



Racing Guide 2020

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Made in Italy



Racing Guide
2020





DATA DRIVEN

18 TFT Dash Loggers

MXS 1.2
MXP
MXG 1.2

22 TFT Dashes

MXS 1.2 STRADA
MXP STRADA
MXG 1.2 STRADA

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We Are Research, Technology Experience, Passion.

The Company

AiM is today a key player in motorsport and race data acquisition technology. AiM strength is its highly specialized technological background: more than 30 software/hardware developers and engineers on a total workforce of 80 people.

Completely internal development of:

- Hardware
- Firmware
- Software
- Mechanical parts

Sectors of activity

AiM designs lap timers, dashes and loggers for all kinds of racing vehicles: from kart to car, bikes, UTV, Jr. dragsters and even snowmobiles and F1 boats...

A Worldwide Distribution Network

More than 50 official distribution organizations all over the world attend our customers with aftermarket support.

A Technical Service on the Track

Our technicians give constant support on the track in the US, South America, Europe, Australia, Japan.

Technical Support and Seminars

- Completely free of charge telephone support
- Lifetime warranty on all devices
- Tenth of seminars per year both in Europe and in the US
- Webinars published on all the most important arguments related to datalogging



The full range of Lap Timers and Data Loggers for your sports.





Solo 2 Solo 2 DL MXm MXL2 MXS 1.2 MXP MXG 1.2 MXS 1.2 STRADA MXP STRADA MXG 1.2 STRADA MXsl PDM 32 PDM 08

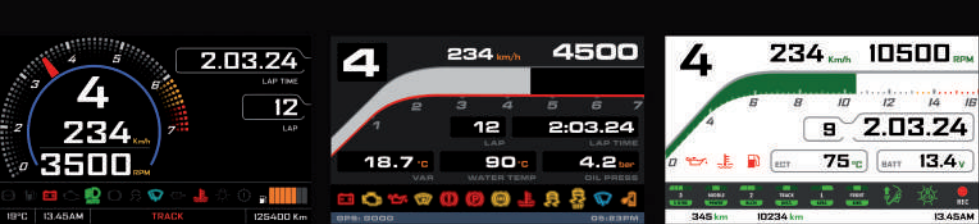
| |
|-------------------------|
| TFT Display |
| LCD Display |
| ECU Connection |
| CAN Connection |
| Analog Digital Input |
| Expansions |
| GPS Lap Timer |
| Low side Digital Output |
| High Power Dig. Out |
| Wi-Fi connection |
| Inertial platform |
| Recording capability |
| Alarms LEDs |
| Shift lights |
| Body |

| | | | | | | | | | | | | |
|-------------|-------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| - | - | - | - | 5" | 6" | 7" | 5" | 6" | 7" | 5" | 6"-10" | 6"-10" |
| ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - |
| - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| - | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| - | - | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 12 | 6 |
| - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| - | - | - | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | - | - |
| - | - | 2 | - | - | - | - | - | - | - | 10 | 32 | 8 |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4GB | 4GB | 4GB | 4GB | 4GB | 4GB | 4GB | - | - | - | - | 4GB | 4GB |
| - | - | 2 | 6 | 6 | 5 | 8 | 6 | 5 | 8 | 6 | 34 | 10 |
| 10 | 10 | 5 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | - | - |
| Nylon Fiber | Nylon Fiber | Nylon Fiber | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum |

**Many Good Reasons
For Choosing an AiM
Dash Logger.**



DATA DRIVEN

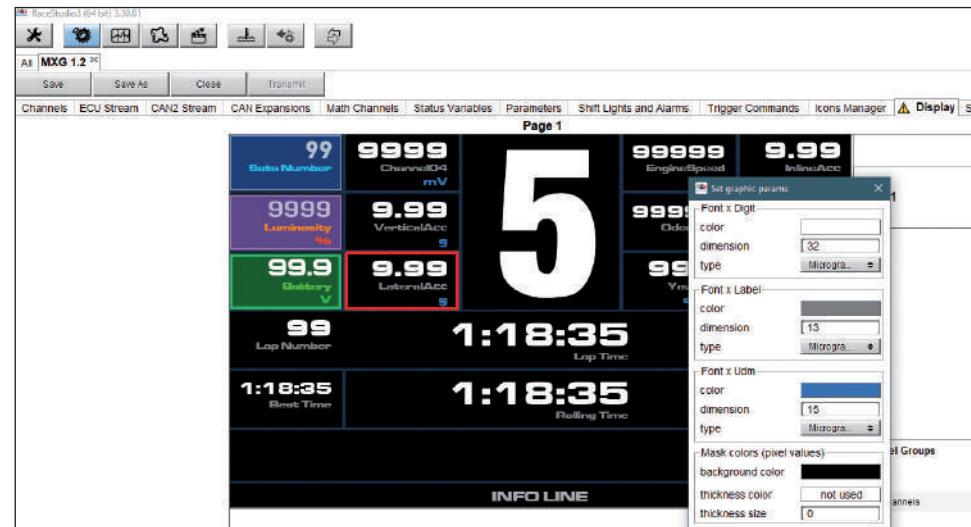


High contrast fully configurable TFT display

A high contrast TFT display identifies MXG/MXP/MXS at first glance.

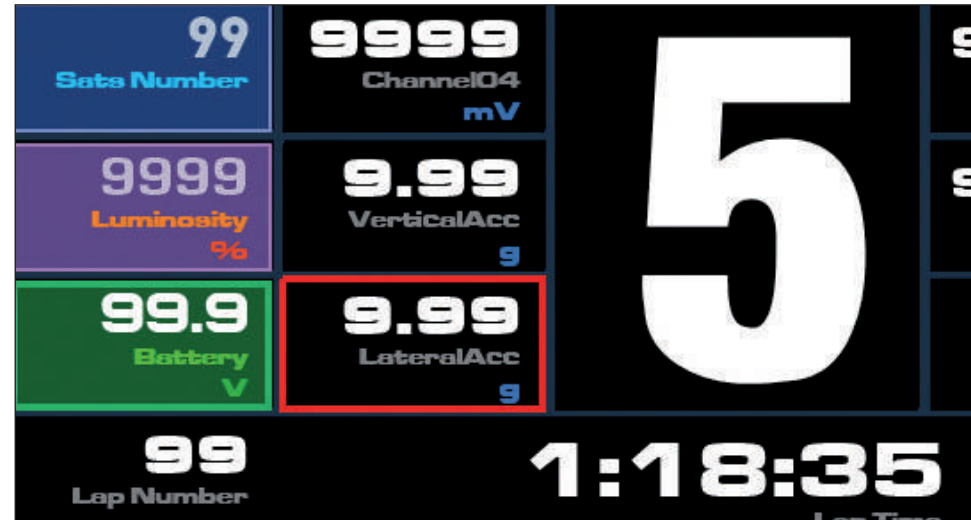
The choice among 5", 6" or 7" fits every kind of installation, also thanks to the possibility to freely configure up to 8 different pages.

You may choose among a wide range of styles and every field may show the channel you wish.



Configurable graphic parameters

Thanks to the new Race Studio 3 version 3.30.xx, MXG 1.2, MXS 1.2, MXP and related Strada versions have now an higher flexibility in managing fonts; you can choose fonts type (among a predefined list), color and size; furthermore, in case a value does not fit into its space, the firmware automatically changes fonts dimensions in order to show the proper value.



When available, you can also define background color, bordered color, thickness border and size of the graphic boxes.

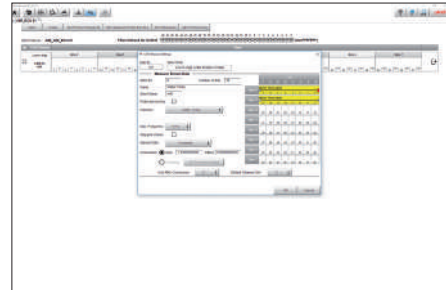


ECU Connection

Every dash, dash logger and Solo2 DL may acquire data from the ECU of your vehicle, no-matter if in CAN, RS232 or K-Line.

The list of available ECU drivers, constantly updated and upgraded, includes 1,000+ different ECUs, both Stock and racing. They are sorted by manufacturer/vehicle model.

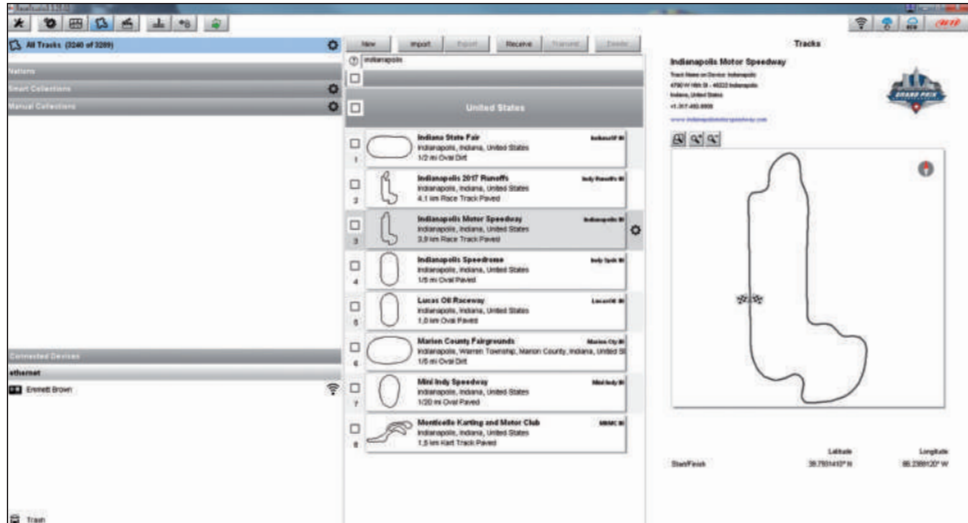
The possibility to completely configure the CAN Stream using the ECU Driver Builder feature helps in cases your ECU protocol is not integrated in our database.



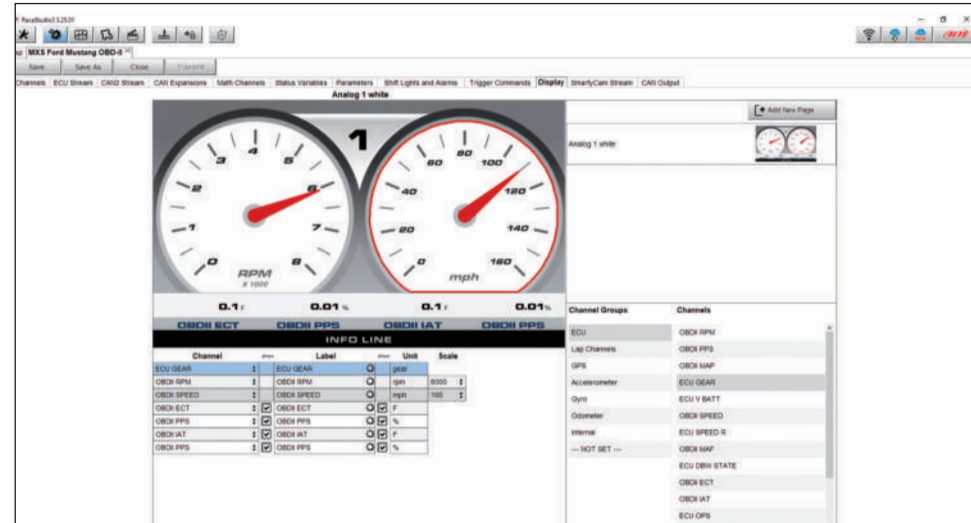
TFT configuration rear camera icons

An analog camera input is available to swap your display into a mirror camera through a completely configurable event management.





