



## New Product Introduction

April 2024

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# XDP700-002

XDP700-002 is industry's first -48 V wide input voltage hot-swap controller with a programmable digital SOA control ideal for telecom infrastructure.



### Features

- > VIN: -6.5 V to -80 V (100 V for 500 ms)
- > Dedicated 12-Bit V / I ADCs
- > Active monitoring:  $V \leq 0.5\%$ ,  $I \leq 1.3\%$
- > Active monitoring:  $P \leq 1.8\%$ ,  $E \leq 5\%$
- > Integrated gate drive: 0 to 250 uA

### Benefits

- > Complete system protection & management
- > Drives single or multiple N-ch. FETs
- > Accurate real-time system measurement
- > On-the-fly flexibility & programmability
- > AFE allows 0.75% telemetry accuracy

### Target applications

- > -48 V pre-isolated DC-DC telecom infrastructure
- > -24 V / -48 V industrial systems
- > Power distribution systems
- > Intelligent e-fuse
- > Network router and switches

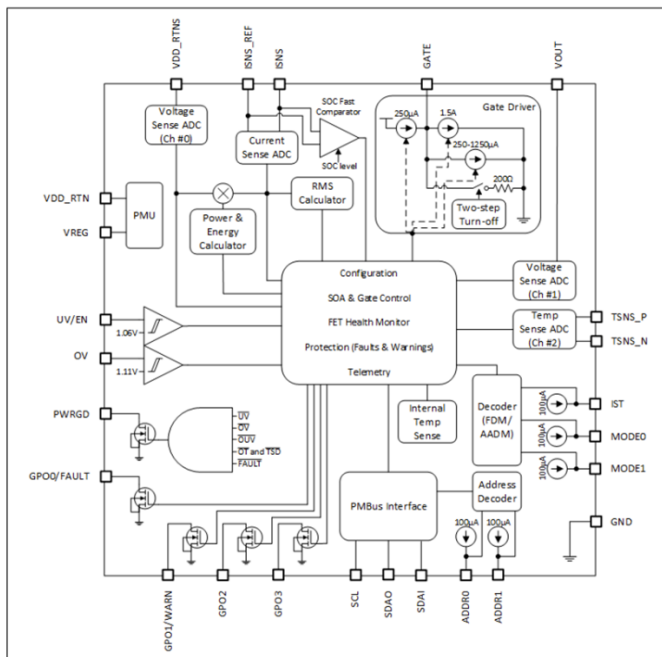
### Competitive advantage

- > Multi-response: Ilim, SOA control, etc.
- > OTP multi-configuration
- > Dynamic config. of faults & warnings
- > Boost mode on 1 ms or 100 μs SOA line

### Product collaterals / Online support

[Product page](#)

### Block diagram



### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">XDP700002XUMA1</a>	SP005912685	PG-VQFN-29

# XDP710-002



XDP710-002 is Infineon's next-generation wide input voltage hot-swap controller with programmable digital SOA control ideal for AI servers

## Features

- > VIN: +5.5 V to +80 V ( 100 V for 500 ms)
- > Dedicated 12-Bit V / I ADCs
- > Active monitoring:  $V \leq 0.4\%$ ,  $I \leq 0.75\%$
- > Active monitoring:  $P \leq 1.15\%$ ,  $E \leq 5\%$
- > Integrated gate drive: 0 to 250 uA

## Benefits

- > Complete system protection & management
- > Drives single or multiple N-ch. FETs
- > Accurate real-time system measurement
- > On-the-fly flexibility & programmability
- > AFE allows 0.75% telemetry accuracy

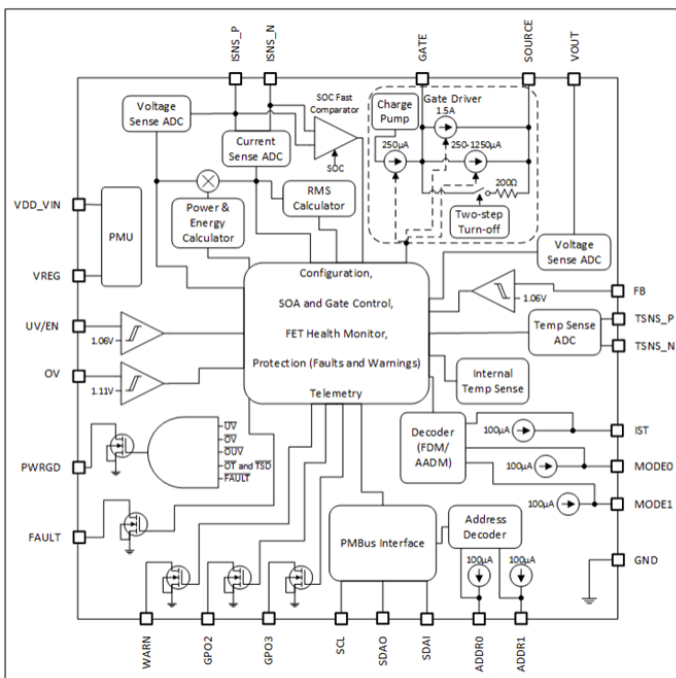
## Target applications

- > AI, ML, GPU accelerator cards
- > Network router and switches
- > Intelligent e-fuse
- > Power distribution systems
- > 24 V - 48 V industrial system

## Competitive advantage

- > Programmable input/output UVLO, OVP, OTP
- > Multi-Response: Ilim, SOA control, etc.
- > OTP multi-configuration
- > Dynamic config. of faults and warnings
- > Boost mode on 1 ms or 100  $\mu$ s SOA line

## Block diagram



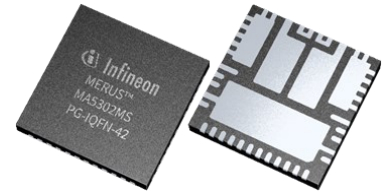
## Product collaterals / Online support

[Product page](#)

## Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">XDP710002XUMA1</a>	SP005912689	PG-VQFN-29

# MERUS™ MA5302MS



The MA5302MS is optimized for 1 - 2 Ω speaker impedances. It offers the same or higher output power than monolithic alternatives without heatsink and 50% less footprint. This MCM solution integrates 2 channel PWM controller, high voltage gate driver, and 4 low  $R_{DS(on)}$  MOSFETs. It includes standard Class D protection features for reliable operation over various environmental conditions. MA5302MS has the same 7 x 7 mm<sup>2</sup> PG- IQFN-42 package as MA5332MS.

