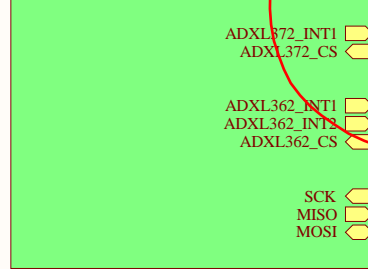


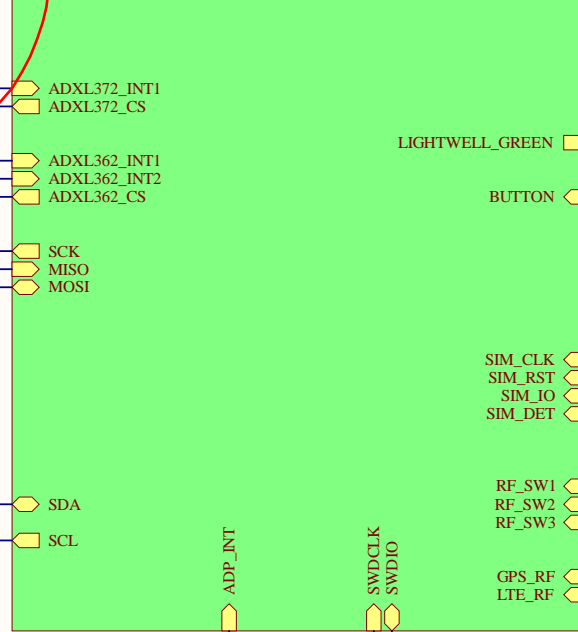
NBLoT

My limpio

Acelerometros
Acelerometros.SchDoc



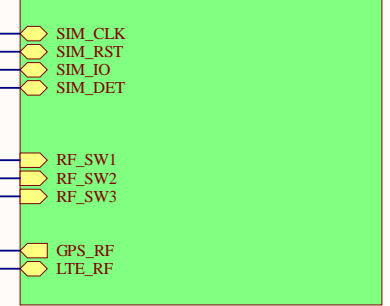
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Leds y Botones
Leds_Botones.SchDoc



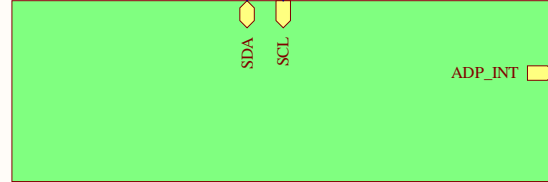
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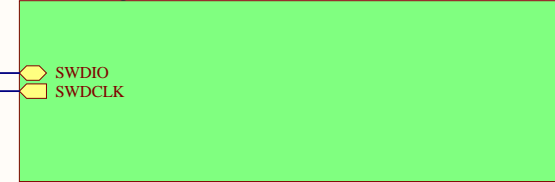
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Alimentacion
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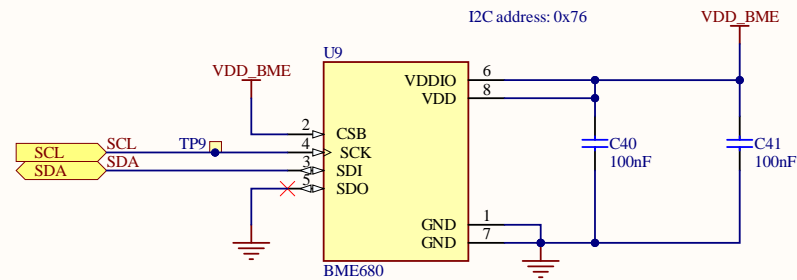


