



## **NXP Develops Automotive Ethernet Transceivers for In-Vehicle Networks**

*NXP is first automotive semiconductor supplier to adopt Broadcom's BroadR-Reach*

**Eindhoven, Netherlands, November 9, 2011** - [NXP Semiconductors N.V.](#) (Nasdaq: NXPI) today announced its engagement in automotive Ethernet as the first automotive semiconductor supplier to license [Broadcom's](#) BroadR-Reach<sup>®</sup> Ethernet technology for in-vehicle networking. As NXP is the No. 1 supplier of [In-Vehicle Networking electronics](#), this is a significant step forward in establishing BroadR-Reach as an open, de facto standard for in-vehicle Ethernet. At the same time, Broadcom, NXP, Freescale, and Harman today announced the foundation of the [OPEN Alliance Special Interest Group](#). The objective of the newly founded group is to drive the wide adoption of Ethernet in the automotive industry.

NXP plans to create an automotive-grade product portfolio for the Ethernet physical layer based upon BroadR-Reach<sup>®</sup>, leveraging NXP's expertise in automotive electronics, in the industry's quality requirements, as well as its strong application know-how. Major car manufacturers are designing with Ethernet as a high-bandwidth, low-cost networking technology complementary to existing in-vehicle network technologies such as CAN, LIN, LVDS and FlexRay. BMW cars supporting Ethernet are already on the market since 2008.

As cars evolve into ever more sophisticated and connected electronic environments, there is increasing demand among OEMs and design engineers for an in-vehicle networking technology that can handle high-bandwidth applications without being excessively expensive. Broadcom BroadR-Reach Ethernet technology has significant cost advantages over other high-bandwidth automotive networking technologies such as LVDS, based on its ability to operate over single unshielded twisted pair (UTP) cabling. Not only is single UTP less expensive and lower in weight than shielded cabling, the technology is already in use by CAN- and LIN-based control systems, enabling BroadR-Reach to run over existing in-vehicle networks.

One of the key applications driving high-bandwidths in vehicles is camera-based security, a safety feature that may become mandatory for new vehicles in countries such as the US in the future. Currently, there are many instances when the driver doesn't have a complete view in maneuvering the car – for example, when backing out of a tight space or reversing down a drive. This may lead to damage to the car or injury to pedestrians. By networking a series of cameras mounted on the outside

of the vehicle, the driver can get a 360-degree view of what's happening around the car displayed via the dashboard. Other high-bandwidth applications that Ethernet could support include networked infotainment.

Another advantage of using Ethernet as an in-vehicle technology is that it is a globally recognized standard that supports IP-based networking. This makes it much easier to adapt existing IP software and applications from the consumer and business markets for automotive use, speeding the development of the [connected vehicles](#) of the future.

"We're very excited that NXP, as a key supplier of innovative in-vehicle electronics, has chosen to license BroadR-Reach," said Dr. Ali Abaye, senior director of PHY product marketing, Broadcom Corporation. "Licensing BroadR-Reach to other semiconductor suppliers will encourage wide-scale adoption of 100 Mbps Ethernet connectivity as the standard in automotive networking applications."

"We see Ethernet as the best choice for high-bandwidth in-vehicle networks and believe that BroadR-Reach is the superior technology in this field," said Rob Hoeben, director of marketing and business development for Ethernet, NXP Semiconductors. "As such, we have chosen to partner with Broadcom rather than undertake a parallel R&D program. This enables us to reduce development costs, and also to bring new technologies to the automotive market more quickly. We believe that licensing BroadR-Reach will give a major boost to its adoption as a de facto standard for automotive Ethernet. Based upon the BroadR-Reach IP from Broadcom, we will develop our own automotive-grade PHY products."

The first NXP product samples will be available in 2013.

#### **Further links**

Broadcom, NXP, Freescale form [OPEN Alliance Special Interest Group](#)

#### **About NXP Semiconductors**

NXP Semiconductors N.V. (NASDAQ: NXPI) provides High Performance Mixed Signal and Standard Product solutions that leverage its leading RF, Analog, Power Management, Interface, Security and Digital Processing expertise. These innovations are used in a wide range of automotive, identification, wireless infrastructure, lighting, industrial, mobile, consumer and computing applications. A global semiconductor company with operations in more than 25 countries, NXP posted revenue of \$4.4 billion in 2010. Additional information can be found by visiting [www.nxp.com](http://www.nxp.com).

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## Forward-looking Statements

This document includes forward-looking statements which include statements regarding NXP's business strategy, financial condition, results of operations, and market data, as well as any other statements which are not historical facts. By their nature, forward-looking statements are subject to numerous factors, risks and uncertainties that could cause actual outcomes and results to be materially different from those projected. These factors, risks and uncertainties include the following: market demand and semiconductor industry conditions; the ability to successfully introduce new technologies and products; the end-market demand for the goods into which NXP's products are incorporated; the ability to generate sufficient cash, raise sufficient capital or refinance corporate debt at or before maturity; the ability to meet the combination of corporate debt service, research and development and capital investment requirements; the ability to accurately estimate demand and match manufacturing production capacity accordingly or obtain supplies from third-party producers; the access to production capacity from third-party outsourcing partners; any events that might affect third-party business partners or NXP's relationship with them; the ability to secure adequate and timely supply of equipment and materials from suppliers; the ability to avoid operational problems and product defects and, if such issues were to arise, to correct them quickly; the ability to form strategic partnerships and joint ventures and to successfully cooperate with alliance partners; the ability to win competitive bid selection processes to develop products for use in customers' equipment and products; the ability to successfully establish a brand identity; the ability to successfully hire and retain key management and senior product architects; and, the ability to maintain good relationships with our suppliers. In addition, this document contains information concerning the semiconductor industry and NXP's business segments generally, which is forward-looking in nature and is based on a variety of assumptions regarding the ways in which the semiconductor industry, NXP's market segments and product areas may develop. NXP has based these assumptions on information currently available, if any one or more of these assumptions turn out to be incorrect, actual market results may differ from those predicted. While NXP does not know what impact any such differences may have on its business, if there are such differences, its future results of operations and its financial condition could be materially adversely affected. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak to results only as of the date the statements were made. Except for any ongoing obligation to disclose material information as required by the United States federal securities laws, NXP does not have any intention or obligation to publicly update or revise any forward-looking statements after we distribute this document, whether to reflect any future events or circumstances or otherwise. For a discussion of potential risks and uncertainties, please refer to the risk factors listed in our SEC filings. Copies of our SEC filings are available from on our Investor Relations website, [www.nxp.com/investor](http://www.nxp.com/investor) or from the SEC website, [www.sec.gov](http://www.sec.gov).

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