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REPORT

R&D: Evaluation of the effective range of the LIFETUNE Personal (2020 model)

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The properties of LIFETUNE Personal are due to its ability to stabilize the functional state of the human body as an open physical system that constantly exchanges energy with the environment, permeated by technogenic electromagnetic fields through their coherent transformation [1], [2].

An electromagnetic field converted using the LIFETUNE Personal is a stationary coherent wave superposition with a corresponding energy density characterized by intensity *I* (see table). Calculations were made for the frequency 2.4 GHz, which is standard for Wi-Fi radiation and 4G mobile communications, and for the frequency 28 GHz, which is standard for 5G. The effectiveness of the LIFETUNE Personal was estimated based on the intensity of the field transformed into a coherent form, determining the zone of maximum action.

The stable electromagnetic field generated by the LIFETUNE Personal has several fractal levels due to the number of ring elements in the topological circuit of its microprocessor and the size of the circuit itself [3]. Outside the zone of maximum action, the density of the highly coherent field begins to decrease and, accordingly, the effectiveness of the device decreases.

Table of the basic parameters of the LIFETUNE Personal

Diameter of the 64P1S5G microprocessor circuit	0.02 m
Number of elements in the topological circuit of the microprocessor	4161
Device size	0.053 m
Radius of the maximum effective zone of influence	0.32 m
Intensity *I* of the EM field in the maximum effective zone for 4G	$1.34*10^4$ W/m^2
Intensity *I* of the EM field in the maximum effective zone for 5G	$2.36*10^7$ W/m^2

Fig. 1 shows the scale of the drop in the LIFETUNE Personal's effectiveness using the example of its interaction with Wi-Fi radiation at a frequency of 2.4 GHz ($I \sim 0.33$ W/m^2).

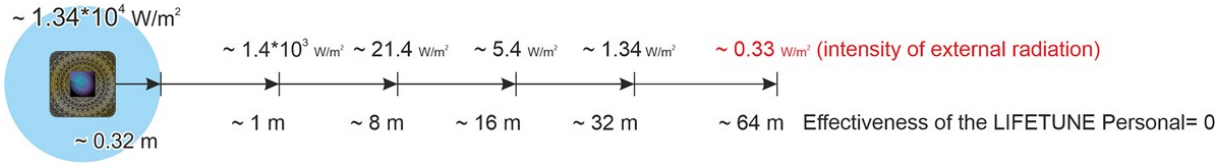

Fig. 1. Scale of the drop in the effectiveness of protection from the LIFETUNE Personal from EMR at a frequency of 2.4 GHz (4G).

Fig. 2 shows the scale of the drop in the LIFETUNE Personal's effectiveness using the example of its interaction with Wi-Fi radiation at a frequency of 28 GHz ($I \sim 6146.67$ W/m^2).

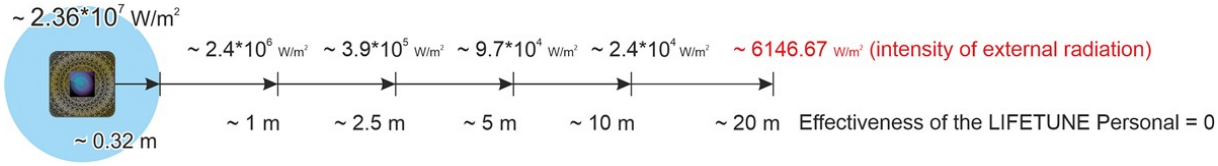

Fig. 2. Scale of the drop in the effectiveness of protection from the LIFETUNE Personal from EMR at a frequency of 28 GHz (5G).

When the protective electromagnetic field's intensity decreases to the parameters of the intensity of external radiation, the LIFETUNE Personal's effectiveness drops to zero.

If there are several external sources of radiation, it is necessary to use several LIFETUNE Personal devices in conjunction with the LIFETUNE Room, since the external radiation's total intensity dramatically reduces the LIFETUNE Personal's zone of effective influence.