## Features

- > Small 7 x 7 mm<sup>2</sup> package
- > Very low  $R_{DS(on)}$  at 16 mΩ typical, enabling heatsink-less operation at 2 x 102 W at 2 Ω
- > 94% efficiency Class D at 2 x 220 W at 2 Ω
- > Split or single power supply capable
- > Differential or single-ended input
- > Multiple configuration options: 2xSE, BTL, PSE

## Target applications

- > Soundbar subwoofer
- > Aftermarket car audio system
- > Marine amplifier
- > Active speaker
- > Studio monitor
- > General-purpose audio power amplifier

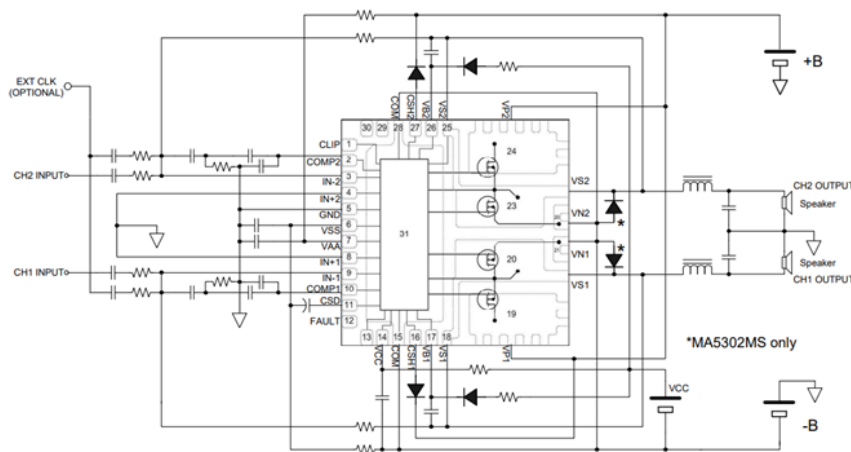
## Benefits

- > Enables heatsink-less solution comparing to same power level monolithic approach
- > Enables high power SE (single ended)
- > Designs with reduced bus capacitors and output filters based on a low voltage BTL approach
- > Simplify Class D design and eliminate the needs for external protection circuitry

## Competitive advantage

- > Excellent efficiency 95% and low THD+N. Robust design especially for applications demanding continuous 200 W / channel x 2 operation
- > Highest power density
- > Heatsink-less or 50% smaller heatsink comparing to competition
- > Reliable OCP, OTP, UVP, start/stop click noise reduction
- > High noise immunity, therefore smaller bus capacitor

## Block diagram



## Product collaterals / Online support

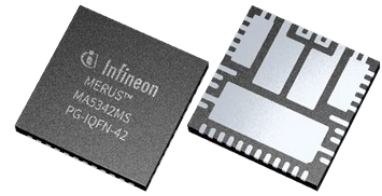
[Product page](#)

[Board page](#)

## Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">MA5302MSXUMA1</a>	SP005726242	PG-IQFN-42
<a href="#">EVALMA5302MS200WX2TOBO1</a>	SP005911771	

# MERUS™ MA5342MS



The MA5342MS is optimized for 4 - 16 Ω speaker impedances. It offers the same or higher output power than monolithic alternatives without heatsink and 50% less footprint. This MCM solution integrates 2 channel PWM controller, high voltage gate driver, and 4 low  $R_{DS(on)}$  MOSFETs. It includes standard class D protection features for reliable operation over various environmental conditions. MA5342MS has the same 7 x 7 mm<sup>2</sup> PG- IQFN-42 package as MA5332MS.

## Features

- > Low  $R_{DS(on)}$  at 49.2 mΩ typical, enabling heatsink-less operation at 2 x 144 W at 8 Ω
- > 150V rating of the integrated MOSFETs
- > 95% efficiency Class D at 2 x 210 W at 8 Ω
- > Split or single power supply capable
- > Differential or single-ended input
- > Multiple configuration options: 2xSE, BTL, PSE

## Benefits

- > Enables heatsink-less solution comparing to same power level monolithic approach
- > Enables high power SE (single ended) designs with reduced bus capacitors and output filters based on a low voltage BTL approach
- > Simplify Class D design and eliminate the needs for external protection circuitry

## Target applications

- > AV receiver
- > Home theater
- > Multi-room amplifier
- > Marine amplifier
- > Active speaker
- > Studio monitor
- > General-purpose audio power amplifier

## Competitive advantage

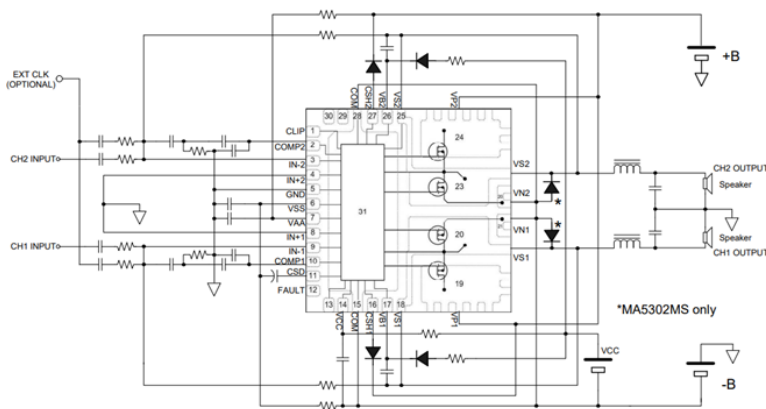
- > Excellent efficiency 95% and low THD+N. Robust design especially for applications demanding continuous 200W/ channel x 2 operation
- > Highest power density
- > Heatsink-less or 50% smaller heatsink comparing to competition
- > Reliable OCP, OTP, UVP, start/stop click noise reduction
- > High noise immunity, therefore smaller bus capacitor

