



New Product Introduction

April 2022

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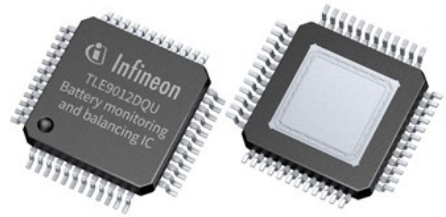
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TLE9012DQU Li-Ion battery monitoring and balancing IC

The TLE9012DQU is a multi-channel battery monitoring and balancing IC designed for Li-Ion battery packs used in many applications in the auto-motive world (electric vehicles of any kind MHEV, HEV, PHEV and BEV, etc), industrial (Energy storage systems) and consumer (i.e. e-bike BMS, home energy storage, etc). TLE9012DQU fulfills four main functions: cell voltage measurement, temperature measurement, cell balancing and isolated communication to main battery controller.



Features

- > Voltage monitoring of up to 12 battery cells connected in series
- > Hot plugging support
- > Dedicated 16-bit delta-sigma ADC for each cell with the selectable measurement mode
- > High-accuracy measurement for SoC and SoH calculation
- > Integrated stress sensor with digital compensation algorithm and temperature-compensated measurements
- > Five temperature measurement channels for external NTCs
- > ISO 26262 Safety Element out of Context for safety requirements up to ASIL-D

Competitive advantage

- > Unique iso UART Interface leads to no need of additional transformers or common mode chokes needed
- > Application robustness enables cost down thanks to no need of zener diodes
- > Infineon IC architecture brings BOM reduction

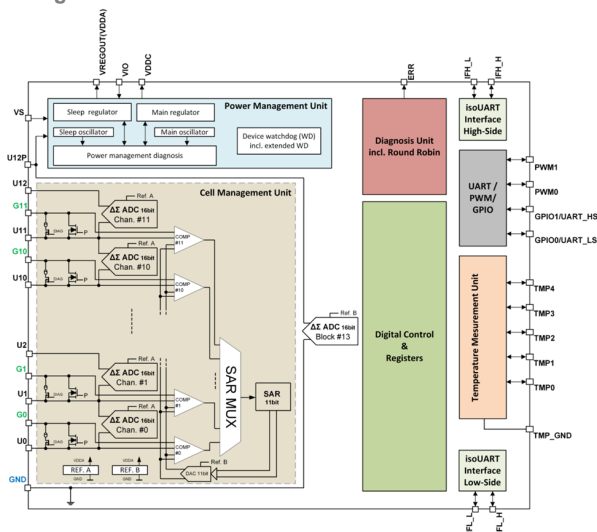
Benefits

- > Best in class Application Robustness: Infineon technology and device architecture guarantee best performances under noise
- > High accuracy voltage measurement: Reliable and precise battery cell monitoring for highly accurate SoC and SoH
- > Lowest system cost: Small package (TQFP-48) & high feature integration for a lean external BOM

Target applications

- > Battery Electric Vehicle (BEV)
- > Mild Hybrid Electric Vehicle (MHEV)
- > Hybrid Electric Vehicle (HEV)
- > Plug-in Hybrid Electric Vehicle (PHEV)
- > 12V Li-Ion battery systems
- > Energy Storage System (ESS)
- > Home Energy Storage system
- > CAV

Block diagram:



Product collaterals / Online support

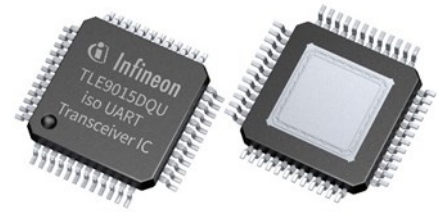
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Product overview incl. data sheet link

OPN	SP Number	Package
TLE9012DQUXUMA1	SP003903998	PG-TQFP-48

TLE9015DQU iso UART transceiver

The TLE9015DQU is a battery monitoring transceiver IC designed for connecting several TLE9012DQU devices in a daisy chain inside a Li-Ion battery. By means of its two UART and iso UART interface pairs it can support ring communication improving the availability of the system by a low cost.



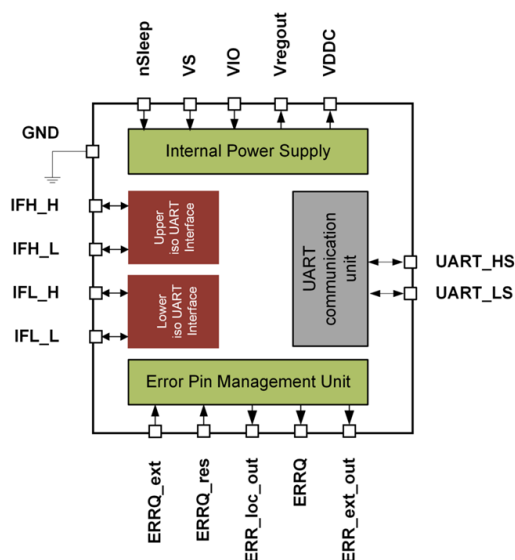
Features

- > Voltage monitoring of up to 12 battery cells connected in series
- > Compatibility for ring mode topology
- > Two UART ports for serial communication to host microcontroller
- > Two iso UART interfaces for communication to other BMS ICs
- > 2 Mbit/s data rate for fast communication
- > Fully transparent communication scheme from UART to iso UART
- > Integrated internal logic for minimizing pin count on the UART side
- > Differential current edge triggered iso UART communication interface

