

TÜV Rheinland Japan Ltd.

TÜV is an abbreviation for Technischer Überwachungs-Verein (Technical Inspection Association), which was formed in Germany in the 19th century, as an inspection organization to examine the safety of mainly the industrial products. TÜV Rheinland Japan Ltd. is a subsidiary of TÜV Rheinland Group (Cologne, Germany), a leading provider of technical services worldwide, and has been active as an independent third-party test house in Japan since 1978.

We offer verification, inspection and certification of various products in accordance with international and national standards as well as audits for systems management certification. The Group's mission and guiding principle is to achieve sustainable development of safety and quality in order to meet the challenges arising from the interaction between man, technology and the environment and supporting our customers bringing their products into the market.

MAJOR SERVICES

- Product testing and certification
 - EMC & wireless technologies (Bluetooth, Wi-Fi, Matter etc.)
 - Electrical safety home & office appliances
 - Components
 - Industrial machinery
 - Medical devices
 - Renewable energies
 - Market access services
 - Food Contact Material testing
- Management system audit and certification, Second party audit
- Cybersecurity evaluation and testing
- Seminars and trainings

Located in Yokohama, Nagoya, Osaka and Kyushu and in over 60 countries world wide



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www.tuv.com/wireless

G3-PLC and G3-Hybrid Testing & Certification

Power line &
RF communication standard
for smart grid applications
and smart cities

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What is G3-PLC and G3-Hybrid

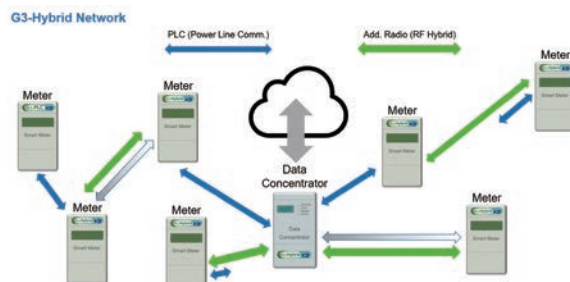
G3-PLC and G3-Hybrid are globally utilized communication standards for smart metering, smart cities and other reliable communication, owned and promoted by the G3-Alliance.

G3-PLC facilitates high-speed, highly reliable, long-range communication over the existing powerline grid. The features and capabilities of G3-PLC have been developed to address the difficult challenges of powerline communications.

G3-PLC works reliably in a hostile environment, because of its unique features such as a mesh routing protocol to determine the best path between remote network nodes, a "robust" mode to improve communication under noisy channel conditions and channel estimation to select the optimal modulation scheme between neighboring nodes.

Furthermore, it features advanced encryption AES-128, support of IPv6 and 6LoWPAN, enabling easy integration of various application profiles, adds high versatility and carries G3-PLC well into the future. G3-PLC is published as international standard ITU-T G.9903.

G3-Hybrid adds RF communication technology on top, extending the range and reliability of the communication even further. The RF layer is based on the popular IEEE 802-15.4 standard in the 800 and 900MHz bands which are available in most regions of the world.



G3 Testing & Certification Service by TÜV Rheinland Japan

TÜV Rheinland Japan is one of only two globally authorized testing laboratories for certification under the G3 Alliance.

We are authorized and qualified by the G3 Alliance to perform the power line conformance, interoperability and performance tests as well as the RF conformance, interoperability and performance test.

Contact our team in Japan for your inquiries for G3 testing & certification!

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Other Services by TÜV Rheinland

We offer our customer also a wide range of Market Access, Testing, Inspection and Certification services.

- Japan Radio Law Testing and Certification
- Japan Telecom Testing and Certification
- Global Radio Testing and Approvals
- EMC Testing
- Wireless, IoT, Bluetooth, Wi-Fi, Matter
- Electrical Safety
- Chemical Services
- Medical Devices
- Cybersecurity
- Market Access Services
- Environmental Simulation
- Trainings & Seminars

Contact our team to get your individual quotation. We are looking forward to helping you bringing your product into the market, making sure it fulfills all regulatory requirements and meets the performance you and your end-customers expect.

