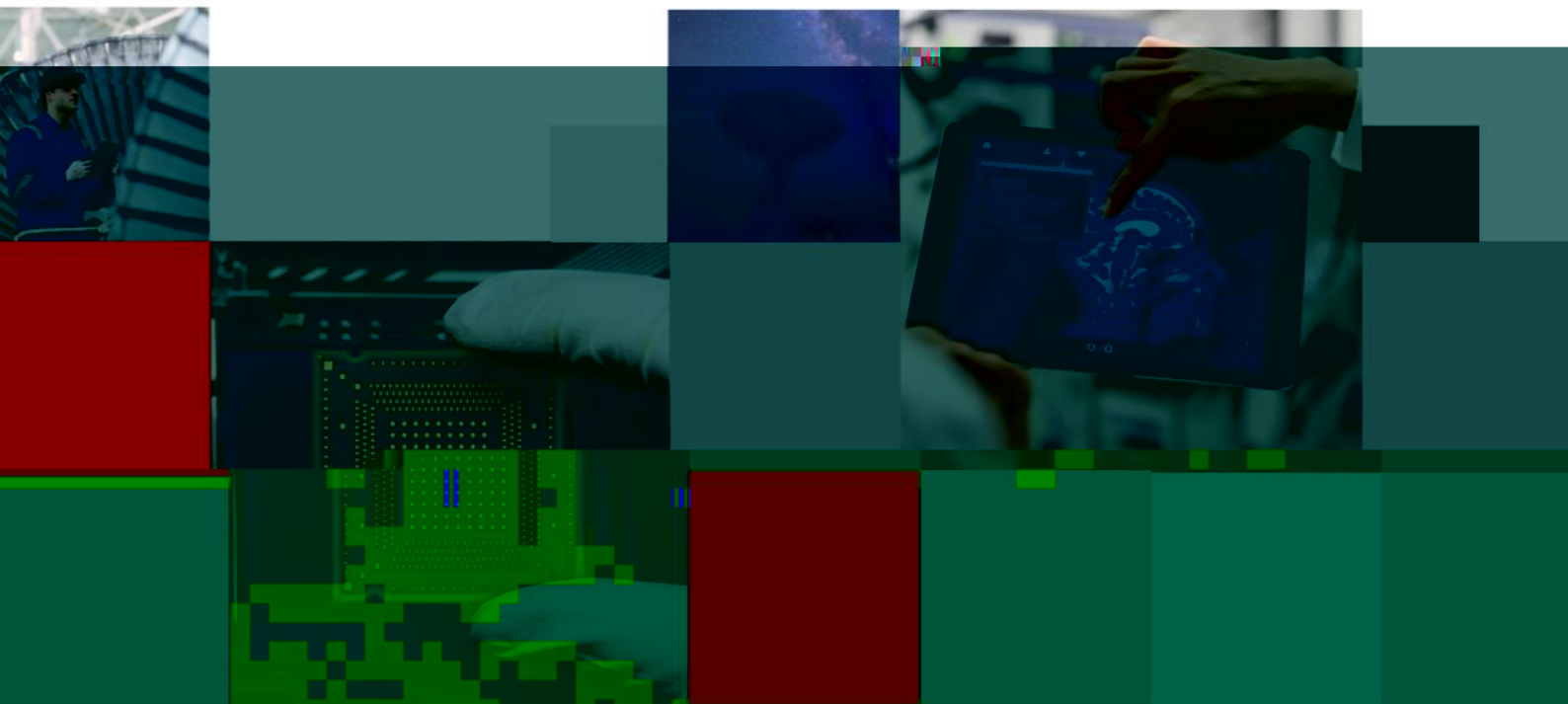


EC800X QuecDuino EVB

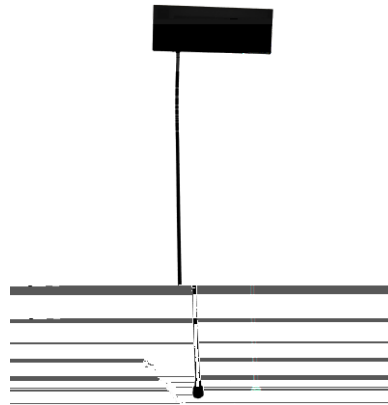
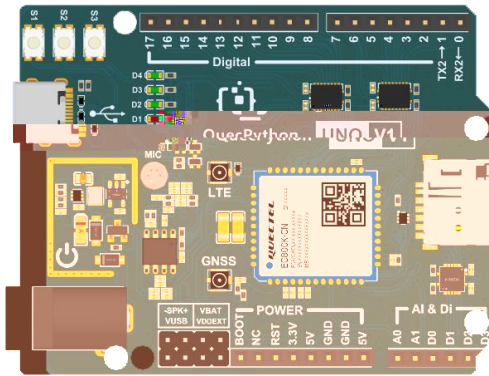


1

EC800X QuecDuino EVB EC800
EC800M EC800K EG800K EC800E

EC800X QuecDuino EVB

QuecDuino EVB 4G FPC



1 EVB

Features

CPU

EC800 / EG800 Module Series

Pins

22x digital pins (GPIO), D0-D3,0-17 up to

2x analog input pins (ADC), A0-A1

Peripherals

Antenna Interface,LTE & GNSS(option)

SIM Interface, NANO SIM

USB 2.0, TypeC

Arduino female header Interface

Audio(option)

1xMIC onboard

1x 3W Class-D Stereo Amplifier

Power

Recommended input voltage (VIN) is 4.5-5.25 V/2A

Power via USB-C® at 5 V

Power via DC05® at 5-16V

3.3V/200mA output

Communication

4x UART (pin 0, 7) up to

1x SPI (pin 10-13, ICSP header)

1x I2C (pin 16, 17, SDA, SCL)

3x KEY(S1-S3)