Competitive advantage

- > Unique iso UART Interface leads to no need of additional transformers or common mode chokes needed
- > Application robustness enables cost down thanks to no need of zener diodes
- > Infineon IC architecture brings BOM reduction

Block diagram:



Product overview incl. data sheet link

OPN	SP Number	Package
TLE9015DQUXUMA1	SP003904018	PG-TQFP-48

Benefits

- > Robust communication without need of transformers or common mode chokes
- > Primary-on-top or Primary-on-bottom selectable without tedious configuration
- > Bi-directional communication scheme using error management logic
- > Ring mode topology for further system availability at low cost

Target applications

- > Battery Electric Vehicle (BEV)
- > Mild Hybrid Electric Vehicle (MHEV)
- > Hybrid Electric Vehicle (HEV)
- > Plug-in Hybrid Electric Vehicle (PHEV)
- > 12V Li-Ion battery systems
- > Energy Storage System (ESS)
- > Home Energy Storage system

Product collaterals / Online support

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AIKQ120N75CP2, AIKQ200N75CP2

Infinion Automotive 750V EDT2 Discrete IGBTs in To247PLUS package designed for discrete traction inverter in xEV.



Features

- > 750 V collector-emitter blocking voltage capability
- > Smooth switching characteristics
- > Very low $V_{CE(sat)}$, 1.30 V at $I_{C(nom)} = 200$ A
- > Short circuit robust
- > Very tight parameter distribution
- > Low gate charge QG
- > Co - packed with fast soft recovery emitter controlled 3 diode
- > Qualified according to AEC-Q101
- > Increase overvoltage margin in the application
- > Reduction of number of paralleled devices required
- > Simple gate drive design
- > Self limiting current under short circuit condition
- > Low EMI signature
- > High reliability and operating lifetime

Competitive advantage

- > Best in class EDT2 IGBT technology with 750 V breakdown voltage
- > AIKQ200N75CP2 classifies as the best in class discrete IGBT in a TO247 Plus package with the highest nominal current-carrying capability in the market ($I_{C(nom)}$ is 200 A at $T_c=100^\circ$ C without bond-wire limitation)

Target applications

- > xEV Inverter
- > DC Link Discharge switch
- > Motor drive

Benefits

- > Benchmark quality and switching performance for 470 V_{dc} systems
- > Extremely robust design to fulfill customer's mission profile
- > High switching frequencies for less switching losses and cooling effort
- > Paralleling allows different power class inverters to be addressed with the same product, generating power scalability and cost optimization

Product collaterals / Online support

[Product page AIKQ120N75CP2](#)

[Product page AIKQ200N75CP2](#)

Product overview incl. data sheet link

OPN	SP Number	Package
AIKQ120N75CP2XKSA1	SP005416548	PG-TO247-3
AIKQ200N75CP2XKSA1	SP005416550	PG-TO247-3

MOTIX™ BTN9990LV

The BTN9990LV contains one p-channel high-side MOSFET and one n-channel low-side MOSFET with an integrated driver IC in one package. Due to the p-channel high-side switch the need for a charge pump is eliminated thus minimizing EMI. Interfacing to a microcontroller is made easy by the integrated driver IC which features logic level inputs, diagnosis with current sense, slew rate adjustment, dead time generation and protection against over-temperature, under-voltage, overcurrent and short circuit.



Features

- > One p-channel high-side MOSFET and one n-channel low-side MOSFET with an integrated driver IC in one small HSOF-7 package
- > AEC-Q100/Q006 Qualified (Grade 1)
- > Path resistance of typ. 5.3 mΩ @ 25° C (max. 9.6 mΩ @ 150° C)
- > Supply voltage range 8 V - 18 V (max up to 40 V)
- > Low quiescent current of max. 3.3 μA @ 85° C
- > Overcurrent detection level of 75 A min
- > Protection features: overcurrent, undervoltage, overtemperature
- > 8 selectable switching slew rates for optimized EME

Competitive advantage

- > Integration of high power PMOS, NMOS and Driver IC in one small package
- > Protection and diagnosis features
- > Low path resistance of typ. 5.3 mΩ @ 25° C
- > High current limit of 75 A Min

