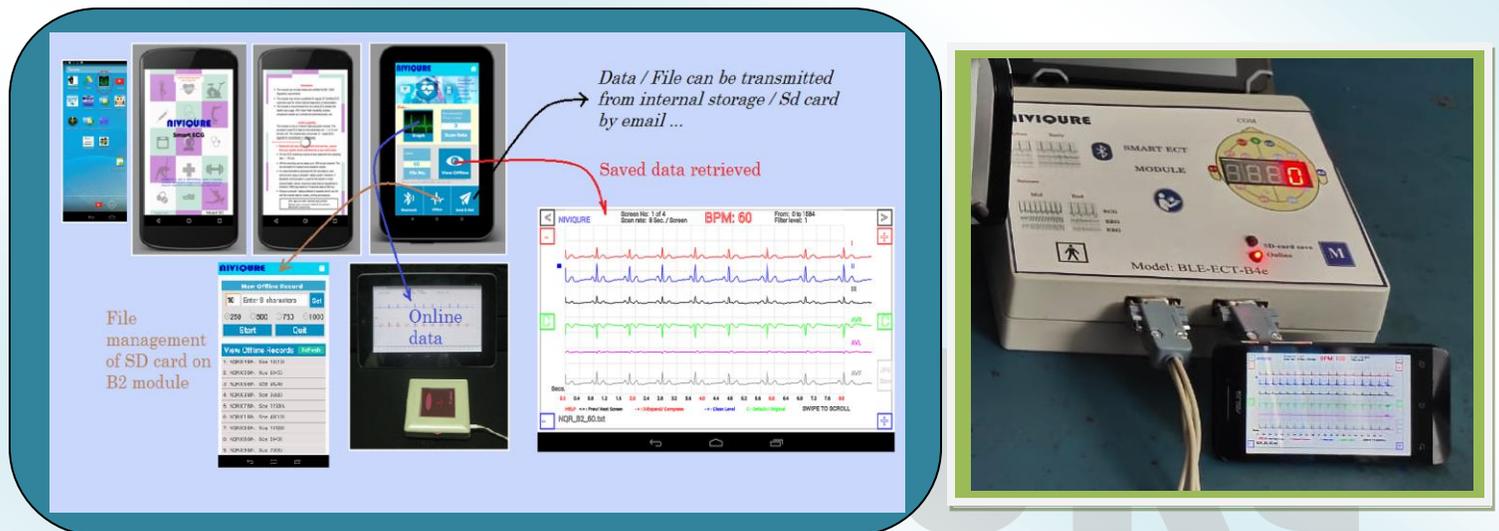


NIVIQUIRE 4-CHANNEL BIO-FEEDBACK SYSTEM

Model NIVIQUIRE-B4BF

NIVIQUIRE-B4BF Model: *Niviqure B4BF Bio-Feedback system is a compact unit designed to record up to 4-channel Bio-electrical potentials.*



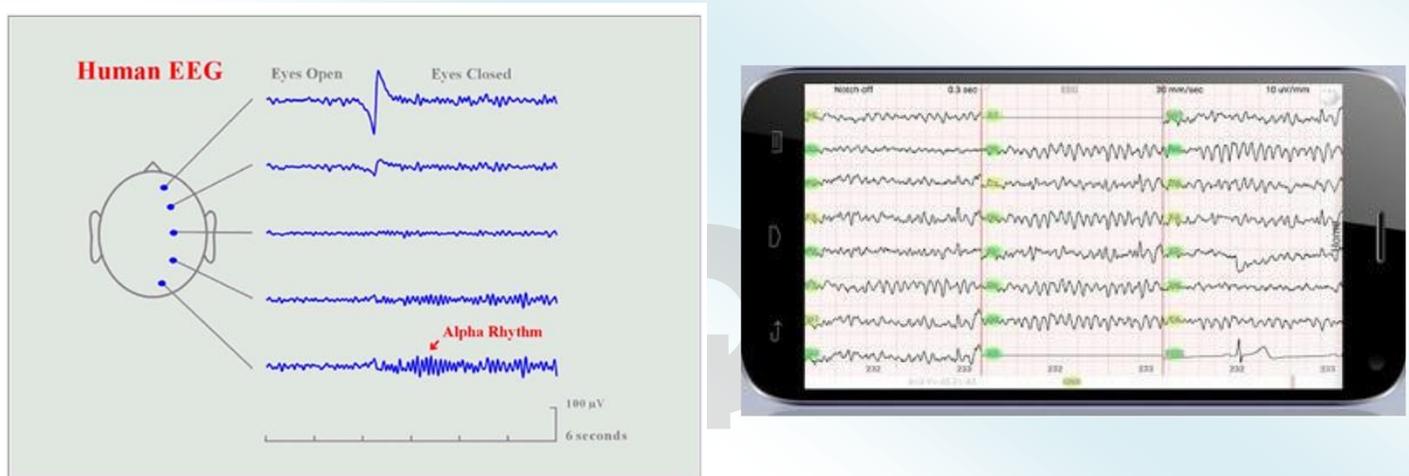
(The above image is only representative)

1. ECG (with 1024 samples per second per channel data acquisition for HRV – Heart Rate Variability studies; for irregular heart beat studies / warnings).
2. Pulse (waveform and pulse rate studies)
3. Respiration analysis (Chest Belt type)
4. Respiration analysis (Nasal type)
5. EMG analysis
6. EEG analysis
7. GSR studies
8. Phono-cardiograph analysis
9. Blood Pressure studies
10. SPO2 studies
11. Body temperature studies

(The 4-channel system will be customised for any 4 parameters)

Technical Specification

- Number of channels selectable: 2 or 4 channels.
- Frequency band: 0.5 to 40 Hz.
- Optimal Zoom (Y-axis), Time (X-axis), digital filters provided..
- Sampling rate set to 1000 samples per second per channel.
- The couplers and the required transducers are interface able with the Main Unit.
- Data saving / retrieval is possible in any of the following modes:
 - On-line data display.
 - Off-line data acquisition.
- **Can be used with computer and / or Android Smartphone Tablet / phone.**
- **EEG Analysis: The number of waves per division (X-axis) has to be manually counted and tabulated to decide whether alpha, beta, theta, delta wave.**



(Representative image of multi-channel EEG. For illustration only)

When sampled at normal viewing rate (125 s/s):

- Low pass filter settings: 0.08 to 40 Hz → taking into account Nyquist criteria;
 - High pass filter settings: 15 to 40 Hz → taking into account Nyquist criteria;
 - Notch filter (50 Hz) → not applicable for this lowest sampling rate.
 - **For sampling rate > 125 s/s → High Pass / Low Pass / Notch filter settings are applicable for offline saved data (SD card saved data analysis with PC).**
 - Lowest setting of Low Pass Filter is preset by Hardware → 0.05 Hz.
 - Higher end value of HP / LP is restricted through sampling rate and DSP algorithm.
-
- Sampling rate: 1000 samples per second per channel during storage in micro-SD card. 125 samples per second for viewing online screen.
 - Micro-SD card storage memory: 2 Gb.

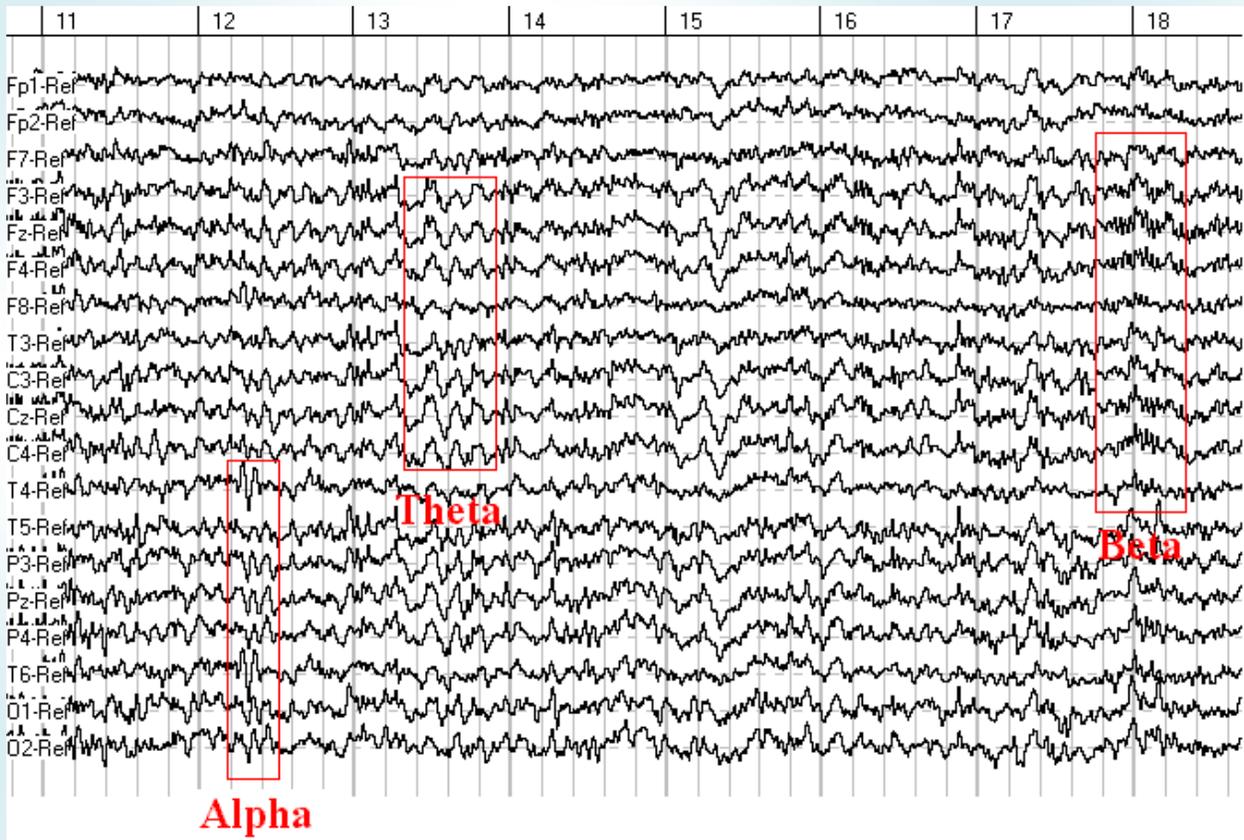
Designed, developed and manufactured in India.

