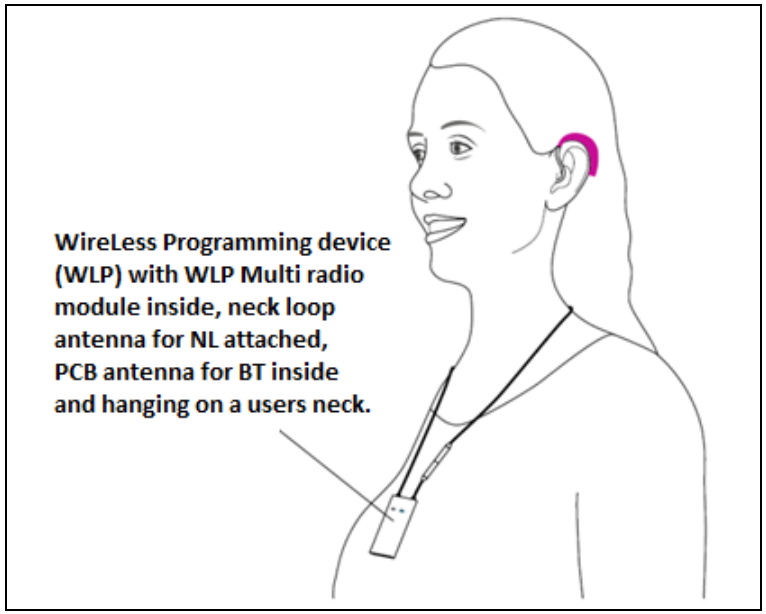
SBO Hearing Radio Model - Quick Installation Guide

Radio Model Name: WLP Multi

The WLP Multi Radio Module is a module intended for WireLess Programming devices (WLPs) and completely equipped with both a microprocessor host, a short range low power radio for nEARLink (NL) at 3.84 MHz and a Bluetooth radio at 2.4 GHz on board the same Printed-Circuit-Board (PCB). Besides the host with built in memory and the radio system the module also includes a power management circuit, USB connector, battery connector, two neck loop connectors and small discrete components.

When the WLP Multi radio module is mounted inside plastic shells for a wireless programming device with a neck loop antenna attached, then the whole product shall normally be placed on the neck of an end user with one or two wireless hearing aids on the ears, also running at a radio frequency of 3.84 MHz. The end product shall be operated by a trained hearing care professional via a PC with SBO certified SW controlling the product through the Bluetooth connection. (Alternatively the USB interface can connect the WLP to the PC).



The radio system inside the module includes two radio transceivers; a low power, short range, inductive NL radio transceiver working at 3.84 MHz providing the connection to the WL hearing aids and a Bluetooth radio at 2.4 GHz providing the connection to the PC.
The NL radio system is consisting of (see illustrations next page):

- A radio transmitter controller and radio receiver circuit
- A frequency generating circuit with a 16 MHz crystal reference and
- A dedicated neck loop antenna attached to the NL radio.

The low power, inductive radio transmitter is consisting of a Complex Programmable Logic Device (CPLD) fed with data from the host, a clock oscillator and two switching transistors feeding the modulated RF signal at 3.84MHz to a dedicated neck loop antenna.

The Bluetooth radio is a traditional Bluetooth power class 2 device with a maximum radiated output power of +6 dBm EIRP and connected internally to an inverted F antenna directly on the same PCB as the radio system.

NB: The WLP Multi radio module is ONLY intended for SBO Hearing and OEM branded products intended for wireless programming of hearing aids at 3.84 MHz. If used for other types of products or systems, SBO cannot guarantee continued conformance with FCC part 15 (or IC) regulations. Because of this and due to limited shielding of the module, the WLP Multi radio module is only approved with a *limited* modular approval.

