

GIP-220

GPS Inertial platform

Description

GIP-220 (GPS Inertial Platform) is an integrated measurement unit with internal GPS. It consists of three axial accelerometer and three gyroscopes.

It can be used in car and motorbike racing applications.

For motorbike the bank angle estimation can be performed and the measurement can also be supported by two laser sensors as external inputs.

Main Features

- 3 internal accelerometer (up to 6 g)
- 3 internal gyroscope (up to 150 °/s)
- Internal GPS
- 2 Digital output (1 available for trigger on finish line - the information is based on GPS)
- 2 Single-ended

Benefits

- GPS RAM backup battery available
- Fast GPS synchronization
- Analog Acquisition
- Measure of X, Y and Z accelerations
- Measure of Pitch, roll and yaw rates
- Estimation of bike's Bank Angle
- Microcontroller MPC5553 ensures high performance (including digital signal processing instructions)



Typical Applications

All race applications

AUXILIARY MODULES

GIP-220

GPS Inertial platform

Technical Characteristics

Inputs

Single-ended (@ 12 bit resolution)	2
NTC internal temperature sensor.....	1
Internal accelerometer (up to 6 g).....	3
Internal gyroscope (up to 150 °/s).....	3
"Code Load" enable pin	1

Outputs

Digital	2
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Communications

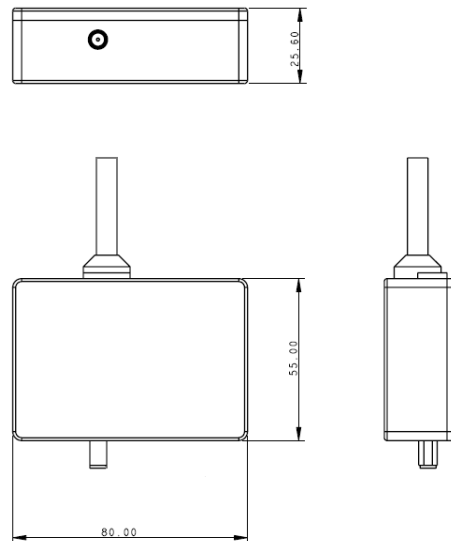
CAN line (1 Mbit/s (*)).....	1
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(*) Configurable on request

Other Characteristics

Power supply.....	8 to 16 V
Operating internal temperature	85 °C
Protection class.....	IP 64
Cable length (min.).....	50 cm
Dimensions	
without connector and cable.....	80 x 55 x 25.6 mm
Weight (with cable).....	152 g

Dimensions



Cable Pin Out

Pin Out GIP-220 (Cable)		
	Function	wire
Inputs		
Single ended 12bit (For laser sensor)	2	2
Outputs		
Digital output	2	2
Communication		
CAN line	1	2
Miscellaneous		
VBATT	1	2
ENCP	1	1
Analog ground	1	1
	Total	10

Dimensions in millimetres

For further information, please contact:



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