

Product Brief

TLE5041plusC

Differential iGMR (Giant Magneto Resistive) Wheel Speed Sensor for indirect TPMS Systems (iTTPMS)

TLE5041plusC is Infineon's first productive GMR Speed Sensor, specially designed to fulfill the tight jitter-requirements coming with indirect TPMS systems. These systems control the car's tire pressure based on the information they receive from the wheel speed sensors. As the calculation algorithms need accurate data to start with, low jitter as guaranteed by iGMR technology, is crucial for correct functioning of the system. Traditional Hall sensors get to their limits with these requirements. TLE5041plusC operates, as its Hall predecessors, as a differential system, thus being particularly robust against stray field.

Even though, because of Infineon's integrated iGMR technology, this brand new high-end chip is offered at the same price as its Hall based sibling TLE4941plusC.

Considering all points above, the increasingly popular magnetic encoder applications ("pole wheel"), TLE5041plusC is available in the same package as its Hall based relatives (PG-SSO-2-53), with its integrated capacitor for high EMC robustness.

For the use in older steel wheel systems, Infineon can offer support for a back bias sensor design: this is particularly important as back bias solutions for MR-technologies are technically more difficult to design than for Hall, as they require specially shaped magnets.

Being part of the extremely successful Infineon wheel speed sensor family, TLE5041plusC is ideally suited for automotive wheel speed applications, such as ABS and ESC, especially when (but not restricted to that) indirect TPMS systems require extremely jitter-accurate speed information.

TLE5041plusC is Specially Designed to Support iTTPMS



www.infineon.com

Features

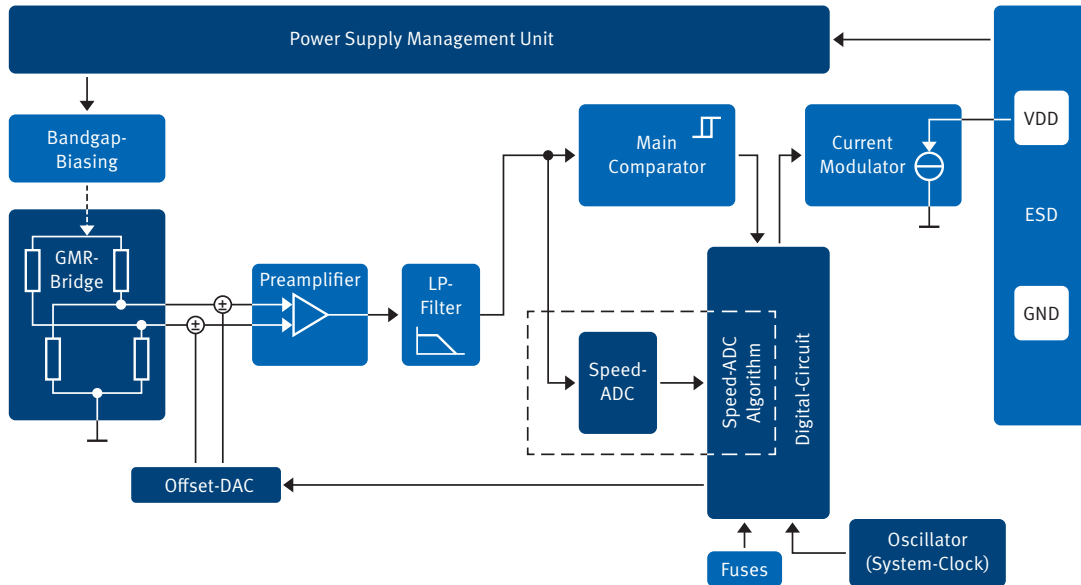
- High sensitivity
- Best-in-class operating air gap at very low jitter suitable for iTTPMS
- High resistance against temperature change: No unwanted pulses at thermal drift
- Differential measurement principle, highly immune against disturbing external magnetic fields
- Wide frequency range of ~ 0.5Hz to 5kHz
- C type with 1.8nF overmolded capacitor
- Fast start-up
- Advanced performance by dynamic self calibration principle
- 2-wire current interface
- Identical package as Hall sensor TLE4941plusC
- Wide operating temperature ranges of $-40^{\circ}\text{C} \leq T_j \leq +175^{\circ}\text{C}$
- Evaluation tool available for internal signal read-out, e.g. for air gap indication



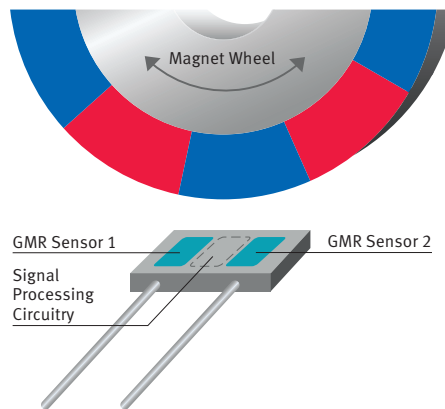
TLE5041plusC

Differential iGMR (Giant Magneto Resistive) Wheel Speed Sensor for indirect TPMS Systems (iTTPMS)

Block Diagram



Magnetic Encoder Wheel



Sales Name	Description	Order Code
TLE5041plusC	TLE5041plusC in standard PG-SSO-2-53 package	SP001029256

Published by
Infineon Technologies AG
85579 Neubiberg, Germany

© 2013 Infineon Technologies AG.
All Rights Reserved.

Visit us:
www.infineon.com

Order Number: B142-H9847-X-X-7600
Date: 11 / 2013

Attention please!

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie"). With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office. Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

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

Мы предлагаем:

- 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.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

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.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru