



February 27, 2020  
HD-PLC Alliance

## **HD-PLC Compatible LonMark Standard approved by American National Standards Institute (ANSI)/Consumer Technology Association (CTA)**

### **Internet of Things (IoT) Compatibility and Network Equipment Usage Accelerated in Building Management and Smart Street Lighting**

HD-PLC Alliance\*<sup>1</sup> announced today that the LonMark standard adopting High-definition Power Line Communication (*HD-PLC*)\*<sup>2</sup> was approved by ANSI\*<sup>3</sup> as American National Standard (ANS), ANSI/CTA 709.8 LON HD-PLC. (For announcements by CTA\*<sup>4</sup> and LonMark International Inc.\*<sup>5</sup>, please visit the web page at [https://www.lonmark.org/hdplc\\_press\\_release/](https://www.lonmark.org/hdplc_press_release/)).

So far, the power line communication method used in the LonMark standard was low-speed power line communication ("low-speed PLC"; maximum speed is about several kbps). This was no more compatible with the requirements for IoT and the current demand for various network devices connections.

Therefore, in 2017, LonMark International adopted *HD-PLC*, enabling communication at tens of mbps, as one of its communication methods and promoted it for standardization at ANSI/CTA. Standard has now been approved.

Compared to the conventional low-speed PLC, *HD-PLC* enables high-speed communication and can cover a range of several kilometers with the multi-hop function. Thus, it can increase the speed and the coverage of conventional LonMark compatible systems. In addition, it can reduce the need for new communication wiring work by using existing lines such as double wires, twisted pairs, coaxial cables, and telephone lines, as well as power lines. Thus, it is expected that high-speed communication LonMark compatible systems will replace conventional LonMark in indoor equipment controls of buildings and factories and outdoor equipment controls such as smart street lighting and lighting systems\*<sup>6</sup> that use double-wire communication.

The HD-PLC Alliance began collaborating with LONMARK JAPAN\*<sup>7</sup> last year. Simultaneously, we are working on revising a part of the *HD-PLC* communication compatibility certification test according to the standardization of the *HD-PLC* system. In addition, we have newly added an *HD-PLC* communication compatible certification for coaxial and double-wire compatible devices to support the expansion of the market with these compatible devices.

The HD-PLC Alliance will continuously work with LonMark and other industrial standards setting organizations to improve the environment for communication compatibility certification. In addition, we will keep contributing toward establishing universal standards and promoting wider use of *HD-PLC* compatible products with the motto "*HD-PLC* faces up to challenges in becoming the IoT solution that connects people's living, industry, and the community."



\*1: HD-PLC Alliance. Established on September 25, 2007, with the aim of expanding the use of High-definition Power Line Communication (*HD-PLC*), ensuring communication compatibility, and creating a global standard. For more details, see <https://www.hd-plc.org/>.

\*2: High-definition Power Line Communication (HD-PLC). A high-speed power line communication system using Wavelet Orthogonal Frequency Division Multiplexing (OFDM) that has been adopted in international standard IEEE 1901 standard. (This name is proposed by Panasonic Corporation and is a trademark or registered trademark in Japan and other countries.)

\*3: American National Standards Institute (ANSI). Public organization for standardization in the U.S. industrial field.

\*4: Consumer Technology Association (CTA). Association for standardization and consumer electronics industry in the United States.

\*5: LonMark International Inc. A global organization that promotes efficient and effective integrated business by using open multivendor control systems adopting LonWorks standards, ISO / IEC 14908-1, and related standards. For more details, see <https://www.lonmark.org/>.

\*6: For outdoor usage of high-speed power line communication, operation should be in accordance with domestic laws and regulations.

\*7: LONMARK JAPAN. A nonprofit organization that works to standardize and promote the LonWorks network system. For more details, see <https://ssl.lmjapan.org>.