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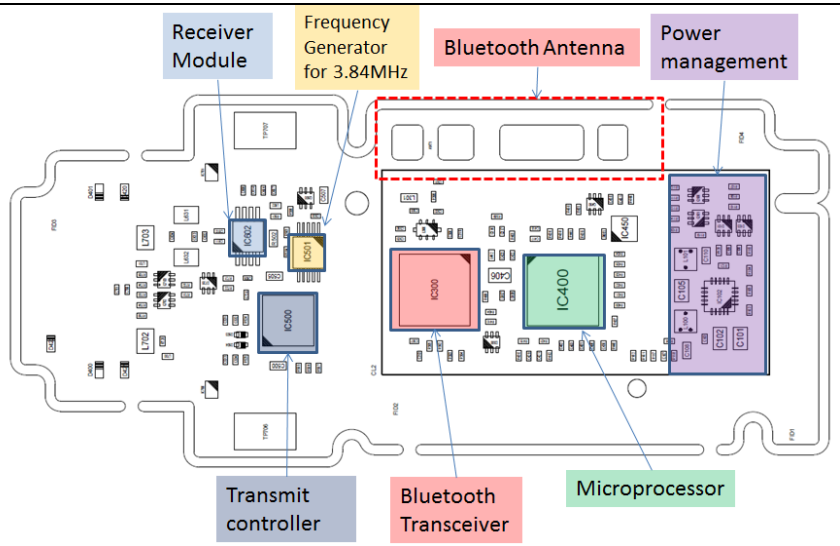
The WLP Multi Radio Module with all its mounted components is intended to be installed as a module into SBO Hearings WireLess Programming devices (WLPs), (e.g. the FittingLINK WP-2) or similar OEM branded products (like Oticon, Bernafon or Sonic).

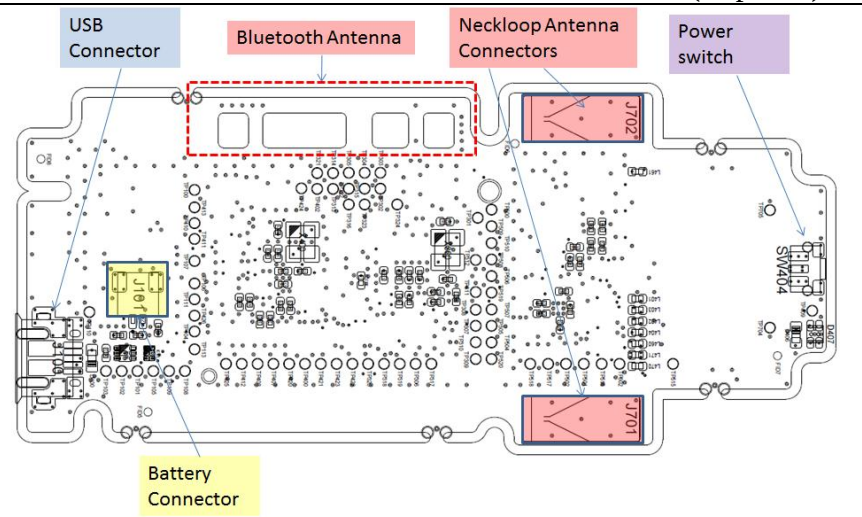
The module requires only a battery to be mounted together with its neck loop antenna in an external plastic shell (as shown on the previous page). The module requires no microphones or speakers as no sound, only data is streamed wirelessly to connected devices (e.g. Oticons wireless hearing aids).

The module has its power management subsystem including all voltage regulators and the charging circuit on board. Also all data interfaces (input-output) on the board are buffered.

The mounted module PCB is depicted to the right with its main components and connections:



WLP Multi Radio Module – Mounted PCB (Top side)



WLP Multi Radio Module – Mounted PCB (Bottom side)

SBO Hearing Radio Model - Regulatory Label Information

Radio Model Name: WLP Multi

Contains: **FCC ID:** **2ACAHWLP020**
IC: **11936A-WLP020**

NOTICE:
This device complies with Part 15 of the FCC Rules (hereunder §15.107/207, §15.109/209, §15.223 and §15.247).

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.

Changes or modifications made to this equipment not expressly approved by SBO Hearing A/S may void the FCC authorization to operate this equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.