OMARA SB

omara

Perfect intelligibility in extreme noise

Protocol

Certificate of Equivalency of
OMARA NG / OMARA SB,
modified with anti humidity protection filter HF3

Objective:

To highlight the equivalence of performance of audio transmission between **OMARA NG** and **OMARA SB**, modified with filter HF3

These measurements intend to clarify the following question :

"Does the addition of the filter AudioService HF3 in the audio output channel modify the characteristics of audio transmission of OMARA?"

General principles

Tests are carried out according to the measurement procedure of "Performances of the hearing aid", CIS 118-7 normalizes (2005)

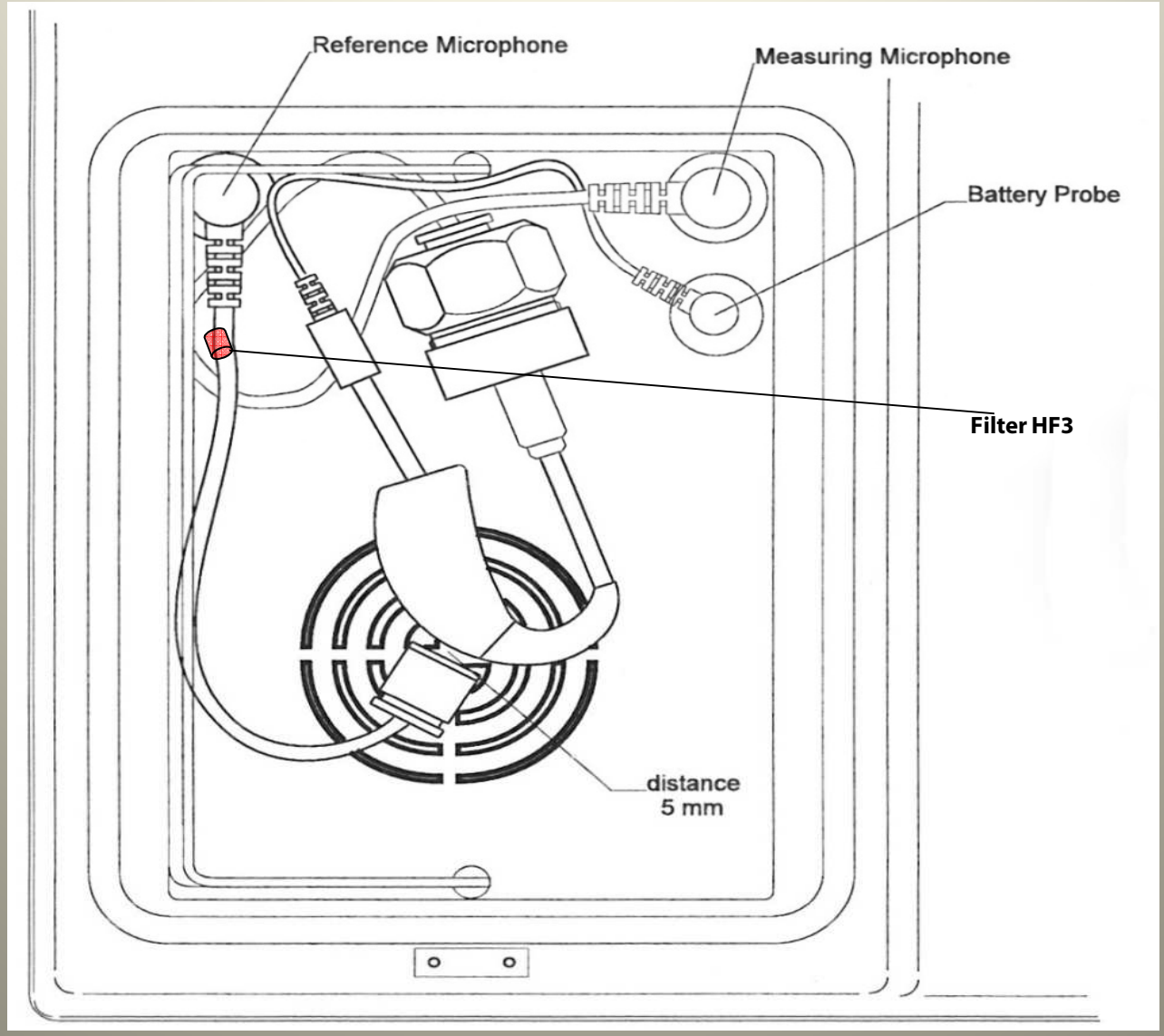
– Material and method

A hearing aid, model Phonak Exélia Art P, serial number 0937X0WCX, was used as a measurement standard gauge. It was programmed using the software Phonak iPFG in "TEST" mode according to characteristics "FOG (Full On Gain) /Microphone

This hearing aid was settled in a acoustical test chamber " Measuring equipment Audio Aurical Diagnosis Fitting System of the company Madsen, calibration METAS A04, validity 04/12"

The device is the HIT Modulates (Hearing Instrument Test Modulates)

Schematic diagram of the Aurical Test Chamber



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Measurements process

The aim is to carry out a comparative analysis of "the hearing aid gauge" according to two experimental conditions

- Without filter HF3
(Corresponding by analogy to **OMARA NG**): Measure **PILOT**

- With filter HF3
(Corresponding by analogy to **OMARA SB**): Measure **TEST**

Measure PILOT:

The hearing aid gauge is displayed in the acoustical test chamber at the central point of a measurement target printed on the floor of the test box
The hearing aid is connected to a coupler $2cm^3$, which is linked to the measuring microphone. A plastic tube ensures the connection between the hearing aid and the coupler $2cm^3$
A reference microphone is placed 5 mm apart from the hearing aid gauge microphone as to secure the emission of stable acoustic pressure levels
The test box is overlaid by a loudspeaker

Signal test description :

Sweep Start frequency	200 Hz
Sweep Stop frequency	8000Hz
Stimulus Type :	pure tone modulated (Warble tones)
Stimulus Accuracy : 0.7dB	
Frequency resolution :	24 pts/octave

Two measurements are tested:

- A measurement "OSPL90" giving a maximum output level
- A measurement "full gain" giving a maximum gain and an input average gain of 50dB SPL.

Measure TEST:

Identical to the measure PILOT apart from the following point:
A filter HF3 AudioService is placed at the end of the plastic tube. (See diagram)

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Results

– Measure PILOT :

Curve patient : HF3 OMARA NG
OSPL90
Maximum output : 129.9dB
at frequency 1000Hz

HFA (High Frequency Average) : 125.5 dB
(1000, 1600, 2500 Hz)

Full gain
Maximum gain 54.5dB
at frequency 1900 Hz

Average at 50dB 48.1dB

– Measure TEST

Curve patient : HF3 OMARA SB
OSPL90
Maximum output: 129.4dB
at frequency 950 Hz

HFA (High Frequency Average) 125.7dB
(1000, 1600, 2500 Hz)

Full gain
Maximum gain 54.6dB
at frequency
Average at 50dB 48.1dB

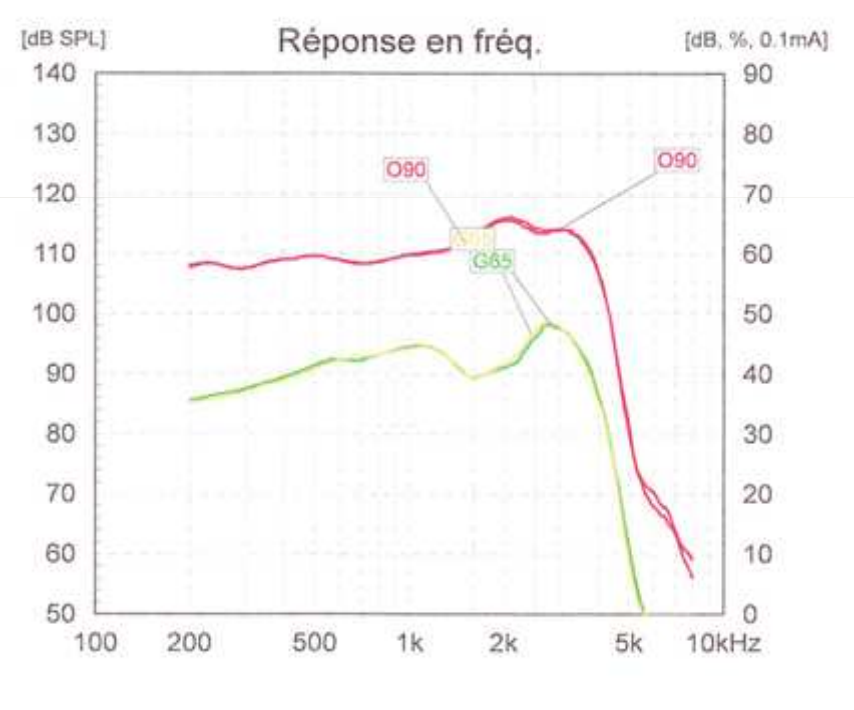
Conclusion

According to the results of the Measure PILOT and Measure
TEST pointing out a difference of 0.7dB at output max HFA and an average full gain with equality,
we can conclude at an audio performance equivalence between **OMARA NG** and **OMARA SB**.