In view of continuous upgrades the actual model may vary from the pictures and specifications shown in this brochure.

An ISO 13485:2016 certified company

Web site: <http://www.niviqure.com>

Email: info@niviqure.com



EEG ANALYSIS

Beta Waves — 13-40 Hz: Brainwave Entrainment Benefits

- ✓ The beta wave is the predominant frequency when we are fully awake and alert.
- ✓ Active awareness directed to the outer world.
- ✓ Beta brainwaves are present during **stress**, paranoia, **worry**, **bipolar disorder**, **anger**, **fear**, and **anxiety**.
- ✓ They are also present during hunger, **depression**, irritability, and moodiness.
- ✓ **Insomnia** is the result of producing excessive beta waves.
- ✓ Associated with excessive **mind chatter** and self-destructive impulses.
- ✓ Too much time in the beta state weakens the **immune system**.
- ✓ Beta brainwaves make up much of our **conscious mind**.

Alpha Waves — 7-13 Hz: Brainwave Entrainment Benefits

- ✓ The alpha state is where **meditation** and **relaxation** begins.
- ✓ We start to encounter the wealth of effortless **creativity** flowing just beneath our conscious state.
- ✓ We experience alpha waves when we are **focused** yet deeply relaxed.
- ✓ Studies have shown the alpha state has been associated with “peak performance.” **Elite athletes** produce alpha brainwaves prior to highly concentrated performance (shooting a free throw, hitting an important golf shot). Amateur athletes produce more of the **anxious** beta brainwaves.
- ✓ In the alpha state we **learn**, process, **memorize** and recollect large sums of information fast and with peak effectiveness.
- ✓ Highly **creative people** have been shown to have “bursts” of alpha waves when they have good ideas.
- ✓ Alpha waves are thought to make the **brain “act young”** again.
- ✓ In the alpha state fears, habits, and phobias begin to melt away.
- ✓ Alpha brainwaves bring an effortless sense of comfort, peace, **happiness**, and **harmony**.
- ✓ Alpha waves are best for “**super learning**”.
- ✓ Alpha waves dominate the first layer of our **subconscious mind**.
- ✓ A gateway to **deeper states** of **awareness**.

Theta Waves — 4-7 Hz: Brainwave Entrainment Benefits

- ✓ Theta brainwaves become prominent when we go deeper into **meditation** and relaxation — “almost trance-like”.
- ✓ Here, **brain activity** decelerates to the threshold of the **sleep** stage.
- ✓ One of the more indescribable and wonderful realms we can explore.
- ✓ Theta waves produce flashes of **creative** visualization through vivid imagery.
- ✓ In the theta state we feel much more **open and connected** to **other people**.
- ✓ People often report a feeling of **floating** while producing theta brainwaves.
- ✓ The theta state heightens problem-solving skills.
- ✓ Having dominant theta brainwaves are correlated with insight and **intuition**.
- ✓ Associated with **lucid dreaming**.
- ✓ Theta waves bring **inspired** thought and increased motivation.
- ✓ Sometimes long-forgotten **memories** come to the surface.
- ✓ Children have strong theta brainwaves, which helps to explain their superior ability to **learn**.
- ✓ Theta waves are briefly experienced as we climb out of the depths of delta upon waking, or when falling asleep.
- ✓ The theta state is the deeper **subconscious** to unconscious part of the **mind**.

Delta Waves — 0-4 Hz: Brainwave Entrainment Benefits

- ✓ Delta waves are the deepest level of **meditation**.
- ✓ The delta state is associated with “no thinking” during deep, dreamless **sleep**.
- ✓ Delta brainwaves are very rewarding.
- ✓ Delta waves are said to be the entrance to non-physical **states of reality**.
- ✓ A crucial state for **renewal**, **healing**, and **rejuvenation**.
- ✓ The **immune system** strengthens in the delta state.
- ✓ Delta waves are linked to the **unconscious** part of our mind.
- ✓ Many scientists believe delta waves to be the most **beneficial**.

(Information from public domain Internet)