



XENSIV™ current sensors

High-precision coreless current sensors
for automotive, industrial and consumer applications

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Infineon's coreless current sensor portfolio includes integrated current sensors and contactless magnetic field sensors (external current rail). Integrated sensors handle up to 130 A peak, ideal for on-board chargers, PV hybrid inverters, and PSUs. Contactless sensors support 100 A (PCB) to 2 kA (external busbars) and are suited for high-current applications like traction inverters, central inverters, and DC EV charging.

Infineon's XENSIV™ family of high-precision coreless open-loop current sensors is less bulky and costs less than core-based current sensors. Based on Infineon's precise and stable Hall effect current sensor IC technology, the current sensor analog output signal is highly linear over temperature and lifetime. Our newly released TMR sensors offer a high signal-to-noise ratio (SNR), low power consumption, and a high bandwidth of 1 MHz. Due to a lack of an iron core or a flux concentrator, the sensor signal shows neither hysteresis nor does it suffer from saturation.

The differential current sensor measurement with two Hall cells ensures high accuracy even in a noisy environment like crosstalk from adjacent current lines or magnetic stray fields.

System designers can program the sensitivity of the sensor as well as the threshold levels of up to two dedicated overcurrent signals and adapt them to individual requirements without any external components. The contactless current sensor IC also provides advanced diagnostic features for functional safety compliant with ISO 26262.

Product portfolio


On the one hand, we have the current sensors with an integrated current rail. The sensors in the TISON and DSO package enable accurate high-frequency measurements with minimal impact on the phase shift of the current signal. On the other hand, our current sensors for external current rails are non-invasive Hall-effect sensors that provide safe, reliable solutions for power electronics, as they do not require additional power dissipation. Our selection of isolated, contactless current sensors can be used for current detection and monitoring in SiC and GaN applications, including motor control applications.



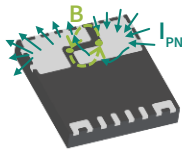
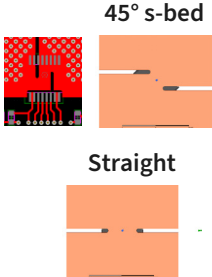
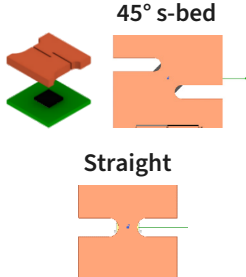
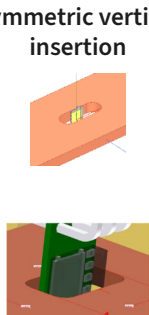
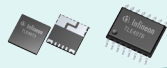
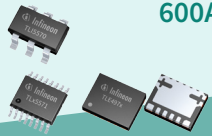
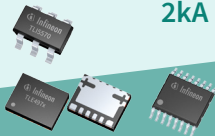

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Different packages & sensing structures enable multiple measurement ranges from 15A on PCB to 2kA on external busbar

 Current sensor simulation tool – currentsensorsim

Ampacity range based on sensor & package combination

Measurement geometry	Integrated current rail		External current rail	
	Lateral insertion	Lateral insertion		Vertical insertion
	PCB	PCB	Busbar	Busbar
	<ul style="list-style-type: none"> – Integrated current rail & sensing structures 	<ul style="list-style-type: none"> – Recommended sensing structure 45° s-bend or straight – Slit width 0.5mm (typical) 	<ul style="list-style-type: none"> – Recommended sensing structure 45° s-bend or straight – Slit width = busbar thickness 	<ul style="list-style-type: none"> – Recommended symmetrical structure 
Package & current range	<p>TISON, DSO-16</p> <p>20A – 130A</p> 	<p>SOT, TDSO, VSON</p> <p>100A – 600A</p> 	<p>SOT23, VSON, TDSO</p> <p>500A – 2kA</p> 	<p>VSON, Modules</p> <p>700A – 2kA</p> 
XENSIV™ current sensor family	<p>TLx4971</p> <p>TLE4973</p> <p>TLE4978</p> <p>TLE4977*</p>	<p>TLE4972 / 3</p> <p>TLI5570</p> <p>TLx5571 / 2*</p>	<p>TLE4972 / 3</p> <p>TLI5570</p> <p>TLx5571 / 2*</p>	<p>TLE4972 / 3</p> <p>Swoboda</p> <p>CSM510HP2</p>

*coming soon

Different packages & sensing structures enable multiple measurement ranges from 15A on PCB to 2kA on external busbar

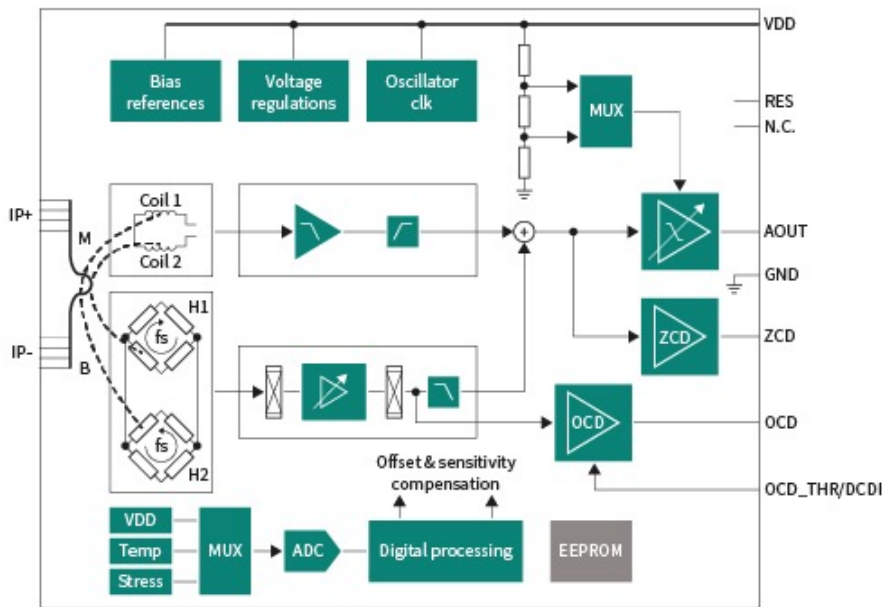


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TLE4978 XENSIV™ coreless magnetic current sensor, 5 V for on-board chargers, PV inverters, and AI datacenters)

XENSIV™ TLE4978, a highly precise coreless current sensor, is designed with the hybrid Hall + coil architecture. It delivers bi-directional AC-DC measurements with simultaneous overcurrent and zero-crossing detection (OCD and ZCD). Developed in accordance with ISO 26262 for safety requirements rated up to ASIL-B, its high 9 MHz bandwidth offers exceptional accuracy, low noise (typ. 38 mARMS), minimal sensitivity error over temperature and lifetime (max. ±1.2%), and low offset error over temperature and lifetime (max. 200 mA).



Features and benefits

Key features

- High bandwidth of 9 MHz
- Current measurement from 45 A to 67.5 A
- Supply voltage: 5 V
- 100 ns response overcurrent detection
- Operating ambient temperature: -40°C to 150°C (Grade 0)
- ASIL-B-classified
- DSO-16 300 mil package with basic isolation and reinforced isolation

Key benefits

- High versatility for different power ranges, with OCD and ZCD programming capabilities
- High bandwidth, enabling use across applications
- Highly precise measurement over temperature and lifetime
- Exceptional low-current measurement capabilities, thanks to low noise performance
- Easy integration with pre-calibrated and pre-programmed sensitivity

Product	Current range [A]	Bandwidth typ. [kHz]	Sensitivity [mV/A]	Accuracy [%]	Output noise density [$\mu\text{A}/\sqrt{\text{Hz}}$]	Certification	Industrial	Automotive	Supply [V]	Current rail	Package
TLE4978-R060W5-O-S0010	60	9 MHz	33	< 0.85	12.67 $\mu\text{A}/\sqrt{\text{Hz}}$	ISO26262, ASIL-B	✓	✓	5	internal	PG-DSO-16
TLE4978-R050W5-O-S0010	50	9 MHz	39	< 0.85	12.67 $\mu\text{A}/\sqrt{\text{Hz}}$	ISO26262, ASIL-B	✓	✓	5	internal	PG-DSO-16
TLE4978-R040W5-O-S0010	40	9 MHz	49	< 0.85	12.67 $\mu\text{A}/\sqrt{\text{Hz}}$	ISO26262, ASIL-B	✓	✓	5	internal	PG-DSO-16



Data Center



EV charging



On-board charger



Solar



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TLx4971 XENSIV™ coreless current sensor in DSO-16 (300 mm)

The TLI4971/TLE4971 current sensor, currently in mass production in the TISON-8 package, is also available in a DSO-16 (300 mm) package. This new package offers 8 mm clearance and creepage, isolation up to 1.7 kVpk (repetitive isolation voltage), and supports currents from 15 Apk to 50 Apk, with a continuous current rating of 45 Arms at 105°C. The DSO-16 version improves accuracy compared to the TISON-8 (1% vs. 2%) while maintaining the same bandwidth and overcurrent detection performance.



Potential applications

The TLx4971 is suitable for AC as well as DC measurement applications:

- Electrical drives
- Current monitoring
- On-board charger
- Auxiliary drives
- Inverters
- Overcurrent detection (OCD) etc.

Product validation

The "TLE" variant is validated according to AEC-Q100, Grade 0.

The "TLI" variant is UL certified according to UL-1577.

