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## **Karma automotive and wayray to incorporate ground-breaking new augmented reality head-up display technology in vehicles**

**December 14, 2021, Irvine, California**

Karma Automotive and WayRay announced today the companies will be collaborating to integrate an innovative, new form of Augmented Reality (AR) Head-Up Display (HUD) technology in a fleet of future Karma vehicles.

The WayRay True Augmented Reality (True AR) and Deep Reality Display® technology enable the generation of virtual images at any distance and on multiple depth planes. Images are generated by projecting a red-green-blue (RGB) laser beam through a Picture Generating Unit (PGU) onto a Holographic Optical Element (HOE). The HOE is placed inside a transparent surface, commonly a car's windshield or side window.

Drivers receive relevant information and alerts without having to take their eyes off the road, whereas passengers can enjoy animated Points of Interest along the way. All objects are rendered in real time by the AR Rendering Engine (ARRE).

"WayRay's technology will make driving vehicles safer, more informative and entertaining," said Shen Zhang, Vice President, Electrical and Electronics Engineering for Karma Automotive. "Safety, design and integration are our main priorities and this innovative technology delivers on all counts."

WayRay's customizable projection system offers an unparalleled Field of View, vibrant image colors, and will be customized and integrated into a fleet of Karma test vehicles but is also compact enough to fit into cars of any size.

"I am thrilled to announce this new arrangement between WayRay and Karma Automotive," said founder and CEO of WayRay Vitaly Ponomarev. "We will supply Karma with the latest iteration of our WayRay True AR™ Head-Up Display technology and support them with the implementation into their engineering test fleet, offering the driver a window into a never-before-seen blend of the virtual and the real world."

While this announcement is specific to Karma Automotive passenger vehicles, other possible applications for Holographic AR technology can also be integrated into transportation, infrastructure, heavy machinery, and gaming applications.

### **About Karma Automotive**

Karma Automotive, founded in 2014, is a southern California based producer of luxury electric vehicles. Headquartered in Irvine, California with a production facility located in Moreno Valley, Karma sells vehicles via its dealer network in North America, Europe, South America and the Middle East. Karma's Innovation and Customization Center, which opened in 2017, offers world-class engineering, design, customization, and manufacturing services along with electrification platforms. Karma's flagship vehicle, the Revero® GT, Green Car Journal's 2020 Luxury Green Car of the Year™, is an electric vehicle powered by dual electric motors that embodies Karma's goal of offering leading technology with a luxury experience. In 2021 Karma announced the GS-6 Series which include both an extended-range series hybrid EV and their first-ever all-electric vehicle. Every Karma vehicle is created with unparalleled individual care and craftsmanship.

### **About WayRay**

WayRay is a vertically integrated industrial deep-tech company specializing in Holographic True Augmented Reality (True AR) Head-Up Displays. Founded in 2012 by Vitaly Ponomarev and based in Zurich, Switzerland, the company is innovating the way Holographic AR is being used in automotive and beyond with its proprietary technology. With the customizable WayRay True AR® HUD, virtual images can be displayed at various distances, thus integrating them into the real world better and more seamlessly than ever before.

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