

Now with updated analysis software!

Geodesic EEG Systems for Research

whole head, dense array EEG systems for advanced brain research

EGI's advanced Geodesic EEG System (GES) products make high-density EEG a practical reality with easy-to-apply sensors, intuitive software, and a modular product structure to suit any lab.

The GES product line offers you:

Whole head coverage — evenly spaced sensors provide full scalp coverage for the highest spatial resolution data — choose from 32, 64, 128, or 256 channels

Expandability — the GES products are designed to grow with your lab — you can start small and add increased channel counts or additional functionalities as your needs change

Integrated EEG Analysis Software — EGI's updated Net Station software is fully integrated to optimize data analysis, data review, and data acquisition

Multimodal imaging capability — with upgrade modules, the GES 400 product can be used in MR or MEG environments, and GES 400 and 405 products are compatible with EEG-TMS



Geodesic EEG is EGI's unique technology designed specifically for whole head EEG.

Using 32 to 256 electrodes evenly spaced over the entire scalp, cheeks, and back of the neck, Geodesic EEG provides dense and even sampling, allowing you to detect brain activity at high spatial resolution, without having to interpolate between widely spaced sensors.

The foundation platform for your EEG laboratory

The GES is a complete system with EEG sensors, amplifier, and software.

The Geodesic Sensor Net

EGI's proprietary Geodesic Sensor Net (GSN) product provides a simple method to apply dense arrays of sensors quickly and easily — you can apply up to 256 sensors in just a few minutes.

The GSN gently holds each silver/silver chloride electrode sensor in place without the need for excessive head measurements or glues. And no scalp abrasion is necessary to get high-quality EEG data. Use with a simple saline solution for shorter recordings, or an inexpensive paste or gel for long-term recording.

The result is a comfortable and low stress experience for your participants — even infants, children, or populations with behavioral challenges easily accept the GSN. Available for routine EEG, long-term monitoring, and low-profile design for EEG-MEG and EEG-TMS.

Net Amps amplifiers

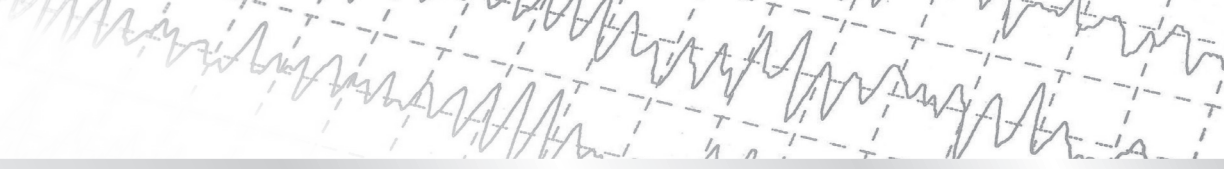
The Net Amps amplifiers are designed specifically for EGI's Geodesic Sensor Nets and provide the low noise and high sensitivity required for acquiring high-quality EEG data.

Net Station software

EGI's Net Station software provides full acquisition, review, and analysis functions in a complete package with optional integrated GeoSource source estimation software. Supports multimodal imaging such as EEG-fMRI, EEG-MEG, and EEG-TMS.

Net Station software saves data files in Metafile Format (MFF), which can be exported to third party or your own custom software. See EGI's "Interoperability" page at www.egi.com for the most recent updates.





Building on the GES foundation

The GES integrates with EGI and third party hardware and software, allowing you to expand your system to include:

- stimulus presentation
- eye tracking systems
- fully integrated digital video data
- added physiological measurements

EGI works directly with other companies and software developers to develop practical hardware connections and seamless movement of data between programs. Amp Server Pro SDK is available for developers to establish direct connection to the amplifier with custom software.

Applications

Over 1,800 research papers have been published using EGI's Geodesic EEG Systems in fields such as developmental neuroscience, cognitive neuroscience, multimodal imaging, clinical research, sleep research, and human performance. A complete list of articles is available on EGI's website at www.egi.com, under "Research Division."