4000 tracks in the database

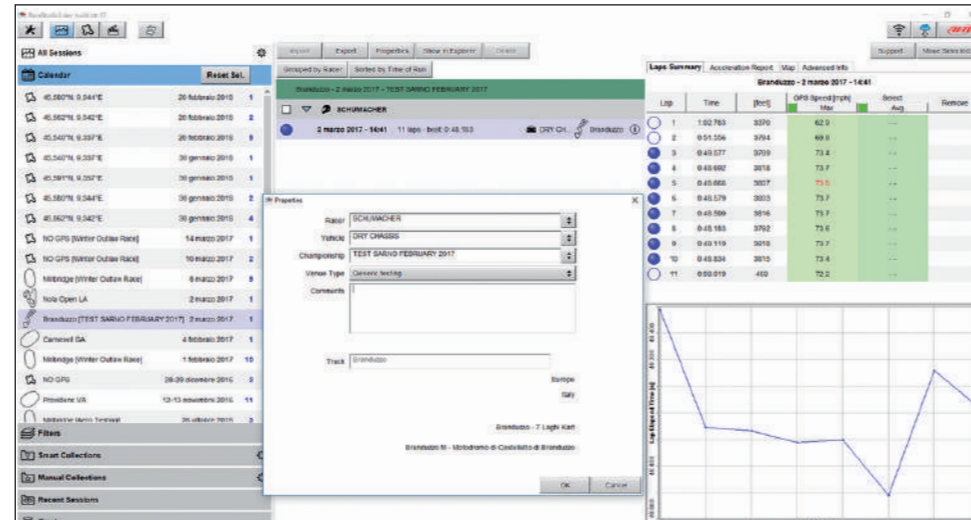
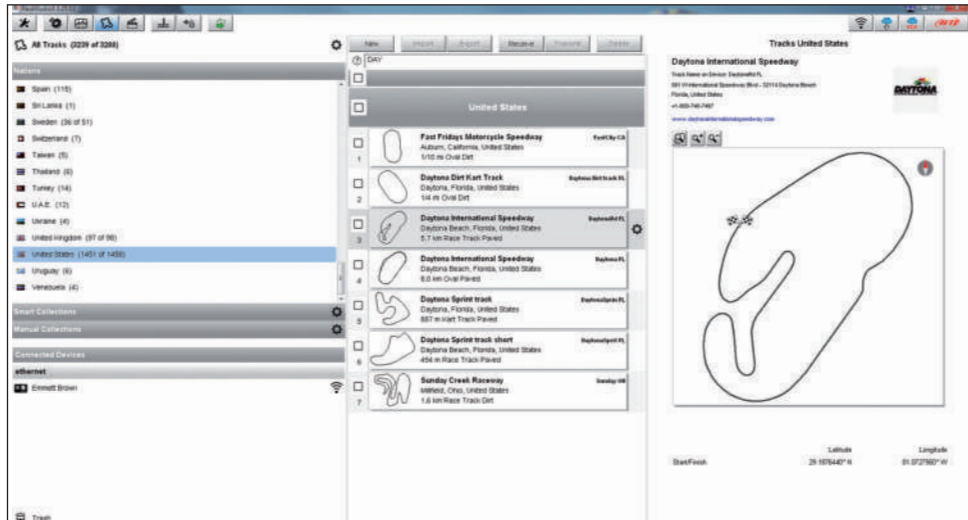


Race Studio 3, the almighty software

Race Studio 3 is the true 'engine' of every MX and Solo 2 series device, as it will manage all your activities related to:

Configuration

With Race Studio 3 you can create, modify, delete, import and export configurations with all channels, ECU drivers, Math channels, display pages, digital outputs, alarms, Shift Lights and all the expansions you need. You will also be able to manage the map of all your racing tracks and compare two laps watching the video recorded by SmartyCam cameras.



Analysis

With Race Studio 3 you can also analyze all data recorded by MX and Solo 2 series devices and downloaded to your PC: graphs, histograms and tables will help you studying your performance, providing an objective support to avoid mistakes and improve performances.

TFT DASH LOGGERS

MXS 1.2 5"
 MXP 6"
 MXG 1.2 7"

- 5"/6"/7" High Contrast TFT Display
- Fully user configurable Multi page Display
- RGB alarm LEDs and icons
- 10 RGB LEDs shift lights array
- Wi-fi connectivity, to PC and iPhone App
- 3 CAN ports
- Connection with 1,000+ industry leading ECUs, K-Line, RS232 protocols
- Three - axis accelerometer + gyroscope
- 8 analog (thermocouple, 0-5V, 0-12V) inputs at a max of 1000 Hz each
- 4 digital speed inputs
- Coil RPM input
- Lap signal input
- 2 One Amp digital outputs
- Analog Camera Input
- Realtime fully configurable math channels
- GPS 08 GPS + Glonass receiver
- Automatic track recognition at power on



7" MXG 1.2



5" MXS 1.2



6" MXP

The color TFT Dash Loggers in three different display sizes.

Fully compatible Dash Loggers with the same core, same connectors, same features but available in different sizes: 5", 6" or 7", all of them with High Contrast TFT display, whose brightness is managed by an ambient light sensor, in order to keep the light at the best level.



| | |
|----------------------------|--|
| ■ Display | MXS: 5" TFT - MXP: 6" TFT - MXG: 7" TFT |
| ■ Resolution | 800x480 pixels |
| ■ Brightness | 700cd/m2 - 1,100 Lumen |
| ■ Ambient light sensor | Yes |
| ■ Alarm LEDs | MXS: 6 RGB freely configurable MXP: 5 RGB freely configurable MXG: 8 RGB freely configurable |
| ■ Alarm display icons | Freely configurable |
| ■ Shift Lights | 10 integrated freely configurable RGB LEDs |
| ■ CAN connections | 3 |
| ■ ECU connections | CAN, RS232 or K-line |
| ■ ECU compatibility | 1,000+ industry leading ECUs |
| ■ CAN Expansion connection | GPS, Channel Expansion, Lambda Controller, SmartyCam HD |
| ■ Analog inputs | 8 fully configurable, max 1,000 Hz each |
| ■ Digital inputs | 4 Speed inputs, lap signal, coil RPM input |
| ■ Digital outputs | 2 (1 A max each) |
| ■ Second CAN | Yes |
| ■ Accelerometer | Internal Three-axial ± 5g+Gyro |
| ■ Internal memory | 4 GB |
| ■ Body | Anodized Aluminum |
| ■ Pushbuttons | Metallic |
| ■ Connectors | 2 Motorsport connectors +1 Binder connector |
| ■ Dimensions and Weight | MXS: 169.4x97x23 mm - 530 g MXP: 189,6x106,4x24,9mm - 640 g MXG: 237x127.6x26 mm - 950 g |
| ■ Waterproof | IP65 |

MXS 1.2 Strada 5"
MXP Strada 6"
MXG 1.2 Strada 7"

- 5"/6"/7" High Contrast TFT Display
- Fully user configurable Multi page Display
- RGB alarm LEDs and icons
- 10 RGB LEDs shift lights array
- 2 CAN ports
- Connection with industry leading 1,000+ ECUs, K-Line, RS232 protocols
- Three - axis accelerometer + gyroscope
- 8 analog (thermocouple, 0-5V, 0-12V) inputs at a max of 1000 Hz each
- 1 digital speed inputs
- Coil RPM input
- Lap signal input
- 1 One Amp digital outputs
- Analog Camera Input
- Realtime fully configurable math channels
- GPS 08 GPS + Glonass receiver



The TFT Dashes in three display sizes for road use

MXG 1.2 Strada, MXP Strada and MXS 1.2 Strada feature three color display with great visual impact, configurable to show lap times and all the info coming from the Engine Control Unit, analog/digital inputs, pre-defined math channels and - optionally - the GPS Module. The data sampling capability can also be incremented adding up to eight expansion modules.

New Track-Kit with Strada Logger!

You have been improving your driving skills but now we feel you have to go the extra-mile to drop that second down? Stepping your game up is the reason the "Track-Kit" has been designed for.

AiM Track-Kit allows you to unleash the full potential of AiM MXS Strada: composed by the Module GPS08, a dedicated Strada Logger and the Data HUB, the Track-Kit makes AiM MXS Strada able to log data which you can analyze through our software RaceStudio 3, when you are still at the track or you left it and finally understand what you did right or wrong on the circuit and then improve your performance.



TECHNICAL SPECIFICATIONS

| | |
|----------------------------|--|
| ■ Display | MXS: 5" TFT - MXP: 6" TFT - MXG: 7" TFT |
| ■ Resolution | 800x480 pixels |
| ■ Brightness | 700cd/m2 - 1,100 Lumen |
| ■ Ambient light sensor | Yes |
| ■ Alarm LEDs | MXS: 6 RGB freely configurable MXP: 5 RGB freely configurable MXG: 8 RGB freely configurable |
| ■ Alarm display icons | Freely configurable |
| ■ Shift Lights | 10 integrated freely configurable RGB LEDs |
| ■ CAN connections | 2 |
| ■ ECU connections | CAN, RS232 or K-line |
| ■ ECU compatibility | 1,000+ industry leading ECUs |
| ■ Expansion CAN connection | GPS, Channel Expansion, Lambda Controller, SmartyCam HD |
| ■ Analog inputs | 8 fully configurable, max 1,000 Hz each |
| ■ Digital inputs | 1 Speed inputs, lap signal, coil RPM input |
| ■ Digital outputs | 1 (1A max each) |
| ■ Second CAN | Yes |
| ■ Body | Anodized Aluminum |
| ■ Pushbuttons | Metallic |
| ■ Connectors | 2 Motorsport connectors + 1 Binder connector |
| ■ Dimensions and Weight | MXS: 169.4x97x23 mm - 480 g MXP: 189.6x106.4x24.9mm - 640 g MXG: 237x127.6x26 mm - 950 g |
| ■ Waterproof | IP65 |
| ■ Strada Logger Kit | Optional |

MXsl

- 5" TFT Display
- 800x480 pixels Resolution
- 600:1 Contrast
- 700cd/m² - 1,100 Lumen Brightness
- Ambient light sensor
- 6 configurable RGB Alarm LEDs
- 10 configurable RGB LEDs Shift Lights
- 2 AMP connectors
- CAN, RS232 or K-Line Connection to 1,000+ industry leading ECUs
- 3 CAN connections
- 8 fully configurable analog, digital, pull up on/off - Max 1,000 Hz each
- External modules connection: GPS Channel Expansions, Thermocouple Expansions, Lambda Controllers, SmartyCam
- - 2 Low Side Digital Output (1A max)
- - 8 High Side Digital Outputs (5A max)
- - 2 High Side Digital Outputs (10A max)

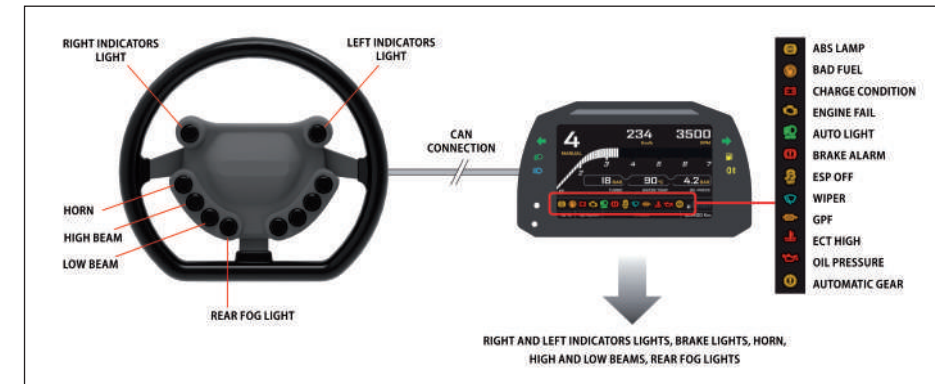


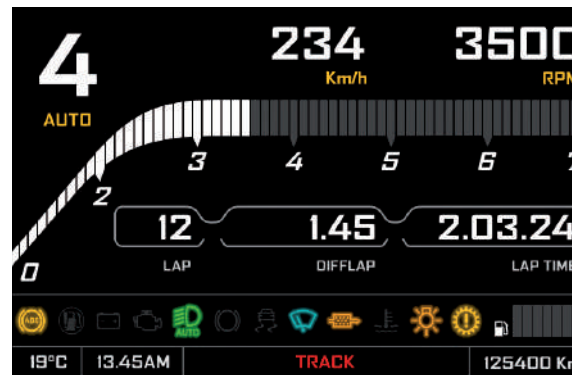
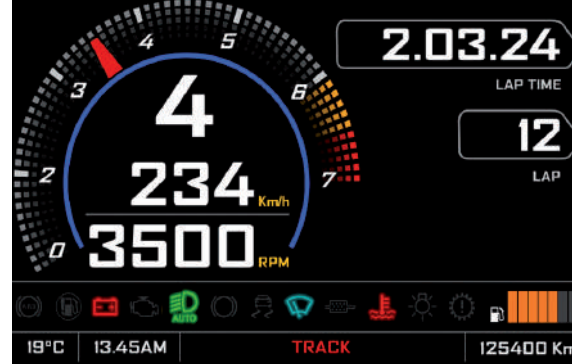
The power and compact module Dash completely configurable

MXsl is a completely configurable 5" dash controller that, beyond the typical features of a dash, like ECU connection, analog/digital Inputs, GPS management etc., offers 10 useful High-Power Outputs that can be used for directly powering motors, lights, fans, pumps, electronic devices, without any necessity of conventional relays and fuses. The harness becomes extremely simplified and the flexibility is the status of art.

It detects shortcuts, overcurrents and open circuits, recording the faults for a complete diagnosis and giving, if required, the proper information on the screen.

Each output can be configured to be activated by a combination of math channels, analog/digital inputs, pushbuttons or ECU fields, programming even the maximum absorbed current.





TECHNICAL SPECIFICATIONS

- **Display** 5" TFT
- **Resolution** 800x480 pixels
- **Contrast** 600:1
- **Brightness** 700cd/m2 - 1,100 Lumen
- **Ambient light sensor** Yes
- **Alarm LEDs** 6 RGB freely configurable
- **Shift Lights** 10 integrated freely configurable RGB LEDs

- **CAN connections** 3
- **ECU Connections** CAN, RS232 or K-Line
- **ECU compatibility** + 1,000 industry leading ECUs
- **CAN Expansion connection** GPS, Channel Expansions, TC Hub, Lambda Controllers, SmartyCam

- **Inputs** 8 fully configurable: analog, digital, pull up on/off - Max 1,000 Hz each
- **Speed Input** 1
- **RPM Input** 1
- **Digital outputs Low Side** 2 (1A Max)
- **Digital outputs High Side**
 - 10 protected (overcurrent, short circuit to GND and to battery, overtemperature, open load detection, current fuse programmable)
 - Eight 5 A outputs, two 10 A outputs
 - Current sense
 - Output PWM capable (100 Hz to 400 Hz)

- **Connectors** 2 AMP connectors
- **Dimensions** 169.4x97x23 mm
- **Weight** 480 g
- **Power consumption** 400 mA without power output lines active
- **Waterproof** IP65

MXm MXL2

- High contrast LCD with graphical portion (MXL2 only)
- Wi-Fi connectivity
- Connections with 1,000+ industry leading ECUs
- 3-axis accelerometer + gyroscope
- Coil RPM input
- 2 digital outputs
- Realtime fully configurable math channels



All the racing data you may ever need

MXm and MXL2 are the powerful AiM dash loggers providing all the info needed by racers: they sample and show key info like speed, laptimes, RPM, all temperature/pressure data you need and much more.

These have been designed with the aim to make configuration and usage smooth and easy both for amateurs and for people with sophisticated technical background.

MXm

- 7 color backlight
- 2 configurable RGB alarm LEDs
- 5 RGB LED shift light array
- 2 CAN connections
- 4 analog inputs at a max 1000 Hz each
- 2 digital speed inputs

A wide range of data sources

These dash loggers sample data coming from your ECU, the internal accelerometer and gyro, as well as from the GPS08 module, analog/digital inputs and predefined math channels.

For the most demanding, the system can be connected to the lambda controller and to SmartyCam.

MXL2

- Dual color backlight
- 6 configurable RGB alarm LEDs
- 10 RGB LED shift lights array
- 3 CAN connections
- 8 analog inputs at a max 1000 Hz each
- 4 digital speed inputs
- Lap signal input



| | MXm | MXL2 |
|-------------------------------|---|--|
| ■ Display resolution | 268 x 128 pixels | LCD display + graphical portion |
| ■ Backlight | 7 configurable RGB colors | White or red |
| ■ Ambient Light sensor | Yes | Yes |
| ■ Shift Lights | 5 configurable RGB LEDs | 10 configurable RGB LEDs |
| ■ Alarm LEDs | 2 configurable RGB LEDs | 6 configurable RGB LEDs |
| ■ CAN connections | 2 | 3 |
| ■ ECU connections | CAN, RS232 or K-Line to 1,000+ industry leading ECUs | CAN, RS232 or K-Line to 1,000+ industry leading ECUs |
| ■ GPS | Integrated | GPS08 Module included in the kit |
| ■ External modules | Lambda Controller, SmartyCam HD | GPS Module, Channel Expansion, TC hub, Lambda Controller, SmartyCam HD |
| ■ Analog inputs | 4 fully configurable, max 1,000 Hz each | 8 fully configurable, max 1,000 Hz each |
| ■ Digital inputs | 2 Speed inputs, coil RPM input | 4 Speed inputs, lap signal, coil RPM input |
| ■ Digital outputs | 2 high-side max 10 A | 2 low-side max 1 A |
| ■ Inertial platform | Internal 3 axis ±5g accelerometer + 3 axis gyro + 3 axis magnetometer | Internal 3 axis ±5g accelerometer + 3 axis gyro |
| ■ Wifi connection | Yes | Yes |
| ■ Internal memory | 4 GB | 4 GB |
| ■ Body | Glass fiber reinforced Nylon | Anodized Aluminum |
| ■ Pushbuttons | Metallic | Metallic |
| ■ Connectors | 37 pins Motorsport connector + 4 pins power connector | 2 Motorsport connectors |
| ■ Dimensions | 137x88,4x31,9mm | 187,8x103x21mm |
| ■ Weight | 330g | 530g |
| ■ Waterproof | IP65 | IP65 |

EVO4S EVO5

- Connection with 1,000+ industry leading ECUs
- Lap signal
- Coil RPM input
- Internal 3 axis $\pm 5g$ accelerometer + 3 axis gyro
- CAN output
- GPS included in the kit
- External modules connection (Channel Expansion, TC Hub, Lambda controller, SmartyCam HD)
- 4GB internal memory

EVO4S

- 5 fully configurable analog inputs, max freq. 1,000 Hz each
- 2 Speed inputs
- 1 Digital Output (1 A max)

EVO5

- 8 fully configurable analog inputs, max freq. 1,000 Hz each
- 4 Speed inputs
- 2 Digital Outputs (1 A max)
- SD card slot
- Second CAN
- Wi-Fi Connection



EVO4S The powerful and flexible data logger

EVO4S is the evolution of the traditional data logger that, all over the years, has become a standard de facto acquisition system in a huge amount of championships. With its compact aluminum body, can be easily placed in any vehicle. Its configuration with the new Race Studio 3 software is simple and immediate.

EVO5 The professional data logger

EVO5 is one step beyond. The SD card slot is the fastest way to grab data out of a vehicle when this is pitting.

Wi-Fi offers an alternative access to the unit. Two Motorsport connectors, 8 analog inputs, 4 wheel speeds and a second CAN bus complete this professional package.

A wide range of sources

EVO4S and EVO5 sample all the information you need.

Data coming from your vehicle ECU via CAN, RS232 or K-line, from the internal accelerometers and gyro, from the GPS08 Module included in the kit and from analog/digital inputs, external expansions as well as predefined math channels.

Sensors can be connected to the configurable analog channels, to the RPM input and to the wheel speed inputs.



ECU connection

EVO4S/EVO5 acquire data from the ECU of your vehicle.

The list of available ECU drivers, constantly updated and upgraded, includes 1,000+ different ECUs, both Stock and Racing.

They are sorted by manufacturer/vehicle model: for each ECU you find the proprietary communication protocols, including the standard OBDII ones.

From a hardware point of view, AiM systems manage the following data lines: CAN, RS232, K-Line.



EVO4S Sensors connection

Many sensors can be connected to EVO4S via:

- 5 analog channels with configurable 12 bit 0-5 Volt, 0-500 mV, 0-50 mV inputs or thermocouple input, used to sample data coming from temperature, pressure, suspension and other kinds of sensors.
- 2 speed inputs
- 1 RPM input, which manages square wave signals transmitted by the ECU, or pulse signals picked from the coil command (low voltage).

View your parameters and alarms

Two different solutions allow to display vehicle parameters logged by EVO4S/EVO5. Shift lights and alarm LEDs complete the information supplied to the driver.

Formula Steering Wheel 3

Dedicated to Formula and Sports cars.

GS-Dash

The compact solution for tight cockpits.

Digital output

1A at 12 Volts are output by EVO4S/EVO5: they can be configured in order to be turned On/Off depending on the strategy that has been set.

They permit to automatically run external systems, i.e. to switch on/off additional lights, to activate/de-activate a cooling fan or circulation pumps, etc. when a certain event happens. One output is available on EVO4S, two on EVO5.

Internal three-axial accelerometer and gyro

A built in inertial platform: an integrated three-axial accelerometer and gyro sensor let you have the most powerful system to understand oversteering, understeering, banking, etc.

CAN output

With the CAN Output you can send messages directly to an existing CAN network in order to improve the range of vehicle control possibilities.

Expand your EVO4S/EVO5

Add expansion modules via our built in CANbus eg. Channel Expansions, Lambda controllers, displays (GS-Dash, FSW3).

These are only some of the items that can be added to our EVO4S/EVO5 range for incrementing the performance and the data acquired.



EVO5 Sensors connection

Many sensors can be connected to EVO5:

- 8 analog channels with configurable 12 bit 0-5 Volt, 0-500 mV, 0-50 mV inputs or thermocouple input, used to sample data coming from temperature, pressure, suspension and other kinds of sensors.
- 4 speed inputs.
- 1 RPM input, which manages square wave signals transmitted by the ECU, or pulse signals picked from the coil command (low voltage).