## Product collaterals / Online support

[Product page](#)

[Board page](#)

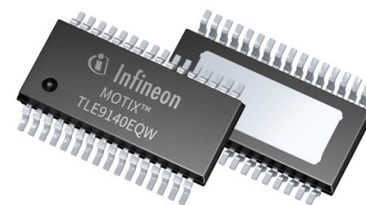
## Block diagram



## Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">MA5342MSXUMA1</a>	SP005741142	PG-IQFN-42
<a href="#">EVALMA5342MS200WX2TOBO1</a>	SP005911782	

## MOTIX™ TLE9140 gate driver IC for BLDC motors



MOTIX™ TLE9140EQW is a 3-phase motor gate driver IC targeting diverse applications with supply voltage range between 8 ~ 72 V and equipped with comprehensive protection and diagnosis features. The integrated adaptive MOSFET control feature can help to improve EME and reduce power losses as well as save on external components needed in the application. The small TS-DSO-32 packing enables space and weight reduction on the PCB.

TLE9140 is a great companion chip to Infineon's MOTIX™ TLE987x and TLE989x 32-bit motor control SoC solutions allowing customers to easily scale existing MOTIX™ MCU (SoC) designs to higher voltage requirements. In addition, TLE9140 is also compatible with open market MCUs.

### Features

- > High-voltage capability / robustness up to 110 V
- > Gate driving capability: ~230 nC / MOSFET up to 20 kHz
- > Adaptive MOSFET control feature integrated into gate driver
- > Active LS freewheeling during VSM OV
- > Comprehensive protection & diagnostic features
- > SPI communication
- > Compact package TS-DSO-32 (8.65 x 3,9 mm<sup>2</sup>)
- > Automotive grade 0 device & ASIL B compliant

### Benefits

- > Adjustable MOSFET control feature can improve EMI, reduce power losses and external components needed in design
- > Allows for active monitoring of device state and protects system from damage
- > Easy approach for scaling existing 12 V MOTIX™ MCU TLE987x / TLE989x designs to 24 V / 48 V applications by maximizing reuse of existing hardware and software
- > Max junction temp up to 175°C to support challenging mission profiles
- > Small and compact packing design TS-DSO-32 saving space and costs (8,65 x 3,9 mm<sup>2</sup>)

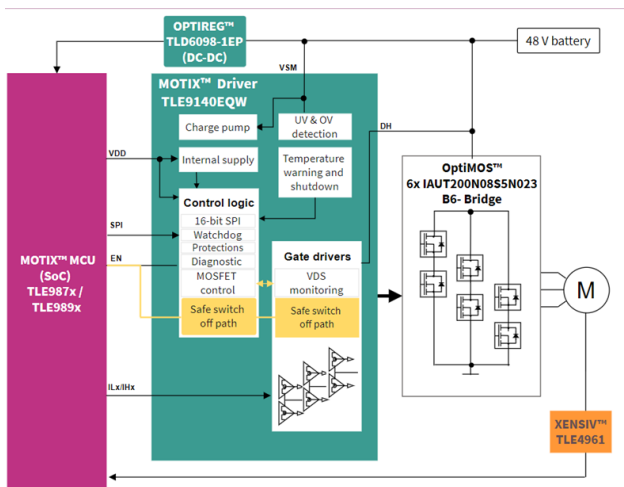
### Target applications

- > Automotive 24 V / 48 V motor applications:
  - > Pumps, fans, wiper, HVAC compressor, window lift
- > Diverse CAV and truck applications
- > Non-automotive applications e.g. eBike, eScooter

### Competitive advantage

- > Infineon's patented adaptive MOSFET control feature: adjustable MOSFET control can help to improve EME and reduce power losses as well as save on external components needed in a design
- > Compact packaging TS-DSO-32 - 8.65 x 3.9 mm<sup>2</sup> @ body size, est. 52 mm<sup>2</sup> PCB footprint
- > Automotive grade 0 qualified device and ASIL B compliant

### Block diagram



### Product collaterals / Online support

[Product page](#)

[Board page](#)

### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">TLE9140EQWXUMA1</a>	SP005421036	PG-TSDSO-32
<a href="#">TLE9140EQWEVALTOBO1</a>	SP005421581	

## Prime Block 50 mm - designed for highest performance

These modules have been optimized regarding thermal resistance and qualified for higher temperatures to push their performance beyond current limits. The result is highest power density in same foot print and our well-known reliability, leading to outstanding lifetime. Our pressure contact modules in general provide best-in-class blocking stability and are H2S robust.