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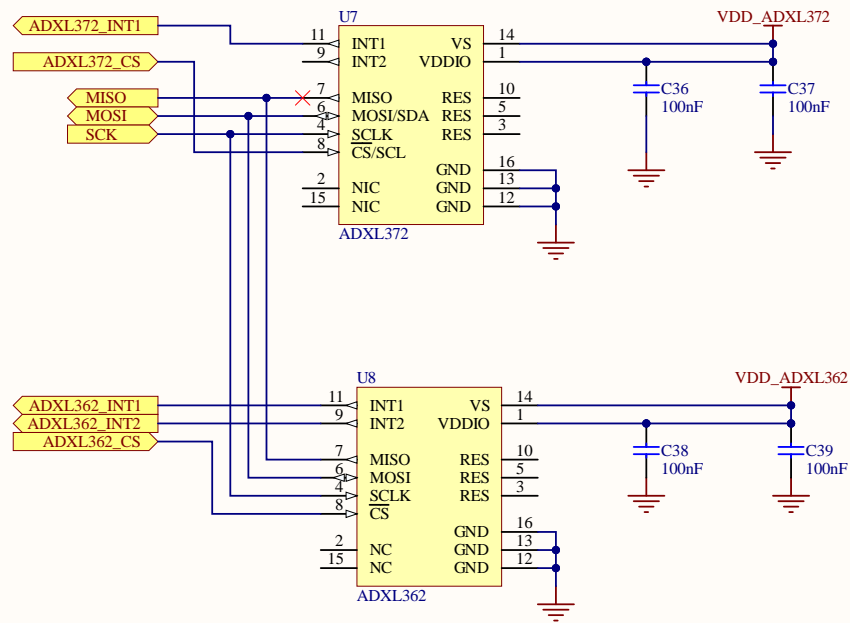
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| Size: A4 | Students: Javier López Iniesta and Rodrigo Moratilla | | | Date: 11/3/2020 | Time: 9:22:22 AM | |
| | Revision: v1.0 | Sheet 1 of 8 | File: C:\Users\alvar\Documents\docencia\grado\FEEL\2020-2021\entregas\entrega3 | LOPEZ INIESTA DIAZ DEL CAMPO JAVIER_6154641_... | | |

SENSOR AMBIENTE



| | | | | | | |
|--|--|---|--|-----------------------------|--------------------------|--|
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| Date: 11/3/2020 | | Time: 9:22:22 AM | | Revision: v1.0 | UPM | |
| | | Sheet 2 of 8 | | Avda. Complutense, 30 | | |
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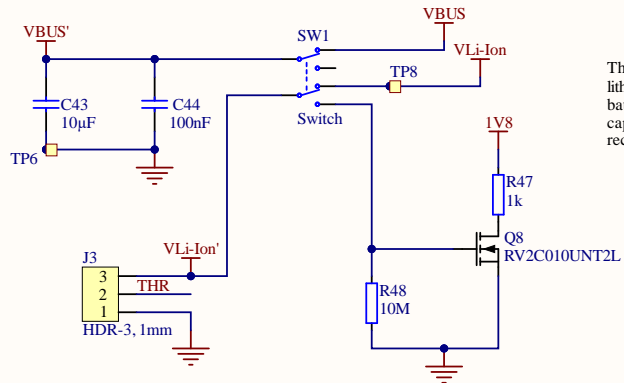
ACELERÓMETROS



