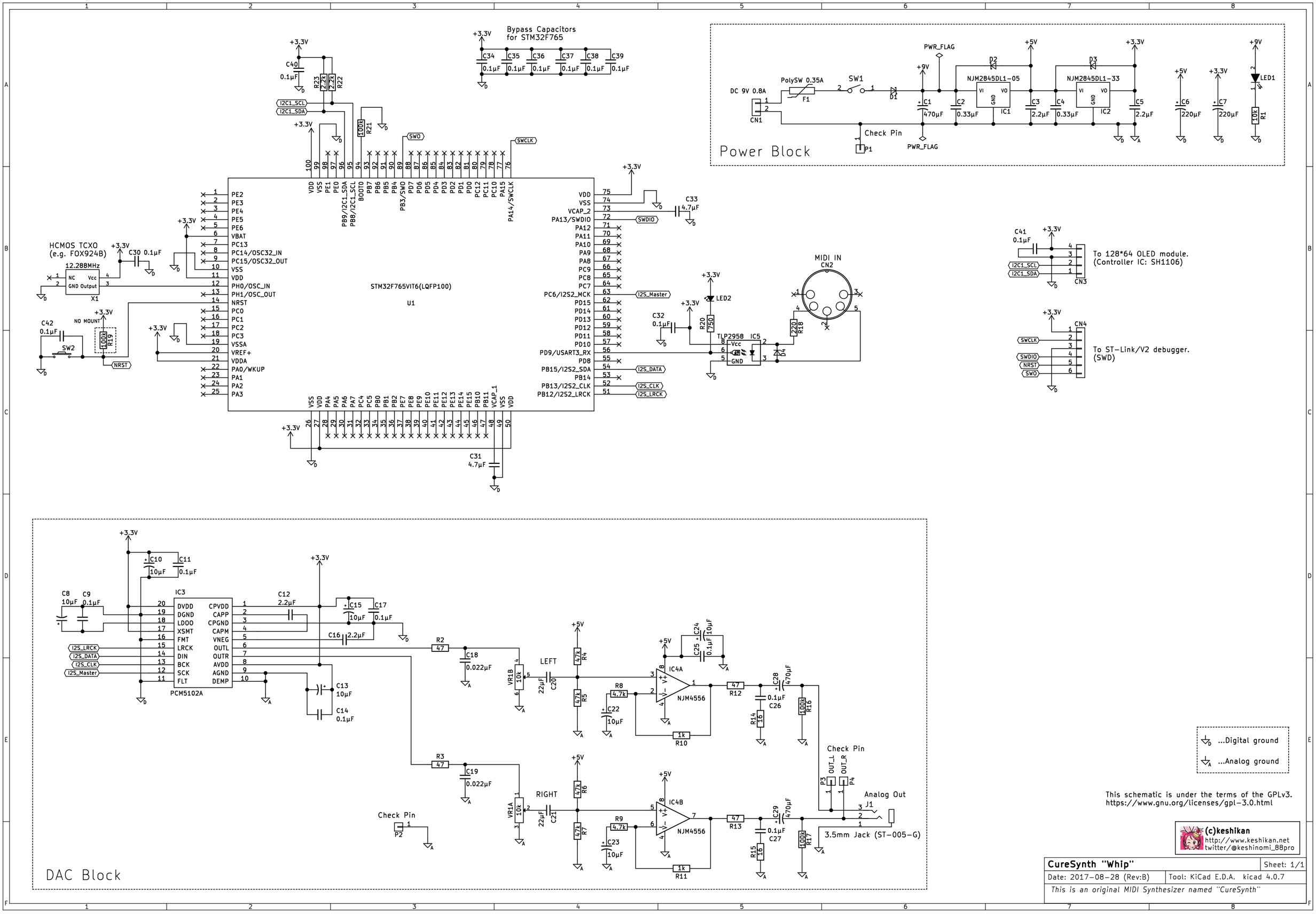
Power Block
DC 9V 0.8A
CN1
PolySW 0.35A
F1
SW1
D1
PWR_FLAG
+9V
C1 470µF
C2 0.33µF
D2
NJM2845DL1-05
IC1
C3 2.2µF
C4 0.33µF
D3
NJM2845DL1-33
IC2
C5 2.2µF
+5V
+3.3V
C6 220µF
C7 220µF
LED1
R1 10k
Check Pin
P1
Bypass Capacitors
for STM32F765
C34 0.1µF
C35 0.1µF
C36 0.1µF
C37 0.1µF
C38 0.1µF
C39 0.1µF
C40 0.1µF
R23 2.2k
R22 2.2k
I2C1_SCL
I2C1_SDA
R21 100k
SWO
SWCLK
STM32F765VIT6(LQFP100)
U1
C33 4.7µF
SWDIO
I2S_Master
I2S_DATA
I2S_CLK
I2S_LRCK
C31 4.7µF
HCMOS TCXO
(e.g. FOX924B)
12.288MHz
X1
C30 0.1µF
C42 0.1µF
SW2
NO MOUNT
R19 100k
NRST
C32 0.1µF
LED2
R20 750
TLP2958
IC5
D4
R18 220
MIDI IN
CN2
C41 0.1µF
To 128*64 OLED module.
(Controller IC: SH1106)
CN3
CN4
To ST-Link/V2 debugger.
(SWD)
DAC Block
IC3
PCM5102A
C8 10µF
C9 0.1µF
C10 10µF
C11 0.1µF
C12 2.2µF
C13 10µF
C14 0.1µF
C15 10µF
C17 0.1µF
C16 2.2µF
R2 47
R3 47
C18 0.022µF
C19 0.022µF
VR1B 10k
VR1A 10k
LEFT
RIGHT
C20 22µF
C21 22µF
R4 47k
R5 47k
R6 47k
R7 47k
R8 4.7k
R9 4.7k
C22 10µF
C23 10µF
IC4A
IC4B
NJM4556
R10 1k
R11 1k
C24 10µF
C25 0.1µF
R12 47
R13 47
C26 0.1µF
C27 0.1µF
C28 470µF
C29 470µF
R14 16
R15 16
R16 100k
R17 100k
Check Pin
P3 OUT_L
P4 OUT_R
Analog Out
J1
3.5mm Jack (ST-005-G)
Check Pin
P2
...Digital ground
...Analog ground
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CureSynth "Whip"
Sheet: 1/1
Date: 2017-08-28 (Rev:B)
Tool: KiCad E.D.A. kicad 4.0.7
This is an original MIDI Synthesizer named "CureSynth"