



**grael** RANGE  
HD PSG : EEG



World's First Range of High-Definition PSG : EEG - Only from Compumedics

# grael RANGE

## HD PSG: EEG



Over 26 years of experience in designing PSG and EEG amplifiers, including the highly successful Compumedics E-Series, has culminated in Grael - Our most technologically advanced amplifier yet, and the world's first High Definition PSG and EEG amplifiers.

Choose the model best suited for your needs:

**Grael** for dual-platform PSG and EEG, **Grael EEG** or **LT** for dedicated EEG studies or **Grael PSG** for AASM compliant Sleep studies.



**grael**  
**4K** PSG: EEG  
**60 CH** PSG/EEG

The most advanced amplifier on the market today. Compumedics' flagship, high-definition PSG, EEG and research amplifier specified for the most demanding sleep and epilepsy diagnostics or research facility. Experience the new and more powerful Grael.

**KEY FEATURES:**

- For conducting PSG, EEG studies or Evoked Potential studies
- Sample rates to 4096 sps
- User selectable gain allows choice of lower noise or higher allowable DC offset for advanced electrodes use
- Multiple device synchronization to allow creation of virtual channel counts
- Improved reliability



**grael**  
**EEG**  
**45 CH** EEG

An even more powerful evolution of the Grael EEG amplifier built for EEG studies for clinical and research applications including routine, LTM, ICU and Evoked potentials.

**KEY FEATURES:**

- Advanced EEG signal acquisition
- LTM, Routine, ICU, Evoked potential
- Increased sample rate to 4096 sps
- New trigger module input
- User selectable gain allows choice of lower noise or higher allowable DC offset.
- Multiple device synchronization to allow creation of virtual channel counts
- Improved reliability



**grael**  
**PSG**  
**29 CH** PSG

Based on the flagship Grael amplifier, the Grael PSG has a channel subset dedicated for Sleep studies. A true-HD PSG amplifier with channels as specified for the gold standard AASM Type 1 studies.

**KEY FEATURES:**

- Optimized for PSG studies
- Only those channels required for a gold standard AASM type 1 study
- Maximum sample rate of 2048 s/s
- True HD signal quality



**grael**  
**LT**  
**39 CH** EEG

Industry-leading value amplifier with research-grade technology. A powerful EEG amplifier aimed at clinical EEG studies.

**KEY FEATURES:**

- Industry leading value amplifier
- Optimized for clinical EEG studies
- Research grade amplifier technologies

### CHANNEL SPECIFICATIONS

	GRAEL 4K	GRAEL EEG	GRAEL PSG	GRAEL LT
TOTAL CHANNELS	60	45	29	39
REFERENTIAL CHANNELS	32	32	13	32
DIFFERENTIAL CHANNELS	16	8	6	6
2 INDUCTIVE BANDS	✓		✓	
FULLY DIGITAL INDUCTIVE BAND INPUTS	✓		✓	
1 RESPIRATORY IMPEDANCE	✓			
PRESSURE	2 X PRESSURE (1 SINGLE ENDED, 1 DIFFERENTIAL)		1 X DIFFERENTIAL	
BODY POSITION	✓		✓	
EVENT BUTTON OR TRIGGER MODULE FOR EEG STUDIES	✓	✓		✓
MICROPHONE (FOR SNORE DETECT)	✓		✓	
ROOM LIGHT	✓		✓	
OXIMETER WITH PLETH WAVEFORM	✓	✓	✓	

# SPECIFICATIONS

	GRAEL 4K	GRAEL EEG	GRAEL PSG	GRAEL LT
HEAD CAP CONNECTOR	Yes - for the 32 referential channels	Yes - for the 32 referential channels		Yes - for the 32 referential channels
DATA SAVE RATE	256, 512, 1024, 2048, 4096 sps	256, 512, 1024, 2048, 4096 sps	256, 512, 1024, 2048 sps	256, 512, 1024, 2048 sps
SAMPLE RATE	16384 sps	16384 sps	16384 sps	16384 sps
CHANNEL GAIN	User selectable per channel gains (from $\pm 150$ mv peak to peak to $\pm 1.5$ v peak to peak in 4 steps) allow the user to select lower noise or higher allowable electrode DC offset on a per channel basis.	User selectable per channel gains (from $\pm 150$ mv peak to peak to $\pm 1.5$ v peak to peak in 4 steps) allow the user to select lower noise or higher allowable electrode DC offset on a per channel basis.	Gain of $\pm 300$ mv	Gain of $\pm 300$ mv
CHANNEL COUPLING	DC Coupled	DC Coupled	DC Coupled	DC Coupled
RESOLUTION	24 bits all channels	24 bits all channels	24 bits all channels	20 bits all channels
SYSTEM INTERCONNECT	10/100 M Bit twisted pair Ethernet with auto MDIX and POE	10/100 M Bit twisted pair Ethernet with auto MDIX and POE	10/100 M Bit twisted pair Ethernet with auto MDIX and POE	10/100 M Bit twisted pair Ethernet with auto MDIX and POE
POWER SOURCE	POE (mid-span injector or POE switch)	POE (mid-span injector or POE switch)	POE (mid-span injector or POE switch)	POE (mid-span injector or POE switch)
TRIGGER MODULE	(not supported for PSG studies, cannot be used with body position sensor)	New digital trigger module provides 256 trigger levels	Not Supported	New digital trigger module provides 256 trigger levels
DEVICE SYNCHRONIZATION	Includes PTP (precision time protocol) hardware to allow synchronizing multiple units for 64 (or higher) referential channels. Will NOT be available at first release	Includes PTP (precision time protocol) hardware to allow synchronizing multiple units for 64 (or higher) referential channels. Will NOT be available at first release	Not Supported	Not Supported

## WORLD CLASS PROFUSION SOFTWARE



All specifications are subject to change without notice. Please contact your Compumedics representative for latest technical information, pricing and product availability. GraeL, GraeL EEG, GraeL PSG, GraeL LT, Profusion Sleep, Profusion EEG and Profusion Nexus are trademarks of Compumedics Limited, Australia. COMPUMEDICS and the Compumedics logo are registered trademarks of Compumedics Limited, Australia.

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