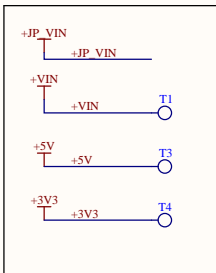


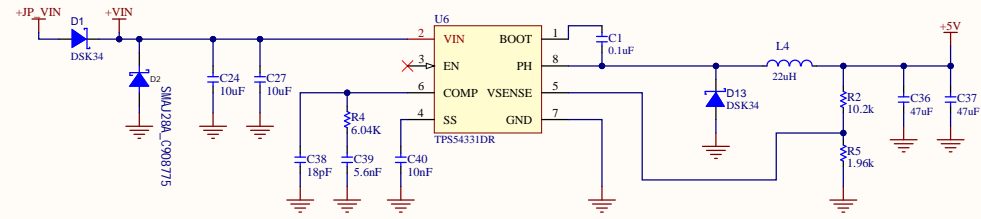
1 POWER

Power.SchDoc

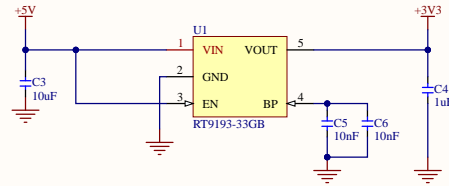


DC IN 8V~ 28V

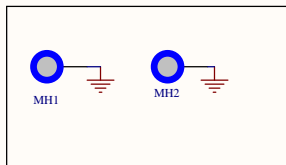
24v to 5v@1A



5v to 3v3@300mA



Mouting Holes



Logo EPCB

Node RS485 Wireless 110

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2 RS485

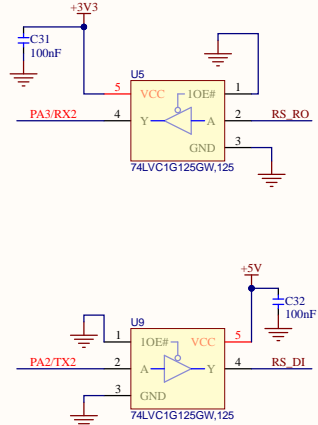
RS485.SchDoc

RS485

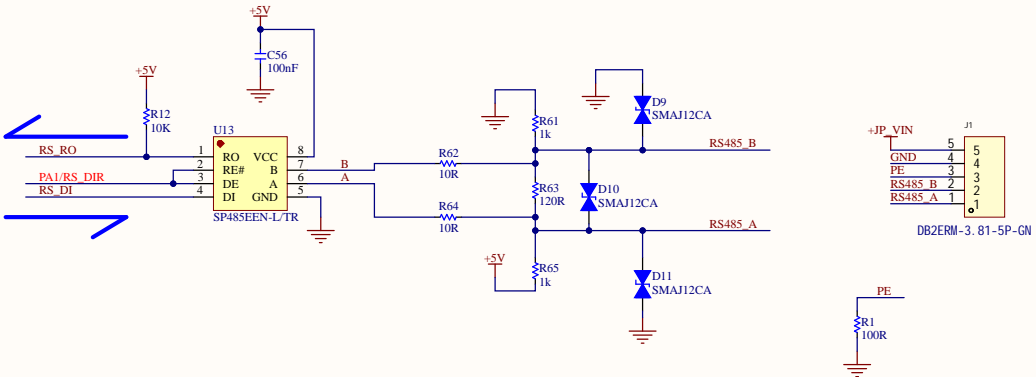
PA3/RX2 >> PA3/RX2
PA1/RS_DIR >> PA1/RS_DIR
PA2/TX2 >> PA2/TX2

ID

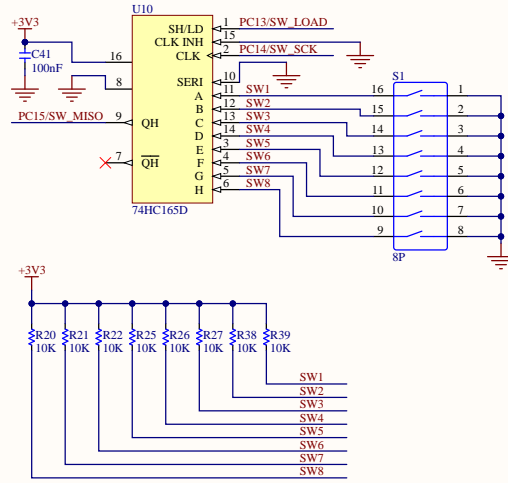
PC13/SW_LOAD >> PC13/SW_LOAD
PC14/SW_CLK >> PC14/SW_CLK
PC15/SW_MISO >> PC15/SW_MISO



