



## New Product Introduction

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March 2022

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## EasyPACK™ 2B power modules 650 V for UPS applications

The EasyPACK™ 2B power modules have been designed to meet higher power requirements for UPS applications. With this portfolio extension a power range from 30 kW to 40 kW for the entire UPS system can be realized.

The F3L100R07W2H3\_B11 and F3L150R07W2H3\_B11 are a perfect fit for the DC/AC inverter stage, while DF200R07W2H3\_B77, DF300R07W2H3\_B77 are designed for the DC/DC stage of the system.

The portfolio of 3-level and booster solutions offers a high degree of freedom for the inverter design.

Thanks to the well-known PressFIT pins, the modules are easy to design-in and feature a rugged mounting.



### Features

- > Easy 2B housing
- > 650 V
- > IGBT Highspeed 3 chip technology
- > PressFIT pins
- > Broad portfolio

### Benefits

- > Power density
- > High efficiency
- > Easy to design-in with a high degree of freedom for both inverter and booster designs

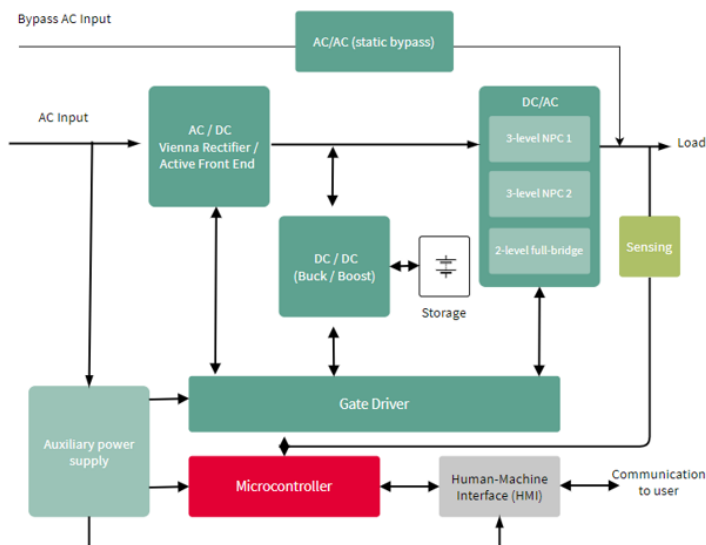
### Target applications

- > Uninterruptible Power Supplies (UPS)

### Competitive advantage

- > A broad portfolio fulfills a wide range of UPS power classes

### Block diagram:



### Product collaterals / Online support

[Product family page](#)

[Product page F3L100R07W2H3\\_B11](#)

[Product page F3L150R07W2H3\\_B11](#)

[Product page DF200R07W2H3\\_B77](#)

[Product page DF300R07W2H3\\_B77](#)

### Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">F3L100R07W2H3B11BPSA1</a>	SP001093030	AG-EASY2B-411
<a href="#">F3L150R07W2H3B11BPSA1</a>	SP001064170	AG-EASY2B-411
<a href="#">DF200R07W2H3B77BPSA1</a>	SP005423521	AG-EASY2B-411
<a href="#">DF300R07W2H3B77BPSA1</a>	SP005423516	AG-EASY2B-411

# TLE92464EDHP

The TLE92464EDHP is a high accuracy flexible, monolithic four channel solenoid driver IC designed for the control of four linear solenoids in automatic transmission, electronic stability control, and active suspension applications.



## Features

- > High current control accuracy
- > Four independent low side channels with integrated MOSFETs ( $R_{DS(on)} = 115 \text{ m}\Omega$ )
- > Programmable setpoint from 0 mA to 1.5 A
- > Load current including dither 1.8 A
- > Current in parallel channel mode 2.7 A
- > Integrated dither generator with programmable amplitude, frequency and waveform
- > Excellent immunity to large load supply voltage changes

