











# ADVANCED CLINICAL **EEG SYSTEM**



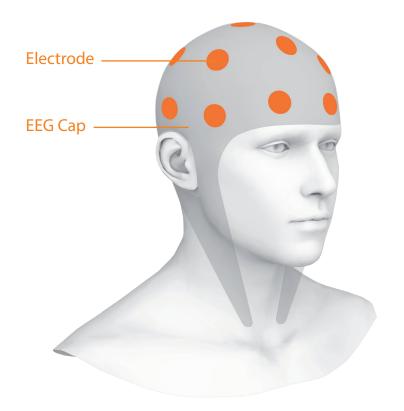


# What is EEG?

Electroencephalography (EEG) is non-invasive method to record electrical activity of the brain. Electrodes are placed along the scalp, usually according to the standard placement 10/20 or 10/10. EEG measures voltage fluctuations resulting from ionic current within the neurons of the brain. Clinically, EEG refers to the recording of the brain's spontaneous electrical activity over a period of time, as recorded from multiple electrodes placed on the scalp.

EEG is most often used to diagnose epilepsy, which causes abnormalities in EEG readings. It is also used to diagnose sleep disorders, depth of anesthesia, coma, encephalopathies, and brain death. EEG is valuable tool for research and diagnosis. It is one of the few mobile techniques available and offers millisecond-range temporal resolution which is not possible with CT, PET or MRI.

Derivatives of the EEG technique include evoked potentials (EP), which involves averaging the EEG activity time-locked to the presentation of a stimulus of some sort (TMS stimulation, visual, somatosensory, or auditory).





#### Headbox





# Advantages of TruScan EEG

Deymed manufactures reliable and high-quality neurodiagnostic and neurocare systems. Our goal is to advance the Neurology and Neurophysiology fields to new heights with engineering innovation. All Deymed Neurocare systems are designed for ease-of-use and durability with advanced features that simplify your work.



### **Battery Operated**

Offering the highest signal quality possible and lasting months on a single charge, Deymed systems significantly reduce artifacts and outside noise by running 100% on batteries.



#### **Optical Isolation**

Optical isolation greatly improves signal quality and patient safety. This feature combined with long-lasting battery operation, offers the best-in-class technology for neurophysiological recordings.



#### Wireless Use

In wireless mode the amplifier can record for up to 20 hours on a singe charge. Wireless range of 100 meters from the base system for maximum patient comfort and freedom to move.



### Click N' Go System

Easily detach your system from the cart with a single click and be on-the-go with a laptop. You are no longer forced to choose between a hospital cart or a portable system. You can now have both in one.



### **Intelligent Charging**

Deymed's new ultra-low capacitance induction charging keeps the batteries full when the headbox is connected to system. This ensures the highest quality signal is possible with full battery operation during sensitive neurophysiology tests.



#### Always on Impedance

Always-on impedance monitoring displays impedances during recording and has alerts to ensure electrodes are in-range at all times. The values are saved to the EEG file for post quality-assurance review.

### HD Network Camera with PTZ —

Full HD network video camera that already compresses the video in the camera, so no internal capture card is required, which minimizes the hardware requirements on the PC. Video can be streamed via a UDP viewer station for up to four EEG/Video stations on a single screen.

## **LED Photo-stim Lamp**

Powerful photic stimulation lamp with two switchable colors, red and white. The red light makes it possible to use special glasses that greatly eliminates the flash for the operator and gives more options for evoking a seizure. The red

light has a mean wavelength of 660nm and white with a color temperature of 6500K.

# **IR Night Lamp**

High-power IR lamp that can light up the entire room with in-direct positioning, ie by pointing the lamp at the ceiling and letting the light bounce off the walls, so the light source is not visible to the patient.

#### Advanced HD Video HUB

The HD Video Hub greatly simplifies a typically complex dual-video and audio capture, as well as integrating an microphone and ambient light sensor. combines and synchronizes video from up to two HD or SD camera sources.

# Intelligent Charger -

The Intelligent charging is built into the rotating metal arm with the holder for the headbox. It charges the headbox batteries via inductive charging, ie without

direct contact, which maintains the optical isolation and safety benefits of battery operation as well as allowing the headbox batteries to be charged when the headbox is connected to system.

# TruScan Explorer Keyboard

A unique innovation in the EEG field, the TruScan Explorer Keyboard was developed to speed up and streamline the review of EEG recordings with video. Ergonomically-designed buttons all common include features available on one click, minimizing the need for complex use of the mouse.

