



New Product Introduction

November 2023

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[EVAL 600W FBFB XDPP - evaluation board for telecom and server applications](#)

ISOFACE™ quad-channel digital isolators for industrial and automotive applications

The ISOFACE™ quad-channel digital isolator family supports data rates up to 40 Mbps and ensures robust data communication over a wide ambient operating temperature range (-40°C to +125°C) and across production spread.

Four data channels in a wide-body DSO-16 package allow for simplified and high power density designs and improve system efficiency with low current consumption. Product variants with different channel configurations, fail-safe default output states and output enable configurations are available.



Features

- > Data rates up to 40 Mbps
- > Supply voltage: 2.7 V – 6.5 V
- > VISO of 5700 VRMS
- > Low current consumption 6.4 mA @ 1 Mbps
- > CMTI: 100 kV / μ s (min)
- > Operating temperature: -40°C to 125°C
- > AEC-Q100 qualified
- > Channel configurations: 3+1, 2+2, 4+0 (coming soon)

Benefits

- > High immunity against system noise
- > Higher system efficiency
- > Reliable high default output state
- > Simplified system certification
- > Easy device replacement
- > Alternative sourcing

Target applications

- > Industrial automation
- > Server
- > Telecom
- > Industrial SMPS
- > Solar
- > Isolated serial peripheral interface
- > Hybrid, electric and powertrain systems: Battery management system, on-board charger, traction inverter, DC / DC converter, inverter and motor control

Competitive advantage

- > High CMTI > 100 kV/ μ s (min)
- > Low current consumption: 6.4 mA @ 1 Mbps
- > Pin-to-pin compatibility with market portfolios
- > Simplified system safety approval (IEC 6236-1, IEC60747-17, UL 1577, VDE 0884-17, AEC-Q100 qualification)

Product collaterals / Online support

[Product family page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
4DIR1400HXUMA1	SP005424285	PG-DSO-16
4DIR1400HAXUMA1	SP005850920	PG-DSO-16
4DIR1401HXUMA1	SP005547300	PG-DSO-16
4DIR1401HAXUMA1	SP005850926	PG-DSO-16
4DIR1420HXUMA1	SP005547308	PG-DSO-16
4DIR1420HAXUMA1	SP005850932	PG-DSO-16
4DIR1421HXUMA1	SP005547311	PG-DSO-16
4DIR1421HAXUMA1	SP005850936	PG-DSO-16
4DIR2400HXUMA1	SP005547301	PG-DSO-16
4DIR2400HAXUMA1	SP005849899	PG-DSO-16
4DIR2401HXUMA1	SP005547305	PG-DSO-16
4DIR2401HAXUMA1	SP005850929	PG-DSO-16

Automotive PSoC™ 4100S Max



Infineon's Automotive PSoC™ 4 S-series is now available with enhanced features, including the Automotive PSoC™ 4100S Max family which offers a whopping 384 KB flash capacity and up to 84 pins of analog and digital GPIO. This family also introduces the latest generation of the CAPSENSE™ IP, the MSC CAPSENSE™ that delivers superior performance and noise immunity.

Features

- > 32-bit MCU Subsystem
 - > 48 MHz Arm® Cortex®-M0+ CPU with a DMA controller
 - > 384 KB flash and 32 KB SRAM
 - > External MHz oscillator (ECO) with PLL and 32KHz watch crystal oscillator (WCO)
 - > CRYPTO block includes AES, TRNG, CRA, PRNG and SHA
- > Programmable Analog Blocks
 - > One 12-bit, 1-Msps SAR ADC
 - > Two opamps configurable as programmable gain amplifiers (PGAs), comparators (CMPs), etc.
 - > Two low-power comparators
 - > Two MSC (Multi-Sense Converter) blocks integrating 5th generation CAPSENSE™ and Inductive Sense
- > Programmable Digital Blocks
 - > Eight 16-bit timer/counter/pulse-width modulator (TCPWM) blocks
 - > Five serial communication blocks (SCBs) that are configurable as I2C, SPI, or UART
 - > Segment LCD
 - > Audio I2S for sound output
 - > One CAN-FD (Controller Area Network with Flexible Data-rate) Controller
- > Packages
 - > 48-QFN, 64-TQFP and 100-TQFP
- > I/O Subsystem
 - > Up to 84 GPIOs, including 24 Smart I/Os

Benefits

- > Low power compute & integration, optimized right from the hardware level
- > Differentiated Touch HMI features in MCU
- > Integrate differentiated analog capabilities to support resistive and current sensing
- > Highspeed communications from Fast I2C or CAN-FD
- > Dedicated cryptography block for fast cryptographic functions
- > Easy to use software for prototyping and productizing end applications

Competitive advantage

- > Fully supported by Infineon IDE ModusToolbox™
 - > ModusToolbox™ design environment - Integrated Development Environment (IDE) provides configuration, program development, and build with debugging – Applications
 - > Programming Interface (API) for all fixed-function and programmable peripherals using Peripheral Driver Libraries (PDL)

Target applications

- > User interface for HMI applications
- > Body control
- > HVAC applications

Product collaterals / Online support

[Product page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
CY8C4148AZSS555XQLA1	SP005897670	PG-TQFP-64
CY8C4149LDSS593XQLA1	SP005967671	PG-VQFN-48
CY8C4149AZS-S578	SP005914735	PG-TQFP-100
CY8C4149LDE-S593	SP005897664	PG-VQFN-48

PSoC™ High Voltage (HV) Precision Analog (PA) 144k



The PSoC™ 4 HV PA 144k represents a comprehensive, fully integrated programmable embedded system designed specifically for battery monitoring and management. It is a distinguished subfamily within the PSoC™ 4 HV PA lineup. This versatile system is equipped with a high-performance Arm® Cortex® M0+ processor, capable of running at speeds of up to 48 MHz. Additionally, it boasts programmable and reconfigurable analog and digital blocks, providing exceptional flexibility for various applications.

When it comes to memory capacity, the PSoC™ 4 HV PA 144k offers an ample 128 Kbytes of code flash memory, fortified with ECC protection to ensure data integrity. This family of products is conveniently available in a 32-QFN package with wettable flanks, simplifying the integration process into your projects.

Furthermore, it's noteworthy that the PSoC™ HV PA 144k has undergone rigorous Automotive Electronics Council (AEC)-Q100 qualification, attesting to its reliability and suitability for automotive applications.

Features

- > High-performance, 24 to 49.152-MHz Arm® Cortex® M0+ CPU with MPU and DMA controller
- > Precision analog channel subsystem (PACSS)
- > High voltage subsystem (tolerant up to 42 V)
- > Integrated LIN transceiver
- > High-precision clock sources
- > Configurable Timer Counter PWM (TCPWM) block
- > Configurable Serial Communication Block (SCB) with I2C, SPI, UART, and LIN slave operating modes
- > Low-power operating modes: sleep and deep sleep
- > Functional safety for ASIL-B according to ISO 26262

Benefits

- > High Precision Analog
 - > Precise analog measurements with 2x Delta-Sigma ADCs and 4x hardware digital processing channels
 - > Optimized for battery V, I and T measurements
- > Functional Safety
 - > ISO 26262 for ASIL-B compliance
 - > Analog diagnostics, ECC for memories, Window watchdog
- > One-Chip Solution
 - > Operates directly off the 12V battery, integrated LIN PHY
 - > Integrated MCU
 - > Compact QFN package