Products

GES 400 — EGI's foundation product for EEG research. This updated version introduces EGI's new ADAPT amplifier technology, featuring:

- a built-in Intel processor, which supports remote software and firmware updates
- upgraded, more robust electronics for faster processing
- fiber optic signal input and output for optimal digital bandwidth and an extra level of safety isolation
- built-in clock sync port for MR and MEG applications, and for synchronous acquisition by multiple amplifiers
- support for 32 extra channels of physiological measurements using EGI's Physio16 input box

GES 405 — the most affordable product for Geodesic EEG, this system is designed for 32-channel EEG only

Features of the Geodesic EEG System 400 series

| Feature | GES 400 | GES 405 |
|---------------------------------|-----------------------------------|-----------------------------------|
| EEG channel count | 32, 64, 128, or 256 | 32 |
| amplifier | Net Amps 400 | Net Amps 405 |
| on-board microprocessor | Intel ATOM 1.6 GHz | Intel ATOM 1.6 GHz |
| potential sampling rate | 8 kHz* | 8 kHz* |
| MR compatible | with upgrade package | no |
| synchronize multiple amplifiers | yes | yes |
| supports MP4 video capture | yes | yes |
| I/O connection | fiber optic Ethernet | fiber optic Ethernet |
| digital (TTL) inputs | 16 bits (8 supported in software) | 16 bits (8 supported in software) |

Net Amps 400 and 405 are compatible with Net Station 4.5.5 and beyond.

*Amp Server Pro SDK is required to realize the highest sampling rates.

Additional physiological measurements

The Physio16 input box is designed specifically for use with EGI's Geodesic EEG System (GES) 400 for integrated recording of physiological measurements and EEG. Two Physio16 input boxes can be connected to the Net Amps 400 amplifier to measure, record, and review up to 32 bipolar channels and 2 SpO2 channels, along with up to 256 EEG channels.



Products

Geodesic EEG System™ (GES) 400

Geodesic EEG System™ (GES) 405

Systems are sold as complete packages with everything you will need to start work immediately. The core package includes:

- Net Amps™ 400 amplifier and wall mount
- hospital grade isolation transformer
- Mac desktop computer with monitor, iMac, or Mac laptop
- articulated arm and bracket
- Net Station™ 5.2 software for data analysis, review, and acquisition
- Net support kit
- system manuals
- installation and basic training
- 2-year amplifier warranty

To complete the package, choose:

- any number of Geodesic Sensor Net™ products (32, 64, 128, or 256 channels)
- 1 year Support Contract

Related Products and Upgrades

Geodesic EEG System™ 400 MR, for use in MR environments

Physio16™ input box

Photoc Stimulator

Digital Video Package - Basic, Intermediate, or Advanced

E-Prime® Experiment Control System stimulus presentation software and hardware

GeoSource™ source estimation software

Geodesic Photogrammetry System™ for sensor localization

Smart Eye™ Pro System for eye tracking

Amp Server™ Pro SDK

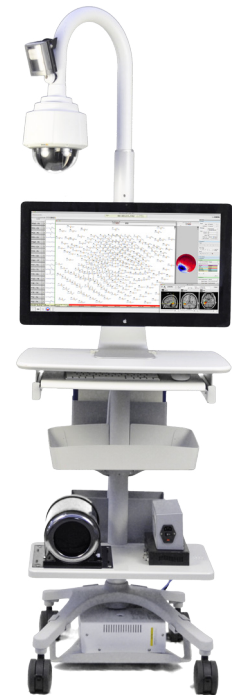
Optional cart mount system (shown)

Support and Training

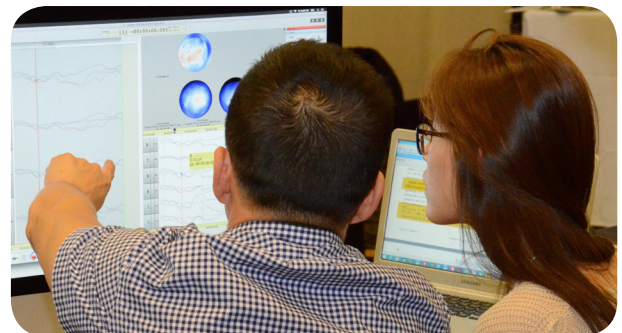
A member of EGI's renowned international Training and Technical Support Team will install your system and provide your lab with a tutorial for basic use. Your support contract will enable you to obtain the support you need to keep your system running at peak performance.

Each purchase of a GES product includes tuition waivers to EGI Schools or workshops that provide in-depth learning for any member of your team. EGI also offers custom training for new lab members, or for anyone wanting to learn more about using the GES system to its maximum potential.

The GES products are CE-marked in conformity with the European Medical Device Directive. Contact EGI for information on other clinical approvals.



**To schedule a demo,
or for more information,
contact info@egi.com**



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