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Visteon's next generation of SmartCore™ cockpit domain controllers will feature Qualcomm automotive solutions

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VAN BUREN TOWNSHIP, Mich., Jan. 8, 2018 – Visteon Corporation (Nasdaq: VC), a technology leader in the fast-growing cockpit electronics segment, announced plans to deliver the next-generation of its SmartCore™ cockpit controllers using automotive solutions from Qualcomm Technologies, Inc.

Future SmartCore™ cockpit controllers will feature the Qualcomm® Snapdragon™ 820A Automotive platform to support automakers' demand for highly advanced virtual cockpit controllers, which Visteon will design to support autonomous driving technology and applications. Combining Visteon's scalable automotive hardware and software architecture with the Snapdragon 820A Automotive platform's power and efficiency, automakers will be empowered with state-of-the-art solutions to make their vehicles more connected, smart and aware.

Visteon's SmartCore™ domain controller, which can independently operate several cockpit domains on one system-on-a-chip (SoC) through a single driver interface, will be the first platform-based domain controller to incorporate the Snapdragon 820A Automotive platform. At CES® 2018 in Las Vegas (Booth CP-20), Visteon is showcasing a SmartCore™ domain controller incorporating Visteon's driver information applications and Android-based infotainment, which will be running on the Snapdragon 820A Automotive platform.

Using Snapdragon automotive solutions from Qualcomm Technologies, Visteon aims to make available technologies to support advanced virtual cockpits and autonomous driving through Visteon's scalable hardware and software stack in SmartCore™ and its DriveCore™ autonomous driving controller. DriveCore™ is an open platform consisting of the hardware, middleware and frameworks to develop machine learning algorithms for

object classification, detection, path planning and execution.

“Automakers are demanding processors with high performance and scalability, while being cost-efficient to support advanced applications and new use-cases,” said Nakul Duggal, vice president of product management, Qualcomm Technologies, Inc. “Using our high-performing and power-efficient Snapdragon 820A Automotive platform, Visteon’s SmartCore cockpit controller can drive the instrument cluster, infotainment screen and head-up display from a single control unit, helping automakers to achieve significant complexity reduction and efficiencies while delivering the rich in-car experiences that drivers expect today.”

Snapdragon 820A Automotive is an advanced automotive-grade platform available from Qualcomm Technologies. Featuring a customized Qualcomm® Kryo™ CPU, Qualcomm® Hexagon™ 680 DSP with Hexagon Vector eXtensions (HVX) and Qualcomm® Adreno™ GPU, the Snapdragon 820A Automotive platform can support cockpit domain controllers through virtualization and high-performance GPU. Additionally, the Snapdragon 820A Automotive platform’s vehicle sensor integration supports driver assistance and awareness of the vehicle’s surroundings with the Snapdragon Neural Processing Engine and computer vision using the integrated DSP, integrated global navigation satellite system (GNSS) and automotive dead reckoning.

The initial application shown by Visteon at CES uses the QNX® Hypervisor 2.0 to partition, separate, and isolate safety-critical environments from non-safety critical environments reliably and securely. Visteon also has the capability to use its own hypervisor to meet different needs of automakers worldwide.

SmartCore™’s virtualized graphic engine runs three displays and one head-up display delivering an enhanced driver and passenger experience through a single, seamless human-machine interface (HMI). Content from different safety-critical and infotainment domains, including media applications and navigation, can be made available on all connected displays in a secure and seamless fashion.

Being shown for the first time at CES 2018, Visteon’s second-generation SmartCore™ cockpit domain controller is designed to integrate different domains including infotainment, instrument clusters, information and head-up displays, advanced driver assistance systems and connectivity into a single electronic control unit (ECU) – providing a foundation that is scalable from assisted to autonomous driving applications.

Visteon is scheduled to launch the first SmartCore™-based solution in 2018 on a high-volume, global vehicle platform with a European automaker. The platform initially will cover driver information, infotainment and connectivity domains. It will be expanded toward a scalable computing concept that integrates further applications such as additional displays, e-mirrors, augmented reality and driver monitoring in future model years.