The perfect solution for assessing headsets and headphones
Ensure an optimal headset & headphone experience
Utilize advanced possibilities in measuring and assessing headsets and headphones

HIB I, the innovative front end by HEAD acoustics, is the new dimension in measuring and assessing headsets, headphones and the headset functionality of telephones.

The Headset Interface Box HIB I is used in conjunction with ACQUA version 3.4.100 (or later) and the measurement front end MFE VI.1. In addition to the speech and audio quality, also the standard compliance of the device under test can be tested with HIB I. Depending on the device under test, the new front end serves as a reference front end during the measurements and simulates a headset or the headset functionality of telephones.

HIB I is especially suited for measurements according to ITU-T P.381. Furthermore, the new Headset Interface Box is relevant for measurements according to the following standards: ITU-T P.360, ITU-T P.380 as well as EN 50332.
Headset & Headphone Measurements

In case of a headset or headphone measurement, the Headset Interface Box simulates a reference telephone. The headset/ headphone is directly connected to the jack socket on the front plate of HIB I. In case where headsets with a second microphone are to be measured, the Headset Interface Box offers a connection possibility via an individual adapter cable. During headset/headphone measurements, HIB I allows to select a headset microphone supply voltage from 0.6 to 3.8 V (in 25 mV steps). In particular, 2.6 V at 2.2 kOhm can be selected as stipulated by ITU-T P.381. Moreover, the Headset Interface Box is able to automatically recognize and switch different MIC/GND pin assignments. The user can variably attenuate and amplify the microphone paths.
Telephone Measurements

When the telephone is the device under test, HIB I simulates both headphones (including different impedances) and headsets (additionally including microphone paths), so that they are recognized by the telephone as a headset/headphone. The user can adjust load impedances (8, 16, 32 Ohm or 10 kOhm). Thus, the effect of various headphone impedances on the speech and audio quality performance of headset/telephone combinations can be tested with the Headset Interface Box. Furthermore, it is possible to simulate headset buttons and thus to obtain for example Play/Pause or Volume +/- functionality at the telephone – as specified by ITU-T standard P.381.
Connection possibilities of HIB I

HIB I connectors front plate

HIB I connectors rear plate

Connection from/to MFE VI.1
(4 x BNC; 2 x Out, 2 x In)

Micro USB
(only for charging)

Connection to ACQUA PC
(via cable CUD II; D-Sub 9-pin)
The **Headset Interface Box** at a glance

Due to the variety of useful features, HIB I is the perfect solution for measuring and assessing headsets respectively headphones as well as the headset functionality of telephones and will make testing easier, faster and more user-friendly.

**Application, depending on the test device**
Depending on the device under test, the Headset Interface Box simulates either headphones and headsets or the headset functionality of telephones.

**Useful additional measurement modes**
HIB I provides a “Loop” mode that allows the routing of a connected headset/headphone to the connected telephone via the Headset Interface Box without having to change cable connections, thus saving time. In this mode, a monitor function can optionally be activated in HIB I for simultaneous transmission of the audio signals to the connected measurement front end.

**Easy and user-friendly handling**
The user can configure and control HIB I easily and user-friendly via the HEAD acoustics Advanced Communication Quality Analysis system ACQUA over the cable CUD II.

**Functionally adequate behavior of the battery**
During measurements, the rechargeable battery is switched-on and the external power supply is disconnected automatically by ACQUA in order to avoid noise and ground loops. Two LEDs on the front plate indicate power on/off as well as battery charging via Micro USB.