A comprehensive solution for automotive door systems

• System-level solutions for highly integrated door systems

• Maximum flexibility in choice of components and protocols

• Industry leading 8-bit 68HC08 and the high performance 16-bit 68HC12 microcontrollers

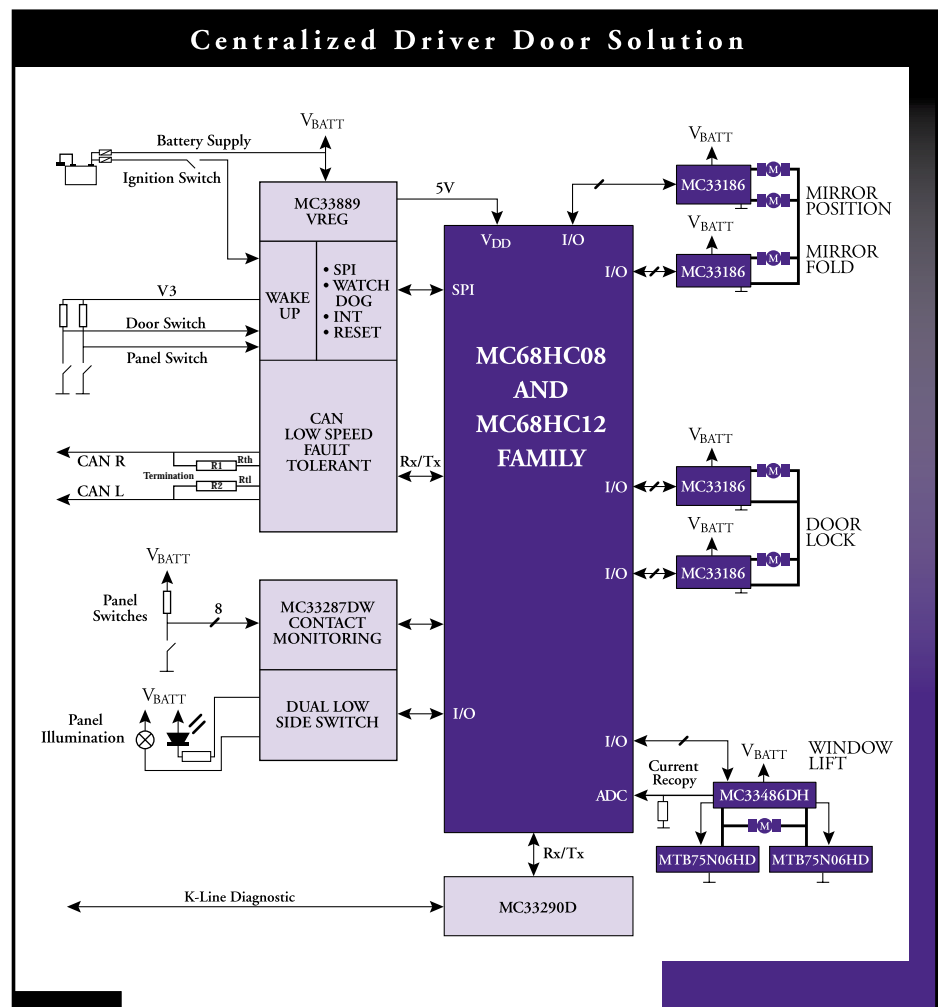• Integrated CAN and J1850 protocol peripherals

Motorola's technology for automotive door systems provides design engineers with a wide array of components for next-generation applications. Our portfolio includes the devices required for a complete distributed or centralized automotive door system:

• Fully configured 8- and 16-bit microcontrollers
• Mechatronic smart connector
• Fault Tolerant ms CAN driver software
• Single wire sub-bus network, LIN
• OSEK operating system
• Voltage regulators
• Power and display drivers
• Communication interfaces

Motorola's system-level solutions are backed by a complete set of hardware and software development tools and our world-class technical support organization.

Modular design, for maximum flexibility

Motorola's modular approach to automotive door systems offers a wide range of choices so you can select exactly what is needed to fit your application in either a centralized or distributed door solution configuration.

Centralized Driver Door Solution

DigitalDNA™ from Motorola

A broad portfolio of automotive door system components

PART NUMBER	DESCRIPTION

Mechatronics
H-bridge – Highly integrated system-chip solution. Microcontroller has 8 to 16K memory with high current H-bridge switching capability (up to 30 Amps/ PWM option).

Microcontrollers

68HC(9)12D60	16-bit microcontroller; 60K Flash memory, CAN, EEPROM
68HC(9)12DG128	16-bit microcontroller, Flash memory, 2xCAN, EEPROM
68HC08AS32, AZ32	8-bit microcontroller, 32K Flash memory, J1850/CAN, EEPROM
68HC(9)08AS, AZ60	8-bit microcontroller; 32K Flash memory, J1850/CAN, EEPROM

Driver Devices

MC33388	CAN physical interface
MC33390	J1850 Class 2 physical interface
MC333186DE	H-bridge Driver
MC33288DH	H-bridge Driver
MTB75N06HD	N-Channel Fets

Voltage Protection Devices

MMBR104455 Series	Schottky reverse battery protection
MR28358	Transient / SAE 1.5 protection
MMBZ5V6	ALT1 TVS Class 2 network protection
MC33267	5V regulator
MC7805	5V regulator
MC78M08C	8V regulator
MC33064	Low-voltage interrupt

Software
MsCAN , Fault-tolerant driver software

OSEK automotive system software

As the #1 automotive semiconductor manufacturer, Motorola also understands the importance of having the flexibility to switch between CAN and J1850 protocols and to utilize sub-bus networks, such as Motorola's LIN. Our 68HC(9)08 and 68HC(9)12. Families of 8- and 16- bit microcontrollers offer simple plug-and-play conversion for both networks and include physical layer interfaces.

Always thinking ahead: Your future with Motorola
With the radical and rapid changes occurring in the automotive industry planning for future requirements and meeting present needs are equally important priorities. As transportation systems continue to move toward more advanced functionality – such as intervehicle communications, multiple sensing capabilities, and even auto-piloting—Motorola will continue to stay one step ahead

Visit out website to find out more
To learn more about Motorola technology for integrated automotive door applications using DigitalDNA, visit the Motorola Transportation Systems Group at www.mot-sps.com/automotive; or call 1-800-441-2447 to speak with a Motorola representative.

Digital DNA ™
from Motorola