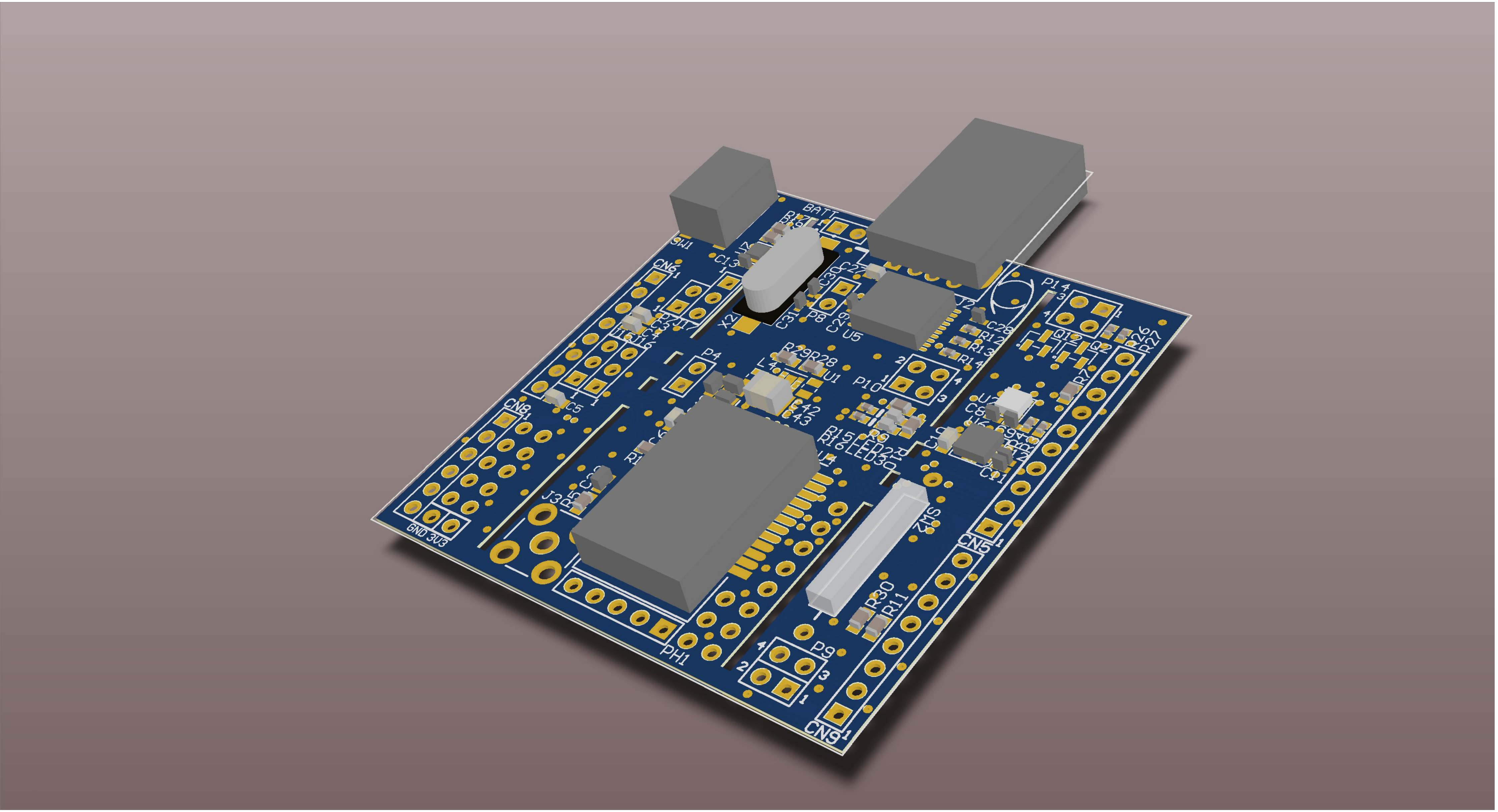
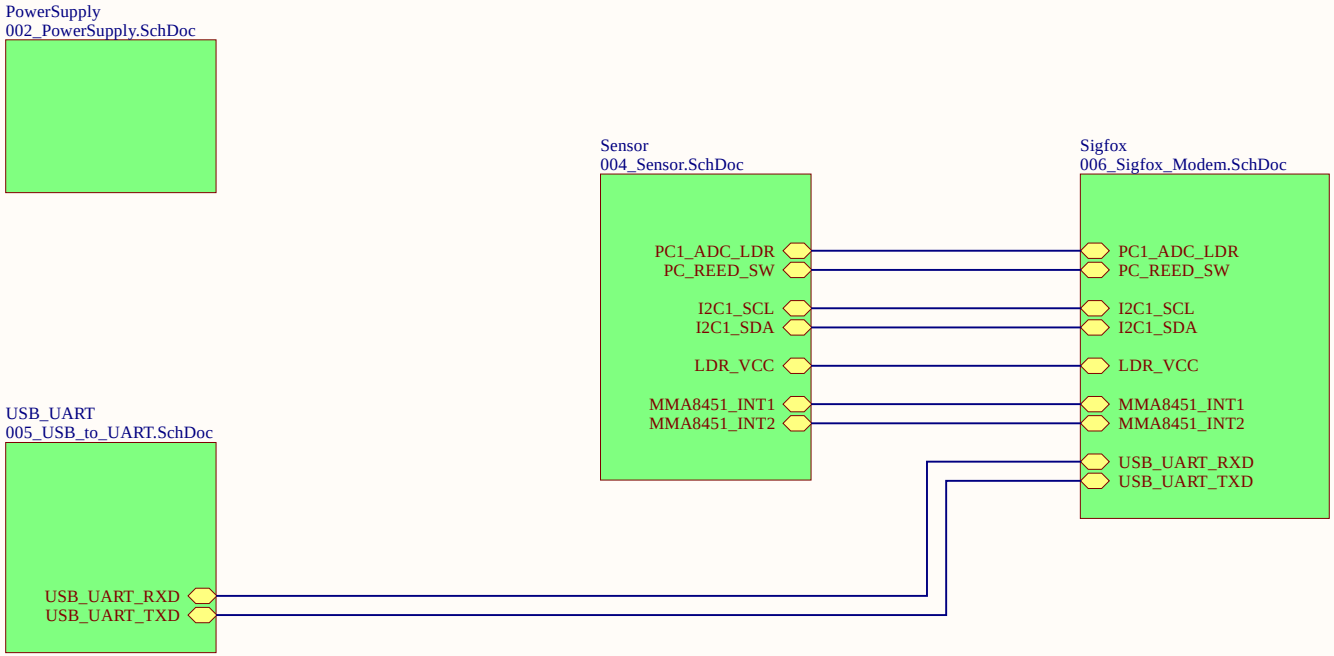

BATT
SW1
CN6
CN8
J3
GND 3V3
PH1
P4
P8
P9
P10
P1
U5
J2
CN5
CN9
SW2
R30
R11
R26
R27
R28
R29
C5
C13
C28
C29
C30
C31

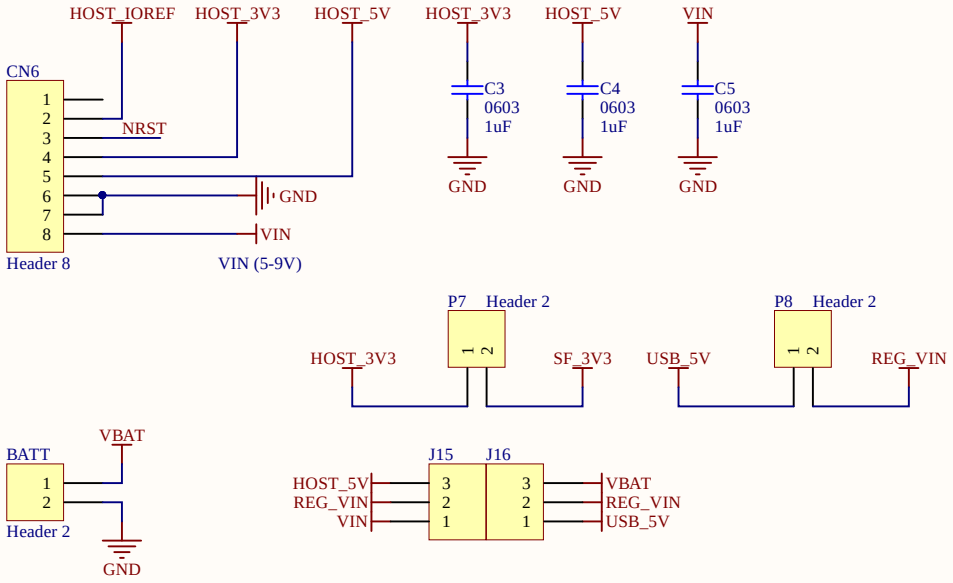


APPROVED

Revision	History	Changes
1.0.1	January 2017	Initial Version
1.0.2	Feburary 9th 2017	Change R19 to 5.1k Swapped SCL and SDA on P14 Removed U8, R31, C14
1.0.3	Feb 10th 2017	Changed silk screen layout to aid usefuleness Removed annotations on PH1

