

GCM80-2001

Raptor General-Purpose Control Module

P/N: GCM-5607B-080-2001



The GCM80-2001 is a general-purpose control module with 4 internally terminated CAN buses, 1 LIN, and a large, diverse variety of I/O including 13 analog, 15 digital and 4 frequency inputs, as well as 12 Low Side outputs, 2 High Side outputs, and 4 Half-Bridges without shunt resistors which provide an additional 4 High Side outputs and 4 Low Side outputs. A safety companion CPU is available in addition to the main CPU, making the model capable of safety critical applications.

The GCM80-2001 is one of the Raptor™ rugged production controllers that use a software development process based upon MATLAB/Simulink and Raptor-Dev which significantly speeds up algorithm development by using automatic integration and code generation. In addition, developers can quickly test application software using simulation and automated testing.

■ Programming

- MATLAB Simulink with Raptor

■ Processor

- Main: NXP MPC5607B
- 64 MHz
- Secondary: S12GN32

■ Memory

- 1.45 MB App Flash
- 15 KB EEPROM
- 96 KB Internal RAM

■ 32 Inputs

- 13 Analog Inputs
- 15 Digital Inputs
- 4 Frequency Inputs

■ 22 Outputs

- 12 Low Side Drivers (4 PWM)
- 2 High Side Drivers
- 4 Half-Bridges without shunt resistors which provide:
 - 4 Low Side Drivers (PWM) and
 - 4 High Side Drivers

■ 9-16 V Operating Voltage

■ Communication

- 4 CAN 2.0B with internal termination
- 1 LIN Master

■ Environmental

- -40°C to 105°C Operating Temp
- IP6k7 Compliant

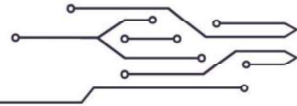
■ Compiler

- CodeWarrior for MPC55xx/MPC56xx Microcontrollers V2.10 (Download from NXP)

■ Aluminum Construction

■ Weight

- 1.2lb (0.6kg)