EVO5 Second CAN line

The CAN2 line manages data coming from your additional modules (i.e. ABS, traction control, infrared temperature sensors and more...). This feature meets the requirements of a growing number of racers, as the use of additional modules is becoming quite common in a number of series.

EVO5 Wi-Fi connectivity

Configure, calibrate and download your data wirelessly over a secure 802.11 Wi-Fi connection.



EVO5 Store all your data in a SD card

The internal SD card permits to record all possible data you may ever need.

The card is protected by a waterproof door equipped with a sensor closing all files when you open it, to prevent any data loss possibility. Of course a USB connection is available too.



EVO4S

- ECU connection
- External modules

- Analog inputs
- Digital inputs
- Inertial platform
- Digital outputs
- Second CAN

- WiFi connection
- Internal memory
- Removable SD card

- Connectors
- Body
- LEDs

- Dimension
- Weight
- Waterproof

CAN, RS232 or K-Line to 1,000+ industry leading ECUs
 GPS Module, Channel Expansion, TC Hub, Display, Lambda controller, SmartyCam HD
 5 fully configurable, max 1,000 Hz each
 2 speed inputs, lap signal, RPM input
 Internal 3 axis ±5g accelerometer + 3 axis gyro
 1 (1A max)
 -
 -
 4 GB
 -

13 Binder connectors
 Anodized aluminum
 1 system status

130x35x46,6mm
 330g
 IP65

EVO5

CAN, RS232 or K-Line to 1,000+ industry leading ECUs
 GPS Module, Channel Expansion, TC Hub, Display, Lambda controller, SmartyCam HD
 8 fully configurable, max 1,000 Hz each
 4 speed inputs, lap signal, RPM input
 Internal 3 axis ±5g accelerometer + 3 axis gyro
 2 (1A max)
 Yes
 Yes
 4 GB
 Up to 128 GB

2 Motorsport connectors 37-22 pin
 Anodized aluminum
 1 system status

114,4x47,2x58,86mm
 300g
 IP65



PDM32- PDM 08 KIT

Much More Than a Power Distribution Module

PDM32 and PDM08 Power Distribution Modules are designed to distribute power to multiple circuits on your vehicle, easily replacing traditional fuse and relay systems.

Our PDMs are housed in a anodized billet aluminum case, are designed to handle the rigors of motorsport and include a complete professional data logger and internal dash controller.

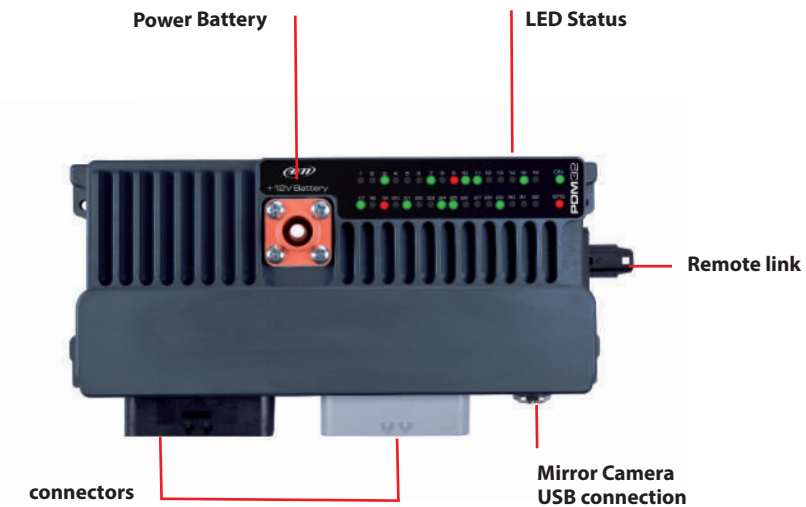
At the center of vehicle electronics, the harness and installation are simplified and offer more control.

The PDM Kit includes:

- New INTEGRATED Power Distribution Module + 4 gigabytes Datalogger + Dash controller
- Dash 6" or 10"
- GPS Module for automatic Lap Time and track position.

In Two different proposals:

- **PDM32** with 28 High Side Outputs and 4 Half Bridge Outputs
- **PDM08** with 08 High Side Outputs



TECHNICAL SPECIFICATIONS

| | PDM32 | PDM08 |
|-------------------------------------|---|---|
| Inputs | 14 fully configurable, max 500 Hz each: 8 analog/digital 4 digital inputs of which 2 speed input | 6 fully configurable, max 500 Hz each |
| Power Outputs | 4 rated up to 35 A (high power) 12 rated up to 20 A (mid power) 12 rated up to 10 A (low power) 4 rated up to 30 A (Half Bridge) | 8 rated up to 20 A (mid power) |
| | Protected for: over voltage, under voltage, over current, over temperature Total max current: 120 A | Protected for: over voltage, under voltage, over current, over temperature |
| Lin bus | 1 | 1 |
| CAN connectors | 3 | 3 |
| Inertial platform | 3 axis ±5G accelerometer + 3 axis gyro + 3 axis magnetometer | 3 axis ±5G accelerometer + 3 axis gyro + 3 axis magnetometer |
| Internal memory | 4 GB | 4 GB |
| External modules | GPS Module, Channel Expansion, TC Hub, Lambda Controller, SmartyCam HD, Remote IO Pushbutton Module | GPS Module, Channel Expansion, TC Hub, Lambda Controller, SmartyCam HD, Remote IO Pushbutton Module |
| External Analog Camera input | 2 | NO |
| Body | Anodized Aluminum | Anodized Aluminum |
| Dimensions | 234.5 x 94.6 x 49 mm | 161 x 100.6 x 50.6 mm |
| Weight | 761g | 500g |
| Waterproof | IP65 | IP65 |



Both PDMs support 6" and 10" dashes. They are fully user configurable, thanks to the wide range of layouts available in our configuration software RaceStudio3.

Display 6"

Display 10"

- Display
- Display resolution
- Contrast
- Brightness
- Alarm display icons
- Shift Lights
- Alarm LEDs
- Connectors
- Body
- Pushbuttons
- Dimensions
- Weight
- Waterproof

6" TFT
 800x480 pixels
 600:1
 700cd/m²
 Yes, freely configurable
 10 configurable RGB LEDs colors
 5 configurable RGB LEDs colors
 1 Rosenberger
 Anodized Aluminum
 Metallic
 189,6x106,4x24,92mm
 640g
 IP65

10,3" TFT
 1280x480 pixels
 1100:1
 800cd/m²
 Yes, freely configurable
 10 configurable RGB LEDs colors
 6 configurable RGB LEDs colors
 1 Rosenberger
 Anodized Aluminum
 Metallic
 278x135x37,2mm
 1035g
 IP65

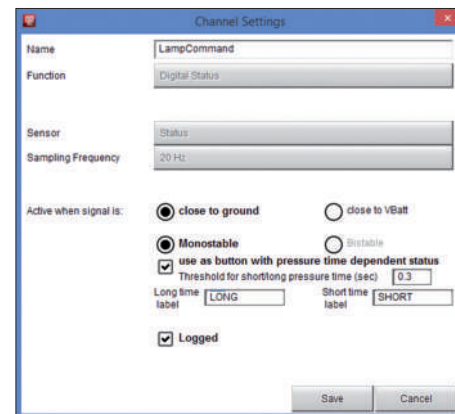
RIO 02 Input/Output expansion module



The RIO 02 Remote Input/Output Expansion Module is dedicated to push button management when the available inputs aren't enough.

It features :

- 19 inputs, primarily dedicated to push button management. Easily configure momentary, two-position, and multi-status, with momentary controls for long and short push.
- 2 Low side , max 2A, Digital Outputs.



Digital inputs Configuration panel example

Example of installation:
all the pushbuttons and switches of the new Ariel Atom IV are managed by a RIO 02



RIO02

- CAN connections 1
- Inputs 19 of which:
8 programmable:
Switch to Batt, Switch to ground
11 Switch to Ground
- Outputs 2 Low side Max 2 A
- Body Plastic
- Dimensions 99,2 x 80 x 40,1 mm
- Weight 120 g
- Waterproof IP65

SOLO 2 SOLO 2 DL

- Graphical display
- Automatic Lap time calculation based upon GPS technology
- Wide internal Track Database with more than 3,000 tracks
- Automatic track recognition at power on
- Freely configurable display
- 10 configurable RGB LEDs
- Freely selectable race Mode: Speed, Performance, with closed or open circuit
- Internal 4 GB memory
- Rechargeable lithium battery
- Solo 2 DL: connectable to every ECU for getting and recording all ECU data
- Multiple configuration management (Solo2 DL only)
- Open/closed track creation



The most precise and easy way to get lap times

The new Solo 2 receives the data from two satellites constellations, GPS and Glonass: this is a huge step forward since it is unbelievably faster and more precise than the previous version and the lap times are calculated within a maximum gap not higher than 2/100 sec.

The screen can be backlit in one of seven available colors.

Solo 2 can rely on a database of more than 3,000 tracks all over the world: as soon as it switches on, Solo 2 identifies its position,

recognizes the starting line coordinates of the track and starts sampling lap times.

In case the track is not in the database, no problem: Solo 2 realizes it and switches to the autolearning mode, automatically understands the characteristics of the track and gives the lap time anyway.



Configurable RGB LEDs

Even the predictive lap time is much more reliable and the configurable RGB LEDs will give you a clear and fast indication of the comparison with your best lap.

Race Mode Selection

Solo 2 can manage two types of races:

- Speed races in a closed circuit
- Performance tests (0-100 km/h etc.)

In each of these configurations, Solo 2 gives the proper information during the test and powerful data review immediately after each session.

Wi-Fi communication with the PC

Wi-fi connection: easy, fast, without connectors nor cables: the best way to configure your Solo 2, to manage the Track database, to download the data to your PC.

Data recall on screen

At the end of your test, you can quickly review all the key information on your display.

Specific bar pads for motocross

Bar pads to fit handle bars with and without brace are available for immediate installation on any kind of motocross bike.



SOLO 2 DL

The Solo with ECU connection

More than 1,000 protocols for 1,000+ ECUs in the database, for easily connect your Solo 2 DL to your Engine Control Unit and get a lot of information with just one cable.

In case your ECU protocol is not in the database, no problem: an ECU Driver Builder is always available in **Race Studio 3** configuration software, and you will be able to create your protocol on your own.

Coil RPM Input

Solo 2 DL now features a digital input allowing to log RPM either from square wave signals (8-50 V each signals) or pulse signals (150-450V ignition coil trigger – primary circuit).

SmartyCam connection

The perfect connection: get all the data from your ECU, merge them with the GPS information and transmit everything to SmartyCam, that will show them in graphical overlay in the video.



Open track creation

Solo 2 and Solo 2 DL allows the creation of temporary or permanent open circuit to be added to the Pc database.

Multiple configurations management (Solo 2 DL)

Solo 2 DL can receive up to 10 configurations at one time allowing the user to switch among them through the log-timer keyboard.





TECHNICAL SPECIFICATIONS

| | |
|-----------------------------|---|
| ■ Display | Graphical |
| ■ Display resolution | 238x99 pixels |
| ■ Display pages | Up to 8 freely configurable |
| ■ Backlight | 7 configurable RGB colors |
| ■ Shift lights/alarm LEDs | 10 configurable RGB LEDs |
| ■ Integrated track database | Yes |
| ■ Inertial platform | Internal 3 axis $\pm 5g$ acc. + 3 axis gyro + 3 axis magnetometer |
| ■ Wi-Fi connection | Yes |
| ■ GPS | 10 Hz |
| ■ External power | 12V |
| ■ Memory | 4 GB |
| ■ Battery type | Rechargeable lithium |
| ■ Pushbuttons | Metallic |
| ■ Dimensions | 98.0x73.7x30.2 mm |
| ■ Weight | 240 g, battery included |
| ■ Waterproof | IP65 |

Solo 2 DL

| | |
|-------------------------------------|---|
| ■ ECU connection | CAN, RS232 or K-Line to 1,000 + industry leading ECUs |
| ■ Multiple configuration management | Yes |

FORMULA STEERING WHEEL 3

- Display resolution: 268x128 pixel
- Backlight: seven configurable RGB colors
- Ambient light sensor
- Five RGB LED configurable shift lights
- Four configurable alarm LEDs
- Fully configurable display pages
- Dimensions: 270x183x67mm
- Waterproof IP65



Formula Steering Wheel ,specifically designed for Formula and Sports Cars

Formula Steering Wheel 3, for dimensions (ø 27cm) and structure, has been specifically designed for Formula and Sports cars.

It offers the opportunity to visualize in real time all the information acquired by EVO4S or EVO5 loggers in a typical "racing" look.



EVO4S



EVO5



Easy and immediate readability

The new wheel features a wide 268x128 pixel graphical display. The screen can be backlit in seven different colors. The incorporated light sensor makes brightness and contrast ideal in all light conditions.



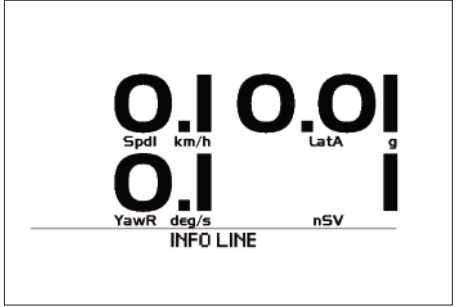
All the data you wish, with your preferred layout

The display pages show lap times and data in a 100% customizable way: just choose your data and create your pages displaying up to 4 fields each. The "RPM and Lap Time" page layout is also available to display RPM Graph, Lap Time and two channels of your choice.



Recall your session highlights

A key-data summary is available at the end of each session: you can also see a list of all the laps of the session, with their times, min/max speed and min/max RPM values.



14/09/2016 12:45

| Lap | Best Lap | RPM | kmh | T2 |
|-----|----------|--------------|---------------|----------|
| 7 | 01.04.06 | 6756 3309 | 193.0 64.7 | 90 86 |
| 9 | 01.05.07 | 6864 3386 | 193.6 64.6 | 88 85 |
| 12 | 01.06.22 | 6832 3132 | 194.2 65.5 | 86 83 |

Fully configurable shift lights and alarm LEDs

The individually configurable RGB LED shift lights allow to choose color and value thresholds for their activation. In addition, they can also be configured to show your best lap/split time or monitor RPM level. Alarm LEDs are configurable as well, in order to turn them on/off depending on the values you selected and their thresholds.

Switch buttons for external functions

The Formula Steering Wheel 3 also features switch buttons to remote some desired functions among these available in your car, like speed limiter, traction control, neutral, etc. Being electrically isolated from the others, each button operates autonomously.

The optional paddle shifts

Formula Steering Wheel 3 features optional paddle shifts to provide a better driving experience, facilitating manual gear changes.

Robust, comfortable and reliable

Formula Steering Wheel 3 is: Robust, for its anodized aluminum chassis. Comfortable and ergonomic: maximum grip is guaranteed by its shape and its finishing with hand-sewn shammy leather. Reliable: with its backlit display and waterproof structure it can be used in all conditions of light and weather.

- **Display** Graphical
- **Alarms LEDs** 4 RGB freely configurable
- **Shift Lights** 5 RGB freely configurable
- **Display pages** Up to 8 freely configurable
- **BackLight** White
- **Display Pushbuttons** 4
- **User Pushbuttons** 4
- **Chassis** Anodized Aluminum
- **Finishing** Hand-sewn shammy leather
- **Paddleshift SX-DX** Optional
- **Dimensions** 270x184x48 mm
- **Weight** 1.400g
- **Waterproof** IP65

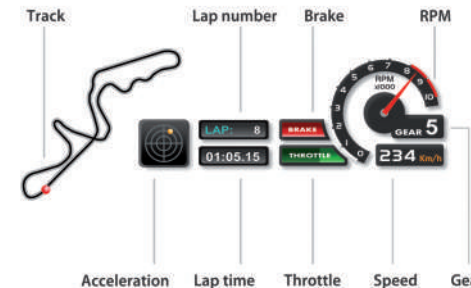
SMARTYCAM HD 2.1

- H.264, 1,280x720 pixel @ 30 fps
Video format
- Telecentric lens with six elements
- 67° or 84° Angle of view
- Internal, rechargeable lithium battery - 1.950 mAh
- Battery duration: 120 '- 150' of recording with data
- 9-15 Volt External Power
- Support for up to 128 GP SD Cards
- 3 axis ± 5g accelerometer
- -10°C/+60°C Usage temperatures
- Auto Power ON/OFF
- Auto Start/Stop recording



The videocamera designed for motorsport Real time data overlaid on videos

SmartyCam HD Rev.2.1 has been designed for motorsports with a single purpose: providing great videos that include all the technical information that will help you improve your performance. All this in the most robust and reliable system ever. In its new version, the electronics/mechanics have been further improved, and SmartyCam HD is now even easier to manage.



SmartyCam HD Rev.2.1 overlays all the data you need from different sources.

- From GPS: track map and vehicle position, as well as speed, lap and split times.
- From AiM loggers connected to your ECU: RPM, throttle, engaged gear, acceleration, temperatures, pressures and - in presence of additional sensors - also their values.

All these info will be overlaid on videos in each single point of the track.





No "Wave Effect" with Global Shutter CMOS Sensor

Engine rumble causes vibrations, which are not a good thing for video recording. You will never experience again that seasick "wave effect" you get when watching videos recorded by a generic camera, when the car rolls at 7,000 RPM. SmartyCam HD has been designed for that environment and for those vibrations. "Wave effect" is just a memory.

Automatic Start & Stop

You are on the starting grid, ready to sprint, your adrenaline reaching the climax: the last thing you can worry about is... switching on the camera. You have other things to worry about. SmartyCam HD is aware of that. That is why it switches on/off automatically and starts/stops recording the same way.

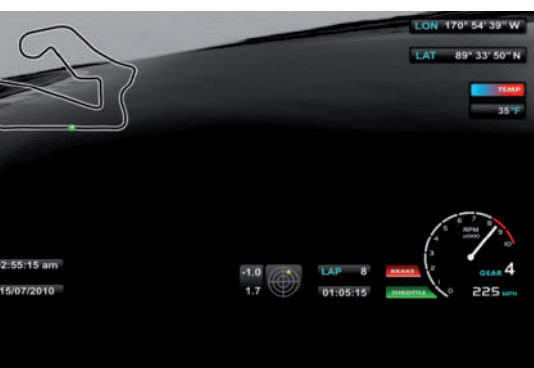




Designed to withstand extreme on-track working conditions

Frail things have a bad time on track.

An on-board camera designed for motorsports must guarantee great resistance against the extreme working conditions typical of racing and against the most adverse weather, such as: strong and prolonged vibrations, storms, continuous rain, and extremely high and low temperatures. That is why SmartyCam HD is made in machinery molded aluminum, just like many competition car parts.



High quality with small size video files



Generic HD cameras are focused on the highest pixel number.

The result is that their video files are far too large, taking too much memory.

SmartyCam HD videos have the same quality as other HD cameras but their files are smaller because the H.264 compression system parameters have been optimized to a perfect balance between video quality and file size.

You can choose among three video file quality levels: one-hour recording takes 4GB (high quality), 2GB (normal) or 1,5GB (low).

Files are stored on SD cards: with current SD cards reaching 128 GB capacity, you can record more than 30 hours of high-quality videos without changing the card.

RS3, your software for video configuration and analysis

SmartyCam HD uses Race Studio 3, the powerful software which allows to configure all details of your videos and to get plenty of fun and information out of them.

You can configure your overlays in a virtually infinite variety of modes: add your logo and the track map, and choose your graphic objects from a list of pre-determined sets with same layout or even single objects from different sets.

Your videos will be truly "yours" in all details, from the data to their graphic layouts.



- **Video format** H.264 -1280 x 720 pixel @ 30fps
- **Display resolution** 128x128 pixels
- **Lens** Telecentric with 6 elements
- **Field of view** 67° - 84°
- **Internal battery** Rechargeable Lithium battery 1.950 mAh
- **Battery charge** 700 mAh 12V
- **Internal battery duration** 120 - 150 min. of recording
- **External power** 9 -15 Volt
- **Supported SD card** Up to 128 GB
- **Memory required** 1.5 GB (1 hour low quality recording)
2 GB (1 hour medium quality recording)
4 GB (1 hour high quality recording)

- **Accelerometer** Three-axial ± 5g
- **Usage temperature** -10°C/+60°C
- **Auto Power On/Off** Yes, if connected to an AiM logger
- **Auto Power Off** Yes
- **Auto Start/Stop Recording** Yes

- **Body** Anodized Aluminum
- **Dimensions** 87x63x49mm
- **Weight** 280g battery included
- **Waterproof** IP67

SMARTYCAM GP HD 2.2

- H.264, 1280x720 pixel @ 30 fps Video format
- 2.4" 240x320 Display
- Telecentric lens with six elements
- 67° or 84° Angle of view
- Internal, rechargeable lithium battery - 1.500 mAh
- Battery duration: 60' - 70' of recording with data
- 9-15 Volt External Power
- Up to 128 GB memory
- 3 axis ± 5G accelerometer
- 3 Binder 712 female connectors + 1 SMA female connector
- -10°C/+60°C Usage temperatures
- Auto Power ON/OFF
- Auto Start/Stop recording



The Bullet-Cam designed for motorsports

Featuring new functions and more powerful than ever, SmartyCam GP HD 2.2 is the new AiM flagship among our motorsport cameras, designed for all those situations in which SmartyCam HD is not so comfortable to install.

AiM, indeed, has focused this time to improve SmartyCam GP in order to make it even more practical for its users: the lithium internal battery has now a capacity 0.500 mAh more than the previous one, while the bullet has been resized to just 24mm x 48.2mm and 10g lighter than before.

