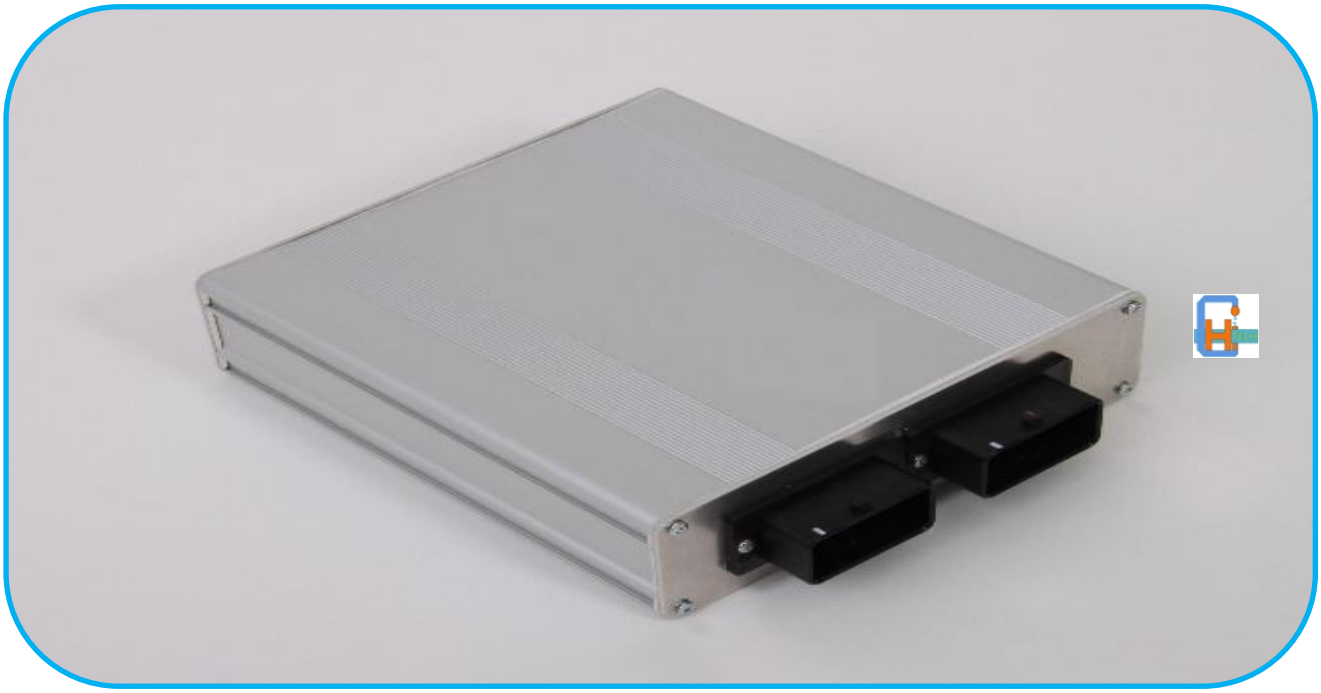


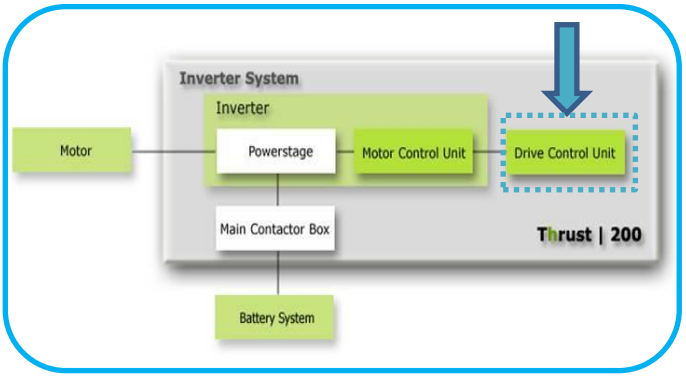
AutoMotive Control Module

Electronic Control Unit (Module) for automotive applications

The automotive control module (ACM), also called Drive Control Unit (see picture), is a general purpose Electronic Control Unit designed to facilitate an easier integration of an inverter system (e.g. Thrust | 200) with the remaining in-vehicle electronics. The system has been designed especially for automotive, marine and heavy-duty vehicle applications. Intended for extreme environmental conditions, the ACM is durable and completely sealed, making it suitable for the most demanding applications.

