October 2025

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- EconoPIM™ 3 with 2,2 kV rectifier FP75R17N3E4_B20
- HybridPACK™ Drive G2
- OptiMOS™ 6 200 V MOSFETs
- OptiMOS™ 60 V power MOSFETs in PQFN 8x6
- StrongIRFET™ 2 power MOSFETs 30 V in D²PAK package
- XENSIV™ - TLE49SRS8D / TLE49SRC8D dual angle sensor
- Evaluation board EVAL_TDA38725A_xxVOUT
- Evaluation board EVAL_TDA38740A_xxVOUT
- Evaluation demoboard 1.0 Vout for IPOL single-output synchronous voltage
- EVAL-DCLINK-DPT capacitor board with safety discharge
- Evaluation board for 1ED3330MC12M
- XENSIV™ PAS CO2 5 V connected sensor kit

CoolSiC™ MOSFET G2 1400 V in TO-247PLUS-4 Reflow package

The CoolSiC™ MOSFET G2 1400 V in a TO-247PLUS-4 Reflow package is ideal for high-output power applications such as EV charging, ESS, CAV and other applications.

The CoolSiC™ MOSFET G2 1400 V technology is a cutting-edge technology offering improved thermal performance, increased power density and enhanced reliability. The package enables reflow soldering assembly (3x reflow soldering possible) enabling lower thermal resistance and supports high peak currents.

Features

- Very low switching losses
- Package backside suitable for reflow soldering at 260°C, three times
- Overload operation up to T_{vj} = 200°C
- Short circuit withstand time 2 µs
- Benchmark gate threshold voltage, $V_{GS(th)}$ = 4.2 V
- Robust against parasitic turn on, 0 V turn-off gate voltage can be applied
- Robust body diode for hard commutation
- .XT interconnection technology for best-in-class thermal performance
- Wide power pins (2 mm) for high current capability
- Resistive weldable pins for direct busbar connections
- TO-247PLUS package with high creepage distance 10.8 mm and CTI ≥ 600 V

Benefits

- Increased power density
- Increased system output power
- Improved overall efficiency
- Robustness against transient overloads, avalanche condition and Miller effect
- Ease of system design against overcurrent events
- Easy paralleling

Competitive advantage

- Enabling designs above 1000 V
- Reflow soldering assembly: lower thermal resistance
- For applications with an upper limit of 1000 volts: sufficient voltage margins for faster switching at high peak currents
- Its high-power density allows reducing the overall system size

Target applications

- Commercial, construction and agricultural vehicles (CAV)
- EV Charging
- Energy storage systems (ESS)
- Online UPS / Industrial UPS
- String inverter
- General purpose drives (GPD)

Product collaterals / Online support

Product pages:

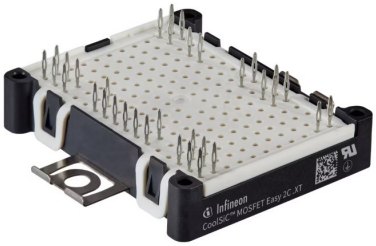
- IMYR140R008M2HXLSA1
- IMYR140R019M2HXLSA1

Product overview incl. datasheet link

OPN	SP Number	Package
IMYR140R008M2HXLSA1	SP005931434	PG-TO247-4
IMYR140R019M2HXLSA1	SP005962804	PG-TO247-4

Easy C-series with .XT and SiC MOSFET 1200 V Gen 2

EasyPACK™ 2C 1200 V 8 mΩ 3-level module, EasyPACK™ 2C 1200 V 8 mΩ fourpack module and EasyPACK™ 1C 1200 V 13 mΩ fourpack module with CoolSiC™ MOSFET generation M2, integrated NTC temperature sensor, high current PressFIT contact technology and pre-applied thermal interface material 2.0.



Features

- Improved package concept
- Innovative extended lifetime (.XT) interconnection technology
- Newest CoolSiC™ M2 chip technology
- High current PressFIT pins
- Integrated NTC temperature sensor
- Overload conditions up to $T_{vj\ over}$ = 200°C
- Enlarged gate-source voltage window
- New thermal interface material TIM 2.0

Benefits

- Outstanding module efficiency
- System efficiency improvement
- Enhanced lifetime
- High temperature withstand capability
- Reduction of static losses
- Compact design
- Full combability to EasyPACK™ B Series

Competitive advantage

- The new Easy C-Series modules are the next generation of our Easy portfolio and serves as a perfect fit if you are looking for higher efficiency, higher power density and an easy integration
- The CoolSiC™ MOSFET M2 comes with an improved module assembly and the .XT (extended lifetime) interconnection technology. It offers a much better power cycling capability than standard interconnection technology for best long-term performance

Target applications

- DC-DC Converter
- EV Charging

Product collaterals / Online support

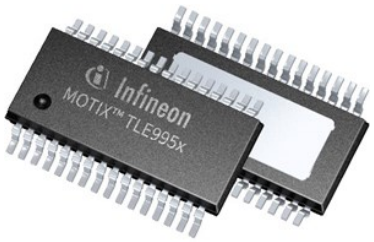
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
F413MXTR12C1M2H11BPSA1	SP006022175	AG-EASY1C-3211
F413MXTR12C1M2QH11BPSA1	SP006096036	AG-EASY1C-3211
F3L8MXTR12C2M2H11BPSA1	SP006020081	AG-EASY2C-3211
F3L8MXTR12C2M2QH11BPSA1	SP006082728	AG-EASY2C-3211
F48MXTR12C2M2H11BPSA1	SP006020085	AG-EASY2C-3211
F48MXTR12C2M2QH11BPSA1	SP006088082	AG-EASY2C-3211

MOTIX™ TLE995x 32-bit motor control SoCs

MOTIX™ MCU TLE995x is a single-chip 3-phase motor driver for compact, safe, and cost-effective BLDC motor control applications up to 700 W. The products are based on Arm® Cortex®-M23 and support Field Oriented Control (FOC). The integrated CCU7 enables flexible PWM generation, while automatic LIN message handling using LINUART significantly reduces CPU workload. Furthermore, the TLE995x system-on-chip (SoC) is ISO 26262 compliant (ASIL B) and integrates Arm® TrustZone®.



