ANALOG PRODUCTS

MC33290 FACT SHEET

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COMMUNICATION
LIN, ISO-9141, J-1850

33290 SERIAL ISO-9141 K-LINE INTERFACE

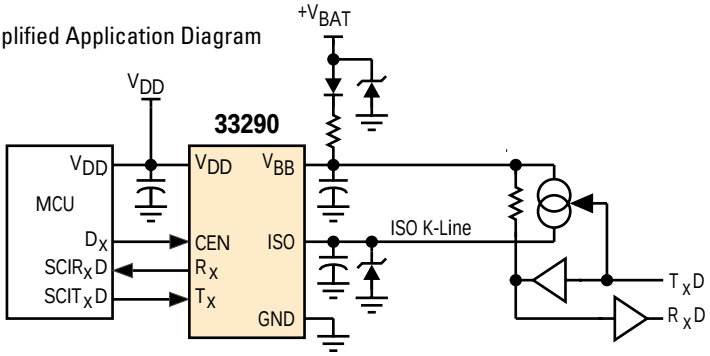
The 33290 is a serial link bus interface device designed to provide bi-directional half-duplex communication interfacing in vehicle diagnostic applications. It is also suited for applications in farm equipment, industrial equipment, marine equipment, robotic systems, and other applications requiring module-to-module communications.

The 33290 is designed to interface a vehicle's on-board microcontroller with other system modules via the ISO K-line. It is designed to meet Diagnostic Systems ISO-9141 specification. The device's K-line bus driver output is fully protected against bus shorts and over temperature conditions.

APPLICATIONS

- Farm Equipment
- Industrial Equipment
- Robotics
- Automotive Systems
- Applications where Module-to-Module Communication is Required
- Marine and Aircraft Networks

Simplified Application Diagram



CUSTOMER BENEFITS

- Lower system cost with reduced part count with simple hookup
- Industry-standard communication protocol
- Faster design cycle time

Performance	Typical Values
Bus Output	ISO-9141
Data Rate	to 50 kB/s
Operating Voltage	8.0 – 18 V
Sleep/Stdby Current	50 µA
ESD	± 2000 V
Operating Temp	-40°C ≤ T_A ≤ 125°C

FEATURES

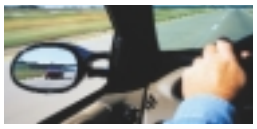
- Interfaces directly to standard CMOS microprocessors
- ISO K-line pin capable of high currents
- 8.0 kV ESD protection attainable with few additional components
- Standby mode: no V_{BAT} current drain with V_{DD} at 5.0 V
- Low current drain during operation with V_{DD} at 5.0 V
- Additional devices available for comparison in Analog Selector Guide SG1002/D

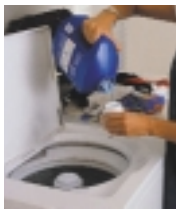
Protection	Detect	Limiting	Shut Down	Auto Retry
Over Current/SC	•	•		
Over Temperature	•		•	•

Ordering Information	Package	Ship Method	Motorola Part Number
	8 SOICN	Rail T/R	**33290D **33290DR2
Data Sheet Order Number			MC33290/D
Contact Sales for Evaluation Kit Availability			
**Prefix Index: PC = Eng Samples; XC = In Qual; MC = Production			

QUESTIONS

- What type of module-to-module communication protocol are you using?
- Do you need a robust half-duplex bi-directional communication between two modules?
- Do you need a communication system that operates at rates up to 50 kB/s?
- Do you need a communication system that is compliant with On-Board Diagnostic (OBD) requirements as set forth by the California Air Resources Board (CARB)?





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