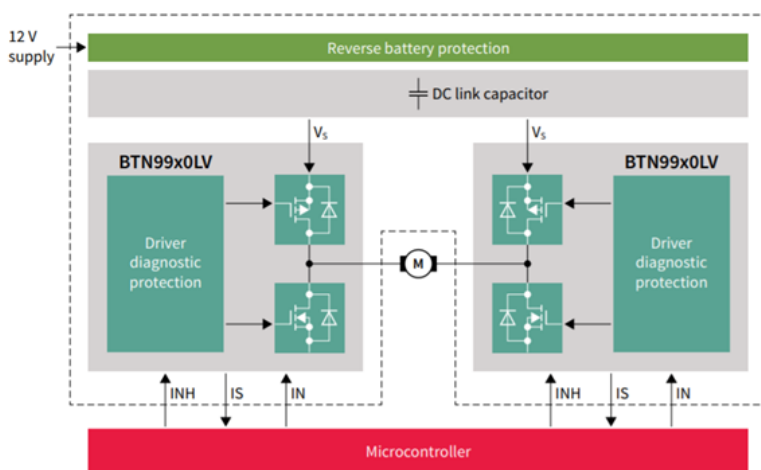
Benefits

- > Integration of high power PMOS, NMOS and Driver IC minimizes design and manufacturing effort
- > Less PCB area and BOM compared to discrete solution
- > Higher system reliability due to integrated diagnosis, current sense and protection functions
- > Supports half and full bridge (2x) configuration and cost optimization

Target applications

- > Automotive 12 V brushed DC Motor
- > Seatbelt pretension
- > Seat Control
- > Fuel pumps
- > Power lift gate
- > Sliding door
- > HVAC control module

Block diagram:



Product collaterals / Online support

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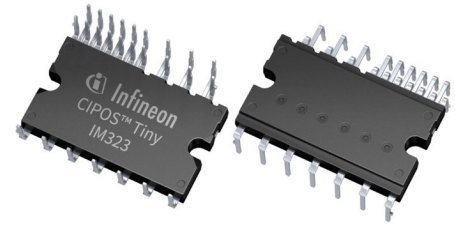
Product overview incl. data sheet link

OPN	SP Number	Package
BTN9990LV AUMA1	SP003484388	PG-HSOF-7
DCSHIELDBTN9970LV TOBO1	SP005344739	

CIPOS™ Tiny 600V 15A three-phase Intelligent Power Module

The CIPOS™ Tiny 600 V, 15 A three-phase IGBT based Intelligent Power Module comes with optimized performance and compact form factor for an inverter power rating up to 1.5HP. The new member of the IM323-family was designed especially for Room Aircon and Home appliance applications.

The energy-efficient CIPOS™ Tiny is a family of advanced IPMs (Intelligent Power Modules) developed with a focus on higher module efficiency and long-term reliability. The combined benefits of advanced trench IGBT technology and optimized package design have enabled us to achieve best-in-class efficiency and improved reliability, along with minimized system size and cost. Integrating discrete power semiconductors and drivers into one package allows designers to reduce the time and effort spent on design, significantly reducing the time-to-market.



Features

- > TRENCHSTOP™ RC-D2
- > C5SOI 3-phase single gate driver
- > Operating range of 1 to 20 kHz
- > Maximum junction temperature 175° C for the RC-D2
- > Short circuit capability minimum 3µs
- > Full pack DIP 32.8x18.8 mm
- > Pin compatible solution
- > For target applications in MHA especially for and RAC compressor up to 1.5 hp

Benefits

- > Proven & enhanced package robustness for high reliability
- > Full in-house production front-end and back-end for supply security
- > Latest switch and gate driver technology for best performance
- > Designed for fast time to market

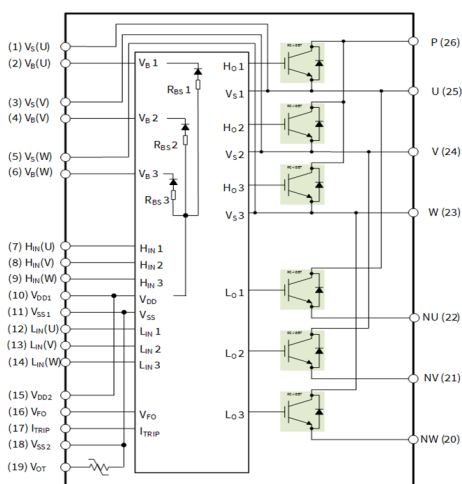
Target applications

- > Home appliances
- > Industrial motor drives and controls
- > Residential aircon - motor-, system control and monitoring

Competitive advantage

- > Proven & enhanced package robustness for high reliability
- > Full in-house production front-end and back-end for supply security
- > Latest switch and gate driver technology for best performance
- > Designed for ease of design in and fast time to market

Block diagram:



Product collaterals / Online support

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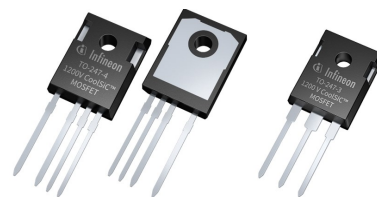
Product overview incl. data sheet link

OPN	SP Number	Package
IM323L6GXKMA1	SP005545275	PG-MDIP-26
IM323L6G2XKMA1	SP005545739	PG-MDIP-26

1200 V CoolSiC™ MOSFET Low - ohmic range

CoolSiC™ 1200 V SiC MOSFET low-ohmic range, 7 mΩ, 14 mΩ and 20 mΩ, in TO247 package is built on a state-of-the-art trench semiconductor process optimized to combine performance with reliability. The latest CoolSiC™ MOSFETs have the best-in-class thermal dissipation performance benefited from the .XT interconnection technology.

CoolSiC™ MOSFETs are ideal for hard- and resonant-switching topologies like power factor correction (PFC) circuits, bi-directional topologies and DC-DC converters or DC-AC inverters.



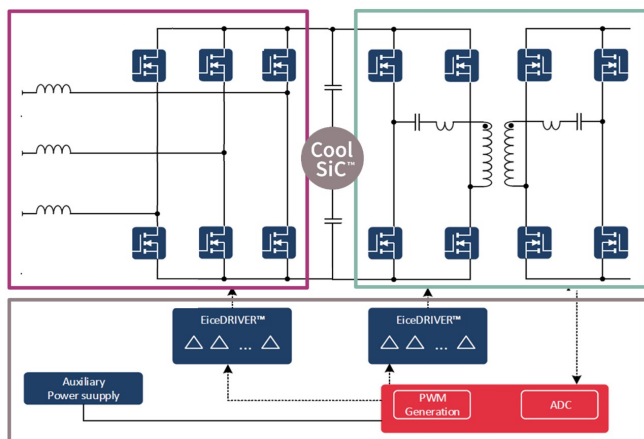
Features

- > Lowest $R_{DS(ON)}$ 7 mΩ in TO247
- > .XT interconnection technology for best-in-class thermal performance
- > maximum gate-source voltage lowered to -10 V
- > Flexible turn-off gate voltage selection -5 V ~ 0 V
- > Avalanche and short-circuit capability

Target applications

- > FAST EV Charging
- > Solar energy system
- > Energy storage system,
- > Industrial Drives

Block diagram:



Benefits

- > Highest power density from single device, leading typical single device output power at 30 kW
- > 15% improvement on thermal dissipation capability
- > Easy to design and apply
- > Enhance robustness and reliability

Competitive advantage

- > Proven & enhanced package robustness for high reliability
- > Full in-house production front-end and back-end for supply security
- > Latest switch and gate driver technology for best performance
- > Easy to design and speed up time to market

Product collaterals / Online support

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Product overview incl. data sheet link

OPN	SP Number	Package
IMW120R007M1HXKSA1	SP005425447	PG-TO247-3
IMW120R014M1HXKSA1	SP005425449	PG-TO247-3
IMW120R020M1HXKSA1	SP005448291	PG-TO247-3
IMW120R040M1HXKSA1	SP005424429	PG-TO247-3
IMZA120R007M1HXKSA1	SP005425973	PG-TO247-4
IMZA120R014M1HXKSA1	SP005425977	PG-TO247-4
IMZA120R020M1HXKSA1	SP005448293	PG-TO247-4
IMZA120R040M1HXKSA1	SP005425989	PG-TO247-4

EasyPACK™ CoolSiC™ Schottky diode and TRENCHSTOP™ IGBT7

The FS3L200R10W3S7F_B94 is a three-level bipolar boost module in Easy 3B housing. It features a CoolSiC™ Schottky diode as well as a 950 V TRENCHSTOP™ IGBT7 chip.

The power module was developed for 1500 V_{DC} solar applications and is compatible with bifacial PV modules for 500 W+ power. Every module is equipped with 3 MPPTs and can reach up to 30 A input current per MPPT.

Customers benefit from high efficiency and a rugged bypass diode that protects against lightning. In addition, due to the same package height of 12mm, designers can easily and flexibly combine Easy 1B, 2B and 3B for the MPPT and inverter stages.



Features

- > CoolSiC™ Schottky diode
- > 950 V TRENCHSTOP™ IGBT7
- > Rugged bypass diode
- > Compatible with bifacial PV modules of 500 W+ power
- > Dual boost topology

Benefits

- > High efficiency
- > Robust against lightning
- > Up to 30 A input current per MPPT
- > Full support for 1500 V_{DC} systems

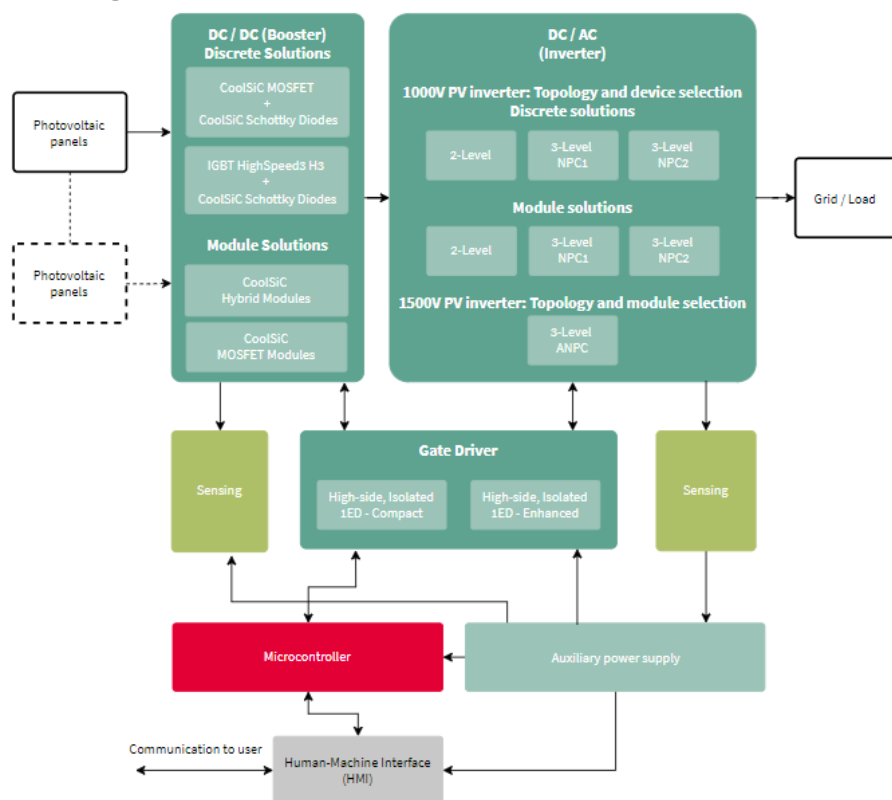
Target applications

- > Solar

Competitive advantage

- > Broad Easy module portfolio for maximum design flexibility

Block diagram:



Product collaterals / Online support

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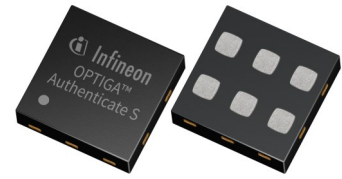
Product overview incl. data sheet link

OPN	SP Number	Package
FS3L200R10W3S7FB94BPSA1	SP005422198	AG-EASY3B-7011

OPTIGA™ Authenticate S

Infineon's newest anti-counterfeit turnkey solution, combining enhanced device authentication with unprecedented levels of configuration flexibility.

OPTIGA™ Authenticate S gives each product a secret key so it can be authenticated at the point of use, and so products can be tracked and traced throughout the supply chain. With its rich set of 16 customization options, it supports even the most complex authentication requirements – all on a single, tiny footprint. OPTIGA™ Authenticate S is suited to an ever-expanding range of applications, from single-use disposables and rechargeable batteries for smartphones, portable devices, and e-mobility solutions, to computing and robotic systems in highly complex IoT environments.



The turnkey solution comes with full system integration support including embedded software, host software and advanced ecosystem support tools based on the latest PSoC™ 6 MCUs.

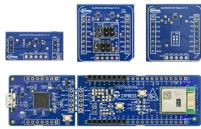
Additional information: a NDA is required.

Features

- > 4 ECC authentication modes (one-way, mutual, host binding and host support)
- > 4 lifecycle counters with independent kill structures
- > 3 types of lockable NVM Sizes (1 Kbit, 2 Kbit, 5 Kbit)
- > 3 temperature options, 2 ECC 163-bit key pairs and 193-bit ODC
- > 2 serial communication options (SWI & I2C + GPO)
- > Host code software – with new OS library

Target applications

- > Single-use disposables such as HVAC, water filters and purifiers
- > Batteries and accessories, Battery powered tools



Evaluation Board

- > The OPTIGA™ Authenticate S Evaluation Kit is designed to allow users to evaluate the functionality of the OPTIGA™ Authenticate S. The Evaluation Kit can be operated in various versions of Microsoft Windows environment. It offers a simple Graphical User Interface to access to OPTIGA™ Authenticate S functionalities such as Host Authentication, Device Authentication, NVM, Kill feature and GPO trigger event. The OPTIGA™ Authenticate S Evaluation Kit is shipped with a programmed Infineon PSoC® 6 BLE Prototyping kit and several daughter boards. It will allow functional testing and simplified customer platform integration.

- > Additional information: NDA is required.

Product overview incl. data sheet link

OPN	SP Number	Package
EVALKITOPTIGAAUTHSTOBO	SP005732261	
DEVKITOPTIGAAUTHSTOBO1	SP005732259	
SLE95401TSNP6XTSA1	SP005431226	PG-TSNP-6
SLE95402TSNP6XTSA1	SP005416623	PG-TSNP-6
SLE95415TSNP6XTSA1	SP005416625	PG-TSNP-6

Benefits

- > Rich customization options
- > Effortless implementation – full turnkey solution – full system integration support
- > Additional customer services, such as alerts when spare parts need replacing
- > Security to rely on – e.g. enhanced HW security with extended key length
- > Freedom to design even very small products – tiny package of 1.5 mm²

Competitive advantage

- > One of the smallest solutions on the market (tiny package of 1.5 mm²)
- > Protection against reverse engineering
- > Asymmetric cryptography with secured unique identity for each chip
- > Provisioning in a common criteria certified environment
- > Enabling production in non-certified environments
- > Reducing complexity and time to market
- > Reliable & strong partner: 30+ years of expertise in hardware security, helping you to reduce complexity & implementation cost

