

Cuprotect® W-LAN and DECT Repeater Attenuation Sleeves

(EU-Patent Nr.2046106)

3 versions: for antennas up to 20 cm in length and 1.2 cm or to 1.6 cm in diameter

This attenuation sleeve was specifically developed for the attenuation of RF radiation caused by WLAN routers, WLAN repeaters, and repeater stations of DECT cordless phone networks. It is designed to provide sufficient coverage at minimum radiation level.

The sleeve is placed over the antenna and reduces RF radiation by ca. 30 dB (factor 1,000). The sleeve can be adjusted to meet the reception level required by shortening the inner part of the Cuprotect® Spezial mesh. The sleeve features a collar that is part of the shielding effect. It is breathable so that it can dissipate heat generated at the antenna.

As a rule, the antennas with which routers or repeaters are shipped are often oversized and not adjusted to the transmission and reception levels required at a given location.

In real-life situations where this attenuation concept was implemented with Cuprotect® attenuation sleeves in buildings and conference centers, attenuations of up to 30 dB were achieved. Measurements taken with a spectrum analyzer revealed that WLAN levels of 0.1-3 $\mu\text{W}/\text{m}^2$ were sufficient in order to watch a YouTube movie on the Internet with both a laptop as well as a WLAN-enabled smartphone. This attenuation sleeve is suitable for offices, cafés, conference centers, schools, and all other areas where people spend extended periods of time.

Especially at home and certainly at night, the WLAN function at the router should be completely turned off.



Antenna at router - not shielded



Antenna at router with attenuation sleeve



WLAN repeater



WLAN repeater shielded

The Cuprotect® attenuation sleeve clears the living and work area of RF radiation by a factor of 1,000; neighbors, fellow occupants, and colleagues will also benefit from this. Health effects from the constant exposure to WLAN radiation have been sufficiently documented in the scientific literature.

Also see: special edition „W-LAN in Schulen“ [WLAN in Schools], student experiment „W-LAN Strahlung und Mehlwürmer“ [WLAN radiation and mealworms], ECOLOG study: Funk-Netzwerke [Wireless Networks]

(See under downloads at: : www.cuprotect.de)