press release

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# EnOcean Alliance Certification – quality seal for reliable interoperability

*The EnOcean Alliance is expanding its program for building automation and the Internet of Things and is presenting the EnOcean Alliance Certification Program at ISH 2017 to ensure and further develop the interoperability of EnOcean-based devices from different product manufacturers.*

**San Ramon, CA/ Frankfurt a. M., – March 14, 2017 – The EnOcean Alliance is one of the most successful alliances for intelligent building control. Their goal is to establish maintenance-free wireless sensor solutions, used in building automation and smart homes, to make buildings more energy-efficient, more comfortable, more flexible and more cost-effective. The organization is continually working to ensure and enhance the interoperability of EnOcean-based devices from different product manufacturers. To pursue this approach, the EnOcean Alliance is presenting the EnOcean Alliance Certification Program at ISH 2017, which will enable and improve the user experience as well as the interoperability and performance of products from different manufacturers. Thanks to a defined testing procedure, product manufacturers are able to carry out the certification procedure without any additional costs. The new EnOcean Alliance technology logo is used to label certified products, which are listed in the product data bank on the EnOcean Alliance website. With the new certification program, the organization is further expanding its position in the field of building automation and the Internet of Things (IoT), creating a network for the integrated control of IoT applications based on the seamless integration of self-powered sensors and switches with local controls, gateways and building management systems.**

Interoperability is essential for the use of intelligent building control and needs devices to perform as specified at the physical, communication and application layers. At the physical level, the air interface has to be compliant with the EnOcean standards ISO / IEC 14543-3-10 and ISO / IEC 14543-3-11, as well as achieve a defined minimum transmission range. At the communication layer, the scheduling and logical compliance with defined communication flows is required and at the application level, the correct coding and decoding of communication content and the compliance to a defined schedule and conformal processing of transmitted data is required.

## Interoperability for a wide range of solutions

System planners, system integrators and customers demand reliable devices and procedures which facilitate the implementation of versatile solutions with an increasing variety of use cases of EnOcean technology. The EnOcean Alliance Certification Program – linked with a corresponding marking on devices – will secure interoperability of EnOcean-based devices without major additional effort. The Certification Program will cover all elements of the communication adequately defined and will be designed for self-certification by the device manufacturer – similar to the European CE declaration. In addition, an extension for a supplementary verification by an independent and accredited test laboratory is also possible.

**Standard testing procedure**

The EnOcean declaration of conformity consists of four steps, which the device manufacturer can carry out during the course of his standard development verification process without going to a great deal of additional expense. In preparing for the certification, the certification tests that apply to the device are defined on the individual layers (physical and communication layer), and the device-specific documents are compiled. The individual certification tests are carried out according to the EnOcean Alliance test specifications. This ensures that all devices undergo an identical test procedure, and the test coverage as well as the result are comparable and can be repeated independently of the individual device manufacturer. In the course of the documentation phase, the results of the completed tests are documented and made available in the product database on the website of the EnOcean Alliance. Finally, the submitted documentation is checked by the certification manager and if optimal interoperability of the tested product is ensured, it is awarded a certificate.

**Interoperability on the physical level**

An important first step toward EnOcean Alliance Certification was reached with the release of the "Radio Performance" specification. Manufacturers can thus immediately verify that their devices achieve the necessary radio range in terms of interoperability. Tests and methods relating to the conformity of the individual signals and their chronological behavior are established with the release of the air interface certification specification based on the EnOcean standards ISO/IEC 14543-3-10 and ISO/IEC 14543-3-11.

**Interoperability on the communication level**

The Technical Working Group of the EnOcean Alliance (TWG) has continued to develop the specification for certifying the communication profiles. The implementation can thus be checked on the basis of the selected protocols – EEP or Generic Profile. This is based on the EnOcean Alliance system specifications - the EEP specification (current release 2.6.6) and the Generic Profile specification. Defined "test steps" are used to check the protocols, which are thus simultaneously documented, and to ensure that the tests can be tracked.

**Certification level**

In principle, a distinction is made between certifying a platform, for example a module, and certifying an end product. A certified platform is checked only for its air interface but is a prerequisite for a certified end product, which must demonstrate a specification-compliant and trackable behavior on all three specification levels (air interface, minimum radio range and communication profiles). Certification levels 2.0 and 3.0 have been in place since January 1, 2017.

**Certification 2.0**

Certification version 2.0 applies to existing end products that were in development or on the market

before the certification program went into effect. Certification 2.0 covers the specification compliant behavior of a product with regard to the two specification levels, air interface and communication profiles, and thus ensures a certain interoperability between 2.0-certified products.

**Certification 3.0**

Certification version 3.0 applies to new products that are being developed in 2017 as well as to older products that already demonstrate a specification-compliant behavior with regard to the three specifications; air interface, minimum radio range and communication profiles, and thus guarantees a high degree of interoperability between 3.0-certified products of different manufacturers.

**Guideline and documentation**

The "EnOcean Alliance Certification Handbook" describes all steps to ensure a smooth certification process. It supports the standardization and thus the trackability of the certification documentation. In addition, the TWG selects suitable test labs as independent EnOcean Alliance certification authorities, which may be used as an alternative or in addition to self-certification. A so-called Certification Manager will check the certification documents submitted by the product manufacturer in the name of the EnOcean Alliance to ensure they are complete and correct and issue a certificate if all conditions have been met.

The EnOcean Alliance Certification Program is the important tool for guaranteeing and further developing the interoperability of EnOcean-based devices, and it can be carried out without incurring any additional expense. It also entitles product manufacturers to use the EnOcean Alliance technology logo for marking their products and to list their certified products in the product database on the EnOcean Alliance website.

**New Brand Appearance of the EnOcean Alliance**

The identification of certified products is ensured by the new brand appearance of the EnOcean Alliance, which is also presented at the ISH 2017. The organization will present the new EnOcean Alliance logo and the new EnOcean Alliance technology logo for the first time. The new brand appearance includes the "leaf" as a graphic element and underlines the organization's mission to enable and promote intelligent and green buildings by creating a wide range of interoperable products. In addition, the new logos will support the EnOcean Alliance's goal of creating a safer, cost-effective, energy-efficient and environmentally-friendly world with intelligent, self-powered sensor solutions.

**About EnOcean Alliance**

Leading companies worldwide from the building sector collected to form the EnOcean Alliance and establish innovative automation solutions for sustainable building projects – and so to make buildings more energy-efficient, more flexible and lower in cost. The core technology of the Alliance is energy harvesting wireless technology for flexibly positioned

and service-free sensor solutions. The EnOcean Alliance aims to internationalise the energy harvesting wireless technology, and is dedicated to creating interoperability between the products of OEM partners. Basis for this is the international standard ISO/IEC 14543-3-1X, which is optimised for wireless solutions with ultra-low power consumption and energy harvesting. More than 400 companies currently belong to the EnOcean Alliance. The headquarters of the non-profit organisation is located in San Ramon, California.

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