

TR33MUE013

NFC Reader Module (FFC Type)

(PR533 NFC Reader/Writer for Toppan Forms)

User Manual

Version: 1.0

TOPPAN FORMS

Toppan Forms Co. Ltd

TABLE OF CONTENTS

1	About this Document	1
1.1	Purpose and Contents	1
2	TR33MUE013 NFC Reader/Writer module description	1
2.1	Description.....	1
2.2	How to use this product	1
3	TR33MUE013 PCB and Antenna Dimension overview.....	3
4	Regulatory information	4

1 About this Document

1.1 Purpose and Contents

This document describes the setup and use of TR33MUE013 NFC Reader/Writer Module.

It includes the board layout, the antenna size and the interface to the host.

2 TR33MUE013 NFC Reader/Writer module description

The interface with the host controller is USB 2.0 full speed via FFC cable.

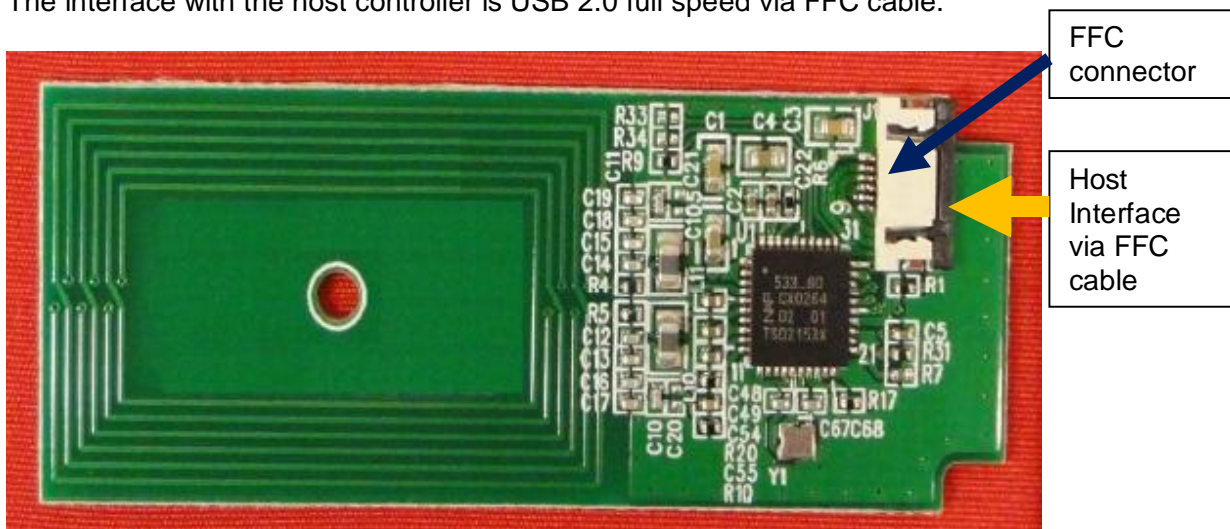


Fig 3. TR33MUE013 NFC Reader/Writer Module

2.1 Description

On the product, the 6-way FFC connector is easily visible from external. The host controller will connect to this module via a FFC cable using USB interface. Refer to Fig 4 on the pinning definition of the FFC connector.