Flexibility in functionality

The automotive control module, the ACM, is equipped with a versatile ARM7 microcontroller with 1MB external RAM and 2MB external flash. It has a large number of digital and analog inputs and outputs, as well as 3 CAN busses. Combined with an automatic code generation tool suite, the ACM of GHiTECH is the best choice for most automotive control applications



www.ghitech.eu info@ghitech.eu

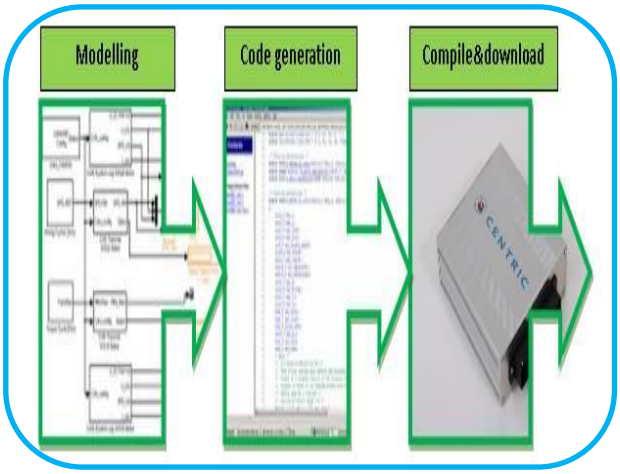
Full support for model driven development

Model-driven development (MDD) has an enormous potential for enabling early model analysis (via simulation and model checking, for example) and design space exploration. Furthermore it greatly improves verification, testing and synthesis of embedded systems.

The ACM can be delivered with an extensive Matlab-Simulink® based tool suite that allows controls engineers to quickly create controls software within Simulink® diagrams using Embedded Coder/Stateflow Coder. Control models prototyped with our tool suite move seamlessly from development into production.

Benefits when using ACM:

- Simpler, faster development
- Better testing using real production ACM hardware
- Quickly develop and enhance software features in Simulink®
- Analyze and control real-time OS from Simulink/Stateflow®
- Direct access to the production controller's I/O from Simulink®
- Readable documentation of system design automatically created from models
- Lower cost for fleet testing; outfit an entire test fleet with rapid prototyping capability
- Custom block-set allows for integration of both handwritten and auto-code



Specifications

Core

Microcontroller	NXP LPC2294 16/32 bit ARM7TDMI-S™
Clock Frequency	60MHz

Memory

Internal Flash	256KB
External Flash	2MB
EEPROM	-
Internal SRAM	16KB
External SRAM	1MB

Inputs

Supply voltage (VDC)	8..32
Boardnet	KL15, KL30, KL31
Analogue inputs	12
Digital inputs	11
PWM inputs	4

Outputs

Analogue outputs	1
High Current Drivers (4A)	4 low-side
Low Current Drivers (500 mA)	16 low-side + 3 high-side
PWM outputs	1
5V power supply to sensors	4

Communications

CAN 2.0	3 (with daisy chain)
Serial	1x RS232 (not exposed on connectors)

Environmental

Ambient Temperature (°C)	-40..85
Degree of protection	IP65
Cooling method	Passive air cooling
Connectors	2x 48-pin Molex
Dimensions LxWxH (mm)	175x170x53
Housing	Silver anodized extruded aluminium
Component choice (all components)	Fully automotive qualified

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