

# Excellence in audiometry

# The Madsen Astera<sup>2</sup>

Intuitive.  
Professional.  
Future-proof.

The goal for Madsen® Astera<sup>2</sup> is to improve functionality in the assessment of hearing losses of all types and introduce groundbreaking new assessment tools to strengthen your professional performance as a hearing healthcare provider. The result is a refined and flexible two channel PC based clinical audiometer. An intuitive touch screen interface enhances this concept still further. The **Pediatric** and **Special Tests** options bring advanced audiology into the clinic to expand your assessment possibilities. **FRESH noise** allows for clinicians to utilize a narrow band noise as a stimulus, yet maintain frequency precision. In addition, a unique and innovative **Tinnitus** assessment module sets the standard for clinical tinnitus testing.

See the video about Madsen Astera<sup>2</sup> at  
[hearing-balance.natus.com/astera2](http://hearing-balance.natus.com/astera2)



# DSEN Astera<sup>2</sup>

meter Control Panel

**MONITOR**

CH1

CH2

Talk Back

Monitor Speaker

Assistant

**ON/OFF**

**User Test**

**dB STEP**

Pulsed

Store

+ ? -

**STIMULUS**

Tone

Warble

FRESH Noise

Mic

Source A

Source B

**TRANSDUCER**

Insert

Phone

High Freq

Bone

Speaker

**MASKING**

NBN

SWN

WN

**ROUTING**

Left

Right

Binaural

**TRANSDUCER**

Insert

Phone

High Freq

Bone

Speaker

**ROUTING**

Left

Right

Binaural



Continuous On

Stim Lock

VRA

Tracking

VRA

Talk Forward

Frequency

Frequency





Dedicated test  
modules for  
excellent  
performance.

#### **Tinnitus assessment**

Madsen® Astera<sup>2</sup> offers a dedicated application with numerous questionnaires useful when assessing tinnitus (THI, THS and TFI). These questionnaires are fully integrated offering the advantage of storing, reviewing and sharing data during both the assessment and management of the tinnitus patient. This dedicated application also lets you perform the most relevant psychoacoustical tests like pitch and loudness matching, minimum masking level (MML), and residual inhibition (RI). As an easy tool for the professional, the tinnitus application has been designed to offer the operator a perfect overview of the tinnitus characteristics as well as integration to Otosuite®.

#### **Pediatric assessment**

The pediatric test modality offers an intuitive design and a large, easy-to-use interface, especially when coupled with a touch screen for in the booth control of your audiometer. The test module is also supported by pediatric features like integrated pediatric speech lists, FRESH noise stimulation, built-in talk to assistant and much more.



# The mission of excellent audiometry

*"Laura was two and a half years old when we discovered a severe hearing loss. She was isolated and had no language. We were quite worried. A comprehensive test showed that she could not hear. We were impressed with how the audiologist worked with Laura. It was amazing to experience how the tests were like playing and the equipment became invisible. The audiology sessions and a set of pink hearing aids changed Laura's life."*

## Special tests

Madsen Astera<sup>2</sup> offers a large range of dedicated tests such as the TEN test and SAL test. The TEN test lets you easily mask the frequencies next to the test frequency in the test ear. That way you can avoid off-frequency-listening and get a proper estimate of the hearing threshold. You may also get indications of whether it is worthwhile to provide amplification in that frequency region. The SAL test is based on an indirect method of estimating hearing thresholds for bone conduction. Hearing thresholds for air conduction are determined first *without* and then *with* a simultaneous masking noise, presented by a bone vibrator placed in the center of the forehead. The better the sensorineural acuity the larger the masking effect of the bone-conducted noise in that ear. Madsen Astera<sup>2</sup> also includes the SISI, ABLB, DLI, Bekesy and loudness scaling tests.



**For more information about the test modules go  
to [hearing-balance.natus.com/astera2](https://hearing-balance.natus.com/astera2)**

# Flexible and future-proof.

## A wise choice for the future.

Madsen® Astera<sup>2</sup> is designed to meet your changing clinical needs. It is so flexible that it can be operated via the optional control panel, a mouse and/or keyboard connected to a PC, or directly on a touch screen depending on your needs and clinical set-up. It enables you to quickly perform routine tasks yet provides test modules for more advanced assessment when needed.

Madsen Astera<sup>2</sup> is PC-based, so it gives you access to new software updates on a frequent basis meaning that your audiometer remains current, preserving your investment. You are able to expand with new test modules when needed and save your preferred settings. And you also get new features for existing test modalities. In conjunction with the Otosuite® software, Madsen Astera<sup>2</sup> will set your clinic apart from the rest.



