

NEURON-SPECTRUM-AM

Ambulatory Wireless EEG/PSG Recorder



21 EEG channels



Full set of PSG channels
(according to AASM
recommendations)



Recording of exams to memory
card and real-time data
transfer via Wi-Fi



Ambulatory EEG and PSG
recording (up to several days)



Long-term EEG monitoring
to detect epileptiform activity



Control of electrode
impedance during
the acquisition

EEG

- PSG
- Video EEG



Neurosoft

NEURON-SPECTRUM-AM



Connector for electrode cap attachment



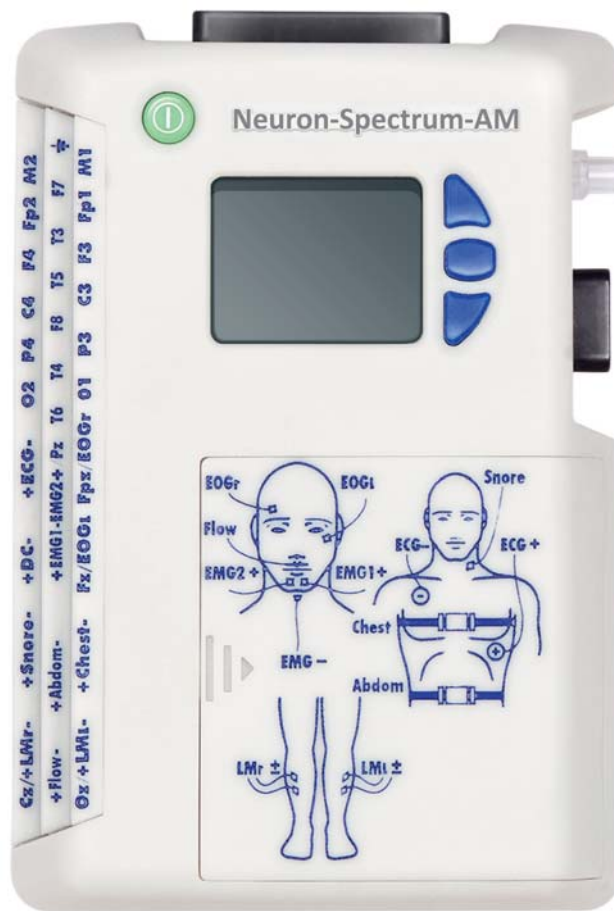
21 EEG channels for "10-20" system



Full set of PSG channels



SD memory card (up to 32 GB)



Airflow channel



SpO₂ channel



Light sensor



Body position sensor



4 AA batteries

POLYGRAPHIC CHANNELS

- ▷ 21 EEG channels
- ▷ ECG channel
- ▷ 2 EMG channels
- ▷ 2 EOG channels
- ▷ Channel for snoring sensor
- ▷ Channel for airflow thermistor sensor
- ▷ Channel for chest movement sensor
- ▷ Channel for abdominal movement sensor
- ▷ 2 EMG channels for limb movement recording
- ▷ Channel for airflow pressure sensor (cannula)
- ▷ SpO₂ and PPG (photoplethysmography) channels
- ▷ Direct current channel
- ▷ Built-in light sensor
- ▷ Built-in body position sensor

Neuron-Spectrum-AM, a lightweight and compact size EEG/PSG recorder, incorporates the most advanced technologies in acquisition, storage and wireless data transfer.

USE NEURON-SPECTRUM-AM

As Autonomous Recorder

Neuron-Spectrum-AM can be used as a fully autonomous device. It is a battery powered recorder with LCD display, control buttons and SD memory card for exam storage.

As Wireless Recorder

Wireless Wi-Fi connection allows real-time data transfer from the device to any computer of the local network.

APPLICATION

Routine and Long Term EEG Exams

21 EEG channels with video EEG monitoring.

PSG

Full set of PSG channels in compliance with AASM recommendations with possibility of synchronous video monitoring.

Cardiorespiratory Monitoring

Airflow channel, ECG channel, SpO₂ channel, snoring channel, body position channel, chest and abdominal movement channel.

Patients can be examined either CLINICALLY or AMBULATORY ensuring optimum comfort and care.