2. Block Diagram

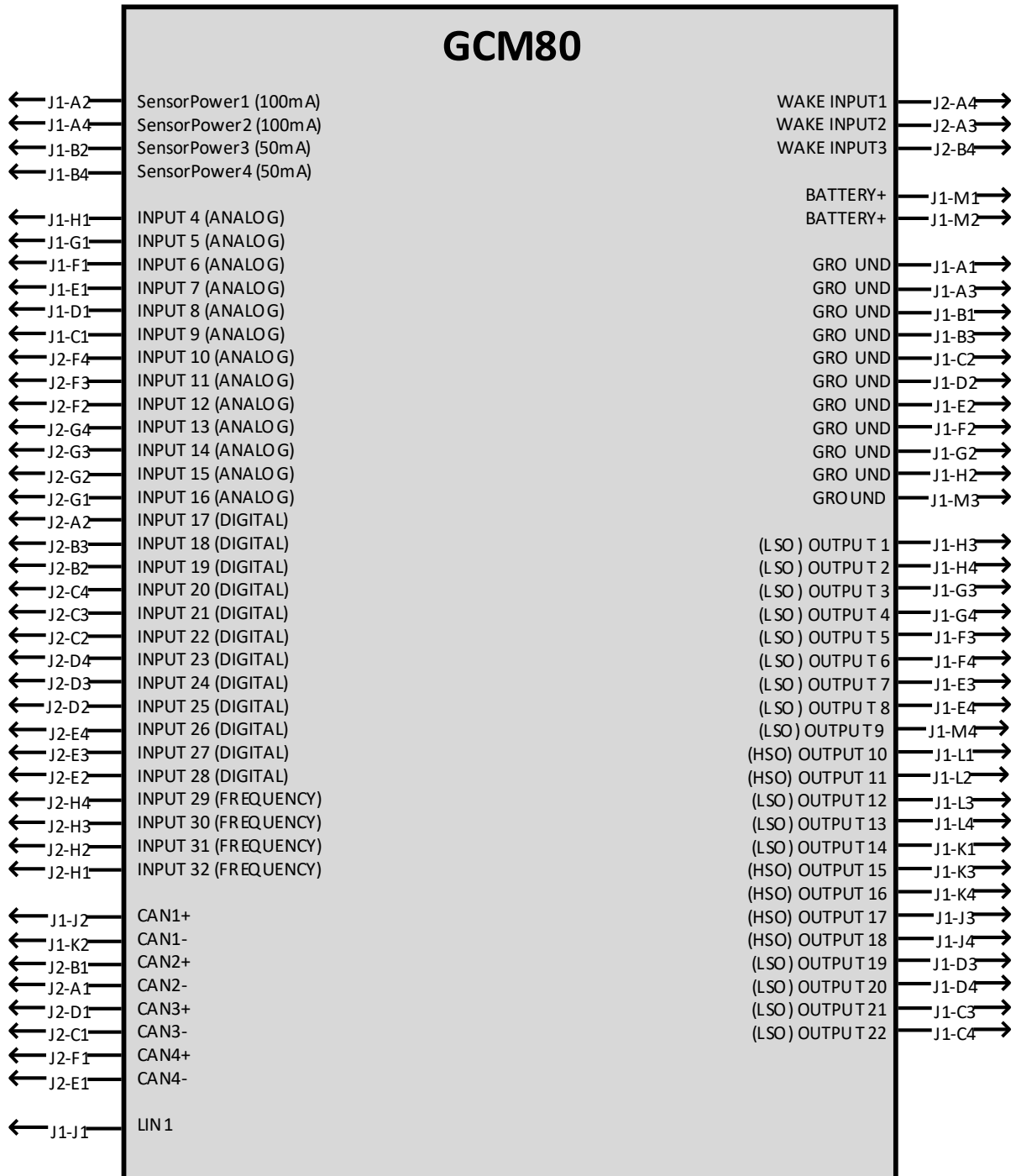
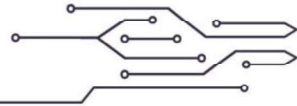
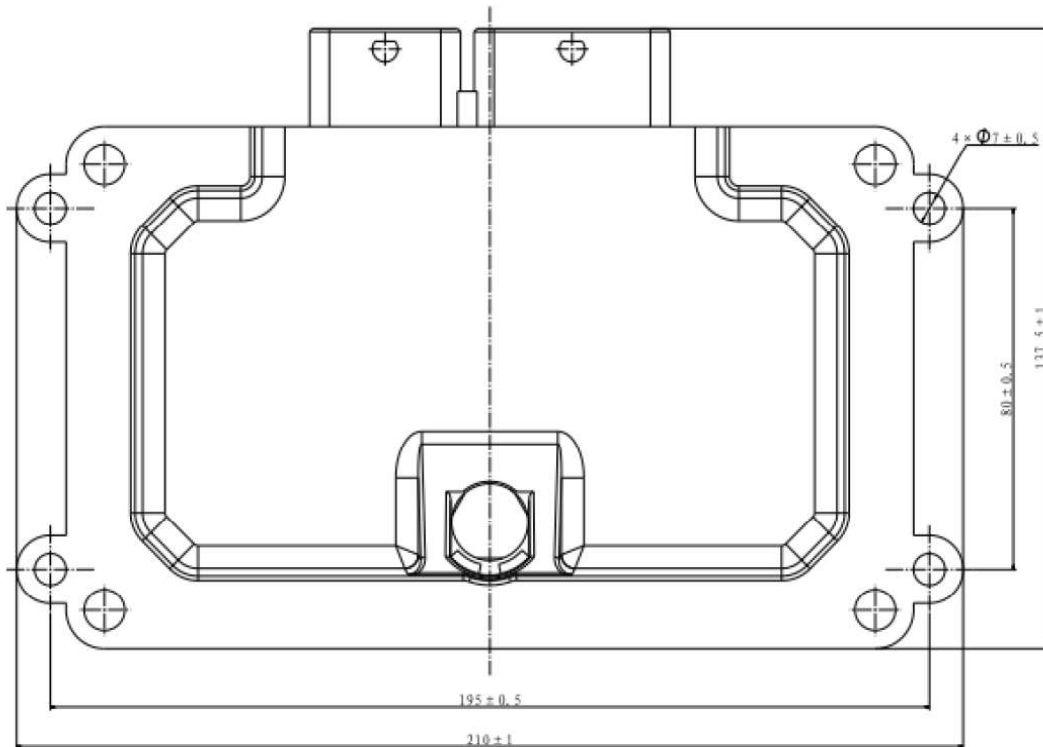


Figure 1: GCM-5607B-080-2001 Block Diagram



7. Dimensions (mm)



8. Connections

The GCM80-2001 has two Molex connectors, as follows:

- Brown/Black (J1): Molex 0643203319
- Blue/Black (J2): Molex 0643193211