



New Product Introduction

July 2019

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TLE8457x - LIN LDO family with RESET functionality

The new LIN LDO product family TLE8457x integrates a monolithic LIN transceiver with a voltage regulator supporting two different output voltage variants with an output current capability up to 70 mA for supplying any external components like microcontroller and peripherals.

TLE8457x family can be used as a master or slave node offering a bi-directional bus LIN communication supporting up to 20 kbit/s and being compliant to LIN specification 2.2 A and SAE J2602.



Features

- > Single-wire LIN transceiver for transmission rates up to 20 kbit/s
- > Compliant to ISO 17987-4, LIN specification 2.2 A and SAE J2602
- > 5 V or 3.3 V low drop-out linear voltage regulator with 70 mA
- > TxD dominant time-out feature
- > VCC undervoltage detection
- > Reset output
- > Very high ESD robustness ± 8 kV according to IEC 61000-4-2
- > Optimized EMC performance
- > Green product (RoHS compliant)

Benefits

- > Integrated initialization time-out feature
- > Ultra-low quiescent current in stand-by mode (max. 40 μ A) and in sleep mode (max. 16 μ A)
- > Available in standard DSO-8 and tiny TSON-8 package
- > LIN LDO demo board available

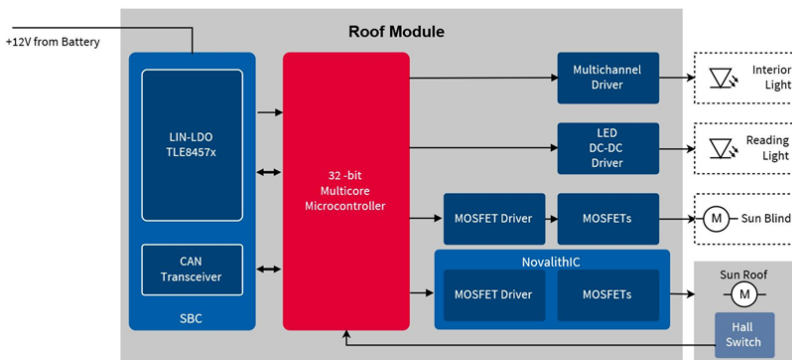
Target applications

- > LIN slave modules like wiper, window lifter, seat or door modules
- > Electrical pumps like fuel pump or oil pressure pumps
- > Electrical fan control HVAC fan or ECU under-hood fan modules
- > Sensor Modules like RLS or ultrasonic parking aid systems

Competitive advantage

- > Battery current savings together with less stress for device and components on the PCB. This feature makes this second generation of LIN LDO unique in the market.

Application diagram: Roof control module



Product overview incl. data sheet link

OPN	SP Number	Package
TLE8457ASJXUMA1	SP001335242	PG-DSO-8
TLE8457BSJXUMA1	SP001337658	PG-DSO-8
TLE8457BLEXUMA1	SP001376018	PG-TSON-8
TLE8457ALEXUMA1	SP001423978	PG-TSON-8
TLE8457DSJXUMA1	SP002391916	PG-DSO-8
TLE8457DLEXUMA1	SP002391920	PG-TSON-8
TLE8457CSJXUMA1	SP002391924	PG-DSO-8
TLE8457CLEXUMA1	SP002391928	PG-TSON-8

Product collaterals / Online support

- [Product family page](#)
- [Product finder](#)
- [Product brief](#)
- [Application notes](#)

TLx4966xG - XENSIV™ High Precision Hall-Effect Switch with Direction Detection

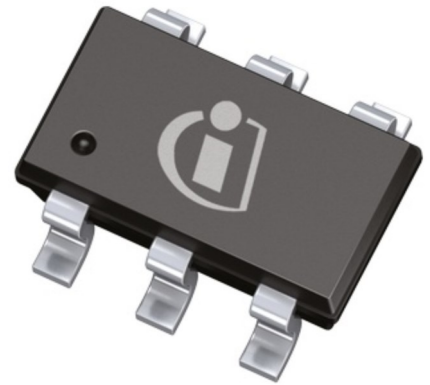
The TLx4966xG Hall sensor family in a new gullwing package are double Hall switches with two output pins for applications with a rotating pole wheel.

Depending on product variant, the sensor provides either a speed and direction signal at the interface pins or two speed signals related to the switching of the two Hall elements. This information can be directly used to realize a robust index counting system for anti-pinch prevent. The standard solution for index counting is realized by two Hall latches. The TLx4966xG family comprises two integrated Hall plates enabling a small and cost effective system with only one sensor.

The fixed distance of the Hall plates realized on-chip ensures the optimal solution to cancel out mounting uncertainties and reduce overall system tolerances. The built in direction detection is reliable and provides with each index step a valid direction signal. Additional development of algorithms for direction detection becomes obsolete.

The speed and direction signals or the speed and speed signals of the TLx4966xG family can be fed directly into the capture/compare unit of a standard μ Controller. This ensures fast and easy system set up. These signals come directly from the two integrated Hall elements. The monolithic solution ensures minimal tolerances and a highly reliable system.

A lot of index counting sensors have to operate at remote locations, therefore the TLx4966xG family is equipped with robust supply and I/O pins that allow system designers to realize remote sensor modules with a minimum of additional hardware components.



Features

- > Supply voltage operation
- > TLx4966xG: 2.7 V to 24.0 V
- > TLE4966V-1G: 3.5V to 32.0 V
- > Operation from unregulated power supply
- > High sensitivity and high stability of the magnetic switching points
- > High resistance to mechanical stress by Active Error Compensation
- > Reverse battery protection (-18 V)
- > Superior temperature stability
- > Peak temperatures up to 195°C without damage
- > Low jitter (typ 1 μ s)
- > Digital output signals
- > Excellent matching between the 2 Hall probes
- > Hall plate distance 1.45 mm
- > Direction & speed or speed & speed information
- > Direction signal switches before the speed signal
- > SMD package TSOP6-6-9

Benefits

- > One sensor instead of two for cost effective systems
- > Enables very small index counting systems with one sensor
- > Less assembly effort
- > Reduction of external protection devices

Qualification

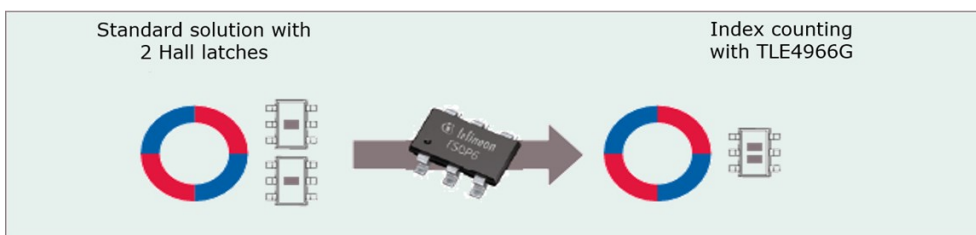
- > Qualified according to AEC-Q100 rev. H

Target applications

- > Power closure systems (window lift, tail gate, sunroof)
- > Seat belt pretensioner

Competitive advantage

- > Large portfolio with standardized packages
- > High supply voltage range (2.7 Volt to 24 Volt)
- > Low power consumption
- > Infineon Zero-Defect Commitment



Product overview incl. product page link

OPN	SP Number	Package
TLE4966GHTSA1	SP002983176	PG-TSOP6-6
TLE49662GHTSA1	SP002983188	PG-TSOP6-6
TLE49663GHTSA1	SP002983192	PG-TSOP6-6
TLE4966V1GHTSA1	SP002983184	PG-TSOP6-6
TLE4966LHALA1	SP000014135	PG-SSO-4

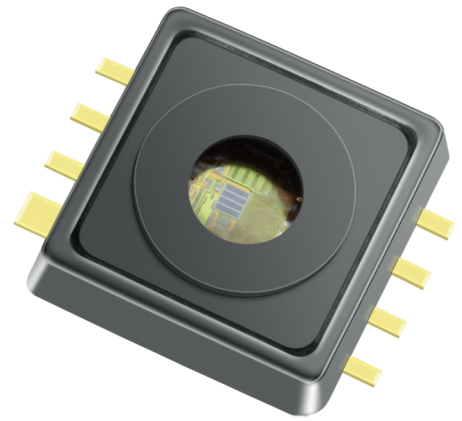
Product collaterals / Online support

[Product brief](#)
[XENSIV™ pocket guide](#)
[XENSIV™ selection guide](#)

KP276x - XENSIV™ Turbo MAP with digital SENT interface

The manifold air pressure (MAP) is an important parameter to compute the airfuel ratio provided to the engine for lower emission due to better combustion and increased efficiency. In addition manifold pressure data can be used to compute diagnostics of leakages and malfunctions of the exhaust gas recirculation valve.

With an accuracy of 0.77%, the KP276 product family is the most accurate digital Turbo MAP sensor which enables customers to achieve the targets of new CO₂ legislative requirements. Protected against aggressive media like Iodine and EGR (exhaust gas recirculation), the KP276 guarantees high quality and long life time, even in harsh conditions. Using a SENT interface, the KP276 is easy to use and fast in communication. With an integrated NTC functionality the pressure sensor acts as a hub for an external NTC temperature sensor. So it's possible to have pressure and temperature signal on only one digital interface.



Features

- > Increased media robustness for current automotive requirements
- > Very high accuracy pressure sensing ($\pm 0.77\%$ FSS Full Scale Span)
- > Integrated signal processing for external temperature sensor
- > SENT protocol interface
- > Real 12-bit pressure resolution
- > Real 12-bit temperature resolution
- > Self-diagnosis features
- > "Green" 8 pin SMD housing
- > Automotive qualified

Qualification

- > Qualified according to AEC-Q100/101

Competitive advantage

- > Enabling very precise pressure measurement to achieve CO₂ and HC emission targets of new legislative requirements
- > Faster temperature and pressure measurement to achieve e
- > Right fit for applications with very harsh media conditions
- > Only three application pins need to be connected (VDD, GND, SENT)

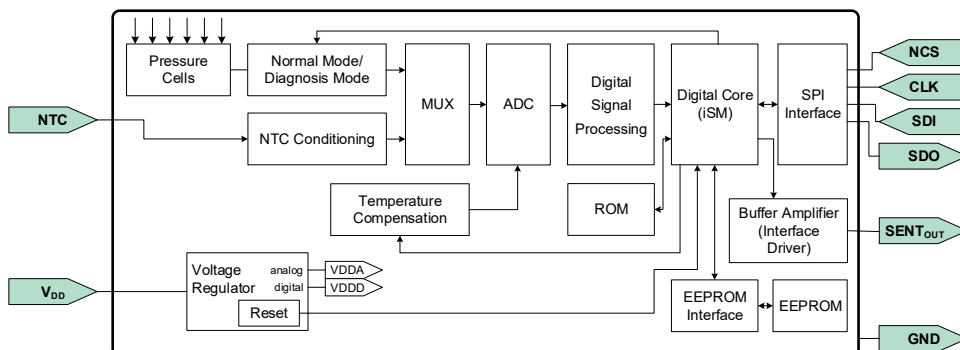
Benefits

- > Very high pressure accuracy leads to the fulfillment of CO₂ and HC emission targets of new legislative requirements
- > Updated SENT protocol with a shorter frame length of 282 clock ticks for faster temperature and pressure measurement and in order to achieve e.g. outstanding combustion performance
- > Improved NTC start-up time (typ. 10ms) which enables the possibility to earlier achieve CO₂ and HC emission targets of new legislative requirements during start-up
- > Very high media robustness which is the right fit for applications with very harsh media requirements

Target applications

- > EGR (Exhaust Gas Recirculation)
- > MAP/TMAP (Manifold Air Pressure)
- > ORVR (Onboard Refueling Vapor Recovery)
- > NGV (Natural Gas Vehicle)
- > DPF (Diesel Particulate Filter)
- > GPF (Gasoline Particulate Filter)
- > Industrial control
- > Consumer applications
- > Medical applications

Block diagram PK276



Product overview incl. data sheet link

OPN	SP Number	Package
KP276A1201XTMA1	SP002627796	PG-DSOF-8
KP276C1505XTMA1	SP002167802	PG-DSOF-8

Product collaterals / Online support

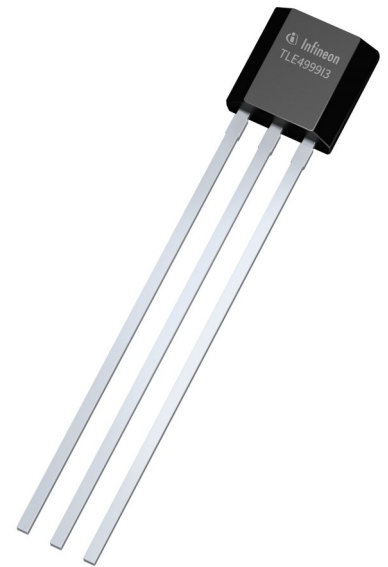
[Product page KP276A](#)
[Product page KP276C](#)
[XENSIV™ pocket guide](#)
[XENSIV™ selection guide](#)

TLE4999I3 - XENSIV™ dual channel linear Hall sensor

Infineon's latest linear Hall sensor TLE4999I3 is a dual channel linear Hall sensor designed to meet the requirements of safety critical automotive applications such as electric power steering, electronic throttle control, pedals and industrial applications.

Our XENSIV™ TLE4999I3 provides all means that are necessary to fulfill the state-of-the-art functional safety requirements on system level. It is developed in full compliance with ISO 26262. The device provides high redundancy on one chip by means of two sensor elements included within one monolithic silicon design. The two diverse Hall sensor elements („main” and „sub”) have internally separated signal paths within the chip. A plausibility check secures the high diagnostic coverage required for premium functional safety compliant systems up to ASIL-D.

With two selectable magnetic ranges $\pm 12.5\text{mT}$ and $\pm 25\text{mT}$ the TLE4999I3 enables very cost-efficient systems as customers can use less powerful and thus more economical magnets. A variety of configuration parameters can be programmed after assembly of the sensor in a module during an end-of-line calibration procedure by means of the two - wire SICI for application dependent adjustments.



Features

- > ISO 26262 Compliant development flow, supporting up to ASIL D (system level)
- > Two sensor cells in one package
- > Magnetic field range: $\pm 12.5\text{mT}$ – $\pm 25\text{mT}$
- > PSI5 protocol V2.1
- > PG-SSO-3 package

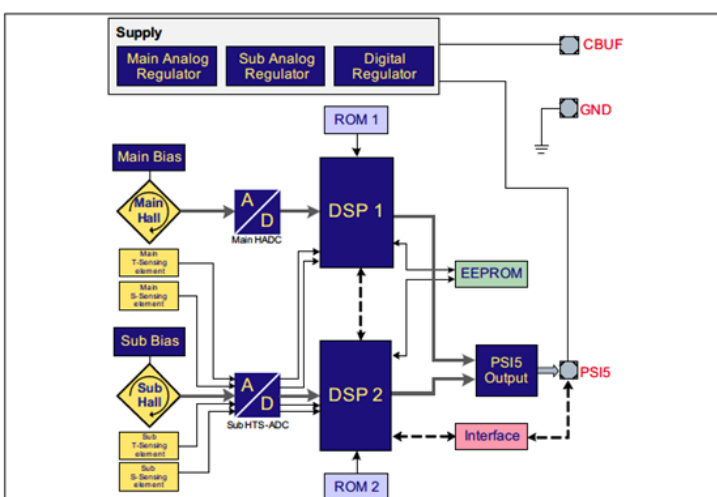
Competitive advantage

- > Full ISO 26262 compliancy
- > Fast PSI5 protocol with low EMC and minimum wiring saves development and production costs
- > Sub 2% over life time drift and temperature sensitivity
- > Optimized package for remote application in harsh environment conditions

Benefits

- > Supports ASIL-D systems enable for high-availability systems, for instance Electric Power Steering
- > Cost benefit: Smaller form factor in application save costs
- > Cost Benefit: Use of ferrite based magnets instead of rare earth magnets, smaller and cheaper magnets save space and costs
- > 189 kbaud in combination with 2 sensor cells enables high data rate that are required in applications like autonomous driving
- > Leaded package enables for flexible use in remote sensor applications, save PCB costs
- > Infineon quality programs achieves low dpm (defects per millions) rates. This saves cost for failure returns during production and in the field

Block diagram



Product overview incl. data sheet link

OPN	SP Number	Package
TLE4999I3XALA1	SP001689862	PG-SSO-3

Qualification

- > Qualified according to AEC-Q100

Target applications

- > Brake and acceleration pedals
- > Valve or flap position sensing
- > Steering torque sensing
- > High-Speed applications
- > Automotive and Industrial Safety

Product collaterals / Online support

- > [Product page](#)
- > [Product family page](#)

CoolSiC™ MOSFET in Easy 1B, 2B for EV charging

F4-23MR12W1M1_B11 and F3L15MR12W2M1_B69

Combining the strengths of two great Infineon products: the Easy package, a benchmark in low stray inductance and the 1200 V CoolSiC™ MOSFET enables customers to significantly reduce their system and operational costs.

With regard to topology, these products meet the demand for EV charging applications such as high-frequency operation and large output variation of the DC-DC power stage.



Features

- > CoolSiC™ MOSFET in Easy package for lowest stray inductance
- > Superior gate-oxide reliability
- > Enables higher f_{sw} operation due to nearly 80% lower switching losses compared to Si
- > Intrinsic diode with low reverse-recovery charge
- > Highest threshold voltage of $V_{th} > 4\text{ V}$
- > Multiple switches in the small Easy package for a very compact solution
- > CoolSiC™ MOSFET as an addition to Infineon's extensive chip portfolio

Benefits

- > Operation at higher switching speeds up to 50 kV/μs
- > Longer lifetime of converter system
- > Reduced system and operational costs due to high efficiency and reduced cooling effort
- > Increased power density
- > Highest robustness against parasitic turn-on
- > Easier system integration and reduction of manufacturing effort
- > Optimized hybrid module solutions for individual converter topologies

Competitive advantage

- > Flexibility for inverter designs due to different available topologies

Target applications

- > EV-Charging

Diagram



Product overview incl. data sheet link

OPN	SP Number	Package
F423MR12W1M1B11BOMA1	SP001710600	AG-
F3L15MR12W2M1B69BOMA1	SP001710612	AG-EASY2BM-2

Product collaterals / Online support

Product page [F4-23MR12W1M1_B11](#)

Product page [F3L15MR12W2M1_B69](#)

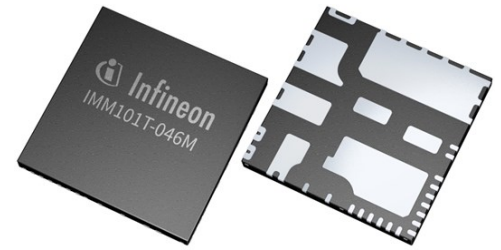
[Video](#)

Article [Electric Vehicle Fast Charging Challenges](#)

iMOTION™ IMM100 Smart IPM

iMOTION™ IMM100 is a series of Smart IPMs integrating controller, gate driver and six power stage MOSFETs. By integrating the Motion Control Engine (MCE 2.0) it offers a complete motor drive system in a compact 12 x 12 mm² surface mount package, minimizing external components count and PCB area.

On top of the motor control they integrate protection features such as over- and under-voltage, over-current, over-temperature and a rotor lock. IMM100 is the perfect fit for BLDC motors (Brushless DC) of up to 80 W without a heatsink. Typical applications are hair dryers, ceiling and air conditioner fans as well as pumps for dishwasher and washing machines.



Features

- > Integrated gate driver
- > Integrated power stage MOSFETs
- > Motion Control Engine (MCE 2.0)
- > Multiple protection features:
 - Over-and under- voltage
 - Over-current
 - Over-temperature
 - Motor gatekill/rotor lock
- > Flexible sensing options
- > Storage of motor parameters

Competitive advantage

- > Smallest footprint in a 12 x 12 mm² package
- > Efficient Motor Control Engine (MCE 2.0) algorithm allows for smaller PCBs and thus minimum BOM (Bill of Material)

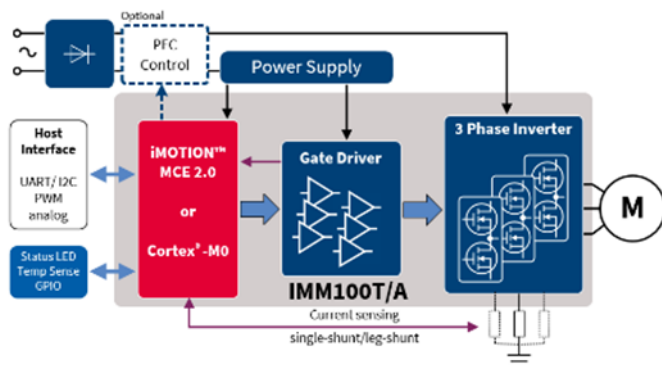
Benefits

- > Lower system cost by reducing BOM count and PCB size
- > Fast time-to-market by using iMOTION™ form-factor reference design kits which are very close to final customer design
- > Unique combination of multiple PMSM motor control algorithm options in the smallest Smart IPM on the market
- > Easy to use iMOTION™ design tools

Target Applications

- > Room air conditioners
- > Dishwasher
- > Fans
- > Pumps
- > Ceiling fan
- > Hair dryer

Block diagram



Product overview incl. data sheet link

OPN	SP Number	Package
IMM101T015MXUMA1	SP001792452	PG-IQFN-38
IMM101T046MXUMA1	SP001792460	PG-IQFN-38
IMM101T056MXUMA1	SP001792468	PG-IQFN-38
IMM102T015MXUMA1	SP001792476	PG-IQFN-38
IMM102T046MXUMA1	SP001792484	PG-IQFN-38
IMM102T056MXUMA1	SP001792492	PG-IQFN-38

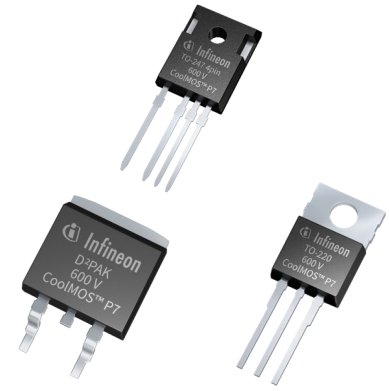
Product collaterals / Online support

[Product Brief](#)
[CIPOS™ Intelligent Power Modules \(IPM\) – Selection Guide](#)
[MCEWizard v2.2](#)
[MCEDesigner v2.2](#)
[Software Reference Manual](#)
[Application Note: How to use iMOTION™ Script Language](#)

600 V CoolMOS™ P7 SJ MOSFETs – portfolio extension

Optimized superjunction MOSFETs merging high energy efficiency with ease-of-use.

The 600 V CoolMOS™ P7 superjunction MOSFET is the successor to the 600 V CoolMOS™ P6 series. It continues to balance the need for high efficiency against the ease-of-use in the design process. The best-in-class R_{on} x A and the inherently low gate charge (QG) of the CoolMOS™ 7th generation platform ensure its high efficiency.



Features

- > Outstanding commutation ruggedness
- > Optimized balance between efficiency and ease of use
- > Significant reduction of switching and conduction losses
- > Excellent ESD robustness > 2 kV (HBM) for all products
- > Better $R_{DS(on)}$ package products compared to competition enabled by a low $R_{DS(on)}$ x A (below 1 Ω x mm²)
- > Large portfolio with granular $R_{DS(on)}$ selection qualified for a variety of industrial and consumer applications

Competitive advantage

- > Smallest footprint in a 12 x 12 mm² package
- > Efficient Motor Control Engine (MCE 2.0) algorithm allows for smaller PCBs and thus minimum BOM (Bill of Material)

Benefits

- > Suitable for hard and soft switching (PFC and LLC)
- > Ease of use and fast design-in through low ringing tendency and usage across PFC and PWM stages
- > Simplified thermal management due to low switching and conduction losses
- > Higher manufacturing quality due to > 2 kV ESD protection
- > Increased power density solutions enabled by using products with smaller footprint
- > Suitable for a wide variety of applications and power ranges

Target Applications

- > Charger
- > Adapter
- > Lighting
- > Solar
- > LSEV
- > Server

Product overview incl. web page link

OPN	SP Number	Package
IPA60R160P7XKSA1	SP001866014	PG-TO220-3
IPAN60R180P7SXKSA1	SP002367740	PG-TO220-3
IPAN60R280P7SXKSA1	SP001866076	PG-TO220-3
IPAN60R360P7SXKSA1	SP001866154	PG-TO220-3
IPAN60R600P7SXKSA1	SP001866160	PG-TO220-3
IPB60R045P7ATMA1	SP001866168	PG-TO263-3
IPP60R160P7XKSA1	SP001866174	PG-TO220-3
IPW60R024P7XKSA1	SP001866180	PG-TO247-3
IPW60R045P7XKSA1	SP001866186	PG-TO247-3
IPZA60R024P7XKSA1	SP001866192	PG-TO247-4
IPZA60R045P7XKSA1	SP001866198	PG-TO247-4

Product collaterals / Online support

[Product family page](#)
[Product brief](#)
[Application notes](#)
[Simulation models](#)
[Videos](#)

Infineon® Prime Block 60 mm

The Infineon® Prime Block 60 mm have been optimized regarding thermal resistance and they are qualified for higher operational temperatures to push their performance beyond current limits. The result is highest power density in same foot print and our well-known reliability, leading to outstanding lifetime.

The new 60 mm pressure contact modules in general provide best-in-class blocking stability.



Features

- > Best-in-class power density in standard 60 mm housing
- > Highest surge current in 60 mm housing
- > Short-on-fail capability
- > Best-in-class passivation

Target Applications

- > Motor Control and Drives
- > Industrial Heating and Welding
- > Uninterruptible power supply

Benefits

- > Avoid paralleling of modules and usage of 70 mm single modules
- > Higher short term overload
- > Arcing prevention allows simpler safety concept
- > High DC blocking capability

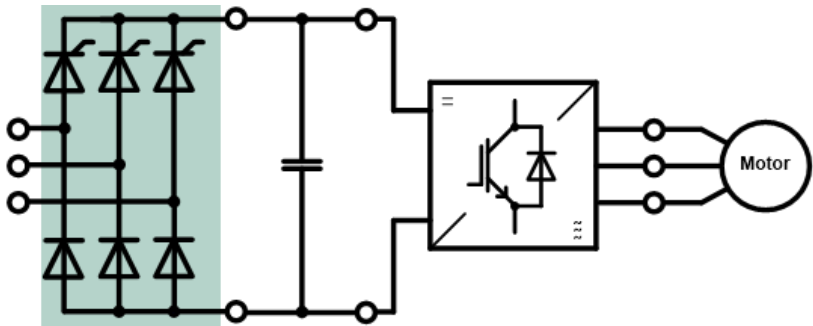
Competitive advantage

- > Highest power density

Qualification

- > Industrial

Diagram



Product overview incl. web page link

OPN	SP Number	Package
TT700N22KOFHPSA1	SP004691170	BG-PB60AT-1
TD700N22KOFHPSA1	SP002302522	BG-PB60AT-1
TT820N16KOFHPSA1	SP004691176	BG-PB60AT-1
TD820N16KOFHPSA1	SP002302516	BG-PB60AT-1

Product collaterals / Online support
[Product family page](#)
[Product selection guide](#)
[Product brief](#)

100 to 150 V StrongIRFET™ MOSFETs in TO-247

Infineon's latest 100-150 V StrongIRFET™ MOSFET devices are optimized for both high current and low $R_{DS(on)}$ making them the ideal solution for high power applications. The flagship IRF150P220 offers a 19 percent increase in current carrying capability and 54 percent lower $R_{DS(on)}$ when compared to previous generation devices leading to increased power density and reduction in I^2R losses.



Features

- > Very low $R_{DS(on)}$
- > High current carrying capability
- > 175°C operating temperature
- > Industry standard footprint
- > Product validation according to JEDEC standard
- > Optimized for broadest availability from distribution partners

Benefits

- > Low conduction losses
- > High power density
- > Higher reliability compared to 150°C rated devices
- > Accommodate legacy designs

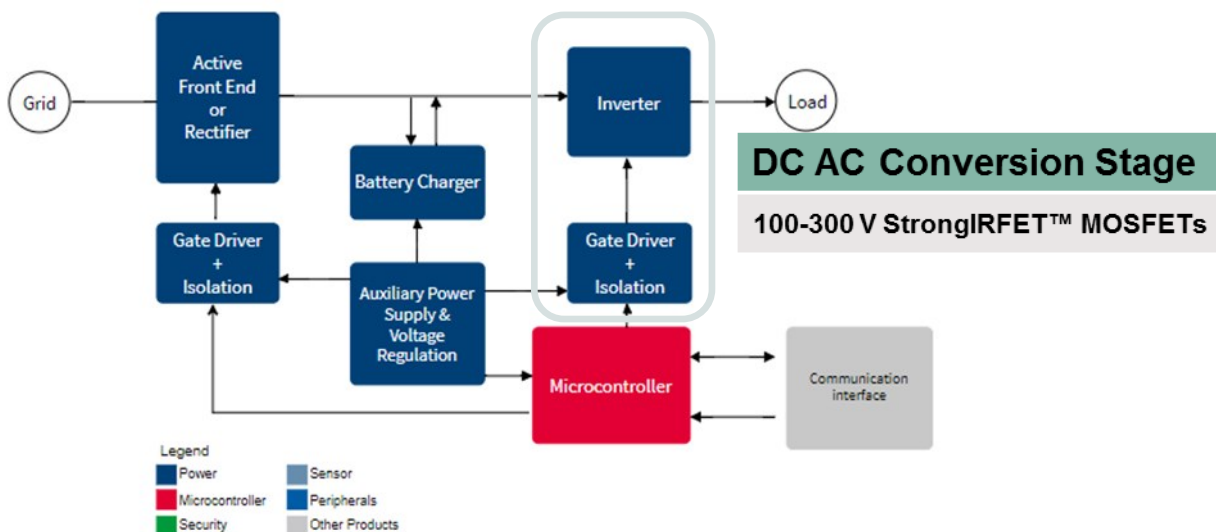
Target Applications

- > Uninterruptible power supply (UPS)
- > Solar power inverter
- > Class D audio amplifier
- > Switched mode power supply (SMPS)
- > Brushed and BLDC motor drive
- > Battery powered circuits

Competitive advantage

- > Lowest $R_{DS(on)}$ in its class
- > Highest current carrying capability
- > Best in class $R_{DS(on)} \times Q_g$ figure of merit (FOM)

Application diagram: UPS 10 kVA to 50 kVA



Product overview incl. web page link

OPN	SP Number	Package
IRF100P218XKMA1	SP001619550	PG-TO247-3
IRF100P219XKMA1	SP001619552	PG-TO247-3
IRF150P220XKMA1	SP001621154	PG-TO247-3
IRF150P221XKMA1	SP001621156	PG-TO247-3

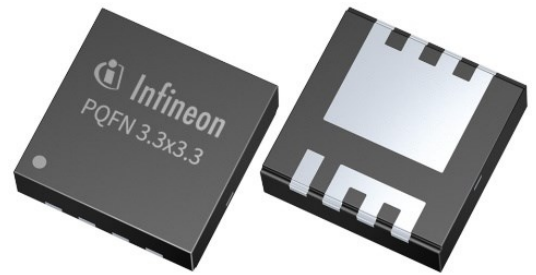
Product collaterals / Online support

[Product brief](#)
[Product selection guide](#)

OptiMOS™ 5/6 25 V, 40 V and 60 V MOSFETs in PQFN 3.3 x 3.3

With the innovation and best-in-class performance at the heart of Infineon, we are rendering the supply of outstanding products to the marketplace. By expanding the current product portfolio with new best-in-class OptiMOS™ 5 and 6 products in 25 V, 40 V and 60 V. Once again, Infineon is setting new standards in MOSFET on-state resistance ($R_{DS(on)}$) and switching performance in a small 3.3 x 3.3 mm footprint. Infineon is thriving to improve the product with the system in mind, by combining leading edge silicon technology with ever improving packaging innovation.

The new OptiMOS™ devices are a perfect fit for enhanced efficiency and power density solutions such as synchronous rectification in switched mode power supplies (SMPS) for telecom bricks and server applications and portable chargers. In addition, the portfolio includes an optimized device with industry lowest ($R_{DS(on)}$) (0.9 mΩ at $V_{GS}=10$ V). targeting mainly Or-ing circuits.



Features

- > Very low on-resistance $R_{DS(on)}$
- > 100% avalanche tested
- > Superior thermal resistance
- > N-channel
- > Pb-free lead plating; RoHS compliant
- > Halogen-free according to IEC61249-2-21

Benefits

- > Low conduction losses without increased gate charges
- > Lower operating temperature
- > Highest flexibility for PCB routing
- > Low drive voltage possible

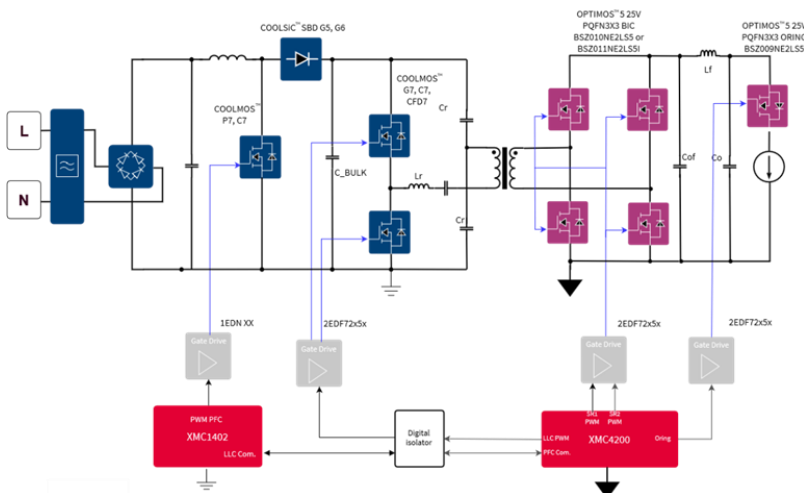
Competitive advantage

- > Best $R_{DS(ON)}$ on the market in the PQFN 3.3x3.3
- > Ultra small parasitics for efficient switching
- > Ultra small $V_{GS(TH)}$ value spread

Target applications

- > SMPS
- > Server
- > Telecom DC-DC converters
- > Portable chargers
- > Or-ing switches

Application diagram



Product overview incl. data sheet link

OPN	SP Number	Package
BSZ009NE2LS5ATMA1	SP002103848	PG-TSDSON-8
BSZ010NE2LS5ATMA1	SP002103858	PG-TSDSON-8
BSZ011NE2LS5IATMA1	SP001730810	PG-TSDSON-8
BSZ018N04LS6ATMA1	SP002116668	PG-TSDSON-8
BSZ037N06LS5ATMA1	SP002035218	PG-TSDSON-8
BSZ039N06NSATMA1	SP002035226	PG-TSDSON-8

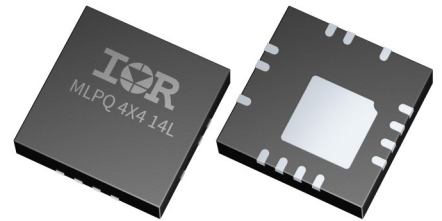
Product collaterals / Online support

- > [Product family page](#)
- > [Product brief](#)
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- > [Simulation models](#)

IRS200x - 200 V half - bridge gate driver

Infineon offers a complete family of 200 V gate driver ICs tailored for low voltage (24 V, 36 V and 48 V) and mid-voltage (60 V, 80 V and 100 V) motor drive applications. These MOSFET drivers provide full driver capability with fast switching speeds, designed-in ruggedness, and low power dissipation.

The new IRS2007M and IRS2008M are offered in VQFN-14 package, and standard pin-out configurations with various logic input options for high design flexibility and fast time-to-market.

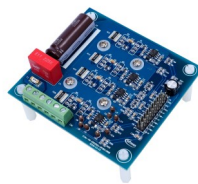


Features

- > Fully operational to + 200 V offset voltage
- > 290 / 600 ma sink/source current
- > Gate drive supplies up to 20 V per channel
- > Under-voltage lockout for VCC, VBS
- > Tolerant to negative transient voltage
- > Designed for use with bootstrap power supplies
- > Cross-conduction prevention logic
- > Matched propagation delay for both channels
- > Internal set dead time
- > 2 kV HBM ESD, VQFN-14 package

Evaluation board: [EVALPSIRS200XTBO1](#)

Stepper motor evaluation board for 200 V half-bridge/
high side and low side level shift gate driver
IRS2005S/IRS2007S/IRS2008S



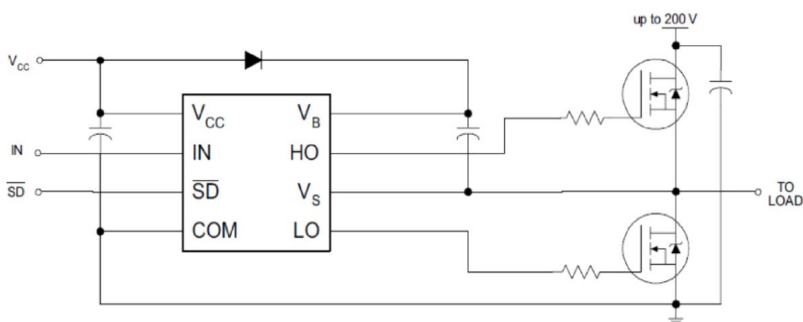
Benefits

- > Space saving package, reduced BOM cost, smaller PCB at lower cost with simpler design
- > Protection under abnormal operation, ensure reliable start-up operation
- > Easy-to-use, straight-forward design
- > Improved energy efficiency
- > Fast and reliable switching

Target applications

- > Hand-held battery power tools
- > Outdoor power equipment – battery powered garden tools
- > Multi-copters and drones
- > Service robots
- > Servo motor drives
- > Stepper motor drives
- > Wireless charging
- > Light electric vehicles
- > Automated guided vehicles
- > Logistics vehicles
- > Solar micro-inverters and power optimizers

Diagram



Product overview incl. product page link

OPN	SP Number	Package
IRS2007MTRPBFAUMA1	SP005255458	PG-VQFN-14
IRS2008MTRPBFAUMA1	SP005259966	PG-VQFN-14

Product collaterals / Online support

- > [Product page IRS2007](#)
- > [Product page IRS2008](#)
- > [Product brief](#)
- > [Video](#)

PVX6012 – 280 VACrms or 400 VDC solid state relay

The PVX6012 photovoltaic relay is a single-pole, normally-open solid-state relay (SSR) in a modified 14-pin DIP package. It can replace electro-mechanical relays in a wide variety of applications from industrial automation and controls to automatic test equipment.

With a load voltage rating of 280 VACrms or 400 VDC and a load current rating of 1 A, the PVX6012 is ideally suited for switching medium power loads. In addition to the intrinsic advantages of SSRs such as high reliability, long life, insensitivity to normal levels of shock and vibration, it offers high operating speed, low and stable on-state voltage drop as well as low off-state leakage current.



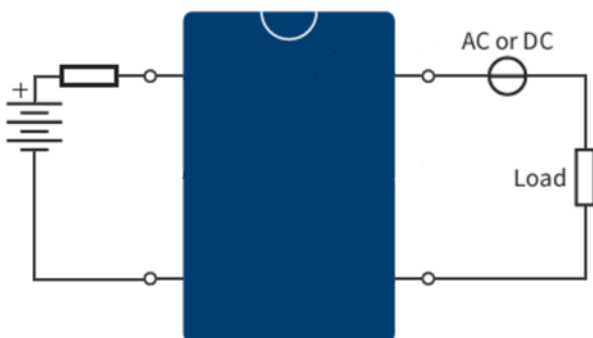
Features

- > 600 Vp blocking voltage
- > High-voltage operation – up to 280 VACrms or 400 VDC
- > High load-current switching capability – 1 A at 25°C or 400 mA at 85°C
- > Input-to-output isolation rating of 3750 Vrms
- > High reliability with extended operational life due to solid state construction
- > High input sensitivity
- > Silent operation and fast response time
- > Insensitive to normal levels of shock and vibration
- > Insensitive to stray EMF and don't generate any EMI
- > UL508 recognized compact solution in PDIP-14 package

Benefits

- > AC / DC switching capability
- > Lower power consumption compared to electro-mechanical relays (EMRs) and triac-based SSRs
- > Faster switching compared to EMRs
- > Can be used in combustible environments
- > Lower cost-of-use over application lifetime compared to EMRs
- > Ideal for applications requiring silent operation

Diagram



Target applications

- > Industrial controls and automation including PLCs
- > Test equipment
- > Security equipment
- > Motor control
- > Robotics
- > Home appliances e.g. air conditioners
- > Meters (water, gas, electricity)

Product overview incl. data sheet link

OPN	SP Number	Package
PVX6012PBE	SP001543656	DIP14

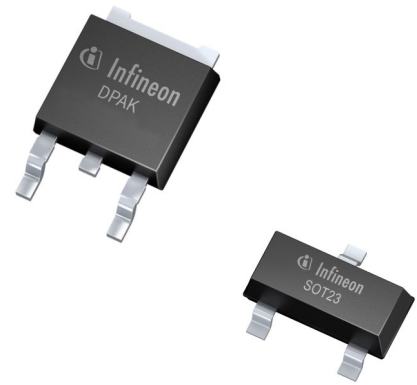
Product collaterals / Online support

- > [Product page](#)
- > [Application note](#)
- > [Product brief](#)

OptiMOS™ 5 P-Channel power MOSFET 60 V

OptiMOS™ P-channel MOSFETs 60V represents the new technology targeted for battery management, load switch and reverse polarity protection applications and consumer applications.

The main advantage of a P-channel device is the reduction of design complexity in medium and low power applications. Its easy interface to MCU, fast switching as well as avalanche ruggedness makes it suitable for high quality demanding applications. It is available in normal and logic level featuring a wide $R_{DS(on)}$ range and improves efficiency at low loads due to low Q_g .



