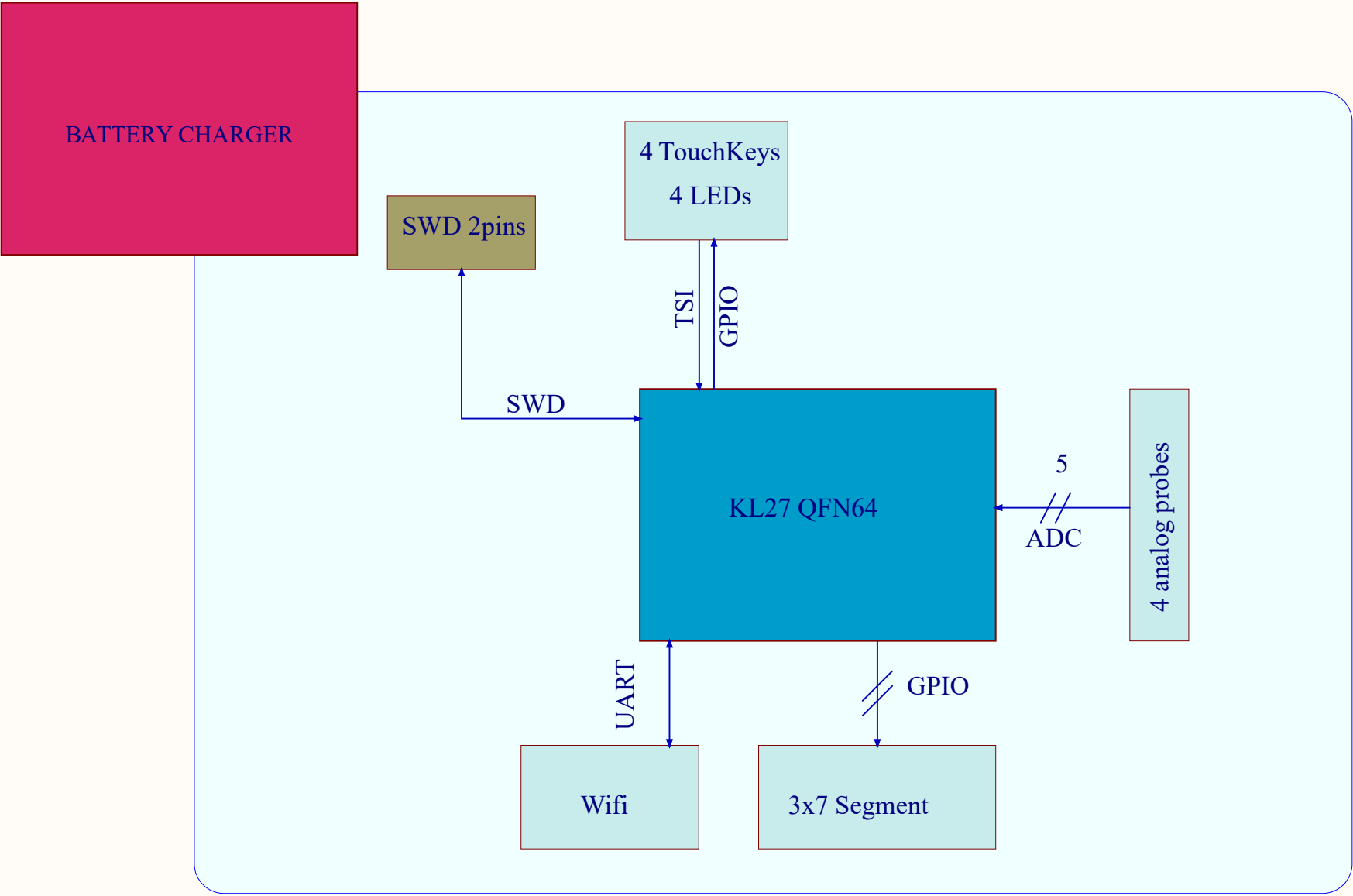


Table of contents	
1	Block Diagram
2	BATTERY CHARGER
3	KL27 MCU
4	WIFI
5	LED DISPLAY



- Note changes:
1. Add J23 to V_USB
 2. Remove J6&net I_SET2 on I_SET2 (U1)
 3. Add R58-LED36 to V_USB
 4. Change NCP1117 to MCP1703
 5. Add R59-LED37 to V_ESP
 6. Add P99 as battery connector
 7. Add J27 to V_ESP as SMD testpoint
 8. Add J21 and J22 to U0_RX_ESP8266 and U0_TX_ESP8266
 9. Add J24, J25, J26 to net GPIO12, GPIO13, GPIO14 as SMD testpoint
 10. Add R50 to net CLK
 11. Add R51,R52,R53,R54,R55,R56,R57 to LED_SEG_1/2/3/4/5/6/7
 12. Swap LED_BAT_LOW and LED_BAT_HI
 13. Change net RESET_ESP to F_WAKEUP
 14. Add net ESP_SLP_STATUS
 15. Add force wake-up circuit

Dung luôn J23 như điểm cấp nguồn trong JIG test

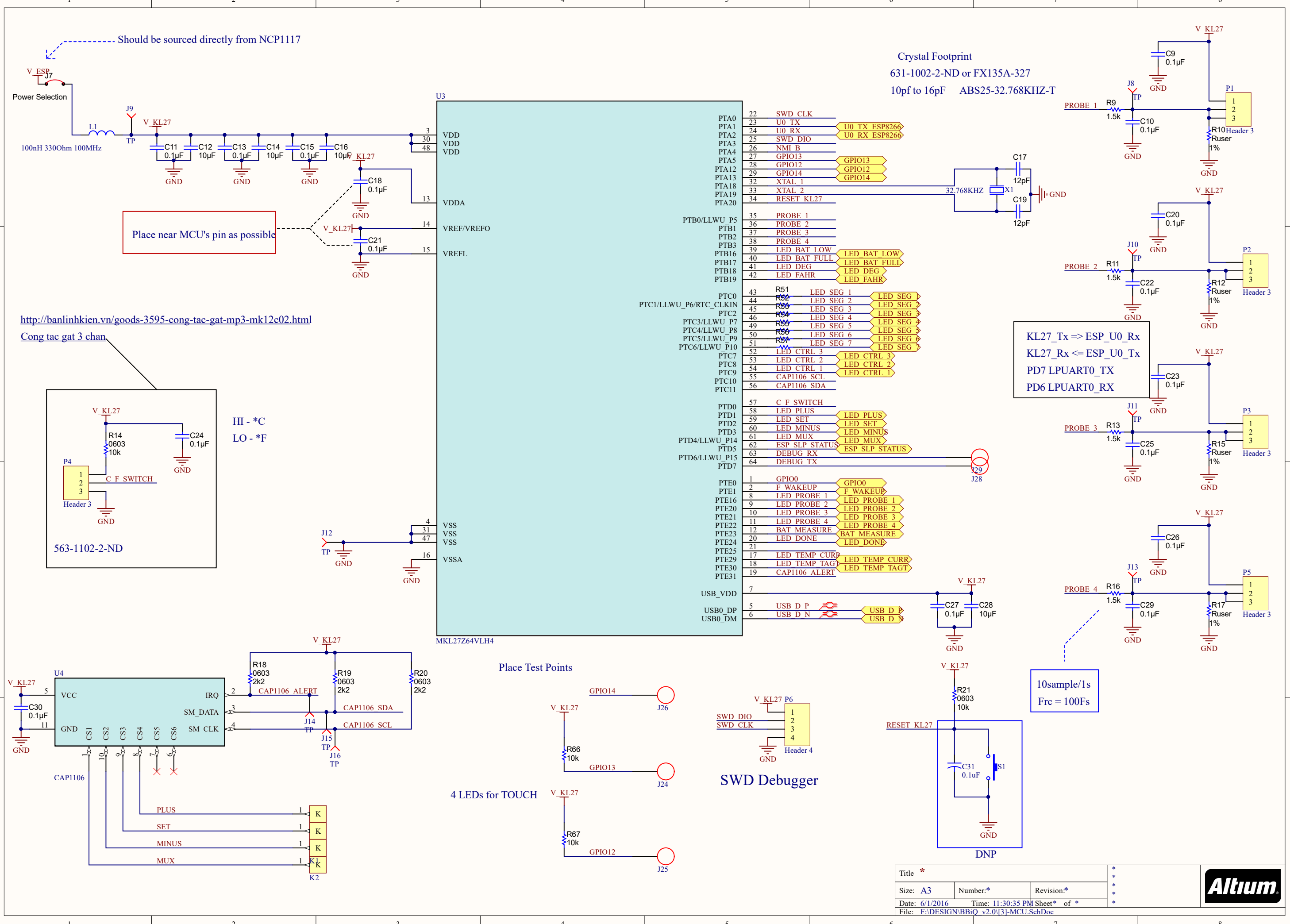
Find footprint before layout

Should be a Bulk Cap.

Battery Holder

Note:

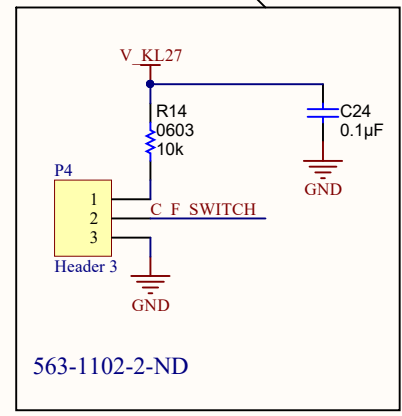
Vmax = 4.5V
Vmin = 3.0V



Should be sourced directly from NCP1117

Place near MCU's pin as possible

<http://banlinhkien.vn/goods-3595-cong-tac-gat-mp3-mk12c02.html>
Cong tac gat 3 chan