Qualified for automotive applications

Product	Current range [A]	Bandwidth typ. [kHz]	Sensitivity [mV/A]	Accuracy [%]	Output noise density [$\mu\text{A}/\sqrt{\text{Hz}}$]	Certification	Automotive	Industrial	Current rail	Package
TLI4971-A016W2-U-S0001	16	210	76	<1	300 typ.	UL		✓	Internal	PG-DSO-16-50
TLI4971-A020W2-U-S0001	20	210	61	<1	300 typ.	UL		✓	Internal	PG-DSO-16-50
TLI4971-A030W2-U-S0001	30	210	40	<1	300 typ.	UL		✓	Internal	PG-DSO-16-50
TLI4971-A035W2-U-S0001	35	210	35	<1	300 typ.	UL		✓	Internal	PG-DSO-16-50
TLI4971-A040W2-U-S0001	40	210	30	<1	300 typ.	UL		✓	Internal	PG-DSO-16-50
TLI4971-A050W2-U-S0001	50	210	23	<1	300 typ.	UL		✓	Internal	PG-DSO-16-50
TLE4971-A016W2-S0001	16	210	76	<1	300 typ.	ASIL B	✓	✓	Internal	PG-DSO-16-50
TLE4971-A020W2-S0001	20	210	61	<1	300 typ.	ASIL B	✓	✓	Internal	PG-DSO-16-50
TLE4971-A030W2-S0001	30	210	40	<1	300 typ.	ASIL B	✓	✓	Internal	PG-DSO-16-50
TLE4971-A035W2-S0001	35	210	35	<1	300 typ.	ASIL B	✓	✓	Internal	PG-DSO-16-50
TLE4971-A040W2-S0001	40	210	30	<1	300 typ.	ASIL B	✓	✓	Internal	PG-DSO-16-50
TLE4971-A050W2-S0001	50	210	23	<1	300 typ.	ASIL B	✓	✓	Internal	PG-DSO-16-50



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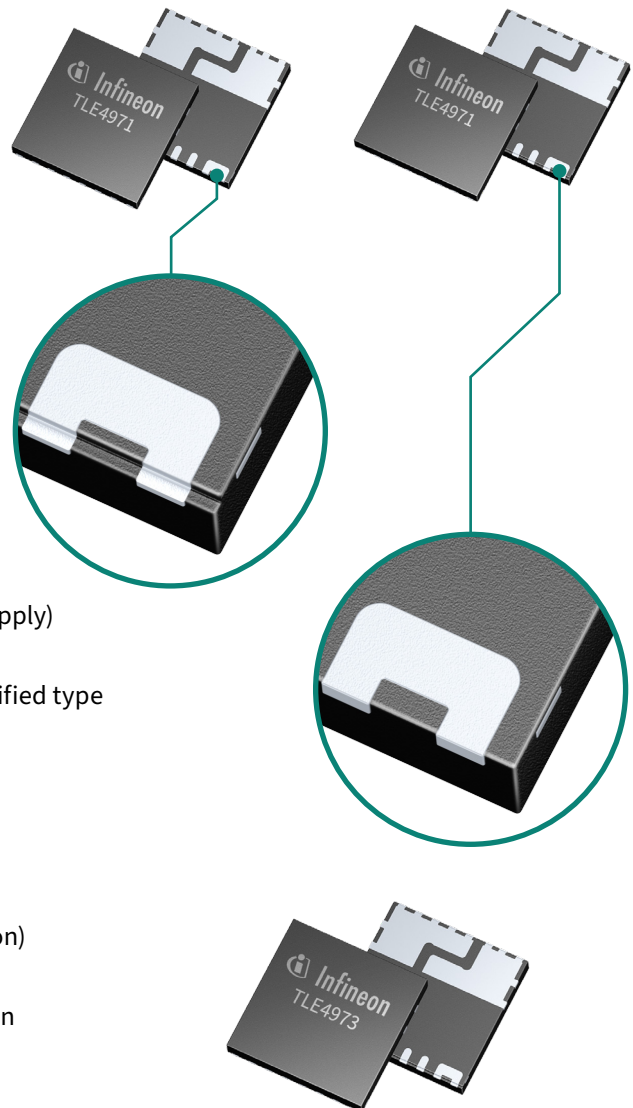
TLx4971/TLE4973 in the TISON-8-5 and TISON-8-6

The Infineon TLx4971 and TLE4973 in the TISON package are precise bidirectional AC-DC current sensors for up to 160 A. TLE4971 operates at 3.3 V, while TLE4973 operates at 5 V. Their coreless, open-loop Hall-effect design eliminates saturation and hysteresis, delivering highly linear and accurate readings. A double U-shaped current rail and differential sensing provide immunity to stray magnetic fields. Features include an analog interface, two fast overcurrent detection outputs, and galvanic isolation. Fully calibrated in a compact 8x8 mm TISON-8 SMD package, they require no end-of-line calibration and are reprogrammable for application-specific optimization in industrial drives, xEV auxiliary drives, PV inverters, DC fast chargers, and OBCs.

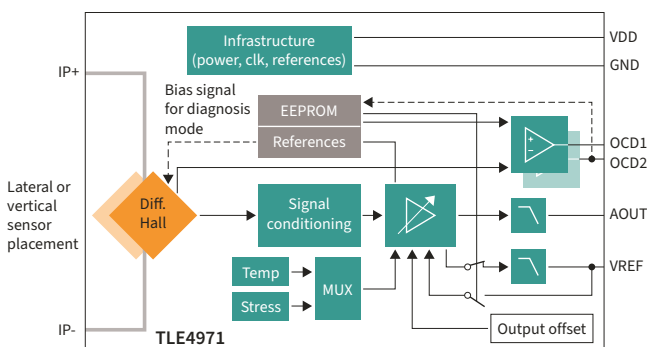
Features and benefits

- Measurement up to $70 A_{RMS}$ at $690 V_{RMS}$
- $120 A_{pk}$ for TLx4971 (3.3 V supply), $160 A_{pk}$ for TLE4973 (5 V supply)
- Typical error at 25°C <2%
- Current rail resistance at $220 \mu\Omega$ and inductance <1 nH specified type
- Analog output signal (with typ. 210 kHz) bandwidth
- Fast (<0.7 μs) overcurrent detection up to $2 \times I_{FSR}$
- 4 mm clearance and creepage, 975 Vpk Isolation
- AEC-Q100 Grade 1 qualified (125°C) for the TLE variant
- Ultralow power loss due to minimal resistance of current rail
- Reliable current measurement over lifetime (no re-calibration)
- Functional isolation for high-voltage application
- Easy and compact package allows high-power density design
- Pre-programmed variants for 25, 50, 75, and 120 A
- High accuracy, low noise analog output

Difference between TISON-8-6 and TISON-8-5



Block diagram



Due to its low resistance and inductance, the TLE4973's integrated current rail minimizes power loss and allows for a compact sensing circuit. The analog output (AOUT) offers flexible configuration options, including single-ended, semi-differential, and fully-differential modes, in conjunction with the voltage reference pin (VREF). Two independent overcurrent outputs (OCD1 and OCD2) trigger rapid fault detection when the current surpasses a predefined threshold.



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TLE4972/TLE4973

XENSIV™ contactless magnetic field sensors in external current rail packages

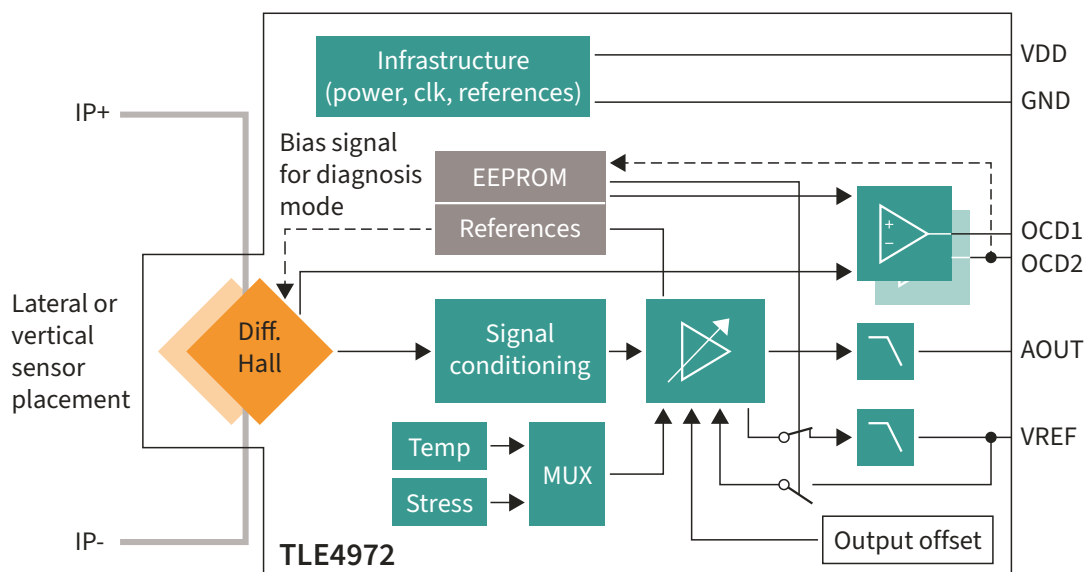
The XENSIV™ TLE4972/3 product family of coreless current sensors specifically addresses requirements for current sensing in automotive and industrial applications. The well-established and robust Hall technology enables accurate and highly linear current measurements of the magnetic field induced by the current. The compact design and ISO 26262-compliant ASIL rating, with advanced diagnostic mode, make the TLE4973 in 5 V ideal for high-current, safety-relevant xEV applications. The easy low-voltage programming, ratiometric output and external current rail package make the difference in traction inverters used in hybrid and battery-driven vehicles, as well as for battery main switches.



