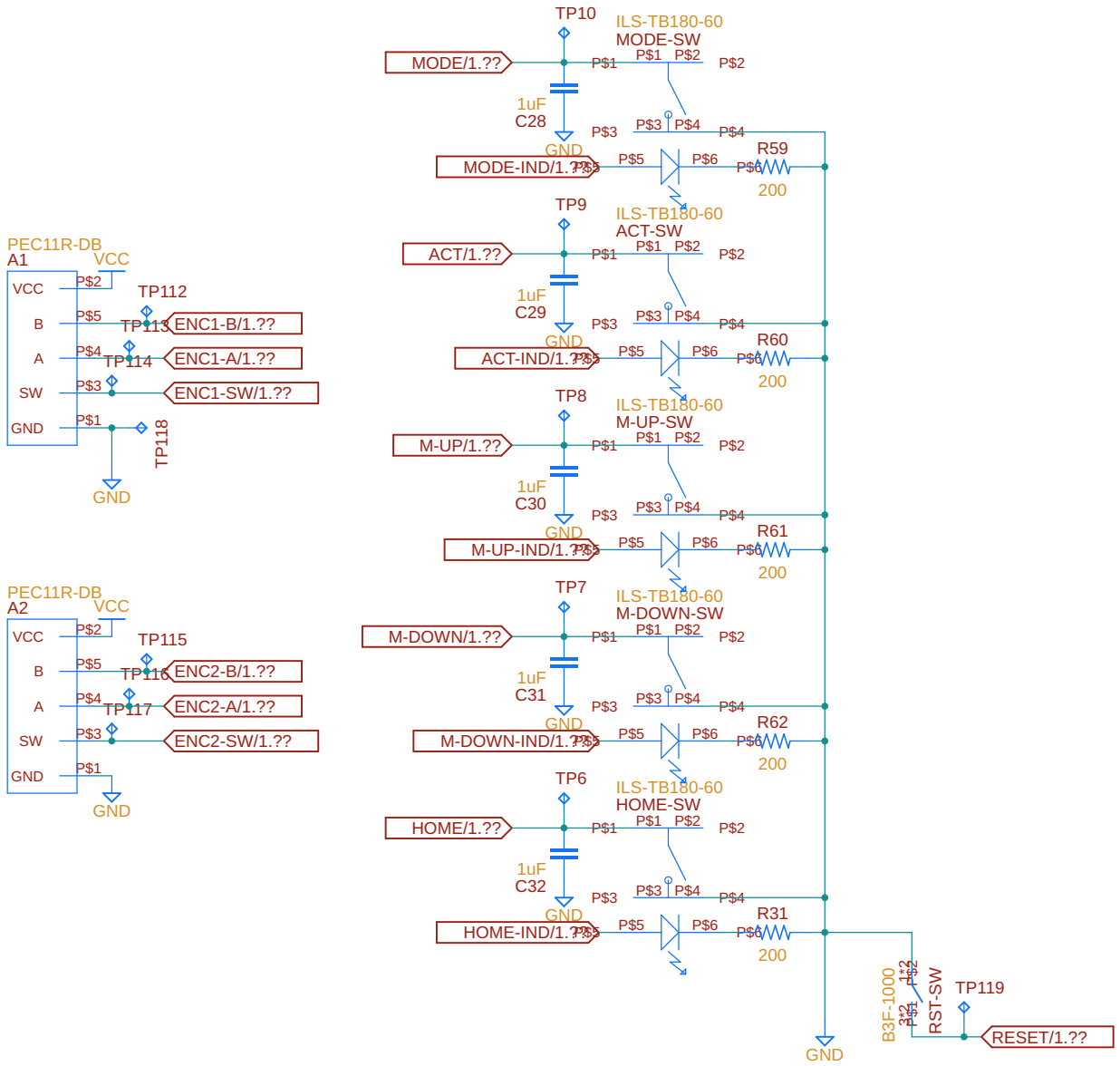
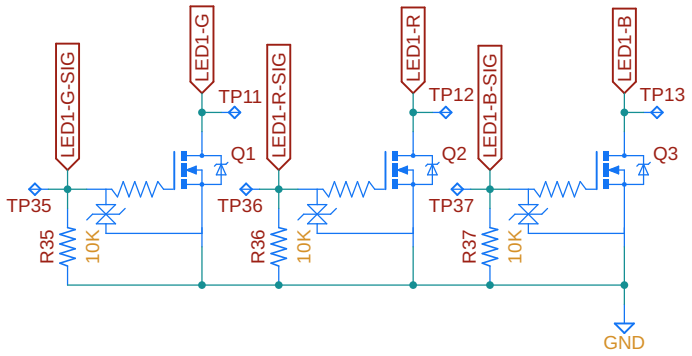
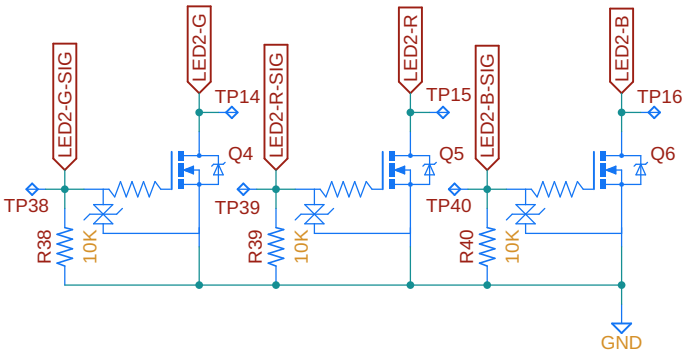
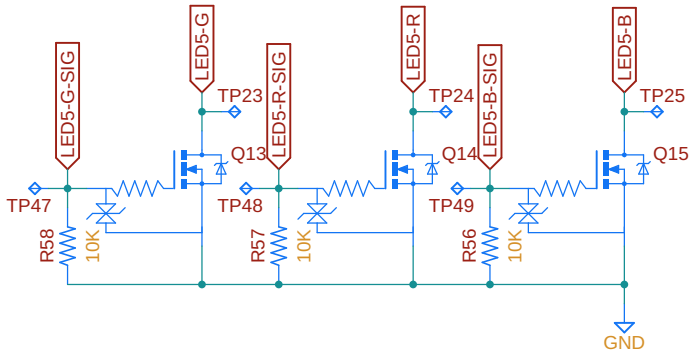

