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Dolphin Developer's Kit
EDK 300 and EDK 300C

EDK 300 – the developer's kit for EnOcean Dolphin modules. Your simple entry to bidirectional energy harvesting wireless technology. It offers both plug'n play features and the possibility to start complex hardware and software design for new products based on EnOcean's Dolphin platform.

EDK 300 (868 MHz) and EDK 300C (315 MHz) supports OEM development with:
- TCM 3x0 for line powered applications
- STM 300 for self-powered applications

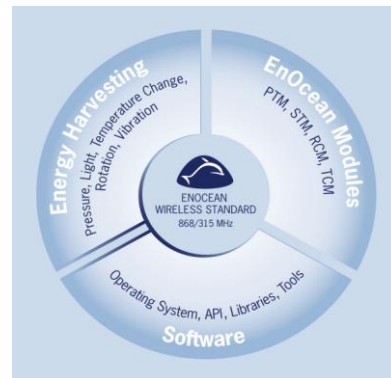**Following extension kits are available:**
- EDK 310 with STM 310 as a all in-one solution for solar powered applications
- EDK 312 with STM 312 and ECT 310 for thermo powered applications

EDK 300 supports line powered applications based on TCM 3x0 and self-powered applications based on STM 3xy modules including energy conversion and storage.

EnOcean modules come already with a predefined feature set for energy management, data acquisition, data processing and wireless data transmission. User specific applications can be implemented based on the new application programming interface (API).

Key features TCM 3x0 evaluation board

- Supports all line powered applications e.g. switching actuator, gateway and repeater
- Programmer interface for customer specific applications
- Two slots for TCM 300 and TCM 320 module
- Easy prototyping of customer specific HW with patch area, jumpers and pin connectors for all signals
- LEDs for I/O pins, PWM and RSSI
- Supports all operation modes of TCM 3x0
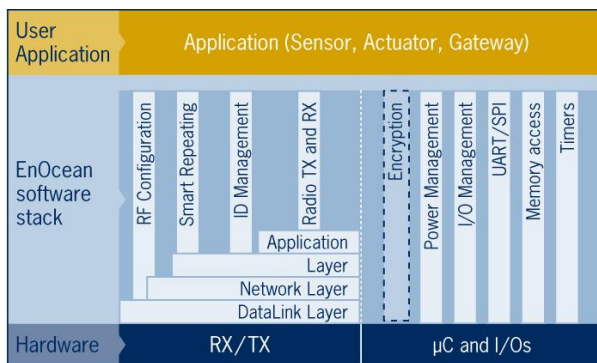- Detailed Application notes and FW examples

Key features STM 300 evaluation board

- Designed for battery less concepts with multiple energy harvesters
- Onboard solar cell and energy management
- Additional plug-ins for external solar, thermo, push button, piezo and vibration harvesters
- Multiple energy storages: onboard short-/long term capacitor (gold-/supercap)
- Onboard temperature sensor, brightness sensor, potentiometer and energy storage voltage measurement circuit
- Signal LEDs for output signals
- Easy prototyping of customer specific HW with patch area, jumpers and pin connectors
- Default FW supports all STM 300 sensor features e.g. data acquisition and transmission
- Programmer interface for customer specific applications
- Detailed Application notes and FW examples

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Benefits for developers

- Plug and play development kit for the EnOcean Dolphin EO3000i platform
- Supports software and hardware development
- Comprehensive PC software for fast and easy development of self-powered sensors and actuators
- Competitive advantage over battery-powered wireless solutions
- Technical support via Email and Forum
- EnOcean is the wireless standard for sustainable buildings

Development process

DolphinStudio	User Source Code
API Config.files	Keil Compiler
API Library	Keil Linker
PostBuild.txt	EOPX PostBuild

Controlled from Keil IDE

Prg Area (hex file)   Cfg Area (hex file)

User Application — Application (Sensor, Actuator, Gateway)

EnOcean software stack:
RF Configuration | Smart Repeating | ID Management | Radio TX and RX | Encryption | Power Management | I/O Management | UART/SPI | Memory access | Timers

Application Layer
Network Layer
DataLink Layer

Hardware — RX/TX | µC and I/Os

DolphinAPI

Application programming interface to implement customer specific firmware based on the comprehensive Dolphin platform.
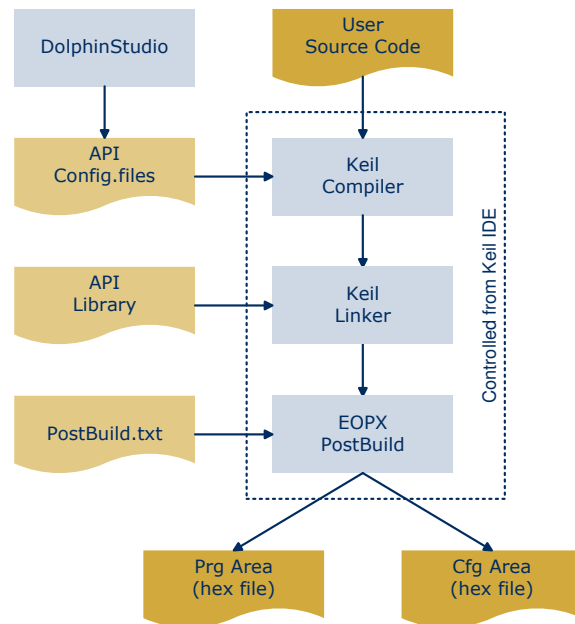
DolphinView

New tool to visualize EnOcean radio nodes, receive/send and analyze radio telegrams. Get detailed radio information like sub-telegram timing and signal strength. DolphinView supports remote management (ping, query and remote learn) and Smart Ack.

DolphinStudio

Powerful PC program for configuration (e.g. RF parameters and IO Pin configuration) and programming of Dolphin chip based modules.

EDK 300(C) content

- 1x EVA 300 (TCM 3x0) evaluation board
- 1x EVA 320 (STM 300) evaluation board
- 1x TCM 300 with adapter board
- 1x STM 300 with adapter board
- 1x TCM 320
- 1x PTM 200 with test rocker
- 2x USB cable
- 2x EOP 300 programmer
- 1x Package leaflet with download links for documentation andsoftware tools

Type	Ordering Code
EDK 300(C)	S3004-X300 (S3034-X300)
EOP 300	S3005-X310
EDK 310(C)	S3004-X310 (S3034-X310)
EDK 312(C)	S3004-X312 (S3034-X312)