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ALIMENTACIÓN

Power supply

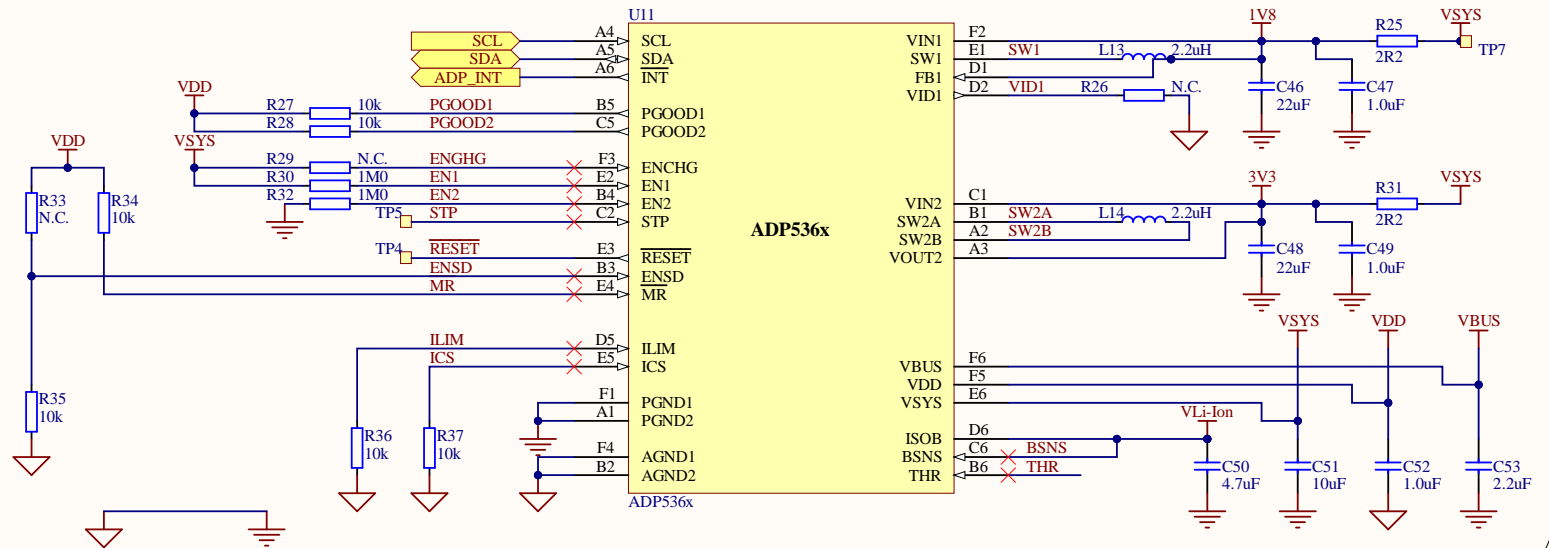


The main power source is a rechargeable lithium polymer (Li-Po) battery. The battery has a nominal capacity of 1400 mAh and can be recharged through USB.

PMIC

The PMIC has three voltage domain outputs that are used on Nordic Thingy:91:

- VSYS used for the nRF9160 SiP
- One 1.8 V output used as GPIO voltage
- One 3.3 V output used for analog circuitry



Title: **ALIMENTACIÓN**

Size: **A4** Students: **Javier López Iniesta and Rodrigo Moratilla**

Date: 11/3/2020 Time: 9:22:23 AM Revision: v1.0 Sheet 4 of 8

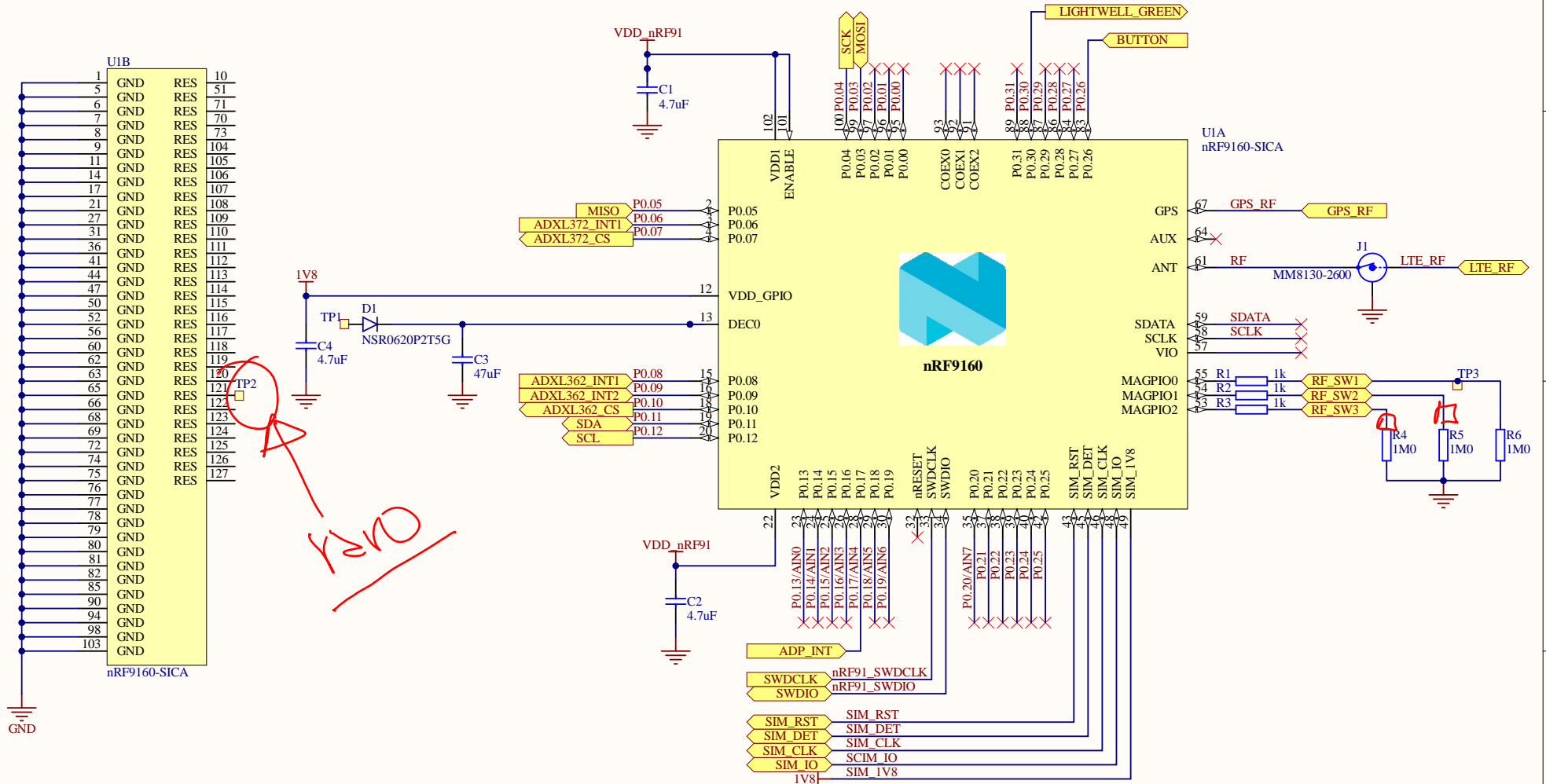
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28040 Madrid - Spain