### Small footprint, huge power

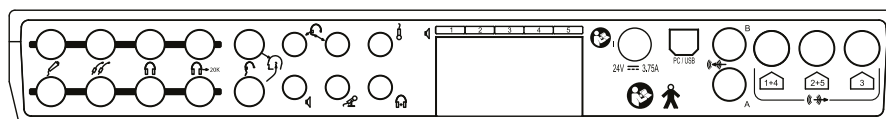
- 1.3 kg (2.85 lb)
- 5 Free Field outputs
- Mini XLR connectors
- 120 dB HL output
- 5 x 40 W built-in amplifier

### True counseling tools

- Customizable severity scale
- Historical audiogram comparison
- Hearing loss and hearing aid simulators based on the NAL calculation method

### More signals

- Exclusive FRESH noise (pediatric)
- Frequency Specific Warble
- White Noise
- Speech Weighted Noise
- Narrow Band Noise
- Pure Tone & Warble





# Otosuite®

## Achieve more with an integrated clinic.

Madsen® Astera<sup>2</sup> is far more than an audiometer. It's designed to be the core of a unique, integrated and modular clinical set-up with other Natus, formerly Otometrics test modules like OAE, immittance, video otoscopy and PMM. Each instrument offers unique benefits as a stand-alone solution. But it's when you choose to integrate multiple Natus instruments that the benefits really begin to multiply. Otosuite® software connects it all allowing you to transition seamlessly from one test module to another.

### Improving workflow

Otosuite software is intuitive, easy to learn and easy to use. It supports the client journey as you see it, from diagnostics and counseling, to fitting and verification. Simple-to-use user test functionality ensures configurable, consistent and smooth workflows. It can be customized to suit individual needs or you can standardize protocols across larger organizations. And you

work in a single software environment across modules, allowing you to create combined and professional reports that are unique to your clinic. The result is a better experience – for you and for your client.

### Improving clinical setup

Otosuite software is the backbone of Natus hearing and fitting solutions, tying each piece into one cohesive and interactive system. It's easy to make plans for future development of equipment in your clinic.

Simply add additional equipment or modules when needed to Otosuite and you are connected. The learning curve is short and easy because the module interfaces resemble each other.

Natus provides additional support via a combination of thorough training and online tutorials.





### Future-proof your investment

Natus will continue to improve our products – and our customers will be right there with us. Products you buy today will enjoy feature upgrades when you upload the latest version of Otosuite. Otosuite software is PC-based, working on a well known platform.

This is a totally different strategy from products, where proprietary software and hardware are merged into one stand-alone solution, and the product hardware ages at the same speed as the software. The Otosuite solution keeps your equipment up to date, which keeps your investment future-proof.

### THE FACTS

- Single point of entry to immittance, audiometry, speech mapping, hearing loss and hearing aid simulators, probe mic measurements (PMM/REM), otoscopy and OAE
- Direct access to measurement data, counseling tools and all compatible products
- More effective workflow, even through Noah
- Short learning curve saves you time and energy
- Combined and customized reporting with Otosuite® Reports
- Ability to include data from non-Natus instruments in your report through Noah

# Many options. One strategy.

Because hearing assessment and fitting solutions from Natus are modular, you can design your clinic exactly the way you need. Otosuite® binds individual modules together in a complete workflow, and with a few clicks you can move from one testing modules to the next. Rather than forcing workflows to adhere to equipment limitations, Natus and Otosuite offer design flexibility to conform to your ideal workflow.



**Clinical setup with operator room and sound booth.** All instrumentation (audiometer, tympanometer, OAE, PMM) can be controlled in the traditional manner from the operator side. The addition of a wall-mounted touch screen, located in the sound booth, allows for a great deal of flexibility. Choose to operate the equipment or simply engage and counsel the patient via the touch screen. In addition to the computer screen located on the operator side, results can be shown on the wall-mounted touch screen inside the sound booth.



**Fitting setup with surround sound.** Conduct audiometry, PMM and patient counseling from your desk displaying results on a flat panel monitor located over your shoulder. Our installation teams will mount the audiometer, PMM, television and even a five-speaker surround-sound system to your satisfaction. The result is a clean, modern approach that reflects your ideal workflow.



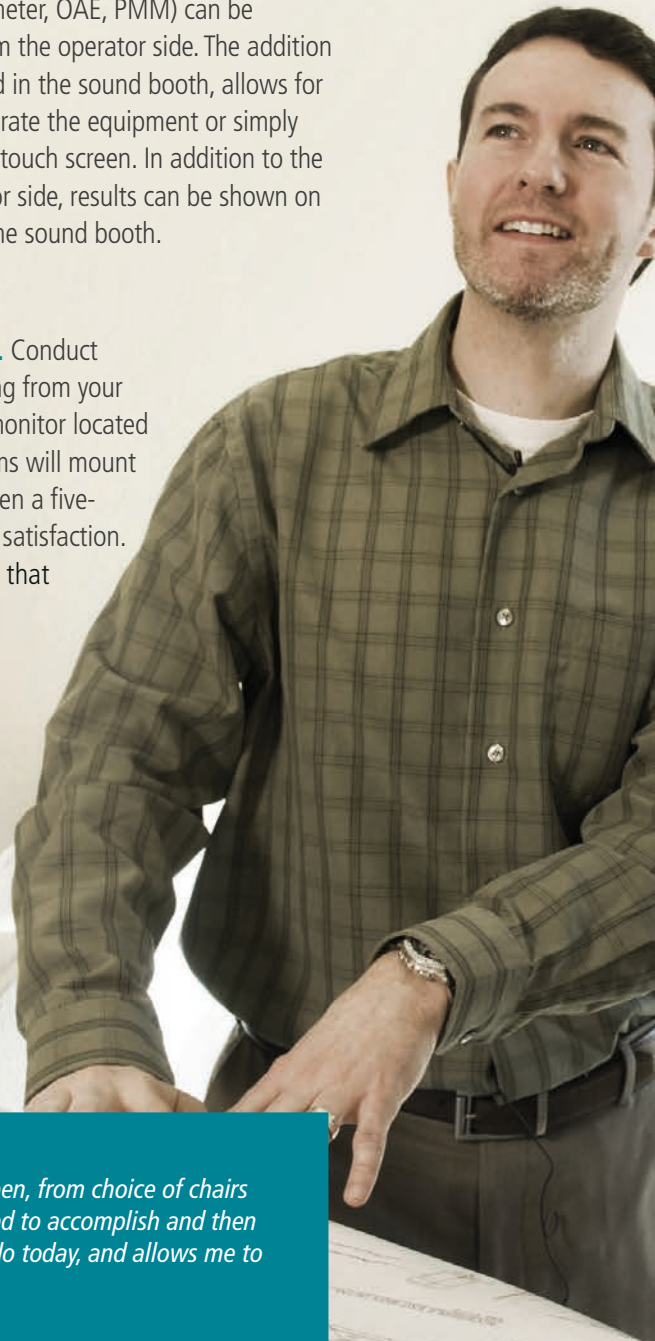
**Pediatric assessment setup with operator room and sound booth.** The Madsen® Astera<sup>2</sup> audiometer with optional in-room control panel options makes play-based audiometry better than ever. The Natus audiology team has even created a special pediatric module within Otosuite to optimize testing.

## Choosing Natus opens up so many possibilities.

*"Starting with an empty room in a new location is a challenge. Everything is open, from choice of chairs and tables to choice of equipment. My Natus sales rep listened to what I wanted to accomplish and then helped me set up my clinic. The result is a layout that supports what I want to do today, and allows me to grow in the future."*

Clint Keifer, Au.D.  
Great Lakes Audiology

See more at [hearing-balance.natus.com/astera2](http://hearing-balance.natus.com/astera2)





# What our users say.

## **No doubt! PC-based audiometry is the future.**

*"Simply because it's easier to use and faster. I think it's the reason why many have moved from liking the oldest training audiometer to the newest. Before it was a lot of switching out CDs and recalibrating each disk before you could do the actual testing. Now we can give directions and instantly the test is ready and you can score directly on the computer."*



**Sarah Tracy**  
3<sup>rd</sup> year audiology student,  
Central Michigan University

## **A better workflow for the audiologist and the patient.**

*"The newest and greatest thing is the PC-based audiometer. My experiences from 5-10 years ago were not so great, but the Astera is very easy and can make the appointment flow much easier for both you and for the patient. It takes some of the stress out of moving from one task to the next."*



**Nicole Hacker, Au.D.**  
Director of Clinical Services and  
Instructions, Central Michigan University

## **Counseling is half the job. An intuitive screen is a great help.**

*"It's so nice to have the screen and be able to educate the patient that way and compare the audiograms. It has changed the way we counsel, and is a great help in making elderly people understand what happens with their hearing over time. I can simply show it to them on a big screen on the wall."*



**Randa Mansour-Shousher, Au.D.**  
Northwest Ohio Hearing Clinic

### **About Natus**

A leader in hearing and balance products and solutions, Otometrics was acquired in 2017, and is now known as Natus. For almost 60 years, we have been helping clinicians improve the quality of life for their clients and patients by delivering expert knowledge, reliable solutions and services and trusted partnerships.

We continue to develop, manufacture and market audiological, otoneurologic and vestibular instrumentation in more than 80 countries under trusted brand names, including Madsen®, Aurical®, ICS®, Otoscan® and Bio-logic®.

Natus Medical Incorporated is the global brand clinicians depend on when diagnosing and treating disorders of the central nervous and sensory systems to improve patient outcomes. For more information, please visit [natus.com](https://natus.com).

**Healthcare solutions with one thing in mind. You.**

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