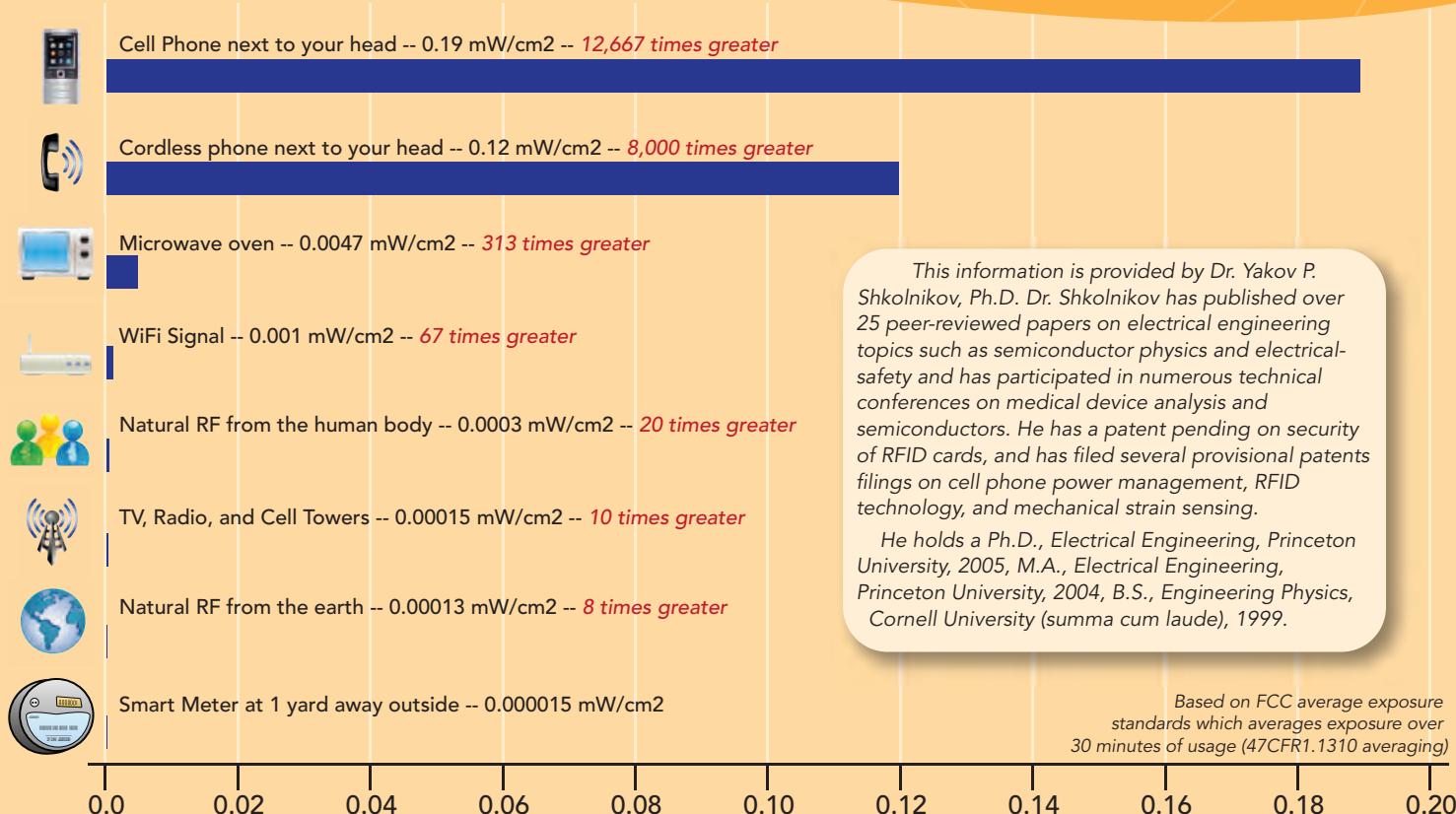


# Radio Frequency Comparison of Common Sources



This information is provided by Dr. Yakov P. Shkolnikov, Ph.D. Dr. Shkolnikov has published over 25 peer-reviewed papers on electrical engineering topics such as semiconductor physics and electrical safety and has participated in numerous technical conferences on medical device analysis and semiconductors. He has a patent pending on security of RFID cards, and has filed several provisional patents filings on cell phone power management, RFID technology, and mechanical strain sensing.

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# KIUC's smart meters and RF fields:

People are continuously exposed to very low levels of natural and man-made radio frequency fields, or RF. Even the earth's surface and the human body are constant sources of RF fields.

Smart meters will send information about electricity use to KIUC by RF signals. RF exposure from the smart meters are of much lower power than other common sources for two reasons: infrequent signal transmission and distance. KIUC's smart meters emit power for far less than one minute per day—and these meters are typically placed outdoors, with a wall separating the meter from the living space. This combination of placement and infrequent operation means you would need to be within one foot of 7,000 smart meters all communicating at the same time to reach the Federal Communications Commission exposure limit.

## Quick Facts

1. The FCC limit for RF exposure is 1 milliwatt per square centimeter (mW/cm<sup>2</sup>)
2. At 20 inches in front of a meter, the average exposure to RF signals is less than the background RF signals naturally generated by the earth, and less than 0.007 of the safe exposure standard set by the FCC.
3. Exposure to RF is significantly reduced by buildings. At one yard in front of the meter on a typical day, inside your home, your exposure is minuscule—more than 1.3 million times below the FCC standard.



For more information on Smart Grid including a list of FAQ's, scan the code below with your smartphone and a QRreader application or visit [www.kiucnewablesolutions.coop](http://www.kiucnewablesolutions.coop).