Features and benefits

- AC and DC Hall-based current sensor
- Differential measurement principle for coreless operation with no saturation or hysteresis effects
- High accuracy with very low error over temperature and lifetime
- Fast overcurrent detection to protect wide-bandgap SiC and GaN switching devices
- Fast overcurrent detection to protect wide band gap SiC and GaN switching devices
- Up to two dedicated pins for overcurrent detection
- Scalable sensitivity ideal for platform designs
- One wire low voltage programming for up to 8 sensors
- ASIL B as SEooC, ISO 26262-compliant for simplified functional safety assessment

Block diagram



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TLI5570-RE35E1-E0001 XENSIV™ high-precision coreless current sensor, a cost-effective shunt-replacement

The XENSIV™ TLI5570-AE35E1-E0001 is a high-precision miniature coreless magnetic sensor for AC and DC measurement. Our revolutionary, robust, highly linear monolithic Tunnel Magnetoresistance (TMR) technology enables accurate current measurement. With a bandwidth of more than 1.1 MHz, this sensor provides a non-amplified high-speed differential analog output signal to be directly connected to replace shunts.

Utilizing Infineon's new and highly linear TMR technology, this coreless sensor can measure currents accurately from 0 to ± 1000 A. In particular, the very high signal-to-noise ratio (SNR) performance of the TMR technology enables precise measurements even in applications with lower currents. Suitable for both AC and DC currents, the sensor's bandwidth of over 1 MHz delivers a non-amplified, high-speed differential analog output signal for direct connection to amplification stages. Our new-generation TMR sensor provides superior temperature and lifetime stability thanks to Infineon's extensive experience in magnetoresistive sensor technologies. Its industrial-grade qualification enables operation in harsh environments up to 125°C.

Potential applications

The TLI5570, a cost-effective shunt-replacement, is suitable for AC as well as DC current measurement applications:

- Power tools
- Home appliances
- Drones and robotics
- Auxiliary drives
- Inverters
- PV Optimizers

Product	Current range [A]	Bandwidth typ. [kHz]	Sensitivity [mV/A]	Accuracy [%]	Output noise density [$\mu\text{A}/\sqrt{\text{Hz}}$]	Certification	Automotive	Industrial	Current rail	Package
TLI5570-AE35E1-E0001	35	>1100	4.8	5%	5 typ.			✓	External	PG-SOT23-6



Click here to learn more:

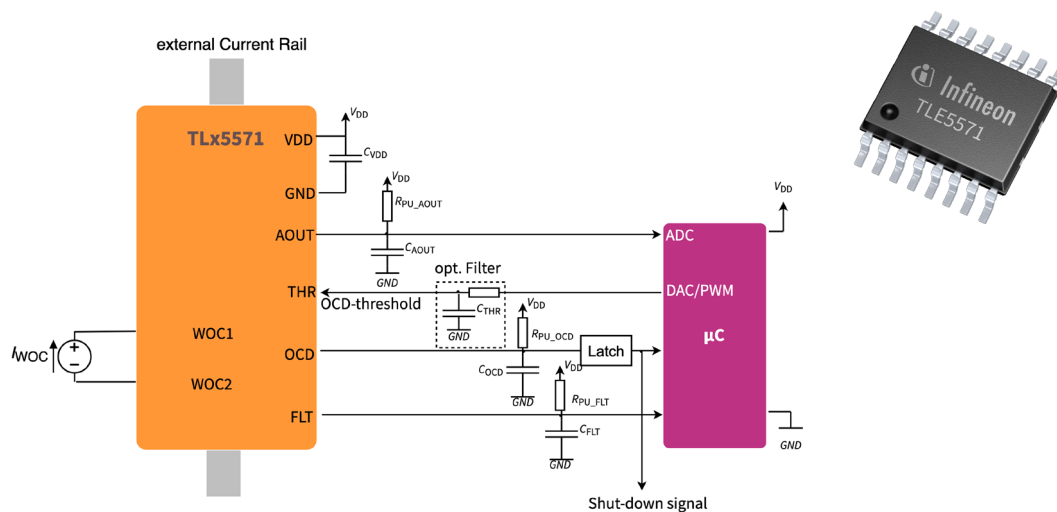
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TLE5571*

XENSIV™ fast overcurrent detection sensor for protection applications

The XENSIV™ TLE5571 is a differential Tunnel Magnetoresistance (TMR) based coreless current sensor with ultrafast single-ended analog output and overcurrent detection (OCD) with a programmable threshold. With a dedicated fault pin to report internal failures and an ASIL C compliant with ISO 26262, the device is particularly suitable for fast protection in automotive and industrial applications, such as HV efuse and solid-state circuit breakers (SSBC) that require current sensing with minimal input to output delay.

Application diagram



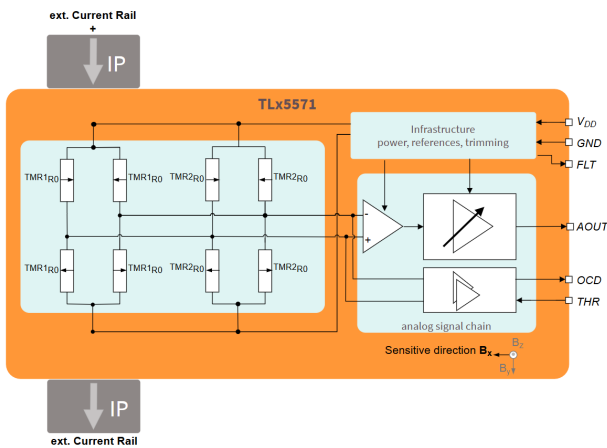
Features and benefits

Key features

- 2.5 MHz bandwidth with 200 ns analog output response time
- Ultrafast 150 ns OCD with programmable threshold
- Full scale from 5 to 35 mT differential field immune against external stray field
- Contactless isolated magnetic sensor with external current rail
- ISO 26262 Safety Element out of Context for safety requirements up to ASIL C

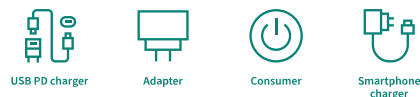
Key benefits

- Fast protection in HV power distribution units from 100 A on PCB to kA on busbar
- Compact solution, reduces footprint, and component count on PCB
- Flexible sensor placement with possibility for sensing current on high side
- Low resistance and no parasitic inductance effect for highest system efficiency
- Prevents false OCD trigger due to internal fault and simplify functional safety



The TLE5571 measures a magnetic field via two differential TMR bridges. The signal is fed into a first stage of amplification (OTA) and then through a high-bandwidth and high slew rate differential amplifier, which provides a single-ended output signal on the AOUT pin.

The OCD pin latches whenever the input differential field exceeds the threshold programmed on the THR pin. In case of internal failures, the sensor provides fault information on the FLT pin without affecting the OCD.



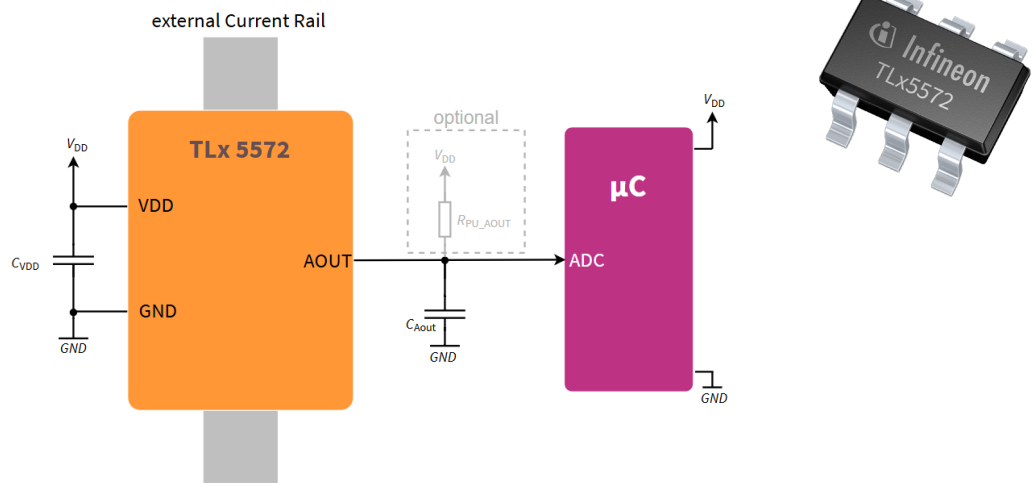
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TLx5572*

XENSIV™ cost competitive current sensor for shunt and OpAmp replacement

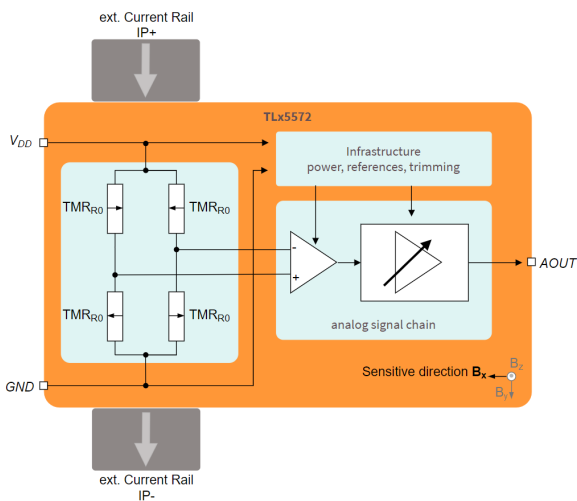
The XENSIV™ TLx5572 is a monocell TMR-based current sensor in a small and cost-competitive SOT23 package, which can replace a shunt and an OpAmp with a single component. The TLx5572 offers intrinsic isolation from the external current rail, with the benefit of reducing insertion resistance and allowing direct in-phase current measurement in automotive and industrial drives. And with its ultrafast response time, it also provides a suitable solution for fast protection.

