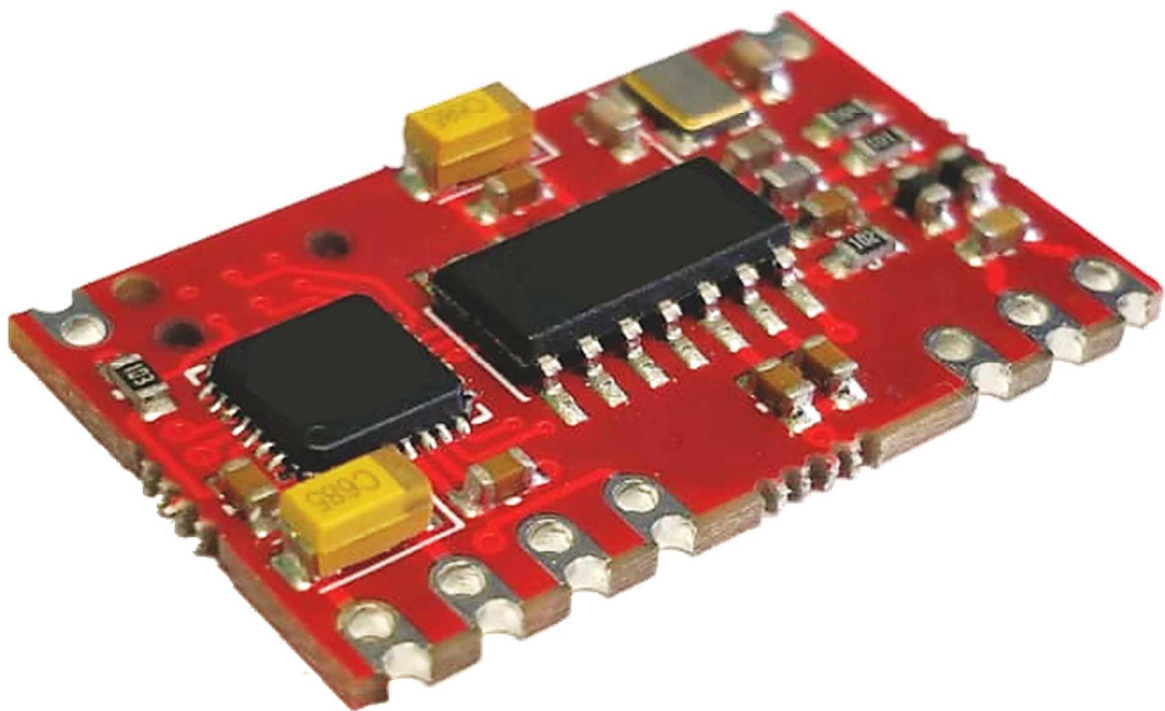
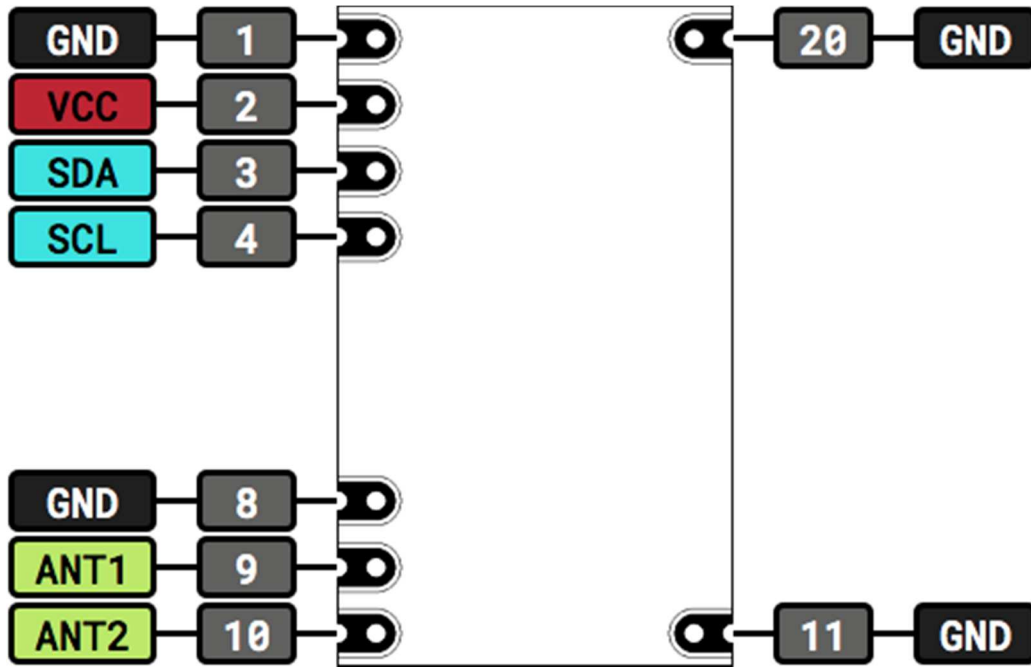


