# PTM 535 Configurator

# **Overview**

PTM 535 Configurator is a tool to enable the configuration of EnOcean PTM 535 modules. This tool allows you to modify certain parameters stored in the PTM 535 memory to adapt the PTM 535 behavior more closely to your needs. List of most remarkable features:

- Intuitive graphical interface
- Program and read the memory configuration just with one button click
- Save and load your PTM 535 configurations in files
- Automatic back up of the PTM 535 configurationable memory before modifications are performed

## **System requirements**

#### Software

- Windows 10
- Segger J-Link Software (not included in the tool)

#### Hardware

- USB 2.0 or USB 3.0
- J-Link Flasher or J-Link Debug Probes (not delivered by EnOcean)
- Adapter between the programmer and PTM 535 module (not delivered by EnOcean)

# Segger J-Link Software

The PTM 535 Configurator makes use of the Segger J-Link Software command line program as well as J-Flash program to communicate with the programming device. The J-Link Software is not included in the PTM 535 Configurator installation pack and must be downloaded and installed separately. You can get copy of Segger J-Link Software from official Segger webpage <u>https://www.segger.com/</u>

# **PTM 535 Configurator GUI**

With the help of the PTM 535 Configurator you can configure the following PTM 535 parameters:

- Number of the sub telegrams to sent in the secure mode
- Polarity of the energy bow that triggers the secure teach-in telegrams
- Overwrite the security key
- The DATA field value to be encrypted and sent by PTM 535 for and combination of the key/energy bow polarity in secure mode
- The DATA field value to be sent by PTM 535 for any combination of the keys/energy bow polarity in standard mode

PTM 535 Configurator v1.0.0.5					×			
Get device info								
DTh a Configure a								
PIP 2 configure 3 4 5 6 7 8   Load Save 4 Save								
Teach-In Secure Telegram Trigger configuration								
LIR but needs to be pressed to change to secure mode or Enhanced pin connected to Vcc								
Teach-In Secure Telegram is triggered by: Interest or Release 10								
Subtelegram count for secure telegrams								
This does not affect the number of standard telegrams which is always set to 3								
Number of Secure Telegrams configuration : 2 11								
Security Key								
Configure the security key								
Telegram Configuration								
Configure the telegram Data and Status byte. In secure configuration this will be additionally encrypted. / POL: P = energy bow pressed / POL: - = energy bow released / KEY: P = key pressed / KEY: - = key								
Non-Secure Telegram Configuration Secure Telegram Configuration								
13	STATUS	DATA	14	DATA	115			
1: POL:P, A0:P, A1:P, B1:P, B0:P Sta	atus = 0x20 v	0x70	1	0x06	13			
2: POL:P, A0:P, A1:P, B1:P, B0:-	atus = 0x20 ×	0x70	1	0x06				
3: POL:P. A0:P. A1:P. B1: B0:P	atus - 0x20 X	0x70	1	0x06				
4: POL-D A0-D A1-D P1- P0-	atus = 0x20	0.01	1					
Strotter, AULP, ALLP, DL-, DU-	atus = 0x30 v	0x31	1	0x00				
5: POL:P, A0:P, A1:-, B1:P, B0:P Sta	atus = 0x20 ~	0x70	J	0x06				
6: POL:P, A0:P, A1:-, B1:P, B0:-	atus = 0x30 v	0x35	]	A0x0				
7: POL:P, A0:P, A1:-, B1:-, B0:P	atus = 0x30 v	0x37	1	0x07	v			
C								

- 1. "Get device info" will read PTM 535 module. Information will be displayed right from the button and contains following information:
  - a. Device Type
  - b. Device ID
  - c. Software Version
- 2. "Load File" allows user to load previously saved or backup .hex file configuration in to application
- 3. "Save" allows user quickly save configuration in to default location. Default Saving file will be overwritten in case of continues usage of application.
- 4. "Save As..." allows user to save configuration with select file path as well as file name.
- 5. "Read PTM 535" reads configuration of currently connected PTM 535 module. Device information (1) will NOT be loaded.
- "Reset to default" allows user to reset current configuration values to default one. Please note that the Security Key will not be changed. If you are planning to write default values to PTM 535 module, please execute "Read PTM 535" (5) before setting to default values
- 7. "Write to PTM 535" executes multiple actions depending on current state and PTM 535 module:
  - a. Gets device info in order to receive device ID
  - b. Creates Back up configuration with device ID as name (if already exist, skips this phase)
  - c. Writes current configuration to PTM 535

#### If during writing to PTM Notification pop up window will appear, please select "NO".

🔜 J-Link	V5.12f Info ×					
1	Active write protected STM32 device detected. This could cause problems during flash download. Do you want to perform an unlock of the device in order to guarantee proper flash download behavio Note: Unsecuring will trigger a mass erase of the internal flash. Depending on the flash size this can take longer than 10 seconds. If "Do not show this message again" is selected, unsecure will be performed automatically in the future					
	Do not show this message again					
	Yes No					

- 8. Select Segger J-Link J-Flash Software location/path
- 9. Opens help .pdf document
- 10. Select under what energy bow direction the first secure teach-in is sent.
- 11. Select amount of subtelegrams that PTM 535 should send in secure mode
- 12. Configure/Overwrite security key (Note: don't leave this field empty)
- 13. Configure Non-Secure Telegram Status
- 14. Configure Non-Secure Telegram Data
- 15. Configure Secure Telegram Data (Note: PTM 535 can send maximum 16 bit in secure mode)

### Setting Default Values

By clicking "Reset to defaults" you can reset the configuration values to the default values. To write default values to the module you must click "Write to the PTM 535" button.

**Note**: Does not affect security key. We recommend performing "Read PTM 535" before setting to default values.

#### Saving Configuration

After creating a configuration, you may want to store it on your disk for later usage. Click on the "Save as…" to select a storing location and file name or select "Save" to save store in configuration within default location and filename. Note: that default stored configuration might be overwritten by further usage of the application. Stored configuration also will store the security key if during configuration process PTM 535 was read. The application does store configuration by default during each time the PTM 535 is written.

#### Loading Configuration

To load stored configuration data, press "Load" button. The GUI updates the values and presents them to you. If you want to program the PTM 535 with this configuration, click on "Write PTM 535" button.

# PTM 535 Configurator back ups

The PTM 535 Configurator creates a new back up data for each PTM 535 module during its first write process. Backup is stored in <%AppData%>/PTM535Config/Data/<PTM535ID>.hex file. Backup files can be used to restore original configuration over PTM 535 Configurator over "Load" button.