Information on wireless WidexLink™

to Customers with Medical Implants like Pacemakers and Defibrillators

WidexLink™ is a wireless data transmission technology that allows instant, ongoing communication between hearing aids and direct connection to external audio sources or devices. It is developed specifically for use with hearing aids and brings new features and improved sound quality to the hearing impaired.

WidexLink™ uses a magnetic induction radio system that operates with extremely low power[1]. Such weak signals are almost immeasurable and are significantly weaker in strength compared to those that are emitted from common electronic appliances in a home environment such as TV-sets, computers and monitors etc. For example the radiated power from a CLEAR hearing aid is less than 1 billionth of that from a mobile phone.

Some DEX products like the TV-DEX and the M-DEX contain radio transmitters that operate at somewhat higher levels[2] for extended range. The emitted radio signals from these devices are still significantly weaker in strength compared to common home or office electrical appliances. The radiated power for e.g. TV-DEX or M-DEX is equivalent to that of a common commercially available Bluetooth headset for a mobile phone.

All WidexLink™ enabled equipment such as the CLEAR family of hearing aids and DEX products (including the programming units[3] like the USB Link and the Tech. Module TM#2 for nEARcom) conform to the strictest national and international standards for Safety, EMC (Electromagnetic Compatibility) and Human exposure to electromagnetic radiation, e.g. FCC Part 15 in the USA and IC RSS-102 and RSS-210 in Canada. In Europe similar requirements are met by the application of the CE mark.

The WidexLink™ equipment such as the CLEAR family of hearing aids and DEX products is very unlikely to interfere with other electronic devices, including medical implants like pacemakers.

The manufacturers of implantable defibrillators and pacemakers have published the following guidelines about the use of mobile phones for their patients who are recommended to:

- Keep the mobile phone at a distance of at least 15 cm away from the pacemaker and
- Do not carry the mobile phone in a shirt pocket or close to the chest.

For WidexLink™, the radiated output power of the most powerful DEX products is significantly weaker (approx. 1/1000) than that of a mobile phone.

However, any person who is wearing active electronic implants like pacemakers is advised to contact her/his doctor or the manufacturer of the medical implant for guidance about the safe use of WidexLink™.

If any abnormal situation is observed, do not use the hearing aids (and/or DEX) and contact your doctor or pacemaker manufacturer and hearing healthcare professional immediately.

Widex A/S, 30 January 2012

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Examples of emission Levels:

[1]) Widex InterEar communication: Frequency = 10.6 MHz, Emitted power = 29 pW (0.000000000029 W), Magnetic field strength = -54 dB µA/m @ 10 m

[2]) DEX-products communication : Frequency = 2.4 GHz, Emitted power (TV-DEX) = 1 mW (0.001 W), Emitted power (M-DEX) = 2.5 mW (0.0025 W)

[3]) Programming products communication: Frequency = 10.6 MHz, Emitted power (USB Link) = 4.6 nW (0.000000046 W), Emitted Power (TM#2) = 1.2 nW
Frequency = 2.4 GHz, Emitted power (NOAHlink) = 2.5 mW (0.0025 W)