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September 2025

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XENSIV™ new TLE480x family

EVAL-2EDGAN-INV-1KW 3-phase, 1 kW inverter board

AURIX™ Drive Core AI

AURIX™ Drive Core AUTOSAR

AURIX™ Drive Core for NeuSAR

PSOC™ 4 HV Drive Core Control

TRAVEO™ T2G Drive Core Graphics

DEEPCRAFT™ Ready Models

DEEPCRAFT™ Studio

18ch BMS Balancing and Monitoring IC TLE9018DQK

TLE9018DQK is a multi-channel battery monitoring and balancing IC crafted for Li-ion battery packs in automotive (MHEV, HEV, PHEV, BEV), industrial (ESS), and consumer applications (e-bike BMS, home energy storage). It handles cell voltage and temperature measurement, cell balancing, and isolated communication to the main battery controller. Moreover, it includes essential diagnostic tools for safety assurance.

Features

- Balancing and monitoring for up to 18 cells in series
- Robust Infineon 120 V automotive technology supports harshest stress and noise conditions
- Dedicated 16-bit delta-sigma ADC per cell enabling synced and filtered measurements, incl. built-in digital filtering for a minimum of external components and reduced system cost
- Internal round robin cycle routine for automated safety checks and mechanisms
- Supporting up to ASIL-D BMS safety applications
- Compatible with Infineon complex device driver for AURIX™ TC36x/37x/38x

Benefits

- Robustness: Infineon technology and device architecture allow for best performance under noise with minimum amount of external protection devices
- High accuracy voltage measurement: reliable and precise battery cell monitoring for highly accurate SoC and SoH
- Lowest system cost: high feature integration for a lean external BOM

Competitive advantage

- High precision and accuracy with parallel ADC architecture to maximize battery pack efficiency
- Highly robust 120 V automotive technology and lean IC design – based on decades of automotive experience – enable the leanest BOM around the BMS IC, resulting in lowest system cost
- Moreover, Infineon’s superior quality is reflected in lowest return rates, that are industry’s benchmark
- In addition, there is a complementing fully configurable and ASIL-D complex device driver available for convenient design-in, reduced development time as well as cost

Target applications

- Battery Electric Vehicle (BEV)
- Mild Hybrid Electric Vehicle (MHEV)
- Hybrid Electric Vehicle (HEV)
- Plug-in Hybrid Electric Vehicle (PHEV)
- 12 V Li-ion battery systems
- Energy Storage Systems (ESS)

Product collaterals / Online support

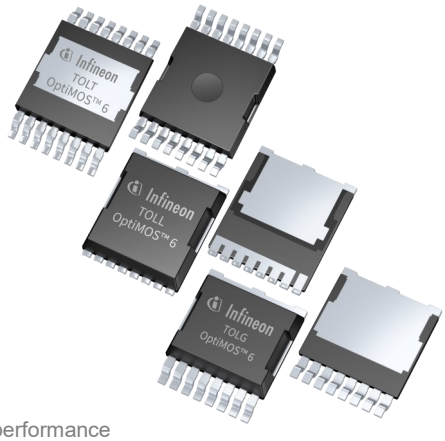
Product page

Product overview incl. datasheet link

OPN	SP Number	Package
TLE9018DQKXUMA1	SP005739534	PG-LQFP-64

Automotive 150 V MOSFETs in TOLL, TOLG and TOLT

Automotive qualified 150 V MOSFETs in three different packages (TOLL, TOLG and TOLT) and with two different $R_{DS(on)}$ values (2.5 mΩ and 3.8 mΩ).



Features

- Automotive MOSFETs with a breakdown voltage of 150 V
- Top-side cooled, leadless or gullwing packages are covered
- $R_{DS(on)}$ characteristics with 2.5 mΩ and 3.8 mΩ
- Tight distribution of the gate threshold voltage ($V_{GS(th)}$)
- Lowest thermal resistance of 0.42 K/W
- Perfect fit for high switching frequencies

Benefits

- Best-in-class performance with lowest conduction losses
- Perfect synchronization of MOSFETs in parallel configuration
- Best thermal performance and lowest cooling costs on system level
- Low switching losses

Competitive advantage

- Available in three different packages
- $R_{DS(on)}$ value down to 2.5 mΩ
- Tight distribution of the gate threshold voltage ($V_{GS(th)}$)
- Automotive qualified beyond AEC-Q101

Target applications

- HVLV DC-DC converters at xEVs
- Traction inverters and BMS power units at Light Electric Vehicles (LEVs)
- Many others

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
IAUTN15S6N025ATMA1	SP005970430	PG-HSOF-8
IAUTN15S6N038ATMA1	SP005983081	PG-HSOF-8
IAUTN15S6N025TATMA1	SP005983052	PG-HDSOP-16
IAUTN15S6N038TATMA1	SP005983090	PG-HDSOP-16
IAUTN15S6N025GATMA1	SP005983048	PG-HSOG-8
IAUTN15S6N038GATMA1	SP005983069	PG-HSOG-8

Econo PFC with inverter for heatpump

First all in one single module solution with integrated Vienna PFC and compressor inverter for heat pump application. Equipped with latest IGBT7 chip technology in well established Econo2 package.

Features

- TRENCHSTOP™ IGBT7
- Integrated module with Vienna PFC and compressor inverter
- All in one solution for ease of use and compact design
- Well established Econo2 package

Benefits

- All in one solution for ease of use and compact design
- Active PFC reduces inductor size as compared to passive PFC solution
- Enabling designs to for fulfil limits for harmonic current emissions as specified by IEC 61000-3-2 for European market

Competitive advantage

- Time to market. First to offer PFC + inverter in single module
- High production capacity for well-established Econo2 package

Target applications

- Heat pump
- C-HVAC

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
FP35R12N2T7B67BPSA1	SP005978191	AG-ECONO2B-711

EiceDRIVER™ 1ED3330MC12M

EiceDRIVER™ Enhanced 5.7 kV single-channel isolated gate driver IC with ±12 A typical sinking and sourcing peak output current in small space-saving DSO-16 fine pitch wide-body package with large creepage distance (> 8 mm) ideal for SiC MOSFETs. The gate driver IC also includes integrated protection features such as DESAT protection, active Miller clamp driver, and active shutdown for SiC MOSFETs.