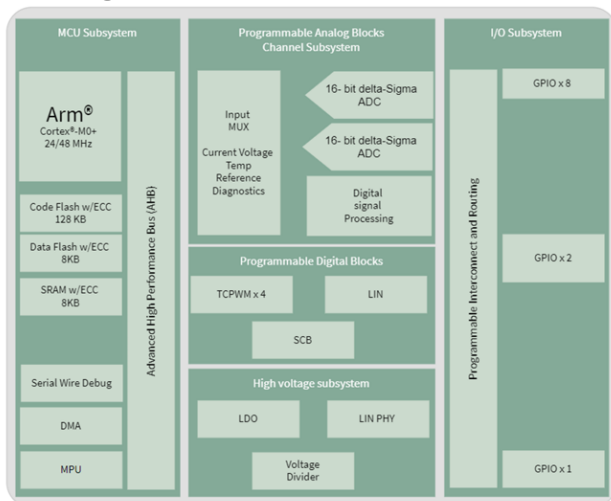
Target applications

- > Intelligent Battery Sensing (IBS)
- > Battery Management System (BMS)

Competitive advantage

- > High Precision Analog
- > Functional Safety
- > One-Chip Solution

Block diagram



Product collaterals / Online support

- [Product page](#)
- [Customer connector](#)
- [Training](#)

Product overview incl. data sheet link

OPN	SP Number	Package
CY8C4147LCE-HV423T	SP005738920	PG-VQFN-32

PSoC™ 4000T Microcontroller with 5th Generation CAPSENSE™



The PSoC™ 4000T MCU has an Arm® Cortex®-M0+ CPU and feature Infineon's 5th Generation high-performance CAPSENSE™ capacitive sensing subsystem. The industry leading capacitive sensing technology provides a 10x higher SNR performance with a 10x lower consumption than previous generations of CAPSENSE™. The new "Always-on" sensing technology offers ultra-low power consumption in both active and standby modes, enabling battery life extension.

Features

- > 32-bit MCU subsystem
 - > 48 MHz Arm® Cortex®-M0+
 - > Up to 64 KB Flash and 8 KB SRAM
- > MSC (Multi-Sense Converter) with 5th Generation CAPSENSE™
 - > "Always-on" sensing enabled ultra-low power technology
 - > Reliable operation under harsh conditions, including wet and high moisture
 - > Supports self-cap and mutual-cap sensing technologies
 - > Supports up to 16 sensors
- > Programmable Digital Blocks
 - > Two 16-bit timer/counter/pulse-width modulator (TCPWM) blocks
 - > Two serial communication blocks (SCBs) that are configurable as I2C, SPI, or UART

Product collaterals / Online support

[Product page](#)

Benefits

- > 5th Generation CAPSENSE™ with 10x higher SNR performance improvement
- > 10x lower power consumption over the previous generation
- > Provides a migration path for PSoC™ 4000 and PSoC™ 4000S based designs with performance enhancements

Competitive advantage

- > 10x higher signal-to-noise ratio performance
 - > < 100aF rms noise floor for Cs=8 pF
 - > Supports Cs up to 200 pF
- > 10x lower average power consumption
 - > Ultra-low power "Always-on" sensing
 - > Autonomous operation without CPU
- > Other key differentiators
 - > Flat spot reduction
 - > Temperature stability
 - > Multi-chip, multi-channel and external sync

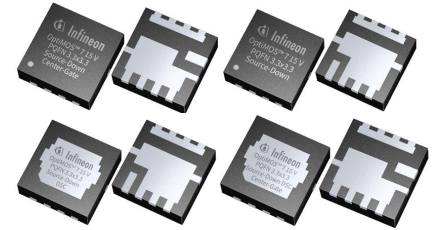
Target applications

- > Wearables
- > Hearables
- > Smart home devices
- > Other consumer applications

Product overview incl. data sheet link

OPN	SP Number	Package
CY8C4025LQI-T412	SP005740719	PG-VQFN-24
CY8C4025LQI-T411	SP005740760	PG-USON-16
CY8C4025FNI-T412T	SP005745491	SG-XFWLB-25
CY8C4045LQI-T412	SP005740723	PG-VQFN-24
CY8C4045LQI-T411	SP005740764	PG-USON-16
CY8C4045FNI-T412T	SP005745495	SG-XFWLB-25
CY8C4026LQI-T412	SP005740721	PG-VQFN-24
CY8C4026LQI-T411	SP005740762	PG-USON-16
CY8C4026FNI-T412T	SP005745493	SG-XFWLB-25
CY8C4046LQI-T412	SP005740725	PG-VQFN-24
CY8C4046LQI-T411	SP005740766	PG-USON-16
CY8C4046FNI-T412T	SP005745497	SG-XFWLB-25
CY8C4046LQI-T452	SP005740727	PG-VQFN-24
CY8C4046LQI-T451	SP005740770	PG-USON-16
CY8C4046FNI-T452T	SP005745499	SG-XFWLB-25
CY8CKIT-040T	SP005935881	

OptiMOS™ 7 power MOSFETs 15 V in PQFN 3.3 x 3.3 Source-Down



Infineon introduces the first 15 V trench power MOSFETs in the industry utilizing the brand-new OptiMOS™ 7 technology. Compared to the proven OptiMOS™ 5 25 V, the lowered breakdown voltage leads to an impressive reduction in $R_{DS(on)}$ and FOMQg (Figure of Merit) by ~30%, and ~40% for FOMQOSS. The reduced conduction- and switching losses in combination with cutting-edge packaging technology make thermal management easy, pushing power density and efficiency to the next level.

The product portfolio comprises PQFN 3.3 x 3.3 Source-Down variants package with a reinforced clip, offering a pulsed current capability of more than 500 A, with a typical thermal resistance junction to case-bottom (R_{thJC}) of 1.6 K/W.

The OptiMOS™ 7 15 V product family offers a leap forward in supporting new trends in power distribution architectures for data centers, such as high-ratio DC-DC conversion, enabling high-density and efficient power distribution in datacom, server, and artificial intelligence applications.

Features

- > First 15 V trench power MOSFETs in the industry
- > New benchmark in terms of $R_{DS(on)}$ compared to 25 V node
- > Outstanding FOMQg / FOMQOSS
- > Ultra-low package parasitics
- > Standard-Gate and Center-Gate footprints
- > Dual-side cooling variants

Target applications

- > SMPS
- > Server
- > Datacom
- > Artificial Intelligence

Product collaterals / Online support

[Product family page](#)

Benefits

- > Best fit in high-conversion-ratio DC-DC converters
- > Reduced conduction / switching losses
- > Best switching performance and low overshoot
- > Source-Down Center-Gate for optimized parallelization
- > Source-Down Standard-Gate easily fits into existing PCB-layout
- > Dual-side cooling to boost thermal performance

Competitive advantage

- > First 15 V trench power MOSFETs on the market
- > Outstanding $R_{DS(on)}$ and FOMQg / FOMQOSS
- > Best fit solution in next generation power distribution architecture in data centers
- > Higher system efficiency and performance
- > System form factor reduction for highest power density
- > Different footprints for highest PCB design flexibility
- > Easy thermal management. Reduced system temperature
- > Easy design-in. Supports fast time to market

Product overview incl. data sheet link

OPN	SP Number	Package
IQE004NE1LM7ATMA1	SP005574597	PG-TSON-8
IQE004NE1LM7CGATMA1	SP005574309	PG-TTFN-9
IQE004NE1LM7SCATMA1	SP005582508	PG-WHSON-8
IQE004NE1LM7CGSCATMA1	SP005582509	PG-WHTFN-9

New OptiMOS™ 7 40 V product technology for automotive MOSFETs

OptiMOS™ 7 40 V is Infineon's new automotive MOSFET technology.

It presents a 25 percent Ron improvement when compared to the previous OptiMOS™ 6. This way, OptiMOS™ 7 offers the highest power density and energy efficiency at the industry's lowest on-state resistance.

