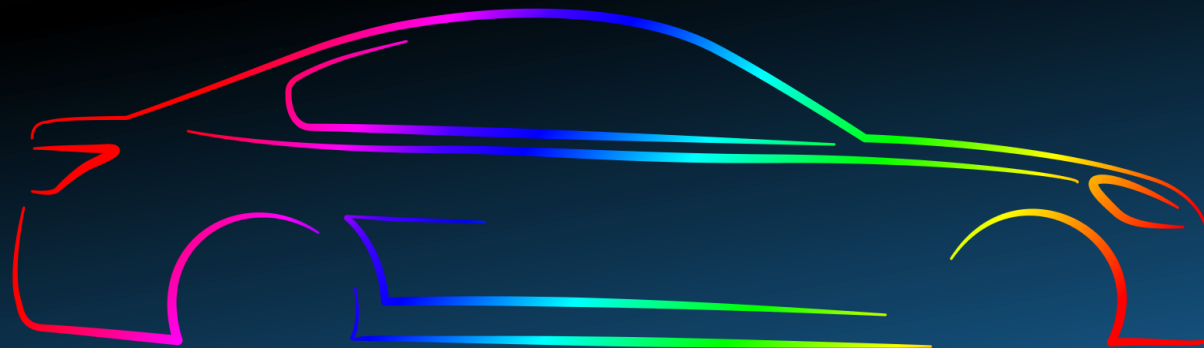




# Company Overview



CONNECTIVITY FOR AUTOMOTIVE LIGHT AND VISION

# Inova Semiconductors GmbH



Private fabless semiconductor company

Headquarter: Munich, Germany

Founded 1999

Providing robust semiconductor connectivity solutions to the Automotive market.  
25 year of experience in large volume deliveries of high end SerDes devices.

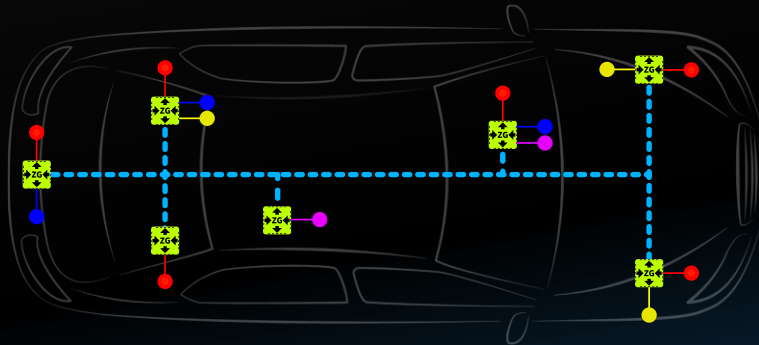


CONNECTIVITY FOR AUTOMOTIVE LIGHT AND VISION

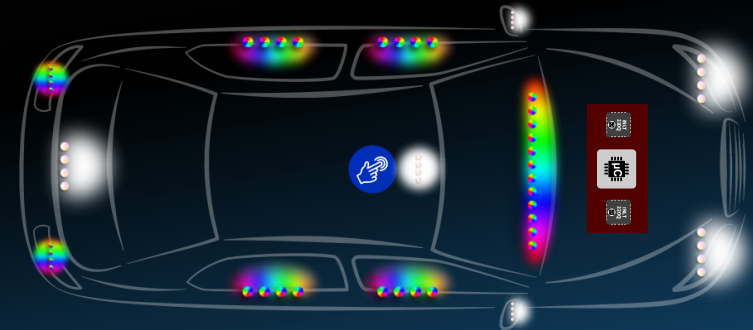
## Our Mission

Development, manufacturing and worldwide sales of innovative Gigabit link solutions for serial data communication and smart LED solutions for the Automotive Market.

