



OPTIREG™ PMIC Application Specific

Product presentation

ATV SP APS
Q2 2026



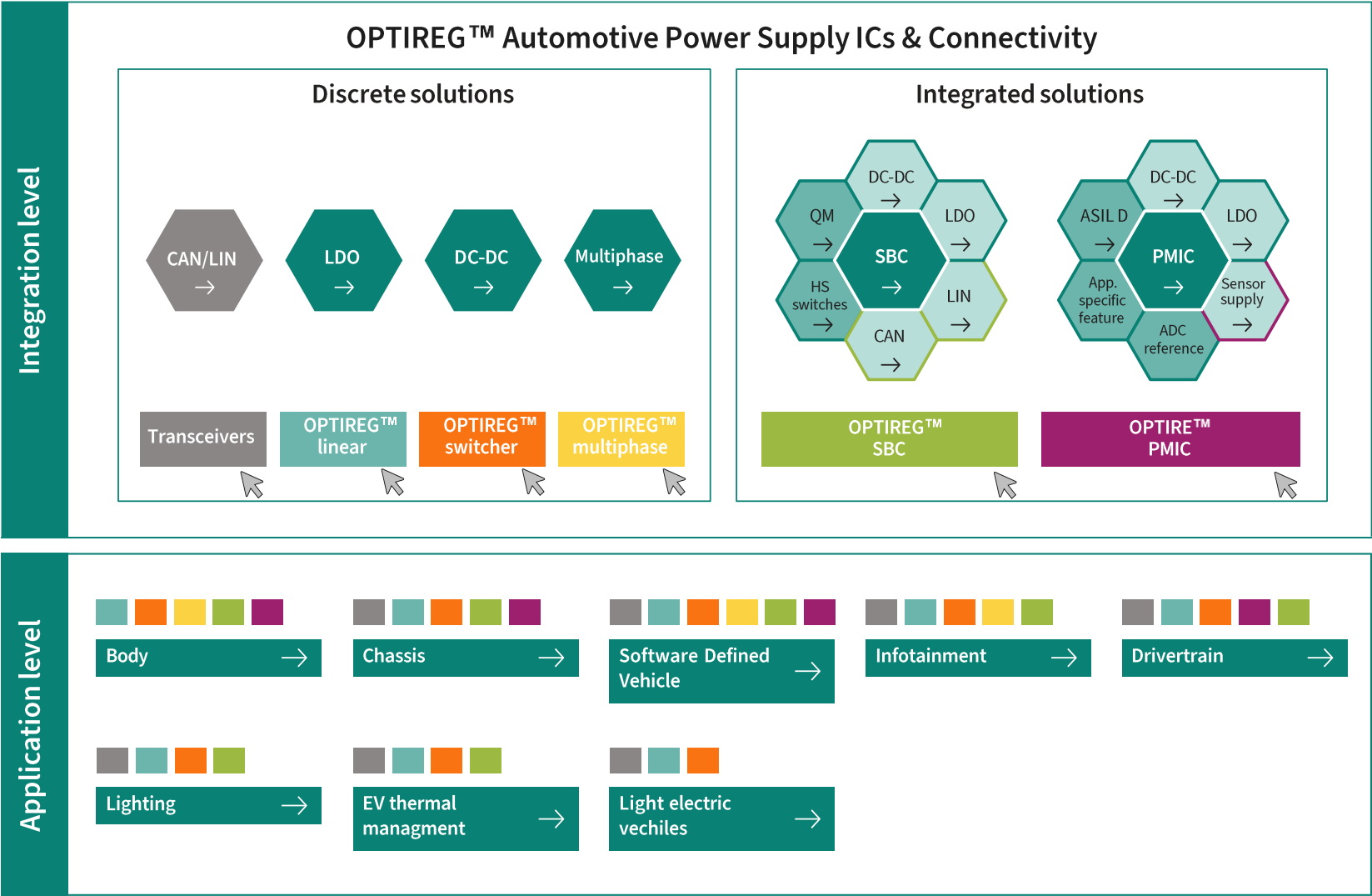
Find it online !



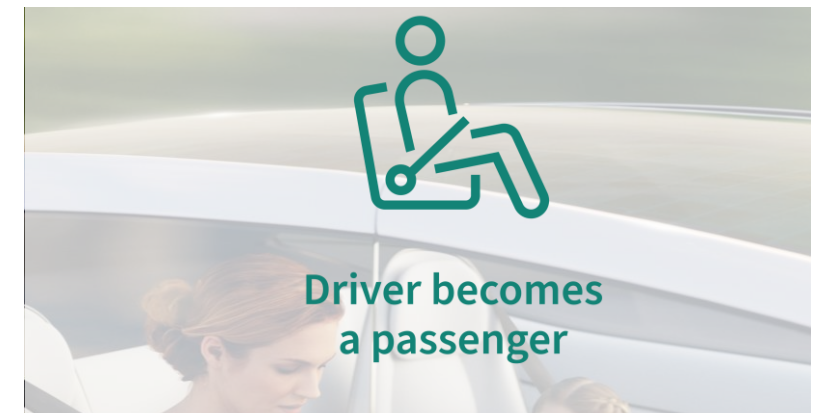
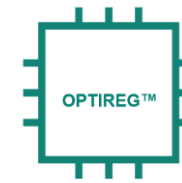
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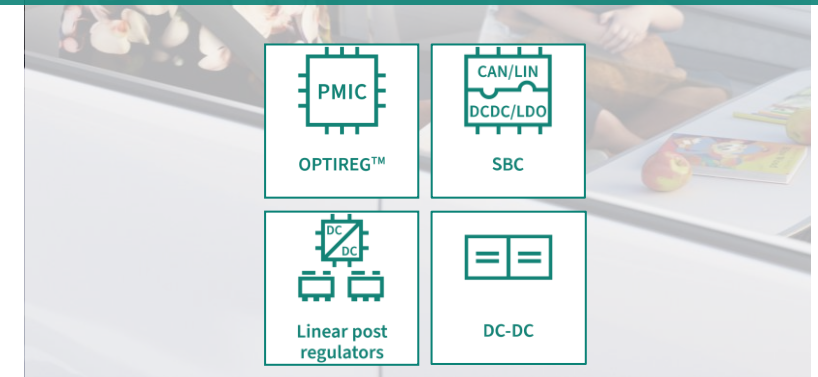
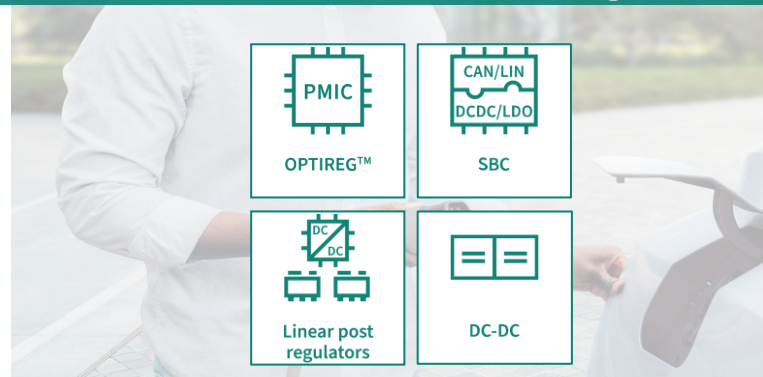
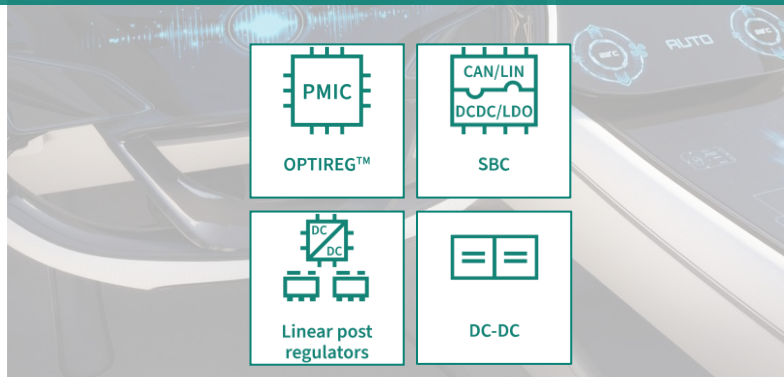
OPTIREG™



OPTIREG™ Power Supply fits in all automotive relevant trends



OPTIREG™ provides the right products



to support all these trends

Traditional applications

Efficient supply concepts

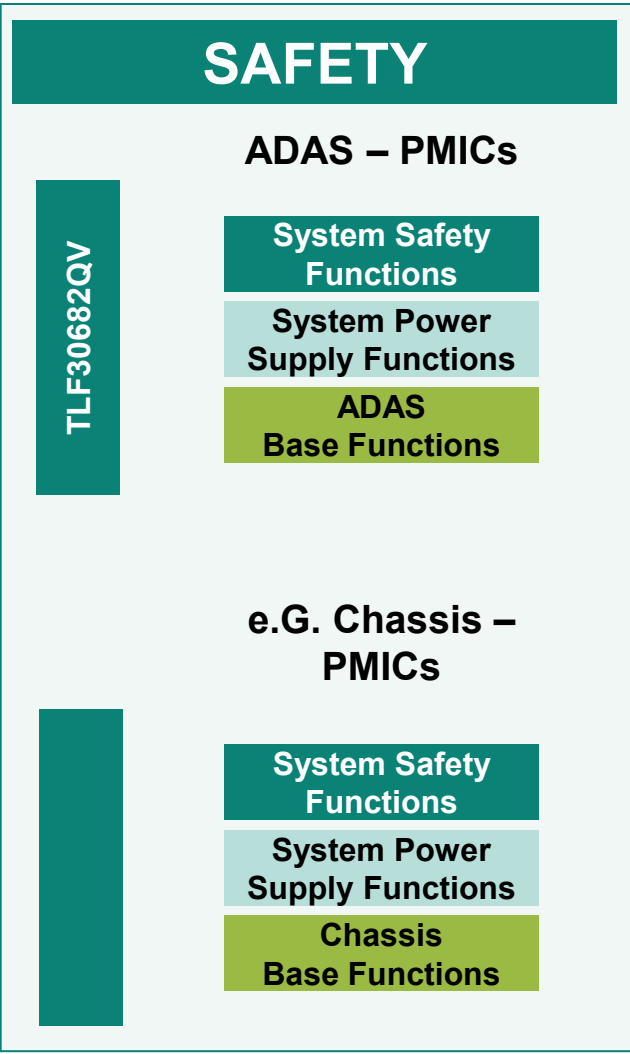
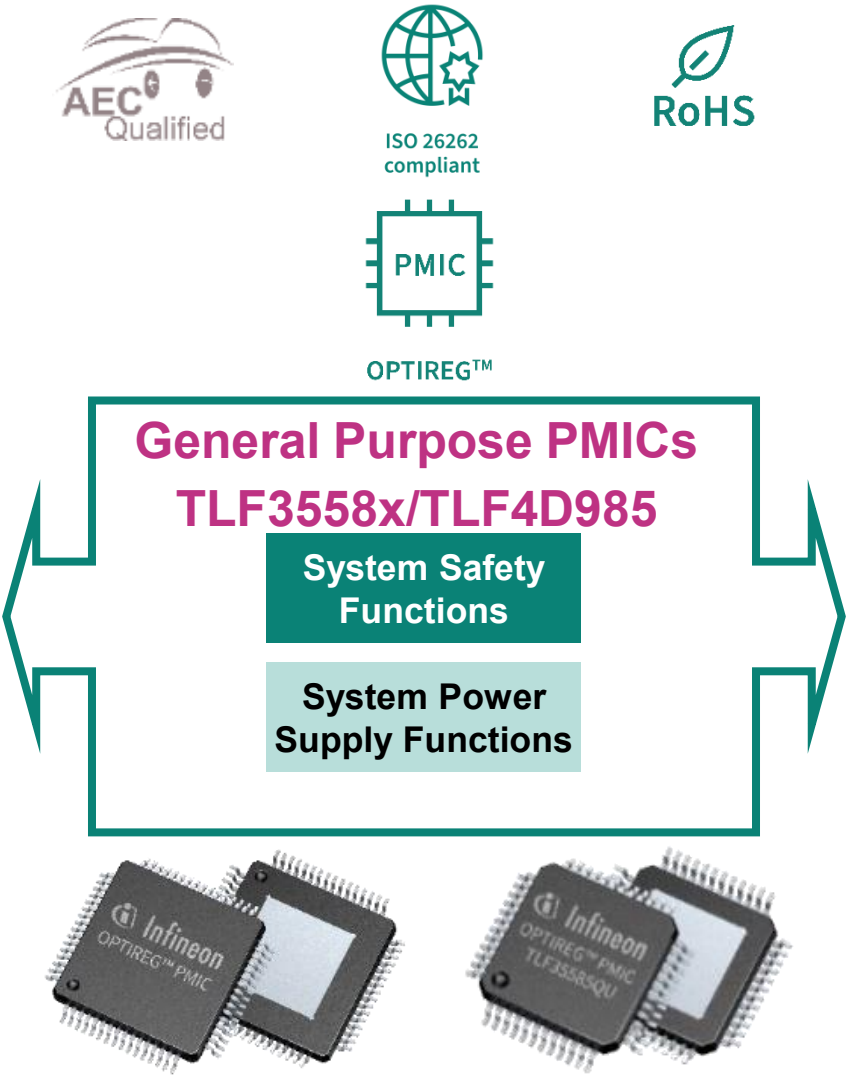
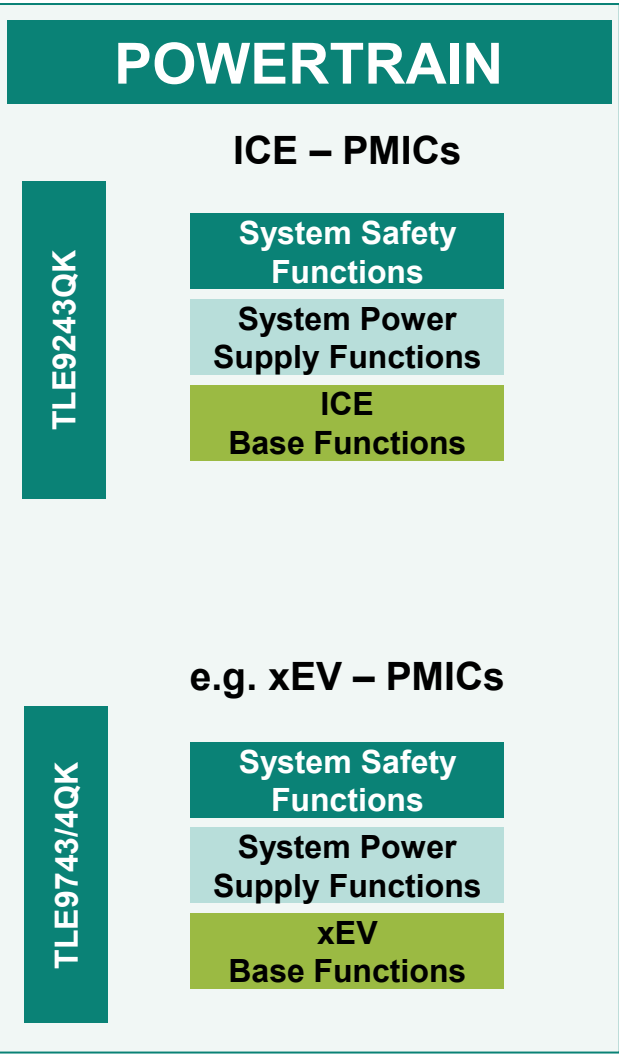
Emerging business models

OPTIREG™ PMIC Application Specific

OPTIREG™ PMIC: Strong commitment to General Purpose and Application Specific PMIC solutions



- Transmission
- Double clutch transmission
- Transfer case
- Traction inverter
- DC-DC HV/12V
- On-board charger
- BMS
- Integrated starter generator



- Radar
- Lidar
- Camera
- Sensor fusion
- Brake booster
- Electric power steering
- 48V Suspension
- Electric parking brake

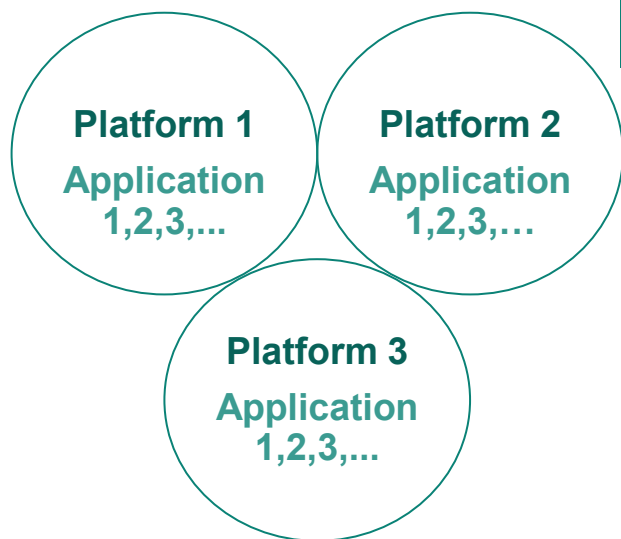
MOTOR DRIVES



General Purpose (GP) vs. Application Specific (AS) -PMICs

OEMs/Tier1s have different strategies for PMICs

Cross Application Approach



> **GP-PMICs**, for various applications

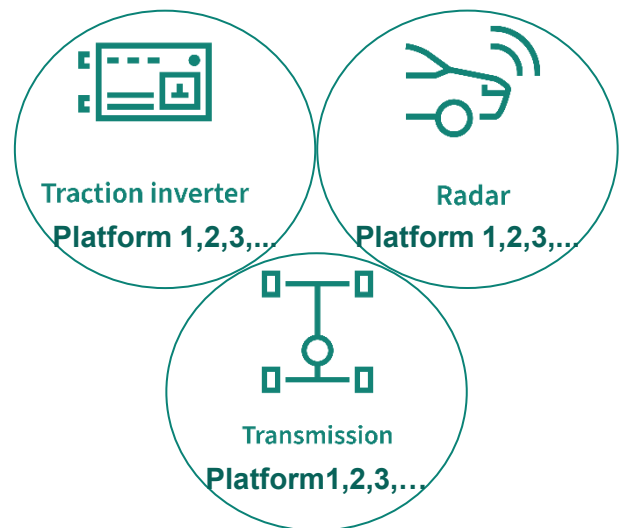


Software re-use, flexibility for AS functions



Not fully system cost optimized solutions (BOM and System FuSa)