With leading best-in-class Ron A, Infineon underlines its leading-edge position for automotive power MOSFETs for the coming years



Features

- > Very low drain-source on-resistance (or $R_{DS(on)}$)
- > High avalanche capability
- > High safe operating area (or SOA) ruggedness
- > Fast switching times (turn on / off)
- > Leadless packages with copper-clip
- > Leading thin wafer copper-technology

Benefits

- > High power density and efficiency
- > Increased current capability
- > Improved design ruggedness
- > Superior switching performance
- > Small footprint and efficient cooling
- > Automotive quality product design

Target applications

- > Electric power steering
- > Power disconnect switches
- > Zone control units and E-fuse box
- > DC to DC
- > USB-charging and braking
- > All automotive applications

Competitive advantage

- > New OptiMOS™ 7 40 V is setting an industry benchmark in terms of Ron A, power-density, current capability, switching performance, and chip ruggedness
- > Additionally, it is available in Infineon's famous robust package portfolio and is extended to top-side cooling packages for the most efficient automotive designs

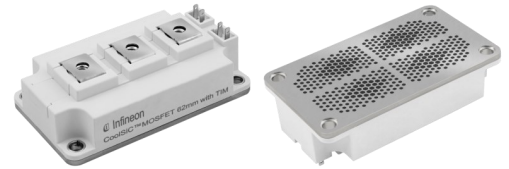
Product collaterals / Online support

[Product page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
IAUCN04S7N004ATMA1	SP005402881	PG-TDSON-8
IAUCN04S7N005ATMA1	SP005569114	PG-TDSON-8

62mm 2 kV CoolSiC™ MOSFET M1H



Our 62mm CoolSiC™ MOSFET halfbridge modules are now available in 2 kV. They come with 2.6 mΩ and 3.5 mΩ and offer the improved chip performance regarding $V_{GS(th)}$, $R_{DS(on)}$ drift and gate drive voltage window due to the M1H technology. Both modules are also available with Thermal Interface Material (TIM).

Features

- > Superior gate oxide reliability
- > Highest robustness against humidity
- > Robust integrated body diode, and thus optimal thermal conditions
- > High cosmic ray robustness

Benefits

- > Optimized use under demanding conditions
- > Lower voltage overshoot
- > Minimized conduction losses
- > High speed switching with very low losses
- > Symmetrical module design and switching behavior of upper and lower switch
- > Standard module construction technique secures known reliable
- > Production in the 62 mm high volume production line

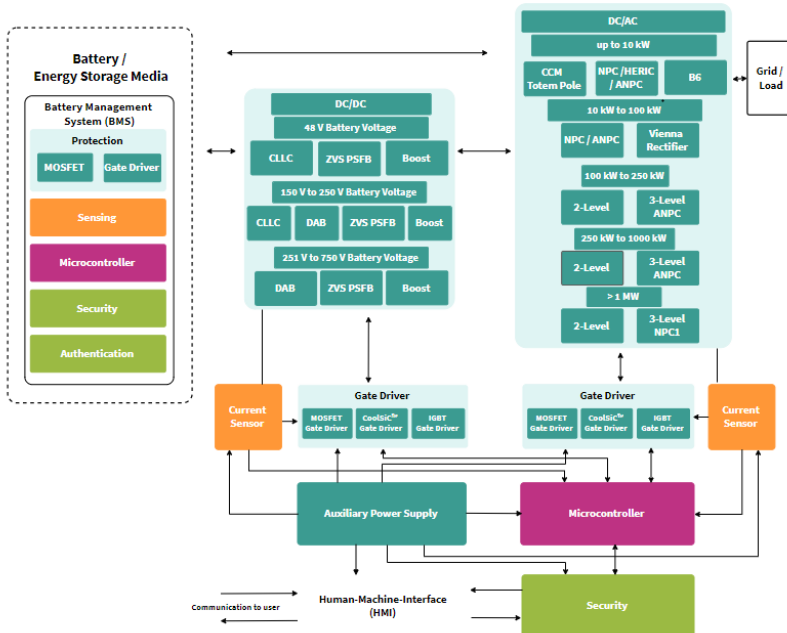
Target applications

- > Energy Storage Systems
- > EV charging
- > Photovoltaic
- > Traction
- > Uninterruptible power supplies (UPS)

Competitive advantage

- > Extension of mature 62mm housing technology by silicon carbide to address applications with fast switching requirements and low losses at the same time.
- > Highest current density and robustness against humidity.

Block diagram



Product collaterals / Online support

[Product family page](#)

[Product page FF3MR20KM1H](#)

[Product page FF3MR20KM1HP](#)

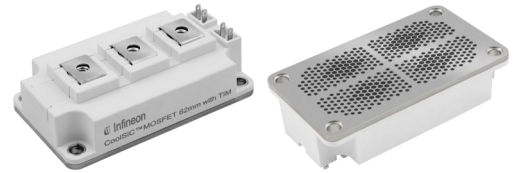
[Product page FF4MR20KM1H](#)

[Product page FF4MR20KM1HP](#)

Product overview incl. data sheet link

OPN	SP Number	Package
FF3MR20KM1HHPSA1	SP005593423	AG-62MMHB-3111
FF3MR20KM1HPHPSA1	SP005727403	AG-62MMHB-3111
FF4MR20KM1HHPSA1	SP005349686	AG-62MMHB-3111
FF4MR20KM1HPHPSA1	SP005727413	AG-62MMHB-3111

62mm 1.2 kV CoolSiC™ MOSFET M1H



The 62mm CoolSiC™ MOSFET halfbridge modules in 1200 V are now equipped with the improved chip performance regarding $V_{GS(th)}$, $R_{DS(on)}$ drift and gate drive voltage window due to the M1H technology. These modules are also available with Thermal Interface Material (TIM).

Features

- > Robust integrated body diode, and thus optimal thermal conditions
- > Highest robustness against humidity
- > Superior gate oxide reliability
- > High cosmic ray robustness

Benefits

- > Optimized use under demanding conditions
- > Lower voltage overshoot
- > Minimized conduction losses
- > High speed switching with very low losses
- > Symmetrical module design and switching behavior of upper and lower switch
- > Standard module construction technique secures known reliable
- > Production in the 62 mm high volume production line

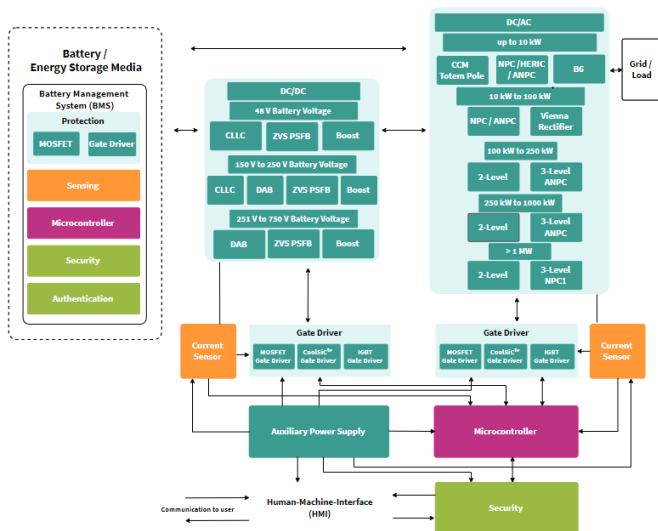
Target applications

- > Energy Storage Systems
- > EV Charging
- > Photovoltaic
- > UPS

Competitive advantage

- > Extension of mature 62mm housing technology by silicon carbide to address applications with fast switching requirements and low losses at the same time.
- > Highest current density and robustness against humidity.