# Business segments and goals



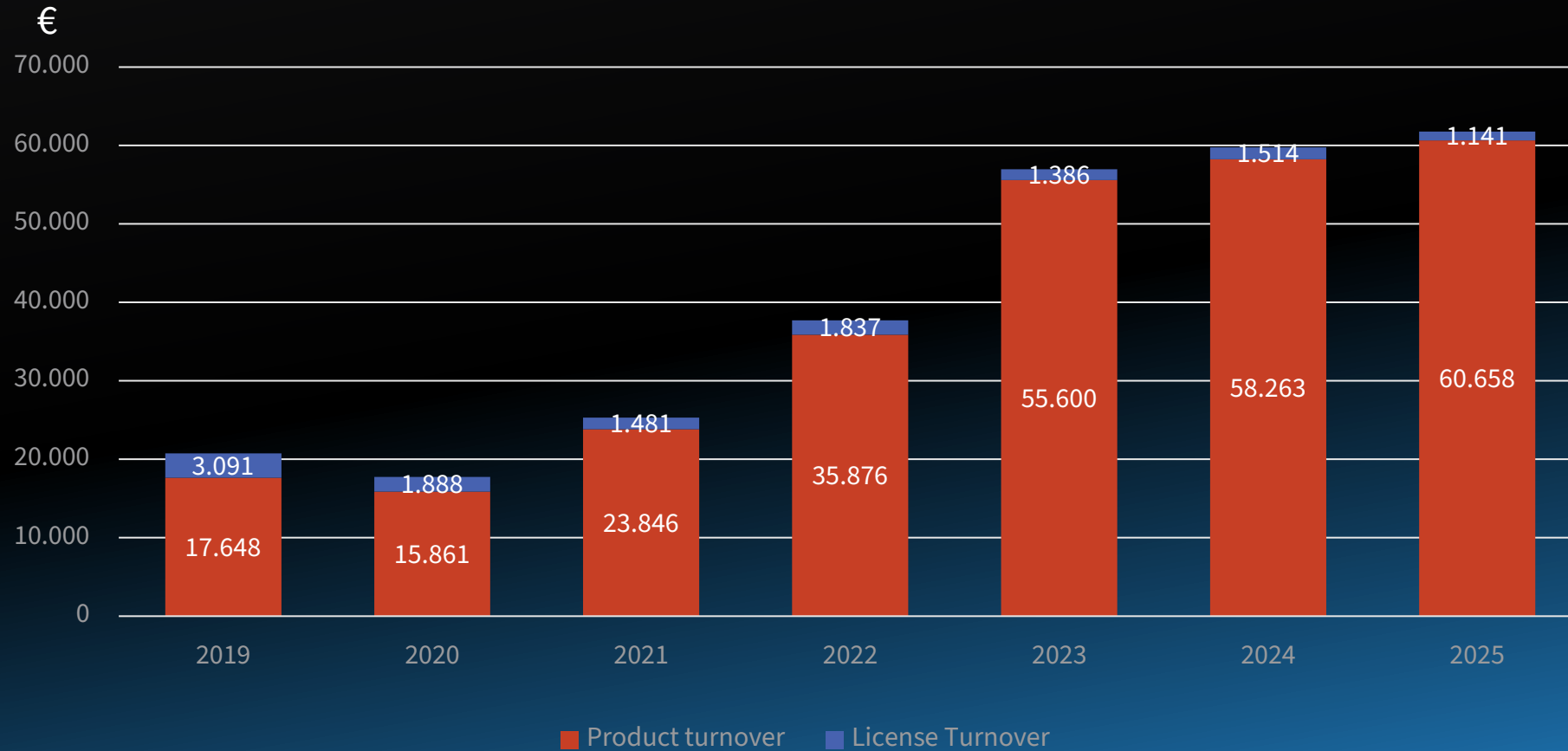
Provide Most **Reliable** Digital Gigabit **Multichannel SerDes** and **Networking** Solutions to the **Automotive Market**