U$1
ARDUINO-MEGA-2560
A - IO
RAW-OUT/7.??
LED4-CURR-OUT/5.??
LED3-CURR-OUT/5.??
M-UP-IND/3.??
HOME-IND/3.??
MODE-IND/3.??
LED2-CURR-OUT/5.??
LED1-CURR-OUT/5.??
LED8-CURR-OUT/5.??
LED7-CURR-OUT/5.??
PWM-OE/4.??
ACT-IND/3.??
M-DOWN-IND/3.??
LED6-CURR-OUT/5.??
LED5-CURR-OUT/5.??
MAIN-RELAY/2.??
SERIAL
MIDI/6.??
SCLK
SDA
I2C-SCLK
I2C-SDA
VCC
R1
R2
4.7K
TP1
TP2
SDA/4.??
SCLK/4.??
MEM-WP
U2
CAT24C16YI-GT3TSSOP-8
GND
POWER
VIN
V-IN
3V3
TP5
ARD-VCC/10.??
5V*3
5V
IO-REF
IOREF
3.3V
3.3V
A-REF
AREF
RESET
RST
RESET/3.??
GND0*3
GND
DGND0*2
DGND
D - IO
LCD-D7/9.??
LCD-D6/9.??
LCD-D5/9.??
LCD-D4/9.??
LCD-D3/9.??
LCD-D2/9.??
LCD-D1/9.??
LCD-D0/9.??
LCD-EN/9.??
LCD-RW/9.??
LCD-RS/9.??
LCD-PWR-SIG
PWR1-SW/2.??
PWR2-SW/2.??
MODE/3.??
ACT/3.??
M-UP/3.??
M-DOWN/3.??
HP-SW/6.??
LED-OE/8.??
LED-LE/8.??
LED-CLK/8.??
LED-SDI/8.??
HOME/3.??
ENC2-B/3.??
ENC2-A/3.??
ENC2-SW/3.??
ENC1-B/3.??
ENC1-A/3.??
ENC1-SW/3.??
PWM
LED3-G-SIG/4.??
LED3-R-SIG/4.??
LED3-B-SIG/4.??
LED4-G-SIG/4.??
LED4-R-SIG/4.??
LED4-B-SIG/4.??
LED7-G-SIG/4.??
LED7-R-SIG/4.??
LED7-B-SIG/4.??
LED8-G-SIG/4.??
LED8-R-SIG/4.??
LED8-B-SIG/4.??

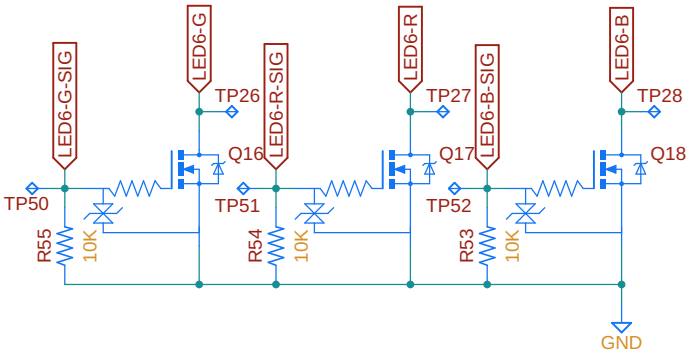

J1
P$1
P$3
P$2
PWR-SW
P1 P2
F1
3557-10
12V
ALQ112
R28
C1
C2
COM
NO
NC
TP109
VDD
D2
SS14-CHAN
TP111
PWR1-SW/1.??
PWR2-SW/1.??
J2
P$1
P$3
P$2
TP110
Q25
SSM3K361R-LFHS-SOT-23F
MAIN-RELAY/1.??
R29
10K
GND
GND
12V
TP4
U1
LM22673
VIN
BOOT
IADJ
SW
SS
GND
FB
7
3
5
1
8
4
6*2
C5
10nF
L1
SLF10145
TP3
VCC
R3
7K5
C6
0.1uF
C7
10uF
C8
47uF
C3
47uF
C4
47uF
C1
10uF
C2
1uF
D1
ES2A/A
PWR-FB
PWR-FB
2K4
R4
R5
200
GND
For testing.
The current rating of the SMD doide may not be enough.