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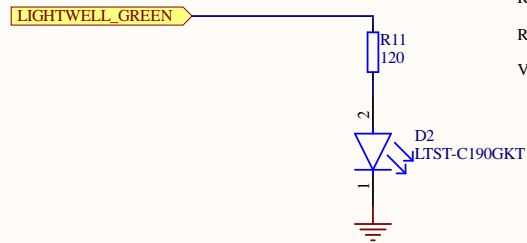
nRF9160



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| Students: Javier López Iniesta and Rodrigo Moratilla | | | | UPM | |
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LED Y BOTÓN

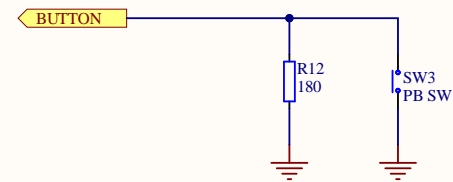
LED



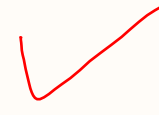
$R_{min} = (3.3 \text{ V} - 1.2 \text{ V}) / 20 \text{ mA} = 105 \text{ Ohmios}$
 $R_{max} = (3.3 \text{ V} - 1.2 \text{ V}) / 15 \text{ mA} = 140 \text{ Ohmios}$
Valor normalizado $\rightarrow R = 120 \text{ Ohmios}$



BOTON



$R = 3.3 \text{ V} / 18 \text{ mA} = 183.33 \text{ Ohmios}$
Valor normalizado $\rightarrow R = 180 \text{ Ohmios}$



Title: **LEDS Y BOTONES**

Size: **A4** Students: **Javier López Iniesta and Rodrigo Moratilla**

Date: **11/3/2020** Time: **9:22:23 AM** Revision: **v1.0** Sheet **6** of **8**

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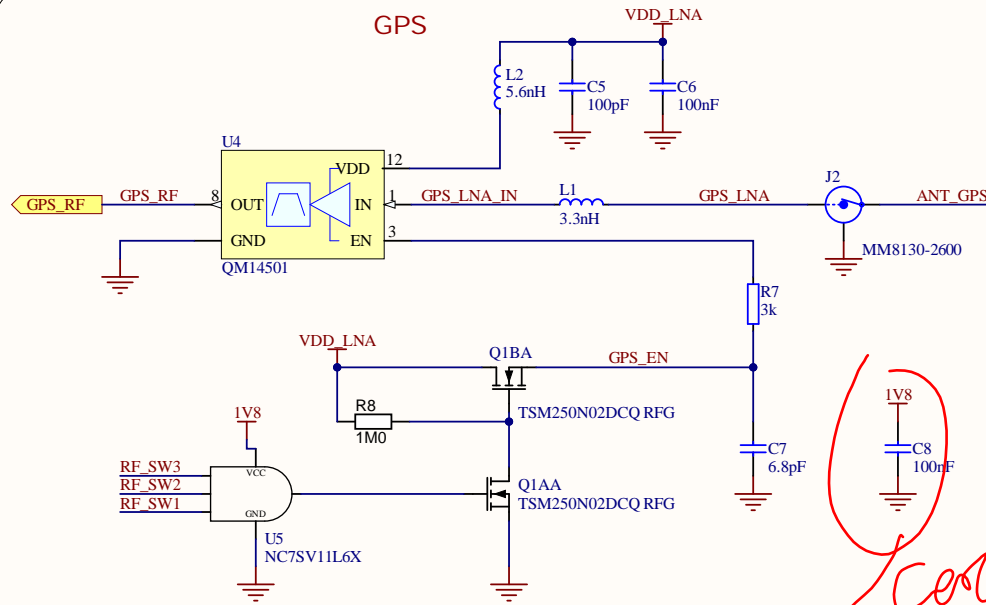
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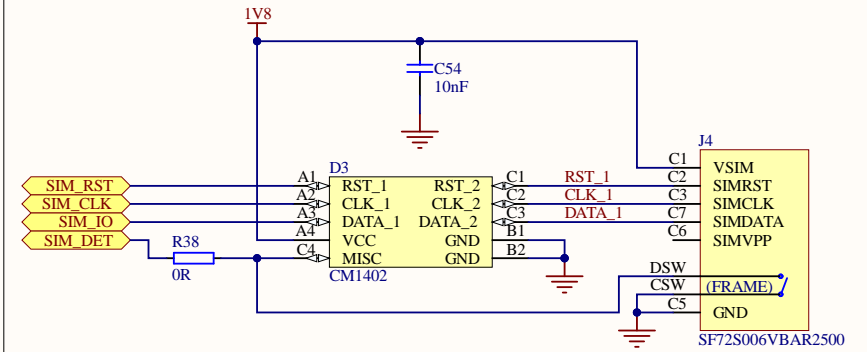
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RF

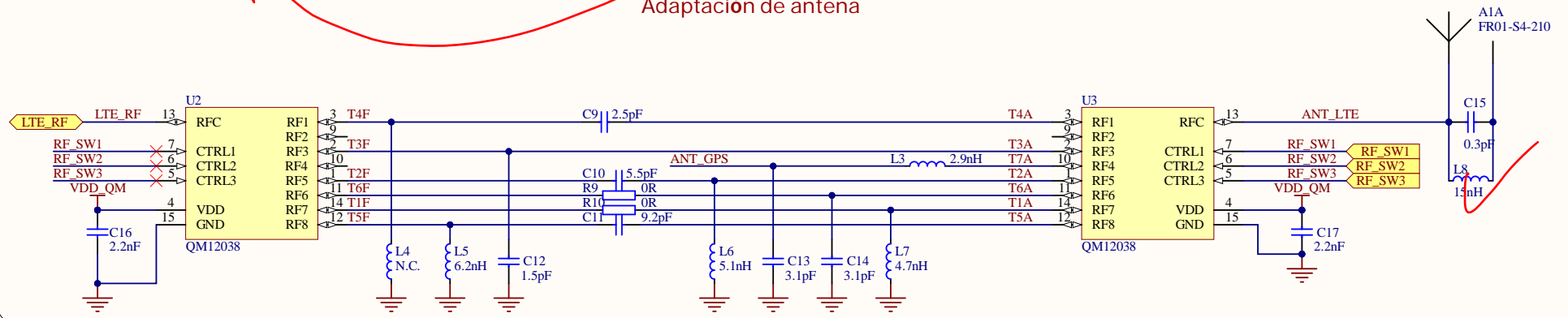
GPS



Tarjeta SIM



Adaptación de antena



Title: **RF**

Size: **A4**

Students: **Javier López Iniesta and Rodrigo Moratilla**

Date: 11/3/2020 Time: 9:22:23 AM Revision: v1.0 Sheet 7 of 8

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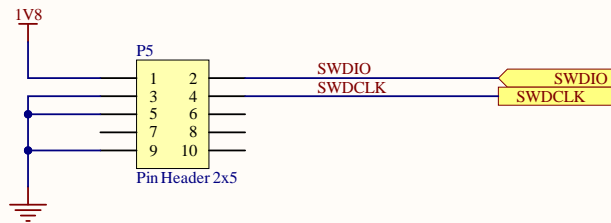
28040 Madrid - Spain

LOPEZ INIESTA DIAZ DEL CAMPO

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Javier\OneDrive -

assigns

INTERFAZ DE PROGRAMACIÓN



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| Size: A4 | | Students: Javier López Iniesta and Rodrigo Moratilla | | | | |
| Date: 11/3/2020 | Time: 9:22:23 AM | Revision: v1.0 | Sheet 8 of 8 | | | |
| File: C:\Users\alvar\Documents\docencia\grado\FEEL\2020-2021\entregas\entrega3 | | | | ETSI de Telecomunicación UPM Avda. Complutense, 30 28040 Madrid - Spain | | |