### Features

- > Best-in-class power density in standard housing
- > Short-on-fail capability
- > No open copper surfaces

### Benefits

- > Reduced system cost and foot print
- > Reduced failure and system cost
- > No failures in challenging environment with corrosive gases (rubber, data center)

### Product collaterals / Online support

[Product page TT340N22KOF](#)

[Product page TD340N22KOF](#)

[Product page TT370N18KOF](#)

[Product page TD370N18KOF](#)

[Product page DD380N22K](#)

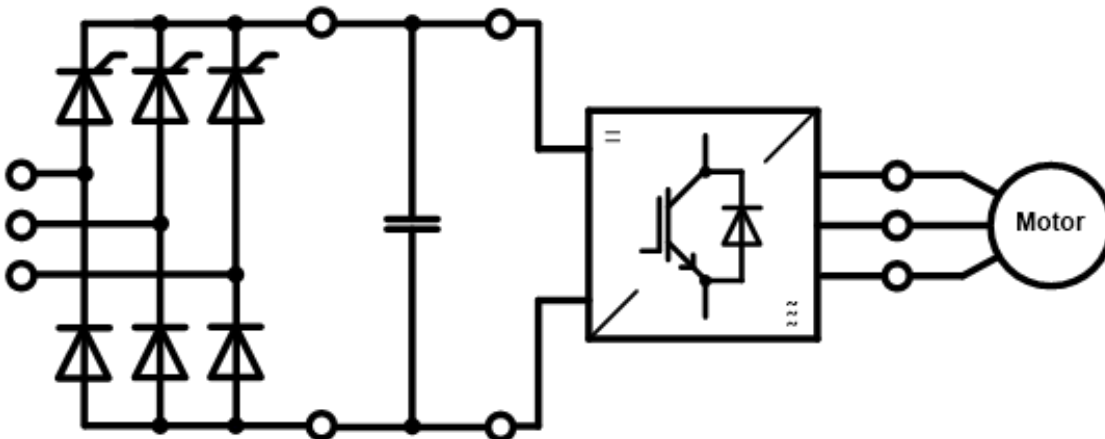
### Competitive advantage

- > Best-in-class power density

### Target applications

- > Drives
- > UPS

### Block diagram



### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">TT340N22KOFXPSA1</a>	SP005920096	BG-PB50AT-1
<a href="#">TD340N22KOFXPSA1</a>	SP005919772	BG-PB50AT-1
<a href="#">TT370N18KOFHPSA1</a>	SP005635644	BG-PB50AT-1
<a href="#">TD370N18KOFHPSA1</a>	SP005635632	BG-PB50AT-1
<a href="#">DD380N22KXPSA1</a>	SP006031460	BG-PB50AT-1



## 1200 V EC7 Discrete Diode in TO247-2



The soft and ultra-fast recovery 1200 V Emitter Controlled diode 7 offers improved reliability for industrial and home appliance applications, solar MPPT boost or EV charging Vienna Rectifier topologies. Additionally, using the TO-247-2 package reduces the discharge related failure modes, where unique high (up to 140A) current ratings increase power density in the discrete package allowing smaller size and weight designs.

### Features

- > Low forward voltage (VF)
- > Low reverse recovery charge
- > Ultrafast recovery times
- > HV-H3TRB pass by Jedec Standard

### Target applications

- > Photovoltaic
- > Uninterruptible power supplies (UPS)
- > Heat pumps
- > EV charging

### Benefits

- > Highest power density
- > Low reverse recovery current (Irrm)
- > Low and temperature stable forward voltage (VF)
- > Less device paralleling
- > Humidity robustness under harsh environment

### Competitive advantage

- > 1200 V EC7 Diode technology comes with improvement on softness, humidity compare to previous diode generations. This enable more robust and reliable system design with less failure rate during lifetime
- > To-247-2 package reduces the discharge related failure modes
- > Unique high (up to 140A) current ratings increase power

### Product collaterals / Online support

[Product family page](#)

### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">IDWD30E120D7XKSA1</a>	SP005862150	PG-TO247-2
<a href="#">IDWD40E120D7XKSA1</a>	SP005862153	PG-TO247-2
<a href="#">IDWD50E120D7XKSA1</a>	SP005862155	PG-TO247-2
<a href="#">IDWD60E120D7XKSA1</a>	SP005862157	PG-TO247-2
<a href="#">IDWD75E120D7XKSA1</a>	SP005862159	PG-TO247-2
<a href="#">IDWD100E120D7XKSA1</a>	SP005862161	PG-TO247-2
<a href="#">IDWD120E120D7XKSA1</a>	SP005862175	PG-TO247-2
<a href="#">IDWD140E120D7XKSA1</a>	SP005862177	PG-TO247-2



## 1600 V phase control thyristor disc T2200N16H100

The T2200N16H100 is a 100 mm thyristor disc with 1600 V in modern pressure contact technology. This eco disc has been optimized in terms of production effort and clamping force allowing same on state losses with smaller clamping systems. The result is a cost-efficient replacement in same foot print and our well-known reliability, leading to outstanding lifetime. Our pressure contact chips in general provide best-in-class blocking stability.



Typical appearance

### Features

- > Short-on-fail capability
- > Best in class passivation
- > No open copper surfaces
- > Highly automated production process

### Benefits

- > Higher short-term overload
- > Simpler safety concept due to short on fail behavior
- > High DC blocking capability
- > H2S resistant by design
- > High productivity level

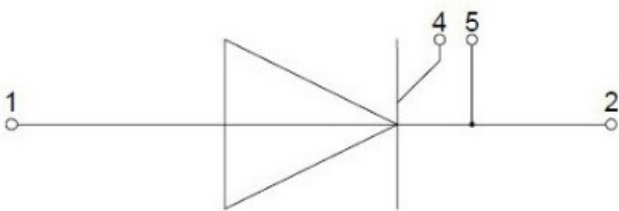
### Target applications

- > Drives
- > UPS

### Competitive advantage

- > Me too product

### Block diagram



1: Anode / Anode

4: Gate

2: Kathode / Cathode

5: Hilfskathode/  
Auxiliary Cathode

### Product collaterals / Online support

[Product page](#)

### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">T2200N16H100XPSA1</a>	SP005954699	BG-T10026K-1

# OptiMOS™ 7 80 V SSO8 Automotive MOSFET IAUCN08S7N013

Infineon introduces its first MOSFET in our next, leading edge, power technology: OptiMOS™ 7 80V. This debut product is offered in our versatile, robust, high current SSO8 5 x 6 mm<sup>2</sup> SMD package. It is designed specifically for high performance, high quality and the robustness needed for demanding automotive applications. IAUCN08S7N013 is a true step forward in the area of power density.



## Features

- >  $R_{DS(on)}$  reduced > 50% from prior best
- > Industry's best  $R_{DS(on)}$
- > Industry's best FOM ( $R_{DS(on)} \times Q_g$ )
- > Fast switching times (turn on/off)
- > Low package resistance and inductance
- > High avalanche current capability
- > High SOA ruggedness
- > Extended qualification beyond AEC-Q101

## Target applications

- > HV to 48 V DC-DC converter in electric vehicles
- > 48 V to 12 V DC-DC converter (or 48 V to 24 V)
- > 48 V power distribution
- > 48 V Battery Management System (BMS) and Disconnect Switch
- > 48 V motor control (EPS, Braking, Suspension, HVAC)
- > 48 V Heating (PTC, eCAT, windscreen), pumps and fans
- > Light electric vehicles (traction inverter, charger) i.e. 2 and 3 wheelers

## Benefits

- > Minimized conduction losses
- > Superior switching performance
- > Highest power density in 5 x 6 mm<sup>2</sup> package
- > High power efficiency
- > Small footprint and efficient cooling
- > Designed for Automotive robustness
- > High quality production for Automotive

## Competitive advantage

- > IAUCN08S7N013 has the industry's lowest  $R_{DS(on)}$  which means the lowest conduction losses in your application. Along with an excellent switching performance the efficiency of your application will be optimized
- > Due to the excellent power density of IAUCN08S7N013 in its 5 x 6 mm<sup>2</sup> SSO8 package, it can replace MOSFETs in TOLL packages (10 x 12 mm<sup>2</sup>) in some cases, while using 75% less PCB area
- > Additionally, IAUCN08S7N013 is available in Infineon's famous robust SSO8 package which has been proven to be reliable in automotive designs

## Product collaterals / Online support

[Product page](#)

## Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">IAUCN08S7N013ATMA1</a>	SP005402887	PG-TDSON-8

## PROFET™ +2 12 V: BTS7004-1EPR

PROFET™ +2 12 V family with next evolution for seat heating application, has a new high-side switch BTS7004-1EPR, providing protection functions and diagnosis. The products have slower slew rate for fulfilling EMR speciation for this seat heating application. These products use current tripping as protection feature. Further, ISO 26262-ready documentation supports the use in safety-related applications.



### Features

- > No under voltage recovery delay
- > Absolute and dynamic temperature limitation with controlled reactivation
- > Overcurrent protection (tripping) with intelligent latch
- > Undervoltage shutdown
- > Overvoltage protection with external components

### Benefits

- > High-side switch with diagnosis and embedded protection
- > Part of PROFET™ +2 12 V family – PIN compatibility
- > Switching slew rate optimized for seat heating applications
- > ReverseON for low power dissipation in reverse polarity
- > Green product (RoHS compliant)

### Target applications

- > Seat heating application
- > Body control module
- > Automotive zone controller

### Competitive advantage

- > Reduced external components for fulfilling seat heating system application requirement
- > Pin2pin compatible with PROFET™ +2 family

### Product collaterals / Online support

[Product page](#)

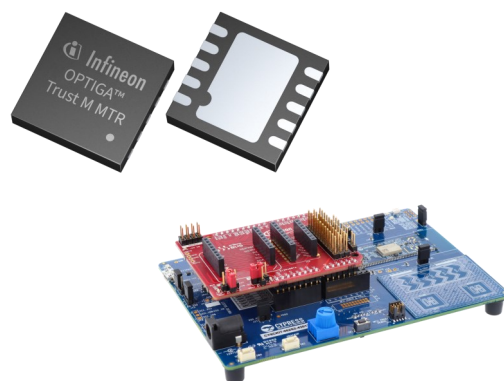
[Board page](#)

### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">BTS70041EPRXUMA</a>	SP005851926	PG-TS2SO-14
<a href="#">PROF2BTS70041EPRDBTOBO1</a>	SP005925757	

## OPTIGA™ Trust M MTR

OPTIGA™ Trust M MTR is our OPTIGA™ Trust M discrete security solution combined with a Matter provisioning service. It is Matter-certified and works with any MCU/SoC, making it easy to add secured Matter compatibility to existing IoT designs. Working closely with our partner Kudelski IoT, we offer late-stage personalized Device Attestation Certificate injection to give end customers the flexibility to update DACs right up until the start of production.



### Features

- > CSA Certified Matter certificates
- > Pre-provisioned TLS certificates
- > CC EAL 6+ certified
- > Cryptographic toolbox
- > ECC 512 and RSA up to 2 K key size
- > AES, HMAC and Key derivation

### Benefits

- > Easy to add Matter compatibility
- > Works with any MCU / MPU
- > Allows retention of existing designs
- > Personalized DAC for download
- > Robust security

### Target applications

- > Smart Home applications:
  - > Lightning
  - > Blinds / Shades
  - > Access control
  - > Surveillance camera
  - > Speakers

### Competitive advantage

- > Adaptable to any MCU / MPU and SoC
- > Meet advanced security standards
- > Secured storage
- > Crypto offloading
- > Late-stage provisioning

### Product collaterals / Online support

[Product page](#)

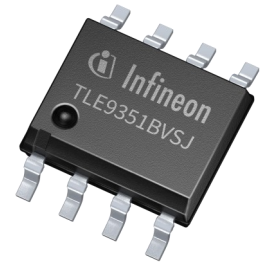
[Board page](#)

### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">SLS32AIA010MMUSON10XTMA2</a>	SP006031931	PG-USON-10
<a href="#">TRUSTMMTRSHIELDTOBO1</a>	SP006008195	

## CAN Transceiver TLE9351BVSJ

The TLE9351BVSJ is a high-speed CAN transceiver utilized in both automotive and industrial applications. Compliant with ISO 11898-2:2016 physical layer specification, SAE J1939, and SAE J2284, it comes in a RoHS compliant, halogen-free PG-DSO-8 package. Serving as an interface between the physical bus layer and the HS CAN protocol controller, it shields the microcontroller from network-generated interferences. With high ESD robustness and optimized RF immunity, it can be used in automotive applications without additional protection devices.



