IEEE Publishes IEEE 802.3bu™ for Provisioning Power over Data Lines (PoDL) of Single Balanced Twisted-Pair Ethernet

IEEE 802.3bu™-2016 defines specifications and parameters for adding standardized power to that cabling for standardization. The standard amendment supports the latest single balanced twisted-pair Ethernet physical layers, 100BASE-T1 and 1000BASE-T1, using unshielded twisted-pair cable—a relatively low-cost cabling solution for the automotive industry resulting in...
reduced weight and cost, and increased reliability due to the need for fewer cables and connectors in automotive applications.

“The amendment to IEEE 802.3bu project was initiated due to the increased utilization of Ethernet in automobiles in a single pair configuration, but it also holds a good deal of promise for further applicability across a wide range of industries and within a rapidly growing Internet of Things ecosystem,” said Dan Dove, chair, IEEE P802.3bu Task Force. “The standard revision defines a power delivery protocol that supports multiple voltages, and multiple classes of power delivery at each voltage, with assured fault protection and detection capabilities for identifying device signatures, as well as communicating directly with devices to determine accurate and safe power delivery.”

IEEE 802.3bu-2016 is available for purchase at the IEEE Standards Store.

Deployment of technology defined by IEEE 802® standards is already globally pervasive, driven by the ever-growing needs of data networks around the world. New application areas are constantly being considered that might leverage IEEE 802 standards in their networks from wireless, through twisted-pair cabling, to fiber-optic cabling solutions. To better address the needs of all of these areas, IEEE 802 standards are constantly evolving and expanding. The success of IEEE 802 standards—from their inception through today—has been due to their fair, open and transparent development process.

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