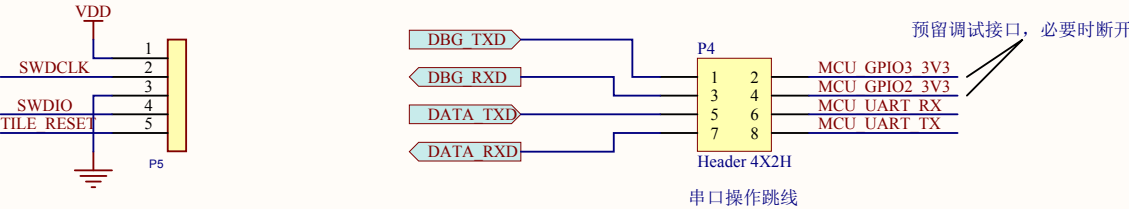
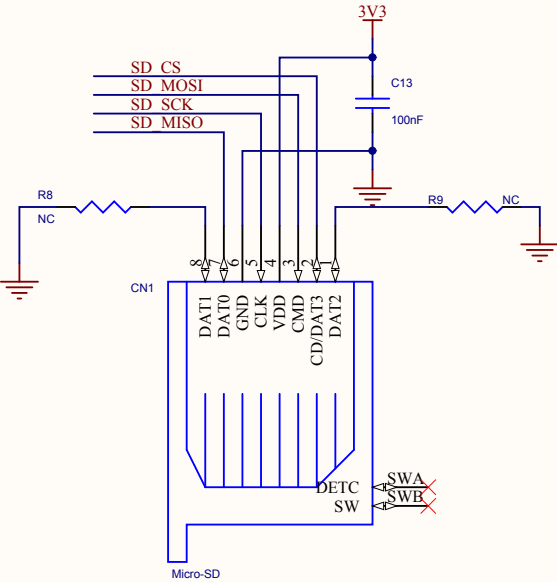
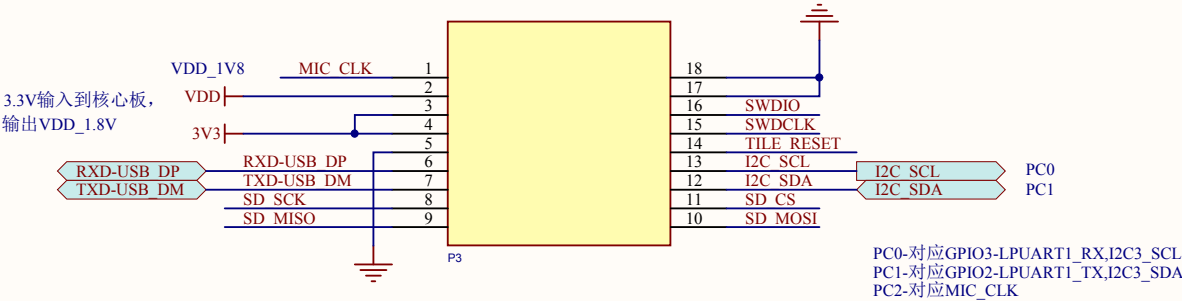




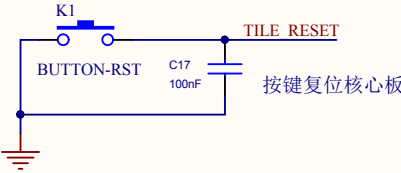
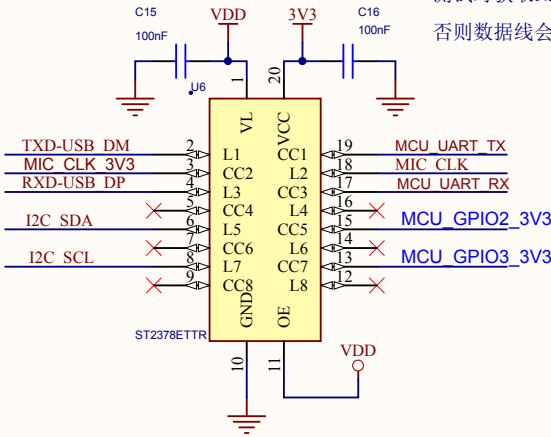
SensorTile Footprint

MCU核心板接口

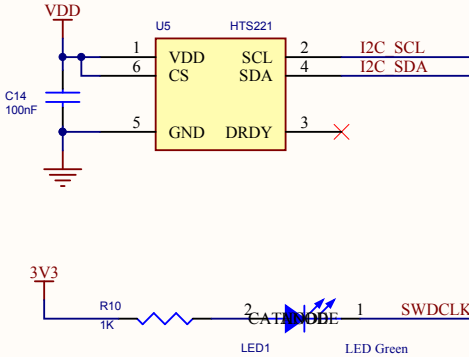


电平转换，VDD\_1.8V转3.3V

测试时获取NB数据需要断开USB，通过电池供电  
否则数据线会冲突

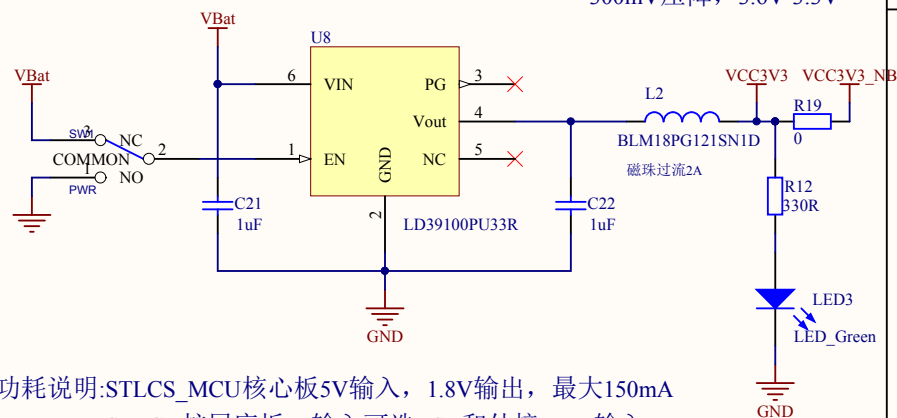


温湿度传感器

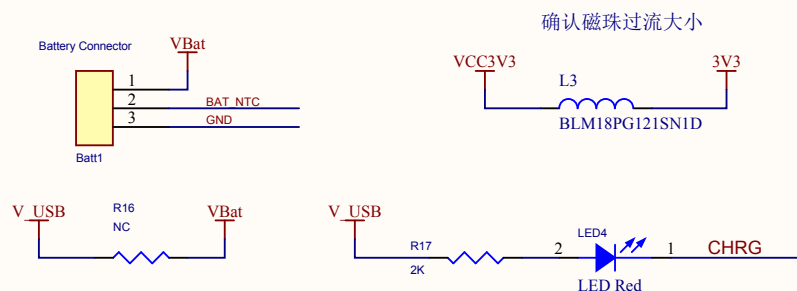


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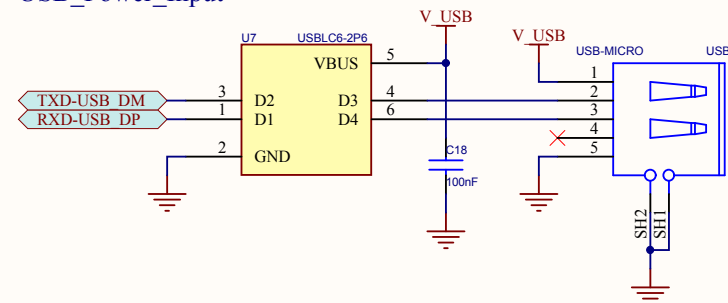
300mV压降, 3.6V-3.3V



