GSI CORTI™

OTOACOUSTIC EMISSIONS

NOISE   TEST   READY

corti™

Setting The Clinical Standard

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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 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

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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 are designed to 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.

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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 k Hz, in addition to providing screening protocols. The Diagnostic TEOAE Corti provides two configurable protocols from 0.7 to 4 kHz, and screening protocols. Start smart and grow with the Corti.
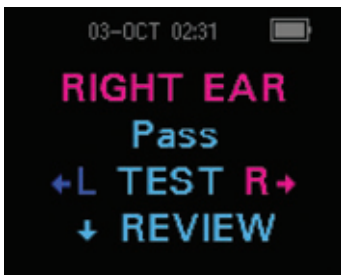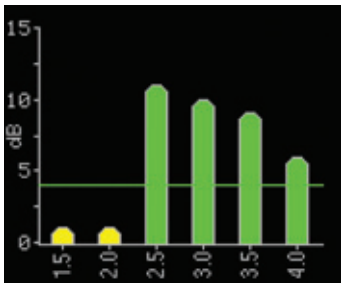
Optional Accessories

Enhance your Corti system with optional Corti accessories.

Corti Cradle
The Corti cradle provides you with the convenience of keeping the Corti unit charged while the Corti is stored in a safe place. Additionally while the Corti is in the cradle, communications can be conducted between the Corti and the Data Manager.

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 Bluetooth 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.
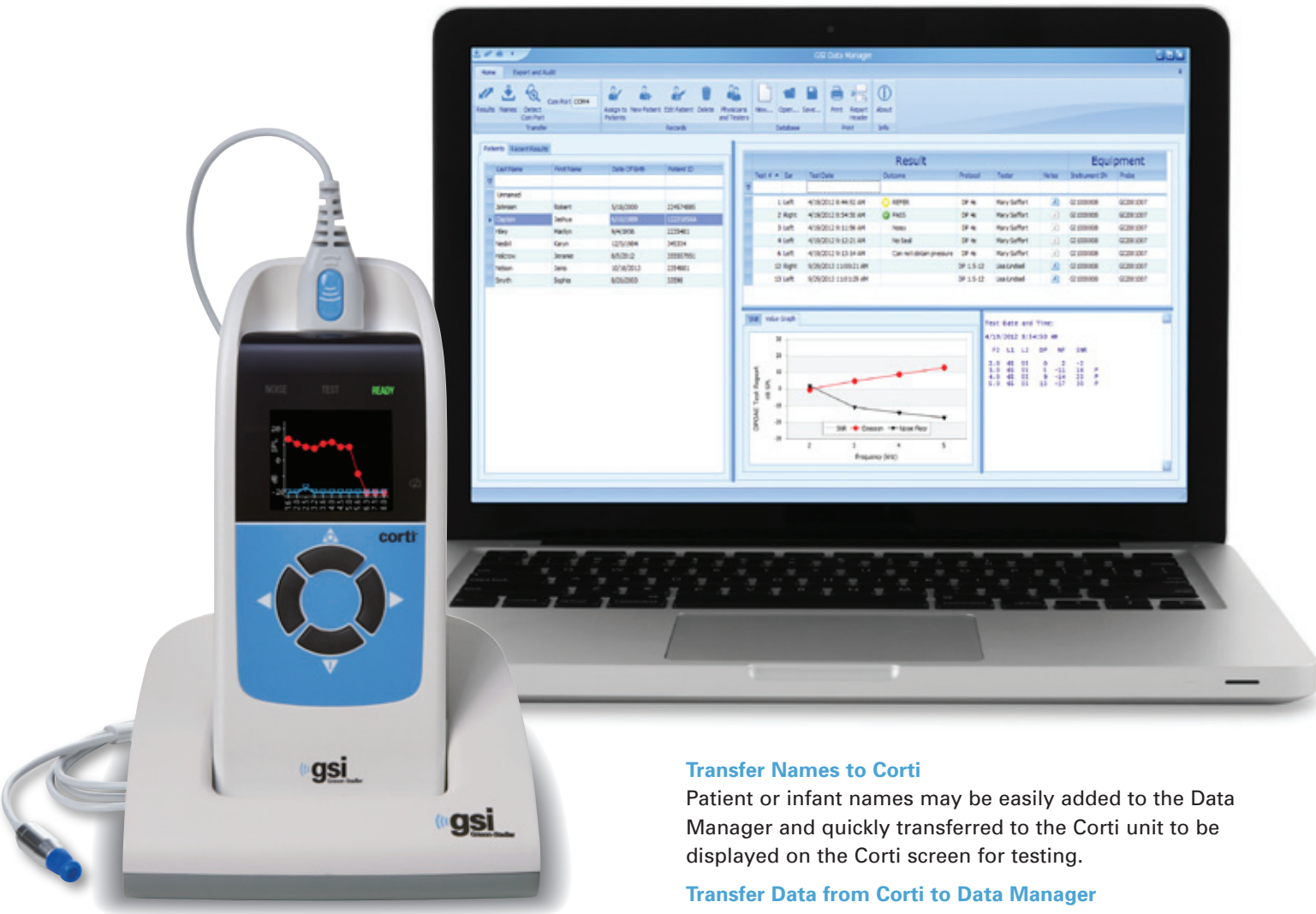
Corti Data Manager

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™

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.

