

## EnOcean Unique Radio Identifier – EURID Specification Release, V 1.1

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### Executive Summary

A proper identification of every device shipped is an important step to secure a correct functioning of every single device, especially in an eco-system spread widely and highly versatile. There, a proper allocation process for unique numbers is an essential asset.

The EnOcean Alliance developed and agreed upon an EnOcean Unique Radio Identifier (EURID). Such an EURID is unique for a device transmitting according to IEC/ISO 14543-3-10/-11. The EURID is used to identify a device within the network.

This document – the *EnOcean Unique Radio Identifier specification* – provides

- the definitions related to EURID,
- describes the usage of EURIDs,
- and the rules and process for the allocation of EURIDs.

As such this document amends the set of system specification and supplies the information for a pragmatic implementation of these system specifications.

**IMPORTANT NOTE:** an EURID allocated does NOT imply / replace / substitute any regulatory approval. The EURID is solely an EnOcean Alliance internal identifier.

This document is owned by the Technical Working Group (TWG) of the EnOcean Alliance. It is maintained and will be progressed within the authority of the chairman of the TWG.

Changes to this document will have to be proposed to the TWG for decision. A team of senior engineers will then act upon request by the TWG.

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1.0	NM	First official release after review by TWG	Aug 07, 2018
1.1	AP	Link for E-Mail request corrected	June 11, 2019

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## **System Specification**

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## 1. Introduction

The EnOcean Unique Radio Identifier (EURID) is a 32 / 48 bit ID, which is unique for every device transmitting according to IEC/ISO 14543-3-10/-11. The EURID is used to identify a device within the network.

This specification

- Defines the usage of EURIDs.
- Defines rules for the allocation of EURIDs to chip / module manufacturers.
- Describes the process for the allocation of EURIDs within the EnOcean Alliance.

**IMPORTANT NOTE:** A EURID allocated does NOT imply / replace / substitute any regulatory approval. The EURID is solely an EnOcean Alliance internal identifier.

### 1.1. References

- [1] EnOcean Wireless Standard  
[http://www.enocean-alliance.org/en/enocean\\_standard/](http://www.enocean-alliance.org/en/enocean_standard/)
- [2] EnOcean Manufacturer Identification – ManID  
EnOcean Alliance Members Intranet  
<http://portal.enocean-alliance.org>
- [3] EnOcean Equipment Profiles EEP (latest release)  
<https://www.enocean-alliance.org/specifications/>
- [4] EnOcean Air Interface Certification Specification (ASK, FSK)  
<https://www.enocean-alliance.org/specifications/>

### 1.2. Definitions

Development sample	A device which may be sold in very limited quantities but NOT as commercial product. A development sample is to be marked with "development sample – not for sale!".
devEURID	A development <u>EURID</u> , allocated for development purposes.
End-product	A physical device which contains a <u>radio platform</u> and is designed for a specific application. Typically, an end-product is dedicated for sale in the market relevant.
EURID	<b>EnOcean Unique Radio Identifier</b> which is unique to every transmitting EnOcean radio device.
Radio platform	The entity which receives or transmits radio signals according to the IEC standards IEC/ISO 14543-3-10 or IEC/ISO 14543-3-11 and requires approval according to regional regulatory requirement's (e.g. RED, ARIB, FCC).

### 2. Usage of EURIDs

- (1) The EURID is transmitted via the EnOcean air interface [1] as a Source-ID / Destination-ID (refer to [3]).
  - A device capable to transmit may use one or more Source-IDs.
  - A device capable to receive may handle none, one or more Destination-IDs.
  - Source-IDs and Destination-IDs – if they exist both in one single device – do not have to be identical.
  - Every single radio device capable to transmit requires at least one EURID, but may have more than one.
- (2) Usually the EURID will be stored in the radio platform in a nonvolatile memory area which is may be modifiable by the manufacturer of the end product.
- (3) The manufacturer of the end-product has to ensure, that the user of the end-product is not able to change the EURID in this device.
- (4) The EURID is defined with the following scheme:
  - EURID does not require a particular structure.
  - It is a consecutive 4-Byte-Number within a defined range. If regional regulatory requirements request a 6-Byte-Number (e.g. ARIB) the EURID will be extended by leading Zero-Bytes.

### 3. Allocation of EURID

#### 3.1. Rules

Only Participant or Promoter members of the EnOcean Alliance may request a set of EURIDs.

##### 3.1.1. Development EURIDs

Each Promoter or Participant member of the EnOcean Alliance may request only ONE set of 1k (1.024) development EURIDs (devEURIDs). The lease of this set of devEURIDs will have to be renewed every 12 months; otherwise it may be re-allocated to another Promoter or Participant member.

An end-product transmitting a devEURID must not be sold as a production product! Only in certain cases such products may be sold being marked as one-off development samples.

End-products are only allowed to be used with mass production EURIDs.

##### 3.1.2. Mass production EURIDs

A set of EURIDs is tied to radio devices which passed successfully the EnOcean Alliance Certification part 1 (Air interface, ASK / FSK) [4] and approval according regional regulations.

A request should ask for minimum 8k (= 8.192) EURIDs, maximum 32k (=32.768) EURIDs in steps of 8k.

#### 3.2. Process

To request a set of EURIDs an E-Mail has to be sent to the address [Request-EURID@enocean-alliance.org](mailto:Request-EURID@enocean-alliance.org).

This E-Mail will be forwarded to an operator acting on behalf of the EnOcean Alliance, monitored by the chair of the TWG.

The following documents/information does have to be provided with each request:

- Approved certificate of the Air Interface Certification [4].
- A reference to regional regulatory approval for relevant markets.
- Type(s) of radio device to bear the EURID.

Within two weeks after reception of the request the operator will respond.

The operator will hold a (non-public) list and record the number ranges allocated to chip / module manufacturers. This list should enable reverse-search, but only on individual request. This list will document the range of EURIDs, the requesting manufacturer, the planned type(s) of radio device, and a link to the certification documents.