Block diagram



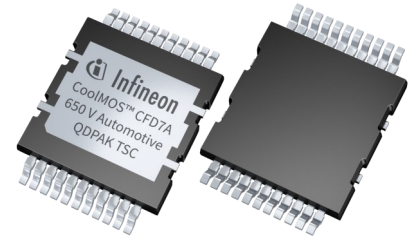
Product collaterals / Online support

- [Product family page](#)
- [Product page FF1MR12KM1H](#)
- [Product page FF1MR12KM1HP](#)
- [Product page FF2MR12KM1H](#)
- [Product page FF2MR12KM1HP](#)
- [Product page FF6MR12KM1H](#)
- [Product page FF6MR12KM1HP](#)

Product overview incl. data sheet link

OPN	SP Number	Package
FF1MR12KM1HHPSA1	SP005861511	AG-62MMHB-3111
FF1MR12KM1HPHPSA1	SP005861515	AG-62MMHB-3111
FF2MR12KM1HHPSA1	SP005861524	AG-62MMHB-3111
FF2MR12KM1HPHPSA1	SP005861616	AG-62MMHB-3111
FF6MR12KM1HHPSA1	SP005861528	AG-62MMHB-3111
FF6MR12KM1HPHPSA1	SP005861603	AG-62MMHB-3111

650 V CoolMOS™ CFD7A in QDPAK TSC / BSC



The 650 V CoolMOS™ CFD7A SJ MOSFET in QDPAK top side cooling (TSC) and bottom side cooling (BSC) SMD package is part of the automotive-qualified CoolMOS™ CFD7A product family. As compared to the previous generation, CoolMOS™ CFD7A offers higher reliability and power density while increasing design flexibility. Top and bottom side cooling further supports increased power density, reduces parasitic source inductance and comes with Kelvin source pin and 3.2 mm creepage distance.

Features

- > AEC-Q101 qualified
- > For hard- and soft-switching topologies
- > Intrinsic fast body diode
- > Reduced parasitic source inductance
- > Kelvin source pin
- > High current capability
- > High power dissipation, P_{tot} 694 W / 25°C
- > Creepage distance of 3.2 mm for HV

Benefits

- > Better utilization of PCB space
- > Highest reliability for automotive applications
- > Optimized power loop
- > Decoupling of thermals from substrate
- > Enabling of higher power density designs
- > Scalable for use in PFC and DC-DC stage
- > Granular portfolio available

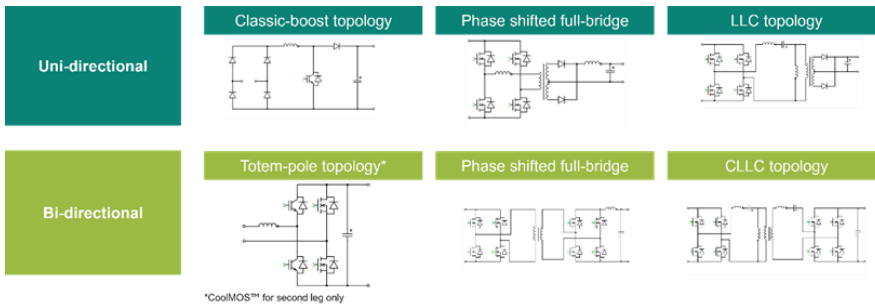
Target applications

- > On-board chargers
- > HV-LV DC-DC converters
- > Auxiliary power supplies

Competitive advantage

- > SMD devices with industry leading R_{on}^*A top- and bottom-side cooled
- > Zero defect target in qualification beyond AEC Q101 and highly automated mass production for particle reduction
- > One product series for PFC and DC/DC stages for scalable solutions

Block diagram



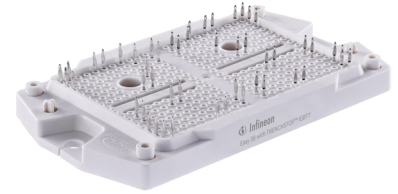
Product collaterals / Online support

[Product family page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
IPDQ65R017CFD7AXTMA1	SP005537555	PG-HDSOP-22
IPDQ65R029CFD7AXTMA1	SP005537525	PG-HDSOP-22
IPDQ65R040CFD7AXTMA1	SP005537567	PG-HDSOP-22
IPDQ65R060CFD7AXTMA1	SP005537568	PG-HDSOP-22
IPDQ65R080CFD7AXTMA1	SP005537569	PG-HDSOP-22
IPDQ65R099CFD7AXTMA1	SP005537570	PG-HDSOP-22
IPDQ65R125CFD7AXTMA1	SP005537571	PG-HDSOP-22
IPQC65R017CFD7AXTMA1	SP005567909	PG-HDSOP-22
IPQC65R040CFD7AXTMA1	SP005567911	PG-HDSOP-22
IPQC65R125CFD7AXTMA1	SP005568050	PG-HDSOP-22

Easy 3B with TRENCHSTOP™ IGBT7



The TRENCHSTOP™ IGBT7 chip is specially optimized for industrial drives with higher power density and lower total losses. Plus, the Easy3B package enables higher current ratings with low R_{th} and high CTI value.

Features

- > IGBT and diode are based on latest micro-pattern trenches technology
- > Low R_{th} and low power losses
- > Enhanced controllability of dv/dt
- > Optimized for drive applications

Target applications

- > Industrial motor drives and controls

Benefits

- > Higher power density
- > Lower power losses
- > Complete portfolio in 12 mm height
- > Platform-based design
- > Power extension
- > Reduction in system cost
- > Reduced system complexity

Competitive advantage

- > With 8 μs short-circuit robustness and 175°C operating temperature under overload conditions, Easy 3B with TRENCHSTOP™ IGBT7 1200 V and 12 mm height available in six pack as well as in PIM configuration, is an extension of the Easy portfolio enabling customers to reduce their system complexity and cost for their drives platforms

Product collaterals / Online support

[Product page FP50R12W3T7 B11](#)

[Product page FP75R12W3T7 B11](#)

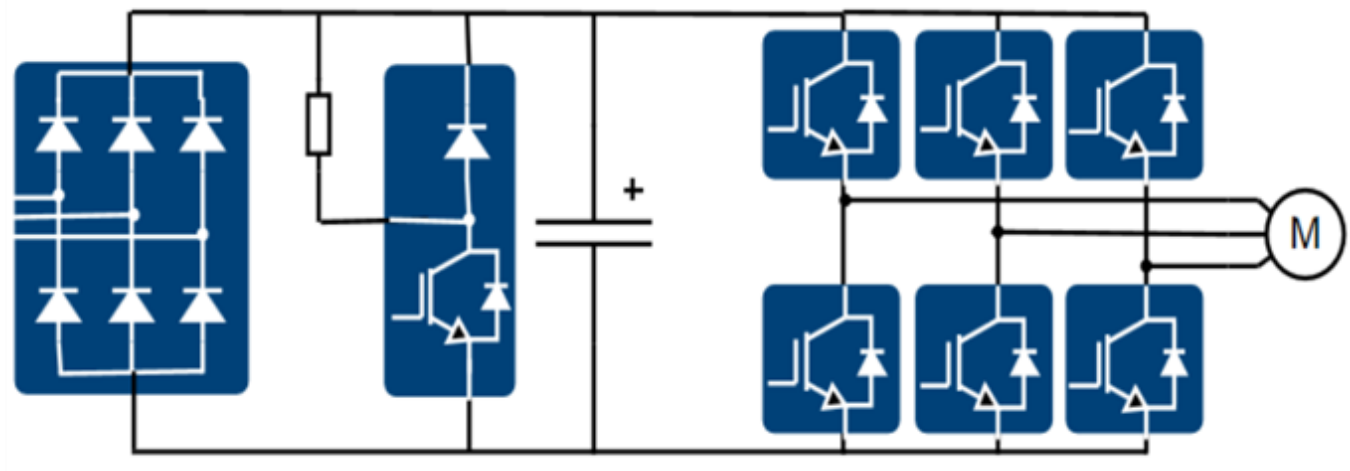
[Product page FP100R12W3T7 B11](#)

