

# ENGINE CONTROL UNIT TAG-210



TAG-210 is the main processing unit for complete powertrain control of a racing car. It is typically used with a companion EIU-210 engine interface unit which provides the high current and voltage ignition and injection drivers. The TAG-210 provides a powerful processing platform for customer applications based on PowerPC processors. It comes with integral data logging and high speed communications capabilities.

The TAG-210 is configured by System Monitor and the logged data is in a suitable format for display and analysis by ATLAS.

## Electrical

- Supply Voltage 7.5 to 16V DC
- Supply Voltage not to exceed 17V continuous (the unit is protected against transients and reverse polarity)
- Supply Current quiescent (ignition off)  
5mA typical @12V
- Supply Current operating (no load on inputs)  
1.2A typical @13.8V
- Supply Current operating (max load on supplies)  
3.0A typical @13.8V
- TAGOS 32-bit Real Time Operating System
- Three Control Processors MPC555
  - 50 MHz 32-bit PowerPC core
- Data-logging/comms processor MPC860P
  - 80MHz 32-bit PowerPC core
  - Forward Error Correction for telemetry data
  - Real time clock
- Data retention not battery dependant
- Data logging memory 256Mbyte Flash, 32Mbyte SRAM

## Application

Control and monitoring of complete powertrain

- 10 cylinder engine
- Throttle-by-wire
- Clutch-by-wire
- Automatic and semi-automatic gearbox

Powerful onboard data logging  
Ethernet connection to application and data analysis tools

## Service

Recommended service interval 12 months (internal battery is replaced)

## Connection definition

- Integral, sealed, military standard connectors

|                   |        |                  |
|-------------------|--------|------------------|
| Chassis connector | 79 way | CGK-S0T 20N-35PN |
| Engine connector  | 79 way | CGK-S0T 20N-35PB |
| Gearbox connector | 79 way | CGK-S0T 20N-35PC |
| Pit connector     | 8 way  | HES1F308XLCY     |

For pin numbers, please request further details from our Technical Consultancy Department.

## Mechanical

- Case material Magnesium alloy, chromate converted and painted with stippled black epoxy
- Weight less than 1.35kg

