

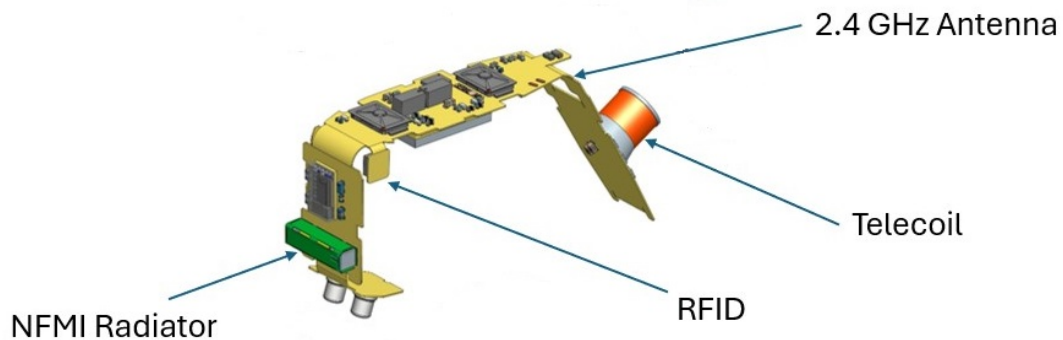
SBO Hearing A/S

Antenna Specification

The product module CL_AU5_BTEMPPP is designed containing three radio interfaces:

1. A Bluetooth Low Energy transceiver operating in the band from 2402 MHz to 2480 MHz.
2. A Near Field Magnetic Induction (NFMI) transceiver operating at 3.84 MHz
3. A RFID receiver only that operates in the range from 865 MHz to 928 MHz.

The two transceivers are located in two different areas on the CL_AU5_BTEMPPP PCB and the RFID is a received field strength powered chip glued to the PCB.



The 2.4 GHz antenna for Bluetooth connections is a PCB antenna designed as an inverted F antenna. The radiation patterns are shown in annex A.

The gain is measured in Cetecom Advanced GmbH test report **1-8190-24-01-09_TR2-R01-D01** with the following gain results measured at 1 Mbps data rate:

T _{nom}	V _{nom}	Lowest channel	Middle channel	Highest channel
Conducted power [dBm] Measured modulation GFSK		3.6	4.6	3.6
Radiated power [dBm] Measured modulation GFSK		0.9	2.0	2.2
Gain [dBi] Calculated		-2.7	-2.6	-1.4

The maximum conducted TX power is measured to 7.23 dBm when operating at 2 Mbps, see Cetecom Advanced GmbH test report **1-8190-24-01-07_TR1-R01**.

The NFMI antenna is a coil antenna with 62 windings on a 1.1 mm x 1.1 mm x 4.8 mm ferrite core that is characterized in the operational description exhibit. The NFMI antenna is mounted on the PCB as a component.

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Signed on behalf of SBO Hearing A/S, July 3rd - 2025

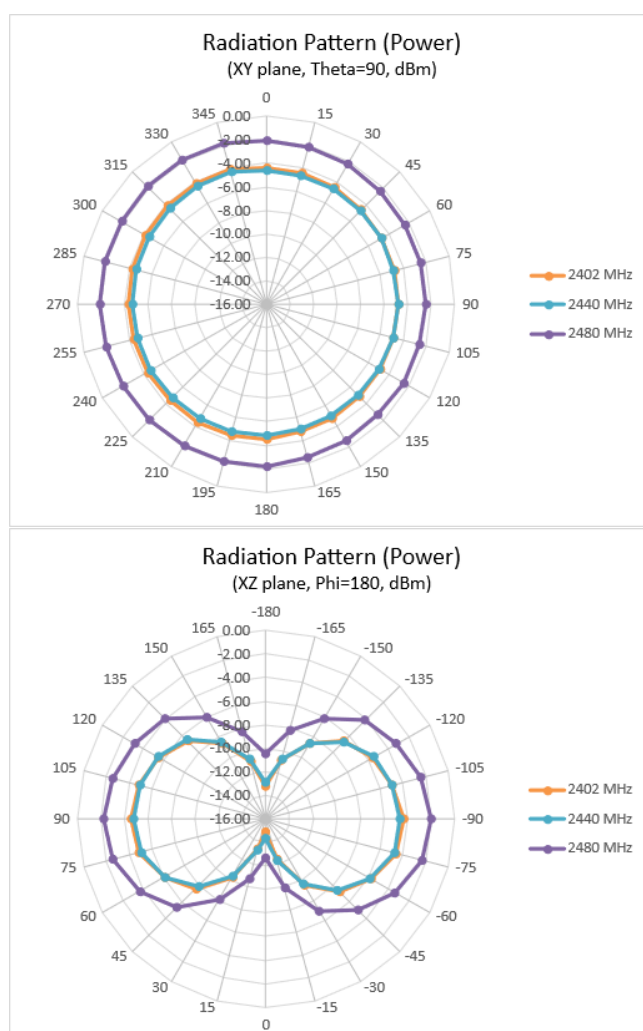


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Annex A: 2D radiation pattern for the Bluetooth antenna.



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