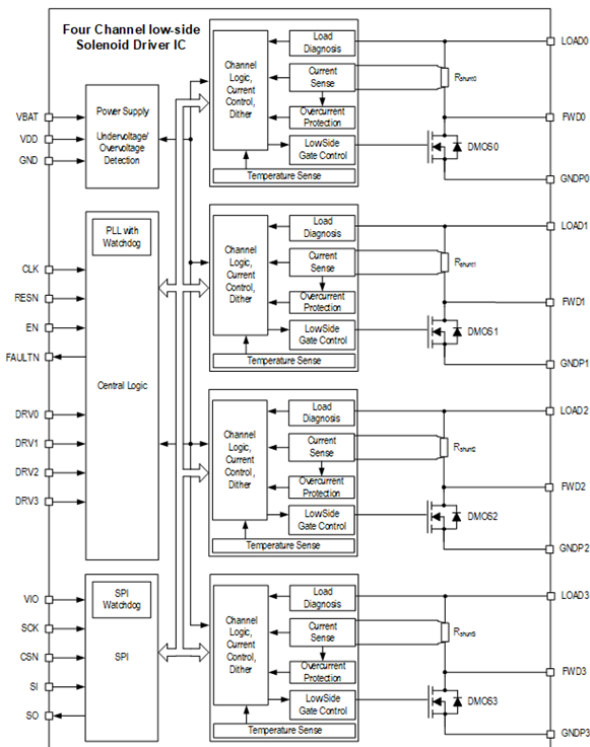
## Target applications

- > Variable force solenoids (e.g. automatic transmission and e-Axle)
- > Other constant current solenoids
- > Idle air control
- > Exhaust gas recirculation
- > Vapor management valve
- > Suspension control

## Benefits

- > Reduction of TCU calibration efforts saving cost and time
- > Enables ASIL D on system level
- > Full temp range up to 175° C
- > +/- 1 % current accuracy over lifetime (-40° C to 150° C)
- > Excellent regulation performance for step responses
- > Excellent Battery Ripple Rejection
- > Ease of use due to the family concept with 6 CH TLE92466ED device
- > Same software and package as TLE92464ED and TLE92466ED enables maximal reuse
- > Scalable solution
- > Integrated Power Devices
- > Minimizes number of components placement, simplifies PCB layout
- > Enables current limitation, slew rate control, and thermal protection
- > Improved Short-to-Battery performance

## Block diagram:



Product collaterals / Online support

[Product page](#)

Product overview incl data sheet link

OPN	SP Number	Package
<a href="#">TLE92464EDHPXUMA1</a>	SP005567000	PG-DSO-36

## TLF35584QVHS1, TLF35584QVHS2

The TLF35584QVHS1 is a multiple output system supply for harsh - environments and safety - relevant applications supplying 3.3 V / 5 V - MCU, transceivers, and sensors by an efficient and flexible pre- / post - regulator concept over a wide input voltage range.



### Features

- > Grade 0+
- > ISO 26262 - compliant up to ASIL-D
- > Multi-rail supplies with Pre- / Post-architecture
- > Voltage monitoring
- > Flexible safe state control
- > Window- & Functional- Watchdog

### Benefits

- > Suitable for harsh environments
- > Extended driving profile and product life cycles
- > Efficiency and flexibility
- > Enables ASIL-D on system level

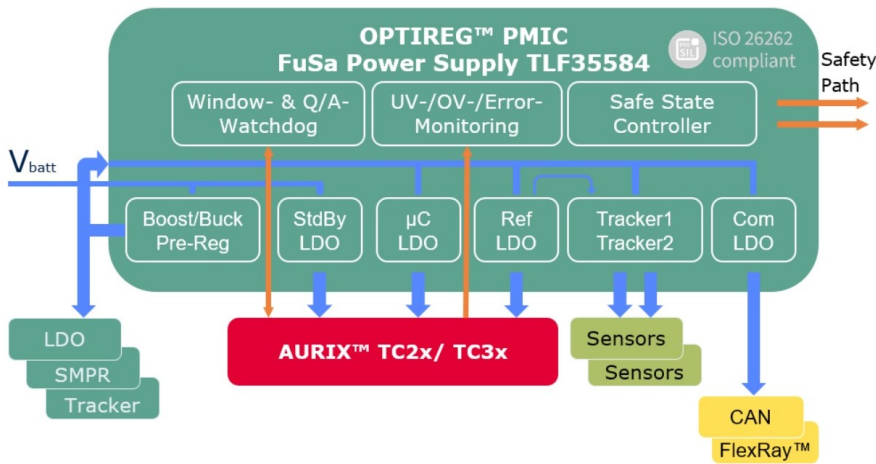
### Target applications

- > Electric drive train
- > ADAS and Sensor Fusion
- > Electric power steering

### Competitive advantage

- > Grade 0 to withstand the extended driving profile and product life cycles and supports up to ASIL-D

