WSAudiology MIM003 MI Module for Hearing Instruments Instructions

Contents

WSAudiology MIM003 MI Module for Hearing

Product Information

- **Product Name**: MI Module 3 (MIM003)
- **Radio Frequency:** 3.27 MHz
- **Radio Type**: Nearfield inductive magnetic transceiver

- **Radio Feature**s: Time division duplex, single channel with phase modulation
- **Intended Use**: Exchanging data between two hearing aids or communicating with a proprietary accessory
- **Main Components**: Analog and digital ASICs, flex PCB, coil antenna, crystal, EEPROM memory
- **Additional Components**: Microphones, external speaker connector, push buttons, telecoil, battery connector
- **Power Source**: Lithium-ion battery with included voltage regulators
- **Housing:** Plastic frame, not user serviceable or modifiable
- **Installation:** Assembled at the same time as the host device
- **Compliance:** Full compliance with regulatory requirements
- **HVIN:** MIM003
- **FCC ID**: 2AXDT-MIM003
- **IC ID**: 26428-MIM003

Product Usage Instructions

1. Ensure that the MI Module 3 (MIM003) is properly integrated into the host device during the assembly phase.
2. Connect any additional components (such as microphones, external speaker, push buttons, telecoil, and battery connector) to the flex PCB of the module.
3. Power the system using a lithium-ion battery, making sure all necessary voltage regulators are included in the module.
4. Use the MI Module 3 (MIM003) to exchange data between two hearing aids or communicate with a proprietary accessory.
5. Follow the best practice of the engineering team to optimize the integration of the module.
6. Do not attempt to modify or service the plastic frame housing of the hearing aid.
7. Ensure the MI Module 3 (MIM003) complies with all regulatory requirements.
8. For body-worn operation, use only the legal manufacturer’s accessories supplied or designated for this product to meet FCC RF exposure guidelines.

Integration manual

for MI Module 3 (MIM003)
The “MIM003” radio module contains a radio transceiver running at 3.27 MHz.
The 3.27 MHz radio consists of a nearfield inductive magnetic transceiver. It uses 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 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.
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.

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

- **HVIN:** MIM003
- **Contains FCC ID:** 2AXDT-MIM003
- **Contains IC ID**: 26428-MIM003

and following statements: (English version)

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 licence-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.

The FCC ID and the IC ID needs to be visible on packaging. This is done by printing the IDs on the barcode label as follows (as an example).

Documents / Resources

	WSAudiology MIM003 MI Module for Hearing Instruments [pdf] Instructions MIM003, 2AXDT-MIM003, 26428-MIM003, MIM003 MI Module for Hearing Instruments, MI Module for Hearing Instruments, Module for Hearing Instruments, Hearing Instruments, Instruments