[Product page FS100R12W3T7 B11](#)

[Product page FS150R12W3T7 B11](#)

[Product page FS200R12W3T7 B11](#)

Block diagram

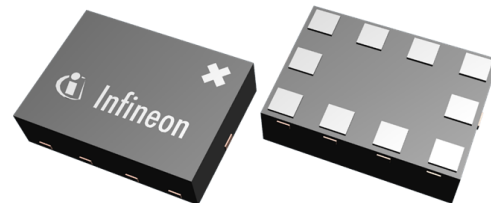


Product overview incl. data sheet link

OPN	SP Number	Package
FP50R12W3T7B11BPSA1	SP005350013	AG-EASY3B-711
FP75R12W3T7B11BPSA1	SP005350030	AG-EASY3B-711
FP100R12W3T7B11BPSA1	SP005209864	AG-EASY3B-711
FS100R12W3T7B11BPSA1	SP005350039	AG-EASY3B-711
FS150R12W3T7B11BPSA1	SP005350043	AG-EASY3B-711
FS200R12W3T7B11BPSA1	SP005350018	AG-EASY3B-711

IRS9100C Laser Driver IC

The IRS9100C is a high power, fast modulation frequency Laser (VCSEL) and LED illumination driver. Fast rise and fall times allow it to be used for depth measurements e.g. iToF and LDS systems.



High peak current allows for strong but short optical output bursts.

The IRS9100C comes in a small TSMP-10-4 package, while the integration of features like LVDS-, voltage- and thermal monitoring further reduce the applications footprint.

Features

- > Driver IC for fast switching laser diodes or LED
- > Laser (typ. VCSEL) current up to 6 ampere (peak)
- > Fast rise and fall times < 0,8 ns
- > Low switch on-resistance < 60 mΩ
- > Built-in fail safe function
 - > LVDS input monitor
 - > Thermal shut-down
 - > Low supply voltage
- > Small 1,1 x 1,5 x 0,37 mm³ TSMP-10-4 package

Competitive advantage

- > Smallest driver IC and application footprint
- > Highest modulation frequency
- > LVDS input interface for fast modulation
- > Low R_{on} for high efficiency
- > Highest current capability, up to 6 A peak
- > Easy design-in, as no programming required

Benefits

- > High efficiency VCSEL driver
- > Fast modulation frequency of up to 150 Mhz
- > LVDS interface for easy design-in of fast modulation
- > High 6 A current (peak) operation
- > Small IC footprint

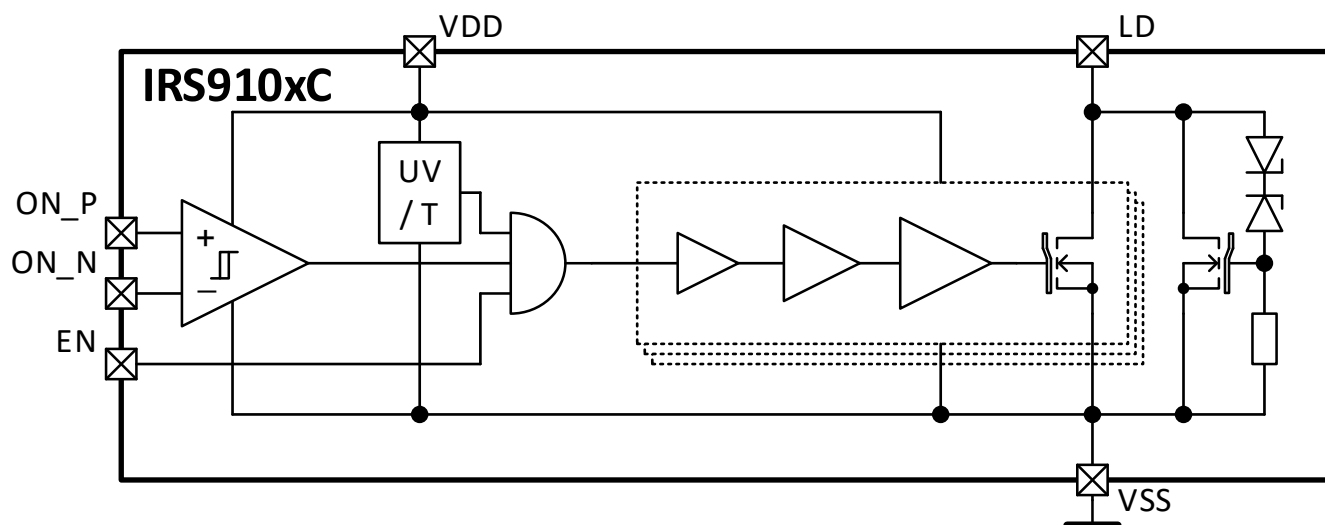
Target applications

- > Smartphones
- > Payment terminals
- > Robotic
- > IoT & Smart home cameras
- > AR/VR head mounted devices

Product collaterals / Online support

[Product page](#)

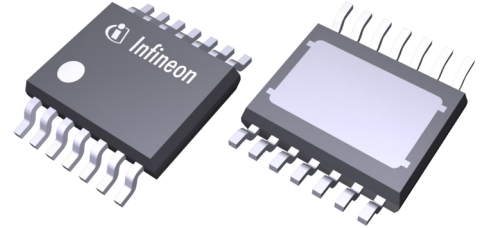
Block diagram



Product overview incl. data sheet link

OPN	SP Number	Package
IRS9100CXTSA1	SP005342838	PG-TSMP-10

ITS6035S-EP-K industrial single channel smart high side switch



The ITS6035S-EP-K is an industrial single channel smart high side switch, providing diagnosis and enhanced protection functionality, mainly used for programmable logic controllers (PLC). The device offers a dedicated pin for fast discharge functionality and adjustable current limitation for reliable system protection. The ITS6035S-EP-K is designed to switch resistive, inductive or capacitive loads.

Features

- > Overvoltage lockout
- > Supply voltage tolerance up to 60 V
- > User adjustable current limitation ranging from: 3 A to 13.2 A
- > Analog current sense pin
- > Synchronized discharge functionality
- > 24 V control inputs compatible to 3.3 V and 5 V logic levels

Target applications

- > Digital output modules (programmable logic controller applications, factory automation)
- > Industrial peripheral switches and power distribution
- > Switching resistive, inductive and capacitive loads in industrial environments
- > Replacement for electromechanical relays, fuses and discrete circuits
- > Most suitable for loads that require a flexible but precise current limit

Benefits

- > Very small TSDSO-14 package
- > Perform precise module diagnosis kLIS performance in smart high-side power switches
- > Protect sensitive input filters of various applications with one Industrial PROFET™ device using adjustable overcurrent limitation

Competitive advantage

- > Discharge pin
- > Overvoltage lockout
- > Family package with small TSDSO-14 package

Product collaterals / Online support

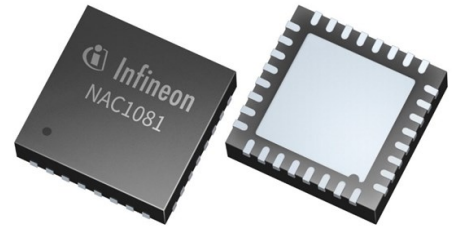
[Product page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
ITS6035SEPKXUMA1	SP005858659	PG-TSDSO-14

NFC tag-side controller NAC1081

The NAC1081 is a NFC actuation controller with integrated H-bridge and energy harvesting modules, enabling cost-effective development of passive smart actuators like passive locks. The low-power ARM® Cortex®-M0 based microcontroller with integrated NFC frontend, sensing unit, motor driver, and energy harvesting function enables customers to develop smart actuation devices with minimum system BOM requirement



The flexible IC architecture and the smart partitioning between hardware and software enables customers to maximize the utilization of software-defined functions.

Features

- > NFC interface compliant to ISO 14443 type A
- > Arm® 32bit Cortex®-M0 microcontroller core
- > Dual-operation mode: passive- or battery-mode
- > Integrated H-bridge supports up to 250 mA load current
- > Available in VQFN-32 package

Benefits

- > Reduced BOM thanks to a highly integrated single-chip solution
- > Fully flexible software-defined functions
- > Build-in security functions to meet the application requirements

Competitive advantage

- > Single-chip solution to build miniaturized, maintenance-free passive smart lock
- > Passive devices without battery replacement matter
- > Attractive product feature for end users with mobile phone based access control

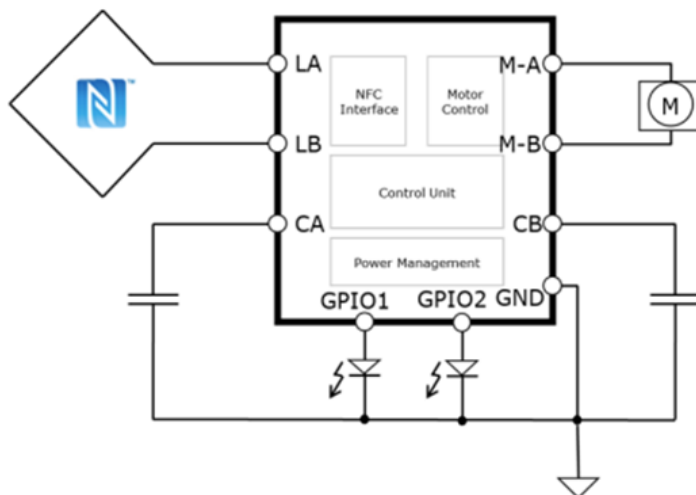
Target applications

- > Passive NFC lock
- > Emergency power supply for battery powered devices
- > NFC Interface for home appliances

Product collaterals / Online support

[Product page](#)

Block diagram



Product overview incl. data sheet link

OPN	SP Number	Package
NAC1081XTMA1	SP005832816	PG-VQFN-32

OPTIGA™ Connect IoT



OPTIGA™ Connect IoT is an embedded SIM (eSIM) solution for cellular IoT devices. It offers easy, secured, and cost-optimized deployment and management of cellular-enabled IoT devices globally. It features a pre-installed GSMA-compliant operating system, pre-integrated connectivity capabilities, and comes with Tata Communications as a connectivity partner. OPTIGA™ Connect IoT follows Common Criteria EAL5+ certified eSIM hardware, which is designed to exceed the security standards typically required by industry today.

All applications and regions have a common SKU, except for India that has a specific SKU.

Features

- > Reprogrammable eSIM
- > Compliant with GSMA remote SIM provisioning specification SGP.02 v3.2
- > ETSI TS102 221 and ETSI TS102 671 compliance
- > MFF2 (QFN8) package
- > Supported interface: ISO7816- UART
- > Common Criteria EAL5+ certified hardware
- > Industrial grade (-40°C / +105°C)

Benefits

- > Ready to connect with an onboarded bootstrap
- > Cost-effective and secured connectivity, available worldwide
- > Easy deployment and management of cellular IoT at scale
- > Simplified path to market
- > Open for integration of additional applets
- > Low power consumption

Target applications

- > Smart transportation
- > Smart city
- > Smart energy
- > Smart manufacturing
- > Wearables

Competitive advantage

- > Full turnkey solution (hardware, OS, and connectivity)
- > No lock-in to single operator
- > Global coverage & IoT services from Tata Communication
- > Single access point for remote data and connectivity management via Tata Communications MOVE™ platform

Product collaterals / Online support

[Product page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
OC2321VQFN8XTMA1	SP005420213	PG-VQFN-8
OC2321VQFN8XTMA2	SP005433185	PG-VQFN-8
OC2322VQFN8XTMA1	SP005742826	PG-VQFN-8
OC2322VQFN8XTMA2	SP005742828	PG-VQFN-8

OPTIGA™ Trust Charge Auto



OPTIGA™ Trust Charge Auto is a secured wireless charging solution for in-car use, compliant with the latest Qi 1.3 specification. It supports up to 15 W of power and is based on Common Criteria EAL6+ certified hardware, exceeding WPC's security requirements. Infineon's offering simplifies key logistics and security integration, and comes with a turnkey solution including preprogrammed software and documentation. It is suitable for mobile phones, tablets, accessories, and other small electronic devices with charging according to the Qi standard.

Additional information: a NDA is required.

Features

- > WPC Qi 1.3 authentication
- > Common Criteria EAL6+ (high) certified hardware
- > AEC-Q100 qualification
- > ECDSA P-256 authentication
- > NIST P-256, SHA-2 cryptography
- > VQFN-32 or VQFN-8 package

Benefits

- > Suitable for Qi 1.3 wireless charging
- > With Common Criteria EAL6+ (high) certified hardware
- > Preloading of WPC-specific personalized keys and certificates at secured Infineon fabs
- > Easy integration thanks to complete, turnkey solution including embedded software, host software and documentation

Target applications

- > Mobile phones, tablets
- > Accessories and other small personal electronic devices supporting wireless charging according to the Qi standard

Competitive advantage

- > Fulfillment of Qi spec as easy as possible by providing: CCEAL 6+ certified hardware, Support WPC processes, support Qi testing to reduce effort and cost for customer
- > Easy design in: BOM reduction, easy integration / host support, reference design ready to use
- > Compatibility to proprietary protocols for faster charging

Product collaterals / Online support

[Product page](#)

Product overview incl. data sheet link

OPN	SP Number	Package
SLS37CSAE20TCVQFN32XTMA2	SP005734532	PG-VQFN-32

TRAVEO™ T2G Body High Kit

Introducing our TRAVEO™ T2G Body High evaluation kit (KIT_T2G-B-H_EVK) kit, the perfect tool for developing and testing your microcontroller-based projects. Our kit is designed to provide you with all the basic components you need to get started with the TRAVEO™ T2G CYT4BF MCU programming, all at an affordable price.



Features

- > Power:
 - > KitProg3 USB Micro-B interface (Bus Power)
 - > DC Power Jack (recommended 12 V, min 1 A)
- > Connectors:
 - > Arm 10-pin SWD/JTAG program and debug header
 - > Arduino compatible connectors
 - > Expansion header
 - > CAN connector
 - > RJ45 connector
 - > 2 interface connector
 - > SMIF dual header compatible with Diligent Pmod connector
- > Others:
 - > Gigabit Ethernet physical layer (PHY) transceiver
 - > Quad SPI Flash memory
 - > CAN FD transceiver
 - > 2 user buttons, 3 user LEDs
 - > Reset button
 - > Potentiometer

Benefits

- > Affordability
- > Accessibility
- > Education and learning
- > Community support
- > Versatility
- > Open-source ecosystem
- > Scalability
- > Rapid prototyping

Competitive advantage

- > Affordability
- > Open-source ecosystem
- > Rapid prototyping

Target applications

- > Automotive body electronics
- > Body control modules - BCM Units in Automotive
- > Automotive body electronics

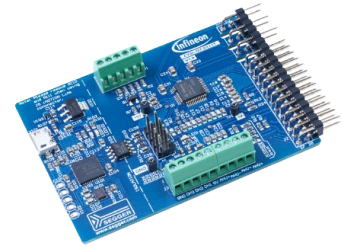
Product collaterals / Online support

[Board page](#)

Product overview incl. user manual link

OPN	SP Number
KIT2G-B-HEVK	SP005926148

EVAL-M7-D112T control board



EVAL-M7-D112T is an MADK platform control board. The iMOTION™ driver IMD112T enables field-oriented motor control and power factor correction and integrates the three-phase gate driver.

