

MPDU

Dashboard with Data Logger & GPS TFT color display

Description

The MPDU is a combined dashboard and input module for use either as a stand-alone display unit, or as an integral part of a complete data acquisition and monitoring system for use in the demanding environment found in motorsports vehicles.

The compact dimensions of the MPDU make it particularly suitable for car applications. The advanced features of the TFT colour display permits to configure windows with an easily personalised screen layout.

The MPDU is equipped with a comprehensive range of analogue and digital inputs. The graphical bar indicator is typically used for representing engine revs.

The alarms are visualized in a special page.

As part of the Magneti Marelli data acquisition and telemetry system, the MPDU (with internal data logger) can communicate over a CAN network with a range of additional data loggers receiving and displaying data from the logger as well functioning as an additional input module. The USB port can be enabled to log on a remote flash disk (Optional functionality).

GPS module included. A precise Lap-Trigger functionality based on the GPS module is available (Optional functionality).

Main Features

- Visible area TFT 98.7 x 57.5 mm
- 4.3", 16:9 diagonal, viewing angle (U/D/L/R): 80/80/80/80 up to 16.7 M colors
- On display is shown: bar graph, gear number, speed, lap time, best lap, lap number and many others information on 12 pages available
- 4 push-button on the front panel for page and bar graph selection, temporary alarm disable, brightness regulation
- 6 high-brightness warning lights green/red for gear change (with programmable threshold for each gear)
- 4 high-brightness warning blue leds
- 6 Single-ended
- 2 Pick-ups or Hall effect
- 2 Temperature
- 2 Digital Inputs
- 2 Lap Triggers
- 1 Internal 3 Axial accelerometer and GPS



- Up to 8Gbyte internal data logger
- 2 Outputs for external warning lamps
- 2 Can Line
- 1 Ethernet Line
- 1 USB (2.0 HS)
- 1 RS232 line (connected to nVIDIA card)

Benefits

- Bar graph with 2 configurable non-linear scale, manually selectable or automatically swapped by condition
- Available 8 brightness steps for backlight regulation
- Alarm channels with programmable thresholds and linkable to leds
- Inputs configurable to suit all sensors in the product range
- Transmit internal inputs and channels over CAN bus
- Easy to use and configure
- Designed for rugged applications
- Requires WinTAX4 analysis software
- Requires SYSMA logging setup tool

Typical Applications

All race bikes/cars

DATA DISPLAYS

MPDU

Dashboard with Data Logger
& GPS TFT color display

Technical Characteristics

Inputs

Single-ended (@ 12 bit)	6
NTC/PT1000 temperature sensor	2
Internal GPS	1
Internal 3 axial accelerometer (up to 16 g)	1
VR Pick-ups or Hall effect	2
Digital Input (Remote push button)	2
Lap Trigger	2
"Code Load" enable pin	1

Outputs

Voltage references (@ 5 V, 50 mA)	1
External lamps driver (@ 12 V, 150 mA)	2

Leds

Green RPM shift leds	4
Red RPM shift leds	2
Blue Alarm leds	4

Communications

CAN line	2
Ethernet line (10/100base T)	1
USB (2.0 HS)	1
RS232 line	1

Logic Core

Microcontroller (150 DMIPS)	1
Flash EPROM (microcontroller)	1 Mb
RAM memory (microcontroller)	132 Kb
ARM CortexA9 Dual Core @600MHz	1
DDR2 @333MHz (x32) (on board)	1 Gb
NAND Flash memory	512 Mb
e-MMC Automotive memory	Up to 8 Gb
Time keeper (Microcontroller)	1

Connectors

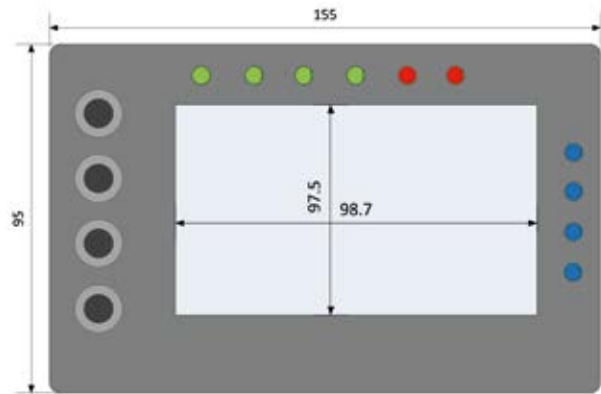
Deutsch Auto sport AS114-35PN (37 Pin)	1
USB-A Female	1
SMA (Male) for ANTENNA GPS	1

Other Characteristics

Power supply	8 to 16 V
Operating internal temperature (Excl. Ethernet) - 20/+85 °C	
Protection class	IP 40
Visible area LCD	98.7 x 57.5 mm
Dimensions	
without wiring	155 x 95 x 30 mm
Weight (approx.) (**)	505 g

(** approximately 28 cm wiring included)

Dimensions

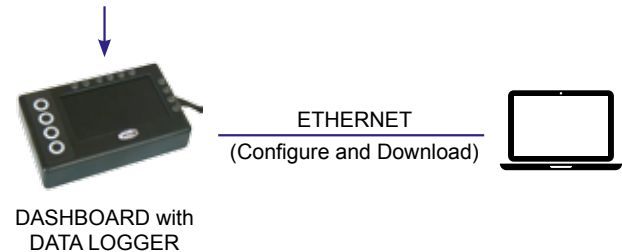


Dimensions in millimetres

Application Schematics

STAND-ALONE MODE

EXTERNAL INPUT



CAN COMMUNICATION MODE

EXTERNAL INPUT