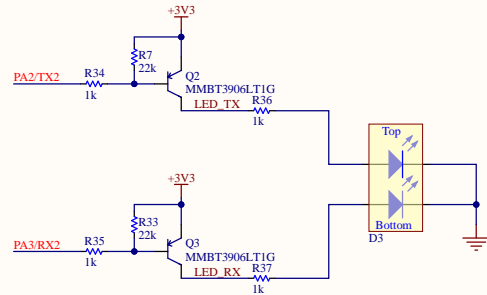
RS485



ID DIP Switches



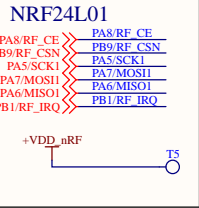
RS485 RX, TX LED Indicator



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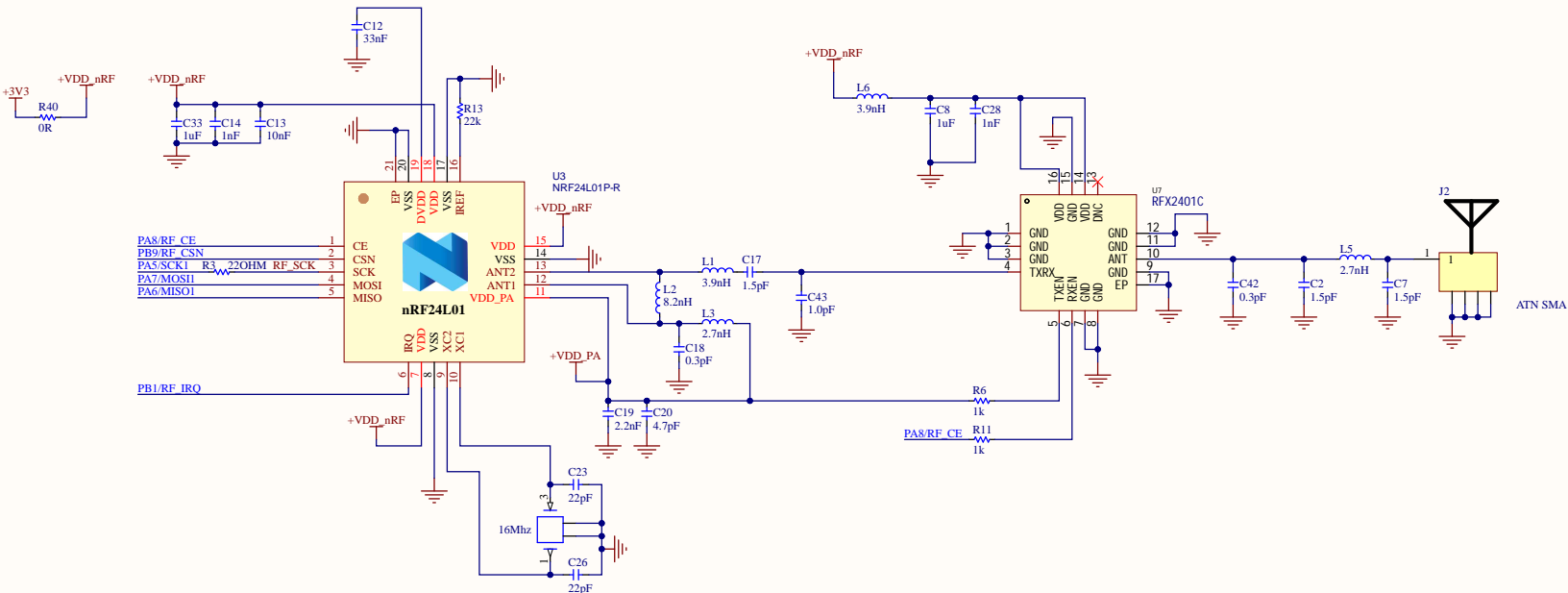
3 NRF24L01

