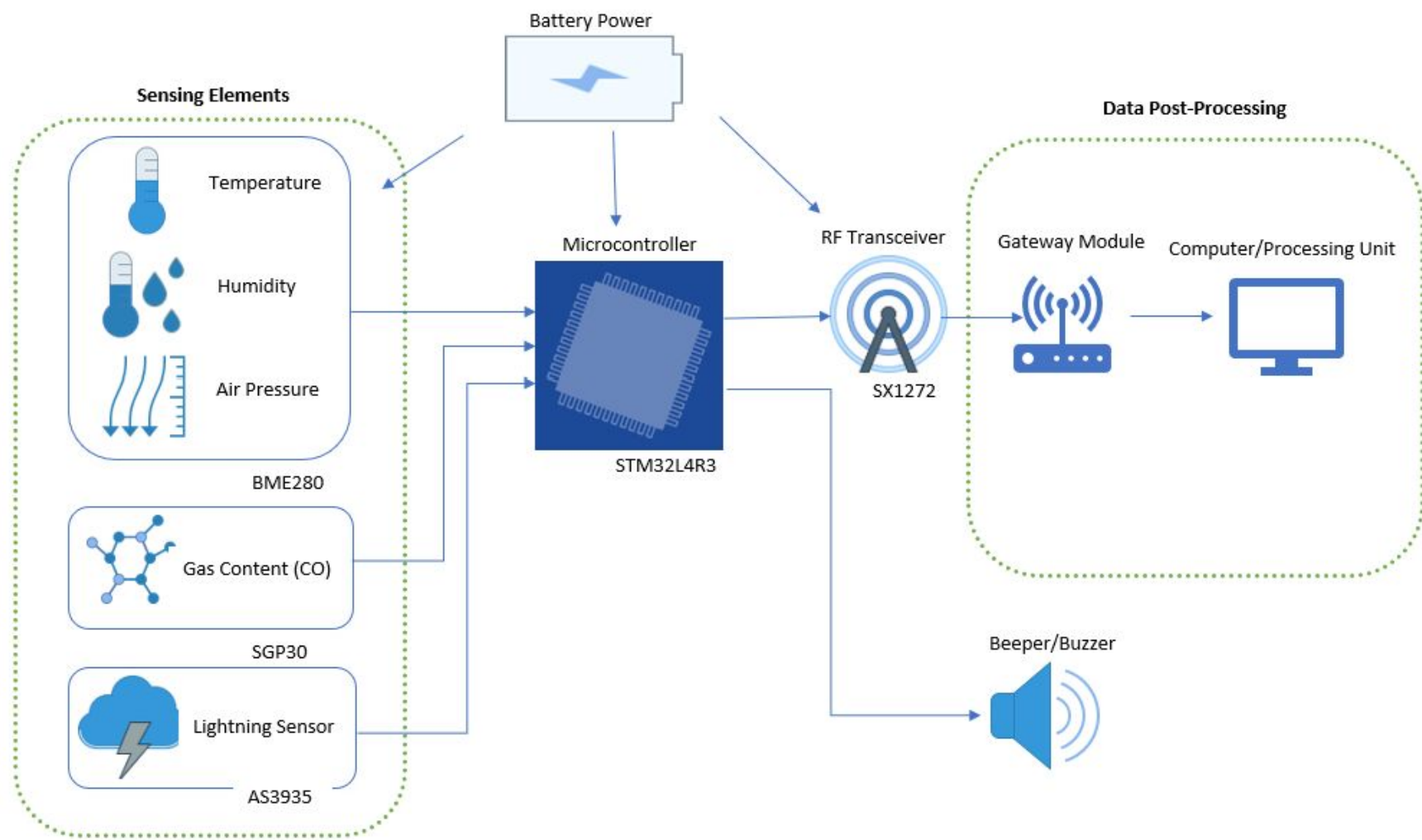
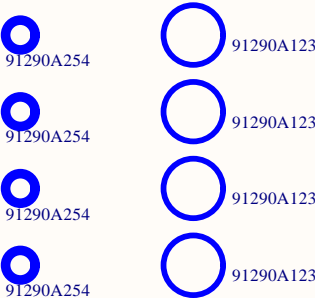


# FireNet Hardware Architecture

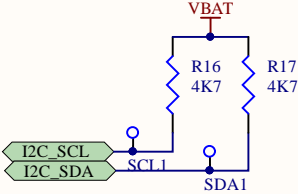


Title		
FireNet Pod Block Diagram		
Size	Number	Revision
A4		
Date:	2019-01-23	Sheet of
File:	C:\Users\...\Block Diagram.SchDoc	Drawn By:

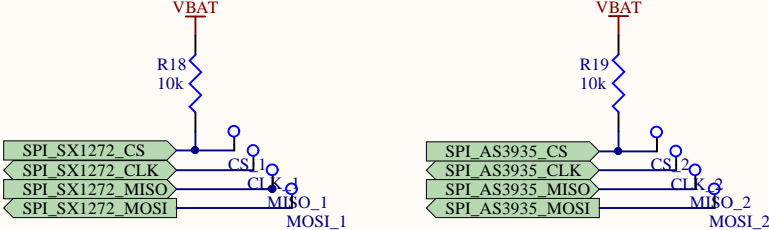
Mounting Bolts and Washers



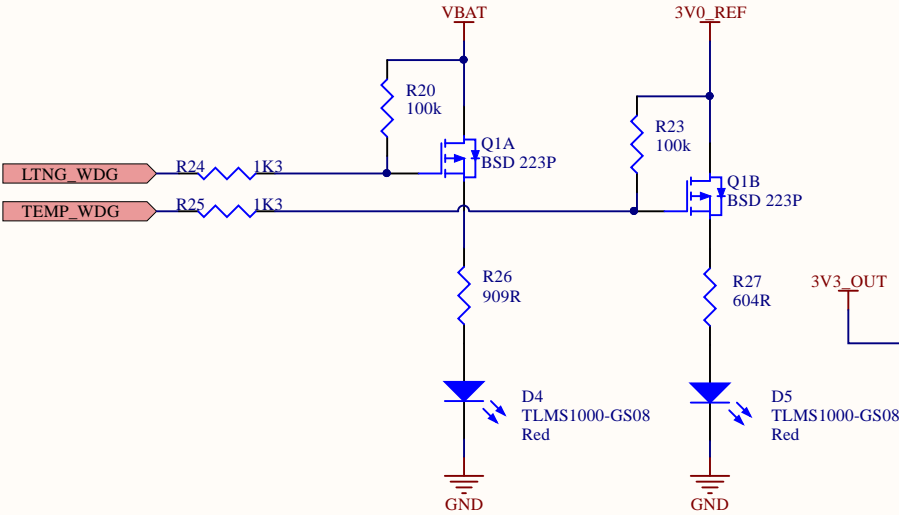
I2C Breakout



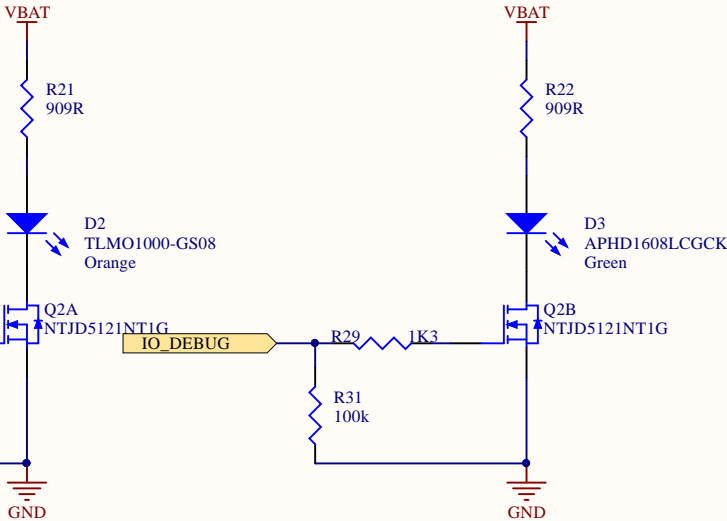
SPI Breakouts



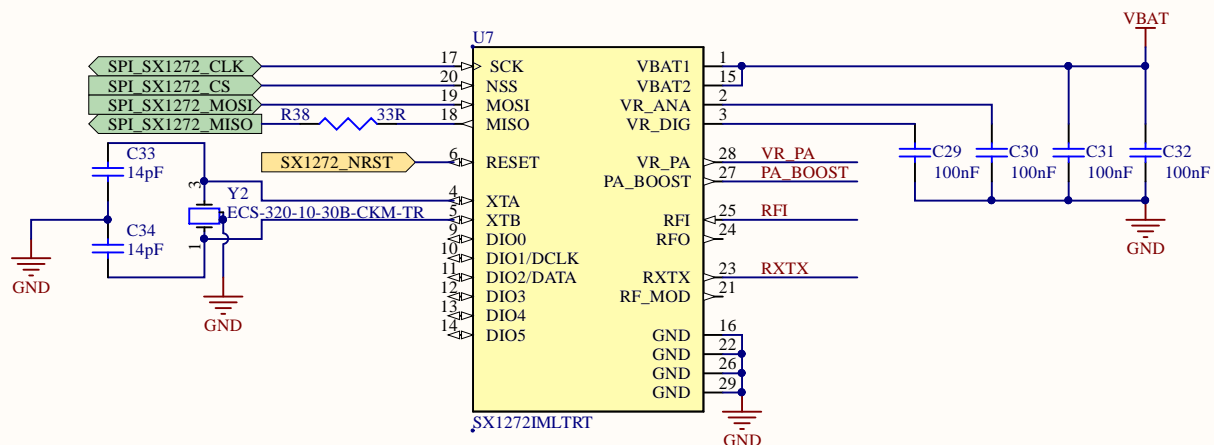
Watchdog LEDs



Debug LEDs



Title		
Size	Number	Revision
A4		
Date:	2019-01-23	Sheet of
File:	C:\Users\...\Debug.SchDoc	Drawn By:



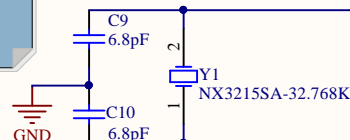
To-do:  
-Create symbol/footprint for antenna  
-Impedance matching filter

Title		
Size	Number	Revision
A4		
Date:	2019-01-23	Sheet of
File:	C:\Users\...\LoRa Transceiver.SchDoc	Drawn By:

## MCU Bypassing

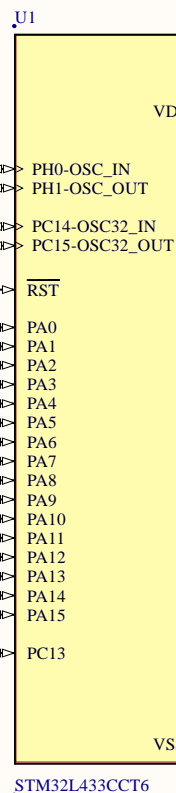
## External 32kHz RTC

Layout Note: Place as close as possible to MCU, with ground guard ring



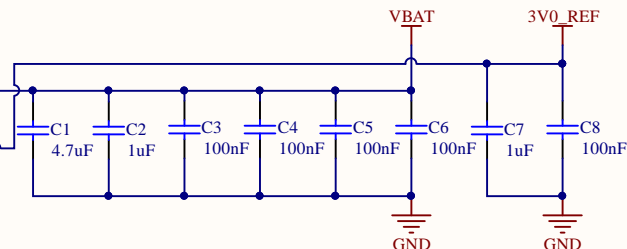
iSENSE\_ADC  
SPI\_AS3935\_CLK  
SPI\_AS3935\_MISO  
SPI\_AS3935\_MOSI  
SX1272\_NRST