HI - *C
LO - *F

Place Test Points

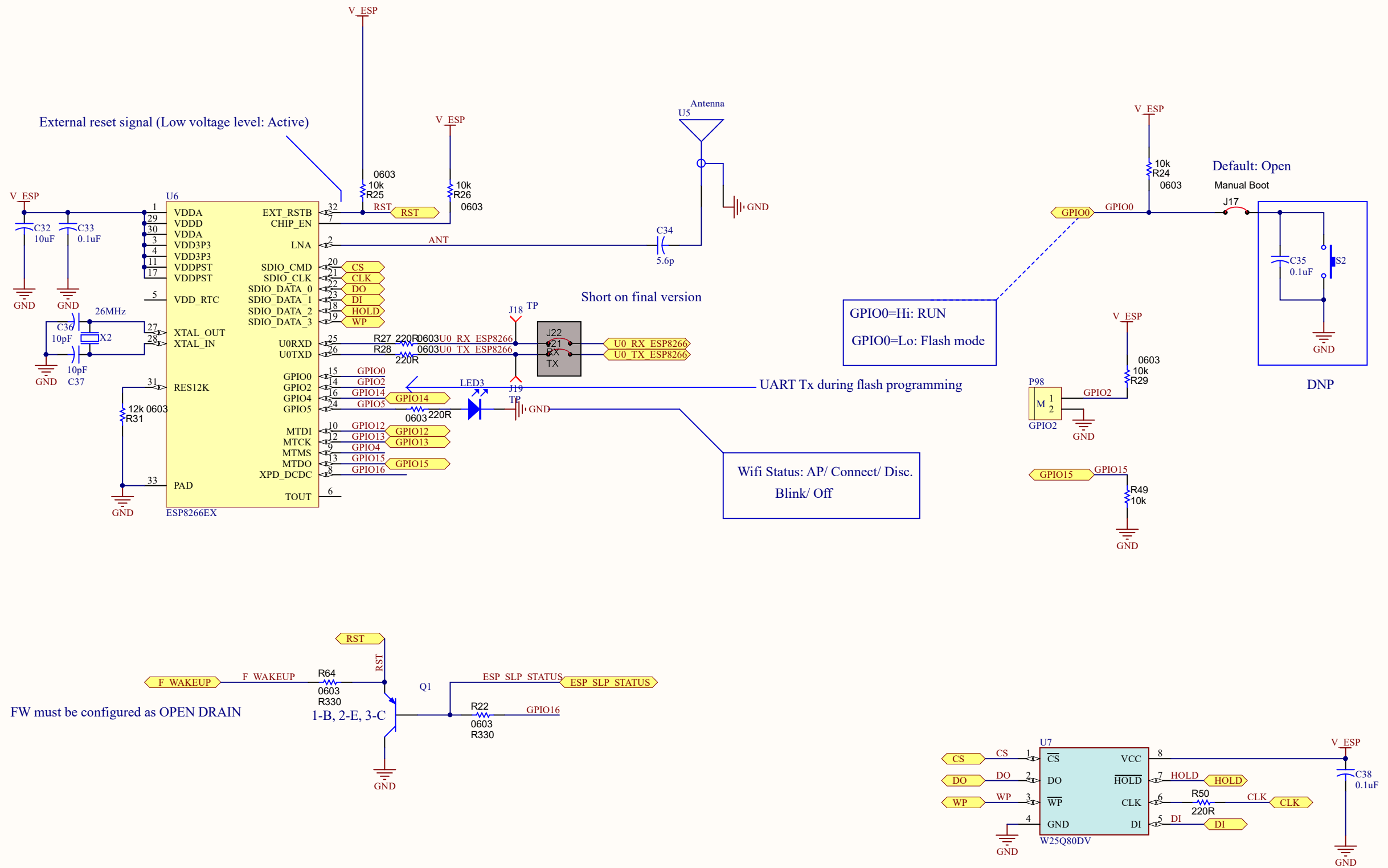
4 LEDs for TOUCH

