

TWN4 CONFIG PROGRAMMER KIT

USER MANUAL



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1 INTRODUCTION

1.1 ABOUT THIS MANUAL

This user manual is intended for the user and enables a safe and appropriate handling of the product. It gives a general overview, as well as important technical data and safety information about the product. Before using the product, the user should read and understand the content of this user manual.

For the sake of better understanding and readability, this user manual might contain exemplary pictures, drawings and other illustrations. Depending on your product configuration, these pictures might differ from the actual design of your product.

The original version of this user manual has been written in English. Wherever the user manual is available in another language, it is considered as a translation of the original document for information purposes only. In case of discrepancy, the original version in English will prevail.

1.2 SCOPE OF DELIVERY

The TWN4 Config Programmer kit is available in two different configurations:

Configuration 1 (Part no.: T4CK-FB7CCF)*

Component	Quantity	Description
TWN4 Config Programmer	1	RFID desktop reader of the ELATEC TWN4 MultiTech family, equipped with a 1.2 m USB cable and a specific firmware version. Once the reader is connected to a PC, it enables the user to define specific settings in the App installed on the reader. These settings can later be transmitted to other readers using a TWN4 Config Card.
TWN4 Config Card	10	Contactless card used to copy specific settings from the TWN4 Config Programmer to another reader.
Snap-in holder	1	ELATEC mounting solution to fix a desktop reader on a flat surface. It can be fixed with screws or adhesive pads.
USB stick	1	Contains a DevPack, tutorial videos and a product-related documentation
Quick Start Guide	1	Gives an overview of the RFID readers/modules of the ELATEC product family and basic information to start working with a reader/module.

*In this configuration, the kit is delivered in a convenient hardshell case.

Configuration 2 (Part no.: T4DT-FB7CCF-CFG)**

Component	Quantity	Description
TWN4 Config Programmer	1	RFID desktop reader of the ELATEC TWN4 MultiTech family, equipped with a 1.2 m USB cable and a specific firmware version. Once the reader is connected to a PC, it enables the user to define specific settings in the App installed on the reader. These settings can later be transmitted to other readers using a TWN4 Config Card.
Quick Start Guide	1	Gives an overview of the RFID readers/modules of the ELATEC product family and basic information to start working with a reader/module.

**In this configuration, the kit is delivered in a plastic bag.



TWN4 Config Programmer



ELATEC Quick Start Guide



Snap-in holder



TWN4 Config Card



USB stick

For more information about the delivered components and accessories, refer to your delivery note, consult the ELATEC website or contact ELATEC.

1.3 ELATEC SUPPORT

In case of any technical questions or product malfunction, refer to the ELATEC website (www.elatec.com) or contact ELATEC technical support at support-rfid@elatec.com

In case of questions regarding your product order, contact your Sales representative or ELATEC customer service at info-rfid@elatec.com

2 INTENDED USE

The TWN4 CONFIG Programmer kit contains an RFID reader, special contactless configuration cards (TWN4 Config Cards) and an App. Project-specific reader settings are configured in the App and then encoded onto a TWN4 Config Card. When the programmed Config Card is swiped over a reader, it adopts the new settings.

Whereas the RFID readers of the TWN4 family inherently support over 60 RFID technologies from low (125 kHz) and high (13.56 MHz) frequency bands, the TWN4 Config Card configures a device to read only certain technologies or frequencies. Its greatest advantage is that it can also be used to (re)program large numbers of proximity readers via air interface without disassembling the device or connecting it to a computer. This significantly reduces the configuration effort required for large-scale projects.

The product is for indoor use and may not be used outdoor.

Any use other than the intended use described in this section, as well as any failure to comply with the safety information given in this document, is considered improper use. ELATEC excludes any liability in case of improper use or faulty product installation.

3 SAFETY INFORMATION

Transport and storage

- Observe carefully the transport and storage conditions described on the product packaging or other relevant product documents (e.g. data sheets).

Unpacking and installation

- Before unpacking and starting working with the kit, this user manual and all relevant installation instructions must be read and understood carefully.
- The kit contains an RFID reader (TWN4 Config Programmer) equipped with a USB cable.
 - **Do not twist or pull the cable excessively.**
 - **Do not replace the cable and do not use a cable extension.****ELATEC excludes any liability for damages or injuries resulting from the use of a cable extension or a replaced cable.**

Handling

- Depending on your product configuration, the TWN4 Config Programmer contained in the kit might be equipped with one or more light-emitting diodes (LED).
Avoid direct eye contact with the blinking or steady light of the light-emitting diodes.
- The components contained in the kit have been designed for a use under specific conditions, e.g. in a specific temperature range (refer to the product data sheets).
Any use of the components under different conditions might damage the components.
- The use of other RFID readers or reader modules in direct vicinity to the TWN4 Config Programmer, or in combination with the TWN4 Config Programmer might damage the reader or alter its reading performance. In case of doubts, contact ELATEC for more information.
- The user is liable for the use of spare parts or accessories other than the ones sold or recommended by ELATEC.
ELATEC excludes any liability for damages or injuries resulting from the use of spare parts or accessories other than the ones sold or recommended by ELATEC.
- Like most electronic devices, RFID systems generate electromagnetic waves that can vary in amplitude and frequency. It is generally known and accepted that some RFID devices might potentially interfere with personal medical devices, like pacemakers or hearing aids.
The TWN4 Config Programmer contained in the kit fulfills general radio and EMC requirements. However, users with a pacemaker or any other medical device should use the kit carefully and refer to the information given by the manufacturer of their medical devices before using the kit.

Maintenance and cleaning

- Any repair or maintenance work should be done by a trained and qualified personnel only.
Do not try to repair or carry out any maintenance work on the TWN4 Config Programmer by yourself.
Do not allow any repair or maintenance work on the TWN4 Config Programmer by an unqualified or unauthorized third party.
- The kit does not need any special cleaning. However, the components of the kit may be carefully cleaned up with a soft, dry cloth and a non-aggressive or non-halogenated cleaning agent on the outer surface only (e.g. reader housing, case).
Make sure that the used cloth and cleaning agent do not damage the components (e.g. label(s)).

Disposal

- The kit must be disposed of in accordance with the EU directive on waste electrical and electronic equipment (WEEE) or any applicable local regulations.

Product modifications

- The kit has been designed and manufactured as defined by ELATEC.
Any product modification without prior written approval from ELATEC is prohibited and considered improper use.

If you are unsure about any part of the safety information above, contact ELATEC support.

Any failure to comply with the safety information given in this document is considered improper use. ELATEC excludes any liability in case of improper use or faulty product installation.

4 TECHNICAL DATA

4.1 TECHNICAL SPECIFICATIONS

Refer to the technical documentation (e.g. data sheets) of the RFID reader and other components contained in the TWN4 Config Programmer kit for detailed information about the specific components.

All data sheets and user manuals are available on the ELATEC website at the following addresses:

www.elatec-rfid.com/int/data-sheets

www.elatec-rfid.com/int/manuals

Contact ELATEC for more information or further technical documentation.

5 WORKING WITH THE TWN4 CONFIG PROGRAMMER KIT

5.1 HOW TO PROGRAM A READER TO ACCEPT CONFIGURATION CARDS

TWN4 Config Cards can only be used with RFID readers of the TWN4 product family that are compatible with the firmware version 3.04 or a higher version. The firmware version installed on your reader is displayed on the product label, below the model name (refer to Fig. 1).



