

NEW E8PLUS ECU for Motorsports with Dual Core 264 MHz Processor

New E8PLUS ECU with 264 MHz Dual Core Processor Now Released.

Dedicated ECU for motorsports and high performance engines with up to 16 cylinders.



Presentation

We are proud to introduce our new ECU with a 264 MHz dual core processor.

This ECU is specifically developed for use on high performance engines and for use in automotive development and testing of new generation engines.

System includes CAN, OBD II and ASAP3 communications.

Multi cylinder engines can be dealt with as individual single cylinder engines with full control including DI, electronic waste gates or EGR valve control, 4-cam VCT and CAN FD ports (on CAN1 and CAN4).

E8PLUS has inputs for SENT type sensors and up to 10 x wide band lambda sensors.

E8PLUS includes direct data exchange with Superflow engine dyno software.

System overview

- 264 MHz dual core microprocessor
- Programmable firing order
- Engine load expression as throttle angle (Alpha-N), manifold air pressure (SD) and mass air flow (MAF)
- Full sequential ignition and injection for engines with up to 8 cylinders
- Full sequential injection and wasted spark control for engines with 10, 12 and 16 cylinders
- Control strategies for direct injection with 1 or 2 high pressure pumps (requires EFR14 module)
- Fuel control strategies for combination of direct and port fuel injection
- Pulse modulated PFI fuel pump control strategy
- Dual-stage fuel injection for two injectors per cylinder for engines with max 8 cylinders
- Ignition coil drivers selectable for smart coils as well as power drivers for inductive coils
- Knock control for engines with up to 8 cylinders
- Idle control for drive-by-wire, idle stepper motor or idle air valve
- 2 direct inputs for NTK wide band lambda sensors
- Up to 8 additional NTK wide band lambda sensors can be added via CAN
- Lambda closed loop bank to bank regulation with up to 4 wide band lambda sensors
- Automatic fuel injection self mapping
- Dual boost control with ATL; 2 solenoid valves or 2 electronic waste gates
- Variable camshaft control for 1, 2 or 4 cam engines (VCT, VVT, VANOS etc)
- Variable oil pressure control
- Predefined engine control strategies for many OEM engine configurations
- Dual drive-by-wire throttle controllers for single or dual digital or analog electronic throttle bodies
- 2 full bridge drivers for e-waste gates, e-EGR, DC motors etc
- 3 SENT sensor inputs for throttle, pressures and mass air flow
- ASAP3 Ethernet link
- Optional automatic engine test program for dyno cell testing
- Paddle shift control strategies
- Traction control strategy

- Drive shaft speed input
- Pit lane control strategy
- 128 Mb on-board data logger with high speed sampling rates up to 200 Hz
- 4 driver selectable calibration maps
- Direct data exchange with Superflow dynamometers
- 3 Molex CMC ECU connectors with total 128 pins

Inputs

- 19 user-defined analog inputs (0-5v)
- 14 user-defined digital inputs
- 3 dedicated SENT sensor inputs for throttle position, air and oil pressures and mass air flow
- User defined CAN inputs, use as analog and digital switches
- Dual trigger input systems for both Hall and VR crank and cam sensors
- 2 knock sensor inputs (up to 8 cylinders with individual or global spark advance control)
- 2 built-in wide band lambda controllers (with self mapping fuel control)
- Up to additional 8 lambda sensors via CAN
- Built-in barometric pressure sensor

Outputs

- 16 fuel injector drivers
 - 16 fuel cylinder individual fuel trim
 - Two stage injection for 3, 4, 5, 6 and 8 cylinder engines (2 injectors per cylinder)
- 8 ignition power drivers selectable for inductive coils and for smart coils
- Boost control using either solenoid valves or e-waste gates
- 20 multipurpose PWM outputs
- 2 wide band lambda sensor heaters
- 2 electronic throttle body controllers (full H-bridges)
- 2 additional full bridge drivers for e-WG, e-EGR, DC motors etc
- 5 individual 5V sensor power supplies

Communications

- 2 CAN 2.0B ports for data import and export
- 2 CAN FD ports for data exchange and communication
- OBD II engine data export
- ASAP3 data exchange
- Direct data exchange with Superflow dynamometers

General

Weight 765 grams (1.68 lb)

Operating temperature from -40 deg C to +85 deg C (-40 deg F to 185 deg F)

Operating voltage from 6 Volts to 16 Volts (17 Volts for 60 minutes)

IP protection IP67

3 automotive Molex connectors with high pin density (128 in total)

Dimensions: