

OVERVIEW

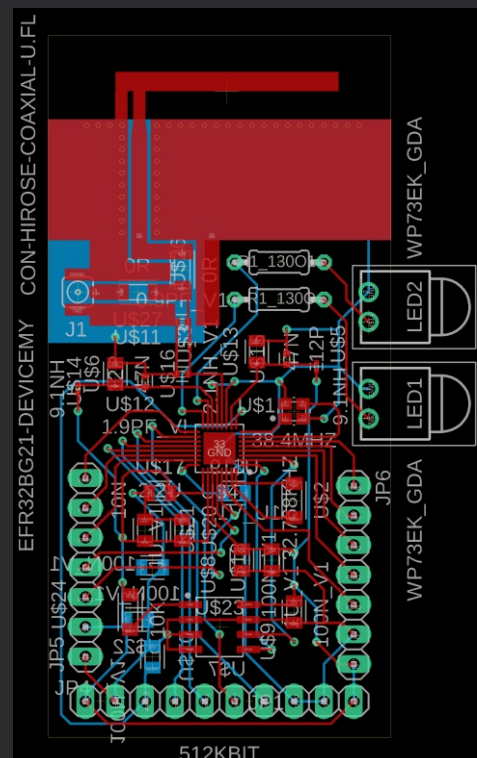
The goal is to make a simple device that helps with learning and developing Silicon Labs Bluetooth chips. Low cost is a priority. Also the kit will be able to work with a variety of accessories that allows development of many different ideas.

The reason of starting this project is how hard working with mentioned devices is for people from outside the industry. Price of starter kits and bad documentation are the main issues. A simple device and introduction page will ease usage of SoC's big capabilities. It is going to allow testing new projects using, just introduced, the newest Bluetooth standard. In addition accessories like, antenna array for Angle Of Arrival/Departure significantly extends possibilities.

The advantage of project are users. Individuals, students or small businesses will be easily able to use Silicon Labs chips. It creates potential of gaining new customers.

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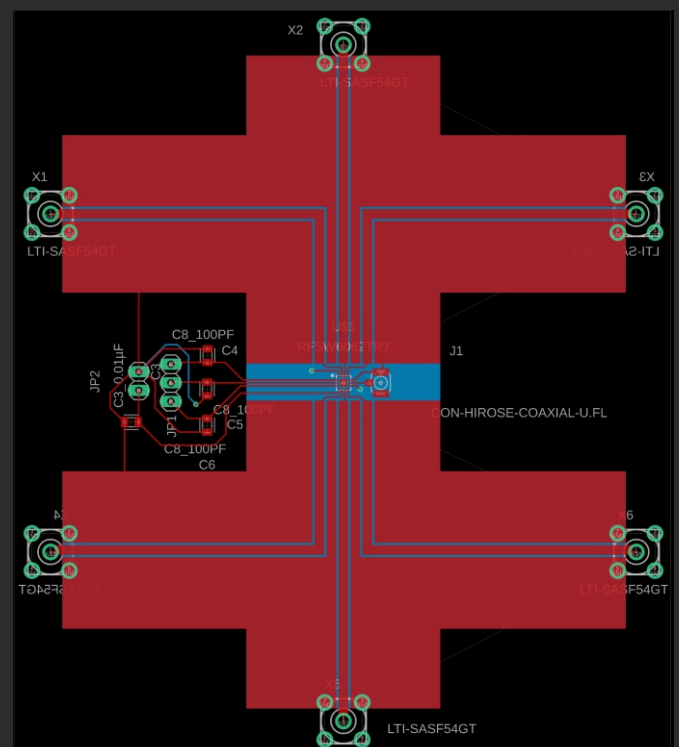
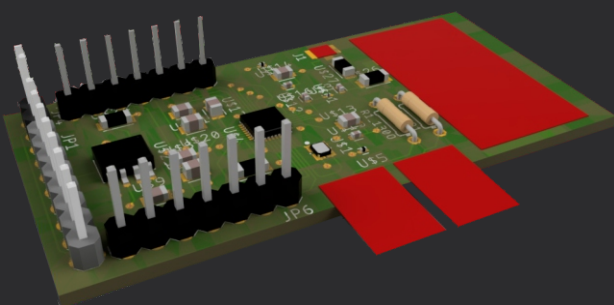
1. Overview - what is the project
2. Design - how it is designed
3. Execution - hardware and cost
4. Usage - device capabilities



DESIGN

The base is radio board module from Silicon Labs. Project uses it and in addition adds simpler solutions to connect with bareboards, programmers or extra memory. Internal power supply and new accessories can be added in the next versions.

