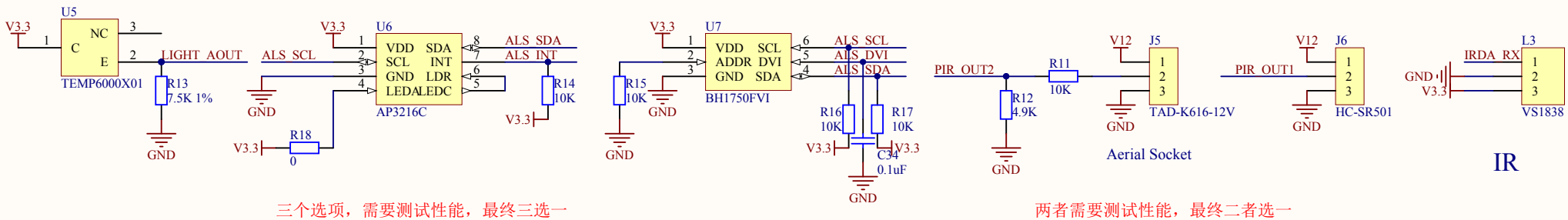


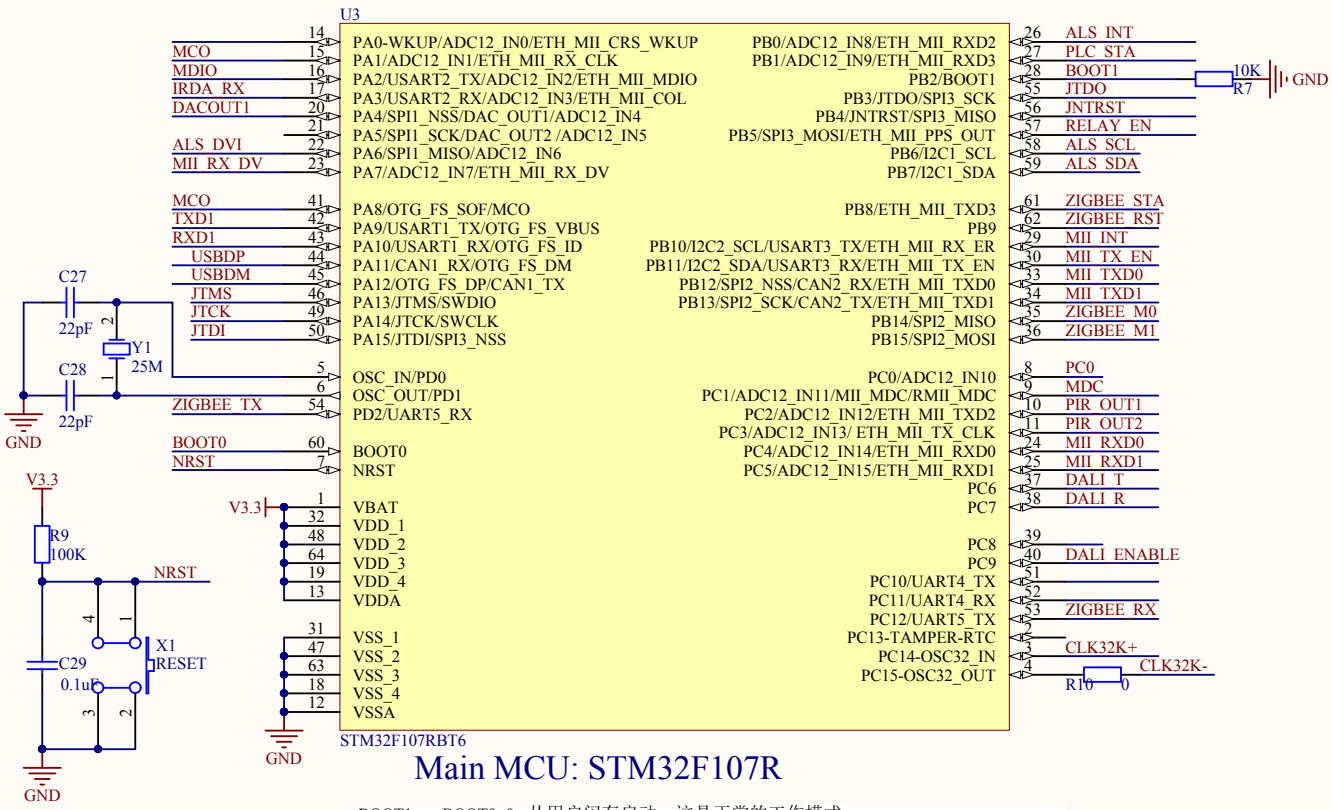
三个选项，需要测试性能，最终三选一

两者需要测试性能，最终二者选一

LIGHT SENSOR

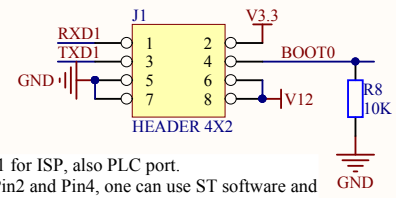
HUMAN SENSOR(PIR)

IR



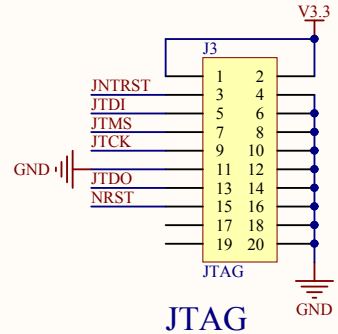
Main MCU: STM32F107R

BOOT1=x BOOT0=0 从用户闪存启动，这是正常的工作模式。
BOOT1=0 BOOT0=1 从系统存储器启动，这种模式启动的程序功能由厂家设置。
BOOT1=1 BOOT0=1 从内置SRAM启动，这种模式可以用于调试。



