

Wireless device connection method using touch operation

Program in Media and Product Design
Faculty of Engineering and Design, Kagawa University
Prof. Oba Haruo
✉ oba@eng.kagawa-u.ac.jp



Research Keywords

Design, Product Design, Interaction, Service Solution

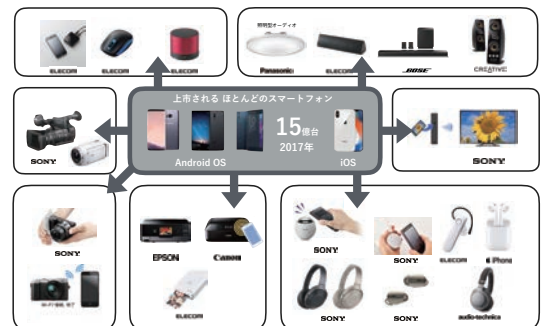
Research Summary

This invention (Patent No. 5120474) is a combination of two types of wireless communication having different properties, that is, a short-range wireless communication means such as NFC (Near Field Communication) and a high-bandwidth wireless communication means such as Wi-Fi. , NFC authentication communication starts when the user touches the devices he wants to connect to, and a large-capacity connection is taken over to Wi-Fi, etc., enabling the user to easily establish a wireless communication connection is. Received the "Asahi Newspaper Prize", a special award at the National Invention Awards 2018

At the time of development, the number of applications that operate while wirelessly communicating between devices increased, and the procedure was cumbersome even though I just wanted to connect the two devices in front of me, and establishing a secure connection was complicated. There was a problem that was difficult to understand. While I was at Sony, I worked on research on the user interface for this connection between devices at the CSL Interaction Lab where researchers and designers collaborated. In 2001, I announced the concept of FEEL, which is intuitive and easy to understand.

This invention was internationally standardized as the Connection Handover Standard of the NFC Forum in 2008, and has been implemented in various products as intuitive device connection technology. In addition, since it is simple and intuitive to use, it contributes to the spread and development of products that realize universal design regardless of the user. This invention has been installed in almost 1.5 billion smartphones launched in 2017, and enables connection to many devices such as peripherals, audio, TVs, printers and cameras.

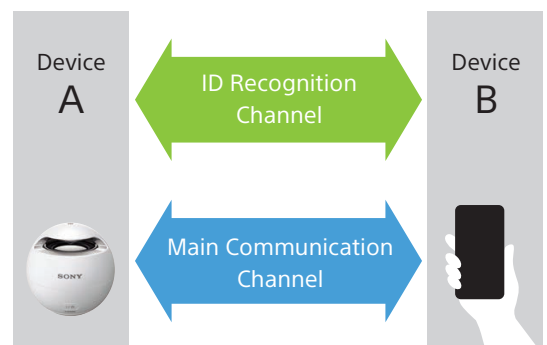
Possible to connect with various devices around smartphone



Invention of intuitive device connection technology using NFC and wireless communication (NFC: Near Field Communication)



Use communication methods with different characteristics for "ID recognition channel" and "main communication channel" and combine them



Field of application

Electronics field, communication device field, service solution field