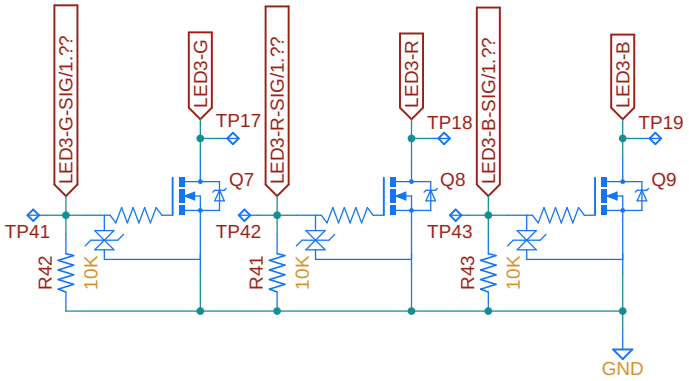

PEC11R-DB
A1
VCC
VCC
B
A
SW
GND
P$2
P$5
P$4
P$3
P$1
TP112
TP113
TP114
TP118
ENC1-B/1.??
ENC1-A/1.??
ENC1-SW/1.??
GND
PEC11R-DB
A2
VCC
VCC
B
A
SW
GND
P$2
P$5
P$4
P$3
P$1
TP115
TP116
TP117
ENC2-B/1.??
ENC2-A/1.??
ENC2-SW/1.??
GND
TP10
ILS-TB180-60
MODE-SW
MODE/1.??
P$1
P$1
P$2
P$2
1uF
C28
P$3
P$3
P$4
P$4
GND
MODE-IND/1.??
P$5
P$6
P$6
R59
200
TP9
ILS-TB180-60
ACT-SW
ACT/1.??
P$1
P$1
P$2
P$2
1uF
C29
P$3
P$3
P$4
P$4
GND
ACT-IND/1.??
P$5
P$6
P$6
R60
200
TP8
ILS-TB180-60
M-UP-SW
M-UP/1.??
P$1
P$1
P$2
P$2
1uF
C30
P$3
P$3
P$4
P$4
GND
M-UP-IND/1.??
P$5
P$6
P$6
R61
200
TP7
ILS-TB180-60
M-DOWN-SW
M-DOWN/1.??
P$1
P$1
P$2
P$2
1uF
C31
P$3
P$3
P$4
P$4
GND
M-DOWN-IND/1.??
P$5
P$6
P$6
R62
200
TP6
ILS-TB180-60
HOME-SW
HOME/1.??
P$1
P$1
P$2
P$2
1uF
C32
P$3
P$3
P$4
P$4
GND
HOME-IND/1.??
P$5
P$6
P$6
R31
200
GND
B3F-1000
1*2
P$1
P$2
RST-SW
TP119
RESET/1.??

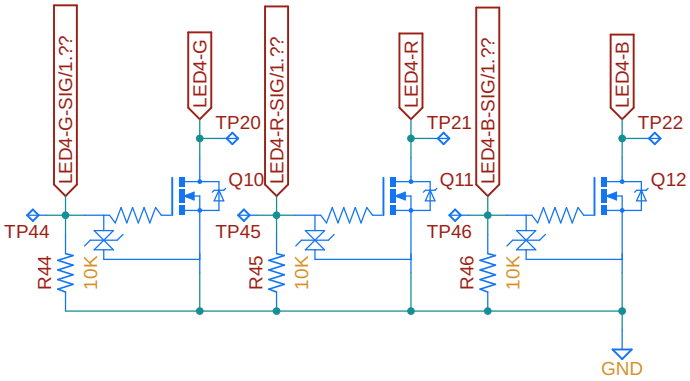

LED1-G-SIG
LED1-G
LED1-R-SIG
LED1-R
LED1-B-SIG
LED1-B
TP11
TP12
TP13
Q1
Q2
Q3
TP35
TP36
TP37
R35
R36
R37
10K
10K
10K
GND

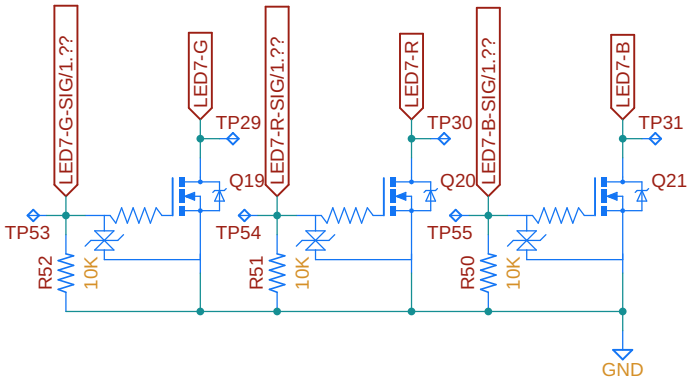

LED2-G-SIG
LED2-G
LED2-R-SIG
LED2-R
LED2-B-SIG
LED2-B
TP14
TP15
TP16
Q4
Q5
Q6
TP38
TP39
TP40
R38
R39
R40
10K
10K
10K
GND

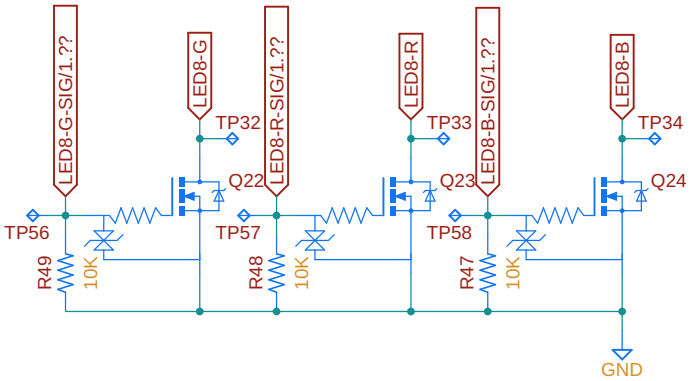

LED5-G-SIG
LED5-G
LED5-R-SIG
LED5-R
LED5-B-SIG
LED5-B
TP23
TP24
TP25
Q13
Q14
Q15
TP47
TP48
TP49
R58
R57
R56
10K
10K
10K
GND

