IAV Dragoon for Prototypes and Small Series Productions

TT-S Vehicle Software Solutions

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IAV Dragoon – Your Chance to be one step ahead

- Provision of automotive qualified hard- & software up to 10,000 pcs/year
- “Off The Shelf” ECUs for prototyping
- Business cases for OEM and OES also
- User friendly model-based software design with MATLAB-Simulink in an early phase of development
- Comprehensive support in functional development and strong networking into all functional domains of IAV (e. g. ADAS or Chassis)
- IAV has good understanding of international standards (ISO, DIN, …) and OEM specifications (e. g. vehicle communication)
- Setup of vehicles
- Project management incl. interfacing between all involved parties (one face for the customer)

Fast implementation of applications for vehicle prototypes and showcars, without developing Hardware and Software from the scratch!

IAV Dragoon – Operational Areas

Special purpose vehicles (taxi, police-car, …)

Pre series vehicles and prototypes

Sports and racing cars

Agriculture and commercial vehicles

Luxury cars (Bentley, Bugatti, …)

Our Typical Domains

ADAS

Lighting &
Interior Lights

E-Mobility

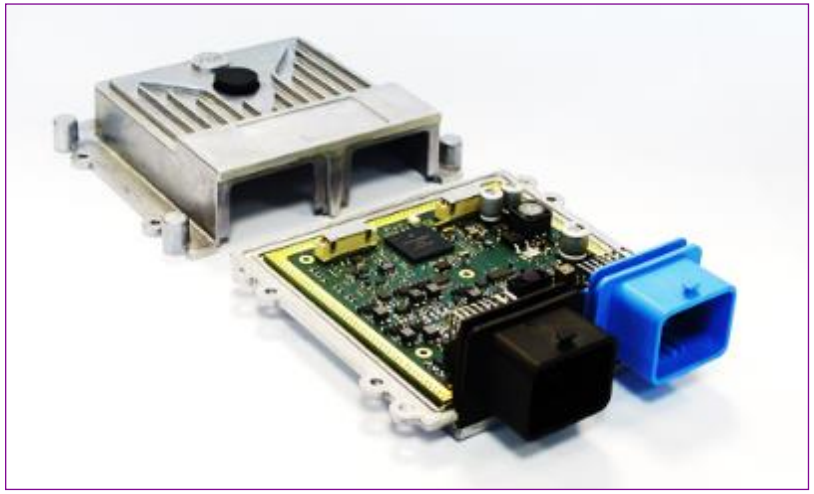
Chassis

Body
Electronics

?

Your Domain

IAV Dragoon - Technical Features



Applications:

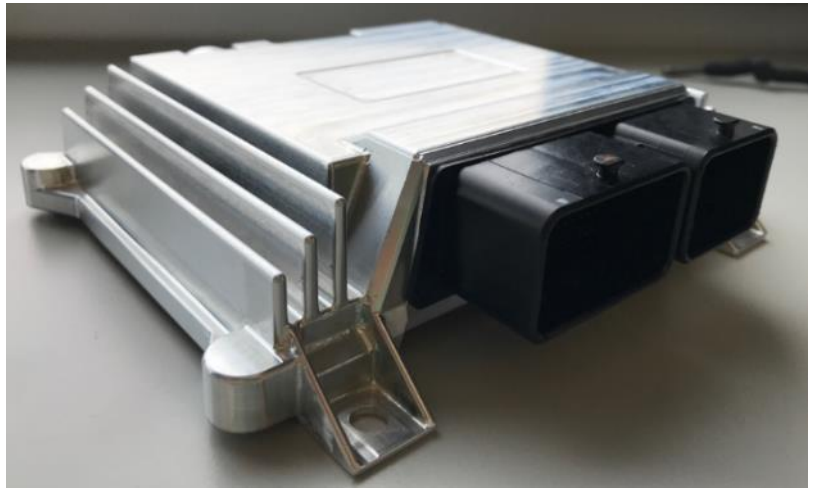
- (Automotive) Gateways
- Safety
- Vehicle Control Unit (VCU)

Domains:

- E-Mobility, BCM, Lighting, …

- Operational in 12 V systems
- 32-Bit µC Infineon TC297, 300 MHz FPU
- 8 MB Flash, 728 KB RAM, 3 cores incl. lockstep
- Safety SBC NXP FS6500 incl. analog input monitor
- 6 x HS CAN w/ wakeup, min. 4 x ISO CAN-FD
- 1 x Automotive Ethernet
- 3 x LIN (configurable master/slave), 1 x SENT
- 8 x Low side outputs 0,5 A, 2 x Low side outputs 2 A
- 2 x High side outputs 10 A, 1 x High side output 0,5 A
- 6 x Half bridges, configurable as H- and/or B6-bridges
- 2 x Sensor supplies, 2 x analog outputs, 8 x Digital inputs incl. 2 x external wakeup, 19 x Analog inputs
- Ambient temperature range: -40..85 °C
- 2 x 32-pin vehicle connector, aluminum housing

IAV Dragoon 2.0 (coming soon) - Technical Features I/II



Applications:

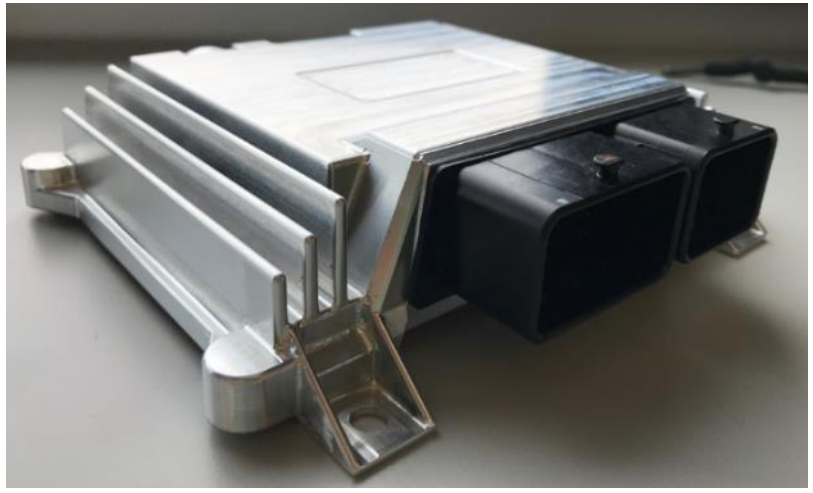
- (Automotive) Gateways
- Safety Applications
- Vehicle Control Unit (VCU)

Domains:

- E-Mobility, BCM, Lighting, …

- Hybrid 12V and 24V supply
- 32-Bit µC Infineon TC387, 300 MHz FPU
- 10 MB Flash, 1376 KB RAM, 4 cores incl. lockstep
- Safety SBC NXP FS6500 incl. analog safety input monitor
- 8 x CAN-FD (wakeup 6 x)
- 1 x 100BASE-T1 Ethernet
- 4 x LIN (configurable master/slave, 12 V only), 2 x SENT
- Piggy pack with additional functions possible (GPIO/SPI/I2C)
- Ambient temperature range: -40..+85 °C
- 80-pin connector, aluminum cast housing, IP67/IP6K9K

IAV Dragoon 2.0 (coming soon) - Technical Features II/II



Applications:

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Domains:

- E-Mobility, BCM, Lighting, …

- 23 x analogue inputs or 20 x digital inputs
- 2 x 5 V Sensor supplies, 7 x Analog ground, 2 x Analog outputs
- 3 x External wakeups (2 x shared)
- 2 x Digital inputs shared with other functions
- 2 x 12 V Low side outputs 1,0 A, 2 x 12 V Low side outputs 0,4 A
- 10 x 12 V Low side outputs 0,4 A shared with other functions
- 4 x 12 V High side outputs 2,3 A
- 4 x 24 V High side outputs 1,0 A, 1 x 12 V High side output 0,1 A
- 6 x 24 V Half Bridges 2,3 A
- Max combined output current with 12 V supply is 12 A
- Max combined output current with 24 V supply is 24 A

IAV Dragoon - Fulfilled Standards

- CE Certification
  - Directive 2014/30/EU (EMVRL)
  - Directive 2011/65/EU (RoHS)
- ISO 26262 ASIL B (specific use case has to be confirmed)
- IP protection class IP69
- IAV Saar - IAV AUTOSAR Basic Software Implementation
- ETAS RTA OS (up to ASIL D certified)

Market of similar products
CAN FD & BroadR-Reach ETH & FuSa & robustness is limited

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