NRF24L01.SchDoc



NRF24L01

RFX2401C RF Front End



Node RS485 Wireless 110

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4 MCU

MCU.SchDoc

NRF24L01

PA8/RF_CE >> PA8/RF_CE
PB9/RF_CSN >> PB9/RF_CSN
PA5/SCK1 >> PA5/SCK1
PA7/MOSI1 >> PA7/MOSI1
PA6/MISO1 >> PA6/MISO1
PB1/RF_IRQ >> PB1/RF_IRQ

RS485

PA3/RX2 >> PA3/RX2
PA1/RS_DIR >> PA1/RS_DIR
PA2/TX2 >> PA2/TX2

ID

PC13/SW_LOAD >> PC13/SW_LOAD
PC14/SW_CLK >> PC14/SW_CLK
PC15/SW_MISO >> PC15/SW_MISO

STM32L151C8T6

Expansion Board Connector

Debug

Led & Buzzer

User Reset

RTC PCF85063

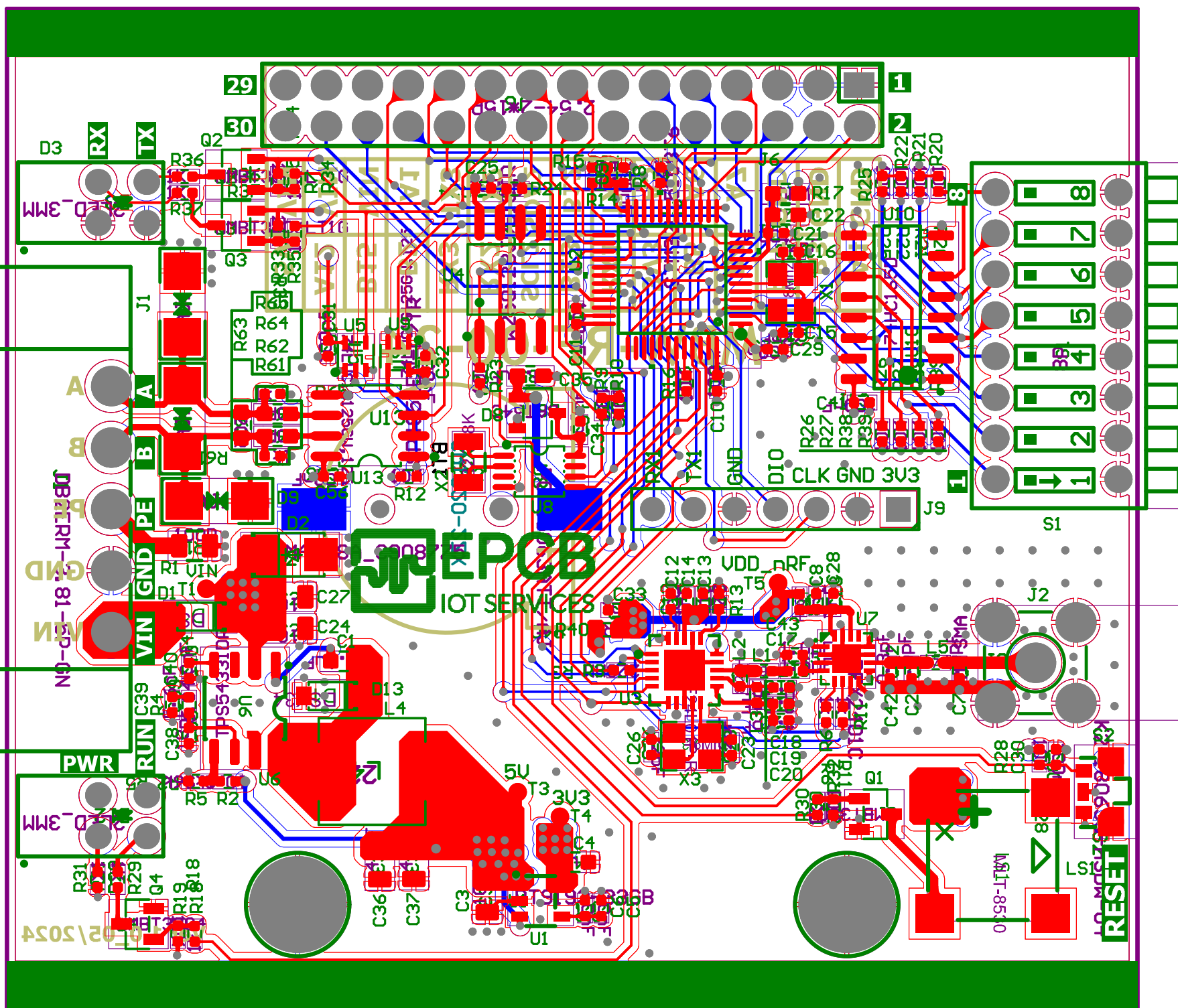
NOR Flash

Node RS485 Wireless I10

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Node RS485 Wireless 110.PrjPcb

