

Monitoring and evaluation of electromagnetic fields near some base stations for telecommunication systems in some areas of Tirana

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Abstract

The widespread use of electronic devices, especially mobile phones, is accompanied by the ever-increasing interest of the public and researchers in the possible occurrence of adverse effects on people's health, which may be caused by exposure to the electromagnetic fields that accompany these devices. The improvement of the service or the addition of mobile operators has been accompanied by an increase in the number of the base stations located mainly in residential areas. It is of great interest to measure and evaluate the electromagnetic field near these base stations located near urban centers and residential areas. The purpose of this study is monitoring and evaluation of high-frequency electromagnetic fields near one or several base stations for wireless communication systems in several urban centers and residential areas in Tirana (near 21 Dhjetorit and Zogu I Zi), by measuring the intensity E of the electric field using the SRM-3006 (Selective Radiation) device Meter) for electromagnetic fields up to 6 GHz and comparison with the permitted exposure levels for the population, determined by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The process of making the measurements was done according to a standard procedure, based on the European recommendations for several base stations [1], which is applied in those cases where we have more than one transmission station in a certain area.

References

[1] L.Correia, C.Fernandes,G.Carpinteiro, C.Oliveira-A procedure for estimation and measurement of Electromagnetic Radiation in the Presence of Multiple Base Stations 2010.

Figures

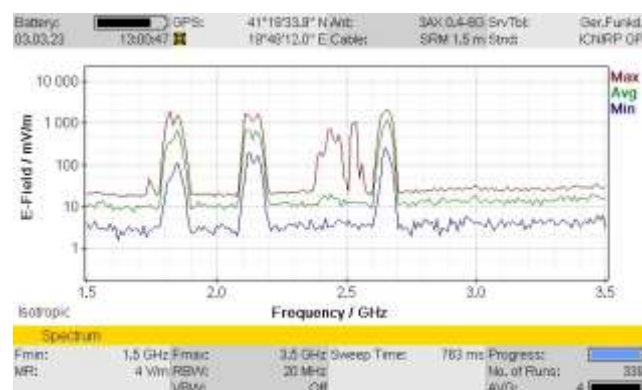


Figure 1. The maximum, average and minimum values of the electric field near the base stations on 21 Dhjetorit