



**GSI CORTI™**

OTOACOUSTIC EMISSIONS



Setting The Clinical Standard



**gsi**  
Grason-Stadler



# GSI CORTI™

## OTOACOUSTIC EMISSIONS

**organ of Cor-ti (kôrtē) n.** A specialized structure located on the inner surface of the basilar membrane of the cochlea containing hair cells that transmit sound vibrations to the nerve fibers.

### Solution For Any Environment

The GSI Corti™ is a portable, battery-operated diagnostic and screening instrument that measures Otoacoustic Emissions (OAE) in infants, children, and adults. The Corti offers the ability to rapidly screen newborns, meeting recommended screening protocols, and provides diagnostic OAE testing.



The Corti offers maximum speed and flexibility with pre-defined and user-defined screening and diagnostic protocols for Distortion Product Otoacoustic Emissions (DPOAEs) or Transient Evoked Otoacoustic Emissions (TEOAEs) measurements. The Corti is accurate, fast, easy-to-use, and reliable.



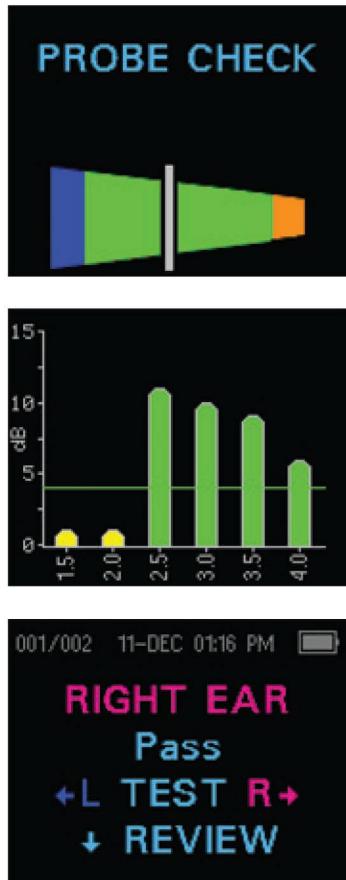
### Powerful Features

- Multiple Diagnostic and Screening Configurations
- Sharp, intuitive color screen display
- Reliable 15 hour battery life
- Powerful DPOAE testing with 12 frequencies, up to 12 kHz
- Full color reporting and optional, fast thermal printouts
- OAE Probe that never requires cleaning
- Charging, automatic printing, and data transfer via the optional Cradle
- Convenient testing for patients with PE tubes
- Optional data storage of up to 250 tests
- Protected data via non-volatile memory
- Low cost, disposable ear tips
- Export options for Pass/Refer results to OZ eSP™ and HiTrack™
- Meets screening and diagnostic CPT code reimbursement requirements
- Multiple, easily selected language options
- Handy 12-month Corti calibration reminder
- Optional on screen display of DPOAE normative data

**Setting The Clinical Standard**

## Start Now. Start Smart.

The Corti offers six configurations of DPOAE and TEOAE that address virtually all clinical environments. The Screening Corti provides DP and TE screening protocols that meet OAE requirements from infants to adults. Conveniently, the screening Corti unit can also be upgraded to diagnostic capabilities. The Diagnostic DPOAE Corti provides the ability to conduct diagnostic testing with four configurable protocols, testing up to 12 frequencies from 1.5 to 12 kHz. On screen normative DPOAE data assists in test interpretation. The Diagnostic TEOAE Corti provides two configurable protocols from 0.7 to 4 kHz, and screening protocols. Start smart and grow with the Corti.



## Optional Accessories

Enhance your Corti system with optional Corti accessories.

### Corti Cradle

The Corti cradle provides the convenience of charging the Corti unit while ensuring the Corti is stored in a safe place. While in the cradle, automatic printing of stored test results or communication between the Corti and Data Manager is possible.