#	Comment	Designator	Footprint	ESD Part Number	Manufacturer Part Number	Manufacturer	Quantity	Description	Assembly Type	Link
1	CR1220-2ZX	BT1	BAT_CR1220_SMD	C969906	CR1220-2ZX	Q&J	1	SMD Battery Holders, C	SMT Assembly	
2	0.1uF	C1	C_0603	C14663	CC0603KRX7R9BB104	YAGEO	1	100NF 50V 0603 ROHS	SMT Assembly	
3	1.5pF	C2, C7	C_0402	C76901	GJM1555C1H1R5WB01D	Murata Electronics	3	1.5pF 50V COG 0402 N	SMT Assembly	
4	10uF	C3, C24	C_0805	C15850, C4401	CL21A106KAYNNNE, GRM	Samsung Electro-Mechanics,	3	10UF 25V 0805 ROHS,	SMT Assembly	
5	1uF	C4, C22	C_0603	C15849	CL10A105KB8NNNC	Samsung Electro-Mechanics	2	1UF 50V 0603 ROHS	SMT Assembly	
6	10nF	C5, C6, C	C_0402	C1547	0402CG120J500NT	FH(Guangdong Fenghua Adva	4	10nF 50V X7R ±10% 04	SMT Assembly	
7	1uF	C8, C33	C_0402	C52923	CL05A105KA5N0NC	Samsung Electro-Mechanics	2	25V 1uF X5R ±10% 04	SMT Assembly	
8	100nF	C9, C10	C_0402	C41851	0402B104K160NT	FH(Guangdong Fenghua Adva	12	100nF 16V X7R ±10%	SMT Assembly	
9	33nF	C12	C_0402	C106862	CC0402KRX7R9BB333	YAGEO	1	50V 33nF X7R ±10% 04	SMT Assembly	
10	1nF	C14, C2	C_0402	C1523	0402B102K500NT	FH(Guangdong Fenghua Adva	2	1nF 50V X7R ±10% 04	SMT Assembly	
11	22pF	C15, C1	C_0402	C1555	0402CG220J500NT	FH(Guangdong Fenghua Adva	4	22pF 50V COG ±5% 04	SMT Assembly	
12	0.3pF	C18, C4	C_0402	C85885	GJM1555C1HR30BB01D	Murata Electronics	2	0.3pF 50V COG 0402 N	SMT Assembly	
13	2.2nF	C19	C_0402	C1531	0402B222K500NT	FH(Guangdong Fenghua Adva	1	2.2nF 50V COG ±5% 04	SMT Assembly	
14	4.7pF	C20	C_0402	C1569	0402CG47C500NT	FH(Guangdong Fenghua Adva	1	4.7pF 50V COG ±5% 04	SMT Assembly	
15	4.7uF	C35	C_0603	C19666	CL10A475K08NNNC	Samsung Electro-Mechanics	1	4.7UF 16V 0603 ROHS	SMT Assembly	
16	47uF	C36, C3	C_0805	C124129	GRM21BR61A476ME15L	Murata Electronics	2	47uF ±20% 10V X5R 08	SMT Assembly	
17	18pF	C38	C_0402	C1549	0402CG180J500NT	FH (Guangdong Fenghua Adva	1	50V 18pF COG ±5% 04	SMT Assembly	
18	5.6nF	C39	C_0402	C1540	0402B562K500NT	FH(Guangdong Fenghua Adva	1	5.6nF 50V X7R ±10% 04	SMT Assembly	
19	1.0pF	C43	C_0402	C76953	GRM1555C1H1R0CA01D	Murata Electronics	1	1.0pF 50V COG 0402 N	SMT Assembly	
