



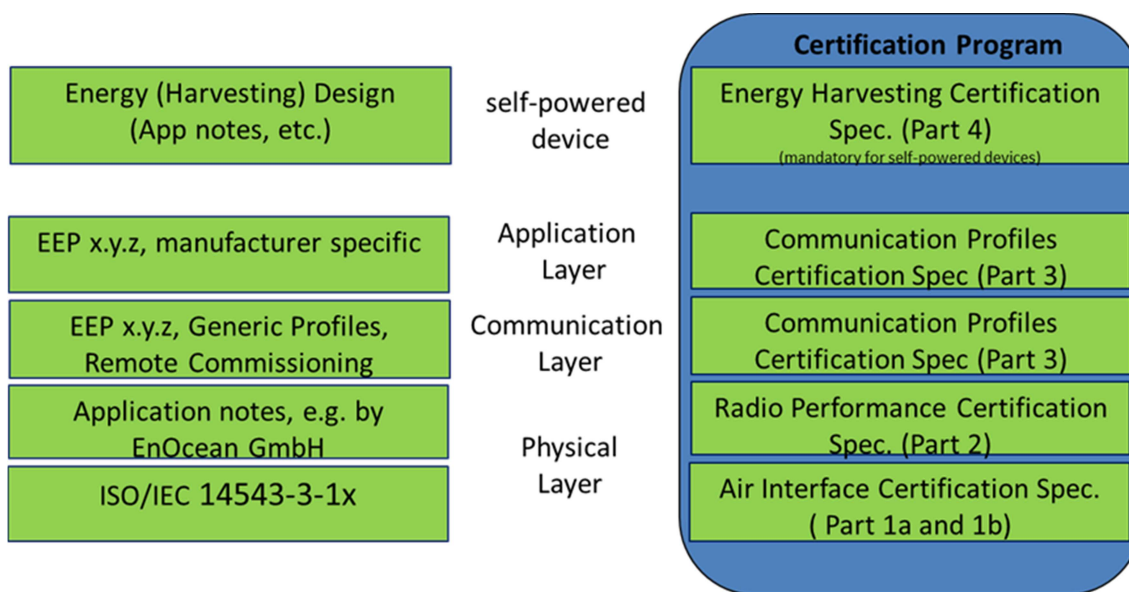
Fact Sheet Certification Program

What is it about?

The Certification Program is the EnOcean Alliance's tool to

- secure seamless interworking of ISO/IEC 14543-3-10 or -11 based products,
- support achieving interoperability for your devices,
- achieve reliable result of the product development process,
- provide a range of transparent and pragmatic test scenarios and test cases,
- focus product development on straight forward development,
- secures the EnOcean Alliance Technology Logo for your product,

designed as **self-certification process** supported by tools free-of-charge for its promoters and participant members.



EnOcean Certification Specifications mapped on the System Specifications

How do I benefit from it?

- You can offer products or solutions which are interoperable with the products and solutions of the EnOcean eco-system
- By a straight forward delivery of your product, from design to ramp-up
- By a straight forward development process
- By producing reliable data about your product's performance
- A certified product is entitled to bear the *EnOcean Alliance Certified logo* and can be listed in the [Certified Product Database](#) on the EnOcean Alliance website.



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How does it look like?

- It is a comprehensive program covering all layers (see graphic above) and a governing document, our *Certification Handbook*
- The Certification Handbook presents the Certification Process and explains the philosophy and approach
- Each layer of system specifications is matched by a corresponding certification specification
- The certification specification delivers the test approach and the test cases
- Testing data and product data are summarized and promoted via the certified product database
- The test program is supervised by our *Certification Manager*

Where do I find the latest release?

You will find its latest releases at
<https://www.enocean-alliance.org/specifications/>

A high-level introduction "**how to certify a product**" at
<https://www.enocean-alliance.org/products/how-to-certify-a-product/>

Which information will I find there?

