

Product description:

The **DROPLET** v8.18 XIAO RFM SHIELD is an easy to use breakout board PCB. This board is designed to connect the tiny Seeeduino XIAO module with an RFM95/69 module. Perfect for experimenting, education and prototyping.

Applications.

- Home automation.
- Wheater stations.
- GPS trackers.
- Smart Agriculture.
- Smart Industries.
- Automotive.
- Aviation.
- Monitoring sensors.

Dimensions:

Length: 45 mm ~ 1.77 Inch.
Width: 21.3 mm ~ 0.838 Inch.
Thickness: 1.6 mm ~ 0.063 Inch.
Mounting holes 2.5 mm ~ 0.098 Inch.

Compatible boards:

MCU: Seeeduino XIAO SAMD21.
Adafruit: Adafruit QT Py - SAMD21.

RFM RF Module:

RFM69HCW 868MHz ~ 915MHz.

RFM LoRa Module:

HopeRF RFM95W 433MHz ~ 868MHz ~ 915MHz.
NiceRF LoRa1276-C1 433MHz ~ 868MHz ~ 915MHz.

Connectors:

Sparkfun Qwiic connector.
JST Horizontal connector with 1mm spacing.

Capacitors:

Capacitor shape SMD 0603.

PCB Design:

Diycon Electronics Emmen, The Netherlands.
Design date: 16 May 2021.

PCB Specs:

Material: FR4-Standard Tg 130-140C.
Surface Finish: ENIG (Electroless Nickel Immersion).
Color: Black.
Country of Origin: China.

Drivers:

Arduino IDE board driver : Seeeduino Stalker V3.

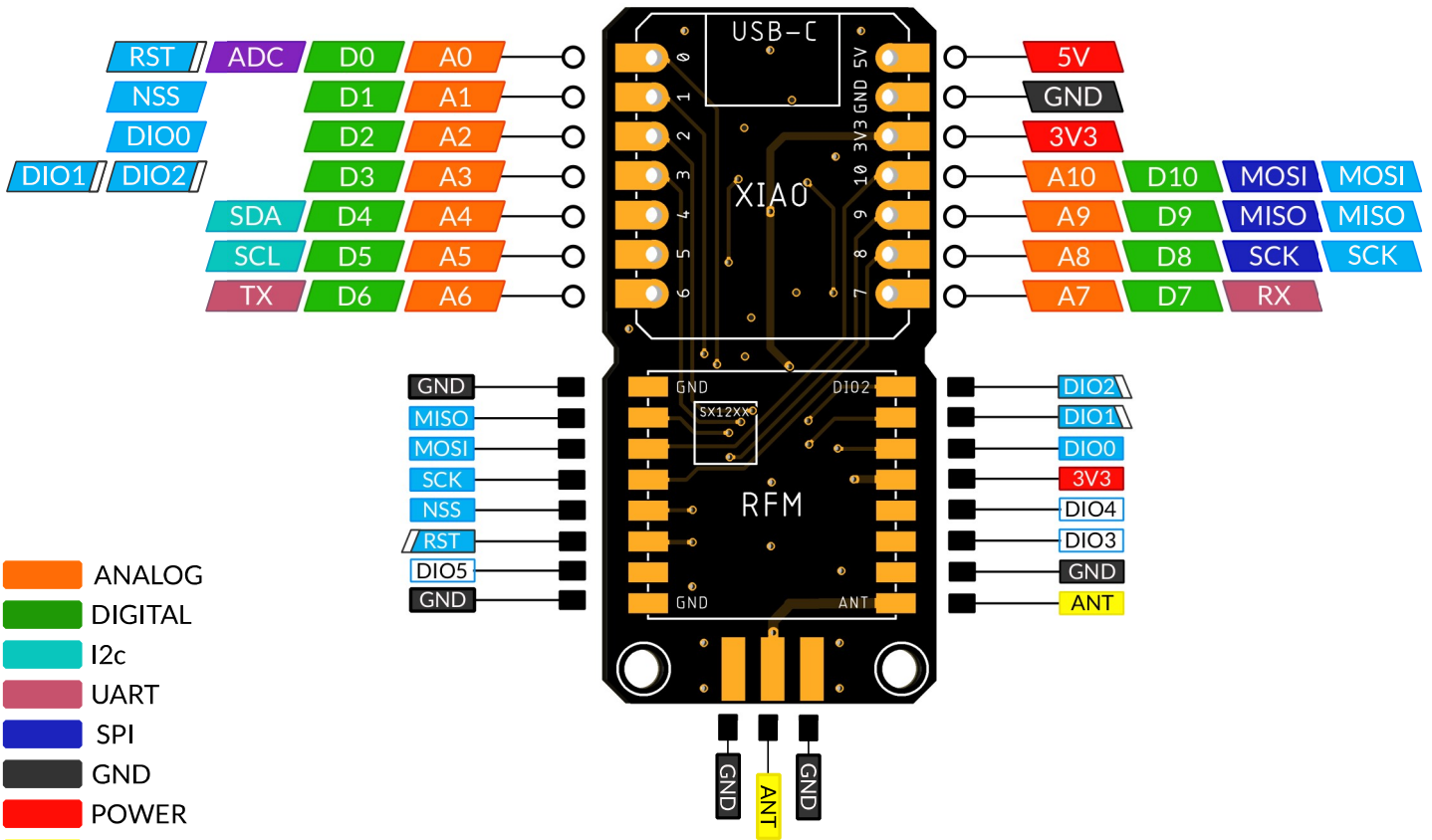
Tested libraries:

RadioHead Arduino Library.
Arduino LoRa Library.
MCCI LoRaWAN LMIC library.

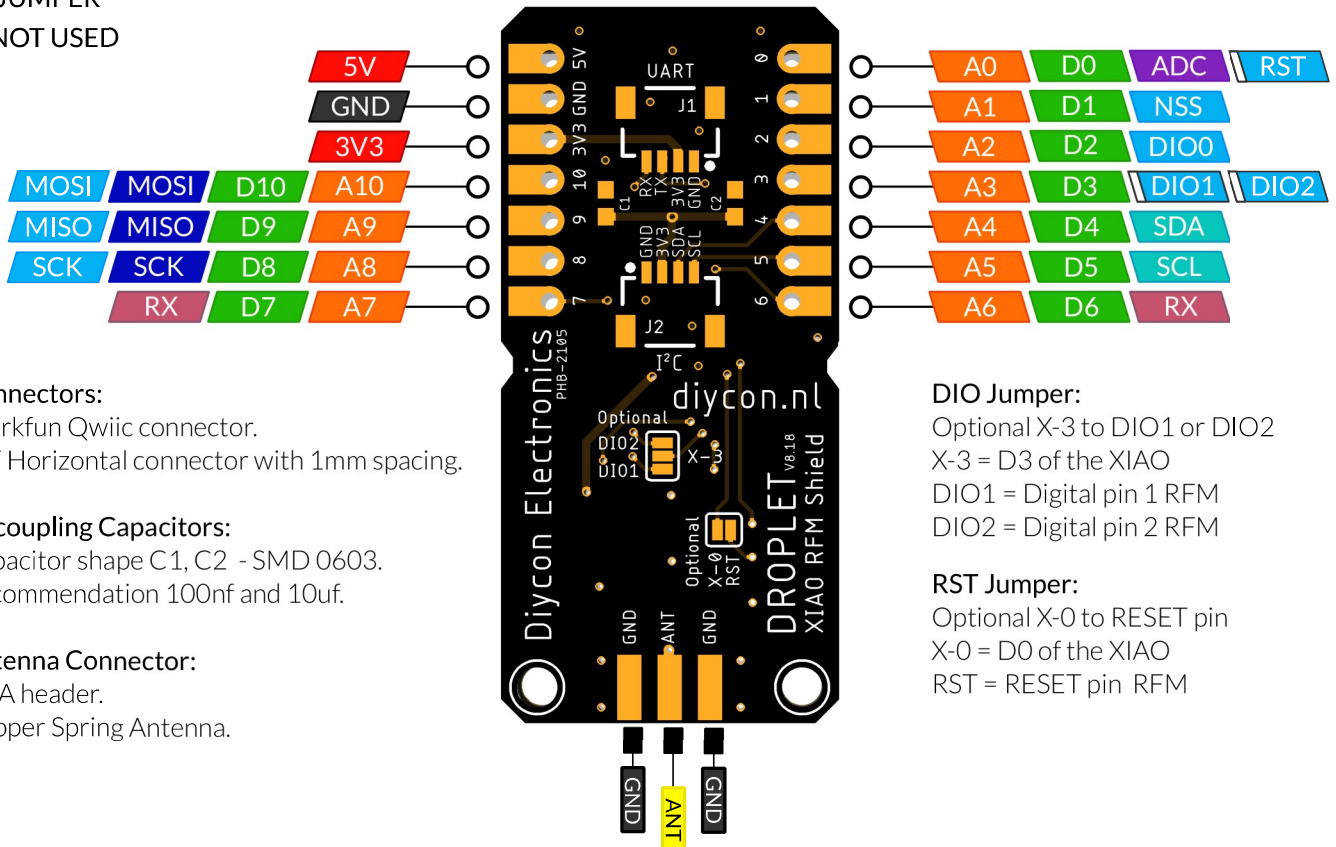
Compatible antenna:

SMA header.
Copper Spring Antenna.

Top Side



Bottom Side



Connectors:

Sparkfun Qwiic connector.
JST Horizontal connector with 1mm spacing.

Decoupling Capacitors:

Capacitor shape C1, C2 - SMD 0603.
Recommendation 100nf and 10uf.

Antenna Connector:

SMA header.
Copper Spring Antenna.

DIO Jumper:

Optional X-3 to DIO1 or DIO2
X-3 = D3 of the XIAO
DIO1 = Digital pin 1 RFM
DIO2 = Digital pin 2 RFM

RST Jumper:

Optional X-0 to RESET pin
X-0 = D0 of the XIAO
RST = RESET pin RFM