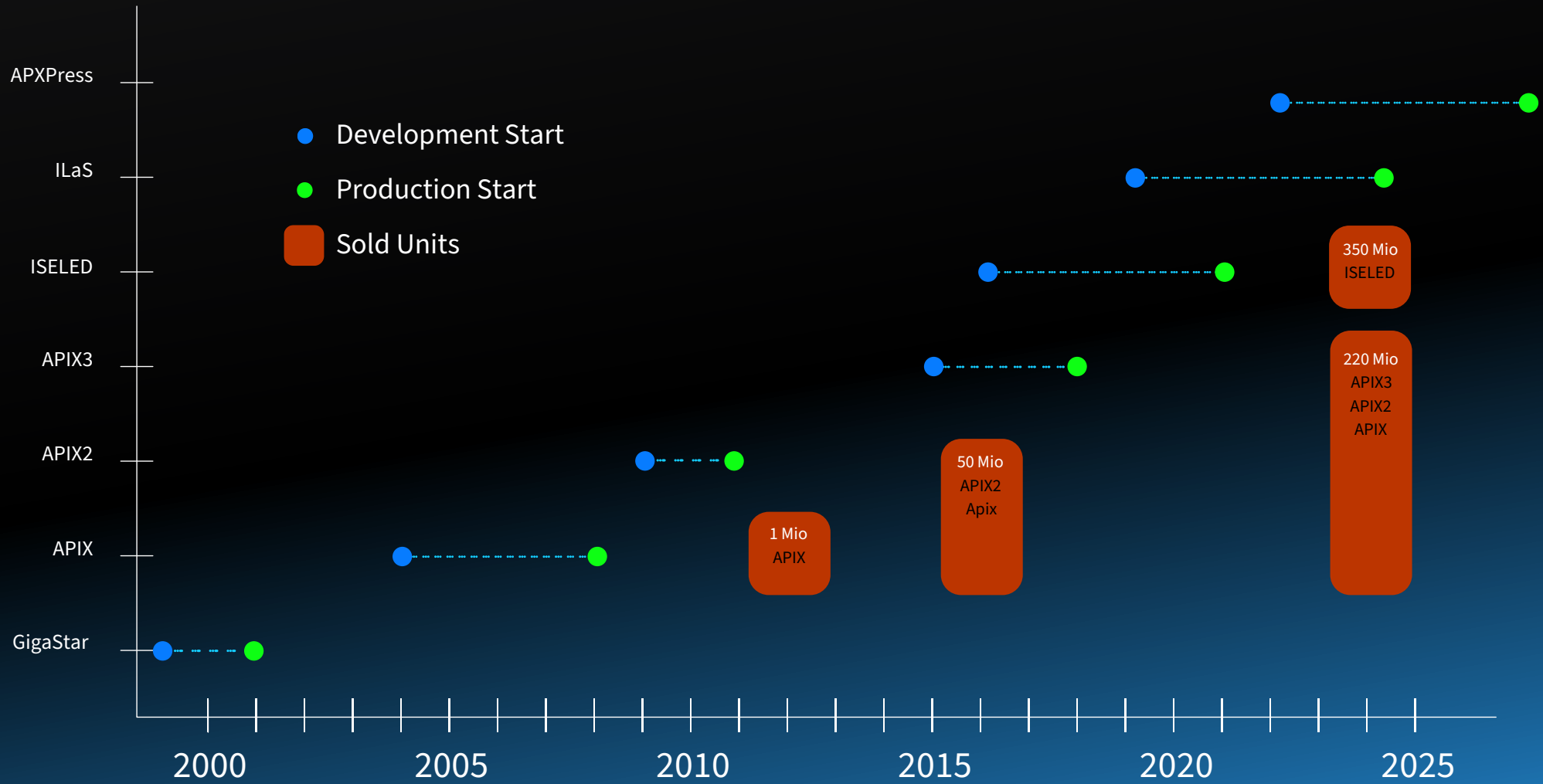
Provide **Smart LED Driver Chips** and **Light & Sensor Networks** solutions for the **Automotive Market**