Application diagram

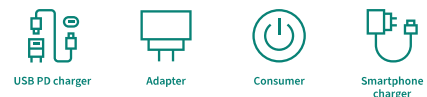


Features and benefits

Key features	Key benefits
– Small 2.4 x 2.9mm SOT23 package	– Cost competitive compact solution, reduces footprint and component count
– Isolated current measurement on external current rail	– Enable direct in-phase measurements in motor drives
– Wide full-scale measuring range from 4 mT to 39 mT	– Low resistance and no parasitic inductance effect for highest system efficiency
– High 1 MHz bandwidth with ultrafast 100 ns analog output	– Suitable to measure currents from 30 A on PCB to kA on busbar
– Available in 3.3 V and 5 V supply	– Fast protection for wide bandgap switching devices in automotive and industrial



The TLx5572 measures a magnetic field via a TMR bridge. The signal is fed into a first stage of amplification (OTA) and then through a high-bandwidth and high slew rate differential amplifier, which provides a single-ended output signal on the AOUT pin. The TLx5572 is compatible with 3.3 V and 5 V supplies.



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* Coming soon

Current sensors – overview

Product	Current range [A]	Bandwidth typ. [kHz]	Sensitivity [mV/A]	Accuracy [%]	Output noise density [$\mu\text{A}/\sqrt{\text{Hz}}$]	Classification	Industrial	Auto-motive	Supply [V]	Current rail	Package
TLI4971 family											
TLI4971-A025T5-E0001	25	240	48	<2	350	IEC 62368-1	✓	–	3.3	Internal	TISON-8-5
TLI4971-A050T5-E0001	50	240	24	<2	350		✓	–	3.3	Internal	TISON-8-5
TLI4971-A075T5-E0001	75	240	16	<2	350		✓	–	3.3	Internal	TISON-8-5
TLI4971-A120T5-E0001	120	240	10	<2	350		✓	–	3.3	Internal	TISON-8-5
TLI4971-A025T5-U-E0001	25	240	48	<2	350	UL1577/ IEC 62368-1	✓	–	3.3	Internal	TISON-8-5
TLI4971-A050T5-U-E0001	50	240	24	<2	350		✓	–	3.3	Internal	TISON-8-5
TLI4971-A075T5-U-E0001	75	240	16	<2	350		✓	–	3.3	Internal	TISON-8-5
TLI4971-A120T5-U-E0001	120	240	10	<2	350		✓	–	3.3	Internal	TISON-8-5
TLI4971-A016W2-U-S0001*	16	210	76	<1.5	300	UL	✓	–	–	Internal	DSO-16-50
TLI4971-A020W2-U-S0001*	20	210	61	<1.5	300	UL	✓	–	–	Internal	DSO-16-50
TLI4971-A030W2-U-S0001*	30	210	40	<1.5	300	UL	✓	–	–	Internal	DSO-16-50
TLI4971-A035W2-U-S0001*	35	210	35	<1.5	300	UL	✓	–	–	Internal	DSO-16-50
TLI4971-A040W2-U-S0001*	40	210	30	<1.5	300	UL	✓	–	–	Internal	DSO-16-50
TLI4971-A050W2-U-S0001*	50	210	23	<1.5	300	UL	✓	–	–	Internal	DSO-16-50
TLI5570 family											
TLI5570-AE35E1-E0001	35 [mT]	1100	4.8 [mV/V/mT]	5	5 μVrms		✓	–	–	external	SOT23-6-4
TLE4971 family											
TLE4971-A025N5-E0001	25	210	48	<2	260	AEC-Q100	✓	✓	3.3	Internal	TISON-8-5
TLE4971-A050N5-E0001	50	210	24	<2	260		✓	✓	3.3	Internal	TISON-8-5
TLE4971-A075N5-E0001	75	210	16	<2	260		✓	✓	3.3	Internal	TISON-8-5
TLE4971-A120N5-E0001	120	210	10	<2	260		✓	✓	3.3	Internal	TISON-8-5
TLE4971-A025N5-U-E0001	25	210	48	<2	260	AEC-Q100/UL 1577	✓	✓	3.3	Internal	TISON-8-5
TLE4971-A050N5-U-E0001	50	210	24	<2	260		✓	✓	3.3	Internal	TISON-8-5
TLE4971-A075N5-U-E0001	75	210	16	<2	260		✓	✓	3.3	Internal	TISON-8-5
TLE4971-A120N5-U-E0001	120	210	10	<2	260		✓	✓	3.3	Internal	TISON-8-5
TLE4971-A025T5-E0001	25	210	48	<2	260	AEC-Q100/ ISO 26262- compliant	✓	✓	3.3	Internal	TISON-8-6
TLE4971-A050T5-E0001	50	210	24	<2	260		✓	✓	3.3	Internal	TISON-8-6
TLE4971-A075T5-E0001	75	210	16	<2	260		✓	✓	3.3	Internal	TISON-8-6
TLE4971-A120T5-E0001	120	210	10	<2	260		✓	✓	3.3	Internal	TISON-8-6
TLE4971-A025T5-U-E0001	25	210	48	<2	260	AEC-Q100/ ISO 26262- compliant/ UL 1577	✓	✓	3.3	Internal	TISON-8-6
TLE4971-A050T5-U-E0001	50	210	24	<2	260		✓	✓	3.3	Internal	TISON-8-6
TLE4971-A075T5-U-E0001	75	210	16	<2	260		✓	✓	3.3	Internal	TISON-8-6
TLE4971-A120T5-U-E0001	120	210	10	<2	260		✓	✓	3.3	Internal	TISON-8-6
TLE4971-A016W2-S0001	16	210	76	<1.5	300	ASIL B	✓	✓	–	Internal	DSO-16-50
TLE4971-A020W2-S0001	20	210	61	<1.5	300		✓	✓	–	Internal	DSO-16-50
TLE4971-A030W2-S0001	30	210	40	<1.5	300		✓	✓	–	Internal	DSO-16-50
TLE4971-A035W2-S0001	35	210	35	<1.5	300		✓	✓	–	Internal	DSO-16-50
TLE4971-A040W2-S0001	40	210	30	<1.5	300		✓	✓	–	Internal	DSO-16-50
TLE4971-A050W2-S0001	50	210	23	<1.5	300		✓	✓	–	Internal	DSO-16-50
TLE4972 family											
TLE4972-AE35D5	31 [mT]	210	39 ¹⁾ [mV/mT]	1	90 [nT/ $\sqrt{\text{Hz}}$]	AEC-Q100/ ISO 26262- compliant	✓	✓	3.3	external	TDSO-16
TLE4972-AE35S5	31 [mT]	210	39 ¹⁾ [mV/mT]	1	90 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	3.3	external	VSON-6

1) Can be reprogrammed by customer



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Current sensors – overview

Product	Current range [A]	Bandwidth typ. [kHz]	Sensitivity [mV/A]	Accuracy [%]	Output noise density [$\mu\text{A}/\sqrt{\text{Hz}}$]	Classification	Industrial	Auto-motive	Supply [V]	Current rail	Package
TLE4973 family											
TLE4973-A025T5-S0001	27.5	210	65.5	<2	290	ISO 26262-compliant/AEC-Q100	✓	✓	5.0	Internal	TISON-8-6
TLE4973-A050T5-S0001	55	210	32.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-A075T5-S0001	82.5	210	21.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-A120T5-S0001	132	210	13.7	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R025T5-S0001	27.5	210	65.5	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R050T5-S0001	55	210	32.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R075T5-S0001	82.5	210	21.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R120T5-S0001	132	210	13.7	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R025T5-S0010	27.5	210	65.5	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R050T5-S0010	55	210	32.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R075T5-S0010	82.5	210	21.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R120T5-S0010	132	210	13.7	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R025T5-U-S0010	27.5	210	65.5	<2	290	ISO 26262-compliant/AEC-Q100/UL 1577	✓	✓	5.0	Internal	TISON-8-6
TLE4973-R050T5-U-S0010	55	210	32.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R075T5-U-S0010	82.5	210	21.8	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-R120T5-U-S0010	132	210	13.7	<2	290		✓	✓	5.0	Internal	TISON-8-6
TLE4973-AE35D5-S0001	34 [mT]	210	53 ¹⁾ [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]	ISO 26262-compliant/AEC-Q100	✓	✓	5.0	external	TDSO-16
TLE4973-RE35D5-S0001	34 [mT]	210	53 ¹⁾ [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	5.0	external	TDSO-16
TLE4973-RE35D5-S0010	34 [mT]	210	53 ¹⁾ [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	5.0	external	TDSO-16
TLE4973-AE35S5-S0001	34 [mT]	210	53 ¹⁾ [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	5.0	external	VSON-6
TLE4973-RE35S5-S0001	34 [mT]	210	53 ¹⁾ [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	5.0	external	VSON-6
TLE4973-RE35S5-S0010	34 [mT]	210	53 ¹⁾ [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	5.0	external	VSON-6
TLE4973-RE35S5-S3510*	17 [mT]	210	105.8 [mV/mT]	1	70 [nT/ $\sqrt{\text{Hz}}$]		✓	✓	5.0	external	VSON-6
TLE4978 family											
TLE4978-R060W5-O-S0010	60	9	33	<0.85	12.67 $\mu\text{A}/\sqrt{\text{Hz}}$	ISO26262, ASIL-B	✓	✓	5.0	Internal	DSO-16
TLE4978-R050W5-O-S0010	50	9	39	<0.85	12.67 $\mu\text{A}/\sqrt{\text{Hz}}$		✓	✓	5.0	Internal	DSO-16
TLE4978-R040W5-O-S0010	40	9	49	<0.85	12.67 $\mu\text{A}/\sqrt{\text{Hz}}$		✓	✓	5.0	Internal	DSO-16
TLx5572 family*											
TLE5572-AE24E1-R-E0001*	24~39 ²⁾ [mT]	2500	56 [mV/mT]	4	8.1 μTrms	AEC-Q100	-	✓	-	external	SOT23-6-4
TLE5572-AE15E1-R-E0001*	15~24 ²⁾ [mT]	2500	90 [mV/mT]	4	8.1 μTrms		-	✓	-	external	SOT23-6-4
TLE5572-AE12E1-R-E0001*	12~20 ²⁾ [mT]	2500	112.5 [mV/mT]	4	8.1 μTrms		-	✓	-	external	SOT23-6-4
TLE5572-AE08E1-R-E0001*	8~12 ²⁾ [mT]	2500	180 [mV/mT]	4	8.1 μTrms		-	✓	-	external	SOT23-6-4
TLE5572-AE06E1-R-E0001*	6~10 ²⁾ [mT]	2500	225 [mV/mT]	4	8.1 μTrms		-	✓	-	external	SOT23-6-4
TLE5572-AE04E1-R-E0001*	4~6 ²⁾ [mT]	2500	360 [mV/mT]	4	8.1 μTrms		-	✓	-	external	SOT23-6-4
TLI5572-AE24E1-R-E0001*	24~39 ²⁾ [mT]	2500	56 [mV/mT]	4	8.1 μTrms		✓	-	-	external	SOT23-6-4
TLI5572-AE15E1-R-E0001*	15~24 ²⁾ [mT]	2500	90 [mV/mT]	4	8.1 μTrms		✓	-	-	external	SOT23-6-4
TLI5572-AE12E1-R-E0001*	12~20 ²⁾ [mT]	2500	112.5 [mV/mT]	4	8.1 μTrms		✓	-	-	external	SOT23-6-4
TLI5572-AE08E1-R-E0001*	8~12 ²⁾ [mT]	2500	180 [mV/mT]	4	8.1 μTrms		✓	-	-	external	SOT23-6-4
TLI5572-AE06E1-R-E0001*	6~10 ²⁾ [mT]	2500	225 [mV/mT]	4	8.1 μTrms		✓	-	-	external	SOT23-6-4
TLI5572-AE04E1-R-E0001*	4~6 ²⁾ [mT]	2500	360 [mV/mT]	4	8.1 μTrms		✓	-	-	external	SOT23-6-4
TLE5571 family*											
TLE5571-AE36O5-I-S0001*	30 [mT]	2500	72 [mV/mT]	4	6.6 μTrms	ISO 26262-compliant/AEC-Q100	-	✓	-	external	TDSO-16-10
TLE5571-AE24O5-I-S0001*	20 [mT]	2500	108 [mV/mT]	4	6.6 μTrms		-	✓	-	external	TDSO-16-10
TLE5571-AE12O5-I-S0001*	10 [mT]	2500	216 [mV/mT]	4	6.6 μTrms		-	✓	-	external	TDSO-16-10
TLE5571-AE06O5-I-S0001*	5 [mT]	2500	432 [mV/mT]	4	6.6 μTrms		-	✓	-	external	TDSO-16-10