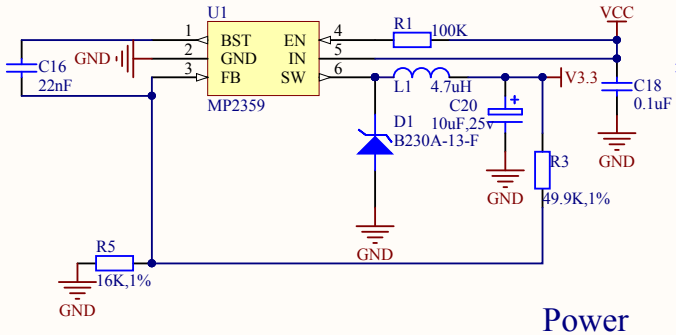
UART1 for ISP, also PLC port.
Short Pin2 and Pin4, one can use ST software and RXD1/TXD1 to program STM32F107 chip.
Or can use RXD1/TXD1, V12 and GND to connect PLC module

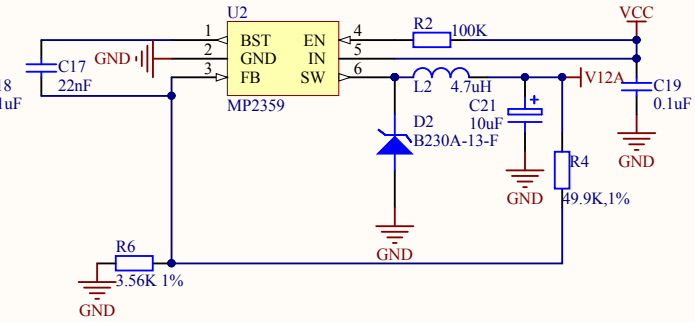
PLC & ISP port



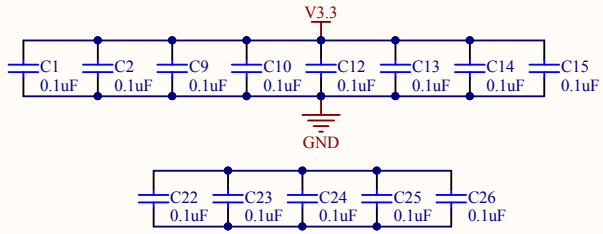
JTAG

Title		
Size A4	Number	Revision
Date: 2016-05-10		Sheet of
File: C:\guyg\..\mcu.SchDoc		Drawn By:

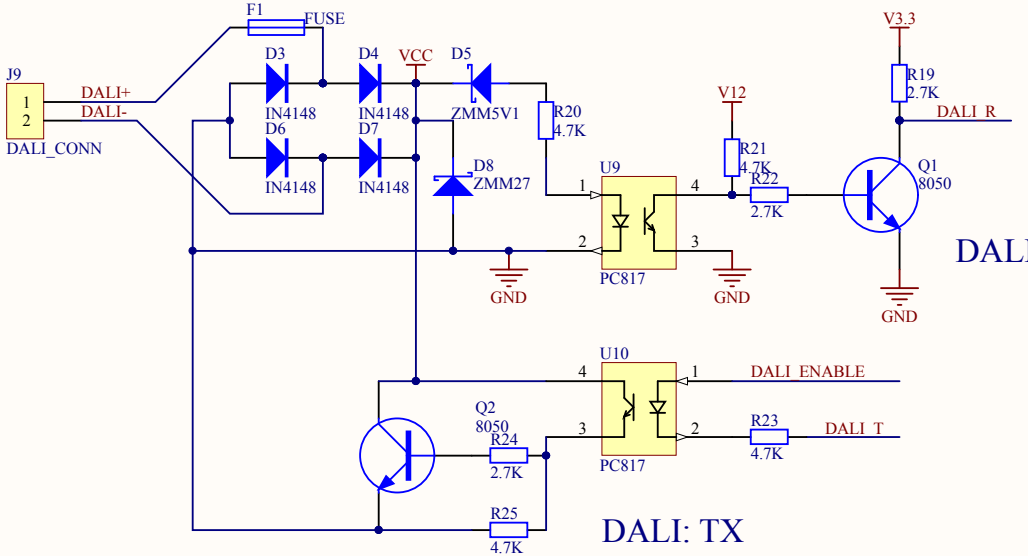




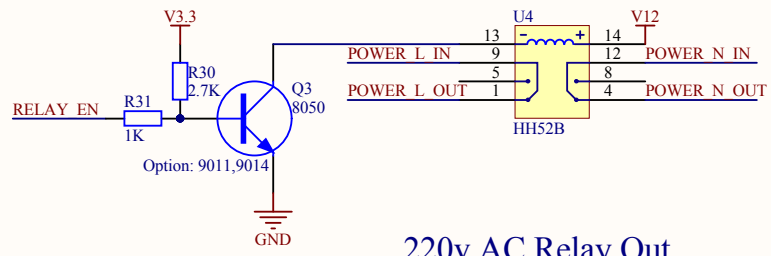
Power



POWER CAP



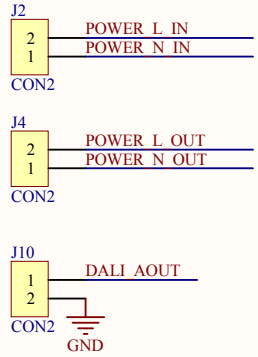
DALI: RX

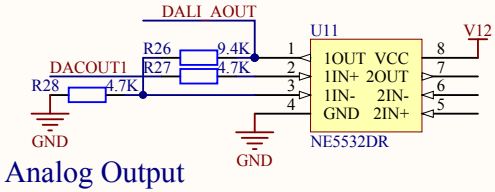


220v AC Relay Out

DALI: TX

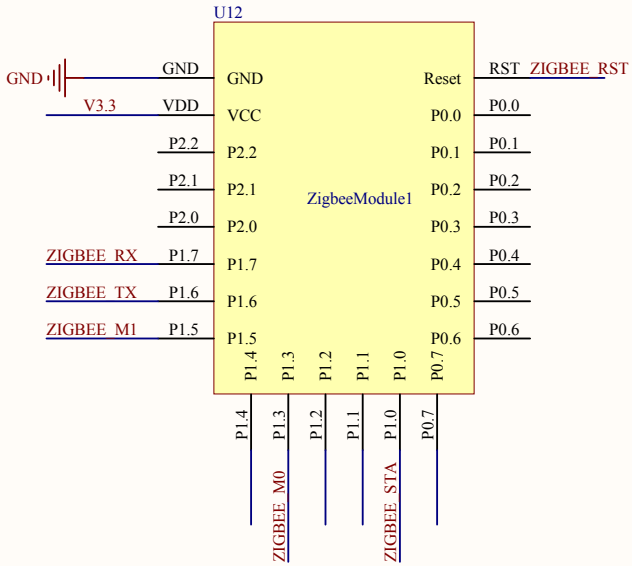
Dali:
-6.5v - 6.5v ----- 0;
9.5v - 22.5v ------ 1



