

EnOcean Unique Radio Identifier – EURID Specification Release, V 1.2

San Ramon, CA, USA
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Executive Summary

A proper identification of every device shipped is an important step to secure the 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 specifications 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.

REVISION HISTORY

Ver.	Editor	Change	Date
0.1	AP	First release	Dec 12, 2016
0.2	NM	Executive summary, minor editorial changes	Dec 12, 2016
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
1.2	AP	Removed Development EURID's	Feb 09, 2021

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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
<https://www.enocean-alliance.org/about-us/enocean-wireless-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

Base-Id	Alternative Source-Id's range, which can be used for sending instead of the EURID. The reserved Base-Id range is from 0xFF800000 to 0xFFFFFFFFE in steps of 128. A device selects a Base-Id and can then only use 128 Id's from this Base-Id.
devEURID	Former development <u>EURID</u> , allocated for development purposes. Replaced by an Id from the selected Base-Id range.
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 relevant market.
EURID	EnOcean Unique Radio Identifier 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 EURIDs and use according to the definitions in this document.

3.1.1. Development EURIDs

In former versions of this document (V1.0 and V1.1) the possibility was given to request so-called development EURIDs for usage during product development phase only. Due to extensive administrative effort required here, these development EURIDs have now been made obsolete and replaced with Id's from the selected Base-Id's range.

During the development phase, devices and samples may now use Id's from the selected Base-Id's range.

3.1.2. Mass production EURIDs

EURIDs may only be used in a commercial environment (production or mass production status) on devices which have successfully been certified to the EnOcean Alliance Certification 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.

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 must 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.