### Features

- > Fully compliant to ISO 11898-2:2016 and SAE J2284-4/-5
- > Loop delay symmetry for CAN FD data frames up to 5 Mbit / s
- > Very low electromagnetic emission (EME) allows the use without additional common mode choke
- > VIO input for voltage adaption to the microcontroller interface (3.3 V or 5 V)
- > Bus wake-up pattern (WUP) function with optimized filter time for worldwide OEM usage
- > Standby mode with minimized quiescent current

### Benefits

- > Very high EDS robustness allowing for use without additional protection device
- > Excellent EMC without additional external circuitry
- > Low current consumption
- > Fail-safe features, to protect the TLE9351BVSJ and the external circuitry from irreparable damage

### Target applications

- > Engine control units (ECU)
- > Body control modules (BCM)
- > Electric power steering
- > Transmission control units (TCUs)
- > Chassis control modules

### Competitive advantage

- > Best-in-class current consumption by DOM Bit on the CAN bus
- > Highest robustness due to higher mission profile
- > Stand-by mode with minimized quiescent current

### Product collaterals / Online support

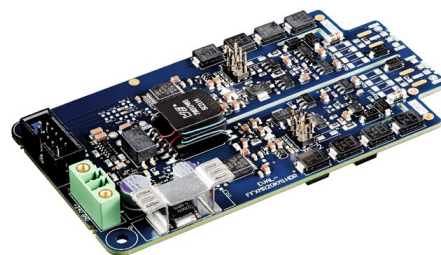
[Product page](#)

### Product overview incl. datasheet link

OPN	SP Number	Package
<a href="#">TLE9351BVSJXTMA1</a>	SP005593700	PG-DSO-8

## EVAL-FFXMR20KM1HDR

The evaluation board EVAL-FFXMR20KM1HDR allows the customer to begin initial characterization measurements very quickly. Due to the usage of the EiceDRIVER™ 1ED38x0Mc12M and its flexible parameter setting options via I2C-BUS, the board can be quickly adapted to different applications without changing the hardware. This flexible parameter settings are provided by 27 configuration registers accessible via I<sup>2</sup>C. These configuration options influence many threshold and timing parameters to optimize the circuit for its intended application.



### Features

- > Half-bridge driver for 62 mm, 2 kV modules with CoolSiC™ Trench MOSFET technology
- > Separate source and sink for optimized gate driving
- > Driver IC 1ED3890MC12M or 1ED3890MU12M (X3 digital) with I<sup>2</sup>C bus for parameter adjustment
- > Hardware undervoltage lockout (UVLO) protection

### Target applications

- > DC-DC converter
- > Solar applications
- > UPS systems
- > Solid State Transformer
- > Drives

### Benefits

- > Two-level turn-off (TLTO) with adjustable slopes, plateau time, and plateau level
- > Negative voltage adjustment from -5 V to 0 V
- > Positive voltage adjustment for high switching frequencies
- > PCB design to limit the PCB heating during operation

### Competitive advantage

- > Demonstrate new SiC 62 mm half bridge module for 2 kV
- > Enable switching with bipolar voltage in the range of -5 V to +18 V
- > Easy implementation at the customer side due to the EiceDRIVER™ software tool
- > TLTO, DESAT detection, Soft UVLO, miller clamping already integrated

### Product collaterals / Online support

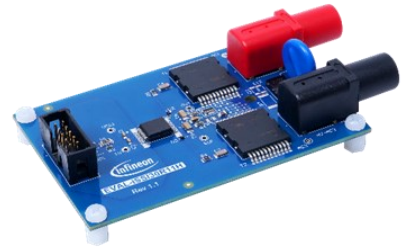
[Board page](#)

### Product overview incl. user manual link

OPN	SP Number
<a href="#">EVALFFXMR20KM1HDRTOBO1</a>	SP005733805

## Solid State Isolators evaluation board for iSSI30R11H

EVAL-iSSI30R11H is intended for evaluating the product features of Infineon's iSSI solid-state isolator, iSSI30R11H, in an application circuit. Evaluation board with iSSI30R11H and two CoolMOS™ IPQC60R010S7 MOSFETs in an AC switch configuration.



### Features

- > Features iSSI30R11H+IPQC60R010S7 CoolMOS™
- > AC switch configuration
- > Ultra-fast overcurrent detection
- > PTC temperature measurement
- > Fast turn-on / fast turn-off
- > Dynamic Miller clamping

