

# Research Project Department of Applied Physics of the Universidad Politécnica de Catalunya

# Report on the physical interpretation of the technology of Pranan circuits

### 1. Description of the technology

The company Pranan Technologies manufactures radiation emitting 'panels' with a balancing effect, as proven via hormone analyses and other laboratory analysis methods.

These panels can be divided into two types according to their use. The first are designed to be affixed to mobile phone cases, with the aim of protecting mobile users from the microwave radiation emitted by the phone. A second panel is designed for personal use, exercising a balancing effect against all types of background radiation.

The panel's action is primarily to balance in both cases.

#### 2. Durability and effects

With the data available at present, the panel's action is seen to endure over time, except when there is an accident or damage to its inside parts.

The panel does not have any type of power feed, which contributes to the maintenance of its properties over time. Thus, the source of the radiation emitted would not be from the emission of the materials from its inside, but from the capture and filtering of ambient energies by means of the inside surfaces generated.

# 3. Physics principles

<u>Ambient energy.</u> Unified field theory specifies that physical space is not an abstract mathematical concept, but instead that the universe can only be described if there is energy and, if there is no energy, we cannot speak of space or time. For this reason, we establish the working hypothesis based on the fact that the panels can capture this ambient energy to emit it after modifying the type of radiation.

Working hypothesis: The panels will capture and modify the characteristics of this background radiation before emitting it. Success in developing the panels has been based on understanding that there is ambient energy and that this energy can be employed for different purposes, such as our aim of protection from electromagnetic radiation.

A fundamental datum is that the panel is constructed so that the supports for the pieces are impregnated with metal and mineral nanoparticles. Therefore, a Faraday cage was constructed with properties to filter transverse components and only permit the passage of the longitudinal components of electromagnetic fields. In other words, bearing in mind that the mathematical description of vector fields includes both transverse and longitudinal fields, the first would not penetrate to the inside, but the longitudinal fields would.

The initial hypothesis was born up by concluding that the only radiation emitted is in the form of longitudinal fields, and we reassert that this energy was extracted from background radiation, considering the possible radiation of the material from which it is produced as secondary.

Finally, the initial hypothesis is restated that the source of the radiation emitted will be captured and filtered background radiation.

Emission of magnetic radiation. Given the balancing effects at a biological level of the radiation emitted by Pranan devices, we would conclude that this radiation is fundamentally as a magnetic field. That is, as there are electrical and magnetic components, the energy from its magnetic component predominate over the energy from the electric component. This conclusion is based on the body's physical model and the effects of electric and magnetic fields on human beings stemming from this model, where magnetic fields provide energy and electric fields remove it. In the low frequency range, the electric and magnetic fields can also be calculated separately.

Current impossibility to directly detect radiation. The intensity of the panel's radiation will be so weak that it can hardly be evaluated using any measurement tool developed and based on the electromagnetic vector field theory. We will give an example to illustrate this assertion: vector and magnetic fields in the heart can be measured using electroencephalography and magneto encephalography. In both cases, currents are measured that circulate through conductive materials. If the 'vector' fields are even weaker, the SQUID system, which requires the presence of superconductors, would be the only one capable of assessing such weak radiation levels. However, if it is emitted as non-Hertzian electric or magnetic fields, this system would no longer be able to measure them, as we would have fields with a null vector sum, which can only be described via longitudinal waves. In other words, with current technology available on the market, the energy cannot be evaluated, as this can only be done if the generating sources are known.

<u>Radiation will have variable frequency.</u> As the panel emits electromagnetic radiation, it is logical to think that the radiation emitted would have a variable frequency, like background radiation itself. In this case, we must turn to known theoretical and experimental data.

To obtain good results with variable frequency fields that could only be evaluated by resonance, we must work in the low frequency range, as there are extremely low absorption peaks in biological tissues. Effectively, the theoretical deduction is that with such weak energy from the fields—whether as vector fields or non-Hertzian fields—significant results will only be obtained by working with extremely low frequency range. By focusing attention on the emission effects of the panels and the panels affixed to the mobile, we observe that they are very close to the head and, if the large panels are placed close to the head, the effects would be more prominent.

<u>Safety guarantee.</u> The panels of Pranan protectors are made of a series of superimposed pieces whose operation and efficacy can be difficult to explain from the perspective of today's physics. However, it can be understood from an innovative perspective that we established as a hypothesis and which has become stronger: there is energy in the environment that can be captured and filtered to obtain the end results that biochemical experiments have shown. This is clearly sufficient proof of its reality, as the biological tests conducted with a group of people thus confirm.

Finally, the tests presented may be enough to accept that the panels are reliable, safe and long-lasting, as they are only damaged by violent mechanical actions or chemical products that destroy the components. In addition, due to not having a power battery, they could last for an indefinite period of time, except when their materials lose strength due to their use or abuse.

<u>Obtaining results necessitates a suitable working method.</u> Collecting and filtering background energy by simple and cheap methods is very difficult. However, we also know that its effects are very pronounced when working with the suitable method. This has been our road and, as we stated in the introduction, to evaluate the effects, we turn to the laboratory tests performed and those that will be done in the future.

After the correct method was found to capture and filter ambient energy, its use was outlined to balance people, acting as protection from the stress created by the electric fields of mobile telephones' microwave radiation and in other cases.

#### 4. Radiation will contain Schumann frequencies

The study of the effects of the radiation emitted, combined with the features of the panel, lead us to conclude that the radiation emitted would correspond to the Schumann frequency and some of its harmonics.

The Schumann resonance is a series of peaks in the ELF spectrum (extremely low frequencies) of the Earth's radio spectrum. This happens because the space between the Earth's surface and the ionosphere (which exists from heights of 90 to 500 km) acts as a waveguide. The limited terrestrial dimensions cause this waveguide to act as a resonant cavity for the electromagnetic waves in the ELF spectrum.

The lowest frequency and, in parallel, the highest intensity of the Schumann resonance is some 7.83 Hz. Indeed, the frequency of the first harmonic is known to have a value around 7.83-10 Hz, although there may be differences in different regions of the world. It is detected everywhere and corresponds to a part of the ambient energy spectrum that is inundated by everything. For this reason, the deep link between human beings' state of health and this frequency can be understood. For example, it

appears in alpha brain waves, whose presence is associated with states of relaxation, although it has an even deeper meaning that we feel we must state: living beings' balancing system.

# 5. Conclusion

The panels manufactured and sold by the company Pranan Technologies may be able to capture ambient energy and filter it, due to being received by people as non-Hertzian waves with an extremely low frequency, contributing to their balancing when faced with external tensions and fields that tend to destabilise it.

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