



SP37 450kPa Tire Pressure Sensor

The SP37 is a highly integrated device which performs all necessary functions for a Tire Pressure Monitoring System (TPMS) wheel module suited for high-volume applications. The device contains the sensing elements, the microcontroller, the LF receiver, the RF transmitter and more in one package requiring only few external components to complete a TPMS module.

Since 2003, more than 150 million TPMS sensors of our continuously improved product generations were sold worldwide.

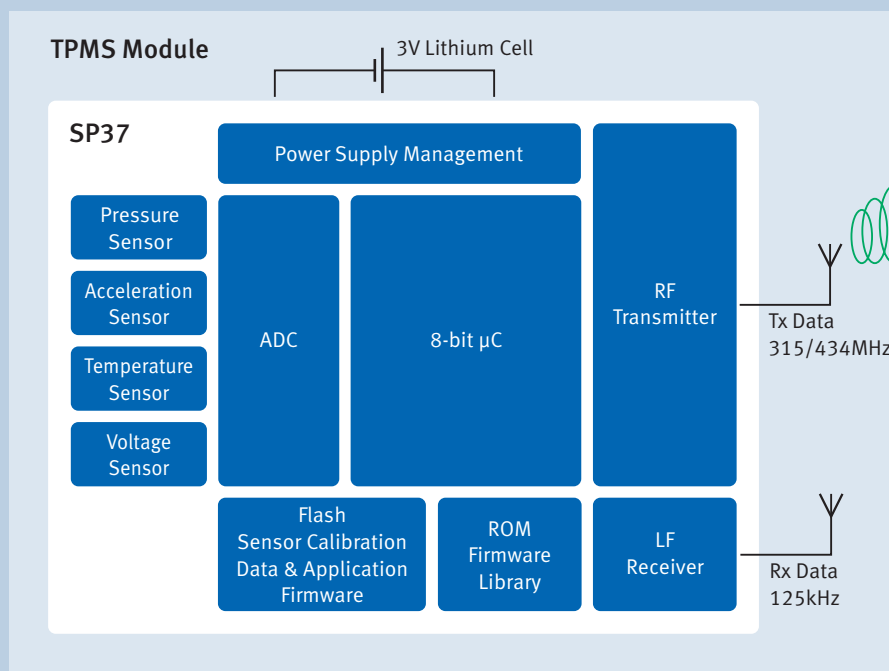
The sensor design of the SP37 is based upon Infineon's patented bulk micro-machined sensing technology which allows highly reliable measurements in harsh environments.

The SP37 measures pressure, radial acceleration, temperature and supply voltage. The device is compliant to the RoHS standard, with a pressure range from 100 up to 450kPa.

Numerous embedded firmware functions and a development kit enable fast development cycles.

Features

- Pressure sensor with a range from 100 up to 450kPa
- Radial acceleration sensor
- Temperature sensor
- Supply voltage sensor
- Embedded 8051 compatible 8-bit microcontroller
- 6kB on-chip FLASH memory
- 256Byte RAM
- 315 and 434MHz FSK/ASK RF-transmitter
- Selectable output power of 5 or 8dBm
- 125kHz ASK high-sensitivity LF-receiver
- Advanced power control/ wake-up system to minimize battery consumption
- Ultra low standby current (< 0.7µA)
- Supply voltage range 1.9...3.6V
- Operating temperature range -40...125°C
- PG-DSOSP-14-6 package
- RoHS compliant, green package



SP37 450kPa

Tire Pressure Sensor

| Parameter | Symbol | Values | | | Unit | Note/Test Condition |
|-------------------------------|-------------------|--------|------|--------|------|-----------------------------------|
| | | Min. | Typ. | Max. | | |
| Input Pressure Range | P_{in} | 100 | – | 450 | kPa | T = -40...125°C |
| Measurement Error | p_{Error} | -7 | – | +7 | kPa | T = 0...50°C |
| | p_{Error} | -9 | – | +9 | kPa | T = 50...70°C |
| | p_{Error} | -17.5 | – | +17.5 | kPa | T = -40...0°C T = 70...125°C |
| Input Acceleration Range | a_{in} | -115 | – | 115 | g | T = -40...125°C |
| Sensitivity Error | $a_{Sensitivity}$ | -18.75 | – | +18.75 | % | T = -40...90°C |
| | $a_{Sensitivity}$ | -24 | – | +24 | % | T = 90...125°C |
| Offset Error | A_{Offset} | -6 | – | +6 | g | T = -20...70°C |
| | A_{Offset} | -8.5 | – | +8.5 | g | T = -40...-20°C T = 70...90°C |
| | A_{Offset} | -12 | – | +12 | g | T = 90...125°C |
| Temperature Measurement Error | T_{Error} | -3 | – | +3 | °C | T = -20...70°C |
| | T_{Error} | -5 | – | +5 | °C | T = -40...-20°C T = 70...125°C |
| Voltage Measurement Error | V_{Error} | -100 | – | +100 | mV | – |

Tighter specifications are available on request.

Product Summary

| Sales Name | Description | Order Code |
|----------------|----------------------|-------------|
| SP370-25-106-0 | Tire Pressure Sensor | SP000934274 |

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Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

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- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
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- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
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- Входной контроль качества.
- Наличие сертификата ISO.

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Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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