Codatex I²C Nano Reader Module for EM Transponders



1. Pin Configuration

1.1. Pin Layout



1.2. Pin Description

Pin	Name	Function
1, 8, 11, 20	GND	Ground
2	VCC	+5.0V Power Supply
3	SDA	Serial Address/Data I/O
4	SCL	Serial Clock
9	ANT1	First Antenna Coil Connection
10	ANT2	Second Antenna Coil Connection

2. Communication Protocol

2.1. I2C Registers & Commands

Address	Name	Description
0xA0	FIRMWARE_VERSION	Contains the version number of the firmware, running on the module's microcontroller.
0xA2	HARDWARE_REVISION	Contains the revision number of the module.
0xA6	DO_READ_TAG	Always contains 0x00. However any access to this register will tell the module, to try to read a tag.
0xB0 ... 0xB7	TAG_UID	Contains the UID of the read tag, if the tag has been read successfully.
0xBF	TAG_UID_LENGTH	Contains the length of the tag's UID and the current reader status.

2.2. Basic Communication

The NanoReader uses the I²C bus to exchange data with its controller.

By default the reader **slave address** is **0x0C**. As of writing, this cannot be changed.

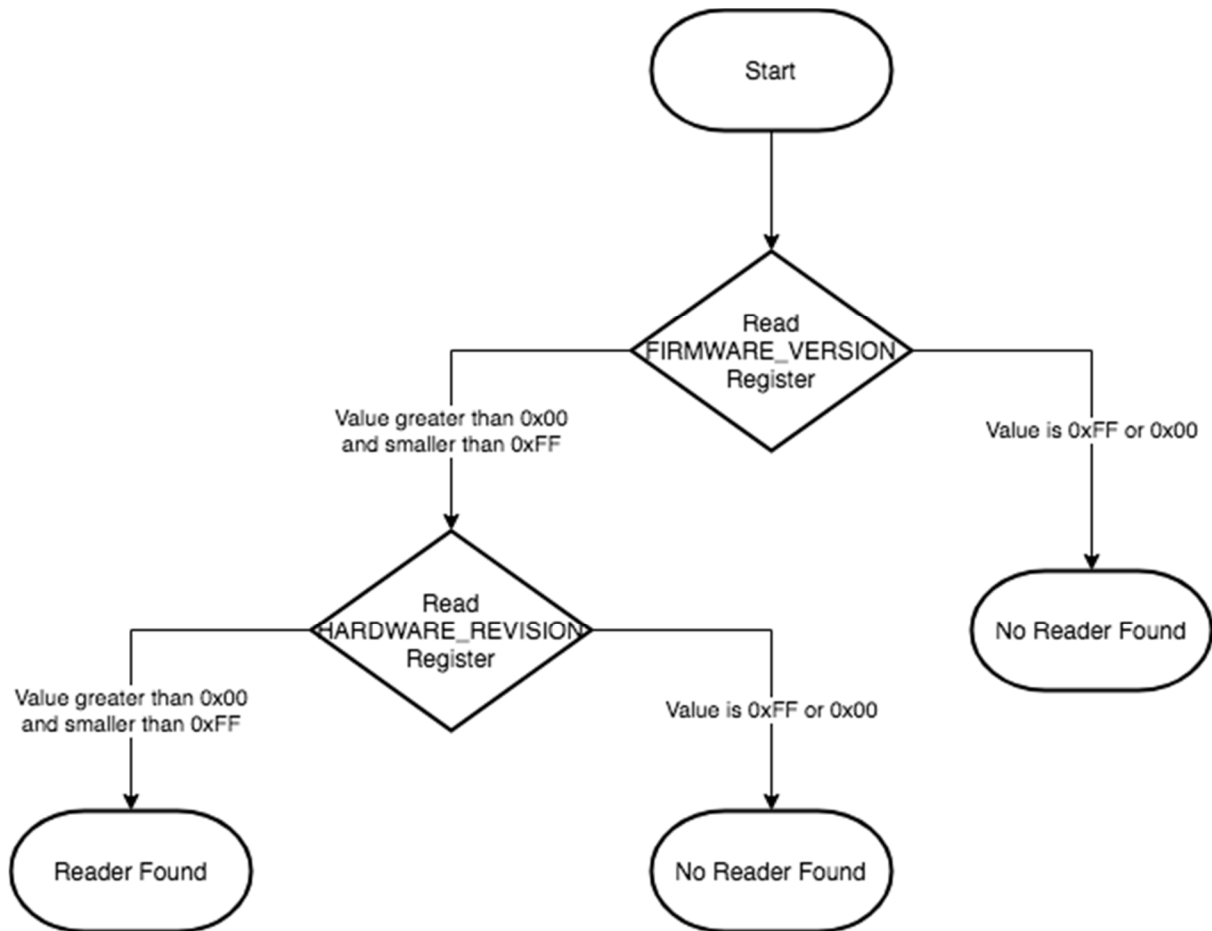
When communicating with the reader, you must send the data in the following pattern:

<I2C Slave Address> <Register Address> <Value>

When reading a register the value byte can be omitted. After the three (or two when reading) bytes have been sent to reader, you can read the content of the selected register.

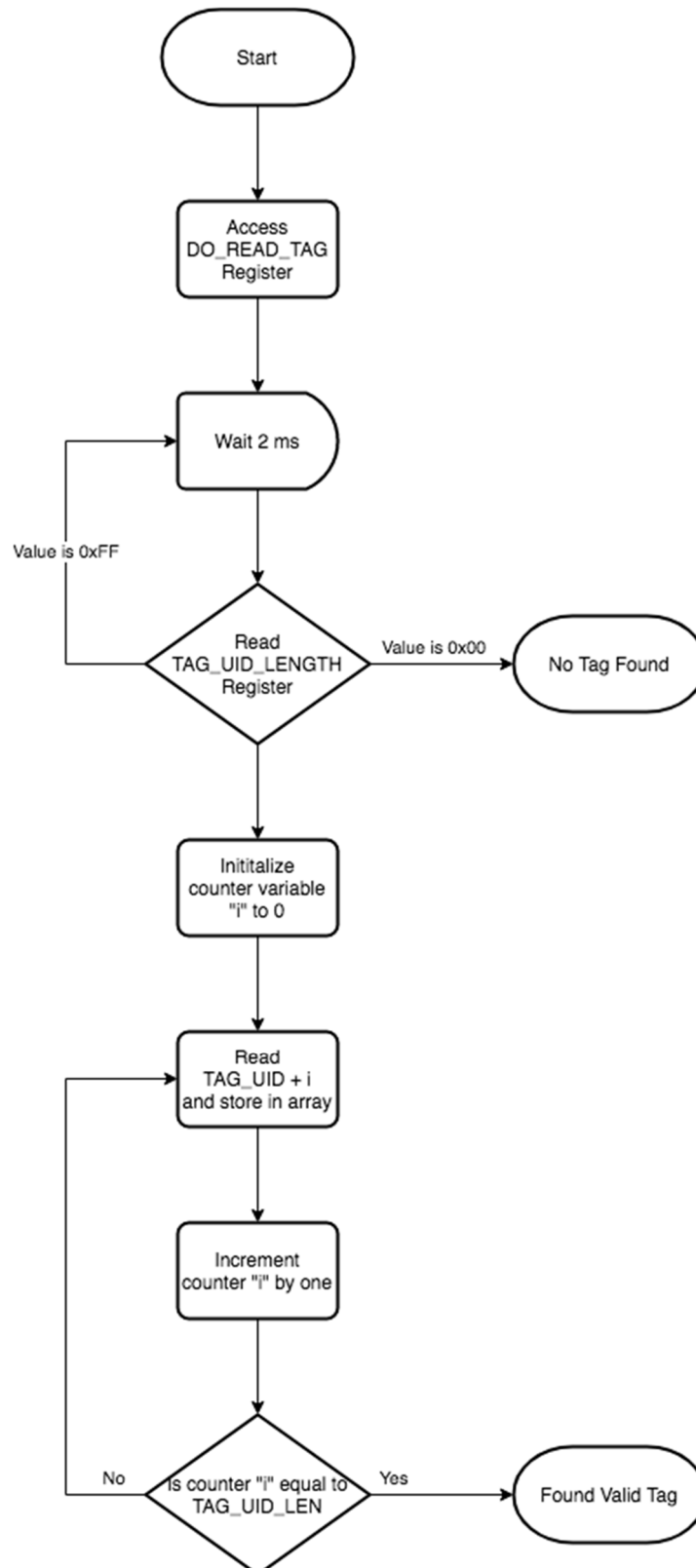
2.3. Check Reader

Checking if a reader is connected, and it has valid parameters.