Cross Platform Approach



> **AS-PMICs**, for **ONE** specific application

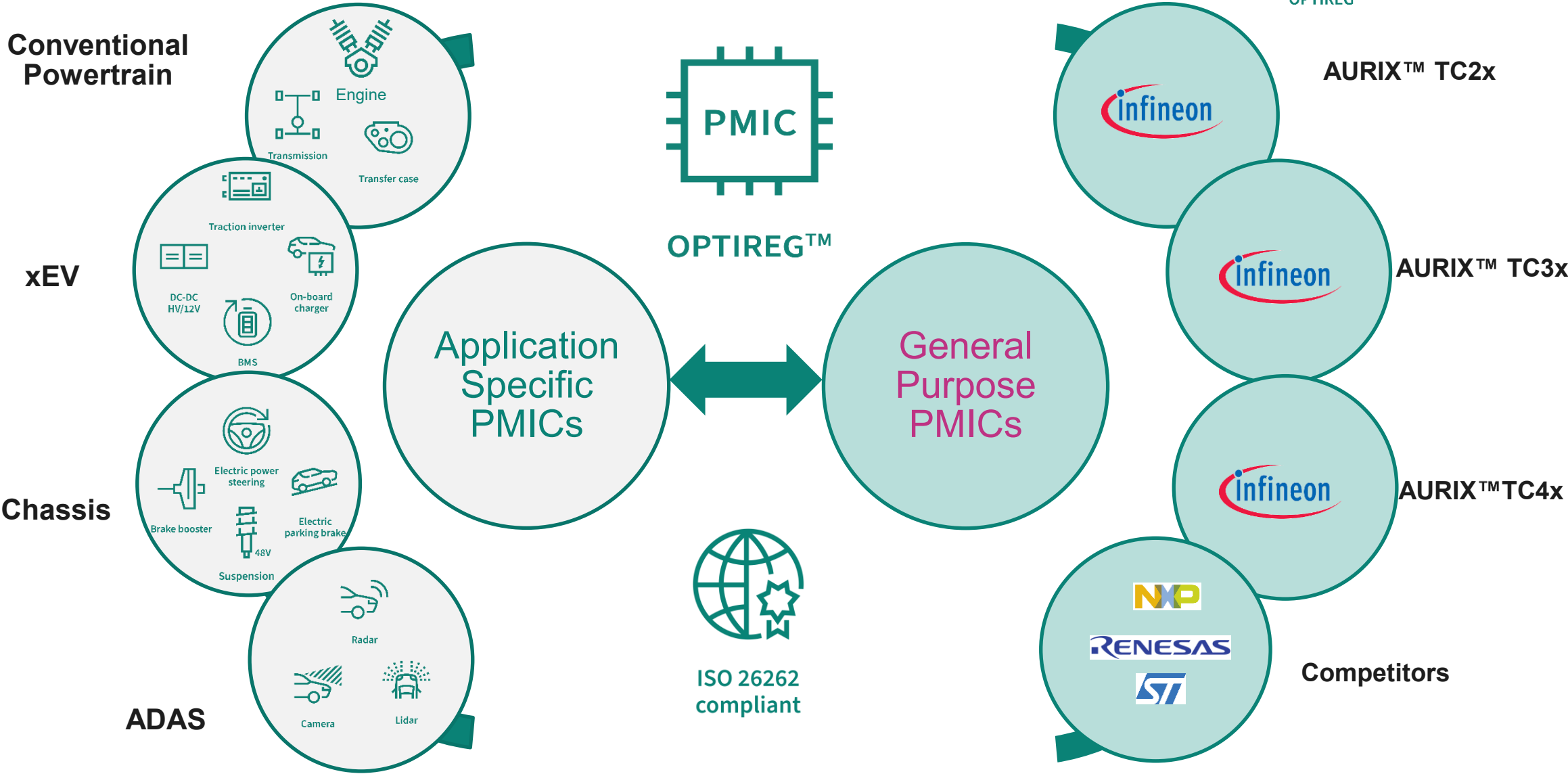


Significant system cost down (discrete circuitry and failure modes, optimized System FuSa)

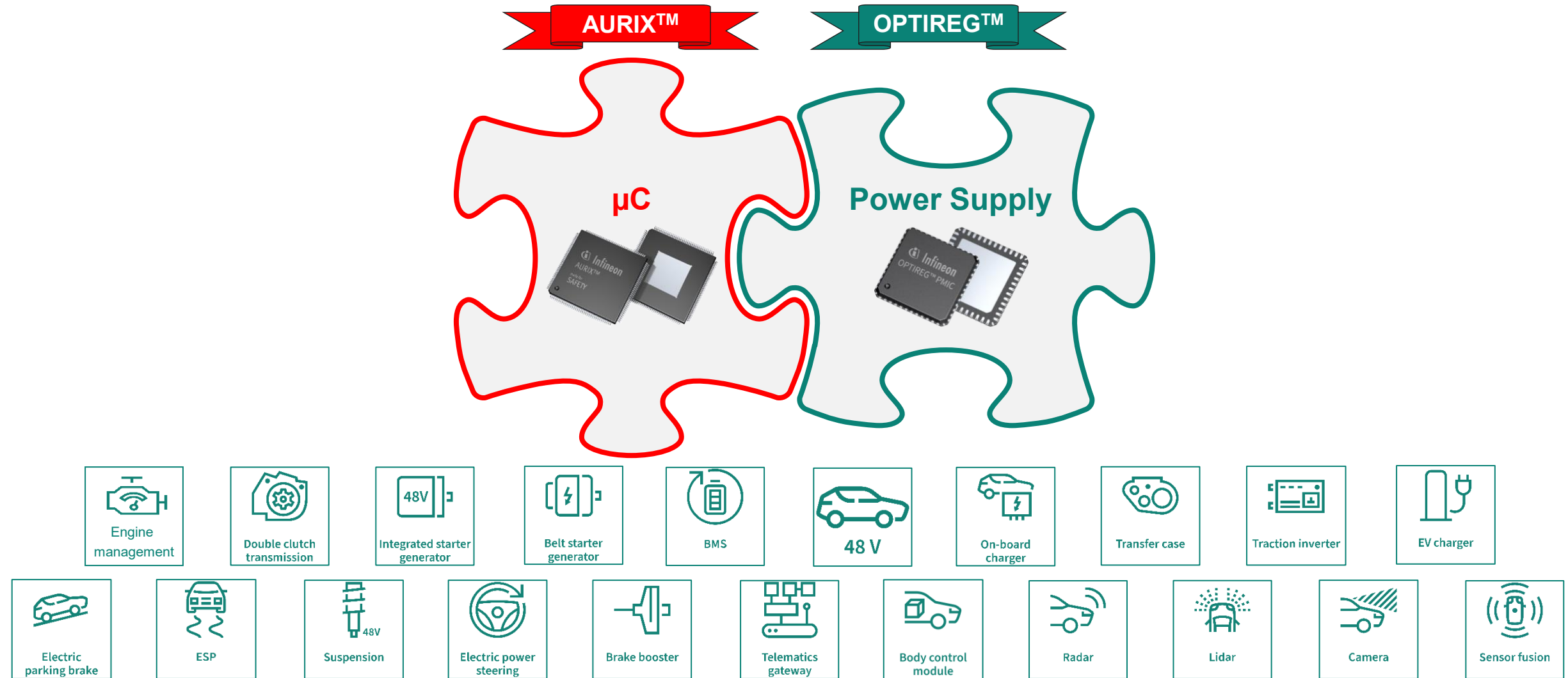


AS dedicated hardware and software development

OPTIREG™ PMIC: Strong commitment to General Purpose and Application Specific PMIC solutions



AURIX™ microcontroller & OPTIREG™ PMIC teaming up for Functional Safety in the focus automotive applications

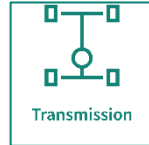


Functional Safety

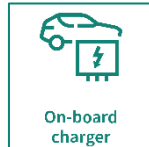
Relevant applications

Safe Control

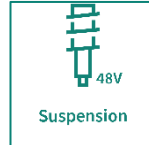
Conventional Powertrain



Electrical Drive Train



Chassis

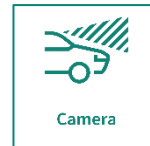
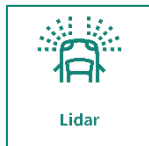


Body



Safe Compute

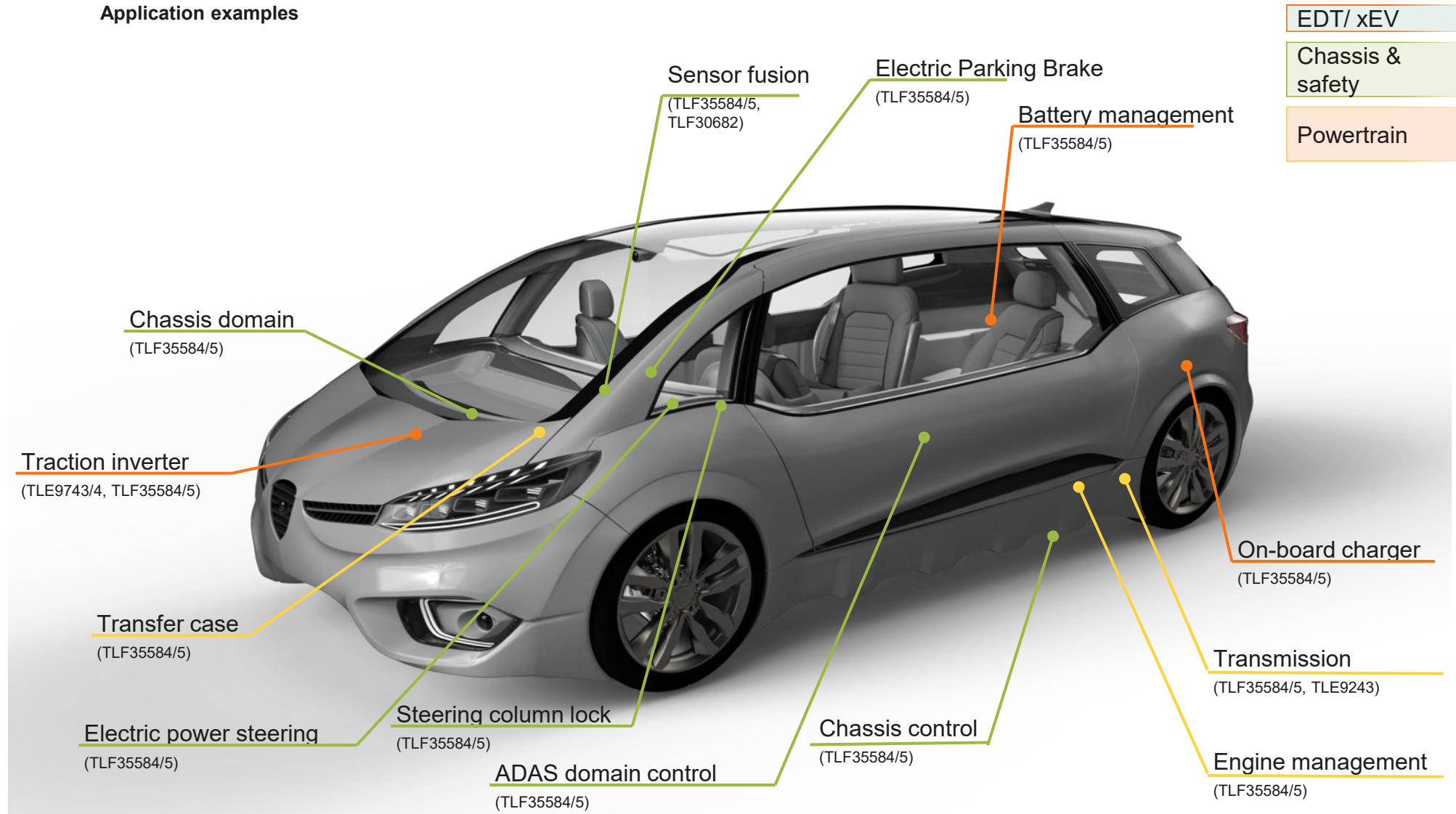
Safety / ADAS



OPTIREG™ PMICs supports ASIL-D applications, enabling extended lifetime in harsh automotive environments



Application examples



OPTIREG™ PMIC Overview

Supply Topology

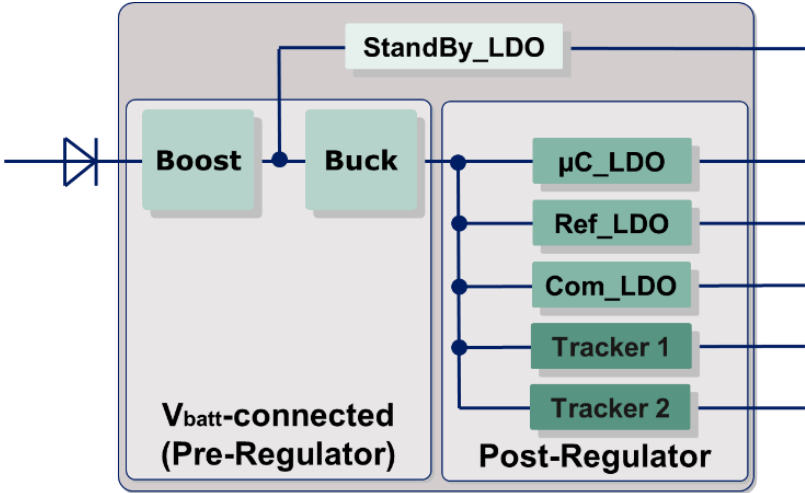
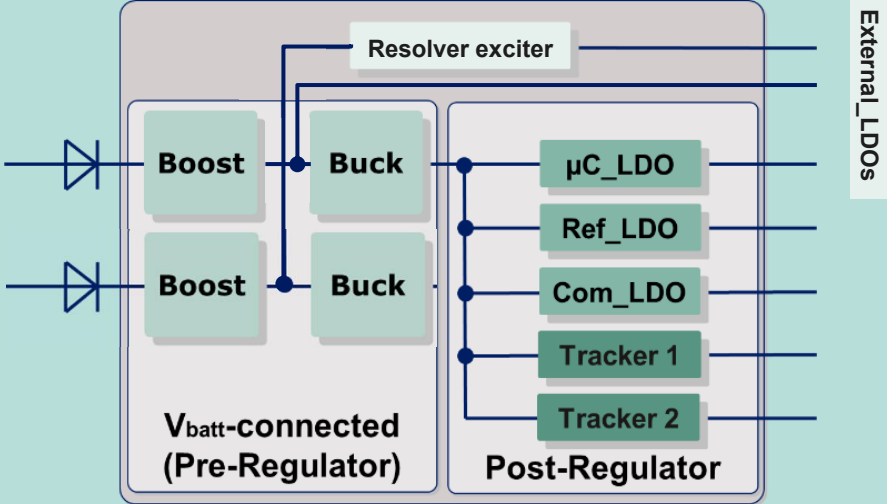


Product	Applications	Integrated Supplies	Block Diagram
TLE9243	Transmission	Pre-Regulator: Boost/Buck LDO: Wheel speed LDO Post-Regulators: Linear & Tracker	
TLF30682	TLF30682: 76-81GHz-Radar 24GHz-Radar 60GHz-Radar - Camera - Cluster / Center Stack - Display	Pre-Regulator & PoL: Buck Post-Regulators: Buck & Boost	

PoL: Point Of Load

OPTIREG™ PMIC Overview: Supply Topology



Product	Applications	Integrated Supplies	Block Diagram
TLF35584 TLF35585  ISO 26262 compliant	• Engine Management • Transmission • Transfer Case • Clutch Actuator • Starter Generator (e.g. ISG) • Battery Management • Inverter • Onboard Charger • Electr. Power Steering • Electr. Steering Column Lock • Braking (e.g. Brake Booster) • Electr. Parking Brake • Active Suspension • Chassis Domain Control • PT Domain Control • ADAS Domain Control	Pre-Regulator: Boost/Buck StandBy-LDO Post-Regulators: Linear & Tracker	
TLE9743 TLE9744 NEW  ISO 26262 compliant	TLE9743: • Inverter without resolver exciter TLE9744: • Inverter	Pre-Regulator 1 Boost/Buck Pre-Regulator 2 Boost/Buck Post-Regulators: Linear & Tracker	

OPTIREG™ PMIC Overview

Supply	TLF35584 	TLF35585 	TLF30682	TLE9243 	TLE9744 TLE9743 
Supply Topology	Boost/Buck-PreReg Linear PostRegs & Tracker	Boost/Buck-PreReg Linear PostRegs & Tracker	1x Vbatt-Buck 1x SMPR-Buck 1x SMPR-Boost	Boost/Buck-PreReg Linear PostRegs & Tracker	2x Boost/Buck-PreReg Linear PostRegs & Tracker
Vbatt-connected Boost (Pre-Regulator)	Y	Y	-	Y	Y
Vbatt-connected Buck(s) (Pre-Regulator and/or PoL)	5V8 @ 1.3A	5V8 @ 1.5A	3V3 or 3V9* @ 3.5A	5V8 @ 1.5A	1x 5.95V @ 2.4A 1x 10V/12V/15V @ 2.4V
SMPR Buck	-	-	Core @ 2A	-	-
SMPR Boost	-	-	5V @ 250mA	-	-
μC_LDO (PostReg)	3V3 or 5V @ 600mA	3V3 or 5V @ 600mA	-	5V @ 800mA	5V @ 800mA
Ref_LDO (PostReg)	5V @ 150mA	5V @ 150mA	-	5V @ 150mA	5V @ 150mA
Com_LDO (PostReg)	5V @ 200mA	5V @ 200mA	-	5V @ 240mA	5V @ 240mA
Voltage-rating PostRegs	7V w/o RCP	7V w/o RCP	7V	40V	7V
Tracker 1 (PostReg)	5V @ 150mA	5V @ 150mA	-	5V @ 150mA	5V @ 150mA
Tracker 2 (PostReg)	5V @ 150mA	5V @ 150mA	-	5V @ 150mA	5V @ 75mA
StandBy_LDO	3V3 or 5V @10mA	3V3 or 5V @10mA	-	-	-
Wheel Speed Sensor Supply & interface and other appl. specific features	-	-	-	3x 9V @ 50mA 3x WSI	*Resolver excitation circuit and supply, phase current monitoring, gate driver status monitoring, safety switch driver

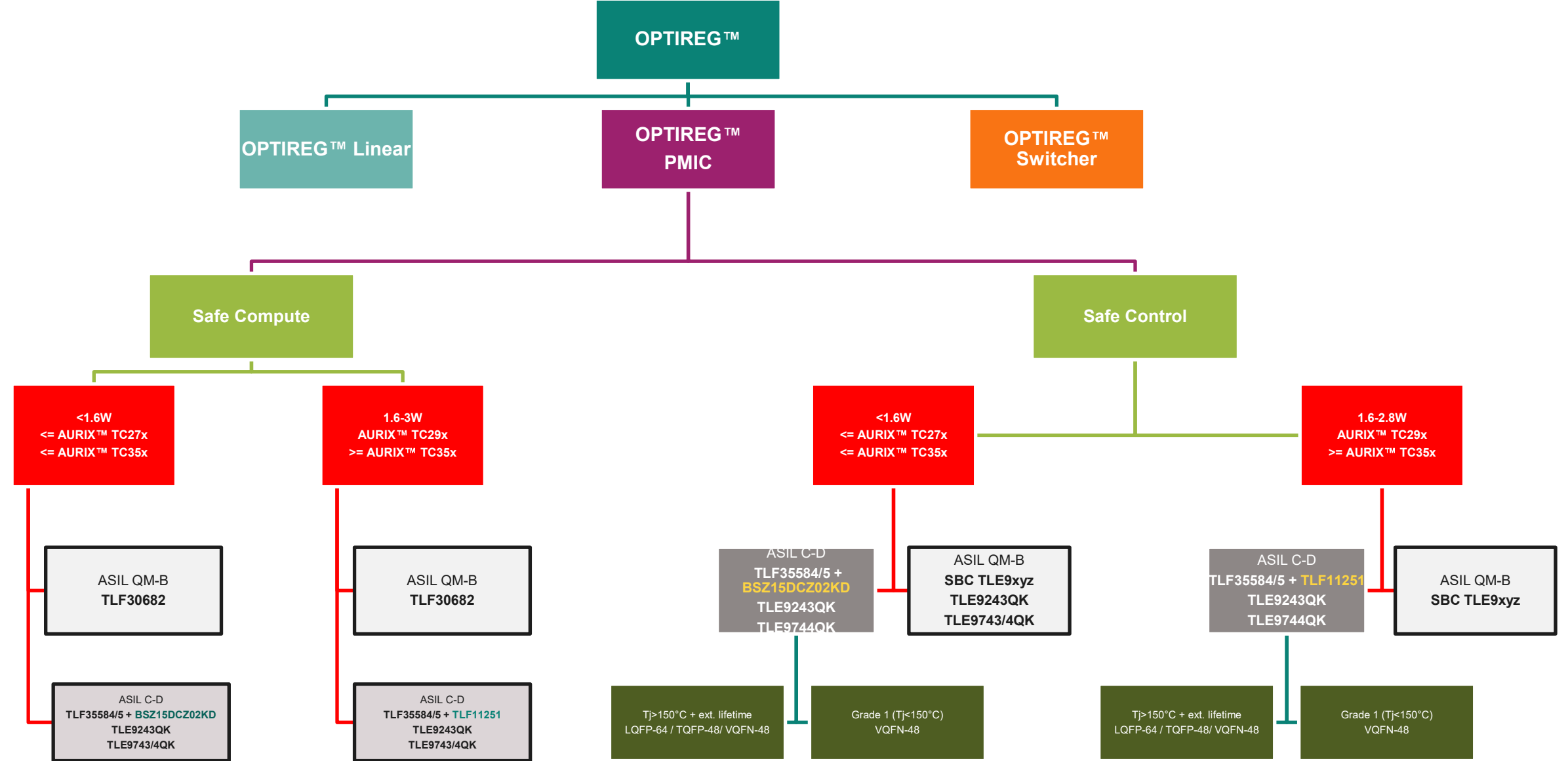
OPTIREG™ PMIC Overview



Functional Safety	TLF35584 	TLF35585 	TLF30682	TLE9243 	TLE9744 TLE9743 
SEooC for systems up to	ASIL-D	ASIL-D	QM/ASIL-B	ASIL-D	ASIL-D
Window-WD	Y	Y	Y	Y	Y
Functional-WD	Y	Y	-	Y	Y
ERR-Monitoring	Y	Y	-	Y	Y
UV/OV-Monitoring	Y	Y	Y	Y	Y
Safe State Controller	Y	Y	-	Y	Safety engine
Safe State Outputs / Safety Switch Control ch.	2 / -	2 / -	- / -	- / 3	3 / 4
Add. information	TLF35584	TLF35585	TLF30682	TLE9243	TLE9744
Status	Released	In development	Released	Released	In development
Packages	“QV”: VQFN-48 “QK”: LQFP-64	“QV”: VQFN-48 “QU”: TQFP-48	“QV”: VQFN-48	“QK”: LQFP-64	“QK”: LQFP-64
Variants	“VS1”: 5V0 µC “VS2”: 3V3 µC	“S01”: 5V0 µC “S02”: 3V3 µC	“S01”: 3V3 Buck1	-	-