LUCIDTRON

Title: Sigfox Module Dev Kit - System Block		
Size: A4	Number:	Revision: 1.0.1
Date: 13/02/2017		Sheet 1 of 6
File: C:\Users\..\001_System_Block.SchDoc		Drawn By:

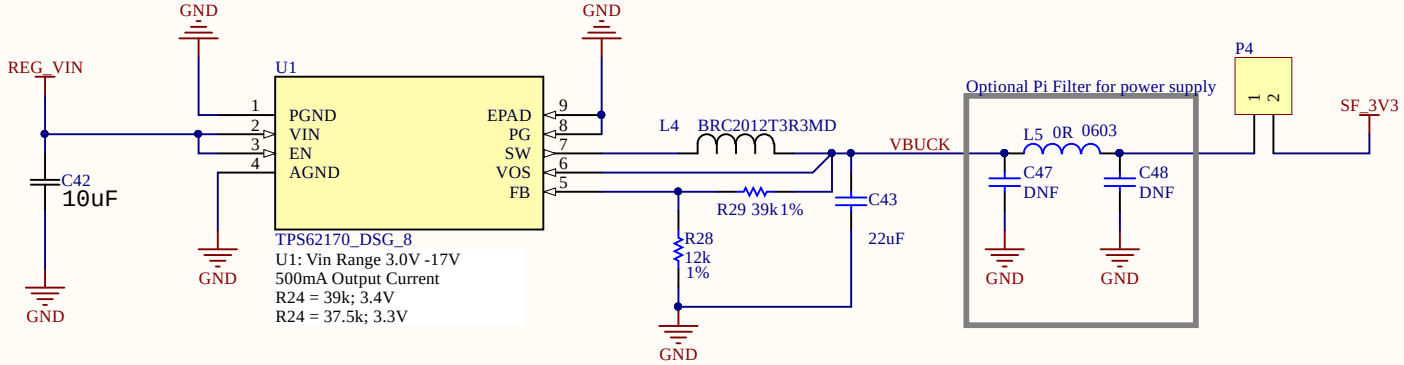


Host Powered from Shield:
Host can be powered form battery system.
NOTE: DOING THIS WILL LIMIT SYSTEM TO BROWN OUT AT VBAT=5V

Shield powered from Host:
VIN from Arduino power jack or 5V input from Arduino 5V

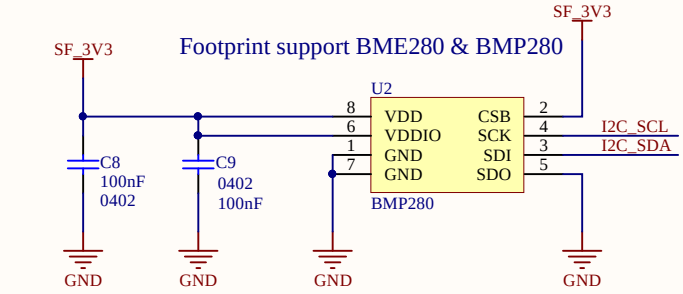
The Arduino has 3.3V linear regulator capable of 150mA output. This is NOT suitable
for driving an RCZ2/4 Sigfox modem.
Nulceo has a 500mA 3.3V regulator which is suitable for powering Sigfox modem.
Alternatively, Nucleo can be powered via 3.3V supply (P7) after configuring any of the standard Dev kit power supplies

Options:
VIN from VIN on CN6-8: J15[1-2]
VIN from 5V on CN6-5: J15[2-3]
VIN from 3V3 on CN6-4: P7
VIN from VBAT, VOUT from CN6-8: J16[2-3] + J15[1-2]
VIN from USB, VOUT from CN6-8: J16[1-2] + J15[1-2]



