

RCM112

Raptor Control Module

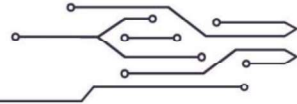
P/N: RCM-58NN-112-2007



The RCM112 is a general-purpose control module with 4 CANFD buses with 1 CAN bus able to Wake-on-CAN, 1 LIN Master/Slave, 2-Wire Ethernet with Wake on Ethernet, 4 configurable SENT channels, a variety of configurable discrete inputs and outputs, and functionality to operate in 12V or 24V systems. This module also contains an internal Inertial Measurement Unit (Accelerometer) and capability for Power Line Communication (PLC). This powerful general-purpose control module is perfect for applications that require advanced performance, timing systems, functional safety capabilities, as well as Combined Charging Systems (CCS) for Electric Vehicle (EV) applications. The CPU is a high-performance multi-core architecture with companion safety power system basis chip, that can support the highest level of functional safety (ASIL-D).

The RCM112 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**
 - ST SPC58NN84C3
 - 200 MHz
- **ASIL-D Capable**
- **Memory**
 - 6 MB App Flash
 - 32 KB EEPROM
 - Additional 8MB Flash Memory
 - 608 KB Internal RAM
- **45 Inputs**
 - 30 Analog Inputs
 - 12 Digital/Frequency Inputs
 - 3 Hall Effect / 2 VR
 - 2 12V/24V Inputs
 - 1 Wake Input
- **40 Outputs**
 - 17 Low Side Drivers (PWM)
 - 15 High Side Drivers (PWM)
 - 4 Full Half-Bridge Drivers (PWM)
 - 3-Phase BLDC Motor Driver
 - 4 Load Power Outputs
- **Internal Accelerometer (IMU)**
- **Real Time Clock (RTC)**
- **8V-32V Operating Voltage**
- **Communication**
 - 5 CAN FD*
 - Wake on CAN5
 - 1 LIN Master/Slave (SW Config)
 - 1 Ethernet (2-Wire)
 - Wake on Ethernet
 - 4 SENT
 - Power Line Communication*
- **Environmental**
 - -40°C to 105°C Operating Temp
 - IP6k7 Compliant
- **Compiler**
 - S32DS for Power Architecture Version V2.1 (Free from NXP)
- **Aluminum Construction**
- **Weight**
 - 1.6lb (.72kg)



2. Block Diagram

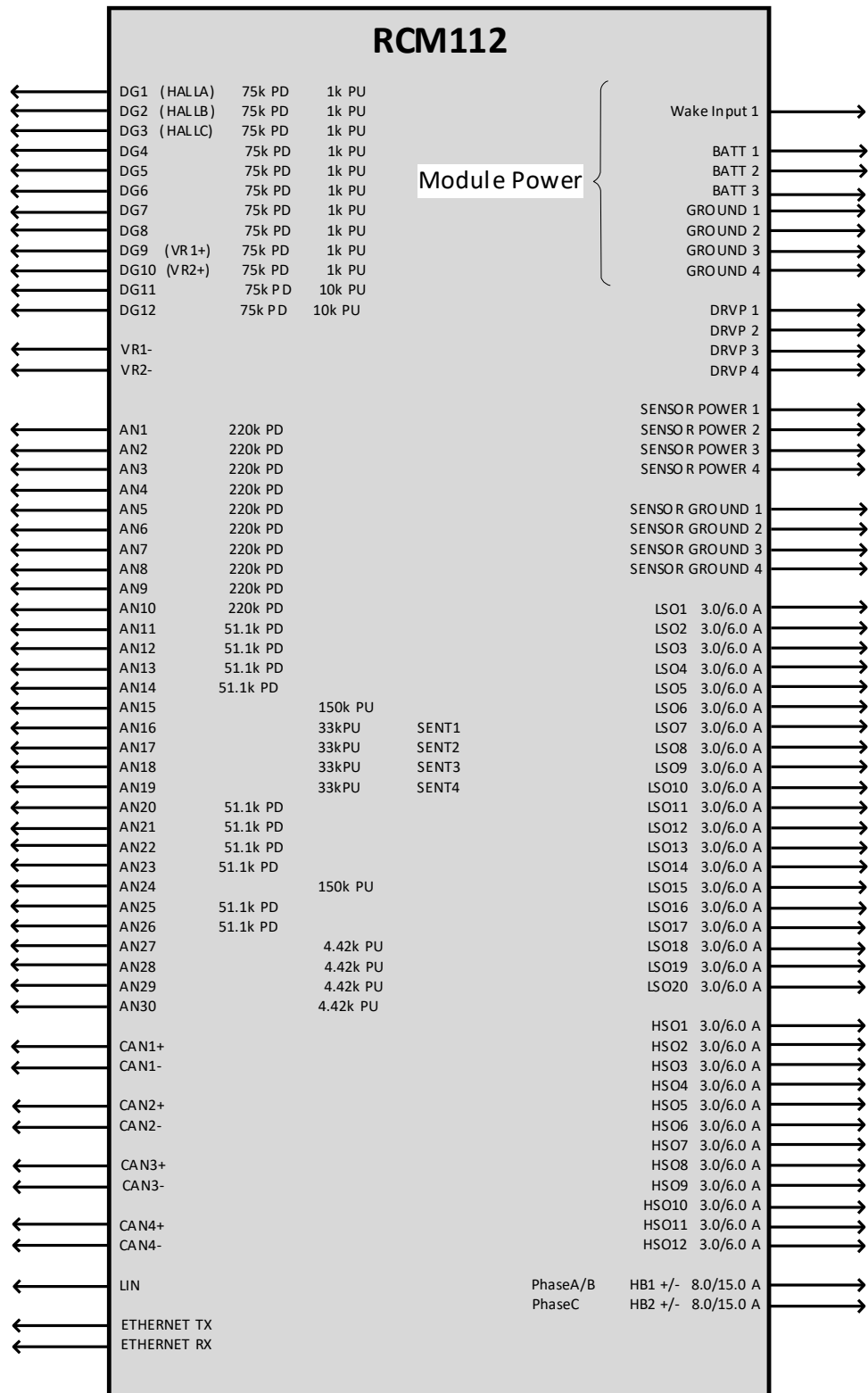
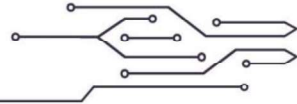


Figure 1: RCM-58NN-112-2007 Block Diagram



7. Dimensions (mm)