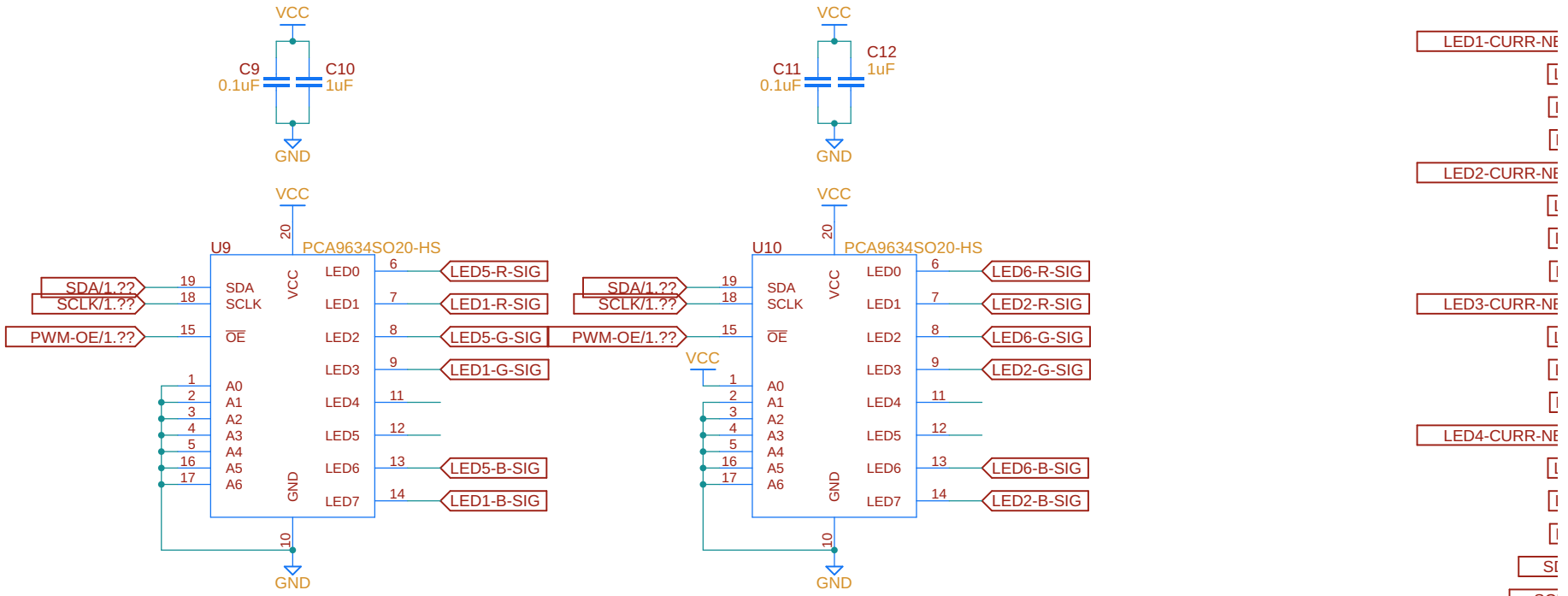

LED6-G-SIG
LED6-G
LED6-R-SIG
LED6-R
LED6-B-SIG
LED6-B
TP26
TP27
TP28
Q16
Q17
Q18
TP50
TP51
TP52
R55
R54
R53
10K
10K
10K
GND

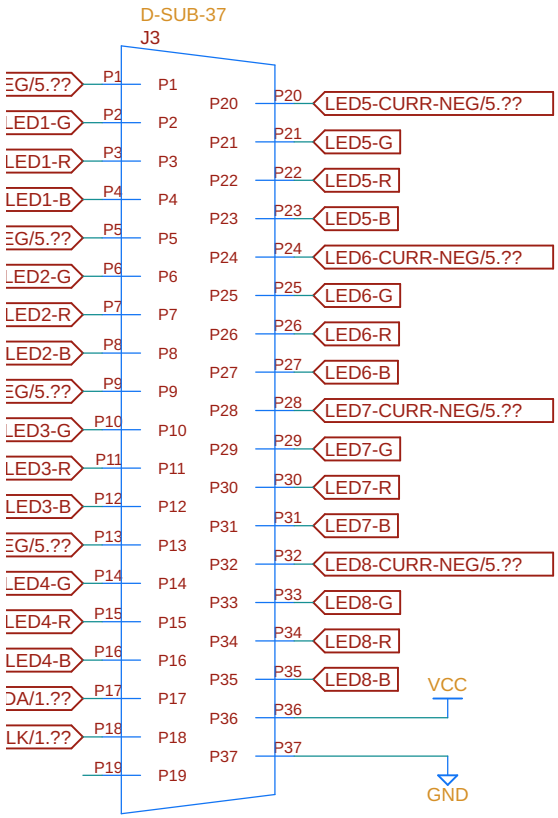

LED3-G-SIG/1.??
LED3-G
TP17
Q7
TP41
R42
10K
LED3-R-SIG/1.??
LED3-R
TP18
Q8
TP42
R41
10K
LED3-B-SIG/1.??
LED3-B
TP19
Q9
TP43
R43
10K
GND

