DAC Filter

DAC_OUT

R1 6.8k
U1A TL072
R2 2.2k
U1B TL072
+12V
U1C TL072
R3 3.9k
R4 3.9k
R5 1.2k
R6 1.8k
R7 100
C1 3.3nF
C3 1nF
C2 22nF
C4 1nF
C5 10uFx25V
−12V
J1 AUDIO_OUT
R8 100k
GND

Power Supply

J2 POWER
+12V
−12V
GND
100uFx25V
C6
C7 100nF
C10
C11 100nF
100uFx25V
−12V
U2 L7805
IN OUT
GND
+5V
C8 10uFx25V
C9 100nF
GND

D1 1N414B
+12V
R17 100k
AN_IN_PITCH
J5 CV_INPUT
R21 33k
C12 10nF
BAT54A D6
GND

D2 1N414B
+12V
R18 100k
AN_IN_FM
J6 FM_INPUT
R22 33k
C13 10nF
BAT54A D7
GND

J7 TIMBRE CV
U6A TL072
R26 100k
R24 47k
U5A MCP6022
AN_IN_PARAM1
R30 47k
R32 220k
R28 47k
C15 220pF
RV1 10kB TIMBRE
−12V
U6C TL072
+12V
U5C MCP6022
+3.3V

J8 COLOR CV
U6B TL072
R27 100k
R25 47k
U5B MCP6022
AN_IN_PARAM2
R31 47k
R33 220k
R29 47k
C14 220pF
RV2 10kB COLOR
RV3 10kB COARSE
−12V
+3.3V
FINE_TUNE
C16 100nF

BP?1 BluePill_2
+5V +3.3V
MICRO_ENC_A PB12 / RST
MICRO_ENC_B PB13 / RX3 PB11 GATE_IN
MICRO_ENC_SW PB14 / TX3 PB10
MICRO_LED_BANK0 PB15 / ADC9 PB1 AN_IN_PITCH
MICRO_LED_BANK1 PA8 / ADC8 PB0 AN_IN_FM
MICRO_LED_CONFIG PA9 TX1 / MOSI1 PA7 FINE_TUNE
MICRO_DISP_CLK PA10 RX1 / MISO1 PA6 AN_IN_PARAM1
MICRO_DISP_LATCH PA11 USB- / SCK1 PA5 AN_IN_PARAM2
MICRO_DISP_DATA PA12 USB+ / ADC4 PA4 DAC_OUT
PA15 NSS1 / RX2 ADC3 PA3
PB3 / TX2 ADC2 PA2
PB4 / ADC1 PA1
PB5 / ADC0 PA0
MEM_SCL PB6 SCL1 / PC15
MEM_SDA PB7 SDA1 / PC14
PB8 / LED PC13
PB9
GND
sink 3mA
source 0mA
30pF 2MHz
PWM pin
5V tolerant

EEPROM
U7 AT24CS04−MAHM
+3.3V
+3.3V
R34 2.2k
R35 2.2k
A1 VCC
A2 SDA MEM_SDA
GND SCL MEM_SCL
WP
GND

GATE INPUT
J10 GATE_INPUT
R36 100k
GATE_IN
Q1 BC547
D8 1N4148
GND

Front Panel conn J3
MICRO_ENC_A 11
MICRO_ENC_B 10
MICRO_ENC_SW 9
MICRO_LED_BANK0 8
MICRO_LED_BANK1 7
MICRO_LED_CONFIG 6
MICRO_DISP_CLK 5
MICRO_DISP_LATCH 4
MICRO_DISP_DATA 3
2
1
GND

Front panel conn J4
ENC_A 11
ENC_B 10
ENC_SW 9
LED_BANK0 8
LED_BANK1 7
LED_CONFIG 6
5
4
3
2
1
+5V
5V

Front panel PCB
U4 74HC595
SER VCC QA
QB
SRCLK QC
QD
SRCLR QE
QF
RCLK QG
OE QH
GND
680R9
680R10
680R11
680R12
680R13
680R19
680R20
680R23
U3 HDSP-7401
CA CA
R14680 LED_BANK0
R15680 LED_BANK1
R16680 LED_CONFIG
D3 LED
D4 LED
D5 LED

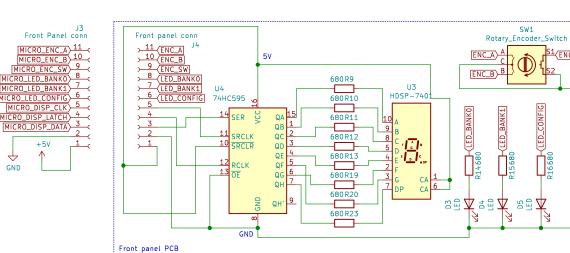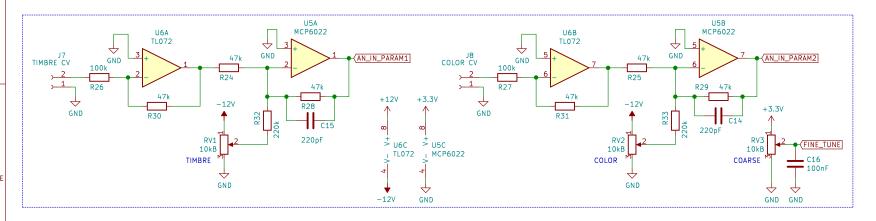SW1 Rotary_Encoder_Switch
ENC_A A / S1 ENC_SW
ENC_B B / S2
GND

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Ernesto Gigliotti
Sheet: /
File: SOUND_SOURCE_modular.sch
Title: Sound Source
Size: A3   Date: 2020−08−21   Rev:
KiCad E.D.A. kicad (5.1.6)−1   Id: 1/1