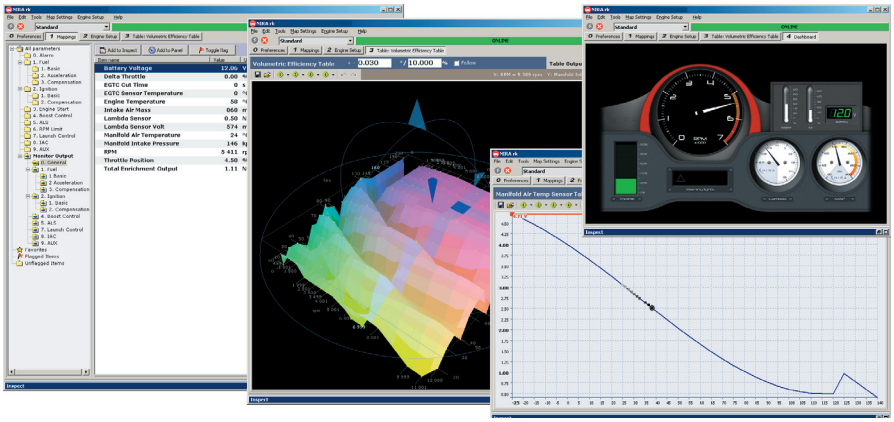
NIRA

NIRA i7r

- Powerful common rail diesel engine management system

NIRA i7r is a powerful engine control unit designed to control modern diesel engines with the efficient common rail technology. NIRA i7r comes complete with an application tool, NIRA rk, for loading of software program, tuning of engine data, monitoring etc. Together they constitute a system that offers the operator full access to and control of the engine functions.

Featuring support for advanced fuel injection strategies with multiple injections per stroke, NIRA i7r enables the engine tuner to reach maximum performance while maintaining desirable characteristics such as quick engine response time and precise control of torque output. NIRA i7r is also designed to handle sensors and actuators related to Euro V and Tier 4 regulation, including EGR and particulate filters.



Design Features

- Available for both Piezo and Solenoid Injectors to Enable Deployment on a Wide Range of Engines
- Extensive I/O interface with FlexiPorts™ Control
- Up to Eight Cylinders with Twin Turbos, EGR Throttles etc
- CAN and LIN Communication

Emission Control Features

- Temperature and Pressure Sensors for Particulate Filters and Catalysts
- Oxygen and Knock Sensors for Combustion Analysis and Optimisation
- Control of EGR Valves and Throttles with Position Feedback

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Common Rail Diesel Engine Management System
for Industrial, Marine and Automotive Engines

Pressure Sensor Inputs for MAP, Fuel Rail, Particulate Filter Diff, Exhaust etc	6 x	
Pulse Inputs for Glow Relay Feedback, Water in Fuel, Oil Combination etc	6 x	
NTC Temperature Sensor Inputs for ECT, IAT, EGR Cooler etc	8 x	
Pt 1000 Temperature Sensor Inputs for Particulate Filter, Catalyst, Exhaust etc	6 x	
Switch Inputs for Start, Oil Pressure, Brake, Drive Position etc	7 x	
Engine Demand Inputs	2 x	
Crankshaft Position Inputs for Inductive or Hall Sensors	2 x	
Camshaft Sensor Input for Hall Sensors	1 x	
Air Mass Sensor Inputs	2 x	
UEGO Oxygen Sensor I/Os	2 x	
Knock Sensor Inputs	4 x	
General Purpose Aux Inputs	3 x	

8 x		Driving up to Eight Injectors
4 x		Relay Drivers for Glow Plugs, Pre Supply Pump etc
2 x		Outputs for Pressure and Volume Control Valves
4 x		I/Os for Four H-bridge drivers with Position Feedback for VGT/VNT, EGR and Throttle control
10 x		Outputs for Fans, Valves, EGR Bypass etc
2 x		Two Current Controlled Outputs
1 x		I/Os for Turbine Shut Off Valve with Position Feedback
2 x		CAN Lines for Engine and Vehicle CAN Networks
1 x		Connection to Application Tool NIRA rk
3 x	LIN	LIN Connections to Peripheral Devices

NIRA

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