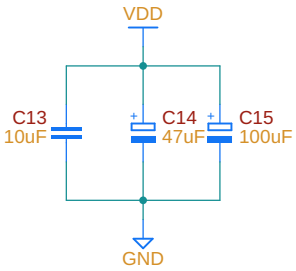

LED4-G-SIG/1.??
LED4-G
TP20
Q10
TP44
R44
10K
LED4-R-SIG/1.??
LED4-R
TP21
Q11
TP45
R45
10K
LED4-B-SIG/1.??
LED4-B
TP22
Q12
TP46
R46
10K
GND

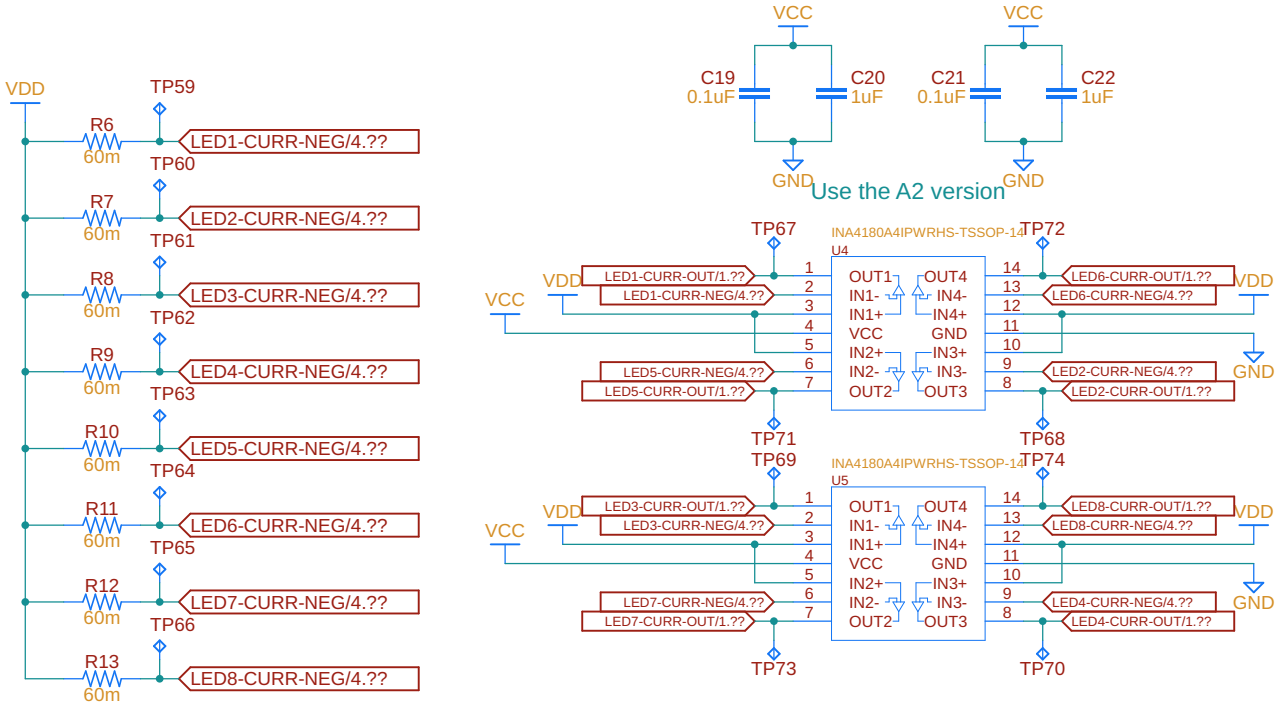

LED7-G-SIG/1.??
LED7-G
TP29
Q19
TP53
R52
10K
LED7-R-SIG/1.??
LED7-R
TP30
Q20
TP54
R51
10K
LED7-B-SIG/1.??
LED7-B
TP31
Q21
TP55
R50
10K
GND

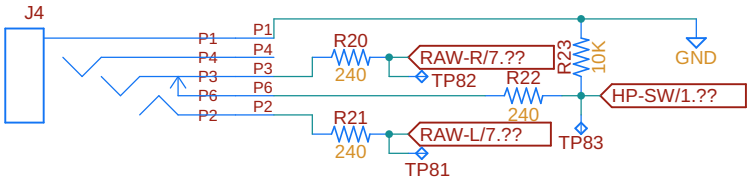

LED8-G-SIG/1.??
LED8-G
TP32
Q22
TP56
R49
10K
LED8-R-SIG/1.??
LED8-R
TP33
Q23
TP57
R48
10K
LED8-B-SIG/1.??
LED8-B
TP34
Q24
TP58
R47
10K
GND

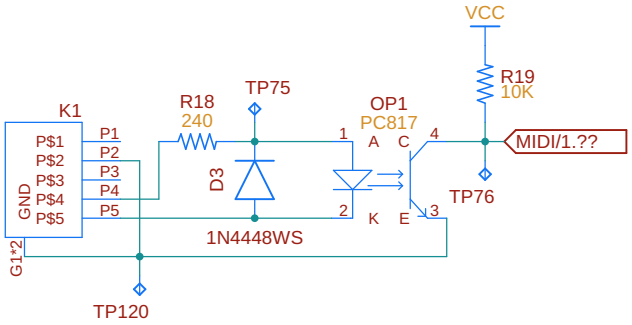

VCC
C9
0.1uF
C10
1uF
GND
VCC
U9
PCA9634SO20-HS
20
SDA/1.??
SCLK/1.??
PWM-OE/1.??
19
18
15
SDA
SCLK
OE
VCC
GND
1
2
3
4
5
16
17
A0
A1
A2
A3
A4
A5
A6
LED0
LED1
LED2
LED3
LED4
LED5
LED6
LED7
6
7
8
9
11
12
13
14
LED5-R-SIG
LED1-R-SIG
LED5-G-SIG
LED1-G-SIG
LED5-B-SIG
LED1-B-SIG
10
GND
VCC
C11
0.1uF
C12
1uF
GND
VCC
U10
PCA9634SO20-HS
20
SDA/1.??
SCLK/1.??
PWM-OE/1.??
19
18
15
SDA
SCLK
OE
VCC
GND
1
2
3
4
5
16
17
A0
A1
A2
A3
A4
A5
A6
LED0
LED1
LED2
LED3
LED4
LED5
LED6
LED7
6
7
8
9
11
12
13
14
LED6-R-SIG
LED2-R-SIG
LED6-G-SIG
LED2-G-SIG
LED6-B-SIG
LED2-B-SIG
10
GND
LED1-CURR-NE
LED2-CURR-NE
LED3-CURR-NE
LED4-CURR-NE

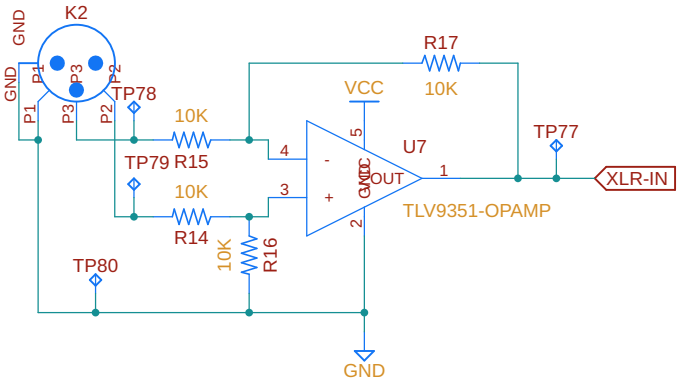

D-SUB-37
J3
EG/5.??
LED1-G
LED1-R
LED1-B
EG/5.??
LED2-G
LED2-R
LED2-B
EG/5.??
LED3-G
LED3-R
LED3-B
EG/5.??
LED4-G
LED4-R
LED4-B
DA/1.??
LK/1.??
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
P11
P12
P13
P14
P15
P16
P17
P18
P19
P20
P21
P22
P23
P24
P25
P26
P27
P28
P29
P30
P31
P32
P33
P34
P35
P36
P37
LED5-CURR-NEG/5.??
LED5-G
LED5-R
LED5-B
LED6-CURR-NEG/5.??
LED6-G
LED6-R
LED6-B
LED7-CURR-NEG/5.??
LED7-G
LED7-R
LED7-B
LED8-CURR-NEG/5.??
LED8-G
LED8-R
LED8-B
VCC
GND