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Diagnostic and Screening Configurations

	DPOAE	TEOAE	Combo DPOAE + TEOAE	
Screening Units	**Screening DPOAE** 2 Fixed protocols Frequencies: 2,3,4,5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**Screening TEOAE** 2 Fixed Protocols Frequencies: 1.5-4 kHz Intensity: 83 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies	**Screening DPOAE** 2 Fixed protocols Frequencies: 2,3,4,5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**Screening TEOAE** 2 Fixed Protocols Frequencies: 1.5-4 kHz Intensity: 83 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies
Diagnostic Units	**Diagnostic DPOAE** 4 Configurable Protocols Frequencies: 1.5-12 kHz Intensities: 40-70 dB SPL SNR: 3-10 dB Averaging Time: 0.5,1,2,4 sec Frequencies for Pass: 0-6	**Diagnostic TEOAE** 2 Configurable Protocols Frequencies: 0.7-4 kHz Intensity: 83 dB pe SPL SNR: 3-10 dB Averaging Time: 8, 16, 32, 64 sec Frequencies for Pass: 0-6	**Diagnostic DPOAE** 4 Configurable Protocols Frequencies: 1.5-12 kHz Intensities: 40-70 dB SPL SNR: 3-10 dB Averaging Time: 0.5,1,2,4 sec Frequencies for Pass: 0-6	**Diagnostic TEOAE** 2 Configurable Protocols Frequencies: 0.7-4 kHz Intensity: 83 dB pe SPL SNR: 3-10 dB Averaging Time: 8, 16, 32, 64 sec Frequencies for Pass: 0-6
	Screening DPOAE 1 Fixed protocol Frequencies: 2,3,4,5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**Screening TEOAE** 1 Fixed Protocol Frequencies: 1.5-4 kHz Intensity: 83 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies	**Screening DPOAE** 1 Fixed protocol Frequencies: 2,3,4,5 kHz Intensity: 65/55 dB SNR: 6 dB Pass: 3 out of 4 frequencies	**Screening TEOAE** 1 Fixed Protocol Frequencies: 1.5-4 kHz Intensity: 83 dB pe SPL SNR: 4 dB Pass: 3 out of 6 frequencies

Product Specifications

Measurement Types
Screening and Diagnostic Testing
DPOAE: 1.5 to 12 kHz, 40 to 70 dB SPL
TEOAE: 0.7 to 4 kHz, 83 dB pe SPL

Handheld Unit
Display: Color OLED display
User Input: 4-button operation
Connecters:
- Micro-USB for charging and communication
- HDMI for probe

Weight: 6.4 oz. (180 gm)
Communication to PC: Micro-USB
Languages: English, German, Spanish, French, Polish, Russian, Italian, Turkish, Portuguese, Chinese
Power Supply: 5.0V DC, 1.6A

Probe
Connector: HDMI
Probe description:
- Integrated microphone and receivers in probe head
- Calibration data stored on probe

Cable length: 40 in. (101.6 cm)
Weight: 1.0 oz. (28 gm)
Microphone Noise: -20 dB SPL @ 2 kHz (1 Hz bandwidth), -13 dB SPL @ 1 kHz (1 Hz bandwidth)
Ear tips: Single use disposable ear tips

Cradle (Optional)
Operation: Provides PC Database communication and charging

Data
Test memory: 250 tests on unit
Patient names: Patient names on unit (optional)
Database software: Report output to PDF, RTF, Image files

Printer (Optional)
Type: Thermal Dot Matrix
Power: 7.4 V lithium ion battery 100-240V, 50/60 Hz
Paper width: 2.25 in. (57 mm)
Communication: Bluetooth

Power
Battery: 3.6 V rechargeable lithium ion
Battery Life: 15 hours on time
Charge Time: 4 hours to 100%

Accessories
Standard: Hand-held unit, Probe, Micro USB charging cable for charger, Database software and micro USB connector, Disposable ear tip kit and tubes, User Manual, Quick Guide, Calibration Certificate
Optional: Cradle, Printer, Carry Case, Ear Tips, Replacement Cables, Replacement Probe, and Probe Tubes

General Standards
IEC/EN 60601-1 Medical electrical equipment – Part 1: General requirements for basic safety and essential performance - 3rd Edition
IEC/EN 60601-1-2 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility
UL 60601-1 Medical Electrical Equipment, Part 1: General Requirements for Safety
CSA C22.2 # 601-1-M90 Medical Electrical Equipment, Part 1: General Requirements for Safety
IEC 60645-6 Electroacoustics - Audiometric equipment - Part 6: Instruments for the measurement of otoacoustic emissions

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