MAIN FEATURES

- ▶ Full set of polygraphic channels for PSG recording.
- ▶ High-quality 21-channel EEG acquisition with up to 1000 Hz sampling rate.
- ▶ One battery charge is enough for more than 24-hour acquisition in the autonomous mode.
- ▶ Up to thousand hours of exams can be saved to SD memory card with up to 32 GB size.
- ▶ Synchronous video recording using both analogue and network cameras (including wireless ones).
- ▶ Fully autonomous recorder allows performing the exams with video monitoring ambulatory.
- ▶ Wireless connection to PC makes patients feel comfortable during the exam and allows EEG specialist to perform real-time EEG analysis.

EXTRA FEATURES

- ▶ Continuous impedance measurement during the acquisition allows keeping proper electrode placement in good time.
- ▶ Control of recorded data with on-line detection of epileptiform activity and calculation of vital parameters (HR, airflow rate, SpO₂).
- ▶ Warning message to notify when patient's parameters exceed the specified level is sent to preset e-mail. It allows EEG specialist to control patient's state all the time.
- ▶ The option of delayed start acquisition is intended to start or stop the acquisition at preset time. It is especially useful for PSG recordings.
- ▶ Battery hot-swapping during the acquisition allows performing long-term exams (up to several days).
- ▶ Neuron-Spectrum-AM creates a backup copy of performed exam on SD memory card to avoid information loss even if patients leave Wi-Fi zone. These data can be uploaded to any PC, tablet or smartphone via Wi-Fi.

ADVANTAGES OF HANDHELD RECORDER

1

Patients feel comfortable and can move freely within the place the exam is performed.

3

Patients can be examined in comfortable environment (e.g., at home).