Features

- Integrated protection features
- +/-12 A typical peak output current
- Separate source and sink outputs
- 35 V abs maximum output voltage
- UVLO for SiC MOSFETs
- 3.3 V and 5 V input supply
- High CMTI > 200 kV/us
- DSO 300 mil package with 0.65 pitch
- Miller clamp driver

Benefits

- Output current ideal for driving SiC
- Reduction in circuit complexity
- Small footprint for optimized PCB
- Fast short-circuit reporting
- Shutdown through FLT pin
- Tight delay matching for low deadtime

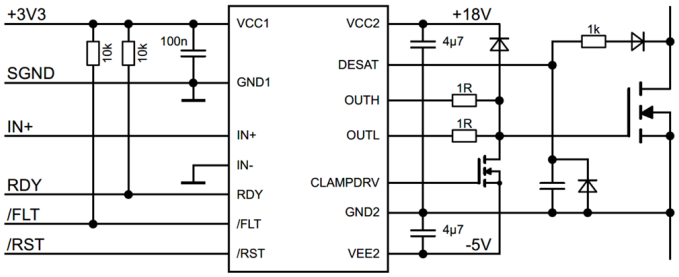
Competitive advantage

- Small space-saving package
- Strong 12 A output for driving large modules and switches
- Full-sized PMOS pull-up for high performance driving at Miller plateau
- Fast DESAT detect and notification

Target applications

- Energy storage systems
- EV charging
- Photovoltaic
- Motor control
- Uninterruptible power supplies (UPS)

Block diagram



Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
1ED3330MC12MXUMA1	SP006015802	PG-DSO-16

ICL8830 high frequency, single-stage PFC flyback controller for constant voltage output

The ICL8830 controller is tailored for high-frequency switching operation and capable to drive GaN and Si MOSFET switching devices. It detects flyback switch drain voltage high frequency oscillation and provides the gate signal with small delay for accurate and reliable quasi-resonant mode (QRM) operation.

Features

- SSR-CV output flyback topology
- Supports high-frequency operation with GaN
- Burst mode operation on very light load
- Adjustable on-time mapping for high-frequency
- Comprehensive set of protections

Benefits

- High power factor and low THD
- Wide AC input and output load range
- Universal input voltage operation
- Low system standby power consumption
- Safe operation under low line
- Reduced component stress with soft-start

Competitive advantage

- High switching frequency
- Optimized for GIT GaN
- Comprehensive set of protections
- Low standby power consumption

Target applications

- Lighting
- Battery charger

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
ICL8830XUMA1	SP006071841	PG-DSO-8

OptiMOS™ 7 80 V / 100 V S3O8 Automotive MOSFET

Infineon introduces MOSFETs in our leading edge, power semiconductor technology: OptiMOS™ 7 80 V / 100 V. These products are offered in a lead-less 3x3 mm^2 SMD package. The package utilizes a copper clip to offer lower package resistance and inductance as compared to traditional gullwing lead packages. It is designed specifically for the high performance, quality, and robustness needed for demanding automotive applications.

Features

- Fast switching times (turn on/off)
- Tight threshold voltage, $V_{GS(th)}$, range
- Small 3x3 mm^2 SMD package
- High SOA ruggedness
- Extended qualification beyond AEC-Q101
- Package is listed with JEDEC

Benefits

- Superior switching performance
- Small footprint; could save PCB area
- Helps achieve high power density
- Well-suited for parallel placement
- Potential for second source supplier

Competitive advantage

- Best-in-class 80 V and 100 V 3x3 mm package MOSFET on the market which means the lowest conduction losses in your application
- Low on-resistance versions have 50% better continuous drain current rating than prior generation (now at 60 A)
- Extended qualification beyond AEC-Q101 for enhanced reliability in automotive applications

Target applications

- Auxiliary motor control 48 V
- Automotive electric pumps and fans 48 V
- Electric power steering (EPS)
- Automotive LED front single light functions
- Automotive braking solutions

Product collaterals / Online support

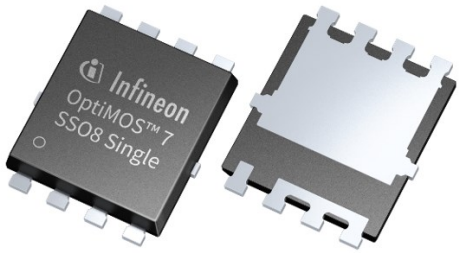
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IAUZN08S7N046ATMA1	SP006018213	PG-TSDSON-8
IAUZN08S7L177ATMA1	SP006012014	PG-TSDSON-8
IAUZN10S7L289ATMA1	SP006018203	PG-TSDSON-8
IAUZN10S7N078ATMA1	SP006030405	PG-TSDSON-8

OptiMOS™ 7 80 V / 100 V SSO8 Automotive MOSFET

Infineon introduces MOSFETs in our leading edge, power semiconductor technology: OptiMOS™ 7 80 V / 100 V. These products are offered in our versatile, robust, high current SSO8 5x6 mm^2 SMD package. It is designed specifically for high performance, high quality and the robustness needed for demanding automotive applications.



Features

- $R_{DS(on)}$ better than prior best
- Leading edge FOM ($R_{DS(on)}$ x Q_g)
- Fast switching times (turn on/off)
- Low package resistance and inductance
- High avalanche current capability and SOA ruggedness
- Extended qualification beyond AEC-Q101

Benefits

- Very low conduction losses
- Superior switching performance
- Highest power density in 5x6 mm package
- High power efficiency
- Small footprint and efficient cooling

Competitive advantage

- The newest technology has the industry's lowest $R_{DS(on)}$ which means the lowest conduction losses in your application
- Excellent power density in the SSO8 package can replace MOSFETs in TOLL (10x12 mm^2) packages in some cases, while using 75% less PCB area

Target applications

- Zone control unit
- Domain controller for ADAS and autonomous driving
- Zonal DC-DC converter 48 V-12 V
- Auxiliary motor control 48 V
- Automotive power distribution

Product collaterals / Online support

Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IAUCN08S7L018ATMA1	SP006059903	PG-TDSON-8
IAUCN08S7L024ATMA1	SP006059899	PG-TDSON-8
IAUCN08S7L033ATMA1	SP006059889	PG-TDSON-8
IAUCN08S7L013ATMA1	SP006059915	PG-TDSON-8
IAUCN10S7L040ATMA1	SP006059885	PG-TDSON-8

OptiMOS™ 7 25 V switching optimized

The OptiMOS™ 7 25 V offers a new level of application-optimization, enabling peak performance for data centers, servers, AI and more.

The OptiMOS™ 7 25 V portfolio comprises Source-Down PQFN 3.3x3.3 packages with bottom and dual-side cooling variants in a Center-Gate footprint for flexible and optimal PCB design. In combination with a junction temperature rating of up to +175°C, this not only enables a further boost in power density and efficiency but also increases reliability.

The portfolio is available in two technology flavors, including products optimized for hard-switching as well as for soft-switching topologies.

Hard-switching optimized products come with an excellent Miller ratio, FOMs and $R_{DS(on)10}$, while products optimized for soft-switching offer ultra-low $R_{DS(on)45}$ and $FOMQ_{g45}$.

Features

- Hard and soft-switching optimizations
- Hard-switching optimized: Miller ratio,FOM,$R_{DS(on)10}$
- Soft-switching optimized: $R_{DS(on)45}$, $FOMQ_{g45}$
- +175°C junction temperature rating
- Source-down package variants
- Center-gate footprint, dual-sided colled and overmolded

Benefits

- Application-specific optimization
- Improved performance and efficiency
- Advanced induced turn-on ruggedness
- Reduced driver and switching losses
- Reduced conduction losses
- Increased reliability and power density
- Superior thermal capabilities
- Reduced package parasitics
- Simplified paralleling of MOSFETs

Competitive advantage

- Dedicated power MOSFETs optimized for hard and soft-switching topologies
- Best-in-class $R_{DS(on)}$ and FOMs
- Excellent Miller ratio for robust switching and ease of use
- Improved reliability with temperature rating of +175°C
- Superior thermal capabilities with source-down package

Target applications

- AI data center
- 48 V intermediate bus conversion
- Server PSU
- Telecom
- Datacom

Product collaterals / Online support

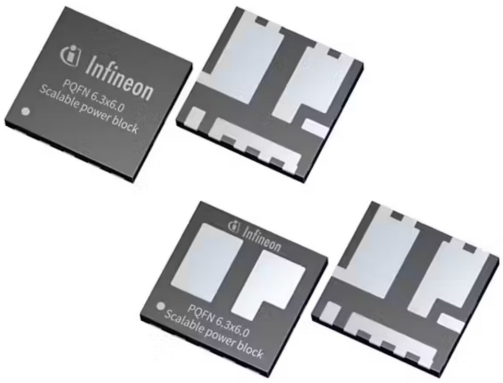
Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IQEH50NE2LM7UCGSCATMA1	SP006055383	PG-WHTFN-9
IQEH54NE2LM7UCGATMA1	SP005927093	PG-TTFN-9
IQEH64NE2LM7UCGSCATMA1	SP006008732	PG-WHTFN-9
IQEH68NE2LM7UCGATMA1	SP005960141	PG-TTFN-9
IQEH80NE2LM7UCGSCATMA1	SP006008718	PG-WHTFN-9
IQEH84NE2LM7UCGATMA1	SP005960138	PG-TTFN-9
IQEH46NE2LM7ZCGSCATMA1	SP006008736	PG-WHTFN-9
IQEH50NE2LM7ZCGATMA1	SP005927096	PG-TTFN-9

OptiMOS™ Power MOSFETs in new Scalable Power Block package

The Scalable Power Block is Infineon's latest package innovation that integrates both low-side and high-side MOSFETs (symmetric half-bridge with Q1 and Q2 of similar $R_{DS(on)}$ in a compact leadless SMD 6.3 x 6.0 mm² package targeting a variety of applications (Motor Drives, SMPS etc). Product offering includes latest OptiMOS™ 5 60 V silicon technologies providing benchmark performance in a compact footprint. By replacing two discrete packages, ex: PQFN5x6 in a half-bridge configuration, customers can shrink the power section on the board by at least 50%.



Features

- High chip/package ratio
- Optimized lead-frame and Cu-Clip design
- Internally connected low-side and high side (lowest loop inductance)
- Dual-side cooling available

Benefits

- High power capability
- Optimum thermal performance
- Compact and simplified layout design
- Superior switching performance/EMI

Competitive advantage

- Compact symmetric dual-mosfet half-bridge solution with highest power density for a wide range of applications
- Replaces discrete package solutions
- 50% PCB space improvement of power section
- Ultra-low package parasitics and superior thermals

Target applications

- Motor Drives
- Server
- Telecom
- E-bikes
- Solar

Product collaterals / Online support

Product page

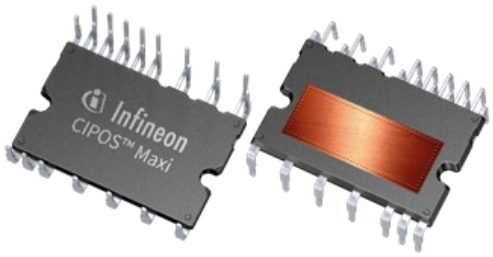
Product overview incl. datasheet link

OPN	SP Number	Package
ISG0614N06NM5HATMA1	SP005575180	PG-VITFN-10
ISG0614N06NM5HSCATMA1	SP005575184	PG-WHITFN-10

CIPOS™ Maxi 1200 V CoolSiC(TM) MOSFET IPM IM12SxxEA2 series

High-performance CIPOS™ Maxi transfer molded SiC IPM IM12SxxEA2 series is based on 1200 V CooSiC™ MOSFET technology. The portfolio includes variants ranging 60 mΩ and 90 mΩ, offered two new products: IM12S60EA2 and IM12S90EA2.

The series integrates 6 CoolSiC™ MOSFETs with an optimized 1200 V 6-channel SOI gate driver to increase reliability, provide excellent protection and optimize PCB size and system costs.



Features

- Fully isolated dual inline molded module with DCB
- 1200 V CoolSiC™ MOSFETs technology
- Rugged 1200 V SOI gate driver technology
- Integrated bootstrap functionality
- Overcurrent shutdown
- Undervoltage lockout on all channels
- Turnoff of all six switches during protection
- Anti-cross conduction prevention
- Allowable negative VS potential up to -11 V for signal transmission at VBS = 15 V
- Low-side emitter pins accessible

Benefits

- Smallest package size in 1200 V IPM class with high power density and excellent performance
- Gate driver technology with enhanced robustness for excellent protection
- High efficiency
- Fast switching speed up to 40 kHz
- Adapted to fast-switching applications with lower power losses
- Simplified design and manufacturing

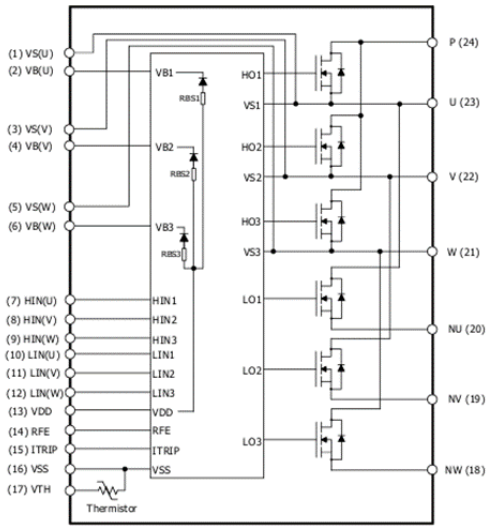
Competitive advantage

- The smallest and most compact package in the 1200 V class

Target applications

- Fans
- Pumps
- Outdoor fan for HVAC
- Low-power motor drives

Block diagram



Product collaterals / Online support

Product family page

Product overview incl. datasheet link

OPN	SP Number	Package
IM12S60EA2XKMA1	SP006022651	PG-MDIP-24
IM12S90EA2XKMA1	SP006022647	PG-MDIP-24

CoolGaN™ Transistors 650 V – 700 V G5

The new generation of 650 V – 700 V GaN power transistors allows for increased efficiency at high-frequency operation and meets the highest quality standards, enabling highly reliable designs with superior efficiency.

Now also available in bottom-side cooled ThinPAK 8x8 and DPAK packages, this new family of GaN transistors is designed for optimal power dissipation in various industrial and consumer applications.

Features

- 650 V – 700 V e-mode power transistor
- Ultrafast switching
- No reverse-recovery charge
- Capable of reverse conduction
- Low gate charge, low output charge
- Low dynamic $R_{DS(on)}$
- Bottom-side cooled package
- JEDEC qualified (JESD47, JESD22)

Benefits

- Supports high operating frequency
- Enables highest system efficiency
- Enables ultrahigh power density designs
- Supports BOM cost savings

Target applications

CoolGaN™ Transistor 650 V G5:

- AC-DC power conversion for telecom infrastructure
- Data center and AI data center solutions
- Industrial power supplies
- USB-C adapters and chargers
- Power conversion

CoolGaN™ Transistor 700 V G5:

- Consumer electronics
- Home appliances
- USB-C adapters and chargers
- Power conversion
- Complete system solutions for smart TVs

Product collaterals / Online support

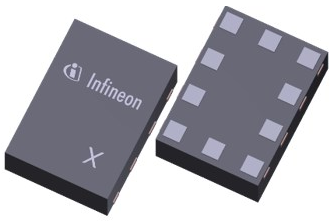
Product page

Product overview incl. datasheet link

OPN	SP Number	Package
IGD70R500D2SAUMA1	SP006085326	PG-TO252-3
IGD70R270D2SAUMA1	SP006085330	PG-TO252-3
IGD70R200D2SAUMA1	SP006085337	PG-TO252-3
IGD70R140D2SAUMA1	SP006085341	PG-TO252-3
IGL65R140D2XUMA1	SP006065162	PG-TSON-8
IGL65R055D2XUMA1	SP006065169	PG-TSON-8
IGL65R080D2XUMA1	SP006065174	PG-TSON-8
IGL65R110D2XUMA1	SP006065189	PG-TSON-8

Ultra compact 40 V(rf) switch+ C-tuner combo
BGSC4331MN10

BGSC4331MN10 is a combo of series tunable capacitor and RF switch throws optimized for RF applications and qualified for industrial applications according to the relevant tests of JEDEC47/20/22.



Features

- 0.2-3.5 pF 8 steps tunable capacitor
- Bypass switch for tunable capacitor
- 3 low R_{ON} RF switch throws of 1.25 Ω
- Digital control of the ESD switch
- RF voltage handling 40 V in off state
- Ultra low current consumption of 20 µA
- Support both 1.2 V and 1.8 V V_{IO} range
- Single supply pin (V_{IO})
- Small form factor 0.95 mm x 1.3 mm
- MIPI RFFE 2.1 control interface

Benefits

- Support sub-7.125 GHz 5G NR
- Robust to RF interferences
- Space saving
- Enables high antenna efficiency
- Best in class RF performance
- Low R_{ON} x C_{OFF} FOM along high linearity

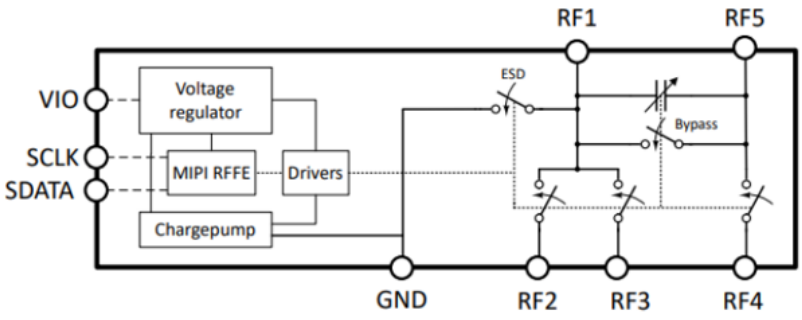
Product collaterals / Online support

Product page

Target applications

- Smartphones
- Notebooks, tablets, and wearables
- Various battery powered cellular applications
- Impedance, aperture, and inductance tuning
- Tunable filters

Block Diagram



Product overview incl. datasheet link

OPN	SP Number	Package
BGSC4331MN10E6327XTSA1	SP006049732	PG-TSNP-10

XENSIV™ MEMS microphone IM66D132H

IM66D132H is a low power digital XENSIV™ MEMS microphone designed for applications which require a digital PDM MEMS microphone with medium SNR (low self-noise), low distortion (high AOP), and low current consumption. The IM66D132H balances performance in a small package at a low current consumption. This is the highest AOP variant of the Infineon Single Backplate portfolio.

Features

- New Single Backplate (SBP) technology
- Low 580 µA current consumption in always on mode
- Component level IP57 water and dust resistant
- 66 dB(A) Signal-to-noise ratio
- Acoustic overload point (AOP) of 132 dBSPL
- Tight sensitivity (-37/21 ± 1 dB) tolerance
- 20 Hz low frequency roll-off

Benefits

- Battery saving without compromising in acoustic performance
- Clear audio signals even at highest sound pressure levels
- Industry standard single backplate technology (SBP)

Competitive advantage

- New Single Backplate (SBP) technology
- Low 580 µA current consumption in always on mode
- Component level IP57 water and dust resistant

Target applications

- Active Noise Cancellation (ANC): headphones and earphones
- Smartphones and mobile devices
- Hearing enhancement devices
- Voice User Interface (VUI): e.g. smart speaker, home automation, and IOT devices
- Power constrained applications

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
IM66D132HV01XTMA1	SP006037650	PG-TLGA-5

XENSIV™ MEMS microphone IM68D121J

The IM68D121J is a low power digital XENSIV™ MEMS microphone, designed for applications which require long battery life, high sensitivity and environmental robustness in a small package. Enabled by a revolutionary digital microphone ASIC, the IM68D121J balances performance in a small package at a low current consumption of 580µA. This is the highest sensitivity variant of the Infineon Single Backplate portfolio.

Features

- Low 580 µA current consumption in always-on mode
- Component level IP57 water and dust resistant
- 68.0 dB(A) Signal-to-noise ratio
- Acoustic overload point (AOP) of 121 dBSPL
- Tight sensitivity (-26/26 ± 1 dB) tolerance
- 20 Hz low frequency roll-off

Benefits

- Battery saving without compromising in acoustic performance
- Highest sensitivity variant of single backplate microphone portfolio
- Industry standard single backplate technology (SBP)

Competitive advantage

- New Single Backplate (SBP) technology
- Low 580 µA current consumption in always on mode
- Component level IP57 water and dust resistant

Target applications

- Active Noise Cancellation (ANC): headphones and earphones
- Smartphones and mobile devices
- Hearing enhancement devices
- Voice User Interface (VUI): e.g. smart speaker, home automation, and IoT devices
- Power constrained applications

Product collaterals / Online support

Product page

Product overview incl. datasheet link

OPN	SP Number	Package
IM68D121JV01XTMA1	SP006155376	PG-TLGA-5

XENSIV™ current sensors with new 300 mil DSO package

The XENSIV™ TLE4971-A0xyW2-S0001/TLI4971-A0xyW2-U-S0001 family are very high-precision miniature coreless magnetic sensors for AC and DC measurement. Our newly developed 300 mil DSO package enables reinforced and basic insulation capability as well as 8 mm clearance and creepage. The highly linear Hall technology enables accurate current measurement. With a bandwidth of 210 kHz, these sensors are optimal for drives, OBCs, DC charging, energy storage and PV applications.

Features

- Accurate AC and DC current sensing with stable sensitivity and offset over temperature and life-time
- The TLI4971/TLE4971 is a highly accurate coreless magnetic current sensor in a 300 mil wide body allowing high isolation voltages
- A differential measurement principle allows effective stray field suppression
- Additionally, two separate interface pins (OCD) provide a fast output signal in case a current exceeds a pre-set threshold
- The TLI4971/TLE4971 is a high-precision analog current sensor with measurement range up to ±50 A
- Superior ±0.35% sensitivity error and ±65 mA offset error
- The sensor is based on Infineon's well-established and robust hall technology
- The internal EEPROM allows the customer to program several output characteristics
- Based on a digital assisted analog concept
- Current sensing signal is processed in an analog way, the proprietary stress and temperature
- Compensation information is processed in a digital manner and combined with the main signal path within a high-performance operational amplifier
- The sensor is provided in a DSO16-30 mil widebody SMD package

Benefits

- Competitive coreless current sensor
- Isolated current measurement
- Standard design footprint
- Wide range of applications
- Highly robust system design
- Reduced power losses and lowest parasitic inductance

Competitive advantage

- Standard footprint package for highes insulation requirements
- Compatible to established shunt solutions but better performance
- Enables lower system costs

Target applications

- Suitable for AC as well as DC current measurement applications:
- Electrical drives
- Current monitoring
- On board charger
- Auxiliary Drives
- Inverters
- Over current detection

Product collaterals / Online support

Product family page

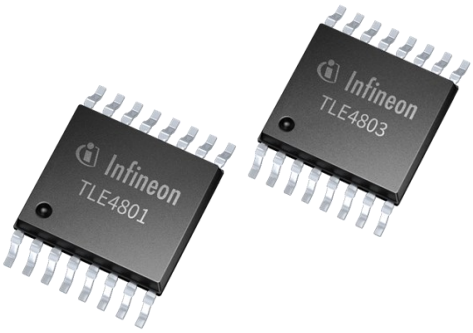
Product overview incl. datasheet link

OPN	SP Number	Package
TLI4971A030W2US0001XUMA1	SP005989438	PG-DSO-16
TLI4971A050W2US0001XUMA1	SP005989457	PG-DSO-16

XENSIV™ new TLE480x family

Infineon's new TLE480x family employs the inductive measurement principle and inherently offer robustness against stray fields, thereby eliminating the need for additional shielding against electromagnetic disturbances.

The products show exceptional accuracy with an impressive angle error of 0.1% full scale (FS). The monolithic design of these devices enables system cost savings through reduced device count as they have been developed in accordance with ISO 26262 and fully support system design up to Automotive Safety Integrity Level (ASIL) D, ensuring a high level of safety and reliability.



Features

- ISO 26262 Safety Element out of Context up to ASIL-D
- Angle error over full scale: < 0.1%
- Intrinsic stray field robustness according to ISO 11452-8:2015
- Digital interfaces: SENT/SPC
- Integrated memory for calibration and configuration
- Operating temperature range T_j = -40°C to 150°C

Benefits

- ASIL-D (product level) saves cost
- Highly accurate measurements
- Intrinsic stray field robustness saves cost
- High flexibility programmability

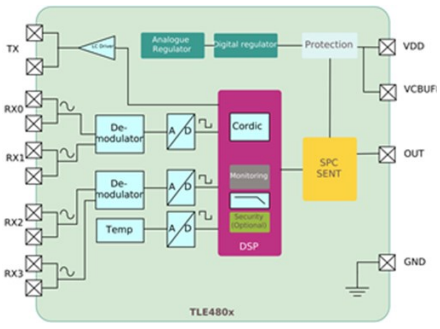
Competitive advantage

- Excellent functional safety rating
- One-stop-shop product variety
- SPC and SENT communication protocol

Target applications

- Electric power steering systems
- Pedal
- Suspension applications

Block diagram



Product collaterals / Online support

Product family page

Product overview incl. datasheet link

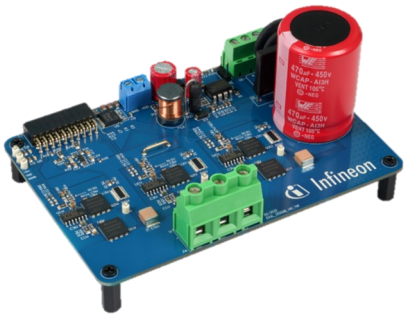
OPN	SP Number	Package
TLE4801S16S0000XUMA2	SP006068552	PG-TSSOP-16
TLE4801C16S0000XUMA2	SP006068554	PG-TSSOP-16
TLE4803S16S0000XUMA2	SP006068562	PG-TSSOP-16
TLE4803C16S0000XUMA2	SP006068564	PG-TSSOP-16

EVAL-2EDGAN-INV-1KW
3-phase, 1 kW inverter board

The EVAL-2EDGAN-INV-1KW evaluation board, features Infineon silicon-in-insulator (SOI) EiceDRIVER™ gate driver IC (2ED21064S06J), and CoolGaN™ transistor 650 V G5 (IGT65R055D2) in a ready-to-use, 3-phase, 1 kW inverter board for home appliances and general-purpose motor drives.

Compared to silicon-based designs, the GaN-based board offers a heatsink-free design up to 1 kW, saving manufacturing and shipping costs.

Split ground gate drivers such as 2ED21064S06J make it possible to design a 2-layer PCB while maintaining the desired gate loop inductance, providing the best trade-off between cost and performance.



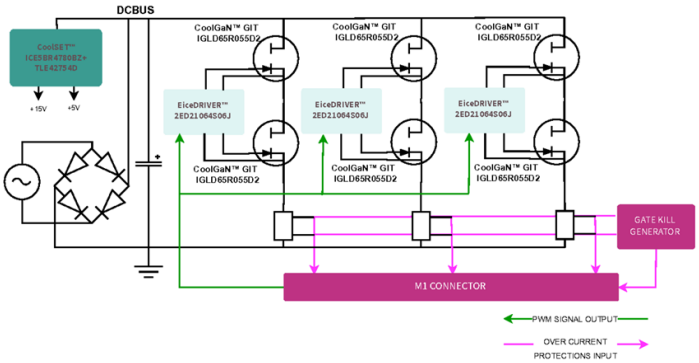
Features

- Ready-to-use 3-phase GaN HEMT inverter with level shift gate drivers for home appliances and other motor drive applications
- 1000 W Power without heatsink or forced air flow
- Gate driver with Split GNDs allow 2-layers PCB layout
- 3.2 Arms output current

Benefits

- Heatsink free design with operation up to 70°C compared to Si based designs
- Three leg shunts
- Gate kill generator
- 15 V and 5 V supply generated on board
- Operates at 180 to 240 V_{AC}

Block diagram



Target applications

- Home appliance such as washing machine or fridges
- Motor drives
- Fans
- Pumps

Product collaterals / Online support

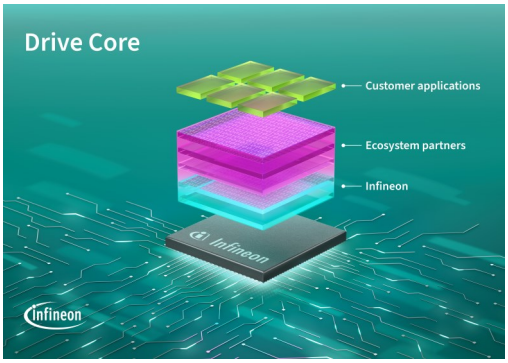
Board page

Product overview incl. user guide link

OPN	SP Number
EVAL2EDGANINV1KWTOBO1	SP006171250

AURIX™ Drive Core AI

A comprehensive software bundle including third-party tools and software components designed to simplify model-based development using the AURIX™ TC4x Parallel Processing Unit (PPU).



Features

- Integrated build-system for easy deployment and management of MBD
- Optimized PPU compiler and speed library for accelerated development and performance
- Seamless integration with Synopsys Metaware for AURIX™ processors and MathWorks

Benefits

- Streamlined development process and reduced time-to-market
- Improved productivity and efficiency through optimized toolchain and deployment
- Enhanced performance and reliability of PPU-based computing via optimized compiler and library

Product collaterals / Online support

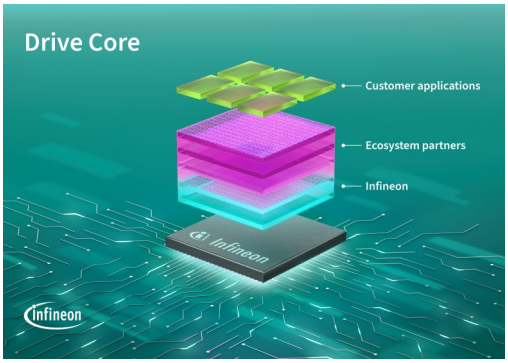
Product page

Target applications

- AI and ML applications for e-mobility and autonomous driving

AURIX™ Drive Core AUTOSAR

A comprehensive software bundle designed to simplify and accelerate the development of AUTOSAR-based automotive applications.



Features

- Infineon's MCAL Driver: standardized interface to the AURIX™ microcontroller
- Vector’s MICROSAR Classic: pre-integrated real-time capable base software stack
- TASKING's TC4x Tool Chain SmartCode: comprehensive development environment with demo application

Benefits

- Streamlined development: reduces development time and costs
- Improved reliability: ensures reliable functionality in safety-critical domains
- Increased productivity: provides a head start for developers

Product collaterals / Online support

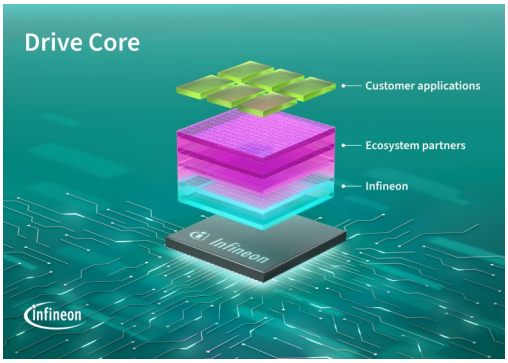
Product page

Target applications

- AUTOSAR-based ECU software projects

AURIX™ Drive Core for NeuSAR

A comprehensive software bundle including full-stack AUTOSAR and development environment to accelerate AUTOSAR and safety projects for the Greater China market.



Features

- Complete AUTOSAR Solution: NeuSAR BSW and Infineon MCALs
- Optimized compiler tools: hightec open-source LLVM compiler tool
- Comprehensive documentation: demo examples and documentation

Benefits

- Faster development: start developing AUTOSAR-based apps right away
- Quick evaluation of AUTOSAR toolchains
- Easy validation of system architectures and functions

Product collaterals / Online support

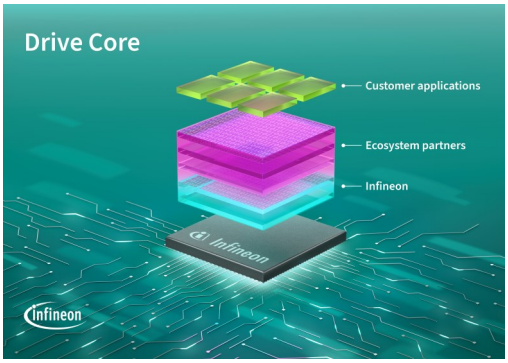
Product page

Target applications

- Automotive AUTOSAR applications for the Greater China market

PSOC™ 4 HV Drive Core Control

A comprehensive Software Bundle designed to simplify and accelerate software development for smart sensing, human machine interface and general-purpose applications in the edge.



Features

- Lightweight and efficient software platform: MICROSAR IO for small mechatronic ECUs
- Pre-integrated, qualified and certified drivers with Vector OS
- Safety-critical ASIL-B Support
- Easy-to-use tooling

Benefits

- Streamlined development process: Reduced development time and effort for small mechatronic ECUs
- Improved cost efficiency, reusability, and OEM independence
- Combining a lightweight software stack with a service-based protocol reduces the overall system complexity

Product collaterals / Online support

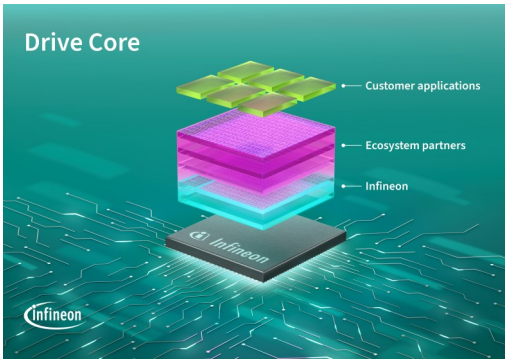
Product page

Target applications

- Automotive systems/subsystems such as lighting, parking sensors, HMI, HVAC and BMS

TRAVEO™ T2G Drive Core Graphics

A Cost-Efficient Solution for Developing Cockpit Applications for two and four-wheeler.



Features

- High-performance UIs: Qt Quick Ultralite as rendering engine for UI
- Highest frame rate, lowest footprint
- Easy development with IAR EWARM
- TRAVEO™ T2G is the only MCU-based solution for 60 fps at resolutions up to full HD

Benefits

- MPU-level performance with significant cost savings
- Cost-efficient solution: eliminating up-front investment in software
- Easy integration with AUTOSAR stacks and tools
- Enhanced user experience: advanced graphics capabilities for a more intuitive and engaging user interface

Product collaterals / Online support

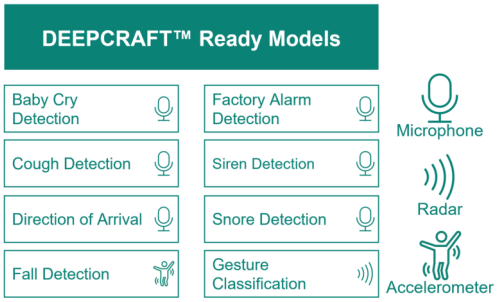
Product page

Target applications

- Cockpit applications for two and four-wheeler in resource-constrained environments

DEEPCRAFT™ Ready Models

DEEPCRAFT™ Ready Models are production-ready Edge AI models that are ready to be added to any edge device. Save the time, cost and resources usually required to collect, validate, and label data, as well as to train custom AI models. No machine learning skills required: you get complete, fully tested Edge AI models trained by experienced AI engineers. Designed for the edge: Ready Models consume less power, have low memory footprint, and short inference time. Just test, buy, and deploy: test the models for free, then purchase for a royalty per device and deploy onto your hardware. These models are optimized for deployment onto Infineon hardware but can be deployed onto any MCU.



