

# Affinity HIT440 Module

- Efficient Hearing Aid Testing

## Hearing instrument testing

With HIT440 Hearing Instrument Testing module the Affinity takes hearing aid evaluation to a whole new level in its ease of use and flexibility.

All client data can be saved directly to NOAH or Interacoustics' own IABaseII database during the hearing aid fitting. You can also choose not to use a database for quick and easy hearing aid evaluations. While pre-loaded standard ANSI and IEC protocols including coil measurements can get you up and running quickly you can also create your own protocols or import specialized tests such as those that are developed specifically by hearing aid manufacturers.

## Easy reporting

You can print a customized report at the end of the session or gain immediate access to the data from previous test sessions. You no longer have to print the data and paste it in a file – now you can save it and verify hearing aid functionality over time, even compare tests right on your PC screen.

## Directional microphones

Directional hearing aid microphones can be tested in the integral test box and all tests can be directly compared to previous measurements made on the same hearing aid.

### *Other benefits of the HIT440 module:*

- Easy upgrade with new tests
- Tests digital hearing aids
- Report page for session notes

## Fit for the future

The HIT440 module is designed to test traditional hearing aids as well as digital hearing aids. Special stimuli and test procedures are available and include ICRA noise and real speech. Most importantly is the open architecture of the Affinity software platform. As new technology is developed future hearing aids will require special stimuli that are not known today. While you may have had to buy a new hearing aid testing device to keep up with hearing aid technology in the past, the Affinity has the ability to simply load new test stimuli and procedures on its platform.



leading diagnostic solutions



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## General Technical Specifications

### Standards:

**Safety:** EN 60601-1, Class I, Type B, UL 2601-1, CAN/CSA-C22.2 No. 601.1-M90, EN 60601-1-1. **EMC:** EN 60601-1-2.

### Medical CE-mark:

The CE-mark indicates that Interacoustics A/S meets the requirements of the Annex II of the Medical Device Directive 93/42/EEC. Approval of the quality system is made by TÜV – identification no. 0123.

### Computer Communication:

Built-in USB1.1 computer interface.  
Optical isolation available.

### PC Minimum Requirements:

Processor/clock speed: 800 MHz Pentium 3 or better. System RAM: Minimum 128 MB  
Screen Resolution: Minimum 800 x 600  
Harddisk space: Minimum 500 MB free disk space. Operating System: Windows 98 SE/2000/ XP/ME.

**Construction:** Painted metal cabinet bottom and moulded plastic top.

**Weight:** 5.5 kg / 12.1 lbs.

**Dimensions:** (LxWxH): 42x38x15 cm/  
16.5x15x5.5 inches.



## Technical Specifications - Affinity HIT440 Module

**Hearing Aid Analyzer:** EN 60118-0, EN 60118-7, ANSI S3.22.

**Frequency Range:** 100-10000Hz.

### Frequency Resolution:

1/3, 1/6, 1/12 and 1/24 octave or 1024 point FFT.

**Frequency Accuracy:**  $\pm 1\%$ .

**Stimulus Signal:** Warble Tone, Pure Tone, Random noise, Pseudo random noise, Band limited white noise, Chirp, ICRA, Real Speech, any other sound file (automatic calibration available).

**Sweep Speed:** 1.5 - 12 sec.

**Stimulation Intensity Range:** 40-100 dB SPL in 1 dB steps.

**Intensity Accuracy:**  $\pm 1.5$  dB

**Stimulus Distortion:** Less than 1 % THD.

**Coupler Microphone Ranges:** 40-145dB.

**FF Loudspeaker Output:** Max 6 W into 8ohms, max 10 W into 4 ohms.

**Telecoil drive in Test box:** 10 – 100 mA/ meter.

**Battery Simulator:** Standard types are selectable, Custom types within 1.1 – 1.6 V, 0 – 25 Ohm range.

### Test box:

Built in test box holds telecoil drive as well as special dual speaker set for checking directional microphone function.

**Noah:** 3.0.

### PreProgrammed Protocols:

HIT module comes with a set of Test Protocols loaded. Additional Test Protocols can be designed by user, or easily imported into the system.

### Available test box tests:

**IEC118, ANSI 3.22, Custom:**  
OSPL90

Full On Gain  
Input/Output  
Attack/Recovery Time  
Reference Test Gain  
Frequency Response  
Equivalent Input Noise  
Harmonic Distortion  
Intermodulation Distortion  
Battery Current Drain/Battery Life Time  
Microphone Directionality  
Coil Frequency Response  
Coil Harmonic Distortion  
Coil Full-On Gain Response

## Included Parts:

Affinity HIT440 CD  
2CC coupler with microphone and adaptors for ITE, BTE and Body Style HA  
Coupler seal wax  
Reference Microphone  
Standard USB Cable  
Power Cable 120 or 230V  
Operation and Multilingual CE Manual

## Optional Parts:

Battery Adapters BAA675, BAA13, BAA312, BAA10, BAA5  
Couplers 1.2CC and 0.6CC: ITE, BTE, Body  
Ear Simulator  
TBS25M External Test Chamber incl. cables.  
ACC60 Affinity carrying Case  
Calibration Adaptor



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