SWD Debugger

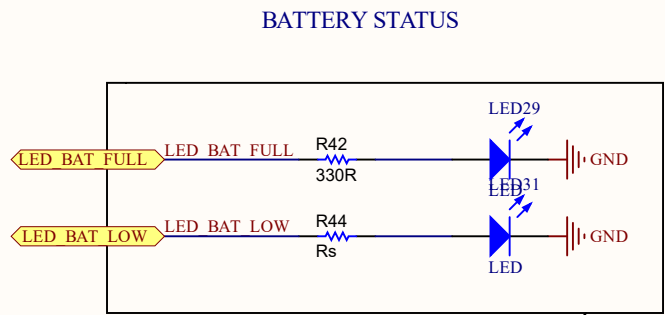
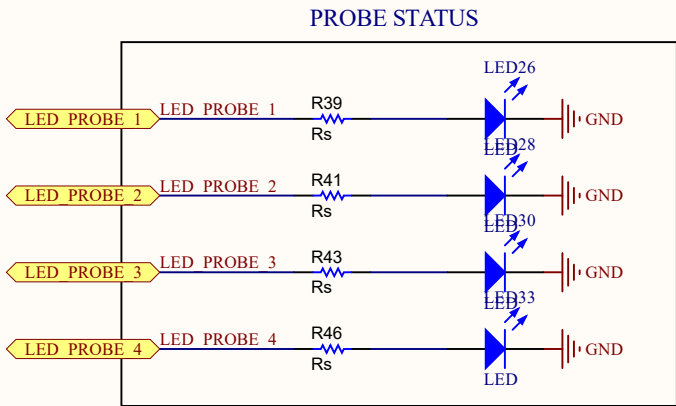
