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Draft 5, 17 July 2013

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IEEE FORMS STUDY GROUP TO EXPLORE POWER OVER DATA LINES (PoDL) TECHNOLOGY FOR AUTOMOTIVE AND INDUSTRIAL NETWORKING

New single-pair powering schemes and standard requirements necessary to equip evolving markets with cost- and energy-efficient network architecture

PISCATAWAY, N.J., USA, 24 July 2013 – IEEE, the world's largest professional organization advancing technology for humanity, today announced the formation of a new study group to consider initiating a formal project to standardize Power over Data Lines (PoDL). The IEEE 802.3™ 1-pair Power over Data Lines (1PPoDL) Study Group will consider a new single-pair, Ethernet-based powering standard to support new and evolving markets with cost- and energy-efficient network architecture.

“PoDL will extend the benefits of Power over Ethernet (PoE) to vehicular and industrial networking environments that use single-pair Ethernet links, such as the IEEE P802.3bp™ Reduced Twisted Pair Gigabit Ethernet (RTPGE) standard under development. This is similar to the way that PoE introduced power into structured cabling-based networks,” said Dave Dwelley, chair of the 1PPoDL study group and product line manager, Mixed Signal Products at Linear Technology. “Vehicles and other forms of transportation are rapidly turning into mobile data centers and will require a network infrastructure that accounts for weight and cost. PoDL technology provides these capabilities.”

Individuals interested in the future of PoDL standards are invited to contribute to the new study group. The group is scheduled to meet for the first time on 2-3 September 2013 in York, England.

“We’re very much enabling the Internet of Things (IoT) with the combination of this proposed PoE technology and the IEEE P802.3bp RTPGE standard,” said David Law, chair of the IEEE 802.3 Ethernet Working Group and distinguished engineer with HP Networking. “This would

provide the ultimate combination for low-cost powered, high-data throughput sensor communications technology.”

Added Wael William Diab, vice chair of the IEEE 802.3 Ethernet Working Group and senior technical director with Broadcom: “We’re basically enabling Ethernet to go places where it hasn’t gone before. In the age of IoT, PoDL technology enables intelligent and connected vehicles. Backup cameras, automated parking systems and self-driving vehicles demand very large amounts of onboard data equipment that require links to enable communication. With the help of Ethernet, we’re seeing a convergence in ubiquitous connectivity in these markets.”

Ethernet is celebrating its 40th anniversary this year. Deployment of technology defined by the IEEE 802.3 standard is already globally pervasive, driven by the ever-growing needs of local area, access and metropolitan area networks around the world. To better address the needs of all of these areas, including automotive and industrial networks, the IEEE 802.3 Ethernet standard is constantly evolving and expanding. The success of the standard—from its inception through today—has been its open and transparent development process, which is an example of the "[OpenStand](#)" principles. These principles encapsulate a modern paradigm for global, open standards that can be extended broadly to other technology spaces.

For more information about the IEEE 1-pair Power over Data Lines Study Group, [please visit the study group’s Web site](#).

For more information about the IEEE 802.3 Ethernet Working Group, [please visit the working group’s Web site](#).

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About the IEEE Standards Association

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based on current scientific and technological knowledge. The IEEE-SA has a portfolio of over 900 active standards and more than 500 standards under development. For more information visit <http://standards.ieee.org/>.

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Call for Interest (CFI) Consensus Building Panel Members

Steven Carlson, president, High Speed Design: "Power over Data Lines builds on the long history of IEEE 802.3 Power over Ethernet that has revolutionized remote powering of IP telephones, wireless access points, IP security cameras and so much more. Vehicle manufacturers will be able to remotely power sensors over the same pair of wires used for the data. This supports the goals of reducing the number of wires used, as well as reducing the weight of the vehicle."

Thomas Hogenmueller, manager of E/E-Architecture Communication Networks, Robert Bosch: "Several building blocks are required to realize future advanced driver assistance systems in cars and up to autonomous driving vehicles. These systems are based on interconnected sensors, cameras, electronic control units and actuators. The Ethernet protocol family with IEEE P802.3bp and IEEE 802.1™ TSN/AVB standards, and now with Power over Data Lines, support the future of the automotive industry."