- [Certification Handbook](#): provides an insight into the philosophy of the Certification Program, details the Certification Process, outlines the Certification Rules including the definition and conditions of the EnOcean Alliance Technology Logo.
- Air Interface Certification specifications ([ASK](#), [FSK](#)): defines the minimum set of test cases that have to be executed to assess radio interoperability. Typically this set of test cases are performed by the chip / module supplier and a certification statement is provided.
- [Radio Performance Certification specification](#): describes how to perform a qualitative radio range testing to evaluate the quality of the transmission, reception or both. It describes the test method and the general test setup with the relevant parameters of the test equipment to be used. Test cases for receiver and transmitter performance tests as well as the categorization of the test results are provided.
- [Communication Profiles Certification specification](#): provides a blueprint for creating the test cases needed to certify EnOcean-based products. Based on the functions that a device is able to perform, this document provides a method to isolate and test individual features of the application protocol as well as the guidelines for embedding these steps within an XML structure.



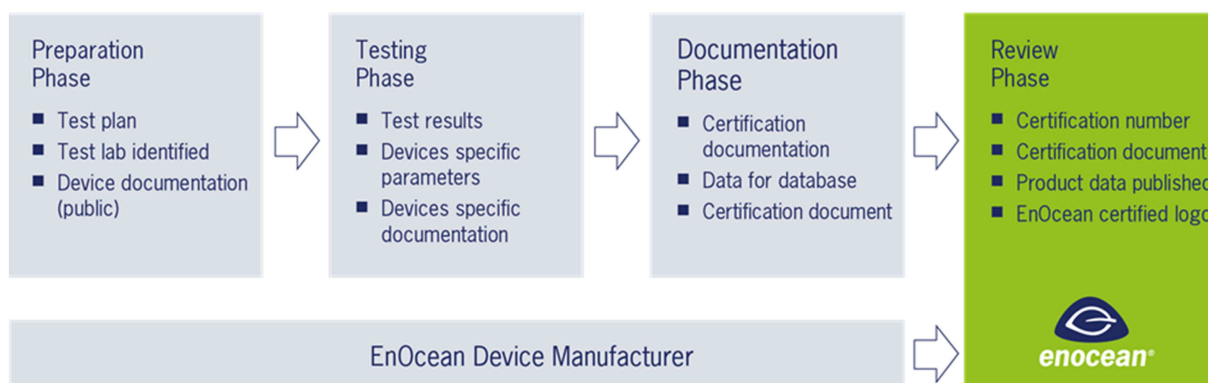
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- [Energy Harvesting Certification specification](#): provides clear, standardized definitions and validation procedures for key parameters related to energy harvesting applications in general and self-powered devices in particular. The energy harvesting certification will be based on the specific use case addressed by the product that will be certified.

Does the Certification Program imply additional workload?

- NO, it does not as it can be performed as self-certification.
- Self-certification has to confirm a positive pass of the test-cases declared to be mandatory. Usually such tests have to be performed anyway during the development process.
- Alternatively, certification by an accredited test laboratory can be envisaged providing an official certificate amended by test documentation.

Overview of EnOcean Alliance Certification Process



Which steps are to be performed to achieve certification?

- Preparation Phase – select the test cases, define the test plane
- Testing Phase – perform the test cases defined and document results
- Documentation Phase - Enter product data into the product database on the EnOcean Alliance web site, upload all test documentation and submit certification request
- Review Phase - The Certification manager will check your submission. If all documentation is complete a certification number for the product is issued which marks the product as “certified” in the data base.



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What is a Certification Level?

- It confirms the interoperability of devices having the same level or a lower one. Interoperability of a device with another device of a higher level might not be provided at all.
- The *Certification Levels* are detailed in the *Certification Handbook*.
- Devices introduced into market(s) till end of 2017: such devices do not require a dedicated re-testing – they will be approved according *Certification Level 2.0*. The compliance of a device is declared via the template *Certification Level 2.0 Template* (available at <https://www.enocean-alliance.org/specifications/>).
- Devices introduced into market(s) since beginning of 2018: the product data of such devices can be entered into the *Certified Products Database*. The *Certification Manager* will supervise those entries. The device will be approved according Certification Level 3.0 or higher.

Who can help?

- You need further guidance on the Certification Program or have dedicated questions? As a participant member you will receive support at certification@enocean-alliance.org and twg@enocean-alliance.org
As a participant member you will find a free-of-charge tool supporting the certification of the Communication Profiles at <https://www.enocean-alliance.org/specifications/> (Profile Checking Tool). It verifies the correct design and implementation of the communication protocols at the data link and the network layer. It is free of charge
- Support for air interface certification is provided by your chip / module supplier