### Benefits

- > Enables fast iSSI30R11H evaluation and design

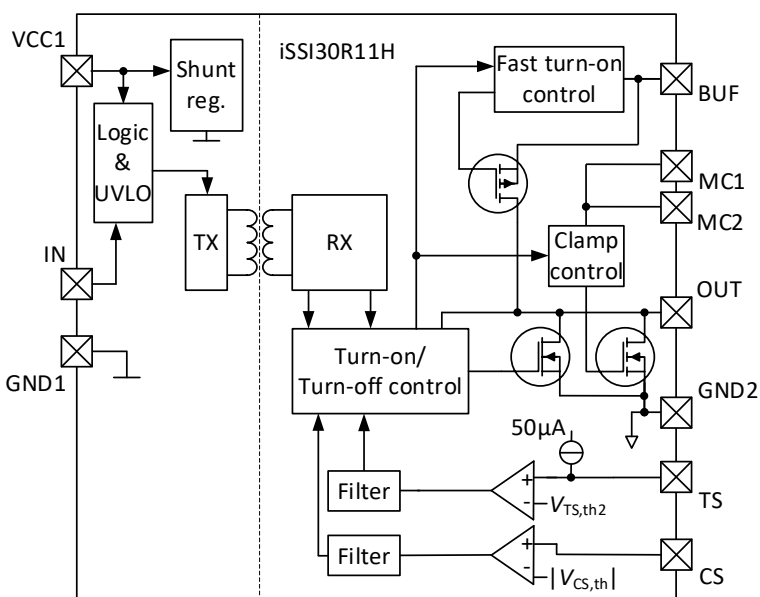
### Target applications

- > Battery management systems
- > Power supplies
- > Power transmission and distribution
- > Programmable logic controller
- > Industrial automation
- > Robotics
- > Smart building

### Competitive advantage

- > Total cost of ownership versus electromagnetic relays (EMR's)
- > BOM reduction in volume, size, component count and cost
- > System and switch level protection
- > Much lower power dissipation than an equivalent SCR or TRIAC solution

### Block diagram



### Product collaterals / Online support

[Board page](#)

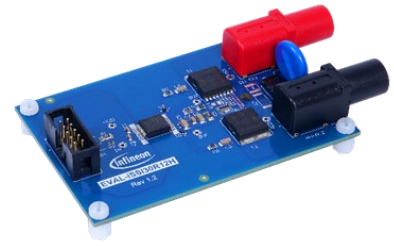
### Product overview incl. user manual link

OPN	SP Number
<a href="#">EVALISSI30R11HTOBO1</a>	SP006027890



## Solid State Isolators evaluation board for iSSI30R12H

EVAL-iSSI30R12H is intended for evaluating the product features of Infineon's iSSI solid-state isolator, iSSI30R12, in an application circuit. Evaluation board with iSSI30R11H and two CoolMOS™ IPT60T022S7 MOSFETs in an AC switch configuration.



### Features

- > Features iSSI30R12H+IPT60T022S7 CoolMOS™
- > AC switch configuration
- > Ultra-fast overcurrent detection
- > Direct CoolMOS™ temperature measurement
- > Fast turn-on / fast turn-off
- > Dynamic Miller clamping

### Benefits

- > Enables fast iSSI30R11H evaluation and design

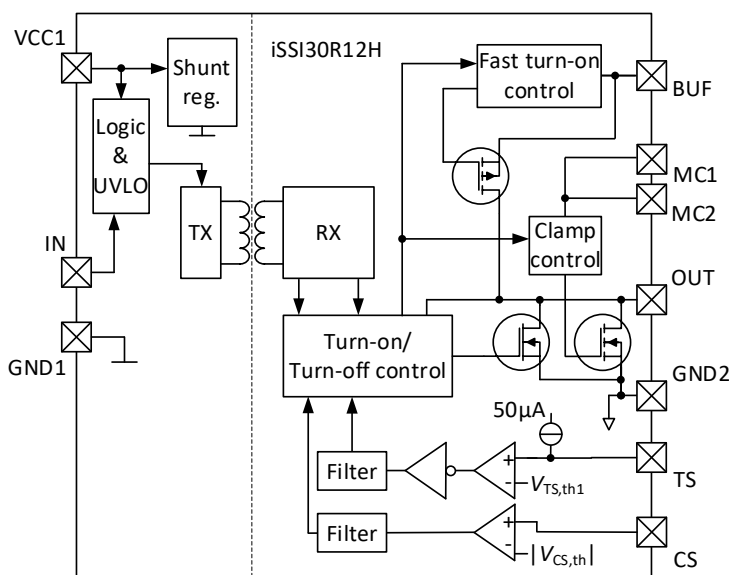
### Target applications

- > Battery management systems
- > Power supplies
- > Power transmission and distribution
- > Programmable logic controller
- > Industrial automation
- > Robotics
- > Smart building

### Competitive advantage

- > Total cost of ownership versus electromagnetic relays (EMR's)
- > BOM reduction in volume, size, component count and cost
- > System and switch level protection
- > Much lower power dissipation than an equivalent SCR or TRIAC solution

### Block diagram



### Product collaterals / Online support

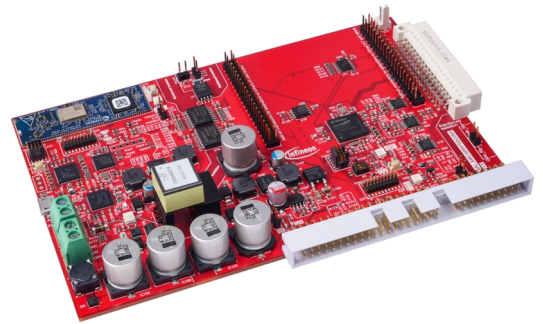
[Board page](#)

### Product overview incl. user manual link

OPN	SP Number
<a href="#">EVALISSI30R12HTOBO1</a>	SP005952684

## Controller board EVAL-XMC4800PSOC6M5

The EVAL-XMC4800PSOC6M5 is a controller board compatible with MADKs featuring M5 connectors. It allows easy evaluation of supported MADKs and custom software development via ModusToolbox™. It includes XMC4800 for inverter & motor control, PSoC™ 6 for web-based config including Wi-Fi. On-board are debugger and programmer for both MCUs, power supply, OPTIGA™ TrustM security, and interfaces for encoder / EtherCAT.