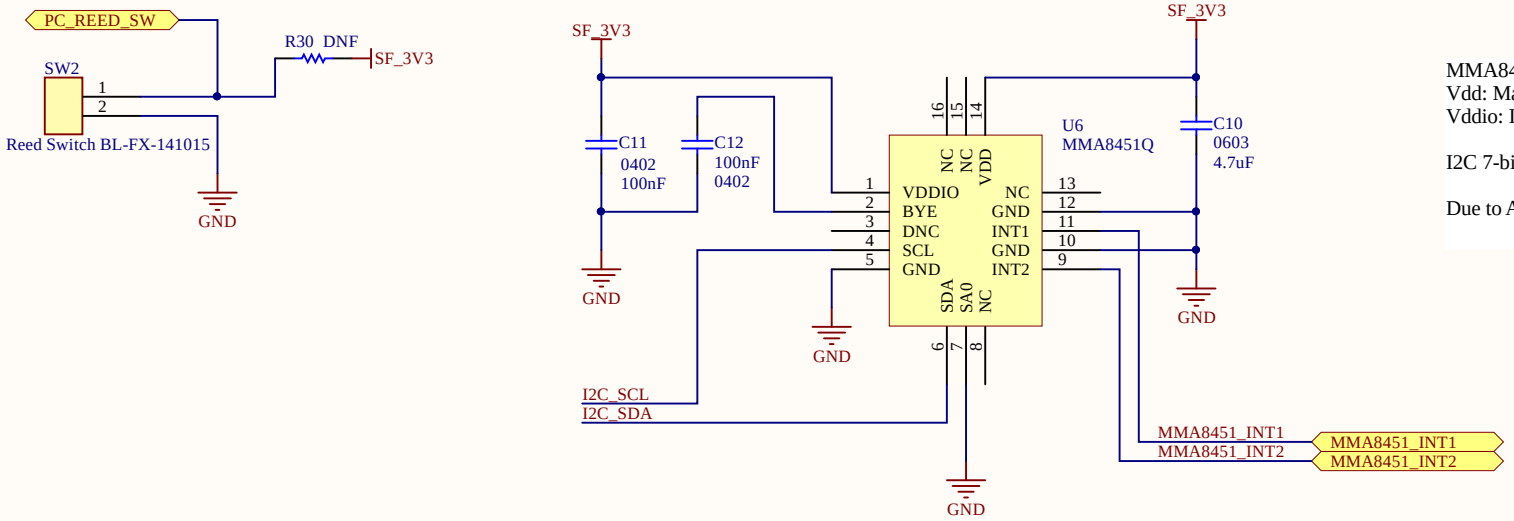
LUCIDTRON

Title: Sigfox Module Dev Kit - Power Supply		
Size: A4	Number:	Revision: 0.1
Date: 13/02/2017		Sheet 2 of 6
File: C:\Users\..\002_PowerSupply.SchDoc		Drawn By:



BME280 (Combined Humidity and pressure sensor)
BMP280 (Digital Pressure Sensor only):
Vdd: Main supply Voltage Range: 1.71V to 3.6V
Vddio: Interface Voltage Range: 1.2V to 3.6V

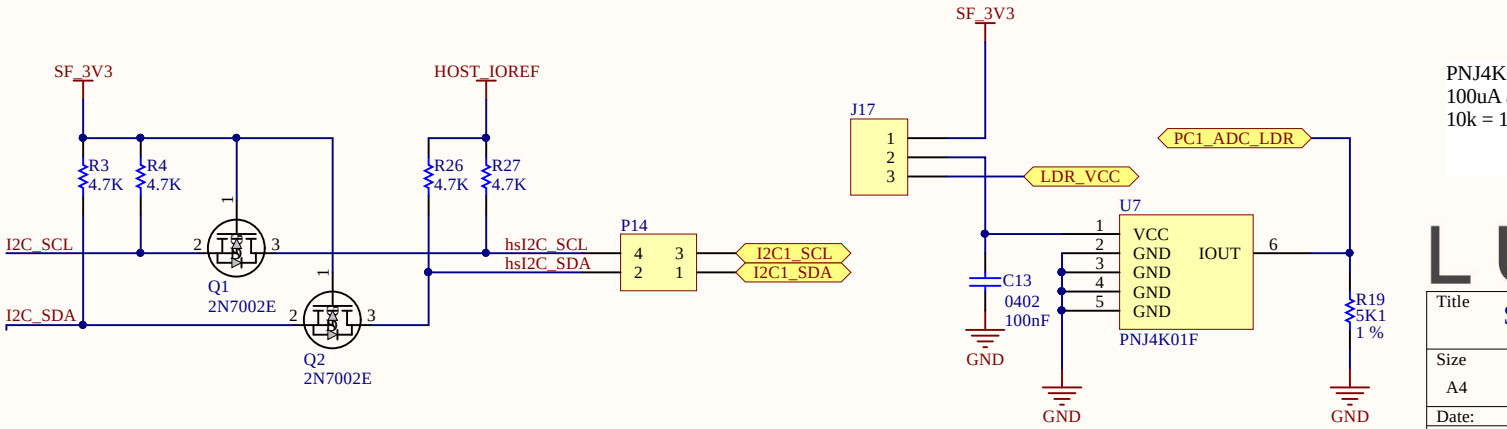
I2C 7-bit address = 0x0111011x = 0x76 (SDO=0) or 0x77 (SA0=0)



