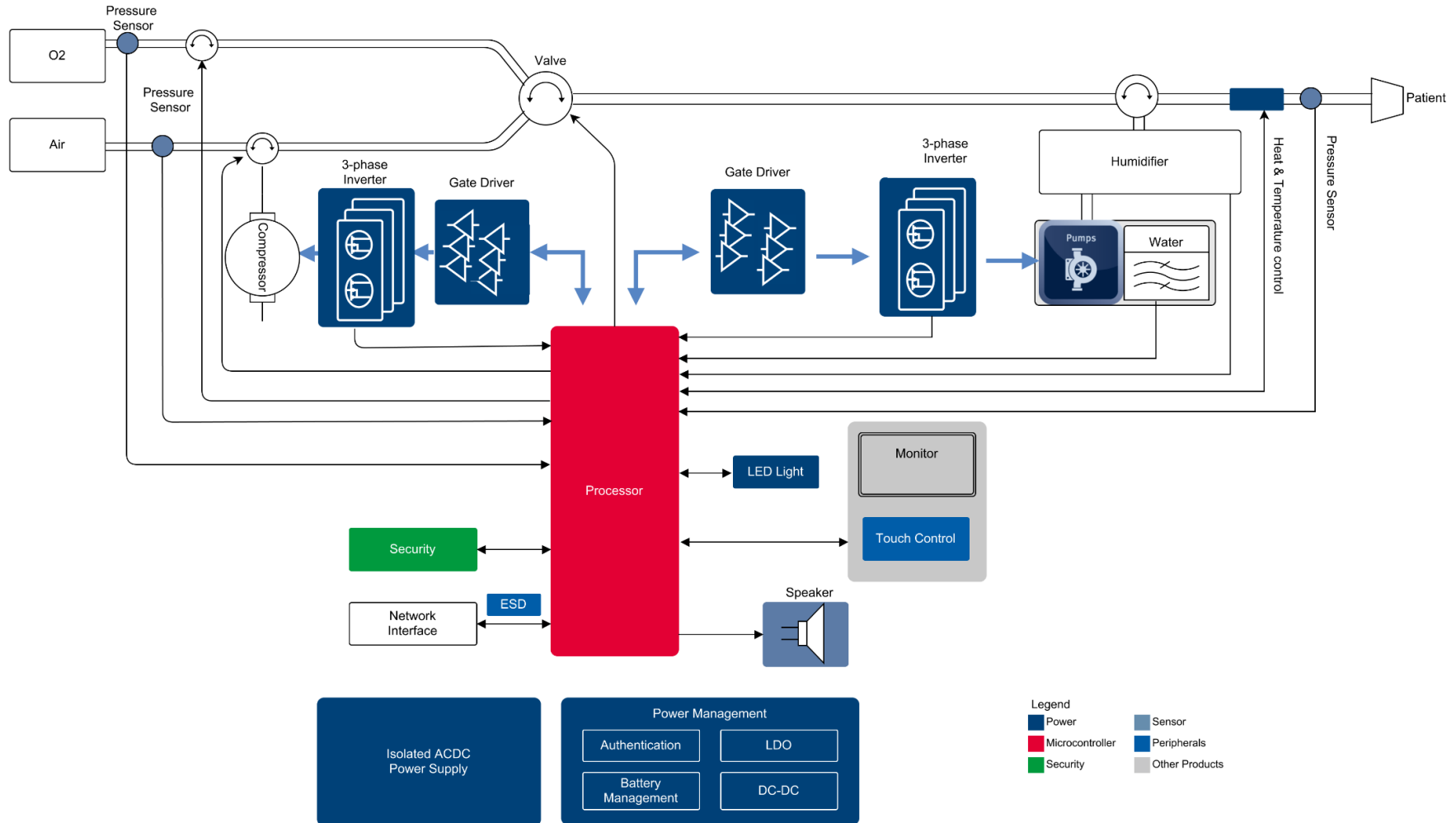


Application Medical Ventilator IFX offers overview

System offers and values

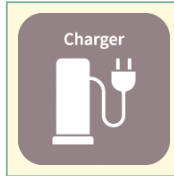
System overview for Ventilator can be provided by Infineon



Infiniteon can provide broader portfolio for innovation and differentiation



ACDC Power Supply



CoolMOS™



OptiMOS™ / StrongIRFET™



CoolSET™



PWM flyback controller



Gate driver ICs



Battery management



OptiMOS™ / StrongIRFET™



Gate driver ICs



Microcontroller XMC1000



DCDC & Volt. regulators



Authentication



Motor control



OptiMOS™ / StrongIRFET™



Gate driver ICs



Microcontroller XMC1000/4000



iMOTION™



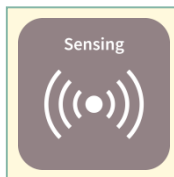
Magnetic sensors



CIPOS™ Nano IPMs



Sensors & peripherals



CAN transceivers



ISOFACE™/PR OFET™



Class D audio amplifiers



LNAs



LED drivers



XENSIV™ sensors

- > Magnetic sensors & current sensors
- > Barometric pressure sensors
- > 24 GHz radar
- > MEMS microphone
- > 3D Image Sensor REAL3™