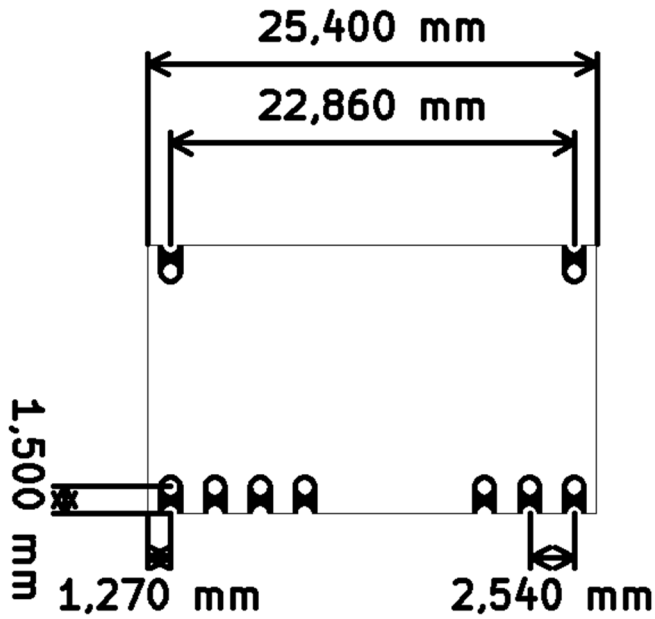


2.4. Read Tag

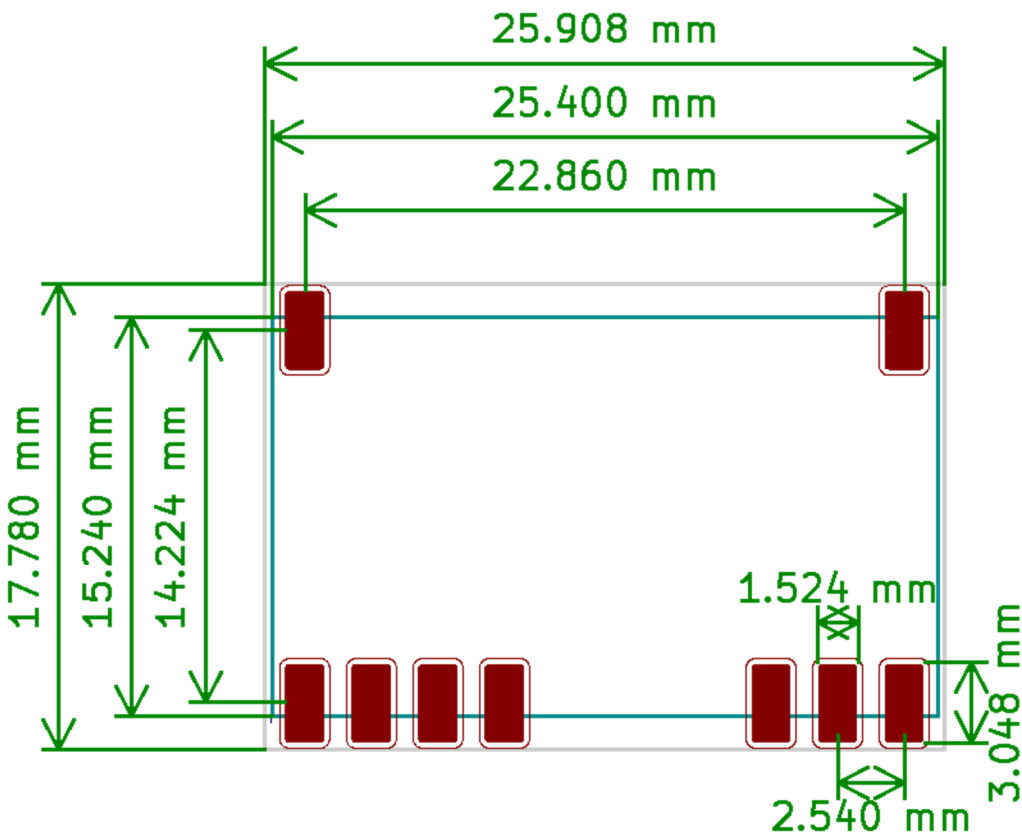
Checking if a tag is in the reader's field, and reading the tag's UID.



3. Module Dimensions



4. Recommended Footprint



Datasheet Content

1. Pin Configuration	2
1.1. Pin Layout.....	2
1.2. Pin Description	2
2. Communication Protocol	3
2.1. I2C Registers & Commands	3
2.2. Basic Communication.....	3
2.3. Check Reader	4
2.4. Read Tag.....	5
3. Module Dimensions	6
4. Recommended Footprint.....	6

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