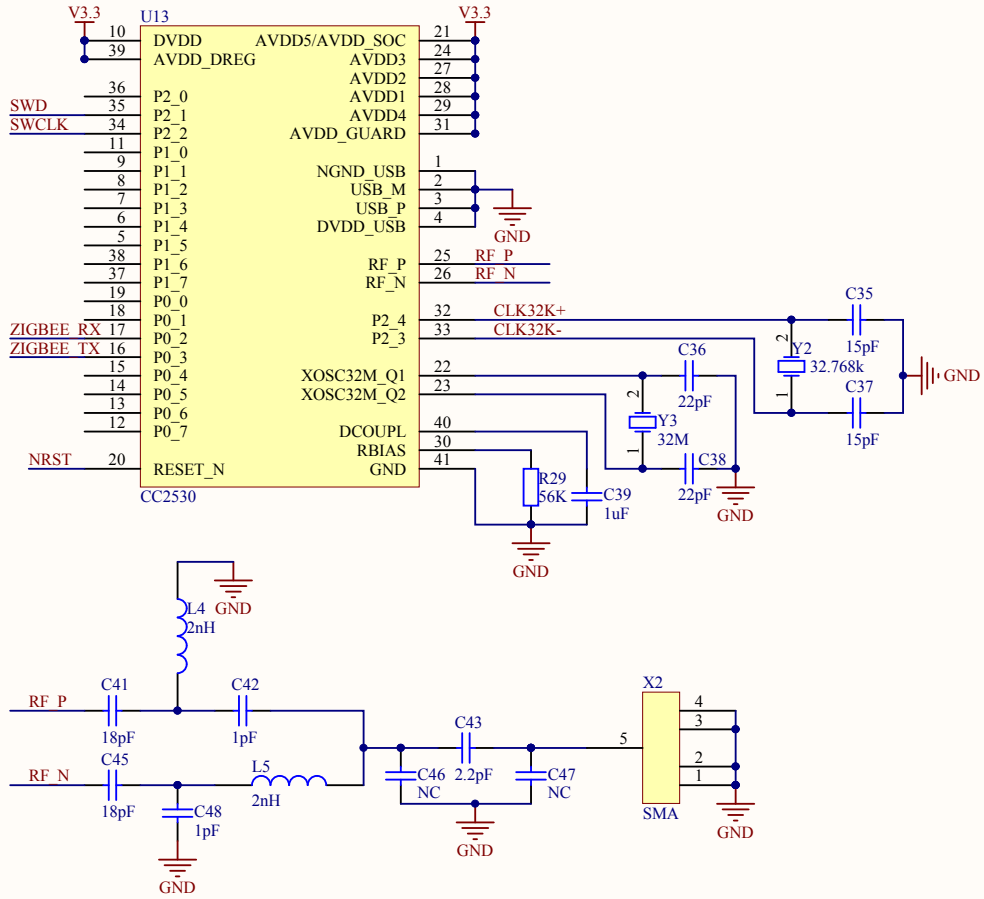


1-10V Analog Output

Title		
Size A4	Number	Revision
Date: 2016-05-10		Sheet of
File: C:\guyg\..\dali.SchDoc		Drawn By:



ZIGBEE MODULE(ZA2530A)



ZIGBEE CHIP(CC2530)