Featuring this time 3 Binder 712 female connectors plus a 1SMA female connector, the new SmartyCam GP HD 2.2 has now a coaxial link cable which avoids interferences to the data-stream, making it more secure than ever. In order to keep our "user-friendly" AiM style, the new SmartyCam GPHD 2.2 most of the time doesn't need an ECU bridge anymore to acquire data from your Engine Control Unit, as it can be connected directly to your vehicle's ECU: plug in, play and be ready to record your on-board videos and to improve your performance by analysing the data overlay!





| | |
|------------------------------------|---|
| ■ Video format | H.264 -1280 x 720 pixel @ 30fps |
| ■ Display resolution | 2,4" 240x320 pixels |
| ■ Lens | Telecentric with 6 elements |
| ■ Field of view | 67° - 84° |
| ■ Internal battery | Rechargeable Lithium battery 1,500 mAh |
| ■ Battery charge | 700 mAh 12V |
| ■ Internal battery duration | 60 - 70 min. of recording |
| ■ External power | 9 -15 Volt |
| ■ Supported SD card | Up to 128 GB |
| ■ Memory capability | 1.5 GB (1 hour low quality recording) 2 GB (1 hour medium quality recording) 4 GB (1 hour high quality recording) |
| ■ Accelerometer | Three-axial ± 5G |
| ■ Usage temperature | -10°C/+60°C |
| ■ Auto Power On/Off | Yes, if connected to an AiM logger |
| ■ Auto Power Off | Yes |
| ■ Auto Start/Stop Recording | Yes |
| ■ Connectors | 3 Binder 712 female connectors + 1SMA female connector |
| ■ Body | Anodized Aluminum |
| ■ Dimensions | Main box 104.6x79,6x26,6mm Bullet camera diam 24mm x 48,2mm |
| ■ Bullet cable | 2,0 m |
| ■ Weight | Main unit 320g Bullet camera 45g |
| ■ Waterproof | IP67 |

CHANNEL EXPANSION CAN DEVICE

- 4 freely configurable analog (or two digital and two analog) channels
- CAN connection to AiM loggers and dashloggers
- Dimensions: 105x33x28,4mm
- Weight: 170 g
- Waterproof: IP65

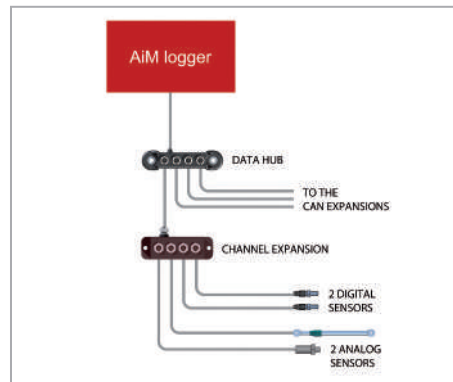


Enhancing your logger performance

This compact CAN device provides virtually endless data acquisition system expansion options.

Channel Expansion hub adds up to four freely configurable analog (or two digital and two analog) channels without occupying or modifying any of the existing system channels.

By using advanced CAN technology, wiring is simplified from four cables into just a single connection, thereby reducing possible and unnecessary points of failure. It is also possible - via Data Hub - to connect to the Master as many Channel Expansion as needed.



TC HUB THERMOCOUPLES MULTIPLIER

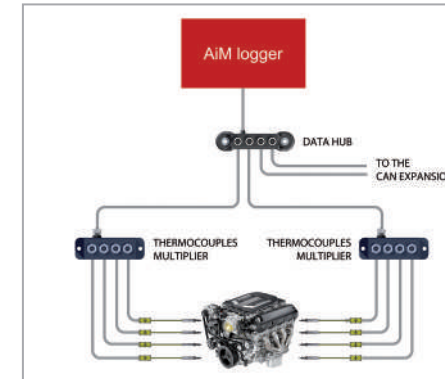


Keep all temperatures of your engine under control

With TC Hub four additional thermocouples can be connected via CAN to all AiM loggers.

Using more TC Hubs you can easily keep under control all your temperature sensors data, monitoring each single cylinder exhaust gas temperature, together with water, oil and head temperatures.

TC Hub is highly reliable, being its sampling frequency configurable up to 50Hz per channel. Its aluminum chassis makes it resistant and Waterproof.



LCU-ONE LAMBDA CONTROLLER

- Sampling A/F ratio and punctual Lambda values from 0.65 to 1.6
- Wide band Bosch LSU 4.9 probe included in the kit
- Available in three versions providing CAN, Analog and CAN+Analog outputs



Full control of your engine

LCU-ONE Lambda controllers allow you to perfectly tune the carburetion of your engine, significantly improving your car performances.

All LCU-ONE lambda controllers use a wide band Bosch LSU 4.9 probe for its capacity of saving the original calibration for all its life and for its duration: Bosch LSU 4.9 probe, in fact, has been designed to last for more than 100.000 km on a stock car.

High precision sampling

LCU-ONE can detect punctual Lambda value from 0.65 to 1.6, offering you an extremely precise measurement, very useful for engine tuning.

Through the analysis of the remaining oxygen, LCU-ONE points out possible oxygen excess/lack in the carburetion, providing an essential information for gasoline, diesel or alternative fuel powered engines.

Three variants to cover all needs

LCU-ONE range is available in three different versions:

- LCU-ONE CAN: uses a CAN bus and is extremely easy to install.
- LCU-ONE Analog: uses a serial line for programming and an analog output proportional to lambda value. To be even more user-friendly, these two versions of LCU-ONE switch on/off together with the logger.
- LCU-ONE CAN + Analog, equipped with both CAN bus and analog output.



MEMORY MODULE

- Power consumption 50 mA
- Cable length 40 cm
- SD Card 4 GB it supports up to 128 GB
- Dimensions 55,5x78,3x18 mm
- Weight 103 g
- Waterproof: IP65



Massive data storage for AiM loggers



Memory Module is a small SD Card holder that can be connected via CAN bus to these AiM loggers: MXL2, MXG, MXP, MXS, EVO4S, EVO5

...in order to record the data during your tests. Its management is really very simple: just connect the Module to your logger and the data will be saved simultaneously both in the logger and on the SD Card. No configuration is needed.

The SD card can be removed and replaced even during pit stops, while the car engine is still ON, making it extremely fast to get the data during endurance races or long tests, when the time at the paddock is really limited. When the session is over, all you need to do is moving the SD card from the Module to your PC and download the data using Race Studio 3. The Module features a front LED showing its recording/fw updating status:



Position your shift lights where you wish

Ten completely configurable RGB LEDs to keep your engine under control.

You can easily set the LED color and the RPM threshold value that turns it ON, also in dependence upon the gear number.

Shift Light Module is CAN compatible with the following AiM systems:

- MXL2
- MXG
- MXP
- MXS
- EVO5



SHIFT LIGHT MODULE

- 10 configurable RGB LEDs
- CAN connection to AiM loggers and dashloggers

- Dimensions: 116x27x17mm
- Weight:70 g
- Waterproof:IP65

GPS08/GPS08 ROOF

- 2 satellite systems, with an average of 20 satellites connection
- Less than 1 meter tolerance
- Very fast signal locking
- No risk of missing the signal
- Samples lap times, position, speed and lateral/in-line acceleration
- Ten times/second sampling



An extremely powerful GPS with two satellite systems

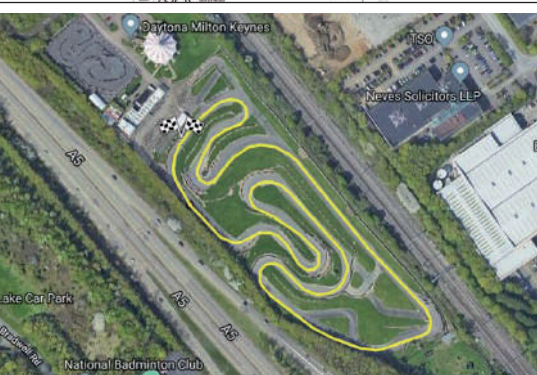
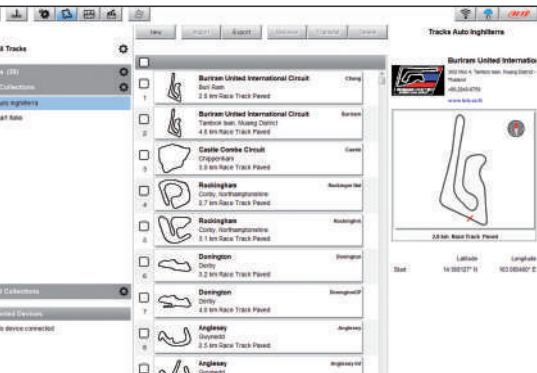
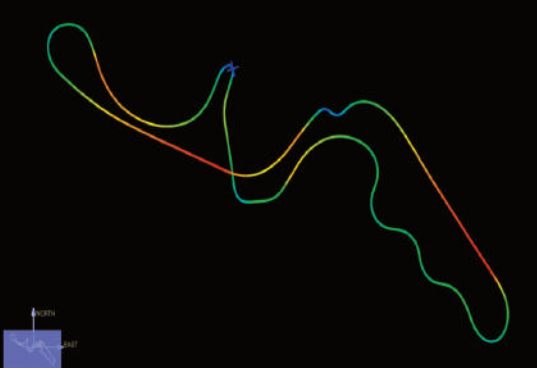
GPS08 is more precise than most of the existing GPS systems, as it has been designed to add the Global Navigation Satellite (Glonass) system signal to the GPS satellites signal .

With an average of almost twenty satellites working in conjunction, GPS08 guarantees a precision and a reliability simply not comparable to the old generation GPS systems.

The benefits are huge:

- An average of less than one meter tolerance, which means absolute precision in determining vehicle position.
- Satellite signal is locked very rapidly, few seconds after switch-on.
- No risk of missing the signal anymore in case of 'noise' or interferences on one system, as the other system will guarantee the signal continuity.





With your track included in the AiM database, GPS08 does it all by itself

As soon as GPS08 switches-on, it identifies its position and - if your track is included in the list of tracks stored on Race Studio 3 database - starts sampling lap times.

In fact, Race Studio 3 stores the finish line coordinates (plus map, contact info and logo) of almost three thousands tracks, sorted by Nation, circuit and surface type: you will be able to create your own collections, adding/removing tracks as you wish.

Create your own selection, download it to the AiM system and GPS08 will be ready to operate.

Should your home track be missing, you can easily add it to your own tracklist when downloading your session files to Race Studio 3, and send it to AiM for inclusion in the official database.

Much more than just Lap times

GPS08 samples ten times per second position, speed and lateral/in-line acceleration at any point of the track: all the data needed for a precise evaluation of vehicle and driver behavior, which is the necessary step to improve performance.

Thanks to GPS08, even the predictive lap time will be much more reliable: in any moment of your race, you will know your time gap vs. your best lap with absolute precision.

GPS08 Roof

GPS08 is also available in the "Roof" version, specifically designed for easy installation on covered cars.



GS-DASH

- Display resolution: 268x128 pixel
- Backlight: 7 configurable RGB colors
- Ambient light sensor
- Five RGB LED configurable shift lights
- Four configurable alarm LEDs
- Fully configurable display pages
- Aluminum Body
- Metallic pushbutton

- Dimensions: 128 x 82 x 22 mm
- Weight: 380 g
- Waterproof IP67



The Compact Display for EVO4S and EVO5

GS-Dash has been designed to show data sampled by the new generation of AiM loggers, EVO4S and EVO5.

With this compact but with wide graphical display you can visualize all data coming from your vehicle's ECU, from the accelerometers and from the GPS, as well as from your custom sensors.

Easy and immediate readability

To maximise readability of data, you need plenty of room. That is why GS-Dash features a wide 268x128 pixel graphical display.



EVO4S



EVO5

Fully configurable shift lights and alarm LEDs

GS-Dash features five individually configurable RGB LED shift lights: you will choose color and value thresholds for their activation. In addition, they can also be configured to show your best lap/split time or monitor RPM level. Alarm LEDs are configurable as well, in order to turn them on/off depending on the values you selected and their thresholds.

All the data you wish, with your preferred layout

GS-Dash swaps among pages showing lap times and data in a 100% customizable way: just choose your data and create your pages displaying up to 4 fields each. The "RPM and Lap Time" page layout is also available to display RPM Graph, Lap Time and two channels of your choice.