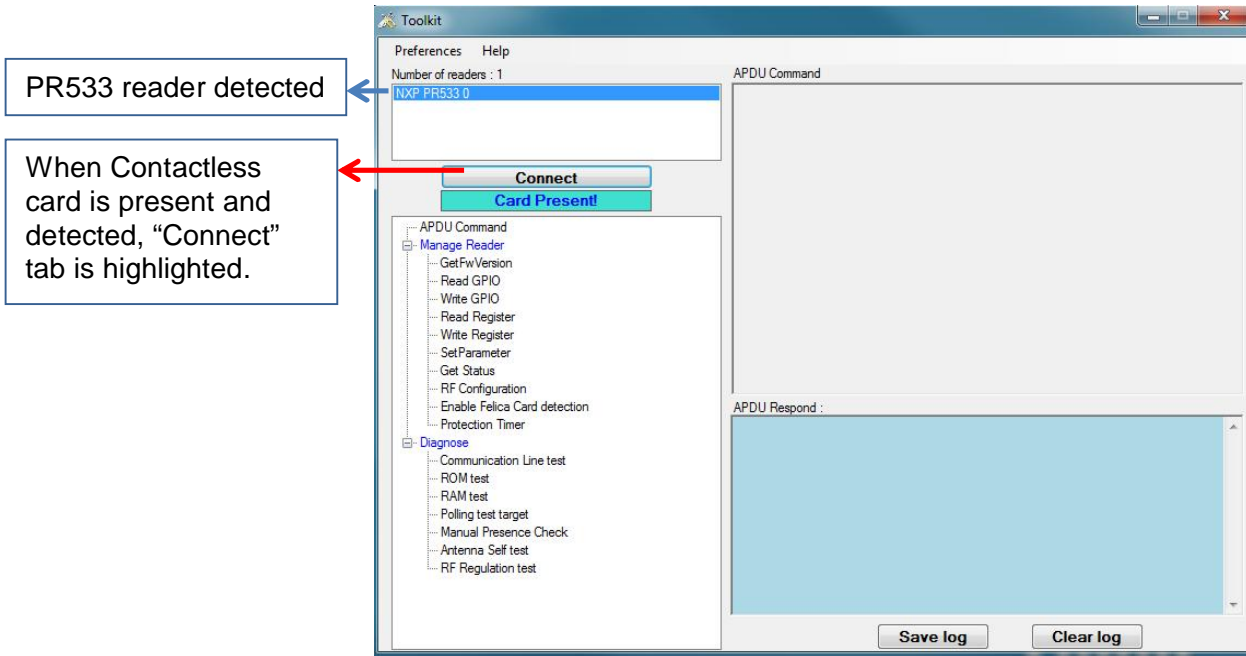
2.2 How to use this product

For testing this product using a PC/laptop, an additional converter is needed to bridge the USB interface to the FFC connector of the module. The product should be recognized and installed with CCID driver automatically as soon as it is plugged.

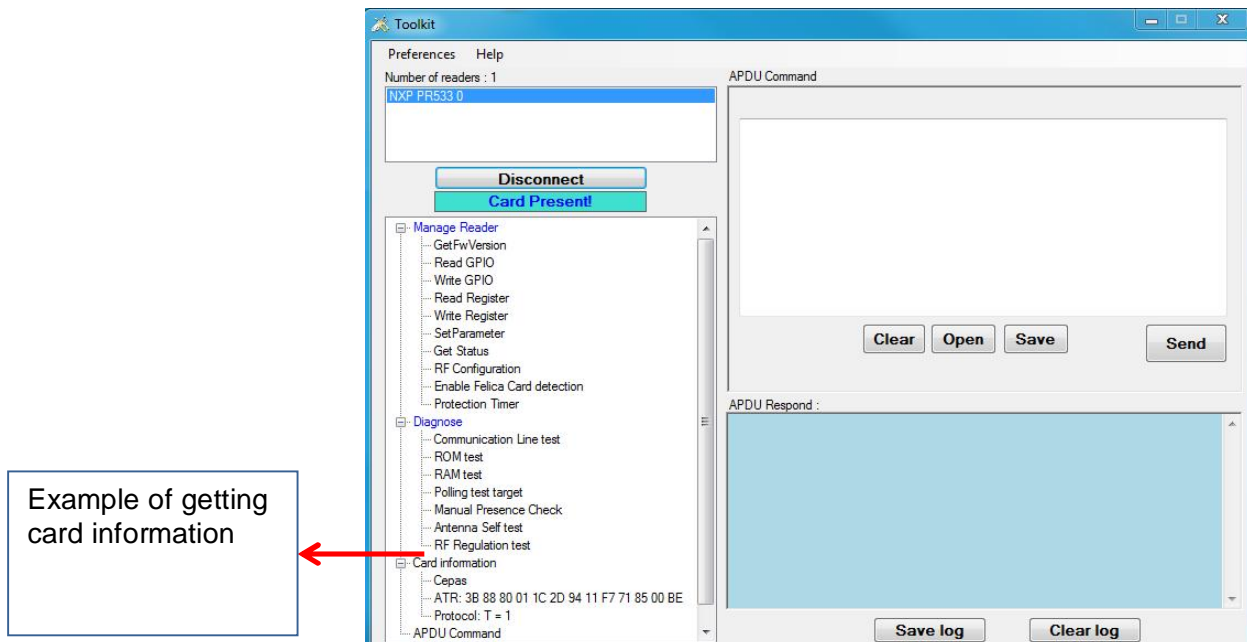
For read/write application tests, below are application example using STYL's Toolkit software.

STYL's Toolkit application software used for communication test

Case of smart card presented and detected in polling



Case of connecting to card to read card information



3 TR33MUE013 PCB and Antenna Dimension overview

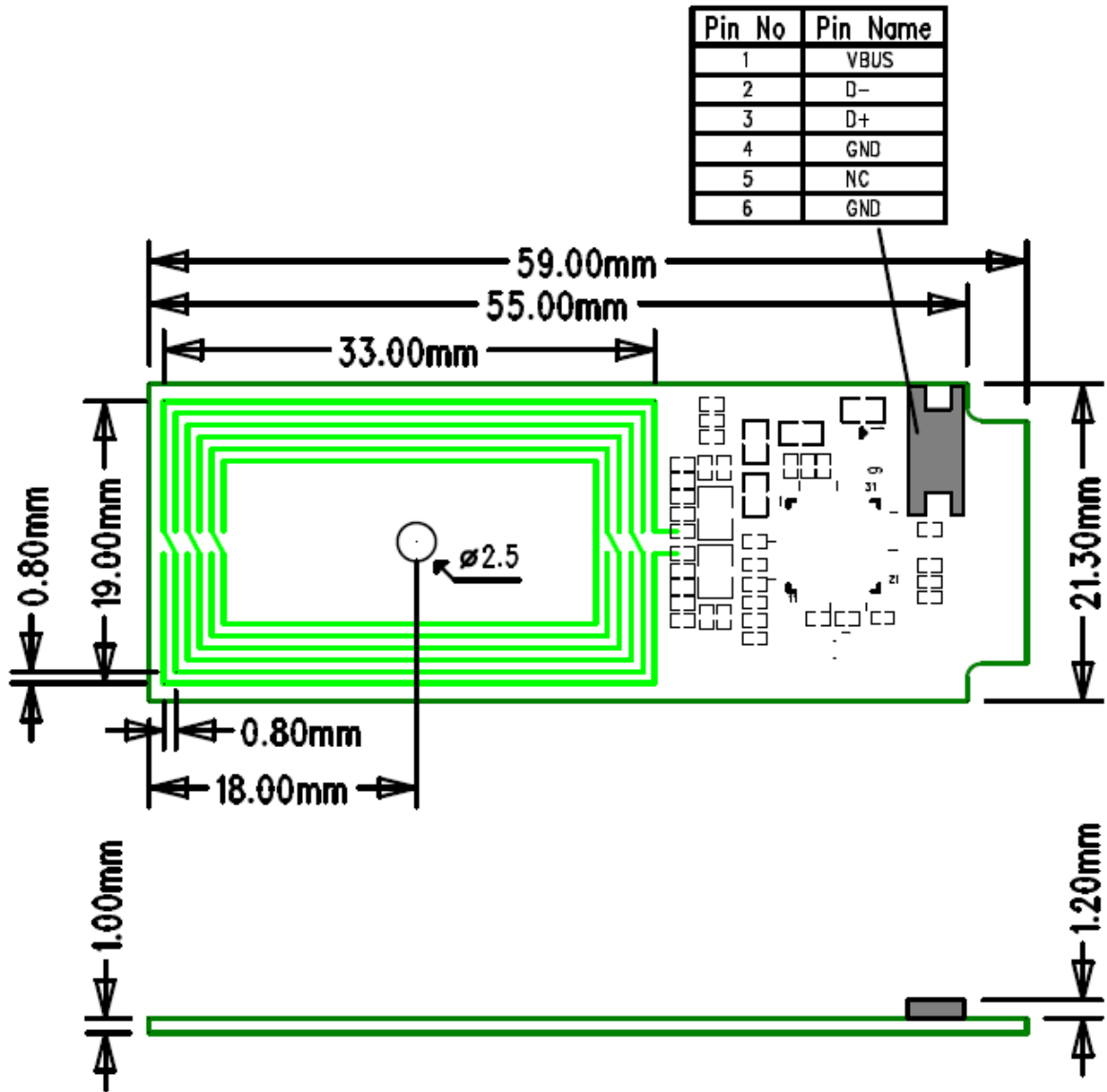


Fig 4. TR33MUE013 PCB and Antenna dimension

4 Regulatory information

Regulatory Information

Federal Communication Commission Notice

FCC Identifier: ORK-TR33MUE013

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance to this equipment would void the user's authority to operate this device.

Note :

1. This module is intended for end device installation. The installer is still responsible for the FCC compliance requirement of the end product, which integrates this module. The host end product must also pass the FCC Part 15 unintentional emission testing requirement and be properly authorized per FCC Part 15. The host end product must include a user manual that clearly defines operating requirements and conditions that must be observed to ensure compliance with current FCC RF exposure guidelines.
2. The built-in antenna is integrated to the module and no other antenna should be used.
3. This module must not be co-located or jointly operated with any other antenna or transmitter within host.
4. A label should be attached to the host end product in a visible area with the following statement: "Contains Transmitter Module FCC ID: ORK-TR33MUE013" or "Contains FCC ID: ORK-TR33MUE013".

EC R&TTE directive:

We, hereby declare that the above named module is in conformity to all the essential requirements of Directive 1999/5/EC. The Conformity Assessment procedure referred to Article 10 and detailed in Annex [III] or [IV] of Directive 1999/5/EC has been followed with involvement of the following notified body:

TIMCO ENGINEERING, INC., P.O BOX 370, NEW BERRY, FLORIDA 32669.
Identification mark: 1177 (Notified Body number)

The image shows the CE mark followed by the number 1177, which is the notified body number for the product's conformity assessment.

The technical documentation relevant to the above equipment is held at:

- Toppan Forms Co. Ltd, 1-7-3 Higashi Shimbashi, Minato-Ku, Tokyo 105-8311, Japan