

Mar 25, 2019

## Panasonic's Next-generation HD-PLC<sup>®</sup>1, BPL Communication Technology Adopted as IEEE 1901a Standard

Panasonic's next-generation HD-PLC<sup>®</sup> technology for IoT-related services was adopted as the IEEE 1901a standard. It allows scalable communications with speed or distance depending on IoT applications.

**Osaka, Japan** – Panasonic Corporation today announced that the IEEE Standards Association has approved the company's next-generation broadband over powerline (BPL) communication technology for Internet of Things (IoT) as the IEEE 1901a Standard on March 21, 2019 at the Standards Board meeting in Munich, Germany. The company proposed the technology to the IEEE Standardization 1901a Working Group<sup>2</sup> in June 2018. This standard flexibly meets various demands for IoT-related services.

IEEE 1901a, BPL communication standard for IoT enables to control frequency bands according to usage. It allows scalable communications with features to extend communication distances and to select speeds. The flexible features defined in this standard enable to address the diverse communication needs of IoT-related services.

It implements the following new functions based on the Panasonic original HD-PLC<sup>®</sup> Wavelet OFDM technology (standard mode), already adopted in the IEEE 1901-2010 standard.

- The standard mode communication band can be doubled or quadrupled, allowing a 500 Mbps<sup>3</sup> communication speed in double mode or a maximum of 1 Gbps<sup>3</sup> in quadruple mode on coaxial cable or dedicated line.
- The standard mode communication band can be compressed by a factor of two or four (half or quarter), concentrating energy in narrow bands and consequently extending the communication distance up to twice the distance<sup>4</sup> in standard mode with a lower communication speed.

This ability to select communication speed modes allows a flexible response to each user's needs, opening the scope of HD-PLC<sup>®</sup> application to all aspects of daily life.

Panasonic is now shifting to a strategy of providing "Lifestyle Updates" to consistently enhance the quality of people's lives with products and services evolving with the individual end-user's personal preferences and way of life. The integrated lifestyle platform HomeX is the information infrastructure that opens to various service providers and partners of corresponding consumer electronics and equipment. In order to continuously offer new lifestyle values according to the needs of the residents, every product such as household equipment, consumer electronics, and sensors in a home must always be connected to networks. The newly approved IoT BPL communication international standard defines a foundation technology designed for communications in homes, but not only. This technology also supports large-scale networks covering social infrastructure such as buildings and factories as well as homes, with prospects for use in a wide range of areas.

Panasonic licenses IoT BPL communication technology defined in this standard with the aim of promoting a greater evolution of the HD-PLC<sup>®</sup> technology. In addition, by striving to secure interconnectivity between products conforming to the IEEE 1901 series through organizations such as the HD-PLC Alliance,<sup>5</sup> Panasonic seeks to provide HD-PLC<sup>®</sup> products that users can use with confidence.

**Notes:**

1. HD-PLC® is the name of a High Definition Power Line Communication system created by Panasonic, and is a registered trademark in Japan and other countries.
2. The Standardization Working Group about power line communications standards within the Institute of Electrical and Electronics Engineers (IEEE).
3. 500 Mbps and 1 Gbps are theoretical maximum speeds at the physical layer.
4. The maximum communication distance varies depending on communication environment conditions.
5. Established on September 25, 2007 with the aim of ensuring communication compatibility and widespread adoption of HD-PLC®. Website: <http://www.hd-plc.org/>

## About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. The company, which celebrated its 100th anniversary in 2018, has expanded globally and now operates 591 subsidiaries and 88 associated companies worldwide, recording consolidated net sales of 7.982 trillion yen for the year ended March 31, 2018. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic, visit <https://www.panasonic.com/global>.

### Media Contact:

Global Communications Department  
Panasonic Corporation  
Tel: +81-(0)3-3574-5664

*\*The content in the following news releases is accurate at the time of publication but may be subject to change without notice. Please note therefore that these documents may not always contain the most up-to-date information.*