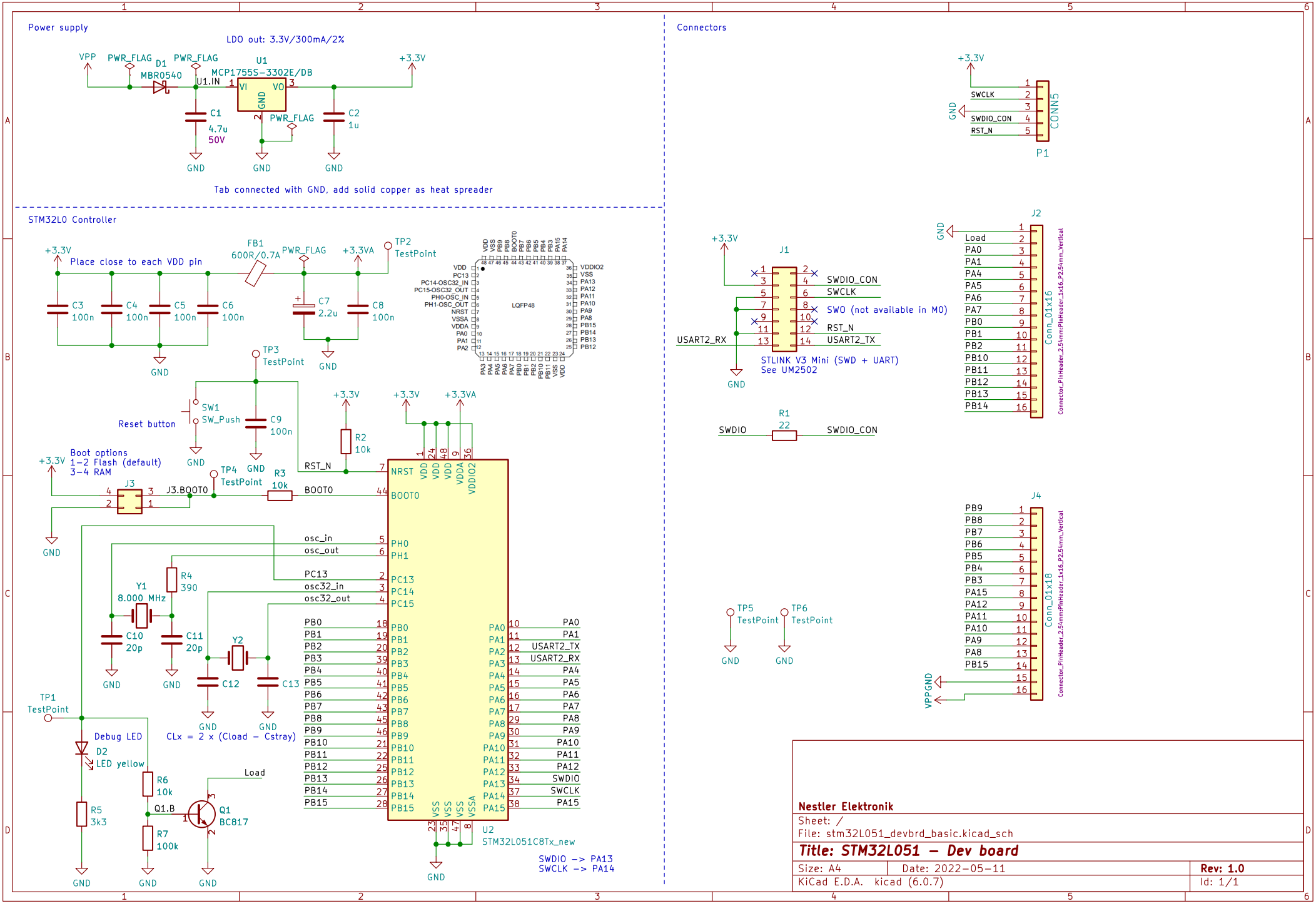
Power supply
LDO out: 3.3V/300mA/2%
VPP
PWR_FLAG
D1
MBR0540
U1
MCP1755S-3302E/DB
U1.IN
VI
VO
GND
+3.3V
C1
4.7u
50V
C2
1u
Tab connected with GND, add solid copper as heat spreader
STM32L0 Controller
Place close to each VDD pin
FB1
600R/0.7A
+3.3VA
TP2
TestPoint
C3
100n
C4
100n
C5
100n
C6
100n
C7
2.2u
C8
100n
TP3
TestPoint
SW1
SW_Push
Reset button
C9
100n
R2
10k
Boot options
1-2 Flash (default)
3-4 RAM
J3
J3.BOOT0
TP4
TestPoint
R3
10k
BOOT0
RST_N
NRST
BOOT0
VDD
VDDA
VDDIO2
osc_in
osc_out
PH0
PH1
PC13
osc32_in
osc32_out
PC14
PC15
Y1
8.000 MHz
R4
390
C10
20p
C11
20p
Y2
C12
C13
CLx = 2 x (Cload − Cstray)
TP1
TestPoint
Debug LED
D2
LED yellow
R6
10k
R5
3k3
R7
100k
Q1.B
Q1
BC817
Load
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PA0
PA1
USART2_TX
USART2_RX
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
SWDIO
SWCLK
PA15
VSS
VSSA
U2
STM32L051C8Tx_new
SWDIO -> PA13
SWCLK -> PA14
LQFP48
VDDIO2
Connectors
+3.3V
SWCLK
SWDIO_CON
RST_N
CONN5
P1
J1
SWDIO_CON
SWCLK
SWO (not available in M0)
RST_N
USART2_RX
USART2_TX
STLINK V3 Mini (SWD + UART)
See UM2502
J2
Load
PA0
PA1
PA4
PA5
PA6
PA7
PB0
PB1
PB2
PB10
PB11
PB12
PB13
PB14
Conn_01x16
Connector_PinHeader_2.54mm:PinHeader_1x16_P2.54mm_Vertical
R1
22
SWDIO
SWDIO_CON
TP5
TestPoint
TP6
TestPoint
J4
PB9
PB8
PB7
PB6
PB5
PB4
PB3
PA15
PA12
PA11
PA10
PA9
PA8
PB15
VPPGND
Conn_01x18
Connector_PinHeader_2.54mm:PinHeader_1x16_P2.54mm_Vertical
Nestler Elektronik
Sheet: /
File: stm32L051_devbrd_basic.kicad_sch
Title: STM32L051 – Dev board
Size: A4
Date: 2022-05-11
Rev: 1.0
KiCad E.D.A. kicad (6.0.7)
Id: 1/1