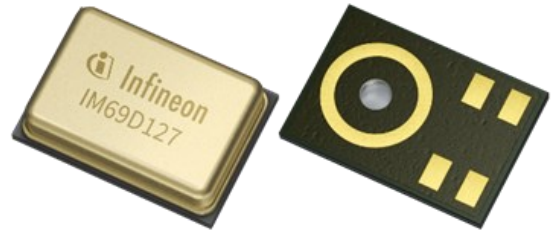
Product collaterals / Online support

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[Product brief](#)

XENSIV™ MEMS digital microphone IM69D127

IM69D127 is a digital high performance MEMS microphone based on Infineon's new Sealed Dual Membrane MEMS technology which delivers high ingress protection (IP57) at a microphone level. Its small size of only 3.6 x 2.5 x 1.0 mm makes it a perfect match for compact audio devices, such as TWS earbuds.



Features

- > Very-low self-noise / very-high SNR (69 dB)
- > Selectable power modes for battery critical applications
- > Sealed Dual Membrane (SDM) technology with IP57 ingress protection at microphone level
- > Small package size (3.6 x 2.5 x 1.0 mm)
- > Very tight part-to-part phase and sensitivity matching (± 1 dB)
- > Flat frequency response with a low LFRO (low frequency roll-off) of 40 Hz
- > Very low group delay (9 μ s)

Target applications

- > TWS Earbuds
- > ANC Headphones
- > Laptops & Tablets
- > Wearables

Evaluation Board

- > **KITIM69D127V11FLEXTOBO1**: Five XENSIV™ MEMS microphones mounted on flex board and one adapter board.

The flex evaluation kits allow simple and easy evaluation of XENSIV™ MEMS microphones. One microphone of the respective type is mounted on each flex board. A flex board can be easily connected to an audio testing setup with the included adapter board via a 6-position ZIF connector. Each kit includes five flex boards and one adapter board.

Benefits

- > Crystal clear audio pick up of the quietest and the loudest sounds
- > Small package size and high ingress protection (IP57) at a microphone level
- > Enablement of advanced audio features (ANC, transparent hearing, audio zoom, beamforming)

Product collaterals / Online support

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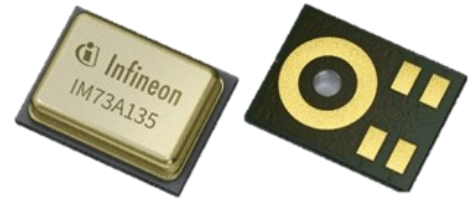
[Board page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
IM69D127V11XTMA1	SP005405062	PG-TLGA-5
KITIM69D127V11FLEXTOBO1	SP005403891	

XENSIV™ MEMS analog microphone IM73A135

Infineon's XENSIV™ MEMS analog microphone IM73A135 sets a new performance benchmark in MEMS microphones. A best-in-class signal to noise ratio (SNR) of 73 dB and a high acoustic overload point of 135 dBSPL enable clear audio pick up of the quietest and the loudest sounds. This microphone is based on Infineon's new Sealed Dual Membrane MEMS technology which delivers high ingress protection (IP57) at a microphone level. The IM73A135 allows designers to reach a level of high audio performance that was previously only achievable by ECMs while at the same time reaping the benefits inherent in MEMS technology.



Features

- > Ultra-low self-noise / ultra-high SNR (73 dB)
- > Selectable power modes for battery critical applications (170/70 μ A)
- > Sealed Dual Membrane (SDM) technology with IP57 ingress protection at microphone level
- > Ultra high dynamic range and very high acoustic overload point (AOP) of 135 dBSPL
- > Very tight part-to-part phase and sensitivity matching (\pm 1 dB)
- > Flat frequency response with a very low LFRO (low frequency roll-off) of 20 Hz
- > Ultra-low group delay (2 μ s @ 1 kHz)

Benefits

- > Crystal clear audio pick up of the quietest and the loudest sounds
- > High ingress protection (IP57) at a microphone level
- > Enablement of advanced audio features (ANC, transparent hearing, audio zoom, beamforming)

Target applications

- > ANC Headphones
- > Conference systems
- > Smart Speaker
- > Surveillance
- > Cameras

Product collaterals / Online support

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[Board page](#)

Evaluation Board

- > **KITIM73A135V01FLEXTOBO1**: Five XENSIV™ MEMS microphones mounted on flex board and one adapter board

The flex evaluation kits allow simple and easy evaluation of XENSIV™ MEMS microphones. One microphone of the respective type is mounted on each flex board. A flex board can be easily connected to an audio testing setup with the included adapter board via a 6-position ZIF connector. Each kit includes five flex boards and one adapter board.