Fig. 1 - FW version 4.64 displayed on a reader label

The ELATEC RFID readers whose firmware version is older than 3.04 are not able to understand TWN4 Config Cards and must be first upgraded as follows:

1. Connect your RFID reader to your PC and open the AppBlaster tool. The AppBlaster main window appears.

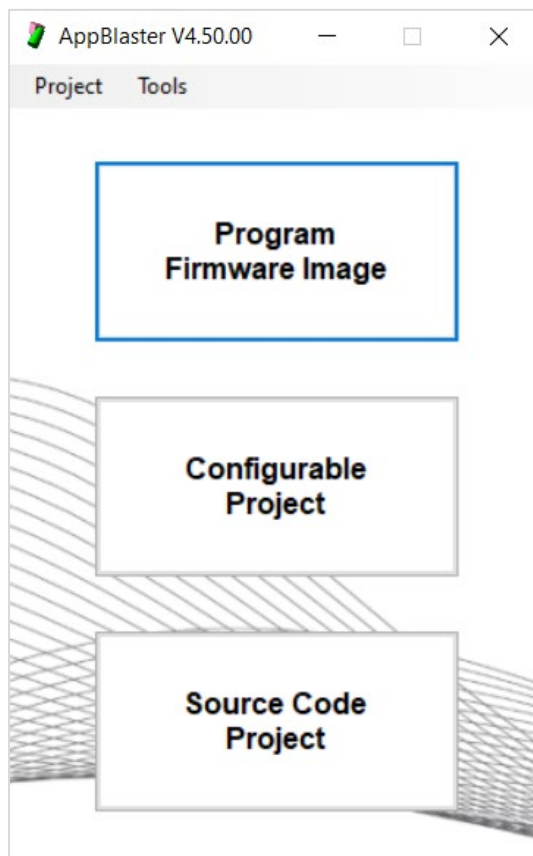


Fig. 2

- Click “Program Firmware Image”, then “Select Image”.



Fig. 3

- In the “Firmware” folder, select the file (BIX format) whose name ends up with “Standard_Accept_Config_Cards” and click “Open”.

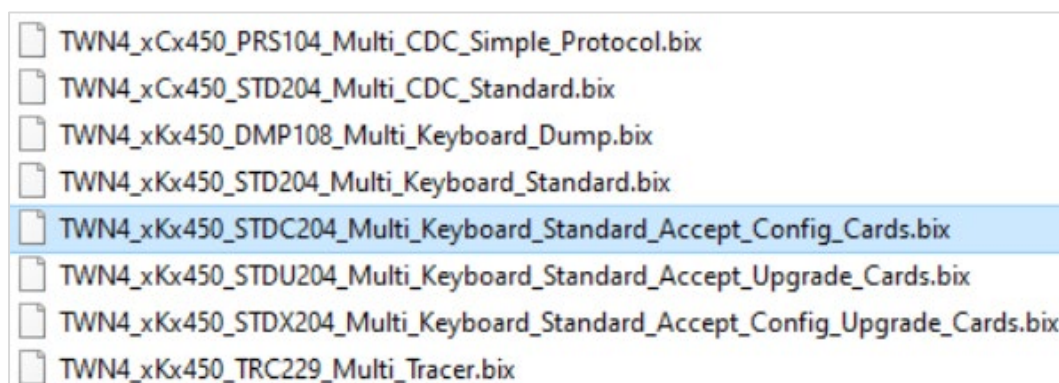


Fig. 4 - Example with TWN4DevPack450

- Finally, click “Program Image” to upload the firmware onto the reader.

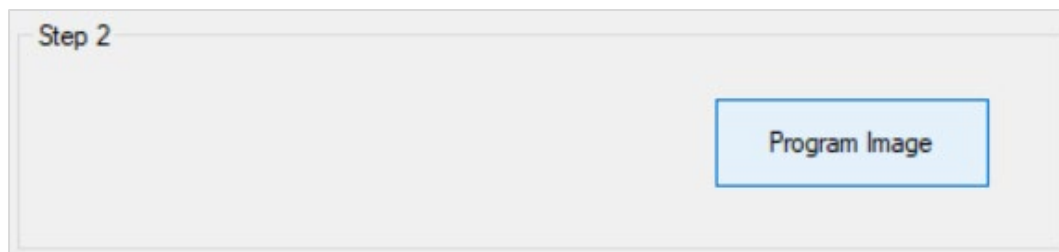


Fig. 5

Once the firmware has been uploaded, a notification appears in the “Messages” window and confirms that the upload has been completed successfully.

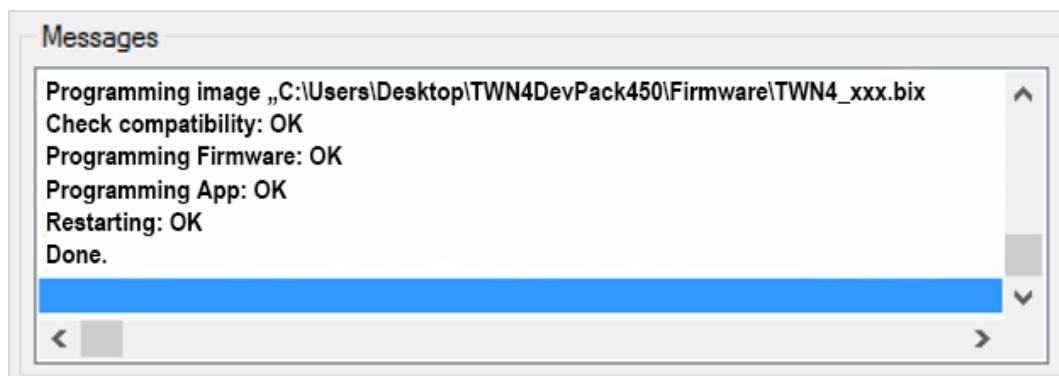


Fig. 6 - Upload confirmation (exemplary)

5.2 HOW TO CREATE TWN4 CONFIG CARDS

 Refer to the tutorial videos on the USB stick of the TWN4 Config Programmer kit for a short introduction to the TWN4 Config Card configuration.

Before creating a TWN4 Config Card, it is necessary to enable your RFID reader to accept such configuration cards. To do so, proceed as follows:

1. Connect your reader to a PC and start the AppBlaster tool.
2. Click “Behavior/Signaling” in the “Action Items” window.

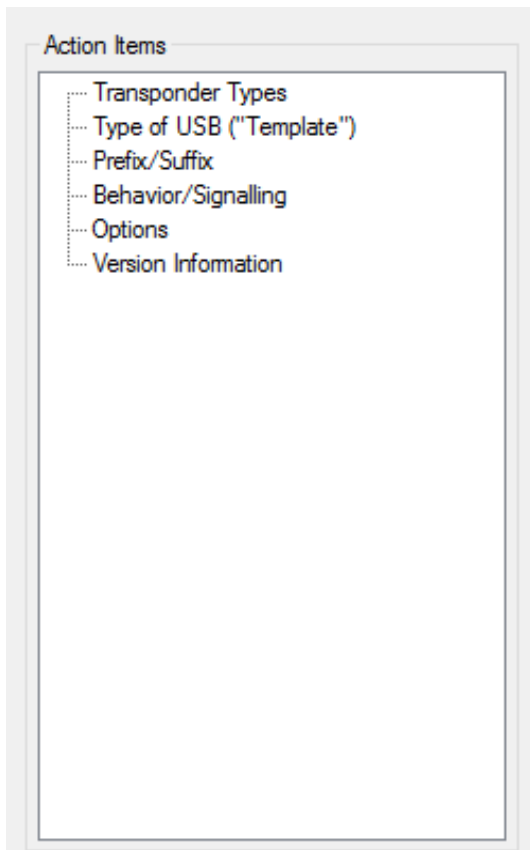


Fig. 7

3. Select the check box “Accept Configuration Cards” as appropriate.

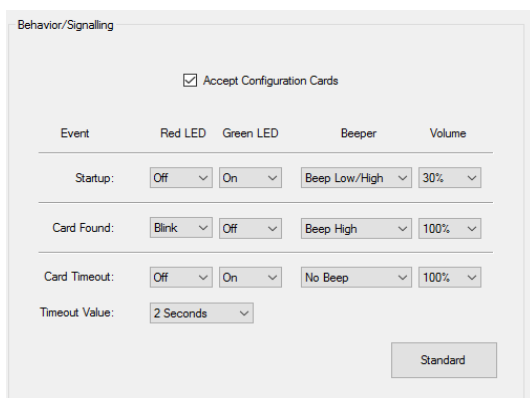


Fig. 8

The setting will be stored in the TWN4 Config Card and applied to any TWN4 reader during their programming.