PC tool iMOTION™ Solution Designer (iSD) handles firmware revisions and provides system configuration, device setup and final tuning of the system.

In combination with a matching power board EVAL-M7-D112T targets motor systems like fans, pumps and compressors.

Features

- > Field-proven Motion Control Engine (MCE)
- > Single- or leg-shunt sensorless FOC
- > CCM boost power factor correction (PFC)
- > Galvanically isolated debug interface
- > Integrated protection features
- > Scripting engine similar to a small VM

Benefits

- > Fast time to market – no coding required
- > Wide range of MADK power boards
- > High application flexibility
- > PC tool iMOTION™ Solution Designer
- > Easy parametrization and tuning

Target applications

- > Fans
- > Pumps
- > Compressors

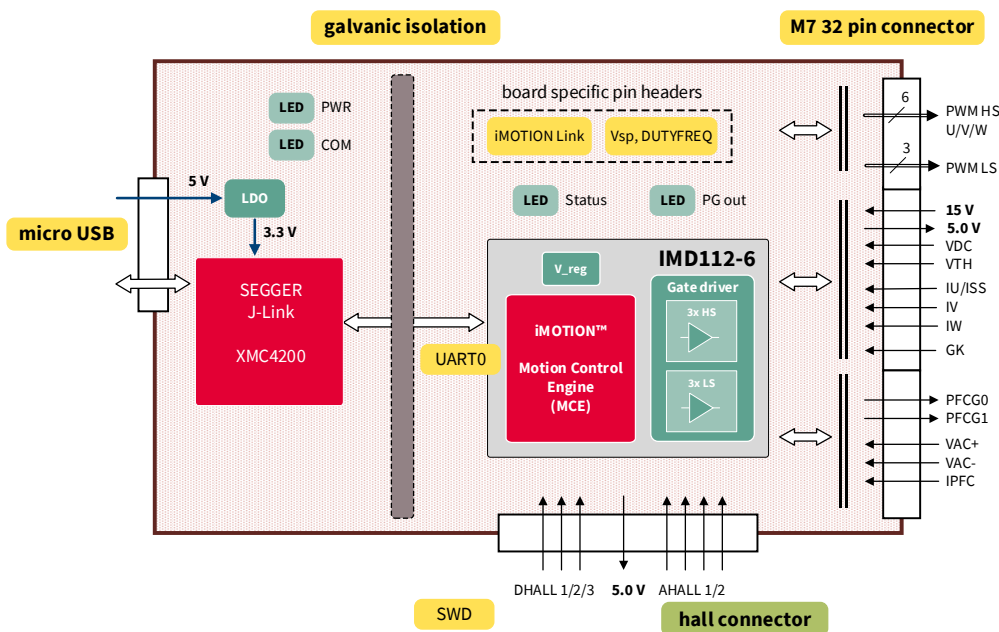
Competitive advantage

- > Integrated Motion Control Engine (MCE) allowing fast time2market without the need for software programming

Product collaterals / Online support

[Board page](#)

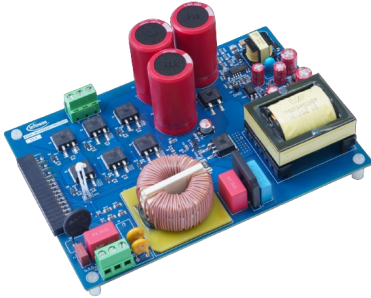
Block diagram



Product overview incl. user manual link

OPN	SP Number
EVALM7D112TTOBO1	SP004177784

EVAL-M7-HVIGBT-PFCINV1



The EVAL-M7-HVIGBT-PFCINV1 is an MADK platform power board.

It implements a three phase inverter plus a power factor correction (PFC) running in CCM mode with a PWM rate up to 100kHz. The inverter is using the latest generation of TRENCHSTOP™ reverse conduction IGBTs while the PFC is based on a high speed TRENCHSTOP™ 5 IGBT.

In combination with the matching control board the power board targets motor systems like fans, pumps and compressors.

Features

- > Ready to use 3-phase motor power stage
- > Reverse conducting IGBTs with max. 650 V
- > High speed TRENCHSTOP™ 5 IGBT for PFC
- > Nominal input voltage 220 V_{ac}
- > Up to 200 W output power without cooling
- > Up to 100 kHz PFC PWM rate
- > Test hooks to attach oscilloscope probes
- > MADK M7 32-pin interface connector

Benefits

- > Evaluate 650 V RC-D2 together with the driver IMD110
- > Cost efficient inverter and PFC design
- > High electrical robustness
- > Very good EMI performance
- > Get your motor and PFC running within one hour

Competitive advantage

- > Integrated Motion Control Engine (MCE) allowing fast time2market without the need for software programming.

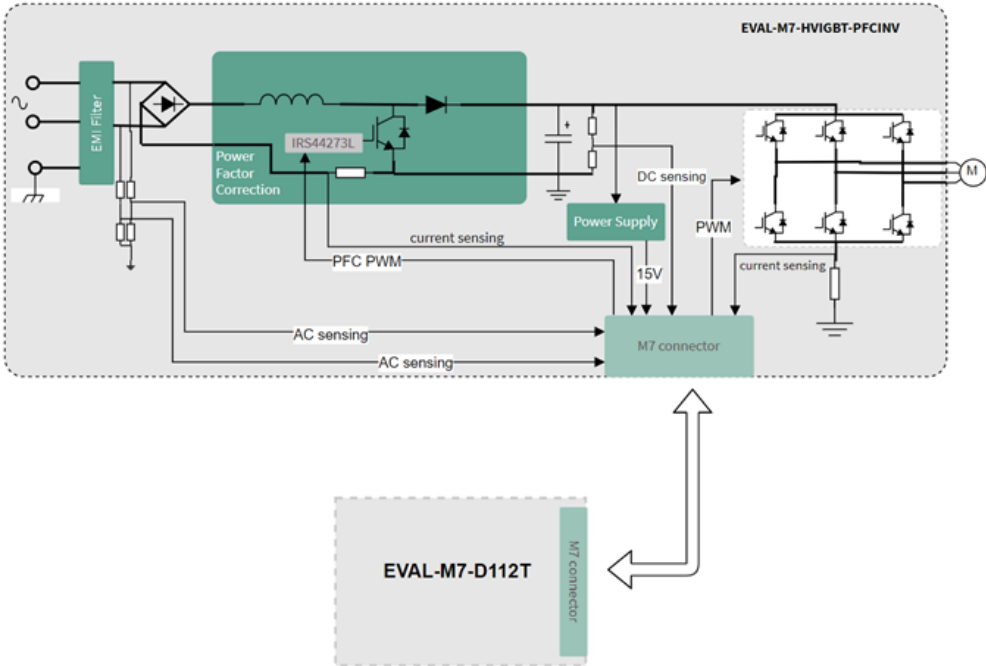
Product collaterals / Online support

[Board page](#)

Target applications

- > Fans
- > Pumps
- > Compressors

Block diagram



Product overview incl. user manual link

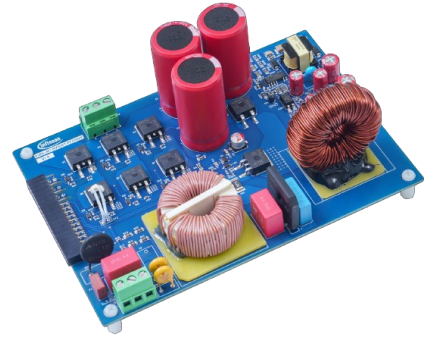
OPN	SP Number
EVALM7HVIGBTPFCINV1TOB01	SP005935281

EVAL-M7-HVIGBT-PFCINV4

The EVAL-M7-HVIGBT-PFCINV4 is an MADK platform power board.