The decrease in effectiveness is determined by the decrease in the intensity of the protective EM field, which is inversely proportional to the square of the distance from the device (LIFETUNE Personal) and is estimated using the following formula:

$$I \sim \frac{1}{R^2}.$$

At a distance of 16 m from the center of the LIFETUNE Personal (for EMR at a frequency of 2.4 GHz), the intensity of the protective field reaches a value at which the effectiveness drops to a critical level (see Figure 3), determining the boundary of a highly coherent spherical field with a diameter of 32 m.

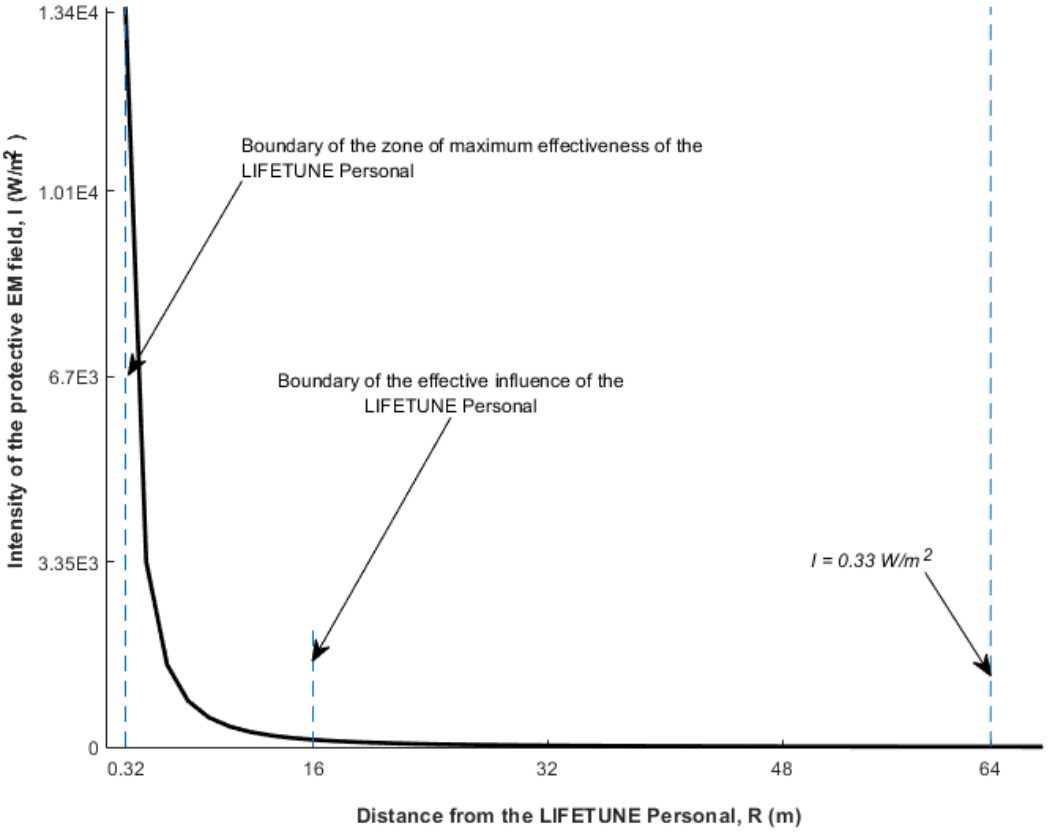

Fig. 3. Graph of the effectiveness of the LIFETUNE Personal as a function of distance for EMR at a frequency of 2.4 GHz.

Thus, the recommended coverage diameter of the effective influence of the LIFETUNE Personal is ~ 32 m.

At a distance of 5 m from the center of the LIFETUNE Personal (for EMR at a frequency of 28 GHz), the intensity of the protective field reaches a value at which the effectiveness drops to a critical level (see Figure 4), determining the boundary of a highly coherent spherical field with a diameter of 10 m.

