

ATV AC4P

Automotive Application Compass 4 Products



June 2020



Automotive Applications Product Families



	Body	Chassis	Infotainment	Powertrain	Safety
OPTIREG™ PMIC				✓	✓
OPTIREG™ Switcher	✓		✓	✓	✓
OPTIREG™ Linear	✓	✓	✓	✓	✓
System Basis Chip (SBC)	✓	✓		✓	✓
LITIX™ LED Driver IC	✓				✓
AURIX™ Microcontroller	✓	✓	✓	✓	✓
Embedded Power SoC	✓			✓	
XENSIV™ Sensors	✓	✓	✓	✓	✓
OptiMOS™ MOSFETs	✓	✓	✓	✓	✓
Transceiver CAN/LIN/FlexRay™	✓	✓	✓	✓	✓
PROFET™ High Side Switch	✓	✓	✓	✓	✓
HITFET™ Low Side Switch	✓	✓	✓	✓	✓
3-Phase Gate Driver IC	✓	✓		✓	✓

Automotive Applications

Segment - **Body**



	Body				
Body Control & Multiplexing	Body Control Module	Body Domain Control	Gateway		
Dashboard	Cluster				
Lighting	Exterior Front Lighting	Exterior Rear Lighting	In-Cabin Lighting		
Power Distribution	12V DCDC Converter	48V DCDC Converter	48V Power Distribution	Battery Switch	DCAC (in vehicle power outlet)
	HV-12V DCDC Converter	Power Distribution Box	Pre Fuse Box		
Power Operated Systems	Cabin Heating	Door Module	eShifter	HV HVAC Compressor	HVAC Blower
	HVAC Module Flap / Valve Control	Mirror Controls & Rear View Systems	Power Doors / -Lift Gate / -Rooftop	Seat Heating / Cool / Vent	Seat Movement & Massage
	Steering Column Lock / Telescope	Sunroof / Window Lift	Switch Panel & Steering Wheel Control	Wiper	
Security Systems	Access Control	Alarm & Immobilizer			

Automotive Applications

Segment - Chassis & Infotainment



	Chassis				
ABS / Braking	ABS	Brake By Wire	Elec Brake Booster	Parking Brake	Veh Stability Control
Chassis Control	Chassis Domain Control				
Steering	Elec Power Steering	Elec Hydr Power Steering	Steer By Wire		
Suspension	Suspension				

	Infotainment				
Connectivity	eCall	In-Vehicle-Wireless-Charging	Telematics	V2V / V2I / V2X	
Infotainment	HUD	Multimedia	Navigation Systems	Sound & Noise Management	USB Charging
	Voice & Gesture Recognition				

Automotive Applications Segment - Powertrain



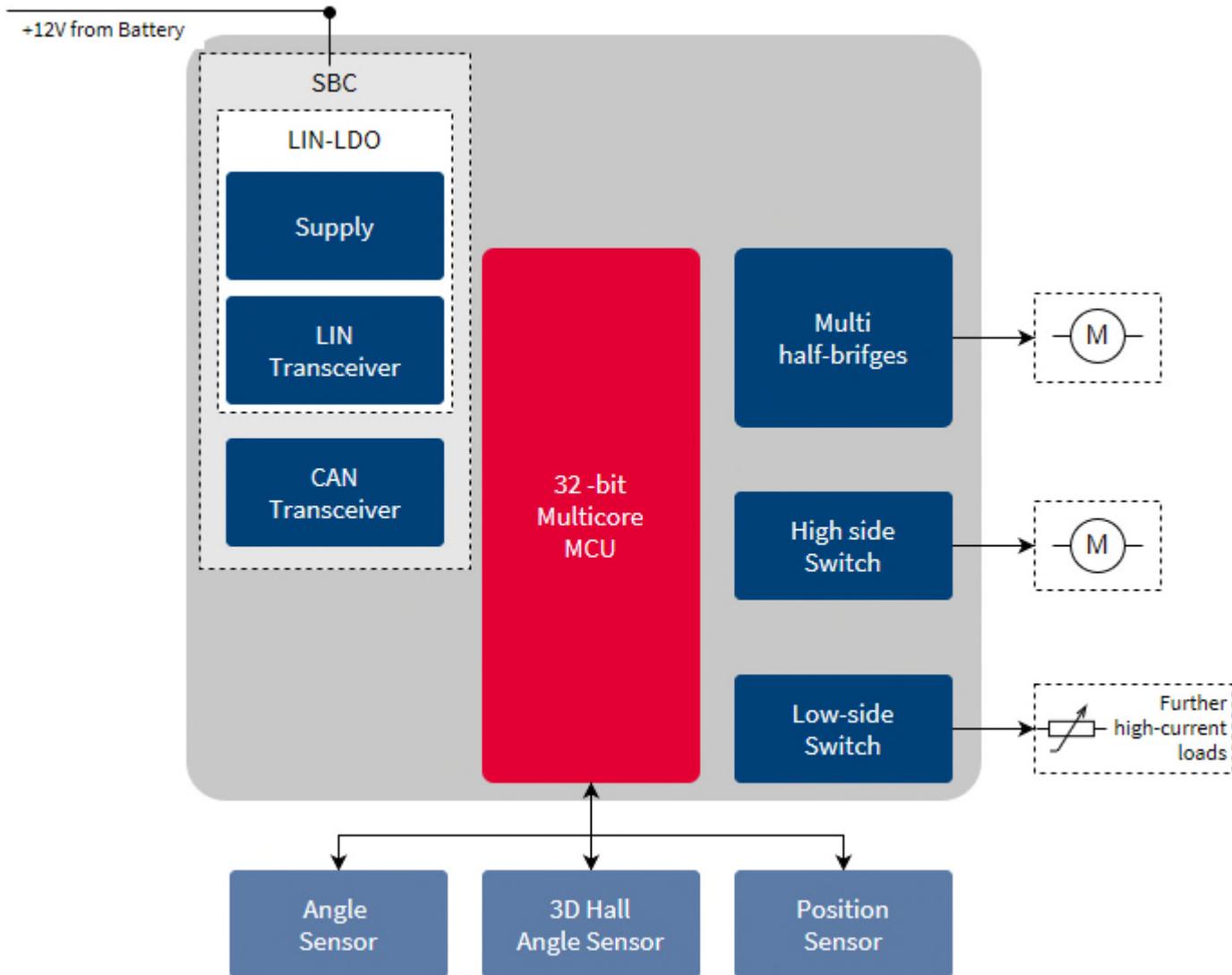
	Powertrain				
Electric Drive Train	48V Auxiliaries	48V Battery & Cell Management	48V Starter Generator	HV Battery & Cell Management	HV Battery Disconnect Unit
	HV Battery Cooling Compressor	HV Cooling Fan	HV e-Turbocharger	HV Oil Pump	HV Water Pump
	HV-HV DCDC Converter	Main Inverter Battery EV	Main Inverter Fuel Cell	Main Inverter Full-Hybrid	Main Inverter Mild Hybrid
	Main Inverter Plug-In Hybrid	On-Board Charger	Power Management ECU		
Engine	12V Alternator	12V Starter Generator	After Treatment	Colling Fan	Diesel Injection
	Gasoline Direct Injection	Gasoline Port Injection	Ignition (Light Vehicle)	Motorcycle CDI	Motorcycle EFI
	Oil Pump	Other Fuel / Gases	Smart Tank	Throttle / Pedal Control	Turbo Charger
	Variable Valve Timing	Water Pump			
Fuel Supply	Fuel Pump				
Powertrain	Powertrain Domain Control				
Transmission	4WD Transercase	Cont.-Var Transmission	Dedicated Hybrid Transmission	Duel-Clutch Transmission	el. Controlled Auto Transmission
	Hybrid Cont.-Var Transmission	Hybrid Dual-Clutch Transmission	Hybrid el. Controlled Auto Transmission	Manual Transmission	

Automotive Applications

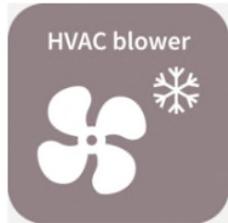
Segment - **Safety**



	Safety				
ADAS Automated Driving	Adaptive Cruise Control	Auto Emergency Brake	Auto Emergency Steering	Automated Parking	Blind Spot Detection
	Driver Monitoring	Highway Assist Chauffeur	In-Seat Passenger Monitoring	Lane Departure Warning	Night Vision
	Parking Aid	Pedestrian Protection	Sensor Fusion / Domain control		
Airbag Passive Restraint	Airbag ECU	Airbag Front	Airbag Side	Airbag Others	Occupant Position Sensing
	Belt Pretension				
TPMS	TPMS				



ATV Body: HVAC OPTIREG™ Linear



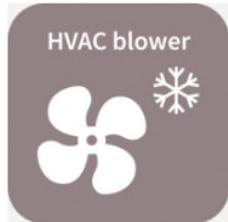
Application Requirements	Infineon's Value proposition	Customer benefits
High current up to 500 mA	Cranking, low drop out high power packages	Flexibility & family approach
Reset & watchdog	Digital, flexible reset & watchdog	Less ext. components, compact board design



Featured product	Description	V _{inmax}	Package
TLS850F0*	V _{out} 3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA, Enable, Adjustable Reset, Current activated watchdog	40	D ² PAK
TLS850D0*	V _{out} =3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA Enable, Adjustable Reset	40	D ² PAK DPAK
TLS850B0* (NEW!)	V _{out} =3.3V and 5 V, Quiescent Current=20μA, I _Q =500 mA, 100 mV @ 100 mA Enable	40	D ² PAK DPAK
TLS835D2* (NEW!)	V _{out} = Selectable 3.3V and 5 V, Quiescent Current=20μA, I _Q =350 mA, Enable and Adjustable Reset	40	SSOP14
TLS820F0*	V _{out} =5 V, I _Q =200 mA, 70 mV @ 100 mA, Enable, Adjustable Reset, Current activated watchdog	40	SSOP14
TLS105B0 (NEW!)	Voltage Tracker – Sensor supply. I _Q =50 mA, Short circuit to battery protected, Reverse polarity protected, Current limitation. ± 0.1% tracking accuracy	45	SCT595-5

* Further product family members available

ATV Body: HVAC OPTIREG™ Switcher

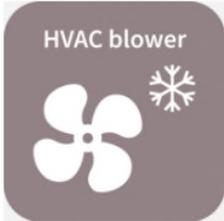


Application Requirements	Infineon's Value proposition	Customer benefits
High current up to 2 A	Wide portfolio	Flexibility & family approach
Reset & watchdog	Flexible reset adjust threshold	Freedom in μC selection



Featured product	Description	V_{inmax}	Package
TLF50281EL	Asynchronous step down converter, 5 V/500 mA; $I_q < 45 \mu\text{A}$; $f = 2,2 \text{ MHz}$; 100% duty cycle, features: EN, RES, WD	40	SSOP14
TLF50251EL	Asynchronous step down converter, 5 V/500 mA; $I_q < 45 \mu\text{A}$; $f = 2,2 \text{ MHz}$; 100% duty cycle, features: EN, RES	40	SSOP14
TLE8366EV	Asynchronous buck; ADJ/1.8 A; 100% duty cycle; features: EN, RES	40	DSO8-EP

ATV Body: HVAC Network ICs



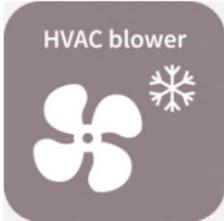
Application Requirements	Infineon's Value proposition	Customer benefits
Small PCB design	Tiny packages	Compact board design
Battery wake-up capability	14-pin HS CAN bus wake-up	Reducing system current consumption
Communication	Wide portfolio	Flexibility & family approach



Featured product	Description	Package
TLE9252VSK TLE9252VLC	14-pin CAN FD 5MBit/sec Transceiver with bus wake up capability	DSO-14 TSON-14
TLE7259-3GE TLE7259-3LE	High-End LIN Transceiver	DSO-8 TSON-8
TLE7257SJ TLE7258SJ	Basic LIN Transceiver	DSO-8
TLE7268SK TLE7268LC	DUAL LIN Transceiver	DSO-14 TSON-14

ATV Body: HVAC

System ICs – System Basis Chips



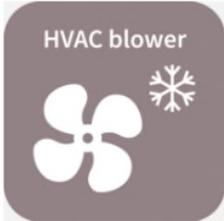
Application Requirements	Infineon's Value proposition	Customer benefits
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication
Small PCB design	Integrated SBC solution	Less external components, space savings & less BOM



Featured product	Description	Package
TLE9461-3ES* (NEW!) TLE9461-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=150mA$ (LDO) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply, $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=500mA$ (DC/DC converter) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9262-3BQX* TLE9262-3BQX V33*	$V_{OUT1} = 3.3V$ or $5V$, $I_O=250mA$ (LDO) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu A$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48

* Further product family members available

ATV Body: HVAC Automotive MOSFETs



Application Requirements	Infineon's Value proposition	Customer benefits
Low-mid $R_{DS(ON)}$	Wide package selection	Second source potential
Up to 100 A of current	Robust technologies	High performance HVAC module
40/60 V	Superior quality	Long product lifetime



Featured product	Description	Package
IAUC120N04S6L008 * (NEW!)	$V_{DS}=40V$, $R_{DS(ON)}=0.8\text{ m}\Omega$, $I_D=120\text{ A}$, $Q_G=88\text{ nC}$, N-channel, logic-level device	PG-TDSON-8
IPB80N04S2-04	$V_{DS}=40V$, $R_{DS(ON)}=3.4\text{ m}\Omega$, $I_D=80\text{ A}$, $Q_G=127\text{ nC}$, N-channel, normal-level device	TO-263

* Further product family members available

ATV Body: HVAC compressor 48 V

3-Phase Gate Driver IC

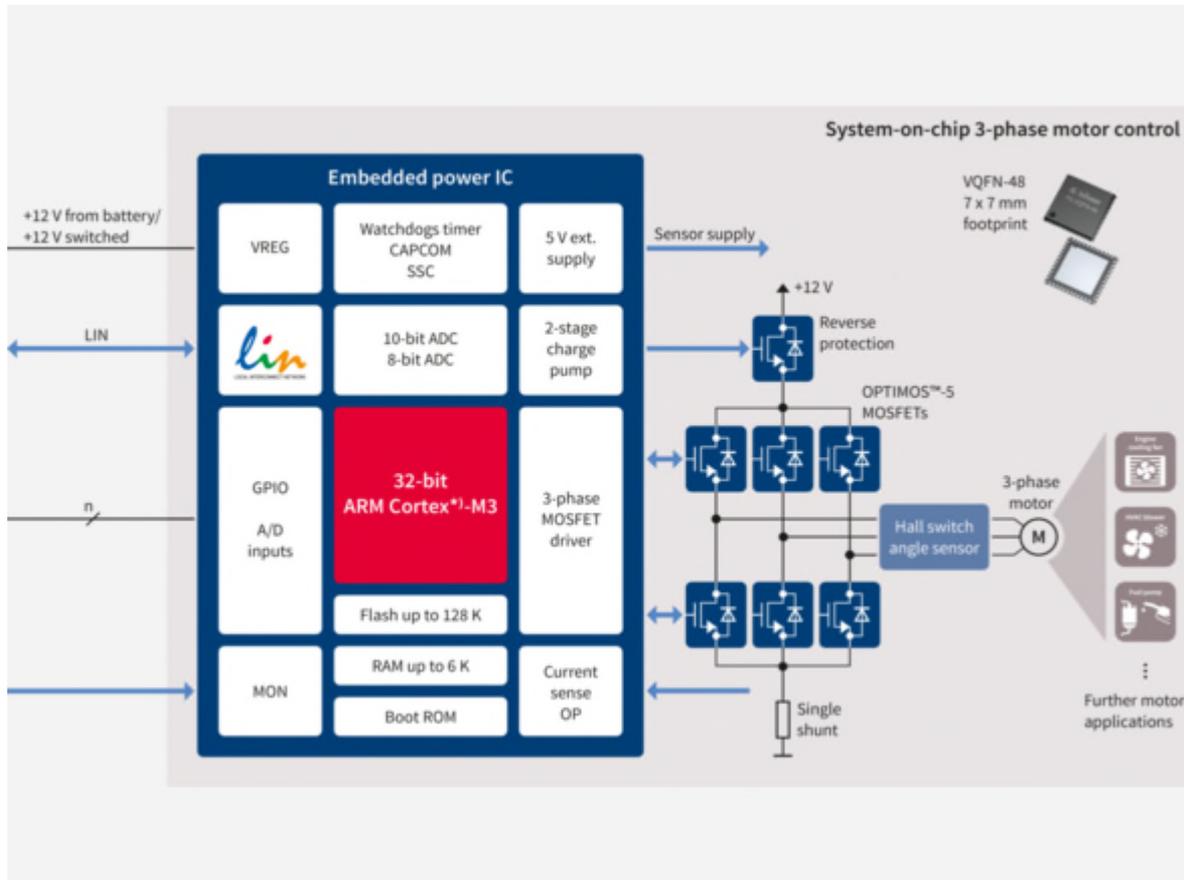


Application Requirements	Infineon's Value proposition	Customer benefits
High voltage rating	Motor pins rated -15 V to 90 V	Highly robust against voltage transients
Product performance	High power gate driver stage with typ. 2 A output current	Strong enough to driver BLDC motors of several kW
Detailed diagnostics and protections incl. limp home mode	Supports usage in safety relevant use cases	Increased system availability



Featured product	Description	Package
TLE9180D-21QK	3-hase gate driver IC with 2 current sense amplifier, supply range from 5.5 V – 60V, driver stage with typ. 2A output current, 0 – 100% duty cycle, extended protection & supervision	LQFP-64
TLE9180D-31QK	3-hase gate driver IC with 3 current sense amplifier, supply range from 5.5 V – 60V, driver stage with typ. 2A output current, 0 – 100% duty cycle, extended protection & supervision	LQFP-64

ATV Body: Fans, Pumps, Blower



ATV Body: Fans, Pumps, Blower Embedded Power – SoC



Pumps



Application Requirements	Infineon's Value proposition	Customer benefits
Cranking pulse, Low supply	low VS operation, down to 3V low VSD operation, down to 5.4V	Less external components, space savings & less BOM
high ECU internal temperatures	Temperature Tj up to 175°C	Robust design, less wiring, PCB can be placed close to engine
Arm® Cortex® M3 with up to 40MHz core frequency	Sensorless FOC supported <50µs cycle time	Fast start-up

Featured product	Description	Package
TLE9845QX	Arm® Cortex® M0 32-bit µC, 40 MHz, 48 kB Flash, Driver Stage Half-Bridge / PN FET, LIN interface	VQFN-48-31
TLE9851QXW	Arm® Cortex® M0 32-bit µC, 40 MHz, 64 kB Flash, Driver Stage Half-Bridge / NN FET	VQFN-48-29
TLE986x	Arm® Cortex® M3 32-bit µC, 24/40 MHz, 36-128 kB Flash, Driver Stage Half-Bridge / N FET, PWN & LIN interface, Grade-0 or Grade-1	VQFN-48-31/-29
TLE987x	Arm® Cortex® M3 32-bit µC, 24/40 MHz, 36-128 kB Flash, Driver Stage B6-Bridge / N FET, PWN & LIN interface, Grade-0 or Grade-1	VQFN-48-31/-29

ATV Body: Fans, Pumps, Blower

3-Phase Gate Driver IC



Application Requirements	Infineon's Value proposition	Customer benefits
Versatile use	Wide input voltage range to operate at 12 V – 48 V	Enabling of platform concepts with simplified variant handling
Product performance	Smooth operation from 0...100% duty cycle	Full usage of the BLDC motor without any restrictions
Detailed diagnostics and protections incl limp home mode	Supports usage in safety relevant use cases	Increased system availability

Featured product	Description	Package
TLE9180D-21QK	3-phase gate driver IC with 2 current sense amplifier, supply range from 5.5 V – 60V, driver stage with typ. 2A output current, 0 – 100% duty cycle, extended protection & supervision	LQFP-64
TLE9180D-31QK	3-phase gate driver IC with 3 current sense amplifier, supply range from 5.5 V – 60V, driver stage with typ. 2A output current, 0 – 100% duty cycle, extended protection & supervision	LQFP-64

ATV Body: Wiper Embedded Power – SoC



Application Requirements	Infineon's Value proposition	Customer benefits
wiper angle precision, 1°	TMR/GMT + 14bit SDADC GMR + SPI	Less external components, space savings & less BOM
Increased memory demand	Scalability › 36KB..256KB Flash › 3KB..8KB SRAM	Flexibility & family approach
Cranking pulse	low VS operation, down to 3V low VSD operation, down to 5.4V	Less external components, space savings & less BOM

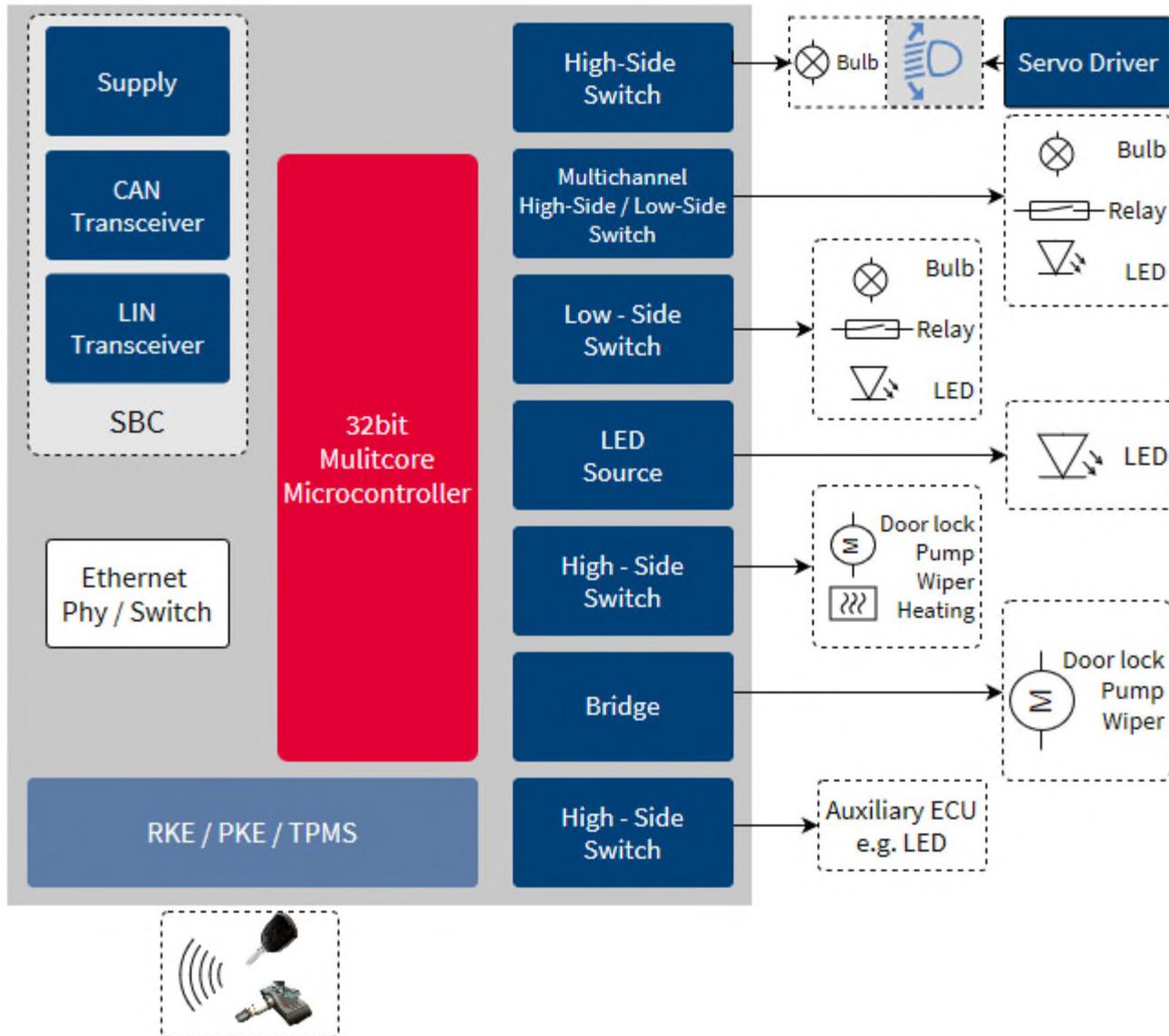
Featured product	Description	Package
TLE986x	Arm® Cortex® M3 32-bit µC, 24/40 MHz, 36-128 kB Flash, Driver Stage Half-Bridge / N FET, PWN & LIN interface, Grade-0 or Grade-1	VQFN-48-31
TLE9879-2QXA40	Arm® Cortex® M3 32-bit µC, 24/40 MHz, 128 kB Flash, Driver Stage B6-Bridge / N FET, PWN & LIN interface, Grade-1, 2 x 14-bit SD-ADC	VQFN-48-31

ATV Body: Window Lift, Sunroof, Embedded Power – SoC



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current for parked car	Supply with stop and sleep mode; Wake via LIN and MON Cyclic wake	Energy efficiency, CO2 savings
External switch monitoring	HV monitoring inputs with ESD protection Power saving modes	Flexibility & family approach
Hall sensor IF for anti-pinch	Protected 40mA output (TLE985x)	Less external components, space savings & less BOM

Featured product	Description	Package
TLE9842x	Arm® Cortex® M0 32-bit μC, 25/40 MHz, 36-40 kB Flash, Driver Stage Relay, LIN interface	VQFN-48-31
TLE9843x	Arm® Cortex® M0 32-bit μC, 25/40 MHz, 48-52 kB Flash, Driver Stage Relay, LIN interface	VQFN-48-31
TLE9844x	Arm® Cortex® M0 32-bit μC, 25/40 MHz, 64 kB Flash, Driver Stage Relay, LIN interface	VQFN-48-31
TLE985x	Arm® Cortex® M0 32-bit μC, 40 MHz, 48-96 kB Flash, Driver Stage Half-Bridge / N FET	VQFN-48-31



ATV Body: BCM OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 5 μ A	Meeting the ECU level current consumption
High current up to 500 mA	Cranking, low drop out, high power packages	Flexibility & family approach
Reset & Watchdog	Digital, flexible reset & watchdog	Less external components, space savings & less BOM



Featured product	Description	V_{inmax}	Package
TLE4678-2LD	$V_{out}=5$ V, $I_Q=180$ mA/200 mA adj. reset, load dependent watchdog, reverse polarity protection	45	SSOP14 TSON10
TLS810D1*	$V_{out}= 3.3V, 5$ V and Adjustable, Quiescent Current= 9μ A, $I_Q=100$ mA, Enable, Reset	42	DSO8-EP TSON10
TLS820F0*	$V_{out}= 3.3V$ and 5 V, 70 mV @ 100 mA, $I_Q=100$ mA, Enable, Reset, Watchdog	40	SSOP14
TLS835D2* (NEW!)	$V_{out}=$ Selectable 3.3V and 5 V, Quiescent Current= 20μ A, $I_Q=350$ mA, Enable and Reset	40	SSOP14
TLS850B0* (NEW!)	$V_{out}= 3.3V$ and 5 V, Quiescent Current= 20μ A, $I_Q=500$ mA, Enable	40	DPAK D ² PAK
TLS850F0*	V_{out} 3.3V, 5V, $I_Q=500$ mA, 70 mV @ 100 mA enable, adj. reset, current activated watchdog	40	D ² PAK

* Further product family members available

ATV Body: BCM OPTIREG™ Switcher



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 45 μ A	Meeting the ECU level current consumption
High current up to 500 mA	Cranking, low drop out, high power packages	Flexibility & family approach
Reset & Watchdog	Digital, flexible reset & watchdog	Less external components, space savings & less BOM



Featured product	Description	V _{inmax}	Package
TLF50281EL	Asynchronous low-Iq-buck; 5 V/500 mA; Iq<45 μ A; f=2,2 MHz; 100% DC; features: EN, RES, WD	40	SSOP14
TLF50251EL	Asynchronous low-Iq-buck; 5 V/500 mA; Iq<45 μ A; f=2,2 MHz; 100% DC; features: EN, RES	40	SSOP14
TLF50211EL	Asynchronous low-Iq-buck; 5 V/500 mA; Iq<45 μ A; f=2,2 MHz; 100% DC; features: EN	40	SSOP14
TLE8386-2EL	Smart step-up controller for start-stop applications	40	SSOP14

ATV Body: BCM Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 MBit/s bandwidth	Faster & robust communication
Ease of use	Worldwide OEM approval	Function- & pin-compatible to devices on the market
Efficiency	Wake-up receiver supplied by V_{IO} pin	Lowest quiescent current in sleep-mode



Featured product	Description	Package
TLE9250VSJ TLE9250VLE	CAN FD 5MBit/s Transceiver without bus wake and V_{IO} (3.3V & 5V interface)	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14
TLE7258SJ TLE7258LE	Basic LIN Transceiver	DSO-8 TSON-8
TLE7268SK TLE7268LC	DUAL LIN Transceiver	DSO-14 TSON-14

ATV Body: BCM

System ICs – System Basis Chips



Application Requirements	Infineon's Value proposition	Customer benefits
Limited quiescent current budget	$I_q < 20\mu\text{A}$ in sleep mode (whole SBC)	Flexibility in further component selection
High speed communication	Up to 5 MBit/s CAN FD	Flexibility & family approach
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market



Featured product	Description	Package
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3\text{V}$ or 5V , $I_O=500\text{mA}$ (DC/DC converter) $V_{OUT2} = 5\text{V}$, $I_O=100\text{mA}$ for protected on-/off-board supply $I_q < 20\mu\text{A}$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9263-3BQX* TLE9263-3BQX V33*	$V_{OUT1} = 3.3\text{V}$ or 5V , $I_O=250\text{mA}$ (LDO) $V_{OUT2} = 5\text{V}$, $I_O=100\text{mA}$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu\text{A}$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48
TLE9271QX* TLE9271QX V33*	Boost pre-regulator $V_{OUT1} = 3.3\text{V}$ or 5V , $I_O=750\text{mA}$ (DCDC converter) $V_{OUT2} = 5\text{V}$, $I_O=100\text{mA}$ for protected on-/off-board supply $I_q < 35\mu\text{A}$, CAN FD 5MBit/s, CAN PN, 2-4 LIN	VQFN-48