#### Powerful and Silent PC

The Deymed integrated computer is optimized for use in healthcare. Thanks to the absence of a cooling fan, the system runs virtually silent, allowing the exam room to be undisturbed.

# **Isolation Power Supply**

Medical grade built-in

Isolation Transformer that meets the highest medical safety standards. On/off switch with LED indicators for status. Non-patient Grounding plug included on side.

### FlexiCart LTM

Includes FlexiCart with integrated computer and photostim, with 24ch, 32ch or 2x32ch EEG headboxes connected to a USB adapter and two HD camera's and infra-red lamp.





## FlexiCart with Satellite Trolley-photo-stim

Includes computer with FlexiTrolley, Satellite Trolley with photo-stim, 24ch, 32ch or 2x32ch EEG headboxes connected to a USB adapter.



### FlexiCart w/photo-stim

Includes FlexiCart with silent computer and photo-stim, with 24ch, 32ch or 2x32ch EEG headboxes connected to a USB adapter.

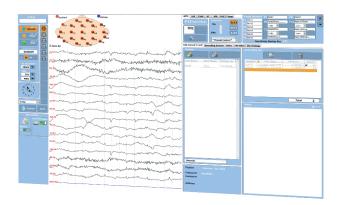


#### **Portable**

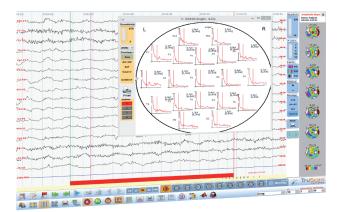
Includes laptop with 24ch, 32ch or 2x32ch EEG headboxes connected to the USB adapter.

# **TruScan Acquisition**

- Intuitive Dashboard interface
- Pre-set text markers for quick insert
- Integrated patient database and HL7 (optional)
- On-screen always-on impedance monitor
- Visual drag and drop custom montage creation
- View live data and review data with split screen
- Programmable photo-stim setup with pre-sets
- EP and Neurofeedback modules
- Patient remote alarm and event trigger
- Live HD video display



# TruScan Explorer



- Full set of review tools including Brain Mapping
- Export EEG with included viewer to flash drive
- Interpretation editor with custom text pre-sets
- Database with un-interpreted To-Do list
- Full search and sortable patient list
- EDF, LORETA, Matlab and Excel output of data
- Spectral Analysis overlay of multiple segments
- Common controls via TruScan control keyboard
- Synchronized frame by frame video with EEG
- EP epoch generator with full post-analysis

# **HD Video Monitoring**

- HD PTZ camera for close-up and full view
- Side-by-side dual view capture
- Video trimming to save hard disk space
- Clear night time view with Infra-red lamp
- Adjust light sensitivity for Day / Night detection
- High quality MPEG-4 (h.264) video
- Remote Network HD video / EEG Viewer
- Multi-room monitoring (4 beds per viewer)
- Mounts to wall or Hospital cart for portability
- Wide-band microphone with high sensitivity



# TruScan RS / LT Wireless

The TruScan LT Wireless EEG system can be used for Ambulatory, Wireless, Long Term Monitoring and standard clinical use.

Connected or Ambulatory Mode: In Connected or Ambulatory mode, the TruScan LT system can record up to 45 hours and TruScan RS up to 90 hours on a single charge.

Wireless Mode: In Wireless mode, the TruScan LT system can record for up to 30 hours and TruScan RS up to 40 hours on a single charge.

The TruScan LT has a wireless range of 100 meters from the base system. With additional wireless signal extenders this range can be extended to 300+ meters.

When a patient is out of wireless range, the TruScan Headbox will continue to record to internal memory and will automatically re-sync the backup data when the patient comes back into the wireless communication range.



# TruScan LT - 24, 32, 64, 128, 256

Numbers of single electrode connectors depends on headbox 1x Easy connect Cap connector Online Impedance Check Battery operated - removable batteries Optional Holter recording to SD card Compact dimensions 90 x 47 x 140 mm













# **DEYMED Diagnostic s.r.o.**

Kudrnacova 533

549 31 Hronov

Czech Republic



info@deymed.com



www.deymed.com



+420 491 481 038

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Magnetic stimulators
TMS



Epileptology EEG



Somnography PSG



Neurofeedback BFB / qEEG