



MotoHawk Control Solutions

ECM-0555-048

Family of General Control Modules — Calibratable / Flash

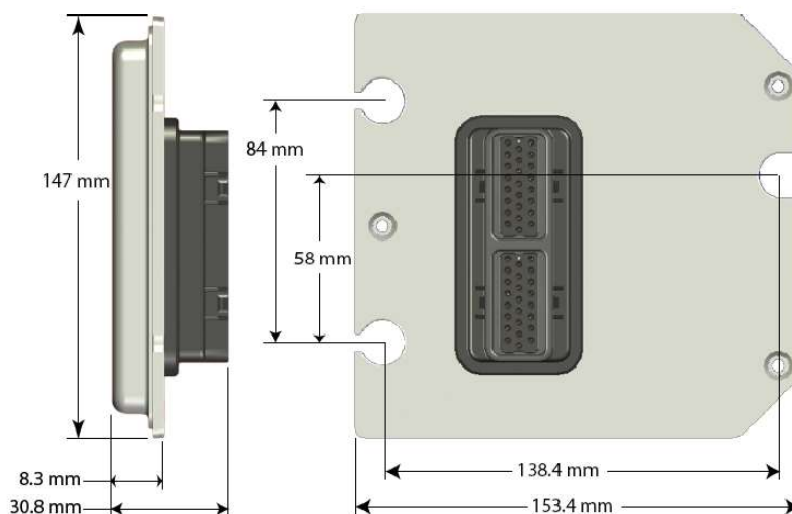
Description

Presenting the ECM-0555-048 family of engine control modules from Woodward's new MotoHawk Control Solutions product line. These rugged controllers are capable of operating in harsh automotive, marine, and off-highway applications. Numerous marine applications have proven the capability of this family. Based on the Freescale MPC555 family of microprocessors, the ECM-0555-048 is capable of delivering complex control strategies. The onboard floating-point unit and high clock frequency allow software to be executed in shorter times. The CAN 2.0B datalink ensures interoperability with other vehicle systems.

The ECM-0555-048 is part of the MotoHawk Control Solutions' ControlCore[®] line of embedded control systems. The ControlCore operating system, MotoHawk[®] code generation product, and MotoHawk's suite of development tools enable rapid development of complex control systems.

Each controller is available in 'F' (Flash) or 'C' (Calibratable) versions. Flash modules are typically used for production purposes. Calibratable modules are typically for prototyping/development only; they can be calibrated in real time using MotoTune[®].

Physical Dimensions



- 48-pin platform, 5 different versions
- Microprocessor: Freescale MPC555, 40 MHz
- Memory: 448K Flash, 26K RAM, 4K serial EEPROM Flash, Exception: 0710 - 8K serial EEPROM
- Calibratable Memory: 64K parallel EEPROM
- Operating Voltage: 8–16 Vdc
- Operating Temperature: –40 to +85 °C (in benchmark marine engine application)
- Sealed Connectors Operable to 10 ft (3 m) submerged

Inputs:

- 12 to 15 Analog
- 3 or 4 Low Frequency Digital
- 1 or 2 Hall Effect Frequency (cam)
- 0 or 1 Variable Reluctance Frequency (crank)
- 0 to 2 Knock Sensor
- 1 Stop

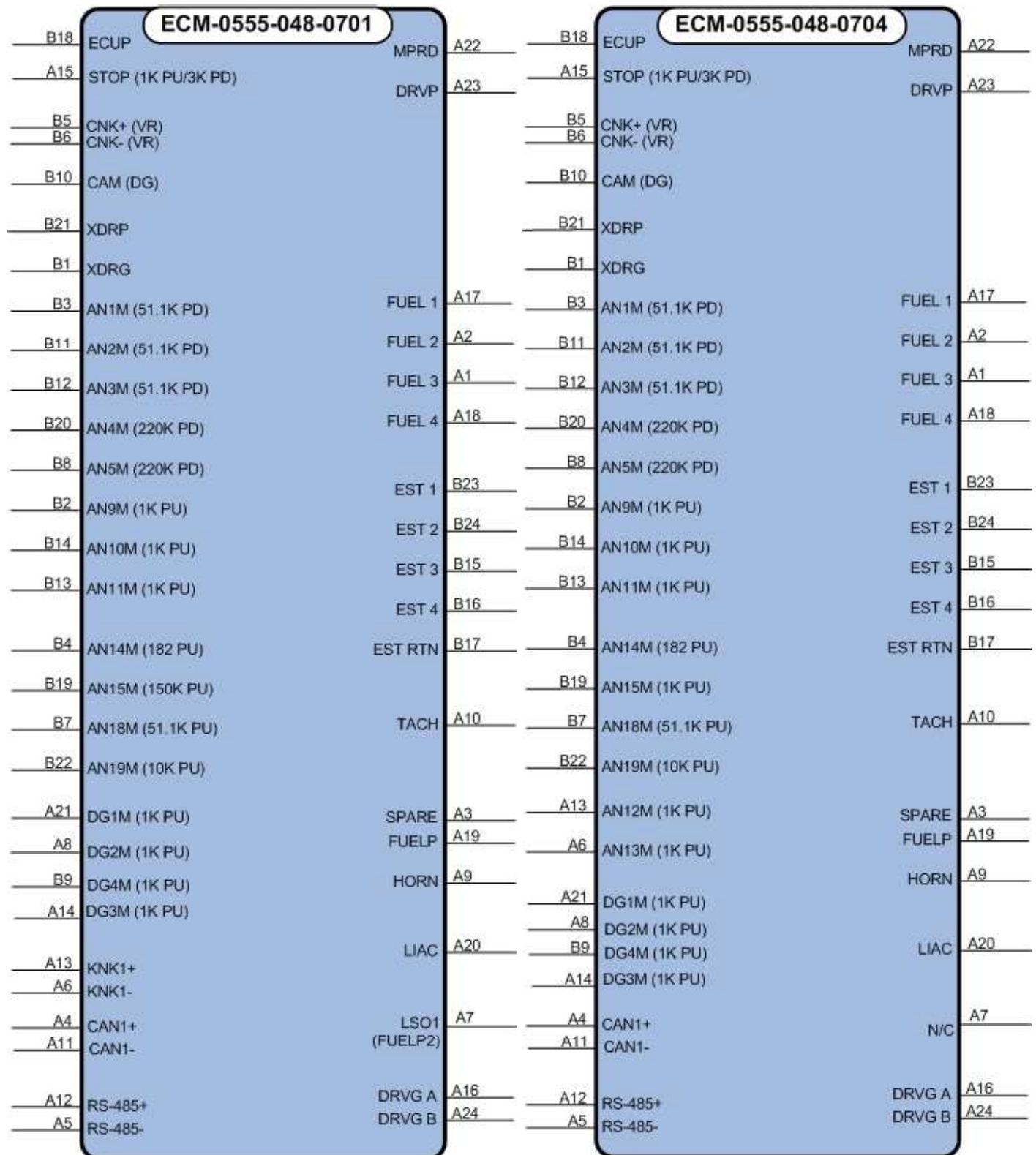
Outputs:

- 11 or 12 Low Side Driver
- 1 Digital
- 1 Main Power Relay Driver

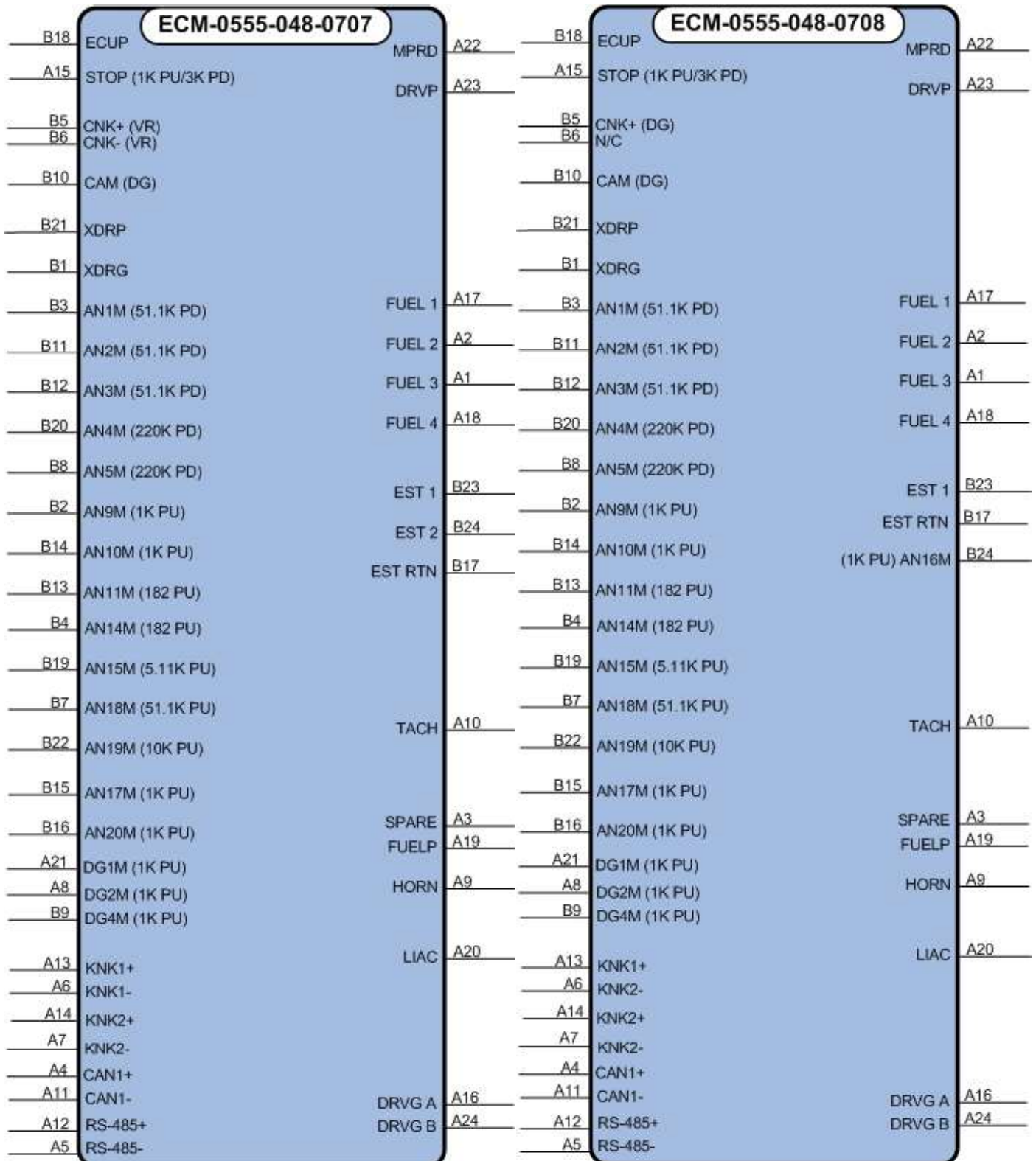
Communications:

- 2 CAN 2.0B Channels

Block Diagrams



Block Diagrams (continued)



Block Diagrams (continued)