20	DSK34	D1, D13	SOD-123_L2.8-W1.4	C41029	DSK34	MDD (Microdiode Electronics	2	DSK34 40V 550mV@3	SMT Assembly	
21	SMAJ28A_C908775	D2	DO-214AC_L4.3-W2	C908775	SMAJ28A	GOODWORK(固得沃克)	1	SMAJ28A 8.8A 45.4V 3	SMT Assembly	
22	2LED_3MM	D3, D12	2LED_3MM	N/A	SSF-LXH240IGD	Lumex	2	LED DUAL RED/GREEN	Hand Soldering	
23	BAT54C	D8	SOT-23-3_L2.9-W1	C14308	BAT54CLT1G	ON Semicon	1	SCHOTTKY BARRIER	SMT Assembly	
24	SMAJ12CA	D9, D10	SMA,DO-214AC - C	C698919	SMAJ12CA	Yangzhou Yangjie Elec Tech	3	1uA 20.1A 19.9V 13.3V	SMT Assembly	
25	DB2ERM-3.81-5P-G	J1	CONN-TH_5P-P3.81	C395702	DB2ERM-3.81-5P-GN	DORABO(地博电气)	1	x5P Green Board Edge	Extended Part	
26	ATN SMA	J2	ANTEN_SMA	N/A	N/A	N/A	1	Connector; SMB Straight	Hand Soldering	
27	2.54-2*15P	J6	HDR-TH_30P-P2.54	C5337168	2.54-2*15P	BOOMELE(博穆精密)	1	Straight,P=2.54mm Fe	SMT Assembly	
28	HDR1x7	J9	HDR1X7H		HDR1x7 Horizontal	China	1	Header IDC, 1x8 Pin hd	Hand Soldering	
29	3.9nH	L1, L6	L_0402	C317939	FHW0402UC3N9JST	FH(Guangdong Fenghua Adva	2	3.9nH 840mA ±5% 66m	SMT Assembly	
30	8.2nH	L2	L_0402	C317946	FHW0402UC8N2JST	FH(Guangdong Fenghua Adva	1	8.2nH 680mA ±5% 100	SMT Assembly	
31	2.7nH	L3, L5	L_0402	C317935	FHW0402UC2N7KST	FH(Guangdong Fenghua Adva	2	2.7nH 640mA ±10% 12	SMT Assembly	
32	22uH	L4	IND-SMD_L7.1-W6.6	C207843	SLO0630H220MTT	Sunitech Tech	1	22uH ±20% SMD Power	SMT Assembly	
33	MLT-8530	LS1	BUZ-SMD_4P-L8.5	C94599	MLT-8530	Jiangsu Huaneng Elec	1	BUZZERS MAGNETIC	SMT Assembly	
34	MMBT3904	Q1, Q4	SOT-23-3_L2.9-W1	C20526	MMBT3904	Changjiang Electronics Tech (2	MMBT3904 TRANSIST	SMT Assembly	
35	MMBT3906LT1G	Q2, Q3	SOT-23-3_L2.9-W1	C53444	MMBT3906LT1G	ON Semicon	2	MMBT3906 TRANSIST	SMT Assembly	
36	100R	R1	R_0805	C17408	0805W8F1000T5E	Uniroyal Elec	1	100OHMS ±1% 1/8W 0	SMT Assembly	
37	10.2k	R2	R_0402	C226746	AC0402FR-0710K2L	YAGEO	1	10.2k ±1% 10.2kΩ 0402	SMT Assembly	
38	22OHM	R3	R_0402	C25092	0402WGF220JTCE	Uniroyal Elec	1	22Ω 0402 62.5mW Thic	SMT Assembly	
39	6.04K	R4	R_0402	C97819	RC0402FR-076K04L	YAGEO	1	6.04K ±1% 6.04kΩ 0402	SMT Assembly	
40	1.96k	R5	R_0402	C324853	RC-02K1961FT	FH (Guangdong Fenghua Adva	1	1.96k ±1% 1.96kΩ 0402	SMT Assembly	
41	1k	R6, R11	R_0402	C11702	0402WGF1001TCE	Uniroyal Elec	12	1kΩ 0402 62.5mW Thic	SMT Assembly	
