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# Product Information

## Single Wire CAN Transceiver

### TH8056

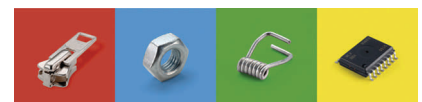
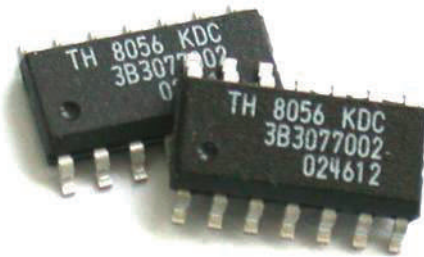
The TH8056 is a physical layer device for a single wire data link capable of operating with various CSMA/CR protocols such as the Bosch Controller Area Network (CAN) version 2.0. This serial data link network is intended for use in applications where a high data rate is not required and a lower data rate can achieve cost reductions in both the physical media components and the microprocessor and/or dedicated logic devices that use the network.

The bit rate for normal communications is typically 33.33kbit/s, for high-speed transmissions as described above a typical bit rate of 83.33kbit/s is recommended. The TH8056 is designed in accordance with the Single Wire CAN Physical Layer Specification GMW3089 V2.x and supports many additional features like under-voltage lock-out, time-out for faulty blocked input signals, output blanking time in case of bus ringing and a very low sleep mode current.

### Features

- Fully compatible with GMW3089 V2.x and J2411 Single Wire CAN specification
- 30  $\mu$ A typical power consumption in sleep mode
- Operating voltage range 5V to 27V
- Up to 40 kbps bus speed
- Up to 100 kbps high-speed mode
- Logic inputs compatible with 3.3V and 5V
- Control pin for external voltage regulators
- Low RFI due to output wave shaping in normal and high voltage wake up mode
- Fully integrated receiver filter
- Bus terminals proof against short-circuits and transients in automotive environment
- Loss of ground protection, very low leakage current (typ. 20 $\mu$ A at 27V and 125 $^{\circ}$ C)
- Protection against load dump, jump start
- Thermal overload and short circuit protection
- ESD protection of 4 kV on CAN pin (2kV on any other pin)
- Under voltage lockout
- Bus dominant time-out feature
- 14-pin thermally enhanced and 8-pin SOIC package
- Available as lead free and RoHS compliant

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Bus ICs

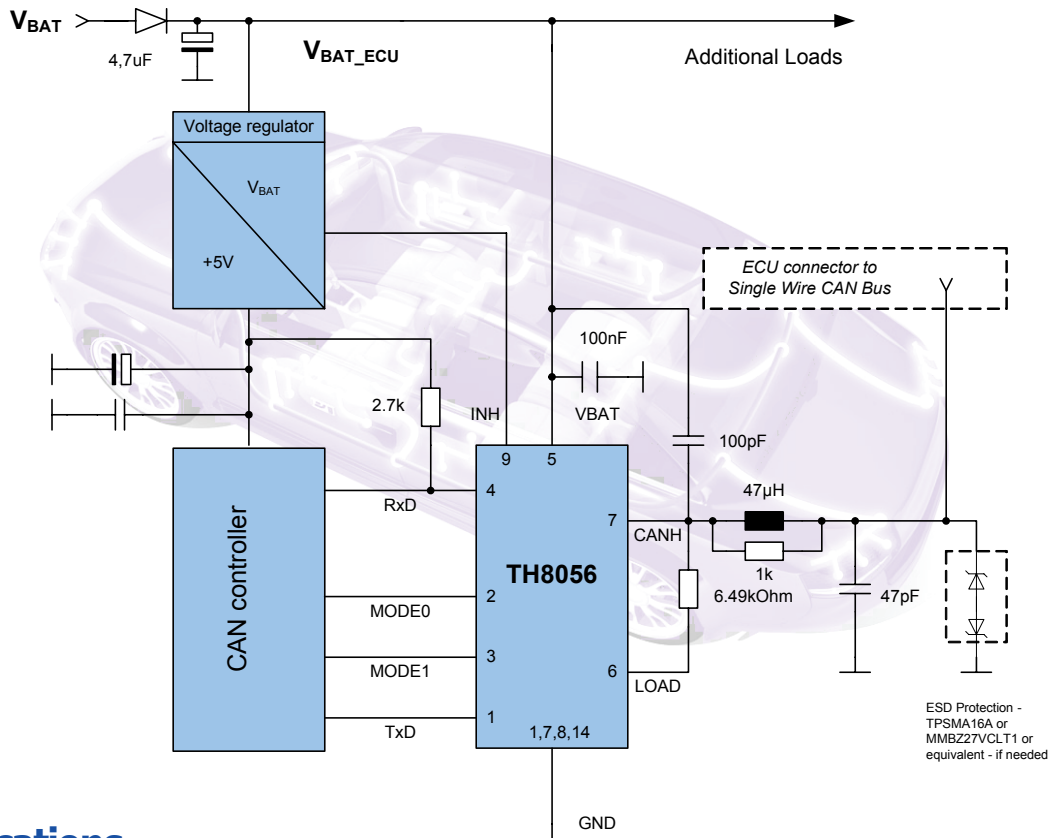
Hall ICs

CMOS Imaging

Silicon MEMS

IR Temperature

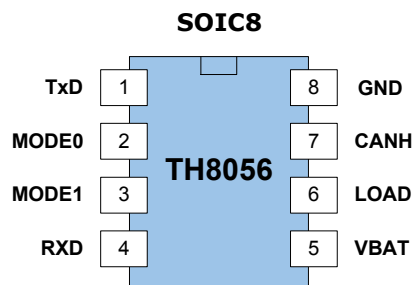
# Application Circuitry



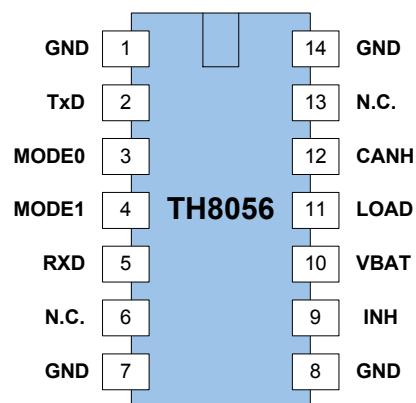
## Applications

- All Applications which require a Single Wire CAN Interface
- GM-LAN according to GMW3089 Rev 2.x
- Usable for GMT-900, Epsilon-2 and Global-A platforms

## Pinout



## SOIC14, fused leadframe



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