OPTIREG™ PMIC

Decision Tree



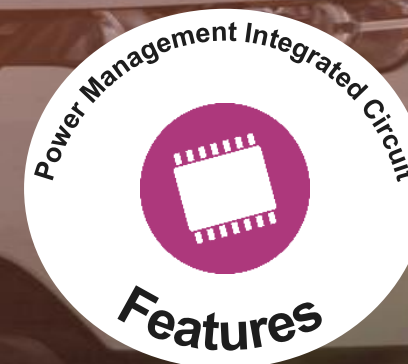
OPTIREG™ TLE9243QK, Infineon's transmission PMIC

OPTIREG™ TLE9243QK PMIC: System power supply and safety functions integrated into a single package

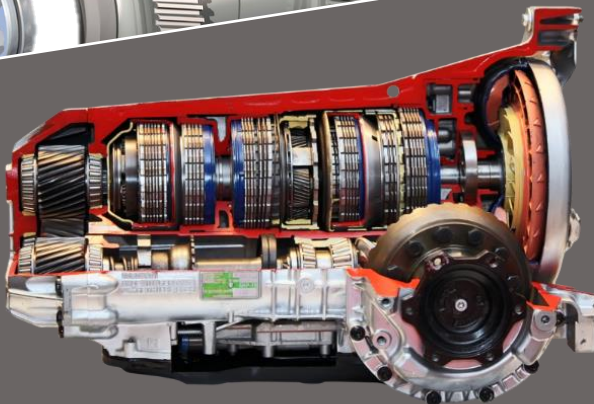
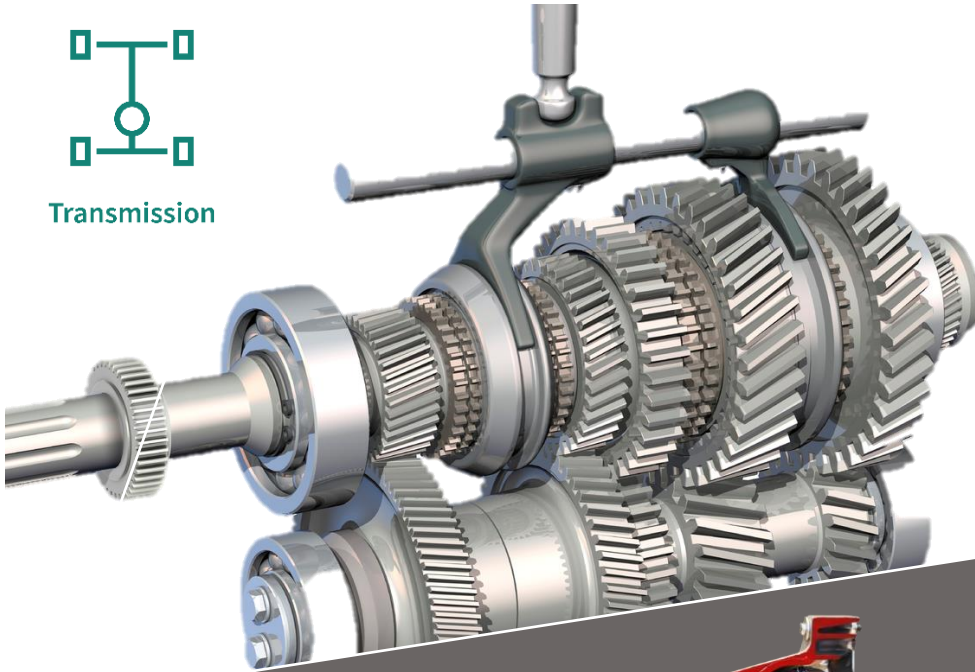
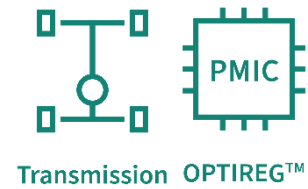
System supply



Diagnosis and supervision



System Solutions for Transmission Control



System Solutions for All Transmission Types:

Infineon offers Microcontroller, Sensor, and Power Devices for ECAT, CVT, DCT, DHT and Hybridized Transmissions

Our Transmission Products:

AURIX™ Powertrain Microcontrollers

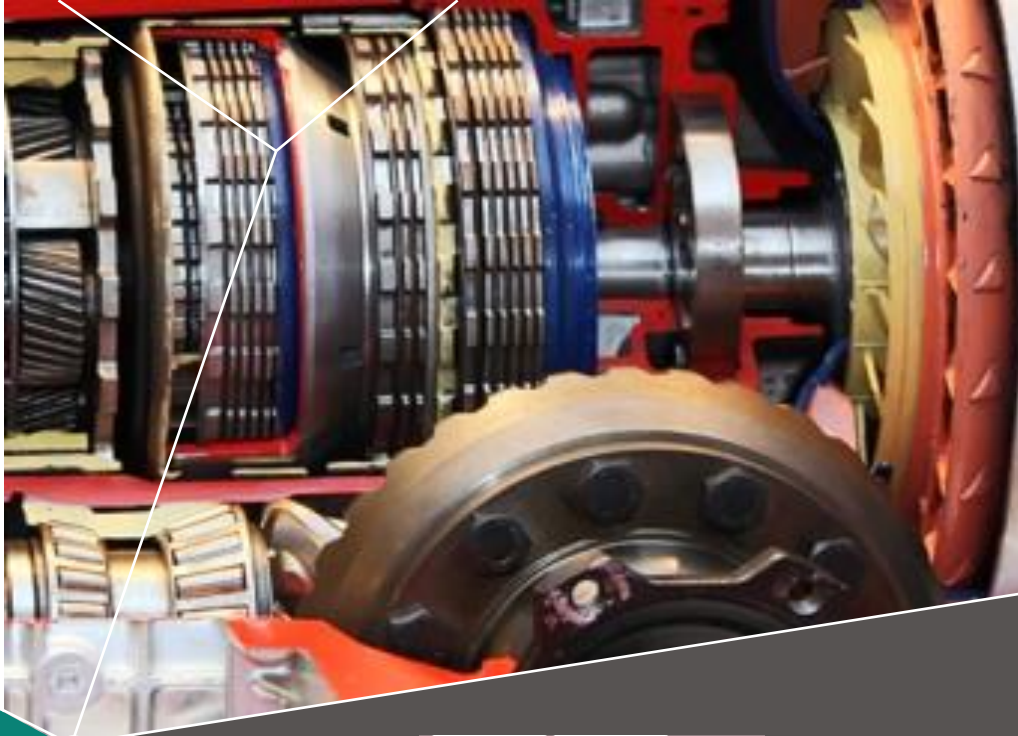
Solenoid Driver ICs and Multichannel Switches

BLDC Gate Driver ICs

Speed and Position Sensors

Transmission Power Management IC

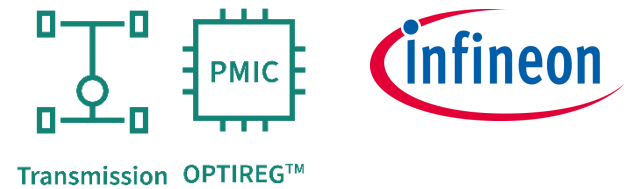
Key System Benefits for Transmission



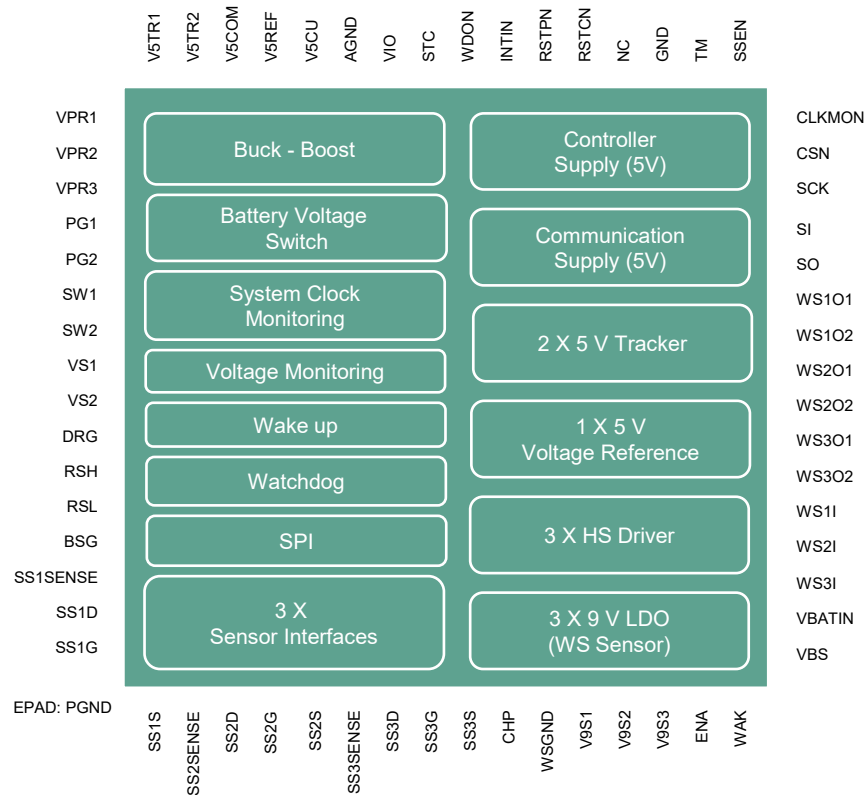
- › **Strong System Understanding**
 - › System Cost Savings by Reduction of External Components
- › **Common Safety Concept**
 - › Full Chipset Enabling Easy ISO 26262 ASIL Compliance
- › **Supporting extreme harsh environments**
 - › High temperature packages
 - › Bare die devices
- › **Long Term Production and Dual Production Site Strategy**
 - › Long Term Production Plans to Support Automotive Production Cycles
 - › Dual Production Site Strategies in Place for Supply Security
- › **Zero Defect Quality Culture**
 - › 6.0 Billion Parts Shipped in 2020 with **0.08ppm**
- › **Premium Support Service Available Worldwide**
 - › Local Support Engineers Can Give On-Site Support in All Regions

OPTIREG™ ICE-PMIC TLE9243QK

Application Specific PMIC for Transmission



Block Diagram



PG-LQFP-64
12x12mm²

Key Features

In Production

ASIL D

System Supply Functions

- Serial Boost/Buck Pre-Regulator with selectable Boost function
 - IQ = 1.6A; f: 2.2MHz
- 1 x 5.0V LDO ±2%; 800mA (µC Supply)
- 1 x 5.0V LDO ±2%; 240mA (Communication Supply)
- 1 x 5.0V LDO ±1%; 150mA (Voltage Reference and µC ADC supply)
- 2 x 5.0V Tracker ±10mV; 150mA (Sensor Supply)

Application Specific and Safety Functions

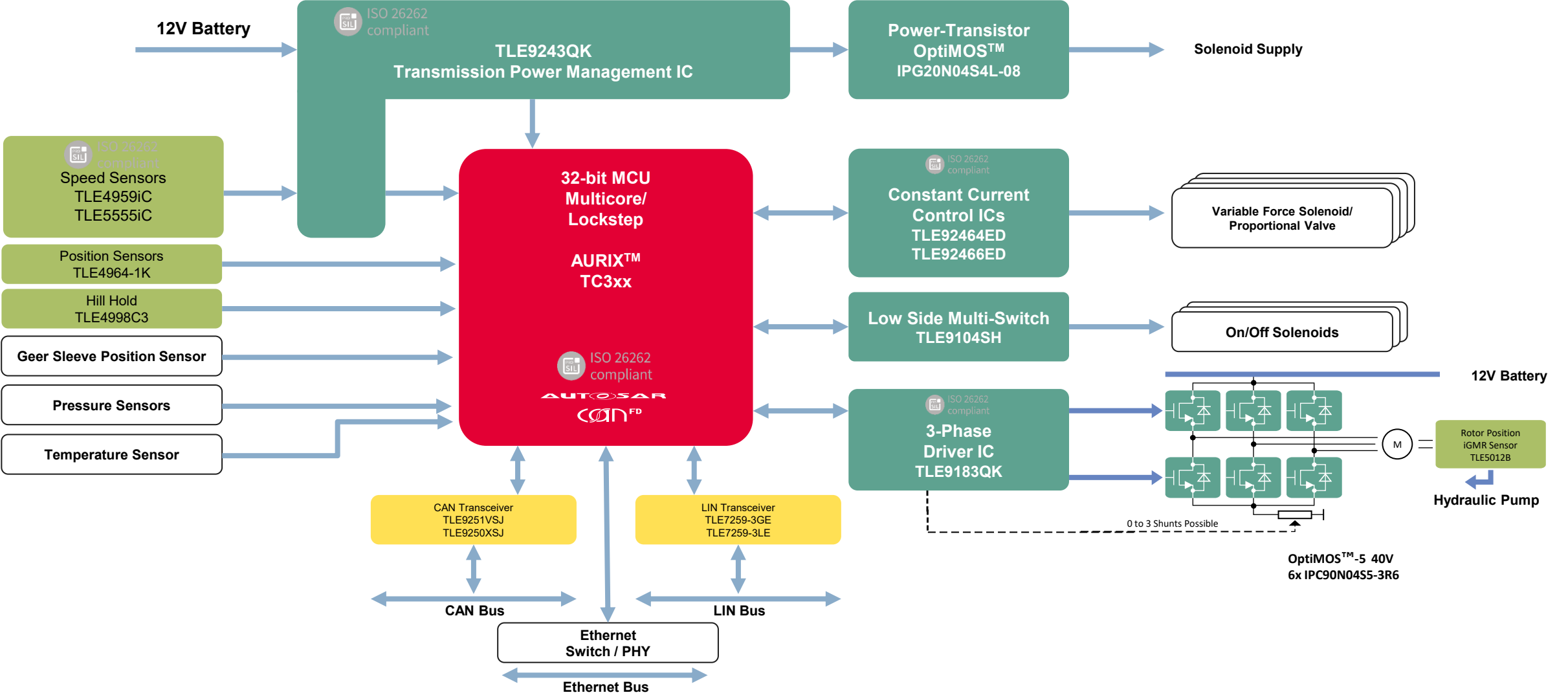
- Configurable Watchdog (WWD and FWD) and MCU clock monitoring
- 32bit 10MHz SPI with 8 bit CRC
- Configurable stop counter, reset, interrupt and wake-up sources
- Charge Pump for Active Reverse Polarity Protection
- Battery Voltage Switch (VBS) to reduce quiescent current
- Three 9.0V LDOs ±3%; 50mA (For Wheel Speed Sensors)
- Three Sensor Channels for current sensing (3 level)
- Three high side drivers to control external n-channel FETs



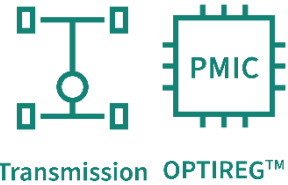
Click here for [Product page](#)



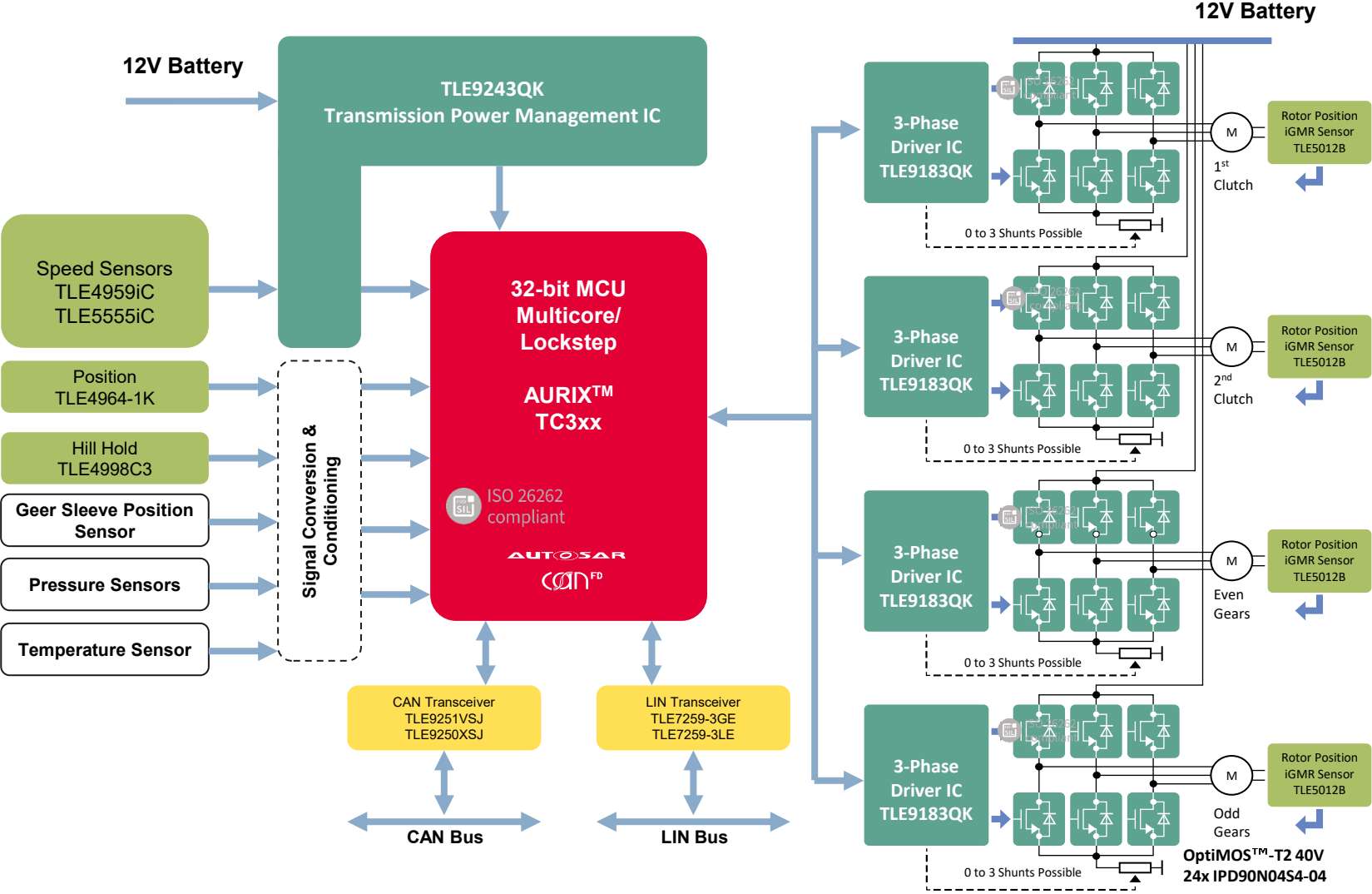
System Solution for Hydraulically Controlled Transmissions



System Solution for Electromechanically Controlled Transmissions

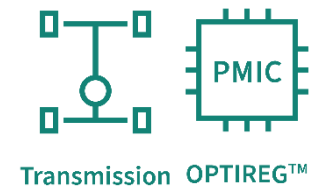


ISO 26262
compliant



Transmission Power Management IC

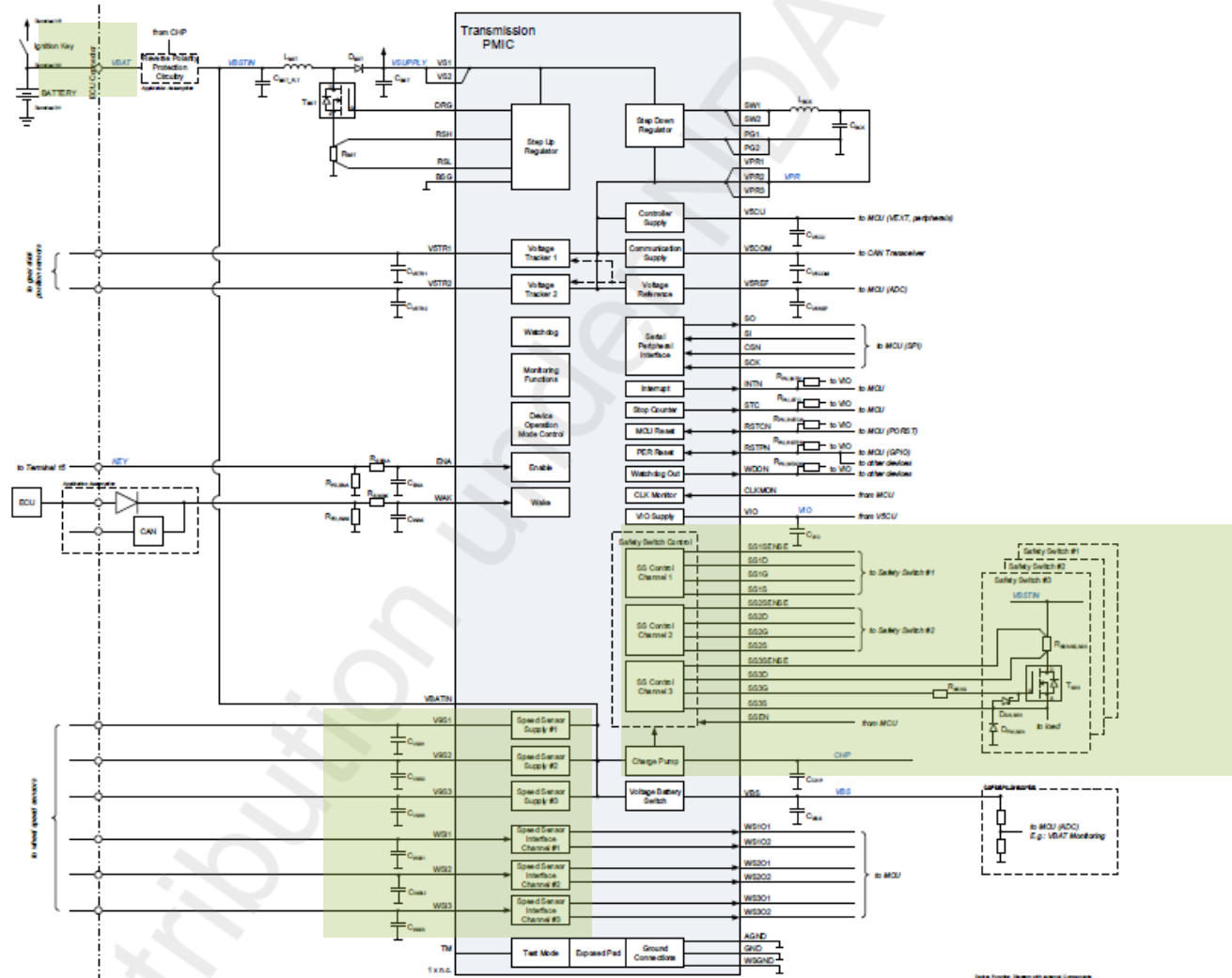
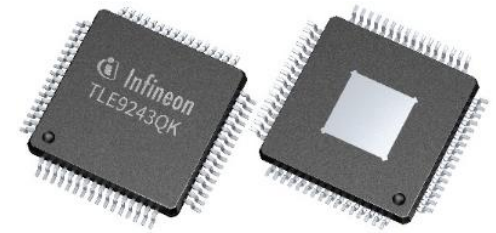
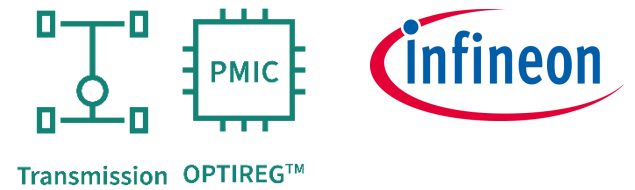
TLE9243QK – System Benefits



- Developed According to ISO26262
 - Safe State Controller and Watchdog Interface
 - CRC Based SPI Interface
 - Enables Development of ASIL D Systems
- Transmission Specific Integrated Features → Lower System Cost
 - Saving MOSFET Driver w/ Current Sense and Diagnostics
 - Simple MOSFETs can be used instead of Protected MOSFETs
 - 3 x Speed Sensor Signal Conditioning Interfaces
 - 3 x 9V LDO Supplies for Sensors
 - Reverse Battery Protection

Transmission Power Management IC

TLE9243QK – Key Selling Points



Safety Switch Control for three external standard level Power MOSFETs



Support of Active Reverse Polarity Protection



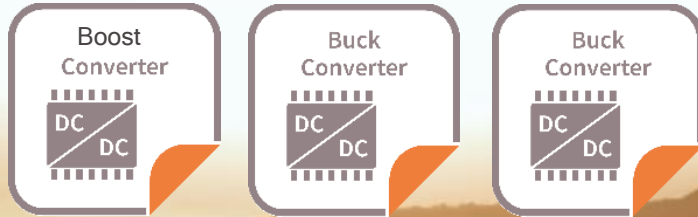
Three Channel Wheel Speed Sensor Interface

OPTIREG™ TLF30682QV, Infineon's ADAS PMIC

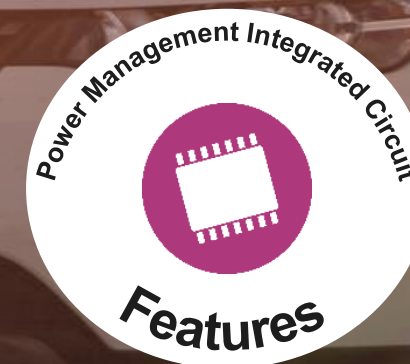
OPTIREG™ TLF30682QV PMIC: System power supply and safety functions integrated into a single package



System supply



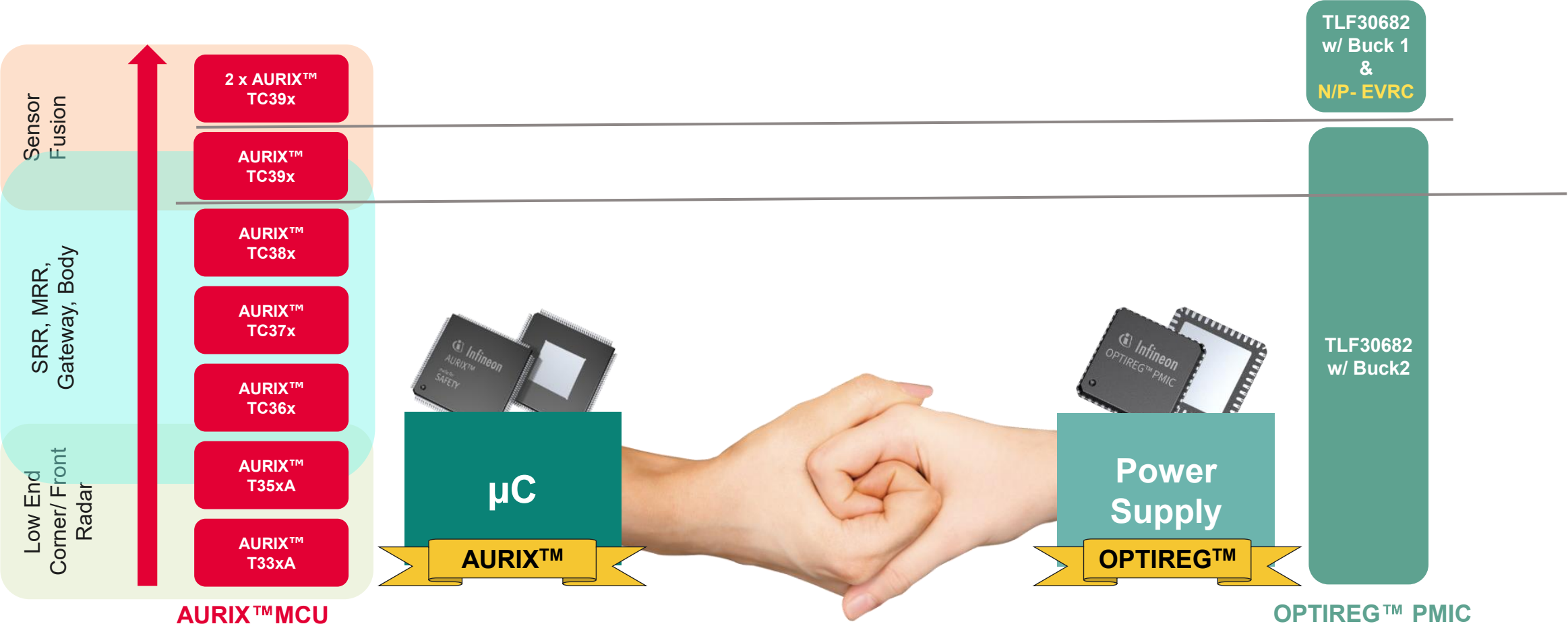
Diagnosis and supervision



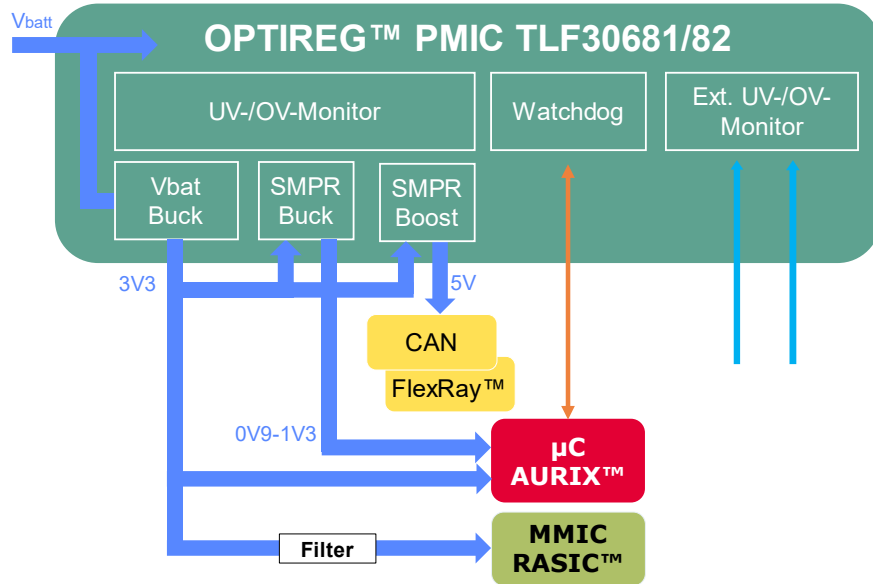
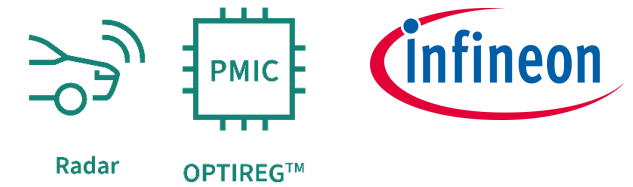
OPTIREG™ PMIC for a safe and optimized multi-channel power supply of Infineon µC families



IFX offers a PMIC suitable for ADAS application in combination with AURIX™ TC2x/TC3x portfolio



OPTIREG™ PMIC TLF30682QV is complementing Infineon's P2S chip-set for RADAR applications



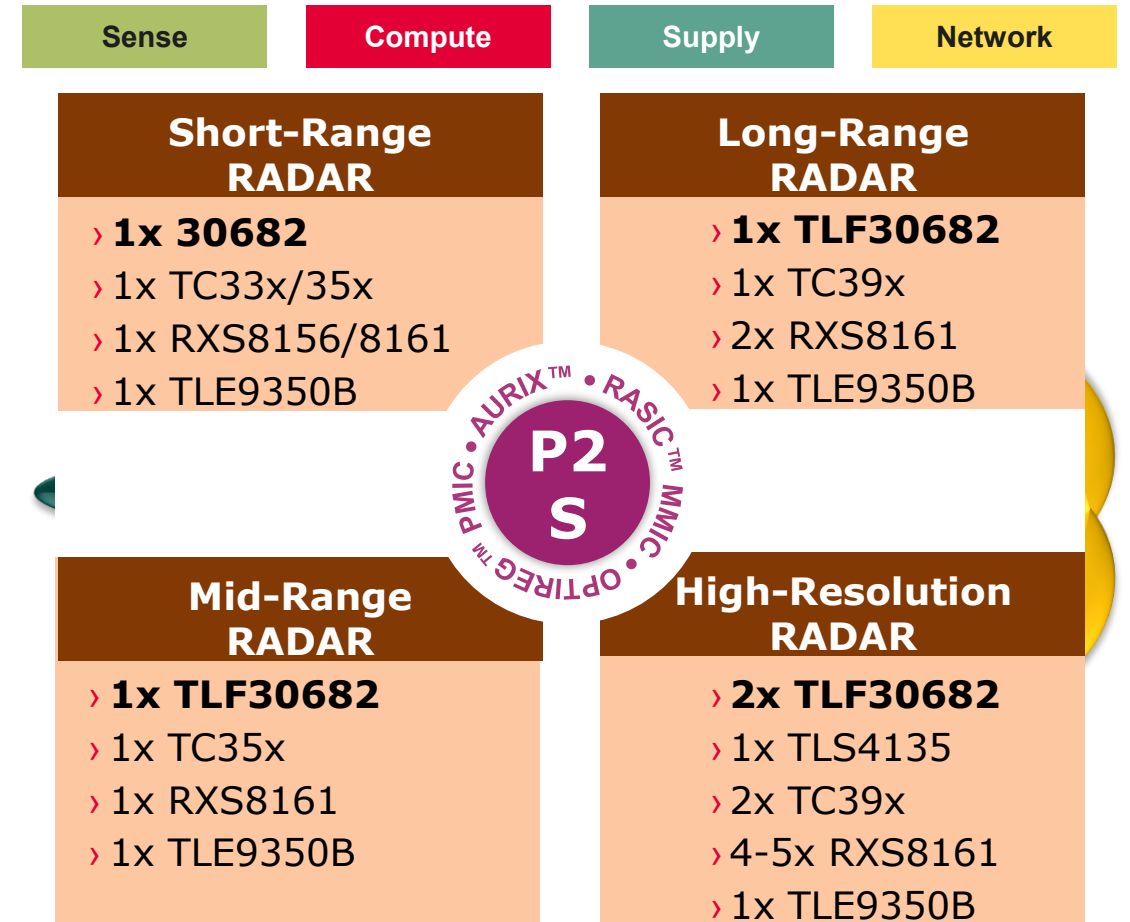
OPTIREG™ PMIC TLF30682QV:

Perfect fit in Radar together with

› **TC3xx AURIX™ μC**

› **RXS81xx MMIC**

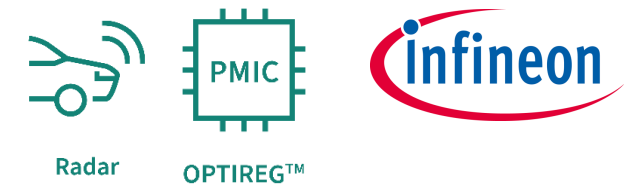
as single ECU-supply with monitor- and supervisory-features



P2S Radar = RASIC™ + AURIX™ + OPTIREG™

Application Specific OPTIREG™ ADAS-PMIC

TLF30682QV for ADAS

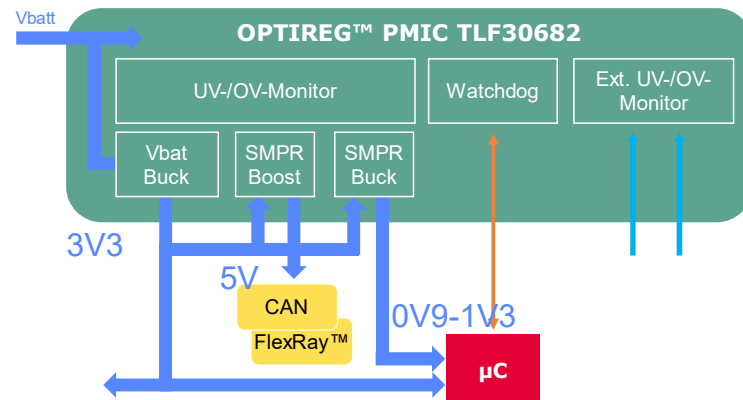


Key Features

Grade 1

- › High-Efficiency Main Buck Converter
 - IQ = 3.5A; VQ = 3V3 (others on request, e.g. 3V9)
 - fsw: 1.8MHz-2.5MHz
- › Flexible Buck-Post-Regulator
 - IQ = 2.0A; VQ = 0V9 .. 1V3 (1V5, 1V8, 2V5 on request) via SPI
- › Boost-Post-Regulator for Transceiver
 - IQ = 0.25A; VQ = 5V0
- › Optional Spread Spectrum for all SMPS
- › Sync_In & Sync_Out
- › ENABLE (T15 and CAN/FlexRay™)
- › SPI
 - › 16-bit, up to 10MHz
- › Additional Features
 - Multiple independent bandgaps
 - UV/OV-Monitoring of integrated rails
 - UV/OV-Monitoring of 2 external rails
 - Window-WD
- › Vin: 4V .. 35V (40V with limitations)

Block Diagram



Package



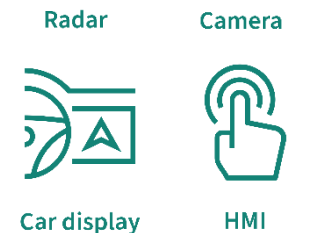
PG-VQFN-48



Applications

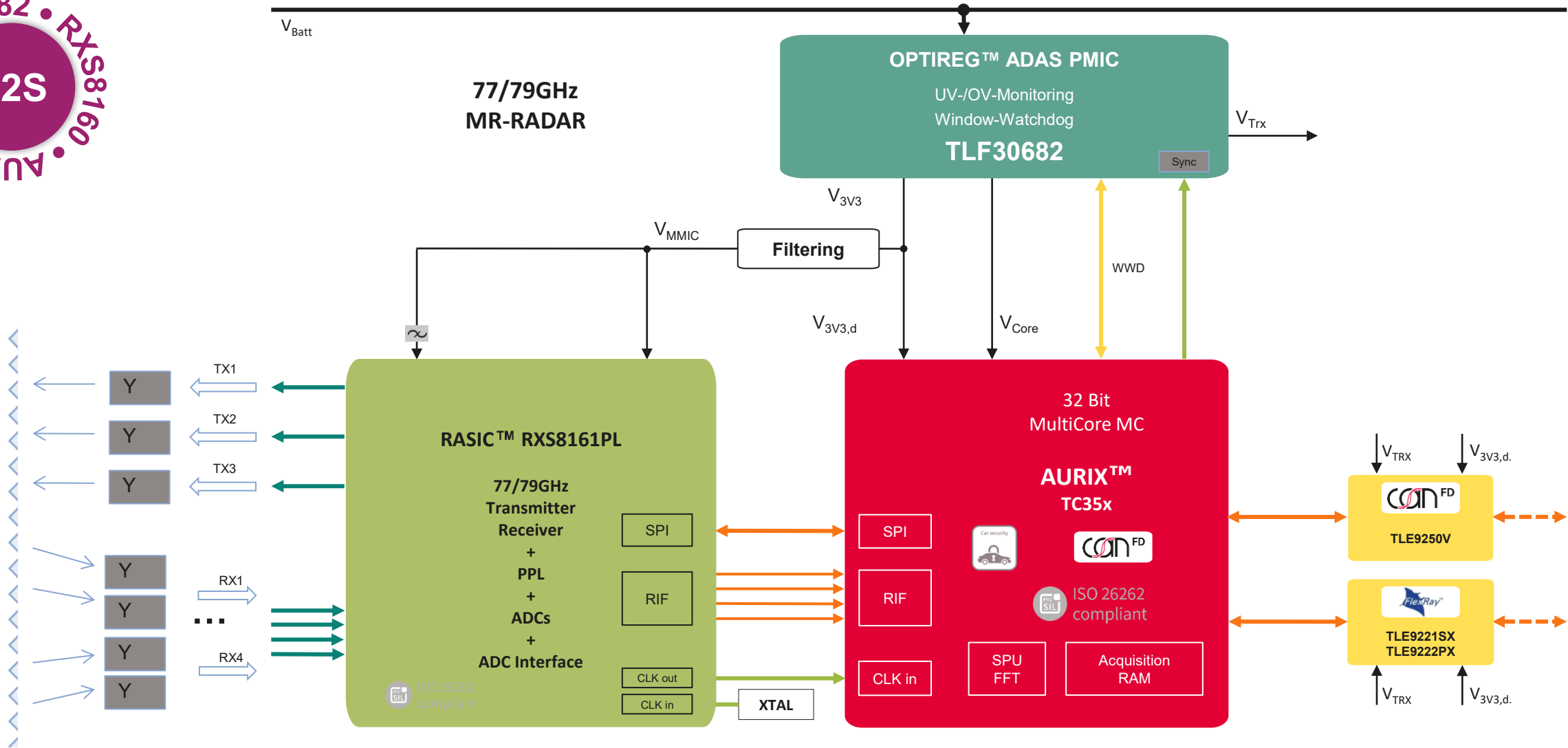
QM/ up to ASIL-B

- › 77/79GHz Radar
- › Camera (Multi-Purpose)
- › Cluster / Center Stack
- › Display