Once your reader has been enabled to accept configuration cards, proceed as follows to create TWN4 Config Cards with the AppBlaster tool:

1. Connect the TWN4 Config Programmer to a PC.
The “Create Config Card” and “Read Card Info” buttons appear.

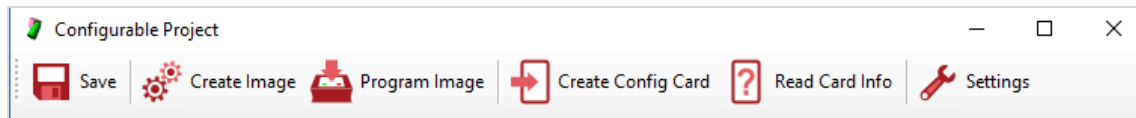


Fig. 9

2. Place a blank or previously used TWN4 Config Card on the TWN4 Config Programmer and click “Create Config Card”.
The firmware image is created and the window “Performing Action” appears.

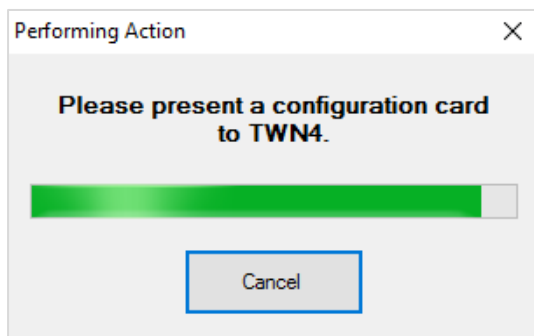


Fig. 10

The creation of the TWN4 Config Card will time out and be cancelled if the card has not been placed on the TWN4 Config Programmer before the status bar disappears.

If the presented TWN4 Config Card has previously been used and already contains other settings, a second “Messages” window opens and asks the user to confirm the overwriting of the previous settings.

3. Click “OK” to overwrite the settings on the TWN4 Config Card.
Once the TWN4 Config Card has been created, the status “Done” and card information are displayed in the “Messages” window.

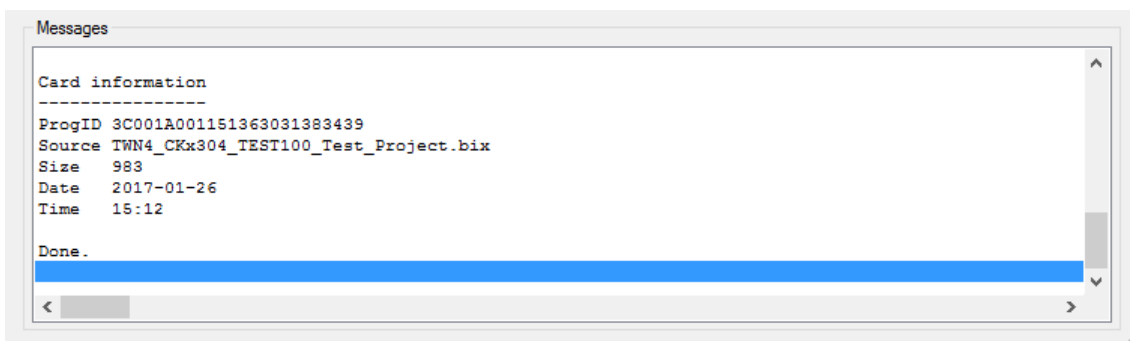


Fig. 11

5.3 HOW TO READ TWN4 CONFIG CARDS

Proceed as follows to read a TWN4 Config Card:

1. Open the AppBlaster tool and click “Configurable Project”.

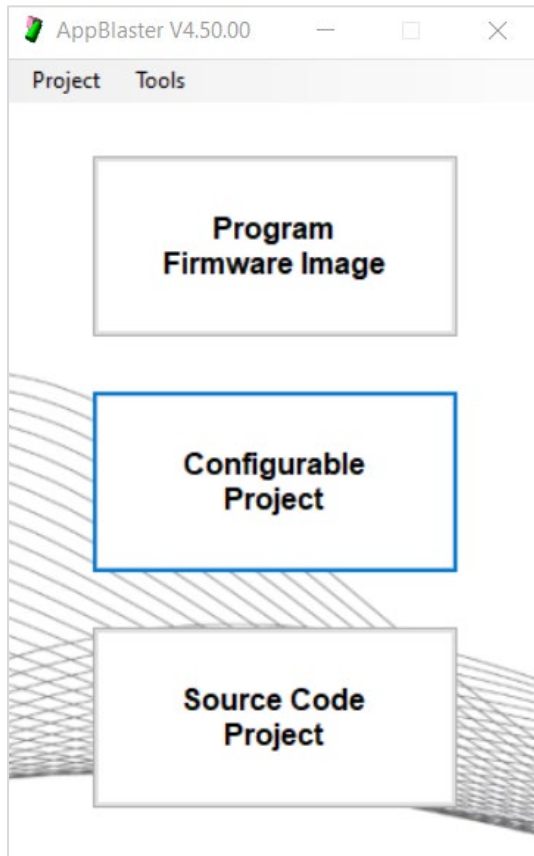


Fig. 12

2. Connect the TWN4 Config Programmer to a PC. The “Create Config Card” and “Read Card Info” buttons appear (Fig. 13) and the message “TWN4 Card Programmer connected.” is displayed in the “Messages” window (Fig. 14).

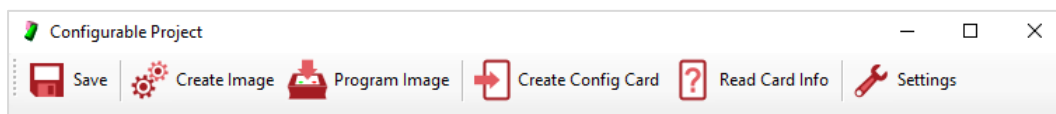


Fig. 13

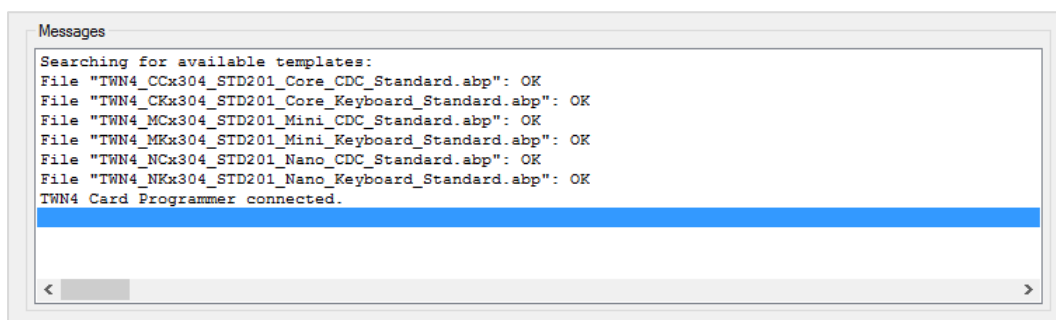


Fig. 14

3. Place a TWN4 Config Card on the TWN4 Config Programmer and click “Read Card Info”.
A progress bar in the “Performing Action” window appears (refer to Fig. 10). Once the TWN4 Config Programmer has finished reading the TWN4 Config Card, the card information is displayed in the “Messages” window (refer to Fig. 11).

Alternatively, you can also read a TWN4 Config Card by using the “Tracer” firmware available in your DevPack. To do so, upload the firmware image whose name ends up with “**Tracer**” in the “Firmware” folder of your DevPack, as described in 5.1.

