

M110 OpenECU[™] Multi-Purpose Controller

Capabilities

- 32-bit Freescale microprocessor
- Up to 2 CAN, 3 SENT receive and 4 SENT transmit channels
- Multiple digital/ frequency / analog / RTD / thermistor inputs
- Multiple digital / PWM outputs
- Protection against double and reverse battery, load dump, and overcurrent on outputs
- Open / short circuit detection on outputs





Ideal for light, commercial and off-highway vehicles.



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Benefits

- Designed to allow for circuit customization to meet specific needs
- Same proven hardware can be used for prototypes and production
- Simulink or C API available for application development
- Cost effective support for fleet trials of new systems

Applications

- CAN gateway
- CAN I/O expansion
- SENT based sensor spoofing (SENT to Analog)
- SENT to CAN gateway
- Supervisory controller
- Smart relay driver

Capabilities			
Microprocessor		I/O Summary	
Processor	SPC5534	Digital/Analog	Up to 9x
Architecture	32-bit	Reprogramming Enable	1x @ 18V
Clock Rate	80MHz	Outputs	
Code Space	512KB	Low Current Low Side Drives	Up to 1x 10mA & 2x 100mA
RAM Space	64KB		& 6x 500mA
Calibration Space	64KB	Medium Current Low Side Drives	Up to 4x 2A
Power		0-5V Analog Output	Up to 2x 10mA
Sensor Supplies	1x 5V @ 250mA	ECU Program Status	Up to 1x 20mA
Battery Power Pins	2 (power, ground)	Compatibility	
Communication		Vibration	ISO 16750 - 3
High Speed CAN 2.0	Up to 2x	Environmental Protection	IP67 - Sealed
		ESD	±8kV - SAE J1113-13
SENT Rx	Up to 3x	Conducted and Radiated Emissions	CISPR25 Class 3
SENT Tx	Up to 4x	Conducted Transients	ISO 7637-2
Internal Features		Immunity	ISO 11452-2
Dedicated ignition switch to wake ECU		Physical	
Wake on CAN (1 channel)		Material	Plastic (PPA GF33)
Input protection: overvoltage, reverse voltage		Dimensions	137 x 130 x 42 mm (W x H x D)
Output protection: short to battery, short to ground		Connectors	2 x 20 pin (Molex MX-150)
Software configurable delayed power off		Location	Chassis mount
Dedicated pin to indicate ECU program status		Operating Temperature	ISO 16750-4 (-40°C to 85°C)
PCB temperature monitor		Operating Voltage	6 to 36V

Default ECU I/O Configuration		
Inputs	3x Analog, 1 x RTD, 1 x Thermistor, 1 x Reprogramming Enable	
Outputs	2x 100mA, 6x 500mA, 4x 2A, 2x 0-5V Analog, 1x ECU Program Status	
Comms	2x CAN, 1x SENT Rx	

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Application Policy Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.

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