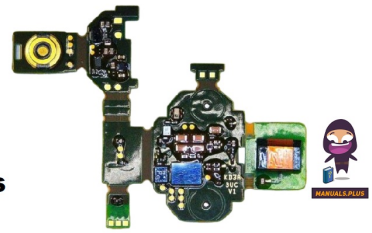


WSAudiology
RFM009 RF
Module for
Hearing Aids



WSAudiology RFM009 RF Module for Hearing Aids Instructions

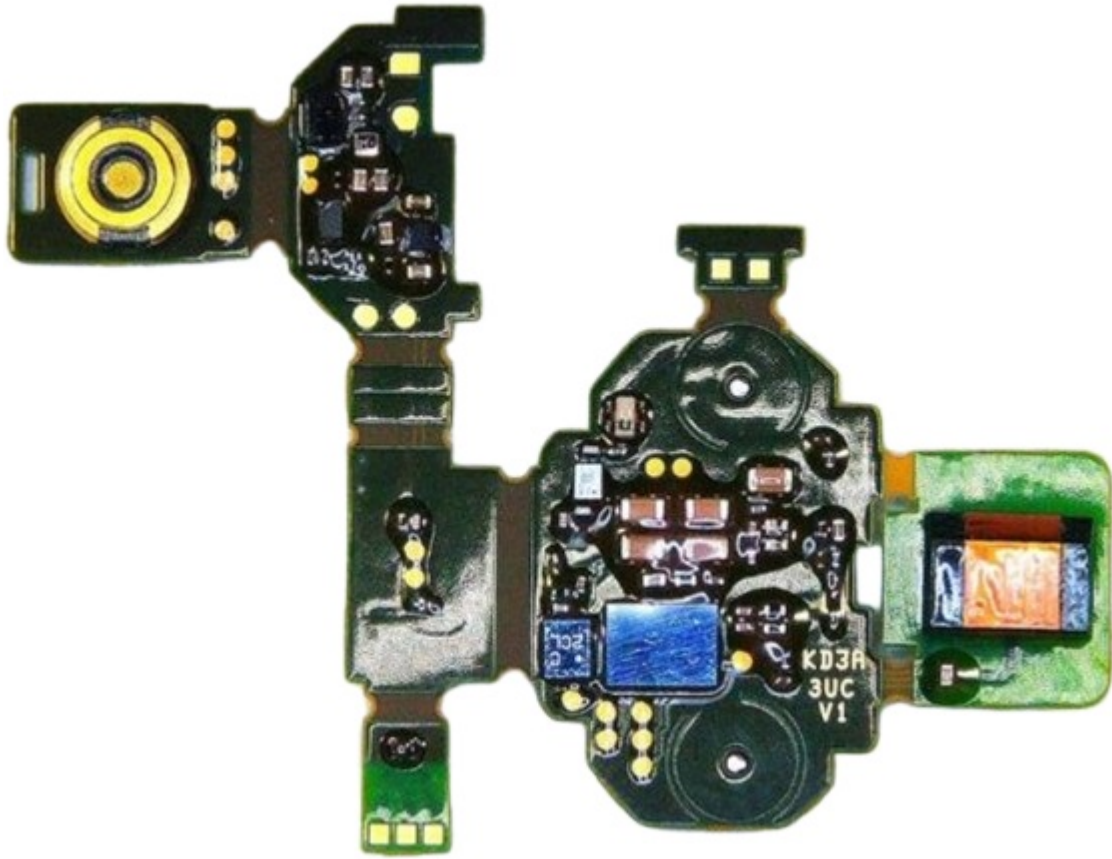
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WSAudiology

WSAudiology RFM009 RF Module for Hearing Aids



Specifications

- Model: RFM009
- Radio Transceivers: 3.27 MHz and 2.45 GHz
- Radio Type: Nearfield inductive magnetic transceiver (3.27 MHz), Integrated antenna (2.45 GHz)
- Power Source: Lithium-ion battery
- Regulatory Compliance: FCC Part 15, ICES003
- Manufacturer: Sivantos GmbH

Product Usage Instructions

Assembly and Installation

The RF Module 9 (RFM009) is assembled with the host device during manufacturing. It is crucial to follow the engineering team's guidelines for optimal integration of the module.

Powering On

Ensure the lithium-ion battery is properly installed before powering on the device. Press the designated power button to activate the module.

Data Exchange

To exchange data between hearing aids or communicate with a proprietary accessory using the RFM009 module, ensure both devices are within range and correctly configured.

Maintenance

The outer housing of the module is not user-serviceable. Any maintenance or replacement should be performed by authorized personnel to avoid damage to the device.

FAQs

Q: Can the RFM009 module be used with any hearing aid model?

A: The module is designed for specific hosts during manufacturing. Compatibility with other models may vary, and it is recommended to consult with the manufacturer for guidance.

Q: How can I check if the RFM009 module is functioning correctly?

A: Ensure the power source is connected and operational. Test the data exchange functionality with compatible devices to verify proper operation.

Q: Is it possible to replace the lithium-ion battery in the RFM009 module?

A: The battery replacement should be handled by authorized service personnel to maintain the device's integrity and functionality.

INSTALLATION

The “RFM009” radio module contains two radio transceivers running at 3.27 MHz and 2.45 GHz which are implemented in a single hardware platform. The 3.27 MHz radio consists of a nearfield inductive magnetic transceiver. It uses a time division duplex and runs on a single channel with phase modulation. The signal is transmitted by a coil antenna. The intended use of this radio is to exchange data between two hearing aids or to communicate with a proprietary accessory. The 2.45 GHz radio is mainly used for Bluetooth® Low Energy Radio communication. In addition to that, the receiver is also capable of proprietary communication modes. The transceiver is connected to a PCB-integrated antenna. The intended use of this radio is to exchange data between hearing aids and Bluetooth accessories. 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 into 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 to 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 is decided during the project phase for the different hosts and follow the best practices of the engineering team in order to ensure optimal integration of the module. Several validation steps are done throughout the development to ensure full compliance with all the regulatory requirements.

FCC

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

HVIN: RFM009

- Contains FCC ID: 2AXDT-RFM009
- Contains IC ID: 26428-RFM009

and 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 the 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.

or 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.

Documents / Resources

	<p>WSAudiology RFM009 RF Module for Hearing Aids [pdf] Instructions RFM009, RFM009 RF Module for Hearing Aids, RF Module for Hearing Aids, Module for Hearing Aids, Hearing Aids, Aids</p>
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References

- [User Manual](#)

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