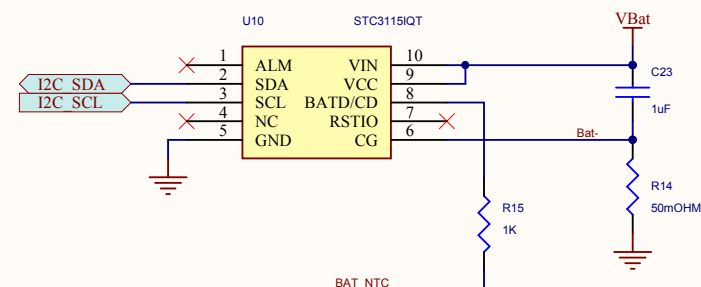
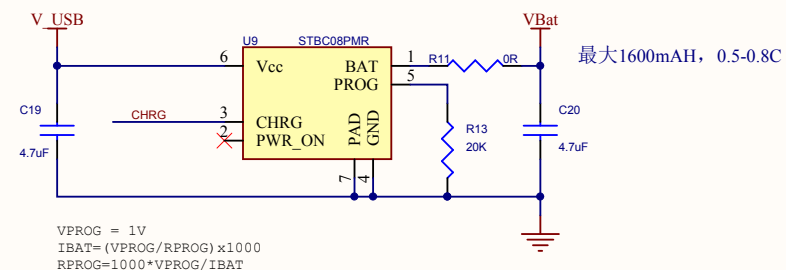
功耗说明:STLCS\_MCU核心板5V输入, 1.8V输出, 最大150mA  
STLCX扩展底板, 输入可选USB和外接, 5V输入  
3.3V输出, 最大200mA, 加上我们这块NB的板子,  
单个USB取电勉强可满足需要



## USB\_Power\_Input

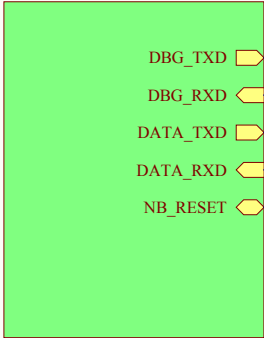


## Battery Charger

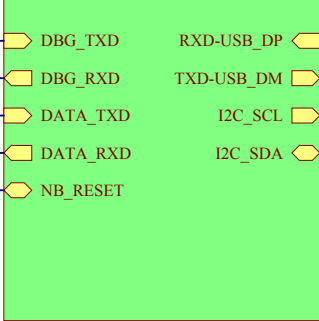


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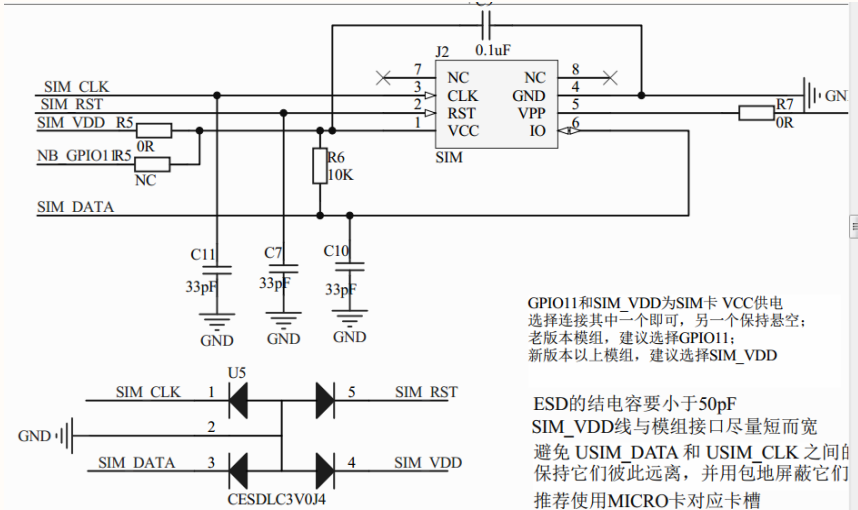
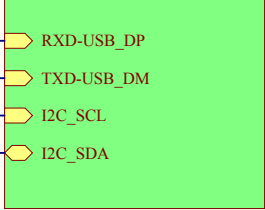
file1  
LSD1EV-STMIOTBD\_NB\_Sensortile\_V01.SchDoc



