TESSCO

SPOTWAVE
coverage made simple

Spotwave Backgrounder
Power Emission and Battery Life

Wireless Devices and Your Health

The available scientific evidence does not show that any health problems are associated with using wireless devices. Wireless devices do however emit low levels of radiofrequency energy (RF) while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects.

However this issue is constantly being monitored and tested because individuals are concerned with any device emitting RF energy close to their heads. Below we provide information about when cell phones and other wireless devices might emit more RF energy, and how improving indoor coverage can lower the power, and ensure better battery life.

Why and When Does Your Phone Emit Higher Levels of Power?

In terms of wattage, cell phones and PDAs emit power in the range of 200 to 600 milliwatts. These devices use adaptive power control, which means they transmit with the lowest possible power that will allow them to communicate with the nearest base station.

Your wireless devices will emit more power, however, when they have to work harder to send and receive signals. For example, a cell phone inside a home with poor coverage has to transmit several hundred milliwatts of power to reach the base-station.

Solving the Problem with Enhanced Indoor Coverage

The better the coverage and signal indoors, the less power your phone will use, and the less radiation it will emit. When you install a ZEN intelligent indoor wireless coverage system, you shorten the path the signal takes from your cell phone to the base station because the signal only needs to travel to the ZEN system. The ZEN system does the work of transmitting the wireless signal to the cell tower, so your cell phone emits less power, stays cooler and your battery lasts longer.

A Closer Look at the Power of Your Indoor Coverage System

There are several devices on the market that claim to enhance your indoor coverage but emit up to 3,000 milliwats of power! They are not a good option if you're looking to benefit from reduced RF emissions. Unlike traditional amplifiers, Spotwave's ZEN system emits very low RF power – less than 1 milliwatt inside your home. ZEN also lowers the overall RF energy indoors because it provides consistent coverage so your wireless devices emit less power. With the ZEN system you can increase standby times by up to 60% and increase talk times by up to 100%.

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Summary

- Spotwave products like ZEN lower the RF energy in your building because it provides consistent coverage ensuring your phones and PDAs don't emit as much power
- Unlike traditional amplifiers that emit up to 3,000 milliwatts of power, Spotwave's ZEN product transmits less than 1 milliwatt indoors
- A cell phone inside a home or building with poor coverage has to transmit several hundred milliwatts of power to reach the base-station
- By improving indoor coverage with products from Spotwave, your cell phones and PDAs transmit and use less power because they are communicating with a device that is closer than the base station
- When your wireless devices use less power their battery life is extended
- In fact, with SpotCell systems you can increase standby times by up to 60% and increase talk times by up to 100%