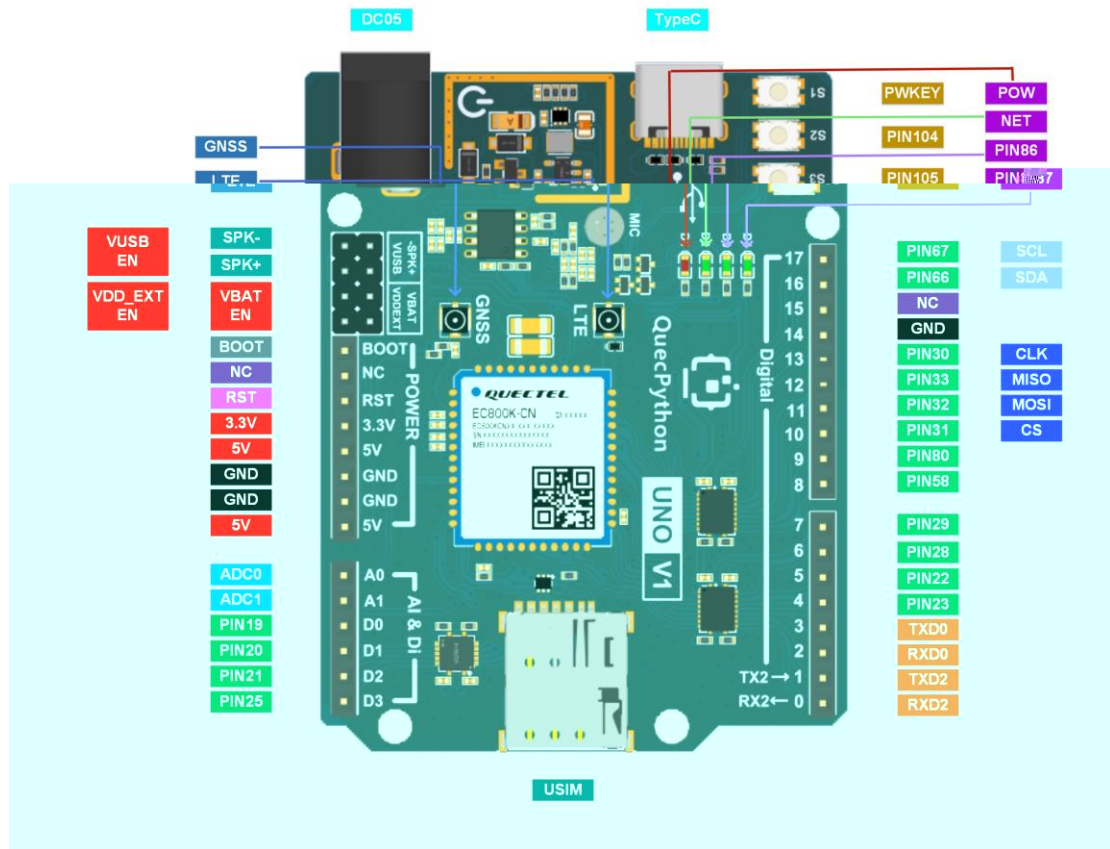
4x LED(D1-D4)

1x RESET(Pull-down reset Module)

1x BOOT(According to different model modules pull up or Pull-down the BOOT pin, Before power-on)

2

2.1



2.2

1

		DC
BOOT	USB_BOOT	
NC		
RST	RESET	

3.3V		3.3V/200mA
5V	/	5V/2A V1.1
GND		
GND		
5V	/	5V/2A V1.1
A0	ADC0	0-1.2 V
A1	ADC1	0-1.2 V
D0	I/O 19	3.3V
D1	I/O 20	3.3V
D2	I/O 21	3.3V
D3	I/O 25	3.3V
0		3.3V
1		3.3V
2		3.3V
3		3.3V
4	I/O 23	3.3V
5	I/O 22	3.3V
6	I/O 28	3.3V
7	I/O 29	3.3V
8	I/O 58	3.3V
9	I/O 80	3.3V
10	I/O 31	3.3V
11	I/O 32	3.3V
12	I/O 33	3.3V
13	I/O 30	3.3V
14		
15	NC	
16	I/O 66	3.3V

BOOT
BOOT

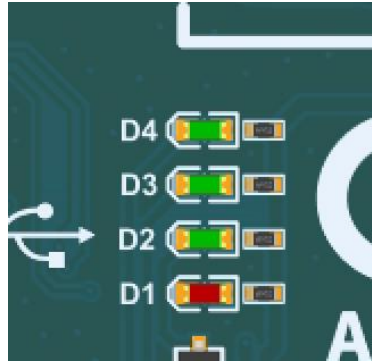
BOOT

BOOT GND

2.3

EVB 4

D1



D2

2

	200ms /1800ms	
D2	1800ms /200ms	
	125ms /125ms	

D3 D4

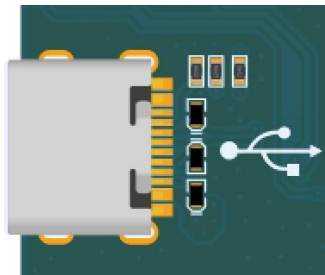
86 87

3 SIM



EVB NANO SIM USIM ETSI IMT-2000
1.8 V 3.0 V USIM

4 USB

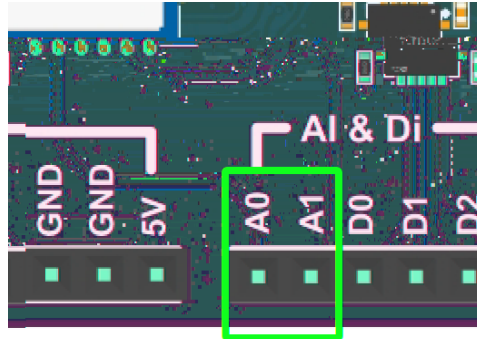


EVB 1 TypeC USB USB USB 2.0
USB 2.0 480 Mbps 12 Mbps
AT GNSS NMEA

5 ADC

EVB 2

ADC



3 ADC

参数	最小值	典型值	最大值	单位
ADC0 电压	0	-	1.2	V
ADC1 电压	0	-	1.2	V
ADC 分辨率	-	-	12	位

6

6.1

6.1.1

5

引脚名	引脚号	I/O	描述	备注
ANT_MAIN	35	AIO	主天线接口	50 Ω 特性阻抗。

6

下行频段	发送 (MHz)	接收 (MHz)	频段
30	2110~2170	1920~1980	LTE-FDD B1
35	1805~1880	1710~1785	LTE-FDD B3
	880~960	824~915	LTE-FDD B5
	925~960	880~915	LTE-FDD B8
25	2010~2025	2010~2025	LTE-TDD B34
20	2570~2620	2570~2620	LTE-TDD B38
20	1880~1920	1880~1920	LTE-TDD B39
00	2300~2400	2300~2400	LTE-TDD B40
75	2535~2675	2535~2675	LTE-TDD B41

6.1.2

7

最小值	频段	最大值
± 2 dB < -39 dBm	LTE-FDD B1/B3/B5/B8	23 dBm
± 2 dB < -39 dBm	LTE-TDD B34/B38/B39/B40/B41	23 dBm

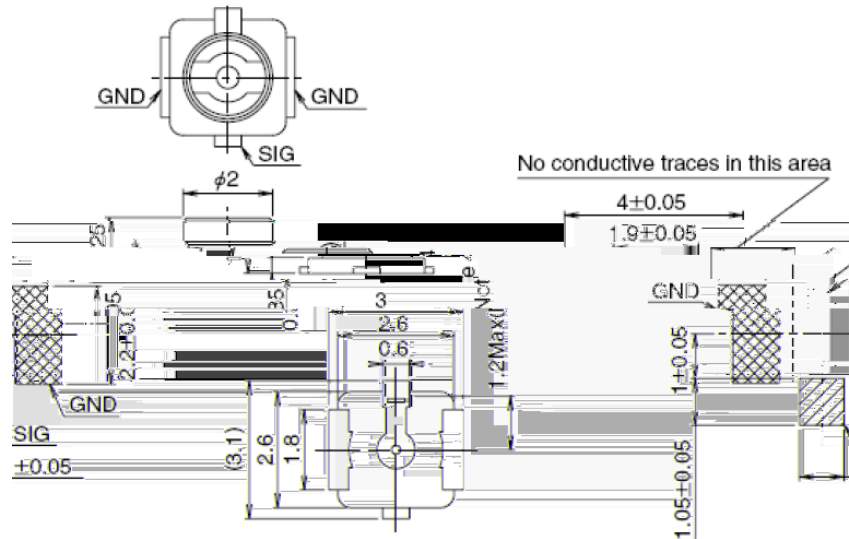
6.1.3

8

频段	接收灵敏度 (典型值) (dBm)			3GPP 要求 (主集 + 分集)
	主集	分集	主集 + 分集	
LTE-FDD B1 (10 MHz)	-99.5 dBm	-	-	-96.3 dBm
LTE-FDD B3 (10 MHz)	-99.0 dBm	-	-	-93.3 dBm
LTE-FDD B5 (10 MHz)	-98.5 dBm	-	-	-94.3 dBm
LTE-FDD B8 (10 MHz)	-99.0 dBm	-	-	-93.3 dBm
LTE-TDD B34 (10 MHz)	-100.0 dBm	-	-	-96.3 dBm
LTE-TDD B38 (10 MHz)	-99.0 dBm	-	-	-96.3 dBm
LTE-TDD B39 (10 MHz)	-100.0 dBm	-	-	-96.3 dBm
LTE-TDD B40 (10 MHz)	-100.5 dBm	-	-	-96.3 dBm
LTE-TDD B41 (10 MHz)	-99.0 dBm	-	-	-94.3 dBm

6.3

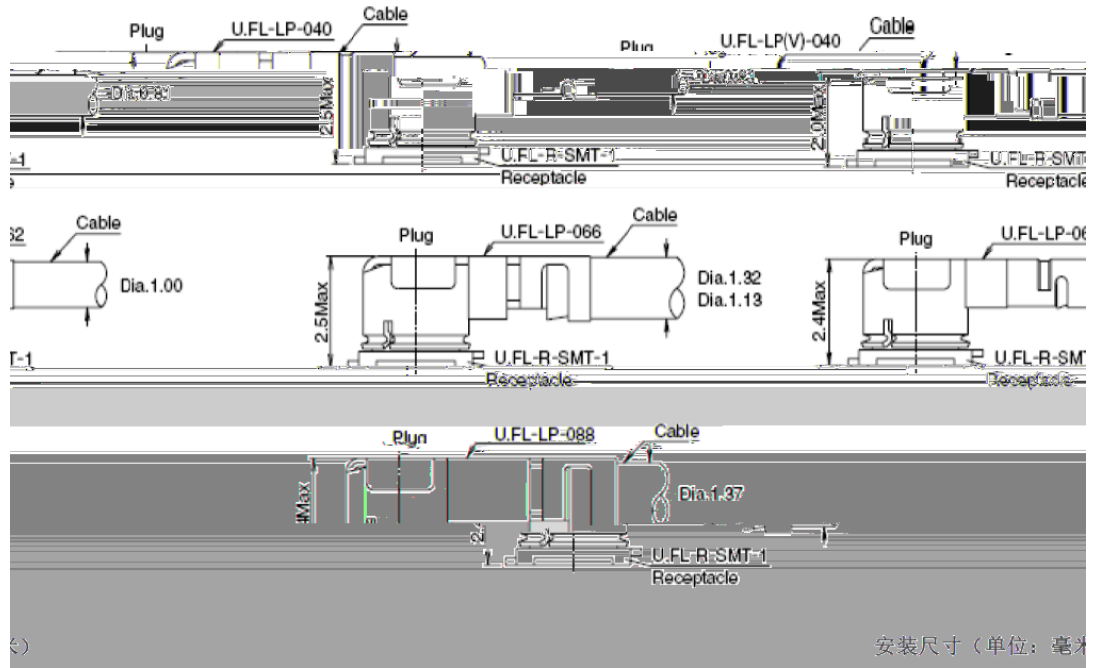
EVB



天线连接器尺寸 (单位: 毫米)

U.FL-LP

L-LP 连接线系列			U.FL-LP 连接线系列		
3.4	4	5	4	4	4
2.0mm Max. (1.9mm Nom.)	2.4mm Max. (2.3mm Nom.)	2.4mm Max. (2.3mm Nom.)	2.5mm Max. (2.4mm Nom.)	2.5mm Max. (2.4mm Nom.)	2.5mm Max. (2.4mm Nom.)
Coaxial cable	Coaxial cable	Coaxial cable	Coaxial cable	Coaxial cable	Coaxial cable
34.8	45.5	71.7	53.7	59.1	59.1
YES			RoHS-		



IPEX

<https://www.i-pex.com>

7

7.1

11

TypeC	-0.3	6	V
DC	-0.3	16	V
3.3V	-0.3	3.4	V
	-0.3	3.4	V
ADC0	-	1.2	V
ADC1	-	1.2	V
5V	-	2	A

7.2

12

TypeC		4.5	5.0	5.25	V
DC		4.5	12	16	V
I	LTE	-	1.5	2	A

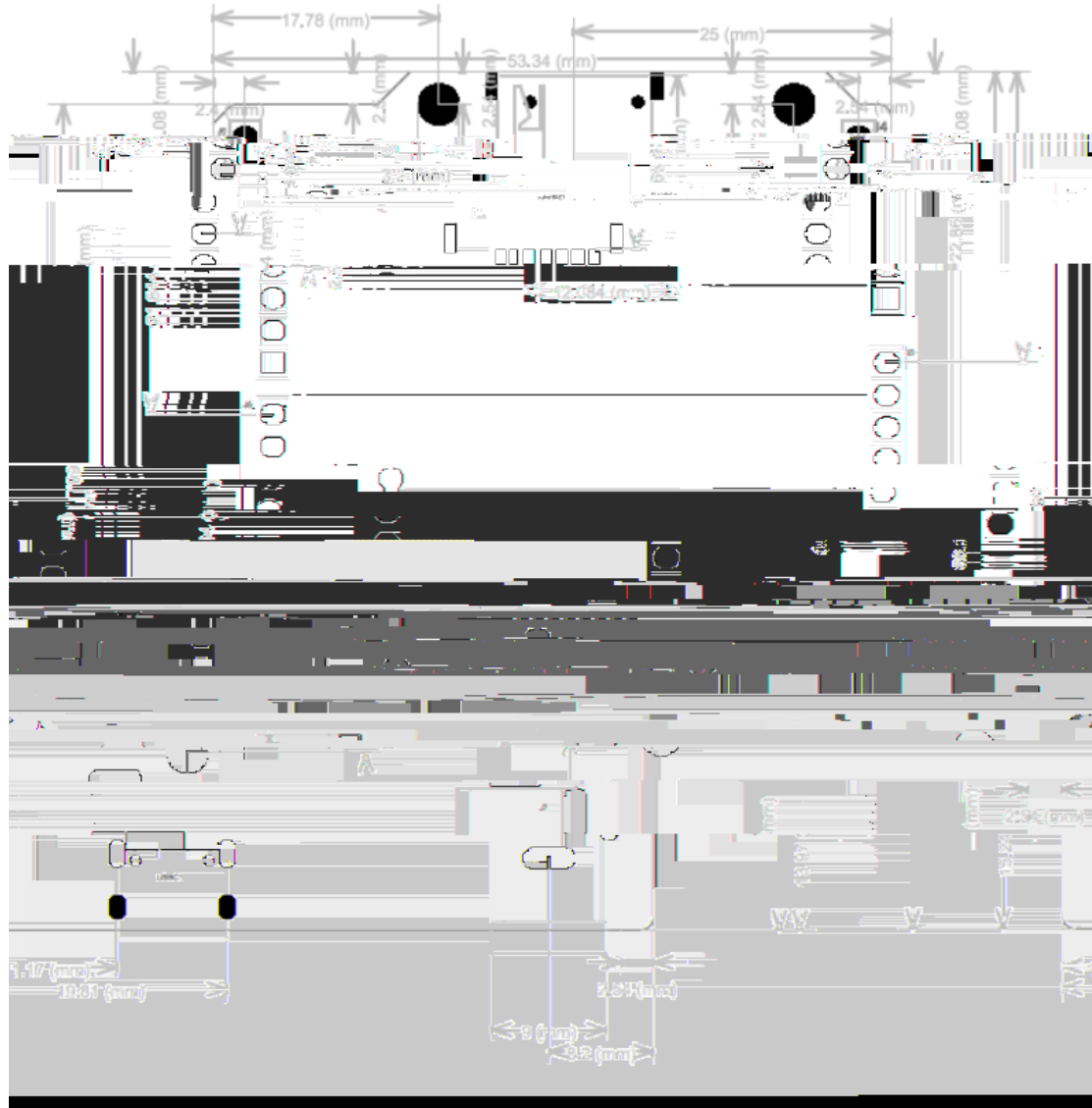
7.3

13 ESD

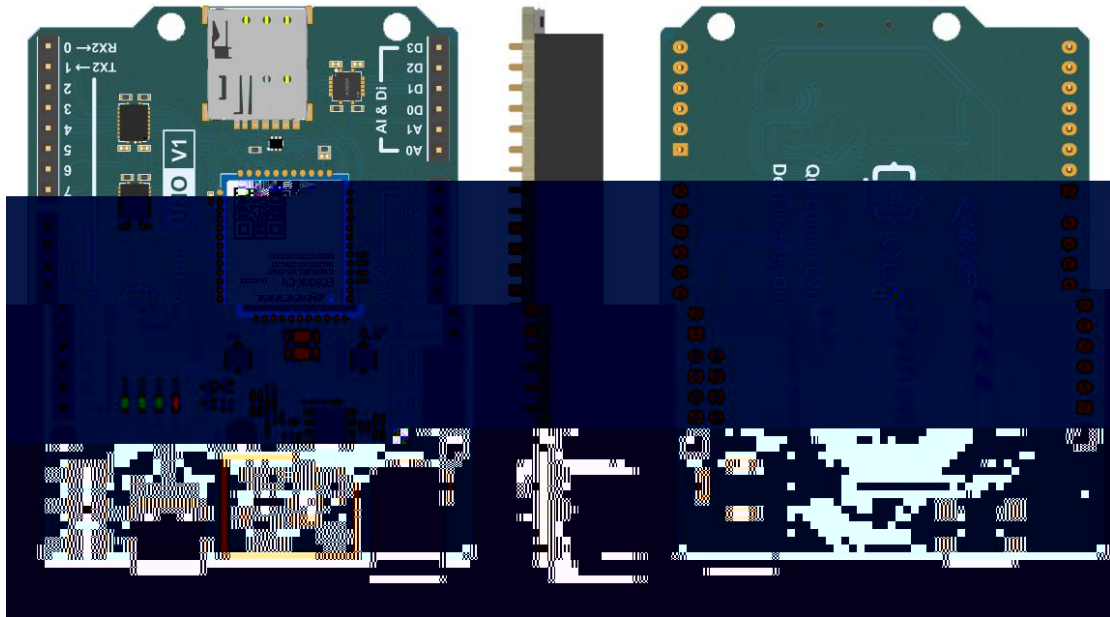
5V GND	8	10		KV
USB	8	10		KV

8

8.1



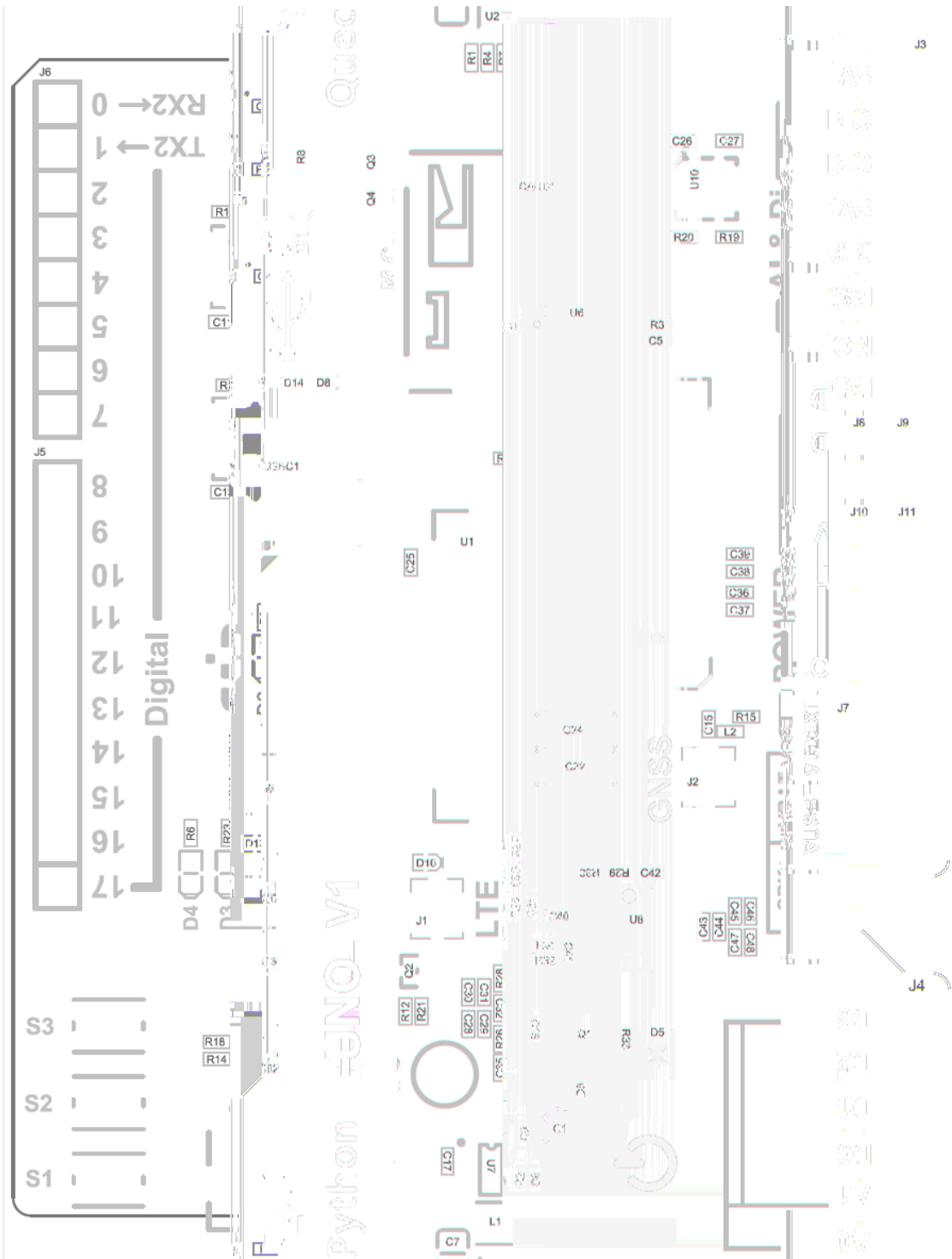
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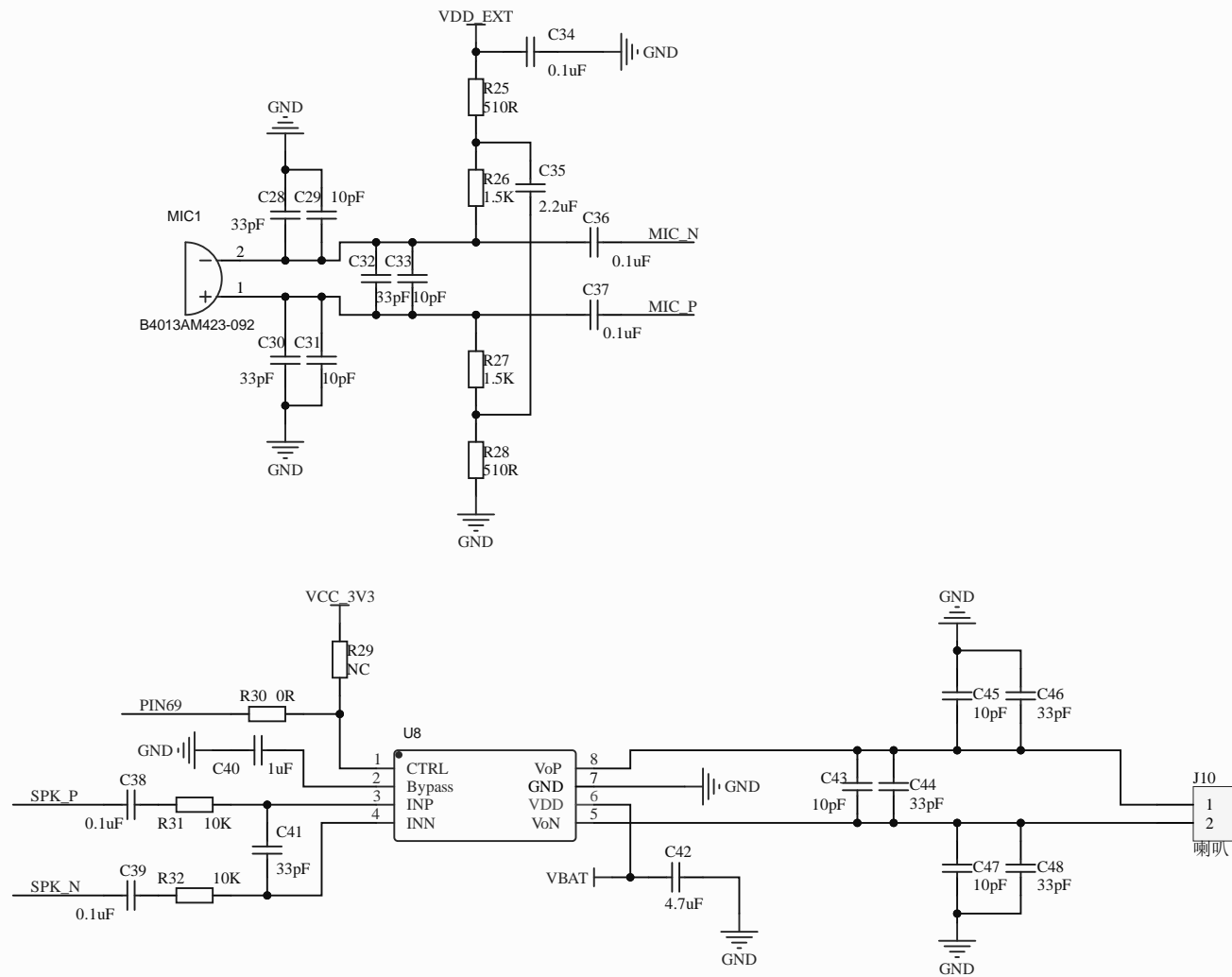


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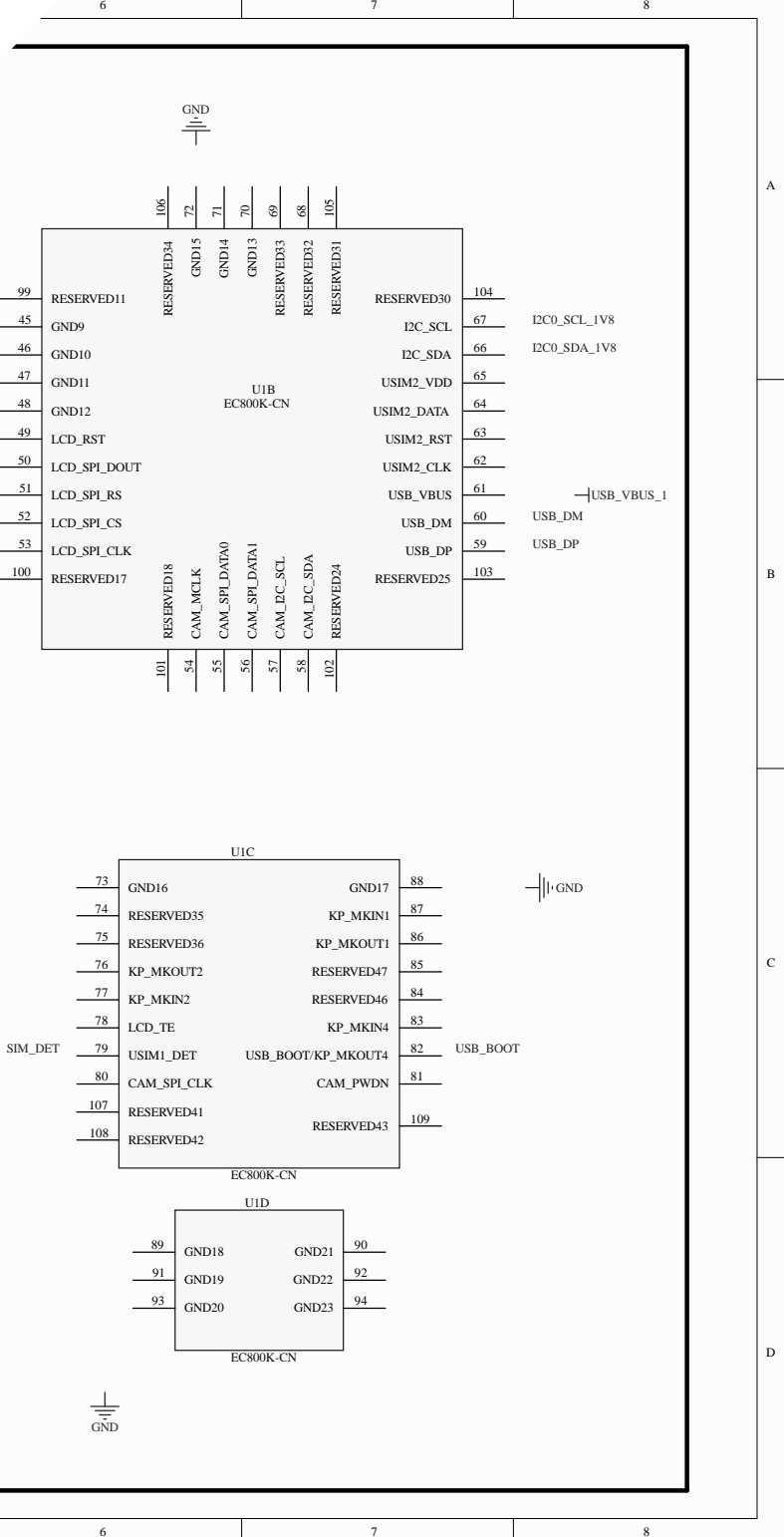
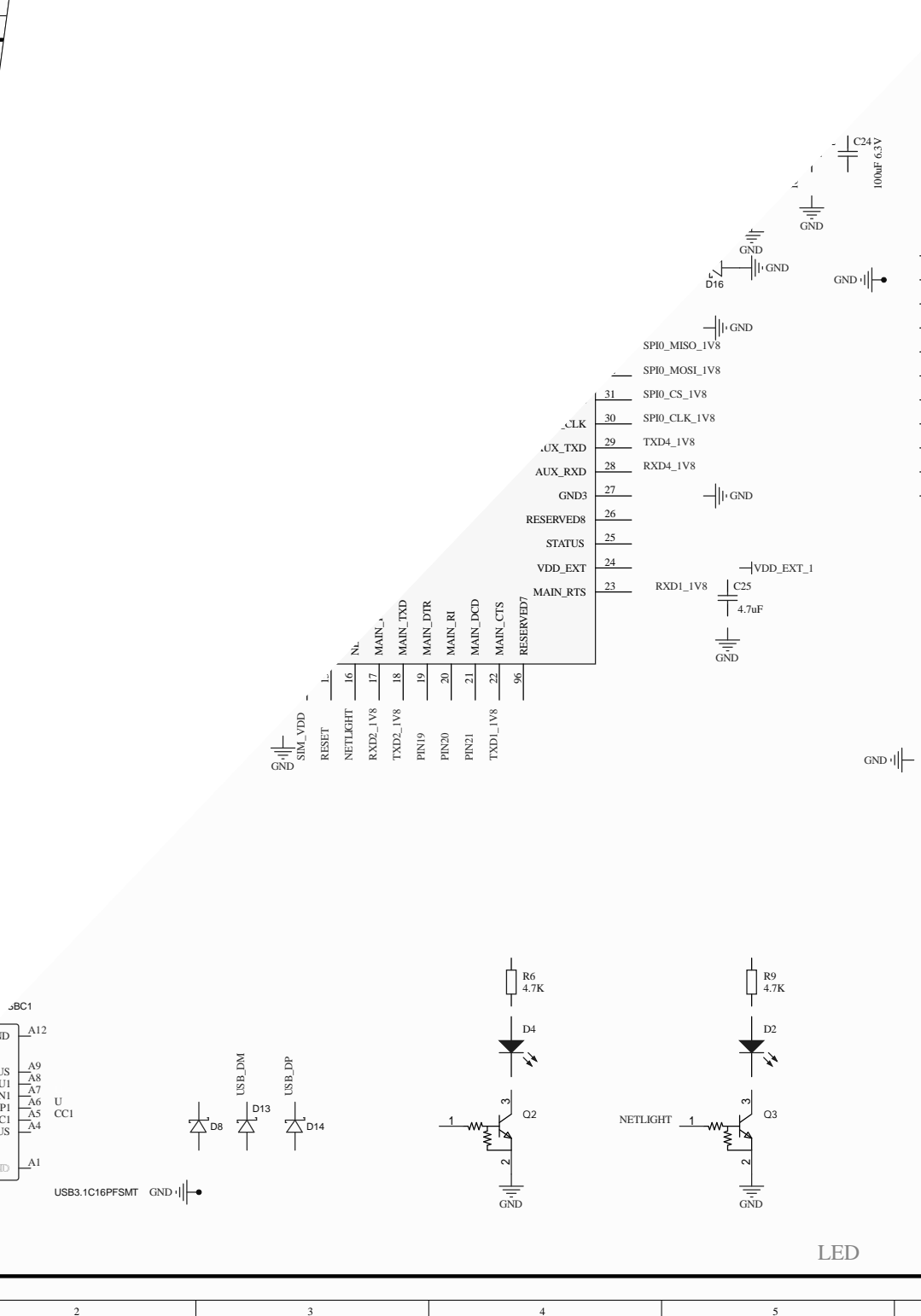
- 1
- 2