42	22k	R7, R13	R_0402	C25768	0402WGF2202TCE	Uniroyal Elec	3	22k 0402 62.5mW Thic	SMT Assembly	
43	10K	R8, R9, R	R_0402	C25744	0402WGF1002TCE	Uniroyal Elec	20	10kΩ 0402 62.5mW Th	SMT Assembly	
44	0OHM	R17	R_0603	C21189	0603WAF0000T5E	Uniroyal Elec	1	0OHMS ±1% 1/10W 06	SMT Assembly	
45	0R	R40	R_0402	C17168	0402WGF0000TCE	Uniroyal Elec	1	0R 0Ω 0402 1% Chip R	SMT Assembly	
46	10R	R62, R6	R_0603	C22859	0603WAF100JT5E	UNI-ROYAL(Uniroyal Elec)	2	100mW Thick Film Res	SMT Assembly	
47	120R	R63	R_0603	C22787	0603WAF1200T5E	UNI-ROYAL(Uniroyal Elec)	1	100mW Thick Film Res	SMT Assembly	
48	8P	S1	SW-TH_KF1002-08P	N/A	KF1002-08P-R3GLG-DFT-4	KAIFENG	1	Plugin DIP Switches R	Wave Soldering	
49	K2-1806SQ-A3DW-C	S2	KEY-SMD_K2-1806	C128945	K2-1806SQ-A3DW-04	韩国韩荣	1	50mA Surface Mount S	SMT Assembly	
50	RT9193-33GB	U1	SOT-23-5_L3.0-W1	C15651	RT9193-33GB	Richtek Tech	1	5.5V 300mV @ 300mA	SMT Assembly	
51	STM32L151C8T6	U2	LQFP-48_L7.0-W7	C9861	STM32L151C8T6	STMicroelectronics	1	STM32 ARM-based 32	SMT Assembly	
52	NRF24L01P-R	U3	QFN-20_L4.0-W4.0	C8791	NRF24L01P-R	NORDIC	1	NRF24L01P-R SPI QFN	SMT Assembly	
53	W25Q128JVSQTR	U4	SOIC-8_L5.3-W5.3	C97521	W25Q128JVSQ	WINBOND	1	W25Q128JVSQTR 128	SMT Assembly	
54	74LVC1G125GW,125	U5, U9	SOT-353_L2.1-W1.3	C12519	74LVC1G125GW,125	Nexperia	2	74LVC1G125GW,125	SMT Assembly	
55	TPS54331DR	U6	SOIC-8_3.9x4.9x1.2	C9865	TPS54331DR	Texas Instruments	1	TPS54331DR 3A 28V S	SMT Assembly	
56	RFX2401C	U7	QFN-16_L3.0-W3.0	C19213	RFX2401C	SKYWORKS	1	ERX2401C 2.4GHz-2.4	SMT Assembly	
57	PCF85063ATT/AJ	U8	TSSOP-8_L3.0-W3	C165608	PCF85063ATT/AJ	NXP	1	TSSOP-8-3.0mm Real	AMT Assembly	
58	74HC165D	U10	SOIC-16_3.9x9.9x1	C5613	74HC165D.653	Nexperia	1	74 SERIES SHIFT REG	SMT Assembly	
59	SP485EEN-L/TR	U13	SOIC-8	C6855	SP485EEN-L/TR	MaxLinear	1	transceiver 4.75V-5.25	SMT Assembly	
60	8Mhz	X1	SMD-3225_4P	C133366	1C208000CE0Q	KDS Daishinku	1	8Mhz 3225 SMD CRYST	SMT Assembly	
61	32.768K	X2	SMD-3215_2P	C32346	Q13FC1350000400	Seiko Epson	1	32.768K SMD CRYSTAL	SMT Assembly	
62	16Mhz	X3	SMD-3225_4P	C13738	X322516MLB4SI	Yangxing Tech	1	16Mhz SMD Crystal Re	SMT Assembly	