



## **TDK and Immersion Demonstrate Haptic Solutions for Advanced User Experiences on Large Automotive Touchscreens at CES**

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LAS VEGAS--(BUSINESS WIRE)--Jan. 8, 2020-- TDK Corp. (TSE: 6762) and Immersion Corp. (NASDAQ: IMMR), the leading developer and licensor of touch feedback technology, demonstrate the ability to incorporate a variety of haptic effects on a large touchscreen using a single piezoelectric actuator at the Consumer Electronics Show 2020. The reference design demonstrator showcases the use of advanced haptics to create realistic touch feedback for buttons, dials, switches, and textures in programmable automotive human-machine interfaces (HMIs).

According to [analyst reports](#), almost every new passenger car is sold with a center stack touchscreen. Programmable, digital touchscreens provide automakers with greater ability to deliver new user experiences in-car interfaces, move to a more streamlined interior design, and reduce costs associated with fixed buttons. Haptic technology provides natural, direct, and responsive user feedback on flat screens and surfaces, making it easier and safer for drivers and passengers to interact with the car's interface.

The reference design demonstrator is built with TDK's [PowerHap™ piezo actuator](#) and Immersion's [Active Sensing™ technology](#). The PowerHap piezo actuator is a powerful small-form-factor actuator that provides high-quality haptic performance. Its compact design is made for applications ranging from mobile devices to heavy industrial or automotive displays. Active Sensing technology provides real-time control over actuator vibrations enabling clean, crisp, and instant responses to a user's interaction. The haptic system design solution uses a robust algorithm to react to the actuator's current state, making command decisions every sub-millisecond to produce high-fidelity haptic effects.

"Together with TDK, we are demonstrating how haptics can substantially advance the touchscreen experience in the car," said John Griffin, Immersion's VP of Product and Marketing. "Haptics makes it easier for automakers to introduce more touchscreens and touch surfaces to consumers. We're working diligently with partners, like TDK and Tier 1 suppliers to streamline the use of haptics as an essential part of automotive interfaces."

"We're excited to showcase the result of this collaboration with Immersion," said Harald Kastl, Executive VP and Head of Product Development of Piezo Technology. "The PowerHap piezo actuator has great potential for use in large screens that need more power but require the polish of refined haptic effects. With the reference design demonstrator, you can experience the high-quality performance of the PowerHap and its ability to make the car HMI easier to operate."

CES runs January 7-10 in Las Vegas. The companies will feature the automotive demo in TDK's booth located at LVCC, Central Hall – 11448, and Immersion's private meeting room located in South Hall – #MP25579.

### **Forward-Looking Statements**

This press release contains "forward-looking statements" that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause the results of Immersion Corporation and its consolidated subsidiaries to differ materially from those expressed or implied by such forward-looking statements.

All statements, other than the statements of historical fact, are statements that may be deemed forward-looking statements, including, but not limited to, the statement regarding Immersion's leadership team executing the company's strategy and the statement regarding the strong growth potential of haptics as digital touch experiences play an increasingly valuable role in consumer products.

Immersion's actual results might differ materially from those stated or implied by such forward-looking statements due to risks and uncertainties associated with Immersion's business, which include, but are not limited to: unanticipated difficulties and challenges encountered in product development efforts (including with respect to Immersion's touch feedback technology) by Immersion and its licensees; unanticipated difficulties and challenges encountered in implementation efforts by Immersion's licensees; unanticipated changes in the markets in which Immersion operates; adverse outcomes in any future intellectual property-related litigation and the costs related thereto; the effects of the current macroeconomic climate; delay in or failure to achieve adoption of or commercial demand for Immersion's products or third party products incorporating Immersion's technologies; and a delay in or failure to achieve the acceptance of touch feedback as a critical user experience. Many of these risks and uncertainties are beyond the control of Immersion.

For a more detailed discussion of these factors, and other factors that could cause actual results to vary materially, interested parties should review the risk factors listed in Immersion's most current Form 10-K, and Form 10-Q, both of which are on file with the U.S. Securities and Exchange Commission. The forward-looking statements in this press release reflect Immersion's beliefs and predictions as of the date of this release. Immersion disclaims any obligation to update these forward-looking statements as a result of financial, business, or any other developments occurring after the date of this release.

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### **About Immersion**

Immersion Corporation (NASDAQ: IMMR) is the leading innovator of touch feedback technology, also known as haptics. The company provides technology solutions for creating immersive and realistic experiences that enhance digital interactions by engaging users' sense of touch. Immersion's technology has been adopted in more than 3 billion digital devices, and provides haptics in mobile, automotive, gaming, medical, and consumer electronics products. Immersion is headquartered in San Jose, California, with offices worldwide. Learn more at [www.immersion.com](http://www.immersion.com).

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**About TDK Corp.**

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems, such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads, and more. These products are marketed under the product brands TDK, Chirp, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2019, TDK posted total sales of USD 12.5 billion and employed about 105,000 people worldwide.

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