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# FOUR CHANNEL SENSOR INTERFACE PSI5 E981.08

## Features

- Supply voltage range 8.5V to 25V
- Four independent operating channels
- Device parameters comply with PSI5-P10P-500/3L (PSI5 spec 1.3)
- Applicable for parallel and universal mode (standard) as well as daisy chain mode (increased)
- Channel output short circuit protected against 40V and GND
- Channel output short circuit protected against every other channel
- Adapted quiescent current threshold
- Data Manchester coded
- SPI interface
- Over current switch off for every channel
- Overtemperature switch off for every channel
- Operating temperature range -40°C to +125°C
- QFN 7x7 32ld package

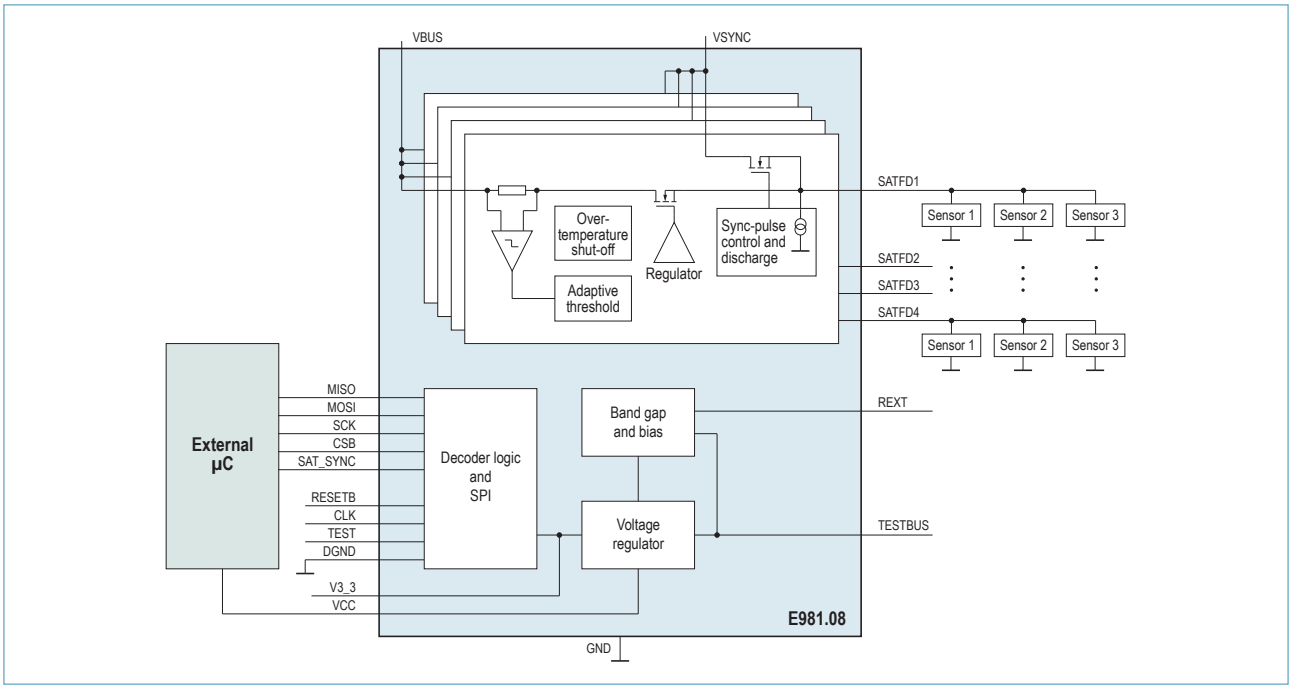
## General Description

The E981.08 manages the connection and communication between a microcontroller unit (MCU) and up to twelve sensor satellites. It can be applied for example in a vehicle passenger restraint system. The device provides four independently operating channels. Every channel manages the communication with a maximum of three sensor satellites.

Each channel supplies the sensor devices connected with a regulated DC voltage, which is derived from an external source. Sensor data are extracted by measuring the current, modulated by the connected sensor devices and provided to the MCU via SPI interface. The current threshold is adapted to the quiescent current of the system. The data bits are coded using a Manchester format. The device operates with an external 4MHz/8MHz clock.

## Applications

- Passenger restraint systems



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