10 EVB



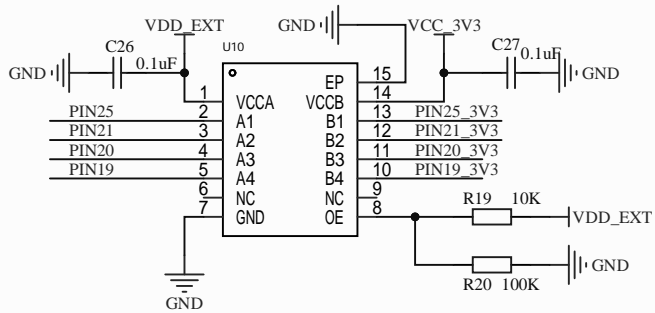
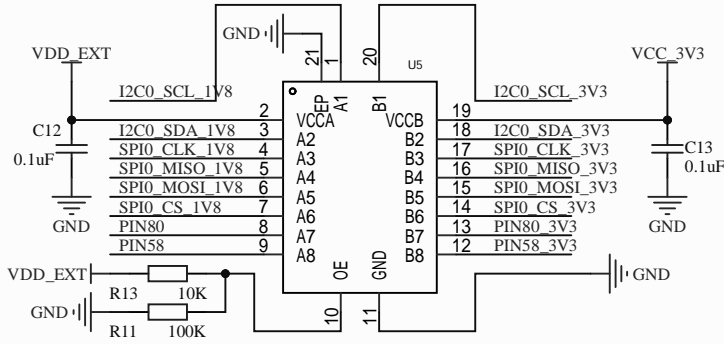
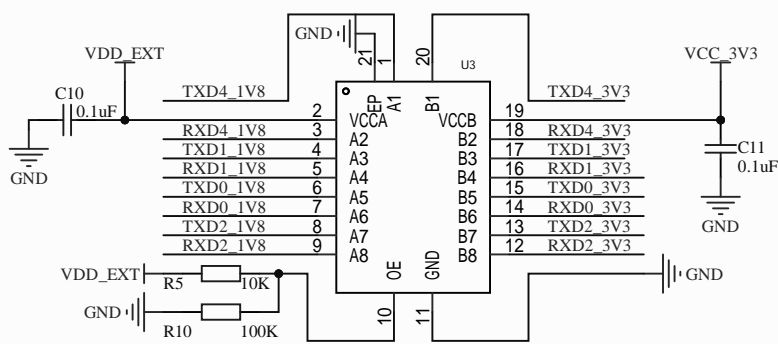


AUDIO

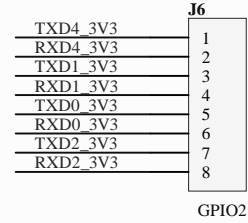
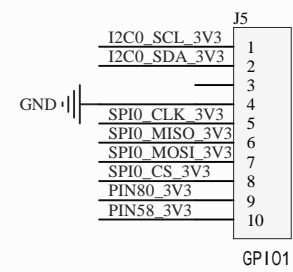
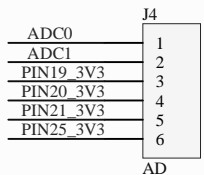
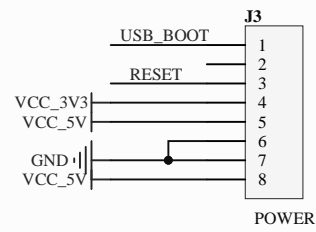
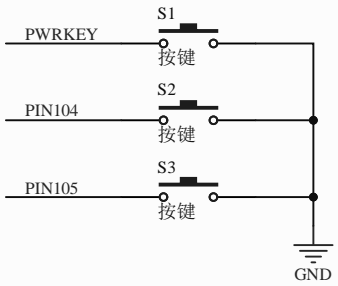


USBC

LED



电平转换



按键和排母

1

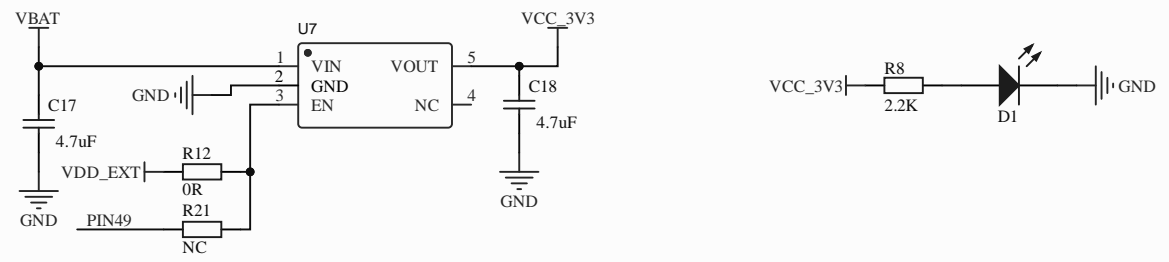
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3

4

A

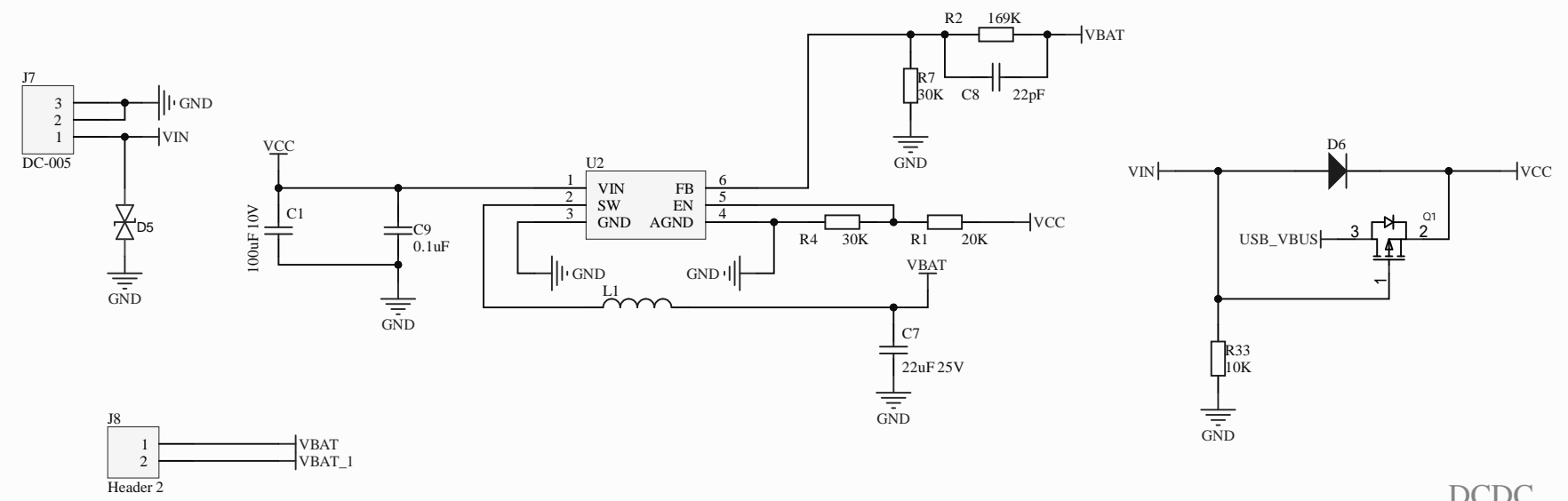
A



LDO

B

B



DCDC

D

D

1

2

3

4

1

2

3

4

5

6

A

A

B

B

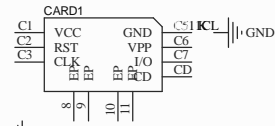
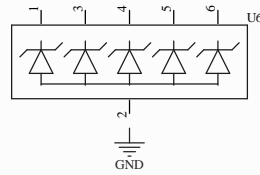
C

C

D

D

SIM_VDD
 SIM_RST
 SIM_CLK
 SIM_DATA



USIM

1

2

3

4

5

6