Product overview incl. data sheet link

OPN	SP Number	Package
IM73A135V01XTSA1	SP003803274	PG-LLGA-5
KITIM73A135V01FLEXTOBO1	SP005415695	

PSoC™ 62S2 evaluation kit

The PSoC™ 62S2 evaluation kit (CY8CEVAL-062S2) enables you to evaluate and develop applications using the PSoC™ 62 MCU (CY8C624ABZI-S2D44). This kit features an M.2 interface that enables you to connect the supported M.2 radio modules based on AIROC™ Wi-Fi/Bluetooth® combo devices. With PSoC™ 62 MCU as the Wi-Fi host MCU, and the AIROC™ device enabling Wi-Fi and Bluetooth® connectivity, you can easily prototype and evaluate embedded IoT applications using this kit and the ModusToolbox™ software. In addition, the kit also features an OPTIGA™ Trust-M security controller for secured cloud device provisioning.



Features

- > PSoC™ 62 MCU (CY8C624ABZI-S2D44): 150 MHz Arm® Cortex® -M4 and 100-MHz Arm® Cortex® - M0+ cores, 2MB of Flash, 1 MB of SRAM, hardware crypto accelerator, rich analog and digital peripherals, and industry-leading CAPSENSE™ technology.
- > M.2 interface that enables you to connect the supported M.2 radio modules based on AIROC™ Wi-Fi/Bluetooth® combo devices. Laird Connectivity's Sterling-LWB5+ M.2 radio module included in the kit package.
- > OPTIGA™ Trust-M security controller for secured cloud device provisioning.
- > mikroBUS interface for hardware expansion using Click board
- > Headers compatible with Arduino Uno R3 for hardware expansion using Arduino shields
- > Onboard programmer, debugger and user LEDs, user buttons

Competitive advantage

- > Flexible evaluation of supported M.2 radio modules based on AIROC™ Wi-Fi / Bluetooth® combo devices
- > Security considerations in proto / evaluation phase itself with the on-board OPTIGA™ Trust-M security controller

Target applications

- > IoT gateways
- > Smart Home
- > Home Appliances
- > HMI
- > Audio processing

Benefits

- > Rapid prototyping and evaluation of PSoC™ 6 MCU based applications
- > Supports evaluation of both cloud connected, and stand-alone MCU applications
- > Security integrated as part of the prototyping phase itself with the on board OPTIGA™ Trust-M security controller
- > Readily available, validated code examples supported via ModusToolbox™ software including support for board support package, various middleware libraries

Product collaterals / Online support

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OPN	MOQ
CY8CEVAL-062S2	1

Non-isolated bi-directional synchronous buck converter EVAL_BIDI_HB_1EDN7550B

The bi-directional buck converter evaluation board EVAL_BIDI_HB_1EDN7550B is designed to show the application of the 1EDNx550B in half-bridge topologies to drive low-side and high-side switches. The 1EDNx550B is the EiceDRIVER™ family of single-channel gate drivers with truly differential inputs (TDI).



Features

- > 1EDN7550B TDI to drive bidirectional sync buck stage
- > Undervoltage lockout
- > Overvoltage and undervoltage protection
- > Overcurrent protection

Target applications

- > Power supply
- > SMPS

Benefits

- > 1EDN TDI application in non-isolated bidirectional 48V-12V synchronous buck converter

Product collaterals / Online support

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[Application note](#)

Product overview incl. data sheet link

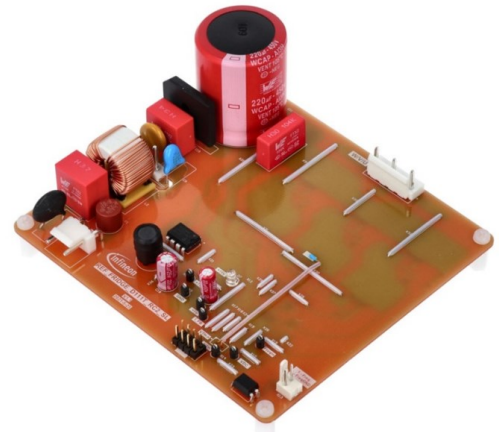
OPN	SP Number
EVALBIDIHB1EDN7550BTOBO1	SP005676349

Reference board for efficient control of rotary fridge compressor drives powered by IMD11T motor control IC and RC-D2 IGBT

The REF_Fridge_D111T_RC2_SL board is a ready-to-use reference single-layer printed-circuit-board designed for refrigerator compressors. It demonstrates the whole Infineon solution including digital motor control IC iMOTION™ driver IMD11T-6F040 and the RC-D2 600 V discrete IGBT IKD04N60RC2.

The design can easily be copied to a final mass-production application board, and therefore has a fast time to market.

It can be easily interfaced through iMOTION™ Link. This tool is designed to program and debug different series of iMOTION™ motor control ICs. It is essential for tuning your motor control system.



