Zhaga and DiiA agree joint certification program for a smart luminaire interface

Based on complementary specifications that define the smart luminaire interface, the joint DiiA-Zhaga certification program will support interoperability and new value creation for Smart Cities.

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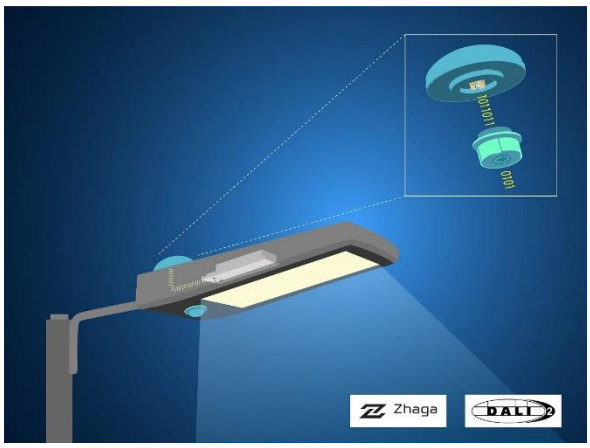

The Zhaga Consortium (Zhaga) and the Digital Illumination Interface Alliance (DiiA) are developing a joint certification program for interoperable luminaires and components, which enables intelligent, future-proof LED luminaires with IoT connectivity.

The certification program will be based on complementary specifications from Zhaga and DiiA, which together define the smart luminaire interface. This interface simplifies the addition of communication/sensor nodes to LED luminaires with plug-and play interoperability. Initially the focus is on outdoor lighting, but indoor solutions will also be developed.

The joint certification program will include outdoor LED luminaires, as well as components such as drivers, sensors and communication nodes. A certification mark will clearly indicate interoperability. Further details will be announced in the second quarter of 2019.

“Our joint certification program will provide the entire value chain with confidence in multi-vendor product interoperability,” commented Ruud van Bokhorst, General Manager of DiiA. “It will reduce complexity and add value for luminaire makers and commercial end-users, allowing the upgrading of the digital functions of smart luminaires.”

The smart luminaire interface is based on the DALI protocol for intra-luminaire communication, including the recently-published DiiA specifications for integrated DALI power supplies, and data storage/retrieval for asset management, energy reporting and diagnostics. These specifications will be referred to in the upcoming Zhaga Book 18 ed. 2.0 which also defines the mechanical connectivity interface and conditions for interoperability.

Interoperability based on open standards and supported by a robust certification program has far-reaching implications, resulting in value creation and reduced complexity for outdoor lighting and Smart City projects.

As Dee Denteneer, Secretary General of the Zhaga Consortium, points out, “Cities require plug-and-play interoperability between outdoor luminaires and communication/sensor nodes, to efficiently enable and future-proof their Smart City applications. The collaboration with DiiA allows us to cover all aspects of this interface, and the joint certification program and marking will confirm plug-and-play interoperability to our customers.”

Background

By making it easy to add or upgrade sensors or communication nodes, the smart luminaire interface enables future-proof luminaires that can keep pace with rapid developments in digital networking and sensing technology. With a suitable wireless communication node, the luminaire is able to interact with an external lighting-control network, and to participate in the IoT.

The smart luminaire interface uses the mechanical form-factors specified in Zhaga Book 18 for the connector plug and socket, as well as the electrical pin assignment. Communication/sensing nodes and LED drivers are connected by means of an intra-luminaire DALI bus, enabling bi-directional communication using the well-established and standardized DALI protocol.

The LED driver is able to store and report operational and diagnostic data (DALI Parts 252 and 253), as well as information about the luminaire for inventory tracking and related purposes (DALI Part 251). Also, the power-supply requirements of the communication/sensor node, when connected to the Zhaga socket, are defined in the DiiA specifications for integrated bus power supplies (DALI Part 250) and auxiliary power supplies (AUX specification).

References

Joint Zhaga-DiiA press release, March 2018: “DiiA and Zhaga start cooperation on IoT solutions for lighting.”

Zhaga press release, July 2018: “Zhaga publishes specification allowing mechanical IoT upgradability.”

DiiA press release, September 2018: “DALI specifications from DiiA enable intelligent, connected LED luminaires.”

About DiiA

The Digital Illumination Interface Alliance (DiiA) is an open, global consortium of lighting companies that aims to grow the market for lighting-control solutions based on Digital Addressable Lighting Interface (DALI) technology. DiiA operates the DALI-2 certification program, based on the latest version of the international IEC 62386 standard. DALI-2 certification brings the promise of

significantly improved interoperability and additional functionality compared with current DALI systems in the market. DiiA develops test sequences for DALI-2 product compliance testing, and also creates new specifications for additional DALI-2 features and functions. For more information, please visit www.digitalilluminationinterface.org.

About Zhaga

Zhaga is a global association of lighting companies that is standardizing interfaces of components of LED luminaires, including LED light engines, LED modules, LED arrays, holders, electronic control gear (LED drivers) and connectivity fit systems. This helps to streamline the LED lighting supply chain, and to simplify LED luminaire design and manufacturing. Zhaga continues to develop specifications based on the inter-related themes of interoperable components, smart and connected lighting, and serviceable luminaires. For more information, visit www.zhagastandard.org.

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