1) Can be reprogrammed by customer

2) X ~ Y [mT] : X is the full scale input magnetic range with 3.3 V supply. Y is the full-scale range with 5 V supply

* Coming soon



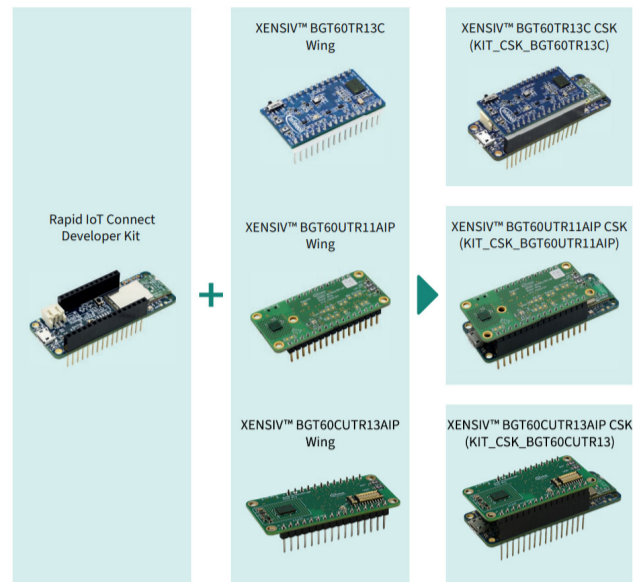
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XENSIV™ connected sensor kit

Rapid IoT prototyping experience enabled by XENSIV™ sensors

The XENSIV™ connected sensor kit enables rapid development of a custom solution built on Infineon products. The CSK supports customers in testing sensor-driven IoT products and use cases, as well as in prototyping. It offers a real-time sensor evaluation with custom configurations. The development kit supports use cases based on XENSIV™ sensors, e.g., BGT60CUTR13AIP, BGT60TR13C and BGT60UTR11AIP 60 GHz radars, and DPS368 pressure sensor (sense), PSoC™ 62 microcontroller embedded processing (compute), connectivity via Infineon AIROC™ CYW43012 dual-band 2.4 GHz and 5 GHz Wi-Fi 4 (802.11n) and Bluetooth® 5.4 combo radio module (connect), and hardware security with OPTIGA™ Trust M (secure). Code examples and sensor libraries are available in the ModusToolbox™ to help customers create use case-specific application codes for new product offerings.

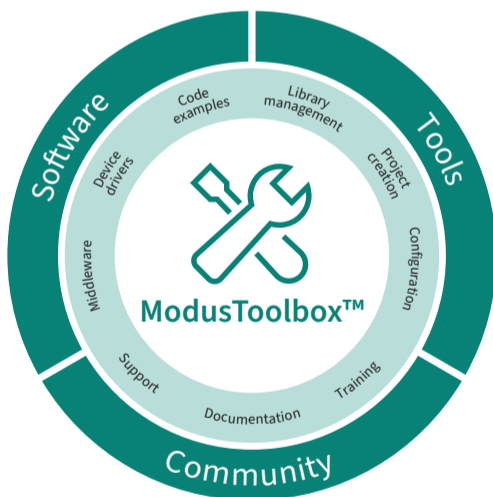


Features

- Small form factor: 22.5 x 63 x 30 mm³ – Adafruit Feather compatible
- Wi-Fi and Bluetooth® 5.0-compliant combo radio module
- Power optimized design, deployable with battery
- Interchangeable sensor Wing boards stacked individually or combined
- Seamless integration into ModusToolbox™
- FCC and CE certified

Benefits

- Ideal for prototyping battery-powered IoT devices due to optimized power consumption. Suited for customer field trials.
- Rapid development and deployment via code examples in ModusToolbox™ for presence detection, entrance counter, air quality measurements. Enabler for multi-sensor data fusion.



Product	Description	OPN No.
KIT_CSK_BGT60TR13C	Connected sensor kit (CSK) featuring XENSIV™ BGT60TR13C 60 GHz radar sensor Wing board	KITCSKBGT60TR13CTOBO1
KIT_CSK_BGT60UTR11AIP	Connected sensor kit (CSK) featuring XENSIV™ BGT60UTR11AIP 60 GHz radar sensor Wing board	KITCSKBGT60UTR11AIPTOBO1
KIT_CSK_BGT60CUTR13	Connected sensor kit (CSK) featuring XENSIV™ BGT60CUTR13AIP 60 GHz CMOS radar sensor Wing board	KITCSKBGT60CUTR13TOBO1

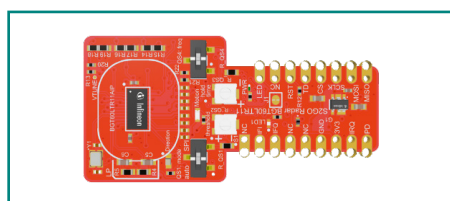
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Shield2Go

Infineon's Shield2Go boards offer a unique customer and evaluation experience

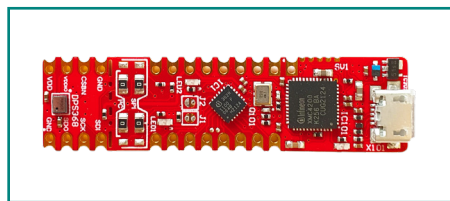
The boards are equipped with one Infineon IC and a ready-to-use Arduino library. Customers can now develop their own system solutions by combining

Sensor2Go boards together with Infineon MyIoT adapters. MyIoT adapters are gateways to external hardware solutions like Arduino and Raspberry Pi, popular IoT hardware platforms. All this enables the fastest evaluation and development of the IoT system.



