



Bluetooth® Solutions for Apple iOS Devices

Topics

- Introduction
- Bluegiga's Solution for iOS Devices
- Compatible Products
- Summary



- **Bluetooth BR/EDR compatible iOS devices are:**
 - iPhone 3G, iPhone 3GS, iPhone 4, iPhone 4S and iPhone 5
 - iPod Touch 2nd generation and newer devices
 - iPad, iPad 2, iPad with Retina display and iPad Mini
- **Bluetooth 4.0 compatible iOS devices are:**
 - iPhone 4S and iPhone 5
 - iPod 5th generation
 - iPad with Retina display and iPad Mini



- Supported *Bluetooth* profiles on Apple iOS devices are:
 - The latest list of supported Bluetooth profiles can be found from [here](#)

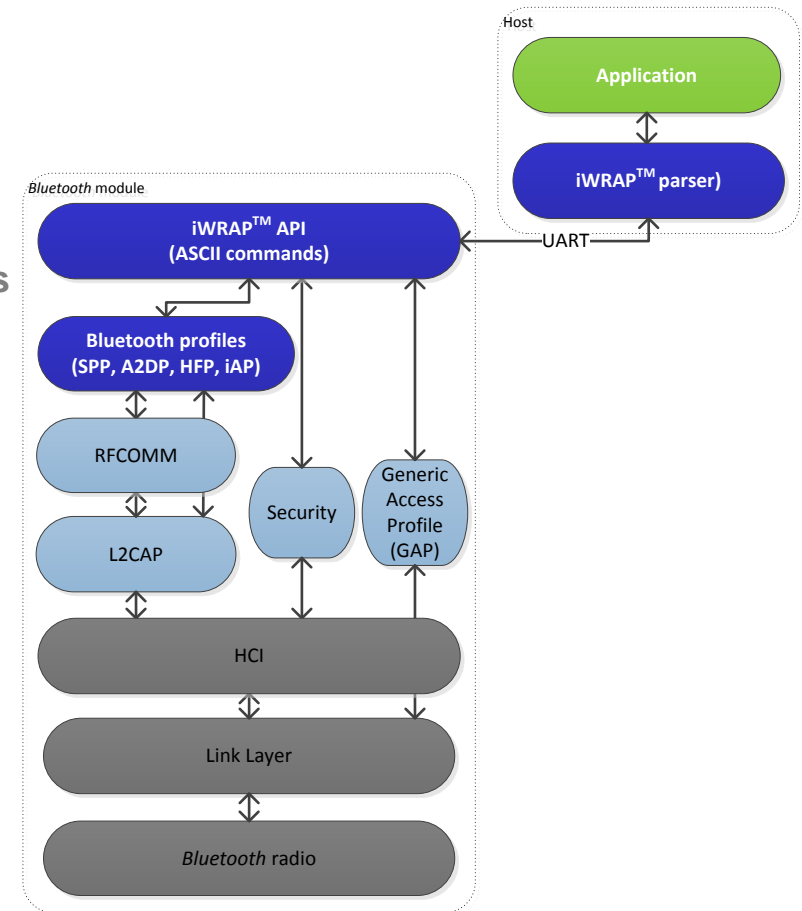


- iOS devices do not implement the *Bluetooth RFCOMM (SPP)* profile
- Instead *Bluetooth* accessories can use iAP profile to exchange data with iOS devices
 - iAP is RFCOMM based connection (similar to SPP)
 - It uses Apple proprietary iAP application protocol
 - Allows data exchange between Apps and the accessory
- Audio, Human Interface (HID), PAN accessories and *Bluetooth Smart* devices are outside MFi program
- Learn more about iAP [here](#)



Bluegiga's Solution for iOS Devices

- **Bluegiga's iWRAP *Bluetooth* Stack implements the iAP profile**
 - Provides fast Time-to-Market
 - Less development effort
- **Can communicate with any iOS device that supports *Bluetooth***
- **iWRAP has a simple ASCII command API**
 - Simple
 - Fast to learn
- **iWRAP also implements 13 other *Bluetooth* profiles**
 - Serial Port Profile
 - A2DP
 - Hands-Free Profile
 - Human Interface Device Profile
 - Health Device Profile
 - etc.



