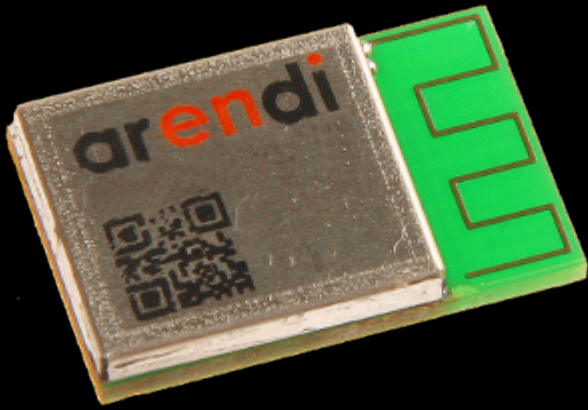




Bluetooth Low Energy know how.



Module development

According to customer requirements we develop BLE-Modules tailored for the specific application.

A BLE-Module – made or bought – makes the approval and qualification process easier.

Our labs are equipped to provide antenna designs and antenna matching for 2.4GHz RF applications.

Approval and qualification

We prepare your approval, execute the pre measurements and support the approval process according CE and FCC/IC in the accredited test laboratories.

As Bluetooth Associate Member Arendi is entitled to execute the qualification process at the Bluetooth SIG.

Our know-how is also available for consulting or training sessions.

Bluetooth Low Energy integration

Upgrading existing devices with Bluetooth Low Energy or new developments can be done with a BLE-Module or as flat design depending on the forecasted volumes.

With the integrated, powerful processor of a BLE-Chip (e.g ARM Cortex) there is often enough computing power available for not only the RF protocol but also for the application. There is no need for an external processor.



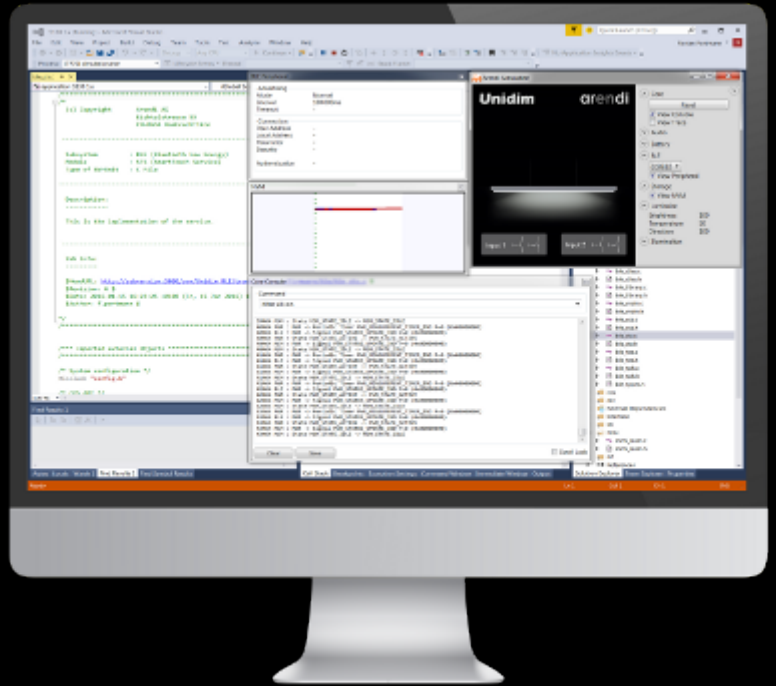
Simulation framework

With our innovative simulation framework programming and testing is a joy.

This simulation framework makes it possible to execute the source code (ANSI C) of the embedded target device already on a PC.

By using the Visual Studio®-Debugger and no need to wait for the firmware download to finish, working efficiency is improved.

And last but not least, with the integration of real Nordic BLE hardware in this PC based simulation framework, it is even possible to perform real time developments with a working RF link.



Embedded OS

Our cooperative operating system (Arendi-COS™) is well suited for energy efficient applications with Bluetooth Low Energy.

This efficient scheduler with a comfortable inter process communication and the integrated support for state machines can be customized for every application.



Segger SystemView

With the integration of the Segger SystemView API in our BLE firmware it is easy to identify and verify performance optimizations.



Arendi-BLE-Library

Our BLE-Library unifies the various Bluetooth Low Energy-APIs of the leading smart device operating systems.

In conjunction with the Xamarin-Framework it is the perfect base for programming high performing and stable Bluetooth Low Energy applications on iOS®, Android® und Windows Phone®.

ble-library.arendi.ch

App Design

What shall be integrated in the app, what not? How shall it work and how shall it look? Those questions and some more are to be answered in the design phase.

With the appropriate tools and methods we elaborate the right approach together with the customer.

Using the agile development approach, we develop the app step by step. Each step is reviewed together with the customer to ensure that the result is not only meeting but exceeding the initial customer expectations.

App programming

Communication by a Bluetooth Low Energy RF link is more comfortable than by wire, but requires more skills in the development.

The perfect call for our engineers to bring in their excellence.

Whenever possible we are using Xamarin to have efficiently covered all the operating systems.

xamarin.arendi.ch





Integration in production test equipment

Also products with Bluetooth Low Energy need to be tested during manufacturing.

By using our BLE-Library together with the BLE-Dongle it is easy to extend PC based production test equipment (e.g. running LabVIEW®).

Making it possible to test the BLE hardware or to execute test commands over the BLE link.

Unit Test

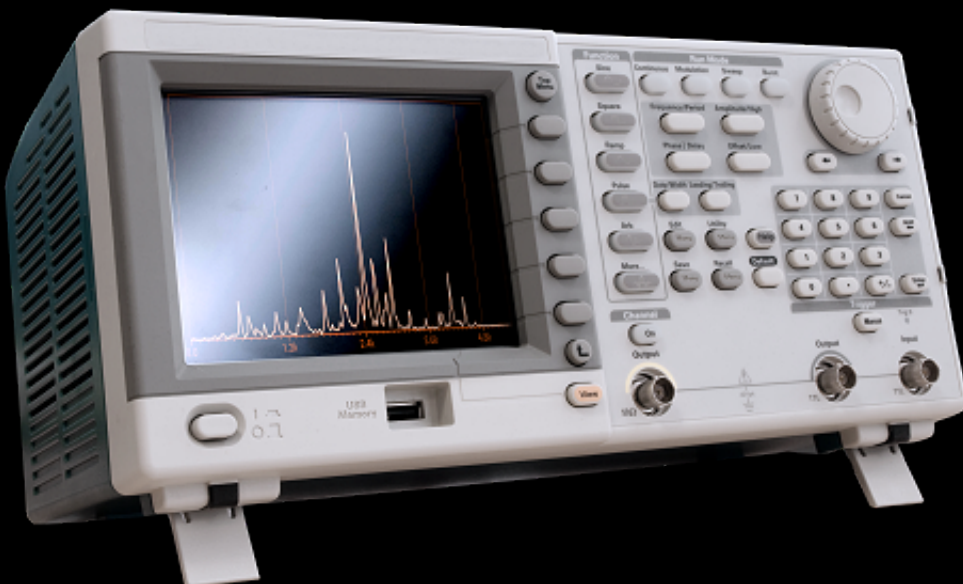
Unit tests are an integral part of the Simulation-Framework. They are based on NUnit and can be programmed in C#.

With continuous integration and nightly builds on our servers, the quality of all projects is checked to ensure the high quality level.

Packet Error Rate (PER)

An important feature of a BLE hardware integration is the quality of the RF link.

With our automated test system it is amongst others possible to measure the packet error rate with a detailed measurement test report.



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Arendi AG

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