

Acoustic Testing

CTC advanced is accredited for the testing of acoustic safety requirements, sound system equipment, voice performance and, amongst others, specialized in the testing of hearing aid electro-acoustic measurements. The state-of-the-art test lab containing a fully and hemi anechoic chamber, an audiology room and an audiology booth is equipped with professional measurement analyzers, microphones and audio sources. CTC advanced's scope of acoustical measurements includes a wide range of testing services. You will find an extract of our services below. Of course, we can carry out further tests on demand. Do not hesitate to address your special requests to our acoustic experts.



ACOUSTIC SAFETY REQUIREMENTS

This testing area focuses on reducing the risks for long-term and short-term damages on auditory systems by a speaker located close to the ear.

Maximum Sound Pressure Level

We offer accredited tests according to:

- IEC/EN 62 368-1, Clause 10.6
- EN 50 332-1/-2

Acoustic Shock

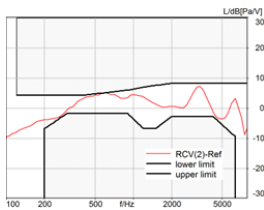
Our accredited test services for you:

- UL 60 950 -1, Annex NAD
- ETSI EG 202 518

VOICE QUALITY

We offer accredited testing according latest standards for digital communication devices utilizing Bluetooth, DECT or VoIP for voice transmission.

Common basic tests are:



- frequency response
- loudness rating
- delay and echo
- double talk performance
- distortion

Besides these basic tests, we offer the objective evaluation of speech, using 3-QUEST, PESQ, TOSQA and S-/N-/G-MOS tests.

These are the standards, we are accredited for:

- ETSI EN 202 737, 202 738, 202 739, 202 740
- CAT-iq 2.0
- ETSI EN 300 175-8

HEARING AID ELECTRO-ACOUSTIC AND EMC MEASUREMENTS

We have many years of experience in the testing of hearing aids from different well-known manufacturers. Even more, we see an immense growth in this business, further enhancing our experience day by day. As a result, we are able to react rapidly and flexibly to our customers' wishes and inquiries, but also to accelerate the processing of the accurate testing services in our state-of-the-art testing environment (e.g. fully anechoic acoustic chamber).

Our accreditations include:

- NSH 7 (incl. Annex A)
- IEC 60 118-0/-1/-2/-6/-7/-13
- ANSI C63.19, Clause 6

HEARING AID COMPATIBILITY TESTS (HAC)

These tests mainly apply to the magnetic characteristics of an induction loop system which is embedded in a communication device and forms a communication path through magnetic coupling between the hearing aid and the communication device.

We hold accreditations for:



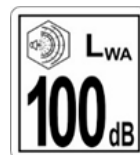
- FCC: CFR 47 FCC Part 68 (USA)
- ISED: IC CS-03 Part V (Canada)
- AS/ACIF S040 (Australia)
- ETSI ETS 300 381 (Europe)

SOUND POWER LEVEL

The best way to identify the noisiness of a product is to determine the sound power level.

We can offer an SPL measurement dedicated to your needs on demand.

In the field of sound power level we are able to perform tests according to:



- ISO 3744
- ISO 3745