



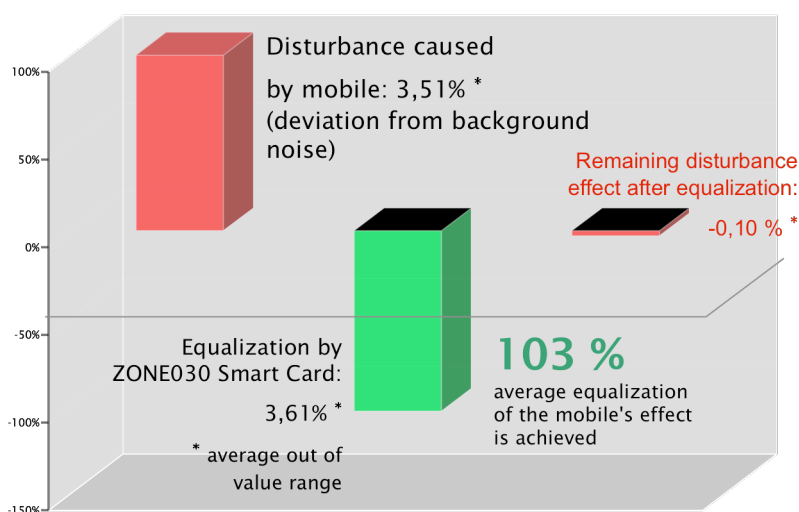
Smart Phone Measurement Report No. 002/2012

Sony Ericsson Xperia

Operator: Eliran Moreno
Date: 2012-09-27
Time: 11:30 a.m.
Product tested: ZONE030 Smart Card

This document gives a brief account on a measurement of a non-thermal effect of a Smart Phone in the extremely low frequency (ELF) range of the magnetic field up to 15 Hz and the reduction of this effect by the product tested.

Results

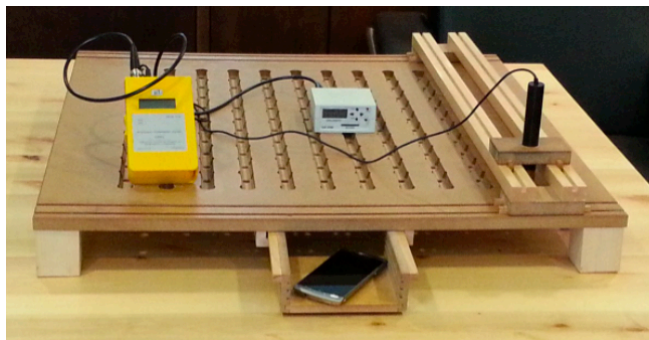


Evaluation

A quantitative evaluation is possible for those of the 121 measuring points where both effects, the disturbance by the Smart Phone and its reduction by the Smart Card have a significant order of magnitude $\geq 0.3 \mu\text{T}$ (Microtesla). The result of this assessment is that **the magnetic field disturbances by the Smart Phone are leveled out to a highly significant average extent of**

103 %
by the Smart Card.

Changes (disturbances) are already biologically relevant at approx. 0.85% **.



Measurement data

Meter: Precision Teslameter 05/40
Measuring range: 0 to 15 Hz
Amplitude: 0 to $\pm 110 \mu\text{T}$
Resolution: $0.1 \mu\text{T}$
Value range of deviations: -11.0 to 46.2% **

** relating to mean of measured values

Assessment

Disturbance by Smart Phone: deviation of ELF magnetic field with Smart Phone from background noise

Reduction by Smart Card: deviation of ELF magnetic field with Smart Phone + Smart Card from the condition without Smart Card

