

## DP: Distortion-Product Otoacoustic Emissions

Non-invasively and objectively measure inner-ear function

Safe and effective for newborns to adults

Takes just seconds

Get started quickly with the factory preset protocols or design your own

For use in hospitals, clinics, private practice, and research institutions

Instrumentation employs

- tone pairs adjusted in the ear canal
- advanced signal processing for noise reduction and artifact rejection
- reliable retesting at single test points



Add MEPA3 reflectance for a complete middle- and inner-ear diagnostic system

# HearID 5.0 Technical Specifications – DP Module Distortion-Product Otoacoustic Emissions System

## HearID + DP Specifications

To run HearID + DP, you need a HearID software and hardware system with the DP Module.

### Adjustable Parameters:

- Frequency range 500-16,000 Hz.
- Number of test points per octave: 1-50.
- Intensity: f1 and f2 levels from 0 to 70 dB SPL.
- Minimum number of valid test points to pass.
- Minimum DPOAE level to pass.
- Ratio: f2/f1 from 1.1 to 1.8.
- Minimum DPOAE to noise level to pass.
- Averaging time: 0.25 to 20 seconds.
- DP Definition Points: f2-f1; 2f2-f1; 2f1-f2; 3f1-2f2; 3f2-2f1; 4f1-3f2; 4f2-3f1.

### Artifact Rejection Criteria:

- Noise level for rejection; noise level above calibrated noise floor for rejection.

### Stopping Rules Criteria:

- Noise level for accepting DPOAE measurement.
- Acceptable DPOAE to noise ratio.
- Maximum signal duration for a frequency point.

### Special Features:

- Customizable measurement protocols.
- Retest a single test point.
- Overlay up to 10 measurements at once.
- Normative data.
- Boystown reporting format option.
- Export to Excel, Hi\*Track or OZ.
- In-the-ear calibration

## Environmental Requirements

For valid measurements:

- The air temperature must be within +59°F to +95°F (+15°C to +35°C).
- Relative air humidity between 30-90%.
- Ambient noise should be minimal; however, a sound-treated booth or room is not necessary.

## Regulatory

HearID DP is a legally marketed device (FDA 510(k)) and is CE marked.

For Software Version: 5.0  
HearID+DP Brochure Version: 2.2  
Date: February 8, 2012

*Subject to change without notice*

## HearID + DP Hardware

- 24-bit proprietary USB Audio Processing Unit.
- ER10C sound probe from Etymotic Research.
- Disposable foam and rubber eartips for comfortable, stable, probe insertion. 7 sizes available, suitable for infants to adults.
- Cutoff 2cc syringe, for use as a test cavity.
- Laptop computer not included but needs to meet the minimum requirements below.

## Computer System Minimum Requirements

- IBM™ compatible laptop with a Pentium™ class processor at least 1.80 GHz.
- Windows XP™ (SP3, 32 bit), Windows Vista™ (32 & 64 bit), or Windows 7™ (32 & 64 bit) operating system.
- For XP systems: at least 512 MB RAM and at least 20 GB hard drive.
- For Vista systems: at least 1 GB RAM and at least 50 GB hard drive.
- For Windows 7 systems: at least 2 GB RAM and at least 80 GB hard drive.
- CD-ROM drive.
- One available USB 2.0 port.
- Recent version of Adobe Reader (for displaying the electronic manuals).
- EN60950 (IEC950) compliant power supply.

## Order Information

Product Identifier: HearID+DP

## Contact Mimosa Acoustics

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