Recall your session highlights

A key-data summary is available at the end of each session: you can also see a list of all the laps of the session, with their times, min/max speed and min/max RPMs.

| MAX RPM | | MAX SPEED | |
|---------|-----------|-----------|------|
| 15206 | | 82.0 | |
| Lap | Best Laps | RPM | mph |
| 7 | 0:48.76 | 14572 | 82.0 |
| | | 7258 | 25.4 |
| 9 | 0:48.87 | 15206 | 81.3 |
| | | 9654 | 24.8 |
| 8 | 0:48.96 | 14482 | 80.7 |
| | | 9101 | 25.4 |
| | | TEST | PAGE |

Backlight available in seven colors

The screen can be backlit in one of the seven available colors. The incorporated light sensor makes brightness and contrast ideal in all light conditions.



- Display resolution 268x128 pixels
- Backlight 7 configurable RGB colors
- Ambient Light sensor Included

- Shift Lights 5 RGB configurable
- Alarm LEDs 4 configurable
- Display pages Fully configurable

- Body Anodized Aluminum
- Pushbuttons Metallic

- Dimensions 127.8x82x22.2mm
- Weight 380g
- Waterproof IP67

INFRARED TYRE TEMPERATURE SENSOR

- Connection to MX and EVO series via analog inputs (direct or through Channel Expansion module)
- Output signal 0-5V
- Field of View 35°
- Temperature range -20°/120°C
- IR temperature controller dimensions: 127.6 x 32 x 39 mm
- Sensor dimensions: 26.6 x 17.2 mm
- Sensor cable length: 250 mm



Infrared tyre temperature sensor

The Tyre Temperature sensor has been specifically designed to measure the surface temperature of tyres, providing important info for chassis tuning, tyre exploitation, and driver behaviour.

It can be connected to MX series or EVO series analog inputs directly or via Channel Expansion. The sensor, with a 35° Field of View, measures temperatures between -20°C and 120°C and provides a 0-5V output signal.



PRESSURE SENSORS

- Accuracy <+/- 0.5%
- Output signal 0.5V to 4.5 V
- Temperature working range from -20° to 135°C
- Compensated temperature range from -10°C to 125°C
- Overrange pressure 1.5x rated pressure
- Burst pressure 3x rated pressure
- Sealing IP66
- Supply 8-16V
- Consumption <10 mA
- Housing 316 stainless steel
- Sensor thread M10x1 or 1/8" NPT
- Cable length 500 mm



Pressure sensors

AIM offers a full range of sensors specifically designed and tested to interface our datalogger and able to monitor all vital parameters of the vehicle.

AIM sensors are developed to resist to the harsh motorsport environment in terms of vibration and to provide reliable data.

Engine temperature, water/oil, and tire temperature can be constantly monitored as well as oil pressure and brakes fluid pressure. Brakes pressure can be combined with longitudinal G force analysis for determining effectiveness of braking and driver ability to use it.

AIM pressure transducers have been developed for use on motorsport, key features are:

- small size HEX19 or 3/4"
- high accuracy
- robustness

AIM pressure transducers are essential to monitor engine and chassis parameters like:

- engine oil pressure
- brakes fluid pressure.

AIM pressure transducers are available with different process connection:

- M10x1 male
- 1/8 NPT male
- 3/8 inch 24 UNF Dash 3

AIM pressure transducers are available in many ranges with metric [bar] and imperial [PSI] standards:

- 0-5 bar ■ 0-15 PSI
- 0-10 bar ■ 0-50 PSI
- 0-100 bar ■ 0-150 PSI
- 0-160 bar ■ 0-300 PSI
- 0-200 bar ■ 0-2000 PSI

| | |
|--|--|
| ■ Supply | 8-16V |
| ■ Output signal | 0.5V to 4.5 V |
| ■ Consumption | <10 mA |
| ■ Temperature working range | from -20° to 135°C |
| ■ Compensated temperature range | -10°C to 125°C |
| ■ Accuracy | <+/- 0.5% FS (CLNH combined non-linearity and hysteresis) |
| ■ Overrange pressure | 1.5x rated pressure |
| ■ Burst pressure | 3x rated pressure |
| ■ Sealing | IP66 |
| ■ Housing | 316 stainless steel |
| ■ Weight | 30g |
| ■ Cable length | 500 mm |



MX UTV

- Integrated GPS
- Wide display with configurable multicolor backlight
- Graphical display resolution
- Ambient light sensor
- 2 freely configurable RGB Alarm LEDs
- 5 freely configurable RGB ShiftLight LEDs
- CAN connection
- ECU connection
- 4Gb internal memory
- 1 analog inputs
- Glass fiber reinforced nylon
- Metallic pushbuttons
- Rechargeable Lithium Iones Battery
- Wi-Fi connection
- Single point sensor
- Waterproof IP65



The gauge for UTV vehicle

After being asked so many time, AiM has specifically developed the MX UTV for all those wild off-road racers whom crave for adrenalin and freedom but still need data to get the best out of their vehicles.

Speed, RPM, laps and the belt temperature, which is beyond doubts mainly important to avoid dangerous transmission breaks, are all shown through the wide LCD display which also features alarm LEDs and an ambient light sensor that keeps the backlight at optimum brightness levels.

Following the "User-Friendly" philosophy, MX UTV let its users to choose the ECU connection directly from the device without the need to configure it via our software Race Studio 3: AiM MX UTV is completely plug-and-play.

Thanks to the secure 802.11 Wi-Fi connection, download data has never been this easy: no need to move your PC close to the vehicle anymore, you can do it from your van up to 50 meters away. Such a perfect option while you're off-roading





MX UTV is a gauge designed for being installed on an UTV vehicle. It samples and shows:

- channels coming from the vehicle ECU
- one temperature value that can be belt or, according to the ECU of your vehicle, oil temperature or oil pressure.

Lap time, with the precision of 1/100 sec and all parameters coming from GPS and Glonass constellations: speed, position, lateral acceleration and time of the day.

The GPS receiver has been tuned for our sport and can thereby stand all lateral and longitudinal accelerations, direction changes and vibrations without problems, always giving a perfect result ten times per second (10 Hz).

MX UTV uses both GPS and Glonass data to compute lap times.

In case the track in which you are racing is included in the MX UTV database, it automatically recognizes it, gets the start/finish line and calculates lap times with high precision.

All these data are stored in a huge 4GB internal memory, that can record your data for

thousands of hours. You can download the data recorded on your PC using Wi-Fi.

The wide LCD display has a freely configurable RGB backlight and a light sensor that automatically switches on the backlight with low light conditions.

The two RGB alarm LEDs can be switched on with seven different colours, different blinking patterns and custom temperatures thresholds.

Five configurable shift lights help you choosing the best up-shift moment. A very helpful alternative is to use them to indicate the real-time gap between the current lap and the best lap of the session.

You may analyse the data with Race Studio Analysis, the widely approved data software you can freely download from our website www.aim-sportline.com.



MX UTV is expandable: you can connect it via CAN Bus to:

- SmartyCam HD
- LCU-One CAN Lambda controller



| | |
|------------------------|-------------------------------|
| ■ Display resolution | 268x128 pixel |
| ■ Backlight | 7 configurable RGB colours |
| ■ Ambient Light sensor | Yes |
| ■ ShiftLights | 5 freely configurable RGB LED |
| ■ Alarms LEDs | 2 freely configurable RGB LED |
| ■ CAN connection | Yes |
| ■ ECU connection | Yes |
| ■ GPS | Integrated 10Hz GPS+Glonass |
| ■ Analog Inputs | 1 |
| ■ Wi-Fi connection | Yes |
| ■ Internal memory | 4Gb |
| ■ Body | Glass fiber reinforced Nylon |
| ■ Pushbuttons | Metallic |
| ■ Connectors | Binder connectors |
| ■ Dimensions | 137x88,4x31,9 mm |
| ■ Weight | 330g |
| ■ Waterproof | IP65 |

INFRARED BELT TEMPERATURE SYSTEM

- RGB LED Alert
The LED starts blinking red when temperature exceeds the user defined level
 - Anti-Glare TFT Display, resolution 160x128 pixel, 1.8", Sunlight Readable
 - Vibration proof
 - Aluminum Body
 - Metallic pushbutton
 - Single point sensor
-
- Dimensions: Ø 70 x 30,3 mm
 - Weight: 150 g
 - Waterproof IP65



The Infrared Belt Temperature System

Forget about breakages, stop to be worried and just enjoy the race: that's our gauge's purpose, which makes it the most "must have" device for your UTV activities!

The kit is composed by a gauge, a sensor and

the power cable, the Infrared Belt Temperature System is the new AiM device that shows an average temperature information of a specific controlled area.



What the Gauge shows

The two most important information that are shown by the Gauge are:

- the temperature information from the Infrared Single point temperature sensor, recorded once every 10 seconds, saving the maximum measured temperature in that period of time.
- the external supply voltage



Temperature. No more fear

It is possible to set two different thresholds for the temperature: a Warning level and an Alarm level.

Normally shown in white, the Gauge will display the temperature value in yellow when it rises above the Warning level and a message will appear at the top of the screen and a red LED will start blinking.

When the temperature rises above the Alarm level, reaching that critical point when the belt could melt and break due to the highest temperature, the Gauge will display the value in red, a message will appear at the top of the screen and a red LED will start blinking. This way the driver will always know when it's time to cool down their vehicles and so saving the essential parts.

Recall your previous test

From the Online page it is possible to access to the Data Recall section, for revisiting the data of the last 25 tests, whom have to be longer than 2 minutes and shorter than 5 hours.



| | |
|----------------------|-------------------------------------|
| ■ Display resolution | 160x128 pixels |
| ■ Display | 1.8", Anti-Glare, Sunlight Readable |
| ■ Alarm LEDs | RGB LED |
| ■ Body | Anodized Aluminum |
| ■ Pushbuttons | Metallic |
| ■ Dimensions | Ø 70 x 30,3 mm |
| ■ Weight | 150g |
| ■ Waterproof | IP65 |



MYCHRON5

- Integrated GPS
- Wide display with configurable multicolor backlight
- Graphical display resolution
- Completely configurable pages
- Calculated Gear Number
- 2 freely configurable RGB Alarm LEDs
- 5 freely configurable RGB ShiftLight LEDs
- Glass fiber reinforced nylon
- Metallic pushbuttons
- Rechargeable Lithium Iones Battery
- WiFi connection
- Compatible with MyChron4 add-ons
- Waterproof IP65



The most precise and reliable GPS ever

MyChron5 integrated GPS samples lap times as well as speed, position on track and acceleration... with a reliability simply not comparable to traditional tools and even with previous GPS systems.

The system adds to the GPS satellites signal the Global Navigation Satellite (Glonass) system signal: an average of almost twenty satellites working in conjunction, MyChron5 GPS guarantees absolute precision. MyChron5 GPS can recognize the finish line

coordinates of hundreds of kart tracks all over the world. Opening Race Studio 3 software you will see the huge list of tracks included in the AiM database: you will be able to create your own collection, adding/removing tracks.

So, immediately after switch-on, MyChron5 GPS will determine its position, identify the track and start loading start/finish line coordinates and start sampling lap, predictive and split times.





