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HD-PLC Alliance

HD-PLC Innovates IoT world

METI's Revised Standards Open the Way for Marketing Housing Equipment and Home Appliances with Built-in High-definition Power Line Communication

In Japan, the High-definition Power Line Communication (*HD-PLC*) technology has been mostly used in PLC adapters and communication equipment so far. One major reason was the interpretation of the “Ministerial Order to Provide Technical Standards for Electrical Appliances and Materials” which applied to the integration of *HD-PLC* into home electric appliances and housing equipment. Recently, the efforts of the involved parties have been rewarded by the Notice issued on December 25, 2019 by the Ministry of Economy, Trade and Industry (METI) that partially revised the interpretation of the Ministerial Order. *HD-PLC* can now be integrated in home appliances and housing equipment.

The main advantages of *HD-PLC* over wireless technologies include an easy setup of communication networks, a high level of security, and low power consumption. Additionally, *HD-PLC* can be used on power lines, coaxial cables, telephone lines, and other existing lines which not only enables the deployment of networks in in-house environments such as homes, buildings, and factories, but also the deployment of large outdoor networks covering areas of some square kilometers.

Furthermore, *HD-PLC* is expected to play an important role in underground facilities and radio-shielded spaces in buildings and houses where wireless reception is bad, while users expects high-speed, low-latency applications be provided by next-generation 5G networks. *HD-PLC* can play a unique role by working in conjunction with 5G, Wi-Fi, Bluetooth, and other wireless technologies to enhance the quality of service of networks. The ministerial order revision has opened the way for consumers to buy stationary home appliances with built-in *HD-PLC* technology, making easy to build networks by simply connecting the equipment to an electric outlet. This will provide a new solution for interconnecting electric appliances.

“I hope the revision will provide a momentum for using the *HD-PLC* technology into home appliances and housing equipment, making *HD-PLC* a major base technology for the forthcoming Internet of Things (IoT) society. We at HD-PLC Alliance will continue to strongly promote global adoption and use of *HD-PLC*.” said Takanori Miyake, President of HD-PLC Alliance.

Yoshiyuki Miyabe, Senior Managing Executive Officer of Panasonic Corporation, the founding company of the HD-PLC Alliance, sent us a message: “Panasonic’s fourth-generation *HD-PLC* technology has already been approved as the IEEE 1901a Standard. We are excited by the huge opportunities that the ministerial order revision has opened to make *HD-PLC* one of the most innovative core technologies in the age of IoT. Panasonic will take advantage of these opportunities to integrate the technology in many of our products and solutions, working toward its further development and expansion and offering new values to our customers.”

HD-PLC Alliance will continue to promote the use of *HD-PLC* in electric appliances and to provide certification of *HD-PLC* built-in machinery and equipment ensuring communication compatibility. Simultaneously, we will keep making efforts to improve the certification environment. With the motto “*HD-PLC* takes up the challenge of becoming the IoT solution that connects people’s living, industry, and the community,” we will keep contributing toward establishing universal standards and promoting wider use of *HD-PLC* compatible products.

- For METI’s Notice, please visit:
METI webpages: Electrical Appliances and Materials Safety Act - Topics (in Japanese)
<https://www.meti.go.jp/policy/consumer/seisan/denan/topics.htm##4>
“On the partial revision of the interpretation of the Ministerial Order to Provide Technical Standards for Electrical Appliances and Materials”
On December 25, 2019, the interpretation of the Ministerial Order to Provide Technical Standards for Electrical Appliances and Materials was partially revised.
- For built-in *HD-PLC*, please see Panasonic press release of April 2019 (in Japanese)
“Panasonic Starts Demonstration Test on Home Appliances with Built-in High-definition Power Line Communication (*HD-PLC*) System, the First of Its Kind in Japan—Availing of the New Technology Testing Policy Measures (‘Regulatory Sandbox’)”
<https://news.panasonic.com/jp/press/data/2019/04/in190405-1/in190405-1.html>

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