

A city skyline at dusk with a network overlay. The skyline features several tall skyscrapers, some with lights on. A white network of nodes and lines is overlaid on the image, representing a network or IoT system. The sky is a mix of blue and orange, suggesting sunset or sunrise.

EnOcean

Self-powered IoT

Market Approval / Radio Frequency Overview

Energy Harvesting Wireless Sensor Solutions
for Self-Powered Internet of Things

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What is Market Approval?

- Every finished product must comply to country specific requirements.
- Most countries focus on finished products (e.g., EU), some support additional categories like modular approval (e.g., US).
- Requirements depend on application areas (industry, building, medical, ...) and used technologies (electronic, radio, chemistry, ...).
- Some countries like EU allow self assessment, but most countries (e.g., US, JP, CN,...) require registered test labs.
- Several countries need regular approval updates (e.g., China CCC) others require update only if directive/standard has been changed (e.g., EU).

Market Approval Overview

Region/Country	Frequency	Radio Standard	Remarks
European Union	868.300 MHz (EA) 2.4 GHz (BLE/ZGP)	CE (RED)	Finished products only. EnOcean provides approvals (DoC) for white labeled products and switch modules.
United Kingdom	868.300 MHz (EA) 2.4 GHz (BLE/ZGP)	UKCA	Finished products only. EnOcean provides approvals (DoC) for white labeled products and switch modules.
USA	902.875 MHz (EA) 2.4 GHz (BLE/ZGP)	FCC	Modular and finished products. EnOcean provides FCC ID, for details see product documentation.
Canada	902.875 MHz (EA) 2.4 GHz (BLE/ZGP)	ISED (IC)	Modular and finished products. EnOcean provides ISED ID, for details see product documentation.
Japan	928.350 MHz (EA) 2.4 GHz (BLE/ZGP)	ARIB	Modular and finished products. EnOcean provides ARIB ID, for details see product documentation.
China	868.300 MHz (EA) 2.4 GHz (BLE/ZGP)	CCC	Only finished products. Approval needs to be done by OEM/reseller.

- Radio Protocol Standards: EA: EnOcean Alliance Sub GHz / BLE: Bluetooth Low Energy / ZGP: Zigbee Green Power
- For finished products in the EU & UK, EnOcean will provide the Declaration of Conformity (DoC).
- Test reports for EU/UK/US/CA/Japan are available via support@enocean.com.
- Specific products have the approval for additional countries e.g., PTM 215B for Australia, please check user manual.
- Additional requirements for waste, dangerous materials and specific applications will apply according to country.
- EnOcean recommends the support of local test labs for customer specific products and/or other countries.

Depending on the product category, EnOcean GmbH provides following support for approval

Component:

- Energy harvesters, voltage converters and generic radio modules w/o power supply (ECO 260, STM 300, TCM 310, TCM 310, TCM 515, ...)
- EnOcean provides test reports based on reference implementations
- Customer must perform specific approval with the finished (final) product
- Please contact support team (support@enocean.com) for specific test HW and/or SW

Radio Module:

- Radio modules combined with energy harvesters for specific applications (PTM 215, ...)
- EnOcean has prepared EU market approval and customer can use approval according to conditions stated within the user manual (housing, labelling, documentation, local WEEE registration etc.).

Finished product (EASYFIT):

- Finished product including electronic, housing, power supply and antenna (EMDCA, ...).
- Market approval is covered by EnOcean. Customer must take care of additional requirements stated within the product user manual (packaging, product documentation, WEEE and other registrations).



Thank you for your attention.

Would you like to learn more? Simply contact us.

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