### Features

- > XMC4800 for inverter and motor control
- > PSoC™ 62 MCU + Murata 1LV Module incl. Wi-Fi connectivity and embedded GUI
- > Reinforced isolation between the two MCUs
- > ModusToolbox™ enabled
- > On-board USB debugger / programmer for both MCUs
- > On-board 24 V / 15 W flyback DC-DC
- > On-board OPTIGA™ Trust M security solution
- > Interface to MADKs with M5 connector
- > Interface connectors for EtherCAT piggy-pack and external encoder/ resolver circuitries
- > CAN interface

### Target applications

- > Motor drive
- > Industry application
- > EV charging

### Benefits

- > Support test and evaluation of M5-connector based MADKs
- > Simplify testing by an easy-to-use embedded graphical user interface accessible via Wi-Fi
- > Provide flexibility to design own test-cases in hardware and software quickly

### Competitive advantage

- > Offers an easy-to-use embedded GUI incl. access via Wi-Fi to quickly access and test power stages
- > Provides hardware access flexibility for setting up own hardware configurations
- > Is integrated into ModusToolbox™ framework and comes with sample software allowing to build own SW prototypes

### Product collaterals / Online support

[Board page](#)

### Product overview incl. user manual link

OPN	SP Number
<a href="#">EVALXMC4800PSOC6M5TOBO1</a>	SP005979075

## Evaluation kit XMC7100 Lite

Infineon's XMC7100 Lite evaluation kit is a development platform that enables customers to rapidly prototype XMC7000 microcontrollers. All of the peripherals of the XMC7100 are exposed and are accessible on this evaluation kit including TCPWM, CAN-FD and QSPI.

An extensive number of code examples are available in the ModusToolbox™ BSP, providing a quick reference for application development.



### Features

- > Lite evaluation board
- > Fully supported in ModusToolbox™ software
- > Miniaturized board with 3.3 / 5 V power supply option and micro USB
- > Multiple connector options (Micro-Bus, Arduino Extension headers for GPIOs)

### Benefits

- > Low cost, feature rich development platform
- > Over 40 code examples built into ModusToolbox™, shorten's your development time
- > Fast and Easy to use, access to external power not necessary
- > Maximum design flexibility, several termination options

### Target applications

- > General purpose drives
- > Servo drives
- > I/O modules
- > HVAC

### Competitive advantage

- > Ability to rapidly prototype your design for industrial applications
- > Fully integrated into ModusToolbox™ SDK
- > Available space to solder additional components for your application

### Product collaterals / Online support

[Board page](#)

### Product overview incl. user manual link

OPN	SP Number
<a href="#">KITXMC71EVKLITEV1TOBO1</a>	SP005956481

## Reference board REF\_ILD8150E\_HE

The reference board REF\_ILD8150E\_HE shows how to enable headroom voltage control in LED drivers by combining an AC-DC flyback controller and a DC-DC buck converter, enhancing system performance and reducing design costs.



### Features

- > Input voltage up to 80 V<sub>dc</sub>
- > Up to 1.5 A output current
- > Hybrid dimming from 0.5% to 100%
- > Digital soft-start
- > Typical  $\pm 3\%$  output current accuracy

### Benefits

- > No external MOSFET needed
- > Deep dimming and flicker-free light
- > High efficiency headroom voltage control
- > Current always under control

### Target applications

- > LED driver
- > LED lighting

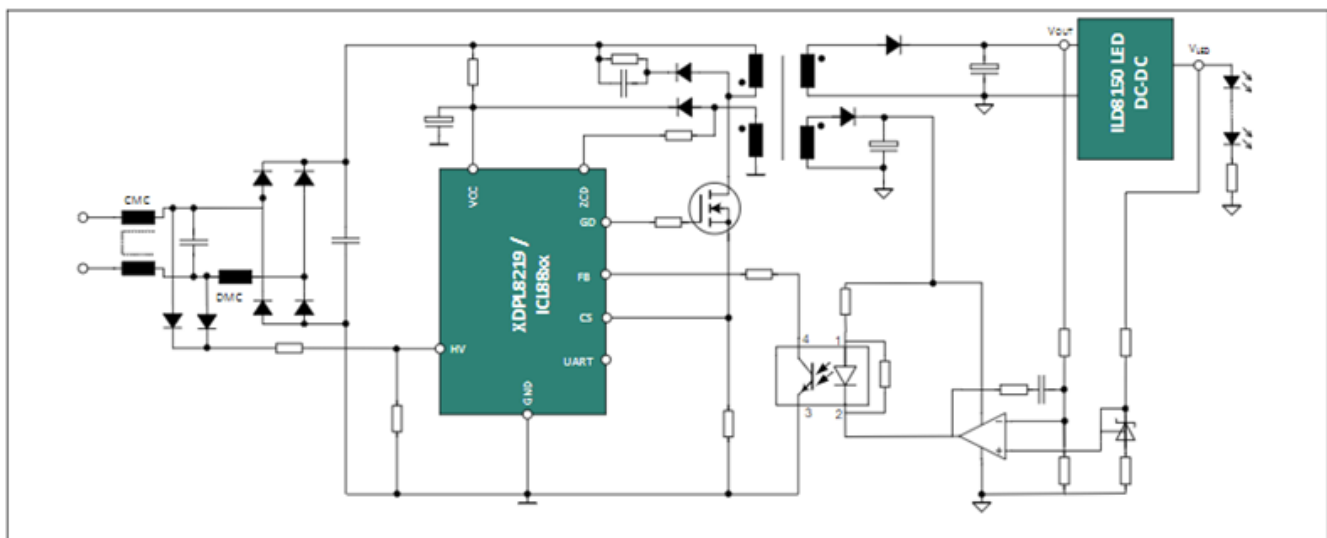
### Competitive advantage

- > SSR with headroom voltage control tested for increased efficiency
- > Use of smaller buck inductor reduces buck converter temperature by 22°C
- > LED system efficiency improved by over 3%
- > Helps to design lighter and more compact devices

### Product collaterals / Online support

[Board page](#)

### Block diagram



Product overview incl. application notes link

OPN	SP Number
<a href="#">REFILD8150EHETOBO1</a>	SP006016130