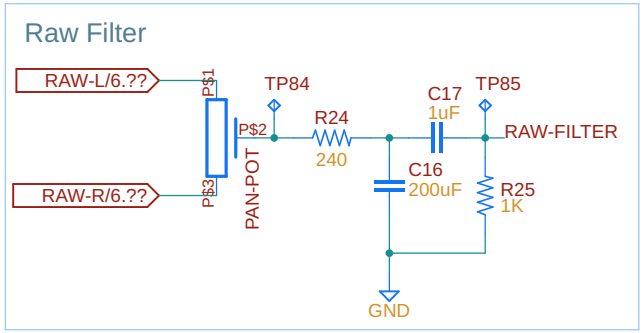

VDD
C13
10uF
C14
47uF
C15
100uF
GND

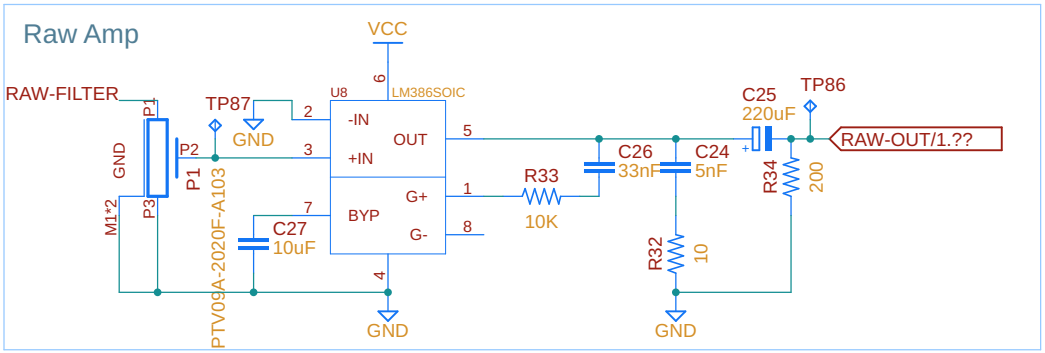

VDD
TP59
R6
60m
LED1-CURR-NEG/4.??
TP60
R7
60m
LED2-CURR-NEG/4.??
TP61
R8
60m
LED3-CURR-NEG/4.??
TP62
R9
60m
LED4-CURR-NEG/4.??
TP63
R10
60m
LED5-CURR-NEG/4.??
TP64
R11
60m
LED6-CURR-NEG/4.??
TP65
R12
60m
LED7-CURR-NEG/4.??
TP66
R13
60m
LED8-CURR-NEG/4.??
VCC
C19
0.1uF
C20
1uF
GND
VCC
C21
0.1uF
C22
1uF
GND
Use the A2 version
TP67
INA4180A4IPWRHS-TSSOP-14
U4
TP72
VDD
LED1-CURR-OUT/1.??
LED1-CURR-NEG/4.??
VCC
LED5-CURR-NEG/4.??
LED5-CURR-OUT/1.??
OUT1
IN1-
IN1+
VCC
IN2+
IN2-
OUT2
OUT4
IN4-
IN4+
GND
IN3+
IN3-
OUT3
LED6-CURR-OUT/1.??
LED6-CURR-NEG/4.??
VDD
GND
LED2-CURR-NEG/4.??
LED2-CURR-OUT/1.??
TP71
TP68
TP69
INA4180A4IPWRHS-TSSOP-14
U5
TP74
VDD
LED3-CURR-OUT/1.??
LED3-CURR-NEG/4.??
VCC
LED7-CURR-NEG/4.??
LED7-CURR-OUT/1.??
LED8-CURR-OUT/1.??
LED8-CURR-NEG/4.??
VDD
GND
LED4-CURR-NEG/4.??
LED4-CURR-OUT/1.??
TP73
TP70