Security



OPTIGA™ Trust X



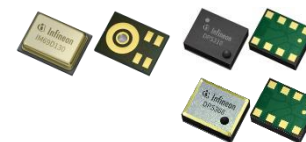
OPTIGA™ Trust B









OPTIGA™ Trust M

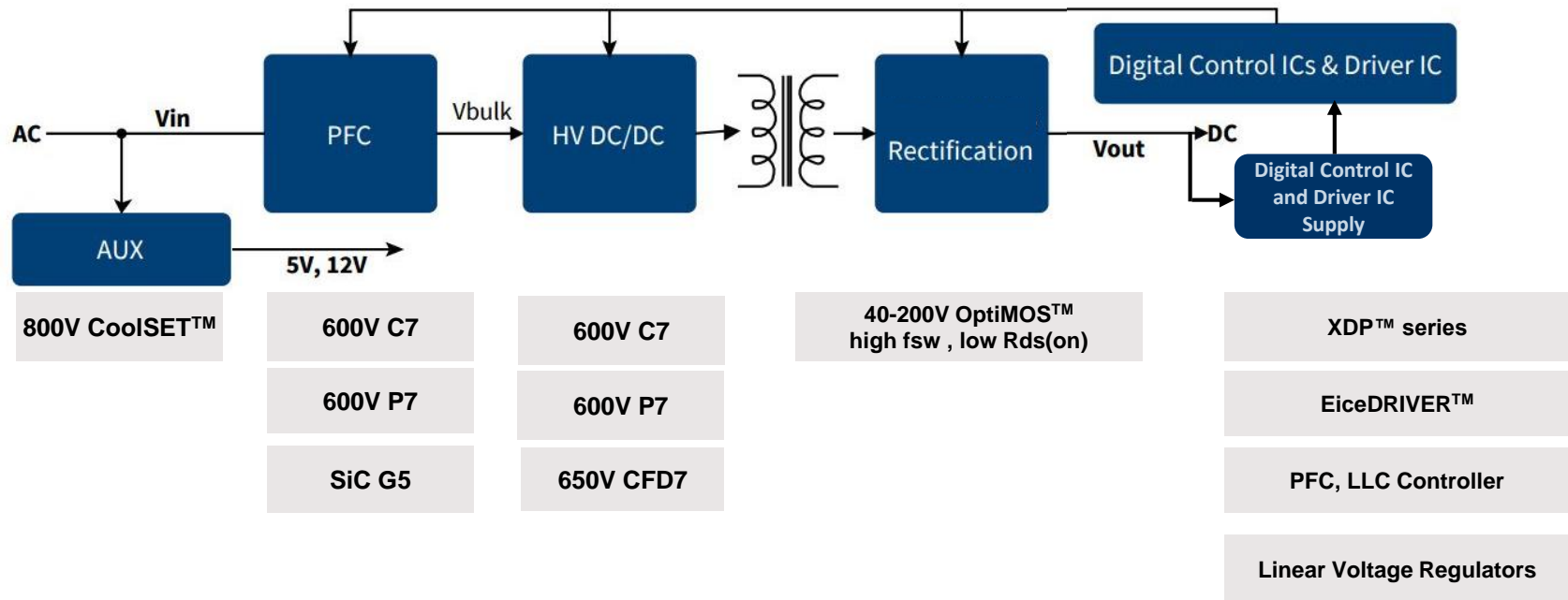


OPTIGA™ TPM



Infineon's value proposition for medical ventilators

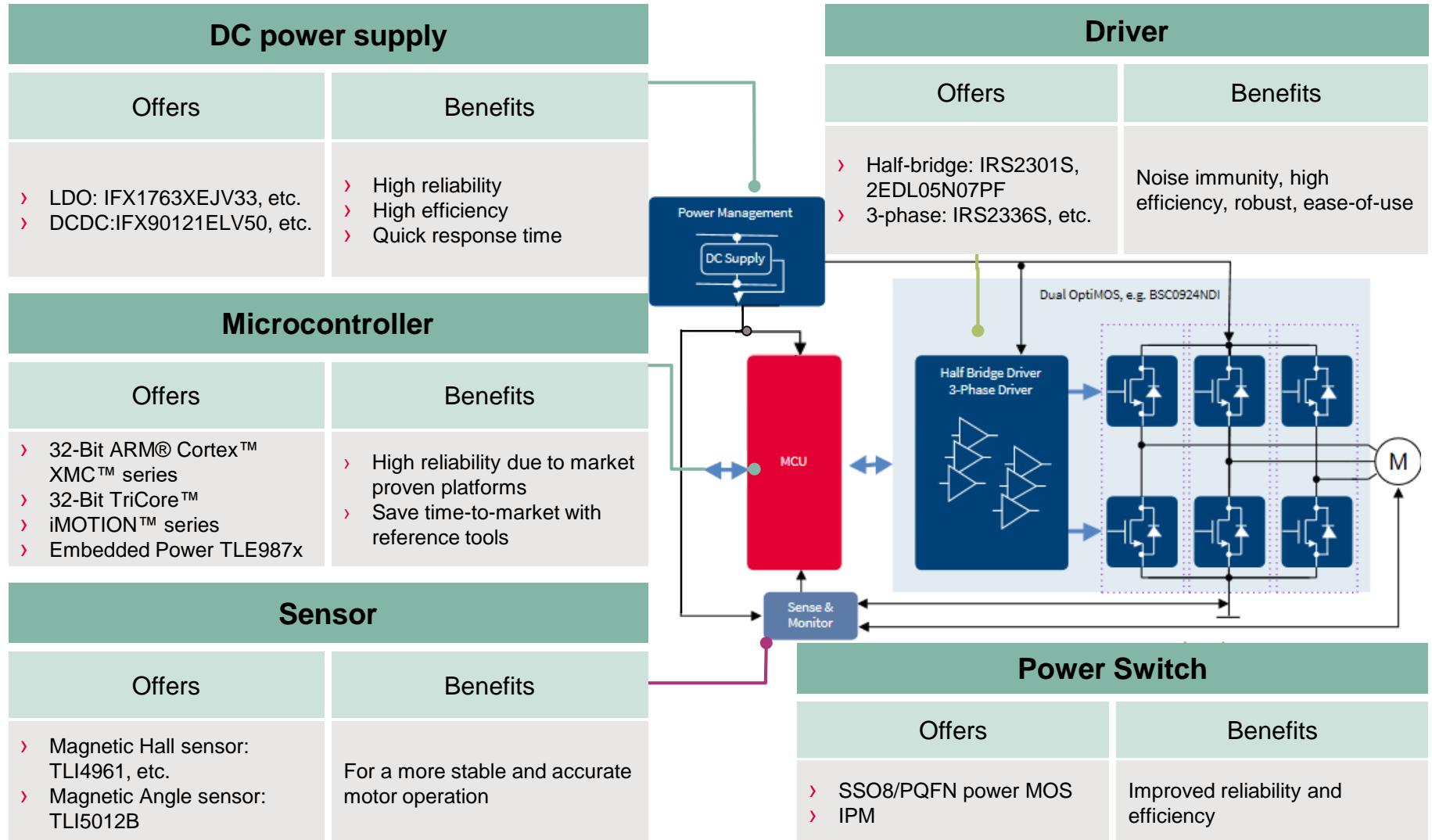
Infineon offering		Customer benefit
Reliability, Quality, Security and Safety		Highest quality standards and a safety certified development process. Trustworthy hardware-based security. We are a security market leader with a proven track record and outstanding partner network for embedded security
Authentication		OPTIGA™ Trust enables ECC authentication of components connected to the system (e.g., Humidifier recognition) to ensure the securities. Also within OPTIGA™ portfolio are secure cloud connectivity and connected solutions.
Productive capability		Strong production capacity to meet demand upsurge, supporting from many in-house FE and BE factories as well as external factory partners
Complete solutions – broad portfolio		Whatever design specification at Infineon we have the answer in our comprehensive portfolio of products and solutions which you can easily tailor to your needs. We offer solutions for power supplies, motor drives and sensors
Overall system size and cost reduction		With IFX components you can enable the reduction of overall system size and cost due to components supporting smallest area and compact design which are required for highest power density and BOM cost reduction due to lowest $R_{DS(on)}$
Fast time-to-market		Faster time-to-market is enabled with evaluation and demo boards for fast prototyping, and simulations, documentation, and system support that reduce development time and cost



Key values

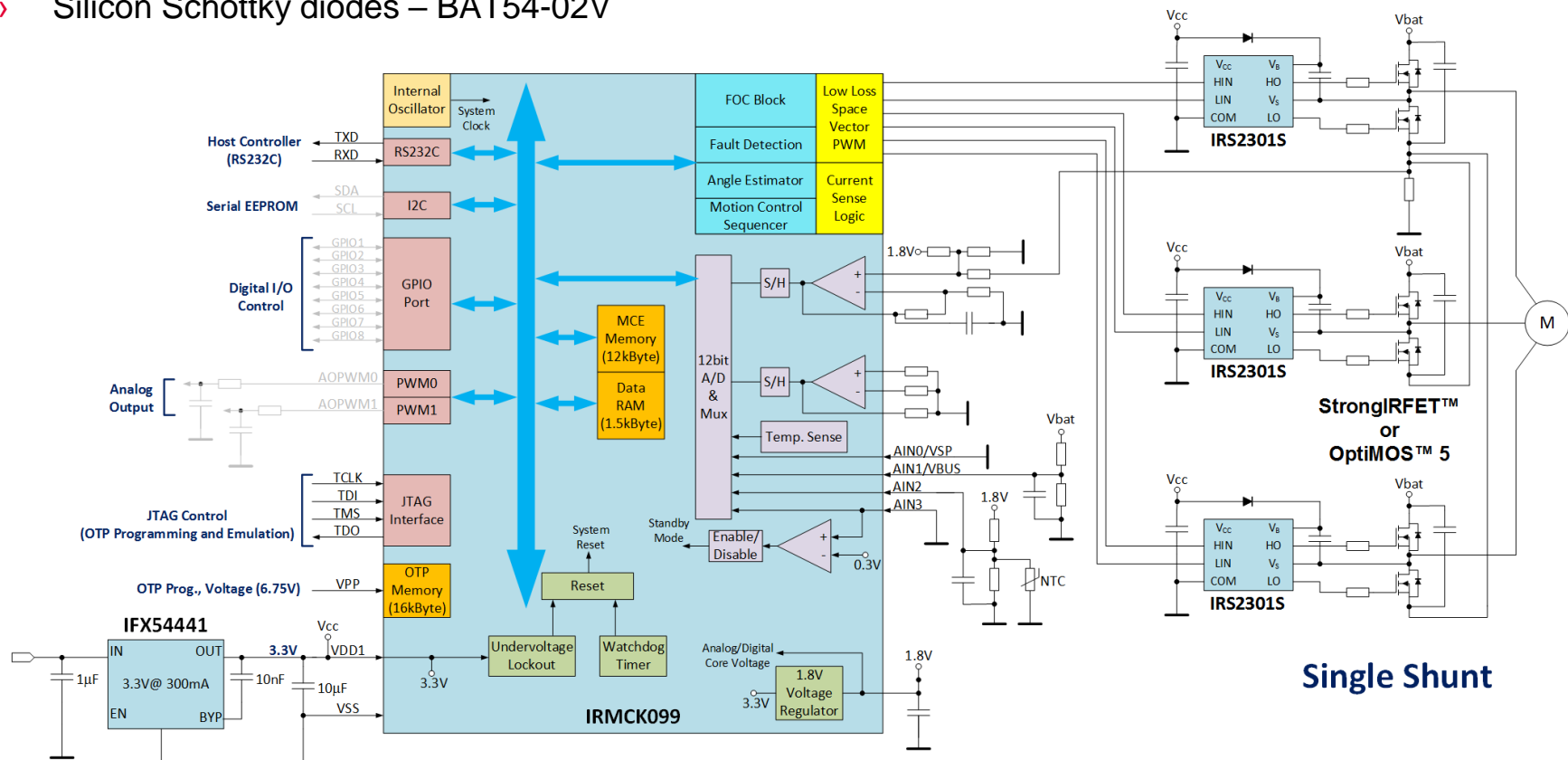
- > High reliability with long years market qualification
- > High efficiency leads to less thermal failure
- > Full portfolios for whole system power chain to reduce purchasing efforts
- > Strong production capacity to meet up-surged demand

DC Motor drive full scalable solutions

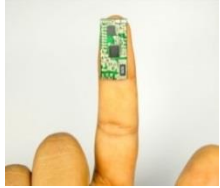


Motor control solution example 1

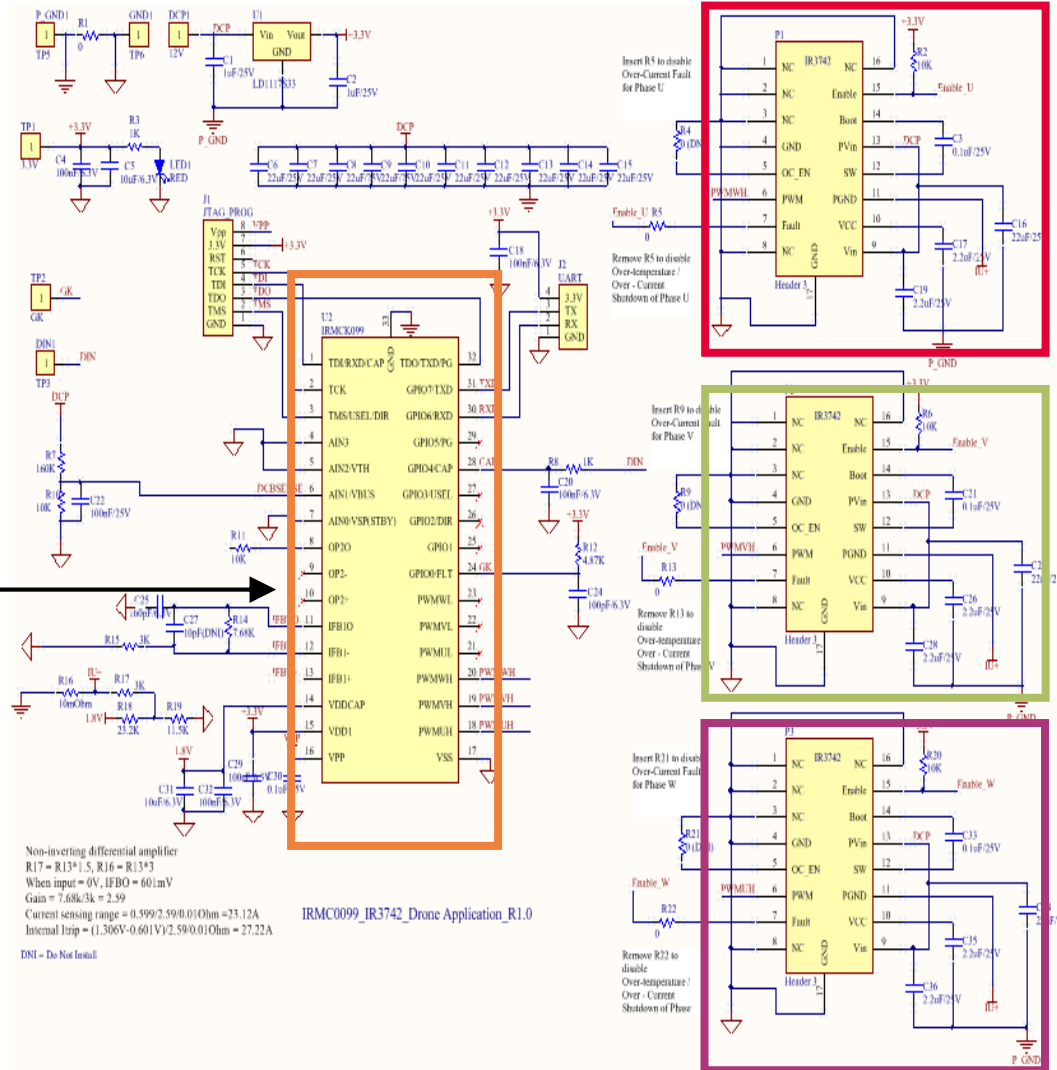
- › Motor controller – iMOTION™: IRMCK099
- › Gate drivers: IRS2301S
- › Inverter MOSFET: StrongIRFET™ or OptiMOS™ 5
- › Voltage regulator: IFX54441
- › Silicon Schottky diodes – BAT54-02V



Motor control solution example 2

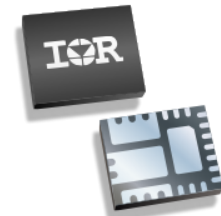


IRMCK099 –
motion
controller

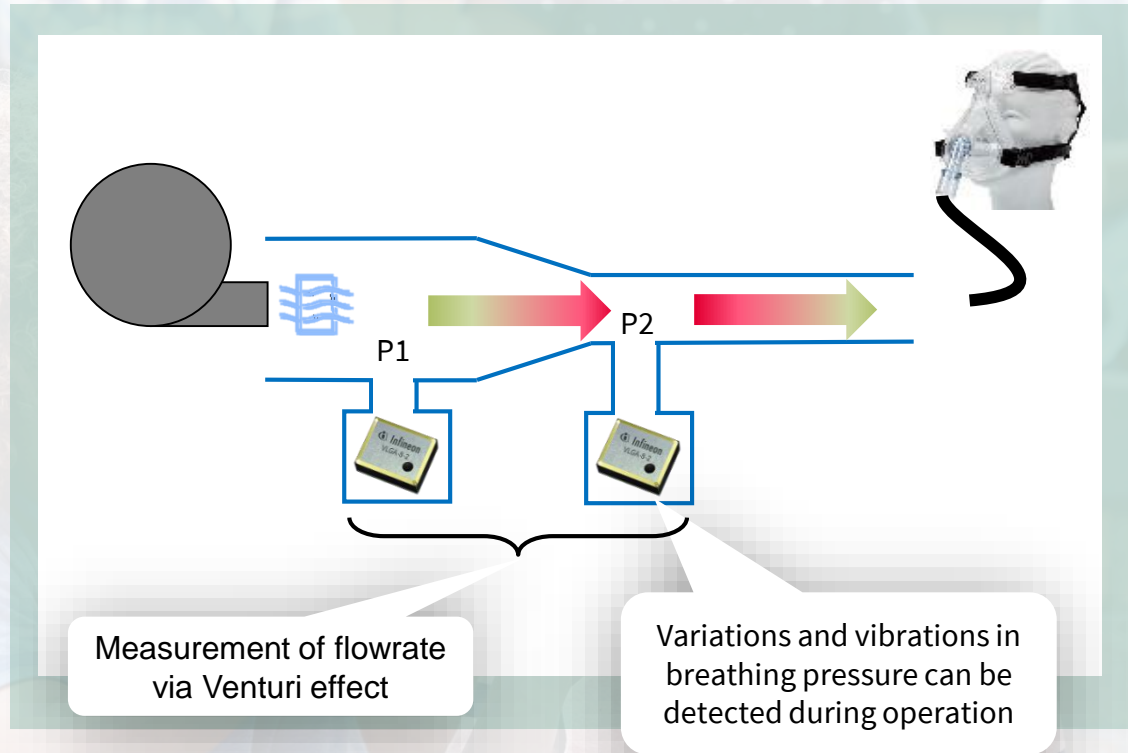
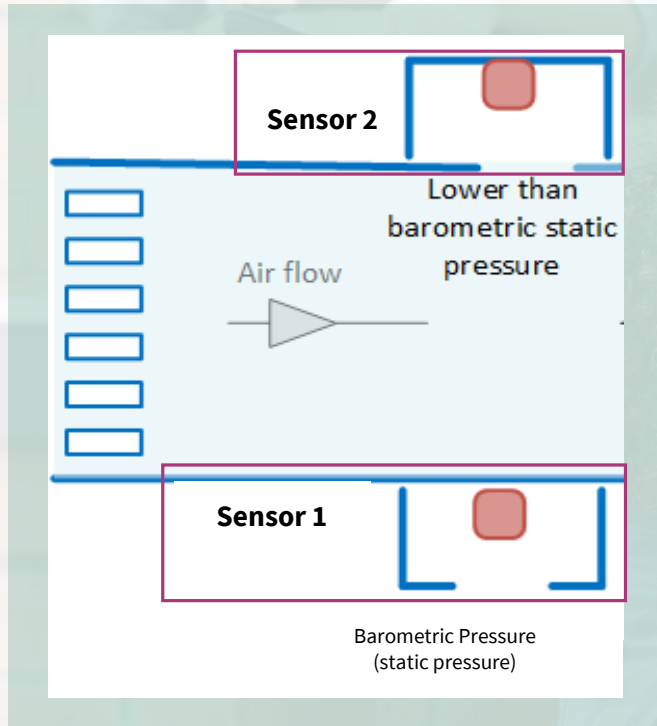



- › Single shunt sensorless FOC control
- › Controller: IRMCK099M
- › Power stage: IR3742M x 3
- › Maximum phase current (6 arms continuous)
- › 25.84 mm x 13.78 mm

← IR3742 – gate driver & half-bridge integration



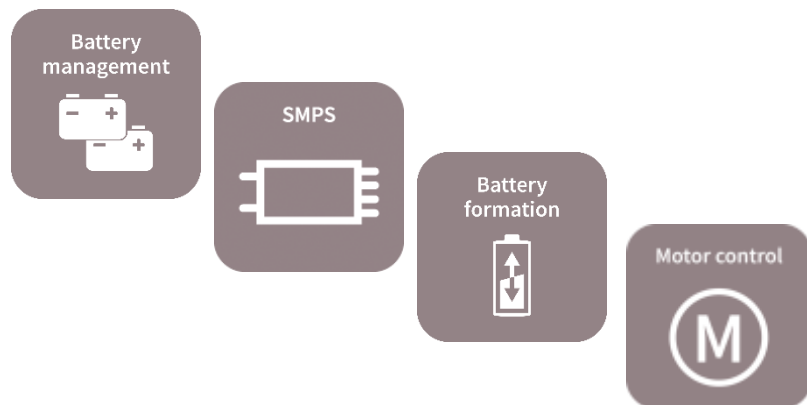
Air flow monitoring solution with two pressure sensors



 Differential reading to precisely measure **air flow** can be done with gauge configuration or using venturi principle

Product Highlights

Product highlight: OptiMOS™ 3 /StrongIRFET™ 40 V/60 V NL/LL duals in SSO8



Value proposition

- > Symmetrical dual super SO8 = high power density
- > Low thermal resistance
- > High operating temperature up to 175°C
- > Optimos™: fast switching performance
- > StrongIRFET™: Low R
- > Pb-free plating, RoHS compliant

Target specifications

Part number	V _{DS}	R _{DS(on)} max @ V _{GS} = 10 V (mΩ) per channel	NL/LL	Qg (nC)	Package	Technology	Release schedule
IRF40H233	40 V	5.9	NL	40	PG-TDSON-8	StrongIRFET™	Released
BSC072N04LD	40 V	7.2	LL	15	PG-TDSON-8	OptiMOS™ 3	Released
BSC076N04ND	40 V	7.6	NL	28	PG-TDSON-8		Released
BSC112N06LD	60 V	11.2	LL	41	PG-TDSON-8		Released
BSC155N06ND	60 V	15.5	NL	21	PG-TDSON-8		Released

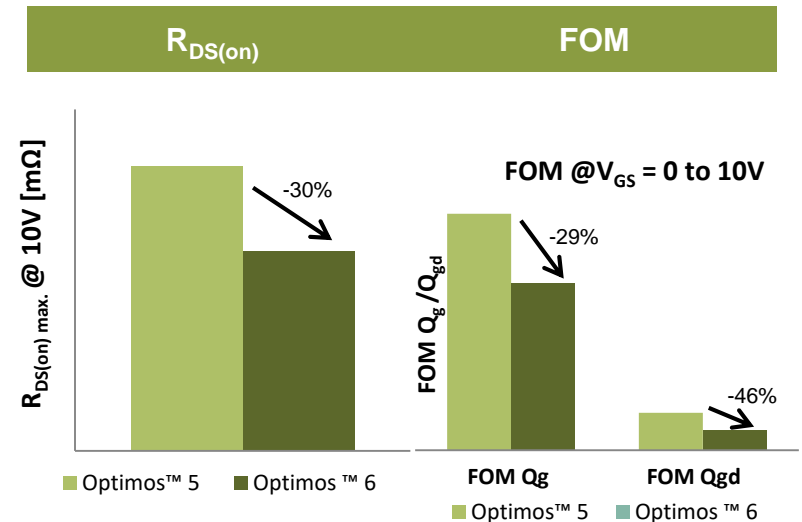
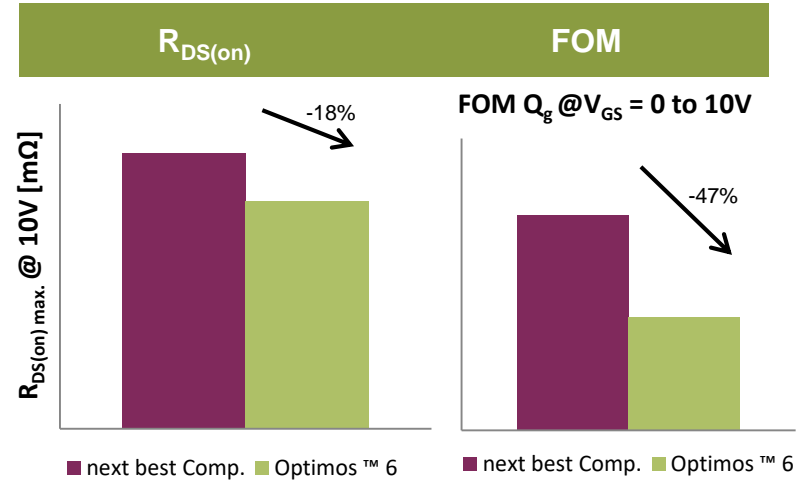
Product highlight: OptiMOS™ 6 40 V

Value proposition

- › Low $R_{DS(on)}$ in small package
- › Low gate charge
- › Low output charge
- › Logic level portfolio
- › Target applications: adapter, telecom, wireless charging

Target specifications

Part number	V_{DS} (V)	$R_{DS(on)}^{max.}$ @ $V_{GS} = 10V$ (m Ω)	Package	Release schedule
BSC007N04LS6	40	~0.7	SuperSO8	Released
BSC010N04LS6	40	~1.0	SuperSO8	Released
BSC022N04LS6	40	~2.2	SuperSO8	Released
BSC059N04LS6	40	~5.9	SuperSO8	Released
BSZ021N04LS6	40	~2.1	PQFN 3.3 x 3.3	Released
BSZ024N04LS6	40	~2.4	PQFN 3.3 x 3.3	Released
BSZ063N04LS6	40	~6.3	PQFN 3.3 x 3.3	Released



Product highlight: new OptiMOS™ 5 best-in-class devices in SuperSO8



Value proposition

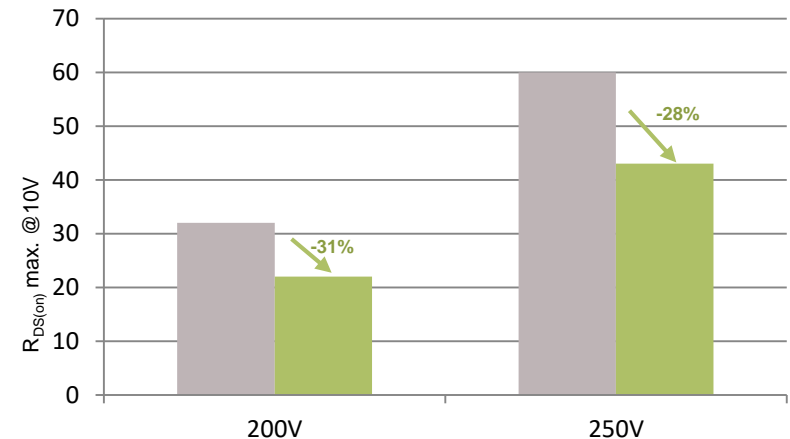
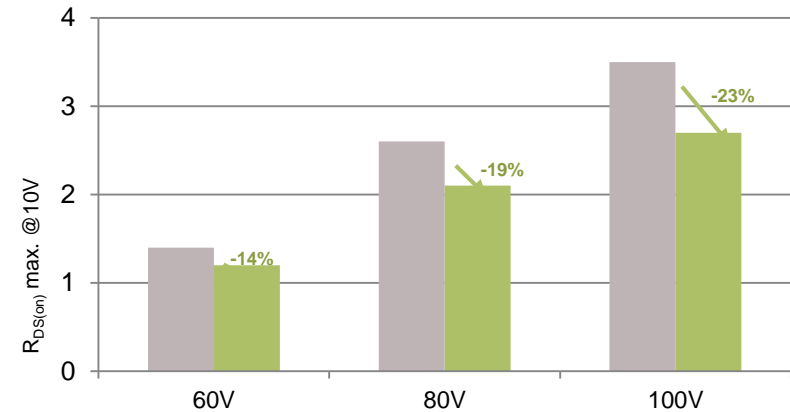
- › Lowest $R_{DS(on)}$ for highest power density and efficiency
- › Reduced system costs through less paralleling
- › Low R_{thJA} results in excellent thermal behavior

Product portfolio

V_{DS} (V)	Part number	$R_{DS(on)}$ max. @10V (mΩ)	Release
60 V	BSC012N06NS	1.2	Released
80 V	BSC021N08NS5	2.1	Released
100 V	BSC027N10NS5	2.7	Released
200 V	BSC220N20NSFD	22.0	Released
250 V	BSC430N25NSFD	43.0	Released

- › ES samples available for all voltage classes on [ISAR](#)

Significant $R_{DS(on)}$ improvements of up to -31%



■ Former SSO8 BiC

■ New OptiMOS™ BiC devices

CoolMOS™ 7 enabling **best-in-class price/performance ratio** in high power SMPS

600/ 650 V CoolMOS™ C7/G7

Suitable for
PFC & LLC* topologies

to address
high-end market

600 V CoolMOS™ P7

Suitable for
PFC & LLC topologies
to address

High & low power SMPS market



Technology corner stones

600 V CoolMOS™ CFD7

Suitable for
LLC & ZVS PS FB
topologies

to address
High power SMPS market

- › **Best-in-class efficiency** over all CoolMOS™ technologies
- › Perfect fit for **highest switching frequencies**
- › Enabling **highest power density levels** thanks to best-in-class Rdson in THD and SMD packages

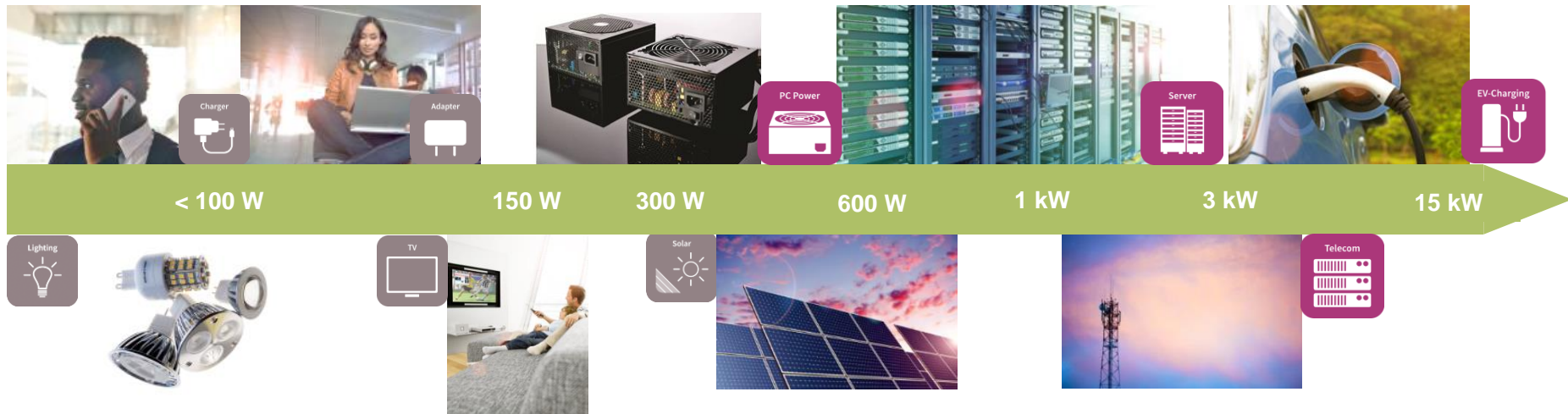
- › **Best balanced technology** of all CoolMOS™ families
- › Integrated Zener diode
- › **Perfect combination** of
 - Highest efficiency improved thermals
 - Excellent ease-of-use & communication ruggedness
 - Competitive price and
 - Outstanding portfolio granularity

- › **Ultra fast body diode**
- › **Best-in-class Q_{rr} level** of all CoolMOS™ families
- › Highest **reliability and robustness**
- › Highest efficiency within CoolMOS™ fast body diode series
- › Enabling **highest power density levels** thanks to best-in-class Rdson in THD and SMD packages

CoolMOS™ 7 series span the power range from 10 W - 15 kW ...



... addressing a wide range of applications



Flyback

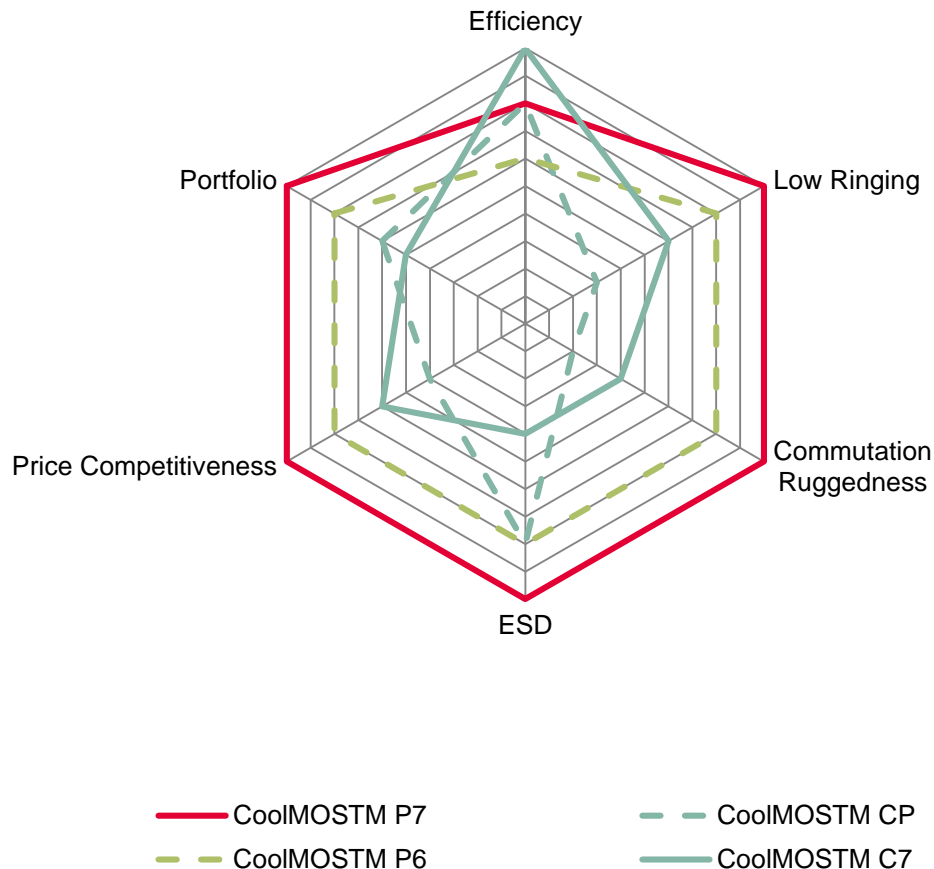
Hard switching topologies like PFC

Soft switching topologies like LLC

CoolMOS™ 7 series can cover a **wide range of applications and power classes** and can be used in **hard switching** as well as in **soft switching topologies**

600 V CoolMOS™ P7 – the most well balanced high voltage MOSFET in key dimensions

Assessed at PFC & LLC stage



- > Most rounded technology of all CoolMOS™ families
- > Perfect combination of:
 - High efficiency
 - Excellent ease-of-use
 - Competitive price and
 - Outstanding portfolio granularity

Gate driver ICs for low voltage motor drive

Product	Key features	Key benefits
6EDL04N family	<ul style="list-style-type: none"> › Best in class Infineon SOI –VS ruggedness › Integrated bootstrap diode 	<ul style="list-style-type: none"> › Increased system reliability › Lower BoM costs
2ED2304		
IRS2127S	<ul style="list-style-type: none"> › Current sensing (OCP) 	<ul style="list-style-type: none"> › Protect both high side MOSFET and low side MOSFET
IRS44273L	<ul style="list-style-type: none"> › Single channel low side driver 	<ul style="list-style-type: none"> › Discrete buffer replacement to reduce shoot through faults › Increased current capability
IRS2301S	<ul style="list-style-type: none"> › Low UVLO (4 V), 0.3 A 	<ul style="list-style-type: none"> › Designed for MOSFETs (OptiMOS™) in battery- powered applications
IRS21867S	<ul style="list-style-type: none"> › Low UVLO (5 V), 4 A 	
IRS200x family	<ul style="list-style-type: none"> › MLPQ 14 4X4 mm package › VCC and VBS UVLO 	<ul style="list-style-type: none"> › Space savings thanks to small package dimensions › Ensuring reliable start-up operation
1ED44176	<ul style="list-style-type: none"> › Integrated OCP 	<ul style="list-style-type: none"> › Lower BoM costs
2EDN family	<ul style="list-style-type: none"> › High current capability & low propagation delay 	<ul style="list-style-type: none"> › Good fit for SMPS application

Infineon drivers are offered for a wide variety of configurations and voltage ranges

Driver configuration			5 V	25 V	100 V	200 V	500 V	600 V	650 V	1200 V
Drivers	1-channel	High-side			●	●	●	●	●	●
		Low-side	●	●						
	2-channel	High-side							●	●
		Low-side		●						
		High-side + low-side				●	●	● ●	●	●
		Half-bridge			●	●		● ●	● ●	● ●
	4-channel	H bridge			●					
	6-channel	Three-phase bridge				●		● ●		● ●
System building blocks		Current sense						●		●
		Start-up					●			

● Junction isolation (JI)

● Non-isolated (N-ISO)

● Silicon on insulator (SOI)

● Coreless transformer (CT)

■ Recommended for battery powered drives

EiceDRIVER™ 6EDL compact family – 200 V / 600 V three-phase driver with OCP

Key features

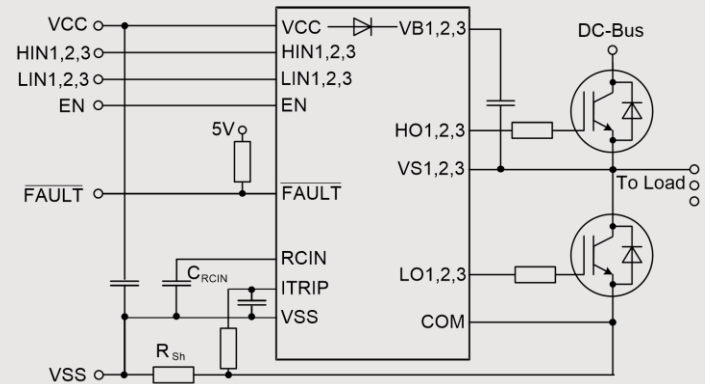
- › Silicon-on-insulator (SOI) technology prevents latch up
- › Maximum blocking voltage **+600 V/200 V**
- › Best in class bootstrap function
- › Separate control circuits for all six drivers
- › CMOS and LSTTL compatible input (negative logic)
- › A variety of safety functions help to get application certifications
- › Overcurrent protection, enable and adjustable auto-restart



Typical applications



Sample schematic



Value proposition

- › Input voltage at LIN, HIN, EN up to Vcc
- › Immunity against negative transient voltages, no latch up, down to **-50 V**
- › Integrated bootstrap diode (**40 Ω**) eliminates external bootstrap circuitry
- › Auto-restart after ITRIP with integrated current source
- › Pin compatible with various competitor products

CIPOS™ Nano product family

Products

PQFN package



Dimension [mm]	7x8	8x9	12x12
Configuration	Half-bridge	Half-bridge	3-phase
Voltage rating	40 V, 100 V	250 V, 500 V	250 V, 500 V
MOSFET $R_{DS(ON)}$ max.	4.5, 21 m Ω	0.15, 0.8, 1.7 Ω	0.45, 1.05, 1.7, 2.2, 4.0, 6.0 Ω

Features

- > Motor drive-optimized fast recovery FETs
- > Heat sink-less operation
- > Smallest modules on the market
- > Wide range of footprint compatible parts
- > Integrated bootstrap functionality
- > Overcurrent protection included in 12x12

Application

- > Split air conditioning systems fan drive
- > Circulation pumps
- > Ceiling & floor fans
- > Air purifiers
- > Small compressors
- > 10-150 W Motor drives



Customer benefits

- > Cost savings from smaller footprint and reduced PCB space
- > Easy implementation of 2 or 3-phase motor drives w/half-bridge IPMs
- > Half bridge config. enables more flexible board design w/better thermal performance
- > Same PCB footprint to address multiple application markets (100 V AC – 230 V AC)

Powered by ARM® Cortex®-M0

One platform, countless solutions



ARM® Cortex®-M0

- › Core up to 48 MHz/peripherals up to 96 MHz
- › Capture compare units (CCU4)
- › 2x serial channels
- › 12 Bit ADC
- › TA = -40°C to 105°C

XMC1100

up to 64 kB Flash
16 – 40 pins

- › 9ch LED control (BCCU)
- › 3 x analog comparators

XMC1200

up to 200 kB Flash
16 – 40 pins

- › Math co-processor
- › CCU8 PWM timer
- › Hall & encoder I/F

XMC1300


up to 200 kB Flash
16 – 40 pins

- › 2 x CAN
- › 2 x CCU8
- › Up to 4 serial channels

XMC1400

up to 200 kB Flash
40 – 64 pins

*All XMC™ devices have long product life cycle (confirmed at least until 2031)

 High volume production

TSSOP 16/28/38 – VQFN24/40/64 – TQFP64

Wide supply voltage range 1.8 V to 5.5 V

Secure boot loader – ensure IP protection

Application specific peripherals

MATH
co-processor

Event request unit
(ERU)

High performance
analog comparators

PWM timer for motor
control (CCU8)

LED brightness color
control unit

Powered by ARM® Cortex®-M4

One platform, countless solutions



ARM® Cortex®-M4 (with FPU)

- > CPU frequency up to 144 MHz
- > **High performance flash technology**
- > Timers CCU4, CCU8, POSIF
- > USB/ up to 3 x CAN/ up to 6x serial channels
- > Up to 4 x 12 Bit ADC/ 2 x DAC

XMC4100/4200 Up to 256 kB Flash / 40 kB RAM 48-64 pins	XMC4400 Up to 512 kB Flash / 80 kB RAM 64-100 pins <ul style="list-style-type: none"> > 120 MHz core > Ethernet > $\Delta\Sigma$ demodulator 	XMC4500 Up to 1 MB Flash / 160 kB RAM 100 – 144 pins <ul style="list-style-type: none"> > EBU > SD Card 	XMC4700 Up to 2 MB Flash / 352 kB RAM 100 – 196 pins <ul style="list-style-type: none"> > 144 MHz core > 6ch CAN 	XMC4800 Up to 2 MB Flash / 352 kB RAM 100 – 196 pins EtherCAT®
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*All XMC™ devices have long product life cycle (confirmed at least until 2031)

 High volume production

QFN 48 – 64-144 LQFP – 196 BGA

Long product life cycle (confirmed at least until 2031)

Extended temperature range – up to T_a 125°C + continues up time of 20 years @ T_j 110°C

Application specific peripherals

High resolution PWM

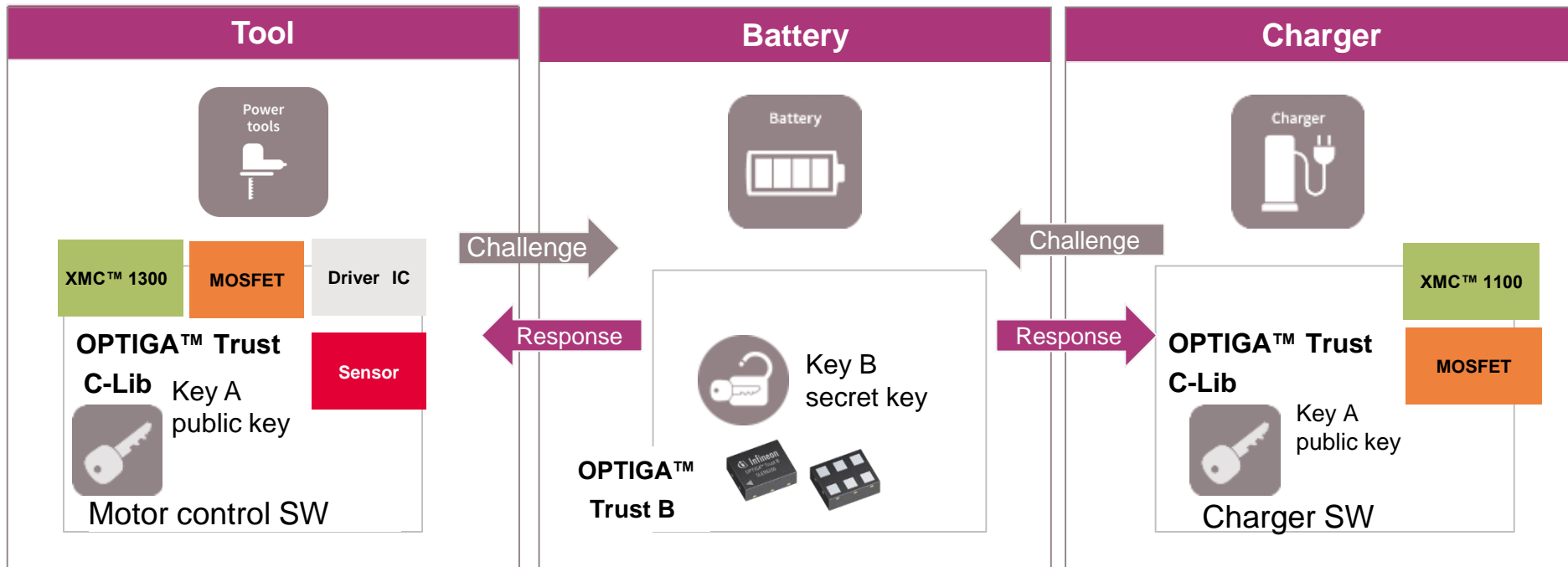
Event request unit
(ERU)

High-speed analog
comparators + slope
generation

Timer for inverter
control (CCU8)

Delta sigma
demodulator

XMC™ in combination with OPTIGA™ Trust



Key benefits of asymmetric OPTIGA™ Trust B based authentication vs. symmetric/asymmetric MCU based:

- > **XMC™ in combination with OPTIGA™ Trust can reduce R&D cost for implementation of authentication feature**
- > **OPTIGA™ Trust: highest security at lowest afford for implementation** (implantation within 1 day possible!)
- > **MCU: symmetric authentication - low implementation time, low security, asymmetric authentication - very high implementation affords (up to 6 months)**

OPTIGA™ Trust B secures battery authenticity

Clone/counterfeit batteries pose following challenges:

- › **Safety hazards**, both to end customers and appliance – non-OEM batteries can cause catastrophic damage and injury
- › **Counterfeit batteries** impairs application use case, lifecycles and overall OEMs supply chain
- › **Protects** end customers investment – unauthorized (counterfeit) batteries may be blocked for safety issues or suddenly fail during operation causing damage equipment and user
- › **Loss of brand equity** – press, social media, and blogs spread negative news faster than ever
- › High capacity, quick charging and wireless charging pose higher risks for **counterfeit battery accidents**

How Infineon support as business partner?

- › OPTIGA™ family solutions alleviates **above problems and ensures authorized battery ID and usage**
- › **Since 2010 > 1.1 billion IFX authentication products deployed in consumer market**
- › **In production** with #1 drone manufacturer since '15.
- › Customer Personalization in EAL5+ certified Fabs (Germany), "best-in-class" security



Infineon OPTIGA™ Trust B

ECC HW authentication for anti-counterfeit



Strong security

- › Elliptic curve cryptography (131 bit key)
- › Unique 96 bit identifier (UID)
- › Public key certified by ODC-163 based digital certificate
- › End of life security kill feature

Protected memory

- › 512 Bit USER Lockable user NVM
- › Integrated 32 Bit lifecycle counter
- › Auto-kill security feature for protected end of life

Easy to implement

- › Full Turnkey solution
- › Full host code provided
- › SWI interface
- › Temp: standard temp -40~+85°C / extended temp -40~+110°C

Applications: brand, device, object authentication/protection

Batteries; (laptop, camera, smartphone, tablet, drone, power tool, cables etc.).

Accessories; (power bank, memory boards, I/O cards, docking stations, headsets)

Disposables: (cartridges, water filter, medical, phone/tablet cases, consumer)



Product Details

Programing	Turnkey	Interface	SWI
OS	Turnkey	Interface speed	500kbps
Memory	512 Bit	Package	TSNP 6-9
Cryptography	ECC131	Size	1.5 x 1.1 mm

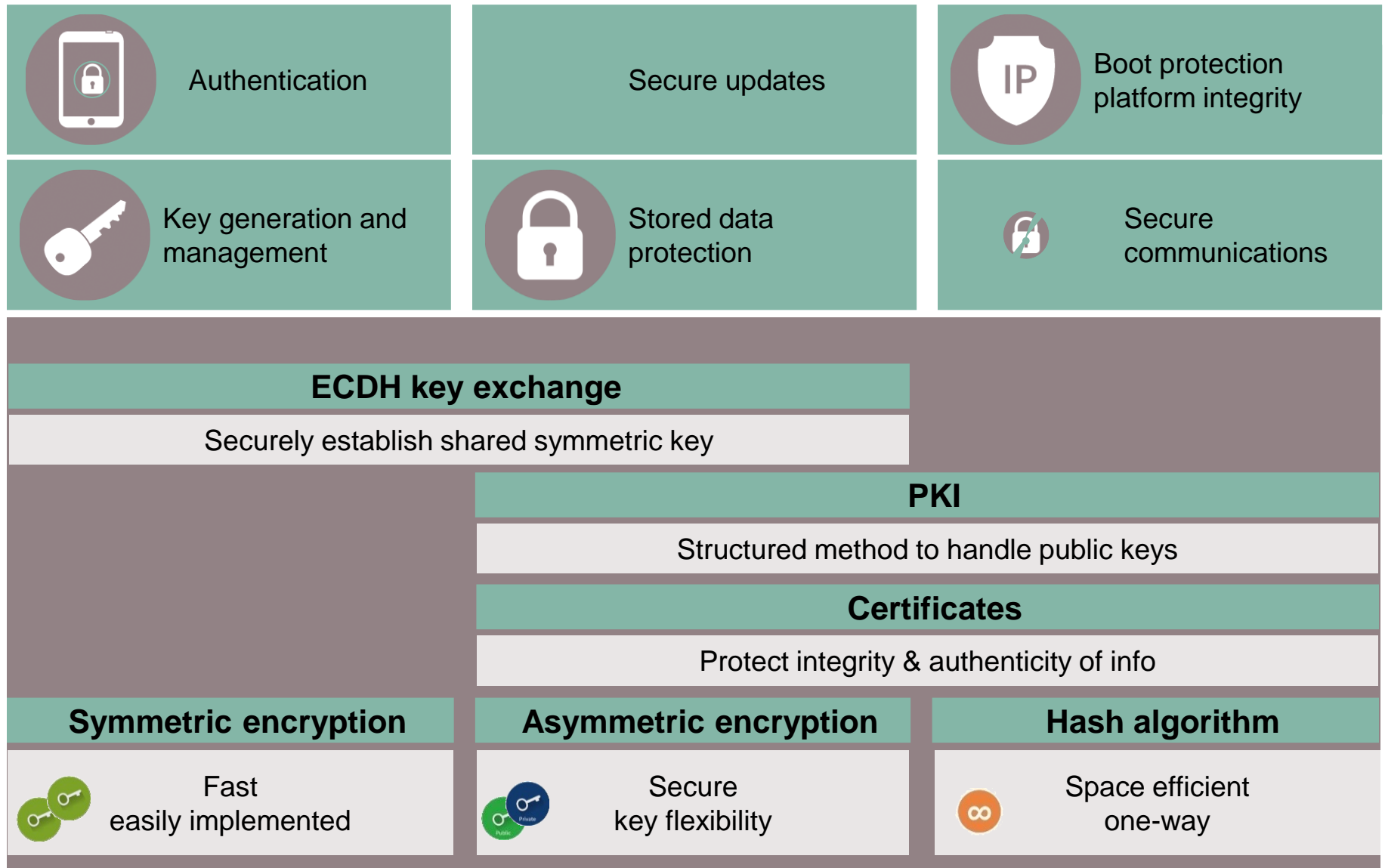
More info:

www.infineon.com/optiga-trust

Contact your local Infineon sales or technical representative for more information and support

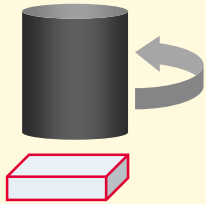
The OPTIGA™ building blocks

Providing security enablement



Infineon offers a broad portfolio of magnetic position sensors to fit all system layouts

Position sensors



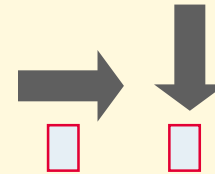
Absolute angle position (axial)



Absolute angle position (radial)



Incremental angular or linear displacement



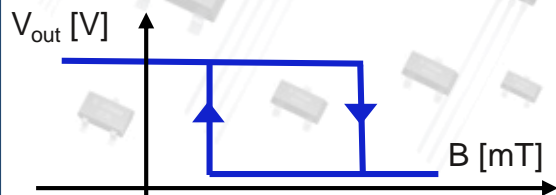
Absolute linear position



Motor commutation

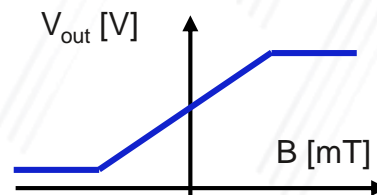
Hall switches

- > Extensive portfolio with different switching points and hysteresis
- > Small current consumption
- > Low and high voltage



Linear hall

- > Output signal directly proportional to the sensed magnetic field
- > Unique temperature and stress over lifetime compensation



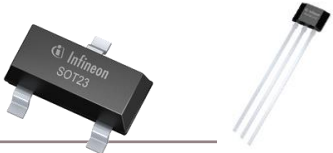

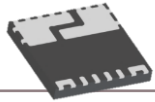
Angle sensors

- > Analog sensors with fast sine/cosine output
- > Digital sensors with multiple interfaces and configurable
- > High accuracy and resolution

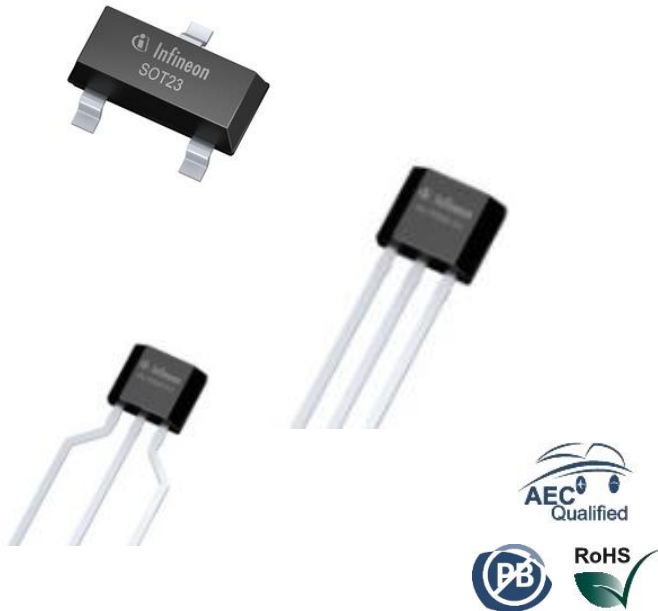
iGMR



Overview magnetic sensors

Position				Current
	Hall switch	Angle sensor	3D Hall	Current sensor
Features	<ul style="list-style-type: none"> > Halogene free SoT23/TO92 package > Lead package for BLDC applications > 1.6 mA current consumption > Overvoltage capability up to 42 V > 3 V to 32 V operating supply voltage > Integrated temperature compensation of magnet characteristics 	<ul style="list-style-type: none"> > PG-DSO-8 package > High accuracy, short delay times ideal for fast turning BLDC application > Signal output is independent from magnet field strength and temperature > On chip temperature compensation > Multiple interfaces (SPI, PWM, Incremental, Analog) 	<ul style="list-style-type: none"> > Min. power consumption: 7 nA > Temp-range: -40°C to +125°C > Max. magnetic field +/- 130 mT > Data resolution 12 bit > Interface: 1°C digital interface 	<ul style="list-style-type: none"> > Galvanic isolated > Easy to implement: package with integrated current rail > No hysteresis due to coreless concept > Inherent suppression of magnetic stray field > AC & DC range: ± 120 A > Overcurrent detection > No external components required
Benefits	<ul style="list-style-type: none"> > Small form factor package > Energy efficiency > ESD robustness > Compact system design > Reliable system operation > Design flexibility 	<ul style="list-style-type: none"> > Small form factor package > Full turn -360° resolution > Highest motor efficiency > Stable and reliable operation > Low BOM count 	<ul style="list-style-type: none"> > Small 6pin SMD package 	<ul style="list-style-type: none"> > Electronic torque & speed control > Remaining battery lifetime > Remaining charging time > Increased battery use cycles
Product	TLV/TLI496x Hall switches 	Angle sensor TLI5012B, TLE5501	3D Sensor TLI493D 	TLI4971 miniature magnetic current sensor 

Hall Switch: TLx496x– 3rd generation family offers low current consumption and large voltage operating range



Highlights

Family of **hall switches** and **latches** for energy and cost efficient systems

- › Dedicated products for **automotive, industrial** and **consumer** applications
- › Large range of **magnetic thresholds**
- › Standardized **lead**ed and **SMD** packages
 - Including smallest SMD package **SOT23**
- › **5 V family** for cost-effective systems
- › More than **40 products** available and continuous update of product portfolio

Technical features

- › 3.0 V to 32 V operating supply voltage
- › Operation from unregulated power supply
- › Overvoltage capability up to 42 V without external resistor
- › Output overcurrent & over temperature protection
- › Reverse polarity protection (-18 V)
- › Active error compensation
- › High stability of magnetic thresholds
- › Low jitter (typ. 0.35 µs)
- › High ESD performance (7 kV HBM)

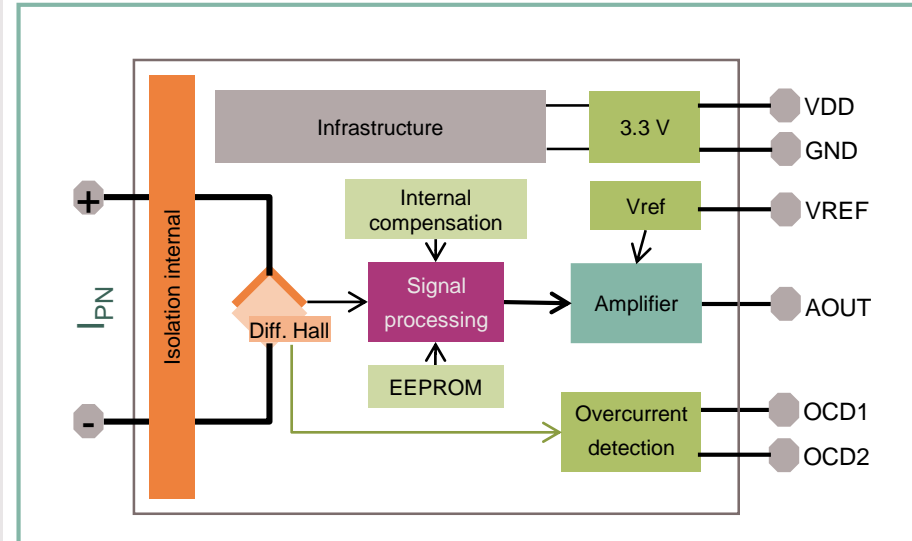
Current Sensor

TLI4971 - For industrial applications

Product characteristics

- › High precision, strayfield robust current sensor for bi-directional AC and DC measurements.
- › High accuracy over temperature and lifetime ($\leq 3\%$) due to internal compensation
- › Analog output with high bandwidth (120kHz) for fast response time
- › Two overcurrent detection outputs
- › Integrated primary conductor (current rail) with very low insertion resistance
- › Galvanic isolation due to contactless magnetic sensing principle
- › PG-TISON-8 with integrated rail for currents up to 120A

Block diagram



Package & Schedule

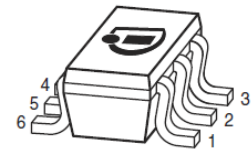
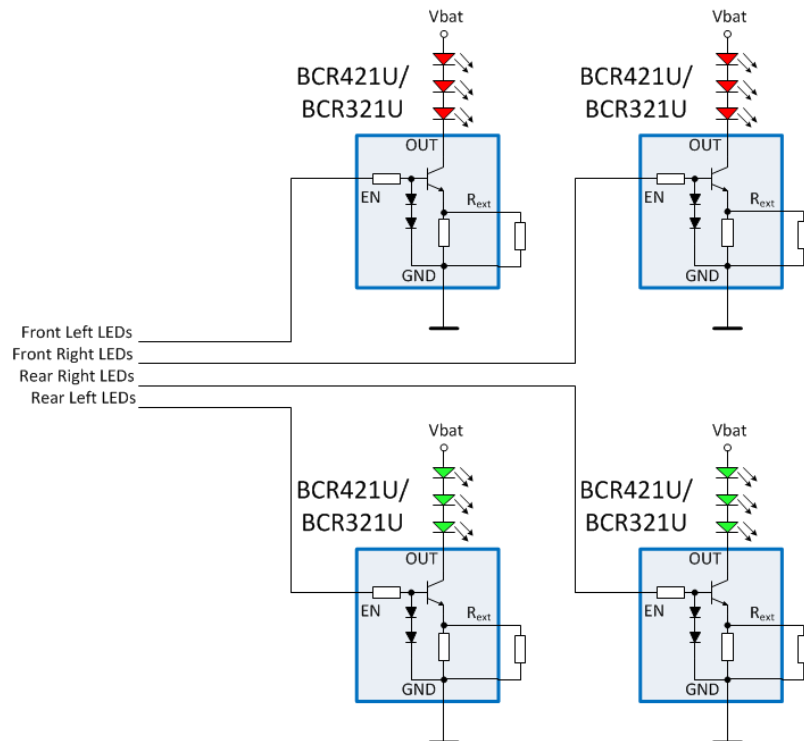
iCR: TLI4971



ES	available
QS	Q2/2019
SOP	Q3/2019

BCR421U and BCR321U for LED drive

- › BCR421U and BCR321U are constant current LED drivers that can sources up to 150 mA or 250 mA respectively
- › Enable (EN) input can also be used to dim via PWM
- › Comes in the SC-74 (2.9 mm x 2.5 mm x 1.1 mm) package



Advantage of liner LED drivers

- › No EMI concerns
- › PWM dimmable up to 10 kHz
- › Constant current over changing supply voltage

ESD102 series: smaller, stronger

ESD102 series offer:

- > BEST PROTECTION @ COMPETITIVE COST
- > Best ESD protection performance
- > Best signal integrity
- > Market leader for smallest packages



More information: www.infineon.com/esd
 ESD protection forum: www.infineon.com/esdforum

Focus protection solutions

General purpose

- > Interface protection
- > Key pad and display
- > Audio, speaker, headset

Low capacitance protection

- > Infineon is #1 in Si based RF antenna protection
- > High speed interfaces USB 3.0, thunderbolt, HDMI

Surge protection

- > Ethernet
- > Mid and high power protection

Customized interface IC

- > Infineon's ESD competency
- > Mixed signal expertise
- > Large ASIC IP portfolio
 - Multiplexer + levelshifter for Dual SIM
 - 15 kV onchip ESD hardness/ CMOS IC

Hipac

- > Highly integrated passive and active devices
- > ESD/ EMI protection with best system performance and reduced cost by integration
- > WLB package

Barometric pressure sensors help compensate for ambient pressure changes in ventilators



Small size



Low energy consumption



Excellent temperature stability



High sensitivity



Robustness



High precision vs. low power consumption

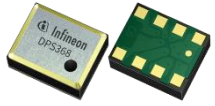
Waterproof: Fully functional 50 m under water for 1 hour (IPX8)
Protection against water, dust and humidity

Integrated absolute temperature sensor
Suited for thermostats and weather stations

- Compensate ambient pressure
- Breath inhalation monitoring
- Flowrate control of air volume

- Control CO₂ exchange
- Cough detection
- Mask fall-off detection

DPS368 offers robustness, highest precision, low power consumption & temp stability in a small package



Key features DPS368

Key value



Robustness

DPS368 is robust against water (IPx8)¹, dust & humidity

Easy operation in **harsh environment**



Small size

2x2.5x1.1 mm
→ smallest IPx8 (50 m) certified pressure sensor

Space-saving integration into device



High sensitivity

Precision: ± 0.002 hPa (2cm)
Rel. accuracy: ± 0.06 hPa
Abs. accuracy: ± 1.0 hPa
Fast read-out of pressure change

Precise detection of altitude, activity, air volume, etc.



Excellent temperature stability

Pressure temperature sensitivity: 0.005 hPa / K
No hysteresis

No drift over wide temperature range



Low energy consumption

Peak current: 345 μ A (pressure measurement)
Standby: 0.5 μ A
(configurable for different use cases)

Increased **battery lifetime**

1. Pressure sensor fully functional after 50 m under water for 1 hour

Robustness operation against vibration noise

Noise generated by low-frequency disturbers such as motors or turbines in ventilators can disturb the readings of pressure sensors

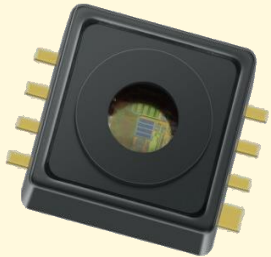


Infineon's smaller and thinner capacitive sensing membranes have high resonance frequencies in MHz range and quick settling times after external shock events, which **eliminates the risk for vibrational cross talk**

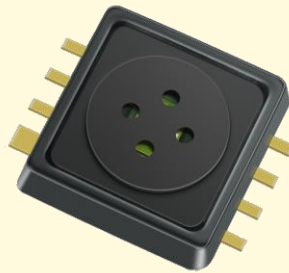
No stress decoupling needed between low-frequency noise source and sensor (pressure sensor and motor control can be soldered in the same board)

KP25x and KP26x BAP sensors offer a robust, reliable and high level of quality to measure pressure

KP25x series



KP264



Technical differences

- › Change of lid hole diameter from 2.5mm to 0.6mm
- › Change of number of lid holes from 1 to 4



ISO 26262
ready

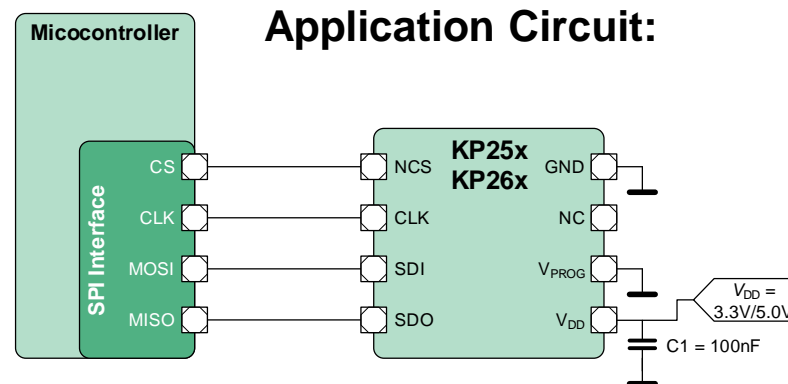
Highlights

- › Pressure range from **10 to 165kPa**
- › **High accuracy of up to $\pm 1.0\text{kPa}$** over a **large temperature range** ($-40..125^{\circ}\text{C}$)
- › **Ratiometric analog voltage output** and **OBD functionality** (Broken wire detection)
- › **Digital 10bit & 12bit** SPI interface for μC
 - › **Integrated temperature sensor**
 - › **Self diagnosis** capability
 - › **Power down** mode (current saving)
- › **ISO26262 Ready** to be used in ASIL-B system Automotive qualified (AEC-Q100)
- › Dimensions: 8,6 x 7 x 2,8mm

Product Information

- › SMD package (DSOF, 8 pin)
- › Tape & reel
- › In production

Several products are available depending on the pressure required





Part of your life. Part of tomorrow.