

# Polysomnography in High Definition SOMNO HD™

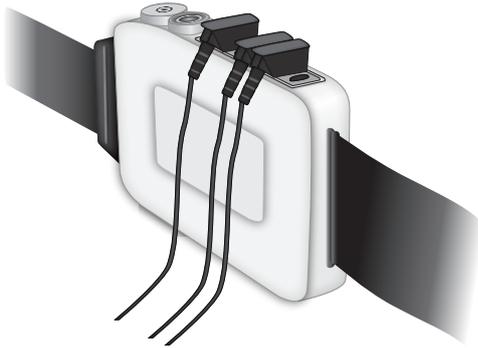


## HIGHLIGHTS

- Smallest & lightest portable Polysomnography system, for ambulatory & stationary use
- Maximum power with up to 70 channels & 20 hours of recording duration, minimum number of cables thanks to built-in sensors for the highest patient comfort
- Excellent signal quality: up to 4kHz sampling rate / channel, 24 Bit EXG resolution
- HD touch screen: immediate bedside signal & impedance check
- Automatic sensor detection with Intelligent™ Connect for the easiest and fastest patient hookup
- Wireless real-time data transfer to PC, smartphone or tablet PC, full mobility & flexibility
- Reliable support: 24/7 service hotline, lifetime software updates - free of charge



# FEATURES



- **HD touch screen:**

- Signal check on screen
- Zoomable signals, selectable time basis
- Intuitive, easy handling with gesture control
- Direct start of the measurement on device

- **Intelligent™ Connect:**

- Automatic sensor & electrode recognition
- Freely selectable channels
- Change or add sensors during recordings
- No montage needed

- **Easy application with integrated sensors:**

- Professional RIP: built-in for abdomen effort
- Minimum number of cables for highest patient comfort during measurement
- Reversed lead sensor cables prevent unintended disconnection and reduce cable chaos

- **Docking Station:**

- charge of the Li-Ion battery (duration 1h/PSG)
- data transfer (2 MB/s, 50s/PSG)
- automatic firmware updates
- device status displayed on PC
- 3-port docking station: for synchronous usage of up to three SOMNO HD™ without cable chaos

- **The Power:**

- 10 internal channels
- 28 external channels
- 17 EXG with standard AASM headbox, 32 EXG with neurological headbox

- **Highest signal quality:**

- Sampling rate: up to 4 kHz per channel
- EXG channels with 24 Bit resolution
- Low Noise Technology (excellent signal-to-noise ratio)
- Continuous Impedance check during recording

- **Comfort & design:**

- Wireless data transfer, for patient comfort and freedom of movement
- Carbon-look housing, colour selectable (black/white)



## General analyses:

- Automatic analysis of all standard signals according to latest AASM standards
- Comfortable and fast manual editing

## Sleep related:

- Semi-automatic sleep staging with customer-specified thresholds for fast and accurate analysis - 80% time saving, validated
- Automatic analysis of cortical and autonomous arousal
- Sleep fragmentation based on cortical arousal, Pleth and PTT changes
- Spindle & K-Complex Analysis

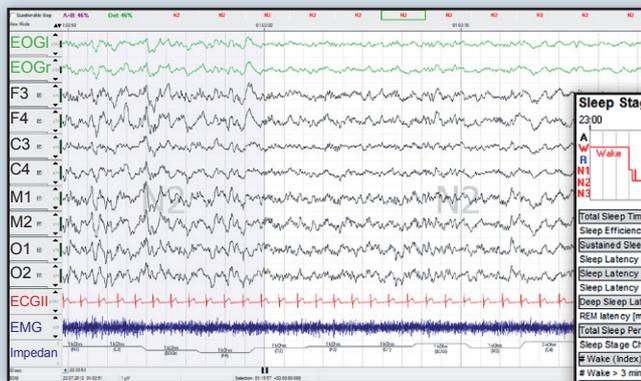
## Respiratory related:

- Correlation of respiratory events with desaturations, accelerations and decelerations and arousals
- Analysis of breathing efforts based on Intercostal EMG
- Flow Limitation - obstruction level analysis
- Automatic detection of RERA events
- Snoring topography with high sampling microphone

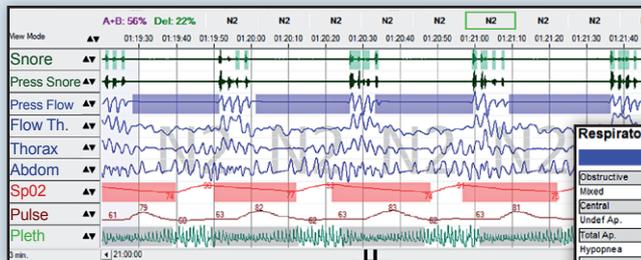
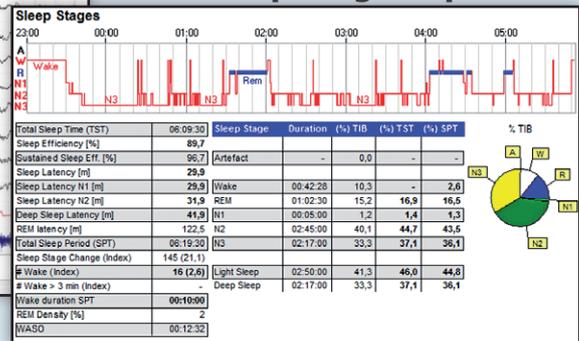
## Miscellaneous:

- Systolic & diastolic blood pressure based on PTT, patented, validated\*
- Heart rate variability
- FFT module: EEG data analysis amplitude, spectral & frequency mapping
- 3-D brain mapping - Localisation of seizures

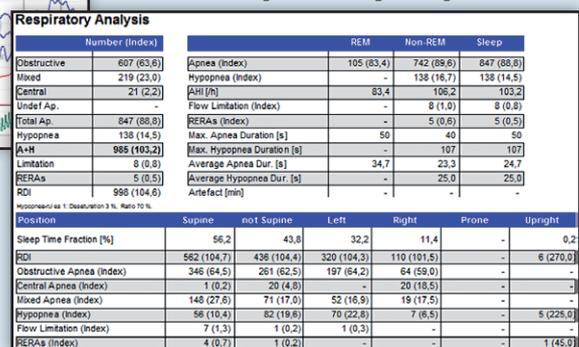
EXAMPLES



## EEG raw data, Sleep Stage Report



## Respiratory raw data, Respiratory Report



## General software features:

- Re-analysis of data at any time
- Integration of any PAP type for therapy titration/control
- Miniaturized Pneumotachograph for AHI detection during PAP therapy
- Customized reports and form letters
- Reports for MSLT and Split-Night studies
- Inter-Scorer Variability
- Archiving to CD, DVD or network drive
- Export of data in MS Excel, SPSS, EDF+ and ASCII, import of data in EDF+
- Flexible, individual screen layout

## Extras:

- Calendar with SOMNO scheduler
- User Manager for the assignment of access rights and automatic tracking
- GDT and HL7 interface
- Patient database for efficient organization and statistical evaluation of patient data

\* Bilo, G., Parati, G. et al., Validation of the SOMNObench™ NIBP non-invasive continuous blood pressure Monitor according to the European Society of Hypertension International Protocol revision 2010. Blood Pressure Monitoring. 2015

# SPECIFICATIONS

## Channels

10 internal	Flow & snore, breathing effort (RIP), SpO <sub>2</sub> , pulse rate, plethysmogram, body position, activity (3-axis), ambient light, patient marker
up to 60 external	7 slots with up to 4 channels each, total 28 channels 17 EXG with PSG headbox, 32 EXG with EEG headbox

## Available Sensors

PSG Kit	RIP efforts (thorax, abdomen), flow & snore (nasal cannula), CPAP pressure, thermistor, microphone, SpO <sub>2</sub> , PLM sensors (l/r), PSG headbox
Optional	Combi electrode (2EEG/2EOG, ambient light), 1-channel ECG, 3-channel ECG, external activity 3-axial, analogue optocoupler, ear temperature, oesophageal pressure, high-sampling microphone, pneumotachograph, EDA, EEG 32 headbox for neurological applications
Pediatric sensors	MUX-RIP, thermistor, 1 channel ECG with body position, SpO <sub>2</sub> , PLM, external body position

## Performance Specifications

Data collection	Sampling rate: 4 kHz per channel / device, 1 kHz per channel / headbox, EXG channels with 24 Bit resolution, Low Noise Technology (EEG 0,2 µV effective, EMG 0,3 µV effective)
Data storage	Built-in bluetooth transmitter for wireless real-time data transfer & recording on PC, simultaneous storage on 1 GB Micro SD card
Data transfer	Docking station for charging and data transfer (2 MB/s, 50s/PSG), firmware updates and synchronisation

## Video

Pan/Zoom Camera	Integrated IR illumination & microphone, 18x optical zoom and auto-focusing, rotatable for different viewing angles, MPEG4 Video-Stream, resolution: 768x576 pixels
HD Camera	Integrated IR illumination & microphone, H.264 Video-Stream, display of second, digitally zoomable window during recordings, resolution: 2592x1944 pixels

## App for Tablet PC or smart phone

Features	Connects wirelessly via Bluetooth, biocalibration and impedance check at the patient's bedside, Android based
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## Physical Specifications

Display	Capacitive touch screen with gesture control high resolution, 480 x 320 Px
Size and weight	Device: 110 x 74 x 24 mm, 190g (incl. battery) headbox: 65 x 65 x 11,5 mm, 70g
Power supply	Li-Ion battery, rechargeable via docking station, charging duration approx. 1 h / PSG

## Software & Support

Analysis software	DOMINO, 2 licences, regular software updates free of charge
Service	24/7 service hotline, free of charge



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