### Block diagram:



Product collaterals / Online support

[Product page TLF35584QVHS1](#)

[Product page TLF35584QVHS2](#)

[Product brief](#)

### Product overview incl data sheet link

OPN	SP Number	Package
<a href="#">TLF35584QVHS1XUMA1</a>	SP005429284	PG-VQFN-48
<a href="#">TLF35584QVHS2XUMA1</a>	SP005429285	PG-VQFN-48

## CoolSiC™ MOSFET 650V in D2PAK package

CoolSiC™ MOSFET technology leverages the strong physical characteristics of silicon carbide, adding unique features that increase the device performance, robustness, and ease of use. The CoolSiC™ MOSFET 650V in the compact SMD 7 pin package are built on a state-of-the-art Infineon SiC trench technology targeting high power applications. It is optimized to enable maximum system performance, compactness and reliability.



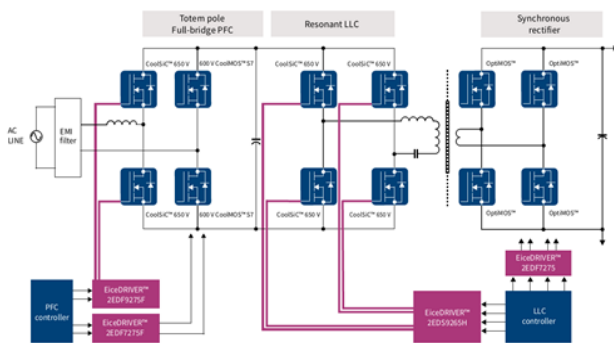
### Features

- > Low  $Q_{rr}$  and  $Q_{oss}$
- > Low switching losses
- > Commutation robust fast body diode
- > Leading trench technology with superior gate oxide reliability
- > Increased avalanche capability
- > SMD package for direct integration into PCB
- > Sense pin for optimized switching performance

### Benefits

- > High performance, high reliability and ease of use
- > Enable high system efficiency and power density
- > Reduces system cost and complexity
- > Enable cheaper, simpler and smaller systems
- > Works in topologies with continuous hard commutation
- > Fit for high temperature and harsh operations
- > Enables bi-directional topologies

### Block diagram



### Target applications

- > Server
- > Telecom
- > SMPS
- > Solar energy systems
- > Energy storage and battery formation
- > UPS
- > EV charging
- > Motor drives

### Product collaterals / Online support

[Product family page](#)

[Application Notes](#)

### Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">IMBG65R022M1HXTMA1</a>	SP005539143	PG-TO263-7
<a href="#">IMBG65R030M1HXTMA1</a>	SP005539165	PG-TO263-7
<a href="#">IMBG65R039M1HXTMA1</a>	SP005539169	PG-TO263-7
<a href="#">IMBG65R048M1HXTMA1</a>	SP005539172	PG-TO263-7
<a href="#">IMBG65R057M1HXTMA1</a>	SP005539175	PG-TO263-7
<a href="#">IMBG65R072M1HXTMA1</a>	SP005539178	PG-TO263-7
<a href="#">IMBG65R083M1HXTMA1</a>	SP005539181	PG-TO263-7
<a href="#">IMBG65R107M1HXTMA1</a>	SP005539184	PG-TO263-7
<a href="#">IMBG65R163M1HXTMA1</a>	SP005539187	PG-TO263-7
<a href="#">IMBG65R260M1HXTMA1</a>	SP005539192	PG-TO263-7

## EiceDRIVER™ 2EDN dual-channel low-side driver ICs

EiceDRIVER™ 2EDN Gate Driver ICs for MOSFETs and WBG switches

Fast dual-channel 4A/5A gate driver optimized for driving both standard and super-junction MOSFETs, as well as wide-bandgap power switching devices.

The EiceDRIVER™ 2EDN family is offered in 8-pin DSO, TSSOP and WSON packages as well as in small and versatile 6-pins SOT23 and TSNP package. High-output-current capability, tight-timing specifications, and reduced output start-up and shut-down times, make the 2EDN family the first choice for many fast-switching applications. Active output clamping shortens the startup time of bootstrapped designs.



### Features

- > Up to  $\pm 5$  A source/sink currents
- > 19 ns typ. propagation delay
- > +6/-4 ns propagation delay accuracy
- > 1.8  $\mu$ s output start-up time
- > 500 ns output shut-down time
- > Active output voltage clamping
- > -12 V input robustness
- > 5 A reverse current robustness
- > 4 V and 8 V UVLO options
- > Fully qualified for industrial applications according to JEDEC

### Target applications

- > Server
- > Telecom
- > DC-DC Converters
- > Power tools
- > Industrial SMPS
- > Low speed electrical vehicles
- > Solar power inverter
- > LED lighting

### Benefits

- > High power efficiency
- > Higher FETs drive capability
- > Instant FETs protection under abnormal operation
- > Crucial safety margin to drive pulse transfer

### Product collaterals / Online support

[Product family page](#)

### Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">2EDN7534FXTMA1</a>	SP005350290	PG-DSO-8
<a href="#">2EDN7434FXTMA1</a>	SP005350293	PG-DSO-8
<a href="#">2EDN7533FXTMA1</a>	SP005350294	PG-DSO-8
<a href="#">2EDN8534FXTMA1</a>	SP005350295	PG-DSO-8
<a href="#">2EDN8533FXTMA1</a>	SP005350297	PG-DSO-8
<a href="#">2EDN7534RXTMA1</a>	SP005350298	PG-TSSOP-8
<a href="#">2EDN7434RXTMA1</a>	SP005350300	PG-TSSOP-8
<a href="#">2EDN7533RXTMA1</a>	SP005350301	PG-TSSOP-8
<a href="#">2EDN8534RXTMA1</a>	SP005350302	PG-TSSOP-8
<a href="#">2EDN8533RXTMA1</a>	SP005350305	PG-TSSOP-8
<a href="#">2EDN7534GXTMA1</a>	SP005350311	PG-WSON-8
<a href="#">2EDN7534BXTSA1</a>	SP005349760	PG-SOT23-6
<a href="#">2EDN7533BXTSA1</a>	SP005349762	PG-SOT23-6



## PSoC™ 64

The PSoC™ 64 line incorporates all of the key features of PSoC™ 6 with preconfigured SW to support secure onboarding, secure boot, secure firmware updates and Trusted FW - M security services.



### Features

- > MCU Subsystem: 150-MHz Arm® Cortex®-M4 with ultra-low-power (0.9 V) and low-power (1.1 V) operation mode, up to 2MB Flash, 1MB SRAM with DMA
- > CY Secure Enclave: Hardware isolated keys, cryptographic functions and trusted applications, secure boot with attestation and anti-rollback, advanced hardware cryptographic acceleration and TRNG, CY Secure Bootloader for secure firmware updates
- > Analog Blocks: 2 x opamps, 2 x low-power comparators (CMP), 12-bit SAR ADC (1-Msps), 12-bit DAC, CapSense® capacitive-sensing block
- > Digital Blocks and Communication Interfaces: 12 x universal digital blocks (UDBs): custom digital peripherals, 24 x 16-bit and 8 x 32-bit timer/counter/pulse-width modulation blocks (TCPWM), 8 x serial communication blocks (SCBs), deep-sleep SCB, I2S and PDM-PCM converter, SMIF, USB 2.0 (Host and Device)
- > I/O Subsystem: Up to 104 GPIOs

### Evaluation Board

- > PSoC™ 64 Standard Secure - AWS Wi-Fi BT Pioneer Kit (CY8CKIT-064S0S2-4343W)
- > The PSoC™ 64 Standard Secure - AWS Wi-Fi BT Pioneer Kit (CY8CKIT-064S0S2-4343W) is a low-cost hardware platform that enables you to easily design and debug your IoT application with PSoC™ 64 Standard Secure - AWS MCU and Amazon's AWS IoT Core and associated web services.



### Benefits

- > Single power supply
- > Security seamlessly integrated in to the hardware and software framework of the device
- > Enhance privacy, reduce latency by running ML algorithms on the edge
- > Integration of Touch HMI feature, analog/digital sensor interfaces in single MCU
- > Optimized the application power consumption using fine grained power modes
- > Easy to use software for prototyping and productizing secure IoT applications
- > Support in the Infineon Developer Community with direct access to online applications support engineers

### Competitive advantage

- > Dedicated core for security with pre-integrated software
- > Preconfigured, tested Secure Processing Environment (SPE) and Non-Secure Processing Environment (NSPE) (PSA API)
- > Hardware-based Root-of-Trust (PSA L1, L2 and API) and Trusted Services
- > Integrated RTOS + TF-M (PSA L2)
- > Dynamic Voltage and Frequency Scaling for LP and ULP

### Target applications

- > IoT gateways
- > Smart home
- > Home appliances
- > HMI
- > Audio processing
- > Industrial concentrators

### Product overview incl. kit guide / data sheet link

<b>OPN</b>
<a href="#">CY8CEVAL-062S2</a>
<a href="#">CY8CKIT-064B0S2-4343W</a>
<a href="#">CY8CKIT-064S0S2-4343W</a>
<a href="#">CY8CPROTO-064S1-SB</a>
<a href="#">CY8CPROTO-064B0S3</a>
<a href="#">CYB06447BZI-BLD53*</a>
<a href="#">CYB06447BZI-D54*</a>
<a href="#">CYB0644ABZI-S2D44*</a>
<a href="#">CYB06445LQI-S3D42*</a>
<a href="#">CYS0644ABZI-S2D44*</a>

### Product collaterals / Online support

- [Product page](#)
- [Product brief](#)
- [Modus ToolBox link](#)

**\*Disclaimer – parts should not be ordered unless qualified provisioning services are in place. Please contact a sales representative for details.**

## 32-bit TriCore™ AURIX™ TC37xTX

Infineon releases its low end AURIX™ TC37xTX microcontroller family. It comes back with an increase in performance, memory sizes, connectivity and more scalability to address the new automotive trends and challenges. In terms of performance, the T37xTX offers 1 core running at 300 MHz, up cores running at 300 MHz and up to 4.3 MBytes embedded RAM, and consuming below 2 W.



### Features

- > TriCore™ running at 300 MHz
- > Supporting floating point and fix point with all cores
- > 6 MB flash / ECC protection
- > 4.3 MB SRAM / ECC protection
- > 128x DMA channels
- > 2x Gbit Ethernet
- > 12x CAN FD, 1x FlexRay, 12x LINs, 6x QSPI, 1x I<sup>2</sup>C, 15x SENT, 5x PSI, 1x HSSL, 2x MSC, 1x eMMC
- > eVita full HSM (ECC256 and SHA2)
- > LFBGA-292 package
- > Developed and documented following ISO 26262 / IEC61508 to support safety requirements up to ASIL-D / SIL3
- > AUTOSAR 4.2 support
- > Single voltage supply 5 V or 3.3 V
- > Standby mode controller
- > Temperature: -40° C to 150° C

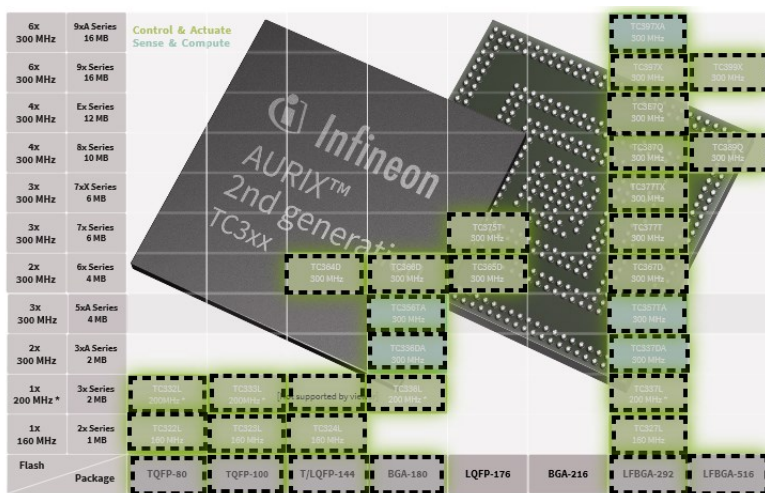
### Benefits

- > Best-in-class performance enabling ASIL-D designs
- > Upward and downward scalable to the rest of AURIX™ TC3xx family
- > Easy migration from AURIX™ TC2xx thanks to high software and hardware compatibility

### Target applications

- > Gateway

### Block diagram:



\* An option of 300MHz is also available  
 › Advanced package technologies deliver the best price/performance ratio  
 › Customers can choose between different devices in the same pin-compatible package

### Product collaterals / Online support

[Product page](#)

[Whitepaper](#)

[Data sheet addendum](#)

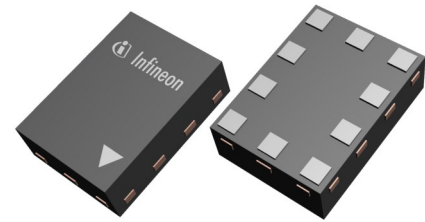
### Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">TC377TX96F300SABKXUMA1</a>	SP004950416	PG-LFBGA-292



## New high-performance Antenna Tuners for best antenna efficiency

Based on the long-term RF expertise and technology development, Infineon supports RF engineers in optimizing antenna efficiency with a broad portfolio of smallest, ready-to-use antenna tuners. Following the successful market launch of the BGSA147ML10, Infineon is now further expanding its range of innovative antenna tuners with the new antenna tuning switches BGSA14M2N10, BGSA403ML10, BGSA144ML10 and BGSA400ML10.



These devices are suitable for Sub-7.2 GHz New Radio (NR) applications, supporting both 4G and 5G in smartphones, notebooks, wearables, VR headsets, smart home and other cellular applications.

### Features

Medium RF Voltage category:

- > BGSA14M2: SP4T, smallest footprint 0.95 x 1.3 mm<sup>2</sup>, 45 VRF
- > BGSA403M: 4SPST, 1.1 x 1.5 mm<sup>2</sup>, 50 VRF, drop-in compatible to BGSA400M

High RF Voltage category:

- > BGSA144M: SP4T with resonance stoppers, 1.1 x 1.5 mm<sup>2</sup>, 80 VRF, drop-in compatible to BGSA147M
- > BGSA400M: 4SPST, 1.1 x 1.5 mm<sup>2</sup>, 90 VRF, drop-in compatible to BGSA403M

### Benefits

- > Wide frequency operation range from 0.4 GHz up to 7.2 GHz
- > Low R<sub>ON</sub> & C<sub>OFF</sub> => Low RF losses
- > Lowest current consumption of 22 µA
- > Minimized Radiated Spurious Emissions (RSE)
- > p2p compatible to competitors' products
- > MIPI2.1 RFFE control interface with 4 Default USID addresses via USID\_sel pin

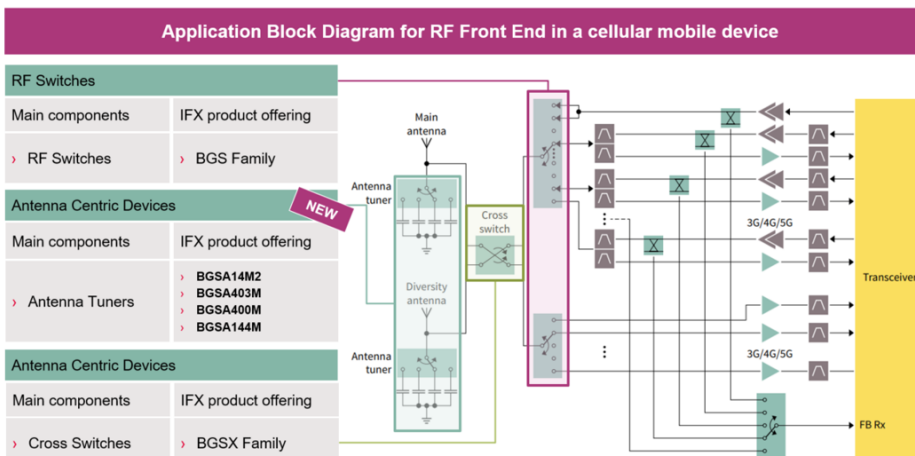
### Competitive advantage

- > Support sub-7.2 GHz NR / NR-U (5G) applications
- > Ultra low R<sub>ON</sub> x C<sub>OFF</sub> figure of merit along with very high linearity
- > Space saving due to ultra-small package, suitable for space-constrained applications

### Target applications

- > All battery powered cellular applications like smartphone, notebook, tablet, smartwatch, VR headset, smart home

### Block diagram



### Product collaterals / Online support

[Product page BGSA14M2N10](#)

[Product page BGSA403ML10](#)

[Product page BGSA144ML10](#)

[Product page BGSA400ML10](#)

[Product presentation BGSA14M2N10](#)

[Product presentation BGSA403ML10](#)

[Product presentation BGSA144ML10](#)

[Product presentation BGSA400ML10](#)

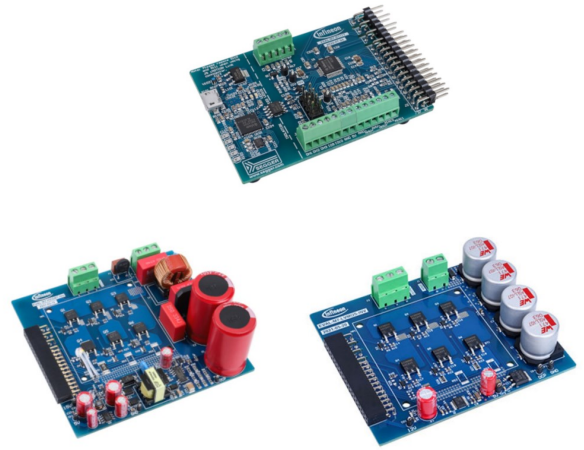
### Product overview incl. data sheet link

OPN	SP Number	Package
<a href="#">BGSA14M2N10E6327XTSA1</a>	SP005561452	PG-TSNP-10
<a href="#">BGSA403ML10E6327XTSA1</a>	SP005562721	PG-TSLP-10
<a href="#">BGSA144ML10E6327XTSA1</a>	SP005723742	PG-TSLP-10
<a href="#">BGSA400ML10E6327XTSA1</a>	SP005410271	PG-TSLP-10

# Control and Power Boards for iMOTION™ Modular Application Design Kit (MADK)

The EVAL-M7-D111T is a Control Board for the iMOTION™ Modular Application Design Kit (MADK) platform. It is powered by the IMD111T-6F040 iMOTION™ driver featuring advanced Motion Control Engine (MCE), that enables state-of-the-art Sensorless Field Oriented Control (FOC) without need for any coding. IMD111T-6F040 is a part of the iMOTION™ IMD110 series, which combines the iMOTION™ motor control with a three-phase gate driver for control of PMSM (BLDC) motors.

This control board together with a growing number of matching iMOTION™ MADK power boards with M7 connector, create a wide portfolio of 3-phase inverter options, scalable in power ratings and operating voltages.



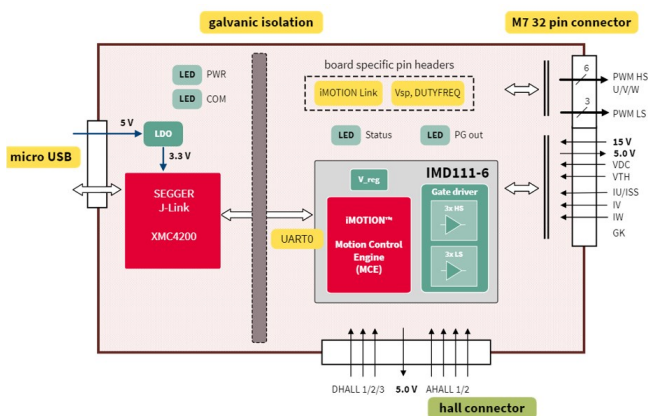
## Features

- > Field-proven Motion Control Engine (MCE)
- > Single-shunt or leg-shunt Sensorless FOC Control
- > Galvanically isolated on-board-debug interface
- > Integrated protection features
- > Integrated scripting engine similar to a small virtual machine

## Target applications

- > Motor control and drives
- > Power tools
- > Refrigeration and freezing – compressor drives
- > Residential aircon - motor-, system control and monitoring
- > Washer and dryer motor-control - quieter systems

## Block diagram



## Benefits

- > Easy motor parametrization and tuning using MCEWizard and MCEDesigner tools
- > Fast time to market – No coding required for motor control functions
- > Wide range of iMOTION™ MADK power boards with matching M7 platform interface
- > High flexibility for motor control tuning and system functionality

## Competitive advantage

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

## Product collaterals / Online support

[Board family page](#)

[Video](#)

## Product overview incl. product page link

OPN	SP Number
<a href="#">EVALM7D111TTOBO1</a>	SP004177776
<a href="#">EVALM7HVIGBTINVTBOBO1</a>	SP005572494
<a href="#">EVALM7HVMOSINVTBOBO1</a>	SP005555668
<a href="#">EVALM7LV MOSINVTBOBO1</a>	SP005555666