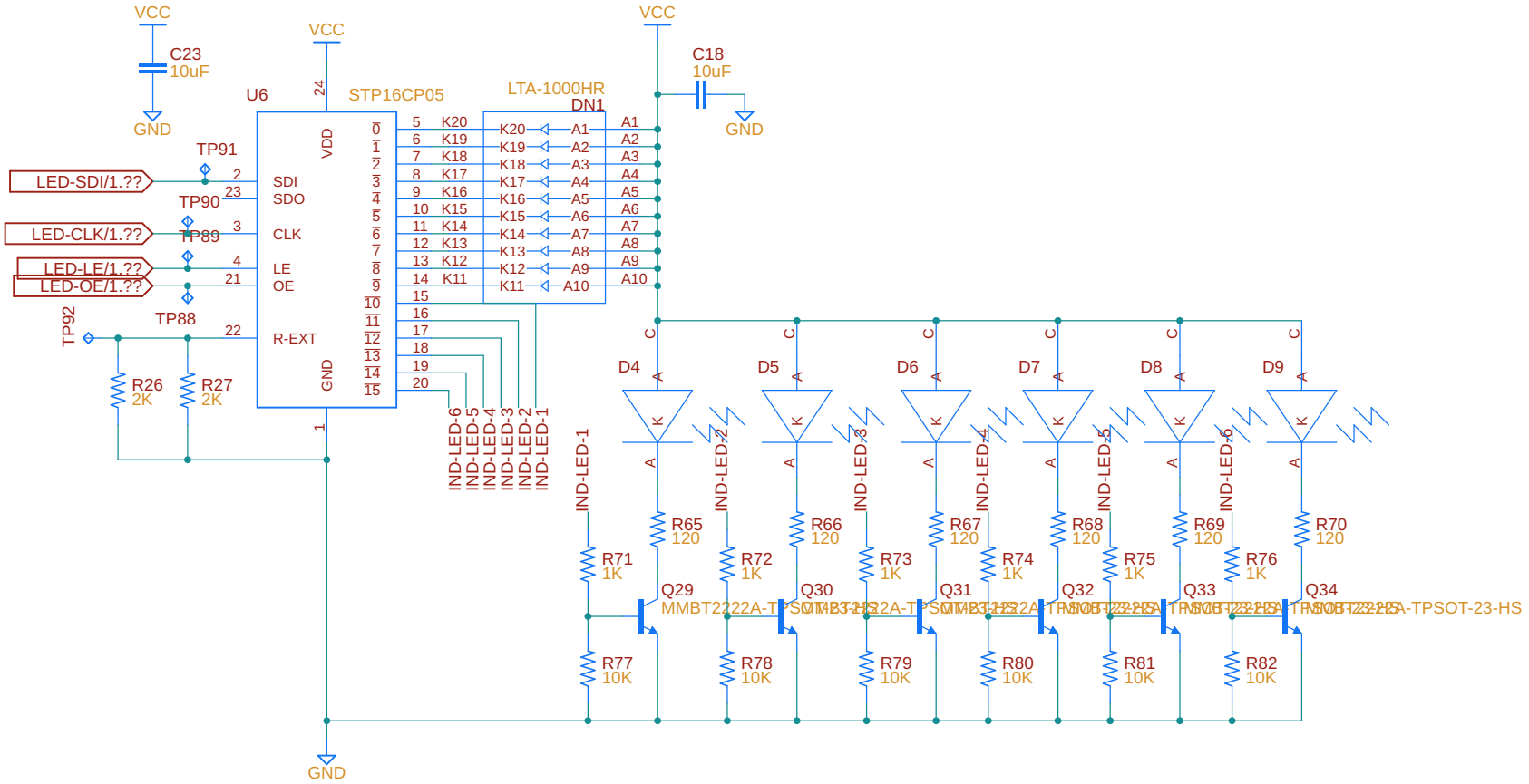

J4
P1
P4
P3
P6
P2
R20
240
RAW-R/7.??
TP82
R22
240
R21
240
RAW-L/7.??
TP81
R23
10K
GND
HP-SW/1.??
TP83

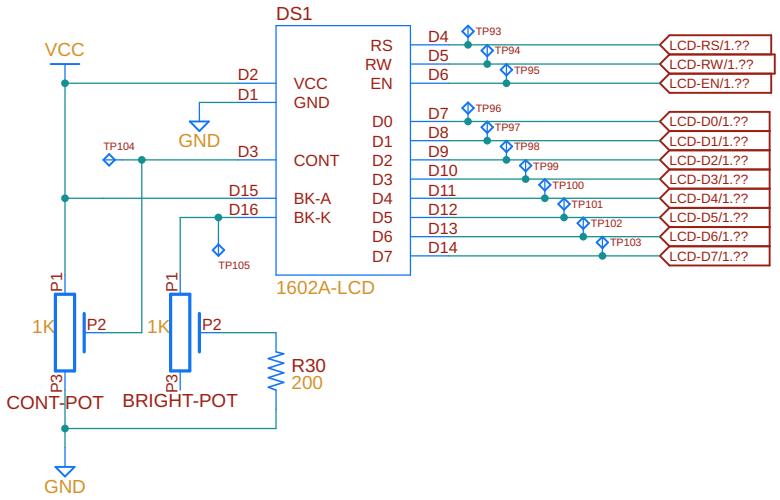

K1
P$1
P$2
P$3
P$4
P$5
GND
G1*2
R18
240
TP75
D3
1N4448WS
OP1
PC817
A
C
K
E
VCC
R19
10K
MIDI/1.??
TP76
TP120

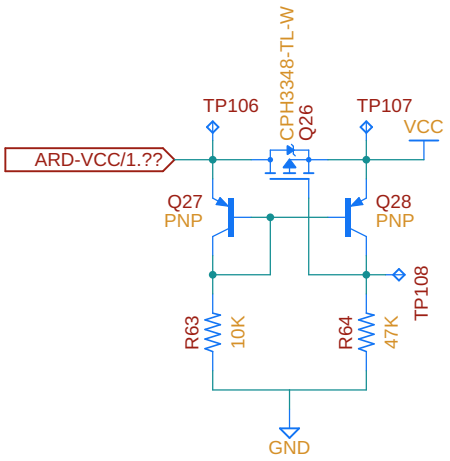

K2
GND
P1
P3
P2
TP78
R17
10K
VCC
10K
TP79
R15
10K
R14
10K
R16
TP80
U7
TLV9351-OPAMP
TP77
XLR-IN
GND


Raw Filter
RAW-L/6.??
RAW-R/6.??
P$1
P$2
P$3
PAN-POT
TP84
R24
240
C17
1uF
C16
200uF
TP85
RAW-FILTER
R25
1K
GND


Raw Amp
VCC
RAW-FILTER
P1
GND
M1*2
P3
P2
P1
TP87
GND
PTV09A-2020F-A103
U8
LM386SOIC
6
2
3
7
4
-IN
+IN
BYP
OUT
G+
G-
5
1
8
C27
10uF
GND
R33
10K
C26
33nF
C24
5nF
R32
10
GND
C25
220uF
TP86
R34
200
RAW-OUT/1.??


VCC
C23
10uF
GND
VCC
U6
24
STP16CP05
VDD
TP91
LED-SDI/1.??
2
SDI
TP90
23
SDO
LED-CLK/1.??
TP89
3
CLK
LED-LE/1.??
4
LE
LED-OE/1.??
21
OE
TP88
22
R-EXT
TP92
R26
2K
R27
2K
GND
1
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
5 K20
6 K19
7 K18
8 K17
9 K16
10 K15
11 K14
12 K13
13 K12
14 K11
15
16
17
18
19
20
IND-LED-6
IND-LED-5
IND-LED-4
IND-LED-3
IND-LED-2
IND-LED-1
LTA-1000HR
DN1
K20 A1
K19 A2
K18 A3
K17 A4
K16 A5
K15 A6
K14 A7
K13 A8
K12 A9
K11 A10
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
VCC
C18
10uF
GND
D4
D5
D6
D7
D8
D9
C
A
K
IND-LED-1
IND-LED-2
IND-LED-3
IND-LED-4
IND-LED-5
IND-LED-6
R65 120
R66 120
R67 120
R68 120
R69 120
R70 120
R71 1K
R72 1K
R73 1K
R74 1K
R75 1K
R76 1K
Q29
Q30
Q31
Q32
Q33
Q34
MMBT2222A-TPSOT-23-HS
R77 10K
R78 10K
R79 10K
R80 10K
R81 10K
R82 10K


DS1
VCC
D2
D1
GND
TP104
D3
D15
D16
TP105
RS
RW
EN
VCC
GND
D0
D1
CONT
D2
D3
BK-A
D4
BK-K
D5
D6
D7
1602A-LCD
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
TP93
TP94
TP95
TP96
TP97
TP98
TP99
TP100
TP101
TP102
TP103
LCD-RS/1.??
LCD-RW/1.??
LCD-EN/1.??
LCD-D0/1.??
LCD-D1/1.??
LCD-D2/1.??
LCD-D3/1.??
LCD-D4/1.??
LCD-D5/1.??
LCD-D6/1.??
LCD-D7/1.??
P1
1K
P2
P3
CONT-POT
BRIGHT-POT
R30
200
GND


CPH3348-TL-W
Q26
TP106
TP107
VCC
ARD-VCC/1.??
Q27
PNP
Q28
PNP
TP108
R63
10K
R64
47K
GND