NXP OrangeBox Unifies Automotive Wireless Connectivity into a Single Domain Controller to Simplify Development and Security

October 18, 2022

- *NXP's OrangeBox development platform consolidates wireless and wired connectivity solutions within a vehicle, including V2X, secure car access, radio and Wi-Fi technologies, into a single connectivity domain controller*

- *Drives the secure digital transformation of vehicles by enabling a consistent implementation of state-of-the-art security within the centralized domain-based architecture*

- *Simplifies access to integrated connectivity technologies through one software platform to reduce costs and streamline development*

DETROIT, Oct. 18, 2022 (GLOBE NEWSWIRE) -- NXP Semiconductors (NASDAQ: NXPI) today announced the OrangeBox automotive-grade development platform, which integrates a wide variety of NXP wireless technologies, from broadcast radio, Wi-Fi 6 and Bluetooth, to secure car access with Ultra-Wideband (UWB) and Bluetooth Low Energy (BLE), and 802.11p-based V2X. The OrangeBox is a single, security enhanced, modular development platform that provides a unified interface between the vehicle's gateway and its wired and wireless technologies. By doing so, it provides a means for next-generation cars to securely communicate with the world around them.

Today's cars are more connected than ever, utilizing a variety of wireless technologies to provide drivers with everything from infotainment to advanced safety features. However, these technologies are distributed throughout the vehicle's architecture, creating a variety of challenges that will be exacerbated as more and more connectivity features are added, as well as expanding the cyber-attack surface. OrangeBox unifies these current and emerging external wireless interfaces into a single, security-enhanced connectivity domain controller, which then connects to the secure vehicle gateway through NXP high-speed Ethernet. This consolidated, turn-key approach works to reduce development effort, optimizes the movement of data across multiple communication interfaces, enables consistent, state-of-the-art security protection to be applied to all traffic entering the car, and eases the deployment of V2X and cloud applications such as over-the-air updates for software-defined vehicles.

Designed as a modular platform, OrangeBox provides OEMs and Tier-1s with the flexibility to adapt to various regional requirements for cellular connectivity and V2X, as well as enable in-field updates necessary to keep up with changing technologies. This helps accelerate time-to-market, reduces complexity and provides a complete system reference design ready for application deployment.

"By consolidating automotive wireless technologies into a centralized domain controller with a high-speed connection to the vehicle gateway, we are creating a single pathway for the vehicle to seamlessly connect to the rest of the world," said Dan Loop, Vice President and General Manager for Automotive Edge Processing at NXP. "Not only can this help to reduce costs and streamline development, it addresses a critical piece of the puzzle for data-enriched vehicles that require centralized, secure connectivity."

The OrangeBox development platform integrates leading technologies from NXP, including an advanced applications processor, a software-defined broadcast radio tuner, Wi-Fi 6 and Bluetooth. It also includes secure car access with BLE and UWB, as well as 802.11p-based V2X, both secured by certified EdgeLock® discrete NXP secure elements. Support for 4G LTE or 5G cellular and GPS connectivity is also included. It makes it easier for automakers to consistently apply state-of-the-art cloud-managed security technologies, such as next-generation firewalls, to data traffic entering or leaving the vehicle. The central processor of the OrangeBox is an i.MX 8XLite applications processor running a unified Linux®-based software platform to manage the automotive wireless connectivity. It includes an NXP gigabit Ethernet connection to the central vehicle gateway, allowing other automotive systems to more easily leverage the benefits of integrated wireless connectivity.

Availability

The OrangeBox automotive development platform is expected to be available to customers in 1H 2023. For more information, please visit NXP.com/OrangeBox or contact NXP Sales worldwide. It will also be demonstrated at CES 2023 (#CP-18).

About NXP Semiconductors
NXP Semiconductors N.V. (NASDAQ: NXPI) enables a smarter, safer and more sustainable world through innovation. As a world leader in secure connectivity solutions for embedded applications, NXP is pushing boundaries in the automotive, industrial & IoT, mobile, and communication infrastructure markets. Built on more than 60 years of combined experience and expertise, the company has approximately 31,000 employees in more than 30 countries and posted revenue of $11.06 billion in 2021. Find out more at www.nxp.com.

For more information, please contact:

Americas & Europe	Greater China / Asia
Phoebe Francis	Ming Yue

Tel: +1 737-274-8177
Email: phoebe.francis@nxp.com

Tel: +86 21 2205 2690
Email: ming.yue@nxp.com

A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/afa6606d-c38a-4057-ac56-4a460603ba5a

NXP-corp
NXP-auto

NXP OrangeBox Unifies Automotive Wireless Connectivity into a Single Domain Controller to Simplify Development and Security

NXP Semiconductors' OrangeBox automotive-grade development platform integrates a wide variety of NXP wireless technologies, from broadcast radio, Wi-Fi 6 and Bluetooth, to secure car access with Ultra-Wideband (UWB) and Bluetooth Low Energy (BLE), and 802.11p-based V2X. The OrangeBox is a single, security-enhanced, modular development platform that provides a unified interface between the vehicle's gateway and its wired and wireless technologies. By doing so, it provides a means for next-generation cars to securely communicate with the world around them.

Source: NXP USA, Inc.