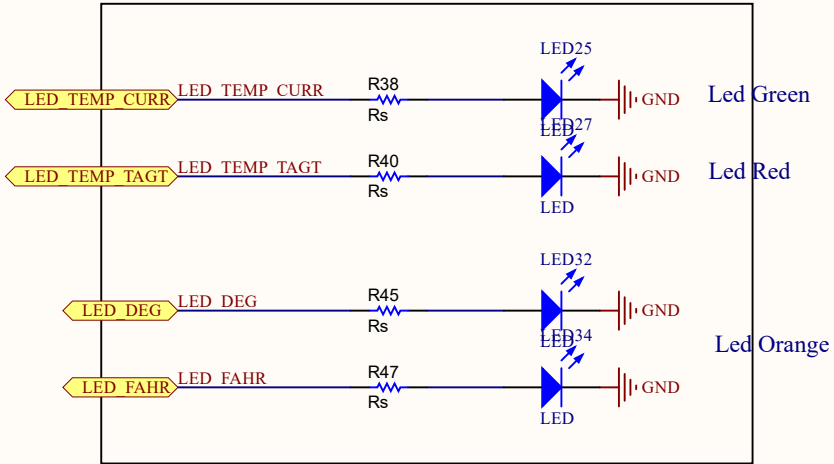
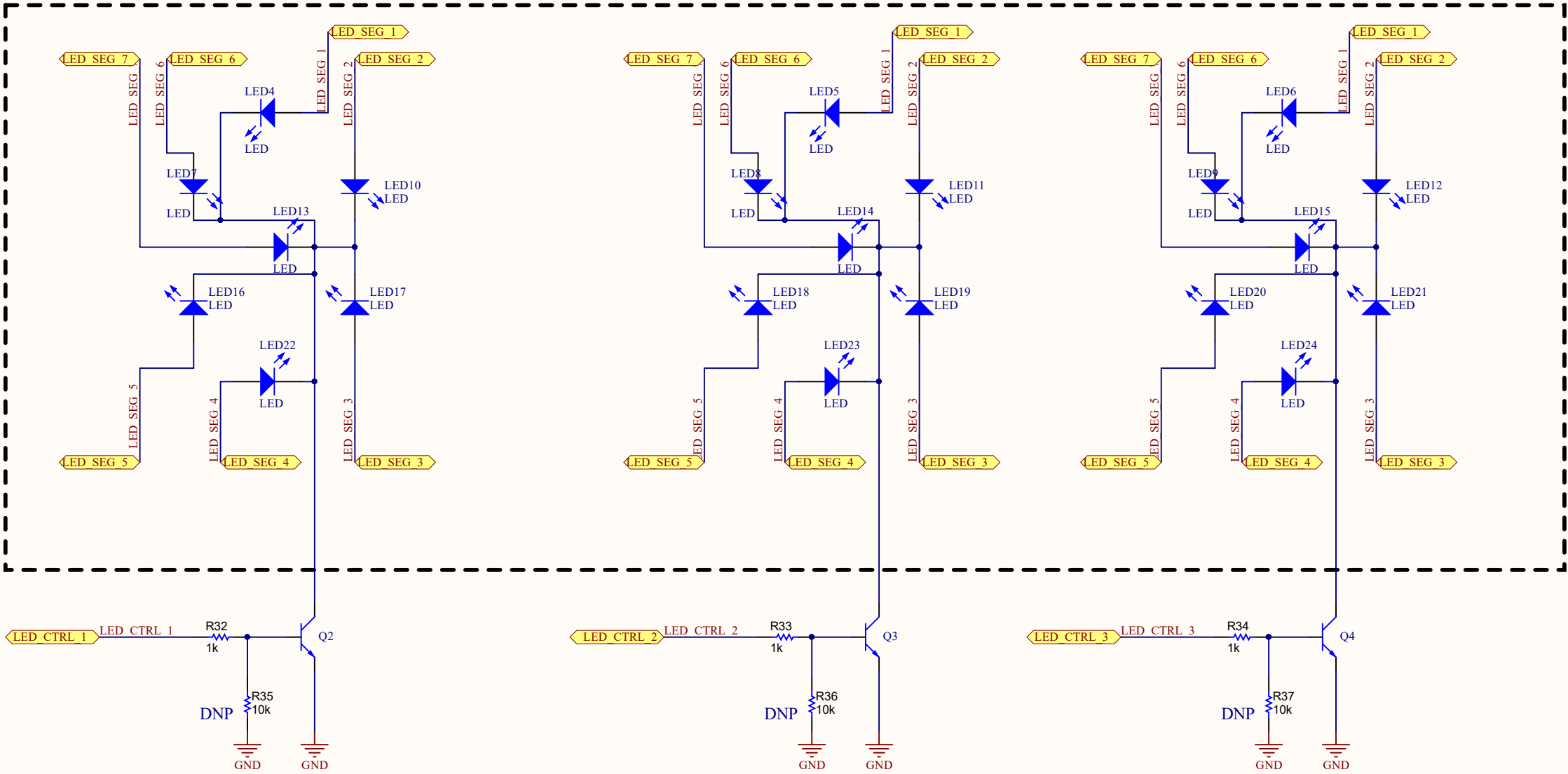
10sample/1s
Frc = 100Fs

DNP

Crystal Footprint
631-1002-2-ND or FX135A-327
10pf to 16pf ABS25-32.768KHZ-T

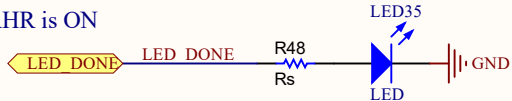


Common Cathod



Two differrent colors and rhytmh

C_F_SWITCH = 0: LED_DEG is ON
C_F_SWITCH = 1: LED_FAHR is ON



A

A

B

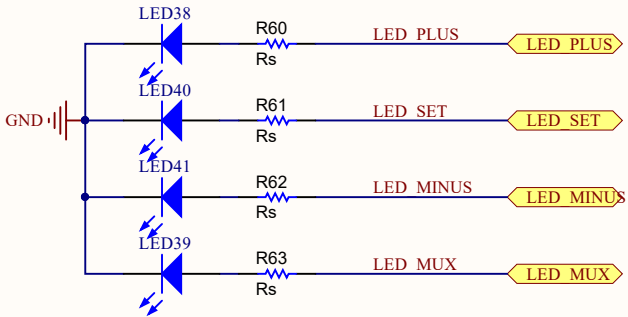
B

C

C

D

D



TEST

MM/YY

J27

LED2 LED29 LED31
R2 R42 R44

P98 J17

J24 J25

R67
R66

J21

J18

J22 P6

LED35
LED25

LED3
R30
R38

LED27

R40

LED4
LED7

LED26 LED28
LED30 LED33

LED5
LED11
LED14

LED6
LED9
LED15

LED12

LED34

R47

LED16 LED18
LED17 LED18

LED13
LED16
LED22

LED19
LED23

LED21
LED20
LED24

LED32

R45

C24 R14
R43 R39
R46 R41

J7

J29

J28

J8

J10

J11

J13

R55
R56
R57

R51
R52
R53
R54

J4

J1

R1

LED1

P99

J2

J3

J16

J9

J15

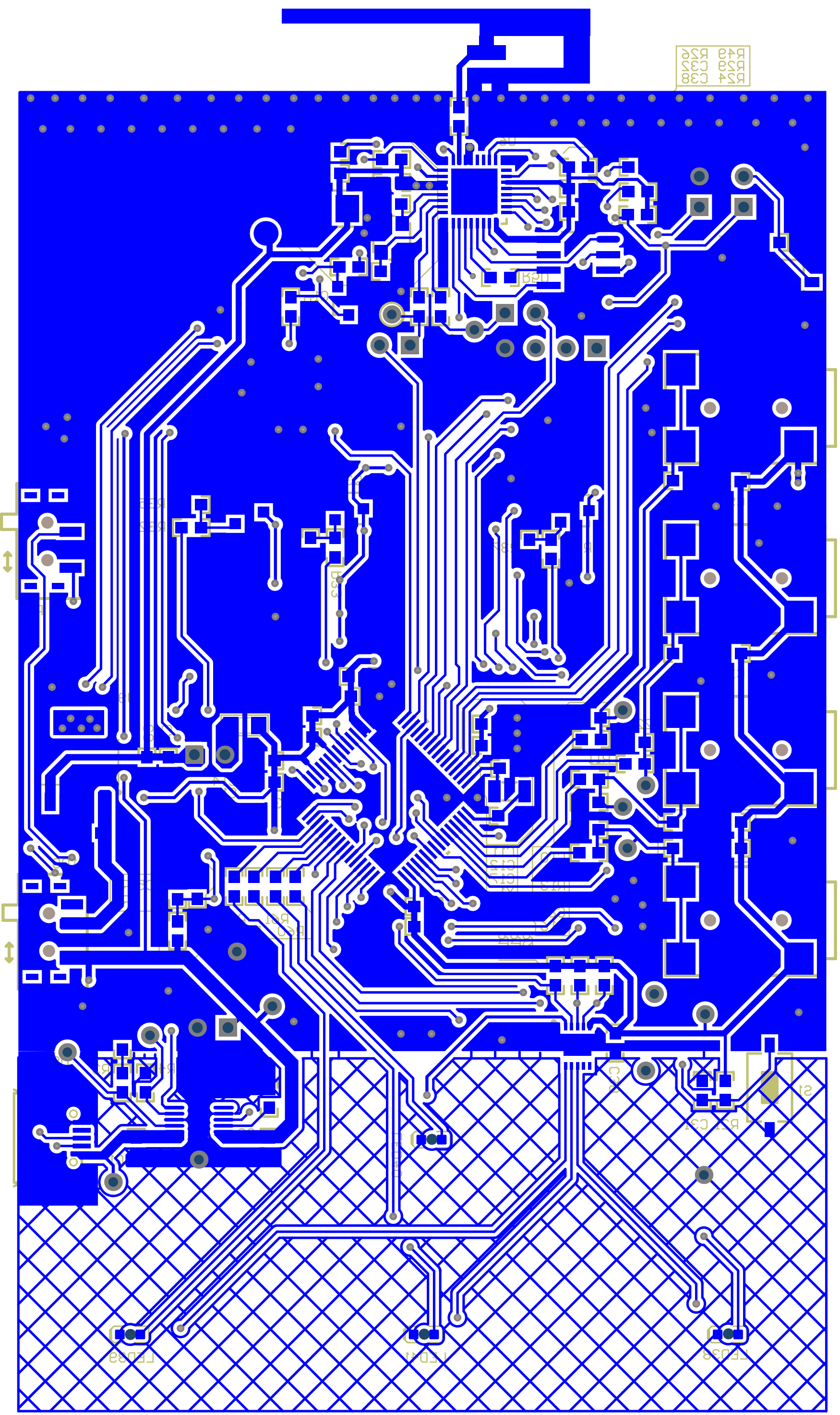
K2

J23

J5

J12

V1.1



TEST	
MM/YY	

J27

P98 J17

LED2 LED29 LED31
R2 R42 R44

J27

J21

J18

J22

P6

J26

J25

R67

R66

LED35

LED25

LED27

R40

LED3

R30

R38

LED4

LED7

LED26 LED28
LED30 LED33

LED5

LED11

LED14

LED6

LED9

LED15

LED12

LED34

R47

LED10 LED8
LED17 LED18

LED13

LED16

LED22

LED19

LED23

LED21

LED20

LED24

LED32

R45

C24 R14
R43 R39
R46 R41

J7

J29

J28

J4

R55
R56
R57

J1

R1

J2

J3

J23

J5

J23

K2

R51

R52

R53

R54

J8

J10

J11

J13

J16

J9

J15

J12

V1.1