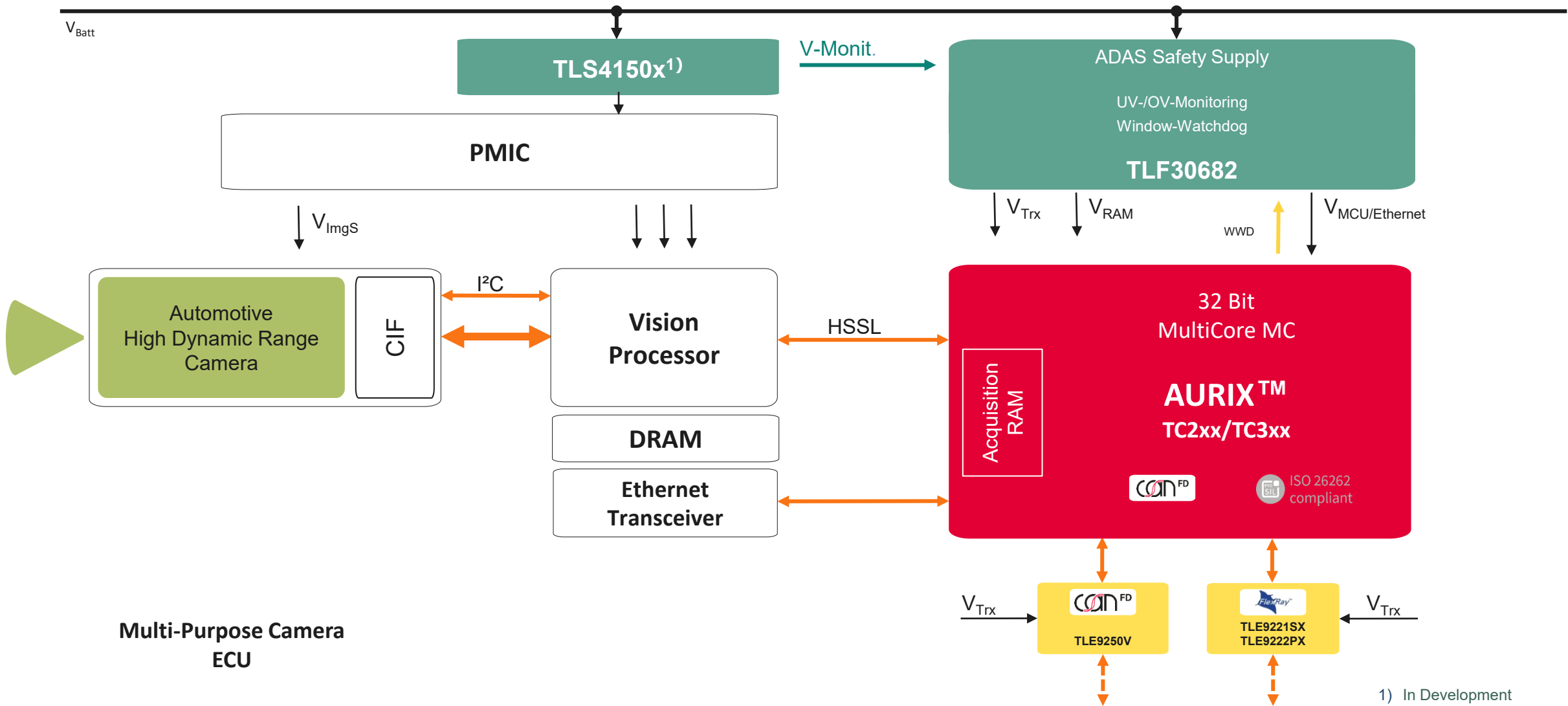
77GHz Radar (QM/ASIL-B)

Application Diagram



Vision Applications

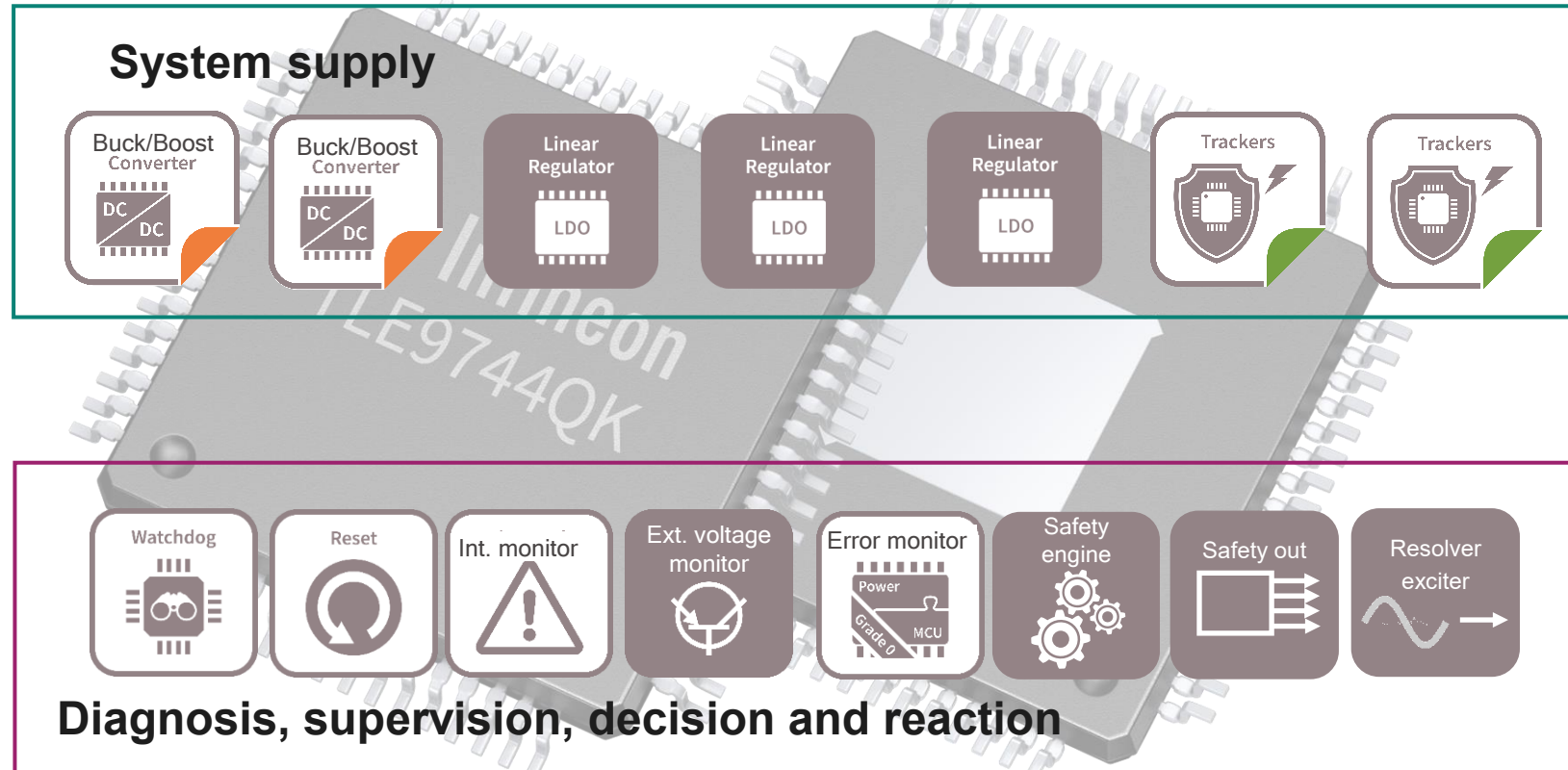
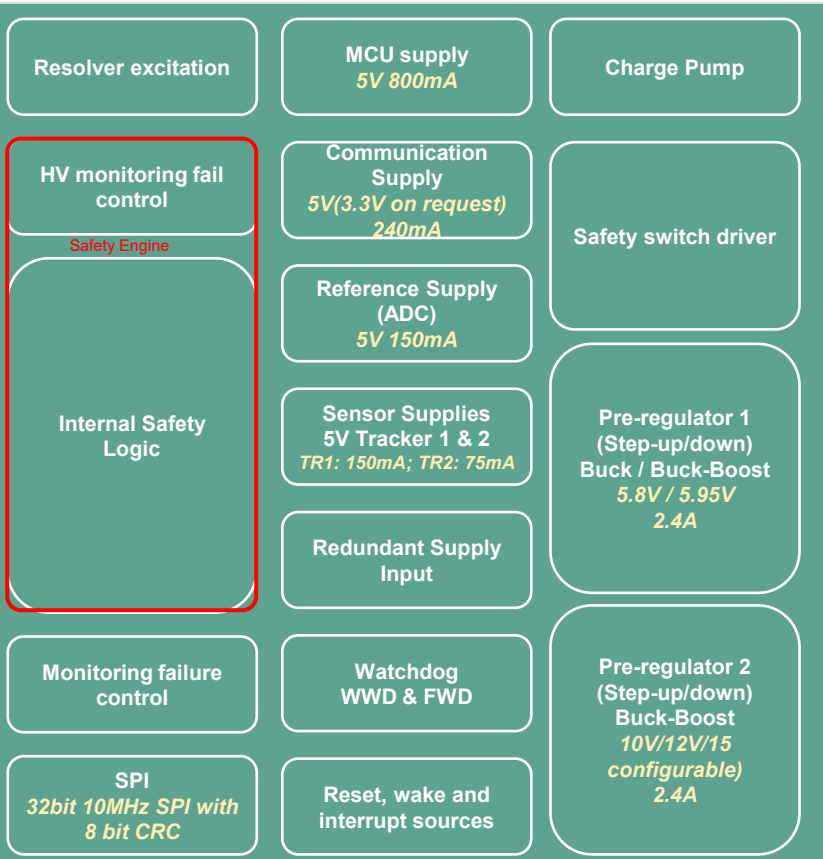
Multi-purpose Camera System Solution



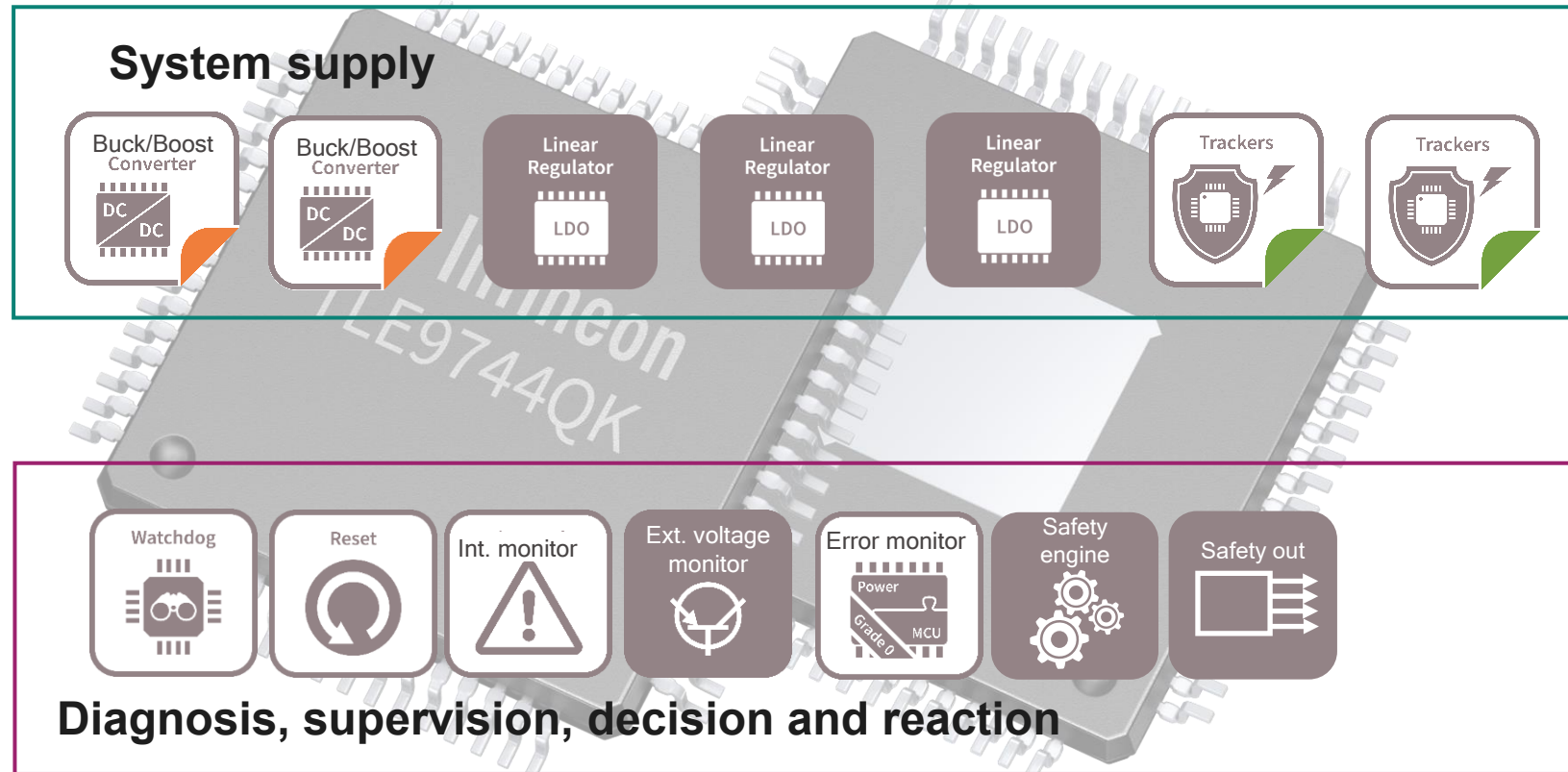
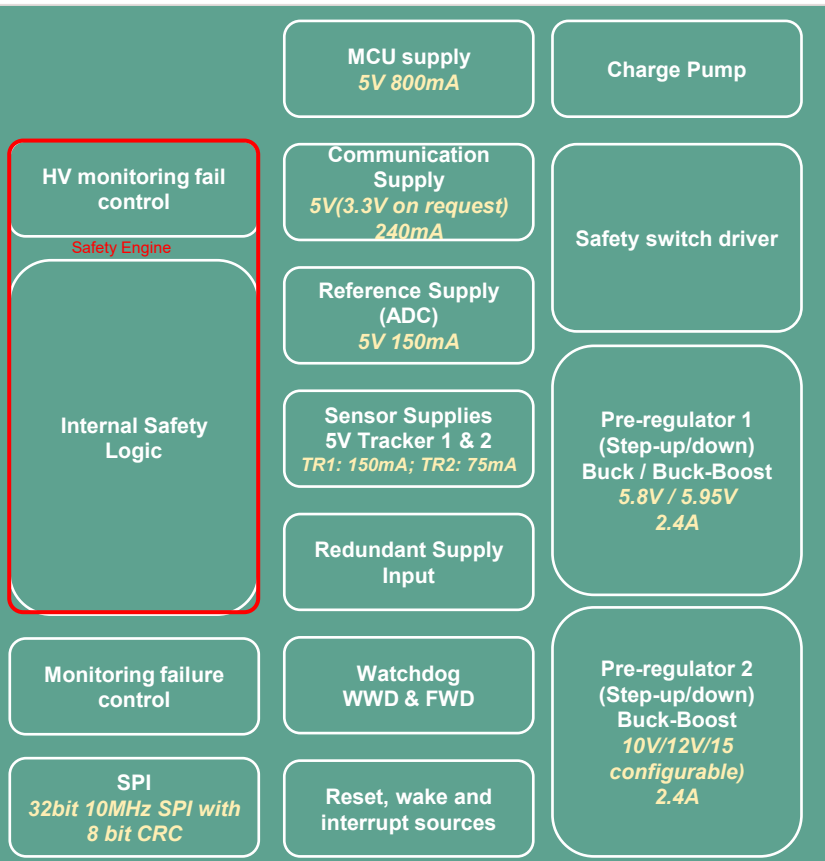
1) In Development

OPTIREG™ TLF9743/4QK, Infineon's inverter PMICs

Who? TLE9744QK OPTIREG™ PMIC: System power supply and safety functions integrated, dedicated for the traction inverter

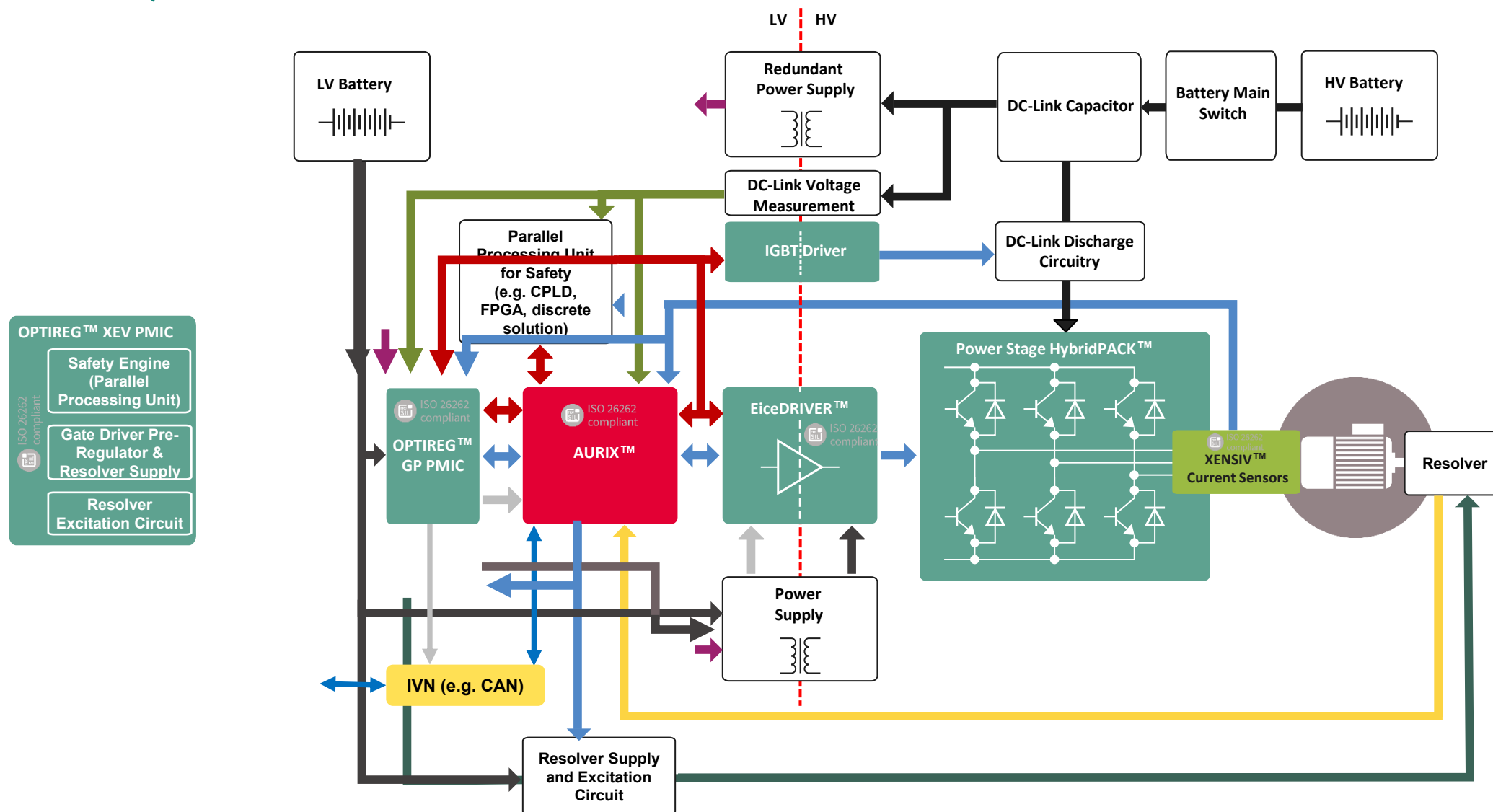
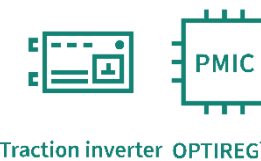


