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NEWS RELEASE

June 2, 2021
Ichikoh Industries, Ltd.

Ichikoh Industries will exhibit new lighting solutions for automatic driving and electrification, “Communication Writing for People and Cars” at AUTOMOTIVE ENGINEERING EXPOSITION 2021 ONLINE

Ichikoh Industries, Ltd. (Head office: Itado, Isehara City, Kanagawa Prefecture; President: Christophe Vilatte; hereinafter "Ichikoh") a leading manufacturer of automotive components, will exhibit at the Automotive Engineering Exposition 2021 ONLINE, the first automotive technology exhibition to be held online from May 26 (Wed.) to July 30 (Fri.), 2021.We will introduce our lighting solutions for automated driving and electrification, which are important issues for mobility today.

The e-Grille is a new lighting product for electric vehicles (EV / HEV / PHEV) that replaces conventional radiator grilles.

With the electrification of vehicles, the function of “intake for cooling the engine” of the radiator grille becomes less important.

On the other hand, just like lighting, the radiator grille has an iconic role to express the identity as a brand or model. In addition, as a global styling trend, headlamps are becoming thinner and signal lamps are becoming larger, and the barrier between the design of the grille and lighting is lowering.

The e-Grille is a stylish solution combining a central panel and lighting to address the complete line-up of electrified cars (from HEV to EVs)

The prototype of e-Grille achieves both the beauty of graphics when light is off and the lighting quality when light is on by using a functional film material in collaboration with Dai Nippon Printing Co., Ltd.

HD lighting individually controls the light divided into thousands of pixels and prevents oncoming and preceding vehicles from being dazzled with a glare-free high beam that shades only the minimum range required. In addition, it supports drivers by drawing information on the road with the illumination of the headlamps.The importance of the electronic components for headlamps and signal lamps that control lamps and manage power of lamps with the automation and electrification of the vehicles are increasing. At the same time, increasing system products such as the ADB (Adaptive Driving Beam) system, in which the camera and lighting are linked, require an improved lighting quality to enhance detection and reactivity performance.

Valeo-Ichikoh Group began supplying such headlamps developed and manufactured at the Company to Japanese OEMs in 2020.

In this “once in a century” revolutionary period, the system of the entire vehicle is about to greatly evolve and Ichikoh have been developing an HD lighting unit in anticipation of the evolution.

In the low beam area, it supports drivers by informing them of the lane guide and the navigation by drawing guidelines and symbols on the road with the illumination of the headlamps. It also enhances safety by accelerating the discovery of pedestrians with emphasized irradiation of crossing pedestrians’ step.

In the high beam area, it is possible to drive maintaining the same light level as the conventional high beam preventing oncoming and preceding vehicles from being dazzled by shading only the minimum range required. In addition, it makes easier to see the sign by suppressing the light that brightens the sign and works so that pedestrians don’t feel glare by shading only the upper half of their body (of the pedestrians). Visitors will see that the latest unit is providing improved visibility at night (due to the display) compared to the conventional product.

Near-field projection is a safety solution with a new approach to achieve a safer and more secure transportation society.

Ichikoh has been developed various products as below to improve safety, but all of these were solutions for drivers.

- Bright light distribution by LED headlamps
- All-time high beam driving with glare-free high beam
- Improvement of visibility with camera monitor system

The near-field projection is not for drivers, but for the purpose of communicating information to road users around vehicles such as pedestrians, bicycles, and motorcycles. For large vehicles such as trucks and buses with many blind spots, it aims to prevent accidents such as entanglement accident and contact accident by communicating the movements and danger of the vehicle clearly to the road users around and by urging to pay attention each other in addition to safety driving.

3D surround multi-view is an aftermarket product. It composites images from four HD cameras in real time and displays a safe field of view of all directions with high-quality 3D images. It can constantly display a bird's-eye view from directly above the vehicle, and drivers can grasp a situation around a vehicle with a 3D view.

Even if drivers check using a normal back camera and side mirrors together, blind spots will occur behind the vehicle. This product technology makes it possible to check the side and rear of the vehicle on a single monitor, including spots that were difficult to be seen before.

In addition, a composition technology that makes the object seen with as little sense of incongruity as possible in the joint between the cameras is used.

This product can be linked with all of our monitors, and can be used not only for ordinary trucks but also for special vehicles and construction machinery, and has been increasingly adopted in recent

Back-eye cameras play an important role in trucks, buses, and special vehicles where it is difficult to see behind, and users' demand for clearer images at night and in places with large contrast is increasing. To address the demand, Ichikoh produces a line of new HD products such as HD color cameras with a rear shutter of 1.28 million pixels equipped with HDR (high dynamic range) technology, the side cameras with a wider angle than before, HD color monitors which are digitized and increased in the size and back sensors which are compatible with them. In addition to providing clearer images at night and in tunnels, they expanded the field of view by about 25% compared to conventional products by greatly reducing effect of contrast and by adopting a wider-angle camera and a larger monitor. This allows the drivers to have better rear visibility in all situations, enabling safer and more secure driving. They can be easily replaced and the conventional relay cable can be used for them.

(Reference)

About Ichikoh Industries, Ltd.:

Since its establishment in 1903, as a manufacturer specialized in car lamps and mirrors, Ichikoh has delivered products to major car makers in Japan and overseas.

In 2017, it became a subsidiary of Valeo, co-developing new products, gaining market share in the global market and strengthening geographically complementary relationships.

In 2019 started operation, Atsugi New Plant has introduced all the latest production technologies to enhance its competitiveness.

ICHIKOH INDUSTRIES, LTD

Corporate Planning Dept. General Manager: Takamori

TEL：0463-96-1442
URL：http://www.ichikoh.com/