

Measuring and Modulating Brain Activity



neuroConn  **THERA PRAX[®] Q-EEG**

DC-EEG Biofeedback System

The THERA PRAX[®] QEEG is a biofeedback system supporting patients to learn to self-regulate their brain activity (EEG-Biofeedback). It is intended to be used for EEG biofeedback with the slow cortical potentials (SCP) protocol in the treatment of children with attention-deficit/ hyperactivity disorder (ADHD).

In addition, the system reliably records multi-channel EEG, ECG, and EMG signals as well as peripheral bio-signals to describe psychophysiological correlations during relaxation or a stressful situation. To individually control the progress of therapy, cognitive evoked potentials can be recorded.

Due to the very close cooperation with leading scientific institutions in the field of EEG-biofeedback, our devices incorporate the latest medical research results.

Advantages of the THERA PRAX[®] Q-EEG

- Biofeedback of the slow cortical potentials (SCP) with automatic online correction of artifacts caused by muscle and eye movements
- Biofeedback training with breathing, temperature, GSR, pulse curve
- Recording of a quantitative EEG in combination with peripheric signals

Moving thought

neuroCare 

THERA PRAX[®] Q-EEG Features

- 22-channel full-band Q-EEG, DC-EEG biofeedback system
- DC-EEG feedback of slow cortical potentials (SCPs)
- Generation of Q-EEG, spectral analysis with interface to "NeuroGuide" software
- EEG biofeedback with frequencies (alpha, theta, beta, delta, SMR and any desired bands) and ratios (e.g. beta/theta)
- Free choice of frequency band, algorithm and combinations of the two (ratio, correlation, coherence, bicoherence etc.)
- Free choice of feedback channel (unipolar, bipolar, source, multi-channel)
- Biofeedback with EMG, ECG, HR
- Audio-visual feedback and animation
- Patient database with medication and examination calendar, complete documentation of readings
- Analysis of single session and comparison of multiple sessions
- Suitable for polygraphy and polysomnography

THERA PRAX[®] Q-EEG Specifications

Full-band DC-EEG and BIOSIGNALAMPLIFIER

- 22 full-band DC channels, referential
Input impedance > 10 G
- 24 bit resolution per channel
- Selectable sample rate of 32 to 4,096 sps
- Frequency range of 0 to 1,200 Hz depending on sampling rate
- Common mode rejection rate (CMRR) > 90 dB @ 50 Hz
- Dynamic input range ± 175 mV
- Input noise < 0.9 μ V (RMS) @ 0-110 Hz at 256 sps
- Power consumption approx. 1.5 W
- Power supply via replaceable, rechargeable batteries
- Continuous operation time > 8 h
- Applied part type BF
- Dimensions: 13.5 cm x 23.5 cm x 6.5 cm (W x D x H), weight: 0.8 kg
- Data transmission using optical cable

PANEL PC

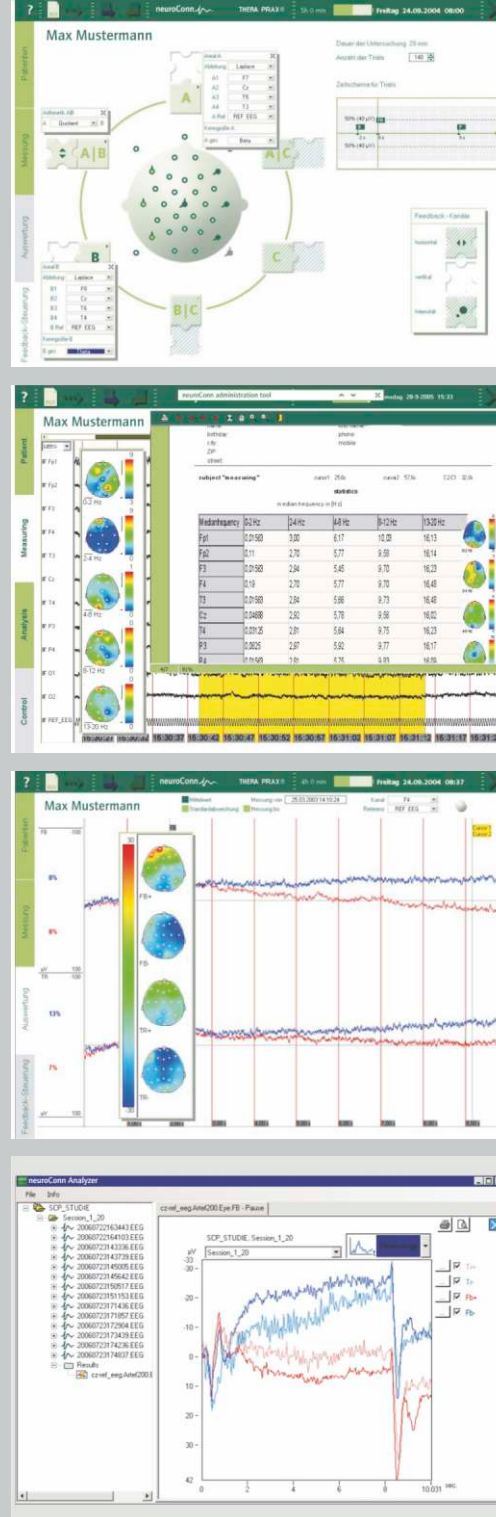
- Intel CPU, min. 2 GHz, min. 2 GB RAM, min. 250 GB hard disk, USB 2.0, network connection
- WINDOWS[®]7 (and later) operating system, min. 15" TFT color monitor, keyboard, mouse
- Dimensions: 42.0 cm x 36.5 cm x 17.0 cm (W x H x D), weight: 6.8 kg

THERA PRAX[®] Q-EEG Options

- Module to correct EEG artifacts (blinking, eye movement, body movement) in real time
- Module for cognitive evoked potentials: CNV, P300, ERN, and readiness potential
- Multimedia module
- Export module for data export
- Secondary monitor for the patient
- Biofeedback with breathing, temperature, GSR, pulse curve
- Four additional polygraphy channels for respiration, temperature, GSR and pulse curve
- Equipment trolley

Particular Advantages of our equipment

- Our equipment can be used for many applications including combined bio- and EEG biofeedback.
- neuroConn feedback equipment uses clinically evaluated protocols.




We reserve the right to make changes and improvements in line with technical developments.



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