It implements a three phase inverter plus a power factor correction (PFC) running in CCM mode with a PWM rate up to 40kHz. The inverter is using the latest generation of TRENCHSTOP™ reverse conduction IGBTs while the PFC is based on a high speed TRENCHSTOP™ 5 IGBT.

In combination with the matching control board the power board targets motor systems like fans, pumps and compressors.



Features

- > Ready to use 3-phase motor power stage
- > Reverse conducting IGBTs with max. 650 V
- > High speed TRENCHSTOP™ 5 IGBT for PFC
- > Nominal input voltage 220 V_{ac}
- > Up to 200 W output power without cooling
- > Up to 40 kHz PFC PWM rate
- > Test hooks to attach oscilloscope probes
- > MADK M7 32-pin interface connector

Benefits

- > Evaluate 650 V RC-D2 together with the driver IMD110
- > Cost efficient inverter and PFC design
- > High electrical robustness
- > Very good EMI performance
- > Get your motor and PFC running within one hour

Competitive advantage

- > Integrated Motion Control Engine (MCE) allowing fast time2market without the need for software programming.

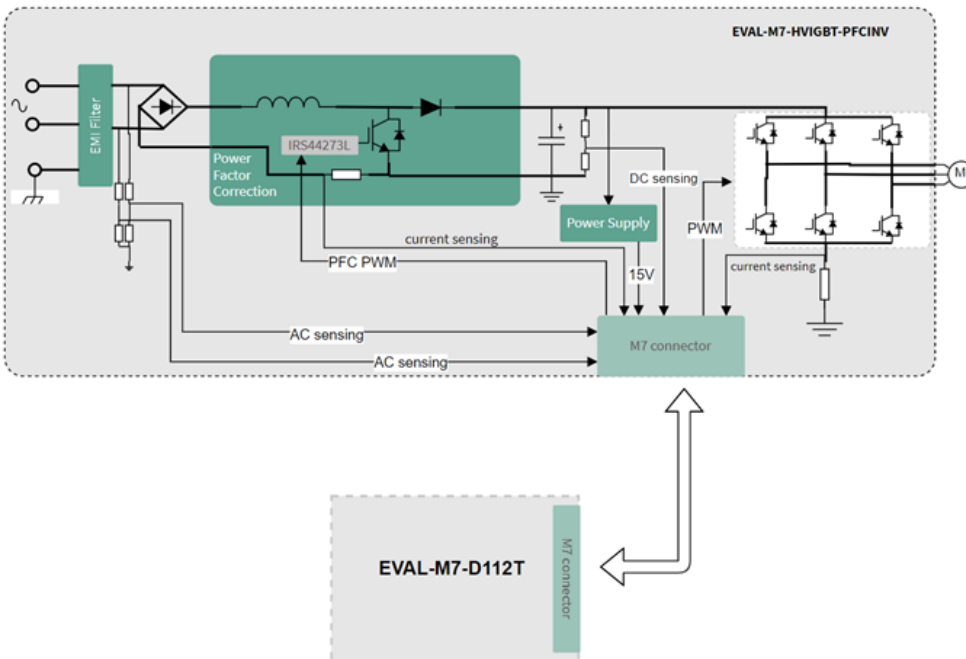
Product collaterals / Online support

[Board page](#)

Target applications

- > Fans
- > Pumps
- > Compressors

Block diagram

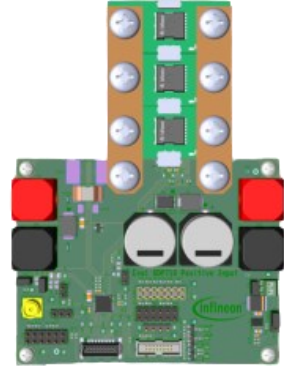


Product overview incl. user manual link

OPN	SP Number
EVALM7HVIGBTPFCINV4TOB01	SP005555670

EVAL_XDP710_V2 - evaluation board for XDP710

This board features the XDP710-002, a wide input voltage range hot-swap controller to provide controlled turn-on of the FETs to reduce the inrush current on capacitive load. In conjunction with the module EVAL_XDP710_FET, it allows for testing of controlled turn-on of N-channel MOSFETs in various footprints with option to add multiple FETs in parallel for higher power levels.



Features

- > Easy input and output connections
- > Provides PMBus™ interface
- > Per pin diagnostics
- > Wide input voltage range
- > On board capacitive load
- > Fault, warning, power good LEDs

Benefits

- > Various MOSFET package selection
- > Easy paralleling of MOSFET
- > Port for XDP designer dongle
- > Easy device address selection
- > Easy mode configuration
- > Configurable 3.3 V / 5 V bias
- > On board I2C pullups

Target applications

- > AI, ML, GPU accelerator cards
- > Power distribution systems
- > Servers
- > SMPS (switch mode power supply)
- > Telecom

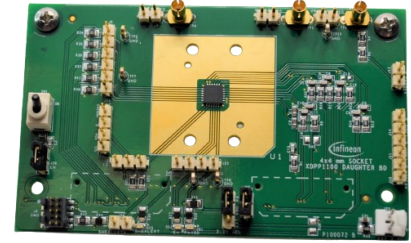
Product collaterals / Online support

[Board page](#)

Product overview incl. user manual link

OPN	SP Number
EVALXDP710V2TOB01	SP005974758

EVAL_XDPP1100_Q024_DB - daughter board for telecom and server applications



This daughter board is used to evaluate various features of the digital controller XDPP1100-Q024. It has I2C, SWD debugger ports and test points to access digital and analog signals. It can be used as stand-alone for FW development or paired with the EVAL_600W_FFB_XDPP power board and regulating the FB-FB converter. USB to I2C dongle (USB007A1) is needed to configure the controller's parameters and monitor operation status through its GUI.

Features

- > Digital DCDC controller
- > State machine based control
- > ARM® Cortex™-M0 processor
- > 100 MHz 32bit
- > 64 kB OTP
- > 80 kB ROM
- > 64 kB RAM
- > Up to 2 MHz max frequency
- > Dead-time resolution 1.25 ns
- > 50 MHz 11-bit ADC
- > PMBus™ and I2C communication

Benefits

- > Configurable with GUI
- > Allows FW-based customization
- > Pre-programmed and configurability
- > Excellent dynamic transient
- > System housekeeping
- > VQFN 4 mm x 4 mm

Target applications

- > SMSP (switch mode power supply)
- > Telecom
- > Server

Product collaterals / Online support

[Board page](#)

Product overview incl. user manual link

OPN	SP Number
EVALXDPP1100Q024DBTOBO1	SP005952165

EVAL_600W_FBFB_XDPP - evaluation board for telecom and server applications



The evaluation board features the XDPP1100-Q024 digital power controller, which is the smallest in the class available on the market. It drives Infineon's state-of-the-art MOSFETs (OptiMOS™ 5 100 V and OptiMOS™ 6 40 V) using Infineon's dual-channel gate drivers (EiceDRIVER™ 2EDL8024G and EiceDRIVER™ 2EDL8124G) in a full-bridge isolated DC-DC power supply topology.

Features

- > Digital controlled DC-DC converter
- > 600 W full-bridge VMC
- > Fast line / load transient response
- > Flux balancing
- > PMBus™ and I2C communication

Benefits

- > Configurable with GUI
- > Allows FW-based customization
- > Best in-class feed-forward response
- > Smooth pre-bias startup
- > Sophisticated fault handling
- > Efficient light load management

Target applications

- > SMSP (switch mode power supply)
- > Telecom
- > Server

Product collaterals / Online support

[Board page](#)

Product overview incl. user manual link

OPN	SP Number
EVAL600WFBFBXDPPTOB01	SP005952167