Features

- > Most products qualified to AEC Q101
- > $V_{DS} = -60\text{ V}$
- > Wide $R_{DS(on)}$ range
- > Normal Level and Logic Level availability

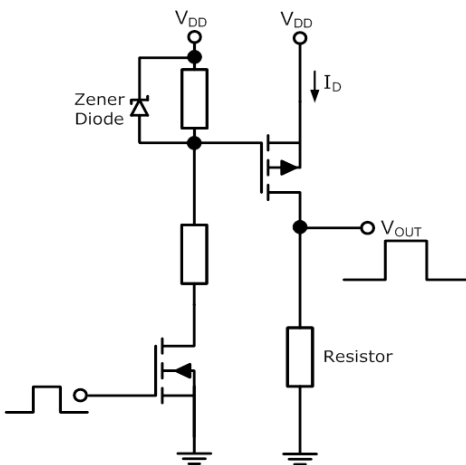
Benefits

- > Easy interface to MCU
- > Improved efficiency at low loads due to low Q_g
- > Fast switching

Qualification

- > Automotive qualified Q100

Diagram : P-channel MOSFET



Competitive advantage

- > Suitable for automotive and high quality demanding applications

Target applications

- > Battery
- > Consumer
- > Industrial automation
- > Industrial drives

Product overview incl. data sheet link

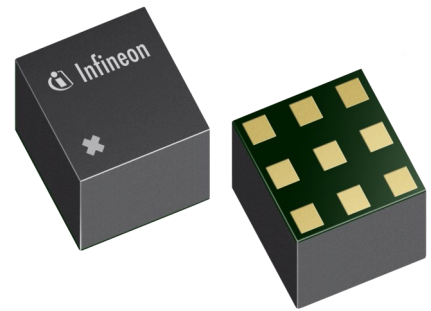
OPN	SP Number	Package
IPB110P06LMATMA1	SP004987252	D ² PAK
IPD380P06NMATMA1	SP004987254	DPAK
IPD650P06NMATMA1	SP004987256	DPAK
IPD900P06NMATMA1	SP004987258	DPAK
IPD25DP06LMATMA1	SP004987260	DPAK
IPD25DP06NMATMA1	SP004987262	DPAK
IPD40DP06NMATMA1	SP004987264	DPAK
ISP650P06NMXTSA1	SP004987266	SOT-223
ISP12DP06NMXTSA1	SP004987268	SOT-223
ISP25DP06LMXTSA1	SP004987270	SOT-223
ISP25DP06NMXTSA1	SP004987272	SOT-223
ISP75DP06LMXTSA1	SP004987274	SOT-223
ISS17EP06LMXTSA1	SP004987276	SOT-23
ISS55EP06LMXTSA1	SP004987278	SOT-23

Product collaterals / Online support

- > [Product family page](#)

BGS12WN6 & BGS14WMA9 - wideband diversity RF switches

Incorporating RF CMOS technology, BGS12WN6 and BGS14WMA9 are specifically designed for WLAN and Bluetooth applications optimizing the level of performance and design possibilities in fast switching applications. They can be also used in cellular systems (LTE, 5G) as termination of diversity antenna.



Features

- > Wideband support for sub-6GHz 5G cellular systems
- > Fast switching speed for Wi-Fi and Bluetooth applications
- > Best in class overall RF performance (IL, ISO)
- > Reduced supply voltage at operating ranges

Benefits

- > Optimizing Wi-Fi and Bluetooth applications' performance
- > Best connectivity performance reducing connectivity losses
- > Enabling higher battery lifetime of devices through lower supply voltage requirements

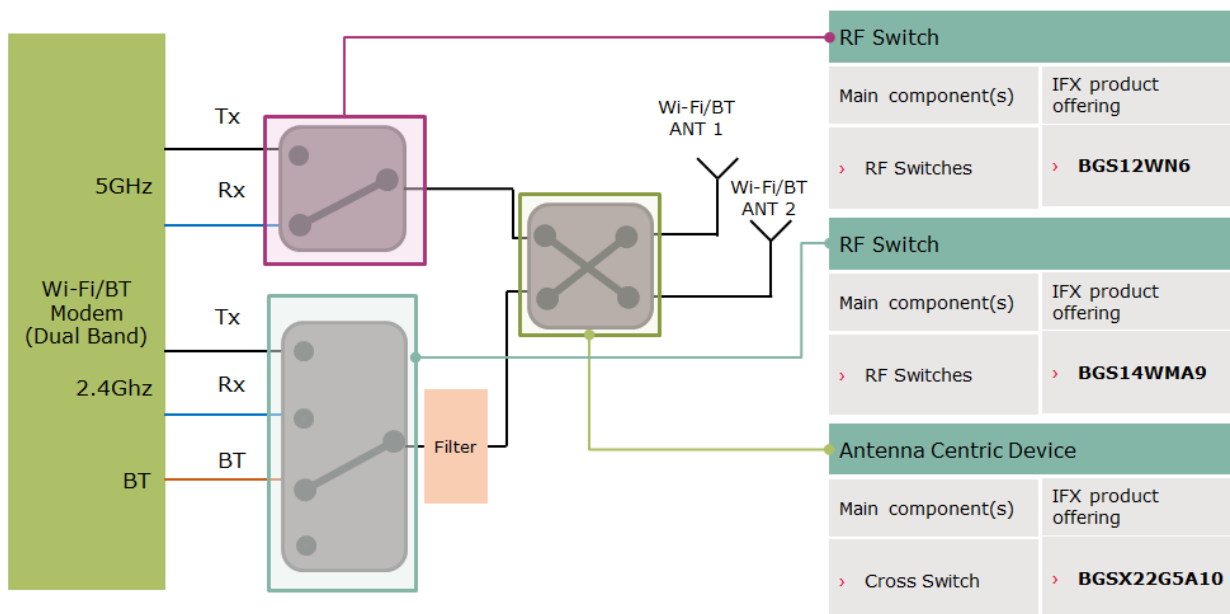
Target applications

- > Mobile cellular as termination of diversity antenna, LTE and 5G
- > Wi-Fi Tx/Rx and Bluetooth

Competitive advantage

- > Fast switching speed
- > Best-in-class insertion loss and isolation levels
- > Lowest supply voltage at operating levels

Application diagram - Wi-Fi generic system



Product overview incl. data sheet link

OPN	SP Number	Package
BGS12WN6E6327XTSA1	SP002203570	PG-TSNP-6
BGS14WMA9E6327XTSA1	SP002203566	PG-ATSLP-9

Product collaterals / Online support

- > [Product page BGS12WN6](#)
- > [Product page BGS14WMA9](#)