MMA8451Q:
Vdd: Main supply Voltage Range: 1.95V to 3.6V (Type: 2.5V)
Vddio: Interface Voltage Range: 1.62V to 3.6V (Type: 1.8V)

I2C 7-bit address = 0x1C (SA0=0) or 0x1D (SA0=1)

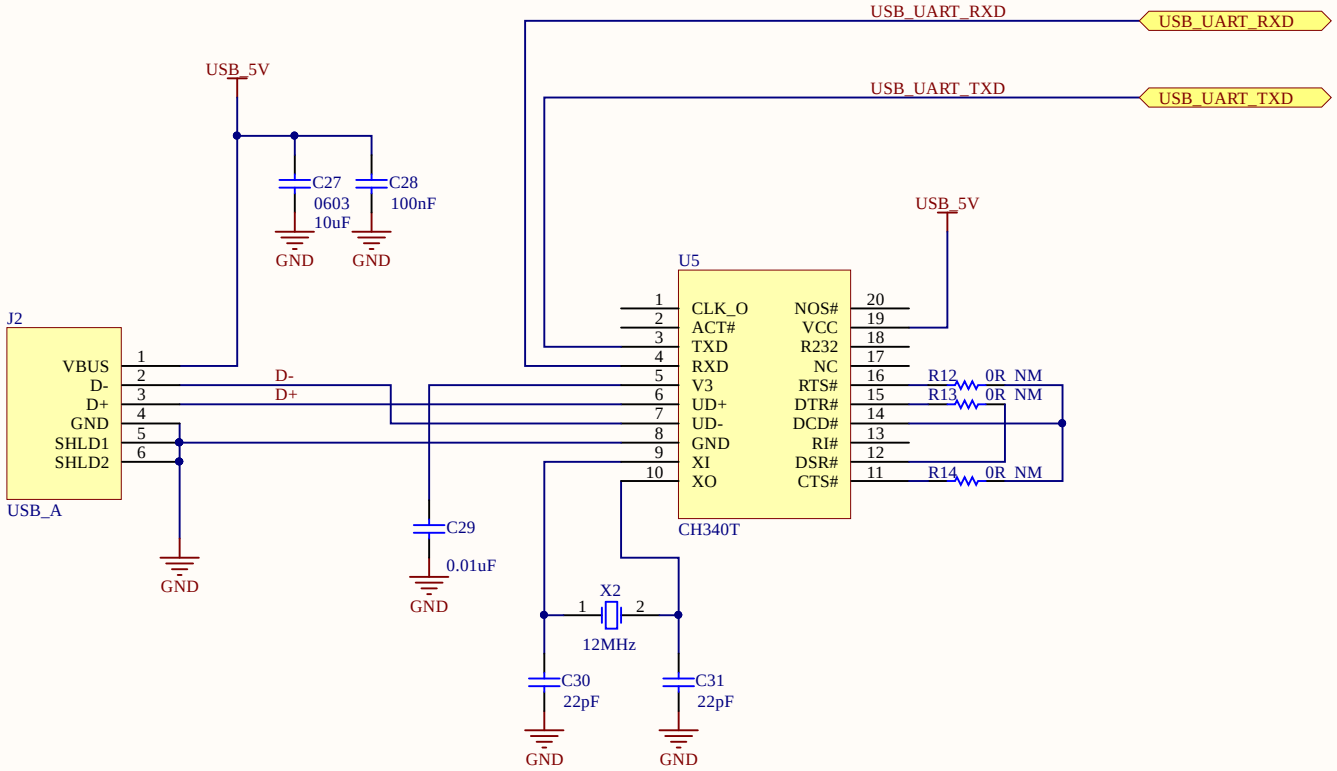
Due to Arduino IO restrictions, only INT1 is connected to interrupt pin



PNJ4K01F:
100uA at 100 Lux
10k = 1V at 100Lux

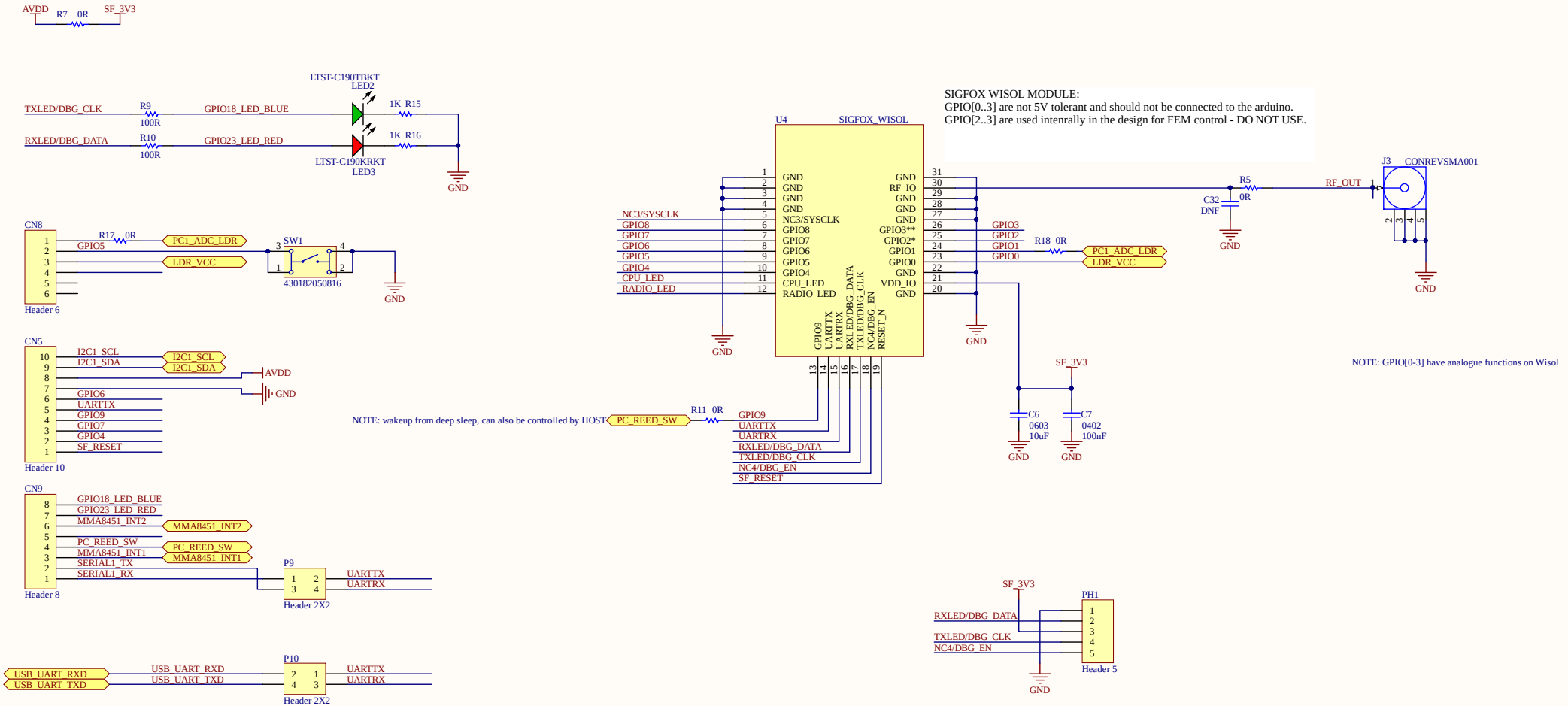
LUCIDTRON

Title	Sigfox Module Dev Kit - Sensor	
Size: A4	Number:	Revision: 0.1
Date: 13/02/2017		Sheet 4 of 6
File: C:\Users\..\004_Sensor.SchDoc		Drawn By:



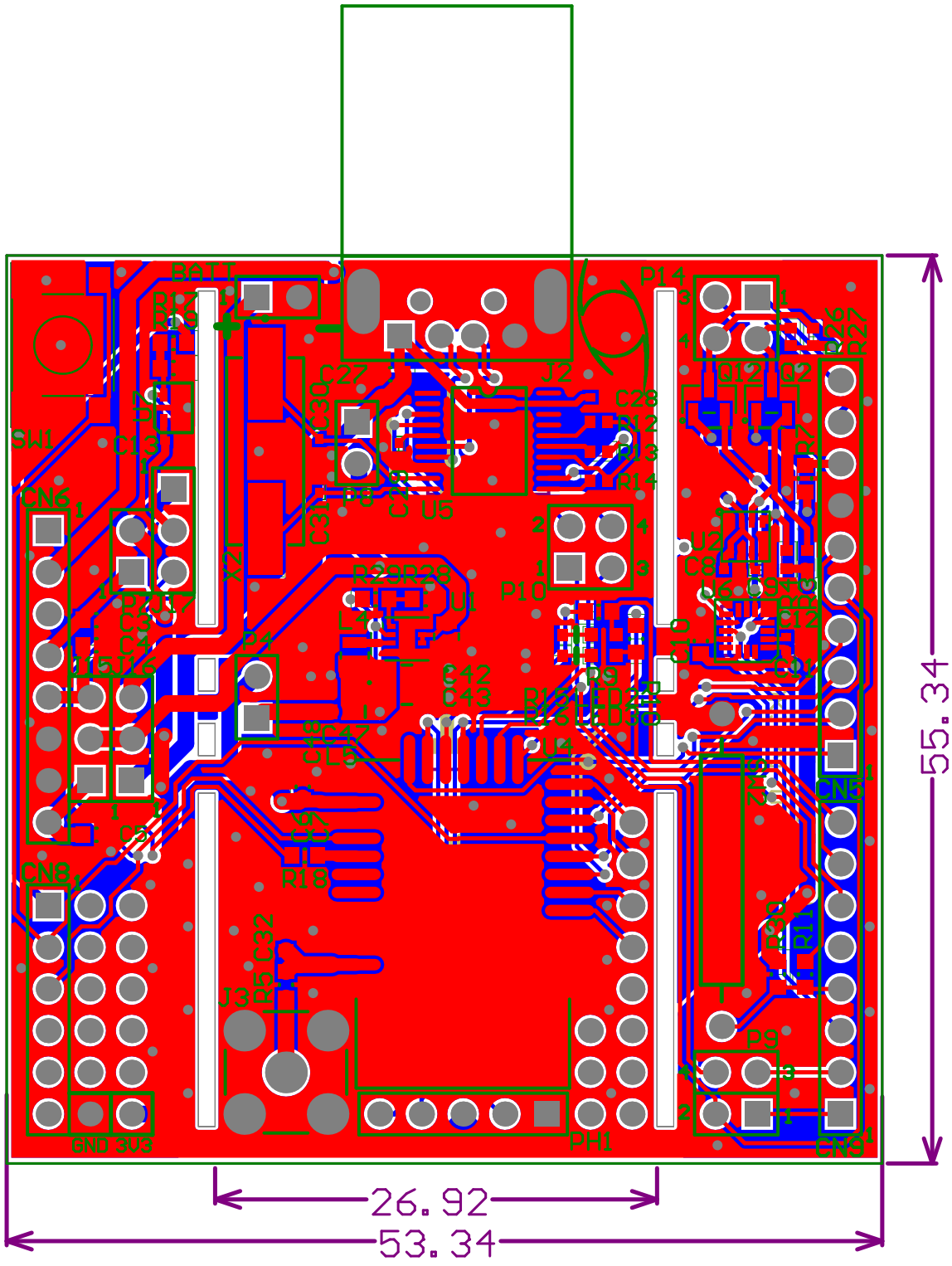
LUCIDTRON

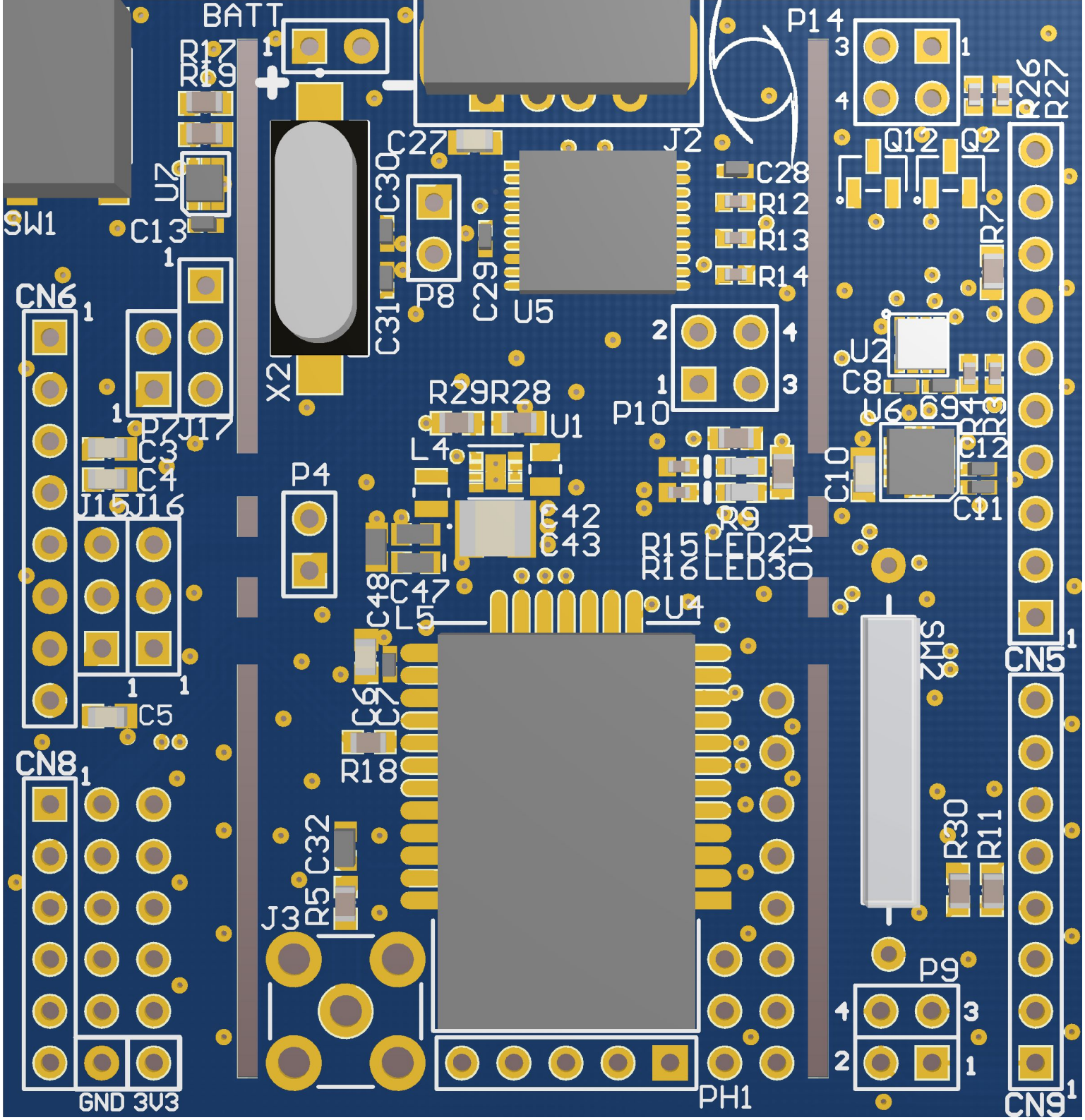
Title: Sigfox Module Dev Kit - USB to UART		
Size: A4	Number:	Revision: 0.1
Date: 13/02/2017		Sheet 5 of 6
File: C:\Users\..\005_USB_to_UART.SchDoc		Drawn By:



LUCIDTRON

Title	TX1 Sigfox Module Dev Kit	
Size A3	Number 1.0.0	Revision
Date: 13/02/2017	Sheet of	
File: C:\Users\..\006_Sigfox_Modem.SchDoc	Drawn By:	


55.34
26.92
53.34
Dimensions in mm


BATT
SW1
R17
R19
U7
C13
CN6
P7
J17
C3
C4
J15
J16
C5
CN8
GND 3V3
P4
X2
C27
C30
C31
P8
C29
U5
J2
C28
R12
R13
R14
P14
Q12
Q2
R26
R27
R7
U2
C8
U6
R4
R3
C12
C11
C10
P10
R29
R28
U1
L4
C42
C43
C47
C48
L5
U4
R9
R15
R16
LED2
LED3
R10
C6
C7
R18
C32
R5
J3
PH1
SW2
R30
R11
P9
CN5
CN9

SF_P1_DK1 v1.0.3
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GND
3V3