NXP in-ear-canal headphones

Great sound and a comfortable fit

These comfortable, easy-to-wear headphones use an advanced acoustical design so people can stay aware of their surroundings while listening to high-quality sound. The small format lets manufacturers retain sound quality while having complete control over the final design and color.

Key features

- Smallest size for the most comfortable fit
  - The only in-ear-canal headphone based on an 8-mm receiver
  - 10-mm diameter at widest part (excluding flap)
  - More flexibility for customized design
  - Innovative silicon material for the most comfortable fit
  - More space outside the ear for added electronics
- Superior audio performance in a semi-open design
  - A "social" headphone that isolates ambient sound
  - Integrated bass pipe for real bass boost
  - Patented acoustical design for superior high-frequency performance
  - Leak insensitive (excellent sound performance independent of positioning in the ear canal)
  - Excellent sound transparency
  - Low distortion: THD < 2% from 50 Hz to 20 kHz
  - Wide frequency range: 20 Hz to 20 kHz
- High-volume, high-quality manufacturing with superior reliability
- Microphone support

Applications

- Handsets
- Music players
- Mobile video
- Gaming devices

Drawing on technology that is used in some of today's leading audio applications, these headphones deliver sound quality that is comparable to on-ear studio headphones. They offer excellent audio transparency and the highest voice clarity.

They are lightweight and ergonomically designed for a comfortable fit. There are no sharp edges, and they fit securely in any situation, even if the wearer is on the move.

A predefined leak feature lets in some environmental sound while isolating ambient noise. This means the headphones are ideal for social situations, such as using public transportation or exercising, where people want to stay aware of their environment while listening to high-quality audio.

The headphones operate over a wide frequency range (20 Hz to 20 kHz) and use an innovative, robust design to ensure constant acoustical back volume. The total harmonic distortion (THD) has been measured at <2% between 50 Hz and 20 kHz.

A bass pipe system, integrated into the acoustic base, delivers a real boost to the bass, so the sound effects used in gaming devices are more realistic.

NXP founded by Philips

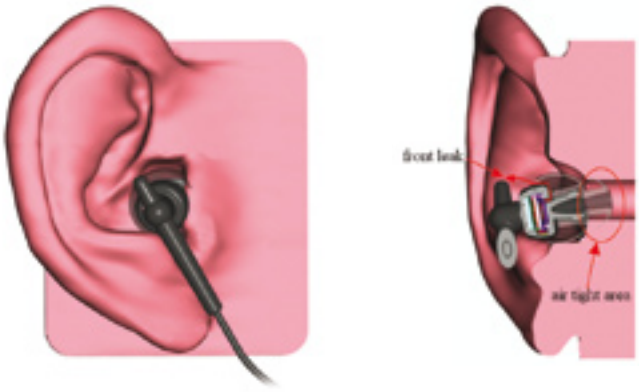
For added applications flexibility, the headphones also support microphone functionality.

The headphones are based on a small 8-mm receiver, and are available in a predefined minimum acoustic design that supports a wide range of customized solutions. Manufacturers can choose from one of NXP's stylish formats or can specify a design of their own. The very compact acoustical design (10 mm at the widest part) lets the headphones retain their sound quality regardless of the final design, finish, or color.

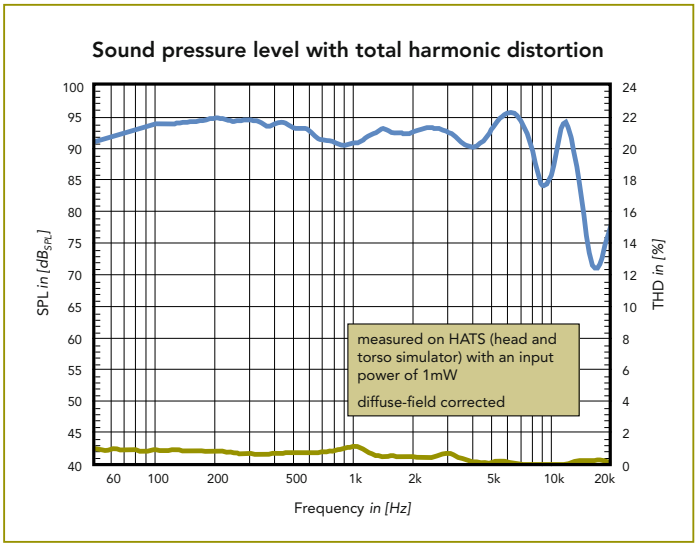
The in-ear-canal headphones build on more than 75 years of leadership in acoustics. NXP has produced more than two billion speakers for mobile phones and is the market leader in mini-acoustic solutions for telecom applications. With manufacturing sites and application-support centers in Beijing and Vienna, NXP offers fully automated, high-volume production for standard products and semi-automated or manual production for low-volume, specialty products.

Sample design formats

A comfortable fit



Flat frequency response and low THD



Date of release: January 2007
Document order number: 9397 750 15900
Printed in the Netherlands