Features

- 32-bit Arm® Cortex®-M23 core, 40 MHz
- 72 kB flash, 6 kB RAM
- Integrated LIN transceiver, voltage switch for external sensor supply, 12-bit ADC
- Single power supply from 5.5 V to 29 V
- 1 current sense amplifier with low settle time and high accuracy
- AEC-Q100 (Grade 0) automotive-qualified
- ISO 26262 compliant (ASIL B)
- Arm® TrustZone®

Benefits

- Small PCB size with compact design
- System cost saving through integration
- ASIL B certified safe motor operation
- Optimized motor control derived by improved peripherals
- Motor control evaluation SW and tools
- End-to-end motor control solution provider MOTEON
- Certified LIN driver and support from IHR

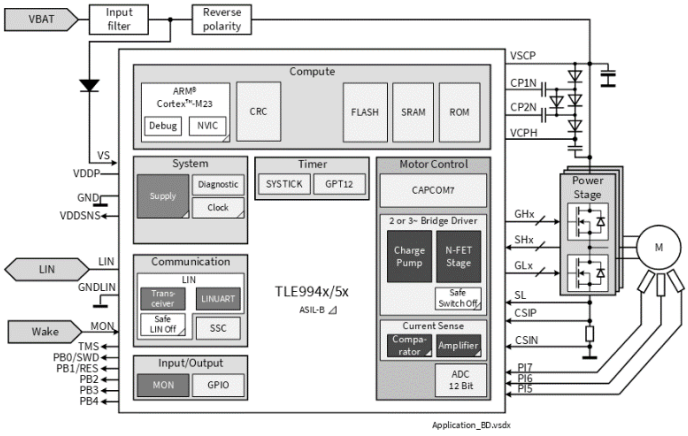
Competitive advantage

- MOTIX™ TLE995x is a compact SoC, featuring FOC capability and a seamless design-in experience at a very competitive price level

Target applications

- Water pump
- Cooling fan
- HVAC blower
- Oil pump
- Seat adjustment

Block diagram



Product collaterals / Online support

Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
TLE9954EQA40XUMA1	SP006012641	PG-TSDSO-32
TLE9954EQW40XUMA1	SP006012645	PG-TSDSO-32
TLE995XEVALBOARDTOBO1	SP006114152	L-MADK-1
TLE995XEVALKITTOBO1	SP006143050	L-MADK-1

CoolSET™ Fixed Frequency G5 Plus in DSO-12 package

The ICE5xRxxxxAG-1 is the CoolSET™ 5th Generation Fixed Frequency Plus of integrated power IC optimized for off-line switch mode power supply in cascode configuration. The CoolSET™ package has 2 separate chips inside; one is controller chip and the other is a 700 V / 800 V / 950 V CoolMOS™ chip. The cascode configuration helps achieve fast startup. The frequency reduction with soft gate driving and frequency jitter operation offer lower EMI and better efficiency. The selectable entry and exit standby power ABM enables flexibility and ultra-low power consumption at standby mode with small and controllable output voltage ripple.

Features

- Integrated 700 V / 800 V / 950 V avalanche rugged CoolMOS™
- Active burst mode with selectable entry and exit standby power to reach the lowest standby power < 100 mW
- Frequency reduction for better overall system efficiency
- Frequency jitter and soft gate driving for low EMI
- Integrated error amplifier to support direct feedback in non-isolated flyback topologies
- Increased pin voltage rating for ease of system design
- Selectable over temperature protection threshold
- Pin to Pin with its previous G5 family

Benefits

- Support both isolated and non-isolated flyback topologies
- Integrate the latest generation of 700 V, 800 V and 950 V CoolMOS™ superjunction in DSO-12
- Power delivery up to 42 W (at 85 - 300 VAC)
- 65 kHz, 100 kHz and 125 kHz maximum switching frequency
- Improvement in device robustness

Competitive advantage

- Comprehensive protection features, covering system input and output
- Higher V_{CC} max voltage rating (35 V) and V_{ERR}/FB max voltage rating (5.5 V): improved absolute max ratings for higher robustness
- Integrate avalanche rugged CoolMOS™ P7
- Highly integrated protection features
- Integrated error amplifier reduces extra component counts for PSR or non-isolated application

Target applications

- Consumer
- AUX power
- Washing machine
- Aircon
- Fridge
- Server
- Home and building automation
- Industrial

Product collaterals / Online support

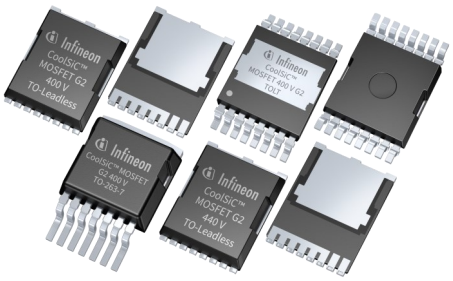
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
ICE5AR4770AG1XUMA1	SP005959829	PG-DSO-12
ICE5GR4780AG1XUMA1	SP005960065	PG-DSO-12
ICE5GR2280AG1XUMA1	SP005960073	PG-DSO-12
ICE5GR1680AG1XUMA1	SP005960076	PG-DSO-12
ICE5BR4780AG1XUMA1	SP006136473	PG-DSO-12
ICE5BR3995AG1XUMA1	SP006136475	PG-DSO-12

CoolSiC™ MOSFET 400 V and 440 V Generation 2

The CoolSiC™ MOSFET 400 V and 440 V G2 combines high robustness with ultra-low switching losses and on-state resistance, whilst offering system cost improvements. The 400 V and 440 V SiC MOSFET delivers an outstanding level of power density and system efficiency in 2 and 3-level hard and soft-switching topologies and targets power conversion in AI Server PSU, SMPS, motor control, renewables and energy storage, and Class-D amplifiers.



