

1. Implementation of Bluetooth

Bluegiga ensures that Bluetooth integration into your application is a simple, quick and cost effective process. Our optimal RF design, fully embedded Bluetooth 2.1 +EDR stack and support of many of the most commonly used profiles, speeds up product development time and saves you the challenges and cost of certification and RF testing.

It is worth considering when starting your design process which Bluetooth wireless technology option will be implemented. Basically you have two options:

- a) Run the Bluetooth stack 100% fully inside the module or
- b) Run the Bluetooth upper layer stack in your host-processor interfacing the module using Host Command Interface, HCI.

Once your requirement is set, you can choose the most suitable product. The WT41, WT11, WT12 and WT32 Bluetooth modules come with the embedded iWRAP stack, but also support HCI mode. Bluegiga's WT21 Bluetooth module supports only HCI mode and offers a cost and size optimized solution.

2. How my device is used - which Bluetooth profiles are required?

You need to consider how your device will be used. In practice this means you need to set and define which Bluetooth profiles you will utilize. For example, if your application requires a wireless serial connection to another device, then you should use the Serial Port Profile (SPP). It is very important to define your Bluetooth features as this will be marketed and mentioned in your product literature in the future. We recommend you contact our free support and discuss with our experts the most suitable and efficient profiles for your needs.

3. What is required for development - tools, documents and examples

Bluegiga offers a selection of design guides for hardware design. This is particularly important when dealing with high frequency RF technology like Bluetooth. Bluegiga's technical documentation helps you to get the most out of the module's potential when it is embedded on your PCB.

If you decided to use Bluegiga's iWRAP stack you will experience fast and easy development due the simple and efficient ASCII based interface of iWRAP. There are several Application Notes for common use cases which show you step by step instructions how to utilize the module with the highest efficiency available for your application. All technical material is available from techforum.bluegiga.com.

4. What if problems occur in development - technical support and design validation

If you are at any point of development process in doubt about software or hardware related topics please do not hesitate to contact our technical support team at support@bluegiga.com. There is a highly trained team of engineers ready to answer your questions regarding any topic related to our products.

Even if you would not have any problems during development we encourage you to use our free design validation service for checking your design in case of potential RF or analog audio related problems. Our products can only be as good as the customer's design where they are used. That is why we want to help our customers to make their product's Bluetooth functionality best possible.

5. Join The Bluetooth Special Interest Group - Bluetooth SIG

As a member of The Bluetooth Special Interest Group you can make sure you will have all the relevant information in hand for following Bluetooth brand guidelines as well as the official authorization to use Bluetooth logos in your general marketing materials. Becoming a member of The Bluetooth SIG does not cost you anything - it just takes a few minutes to sign up.

6. List your product to Bluetooth.com - Have your products on the qualified Bluetooth list

With Bluegiga products you can quickly make mandatory end-product listing of your devices with the added Bluetooth features. Unlike with Bluetooth chipsets and partially certified modules, with Bluegiga's products you can make end-product listing in a few minutes without any costs. To qualified product pages.

7. Gather the needed country approvals - get your product FCC, CE compliant

You can use Bluegiga product's FCC and CE (and several other country approvals) in your own product qualification stickers and documents. You can get the product qualification numbers from techforum.bluegiga.com or by contacting Bluegiga Support, support@bluegiga.com.

8. Prepare your product marketing material and manuals

After you have done steps 5-7, you will have a clear understanding of how to emphasize Bluetooth functionality in your product literature. Keep in mind that there is lot of free marketing material available from Bluetooth SIG and Bluegiga for increasing your brand image with Bluetooth wireless technology. For more information please contact sales@semiconductorstore.com.

And then...

After your product has been launched, Bluegiga will assist you with any compatibility issues and any other questions you have in mind. We are constantly developing our iWRAP software features to meet your future needs.