Features

- > iMOTION™ driver IMD11T-6F040: ready-to-use motion controller with scripting engine and 6-channel silicon on insulator (SOI) driver
- > RC-D2 600 V IGBT for lowest EMI and losses
- > System solution enables highly integrated, flexible design and lowest EMI

Benefits

- > Single-layer PCB for lowest manufacturing costs
- > Proven thermal design and EMI compatibility
- > Easy to design due to iMOTION™ controller for fast time to market
- > Good efficiency at all output load levels

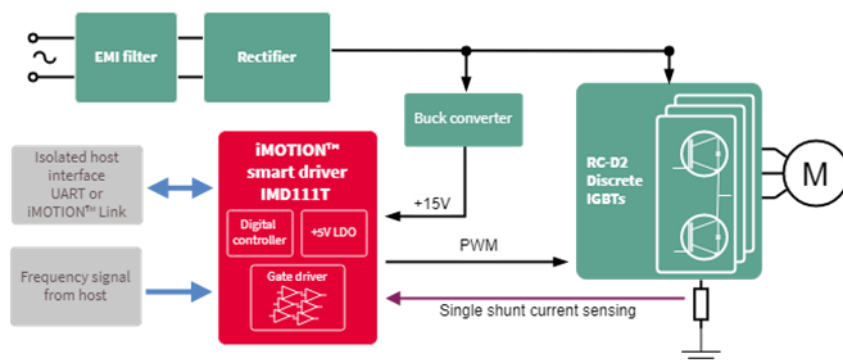
Competitive advantage

- > Provides easy design-in with turnkey motor control solution for faster time to market
- > Simplifies HW development by using a controller with integrated gate drive
- > Helps reducing manufacturing costs by a single-layer PCB design approach

Target applications

- > Home appliances
- > Motor control and drives
- > Refrigeration and freezing – compressor drives

Block diagram:



Product collaterals / Online support

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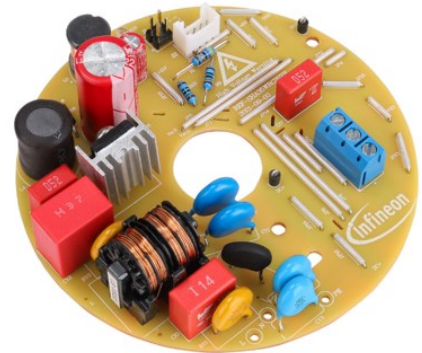
[Product family page](#)

Product overview incl. data sheet link

OPN	SP Number
REFFRIDGED111TRC2SLTOBO1	SP005614183

REF-SHA35WRC2SYS - Full-featured starter kit for high voltage ceiling fan motors with turnkey motor drive software

REF-SHA35WRC2SYS is a full-featured starter kit which consists of a main board plus a daughter card with IrDa sensor and a suitable remote control box. The main board includes IMD112T iMOTION™ driver which provides turnkey PFC and motor control with the field-proven MCE (Motor Control Engine), that eliminates software coding from the ceiling fan motor control algorithm development process. Moreover a PFC stage with IKA08N65H5 as switch plus IRS44273L as suitable gate driver and IKN03N60RC2 for the inverter stage are included as well. The single layer PCB with 90 mm diameter provides a cost-effective and ready-to-copy reference for common ceiling fan designs.



Features

- > Input voltage range 120~300 Vrms
- > Maximum input power 35 W
- > PFC factor ≥ 0.9 and $iTHD \leq 10\%$ @ 230 Vrms
- > PFC stage on-board (up to 60 kHz)
- > IEC61000-4-5 4 kV Surge compliant
- > EN55032 Class B EMI compliant
- > Overcurrent protection and auxiliary supply on-board

Benefits

- > Ready-to-copy PCB for a compact and cost effective single layer designs
- > Easy evaluation of the complete system including infrared control
- > Ready-to-use motor control algorithms (incl. PFC) for high-efficiency permanent magnet synchronous motors (PMSM)

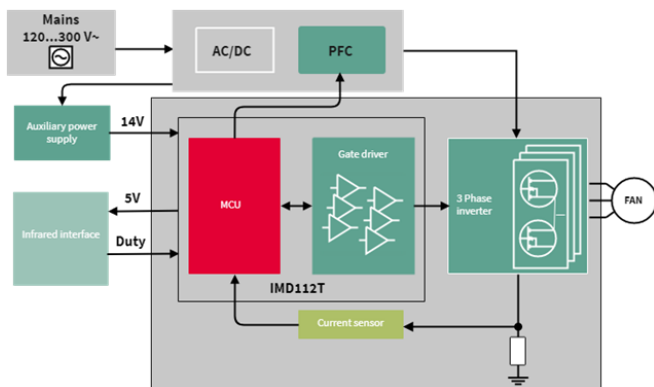
Competitive advantage

- > High voltage ceiling fan market is fragmented and cost sensitive, especially in India – the design is tested according to the regulations which apply for the Indian Market
- > New players with limited R&D know-how are entering the market – the design is turnkey and requires no motor control algo development
- > Fast time-to-market is of essence – the design is a cost-effective single layer design with a ready-to-copy PCB

Target applications

- > Ceiling fan - motor control and drive solutions
- > Home appliances
- > Motor control and drives

Block diagram:



Product overview incl. data sheet link

OPN	SP Number
REFSHA35WRC2SYSTOBO1	SP005729831

Product collaterals / Online support

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