Features

- Production-ready: complete AI models designed for edge devices
- Fully tested models that accurately detect and classify data such as sounds, gestures, and more
- Optimal model performance in common scenarios
- Optimized for minimal false triggers, even in uncommon scenarios
- Audio-based models: baby cry detection, cough detection, direction of arrival detection (audio), factory alarm detection, siren detection, snore detection
- Accelerometer-based models: fall detection
- Radar-based models: gesture classification

Competitive advantage

- Strong ML development tool and broad model offering from getting-started to deployment-ready models
- DEEPCRAFT™ Ready Models are production grade and easy to integrate into existing microcontroller products

Benefits

- Easy to integrate and deploy onto consumer and industrial products
- Fast time to market with minimal development cost
- Low memory footprint and inference time – hardware resources freed up for other purposes
- Enable AI-based features with little to no AI know-how

Product collaterals / Online support

Product Pages:

- DEEPCRAFT™ Ready Model for Baby Cry Detection
- DEEPCRAFT™ Ready Model for Cough Detection
- DEEPCRAFT™ Ready Model for Direction of Arrival (Sound)
- DEEPCRAFT™ Ready Model for Factory Alarm Detection
- DEEPCRAFT™ Ready Model for Fall Detection
- DEEPCRAFT™ Ready Model for Gesture Classification
- DEEPCRAFT™ Ready Model for Siren Detection
- DEEPCRAFT™ Ready Model for Snore Detection

Product overview incl. product brief/user guide link

OPN	SP Number	Package
CY8CKIT-062S2-AI	SP006024345	Kit
KIT_A2G_TC375_LITE	SP005551747	Kit
KIT_T2G-B-E_LITE	SP005947776	Kit
KIT_T2G-B-H_LITE	SP005922722	Kit
KIT_XMC72_EVK	SP005829648	Kit
DEEPCRAFTSTUDIOSMSOFT1	SP006091276	Software
RMBABYCRYSOFT1	SP006034975	Software
RMCOUGHSOFT1	SP006052232	Software
RMFACTORYALARMSOFT1	SP006052225	Software
RMFALLSOFT1	SP006101912	Software
RMGESTURESOFT1	SP006101904	Software
RMSIRENSOFT1	SP006052228	Software
RMSNORESOFT1	SP006052234	Software
RMSOUNDDIRECTIONSOFT1	SP006101908	Software

DEEPCRAFT™ Studio

DEEPCRAFT™ Studio is a platform for developing AI models for edge devices. It is designed to support users in creating robust, high-quality models that are ready for deployment in commercial products. Use its powerful modeling capabilities to make custom Edge AI models. Developers can stream data into the platform or import their own data to get started. For faster development, use one of our DEEPCRAFT™ Studio Accelerators as a starting point to develop your custom AI model. The platform enables timeseries and computer vision-based model development. You can also bring your own models that need to be optimized for the edge, or for specific hardware. DEEPCRAFT™ Studio uses an intuitive Graph UX interface. This lets users visualize the end-to-end machine learning workflow as graphs, providing a clear understanding of the modeling workflow from building to evaluating machine learning models.

Features

- Supports the end-to-end development process from data collection to model deployment
- Model optimization enables building of custom Edge AI models for any microcontroller
- Tested and proven for development of production-ready Edge AI models
- Unique Graph UX interface makes development process easier to follow and provides rare insight into AI models as they are built

Benefits

- Reduces time to market and the complexity of Edge AI development
- Simplifies model validation and quality assessment
- Flexible and customizable to your hardware and use-case
- For ML experts and non-experts alike
- Supports entry at any stage of development; start from scratch or import and improve existing models
- Transparent data policy lets users retain control of data

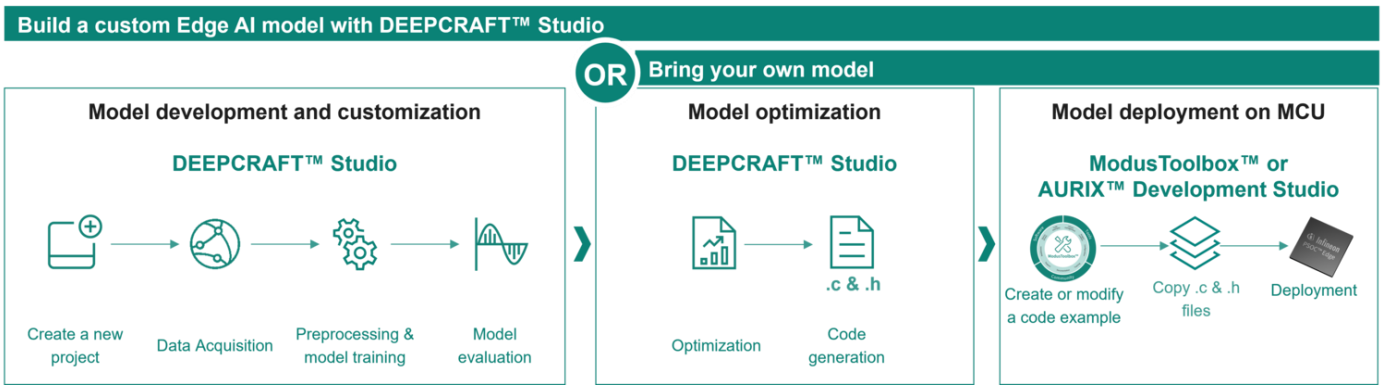
Competitive advantage

- Strong ML development tool and broad model offering from getting-started to deployment-ready models
- DEEPCRAFT™ Studio offers real-time data acquisition and labeling, offline labeling/imports, customizable pre-processing (Graph UX), easy model training, optimization, and deployment

Product collaterals / Online support

Product Page

Block Diagram



Product overview incl. user guide link

OPN	SP Number	Package
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KIT_T2G-B-E_LITE	SP005947776	Kit
KIT_T2G-B-H_LITE	SP005922722	Kit
KIT_XMC72_EVK	SP005829648	Kit