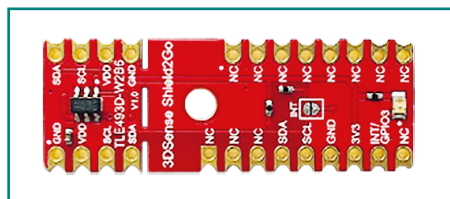
Product name: BGT60LTR11AIP Radar Shield2Go
Sales name: S2GO RADAR BGT60LTR11
Ordering code: SP005594890

Product
information



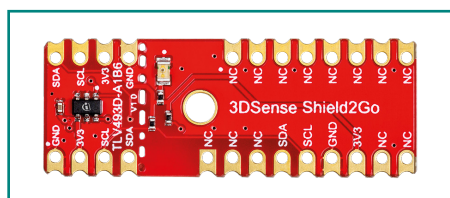
Product name: DPS368 pressure sensor Shield2Go
Sales name: KIT_DPS368_2GO
Ordering code: SP005729572

Product
information



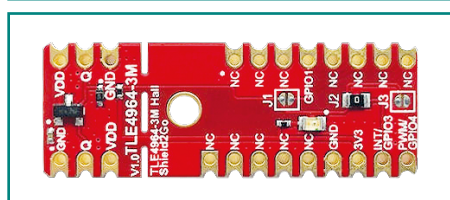
Product name: TLE493DW2B6 3D Sense Shield2Go
Sales name: S2GO_3D_TLE493DW2B6-A0
Ordering code: SP004308594

Product
information



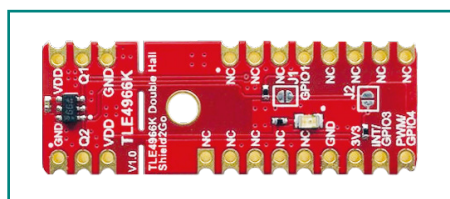
Product name: TLV493D 3D Sense Shield2Go
Sales name: S2GO_3D-SENSE_TLV493D
Ordering code: SP001823678

Product
information



Product name: TLE4964-3M Hall Sense Shield2Go
Sales name: S2GO_HALL_TLE4964-3M
Ordering code: SP004308590

Product
information



Product name: TLE4966K Double Hall Sense Shield2Go
Sales name: S2GO_2_HALL_TLE4966K
Ordering code: SP004308598

Product
information



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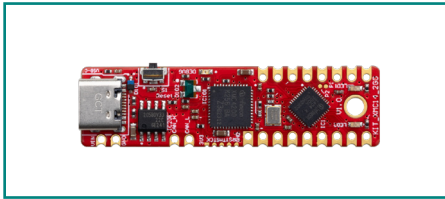
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Shield2Go

Microcontroller



Product name: XMC1400 2Go kit

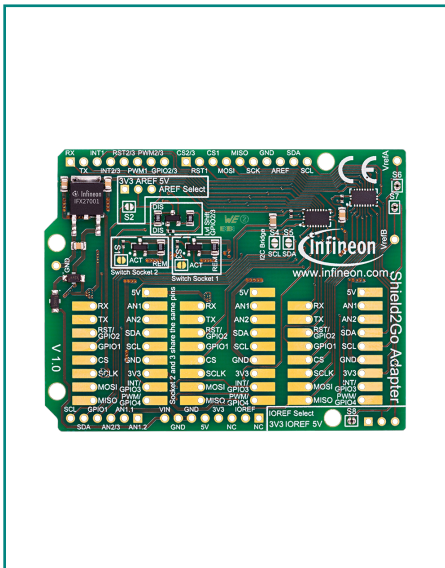
Sales name: KIT_XMC14_2GO

Ordering code: SP006065576

Product
information



MyIoT Adapter



Product name: MyIoT Adapter

Sales name: MY IOT ADAPTER

Ordering code: SP002434972

Infineon's Shield2Go boards offer a unique customer and evaluation experience – the boards are equipped with one Infineon IC and a ready-to-use Arduino library. Customers can now develop their own system solutions by combining Shield2Go boards with Infineon MyIoT adapters.

MyIoT adapters are gateways to external hardware solutions like Arduino and Raspberry Pi, popular IoT hardware platforms. This enables the fastest evaluation and development of IoT systems.

Product
information



XENSIV™ Sensor Shield



Product name: XENSIV™ Sensor Shield

Sales name: SHIELD_XENSIV_A

Ordering code: SP006018677

Infineon's XENSIV™ Sensor Shield provides seamless hardware compatibility between sensors, microcontrollers, and connectivity products. When paired with an MCU / Wi-Fi baseboard via the Arduino UNO interface, the board enables developers to quickly evaluate and develop with environmental sensors like:

- 60 GHz radars
- PDM microphones
- Pressure sensors
- Six-axis IMU
- Three-axis magnetometer
- Temperature and humidity

The shield also features a TFT display (80x160), and OPTIGA™ Trust-M secure element, and a QWIIC connector for additional peripheral expandability.

Product
information



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Sensor2Go kits

Affordable plug-and-play development boards

Sensor2Go kits come equipped with advanced sensors and an integrated Arm® Cortex®-M0 CPU, making them the perfect choice for developers and hobbyists. These kits include a complete set of on-board devices, such as an on-board debugger, allowing you to quickly build and customize your own applications and gadgets.

<p>Absolute Pressure (MAP and BAP) Sensor2Go kits</p> <p>Product name: KP215F1701-PS2GO-KIT KP229E3518-PS2GO-KIT KP236-PS2GO-KIT KP254-PS2GO-KIT KP276-PS2GO-KIT</p> <p>Ordering code: SP002676652 SP002676656 SP002676664 SP002676664 SP005910372</p>	<p>Product information</p> 
<p>Magnetic 3D Sensor2Go kits</p> <p>Product name: TLE493D-W2B6 MS2GO TLV493D-A1B6 MS2GO</p> <p>Ordering code: SP001707578 SP001707574</p>	<p>Product information</p> 
<p>Magnetic angle Sensor2Go kits</p> <p>Product name: TLE5012B_E1000_MS2GO TLI5012B_E1000_MS2GO TLE5012B_E5000_MS2GO TLE5012B_E9000_MS2GO</p> <p>Ordering code: SP002133956 SP002133960 SP002133964 SP002133968</p>	<p>Product information</p> 
<p>Current Sensor2Go kits</p> <p>Product name: TLI4971_MS2GO TLE4973_MS2GO</p> <p>Ordering code: SP005345474 SP006039680</p>	<p>Product information</p> 
<p>Magnetic speed Sensor2Go kits</p> <p>Product name: TLE4922 MS2GO</p> <p>Ordering code: SP003029974</p>	<p>Product information</p> 
<p>Magnetic switches Sensor2Go kits</p> <p>Product name: TLE4966_MS2GO</p> <p>Ordering code: SP005406992</p>	<p>Product information</p> 







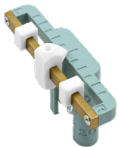



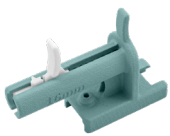





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Add ons for Sensor2Go kits and Shield2Go

	<p>Joystick for all 3D magnetic Sensor2Go kits and Shield2Go Product name: JOYSTICK FOR 3D 2 GO KIT Ordering code: SP001491834</p>	<p>Product information</p> 
	<p>Rotate knob for all 3D magnetic Sensor2Go kits, angle Sensor2Go kits and 3D magnetic sensor Shield2Go Product name: ROTATE KNOB 3D 2 GO KIT Ordering code: SP001504602</p>	<p>Product information</p> 
	<p>Linear slider for all 3D magnetic Sensor2Go kits and Shield2Go Product name: LINEAR-SLIDER 2GO Ordering code: SP002043034</p>	<p>Product information</p> 
	<p>Out of shaft adapter for all 3D magnetic Sensor2Go kits and Shield2Go Product name: OUT OF SHAFT FOR 3D 2 GO Ordering code: SP003475178</p>	<p>Product information</p> 
	<p>Linear control trigger for all 3D magnetic Sensor2Go kits and Shield2Go Product name: POWER_DRILL2GO Ordering code: SP005350194</p>	<p>Product information</p> 
	<p>Human machine interface (HMI) direction indicator for all 3D magnetic Sensor2Go kits and Shield2Go Product name: DIR_INDICATOR2GO Ordering code: SP005350196</p>	<p>Product information</p> 
	<p>HMI mini control with 4 directions and 360° rotation for all 3D magnetic Sensor2Go kits and Shield2Go Product name: MINI_CONTROL2GO Ordering code: SP005350192</p>	<p>Product information</p> 



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Add ons for Sensor2Go kits and Shield2Go

	<p>OpenClose adapter for Hall switch Shield2Go Product name: OPENCLOSE2GOHS Ordering code: SP005544849</p>	<p>Product information</p> 
	<p>Play2Go for 3D magnetic sensor Product name: 3D PLAY2GO KIT Ordering code: SP005731811</p>	<p>Product information</p> 
	<p>Contactless switch array for all 3D magnetic Sensor2Go kits and Shield2Go Product name: Contactless switch array Ordering code: Simply use our 3D printing files, link to, and start your 3D print.</p>	<p>Product information</p> 
	<p>Spindle2Go for all 3D magnetic sensor Shield2Go Product name: SPINDLE2GO Ordering code: SP005989689</p>	<p>Product information</p> 
	<p>Drill Trigger V2 for all 3D magnetic Sensor2Go kits Product name: DRILL TRIGGER V2 Ordering code: SP006066136</p>	<p>Product information</p> 



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Evaluation boards – for simple and easy evaluation

	<p>MEMS microphones flex evaluation kits</p> <p>Product name:</p> <p>code:</p> <table border="0"> <tr><td>EVAL_IM69D120_FLEKKIT</td><td>SP002153026</td></tr> <tr><td>EVAL_IM69D130_FLEKKIT</td><td>SP002153022</td></tr> <tr><td>KIT_IM66D130MV01_FLEX</td><td>SP006038060</td></tr> <tr><td>KIT_IM66D132HV01_FLEX</td><td>SP006038061</td></tr> <tr><td>KIT_IM68A130V01_FLEX</td><td>SP005728206</td></tr> <tr><td>KIT_IM68D121JV01_FLEX</td><td>SP006155584</td></tr> <tr><td>KIT_IM68D128BV01_FLEX</td><td>SP006114517</td></tr> <tr><td>KIT_IM69D127V11_FLEX</td><td>SP005403891</td></tr> <tr><td>KIT_IM69D128SV01_FLEX</td><td>SP005744505</td></tr> <tr><td>KIT_IM69D129FV01_FLEX</td><td>SP006038667</td></tr> <tr><td>KIT_IM70A135V01_FLEX</td><td>SP005728204</td></tr> <tr><td>KIT_IM70D122V01_FLEX</td><td>SP005826638</td></tr> <tr><td>KIT_IM72D128V01_FLEX</td><td>SP005429924</td></tr> <tr><td>KIT_IM72D128VV01_FLEX</td><td>SP006038668</td></tr> <tr><td>KIT_IM73A135V01_FLEX</td><td>SP005415695</td></tr> </table>	EVAL_IM69D120_FLEKKIT	SP002153026	EVAL_IM69D130_FLEKKIT	SP002153022	KIT_IM66D130MV01_FLEX	SP006038060	KIT_IM66D132HV01_FLEX	SP006038061	KIT_IM68A130V01_FLEX	SP005728206	KIT_IM68D121JV01_FLEX	SP006155584	KIT_IM68D128BV01_FLEX	SP006114517	KIT_IM69D127V11_FLEX	SP005403891	KIT_IM69D128SV01_FLEX	SP005744505	KIT_IM69D129FV01_FLEX	SP006038667	KIT_IM70A135V01_FLEX	SP005728204	KIT_IM70D122V01_FLEX	SP005826638	KIT_IM72D128V01_FLEX	SP005429924	KIT_IM72D128VV01_FLEX	SP006038668	KIT_IM73A135V01_FLEX	SP005415695	<p>Product information</p> 
EVAL_IM69D120_FLEKKIT	SP002153026																															
EVAL_IM69D130_FLEKKIT	SP002153022																															
KIT_IM66D130MV01_FLEX	SP006038060																															
KIT_IM66D132HV01_FLEX	SP006038061																															
KIT_IM68A130V01_FLEX	SP005728206																															
KIT_IM68D121JV01_FLEX	SP006155584																															
KIT_IM68D128BV01_FLEX	SP006114517																															
KIT_IM69D127V11_FLEX	SP005403891																															
KIT_IM69D128SV01_FLEX	SP005744505																															
KIT_IM69D129FV01_FLEX	SP006038667																															
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KIT_IM70D122V01_FLEX	SP005826638																															
KIT_IM72D128V01_FLEX	SP005429924																															
KIT_IM72D128VV01_FLEX	SP006038668																															
KIT_IM73A135V01_FLEX	SP005415695																															
<p>MEMS microphones Audiohub Nano boards</p> <p>Product name:</p> <p>EVAL AHNB DIGITALV01</p> <p>EVAL AHNB ANALOGV01</p>	<p>Ordering code:</p> <p>SP005955184</p> <p>SP005568087</p> <p>Product information</p> 																															
<p>Current sensors evaluation boards</p> <p>Product name:</p> <p>TLE4973 EVAL 120A</p> <p>TLE4973 EVAL INLAY</p> <p>TLE4973 EVAL STD PCB</p> <p>TLE4973 EVAL VER BAR</p> <p>TLE4973 EVAL LAT BAR</p> <p>TLE4972 EVAL LAT BAR</p> <p>TLE4972 EVAL STD PCB</p> <p>TLE4972 EVAL INLAY</p> <p>TLI4971 EVAL 120A</p> <p>TLE4971 EVAL 120A</p>	<p>Ordering code:</p> <p>SP006015313</p> <p>SP005853842</p> <p>SP005853840</p> <p>SP005853847</p> <p>SP005853844</p> <p>SP005632140</p> <p>SP005632136</p> <p>SP005632138</p> <p>SP005876845</p> <p>SP005343588</p> <p>Product information</p> 																															
<p>Linear sensors evaluation boards</p> <p>Product name:</p> <p>TLI5590 SATELLITE</p> <p>TLI5590 EVAL KIT</p>	<p>Ordering code:</p> <p>SP005857647</p> <p>SP005857645</p> <p>Product information</p> 																															
	<p>Magnetic position sensors evaluation boards</p> <p>Product name: GAME CONTROLLER</p> <p>Ordering code: SP006056290</p>	<p>Product information</p> 																														
<p>Position sensors evaluation boards</p> <p>Product name:</p> <p>TLI49012 EVAL KIT*</p>	<p>Ordering code:</p> <p>SP006227376</p> <p>Product information</p> 																															



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Choose the best fit magnetic sensor solution from the broadest portfolio

Our sensor simulation tools allow you to compare products in application conditions. The tools are easy-to-use and will guide you in identifying the most suitable Infineon XENSIV™ sensor combined with the best-fit magnet.

 <p>Current sensor</p>	<p>XENSIV™ current sensors simulation tool</p> <p>Define and optimize your system's current sensing structure. The tool supports the design of lateral and vertical insertions for PCB (two to ten-layer stack) or bus-bar-based applications. The simulation will provide insertion resistance, field transfer factor, sensitivity range, measurement range, and power dissipation, as well as cross-talk in a three-phase system.</p> <p>Try it out</p>
 <p>3D sensor</p>	<p>XENSIV™ 3D sensors simulation tool</p> <p>3D magnetic field sensor for smaller, more accurate, and robust designs. The sensor family, with low current consumption and cost-optimized design, specifically addresses the needs of new magnetic sensor applications in consumer, industrial, and automotive. They are ideally suited for measuring three-dimensional movement within a magnetic field, linear slide movement, and 360° angle rotation.</p> <p>Try it out</p>
 <p>Switches and latches</p>	<p>XENSIV™ switches and latches simulation tool</p> <p>Discover Infineon's broad energy-saving portfolio of Hall switches and latches in the smallest package. Simulate your Hall switch applications and see the results in an accurate simulation of the magnetic field and the switching behavior of the Hall switch in the application.</p> <p>Try it out</p>
 <p>Angle sensor</p>	<p>XENSIV™ angle sensors simulation tool</p> <p>Highest variety - low end to high end, standardized and specialized in all four magnetic technologies: Hall, GMR, AMR, and TMR. This tool calculates the valid distance from the magnet surface to the sensor and the assembly error, given certain parameters: magnetic properties, sensor specification, and assembly tolerances.</p> <p>Try it out</p>
 <p>Magnetic speed sensor</p>	<p>XENSIV™ magnetic speed sensors solution tool</p> <p>Infineon's innovative speed sensor solution tool will provide a sensor recommendation for your tooth wheel and back bias magnet geometry. The sensors are ranked according to their expected maximum air gap capability. Customer constraints like enhanced stray field immunity, the necessity for a direction channel, or the sensor interface are considered in the selection process.</p> <p>Try it out</p>
 <p>Magnetic position sensors</p>	<p>XENSIV™ magnetic position sensors design tool</p> <p>Infineon's innovative design tool covers some typical applications which can be addressed with 3D, angle or linear magnetic sensors:</p> <ul style="list-style-type: none"> - Angle measurement (rotational movement of the magnet) - Linear position measurement (linear movement of the magnet) - Joystick (3D movement of the magnet) - Additionally: stray field consideration <p>The tool provides pre-defined or user-customized magnets. The tool automatically calculates the magnetic field components at the sensor location. Calculation is based on the sensor arrangement defined by the user. Mechanical mounting tolerances of the sensor and the magnet are considered.</p> <p>Try it out</p>



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ISO 26262 – Functional Safety (FuSa)

Dependable electronics based on Functional Safety

Automotive Functional Safety – we simplify the process of integrating safety features with our safety guidelines and services.

Infineon provides dependable electronics to support today's safety-relevant systems and future fail-operational solutions, serving as essential components that allow customers to meet their safety requirements at the application level. Highly integrated systems equipped with reliable electronic semiconductors play a crucial role in key application areas like connectivity, electromobility, and advanced levels of automated driving. The ISO 26262 standard establishes requirements and provides guidance for integrating products into automotive safety applications.

Discover Infineon's products with ISO 26262 classification

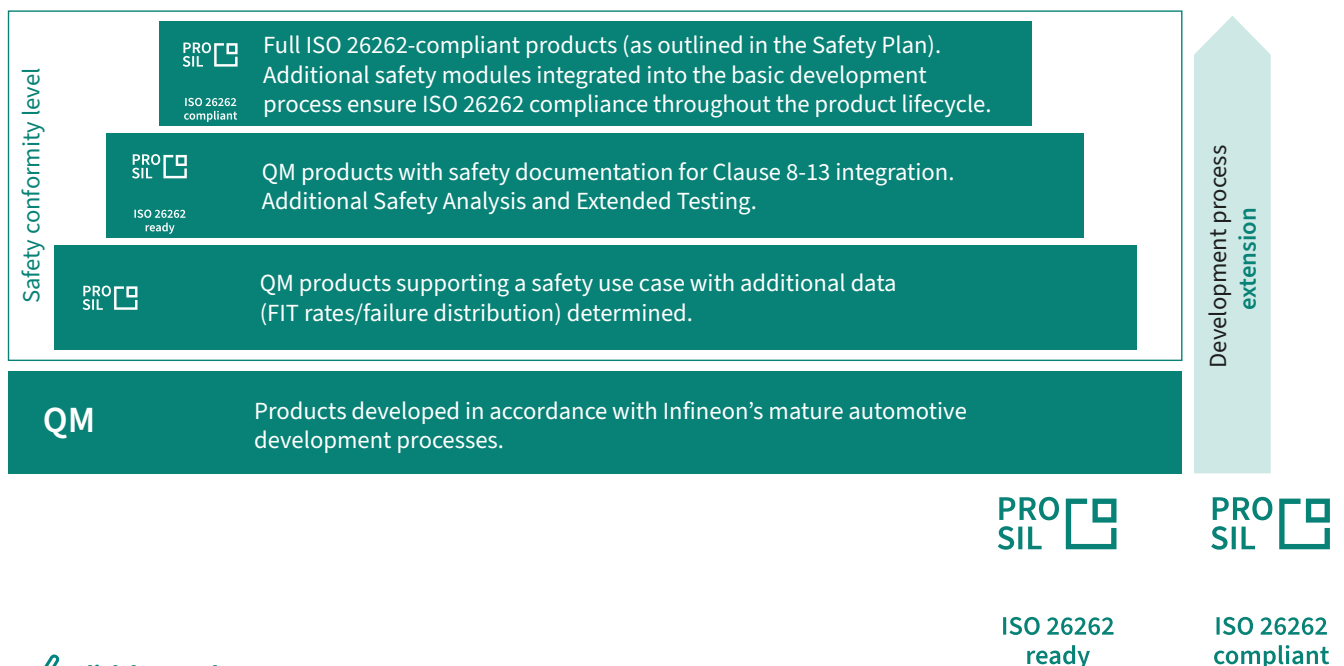
With our holistic approach to functional safety, Infineon is addressing the increased complexity and stringent requirements that make functional safety projects costly and time-consuming. We provide the necessary products, including documentation and supporting information, to ease integration and reduce efforts for system integrators.

Benefit from:

- Innovative solutions for automotive safety-related applications
- Improved time-to-market through comprehensive safety documentation for ISO 26262-compliant products
- Reduced integrators' efforts with ISO 26262-compliant and ready-to-use products
- A broad portfolio of ISO 26262-compliant products already available
- Newly developed automotive parts that will primarily follow an ISO 26262-compliant development flow

Safety conformity levels:

- PRO-SIL™ ISO 26262-compliant devices meet all relevant requirements for semiconductors as defined in the ISO 26262 series of standards for automotive functional safety
- The PRO-SIL™ ISO 26262-ready marking designates QM devices that can be integrated into a safety-related application by utilizing the ISO 26262:2018 Clause 8-13, Class II hardware evaluation framework
- The Infineon Automotive Ensured Compliance process framework was certified by SGS-TÜV Saar for compliance with ISO 26262:2018 as of April 2022. This certification reinforces our commitment to automotive functional safety



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Dependability is the key driver for the megatrend towards autonomous driving

The future car will be fully connected and always online. It will be all-electric and autonomous. At Infineon, we believe that realizing this vision requires both technology and trust.

The growing demand for safe electronic systems in vehicles that drivers and passengers can rely on lays the foundation for trust and drives progress toward higher levels of automated driving.

Earning the trust of tomorrow's passengers begins with dependable electronics that enable highly available, reliable, robust, safe, and secure systems, capable of operating in all conditions.

Infineon is your trusted partner, offering all the essential components for your dependable systems – automotive quality, functional safety, cybersecurity, innovative products, system expertise, and operational excellence.

Dependable electronics for safer, smarter vehicles

As vehicles become increasingly reliant on electronic components, demand for safe, reliable systems continues to grow. Rising levels of automated driving especially depend on drivers' and passengers' trust in the quality and reliability of each component. The complexity and requirements in the automotive industry are expected to increase further, particularly in terms of quality and dependability, to ensure vehicles operate safely and smoothly throughout their 15-year lifespan.

Infineon's commitment to delivering high-quality, dependable products has resulted in a portfolio that offers superior performance and unmatched durability, driven by our zero-defect mentality. We go beyond industry standards to meet the real-world requirements of applications.

Enhance your automotive systems and applications with our high-quality semiconductor components designed for your needs.

Dependable electronics based on quality

Automotive quality beyond the standards with a zero-defect mindset.

Vehicle complexity and functionality will continue to grow, driving the need for dependable electronics, with quality being one of its key ingredients. Our passion for quality creates a product portfolio that meets high standards and delivers highly reliable, robust products.

How Infineon differentiates as a quality leader:

1. Our goal is to go beyond standards to better meet real application requirements: from intensive screening methods to detect production defects, to advanced AEC Q100/101 tests (where required), to sub-1 dpm validation aimed at achieving ultralow defect rates.
2. Our track record of achievements, including multiple quality awards from customers such as Toyota (Honor Quality Award in 2020) and Continental (Supplier of the Year in 2019), demonstrates that we consistently meet and exceed outstanding quality targets in the automotive industry.
3. Infineon offers best-in-class customer service, supported by a regional network of failure analysis labs, strong localized expertise, technical training programs, and state-of-the-art regional quality analysis labs equipped for advanced failure analysis.
4. We meet customer needs through industry-leading product requirements, design, manufacturing, and testing practices. Quality is integrated into our development processes (e.g., RDDF), design rules (e.g., ADeGo), materials, manufacturing processes, process controls, proprietary testing, and screening methods.

Infineon's Zero Defect mentality is built upon:

- Producing 24/7/365 at sub-dpm levels: Translated into a year's timeline, this means we deliver zero defects for all but the last three seconds of the year.
- Delivering sub-ppm quality levels.
- Achieving Zero Defect status for 90 percent of our products.

We go beyond the standards to better meet real application requirements.



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Infineon support for sensors

Useful links and helpful information

Further information, datasheets, and documents

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Infineon customized solutions

Your specific needs, realized



A customized solution (commonly known in the industry as an ASIC — Application Specific IC, or CSP — Customer Specific Product) is designed, planned, developed, and used for a specific purpose. Its mission is to be optimized and efficient, with all the required functionalities and features for a specific application for a single customer.

Infineon as your one-stop-shop from design to delivery



Infineon, as a market leader in customized solutions, believes innovation comes through collaboration and exploring new paths. Working closely with our customers, understanding their needs, and combining their needs with our cutting-edge solutions, we know there is always a benefit for every customer and application. Whether the challenge is related to IP or BOM constraints or requires higher integration, an ASIC can be the solution. Furthermore, customers benefit from Infineon's trusted quality, supply guarantee, and experience, combined with additional advantages such as IP protection and a well-established partner network.



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A process streamlined through efficiency, expertise, and experience

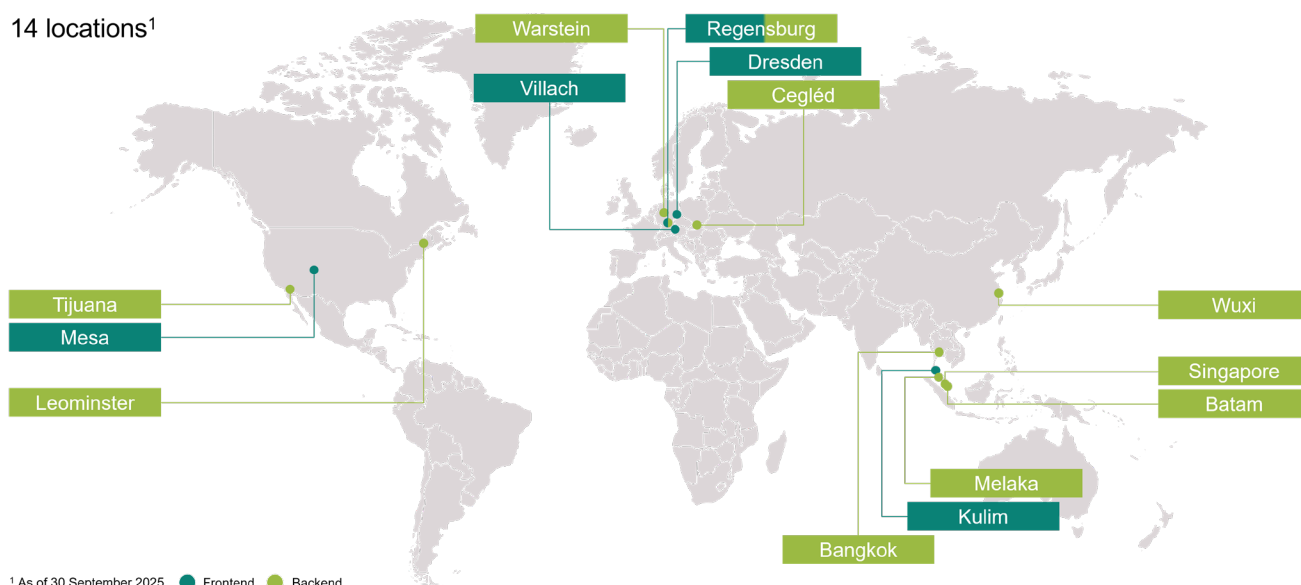
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From technology advantage to supply stability

Whether it is digital, analog, or mixed-signal devices, an embedded processor, or integrated sensors, we have the experience and product know-how. Being one of the largest semiconductor companies, we also have a vast array of IPs. We can integrate almost anything into your chip from our wide variety of sensors, discrete devices, drivers, and many more, including support for higher voltage levels. Our in-house fabrication facilities and design centers around the globe are known for the highest quality standards. We also have well-established partnerships with all major silicon foundries and assembly test fabs to complement our in-house technologies. At every step along the way, we take pride in the highest quality Infineon is known for.

If you are interested and would like to find out further information, visit www.infineon.com/asic

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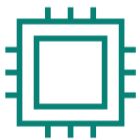
The Infineon Partner Program



Together we create and innovate for our customers' success

Find solutions from our partners to accelerate your next business opportunity. Infineon's global network of partners is an expert in designing products, solutions, and services leveraging Infineon components in 5 key domains: software, hardware, services, tools, and end applications.

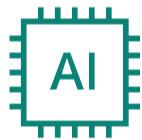
The Infineon Partner Program is a global ecosystem of qualified companies, offering knowledge and experience to enable and implement Infineon products. Our associated, preferred, and premium partners help design your device and application based on our components. They have been carefully selected by us on the basis of their competence and ability to design and deliver strong and trustworthy solutions, especially for new technologies and use cases.



Hardware

Partners manufacturing electronic components, demo boards, and turnkey modules

... jointly we create and commercialize value-added solutions, while reaching new buyers



Software

Partners programming various types of software, algorithms, and operating systems

... jointly we enhance our portfolio with complementary components and expand technology know-how



Tools

Partners designing computer programs for the development of embedded systems

... jointly we enable a complete and immersive development experience for customers



Services

Partners providing cloud and engineering services, application support or trainings

... jointly we build up engineering capabilities and offer them to a world class customer network



End applications

Partners creating end products and related applications

... jointly we provide customers with state-of-the-art solutions and innovative use cases

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