Title		
Size A4	Number	Revision
Date: 2016-05-10		Sheet of
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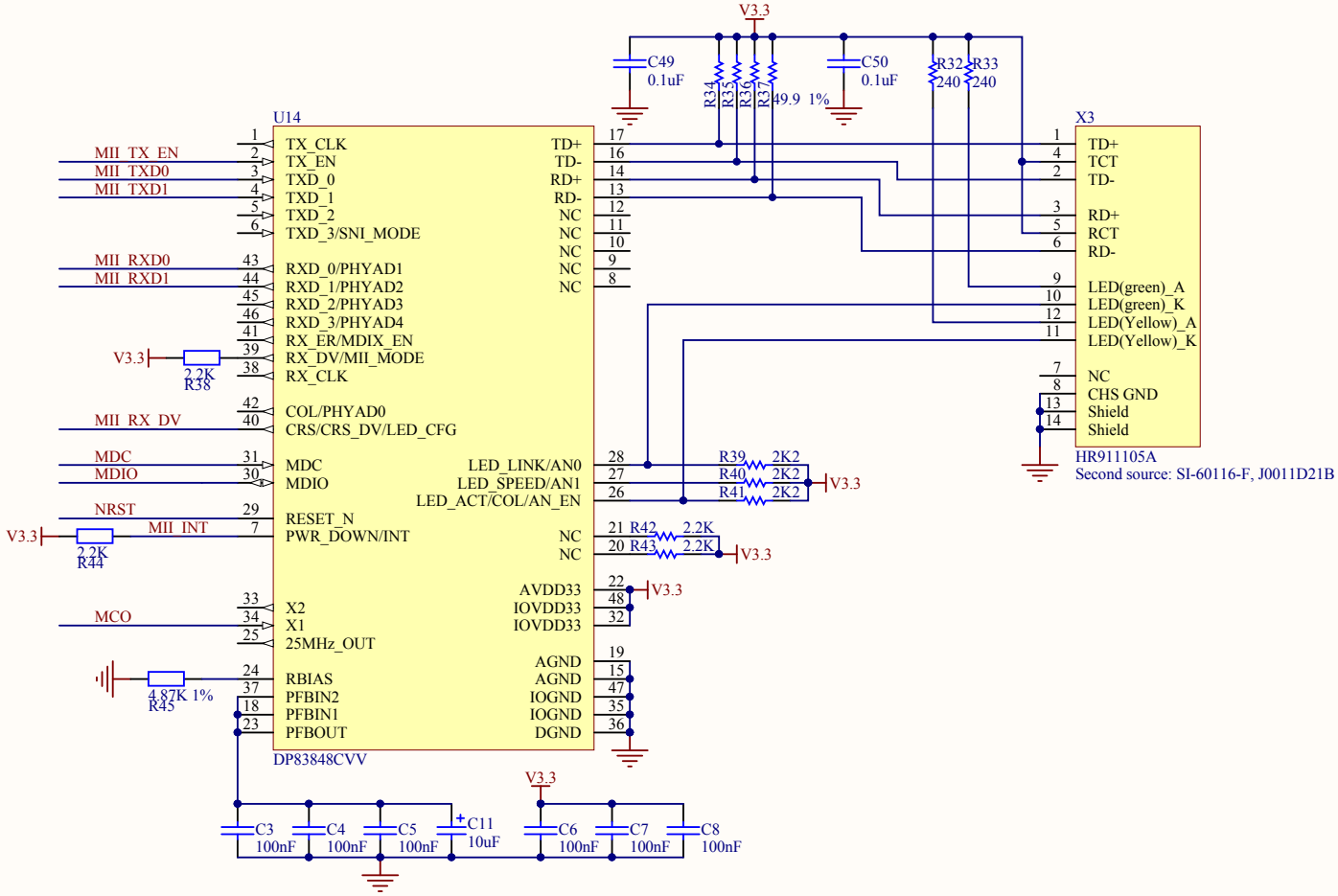

