

## Engine Control Module PCM112-14 (P/N 1751-6685)

### Description

The PCM112-14 is part of the engine management system for on- and off-highway gasoline applications up to 8 cylinders.

The module is capable of full-authority digital engine control (FADEC) consisting of fuel, spark, and air delivery to the engine. Additional inputs and outputs are available to control other system functions, as defined by software.

This unit provides 112 connector pins with inputs, outputs, and communications interfaces that support a wide variety of applications.

The PCM112-14 is part of the MotoHawk Control Solutions ControlCore® family 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.

### Physical Dimensions

Approximate dimensions: 176 mm x 226 mm x 39 mm (including feet).

### Ordering Information

Please contact your Woodward account manager.

### Availability

First samples available in Q2 2014. Production in Q4 2014.



- 112-pin platform
- Main micro: MPC5644A, 120 MHz
- Auxiliary micro: S12G128, 24 MHz
- Memory: 4M flash, 192K RAM, 32K external serial EE; S12G128, 128K flash, 8K RAM, 4K EE
- Operating Voltage: 8–16 Vdc, 24 V (jump start), 6.3 V (crank)
- Operating Temperature: –40 to +85 °C (105 °C possible)

#### Inputs:

- VR or digital crank position sensor
- Digital cam position sensor
- 23 analog inputs
- 2 switching oxygen sensors
- 2 wide-range oxygen sensors
- 2 knock sensors
- 2 speed inputs
- 5 switch inputs
- 1 ESTOP input (w/output disable)

#### Outputs:

- 8 injector drivers (saturated drive only)
- 4 ignition coil drivers
- 1 tachometer driver
- 15 low-side drivers
- 1 main power relay driver
- 2 H-bridge drivers (w/current sense)
- 3 sensor supplies
- 1 crank output (low-side)
- 3 analog outputs (gauge drivers)

#### Communications:

- 3 CAN 2.0b buses
- 1 RS-485 bus



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#### Distributors & Service

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