Features

- Better FOMs compared to 650 V SiC MOSFETs
- Fast commutation robust diode with low Qfr
- Low $R_{DS(on)}$ temperature dependency
- Gate threshold voltage, $V_{GS(th)}$ = 4.5 V
- Support for unipolar driving (V_{GS}off = 0)
- 100% avalanche tested
- High controllability of switching speed
- Low overshoot during high dV/dt operation
- .XT interconnection technology

Benefits

- High system efficiency
- High power density designs
- High design robustness
- Reduced EMI filtering
- Use in hard-switching topologies

Competitive advantage

- Enabling the adoption of innovative topologies (e.g. 3L PFC, ANPC)

Target applications

- AI Server PSU
- SMPS
- Motor control
- Light electric vehicles
- Forklift
- eAviation

Product collaterals / Online support

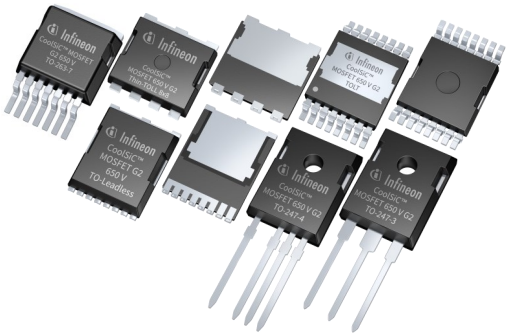
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IMW40R011M2HXKSA1	SP006021005	PG-TO247-3
IMZA40R011M2HXKSA1	SP006021008	PG-TO247-4
IMW40R015M2HXKSA1	SP006021011	PG-TO247-3
IMZA40R015M2HXKSA1	SP006021014	PG-TO247-4
IMW40R025M2HXKSA1	SP006021020	PG-TO247-3
IMZA40R025M2HXKSA1	SP006021023	PG-TO247-4
IMW40R036M2HXKSA1	SP006021029	PG-TO247-3
IMZA40R036M2HXKSA1	SP006021032	PG-TO247-4
IMLT40R045M2HXTMA1	SP006137771	PG-HDSOP-16
IMLT40R036M2HXTMA1	SP006138192	PG-HDSOP-16
IMLT40R025M2HXTMA1	SP006138199	PG-HDSOP-16
IMLT40R015M2HXTMA1	SP006138208	PG-HDSOP-16
IMLT40R011M2HXTMA1	SP006138249	PG-HDSOP-16
IMW40R045M2HXKSA1	SP006138255	PG-TO247-3
IMZA40R045M2HXKSA1	SP006138260	PG-TO247-4
IMT44R011M2HXTMA2	SP006157635	PG-HSOF-8
IMT44R015M2HXTMA2	SP006157636	PG-HSOF-8
IMT44R025M2HXTMA2	SP006157637	PG-HSOF-8

CoolSiC™ MOSFET 650 V Generation 2, 75 mΩ addition

The CoolSiC™ G2 builds on the strong Generation 1 of trench SiC MOSFETs, offering improved performance, more flexibility and more robustness to secure the system price-performance leap, reaching top levels in terms of efficiency, high frequency switching and reliability in both hard and soft switching topologies.



Features

- Excellent figures-of-merit (FOMs)
- Best in class $R_{DS(on)}$
- High robustness and overall quality
- Flexible driving voltage range
- Support for unipolar driving ($V_{GS,off}$ = 0)
- Lower thermal resistance
- Improved package interconnect with .XT
- Top and bottom side cooling
- TOLL: pin-to-pin compatible with all 8x8 FETs

Benefits

- Enables BOM savings
- Maximizes the system performance per $
- Highest reliability
- Enables top efficiency and power density
- Simplifies assembly and cooling
- Water cooling "ready"
- Allows designs without fan or heatsink
- Lower stray inductances
- Better gate control

Competitive advantage

- TOLL supersedes D2PAK, TO247 and TO220 with outstanding reliability and enables maximal power density in the most demanding high power applications
- TOLT top-side cooling is ideal for liquid cooling and complementing to Q-DPAK with the same 2,3 mm height

Target applications

- 1-phase string inverter solutions
- Energy storage systems
- Telecom SMPS
- Edge SMPS
- Server SMPS
- TV SMPS
- Humanoid charging
- Battery charging
- LEV
- eBike charging
- Drive
- Residential Aircon
- HVAC

Product collaterals / Online support

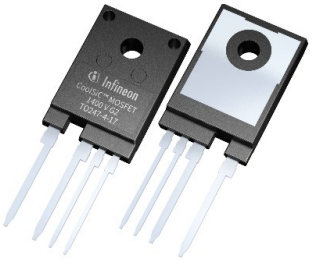
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IMBG65R075M2HXTMA1	SP006051146	PG-TO263-7
IMW65R075M2HXKSA1	SP006051137	PG-TO247-3
IMZA65R075M2HXKSA1	SP006051142	PG-TO247-4
IMLT65R075M2HXTMA1	SP005969469	PG-HDSOP-16
IMTA65R075M2HXTMA1	SP006051132	PG-LHSOF-4

CoolSiC™ MOSFET G2 1400 V in TO-247 4-pin package with high creepage

CoolSiC™ MOSFET G2 1400 V in TO-247 4-pin combines cutting-edge SiC technology with robust high-creepage package. It enables designs with bus voltages beyond 1000 V. For existing applications, it offers both additional voltage margin and enhanced reliability. Furthermore, it allows increased switching speed, leading to higher efficiency. Pin-to-pin compatible, it is suitable for PV, EV charging, ESS and many other industrial applications.



