



graell<sup>®</sup> 4K  
HDEEG

4K High-Definition EEG



Compumedics Grael 4K HD-EEG  
Diagnostic and Monitoring  
EEG System

### *There's more to see with 4K High-Definition EEG!*

For clinical diagnostic EEG studies and pre-op and post-op assessments the

**Grael 4K HD-EEG®** system blends the latest digital amplifier technology with powerful software packaged in a custom designed cart that is mobile, convenient and flexible.

Integrated with our advanced **Profusion neXus 360™ Lab Management System**, the Grael 4K HD-EEG System delivers a fully-featured solution for managing and maintaining patient and study data with an optional interface to the facility EMR (via HL7) and secure remote access.

### **Key Features of Grael 4K HD-EEG system.**

- 32-referential channels
- DC coupled amplifier
- High resolution 24-bit sampling simultaneous across all channels
- High sampling rate -16384sps
- Data storage rates up to 4096Hz
- 8 bipolar inputs for ECG or EMG leads
- Integrated HD-PulseOx oximeter
- Convenient connections for event button and photic strobe
- Connector for passive Jackbox or "Quik-Cap" electrode cap
- Ergonomically-designed cart system manages cables and supplies
- Advanced clinical software, supporting
  - unlimited montage options,
  - multiple digital video display windows
  - quick review
  - automated report generation



**4K**  
HIGH DEFINITION

## Grael 4K High-Definition Mobile Clinical Workstation

**The thoughtfully-designed workstation provides the mobility ideal for theatre ICU and ward clinical EEG monitoring.**



EEG Trolley Configuration

Workstation configuration may vary depending on region.

- Optional HD Video Camera for VEEGs, Pan-tilt-zoom (PTZ) available
- High-intensity LED Photic Strobe
- Grael 4K HD-EEG 40-channel Amplifier
- Mounted on the arm of the cart to allow easy positioning near the patient.

- Secure mount for screen monitor
- Strong yet light-weight construction to handle the rigors of daily use

- Height adjustable workspace with 'easy-to-use' handle for ergonomic comfort

- Plenty of storage for supplies and accessories in a convenient rear location

- Management of cables and cords

- Integrated isolation transformer

- Sturdy, heavy-duty casters with both swivel lock and brake lock.

**The Grael 4K HD-EEG-  
See more and do more.**

**The Grael 4K HD-EEG digital amplifier** is the most advanced clinical EEG System on the market, with the latest in digital signal processing technology. This system is designed to record 4K high-definition EEG, with a wide bandwidth captured at 24-bit resolution at storage rates up to 4096Hz. The Grael 4K HD-EEG system records both extremely low-frequency events as well as high-frequency oscillations.



Grael 4K HD-EEG  
Amplifier

Grael 4K HD-EEG  
Jackbox

### **Detachable Jackbox for easy setup and offering simple clean up.**

The Grael 4K HD-EEG amplifier is arm mounted for easy positioning near the patient. A Jackbox is provided with a 6 meter cable. The system supports an optional digital high-resolution camera on multi-position mount or a software controlled, motorized pan-tilt-zoom (PTZ) digital camera.

**Powered by**



Unlimited Potential in Routine EEG,  
LTM EEG and Beyond

## Clinical EEG Features

### Next Generation Montaging System

- Next generation montage editor allows easy manipulation of any aspect of a montage on the fly
- Complex montages with weighted averaging can be created
- Montage changes are applied in real time so that any change is immediately available in concurrently opened review sessions
- Electrode mapping allows dynamic assignment of patient electrodes to amplifier channels

### Unprecedented Video Quality

- Top end video resolution for unprecedented video clarity and superior digital zoom capabilities: Full HD resolution 1920 x 1080 at 30/25 frames per second
- Video is frame-locked to EEG data so waveforms and video are always precisely synchronized
- Open multiple video windows simultaneously with different zoom and pan in each window

### Easy Event Annotations

- Single-keystroke or single-mouse-click operation for easy insertion of annotations and other events
- Comprehensive event navigation including custom search function e.g. find "head/eyes to the right" events
- Define your own event categories to group similar events
- Define your own most used annotations and insert any one with a single keypress

## Best in Class EEG Application Software

*Compumedics Profusion EEG* is the true next generation clinical and LTM software package that offers unprecedented ease of use both in the EEG lab, and in post-recording analysis and review. Developed in close consultation with EEG clinicians and neurologists, it is designed for easy navigation and editing of up to 45 days of continuously recorded EEG. With high sample rates (up to 10 kHz) and high channel densities (up to 512 channels) and a full suite of editing operations such as marking, deleting and copying while recording is in progress, Profusion EEG offers unlimited potential in any EEG laboratory.

## LTM-EEG Features

### Intuitive Study Navigation

- Intuitive study navigation via drag-and-click functionality
- Complex displays calculated in the background allowing full use of the application as they are generated
- Jump to events at the press of a button
- Fast screen updates on high density recordings
- Multiple synchronized windows with different timebases
- Ease to follow summary bars that highlight events in the study
- Mix summary bars and spectrograms with EEG traces to create hybrid displays

### Live Editing System

- Edit studies with full suite of operations while recording is in progress
- Summary and Trace views synchronize your selections allowing easy relation of the overall view to detailed EEG data
- Define multiple selections of EEG and edit them simultaneously

### Intelligent Reporting

- Intelligent reporting engine allows instant in-place customization of report templates
- Easily make your own templates inside the application, with Microsoft Word, or your favourite text editor
- Easily select and tag EEG snippets to place into reports
- Export reports to PDF or Microsoft Word formats
- Extensive user-defined report fields

### Powerful Analysis Features

- Integrated analysis by Persyst software
- Powerful on-screen measuring tools
- Drag'n'drop trace and event overlays to allow easy visual comparison
- Spectrogram - an alternative way to display EEG traces
- Visualize EEG data with 3D Brain Mapping
- Easy "plug-in" of new analysis tools as they are developed by Compumedics or third parties

## Laboratory Management Transformed!



Built on the proven Profusion neXus platform with more than 15 years of customer use and thousands of users, Profusion neXus 360 offers the full functionality of Profusion neXus and more, in a fully web-based interface.