

<b>Document Number</b>		RG_SPEC-0001	
<b>Title</b>		RaceGrade GPS	
<b>Revision</b>	<b>Date</b>	<b>Prepared By</b>	<b>Change History</b>
1.4	04/29/2009	Chris Brown	Added CAN specifications for optional STC

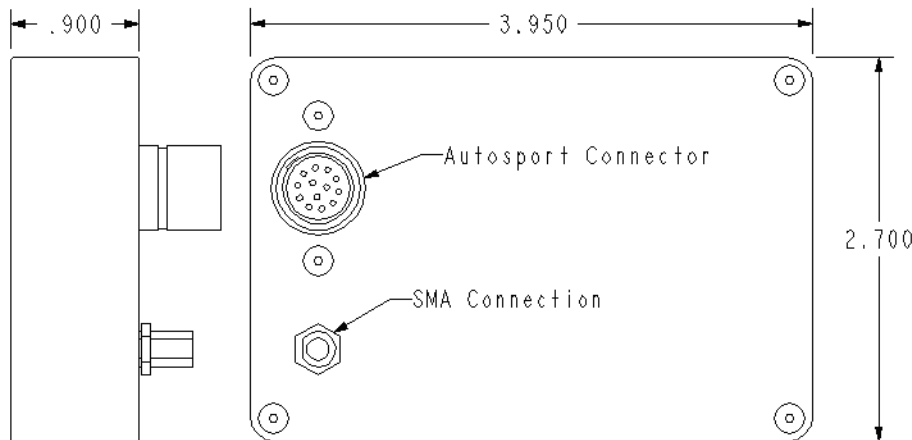
## Introduction

This GPS device provides a true non-interpolated 10 Hz or 20 Hz output enclosed in a motorsport quality aluminium case. Serial output conforms to NMEA standards with RS-232 protocol at 57600 baud rate. There is a speed output pulse for applications that don't accept serial data. An optional serial-to-can or STC can be installed inside the unit for applications that requires CAN interface, but must be specified at the time of ordering.



## Specifications:

- 12-channel GPS engine.
- Horizontal accuracy < 0.7 meter at 95% with DGPS
- Update rate of 10 Hz or optional 20 Hz.
- Screw on SMA antenna connector.
- 57600 baud serial, other rates available upon request.
- NMEA message output types GGA and RMC, others available upon request.
- Optional CAN output (bus speed is 1 Mbit/s)
- Digital output pulse: 0-5v 50% duty cycle
  - 94 Hz per 1 m/s
  - 940 Hz per 36 km/h
  - 1933 Hz per 46 mph
  - 1.0638 cm per pulse
 (can be connected to inputs which have a 12v pull up resistor but output will still be 0-5v square wave)
- Supply Voltage: 6 to 18 VDC
- Current Consumption: 380 mA at 12v
- Temperature Range: -30° to 70° C
- Weight: 160 grams w/o antenna
- Dimensions: 3.95 x 2.7 x 0.9 inches, 100 x 69 x 23 mm



Dimensions in inches

## Connection:

Mating connector: AS 610-35SA

- pin 1 – 12 volt supply
- pin 2 – Ground
- pin 3 – Speed Ground
- pin 4 – Speed Pulse
- pin 5 – Speed Ready Signal
- pin 6 – CAN High
- pin 7 – CAN Low
- pin 8 – N/C
- pin 9 – Serial Ground
- pin 10 – N/C
- pin 11 – RS-232 Tx
- pin 12 – N/C
- pin 13 – RS-232 Rx