

PCN #: S30x1-D3xy\_D4xy-Stepcode\_DE-PCN-20190304

Change Title: New energy store for STM 3xy/4xy product family

Date of publication: April 2019

### **Products affected / EnOcean ordering codes**

- STM 320 / S3001-D320
- STM 320U / S3051-D320
- STM 329 / S3001-D329
- STM 429J / S3061-D429
- STM 330 / S3001-D330
- STM 331 / S3001-D331
- STM 331U / S3051-D331
- STM 431J / S3061-D431
- STM 332U / S3051-D332
- STM 333U / S3051-D333
- STM 350 / S3001-D350
- STM 350U / S3051-D350

### **Reason for change**

- The super capacitor (PAS614L) used as energy storage in the STM 3xy/4xy product family has been discontinued by the supplier and no direct replacement exists

### **Description of change**

- STM 3xy/4xy products will be redesigned to use a small rechargeable accumulator with higher energy storage capacity (MS412FE)
- The higher capacity will provide a longer operation time without supply and require a longer period of illumination to fully charge the energy store (details see data sheet and user manual)
- A dedicated low power mode for transport and storage will be provided that disables radio transmission to conserve energy and minimize discharge
- A signal telegram (data 0x0E) will be sent when entering transport mode, for details see EnOcean Alliance EEP specification
- The form factor (geometry / dimensions) of the products remains unchanged
- Wake1 pin is used by mode change, only Wake0 can be configured to send telegram at falling or rising edge
- Following changes have been made to simplify secure mode installations according to EnOcean Alliance best practice: 3-byte RLC transmitted explicitly, 4-byte -> 3-byte CMAC, RLC starts with 0 from production and security for 902 MHz variants
- In order to improve STM 3xy logistic and commissioning a QR code label according to the EnOcean Alliance Labeling Specification will be added

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### Milestones

- Since we managed to get an additional PAS614L delivery, we are planning to ship current design until June - December 2019 (depending on variant)
- Samples of modules with new energy storage will be available from April 2019
- Volume shipping will start June 2019, please check details with your sales representative

### Customer impact of change and recommended action

- End product label and documentation should be updated to reflect new feature set
- In specific markets e.g. EU a rechargeable accumulator requires additional markings at product label & documentation. A registration according to battery law could be required. More details for the European market can be found within the annex of this document
- OEMs might consider putting the final product to transport / storage mode based on their logistic chain
- Customers with customer specific STM 3xy/4xy FW need to contact the support team (support@enocean.com) for source code examples and detailed instructions

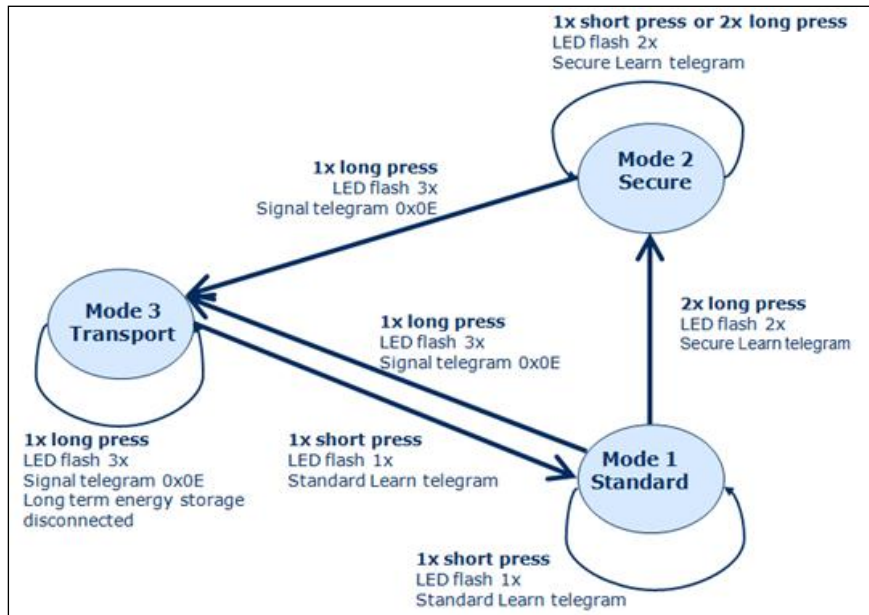
### PCN revision history

Date of revision	Author	Revision number	Reason
March 29, 2019	Kreitmair	03	PCN

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## Annex

### ■ Mode Switch via Learn Button



#### ■ Transport -> Standard

After pressing learn button short for 1 s the radio module will enter Standard Mode (Mode 1). The LED will flash 1x and a standard learn telegram will be sent.

#### ■ Standard -> Secure

After pressing learn button 2x long (press 5 s, pause <1 s, press 5 s) the radio module will enter Secure Mode (Mode 2). The LED will flash 2x and a secure learn telegram will be sent.

#### ■ Secure or Standard -> Transport

After pressing learn button 1x long 5 s the radio module will enter Transport Mode (Mode 3). The LED will flash 3x and a signal learn telegram will be sent.

#### ■ Configuration Area

- \* Transport/Standard/Secure Mode change on (**default** see diagram above) or
- \* only Transport/Secure Mode (details [support@enocean.com](mailto:support@enocean.com)) or
- \* only Transport/Standard Mode (details [support@enocean.com](mailto:support@enocean.com))

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■ **New Step Code**

Product Number	Designation	old	new
S3001-D320	STM 320	DD	DE
S3051-D320	STM 320U	DA	DE
S3001-D329	STM 329	DD	DE
S3061-D429	STM 429J	DB	DE
S3001-D330	STM 330	DD	DE
S3001-D331	STM 331	DD	DE
S3051-D331	STM 331U	DA	DE
S3061-D431	STM 431J	DB	DE
S3051-D332	STM 332U	DA	DE
S3051-D333	STM 333U	DA	DE
S3001-D350	STM 350	DA	DE
S3051-D350	STM 350U	DA	DE

■ **Additional information about selling finished products with secondary batteries within the European Union**

Every product which includes a battery has to fulfill the EU directive 2006/66/EC and its amendments. The directive covers waste management of batteries and electronic products with batteries. Details of the directive are implemented within national laws e.g. the German "BatterieGesetz".

Links:

- <https://eur-lex.europa.eu/eli/dir/2006/66/oj>
- <http://ec.europa.eu/environment/waste/batteries/pdf/faq.pdf>

Basic requirements:

\* Labels and end user information

A finished product which includes batteries has to be labeled with the crossed-out wheeled bin and the WEEE registration number. Additional customer information about local waste management for batteries is required.



\* Collecting and recycling

Products which include batteries have to be collected and recycled. The OEM customer is responsible to register his final products and execute waste management according to national (sales region) laws.

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### Acknowledgement of receipt

Customer has received above mentioned Product Change Notification.

Customer has received product sample(s).

Type (amount):

Customer has tested following features:

- Customer specific configuration
- Commissioning / Learn Telegram
- Operation in standard mode
- Operation in secure mode

Company Name

Signature