ETHERNET PHY

STMicroelectronics

Title: STM3210C-EVAL Ethernet

NumberMB784	Rev: B.2(PCB.SCH)	Date:2016-05-10	Sheet3 of 16

Comment	Description	Designator	Footprint	LibRef	Quantity
0.1uF	Capacitor	C1, C2, C9, C10, C12, C13, C14, C15, C18, C19, C22, C23, C24, C25, C26, C29, C34, C49, C50	0603	Cap	19
100nF	Capacitor	C3, C4, C5, C6, C7, C8	0603	CAP	6
10uF	Polarized Capacitor (Radial)	C11	3528	Cap Pol1	1
22nF	Capacitor	C16, C17	0603	Cap	2
10uF,25v		C20	CD4	EC	1
10uF		C21	CD4	EC	1
22pF	Capacitor	C27, C28, C36, C38	0603	Cap	4
15pF	Capacitor	C35, C37	0603	Cap	2
1uF	Capacitor	C39	0603	Cap	1
18pF	Capacitor	C41, C45	0402	Cap	2
1pF	Capacitor	C42, C48	0402	Cap	2
2.2pF	Capacitor	C43	0402	Cap	1
NC	Capacitor	C46, C47	0402	Cap	2
B230A-13-F	Zener Diode	D1	Diode_ SCHOTTKY	ZENER3	1
B230A-13-F	Zener Diode	D2		ZENER3	1
IN4148		D3, D4, D6, D7	Diode_ SCHOTTKY	DIODE	4
ZMM5V1	Schottky Diode	D5	Diode_ SCHOTTKY	DIODE SCHOTTKY	1
ZMM27	Schottky Diode	D8	Diode_ SCHOTTKY	DIODE SCHOTTKY	1
FUSE		F1	FUSE2	FUSE	1
HEADER 4X2		J1	HDR2X4	HEADER 4X2	1
CON2		J2, J4, J10	2EDG5.08-2P	CON2	3
JTAG	Header, 10-Pin, Dual row	J3	HDR2X10	Header 10X2	1
TAD-K616-12V	Connector	J5	2EDG5.08-3P	CON3	1
HC-SR501	Connector	J6	HDR1X3	CON3	1
DALI_CONN		J9	2EDG5.08-2P	CON2	1
4.7uH	工字电感，L0406, [NoValue]	L1, L2	cd32	L	2
VS1838	Header, 3-Pin	L3	HDR1X3	Header 3	1
2nH		L4		INDUCTOR	1
2nH		L5	0402	INDUCTOR	1
8050	NPN Transistor	Q1, Q2, Q3	SOT23	NPN	3
100K	Resistor	R1, R2, R9	0603r	Res2	3
49.9K,1%	Resistor	R3, R4	0603r	Res2	2
16K,1%	Resistor	R5	0603r	Res2	1
3.56K 1%	Resistor	R6	0603r	Res2	1
10K	Resistor	R7, R8, R11, R14, R15, R16, R17	0603R	Res2	7
0	Resistor	R10, R18	0603R	Res2	2
4.9K	Resistor	R12	0603R	Res2	1
7.5K 1%	Resistor	R13	0603R	Res2	1
2.7K	Resistor	R19, R22, R24, R30	0603r	Res2	4
4.7K	Resistor	R20, R21, R23, R25, R27, R28	0603r	Res2	6
9.4K	Resistor	R26	0603r	Res2	1
56K	Resistor	R29	0603r	Res2	1
1K	Resistor	R31	0603r	Res2	1
240	Resistor	R32, R33	0603R	Res1	2
49.9 1%	Resistor	R34, R35, R36, R37	0603R	Res1	4
2.2K	Resistor	R38, R42, R43, R44	0603R	Res2, Res1, Res1, Res2	4
2K2	Resistor	R39, R40, R41	0603R	Res1	3
4.87K 1%	Resistor	R45	0603R	Res2	1
MP2359	Power Convertor	U1, U2	TSOT23-6	MP2359	2
STM32F107RBT6	STM32 ARM-based 32-bit MCU with 128 Kbytes Flash, 64-pin LQFP, Industrial Temperature	U3	LQFP64_L	STM32F107RBT6	1
HH52B	Relay	U4	HH52B	HH52B	1
TEMP6000X01		U5	TEMP6000X01	TEMP6000X01	1
AP3216C		U6	AP3216C	AP3216C	1
BH1750FVI		U7	BH1750FVI	BH1750FVI	1
PC817		U9, U10	SOP-4	PC817	2
NE5532DR		U11	SO-08	LM358	1
ZigbeeModule1		U12	ZA2530A	Component_1	1
CC2530		U13	PVQFN-N40	CC2530	1
DP83848CVV		U14	LQFP48S	DP83848CVV	1
RESET	SE PUSHBUTTON	X1	Button_6X6X5	SW PUSHBUTTON	1
SMA		X2	SMB_V-RJ45	SMA	1
HR911105A		X3	HR911105A	J0011D21B	1
25M	Crystal Oscillator	Y1	HC49-U/S	XTAL	1
32.768k	Crystal Oscillator	Y2	CSA_Crystal	XTAL	1
32M	Crystal Oscillator	Y3	HC49-U/S	XTAL	1