Manuals+ — User Manuals Simplified.

Fieldpiece 2ALHR012 Module User Manual

Contents

Fieldpiece

Fieldpiece 2ALHR012 Module

Specifications

- On-chip low power microcontroller
- Up to 1024 kB flash program memory
- Up to 96 kB RAM data memory
- On board crystal and PCB Antenna

Product Usage Instructions:

How to Use

- Before sending any UART Command, WAKE_UP 1 0 must be done by external MCU.
- If the RF module is connected to Smart Devices (Android/ iOS), the pin STATUS will be logic 1 to inform external MCU.

Connection:
Connect the RF Module pins as follows:

Pin No.	Description	Pin Type	Functions
1	BLE_RX	Digital I/O	UART RX
2	BLE_TX	Digital I/O	UART TX
3	WAKE_UP	Output	Digital I/O
4	STATUS	Input	Digital I/O
5	GND	Digital I/O	GND
6	V+	Digital I/O	VDD
7	BLE_EN	Digital I/O	VDD Enable

Safety Instructions:

- Maintain a minimum distance of 0.5 cm between the radiator and your body during operation.

Frequently Asked Questions (FAQ)

- **Q: What should I do if the STATUS pin is not indicating logic 1 when connected to Smart Devices?**
  A: Ensure proper connection and compatibility with Smart Devices. Check for any loose connections or incorrect wiring.
- **Q: Can the RF module be used with devices other than Android/iOS mobile accessories?**
  A: Yes, the RF module can be used for wireless data communication and remote sensors with appropriate interfacing.
- **Q: Is FCC certification required for using this transmitter module?**
  A: Yes, FCC certification is required for compliance with regulations. Ensure proper labeling on the end product containing the FCC ID: 2ALHR012.

2ALHR012 Module
User's Manual
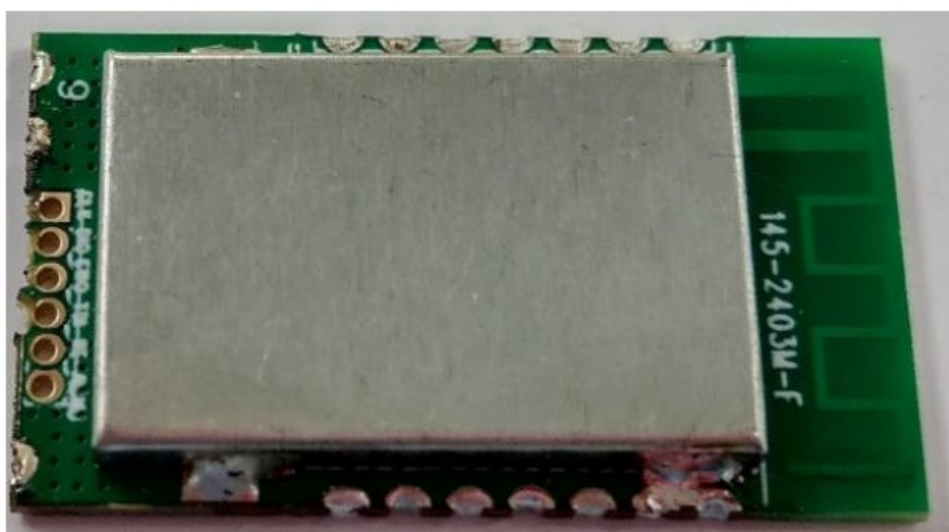
Features

- On-chip low power microcontroller
- Up to 1024 kB flash program memory
- Up to 96 kB RAM data memory
- On board crystal and PCB Antenna

Application

- Mobile device accessories (Android/ iOS)
- Wireless data communication
- Remote sensors

Pin definition (from right to left)

Pin No.	Description	Pin Type	Functions
1	BLE_RX	Digital I/O	UART RX
2	BLE_TX	Digital I/O	UART TX
3	WAKE_UP	Output	Digital I/O
4	STATUS	Input	Digital I/O
5	GND	Digital I/O	GND
6	V+	Digital I/O	VDD
7	BLE_EN	Digital I/O	VDD Enable

How to use:

- Before sending any UART Command, "WAKE_UP 1 → 0" must be done by external MCU.
- If the RF module is connected to Smart Devices (Android/ iOS), the pin STATUS will be logic "1" to inform external MCU.
- Beacon
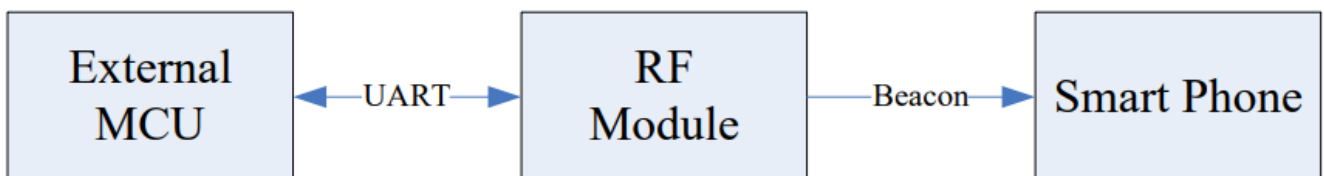
Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user

is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example – use only shielded interface cables when connecting to computer or peripheral devices).

End Product Labeling
This transmitter module is authorized only for use in devices where the antenna may be installed such that 0.5 cm may be maintained between the antenna and users. The final end product must be labeled in visible area with the following: "Contains FCC ID: 2ALHR012"

End Product Manual Information
The user manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 0.5cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter." This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions

1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or colocation with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for reevaluating the end product (including the transmitter) and obtaining a separate FCC authorization. This device is intended only for OEM integrators under the following conditions: The antenna must be installed such that 0.5 cm is maintained between the antenna and users. As long as a condition above is met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

FCC Radiation Exposure Statement

- This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 0.5 centimeters between the radiator and your body.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- The antennas used for this transmitter must be installed to provide a separation distance of at least 0.5 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.

2. This device must accept any interference, including interference that may cause undesired operation of the device.

The host product shall be properly labelled to identify the modules within the host product.
The ISED certification label of a module shall be clearly visible at all times when installed in the host product; otherwise, the host product must be labelled to display the ISED certification number for the module, preceded by the word "contains" or similar wording expressing the same meaning, as follows: Contains IC : 22518-BT012

IC Radiation Exposure Statement
This equipment complies with RSS-102 radiation exposure limit set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0.5 cm between the radiator and your body.

Documents / Resources

Fieldpiece 2ALHR012 Module [pdf] User Manual
2ALHR012, 2ALHR012 Module, Module

References

- **User Manual**