SmartCore™ Gen 3

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 multiple 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 multi-screen environment
- Extended lifecycle through feature adds/upgrades via app store
- Integrated DMS and informational ADAS
- Simplified packaging

https://www.visteon.com/products/domain-controller/

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DRIVING THE COCKPIT REVOLUTION

SmartCore™ GAC

Digital Integrated Cockpit Solution

Features:

- Integrated cockpit controller designed for the China market
- Scalable SoC
- Tencent cloud integration
- Supports multiple domains, including infotainment, connectivity, instrument cluster, HVAC and body controler
- Multi-display environment
- Enables multiple 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

https://www.visteon.com/products/domain-controller/

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SmartCore™ Entry

Digital Integrated Cockpit Solution

Features:

- Entry integrated cockpit controller focused on value
- Single SoC
- Supports domains including infotainment, connectivity and instrument cluster
- Single display environment
- Android OS with Visteon middleware
- No hypervisor

Benefits:

- Integrated cockpit architecture for the entry market segment
- Enhanced HMI
- Extended lifecycle through feature adds/upgrades via app store
- Minimized third-party software royalties
- Simplified packaging

https://www.visteon.com/products/domain-controller/

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Entry Infotainment

Cockpit Entertainment Solution

Features:

- Single ECU design
- Supports >10” remote or attached display
- Linux OS
- Wired CarPlay and Android Auto
- Allgo *RACE* multimedia engine
- Regional app support
- Regional navigation
- In-house embedded automatic speech recognition

Benefits:

- Platform design for low-cost engineering and fast to market
- Low-cost design with rich multimedia content
- Smartphone connectivity integration
- Scalable through a range of display suppliers and sizes
- Cloud access through smartphone or embedded Android and HTML5
- Real time, ML-based, contextual ASR
  - Allows access to vehicle functions
  - Integrated to third-party cloud-based ASR

https://www.visteon.com/products/infotainment/

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Android Display Audio

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

https://www.visteon.com/products/infotainment/

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Say ‘n Serve – Personal Assistant

Embedded Voice Recognition Solution

Features:

- Visteon AI-based speech recognition and natural language understanding engine
- On board and embedded in infotainment or SmartCore™
- Intelligent arbitration across multiple cloud-based voice assistant solutions
- Vehicle-specific noise reduction
- Supports OEM customization and branding

Benefits:

- Low-cost NLU solution compared with traditional approach
- Real-time recognition across multiple languages
- Customizable accent and wake word
- Addresses automotive use cases not addressed by cloud assistants
- Arbitration enables intelligent integration with cloud-based assistants
- Small embedded footprint allows for integration on a range of hardware platforms

https://www.visteon.com/products/infotainment/

Visteon

Android Rear Seat Entertainment

Rear Seat Entertainment Solution

Features:

- Connected streaming content to two independent displays
- Android-based entertainment system
- Single MediaTek SoC design
- Integrated connectivity
- Integrated copyright and content security

Benefits:

- Low-cost embedded design
- Access content integration enabling choice of media across streaming services
- Simplified subscription management

https://www.visteon.com/products/infotainment/

Visteon

DriveCore™ Compute

Automated Driving Solution

Features:

- Scalable, integrated central compute hardware platform
- Failsafe functionality ASIL-D
- Sensor agnostic supporting a range of camera, radar and lidar
- Cost-optimized solution
- Integrated AI
- DriveCore™ Runtime middleware
- Open development environment
- DriveCore™ SDK

Benefits:

- Cost optimized solution targeted at L2/L2+ automation
- Central sensor fusion
- Visteon developed environmental model
- AI algorithms for improved object detection
- AI co-processor design as alternative to pricey GPU
- Runtime and SDK enable rapid integration of software components

https://www.visteon.com/products/autonomous/

Visteon®

DriveCore™ Studio

Automated Driving Solution

Features:

- Comprehensive ADAS/AD development tool chain
- PC and cloud deployment
- Rapid development through an enhanced ADAS/AD continuous improvement cycle
- Single tool with fused third-party, open-source and in-house components
- Data visualization and cloud-based storage for team sharing
- Model-based code generation
- Sensor modeling
- Microsoft Azure integration for cloud storage and processing

Benefits:

- Open collaboration environment for DriveCore™ developers
- Global deployment with virtualized hardware
- Simplified algorithm development
- Embedded hardware profiling
- Algorithm comparison and KPI benchmarking
- Simulation and modeling for reduced drive cycles

https://www.visteon.com/products/autonomous/

Visteon®

DriveCore™ Studio Cloud

Automated Driving Solution

Features:

- End-to-end ADAS/AD continuous improvement cycle
- Intuitive web-based UI
- Cloud-based virtualized hardware
- Global test fleet integration and connectivity
- Data lake for global data sharing
- Cloud-based AI training and development
- OEM privacy, branding and billing

Benefits:

- Global, collaborative, cloud-based platform enabling rapid ADAS/AD development
- Integrated test fleet and production fleet application management
- Centralized data management
- Algorithm store
- Scalable machine learning

https://www.visteon.com/products/autonomous/

Visteon

Digital Lite Reconfigurable Cluster

Driver Information Solution

Features:

- Fully digital cluster based on scalable platform architecture
- Supports up to 8” displays with two additional side pods
- Functional and decorative illumination effects
- Market-leading optical design and manufacturing

Benefits:

- Cost-effective design offering fully digital to price-sensitive segments
- Interchangeable packaging with fully digital instrument cluster enables trim level differentiation
- Flexible packaging through the use of functional and stylistic side pods
- Integrated GUI with side pods

https://www.visteon.com/products/instrument-clusters/

Visteon

3D Cluster

Driver Information Solution

Features:

- Auto-stereoscopic instrument cluster graphics generate large range of perceived depth
- High-resolution 2D and 3D mode can be manually selected by driver
- Precision (X, Y, Z) integrated eye tracking utilizing Visteon DMS
- Full screen lenticular array with switchable three-zone LCD
- Automotive display with 2880 x 1080 resolution with best-in-class 3D crosstalk and perceived depth

Benefits:

- Unique, differentiated styling and graphical user interface design
- Adaptive graphical user interface leverages 3D functionality to highlight critical information
- Optimized 3D visual performance when integrated with eye tracking
- Kanzi HMI dynamically generates left/right eye views for best-in-class 3D performance

https://www.visteon.com/products/instrument-clusters/

Visteon

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/m^2 or as high as 1300 cd/m^2
- 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

https://www.visteon.com/products/instrument-clusters/

Visteon®

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
- Leverages 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

https://www.visteon.com/products/displays/

Visteon

Flexible Rotating Glass Cockpit

Driver Information Solution

Features:

- Adaptable context-based dashboard using Visteon's 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
- Leverage POLED for display flexibility

Benefits:

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

https://www.visteon.com/products/displays/

Visteon

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 integrated into the cluster platform and Visteon's SmartCore™ domain controller
- Most optimum camera placement avoids the need for additional HW such as peripherals and dedicated compute

Benefits:

- Scalable software stack compatible to cluster, infotainment and integrated cockpit domain
- Modular DMS system framework 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 highly accurate results as the camera at the cluster position has better viewing angle of the driver
- Cost effective solution: Physically and functionally integrated into the cluster

https://www.visteon.com/technology/interior-sensing/

Visteon®