Who? TLE9743QK OPTIREG™ PMIC: System power supply and safety functions integrated, dedicated for the traction inverter



Who? Traction Inverter System Solution from general purpose PMIC to application specific PMIC TLE9744QK

TLE9743QK without resolver exciter



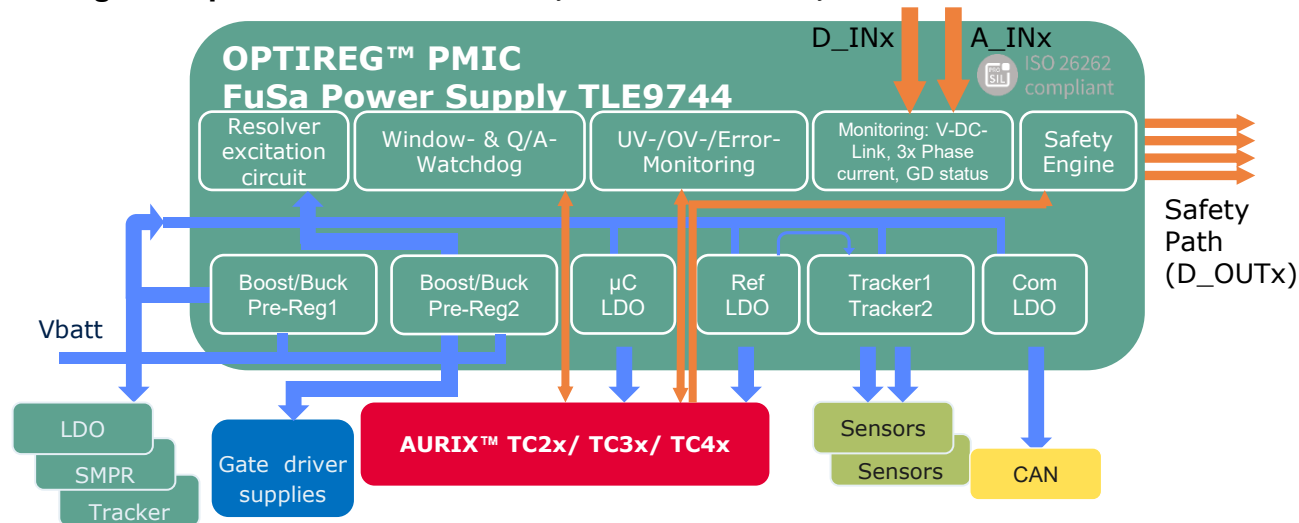
Who? OPTIREG™ Inverter-PMIC TLE9744QK

Application specific PMIC for Single Motor Main Inverter



Key features

- **Pre-regulator 1 & 2:** For internal and external post-regulators (5.95V @ 2.4A), resolver excitation circuit & gate driver supply (10V/12V/15V @ 2.4A)
- **µC-Supply:** 5V @ 800mA
- **Communication-Supply:** 5V @ 240mA
- **2x Sensor-Supply:** (Trackers 1/2): 5V @ 150mA and 75mA
- **Reference-LDO:** 5V @ 150mA
- **Watchdog:** WWD and FWD
- 32bit 10MHz **SPI:** with 8 bit CRC
- **MCU clock monitoring, Stop counter, Configurable reset, interrupt and wake-up sources**
- **Charge Pump:** For Active Reverse Polarity Protection and Safety Switch Driver



Application specific functions

- **1x Resolver Excitation Circuit**
- Configurability is offered via **C-MTP**
- **Integrated Safety Engine** (Parallel Processing Unit for HV Traction Inverter Application with configurable IOs) for:
 - **Phase Current Monitoring** (3 phases)
 - **DC-Link Voltage Monitoring**
 - **Gate Driver Status Monitoring**
 - **DC-Link Active Discharge Control**
 - **Torque Control** (Active Short Circuit trigger, Freewheeling) for a 3 phase motor
- **Redundant supply input** for Safety Engine and Tracker 2
- Developed according to **ISO 26262**

Package



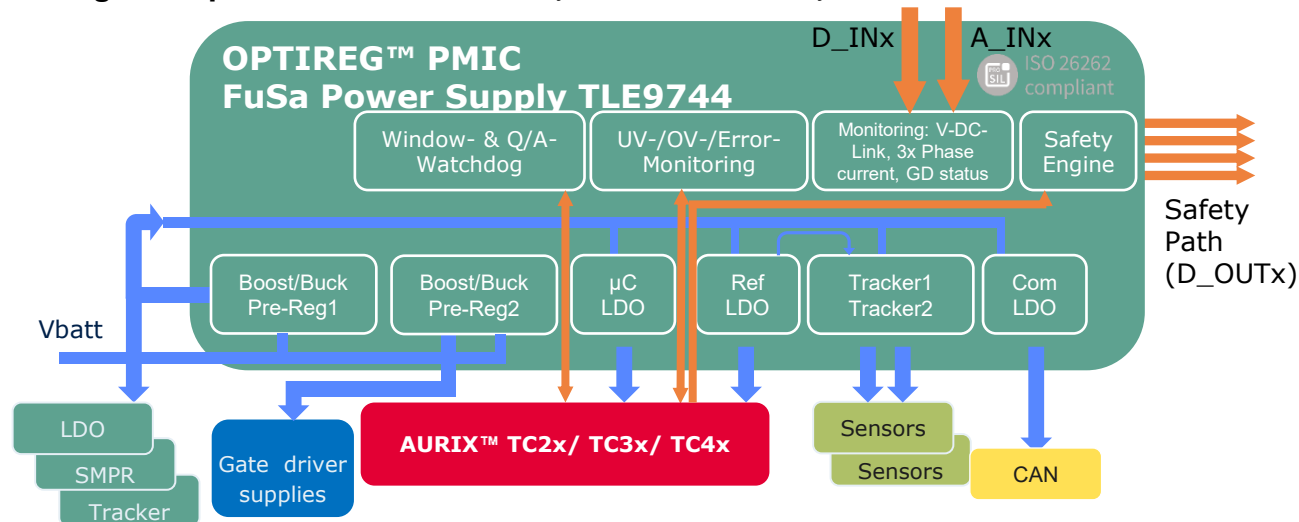
Who? OPTIREG™ Inverter-PMIC TLE9743QK

Application specific PMIC for Single Motor Main Inverter



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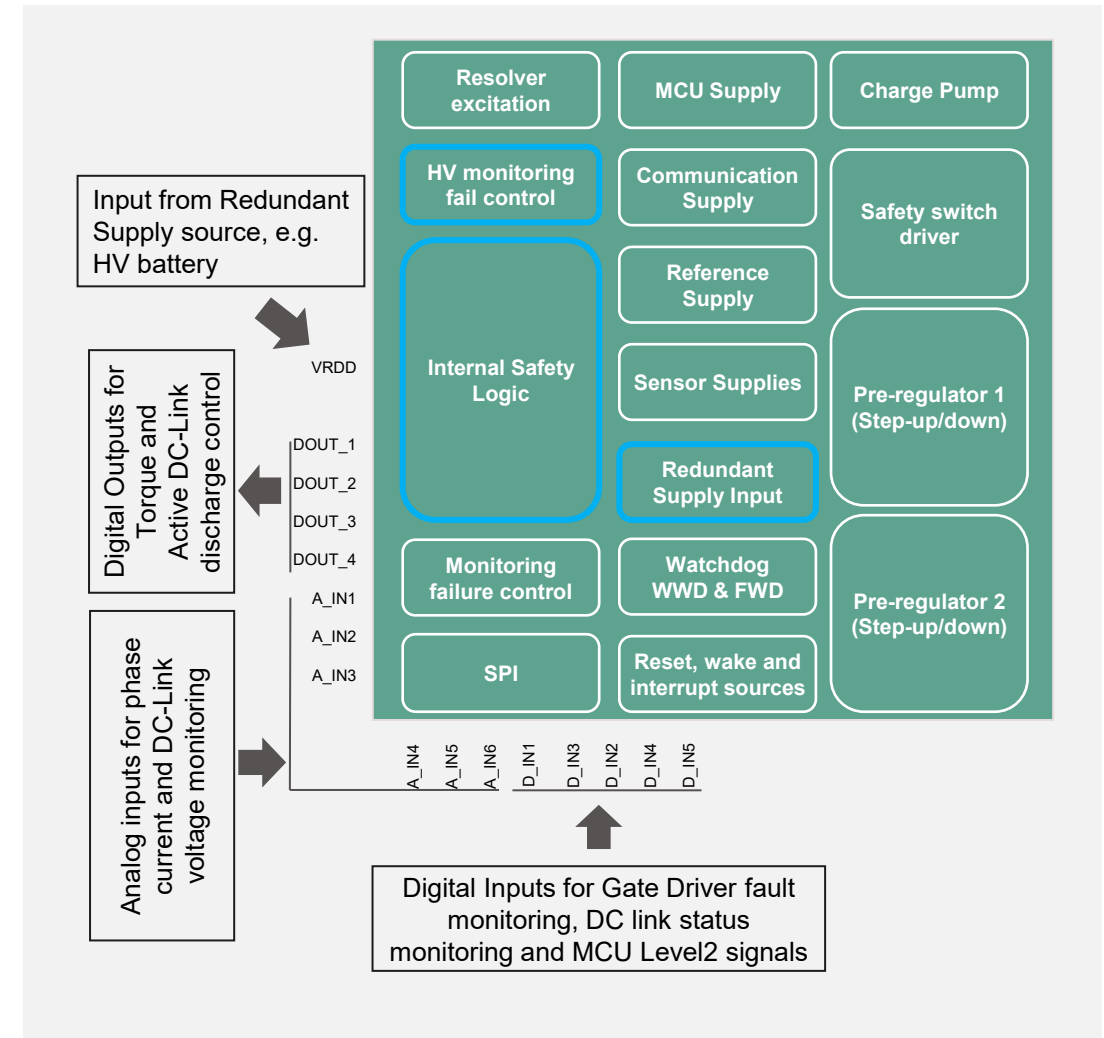
When? In case of fail: Unique Integrated Safety Logic (ISL) Monitoring functions for HV side



Monitoring functions for HV side

- **Today:** HV side monitoring functions are either integrated in a CPLD, 2nd MCU and/or extra discrete logic circuit on LV or HV side of a HV Traction Inverter ECU
- **Tomorrow:** OPTIREG™ XEV PMIC provides:
 - Motor phase current monitoring
 - DC-Link voltage monitoring
 - Gate driver status monitoring, MCU Level2 signals
 - DC-Link Active discharge control
 - Torque Control (Active Short Circuit or Freewheeling)
 - Redundant supply input for Safety Engine and Tracker 2
- HV monitoring fail control functions are implemented in an Internal Safety Logic with Multi Time Programmable memory configurable by the customer (C-MTP)

Block diagram



Where? In your wallet: BoM cost and PCB space reduction with the XEV PMIC

General purpose PMIC

Supply for Resolver exciter and for gate driver LDO

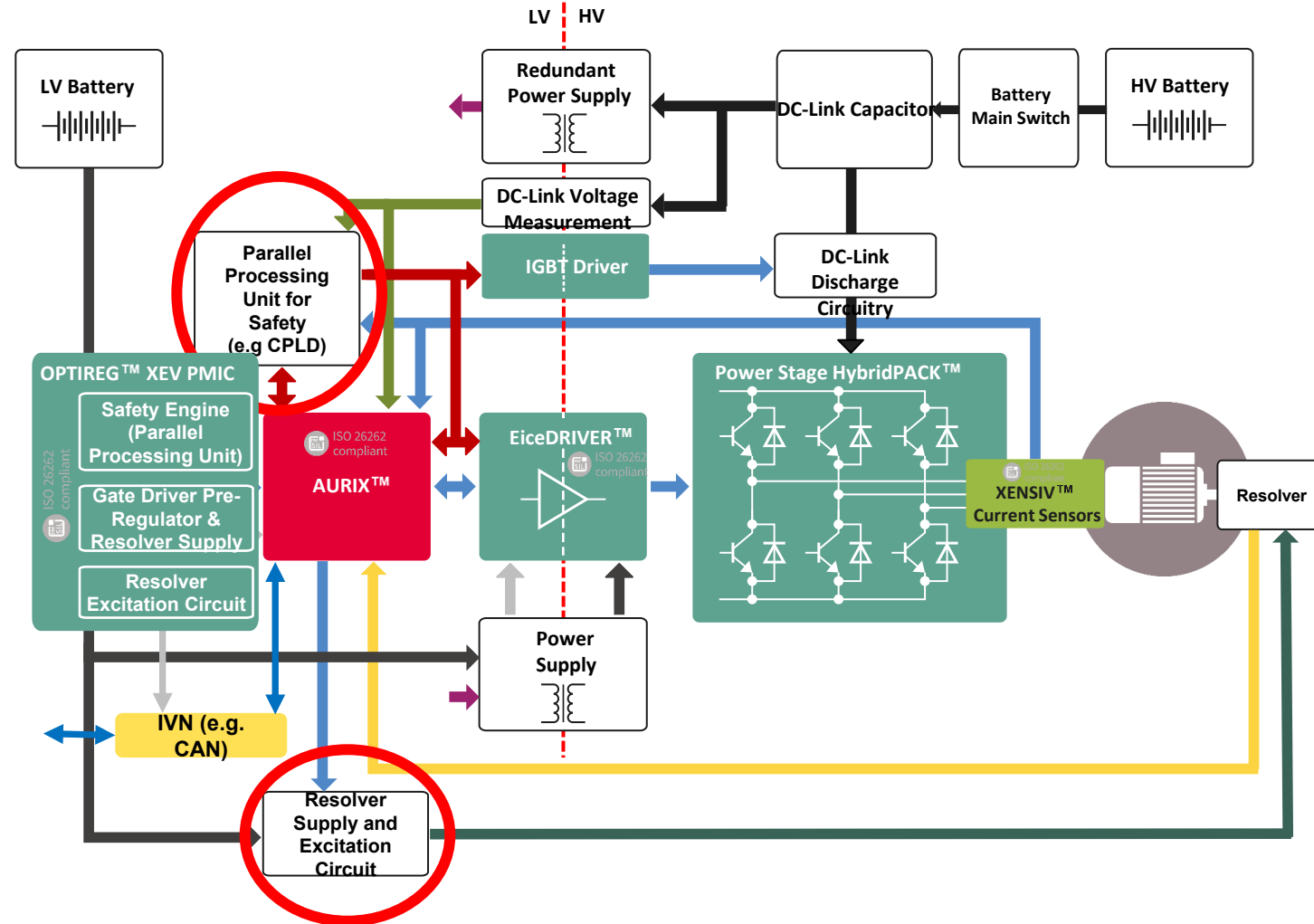
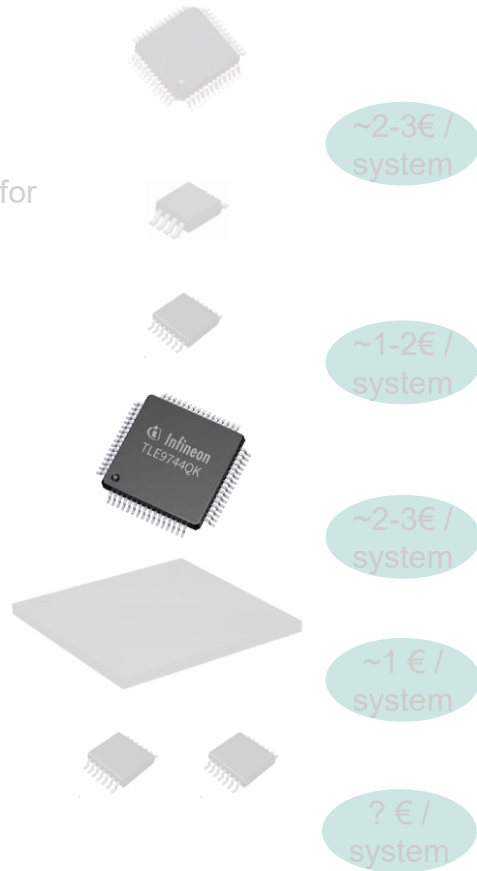
Resolver excitation circuit

Inverter PMIC

Programmable functional safety logic

Sensor input comparators

Discretes for Safety Logic

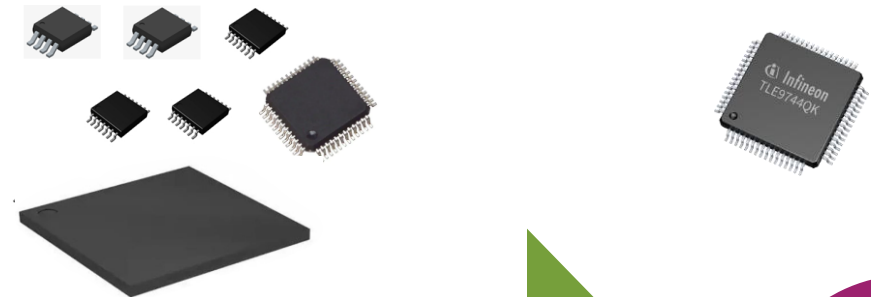


Where? PCB space:

Estimation of PCB space reduction with programmable safety logic

Discrete solution	PCB space (chip area x 1.5)
Resolver excitation amplifier and supply* SOP8: 5.5×6 mm ² SSOP14: 5.4×6.2 mm ²	66 mm ² x 1.5 33.48 mm ² x 1.5
3 phase current & DC-link sensor input comparators SSOP14: 5.4×6.2×2 mm ²	66.96 mm ² x 1.5
Safety logic (CPLD) FBGA-256: 17x17x1 mm ²	289 mm ² x 1.5
Power management IC TQFP-48: 10 x 10 mm ²	100 mm ² x 1.5
Total*	~555 mm² x 1.5 =833 mm²

TEL9744 solution	PCB space (chip area x 1.5)
LQFP64: 12 x 12 mm ²	144 mm ² x 1.5
Total*	144 mm² x 1.5 = 216 mm²



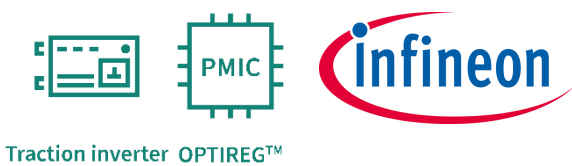
74%*
Space reduction



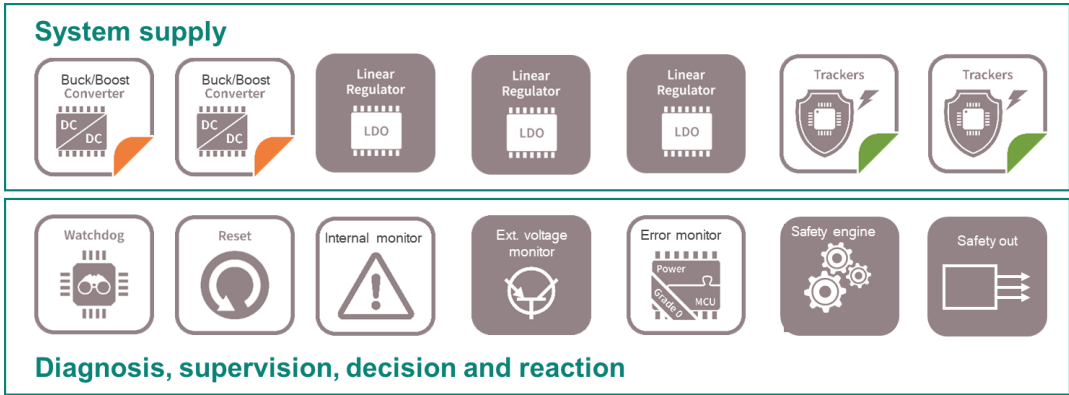
*An estimation by Infineon. Not precise.