Features

- > V_{DSS} = 1400 V at T_{vj} = 25°C
- > $R_{DS(on)}$ = 11 mΩ at V_{GS} = 18 V, T_{vj} = 25°C
- > Very low switching losses for efficiency
- > Short circuit withstand time of 2 µs
- > Wider max V_{GS} range from -10 V to +25 V
- > Benchmark gate threshold voltage 4.2 V

Benefits

- > Higher power density
- > Improved overall system efficiency
- > Increased system output power
- > Enhanced cooling optimization
- > Ease of system design

Competitive advantage

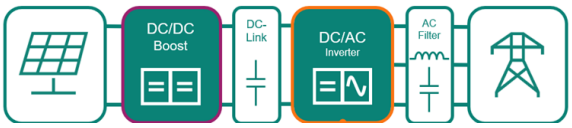
- > Enabling designs above 1000 V
- > Very reliable package with high creepage
- > Robustness against transient overloads
- > For applications with an upper limit of 1000 V: sufficient voltage margins for faster switching at high peak currents
- > Its high-power density allows reducing the overall system size

Target applications

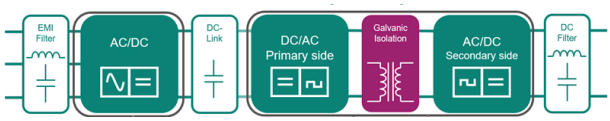
- > EV charging
- > Energy storage systems
- > String inverter
- > Uninterruptible power supplies (UPS)
- > General purpose motor drive

Block diagram

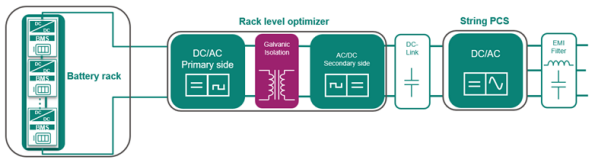
- > PV:



- > EV charging:



- > ESS:



Product collaterals / Online support

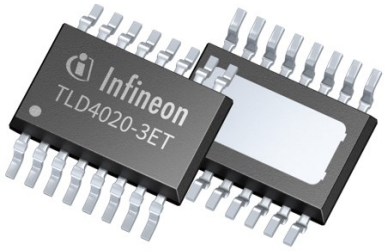
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IMZC140R019M2HXKSA1	SP006073595	PG-TO247-4
IMZC140R024M2HXKSA1	SP006073599	PG-TO247-4
IMZC140R029M2HXKSA1	SP006073601	PG-TO247-4
IMZC140R038M2HXKSA1	SP006113484	PG-TO247-4

First LITIX™ Interior product TLD4020-3ET

The TLD4020-3ET is an automotive LED driver with integrated and protected output stages. It is designed to control RGB LEDs with a current up to 51.5 mA as linear current sink (LCS). It comes with an integrated 32-Bit Arm® Cortex®-M23 MCU for optimal color calibration. Each individual power output stage is configurable via a 5-bit current set value. In total 3 independent and individual PWM configurations can be set. A LIN interface is used for programming control and diagnostic feedback.



Features

- Smallest leaded package (TFDSO-16)
- 3-channel driver (up to 51.5 mA each)
- LIN-Interface with LIN-Auto-Addressing
- 32-bit Arm® Cortex®-M23 core
- 32 kB on-chip Flash, 3 kB on-chip SRAM
- 576 Bytes 1000 TP on-chip memory
- 11-bit ADC with differential meas. 0-8 V
- PWM engine with 16-bit at 610Hz resolution
- Boot ROM for startup FW Flash routines
- On-chip oscillator
- Debug with 2-wire SWD
- 2 extra GPIOs

Benefits

- Easy to program a well-known MCU
- Maximal application flexibility
- Easy and stable software development
- Additional sense and control functions

Competitive advantage

- 32-Bit M23 Arm core for higher computing power
- 32 kB flash memory for sufficient capacity
- Best application software performance for color mixing
- Superiority in color mixing compared to competitors
- Higher efficiency compared to competitors

Target applications

- Contour lighting using a single light source with constant or slowly changing light patterns
- Functional and switch illumination
- Surface lighting requiring single LED

Product collaterals / Online support

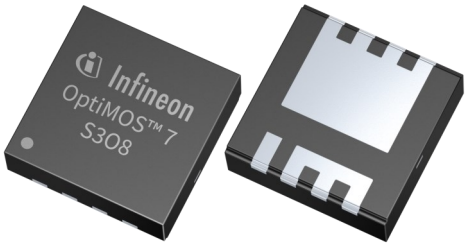
Product page

Product overview incl. datasheet link

OPN	SP Number	Package
TLD40203ETXUMA2	SP006120896	PG-TFDSO-16

OptiMOS™ 7 40 V S3O8 Automotive MOSFET

Infineon introduces a new high-current, low $R_{DS(on)}$ power MOSFET portfolio in a 3x3 mm² advanced leadless package with a Cu-clip for low package $R_{DS(on)}$ and minimal stray inductance. This enables high power density, low conduction losses and optimized switching behavior, with a reduced form factor compared to traditional leaded packages. With this, Infineon offers an ideal solution for many Automotive applications, such as power distribution, body control modules and electric motors.



Features

- Small 3x3 mm² footprint
- High 60 A current capability
- Leading-edge OptiMOS™ 7 40 V technology
- $R_{DS(on)}$ range: 1.2 mΩ – 4.9 mΩ
- Advanced leadless package with Cu-clip for low package $R_{DS(on)}$ and min. stray inductance
- High avalanche capability and SOA ruggedness

Benefits

- Highest power and current density
- High thermal capacity lead-frame package
- Reduced conduction losses
- Optimized switching behavior
- Reduced form factor compared to traditional leaded packages
- JEDEC industry standard package PG-TSDSON-8

Competitive advantage

- 3x3 mm² small footprint
- 60 A high current capability
- Leading-edge OptiMOS™ 7 40 V technology
- $R_{DS(on)}$ range down to 1.2 mΩ BiC
- Advanced leadless package with Cu-clip for very small and efficient system designs and minimal $R_{DS(on)}$, offering high power density, low conduction losses and optimized switching behavior with a reduced form factor

Target applications

- Power distribution
- Body control modules
- Window-lift
- Power-lift gate
- Power-seat
- Electric parking brake
- High redundancy EPS
- Small BLDC drives

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
IAUZN04S7L012ATMA1	SP006024823	PG-TSDSON-8
IAUZN04S7N013ATMA2	SP005927359	PG-TSDSON-8
IAUZN04S7L019ATMA1	SP006024827	PG-TSDSON-8
IAUZN04S7N020ATMA2	SP005927361	PG-TSDSON-8
IAUZN04S7L025ATMA1	SP006024831	PG-TSDSON-8
IAUZN04S7N026ATMA1	SP005831179	PG-TSDSON-8
IAUZN04S7L030ATMA1	SP006024835	PG-TSDSON-8
IAUZN04S7N032ATMA1	SP006024839	PG-TSDSON-8
IAUZN04S7L046ATMA1	SP005831208	PG-TSDSON-8
IAUZN04S7N049ATMA1	SP005979644	PG-TSDSON-8

EconoPIM™ 3 with 2,2 kV rectifier FP75R17N3E4_B20

The FP75R17N3E4_B20 is an EconoPIM™ 3 IGBT module with TRENCHSTOP™ IGBT4, Emitter Controlled 4 diode and NTC. The power integrated modules with integration of 2,2 kV rectifier and brake chopper enable system cost savings and is suited for 690 V drives.

Typical appearance

Features

- Increased rectifier blocking voltage of 2,2 kV
- TRENCHSTOP™ IGBT4
- 2200 V rated rectifier diodes
- Low VCEsat and Low switching losses
- 2.5 kV AC 1 min insulation
- High reliability and power density
- Copper base plate for optimized heat spread
- High power density
- Solder contact technology
- RoHS-compliant modules

Benefits

- The increased blocking voltage of the rectifier is more robust against grid disturbances and suitable for 690 V drives
- Higher power density
- Low losses to meet energy efficiency requirements
- Optimized trade-off between losses and EMI
- Lower system cost

Competitive advantage

- Increased robustness

Target applications

- Industrial motor drives and controls
- Commercial HVAC system

Product collaterals / Online support

Product page

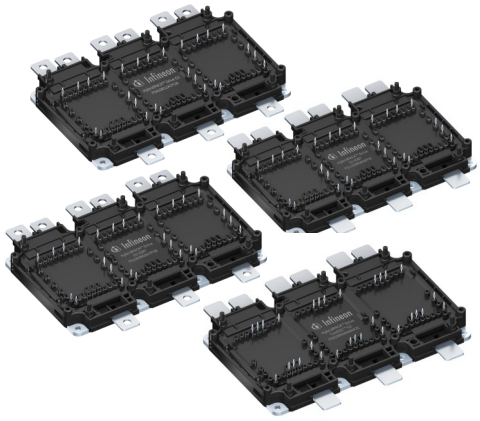
Product overview incl. datasheet link

OPN	SP Number	Package
FP75R17N3E4B20BPSA1	SP002718480	AG-ECONO3B-411

HybridPACK™ Drive G2

The HybridPACK™ Drive G2 is a compact B6-bridge power module optimized for traction inverter applications, offering scalability up to 300 kW within the 750 V and 1200 V classes.

The product is available with different current ratings, voltage levels and Infineon's next generation chip technologies EDT3 (Si IGBT) and CoolSiC™ G2 MOSFET. HybridPACK™ Drive G2 additionally provides new features for optimal system cost, such as an integration option for next-generation phase current sensor.



Features

- New IGBT EDT3 and CoolSiC™ Trench MOSFET Gen2 technologies
- Die attach technology with sintering
- Supports continuous operating temperature at 175°C
- Integrated diode temperature sensors
- Improved pin rivet ensuring high robustness over entire temperature range
- PinFin baseplate for direct cooling
- PressFIT contact technology
- RoHS compliant, lead-free

Benefits

- Operation up to 900 Arms peak current with enhanced HybridPACK™ Drive G2 modules
- Higher temperature cycling capability
- New plastic material for better temperature capability
- New frame design for lower system BOM
- Advanced isolation gel for better temperature resistance
- Lower AC contact resistance and tab temperature

Competitive advantage

- Enable scalable inverter platform development
- Superior gate oxide and cosmic ray reliability
- Improved thermal conductivity
- High robustness over entire temperature range
- Increased durability especially in harsh environment

Target applications

- Automotive Traction Inverter
- Commercial, construction and agricultural vehicles (CAV)
- (Hybrid) electrical vehicles (H)EV

Product collaterals / Online support

Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
FS410R12A7P1BHPSA1	SP005675819	AG-HDG2XT-7611
FS1000R08A7P3BHPSA1	SP005913585	AG-HDG2XT-7611
FS01MR08A8MA2CHPSA1	SP006071563	AG-HDG2XT-3311
FS1150R08A8P3CHPSA1	SP006071554	AG-HDG2XT-7661

OptiMOS™ 6 200 V MOSFETs

Infineon's new OptiMOS™ 6 200 V technology was designed to fulfill the requirements of a wide range of applications: from static switching applications to high frequency applications in hard and soft switching.

The OptiMOS™ 6 200 V technology is employing an advanced cell structure to enable industries lowest $R_{DS(on)}$ and Q_{rr} in 200 V. This enables unparallel efficiency, power density compared to the previous generation.

Features

- Industry's lowest $R_{DS(on)}$ in 200 V
- Industry's lowest Q_{rr} in 200 V
- Compared to previous 200 V technology:
  - Up to 42 % lower $R_{DS(on)}$
  - Up to 89% lower $Q_{rr(typ)}$
  - 36% lower FOM_g
  - More than three times softer diode
  - Improved capacitance linearity
  - Improved SOA
- Tight $V_{gs(th)}$ spread of +/-750 mV
- High avalanche ruggedness
- Max T_j of 175°C and MSL1

Benefits

- Low conduction and switching Losses
- Stable operation with improved EMI
- Better current sharing when paralleling
- Enhanced robustness
- Improved system reliability

Competitive advantage

- Industry lowest $R_{DS(on)}$ and Q_{rr} in 200 V
- High efficiency and power density
- Improved price performance compared to the previous generation
- Better performance and lower price alternatives to address existing market segments
- High reliability

Target applications

- SMPS in telecom, server, high power chargers
- Renewables like solar and EES
- Drives in a wide range of applications: forklift, LEV, battery powered applications, robots and drones, servo drives
- Battery protection in the battery management system (BMS)
- Audio

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
ISC300N20NM6ATMA1	SP006070094	PG-TDSON-8

OptiMOS™ 60 V power MOSFETs in PQFN 8x6

The new OptiMOS™ 60 V power MOSFETs in PQFN 8x6 combine Infineon's MOSFET technology into a compact package with very low parasitics. This enables industry-best $R_{DS(on)}$ and power-density in any power package, delivering significant improvement in switching/conduction losses and current capability. These new products address a wide range of battery-powered, battery protection, and battery formation applications requiring low package resistance and high-current handling MOSFETs and are suitable for both low and high switching frequencies.

The PQFN 8x6 family of MOSFETs is available in a compact 8x6 mm leadless package to reduce the physical footprint and overall BOM of end products. The improved $R_{DS(on)}$ and ID ratings, continuous and pulsed, enable increased battery run time and higher power density. A unique advantage of this package is its footprint compatibility with PQFN 5x6 allowing the same board to be used for high, mid and low power solutions.

Features

- High current capability in a compact 8.0x6.0 mm^2 footprint
- Industry's lowest $R_{DS(on)}$ and FOM
- Leadless package with ultra-low package parasitics (resistance and inductance)
- Latest OptiMOS™ MOSFET technology
- Footprint compatibility with PQFN 5x6

Benefits

- Increased power density allows higher power designs in a compact board space
- Very low conduction losses, low thermals and less device paralleling
- Low EMI
- Delivers benchmark performance with best-in-class power density and power efficiency
- Simpler PCB design with scalability across various power levels

Competitive advantage

- Benchmark products enabling higher power and power density for a wide range of applications
- Enables less MOSFET paralleling
- Footprint backward compatibility with Industry standard PQFN 5x6 package enabling seamless upgrade for higher performance
- Very low package parasitics and thermals
- > 25% smaller footprint than competitor 8x8 solutions

Target applications

- Power and gardening tools
- Motor drives
- Battery management
- Energy storage systems
- LEVs
- Drones and multicopters
- Robotics

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
IQFH61N06NM5ATMA1	SP005634650	PG-TSON-12
IQFH68N06NM5ATMA1	SP005634659	PG-TSON-12
IQFH86N06NM5ATMA1	SP005634663	PG-TSON-12
IQFH99N06NM5ATMA1	SP005634674	PG-TSON-12

StrongIRFET™ 2 power MOSFETs 30 V in D²PAK package

Unveiling the newest portfolio of StrongIRFET™ 2 products in 30 V, tailored to fit a wide range of applications such as power management (SMPS), adapters, motor drives, battery management, power tools and gardening tools as well as all other consumer applications which are using 30 V MOSFETs.

This new portfolio offers excellent robustness and price/performance ratio, providing up to 40% $R_{DS(on)}$ improvement and up to 60% lower $FOMQ_g$ compared to the previous StrongIRFET™ 30 V technology.

In addition to the already existing TO-220, DPAK, PQFN 3.3 x 3.3 and SuperSO8 5x6 packages, the portfolio is now being expanded with devices in D²PAK, enabling an easy design-in and convenient selection and purchasing at distribution partners.

Features

- General purpose products
- Excellent robustness and price/performance ratio
- Broad availability at distribution partners
- Standard packages and pin-out
- Highest manufacturing and supply standards

Benefits

- Addressing a broad range of applications
- High quality and competitive price
- Convenient selection and purchasing
- Ease of design-in
- Simplified product services

Competitive advantage

- Right-fit products, flexible use
- High reliability
- Reduced system costs
- Multiple sources
- Short lead time
- Drop-in replacement for multiple design
- Reliable delivery and supply security

Target applications

- Drives
- Power tools
- Gardening tools
- BMS
- Adapter
- Multicopter
- Industrial SMPS
- Consumer

Product collaterals / Online support

Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IPB018N03LF2SATMA1	SP005860606	PG-TO263-3
IPB020N03LF2SATMA1	SP005859620	PG-TO263-3
IPB023N03LF2SATMA1	SP005901738	PG-TO263-3

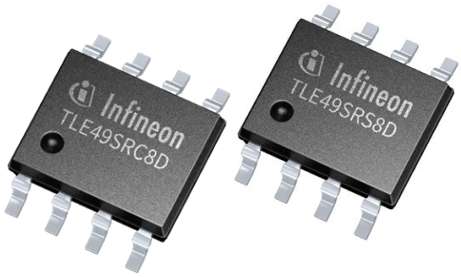
XENSIV™ - TLE49SRS8D / TLE49SRC8D dual angle sensor

The stray field robust magnetic angle sensor family from Infineon has a new member with the XENSIV™ TLE49SRC8D dual angle sensor.

The TLE49SRx8D dual angle sensors are available with SENT and SPC interfaces.

The TDSO-8 package option is well suited for on-PCB designs for applications such as next generation steering systems.

It provides the answer to EMI (electro-magnetic immunity) requirements of safety-critical automotive systems.



Features

- High stray field immunity
- Exceeding requirements EMC standards ISO 11452-1:2015
- Magnetic field range of 20-90 mT offers highest flexibility
- Excellent angle performance, very low jitter, fast response time
- Developed in compliance with ISO 26262 as safety element out of context
- Fulfills ASIL-D metric (Automotive Safety Integrity Level) on component level
- Available communication interfaces
- SENT (Single Edge Nibble Transmission)
- SPC (Short PWM code)

Benefits

- Robust to withstand magnetic stray field up to 8 mT
- Look-up table for correction of systematic angle errors
- Very low jitter delay ±1 µs
- Very fast response time 9.8 µs ~ 26 ms (configurable)
- ISO 26262 development compliant process enables functional safe design
- EEPROM for storage of configuration and customer specific ID
- Frame holder mechanism of SPC-interface enables synchronous data acquisition with other sensors

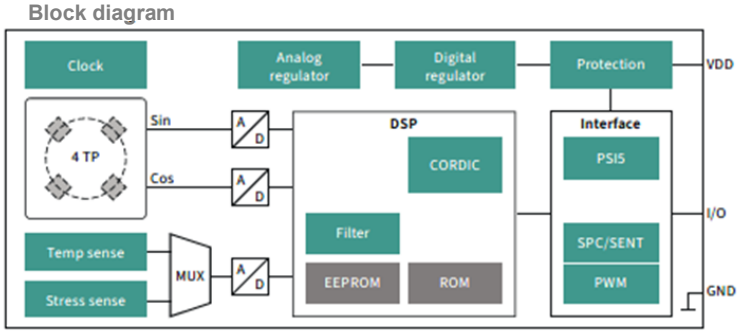
Competitive advantage

- Exceed ISO 11452-8, stray field robust up to 8 mT
- High Accuracy with less than 0.5° angle error
- Look up table helps compensate angle errors
- Frame holder supports sync. data acquisition
- Complies to ISO 26262 as SEooC (ASIL-C)

Target applications

- Torque angle sensor (TAS) for electric power steering
- Steering angle sensor (SAS) for electric power steering
- Pedal position sensor
- Chassis height leveling sensor
- Throttle position sensor

Block diagram



Product collaterals / Online support

Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
TLE49SRC8DXUMA1	SP005859106	PG-TDSO-8
TLE49SRS8DXUMA1	SP005948428	PG-TDSO-8

Evaluation board EVAL_TDA38725A_xxVOUT

EVAL_TDA38725A_1.1VOUT and EVAL_TDA38725A_3.3VOUT enable the full configuration of OptiMOS™ IPOL single-voltage synchronous buck regulator TDA38725A IC using the PMBus and/or using pin-strapped resistors.

A USB dongle is used to establish communication between the IC and the PC via the 3-pin on-board header. Infineon's XDP™ Designer GUI is used to interface and program the TDA38725A IC.

Features

- Forced continuous conduction mode
- Diode emulation
- Programmable switching frequency
- Monotonic start-up
- Enhanced pre-bias start-up
- Thermally compensated internal OCP

Benefits

- 13 - 24 writes to MTP
- Small size with 5x6 mm^2 PQFN
- PMBus communication
- Enhanced light load efficiency

Product collaterals / Online support

Board pages:

- EVALTDA38725A11VOUTTOBO1
- EVALTDA38725A33VOUTTOBO1

Target applications

- AI accelerator cards
- AMD server CPUs
- SmartNIC cards
- Networking and switch platforms
- FPGA in data center applications

Product overview incl. user guide link

OPN	SP Number
EVALTDA38725A11VOUTTOBO1	SP006032930
EVALTDA38725A33VOUTTOBO1	SP006010274

Evaluation board EVAL_TDA38740A_xxVOUT

EVAL_TDA38740A_1.1VOUT and EVAL_TDA38740A_3.3VOUT are synchronous buck converters with both SVID and PMBus or only PMBus communication interface, providing a compact, high-performance, and flexible solution in a compact QFN package.

These evaluation boards are to be used during the design process for evaluating and measuring characteristic curves, and for understanding the various part features.

Features

- Forced continuous conduction mode
- Diode emulation
- Programmable switching frequency
- Monotonic start-up
- Enhanced pre-bias start-up
- Thermally compensated internal OCP

Benefits

- 13 - 24 writes to MTP
- Small size with 5x6 mm^2 PQFN
- PMBus communication
- Enhanced light load efficiency

Product collaterals / Online support

Board pages:

- EVALTDA38740A11VOUTTOBO1
- EVALTDA38740A33VOUTTOBO1

Target applications

- AI accelerator cards
- AMD server CPUs
- SmartNIC cards
- Networking and switch platforms
- FPGA in data center applications

Product overview incl. user guide link

OPN	SP Number
EVALTDA38740A11VOUTTOBO1	SP006032929
EVALTDA38740A33VOUTTOBO1	SP006010272

Evaluation demoboard 1.0 Vout for IPOL single-output synchronous voltage regulator TDA38640A

OptiMOS™ IPOL TDA38640A is a synchronous buck converter with both SVID communication interface, providing a compact, high-performance, and flexible solution in a compact QFN package.

This evaluation board is to be used during the design process for evaluating and measuring characteristic curves, and for understanding the various part features.

Features

- Wide input voltage range 3.0 - 17 V
- Output voltage range: 0.25 - 3.04 V
- Switching frequency 400 kHz - 2 MHz
- Fast COT with no ext. compensation
- Opt. forced continuous conduction mode
- I2C system interface for reporting
- Monotonic start-up and soft-start time
- Thermally compensated internal OCP
- Enhanced stability engine stable
- Intel SVID/I2C compliance
- 5x6 mm PQFN

Benefits

- Superior transient response
- Accurate output voltage regulation
- High efficiency and high-power density
- Fast constant on-time PWM engine

Product collaterals / Online support

Board page

Target applications

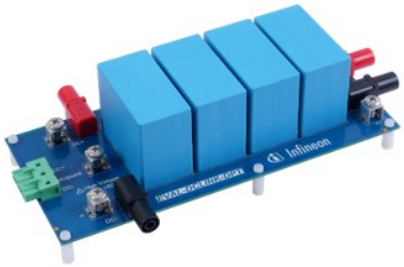
- DC-DC power conversion for telecom infrastructure
- Edge computing
- Intel server CPUs

Product overview incl. user guide link

OPN	SP Number
EVALTDA38640A10VOUTTOBO1	SP006010270

EVAL-DCLINK-DPT capacitor board with safety discharge

The EVAL-DCLINK-DPT board is equipped with EiceDRIVER™ gate driver IC and CoolSiC™ MOSFET 1200 V G2 in the TO263-7 package, providing "of-the-shelf" decoupling capacitance for double pulse testing. The evaluation board enables easy evaluation of Infineon discrete power transistors and gate drivers. This board is designed to work with the modular evaluation platform from Infineon.