5.4 HOW TO USE TWN4 CONFIG CARDS

1. Make sure that your TWN4 reader is powered on and in “Ready” state (green LED on).
2. Place a TWN4 Config Card over the reader.
3. Remove the TWN4 Config Card when the reader gives an acoustic signal (3 beeps: high, low, high).
The reboot of the reader starts and the green LED turns off. As soon as the green LED turns on again, the reader is ready for use.
4. Test the reader with a sample card.

APPENDIX

A – RELEVANT DOCUMENTATION

ELATEC documentation

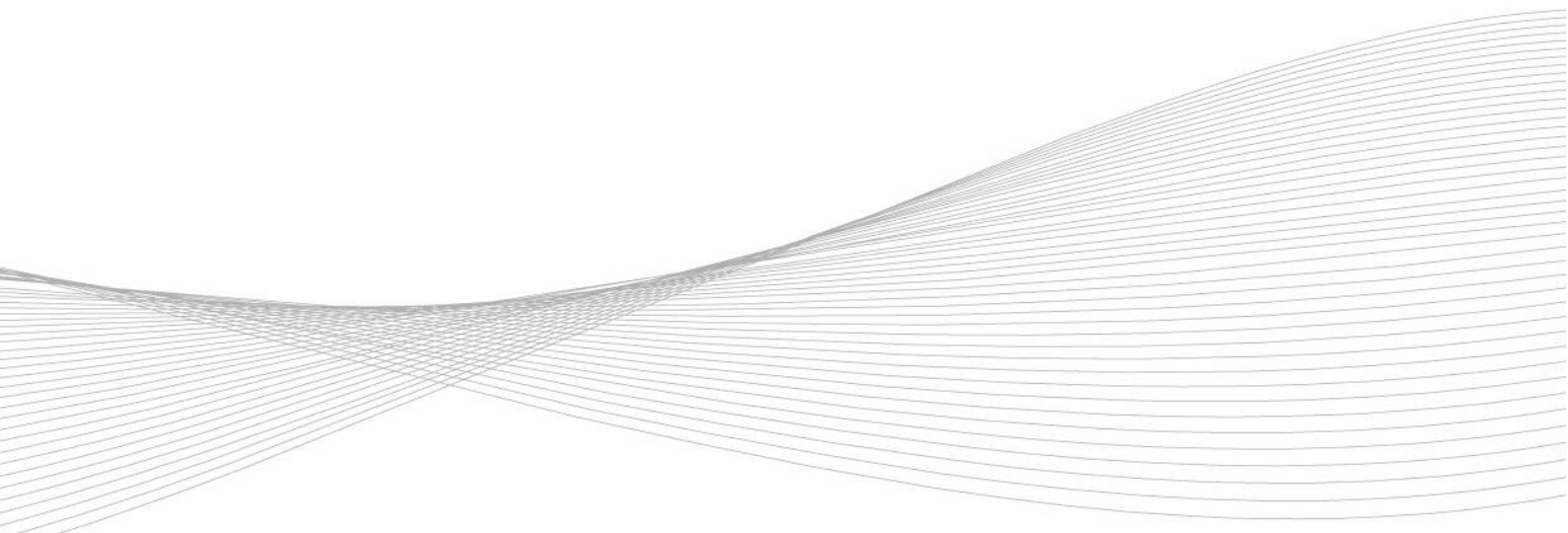
- ELATEC DevPack documentation (“Docs” folder)
- ELATEC quick start guide
- TWN4 MultiTech data sheet
- TWN4 MultiTech user manual

B – TERMS AND ABBREVIATIONS

TERM	EXPLANATION
EMC	electromagnetic compatibility
FW	firmware
LED	light-emitting diode
RFID	radio frequency identification
WEEE	waste of electrical and electronic equipment Refers to Directive 2012/19/EU of the European Parliament and of the Council of the European Union

C – REVISION HISTORY

VERSION	CHANGE DESCRIPTION	EDITION
01	First edition (replaces <i>TWN4 Config Programmer Quick Start Guide</i> , DocRev 1, dated 04/2017)	08/2023



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