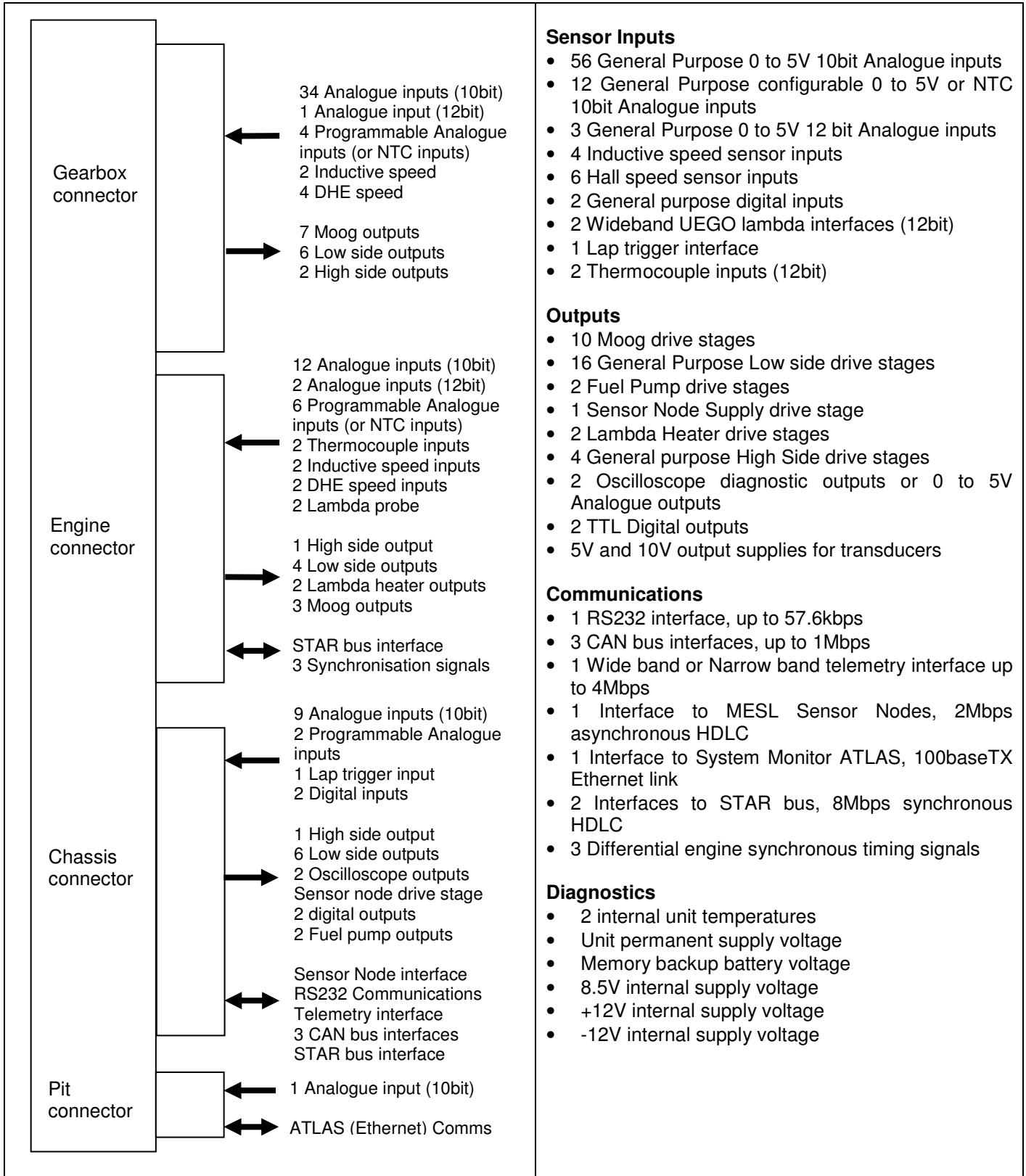
## Environmental

- Splash resistant to standard motorsport fluids
- Lids sealed with O rings
- Maximum humidity 100%
- Minimum operating temperature 0°C
- Internal Temperature not to exceed 70°C as measured by internal diagnostic sensors
- Storage Temperature -10°C to +85°C
- Vibration 100 to 1000Hz, all axes, 24 hours
- Vibration isolation is recommended

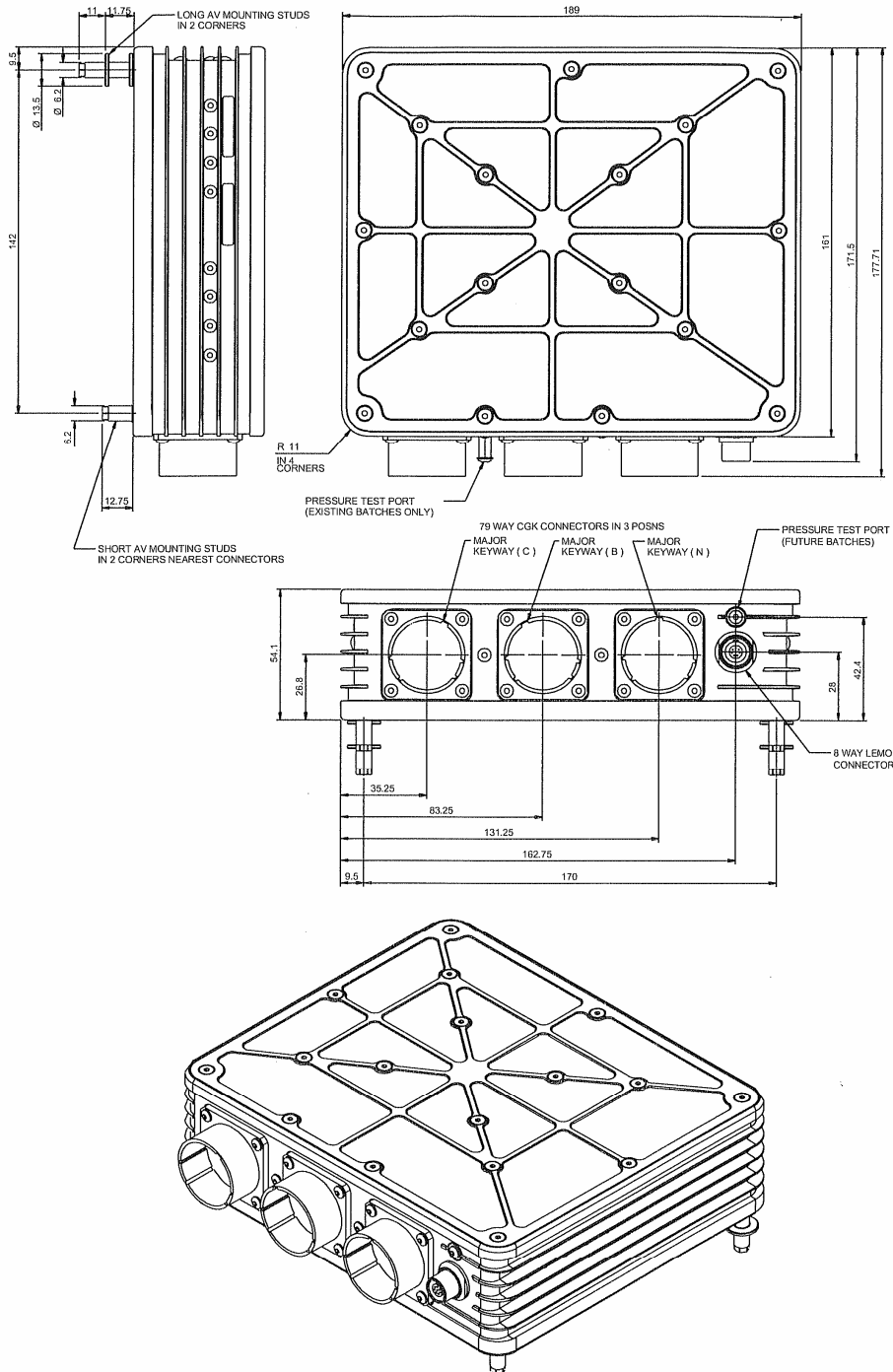
## Electro Magnetic Compatibility

- Complies with the essential protection requirements of 89/336/EEC

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TAG-210 can be tailored to your application in which case it will be given a unique order code. Please contact our technical consultancy service to discuss your requirements.

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