**Does not apply for the TLE9743QK*

Power to the AURIX™ → The one and only OPTIREG™ Inverter PMIC TLE9744QK

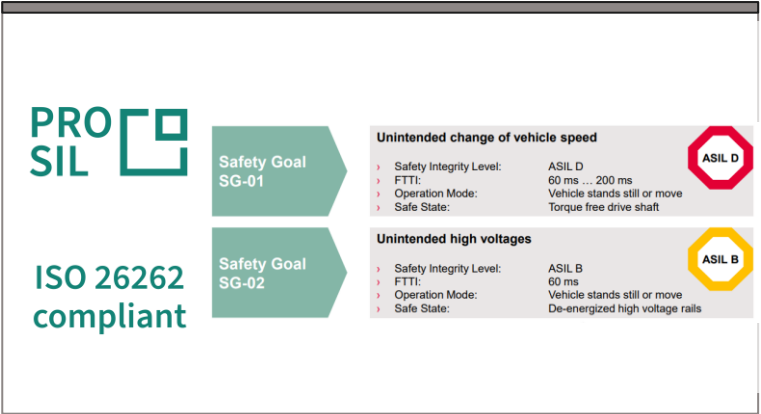


More than a power supply...



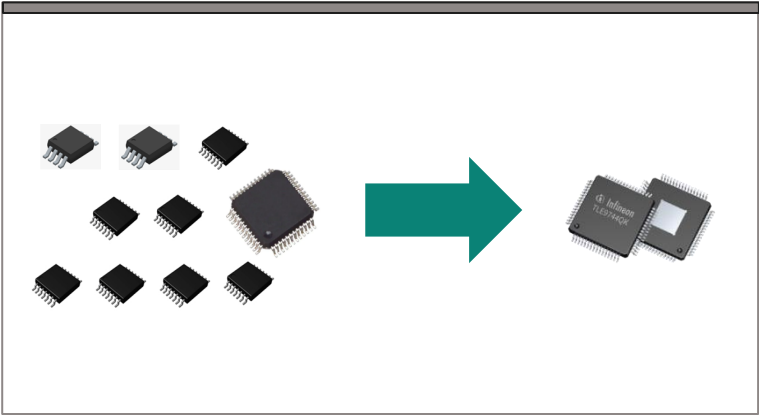
...More than a safety companion...

ISO 26262 compliant device

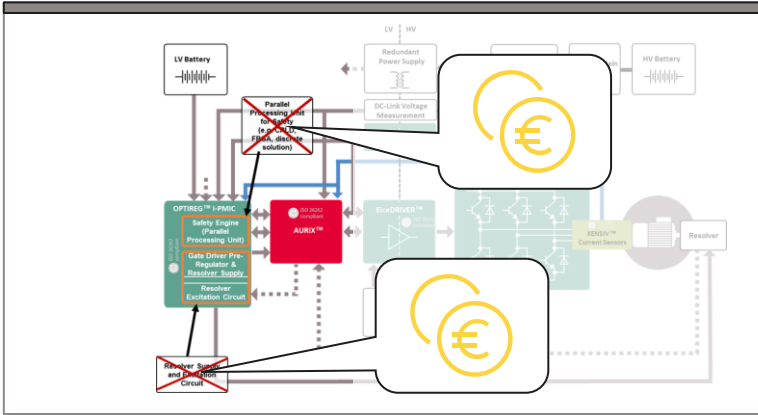


...but a complete system for an optimized inverter design!

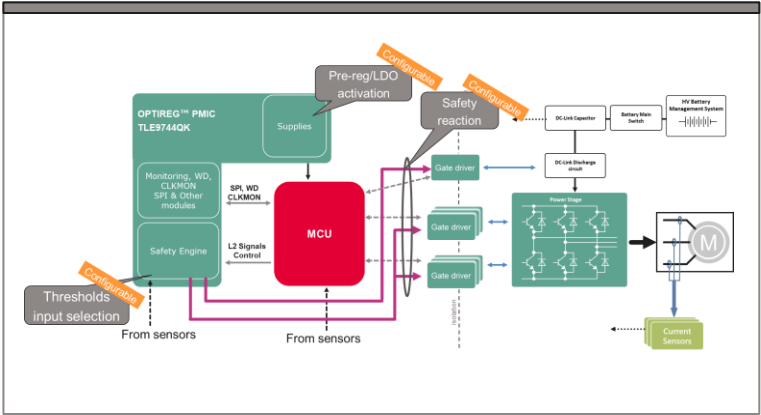
PCB space reduction



BoM cost reduction



High flexibility & HW reusability



Cross-selling

Mapping of OPTIREG™ with various microcontrollers

Find the right OPTIREG™ for your microcontroller in just a few clicks!



Scan



Click

Mapping of OPTIREG™ with various microcontrollers

Find the right OPTIREG™ for your microcontroller in just a few clicks!



Scan



Click

OPTIREG™	Infineon AURIX™		Infineon Traveo™		Infineon	Texas Instruments	NXP	Renesas	ST Micro
	TC2x	TC3x	I	II	PSoC®	Piccolo™/ Delfino™	S32K	RH850	SPC5x
					N/A				
								N/A	N/A
					N/A			N/A	N/A

Trainings

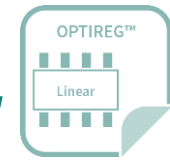
OPTIREG™ PMIC trainings



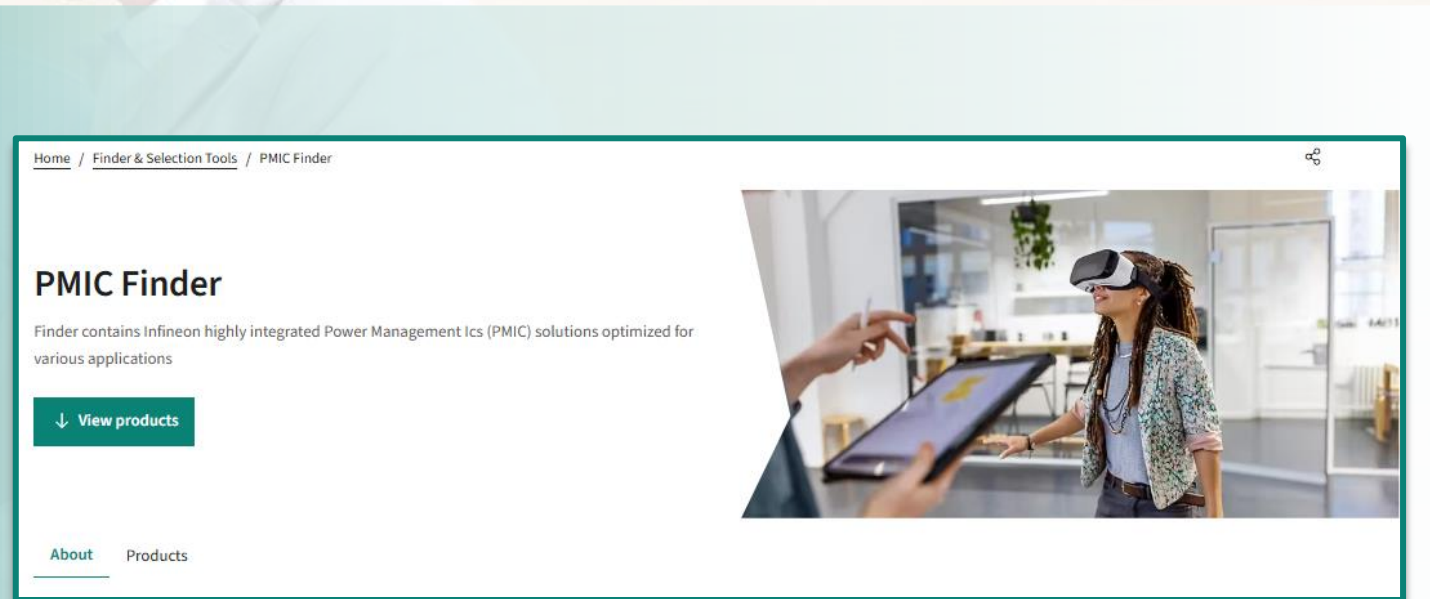
Training name	Content
Online Course Infineon’s automotive PMICs: OPTIREG™ PMIC (S1)	By the end of this training, users will: • Recognize devices out of the OPTIREG™ PMIC product family. • Identify Infineon’s portfolio of PMICs, and know which devices are currently under development.
Online Course OPTIREG™ PMIC - Technical safety requirements and goals (E2)	By the end of this training, users will: • Understand the strategy of main functional safety features (TSRs) of OPTIREG™ Safety Power Management ICs (PMIC). • After the training, you will be aware of the benefits and scope of our Safety PMICs, that are provided to safety-related applications.

 Click on the training title to access it

Supporting Tools & Documents

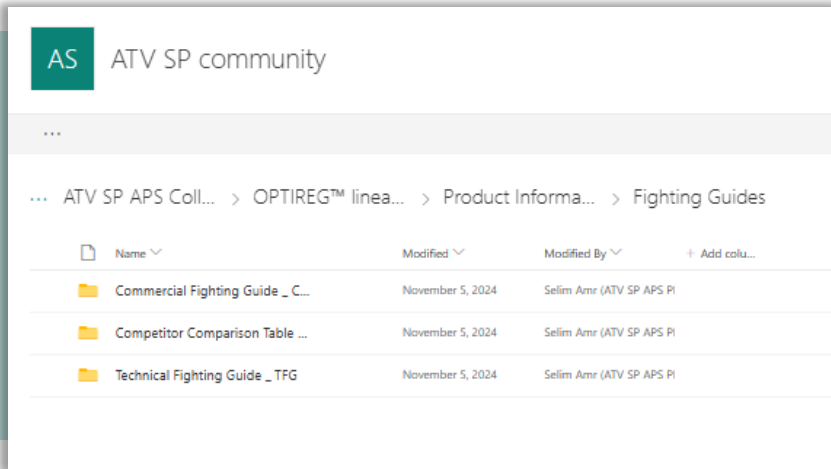
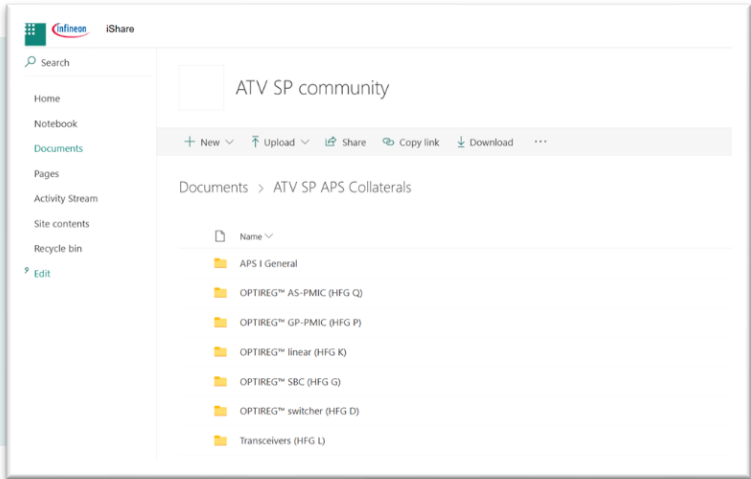
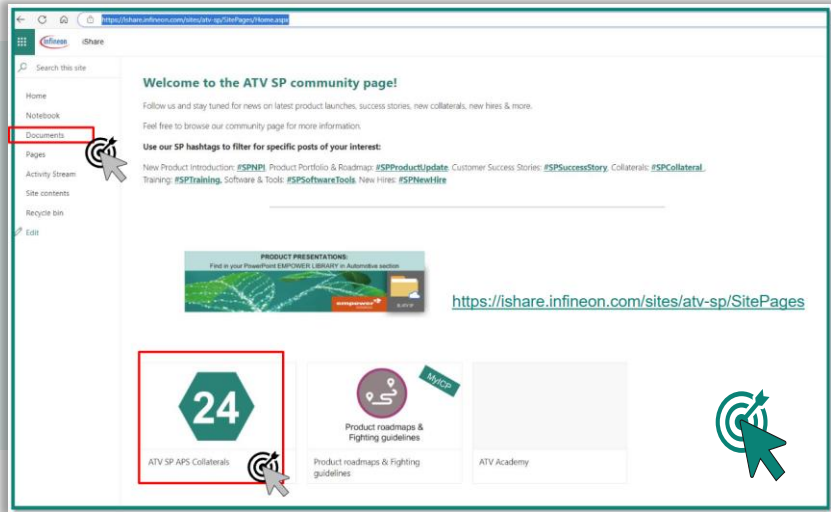


Find the right PMIC for your specifications in just a few clicks!



Fighting Guides

Outsmart the competition with our FG in SP Community !



OPTIREG™ TLS810D1LD V33 & TLS810D1EJ V33 (package variants)
Competitor Comparison Table

Feature	TL8810C1LD V33	TL8810C1EJ V33	TPS7A18A-Q1	TPS7A18A-Q1	LMH070Q-Q1-3.3
Package	PG-TSON-10	PG-DSC-8 EP	HVSSOP-8 (PowerPAD™)	HVSSOP-8	SOIC-8
Abs max rating minimum input voltage	-0.3 V	-0.3 V	-0.3 V	-0.3 V	-15 V
Abs max rating maximum input voltage	45V	45V	62 V	62 V	55 V
Minimum operating voltage	2.75 V	2.75 V	3	3	5.35 V
Maximum operating voltage	42 V	42 V	40	40	40 V
Junction temperature range	-40°C to 150°C	-40°C to 150°C	-40°C to 150°C	-40°C to 150°C	-40°C to 125°C
Maximum output current	100 mA	100 mA	100 mA	100 mA	150 mA
Output voltage	3.3 V	3.3 V	3.3 V, 5 V, adj	3.3 V, 5 V, adj	3.3 V
Output voltage accuracy	2%	2%	2%	2%	3%
Current consumption (typ) @ 100 mA	12 µA	12 µA	50 µA	50 µA	2 mA
Current consumption - low load (typ)	12 µA	12 µA	5 µA	5 µA	45 µA
Current consumption - EN off (max)	1 µA	1 µA	5 µA	5 µA	25 µA

Click on OPTIREG™ linear icon or any product name to access the respective web page

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Package variants Better performance

Fighting Guides

More coming in the pipeline, and your input is the key !

Pages / ... / ATV SP APS Marketing (Product & Technical) PENDING LEVEL Analytics view inline comments Save

APS Fighting Guides & Competitor Comparison Tables

Created by Pries Johan (ATV SP APS PM PMIG), last modified by Radovic Velibor (ATV SP APS PM PMIG) on Mar 05, 2025

① NA means we do not plan the collateral, typically because it is a legacy product. If you disagree, please write in the comment section below this page.

HFG	Product Family	Line Concept FE	Package Name	Sales Product Names	PM Contact	AE Contact	Commercial Fighting Guide	Technical Fighting Guide	Competitor Comparison Table
P	Legacy PMIC	SPT5	PG-DSO-36-51	TLE7368x	Fabian Jarmer	Andreas Haltmair	NA	NA	NA
P	TLF35x PMIC	SPT9/10	PG-LQFP-64-18, PG-VQFN-48-79	TLF35584xxx	Fabian Jarmer	Diana Avram	Link	coming soon	Link
P	TLF35x PMIC	SPT9/10	PG-TQFP-48-10, PG-VQFN-48-79	TLF35585xxx	Fabian Jarmer	Francesco Verenini	Link	coming soon	Link
P	TLF4x PMIC	SPT9/10	PG-LQFP-64-28	TLF4D* (Annapurna)	Edwin Munyao	Michael Schaffarczyk	coming soon	coming soon	coming soon
P	TLF4x PMIC	SPT9/10		TLF4A* (Makalu)	Edwin Munyao		coming soon	NA	coming soon
P	TLF4x PMIC	SPT9/10		TLF40585* (former Passu)	Edwin Munyao		coming soon	NA	coming soon
G	DCDC SBC	SPT9/10	PG-VQFN-48-31	TLE927x	Igor Kunze	Anil Kumar	FY25 Q3	NA	FY25 Q3
G	Lite SBC	SPT9/10	PG-TSDSO-24-1	TLE946x, TLE947x	Igor Kunze	Raffaele Stanzola	coming soon (March)	NA	coming soon (March)
G	Mid-Range+ SBC	SPT9/10	PG-VQFN-48-37	TLE926x8BQX	Igor Kunze	Anil Kumar	coming soon (March)	NA	coming soon (March)
G	Multi-CAN Power SBC	SPT9/10	PG-VQFN-48-31	TLE9278x	Igor Kunze	Fulvio Parisi	FY25 Q3	NA	FY25 Q3
G	Power SBC	SPT9/10	PG-TSDSO-32-1	TLE957x	Igor Kunze	Raffaele Stanzola	project on hold	project on hold	project on hold
G	Power (Lite) SBC	SPT9/10	PG-VQFN-32-26	TLE957x TLE955x	José Gonzalez-Conde	Carsten Schlegel	coming soon	NA	coming soon
K	Application Specific	B4	PG-SSOP-14-5	TLF4277-2EL	Roberto Napoli	Fulvio Parisi	coming soon	NA	coming soon
K	Application Specific	B4	PG-TSDSO-14, PG-TSON-10	TLF4277-xxx	Roberto Napoli	Fulvio Parisi	NA	NA	coming soon
K	Application Specific	DOBI	PG-DSO-20, PG-	TLF447xxx	Roberto Napoli	Susanne Finn	NA	NA	NA



- Status summary of the available and upcoming fighting guides in a in [confluence](#) page.
- In need for a specific FG?
Please leave a comment there.

APS Competition confluence page

Your insights fuel our fighting guides!



Questions | Calendars | Analytics | Create

Guide | Search

Pages / ... / ATV SP APS Marketing (Product & Technical) | PENDING LEVEL: No Analytics

APS Competition

Created by: Pres.johan (ATV SP APS P11 P14G) last modified on Feb 28, 2023

If you have a link to web, please include in info to the competitor product name, don't just past it in the table, confluence is bad at managing it.

Only APS PMs can edit this page, if a competitor part is missing, please write in the comments below.

To trigger Reverse Engineering, please write mail to Stefan Maier from RE team.
Existing Database: RE database

Purpose of this page is to have all info on new/upcoming competitors at one location and trigger actions like e.g. reverse engineering or creation of fighting guides.

Date	Competitor Part	Competitor	Price assumption	Initial judgement	IFX Part	HFG	reference tool	Reverse Engineering	Technical Fighting Guide	Competitor Comparison Table
24 Jul 2024	TCAN2451-Q1	TI	0.3€ (Sales Cont claim) 0.55€ (realistic)	- Competition for Hawkeye CDCS SBC, not in production yet, but online, including data sheet, has no ASIL B - CAN SIC - no LIN channels	TL957x (Power SBC) (Hawkeye Lite project) TL957x (CDCS SBC)	HFG G	open	Done	WIP Jose/Raffaële	open
26 Jul 2024	TCAN2411-Q1	TI		Marking variant of TCAN2451-Q1 w/o SIC	TL957x (Power SBC) (Hawkeye Lite project in VQFN-32)	HFG G	open	open	open	open
26 Jul 2024	TCAN285x-Q1	TI	<= 0.45€ (realistic)	- Competition device to MR+ SBC (TL9262-38QX) - Improvements vs. MR+ SBC: no ASIL B, CAN FD SIC - LDO1: 250mA; LDO2: 200mA - Marking variants: - TCAN2855: no LIN - TCAN2857: 1x LIN - Package: VQFN-32 (5x5 mm2)	TL9262-38QX (V33)	HFG G	open	open	open	open
26 Jul 2024	TP563386Q/61-Q1	TI		- direct hypo competitor in terms of application, Hy56 is competitive considering system cost, this one has a sensor integrated for rotation counter, can be a value added for certain application, - chip area is around 16mm² "langze" has similar concept with 48V differentiation, we try to squeeze the area below 9mm²	TLF35584x, TLF35585x,	HFG P	open	requested by Johan Dec 2024	open	open
26 Jul 2024	TP563385Q4-Q1 TP563385Q2A-Q1 M	TI		- Predecessor of TP563386Q/61-Q1 - chip area is around 16mm²	TLF35584x, TLF35585x,	HFG P	open	done	done	open
29 Jul 2024	TP57866-Q1	TI	<0.2USD	- Possible replacement for TLS850F2TA V50 at Yura/Kyungshin - It includes Enable function (missing in TLS850F3TUV50) 28 pin package	TL5850FATA V50; TL5850F3TUV50	HFG K	open	done	open	done



Collecting all info on new/upcoming competitors at one location and trigger actions:

- Reverse engineering
- Creation of fighting guides.
- Updating cross-reference data base.

find compatible devices to many competitor's devices for your design.

Cross Reference

Enter partial or full manufacturer's device number and manufacturer



Advanced Search

Infineon's cross reference search: [LINK](#)

My Infineon Collaboration Platform (MyICP)



What is MyICP ?

MyICP or **My Infineon Collaboration Platform** is a portal through which you can access all the documentation related to Infineon's microcontrollers.

While you may find plenty of details about Infineon microcontrollers on our official website, there are some **confidential** documents that require a > **Non-Disclosure Agreement (NDA)**. These can be accessed through MyICP.

How can I get access to exclusive documentation

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Step 2:

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Registering as a user is not enough.

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Send an e-mail to > optireg@infineon.com

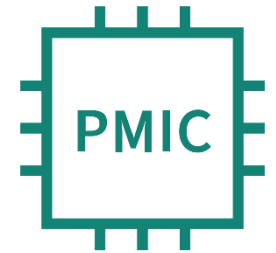
Step 3:

Get access to the required documentation



This step is only possible after Step 2, i.e. after your account has been successfully promoted. It requires you to wait till you get an email from us.

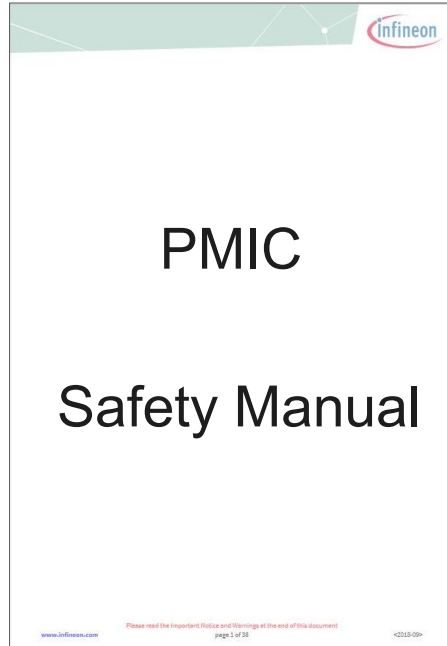
OPTIREG™ application specific PMICs Support: TLE9243QK



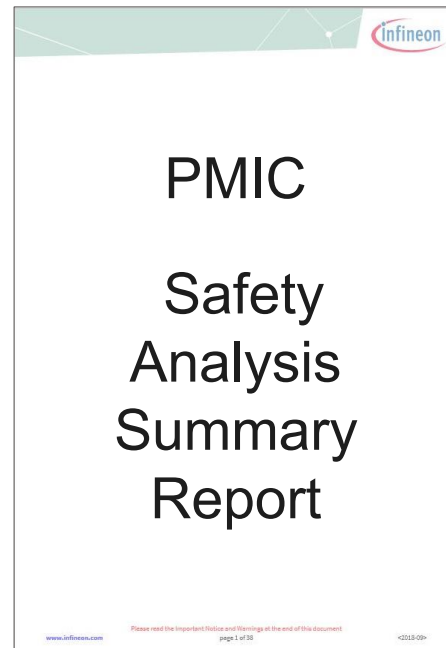
OPTIREG™

OPTIREG™ PMIC

Customer safety documentation



What the integrator
has **to do** and to consider



Results of the **Safety Analysis**
performed by Infineon ready
to be used by the integrator

TLE9243QK: Support



Collaterals and Brochures

- [Product Brief](#)
- [Selection Guide](#)
- [Application Brochure](#)
- [Product Presentation](#)
- Press Releases, Ads

Technical Material

- [Application Notes](#)
- Simulation Models
- [Datasheet](#), MCDS Files

Evaluation Board

- Evaluation Board *on request*

Trainings

- [Trainings](#)

- [Link to TLE9243 page](#)

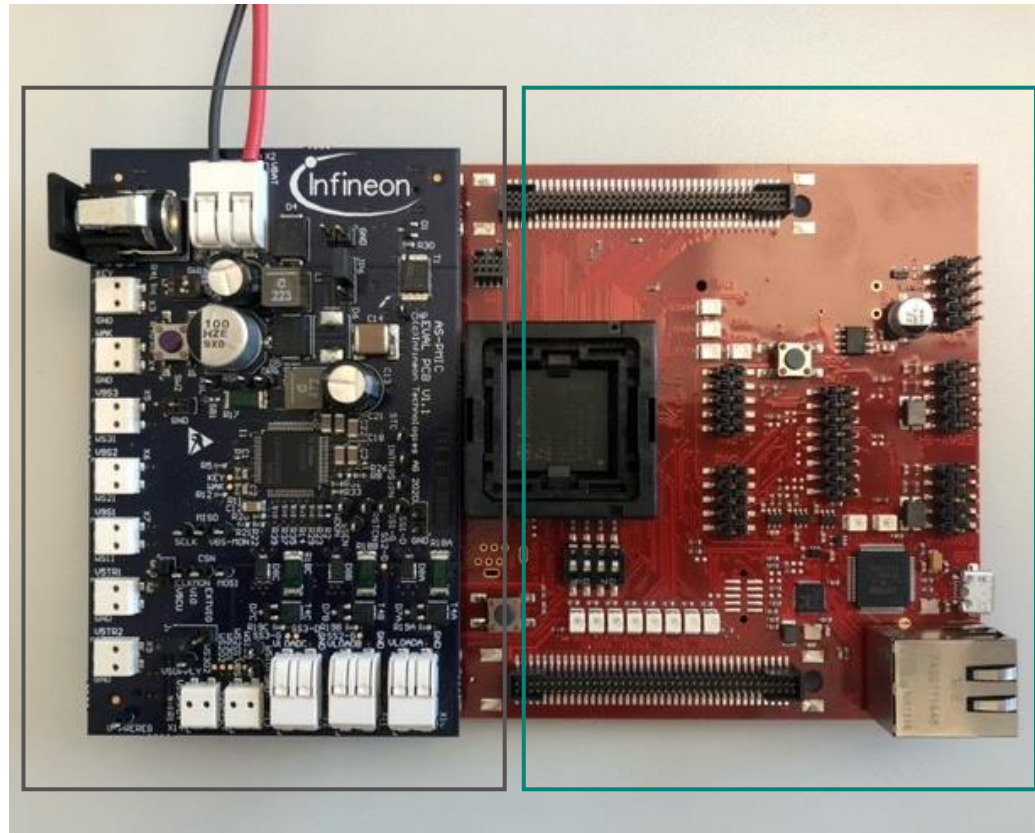
TLE9243QK is online and evaluation boards are available for ordering



you will find: product datasheet, evaluation board, user manual and software

TLE9243QK_DEV_BOARD

A development board to support you in testing the power capabilities of TLE9243QK. It can be used to connect supply, loads and sensors, providing easy access to all interfaces.

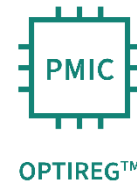


TLE9243QK_BASE_BOARD

An extension of the TLE9243QK_Dev_Board, a Triboard to support you in testing the power supply and safety features of TLE9243QK in combination with the AURIX™ : develop your code and establish the communication!

OPTIREG™ PMIC TLE9243QK

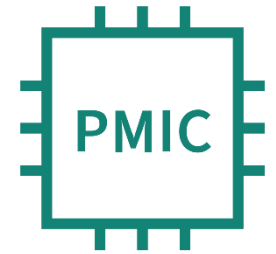
Additional Information



Order information

- TLE9243QK
 - OPN: TLE9243QKXUMA1
 - SP#: SP003227362
 - MA#: MA005753955 for productive material C13 Step
- Evaluation Board: TLE9243QK
 - TLE9243QK_BASE_BOARD
 - OPN: TLE9243QK_BASE_BOARD
 - SP#: SP005409057
 - SA#: SA005417923
 - TLE9243QK_DEV_BOARD
 - OPN: TLE9243QK_DEV_BOARD
 - SP#: SP005409059
 - SA#: SA005417924

OPTIREG™ application specific PMICs Support: TLF30682QV



OPTIREG™

TLF30682QV: Support



Collaterals and Brochures

- [Product Brief](#)
- [Selection Guide](#)
- [Application Brochure](#)
- [Product Presentation](#)
- Press Releases, Ads

Technical Material

- [Application Notes](#)
- [Simulation Models](#)
- [Datasheet](#), MCDS Files
- [PCB Design Data](#)

Evaluation Board

- [Evaluation Board Design](#)

Video

- Technical Video
- Product Information
Video

- [Link to TLF30682 page](#)

- [Link to TLF30682-board pages](#)

- [Link to Video](#)

TLF30682QV is online and a evaluation board is available for ordering



you will find: product datasheet, evaluation board, user manual and software

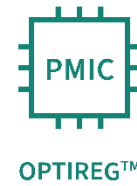
TLF30682QVS01 BOARD

development board to support you in testing the power capabilities of TLF30682QV. It can be used to connect supply, loads and sensors, providing easy access to all interfaces.



OPTIREG™ PMIC TLF30682 QV

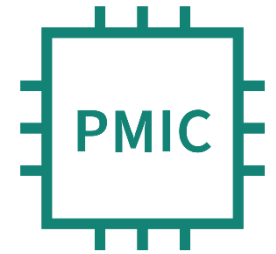
Additional Information



Order information

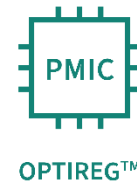
- TLF30682QVS01
 - OPN: TLF30682QVS01XUMA1
 - SP#: SP001588618
 - MA#: MA004807156 for productive material
 - SA#: SA004441512 for QS
- Evaluation Board: TLF30682QVS01
 - OPN: TLF30682QVS01BOARDTOBO1
 - SP#: SP001622202
 - SA#: SA005353859

OPTIREG™ application specific PMICs Support: TLE9744QK



OPTIREG™

TLE9743/4QK: Support



Collaterals and Brochures

- [Product Brief](#)
- [Selection Guide](#)
- Application Brochure
- [Product Presentation](#)
- Press Releases, Ads

Technical Material

- [Application Notes](#)
- [Simulation Models](#)
- [Datasheet](#), MCDS Files
- PCB Design Data

Evaluation Board

- Evaluation Board Design

Video

- Technical Video
- Product Information
Video

- [Link to TLE9744QK page](#)
- [Link to TLE9743QK page](#)

- [Link to TLE9744QK-board page](#)

- [Link to Video](#)

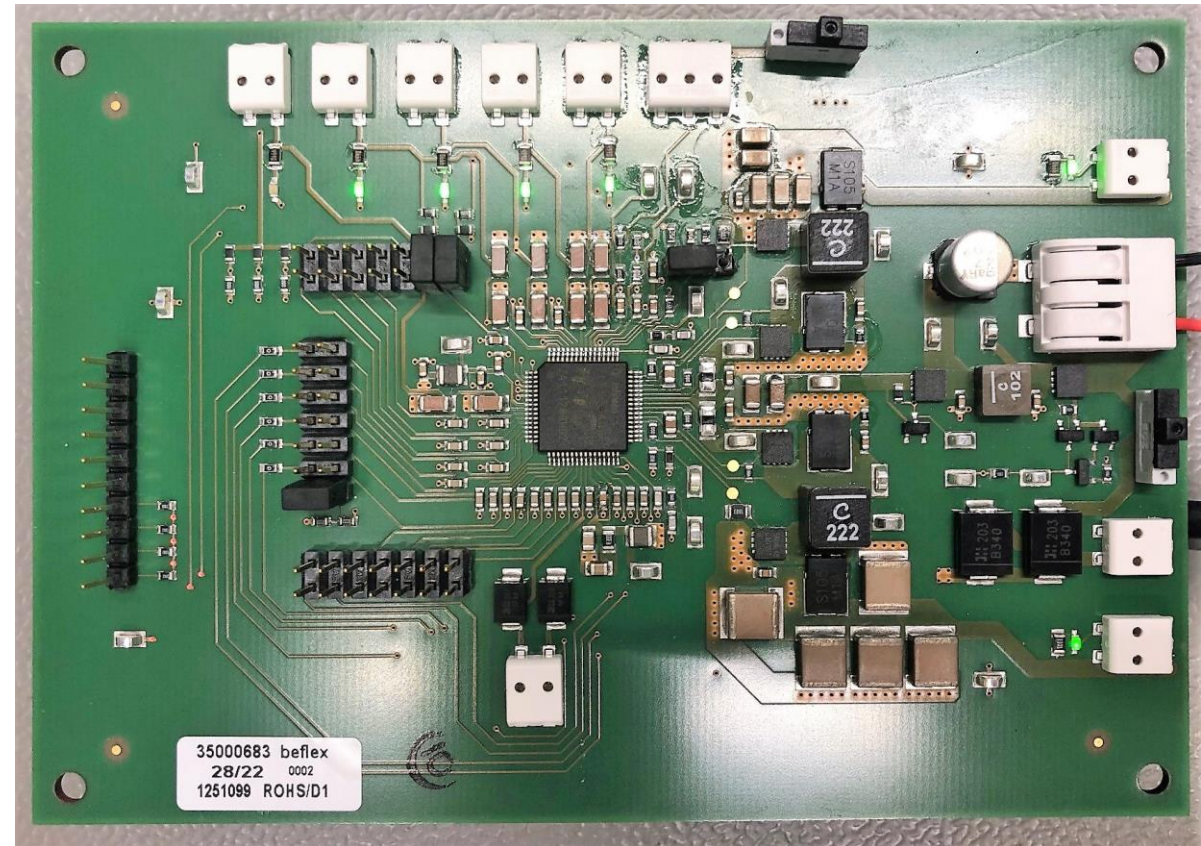
TLE9744QKQK evaluation board is available on request



you will find: Product datasheet (PDS) , evaluation board and users guide and software

TLE9477QK_BOARD

development board to support you in testing the power capabilities the TLE9744QK. It can be used to connect supply, loads and sensors, providing easy access to all interfaces.*



* Usage with Arduino compatib. AURIX™ TC255 Arduino Buddy shield with SAL- TC375TP-96F300W AA (STD), KIT_A2G_TC375_ARD_SB, SP005432164

MSK (Main Inverter Cool SiC™ Kit): Enabled by XEV PMIC

HV Traction Inverter Reference Design (IFX ATV SYS)



Coming soon



you will find: product datasheet (TDS) , evaluation board, user manual and software (draft)

The MSK is a reference design of a main inverter

- The main parameter are:
 - Complete inverter
 - Including 31 different Infineon components
 - **State of the art safety concept** (QM)
 - Including Virtual Reference Design (VRD) of power part
 - Designed for 800V battery
 - Phase current up to 750Arms
 - MSK: Main Inverter Cool SiC™ Kit



AURIX™ TC4x Control Board with XEV PMIC for various application kits

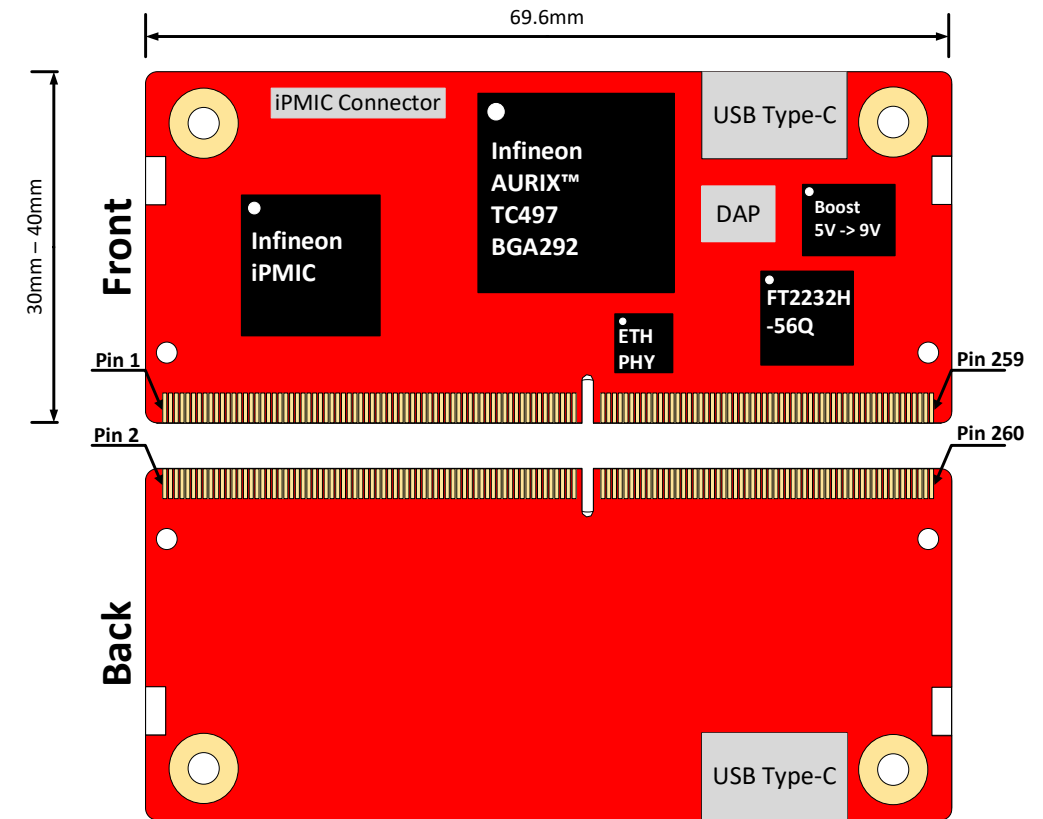


Coming soon

you will find: product datasheet (TDS) , control board, user manual and software

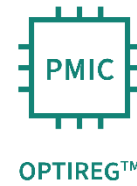
AURIX™ TC4x Control Board

- DDR4 **SO-DIMM 260 pin interface**, dimensions **69.6mm x 30mm** (max 40mm).
- **On-board debugger interface** and support for standalone debugger via **DAP** connector.
- **Ethernet PHY** using RMI interface integrated.
- Supports **all application relevant pins** (PWM, HRPWM, ADC, Fast Compare, Delta-Sigma ADC, TIM, Encoder, Resolver, CAN, QSPI, SPI, LIN, UART, Ethernet, I2C, etc.).
- Different **power rails** available on the connector (5V, 3.3V, etc.).



OPTIREG™ PMIC TLE9743/4QK

Additional Information



Order information

- TLE9744QK
 - OPN: TLE9744QKXUMA1
 - SP#: SP005343912 (ES samples)
 - MA#: SA006153504 for ES
- TLE9743QK
 - OPN: TLE9743QKXUMA1
 - SP#: SP006206976 (ES samples)
 - MA#: MA006207221 for ES
- Evaluation Board TLE9744QK on request at PMG/PMK/PAE
 - OPN: TLE9744_BOARD
 - SP#: SP006180482
 - MA#: SA006184674

Device Naming Nomenclature

OPTIREG™ TLF3xx PMICs Naming Convention

TLF 3 5 5 8 5 QV S01

