

WSAudiology

RFM013 Radio Module



WSAudiology RFM013 Radio Module Instruction Manual

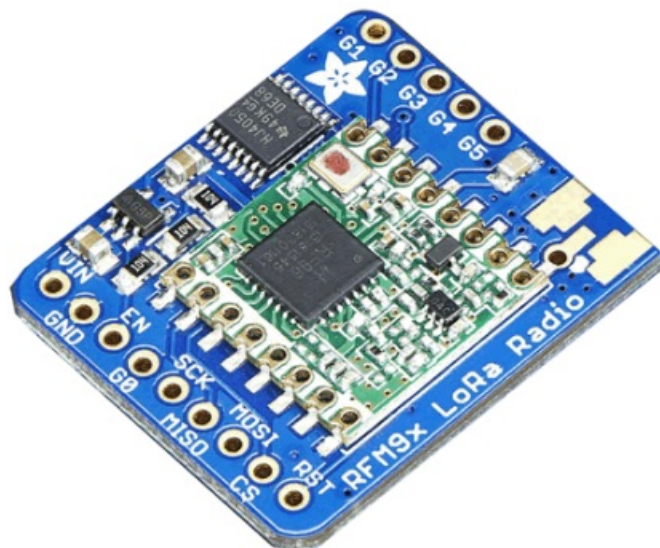
[Home](#) » [WSAudiology](#) » WSAudiology RFM013 Radio Module Instruction Manual 

Contents

- [1 WSAudiology RFM013 Radio Module](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 PRODUCT INFORMATION](#)
- [5 FCC STATEMENT](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)

WSAudiology

WSAudiology RFM013 Radio Module



Product Information

Specifications:

- **Product Name:** RF Module 13 (RFM013)
- **Frequency:** 2.45 GHz
- **Components:** Radio transceiver, ASICs, coil antenna, crystal, EEPROM memory, microphones, speaker connector, push buttons, telecoil, battery connector
- **Power Source:** Lithium-ion battery with voltage regulators
- **Compliance:** FCC ID – 2AXDT-RFM013, IC ID – 26428-RFM013

Product Usage Instructions

Assembly and Installation:

The RFM013 module is assembled with the host device during the project phase. The module components are interconnected through the PCB according to the engineering team's best practices for optimal integration.

Powering On:

Ensure the lithium-ion battery is properly connected to power the module. The necessary voltage regulators are included in the module for power management.

Operation:

Once integrated, the RFM013 module functions as a radio transceiver at 2.45 GHz. Use the designated accessories supplied by the legal manufacturer for optimal performance and compliance with FCC guidelines.

FAQ:

Q: Can the outer housing of the module be replaced by the user?

A: The outer housing may be replaced by field service but not by the user. It is not relevant for the wireless module.

Q: What are the compliance IDs associated with the RFM013 module?

A: The RFM013 module contains HVIN: RFM013, FCC ID: 2AXDT-RFM013, and IC ID: 26428-RFM013 for regulatory purposes.

PRODUCT INFORMATION

Integration manual for RF Module 13 (RFM013)

The "RFM013" radio module contains a radio transceiver running at 2.45 GHz embedded in a single hardware platform.

The 2.45 GHz radio is mainly used for Bluetooth® Low Energy Radio communication. The intended use of this radio is to exchange data between hearing aids and Bluetooth accessories using proprietary communication modes. The transceiver is connected to a PCB-integrated antenna.

The main part of the module is a set of analog and digital ASICs which contain both radios. These ASICs are mounted on a flex PCB. In addition to that the module comprises the coil antenna for the nearfield inductive magnetic system, one crystal and an EEPROM memory. The antenna for the 2.45 GHz radio is integrated in the flex PCB of the module. The matching circuitry between the radio ASIC and the antenna is also on the flex PCB. On the flex PCB additional components are mounted and connected to the radio module. These include microphones, the connector to the external speaker, push buttons, the telecoil and the battery connector. The system is powered by a lithium-ion battery, all necessary voltage regulators are included in the module.

The PCB with the module and all other components of the hearing aid are arranged in a plastic frame that is not

user serviceable or user modifiable. The outer housing may be replaced by field service, but this is not relevant for the wireless module.

The module is thus not installed but instead assembled at the same time as the host is. The position of components and interconnection through the PCB are decided during the project phase for the different hosts and following the best practice of the engineering team in order to assure an optimal integration of the module.

Several validation steps are done through the development to assure the full compliance with all the regulatory requirements.

FCC STATEMENT

The user guide must contain the HVIN, the FCC ID and the IC ID:

- **HVIN:** RFM013
- **Contains FCC ID:** 2AXDT-RFM013
- **Contains IC ID:** 26428-RFM013 and the following statements:

This Class B digital apparatus complies with Canadian ICES-003.

Changes or modifications made to this equipment not expressly approved by the legal manufacturer may void the FCC authorization to operate this equipment.

This device complies with Part 15 of the FCC Rules and with ISED's license-exempt RSSs.

Operation is subject to the following conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to 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.

The radiated output power of the device is far below the FCC and ISED radio frequency exposure limits.

For body-worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with the legal manufacturer's accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

Sivantos GmbH – R&D PSA WLS L DE ERL – Richard Rose

Documents / Resources

