

SmartCore™ Premium

Digital Integrated Cockpit Solution



Features:

- Integrated cockpit controller
- Scalable SoC
- Supports multiple domains including infotainment, connectivity, instrument cluster, telematics, security, RSE and camera
- Wireless CarPlay and Android Auto
- Multi-display environment
- Enables multi OS including Android, Linux, QNX, AutoSAR
- Vehicle network gateway
- Hypervisor

Benefits:

- Enables next-gen cockpit architecture
- Scalable across vehicle lines
- ASIL-B functionality
- Centralized security and FOTA
- Enhanced HMI and UX using the multi-screen environment
- Extended lifecycle through feature adds/upgrades via App Store
- Integrated DMS and informational ADAS
- Simplified packaging

China SmartCore™

Digital Integrated Cockpit Solution



Features:

- Integrated cockpit controller designed for China market
- Scalable SoC
- Tencent Cloud integration
- Supports multiple domains including infotainment, connectivity, instrument cluster, HVAC and body control
- Multi-display environment
- Enables multi OS
- Hypervisor

Benefits:

- Rich Tencent user experience
- Next-generation cockpit architecture
- Scalable across vehicle lines
- ASIL-B functionality
- Centralized security and FOTA
- Enhanced HMI using multi-screen environment
- Extended lifecycle through feature adds/upgrades via App Store
- Simplified packaging

InfoCore

Cockpit Entertainment Solution



Features:

- Single ECU design
- Supports >10" remote or attached display
- Android-based infotainment
- Wireless CarPlay and Android Auto
- Dual WiFi and BT 5.0
- Allgo RACE multimedia engine
- Regional Appstore and OTA updates
- Integrated Say' N Serve voice controls

Benefits:

- Platform design for low-cost engineering and fast to market
- Low-cost design with robust multimedia streaming
- Wired and wireless smartphone connectivity integration
- Scalable through a range of display suppliers and sizes
- Regional Appstore as a low-cost alternative
- Low-cost embedded voice solution
- Hassle-free switching between Android and Apple devices

Say 'N Serve – Personal Assistant

Embedded Voice Recognition Solution



Features:

- Low-power customizable keyword detection
- On-board voice recognition (VR) with natural language and conversation
- Multi-intent and multi-level conversation support
- Cross lingual and accent understanding
- Vehicle domains: phone, music, navigation, settings
- Robust VR to handle vehicle noise
- Natural-sounding text to speech (TTS)

Benefits:

- OEM branding – fully customizable and extensible for any vehicle
- Optimal footprint for edge deployment, low cost with robust performance
- Automotive intellect and contextual experience, can be tailored based on OEM requirements
- Scalable and future-proof solution provides seamless experience and flexibility by augmenting popular assistants
- Continually learning end-user habits to improve recognition and personalization

DriveCore™ Compute

Automated Driving Solution



Features:

- Scalable centralized compute platform
- Cost-efficient hardware
- Fail-safe functionality ASIL-D
- Sensor-agnostic full-stack solution
- Integrated AI perception algorithms
- DriveCore™ Runtime middleware
- Open development environment with DriveCore™ SDK

Benefits:

- Cost-optimized solution targeted at L2/L2+ UNECE requirements
- Central sensor fusion
- Open environmental model
- Integrated DMS and parking solutions
- State-of-the-art AI algorithms for improved object and lane detection
- Rapid integration of third-party algorithms

Modular Cockpit with microZone™

Driver Information Solution



Features:

- Visteon patented microZone™ display technology
- Modified dual-cell LCD configuration
- Visteon proprietary optical stack for low power consumption
- High brightness – 850 cd/m² or as high as 1300 cd/m²
- Ultra-high contrast ratio – 100,000:1
- Wide color gamut – DCI P3 color space
- Low power consumption – 9W backlight power at 850 nits
- Integrated sensor UX

Benefits:

- Revolutionary automotive display performance enables OLED-like viewing experience
- Optical quality far beyond what can be achieved by LCD, at a price far below what can be realized by OLED
- Visteon HDR ISP algorithms to optimize image quality
- High-fidelity haptic and force sensing enables rich UI
- Floating knob for contextual UI
- High-contrast and brighter image enables next-gen graphics and use cases
- High operating life

Curved Dual Display

Driver Information Solution



Features:

- Cold forming glass lens enables a range of complex multi-curvature design studio requirements
 - Cluster: R750 concave
 - Center area: R250 convex
 - CID: R1200 concave
- Visteon bond-then-bend structural manufacturing process
- Leveraging the Visteon robotized bonding system

Benefits:

- Design differentiation enabled by multi-curvature displays behind a seamless glass lens
- Cold-forming glass lens offers the lowest-cost solution for curved displays
- Automotive-designed monolithic structure integrating open-cell FoG LCD and carrier-integrated backlight
- Structural and styling elements in single integrated housing

Flexible Rotating Glass Cockpit

Driver Information Solution



Features:

- Adaptable context-based dashboard using Visteon patented display hinge mechanism allows 5° back and 15° forward bend
- Optical and structural bonding done by Visteon
- Bond-then-bend process
- Cold-forming lens process
- Structural bonding
- Leverages POLED for display flexibility

Benefits:

- Bendable multi-display singleglass application enables cockpit flexibility and customization across car lines
- Visteon developed hinge solution enables tailored user experience in multiple driving scenarios like race and passenger cars
- Multi-axis cold forming offers unparalleled styling and differentiation
- Slim design

Cluster Integrated DMS

Integrated Driver Monitoring System



Features:

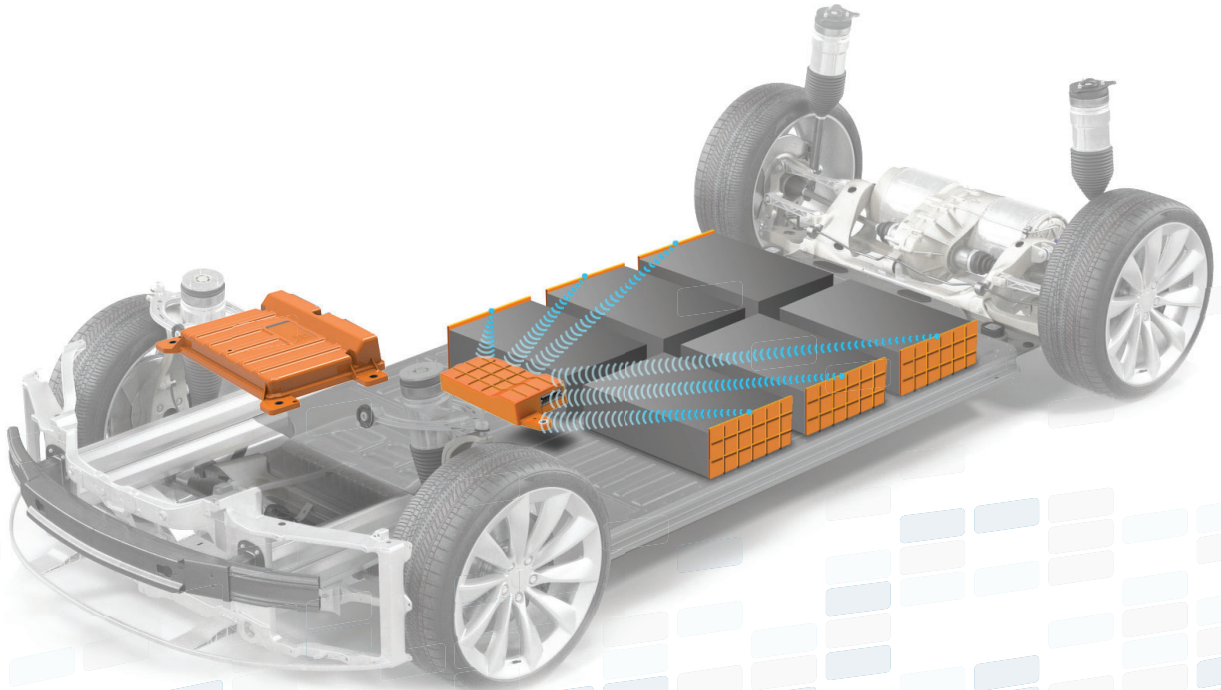
- Cluster-integrated solution with different third-party algorithms
- Scientifically proven “drowsiness” assessment
- Sensors:
 - 1M reflow camera (miniaturization)
 - 2M module (small package, best value)
- DMS framework is integrated into the cluster platform and Visteon’s Smart Core domain controller
- Most optimum camera placement that avoids need for additional HW like peripherals and dedicated computer

Benefits:

- Scalable software stack compatible to cluster, infotainment and integrated cockpit domain
- Modular DMS system framework that supports seamless switching between various third-party DMS technologies and algorithms
- Customizable system architecture to support different processors and sensor solutions
- Design advantage: Better physical and cosmetic packaging solution
- Ideal camera location: Provides high-accuracy results as camera at cluster position has better viewing angle of driver
- Cost effective solution: Physically and functionally integrated into cluster

Battery Management System

Wireless Battery Management System



Features:

- Cell module management promotes reliable voltage and temperature sensing for accurate battery state-of-health (SOH) and state-of-charge (SOC) estimation
- Battery safety and diagnostics support cell balancing, measurement of battery, chassis isolation and fault detection
- Built-in self-test (BIST) diagnostics to ASIL C/D compliance
- High-voltage interlock (HVIL) to detect module faults in the HV domain
- HV fast charger and inverter contractor controls to engage power safely and prevent ground faults
- High- and low-speed CAN, LIN, Ethernet, ISO-SPI networks and robust fault-tolerant wireless communications of battery data

Benefits:

- Maximized battery life to achieve longevity and functional safety goals
- Modular and embedded software solutions to accommodate varying weight, packaging and performance requirements
- Customizable system and ability to integrate additional vehicle control functionality such as thermal management
- Wireless implementation specifically designed for HV battery packs allows for seamless updates without compromising safety, security or robustness