

---

**Press release**

To be reported on February 21, 2012 (Tuesday).

Inquiry: Yeong-Soo Jeon, Radio Infrastructure Team, Broadcasting & Communications  
Convergence Policy Office (☎750-2230)

Jae-Deok Lim, Radio Infrastructure Team. (☎750-2244) lim@kcc.go.kr

---

**The Korea Communications Commission announces  
the results of its research on electromagnetic waves  
in everyday life**

**- Safe within the Guidelines for Limiting Human Exposure to  
Electromagnetic Waves -**

To alleviate concerns over exposure to electromagnetic radiation in everyday life, the Korea Communications Commission announced the results of its 2011 study on electromagnetic waves.

The study measured ① radio stations like mobile communication base stations near residential areas, and ② the strength of electromagnetic waves emitted by home appliances like electric heating pads and microwave ovens, etc.

In 2011 the strength of electromagnetic waves emitted by a total of 5,552 mobile communication base stations near residential areas was measured, and it was found that none of them exceeded the Guidelines for Limiting Human Exposure to Electromagnetic Waves.

In particular, 98% of all radio stations measured were found to emit less than 1/10th of the amount recommended by the guidelines.

When it comes to home appliances, a total of 36 items including electric heating pads and microwave ovens were investigated, and the results showed that they emitted 1/10th~1/100,000th of the amount stipulated in the electromagnetic wave guidelines, a very safe level. In particular, the electric heating pads, about which the general public is especially concerned, were 1/60th of the recommended standard.

However, the Korea Communications Commission said that a relatively higher level of electromagnetic waves than that of other home appliances was measured from microwave ovens but mostly from the right hand side. Contrary to the general assumption that much of the 2.4GHz electromagnetic waves generated in the cooking chamber of a microwave oven is typically leaked and a high level of electromagnetic waves emitted, KCC found that radiation emitted lies within an acceptable range and is mostly concentrated on the right side of the appliance where the high-voltage transformer is located. Microwave transformers typically emit a wide 60Hz magnetic field. However, if they are used at a distance, there is no problem, so KCC recommends that users should be at least 30cm away from the microwave when using one.

In addition, to help the general public more easily understand the impacts of electromagnetic waves on the human body, exposure to electromagnetic waves in everyday life, and right ways of using home appliances, the Korea Communications Commission published a brochure titled Electromagnetic Waves in Everyday Life.

After the World Health Organization (WHO) announced that the electromagnetic waves emitted by cell phones can cause cancer, the Korea Communications Commission established comprehensive measures last September to protect citizens against them and alleviate their concerns, and said this study was conducted as part of the measures.

Attachment: the informational brochure *Electromagnetic Waves in Everyday Life*