**GSI Audera AEP/CAEP**

**Auditory Evoked Potentials**

**Product Specifications**

**General Specifications**
- Test Types: AEP, ECochG, Cortical AEP, AMLR, EABR
- Transducers: Insert earphones, TDH Headphones, Bone vibrator, Loudspeaker
- Protocols: Default and customer specified
- Marker Sets: Default and customer specified
- Reports: Color, Black/White or PDF

**Stimulus Specifications:**
- Frequency response: 0.2 - 10,000 Hz
- Input impedance: >1000 MW
- Electrode connectors: 5 DIN 42802 safety
- Electrode inputs: Differential
- Electrode connectors: 5 DIN 42802 safety connectors
- Interface To Main Unit: Proprietary high-speed, serial digital
- Number of Channels: 2 isolated (type BF) for patient safety
- Weight: .94 lb
- Dimensions: 3.93”(W) x 7.48”(d) x 1.57”(H)
- Weight: 7.05 lb
- High Pass Filtering: RC or Digital Butterworth
- Low Pass Filtering: Butterworth or Digital linear phase

**GSI Audera Amplifier**
- Dimensions: 3.93”(W) x 7.48”(d) x 1.57”(H)
- Weight: .94 lb
- Interface To Main Unit: Proprietary high-speed, serial digital
- Number of Channels: 2 isolated (type BF) for patient safety
- Electrode inputs: Differential
- Electrode connectors: 5 DIN 42802 safety connectors
- Input Impedance: >1000 MW
- Frequency Response: 0.2-10,000 Hz

**GSI Audera Main Unit**
- Computer Interface: USB - Type I
- Trigger Controls Input/Output: Standard TTL logic level
- Mains Power Supply: 115V, 110V, or 230V; 50-60 Hz
- Power Consumption: 118W, excluding printer

**Isolated Power:**
- Main unit includes isolation transformer/power supply which provides isolated mains power only for supported notebook computer and inkjet printer models.
- Main unit provides isolated power to Amplifier/Digitizer or ProbeUnit.
- Dimensions: 12.99”(W) x 10.62”(D) x 1.67”(H)
- Weight: 7.05 lb
- Storage Temp: -40° F to 158° F
- Operating Temp: 50° F to 104° F
- Relative Humidity: 10 to 100%, non-condensing
- Weight: 7.05 lb
- Storage Temp: -40° F to 158° F
- Operating Temp: 50° F to 104° F
- Relative Humidity: 10 to 100%, non-condensing

**Environmental Limits:**
- Operating Temp: 60° F to 104° F
- Relative Humidity: 30 to 75%, non-condensing
- Storage Temp: -40° F to 158° F
- Relative Humidity: 10 to 100%, non-condensing

**CPU Recommendation**
- Operating System: Windows 7 Professional (32 bit & 64 bit), Windows XP Pro (SP3), Vista Business (SP2)
- Processor: 1.6 GHz
- Minimum RAM: 2 GB
- Storage: 11 GB Hard Drive
- Additional Storage: CD RW drive
- USB Ports: 2
- Graphics: 1024 x 768 pixels (1280 x 1024 for China, Japan, Korea)

**GSI Audera Loop-back cable**
- Connections: 5 DIN 42802 safety connectors
- Input Impedance: >1000 MW
- Frequency Response: 0.2-10,000 Hz

**Supplied Accessories**
- GSI Audera Main Unit
- GSI Audera Reference Manual
- GSI Audera 2-Channel Amplifier with 9’ cable
- GSI Audera AEP/CAEP Software Application or licensing key to activate
- GSI Audera AEP/CAEP User’s Manual
- Insert Earphones with 9’ cable
- GSI Audera AEP Loop-back cable
- Electrodes, 6mm cup, 12 pk
- Electrodes, 10mm cup, 12 pk
- Electrode Linker
- Disposable side snap electrodes, 25 pk
- Electrode Leads, Snap, 5 pk
- NuPrep Gel, 4 oz. tube
- Ten 20 Paste, 4 oz. tube
- Infant eartips, 3.5mm, 20 pk
- Infant eartips, 4.0mm, 20pk
- 3A foam eartips, 10mm, 100pk
- 3A foam eartips, 13mm, 100pk

**Optional Accessories**
- GSI Audera Service Manual
- GSI Audera Laptop Computer
- GSI Audera Desktop Computer
- GSI Audera Amplifier Kit (cables to power through base unit)
- GSI Audera Isolation Transformer (for customer desktop systems)
- GSI Audera EABr cable

**Related Part Numbers**
- GSI Audera AEP/ASSR System ........ 2001-9700
- GSI Audera AEP/DPOAE System . . . . 2001-9705
- GSI Audera ASSR/DPOAE System .... 2001-9710
- GSI Audera AEP/ASSR/DPOAE System . . . . . 2001-9715
- GSI Audera AEP only System ......... 2001-9720
- GSI Audera ASSR only System ........ 2001-9725
- GSI Audera DPOAE only System ....... 2001-9730
- GSI Audera ASSR Upgrade with Amplifier .................. 2001-9661
- GSI Audera ASSR Upgrade without Amplifier ................. 2001-9662
- GSI Audera AEP Upgrade with Amplifier .................... 2001-9663
- GSI Audera AEP Upgrade without Amplifier .................. 2001-9664
- GSI Audera DPOAE Upgrade ........... 2001-9665

**Quality System**
- Manufactured, designed, developed and marketed under ISO 13485 certified quality system.

**Compliance/Regulatory Standards**
- Designed, tested and manufactured to meet the following domestic (USA), Canadian, European and International Standards:
  - UL 60601-1 American Standards for Medical Electrical Equipment
  - IEC 60601-1, EN 60601-1 International Standards for Medical Electrical Equipment
  - CSA C22.2 # 601-1-M90
  - Medical Device Directive (MDD) to comply with “EC Directive” 93/42/EEC

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**Setting The Clinical Standard**

GSI Grason-Stadler, 7625 Golden Triangle Drive, Suite F, Eden Prairie MN 55344
800-700-2282 • 952-278-4402 • fax 952-278-4401 • e-mail info@grason-stadler.com
**GSI AUDERA™ ASSR**

**AUDITORY STEADY STATE RESPONSE**

### Product Specifications

#### General Specifications
- **Transducers**: Insert earphones, TDH Headphones, Bone vibrator, Loudspeaker
- **Protocols**: Default Asleep and Awake protocols or customer specified – Estimated Audiogram relies on default protocols
- **Display**: ASSR Thresholds, Estimated Audiogram, Results Summary, Trials Done
- **Reports**: Color, Black/White or PDF

#### Frequency response: 0.2 – 10,000 Hz

#### Input Impedance: >1000 MW

#### Stimulus Types: AM/FM

#### Stimulus Specifications:
- **Stimulus Types**: AM/FM
- **Masking Types**: Absolute or stimulus relative
- **Intensity**: -10 to 130 dB HL
- **Carrier Frequency**: 250 – 8000 Hz
- **Modulation Frequency**: 20 – 200 Hz depending on carrier frequency
- **AM Modulation**: 0 – 100%
- **FM Modulation**: 0 – 15%
- **Relative Angle**: 0 – 359 degrees

#### GSI Audera Amplifier:
- **Dimensions**: 3.93"(W) x 7.48"(D) x 1.57"(H)
- **Weight**: 94 lb
- **Interface To Main Unit**: Proprietary high-speed, serial digital
- **Number of Channels**: 2 isolated (type BF) for patient safety
- **Electrode inputs**: Differential
- **Electrode connectors**: 5 DIN 42802 safety connectors
- **Input Impedance**: >1000 MW
- **Frequency Response**: 0.2 – 10,000 Hz

#### GSI Audera Main Unit
- **Computer Interface**: USB - Type I
- **Trigger Controls Input/Output**: Standard TTL logic level
- **Mains Power Supply**: 115V, 110V, or 230V, 50-60 Hz
- **Power Consumption**: 115W, excluding printer

#### Isolated Power:
- a) Main unit includes isolation transformer/ power supply which provides isolated mains power only for supported notebook computer and inkjet printer models.
- b) Main unit provides isolated power to Amplifier/Digitizer or ProbeUnit.

#### Environmental Limits:
- **Operating Temp**: 50°F to 104°F
- **Relative Humidity**: 30 to 75%, non-condensing
- **Storage Temp**: -40°F to 158°F
- **Relative Humidity**: 10 to 100%, non-condensing

#### CPU Recommendation
- **Operating System**: Windows 7 Professional (SP1), Vista Business (SP2)
- **Processor**: 1.6 Ghz
- **Minimum RAM**: 2 GB
- **Graphics**: 1024 x 768 pixels (1280 x 1024 for China, Japan, Korea)
- **USB Ports**: 2
- **Additional Storage**: CD r/W drive
- **Minimum Hard Drive**: 120 GB
- **Operating System**: Windows XP Professional (SP3), Vista Business (SP2)
- **Minimum RAM**: 2GB
- **Graphics**: 1024 x 768 pixels (1280 x 1024 for China, Japan, Korea)

#### Supplied Accessories
- **GSI Audera Main Unit**
- **GSI Audera Reference Manual**
- **GSI Audera 2-Channel Amplifier with 9’ cable**
- **GSI Audera ASSR Software Application or Licensing key to activate**
- **GSI Audera ASSR User’s Manual**
- **Insert Earphones with 9’ cable**
- **GSI Audera Loop-back cable**
- **Electrodes, 6mm cup, 12 pk**
- **Electrodes, 10mm cup, 12 pk**
- **Electrode Linker**
- **Disposable side snap electrodes, 25 pk**
- **Electrode Leads, Snap, 5 pk**
- **NuPrep Gel, 4 oz. tube**
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- **Infant eartips, 3.5mm, 20 pk**
- **Infant eartips, 4.0mm, 20 pk**
- **3A foam eartips, 10mm, 100pk**
- **3A foam eartips, 13mm, 100pk**

#### Optional Accessories
- **GSI Audera Service Manual**
- **GSI Audera Laptop Computer**
- **GSI Audera Desktop Computer**
- **GSI Audera Laptop Power Kit (cables to power through base unit)**
- **GSI Audera Isolation Transformer (for customer desktop systems)**

#### Related Part Numbers
- **GSI Audera AEP/ASSR System**
- **GSI Audera AEP/DPOAE System**
- **GSI Audera ASSR/DPOAE System**
- **GSI Audera AEP System**
- **GSI Audera ASSR System**
- **GSI Audera DPOAE System**
- **GSI Audera AEP/ASSR/DPOAE System**
- **GSI Audera ASSR/DPOAE System**
- **GSI Audera AEP/dpoAe System**
- **GSI Audera Aep/ASSr System**
- **GSI Audera dpoAe only System**
- **GSI Audera ASSr only System**
- **GSI Audera AEP only System**
- **GSI Audera DPOAE only System**

#### Quality System
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#### Compliance/Regulatory Standards
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  - CSA C22.2 # 601-1-M90
  - Medical Device Directive (MDD) to comply with “EC Directive” 93/42/EC

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**Setting The Clinical Standard**

[www.grason-stadler.com](http://www.grason-stadler.com)

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800-700-2282 • 952-278-4402 • fax 952-278-4401 • e-mail info@grason-stadler.com
GSI AUDERA™ DPOAE
DISTORTION PRODUCT OTOACOUSTIC EMISSIONS

Product Specifications

General Specifications

• Test Types: Distortion Product Otoacoustic Emissions, Spontaneous OAE, Input/Output DPOAE
• Protocols: Default Diagnostic and Screening, Customer Configurable
• Display: DPgram, FFT plot, IOgram, Signal/Noise Ratio of selected point, Compare Test (sequential test comparisons, multiple test, multiple days)
• Reports: Color, Black/White or PDF
• DPOAE Stimulus Tones:
  - Frequency: 500 – 12,000 Hz
  - Level: 20 – 80 dB SPL, in 5 dB steps
  - Accuracy: ± 3 dB
• Harmonic Distortion: ≤ 1.8% at 80 dB SPL, IEC 711 coupler, 500 – 12,000 Hz
• Dynamic Range: 85 dB SPL, IEC 711 coupler, 500-12,000 Hz, F1 & F2 = 65 dB SPL
• Octave Ranges: 500-1000, 1000-2000, 2000-4000, 4000-8000, 8000-12000 Hz
• Points per Octave: 1 – 12 points
• F2/F1 Ratio: 1.1 – 1.8
• Test Time: Varies, depending on test parameters, environment, and scoring options

Status Indicators:

• Probe LED:
  - Green solid – test in progress
  - Yellow solid – seal check in progress
  - Yellow flashing – test stopped, probe problem/seal check failed

OAE Pod/Probe:

• Dimensions: 1.69”(W) x 1.18”(D) x 4.17”(H)
• Weight: 44 lb
• Interface to GSI Audera Base: 25 pin D-SUB connector

GSI Audera Main Unit

• Computer Interface: USB - Type I
• Trigger Controls Input/Output: Standard TTL level
• Mains Power Supply: 115V, 110V, or 230V, 50-60 Hz
• Power Consumption: 115W, excluding printer

Isolated Power:

a) Main unit includes isolation transformer/ power supply which provides isolated mains power only for supported notebook computer and inkjet printer models.
b) Main unit provides isolated power to Amplifier/Digitizer or ProbeUnit.

• Dimensions: 12.99”(W) x 10.62”(D) x 1.67”(H)
• Weight: 7.05 lb

Environmental Limits:

• Operating Temp: 50° F to 104° F
• Relative Humidity: 30 to 75%, non-condensing
• Storage Temp: -40° F to 158° F
• Relative Humidity: 10 to 100%, non-condensing

CPU Recommendation

• Operating System: Windows 7 Professional (32 bit & 64 bit), Windows XP Pro (SP3), Vista Business (SP2)
• Processor: 1.6 GHz
• Minimum RAM: 2 GB
• Storage: 11 GB Hard Drive
• Additional Storage: CD/RW Drive
• USB Ports: 2
• Graphics: 1024 x 768 pixels (1280 x 1024 for China, Japan, Korea)

Supplied Accessories

• GSI Audera Main Unit
• GSI Audera Reference Manual
• GSI Audera OAE Probe/Pod with Test Cavity
• GSI Audera OAE Calibration CD
• GSI Audera DPOAE Software Application or Licensing key to activate
• GSI Audera DPOAE User’s Manual
• GSI Audera Shoulder Mount Kit
• Ear tip Kit, Infant
• Ear tip Kit, Child/Adult
• Ear tip Kit, Adult
• Probe Cleaning Floss & Instructions

Optional Accessories

• GSI Audera Service Manual
• GSI Audera Laptop Computer
• GSI Audera Desktop Computer
• GSI Audera Laptop Power Kit (cables to power through base unit)
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