SENSORS\_EN  
SWDIO  
SWCLK  
REF\_EN

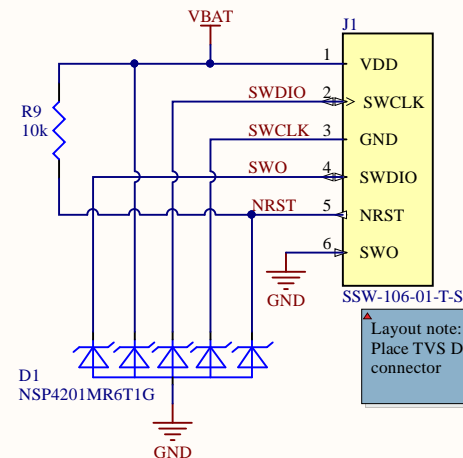


STM32L433CCT6

GND

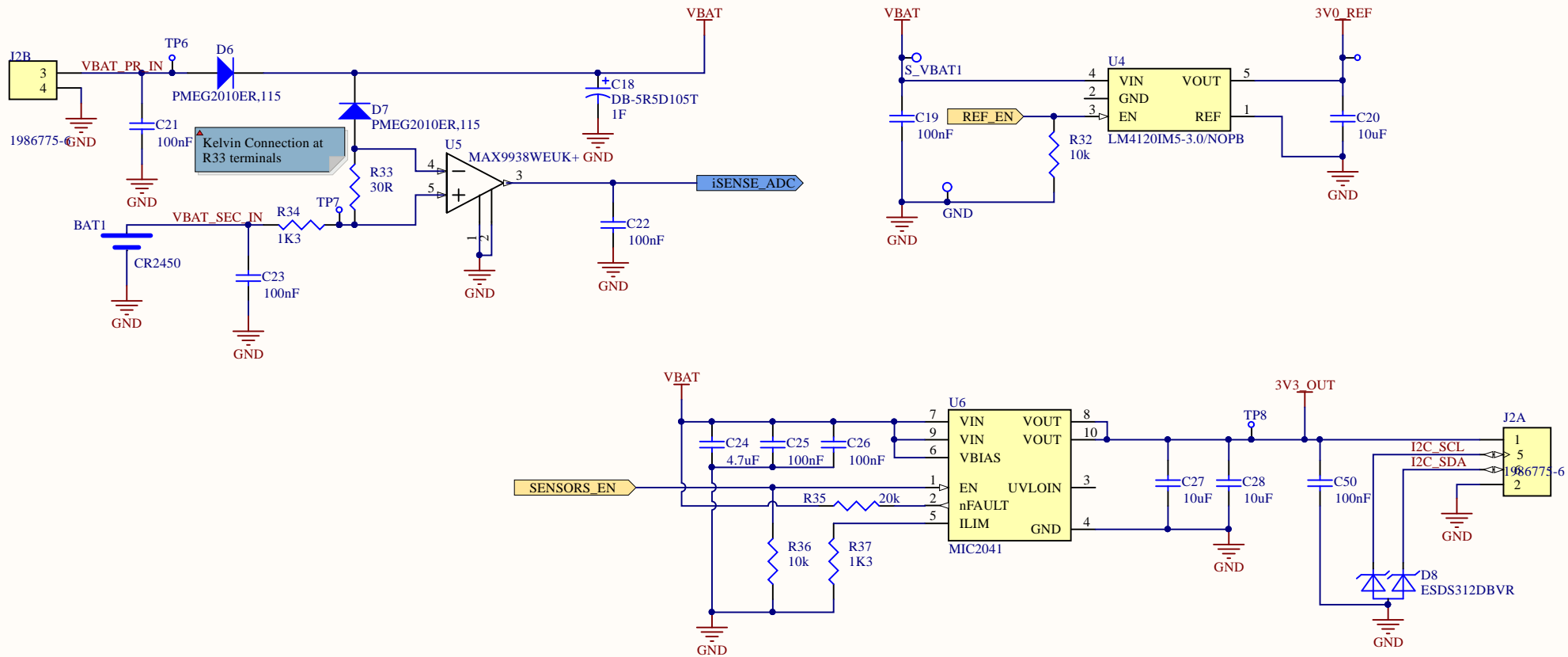


Layout note:  
Place bypass caps as close as possible to MCU pins - 4.7uF near pin 1, and 100nF near each VDD pin



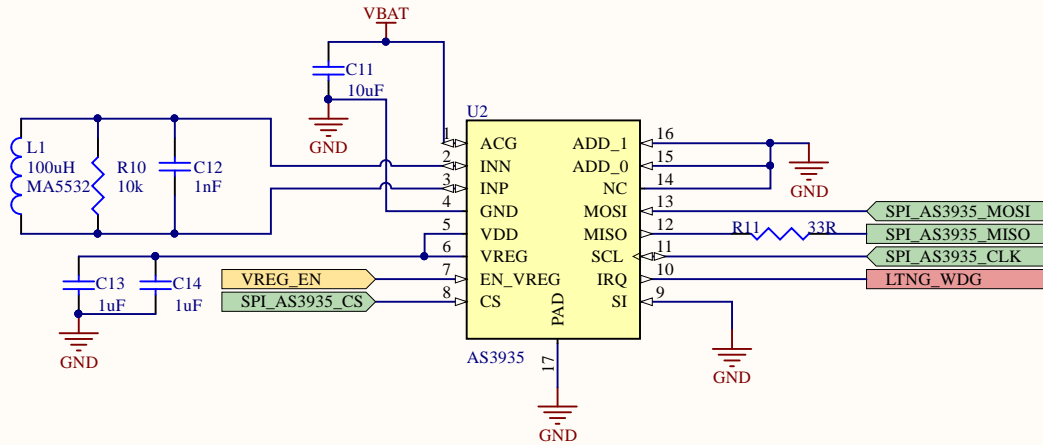
Layout note:  
Place TVS Diode near connector

Title			
Size	Number		Revision
A4			
Date:	2019-01-23	Sheet	of
File:	C:\Users\...\Microcontroller Interface.Sch	Drawn By:	Ram Alexiev

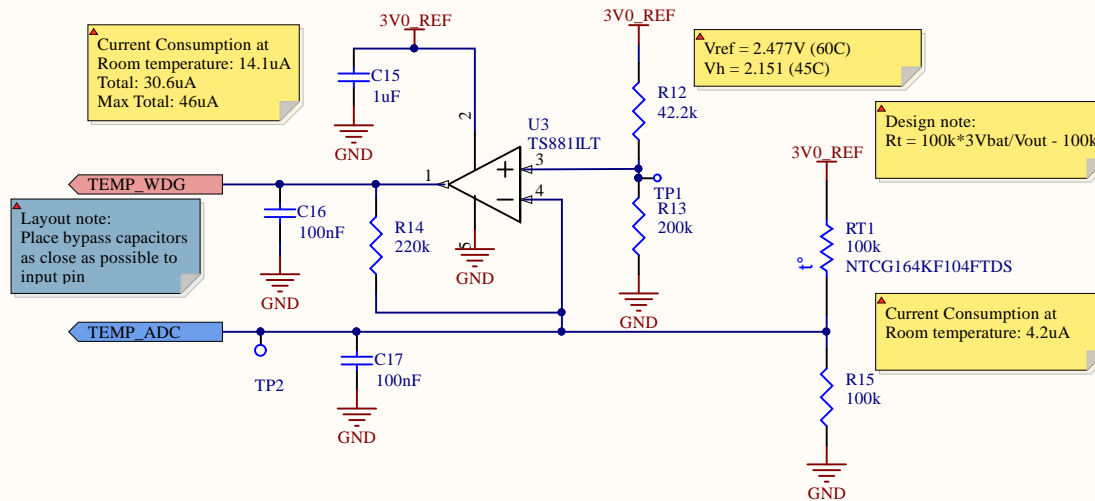


Title		
Size	Number	Revision
A4		
Date:	2019-01-23	Sheet of
File:	C:\Users\...\Power Stage.SchDoc	Drawn By:

## Lightning Sensor



## Analog Temperature Sensor



Title		
Size A4	Number	Revision
Date:	2019-01-23	Sheet of
File:	C:\Users\...\Sensors.SchDoc	Drawn By: <b>Ram Alexiev</b>