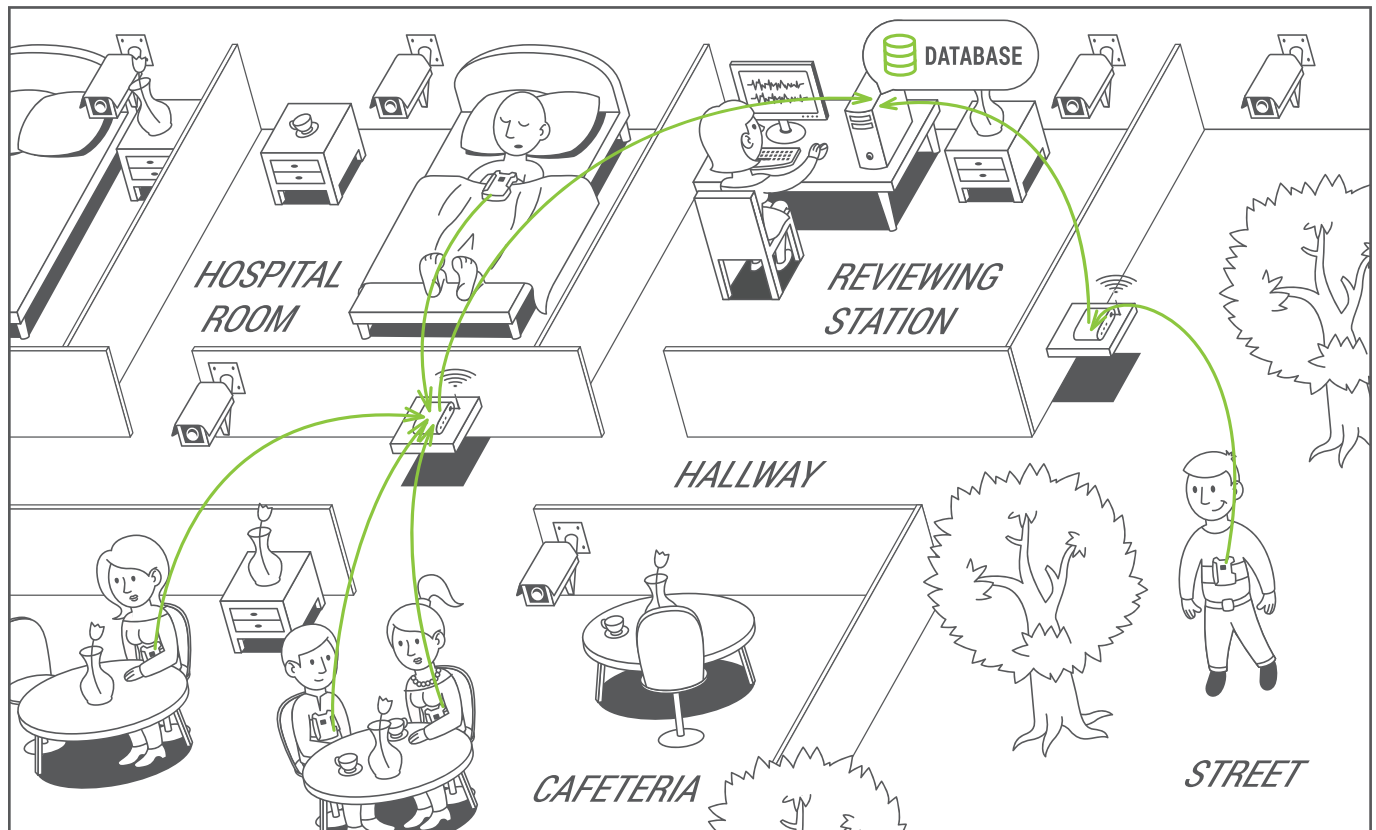
2

Long-term EEG recordings.

4

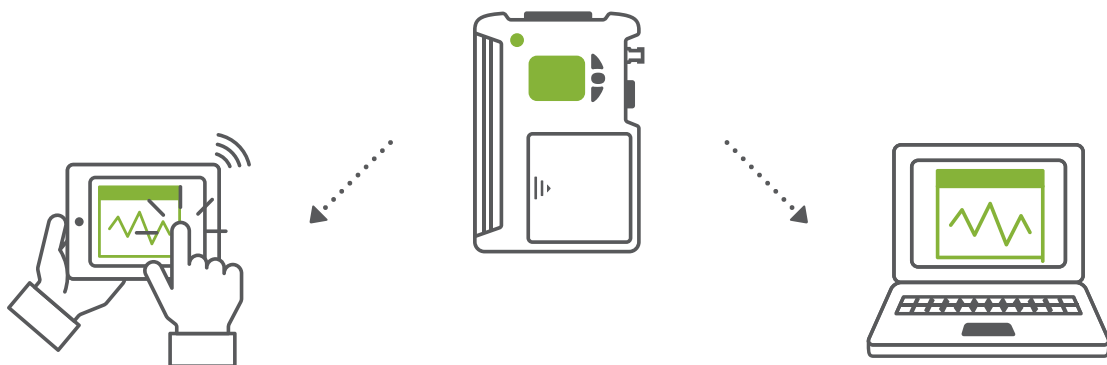
Continuous monitoring of the acquisition process.

COMFORTABLE FOR PATIENTS




Clinical EEG system allows making several EEG/PSG recordings simultaneously. Patients can move freely during their exams. The exam monitoring is performed by EEG technician all the time.

CONVENIENT FOR EEG SPECIALISTS



You can connect to any recorder from any computer of the local network, Android- and Windows-based smartphone or tablet to check the signal quality, measure the impedance or control the acquisition process.

EEG Devices of Neuron-Spectrum Series

	EEG channels	Extra channels: EMG, ECG, EOG, etc.	Included techniques	Options	Connector for electrode cap attachment	Interface
 <p>Neuron-Spectrum-1/2/3</p>	8/16/19	1	EEG	Video EEG, LEP, aEEG	+	Wire: USB, LAN
 <p>Neuron-Spectrum-4/P</p>	21	4	EEG	Video EEG, LEP, PSG, aEEG	+	Wire: USB, LAN
 <p>Neuron-Spectrum-4/EPM</p>	21	8	EEG, LEP, EP	Video EEG, PSG, EMG, aEEG	+	Wire: USB, LAN
 <p>Neuron-Spectrum-AM</p>	21	9	EEG	Video EEG, PSG, aEEG	+	Wireless: Wi-Fi, SD card
 <p>Neuron-Spectrum-5</p>	32	8	EEG	Video EEG, LEP, EP, PSG, EMG, aEEG	+	Wire: USB, LAN



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