Résultats test prothèses

Les résustats des tests non-standard

Patient: Erika Test
Patient No: 007001412000WC **App. auditif:** Exélia Art P 0937X0WCX **Oreille:** Droite



To the question:

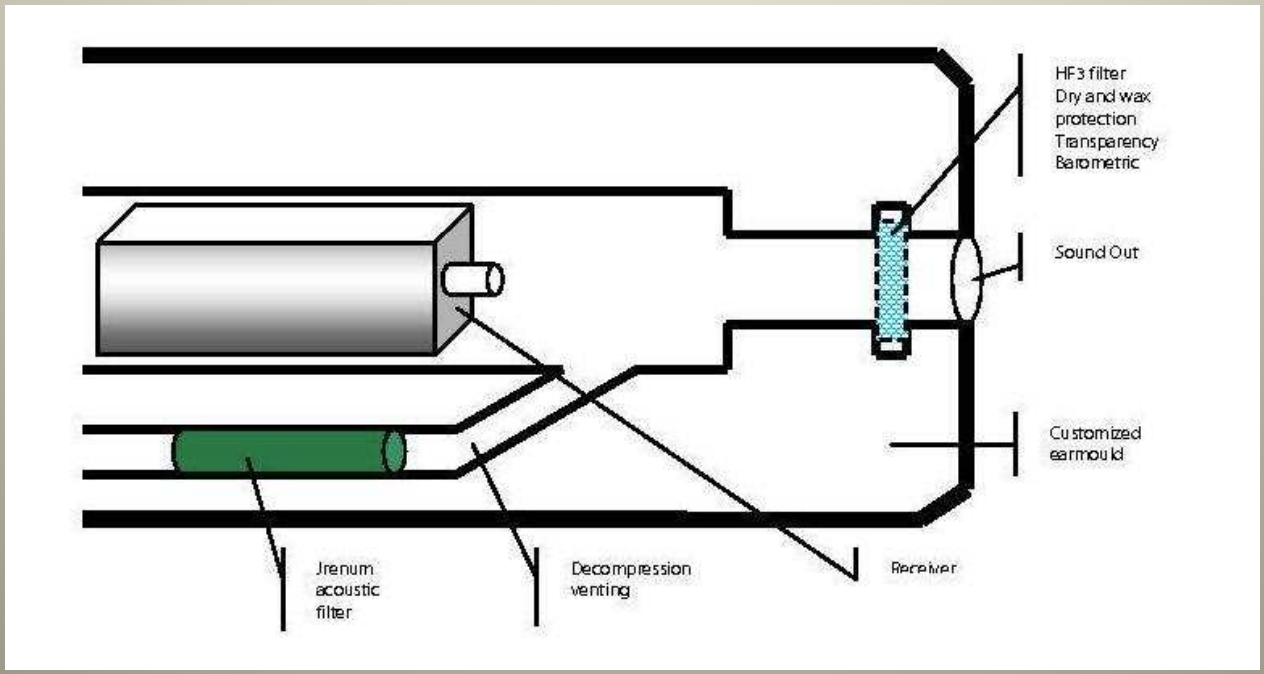
"Does the addition of the filter AudioService HF3 in the audio output channel modify the characteristics of audio transmission of **OMARA**?"

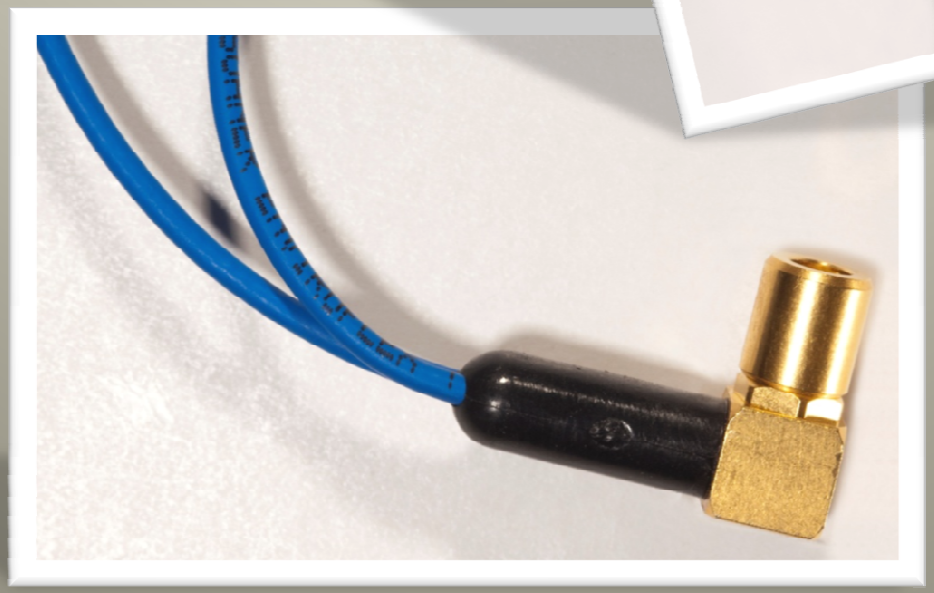
The answer is:

The filter AudioService HF3 has a non-significant influence on the audio performances of **OMARA.**

OMARA SB

general description and main technical features





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