

ABSTRACT

A PERSONAL ON-DEMAND AUDIO ENTERTAINMENT DEVICE THAT IS UNTETHERED AND ALLOWS WIRELESS DOWNLOAD OF CONTENT

Described is a device and method using an interactive process to improve the listening experience for a user of headphones or hearing aids. The system uses a sound source such as a PC or similar device. Programming of the headphone or hearing aid is accomplished using a process delivered by the sound source. The user is prompted to listen to various signals thereby testing the frequency response of each ear and headphone combination. Once the user testing is completed, individualized compensation coefficients are created to optimize the listening experience for the user. The coefficients would be downloaded to and stored within the hearing aids. Downloading could be accomplished by wire or by wireless means such as infrared, radio frequency, magnetic or electromagnetic coupling. In headphone units, the compensation factors could be stored either within the headphones or maintained at the sound source. In addition, headphone units could be operated with or without wires (using infrared, radio frequency, magnetic or electromagnetic coupling) for downloading or audio listening.

(Fig. 3)