Measuring and Modulating Brain Activity

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THERA **PRAX**® Q-EEG

DC-EEG – Bio- and Neurofeedback System

The THERA **PRAX**® Q-EEG is a DC-EEG neurofeedback and biofeedback system with 22 EEG channels. During biofeedback - a treatment method, based on operant conditioning - the patients receive feedback about their physiological states and changes in these states, which mostly cannot be perceived by the patient. Neurofeedback is a kind of biofeedback and therefore a method in instrument-based behavioral therapy. It allows the patients to perceive and self-regulate their brain activity. Neurofeedback is probably effective in the treatment of ADHD and it possibly reduces the number of seizures in patients with epilepsy, if previous established treatments were unsuccessful.
In addition, the system reliably records multi-channel EEG, ECG, and EMG signals as well as peripherical 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.

Advantages of the THERA **PRAX**® Q-EEG

- Neurofeedback of the slow cortical potentials (SCP) with automatic online correction of artifacts caused by muscle and eye movements
- Neurofeedback with frequencies (Delta, Theta, Alpha, Beta, SMR, Gamma and any desired band) and ratios (e.g. beta/theta)
- Biofeedback training with breathing, temperature, GSR, pulse curve
- Standardized, clinically evaluated protocols for the training of SCP and frequencies
- Recording of a quantitative EEG in combination with peripheric signals

Moving thought

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THERA **PRAX**® Q-EEG

THERA **PRAX**® Q-EEG **Features**

- 22-channel full-band Q-EEG, DC-EEG neurofeedback and biofeedback (optional) system
- DC-EEG feedback of slow cortical potentials (SCPs)
- Generation of Q-EEG, spectral analysis with interface to "NeuroGuide" software
- Neurofeedback 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 BIOSIGNAL AMPLIFIER

- 22 full-band DC channels, referential
- Input impedance > 10 G W
- 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 µV (RMS) @ 0-110Hz 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

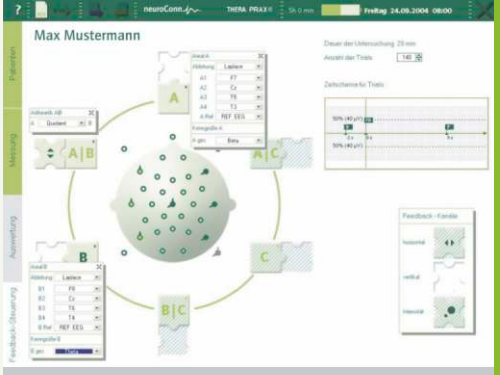
THERA **PRAX**® Q-EEG **Options**

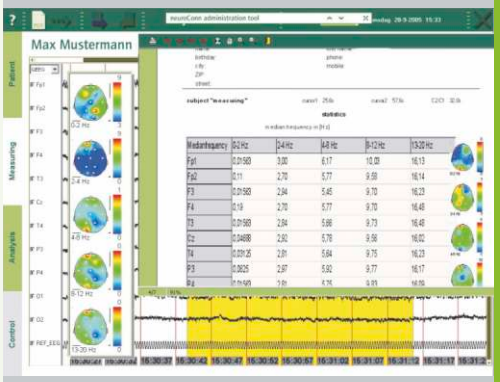
- Module to correct EEG artifacts (blinking, eye movement, body movement) in real time
- Module for cognitive evoked potentials: CNV, P300, ERN, and readiness potential
- Multimedia module
- Export module for data export
- Secondary monitor for the patient
- Biofeedback with breathing, temperature, GSR,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

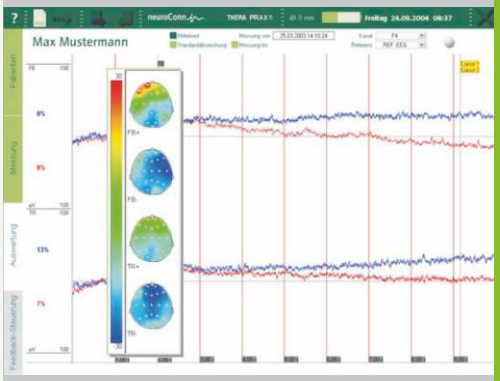
Particular Advantages of our equipment

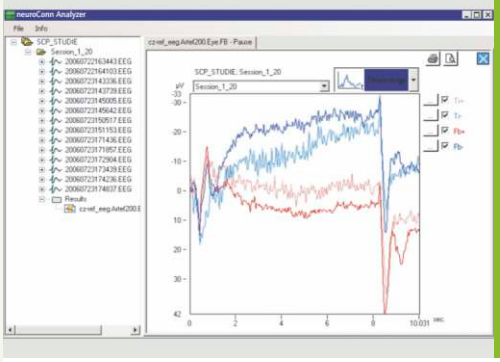
- Our equipment can be used for many applications including combined bio- and neurofeedback.
- neuroConn feedback equipment uses clinically evaluated protocols.

Made in Germany









neuroCare

neuroCare Group GmbH
Rindermarkt 7
80331 München
Germany

T +49-89-215 471 299 5
F +49-89-215 471 299 1
info@neurocaregroup.com
www.neurocaregroup.com

neuroConn GmbH
Albert-Einstein-Straße 3
98693 Ilmenau
Germany

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