Wireless Power Consortium prepares for higher power levels with Qi v1.3

Qi standard evolves to continue to ensure safety, interoperability and consistent user experience as power levels increase

PISCATAWAY, New Jersey – August 23, 2021 – The Wireless Power Consortium (WPC), a global standard development body for wireless power, today announced the release of Qi v1.3, the latest version of its Qi specification for smartphones and small mobile devices. As demand for faster charging of smartphones and small mobile devices accelerates, Qi v1.3 adds features and updates that make it easier for WPC's member companies to develop products that are safe to use at higher power levels. Qi v1.3 introduces product authentication as a new safety feature, improvements in the compliance testing procedures that make it easier to develop interoperable and safer products.

"With more than 100 new Qi products certified every month, it's important to make it easier to develop wireless charging products that are safe at high power levels and easy to use," said Menno Treffers, Executive Director and CEO at Wireless Power Consortium, Inc. "These new features and improvements keep both these factors at the core of the Qi standard. Qi v1.3 allows us to ensure that increases in power levels do not come at the cost of consumer or device safety."

Authentication

Qi Certified products have been tested for compliance with Qi's safety features. Wireless chargers that have not been successfully tested may, for example, be unable to detect foreign objects and cause metal objects such as coins to become hot and damage the phone or cause burns. Qi v1.3's authentication feature enables mobile phones to determine whether a charger is Qi Certified and allows the phone to reduce the charging speed when the charger is not known to be Qi Certified.

Compliance Testing Improvements Reduce Development Costs

As the number of Qi Certified products continue to grow rapidly, interoperability testing is crucial to ensure a consistent user experience across products and brands. The new Qi v1.3 standard adds improvements in Qi compliance testing, such as the addition of new test cases and the automation of time-consuming portions of the overall testing process. These changes make it easier to design interoperable products, reducing the chances of late-stage design changes and generally decreasing product development costs.

Reducing False Positives in Foreign Object Detection

Foreign object detection (FOD) is a crucial component of the Qi standard. When metal objects like keys, credit cards, coins, cords, etc. are placed on Qi Certified chargers, the wireless charger detects these foreign objects and does not transfer power. This prevents overheating or other damages or safety risks. Qi v1.3 adds methods that increase the sensitivity of foreign object detection and reduce the probability of false positives. Improvements in the power loss calculation method, a pre-power transmission method and an improved description for Q-value based FOD method have been introduced to the standard. These help to ensure consumer and device safety, while maintaining a consistent and positive user experience.

About the Wireless Power Consortium

Established in 2008, the Wireless Power Consortium is an open, collaborative standards development group of more than 400 member companies around the globe. These companies – large and small, competitors and ecosystem partners, from all parts of the industry and different regions of the globe – collaborate for a single purpose: to design and evolve the world's most useful, safe and efficient standards for wireless power. For more information, visit www.wirelesspowerconsortium.com.

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