Features

- Withstands bus voltage up to 800 V
- Discharge circuit with visual safety indication
- Interconnection with different gate driver / package boards
- Breakout connections for load inductors
- 1200 V CoolSiC™ MOSFET G2 in TO-263-7 package
- Gate driver: EiceDRIVER™ 1ED3142MC12H

Benefits

- Ideal to evaluate the functionality, performance, and features of Infineon power semiconductors and gate drivers

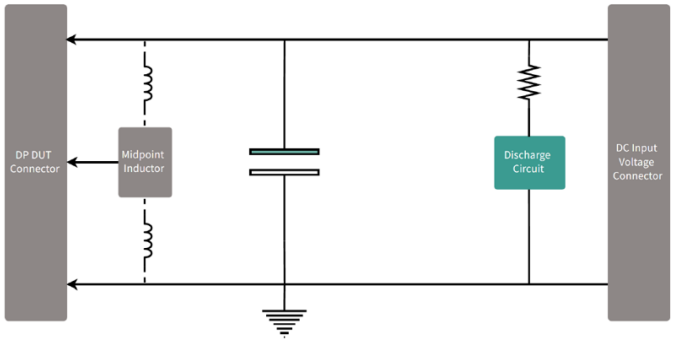
Competitive advantage

- Enables testing of different gate driver and package boards from Infineon

Target applications

- ESS
- EV charging
- Drives
- Photovoltaic
- UPS

Block diagram



Product collaterals / Online support

Product page

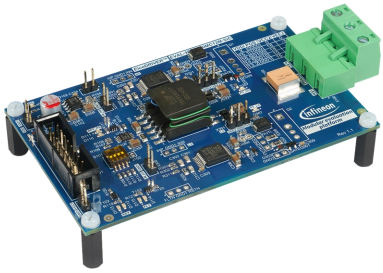
Product overview incl. user guide link

OPN	SP Number	Package
EVALDCLINKDPTTOBO1	SP006143298	LG-MADK-1

Evaluation board for 1ED3330MC12M

This evaluation board is designed to evaluate 1ED3330MC12M isolated gate driver ICs and discrete power switches in a half-bridge configuration.

This board includes two 1ED3330MC12M and a galvanically isolated on-board power supply generated with the 2EP130R transformer driver IC. The board includes two, unassembled IMZC120R012M2H CoolSiC™ 1200 V SiC Trench MOSFETs in TO247-4 package, which can be substituted to evaluate other Infineon switches.



Features

- 1ED3330MC12M isolated gate driver ICs
- IMZC120R012M2H 1200 V SiC MOSFETs
- 2EP130R transformer driver IC
- DESAT protection and soft-off
- Active miller clamp driver
- Shutdown with fault

Benefits

- Easy measurement and configuration
- On-board power supply
- Half bridge configuration
- Switches unassembled
- Part of Infineon modular evaluation platform

Competitive advantage

- Fast evaluation of different Infineon switches in TO247-4 package

Target applications

- Energy storage systems
- EV charging
- Industrial motor drives and controls

Product collaterals / Online support

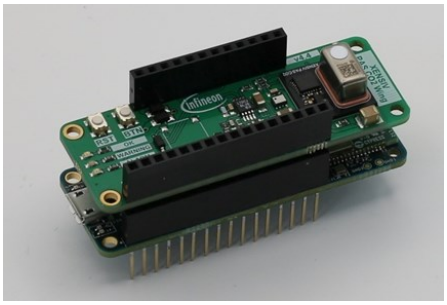
Product page

Product overview incl. user guide link

OPN	SP Number
EVAL1ED3330MC12MSICTOBO1	SP006170682

XENSIV™ PAS CO2 5 V connected sensor kit

The XENSIV™ KIT CSK PASCO2 5 V accelerates custom IoT solution development on Infineon products. It enables efficient testing and prototyping of sensor-driven IoT products and use cases. With real-time sensor evaluation and cloud-based PAS CO2 5 V sensor data visualization, developers can quickly assess and refine their applications, ensuring optimal performance and accuracy.



Features

- Real-time CO2 sensor data evaluation
- Adafruit feather-compatible form factor
- Dual core, low-power PSOC™ 6 MCU
- Wi-Fi and Bluetooth® combo radio module
- Interchangeable sensor wings
- Seamless integration into ModusToolbox™

Benefits

- Ideal for IoT, battery-powered devices
- Suited for customer field trials
- Rapid prototyping with code examples
- Secure cloud connection with OPTIGA™
- Secure device provisioning

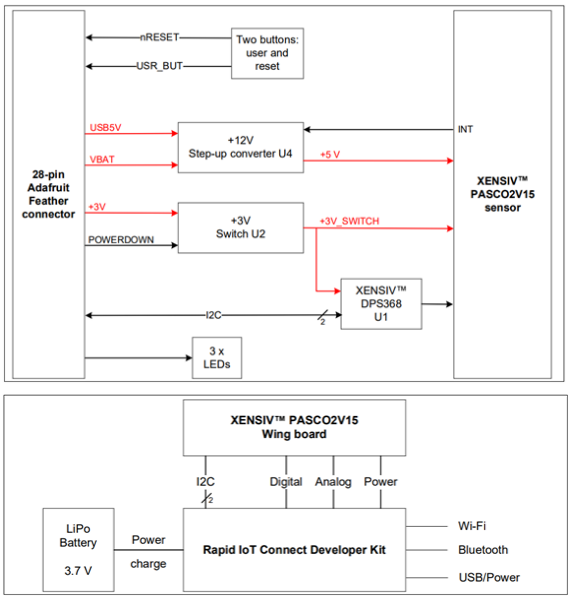
Competitive advantage

- Highly selective CO2 measurements without cross sensitivity
- High quality data, robust performance and long-term stability
- Fulfillment of WELL™ Building Standard
- Dust-proof design in compliance with ISO 20653:2013-02
- RoHs compliant and halogen-free material

Target applications

- HVAC
- Smart Thermostat
- IoT
- Consumer
- Smart fridge
- Smart Horticulture

Block diagram



Product collaterals / Online support

Product page

Product overview incl. user guide link

OPN	SP Number
KITCSKPASCO25VTOBO1	SP006070836