Bluegiga's Solution for iOS Devices

- **Example use case of a an audio device**
 - Uses A2DP for generic audio streaming
 - Uses AVRCP for generic remote control
 - Uses SPP to communicate with an Android App
 - Uses iAP to communicate with an iOS App



Bluegiga's Solution for iOS Devices

- **Example use case of a medical sensor**
 - Uses iAP to connect to an iOS device
 - Uses SPP to connect to an Android device
 - Uses HDP to connect to a Health Gateway



Bluegiga's Solution for iOS Devices: Compatible products

- WT12 *Bluetooth* class 2 module
- *Bluetooth*® 2.1 + EDR compliant, class 2
- Radio performance
 - Transmit power: +3 dBm
 - Receiver sensitivity: -86 dBm
- Integrated chip antenna
- Industrial temperature range from -40C to +85C
- Integrated iWRAP *Bluetooth* stack
- 802.11 co-existence
- *Bluetooth*, CE, FCC, IC Japan and South-Korea qualified



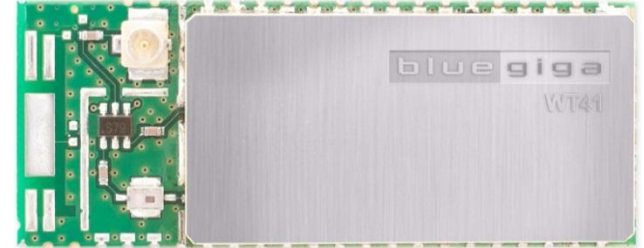
Bluegiga's Solution for iOS Devices: Compatible products

- WT1i1 *Bluetooth* class 1 module
- *Bluetooth*® 2.1 + EDR compliant, class 1
- Excellent radio performance
 - Transmit power: +17 dBm
 - Receiver sensitivity: - 86 dBm
- Integrated chip antenna or RF pin
- Industrial temperature range from -40C to +85C
- Integrated iWRAP *Bluetooth* stack
- 802.11 co-existence
- *Bluetooth*, CE, FCC, IC and Japan qualified



Bluegiga's Solution for iOS Devices: Compatible products

- WT41 *Bluetooth* class 1 long range module
- Extreme radio performance
 - Transmit power: +20 dBm
 - Receiver sensitivity: -90 dBm
 - Range 1000 meters line-of-sight
- Integrated chip antenna, U.FL connector or RF pin
- Industrial temperature range from -40C to +85C
- Integrated iWRAP *Bluetooth* stack
- 802.11 co-existence
- *Bluetooth*, CE, FCC, IC, South-Korea and Japan qualified



Bluegiga's Solution for iOS Devices: Compatible products

- Plug n' play *Bluetooth*® 2.1 + EDR solution for stereo and mono audio solutions
- Radio performance
 - Transmit power: +7 dBm
 - Receiver sensitivity: -88 dBm
- Integrated chip antenna or W.FL connector
- Integrated iWRAP *Bluetooth* stack
- Integrated audio features
 - Stereo codec
 - Digital Signal Processor (DSP)
 - Battery charger
- Optional audio extensions
 - *CVC*® - *Echo cancellation and noise reduction*
 - *aptX*® - *Enhanced audio quality for A2DP*
- *Bluetooth*, CE, FCC, IC, South Korea and Japan qualified



- **Join MFi program**

- <http://developer.apple.com/programs/mfi/>
- Gives you access to iAP documents and tools



- **Buy products**

- <http://www.bluegiga.com/oem-module-distributors>
- <https://mfi.avnet.com/MFI/>



- **Develop the product**

- <http://techforum.bluegiga.com>
- support@bluegiga.com