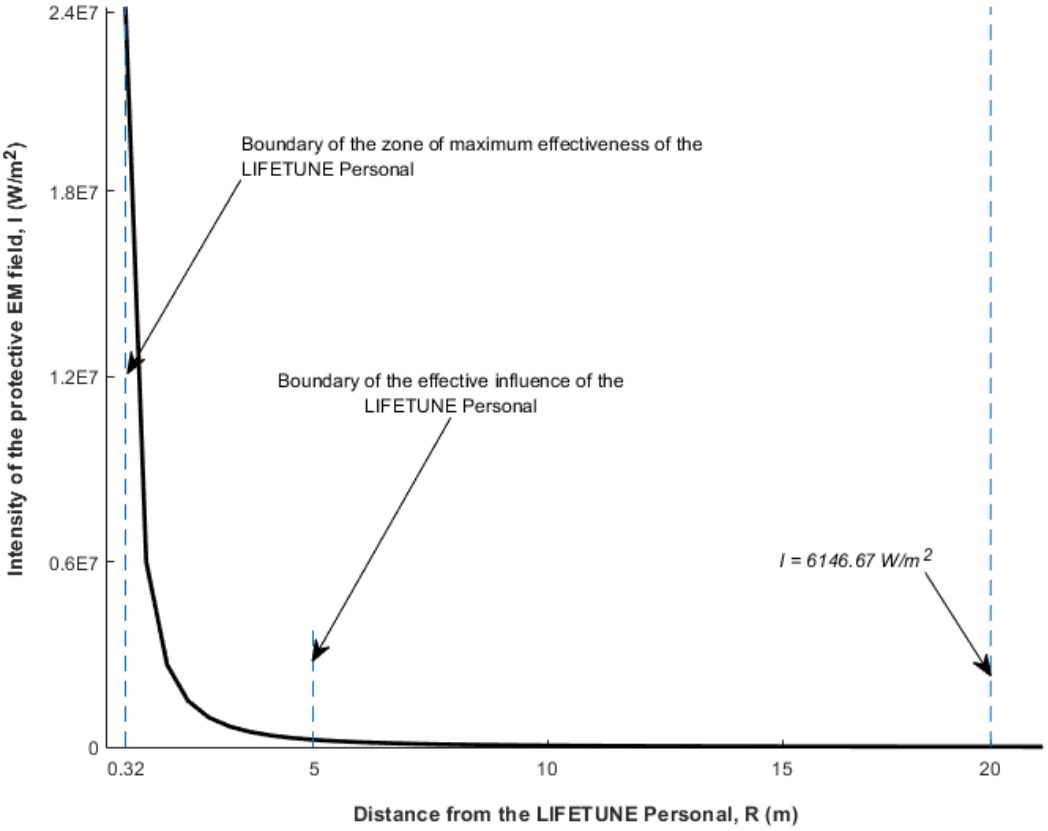

Fig. 4. Graph of the effectiveness of the LIFETUNE Personal as a function of distance for EMR at a frequency of 28 GHz.

Thus, the recommended coverage diameter of the effective influence of the LIFETUNE Personal is ~ 10 m.

The indicated distances are reached in open space.

BIBLIOGRAPHY

1. Dainius Jasaitis, Vaida Vasiliauskiene, Paulius Miskinis, Jovita Damauskaite, Arturas Jukna, Aleksandr Kopyltsov, Genady Lukyanov, Konstantin Korshunov, Igor Serov Investigation Of The Circle Fractal Structure Interaction with Gigahertz Frequency Electromagnetic Waves, ITMS 2018.
2. Kopyltsov A.V., Korshunov K.A., Lukyanov G.N., Serov I.S. Distributed computing of interaction of electromagnetic radiation with a structured surface, Regional Informatics and Information Security., 2016.
3. Serov I.S., Korshunov K.A., Soltovskaya I.A., Shamko T.V., Kopyltsov A.V., A. Yukna R&D: Calculation of the strength and intensity of the electromagnetic field during the interaction of electromagnetic radiation at a frequency of 28 GHz (Wi-Fi 5G) with an Aires 64P1S5G resonator (microprocessor), which is used in the LIFETUNE Room and LIFETUNE Personal (2020 model), 2020.