Hands On with Oticon: NFMI & Bluetooth

Gabrielle Filips AuD
Government Services Account Manager – South Central Region

oticon PEOPLE FIRST

- Transmitted to you in cooperation with our colleagues at AudiologyOnline.
- If you are experiencing audio or visual difficulties, please contact AudiologyOnline (800-753-2160)

2

oticon PEOPLE FIRST

For the first time ever, a hearing aid with two communication systems

TwinLink
NFMI + 2.4 GHz

Open up to Oticon Opn™

oticon
PEOPLE FIRST

TwinLink™

Near Field Magnetic Induction

- **Built for audiology**
- 200% increase in capacity with low energy
- Richer and more accurate spatial awareness
- Supports the brain in orienting

Open up to Oticon Opn™

oticon
PEOPLE FIRST

TwinLink™

2.4 GHz

- **Built for connectivity**
- Effective 2.4 GHz direct streaming
- Hassle-free connectivity with devices
- Made for iPhone®

Made for iPod iPhone iPad

Open up to Oticon Opn™

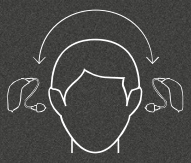
oticon PEOPLE FIRST

TwinLink

NFMI + 2.4 GHz

The best of two worlds

Near-Field Magnetic Induction



Bluetooth low energy 2.4 GHz

TwinLink
NFMI + 2.4 GHz

Core feature / Velox™ and TwinLink™

oticon PEOPLE FIRST

Near-Field Magnetic Induction (NFMI)

Pros

- Travels well around head and body
- Very low power consumption
- Negligible interference from other wireless devices
- Excellent connectivity in near field

Cons

- Limited range
- Not used in external devices

Core feature / Velox™ and TwinLink™

oticon PEOPLE FIRST

Bluetooth low energy (BLE) 2.4 GHz

Pros

- Universally open frequency
- Strong connection over longer distances
- Low power consumption

Cons

- Short wavelength makes it unable to do advanced ear to ear processing
- Too power consuming to be used for ear to ear communication

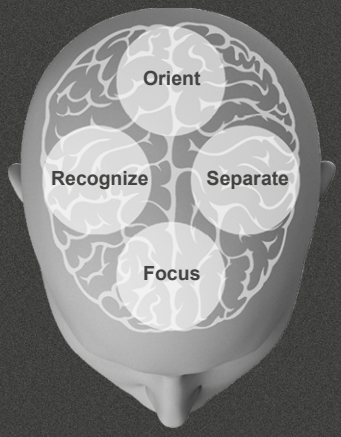
Core feature / Velox™ and TwinLink™

oticon PEOPLE FIRST

TwinLink™ & BrainHearing™

Oticon BrainHearing™ Technology CP6

Two radio systems supports the brain
Binaural processing
Better SNRs with external devices



Open up to Oticon Opn™

oticon PEOPLE FIRST

Slide 10

CP6 formatted the images on this slide
Colin Paxton, 10/20/16

Near-Field Magnetic Induction (NFMI)

Velox Platform

- 4 estimators (frequency bands)
- Exchange frequency:
  - 21 times/second
- Exchange rate:
  - 320 kbit/second

Inium Sense platform

- 1 estimator (frequency band)
- Exchange frequency:
  - 5 times/second
- Exchange rate:
  - 96 kbit/second

★★☆ Core feature / Velox™ and TwinLink™

oticon PEOPLE FIRST

Bluetooth BLE 2.4 GHz

- Fully integrated into the chip

Open up to Oticon Opn™

oticon PEOPLE FIRST

Bluetooth

Bluetooth names

Bluetooth SMART

Bluetooth Light

Standard Bluetooth

Bluetooth low energy (BLE)

Bluetooth 4.0

Core feature / Velox™ and TwinLink™

oticon PEOPLE FIRST

Imagine…

a richer and more accurate spatial sound experience

effective 2.4 GHz **direct streaming**

faster and better binaural processing

all of this with **low power consumption**

Made for iPhone®

support to your brain to precisely locate sounds

direct connections to **external devices**

Core feature / Velox™ and TwinLink™

oticon PEOPLE FIRST