file2  
LSD1EV-STMIOTBD\_Sensortile\_Bottom\_V01.SchDoc



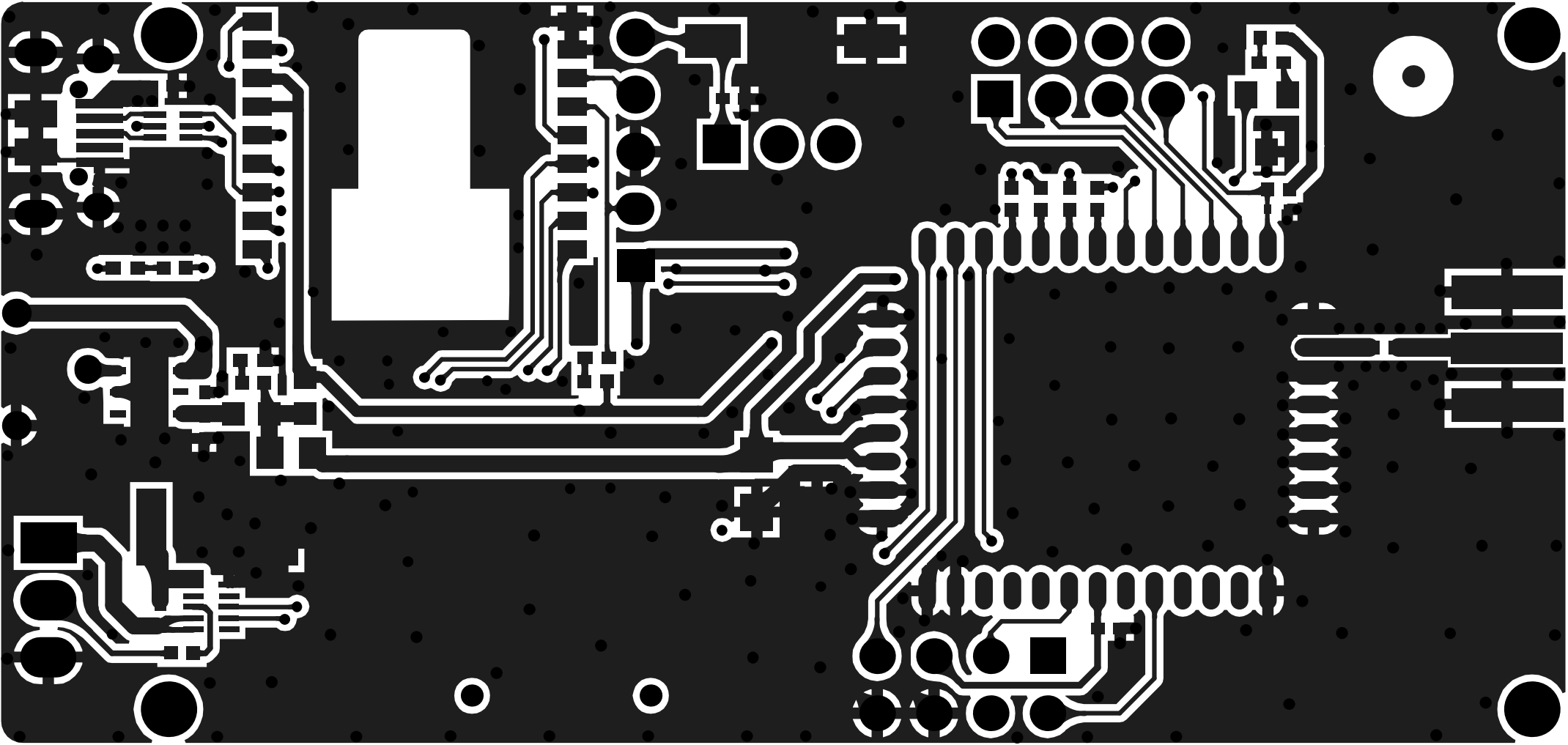
file3  
LSD1EV-STMIOTBD\_Sensortile\_Power\_V01.SchDoc



GPIO11和SIM\_VDD为SIM卡 VCC供电  
选择连接其中一个即可，另一个保持悬空；  
老版本模组，建议选择GPIO11；  
新版本以上模组，建议选择SIM\_VDD

ESD的结电容要小于50pF  
SIM\_VDD线与模组接口尽量短而宽  
避免 USIM\_DATA 和 USIM\_CLK 之间的  
保持它们彼此远离，并用包地屏蔽它们  
推荐使用MICRO卡对应卡槽  
SIM电路仅支持3.0VSIM卡

Title			ST NB_Sensortile_Evaluation Borad
Size	Number	Revision	
A4	<1>	V1.1	
Date:	2017/11/24	Sheet of	1
File:	C:\Users\...\\LSD1EV-STMIOTBD_Top	Drawn By	01aShi10xeng



Comment	Description	Designator	Footprint	LibRef	Quantity
Battery Connector	Battery Connector Molex	Batt1	XH3-2.54	CON3	1
0.01uF	Capacitor	C1, C2, C8, C9	0402-C	Cap	4
100nF	Capacitor, Capacitor, Ceramic capacitor, Ceramic capacitor, Ceramic capacitor, Ceramic capacitor, Ceramic capacitor	C3, C10, C13, C14, C15, C16, C17, C18	0402-C	Cap, Cap, CAP NP, CAP NP_0, CAP NP, CAP NP, CAP NP, CAP NP	8
10uF	Polarized Capacitor (Radial)	C4	3216-TA	Cap Pol1	1
33pF	Capacitor	C5, C6, C7	0402-C	Cap	3
NC	Capacitor	C11, C12	0402-C	Cap	2
4.7uF	Ceramic capacitor	C19, C20	0402-C	CAP NP_0, CAP NP	2
1uF	Capacitor, Capacitor, Ceramic capacitor	C21, C22, C23	0402-C	Cap, Cap, CAP NP_0	3
Micro-SD	Micro-SD	CN1	MICROSD	CONNECTOR MicroSD_0	1
TVS_Bi		D1, D2	SOD-923	TVS_Bi	2
BUTTON-RST		K1	3 X 6	BUTTON-SSMD	1
0R	Inductor, Resistor, SMD Resistor	L1, R1, R11	0402-R	Inductor, Res2, R_Dup1	3
Inductor	Inductor	L2	0603-R	Inductor	1
BLM18PG121SN1D	Inductor	L3	0603-R	Inductor	1
LED Green	LED Green	LED1	0402-1	LED_0	1
LED_Green	Typical RED, GREEN, YELLOW, AMBER GaAs LED	LED2, LED3	0402-1	LED2	2
LED Red	LED Red	LED4	0402-1	LED_0	1
Header 4X2	Header, 4-Pin, Dual row	P1	IDC8-2.54	Header 4X2	1
Header 5	Header, 5-Pin	P2	SIP5-2.54	Header 5	1
SensorTile	SensorTile	P3	SensorTile_on_mb_smt	CON16C_1	1
Header 4X2H	Header, 4-Pin, Dual row, Right Angle	P4	IDC8-2.54	Header 4X2H	1
CON5	Stripline M 9075x1 2.54mm	P5	sip5-2.54	CON5_0	1
Header 3	Header, 3-Pin	P6	sip3-2.54	Header 3	1
QNPN	NPN Bipolar Transistor	Q1	SOT-23-3P	QNPN	1
22R	Resistor	R2, R3, R4	0402-R	Res2	3
NC	Resistor, SMD Resistor, SMD Resistor, SMD Resistor, Resistor	R5, R8, R9, R16, R18	0402-R	Res2, R_0, R_0, R_Dup1, Res2	5
330R	Resistor	R6, R12	0402-R	Res2	2
330R/NC	Resistor	R7	0402-R	Res2	1
1K	SMD Resistor	R10, R15	0402-R	R_0	2
20K	SMD Resistor	R13	0402-R	R_Dup1	1
50mOHM	SMD Resistor	R14	2512-R	R_0	1
2K	SMD Resistor	R17	0402-R	R_0	1
0	Resistor	R19	0805-R	Res2	1
PWR	Slide Switch	SW1	SW_M091H	SW_KEY-SPDT_0	1
NB05_SMD		U1	LSD4NBN-LB05000001	NB05_SMD	1
SIM		U2	MUP-C791	SIM_Interface	1
ESDA5V3SC5/CESDLC3 V0J4		U3	SOT-353_3D	CESDLC3V0J4	1
ANT	RF Coaxial PCB Connector, MCX; Thru- Hole, Right-Angle Mount Socket, Blunt Post Terminal, 50 Ohm Impedance	U4	SMA_SMD_3D	COAX-F_2	1
HTS221	Humidity, Temperature	U5	HLGA-6L	74HC280_17	1
ST2378ETTR	8-bit level translator	U6	TSSOP-20P	74AC640/SO_2	1
USBLC6-2P6	USB Protection	U7	sot-666	USBF01W6_0_Dup1	1
LD39100PU33R		U8	DFN-6-3*3	LD39110	1
STBC08PMR	Battery Charger	U9	DFN095P-300X300X100- 6-EP	C78L03/SO_40	1
STC3115IQT	Pressure Sensor	U10	DFN10-STC3115	74HC280_18	1
USB-MICRO	USB Micro-B	USB1	MICRO-USB-1RC37B	USBMB-HRS-UX60SC	1