* Further product family members available

ATV Body: Dashboard - Car

OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Ultra-Low quiescent current	Down to 20 μ A	Meeting the ECU level current consumption
High current	Pre-regulator up to 500 mA	Stability in cranking, low $R_{DS(on)}$
Multiple power rails (5 V, 3.3 V, 2.5 V, etc.)	Complete portfolio, packages & power ranges	One stop shop

Featured product	Description	V_{inmax}	Package
TLS850D0*	V_{out} 3.3V, 5V, $I_Q=500$ mA, 70 mV @ 100 mA, Enable, Adj. Reset, Current activated watchdog	40	D ² PAK DPAK
TLS850B0* (NEW!)	$V_{out}=$ 3.3V and 5 V, Quiescent Current=20 μ A, $I_Q=500$ mA, Enable	40	DPAK D ² PAK
TLS835D2* (NEW!)	$V_{out}=$ Selectable 3.3V and 5 V, Quiescent Current=20 μ A, $I_Q=350$ mA, Enable and Reset	40	SSOP14
TLS208D1*	$V_{out}=$ Adjustable and 3.3V, $I_Q=800$ mA, Enable and Reset, PSRR 62 dB and Ultra low noise	20	TSON10 DSO8-EP
TLS205B0*	$V_{out}=$ 3.3V, 5V and Adjustable, $I_Q=500$ mA, Enable, 24 μ V _{RMS} Ultra low noise	20	TSON10 DSO8-EP
TLS202B1* (NEW!)	$V_{out}=$ Adjustable, 3.3V and 5V, $I_Q=150$ mA, Enable	20	SCT595-5

* Further product family members available

ATV Body: Dashboard - Two Wheeler

OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 40 μ A	Meeting the ECU level current consumption
High current	Pre-regulator up to 500 mA	Stability in cranking, low $R_{DS(on)}$



Featured product	Description	V_{inmax}	Package
TLF80511x	$V_{out}=5$ V, $I_Q=400$ mA, 38 μ A Available in 3.3 V version	40	D ² PAK DPAK DSO8
TLS850D0*	V_{out} 3.3V, 5V, $I_Q=500$ mA, 70 mV @ 100 mA, Enable, Adj. Reset, Current activated watchdog	40	D ² PAK DPAK
TLS850B0* (NEW!)	$V_{out}=$ 3.3V and 5 V, Quiescent Current=20 μ A, $I_Q=500$ mA, Enable	40	DPAK D ² PAK
TLE42754D	$V_{out}=5$ V, $I_Q=450$ mA, reset, D ² PAK	40	D ² PAK DPAK SSOP14
TLS710B0EJ V50	$V_{out}=5$ V, $I_Q=100$ mA, 40 μ A fits for 2wheelen dashboard	40	DSO8-EP
TLS715B0EJ V50	$V_{out}=5$ V, $I_Q=150$ mA, 40 μ A fits for 2wheelen dashboard	40	DSO8-EP

ATV Body: Dashboard OPTIREG™ Switcher



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 45 μ A	Meeting the ECU level current consumption
High current	Pre-regulator up to 10A	Stability in cranking, low $R_{DS(on)}$
Multiple power rails (5 V, 3.3 V, 2,5 V, etc.)	Complete portfolio, packages & power ranges	One stop shop



Featured product	Description	V_{inmax}	Package
TLF51801ELV	Synchronous buck controller up-to 10 A ; features: EN, RES, WD fits for high end / full display dashboard or general high power	40	SSOP14
TLF50281EL	Asynchronous low-Iq-buck; 5 V/ 500 mA ; Iq<45 μ A; f=2,2 MHz; 100% DC; features: EN, RES, WD	40	SSOP14
TLE8366EVx	Asynchronous buck; ADJ/1.8 A; 100% duty cycle; features: EN	40	DSO8-EP

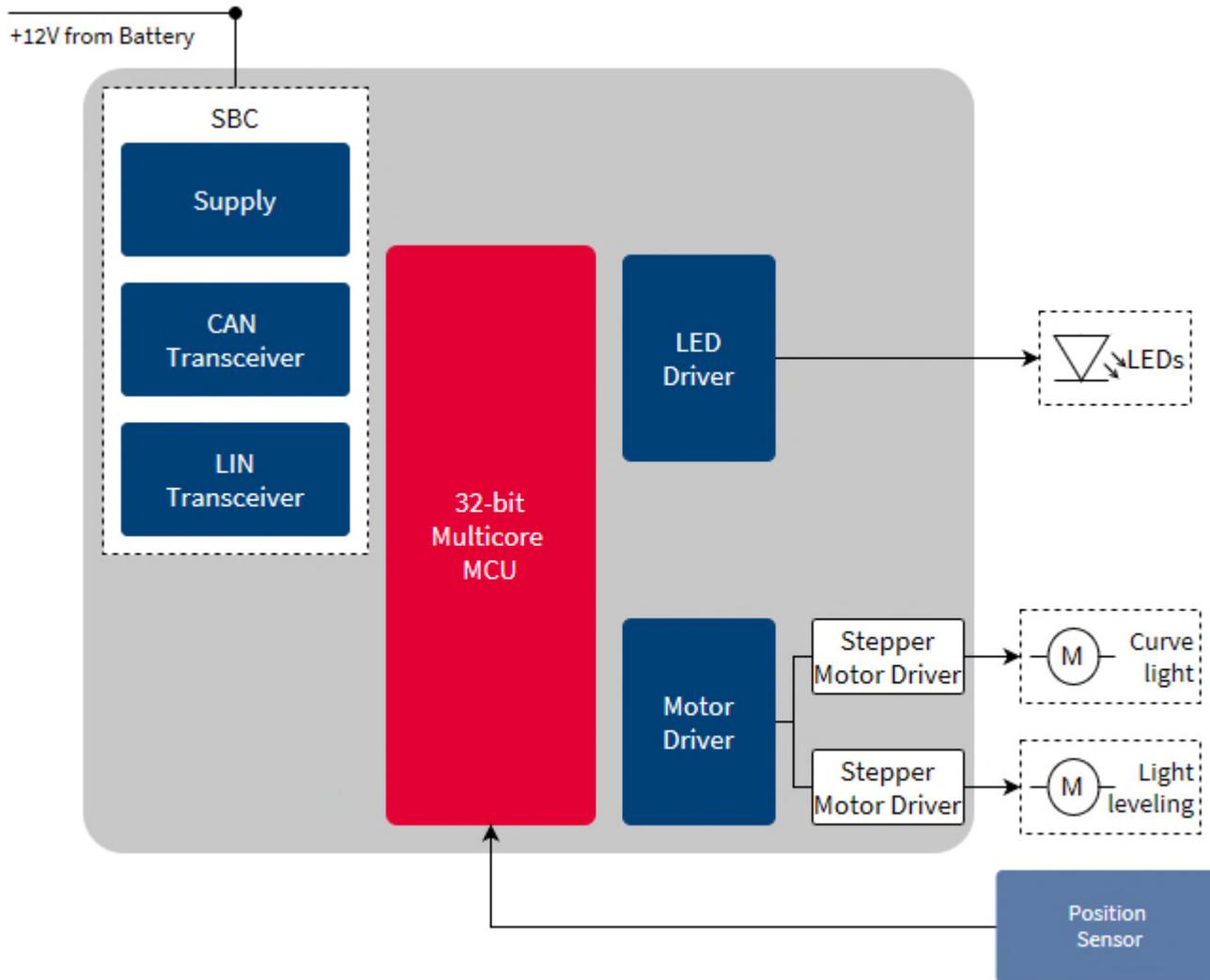
ATV Body: Dashboard Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
Efficiency	Wake up receiver supplied by V_{IO} pin	Lowest quiescent current in sleep-mode
Technology	Bus wake-up and 14-pin HS CAN	Sleep mode with remote wake-up function
Flexibility	Up to 2 MBit/s bandwidth	Large CAN networks, high data transmission rates



Featured product	Description	Package
TLE9252VSK TLE9252VLC	14-pin CAN FD 5MBit/sec Transceiverwith bus wake up capability	DSO-14 TSON-14
TLE9251VSJ TLE9251VLE	CAN FD 5Mbits/s Transceiver with bus wake and V_{IO} for 3.3 & 5V interface	DSO-8 TSON-8
TLE7259-3GE TLE7259-3LE	High-End LIN Transceiver	DSO-8 TSON-8
TLE7257SJ TLE7258SJ	Basic LIN Transceiver	DSO-8



ATV Body: Lighting OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 5 μ A	Meeting the ECU level current consumption
High current up to 100 mA	Cranking, low drop out, high power packages	Flexibility & family approach
Enable & Reset	Digital, flexible reset	Less external components, space savings & less BOM



Featured product	Description	V_{inmax}	Package
TLS805D1*	V_{out} = 3.3V, 5 V and Adjustable, Quiescent Current=5 μ A, I_Q =50 mA, Enable, Reset	42	DSO8 TSON10
TLS810D1*	V_{out} = 3.3V, 5 V and Adjustable, Quiescent Current=9 μ A, I_Q =100 mA, Enable, Reset	42	DSO8-EP TSON10

* Further product family members available

ATV Body: Lighting Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 5 μ A	Meeting the ECU level current consumption
High current up to 100 mA	Cranking, low drop out, high power packages	Flexibility & family approach
Enable & Reset	Digital, flexible reset	Less external components, space savings & less BOM



Featured product	Description	Package
TLE9250VSJ TLE9250VLE	CAN FD 5MBit/s Transceiver without bus wake and V_{IO} (3.3V & 5V interface)	DSO-8 TSON-8
TLE9252VSK TLE9252VLC	14-pin CAN FD 5MBit/sec Transceiver with bus wake up capability	DSO-14 TSON-14

* Further product family members available

ATV Body: Lighting System ICs – System Basis Chips



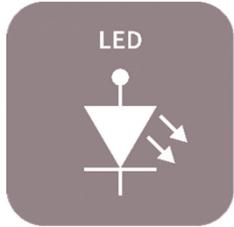
Application Requirements	Infineon's Value proposition	Customer benefits
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication
Limited quiescent current budget	$I_q < 20\mu\text{A}$ in sleep mode (whole SBC)	Flexibility in further component selection



Featured product	Description	Package
TLE9461-3ES* (NEW!) TLE9461-3ES V33* (NEW!)	$V_{OUT1} = 3.3\text{V}$ or 5V , $I_O=150\text{mA}$ (LDO) $V_{OUT2} = 5\text{V}$, $I_O=100\text{mA}$ for protected on-/off-board supply, $I_q < 20\mu\text{A}$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3\text{V}$ or 5V , $I_O=500\text{mA}$ (DC/DC converter) $V_{OUT2} = 5\text{V}$, $I_O=100\text{mA}$ for protected on-/off-board supply $I_q < 20\mu\text{A}$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9261-3BQX* TLE9261-3BQX V33*	$V_{OUT1} = 3.3\text{V}$ or 5V , $I_O=250\text{mA}$ (LDO) $V_{OUT2} = 5\text{V}$, $I_O=100\text{mA}$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu\text{A}$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48

* Further product family members available

ATV Body: LED Lighting Automotive MOSFETs

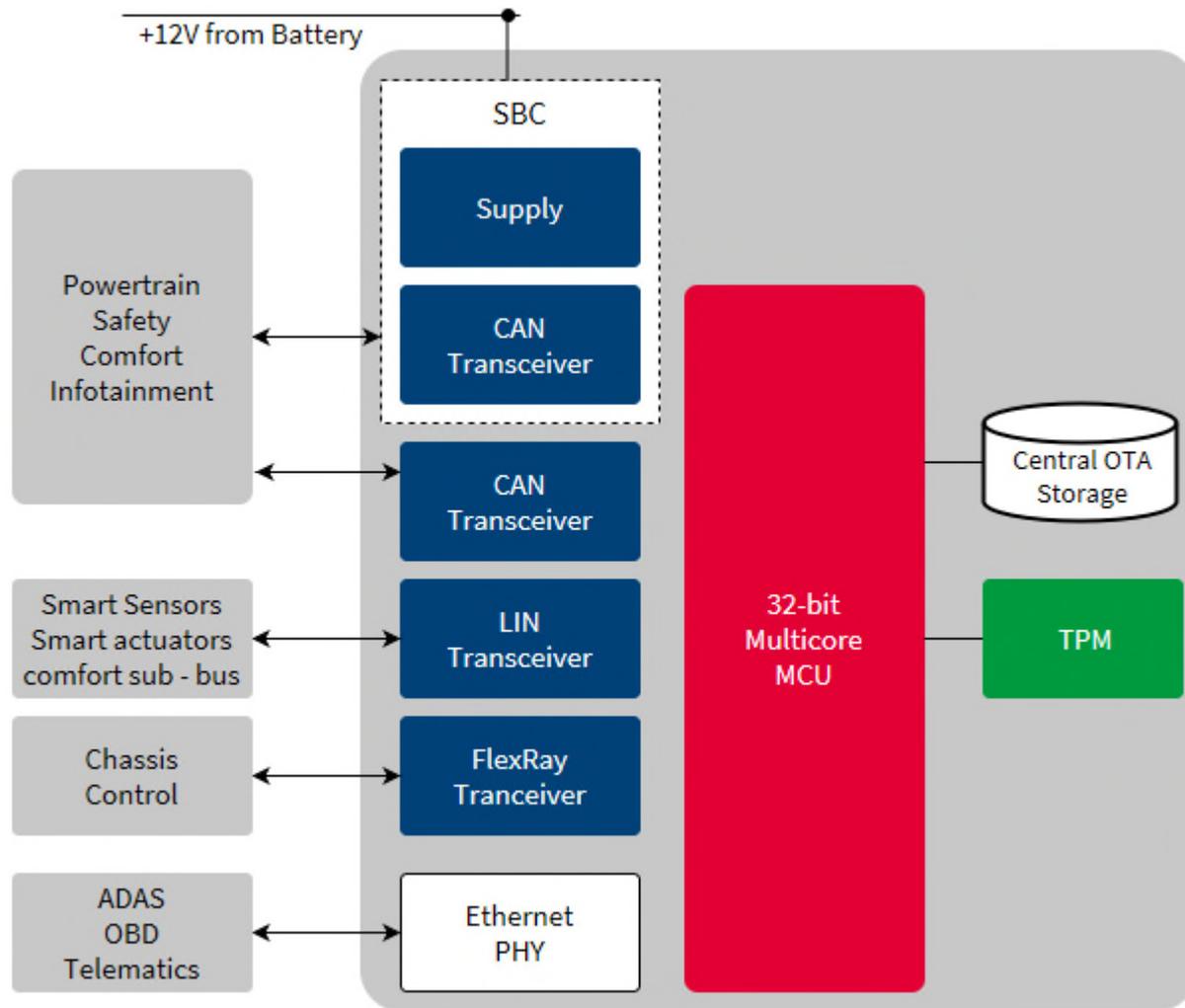


Application Requirements	Infineon's Value proposition	Customer benefits
Small PCB area	Small packages	Saving on PCB space
Low gate charge	Enhanced switching parameters	Compatibility with a variety of LED drivers
60/80/100 V	60, 80 & 100 V MOSFETs on offer	MOSFETs to suit LED chains of any length

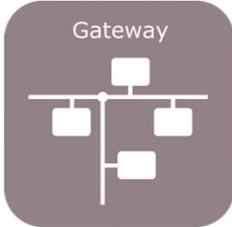


Featured product	Description	Package
IPG20N06S4L-26 *	$V_{DS}=60V$, $R_{DS(ON)}=26\text{ m}\Omega$, $I_D=20\text{ A}$, $Q_G=15\text{ nC}$, N-channel, logic-level device	PG-TDSON-8-4
IPG20N10S4L-22A *	$V_{DS}=100V$, $R_{DS(ON)}=22\text{ m}\Omega$, $I_D=20\text{ A}$, $Q_G=41\text{ nC}$, N-channel, logic-level device	PG-TDSON-8-10

* Further product family members available



ATV Body: Gateway Module Network ICs



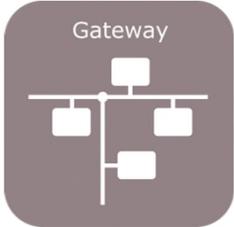
Application requirements	Infineon's Value Proposition	Customer Benefits
Efficiency	Wake up receiver supplied by V_{IO} pin	Lowest quiescent current in sleep-mode
Technology	Bus wake up and 14-pin CAN FD 5MBit/sec	Sleep mode with remote wake-up function
Small PCB	Tiny packages and Multi-channel	Compact board design

Featured product	Description	Package
TLE9252VSK TLE9252VLC	14-pin CAN FD 5MBit/sec Transceiver with bus wake up capability	DSO-14 TSON-14
TLE9251VSJ TLE9251VLE	CAN FD 5MBit/s Transceiver with bus wake and V_{IO} for 3.3 & 5V interface	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14



ATV Body: Gateway Module

System ICs – System Basis Chips

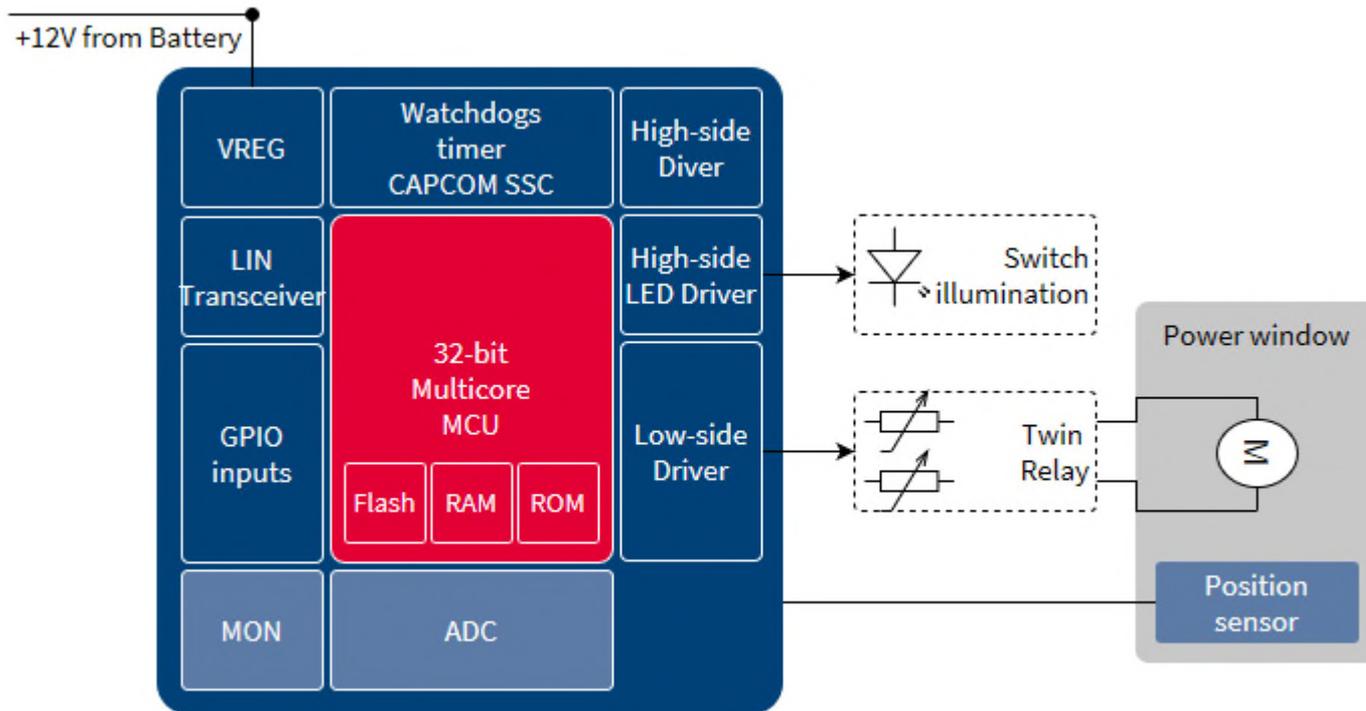


Application Requirements	Infineon's Value proposition	Customer benefits
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market

Featured product	Description	Package
TLE9263-3BQX* TLE9263-3BQX V33*	$V_{OUT1} = 3.3V$ or $5V$, $I_O=250mA$ (LDO) $V_{OUT2} = 5 V$, $I_O=100mA$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu A$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48
TLE9271QX* TLE9271QX V33*	Boost pre-regulator $V_{OUT1} = 3.3V$ or $5V$, $I_O=750mA$ (DCDC converter) $V_{OUT2} = 5 V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 35\mu A$, CAN FD 5MBit/s, CAN PN, 2-4 LIN	VQFN-48
TLE9278-3BQX* TLE9278-3BQX V33*	Boost pre-regulator up to 12 V $V_{OUT1} = 3.3V$ or $5V$, $I_O=750mA$ (DCDC converter) V_{OUT2} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 35\mu A$, 4 CAN FD 5MBit/s, CAN PN	VQFN-48

* Further product family members available

ATV Body: Window Lift, Sunroof



ATV Body: Window Lift, Sunroof, Embedded Power – SoC



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current for parked car	Supply with stop and sleep mode; Wake via LIN and MON Cyclic wake	Energy efficiency, CO2 savings
External switch monitoring	HV monitoring inputs with ESD protection Power saving modes	Flexibility & family approach
Hall sensor IF for anti-pinch	Protected 40mA output (TLE985x)	Less external components, space savings & less BOM

Featured product	Description	Package
TLE9842x	Arm® Cortex® M0 32-bit μC, 25/40 MHz, 36-40 kB Flash, Driver Stage Relay, LIN interface	VQFN-48-31
TLE9843x	Arm® Cortex® M0 32-bit μC, 25/40 MHz, 48-52 kB Flash, Driver Stage Relay, LIN interface	VQFN-48-31
TLE9844x	Arm® Cortex® M0 32-bit μC, 25/40 MHz, 64 kB Flash, Driver Stage Relay, LIN interface	VQFN-48-31
TLE985x	Arm® Cortex® M0 32-bit μC, 40 MHz, 48-96 kB Flash, Driver Stage Half-Bridge / N FET	VQFN-48-31

ATV Body: Wiper Embedded Power – SoC

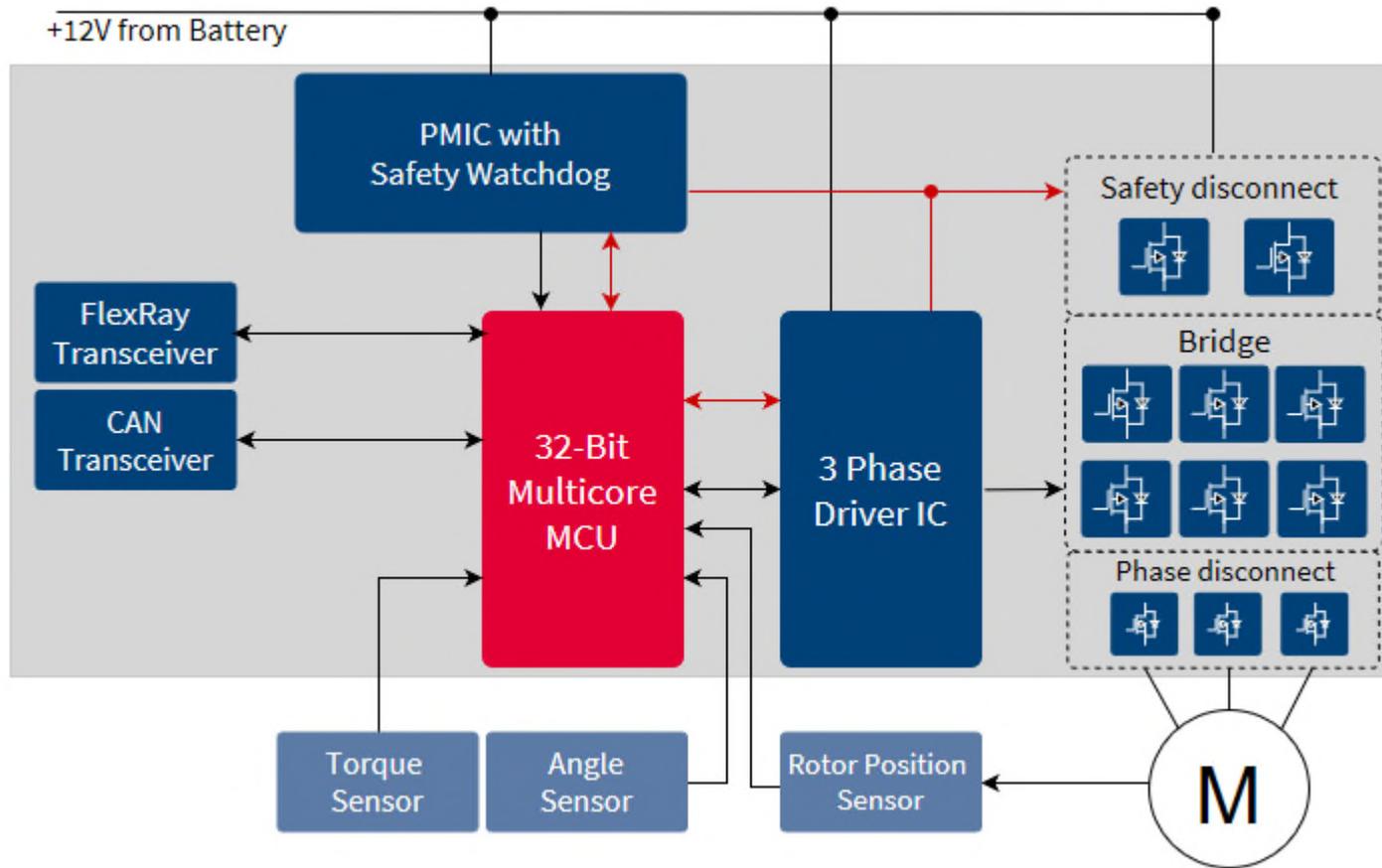


Wiper



Application Requirements	Infineon's Value proposition	Customer benefits
wiper angle precision, 1°	TMR/GMT + 14bit SDADC GMR + SPI	Less external components, space savings & less BOM
Increased memory demand	Scalability › 36KB..256KB Flash › 3KB..8KB SRAM	Flexibility & family approach
Cranking pulse	low VS operation, down to 3V low VSD operation, down to 5.4V	Less external components, space savings & less BOM

Featured product	Description	Package
TLE986x	Arm® Cortex® M3 32-bit μC, 24/40 MHz, 36-128 kB Flash, Driver Stage Half-Bridge / N FET, PWN & LIN interface, Grade-0 or Grade-1	VQFN-48-31
TLE9879-2QXA40	Arm® Cortex® M3 32-bit μC, 24/40 MHz, 128 kB Flash, Driver Stage B6-Bridge / N FET, PWN & LIN interface, Grade-1, 2 x 14-bit SD-ADC	VQFN-48-31



ATV Chassis: Elec. Power Steering

OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Higher tracker accuracy	± 0.1%	Perfect fit for pressure sensors
Safety	Enable, reset & watchdog	Fully integrated feature set
Robust & tiny	Harsh environment & less external components	Compact board design



Featured product	Description	V _{Inmax}	Package
TLE4473G V53	V _{out} =5 V & 3.3 V, Enable , Reset , Watchdog, 500 mA, V _{inmin} =3.0 V	45	DSO-12
TLE4473G V55-2	V _{out} =5 V & 5 V, Enable , Reset , Watchdog, 500 mA, V _{inmin} =3.0 V	45	DSO-12
TLS850F0*	V _{out} 3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA, Enable, Adjustable Reset, Current activated watchdog	40	D ² PAK
TLS850D0*	V _{out} =3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA Enable, Adjustable Reset	40	D ² PAK DPAK

* Further product family members available

ATV Chassis: Elec. Power Steering OPTIREG™ Sensor Supply



Application Requirements	Infineon's Value proposition	Customer benefits
Higher tracker accuracy	± 0.1%	Perfect fit for pressure sensors
High current demand by huge number of sensors	Up to 400 mA	Complete portfolio
Small PCB design	SCT595: 3 x 2.5 mm TSON-10: 3.3 x 3.3 mm	Compact board design



Featured product	Description	V _{Inmax}	Package
TLS105B0 (NEW!)	Voltage Tracker – Sensor supply. I _Q =50 mA, Short circuit to battery protected, Reverse polarity protected, Current limitation. ± 0.1% tracking accuracy	45	SCT595-5
TLS115B0* (NEW!)	Adjustable Output Voltage , I _Q =150 mA , ± 0.1% output accuracy, Enable, Separate pin for reference voltage	40	DSO8-EP TSON10
TLS115D0* (NEW!)	Adjustable Output Voltage, I _Q =150 mA , ± 0.1% output accuracy, Power Good, Enable , Separate pin for reference voltage	40	DSO8-EP TSON10
TLE425*	ADJ, I _Q = 70mA to 250 mA , ± 0.2% output accuracy	40	DSO8 DSO8-EP DPAK D ² PAK

* Further product family members available

ATV Chassis: Elec. Power Steering OPTIREG™ Switcher & PMIC



Application Requirements

Safety

Infineon's Value proposition

UV/OV monitoring, window watchdog and Q&A

Customer benefits

System reliability & better FIT rate



Featured product	Description	V _{Inmax}	Package
TLE7368-2E TLE7368-3E TLE7368E	Buck PreReg (5 V ₅ @ 2.5 A); LDOs: 5 V @ 700 mA & 3.3 V/2.6 V @ 500 mA; LDO-controller: 1 V ₂ /1 V ₃ /1 V ₅ ; 2x trackers 5 V @ 50 mA and 105 mA; features: EN, RES, window-WD	45	DSO36 EP
TLF35584QVVS1 TLF35584QVVS2 TLF35584QKVS1 TLF35584QKVS2	Safety system-supply (ISO26262): Boost/buck-PreReg (5 V ₇ @ 1.3 A); μC-LDO (3 V ₃ /5 V @ 600 mA); REF--LDO (5 V @ 150 mA); 2x tracker (5 V @ 150 mA); TRX-LDO (5 V @ 200 mA); StandBy-LDO (3 V ₃ /5 V @ 10 mA); features: SPI; timer/counter; RES & interrupt; UV/OV-monitoring; Q/A- & window-WD; safe-state-controller	40	VQFN48 EP -- LQFP64 EP

ATV Chassis: Elec. Power Steering System ICs – System Basis Chips



Application Requirements	Infineon's Value proposition	Customer benefits
Small PCB design	Integrated SBC solution	Less external components, space savings & less BOM
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market



Featured product	Description	Package
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=500mA$ (DC/DC converter) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9262-3BQX* TLE9262-3BQX V33*	$V_{OUT1} = 3.3V$ or $5V$, $I_O=250mA$ (LDO) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu A$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48

* Further product family members available

ATV Chassis: Elec. Power Steering Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Robust & tiny	Small footprint packages	Smallest FlexRay in the market (TSON-14)



Featured product	Description	Package
TLE9251VSJ TLE9251VLE	CAN FD 5MBit/s Transceiver with bus wake and V _{IO} for 3.3 & 5V interface	DSO-8 TSON-8
TLE9250VSJ TLE9250VLE	CAN FD 5MBit/s Transceiver without bus wake and V _{IO} (3.3V & 5V interface)	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV Chassis: Elec. Power Steering Automotive MOSFETs



Application Requirements	Infineon's Value proposition	Customer benefits
Minimal board space	Robust technology	Optimized switching & conduction losses
High current-carrying capability	Wide package portfolio	Small package footprint
Low $R_{DS(ON)}$	Quality leadership	A MOSFET that outlives the vehicle



Featured product	Description	Package
IAUC120N04S6L008 (NEW!)	$V_{DS}=40V$, $R_{DS(ON)}=0.8\text{ m}\Omega$, $I_D=120\text{ A}$, $Q_G=88\text{ nC}$, N-channel, logic-level device	PG-TDSON-8
IPLU300N04S4-R8 *	$V_{DS}=40V$, $R_{DS(ON)}=0.77\text{ m}\Omega$, $I_D=300\text{ A}$, $Q_G=221\text{ nC}$, N-channel, normal-level device	PG-HSOF-8

* Further product family members available

ATV Chassis: Elec. Power Steering

XENSIV™ Sensors

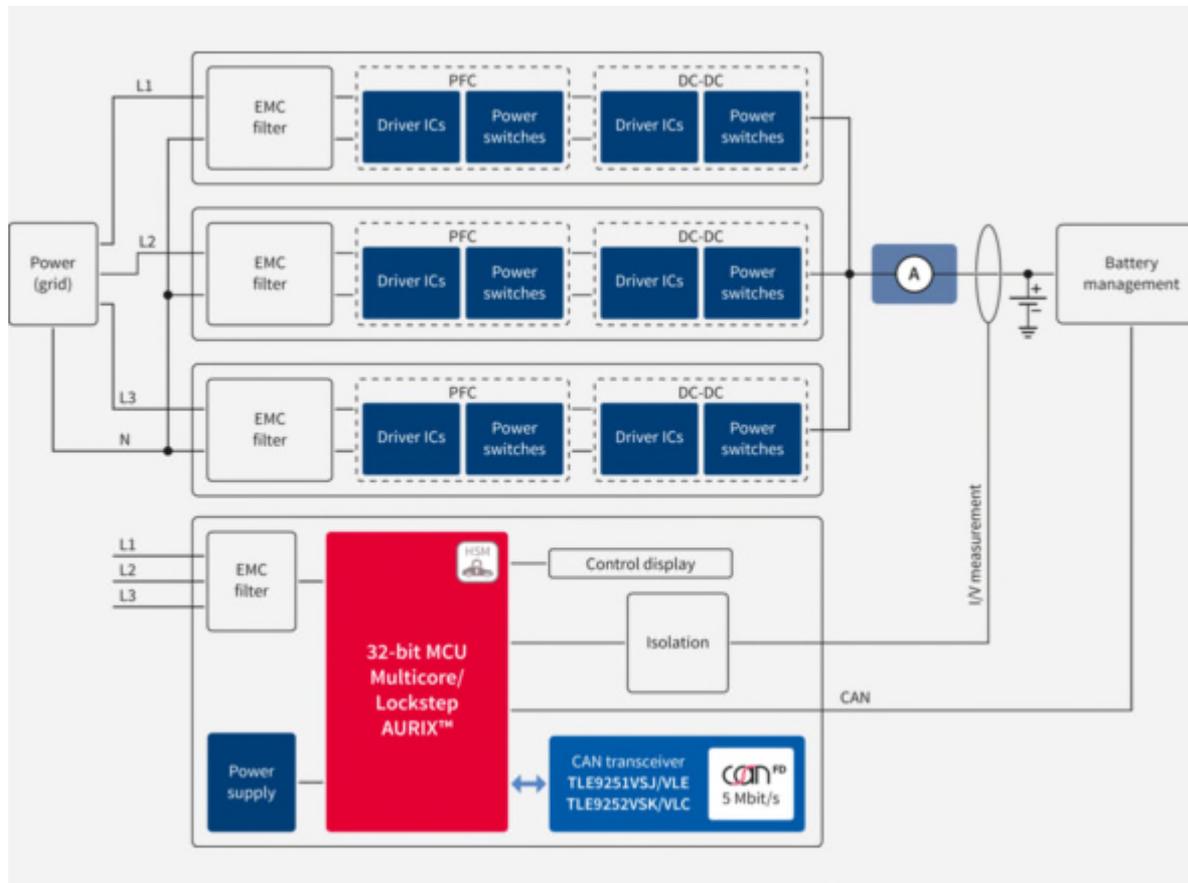


Application Requirements	Infineon's Value proposition	Customer benefits
Abrasion, Humidity, Pollution & Vibration	Robust replacement of potentiometers	Reliability
Safety	Highly accurate detection	Highly accurate detection



Featured product	Description	Package
TLE4997A8D	Programmable Linear Hall with ratiometric analog output, 20-bit DSP, supply voltage 4.5 – 5.5 V, configurable magnetic range: $\pm 50\text{mT}$, $\pm 100\text{mT}$ or $\pm 200\text{mT}$	TDSO-8
TLE4998C8D	Two programmable Linear Hall with short PWM code, 20-bit DSP, supply voltage 4.5 – 5.5 V, configurable magnetic range: $\pm 50\text{mT}$, $\pm 100\text{mT}$ or $\pm 200\text{mT}$	TDSO-8
TLE4968-1M	Supply voltage 3.0V – 32V, reverse polarity protection (-18V), overvoltage up to 42V, low jitter (typ. 0.35 μs)	SOT23-3-15

ATV Infotainment: Wireless Charging



ATV Infotainment: Wireless Charging OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Smallest packages	Tiny leadless TSON10 package	Ultra small PCB design
Low quiescent current	Down to 5 μ A	Meeting the ECU level current consumption
Withstand battery voltage with post regulator	Input voltage range up to 20 V@ post regulators	System fail safe of DC/DC fault & DIY robustness



Featured product	Description	V_{inmax}	Package
TLS203B0*	Post LDO V_{out} = 3.3V, 5V and Adjustable I_Q =300 mA, Enable, 24 μ V _{RMS} noise	20	TSON10

ATV Infotainment: Wireless Charging OPTIREG™ Switcher



Application Requirements	Infineon's Value proposition	Customer benefits
Wide range of loads	Dedicated for specific load (USB charger, stand-by, ...)	AEC Q100 & long-term availability
Automotive grade	Designed by ATV grade (robustness, T150°C, ...)	thermal management & better FIT rate
Key trend: USB charger	Reference design available	Ready to use, faster time to market



Featured product	Description	V _{inmax}	Package
TLE8366EVx	Asynchronous buck; ADJ/1.8 A; 100% duty cycle; features: EN	40	DSO8-EP
TLF35584QVVS2	Safety system-supply (ISO26262): Boost/buck-PreReg (5 V7 @ 1.3 A); μC-LDO (3 V3/5 V @ 600 mA); REF--LDO (5 V @ 150 mA); 2x tracker (5 V @ 150 mA); TRX-LDO (5 V @ 200 mA); StandBy-LDO (3 V3/5 V @ 10 mA); features: SPI; timer/counter; RES & Interrupt; UV/OV-monitoring; Q/A- & window-WD; safe-state-controller	40	VQFN48 EP

ATV Infotainment: Wireless Charging Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
Efficiency	Wake up receiver supplied by V_{IO} pin	Lowest quiescent current in sleep-mode
Technology	Bus wake-up and 14-pin HS CAN	Sleep mode with remote wake-up function
Flexibility	Up to 2 Mbit/s bandwidth	Large CAN networks, high data transmission rates



Featured product	Description	Package
TLE9250SJ TLE9250LE	CAN FD 5 MBit/s Transceiver without bus wake and 5V I/O interface	DSO-8 TSON-8

ATV Infotainment: Wireless Charging System ICs – System Basis Chips



Application Requirements	Infineon's Value proposition	Customer benefits
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication
Small PCB design	Integrated SBC solution	Less external components, space savings & less BOM



Featured product	Description	Package
TLE9461-3ES* (NEW!) TLE9461-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=150mA$ (LDO) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply, $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=500mA$ (DC/DC converter) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24

* Further product family members available

ATV Infotainment: Wireless Charging Automotive MOSFETs



Application Requirements	Infineon's Value proposition	Customer benefits
Small PCB area	Tiny packages	Saving on PCB space
Low gate charge	Optimized switching parameters	Enhanced switching
40/60/80/100 V	Wide selection of 40, 60, 80 & 100 V MOSFETs on offer	Platform approach for bridge inverter & coil selection



Featured product	Description	Package
IPZ40N04S5L-4R8 *	$V_{DS}=40V$, $R_{DS(ON)}=4.8\text{ m}\Omega$, $I_D=40\text{ A}$, $Q_G=22\text{ nC}$, N-channel, logic-level device Suitable for the bridge inverter	PG-TSDSON-8
IPG20N06S4L-11A *	$V_{DS}=60V$, $R_{DS(ON)}=11.2\text{ m}\Omega$, $I_D=20\text{ A}$, $Q_G=41\text{ nC}$, N-channel, logic-level device Suitable for the coil selection	PG-TDSON-8-10
IPG20N10S4L-22 *	$V_{DS}=100V$, $R_{DS(ON)}=22\text{ m}\Omega$, $I_D=20\text{ A}$, $Q_G=21\text{ nC}$, N-channel, logic-level device Suitable for the coil selection	PG-TDSON-8-4

* Further product family members available

ATV Infotainment: Multimedia, Navigation

OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Smallest packages	Tiny leadless TSON10 package	Ultra small PCB design
Low quiescent current	Down to 5 μ A	Meeting the ECU level current consumption
Withstand battery voltage with post regulator	Input voltage range up to 20 V@ post regulators	System fail safe of DC/DC fault & DIY robustness



Featured product	Description	V_{inmax}	Package
TLE42764*	Adj. LDO with 400 mA, used for analog circuits	45	D ² PAK DPAK
TLF4277-2*	Antenna Supply with Enable, Adjustable current limitation, integrated current sense with 10% accuracy, $V_{adj}=5$ V-45 V, digital error pin	45	SSOP14 TSON10
TLS805B1* TLS805D1*	Low quiescent LDO (5 μ A Quiescent Current) for standby 50 mA, $V_{out}=5$ V and adj available	45	DSO8 TSON10
TLS203B0* TLS205B0*	Post LDO $V_{out}= 3.3$ V, 5V and Adjustable $I_Q=300$ mA, Enable, 24 μ V _{RMS} noise Post LDO $V_{out}= 3.3$ V, 5V and Adjustable $I_Q=500$ mA, Enable, 24 μ V _{RMS} noise	20	DSO8-EP TSON10
TLF1963*	1500 mA post LDO with ADJ V_{out}	20	D ² PAK DPAK

ATV Infotainment: Multimedia, Navigation

OPTIREG™ Switcher



Application Requirements	Infineon's Value proposition	Customer benefits
Wide range of loads	Dedicated for specific load (USB charger, stand-by, ...)	AEC Q100 & long-term availability
Automotive grade	Designed by ATV grade (robustness, T150°C, ...)	thermal management & better FIT rate
Key trend: USB charger	Reference design available	Ready to use, faster time to market



Featured product	Description	V _{inmax}	Package
TLF51801ELV	Synchronous buck controller up-to 10 A; features: EN, RES, WD general high power pre-regulator, USB supply, wireless charging	40	SSOP14
TLF50281EL	Asynchronous low-Iq-buck; 5 V/500 mA; I _q <45 μA; f=2,2 MHz; 100% DC; features: EN, RES, WD	40	SSOP14
TLE8366EVx	Asynchronous buck; ADJ/1.8 A; 100% duty cycle; features: EN	40	DSO8-EP
TLE8386-2	Smart step-up controller for start-stop applications	40	SSOP14

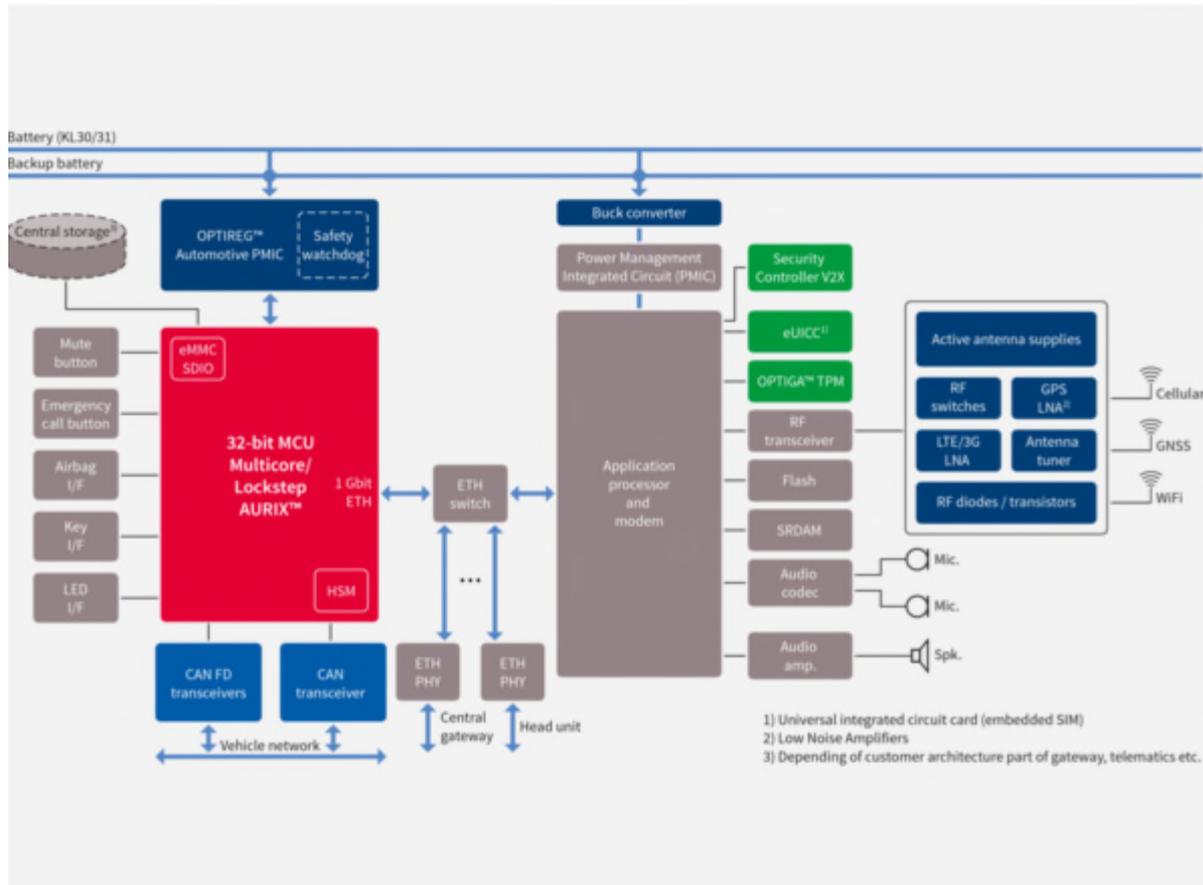
ATV Infotainment: Multimedia, Navigation Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
Efficiency	Wake up receiver supplied by V_{IO} pin	Lowest quiescent current in sleep-mode
Technology	Bus wake-up and 14-pin HS CAN	Sleep mode with remote wake-up function
Flexibility	Up to 2 Mbit/s bandwidth	Large CAN networks, high data transmission rates



Featured product	Description	Package
TLE9252VSK TLE9252VLC	14-pin CAN FD 5MBit/sec Transceiver with bus wake up capability	DSO-14 TSON-14
TLE7258D	Serial Line Transceiver for MOST-Bus Error Correction Line (ECL) with wake-up and protection features. Up to 20 kbps data transmission rates. Sleep mode <math><10 \mu A</math>	TSON-8



ATV Infotainment: Telematics, eCall

OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Fault monitoring	Integrated diagnostic & protection features	System reliability & better FIT rate
Technology	Bus wake-up and 14-pin HS CAN	Sleep mode with remote wake-up function
Smallest packages	Smallest package in the market	Ultra small PCB design



Featured product	Description	V _{Inmax}	Package
TLE42764*	Adj. LDO with 400 mA, used for analog circuits	45	D ² PAK DPAK
TLF4277-2*	Antenna Supply with Enable, Adjustable current limitation, integrated current sense with 10% accuracy, V _{adj} =5 V-45 V, digital error pin	45	SSOP14 TSON10
TLS805D1*	V _{out} = 3.3V, 5 V and Adjustable, Quiescent Current=5μA, I _Q =50 mA, Enable, Reset	42	DSO8 TSON10
TLS203B0* TLS205B0*	Post LDO V _{out} = 3.3V, 5V and Adjustable I _Q =300 mA, Enable, 24μV _{RMS} noise Post LDO V _{out} = 3.3V, 5V and Adjustable I _Q =500 mA, Enable, 24μV _{RMS} noise	20	DSO8-EP TSON10
TLS202B1* (NEW!)	V _{out} = Adjustable, 3.3V and 5V, I _Q =150 mA, Enable	20	SCT595-5

ATV Infotainment: Telematics, eCall Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
Safety - FlexRay	Up to 10 MBit/s	System reliability & better FIT rate
CAN-FD	Up to 5MBit/s bandwidth	Faster & robust communication



Featured product	Description	Package
TLE9252VSK TLE9252VLC	14-pin CAN FD 5MBit/sec Transceiver with bus wake up capability	DSO-14 TSON-14
TLE9250VSJ TLE9250VLE	CAN FD 5MBit/s Transceiver without bus wake and V_{IO} (3.3V & 5V interface)	DSO-8 TSON-8

ATV Infotainment: Telematics, eCall System ICs – System Basis Chips

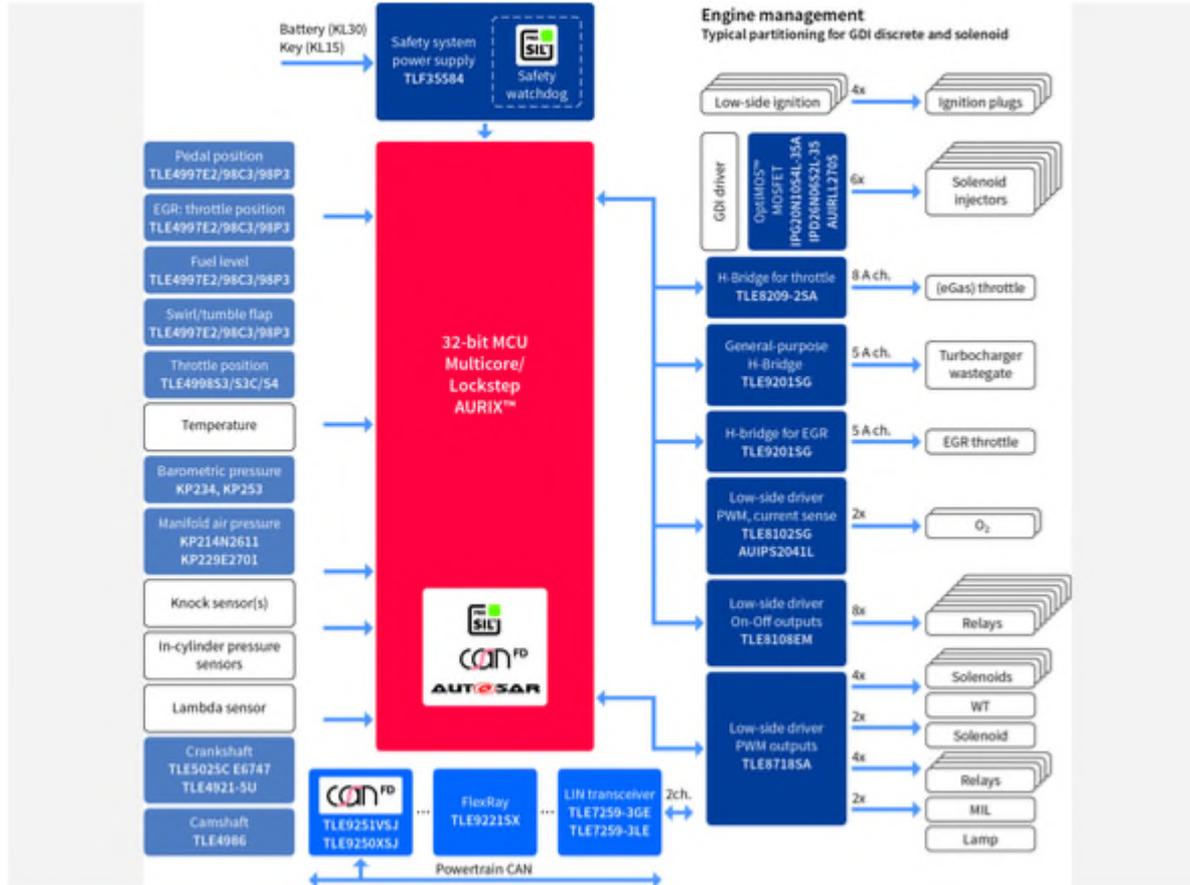


Application Requirements	Infineon's Value proposition	Customer benefits
Small PCB design	Integrated SBC solution	Less external components, space savings & less BOM
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication



Featured product	Description	Package
TLE9271QX* TLE9271QX V33*	Boost pre-regulator $V_{OUT1} = 3.3V$ or $5V$, $I_O=750mA$ (DCDC converter) $V_{OUT2} = 5V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 35\mu A$, CAN FD 5MBit/s, CAN PN, 2-4 LIN	VQFN-48
TLE9278-3BQX* TLE9278-3BQX V33*	Boost pre-regulator up to 12 V $V_{OUT1} = 3.3V$ or $5V$, $I_O=750mA$ (DCDC converter) V_{OUT2} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 35\mu A$, 4 CAN FD 5MBit/s, CAN PN	VQFN-48

* Further product family members available



ATV Powertrain: EMS OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Input voltage range from 3V	Suitable for very low cranking	Extreme robust
Ultra low quiescent current	Efficiency: save battery lifetime	Meeting the ECU level current consumption
Excellent transient response	Harsh environment & less external components	Space savings & less BOM



Featured product	Description	V _{inmax}	Package
TLE4291E	V _{out} =5 V, I _Q =450 mA; enable, reset, watchdog, reverse polarity protection	45	SSOP14
TLE4271-2	V _{out} =5 V, I _Q =550 mA; enable, reset, watchdog, reverse polarity protection	45	TO263
TLS850F0*	V _{out} 3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA, Enable, Adjustable Reset, Current activated watchdog	40	D ² PAK
TLS850D0*	V _{out} =3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA Enable, Adjustable Reset	40	D ² PAK DPAK
TLS820F0*	V _{out} =5 V, I _Q =200 mA, 70 mV @ 100 mA, Enable, Adjustable Reset, Current activated watchdog	40	SSOP14
TLS835D2ELVSE (NEW!)	V _{out} = Selectable 3.3V and 5 V, Quiescent Current=20μA, I _Q =350 mA, Enable and Reset	40	SSOP14

* Further product family members available

ATV Powertrain: EMS

OPTIREG™ Switcher & PMIC



Application Requirements

Ultra low quiescent current

Infineon's Value proposition

Efficiency: save battery lifetime

Customer benefits

Meeting the ECU level current consumption



Featured product	Description	V _{inmax}	Package
TLE7368-2E TLE7368-3E TLE7368E	Buck PreReg (5 V ₅ @ 2.5 A); LDOs: 5 V @ 700 mA & 3.3 V/2.6 V @ 500 mA; LDO-controller: 1 V ₂ /1 V ₃ /1 V ₅ ; 2x trackers 5 V @ 50 mA and 105 mA; features: EN, RES, window-WD	45	DSO36 EP
TLF35584QVVS1 TLF35584QVVS2 TLF35584QKVS1 TLF35584QKVS2	Safety system-supply (ISO26262): Boost/buck-PreReg (5 V ₇ @ 1.3 A); μC-LDO (3 V ₃ /5 V @ 600 mA); REF--LDO (5 V @ 150 mA); 2x tracker (5 V @ 150 mA); TRX-LDO (5 V @ 200 mA); StandBy-LDO (3 V ₃ /5 V @ 10 mA); features: SPI; timer/counter; RES & Interrupt; UV/OV-monitoring; Q/A- & window-WD; safe-state-controller	40	VQFN48 EP LQFP64 EP

ATV Powertrain: EMS Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Supply	Automatic adaption to interface level	Support of 3.3 V & 5V μ C

Featured product	Description	Package
TLE9250SJ TLE9250LE	CAN FD 5 MBit/s Transceiver without bus wake and 5V I/O interface	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV Powertrain: EMS

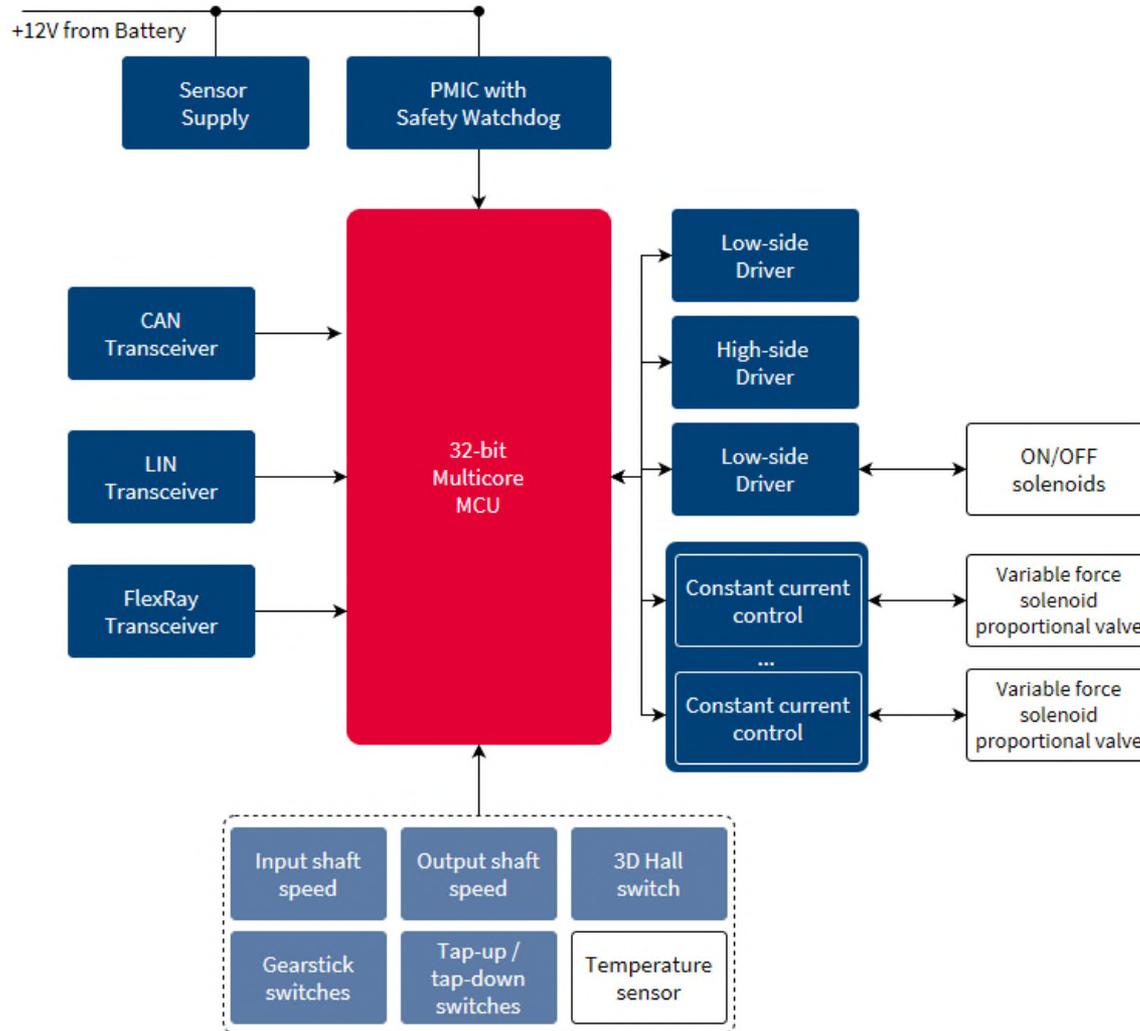
OPTIREG™ Sensor Supply



Application Requirements	Infineon's Value proposition	Customer benefits
Higher tracker accuracy	± 0.1%	Perfect fit for pressure sensors
High current demand by huge number of sensors	Up to 400 mA	Complete portfolio
Small PCB design	SCT595: 3 x 2.5 mm TSON-10: 3.3 x 3.3 mm	Compact board design

Featured product	Description	V _{Inmax}	Package
TLS105B0 (NEW!)	Voltage Tracker – Sensor supply. I _Q =50 mA, Short circuit to battery protected, Reverse polarity protected, Current limitation. ± 0.1% tracking accuracy	45	SCT595-5
TLS115B0* (NEW!)	Adjustable Output Voltage , I _Q =150 mA , ± 0.1% output accuracy, Enable, Separate pin for reference voltage	40	DSO8-EP TSON10
TLS115D0* (NEW!)	Adjustable Output Voltage, I _Q =150 mA , ± 0.1% output accuracy, Power Good, Enable , Separate pin for reference voltage	40	DSO8-EP TSON10
TLE425*	ADJ, I _Q = 70mA to 250 mA , ± 0.2% output accuracy	40	DSO8 DSO8-EP DPAK D ² PAK

* Further product family members available



ATV Powertrain: Transmission

OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
High current up to 500 mA	Cranking, low drop out, high power packages	Flexibility & family approach
Reset & Watchdog	Digital, flexible reset & watchdog	Less external components, space savings & less BOM



Featured product	Description	V _{inmax}	Package
TLE4291E	V _{out} =5 V, I _Q =450 mA; enable, reset, watchdog, reverse polarity protection	45	SSOP14
TLE4271-2	V _{out} =5 V, I _Q =550 mA; enable, reset, watchdog, reverse polarity protection	45	TO263
TLS850F0*	V _{out} 3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA, Enable, Adjustable Reset, Current activated watchdog	40	D ² PAK
TLS850D0*	V _{out} =3.3V, 5V, I _Q =500 mA, 70 mV @ 100 mA Enable, Adjustable Reset	40	D ² PAK DPAK
TLS850B0* (NEW!)	V _{out} =3.3V and 5 V, Quiescent Current=20μA, I _Q =500 mA, 100 mV @ 100 mA Enable	40	D ² PAK DPAK

ATV Powertrain: Transmission

OPTIREG™ Sensor Supply



Application Requirements	Infineon's Value proposition	Customer benefits
Robust & Tiny	Small footprint packages	PCB Space Saving
High Ambient Temperatures	Sensor Supply IC with T_j up to 160°C	Better Thermal Management at PCB level
Short circuit to battery & ground	Integrated protection features	No external protection necessary

Featured product	Description	V_{inmax}	Package
TLS105B0 (NEW!)	Voltage Tracker – Sensor supply. $I_Q=50$ mA, Short circuit to battery protected, Reverse polarity protected, Current limitation. $\pm 0.1\%$ tracking accuracy	45	SCT595-5
TLS115B0* (NEW!)	Adjustable Output Voltage, $I_Q=150$ mA, $\pm 0.1\%$ output accuracy, Enable, Separate pin for reference voltage	40	DSO8-EP TSON10
TLS115D0* (NEW!)	Adjustable Output Voltage, $I_Q=150$ mA, $\pm 0.1\%$ output accuracy, Power Good, Enable, Separate pin for reference voltage	40	DSO8-EP TSON10
TLE425*	ADJ, $I_Q=70$ mA to 250 mA, $\pm 0.2\%$ output accuracy	40	DSO8/DSO8-EP DPAK/D ² PAK
TLT125 (Under Development)	ADJ, $I_Q=250$ mA, $\pm 0.1\%$ output accuracy, $T_{j,max} = 160^\circ\text{C}$	40	DSO8-EP
TLS805D3 (Under Development)	3.3V, 5V Output Voltages, $I_Q=50$ mA, No external reference voltage needed, Power Good (Over-voltage and Under-voltage detection), Enable	40	SCT595-6

* Further product family members available

ATV Powertrain: Transmission OPTIREG™ Switcher & PMIC



Application Requirements

Safety

Infineon's Value proposition

UV/OV monitoring, window watchdog and Q&A

Customer benefits

System reliability & better FIT rate



Featured product	Description	V _{inmax}	Package
TLE7368-2E TLE7368-3E TLE7368E	Buck PreReg (5 V ₅ @ 2.5 A); LDOs: 5 V @ 700 mA & 3.3 V/2.6 V @ 500 mA; LDO-controller: 1 V ₂ /1 V ₃ /1 V ₅ ; 2x trackers 5 V @ 50 mA and 105 mA; features: EN, RES, window-WD	45	DSO36 EP
TLF35584QVVS1 TLF35584QVVS2 TLF35584QKVS1 TLF35584QKVS2	Safety system-supply (ISO26262): Boost/buck-PreReg (5 V ₇ @ 1.3 A); μC-LDO (3 V ₃ /5 V @ 600 mA); REF--LDO (5 V @ 150 mA); 2x tracker (5 V @ 150 mA); TRX-LDO (5 V @ 200 mA); StandBy-LDO (3 V ₃ /5 V @ 10 mA); features: SPI; timer/counter; RES & interrupt; UV/OV-monitoring; Q/A- & window-WD; safe-state-controller	40	VQFN48 EP -- LQFP64 EP

ATV Powertrain: Transmission Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Supply	Automatically adaption to interface level	Support of 3.3 V & 5V μ C



Featured product	Description	Package
TLE9250SJ TLE9250LE	CAN FD 5 MBit/s Transceiver without bus wake and 5V I/O interface	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV Powertrain: Transmission System ICs – System Basis Chips

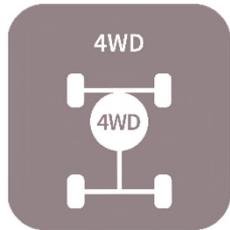


Application Requirements	Infineon's Value proposition	Customer benefits
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication

Featured product	Description	Package
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=500mA$ (DC/DC converter) $V_{OUT2} = 5 V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9261-3BQX* TLE9261-3BQX V33*	$V_{OUT1} = 3.3V$ or $5V$, $I_O=250mA$ (LDO) $V_{OUT2} = 5 V$, $I_O=100mA$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu A$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48

* Further product family members available

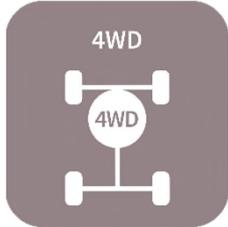
ATV Powertrain: 4WD Transference Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Robust & tiny	Small footprint packages	Smallest FlexRay in the market (TSON-14)

Featured product	Description	Package
TLE9250SJ TLE9250LE	CAN FD 5 MBit/s Transceiver without bus wake and 5V I/O interface	DSO-8 TSON-8
TLE9250VSJ TLE9250VLE	CAN FD 5MBit/s Transceiver without bus wake and V_{IO} (3.3V & 5V interface)	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV Powertrain: 4WD Transference System ICs – System Basis Chips



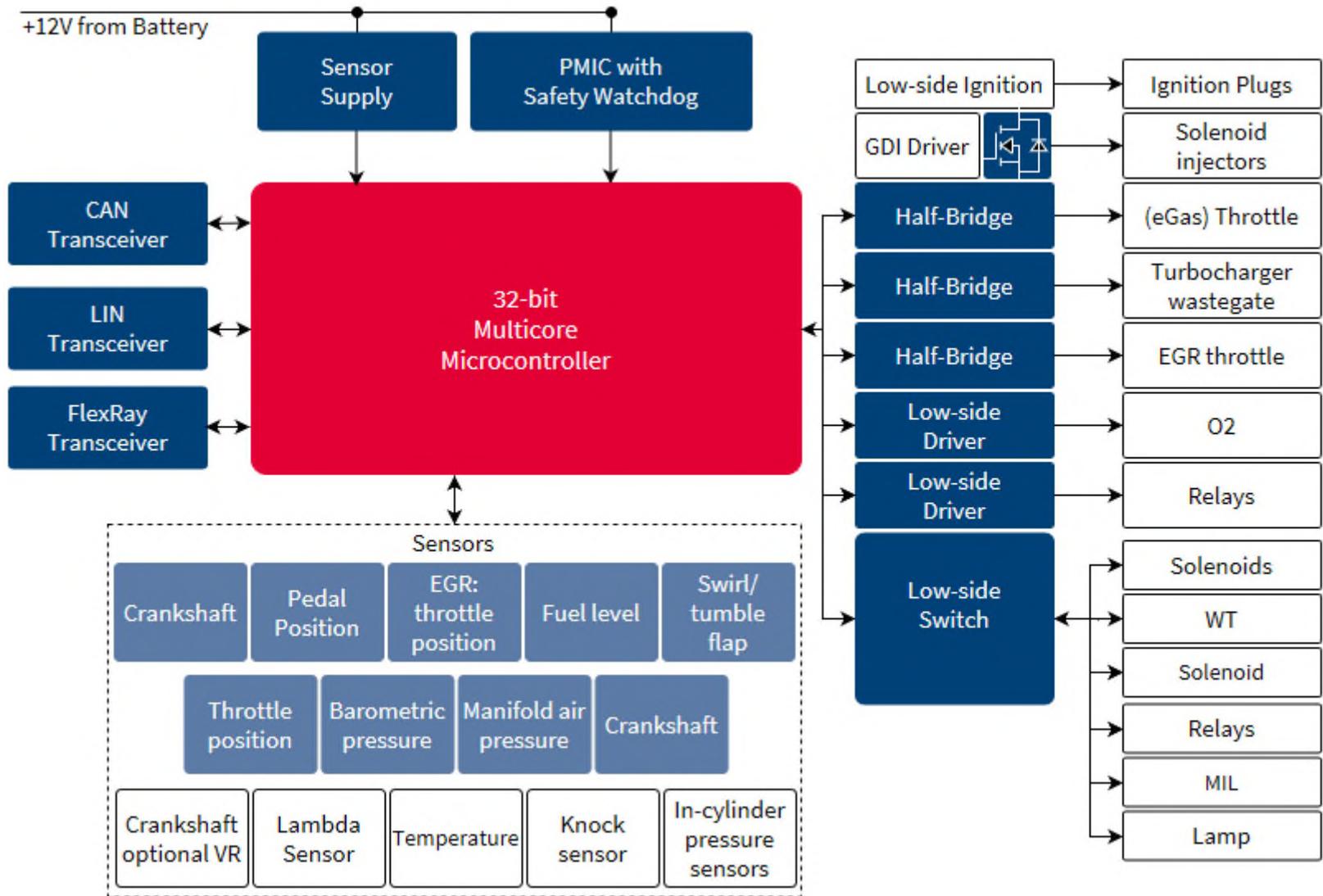
Application Requirements	Infineon's Value proposition	Customer benefits
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market
Various range of loads	Wide portfolio with LDO and DCDC converters	Flexibility & scalability due to family approach
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication



Featured product	Description	Package
TLE9471-3ES* (NEW!) TLE9471-3ES V33* (NEW!)	$V_{OUT1} = 3.3V$ or $5V$, $I_O=500mA$ (DC/DC converter) $V_{OUT2} = 5 V$, $I_O=100mA$ for protected on-/off-board supply $I_q < 20\mu A$, integrated Charge Pump, CAN FD 5MBit/s, CAN PN	DSO-24
TLE9261-3BQX* TLE9261-3BQX V33*	$V_{OUT1} = 3.3V$ or $5V$, $I_O=250mA$ (LDO) $V_{OUT2} = 5 V$, $I_O=100mA$ for protected on-/off-board supply V_{OUT3} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 20\mu A$, 4 High-Side Switches, CAN FD 5MBit/s, CAN PN, up to 2 LIN	VQFN-48

* Further product family members available

ATV Powertrain: Gasoline Direct Injection



ATV Powertrain: Gasoline Direct Injection Automotive MOSFETs

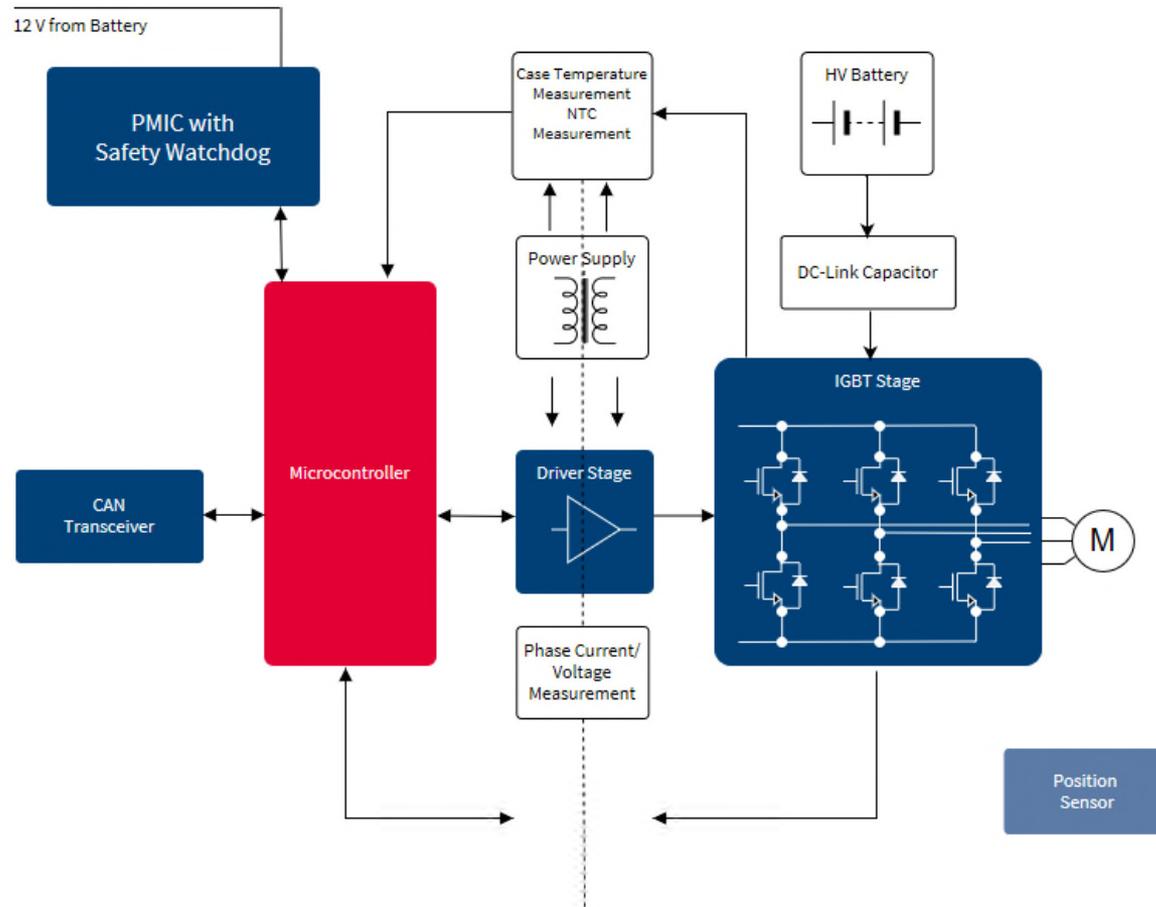


Application Requirements	Infineon's Value proposition	Customer benefits
Mid/high $R_{DS(ON)}$	Leaded & leadless packages	Second source potential
High board-level reliability	Robust trench & planar technologies	Longer product lifetime
60/100 V MOSFETs	Quality leadership	Reliable package



Featured product	Description	Package
IPD90N10S4-06 *	$V_{DS}=100V$, $R_{DS(ON)}=6.7\text{ m}\Omega$, $I_D=90\text{ A}$, $Q_G=52\text{ nC}$, N-channel, normal-level device	TO-252
IPG20N06S4L-11 *	$V_{DS}=60V$, $R_{DS(ON)}=11.2\text{ m}\Omega$, $I_D=20\text{ A}$, $Q_G=41\text{ nC}$, N-channel, logic-level device	PG-TDSON8

* Further product family members available



ATV xEV: Main Inverter OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Low quiescent current	Down to 5 μ A	Meeting the ECU level current consumption
Extremely long lifetime	Qualified according to truck mission profiles	Lower failure rates in the field
Higher tracker accuracy	SCT595: 3 x 2.5 mm TSON-10: 3.3 x 3.3 mm	Compact board design

Featured product	Description	V_{inmax} (t < 400ms)	Package
TLE425*	ADJ, $I_Q = 70\text{mA to } 250\text{ mA}$, $\pm 0.2\%$ output accuracy	40	DSO8 DSO8-EP DPAK D ² PAK

* Further product family members available

ATV xEV: Main Inverter OPTIREG™ PMIC



Application requirements	Infineon's Value Proposition	Customer Benefits
Ultra low quiescent current	Efficiency: save battery lifetime	Meeting the ECU level current consumption
Safety	UV/OV monitoring, window watchdog and Q&A	System reliability & better FIT rate



Featured product	Description	V _{inmax}	Package
TLF35584QVVS1 TLF35584QVVS2 TLF35584QKVS1 TLF35584QKVS2	Safety system-supply (ISO26262): Boost/buck-PreReg (5 V7 @ 1.3 A); μC-LDO (3 V3/5 V @ 600 mA); REF--LDO (5 V @ 150 mA); 2x tracker (5 V @ 150 mA); TRX-LDO (5 V @ 200 mA); StandBy-LDO (3 V3/5 V @ 10 mA); features: SPI; timer/counter; RES & Interrupt; UV/OV-monitoring; Q/A- & window-WD; safe-state-controller	40	VQFN48 EP LQFP64 EP



ATV xEV: Main Inverter Network ICs

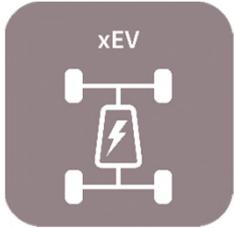


Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Supply	Automatic adaption to interface level	Support of 3.3 V & 5V μ C



Featured product	Description	Package
TLE9250SJ TLE9250LE	CAN FD 5 MBit/s Transceiver without bus wake and 5V I/O interface	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV xEV: Main Inverter Automotive MOSFETs

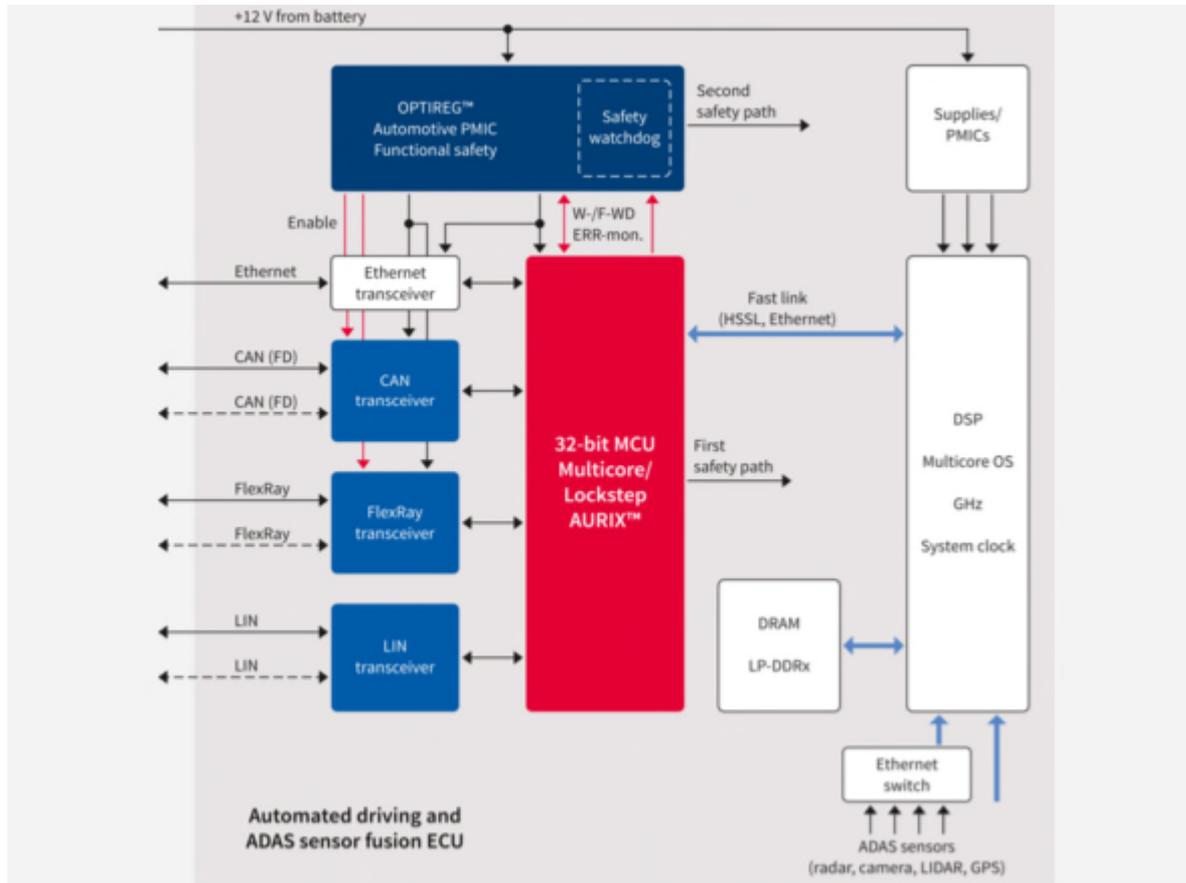


Application Requirements	Infineon's Value proposition	Customer benefits
Up to 30 kW in power	Package innovation	Higher power loading
Large inrush currents	Diverse solutions on offer	Enhanced heat dissipation
80/100 V MOSFETs	Quality leadership	Saving on cooling costs



Featured product	Description	Package
IAUS300N08S5N012 * (NEW!)	$V_{DS}=80V$, $R_{DS(ON)}=1.2\text{ m}\Omega$, $I_D=300\text{ A}$, $Q_G=178\text{ nC}$, N-channel, normal-level device	PG-HSOG-8
IAUT300N10S5N015 *	$V_{DS}=100V$, $R_{DS(ON)}=1.5\text{ m}\Omega$, $I_D=300\text{ A}$, $Q_G=166\text{ nC}$, N-channel, normal-level device	PG-HSOF-8

* Further product family members available



ATV Safety: ADAS OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Low noise	Suitable for radar based ADAS systems	Improved radar performance
Small PCB design	SCT595: 3 x 2.5 mm TSON-10: 3.3 x 3.3 mm	Compact board design
Flexibility	Supply of μ Cs, Cameras, Sensors, CAN, RAM, ...	Broad portfolio



Featured product	Description	V_{inmax}	Package
TLS202A1 TLS202B1* (NEW!)	V_{out} = Adjustable, 3.3V and 5V, I_Q =150 mA, Enable		SCT595-5
TLS203B0*	Post LDO V_{out} = 3.3V, 5V and Adjustable I_Q =300 mA, Enable, $24\mu V_{RMS}$ noise		DSO8 EP TSON10
TLS205B0*	Post LDO V_{out} = 3.3V, 5V and Adjustable I_Q =500 mA, Enable, $24\mu V_{RMS}$ noise		DSO8 EP TSON10
TLS208D1*	V_{out} = Adjustable and 3.3V, I_Q =800 mA, Enable and Reset, PSRR 62 dB and Ultra low noise		DSO8 EP TSON10

* Further product family members available

ATV Safety: ADAS OPTIREG™ Switcher



Application Requirements

Safety

Infineon's Value proposition

Enable, reset & watchdog

Customer benefits

System reliability & better FIT rate



Featured product	Description	V _{inmax}	Package
TLF51801ELV	Synchronous buck controller up-to 10 A; Features: EN, RES, WD, High current pre-regulator	40	SSOP14
TLF50281EL	Asynchronous low-Iq-buck; 5 V/500 mA; I _q <45 μA; f=2,2 MHz; 100% DC; features: EN, RES, WD	40	SSOP14
TLE8366EVx	Asynchronous buck; ADJ/1.8 A; 100% duty cycle; features: EN	40	DSO8-EP
TLE8386-2EL	Smart step-up controller for start-stop applications	40	SSOP14

ATV Safety: ADAS Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Robust & tiny	Small footprint packages	Smallest FlexRay in the market (TSON-14)



Featured product	Description	Package
TLE9251VSJ TLE9251VLE	CAN FD 5Mbits/s Transceiver with bus wake and V _{IO} for 3.3 & 5V interface	DSO-8 TSON-8
TLE9250VSJ TLE9250VLE	CAN FD 5Mbit/s Transceiver without bus wake and V _{IO} (3.3V & 5V interface)	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV Safety: ADAS System ICs – System Basis Chips



Application Requirements	Infineon's Value proposition	Customer benefits
High functionality & integration	Integrated diagnosis, supervision, safety and supporting features	Less development effort & time-to-market
High speed communication	Up to 5 MBit/s CAN FD	Faster & reliable communication
Small PCB design	Integrated SBC solution	Less external components, space savings & less BOM



Featured product	Description	Package
TLE9278-3BQX* TLE9278-3BQX V33*	Boost pre-regulator up to 12 V $V_{OUT1} = 3.3V$ or $5V$, $I_O=750mA$ (DCDC converter) V_{OUT2} with ext. PNP, selectable output voltage, load sharing feasible $I_q < 35\mu A$, 4 CAN FD 5MBit/s, CAN PN	VQFN-48

* Further product family members available

ATV: CAV OPTIREG™ Linear



Application Requirements	Infineon's Value proposition	Customer benefits
Load Dump up to 58V	No external components for load dump protection of LDO required	System level cost savings
Extremely long lifetime	Qualified according to truck mission profiles	Lower failure rates in the field



Featured product	Description	V _{inmax} (t < 400ms)	Package
TLT807B0EPV (NEW!)	I _Q = 70mA Stand-by supply for body applications within CAV, Adjustable output voltage, Enable, Quiescent Current 36µA	58V	TSDSO14
TLE4267*	I _Q = 400mA, Reset, Enable	60V	D ² PAK DSO14
TLE4270*	I _Q = 550mA, Reset	60V	D ² PAK DPAK
TLE4271*	I _Q = 550mA, Reset, Enable, Watchdog	60V	D ² PAK
TLE4471G	Triple output voltage regulator, Enable, Reset, Watchdog, 5V output with 450mA current capability, Two tracking outputs 50mA & 100mA	60V	DSO20
TLE4476D	Dual output voltage regulator, Enable, 3.3V output with 350mA output current and 5V output with 430mA current capability	60V	DPAK

* Further product family members available

ATV: CAV OPTIREG™ Switcher



Application Requirements

Safety

Infineon's Value proposition

UV/OV monitoring, window watchdog and Q&A

Customer benefits

System reliability & better FIT rate



Featured product	Description	V _{Inmax}	Package
TLE7368-2E TLE7368-3E TLE7368E	Buck PreReg (5 V5 @ 2.5 A); LDOs: 5 V @ 700 mA & 3.3 V/2.6 V @ 500 mA; LDO-controller: 1 V2/1 V3/1 V5; 2x trackers 5 V @ 50 mA and 105 mA; features: EN, RES, window-WD	45	DSO36 EP
TLF35584QVVS1 TLF35584QVVS2 TLF35584QKVS1 TLF35584QKVS2	Safety system-supply (ISO26262): Boost/buck-PreReg (5 V7 @ 1.3 A); μC-LDO (3 V3/5 V @ 600 mA); REF--LDO (5 V @ 150 mA); 2x tracker (5 V @ 150 mA); TRX-LDO (5 V @ 200 mA); StandBy-LDO (3 V3/5 V @ 10 mA); features: SPI; timer/counter; RES & interrupt; UV/OV-monitoring; Q/A- & window-WD; safe-state-controller	40	VQFN48 EP -- LQFP64 EP

ATV: CAV Network ICs



Application Requirements	Infineon's Value proposition	Customer benefits
CAN-FD	Up to 5 Mbit/s bandwidth	Faster & robust communication
FlexRay	Up to 10 Mbit/s bandwidth	Safety & real time
Robust & tiny	Small footprint packages	Smallest FlexRay in the market (TSON-14)



Featured product	Description	Package
TLE9251VSJ TLE9251VLE	CAN FD 5MBit/s Transceiver with bus wake and V _{IO} for 3.3 & 5V interface	DSO-8 TSON-8
TLE9250VSJ TLE9250VLE	CAN FD 5MBit/s Transceiver without bus wake and V _{IO} (3.3V & 5V interface)	DSO-8 TSON-8
TLE9222PX TLE9222LC	14-pin FlexRay Transceiver World's smallest 14-pin FlexRay Transceiver	TSSOP-14 TSON-14

ATV: CAV

3-Phase Gate Driver IC



Application Requirements	Infineon's Value proposition	Customer benefits
Versatile use	Wide input voltage range to operate at 12 V – 48 V	Enabling of platform concepts with simplified variant handling
Product performance	Smooth operation from 0...100% duty cycle	Full usage of the BLDC motor without any restrictions
Detailed diagnostics and protections incl limp home mode	Supports usage in safety relevant use cases	Increased system availability



Featured product	Description	Package
TLE9180D-21QK	3-phase gate driver IC with 2 current sense amplifier, supply range from 5.5 V – 60V, driver stage with typ. 2A output current, 0 – 100% duty cycle, extended protection & supervision	LQFP-64
TLE9180D-31QK	3-phase gate driver IC with 3 current sense amplifier, supply range from 5.5 V – 60V, driver stage with typ. 2A output current, 0 – 100% duty cycle, extended protection & supervision	LQFP-64

Solution Finder

Support



- Design Tools
- Parametric Product Finders

- [Thermal- & Electrical Simulation](#)
- [Power Discretes, Modules, Mixed Signal, MCU, Sensors](#)



Collaterals and Brochures



- Application Brochures
- Fighting Guides
- Presentations
- Product Briefs
- Selection Guides

- [Automotive Power Selection Guide](#)
- [Automotive Application Guide](#)
- [Hybrid Electric and Electric Cars](#)
- [Innovative Semiconductor Solutions](#)

Further Links



- Automotive Product Portfolio

- [Automotive OPTIREG™](#)
- [Automotive Network ICs](#)
- [Automotive System ICs](#)
- [Automotive AURIX™](#)
- [Automotive PROFET™](#)
- [Automotive HITFET™](#)
- [Automotive XENSIV™](#)
- [Automotive MOSFETs](#)
- [Automotive Embedded Power Ics](#)
- [Automotive Gate Driver](#)

Support



- Product eLearnings
- Application eLearnings
- Social Media

- [eLearnings](#)
- [Videos & Support](#)
- [Facebook](#) / [YouTube](#) / [Twitter](#) / [Forum](#)



Part of your life. Part of tomorrow.