

### Delphi MT2X Engine Control Module Series

The Delphi MT2X Engine Control Module (ECM) Series is a family of electronic devices that assist the "real time" adjustments of fuel, air and spark to help the engine operate efficiently, reliably and economically. The MT2X ECM Series offers manufacturers a low cost solution for engine control, especially for those programs that must meet Euro 3, Euro 4 and Euro 5 emissions standards and European On Board Diagnostics (EOBD).

Delphi MT2X ECM Series features an up-integrated design that reduces weight and wiring and the small package size of the controllers enables passenger compartment mounting. The robust design of the modules also enables under hood mounting. Their flash programming provides in-vehicle memory updates.



**Delphi MT2X Engine Control Module**

#### ► Benefits

- Low cost controller includes 16-bit, 40 MHz microprocessor with 128 KB to 1 MB flash memory that enables high-speed processing and in-vehicle memory updates. Software and microprocessor can be configured to meet specific customer requirements.
- Small package size uses a standard FR4 circuit board enabling mounting flexibility and manufacturing alternatives. Waterproof designs also allow packaging options.
- Single connector offers optimized design.
- Electronic fuel control enables 3- and 4-cylinder sequential fuel injection applications.
- Electronic spark control enables 3- and 4-cylinder sequential spark applications, with or without high current coil drivers in the ECM.
- Digital Signal Processing (DSP) provides knock control.
- Advanced valve train functions include:
  - Linear Exhaust Gas Recirculation (LEGR)
  - Charcoal Canister Purge (CCP)
  - Dual Independent Cam Phasing (DICP)
  - Variable Geometric Intake Solenoid (VGIS)
- Idle control with stepper motor idle air control (IAC) or DC motor with electronic throttle control (ETC).
- Serial communication flexibility with Controller Area Network (CAN) or KW2000.

#### ► Typical Applications

The Delphi MT2X Engine Control Module Series is designed to support most 3- and 4-cylinder multi-port fuel injection gasoline engine programs. The controllers are compatible with compressed natural gas (CNG) and flexible fuel programs. They can be used with turbo charged engine programs and variable valve train applications.

**▶ Performance Advantages**

The Delphi MT2X Engine Control Module Series offers features that can help vehicle manufacturers meet demanding engine performance targets, high-level fuel economy requirements, and stringent emissions regulations. Delphi's MT2X ECMs help the engine management system increase fuel economy and reduce emissions, contribute to smooth vehicle acceleration, enable enhanced cold weather start-ups and help extend engine life.

Delphi's unique understanding of the complete engine management system and its full range of major component development capabilities contribute to superior component design and cost-effective systems.

**▶ The Delphi Advantage**

Delphi offers the benefits of more than 30 years' experience in high volume engine control module design and manufacturing. Delphi can provide an engine control module or a complete system with software, algorithms, calibration and other options.

As a global leader in engine management systems, Delphi can help manufacturers meet emissions requirements, improve fuel economy and enhance performance. Delphi is a source for high value solutions and our systems expertise is built into every product. Delphi's flexible engineering approach encourages collaboration. And, Delphi has a thorough understanding of automotive markets around the world.