### Low Cost Ear Tips

Fit all sizes of ears, from infant to geriatric, with the Corti low cost, single-use ear tips. Ear tip sizes range from 3 mm to 15 mm.

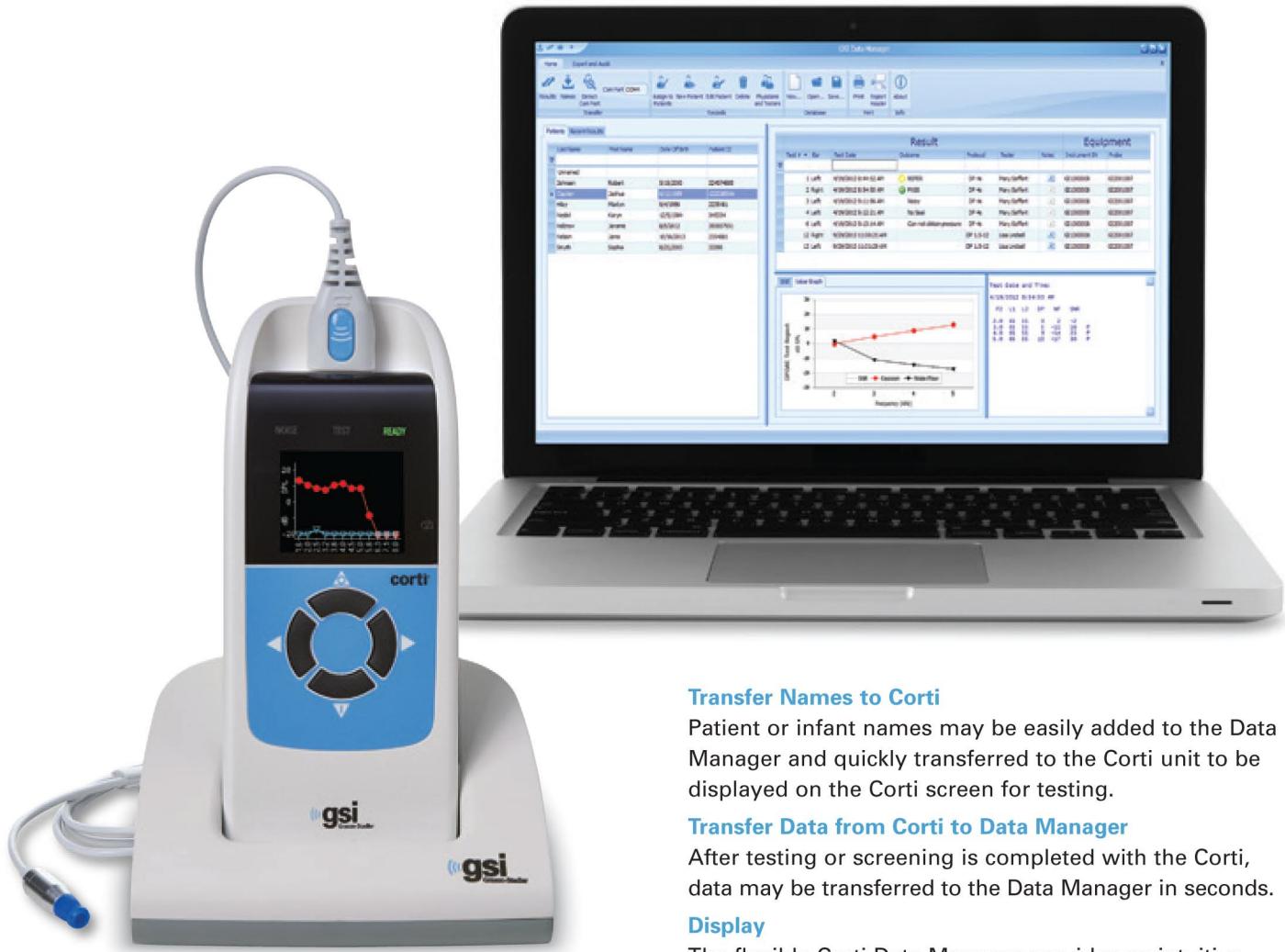
### Wireless Printer

The thermal printer provides graphic and tabular reports in seconds with a single button press, without having to manage confusing and unsightly cables.