Completely configurable pages

Define as many pages as you wish, showing graphic bars or just digits, via software or directly on your system. In case your kart is a shifter kart, you can decide to show the gear number, automatically calculated in a few hundredths of meters while you are driving.

Ambient Light Sensor

MyChron5 provides optimum viewing in several lighting conditions: the display brightness is automatically adjusted according to the environment light.

MyChron5 2T

Like its predecessor, MyChron5 2T gives the chance to control two engine temperatures instead of one, coming from thermocouples or thermoresistors.



ShiftLight and Alarm LEDs

Five RGB shift lights can be configured for each gear, choosing LED color and RPM threshold values which will turn them on/off. They also allow RPM monitoring in a glance. All alarms are managed in a very flexible way: you choose the situation that generates the alarm, the LED behavior (blinking frequency and color) when the alarm appears and the conditions for its switch-off.

A robust housing with wider display

The new Nylon chassis with metallic pushbuttons guarantees even more resistance to shocks and water.

The anti-scratch non-reflecting polycarbonate screen and the wider display ensure great readability.



Wi-Fi connection

Download your data to your PC, look at the OnLine measures, upgrade your firmware, transmit parameters using WiFi connection.

Rechargeable Lithium Battery

No problems with traditional batteries anymore: MyChron5 is powered by a dedicated rechargeable - and removable - lithium battery. It is long-lasting (about 10 hours duration) and easy to recharge, placed on its magnetic basement connected to the power adapter. The usual external power connection is also available.



Compatible with MyChron4 add-ons

Adding new modules you will get all the additional information you need:

LCU-One

Perfectly tuning your engine carburetion.

MyChron Expansion

The channel multiplier that permits to check when you brake and accelerate, as well as Power Valve behaviour.

Smartycam HD

For professional videos with real-time data overlaid.





| | |
|--------------------------|--|
| ■ GPS integrated | 10 Hz GPS |
| ■ RPM | Up to 25.000 RPM |
| ■ Temperature | Thermocouple/ Thermoresistance |
| ■ Lap time | GPS based (included) |
| | Optical or Magnetic receiver (optional) |
| | For steering wheel position (included) |
| ■ Inertial Platform | Yes |
| ■ Wi-Fi connection to PC | Yes |
| ■ Memory | 4 GB - more than 3.000 hours of continuous logging |
| ■ Display resolution | 268x128 pixel |
| ■ Backlight | Multicolor, freely configurable |
| ■ Alarm | 2 freely configurable RGB LEDs |
| ■ ShiftLights | 5 freely configurable RGB LEDs |
| ■ Battery | Rechargeable 3 A Lithium Ion |
| ■ Battery duration | Up to 10 hours |
| ■ Battery charger | Included |
| ■ Body | Glass fiber reinforced nylon |
| ■ Dimensions | 137x88,4x29mm |
| ■ Weight | 390g battery included |
| ■ Analysis software | Freely downloadable Race Studio 3 |

MYCHRON EXPANSION

- Sampling frequency 10Hz
- Dimensions 127x24x33 mm
- Weight 194g



MyChron Expansion

MyChron Expansion channel multiplier improves MyChron5 and MyChron5 2T (and also MyChron4 and MyChron4 2T) performance, thanks to four additional channels and a further CAN bus connector.

Through this last connector the systems can be connected to LCU-One Lambda controller and SmartyCam HD (and to GPS and Data key for MyChron4 systems).

Thanks to its specific wirings, MyChron Expansion powers the systems and their peripherals with an external battery, avoiding internal battery consumption.

MyChron Expansion features four inputs to connect the systems to an equal number of additional channels.

All channels are easily configurable as analog through the system menu to sample data coming from:

- Exhaust gas valve position sensor (very important to understand at which RPM value the exhaust port opens)
- Wheel speed sensor: the first input on the left can be configured also as digital input
- No contact brake pedal position sensor
- No contact throttle pedal position sensor (to know if and when to accelerate)
- Brake pressure sensor
- Water temperature or cylinder head temperature (PT100 thermo-resistor only)
- Steering angle potentiometer (to highlight over/under steering situations)
- Brake pedal potentiometer
- Throttle pedal potentiometer

MyChron Expansion is a complete, value-for-money instrument for professional kart analysis.

Warning: MyChron Expansion DOES NOT support gear calculation.



TYRE TEMPERATURE SENSOR KIT

- Connection to MyChron5 via IR Temperature Controller
- Output signal 0-5V
- Field of View 35°
- Temperature range -20°/120°C
- IR temperature controller dimensions: 127.6 x 32 x 39 mm
- Sensor dimensions: 26.6 x 17.2 mm
- Sensor cable length: 250 mm
- IR temperature controller cable length: 400 mm



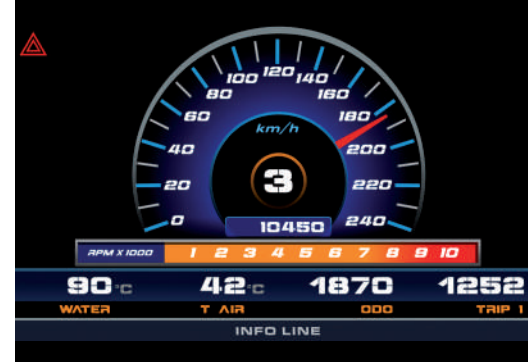
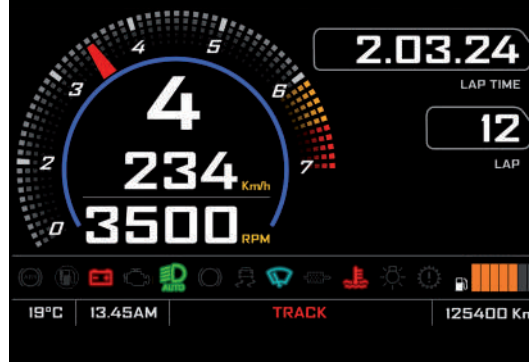
Tyre temperature sensor kit for karts

The Tyre Temperature sensor has been specifically designed to measure the surface temperature of tires, providing important info for chassis tuning, tire exploitation and driver behaviour. It can be connected to MyChron5 using the IR

Temperature Controller, hosting up to 4 IR sensors.

The sensor, with a 35° Field of View, measures temperatures between -20°C and 120°C and provides a 0-5V output signal.



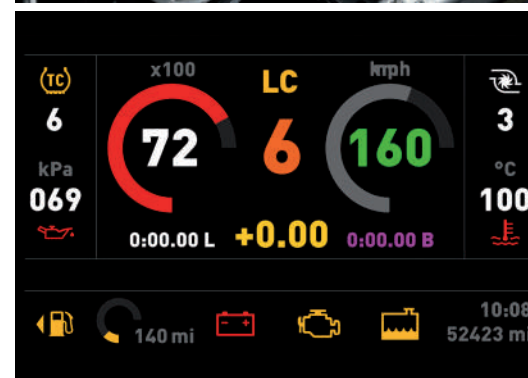
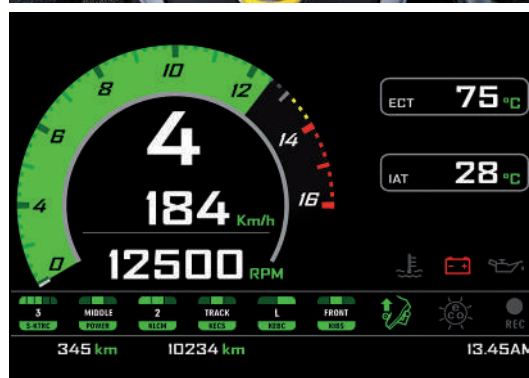
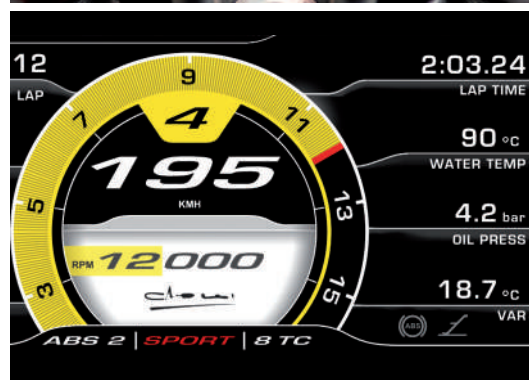
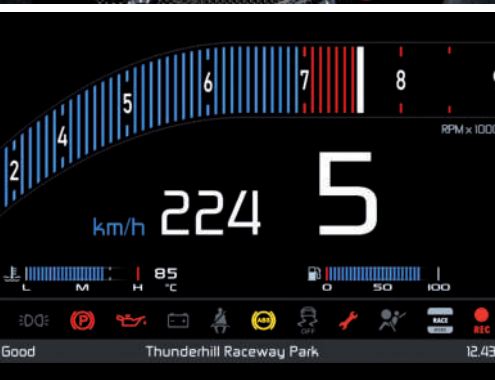


OEM plug and play

Drawing from our years of experience in motorsports, both on two and four wheels, AiM Sport decided to bring their expertise and knowledge directly to the demanding OEM market.

These customized dash-loggers satisfy the demanding needs of our customers and provide the same level of AiM 'data driven' technology available on race cars to street legal vehicles.

With cooperation from major brands in the automotive and motorcycle industries, AiM begun producing 'plug-and-play' kits for sports cars and performance bikes.





A constant, professional after market assistance

All our systems are guaranteed for years, until the electronic components are available on the marketplace.

Which means that - whenever a system is down for reasons not linked to bad usage by the user - it will be fixed for free.

Even if bought five-six years before.

Any doubt, call or email us: all around the world you will find an AiM technician ready to assist, for all the time needed and with no additional cost.

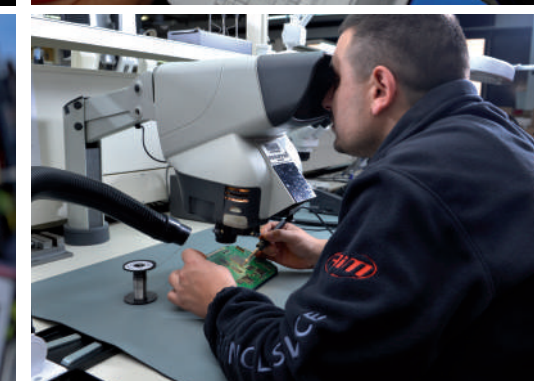
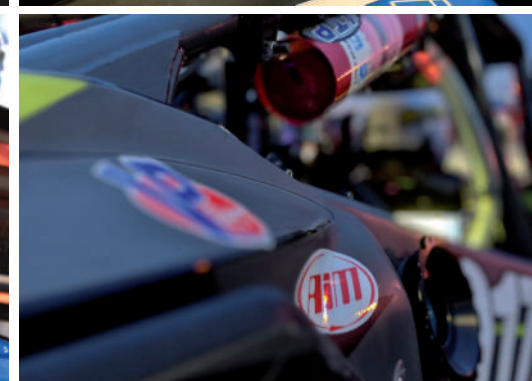
In case of bugs (which sometimes occurs: racing conditions are so terribly different that

something can be missed), you will be put in touch with the engineers who developed the system, who will listen to you to determine what did not work. Shortly, the problem will be analysed and solved.

Even on track our technicians are with you to help using correctly our systems, changing configurations, suggest solutions or just replacing a broken sensor.

Find your local dealer browsing the huge list of AiM partners all over the world

www.aim-sportline.com - Contact Section.



DATA DRIVEN

PARTNERSHIPS



DATA DRIVEN