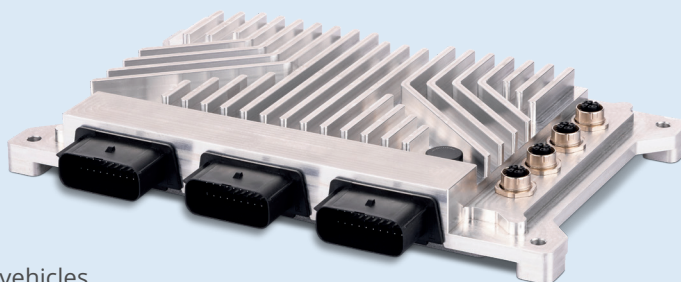


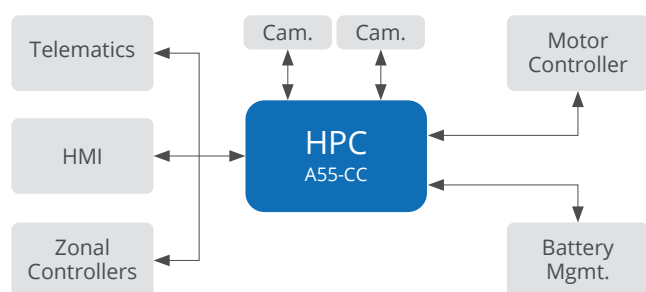
PTcontrol A55-CC

High-Performance Computer for Software Defined Industrial Vehicles

A55-CC is a high-performance central computer for industrial vehicles to enable Software Defined Vehicle (SDV). The HPC is a multi-core ARM-based computer featuring state-of-the-art compute power, real-time control, safety control and AI processing. The HPC offers vehicle connectivity with multiple Automotive Ethernet and CAN-bus interfaces, all housed within a rugged IP67 enclosure.



Application



Software Defined Vehicle

A Software Defined Vehicle (SDV) architecture powered by a central high-performance computer (HPC) brings several key advantages to industrial vehicles:

- Faster innovation cycle by continuous feature upgrade
- Over-The-Air update
- Simplified architecture: ECU consolidation and reduced cable harness complexity
- Centralized software architecture facilitating maintenance

CRA aligned

Aligned with the EU Cyber Resilience Act (CRA), our bootloader enables secure boot and firmware updates for long-term security and compliance. Software Composition Analysis with Black Duck and VulnScout continuously monitors vulnerabilities, risks, and compliance status. Two out of four CAN ports of A55-CC feature CAN ID filtering to firewall external facing CAN ports.

PRODUCT FEATURES



CRA aligned



IP6K7



Industrial Grade



AI enabled

Devkit for SDV application development

Try our PTedge development kit to start SDV application development early in the project phase reducing development risk and accelerating time to market.



Scalable and customizable

A55-CC offers unmatched flexibility with the ability to upgrade the main processor and memory as well as the ability to tailor digital and analog I/O to your exact needs.

Processing & Memory

Microprocessor	NXP i.MX95
CPU core	6x ARM Cortex-A55 <1.6GHz
MCU core	1x ARM-M7
Safety controller	1x ARM-M33
Memory	8GB LPDDR4 (scalable)
Storage	16GB eMMC H5-400 (scalable)

Interfaces

Ethernet	2x 1000 BASE-T1 (802.3bw)
CAN	4x CAN 2.0 up to 1Mbit/s
Serial	1x RS485
Outputs	8x Power output (e-fuse)
Inputs	8x Digital Input

Automotive Electrical Compliance

Nominal voltage	9-32 VDC
Transients and Load Dump	ISO 16750-2 & ISO 7637-2/3

Environmental Compliance

Ambient temperature	-40 to +85°C
Thermal Shock	IEC 60068-2-14 (Na), 300 cycles
Thermal Cycling	IEC 60068-2-14 (Nb), 300 cycles
Vibrations	IEC 60068-2-64, 2.4Grms
Mechanical Shock	IEC 60068-2-27, 30G
Humidity	IEC 60068-2-38 (Z/AD), RH=95%
Salt Spray	IEC 60068-2-52 (severity 3)
IP rating	IP6K7

Information subject to change, contact us for more details:

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