### Carry Case

A convenient soft-sided carry case will transport and protect all of the Corti accessories and options in a comfortable over-the-shoulder bag. An ideal option for Corti units that travel from clinic to clinic.





## Corti Data Manager

The Corti Data Manager is a simple yet powerful application to manage the Corti results.

- Data transfer is conducted in seconds
- Patient names may be transferred and viewed on the Corti
- Comprehensive, intuitive, EMR-friendly reports are instantly available
- Results can be sorted by ear, testers, dates, and outcome
- Patient data may be viewed and archived
- Data may be exported to OZ eSP™ and HiTrack™
- DPOAE normative data can assist in test interpretation and reporting

### Transfer Names to Corti

Patient or infant names may be easily added to the Data Manager and quickly transferred to the Corti unit to be displayed on the Corti screen for testing.

### Transfer Data from Corti to Data Manager

After testing or screening is completed with the Corti, data may be transferred to the Data Manager in seconds.

### Display

The flexible Corti Data Manager provides an intuitive display of the patient records and pertinent result details.

### Export

Data may be exported to OZ eSP™ and HiTrack™. Reports may be exported into multiple formats including PDF, RTF, and image files such as BMP, GIF, JPEG, PNG, TIFF, EMF and WMF.

### Reporting

Full color reports with graphic and tabular data, patient history, result notes and test information are available with the click of a mouse.

### Import

New patient information such as last name, first name and ID can be imported into the data manager from a spreadsheet.

### Auto Print Option

When connected to the PC, the Corti will be detected and test results automatically printed to any designated printer.

## Simple

From turning on the system to completing results in both ears – all is accomplished with 3 button presses. The four-button design ensures logical screening and diagnostic testing that may be performed with minimal training. The color display provides intuitive data interpretation. Friendly screen prompts guide the operator through functions such as selecting a protocol or transferring results to the Data Manager.

## Accurate

Noisy testing environments are an ongoing challenge for screening and clinical facilities. The patented Noise Artifact Rejection Algorithm smartly assesses the response in variable background noise, improving test result accuracy and saving valuable test time in noisy environments. The AutoStart check and in-the-ear calibration ensures testing is started in acceptable conditions, thus improving test accuracy.

## Flexible

The Corti provides pre-defined and user-defined protocols to address multiple environments. Patients with PE tubes may be tested. Additionally, the Corti is capable of storing 250 test results before printing or data transfer. OAE protocols meet U.S. CPT code reimbursement criteria.



## Fast

When the probe is placed securely in the ear, one button press will initiate the probe check, the in-the-ear calibration, then automatically begin the OAE evaluation. Testing is completed in seconds. The unique design of the probe and the disposable tubes minimize the negative effects of debris in the ear canal. There are no extra steps to clean the probe, saving valuable time.

## Reliable

The 15 hour battery life with 4 hours of charge time maximizes test time of the Corti in all situations. The Corti is designed for durability, required with portable systems used in demanding clinical and screening environments. Non-volatile memory ensures data is held in the Corti memory for printing and data transfer, even if the battery life is depleted.

## Screening Configurations

### DPOAE Screening

#### Measurement Type

**Frequency:** 2,3,4,5 KHz

**Protocol:** 2 Fixed Protocol

**Stimulus Intensity:** 65/55 dB

**Averaging Time:** 2 and 4 Seconds

**Test per Ear:** 8 – 16 seconds

**SNR:** 6 dB

**Pass Criteria:** 3 frequencies at 6 dB SNR

**Results:** PASS or REFER

**Pass Protocol:** 3 out of 4 Frequencies

**Maximum Output Protection:** 90 dB

**Frequency ratio: (f2/f1):** 1.22-1.24

#### Handheld Unit

**Display:** Color OLED

**User Input:** 4-easy buttons/operation

**Connectors:** \*Micro-usb for charging and communication to PC

\*HDMI for probe

**Weight:** 6.4 oz (180gm)

**Languages:** English, German, Spanish, French, Polish,

Russian, Italian, Turkish, Portuguese, Chinese

**Maintenance:** 12 months auto calibration reminder

**Accuracy:** 99.7% (AutoStart Check Calibration for better accuracy)

**Display:** OLED

#### Probe

**Connector:** HDMI

**Probe Description:** Integrated microphone and receiver in probe head

Calibration data stored on probe

**Cable length:** 40 in. (101.6 cm)

**Weight:** 1.0 oz (28gm)

**Microphone Noise:** -20 dB SPL @2kHz (1 Hz Bandwidth)

-13 dB SPL @1kHz (1 Hz Bandwidth)

**Ear Tips:** Single use disposable ear tips

**Maintenance:** OAE probe no need for cleaning (replace tube and ear tips only)

#### Data

**Test memory:** 250 Test

**Patient Names:** Patient names on unit (optional)

**Database software:** Report output to PDF, RTF, Image files

#### Printer (optional)

**Type:** Thermal Dot Matrix

**Connectivity:** Bluetooth technology

**Charger:** Battery with output of 7.4 Lithium Ion and input of 100-240V AC, 50/60 Hz

**Speed:** 50 to 80 mm/second

**Operating Noise:** Less than 50 dB SPL

**Charging Time:** 2 hours (standalone charger)

**Paper Width:** 2.25 Inches (57 mm)

**Communication:** Wireless

**Printer weight:** 190 gm

#### Power

**Battery (Unit):** 3.6 V Rechargeable lithium ion

**Battery Life:** 20 Hours on time

**Test per Battery life:** More than 1000 Test

**Charging Time:** 4 hours to 100% (standalone charger)

**Charger:** 5V DC 1.6A output voltage and 100-240 V AC input voltage

#### Cradle (Optional)

**Operation:** Provides PC Database communication and charging

#### Accessories:

**Standard:** Handheld unit, Probe, Micro USB Charging cable for charger, Database software and micro USB connector, Disposable Ear Tips kit and Tubes, User Manual, Quick Guide, Calibration Certificate

**Optional:** Cradle, Printer, Carry Case, Ear Tips, Replacement Cables, Replacement Probe and Probe Tubes

**Ear Tips size range:** 3 mm (infant) to 15 mm (adult)

#### General Standards

**IEC/EN 60601-1** Medical Electrical Equipment – Part 1: General Requirements for Basic safety and essential performance – 3<sup>rd</sup> Edition

**IEC/EN 60601-1-2** Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral Standard:

**UL 60601-1** Medical electrical Equipment, Part 1: General Requirements for safety

**CSA C222.2 # 601-1 M90** Medical Electrical Equipment, Part 1: General Requirement for Safety

**IEC 60645-6** Electroacoustics – Audiometric Equipment- Part 6: Instruments for the measurement of otoacoustics emissions

#### Distributed by:



**Manila Office:**  
4th floor Manila Astral Tower Bldg.  
Taft Avenue cor. Padre Faura St.,  
Ermita, Manila, Philippines 1000  
Telefax No.: +63 2 742 9597  
Phone No.: +63 2 666 0280  
Email: info@altamedica.com.ph

**Iloilo Office:**  
2nd floor Masonic Temple  
JM Basa St., Iloilo City  
Philippines 5000  
Telefax No.: +63 33 508 0208  
Phone No.: +63 33 333 1769  
Mobile No.: +63 922 872 5268

Service Center:

EDI - Cebu Office

Unit 703 Golden Peak Tower, Gorordo Corner

Escarlo St. Cebu City

Tel. No. 032-2334388