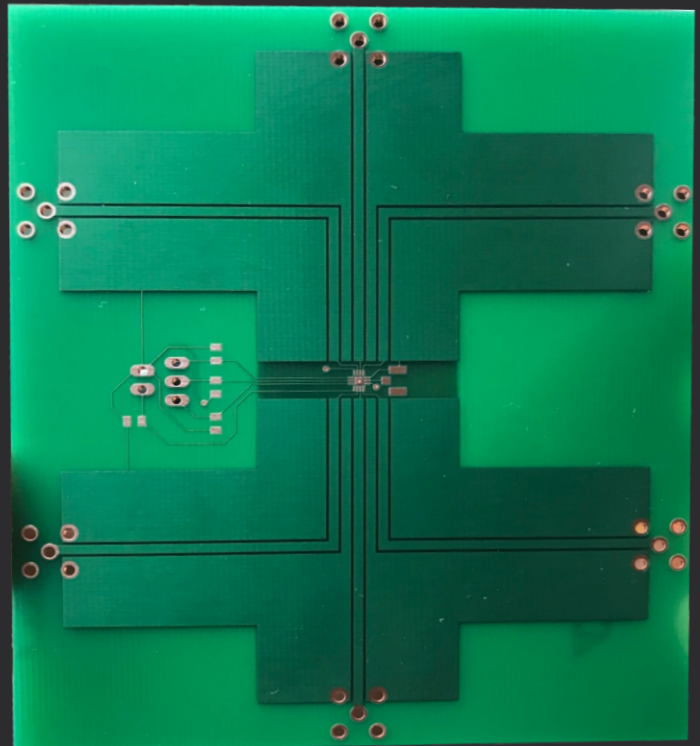
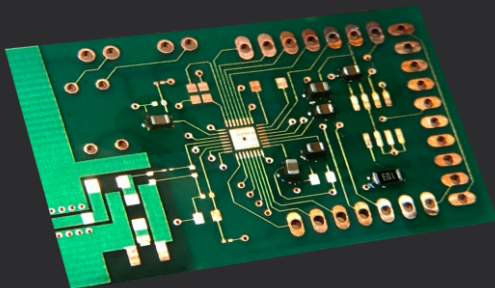
Flexibility is the main objective. The device must be ready for any user ideas. Final product should ease the work with advanced Silicon Labs systems. Different, promising projects development will be possible with small cost. For example: using AoA to track objects with camera and record them. Big positioning precision is not needed in these case.



EXECUTION

Easy to use device is a very important element. Board can be even put together by end users. With additional documentation its usage is simpler. For example a webpage with most important informations, that are hard to find in the Internet, can be created. With described tools any interested user will be able to develop her/his ideas.

Costs will stay on a low level. Small budgets are not going to be a problem during solutions testing. Only the module with chip and external programmer are needed to work. The programmer can also be obtained cheaply. There should be support of SWD or JTAG, for example: J-Link EDU Mini. Pins needed for programming are specially placed on the board. Any additional parts, most of the hobbyists own: bareboards, cables etc.



RESULTS

Module **possibilities** are very big. From simple projects like, hello world with blinking led, to detecting the direction of Bluetooth wave. Users can use powerful Cortex processors with multiple GPIO ports, I2C interface and many other solutions. All of these is the perfect step towards gaining knowledge about advanced chips.

Targeted people are mainly students, hobbyists and micro business. The device will allow them to access the newest technology in low price. With right advertisement it can contribute to the increase of developers number using Silicon Labs products.