# Final turnover

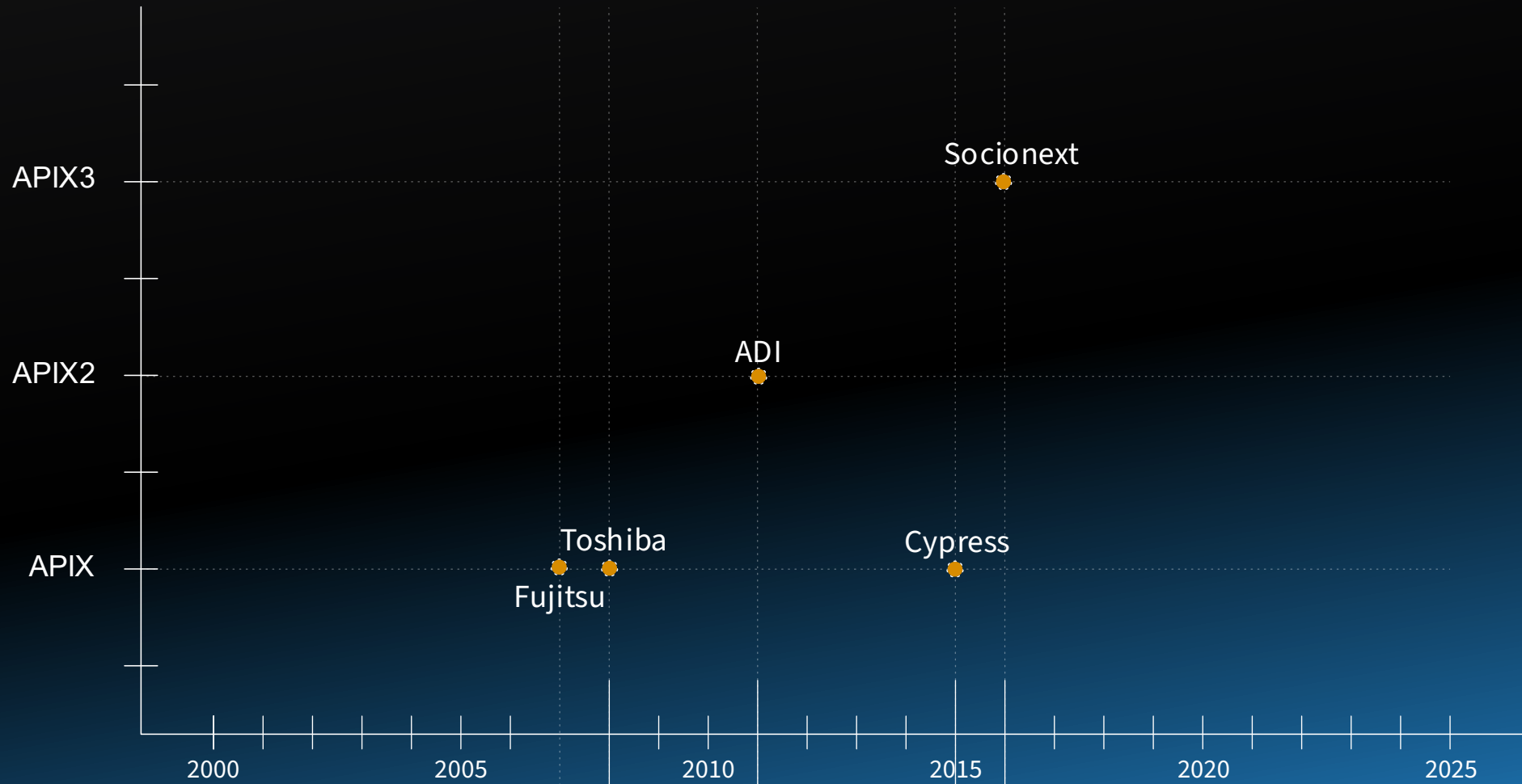
Sales development Inova Semiconductors GmbH  
2019-2025



# History – Milestones



# History – Licensing



# Global Presence



Panasonic

DENSO



• APTIV •



INNOLUX



GARMIN

Continental



ALPSALPINE  
Perfecting the Art of Electronics



EVERLIGHT

Ennostar

LITEON

CoAsia  
ITSWELL

preh

Valeo

Yanfeng

FORVIA  
HELLA

ALPSALPINE  
Perfecting the Art of Electronics

ANTOLIN

Opmobility



ZEEKR



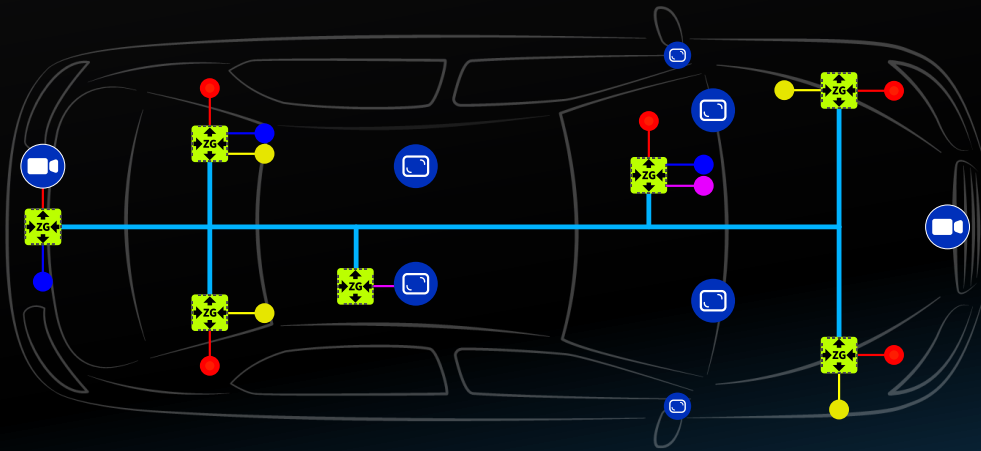
XPENG



# SerDes – High Speed Communication



## Display Connectivity in vehicles



Provide **Most Reliable** Digital Gigabit **Multichannel SerDes** and **Network** Solutions to the **Automotive** Market

## Central Instrumentation Displays

Cluster Displays

Passenger Displays

Console Displays

Rear Seat Entertainment

Mirror Replacement

HVAC Displays

# Automotive High-Speed Connectivity

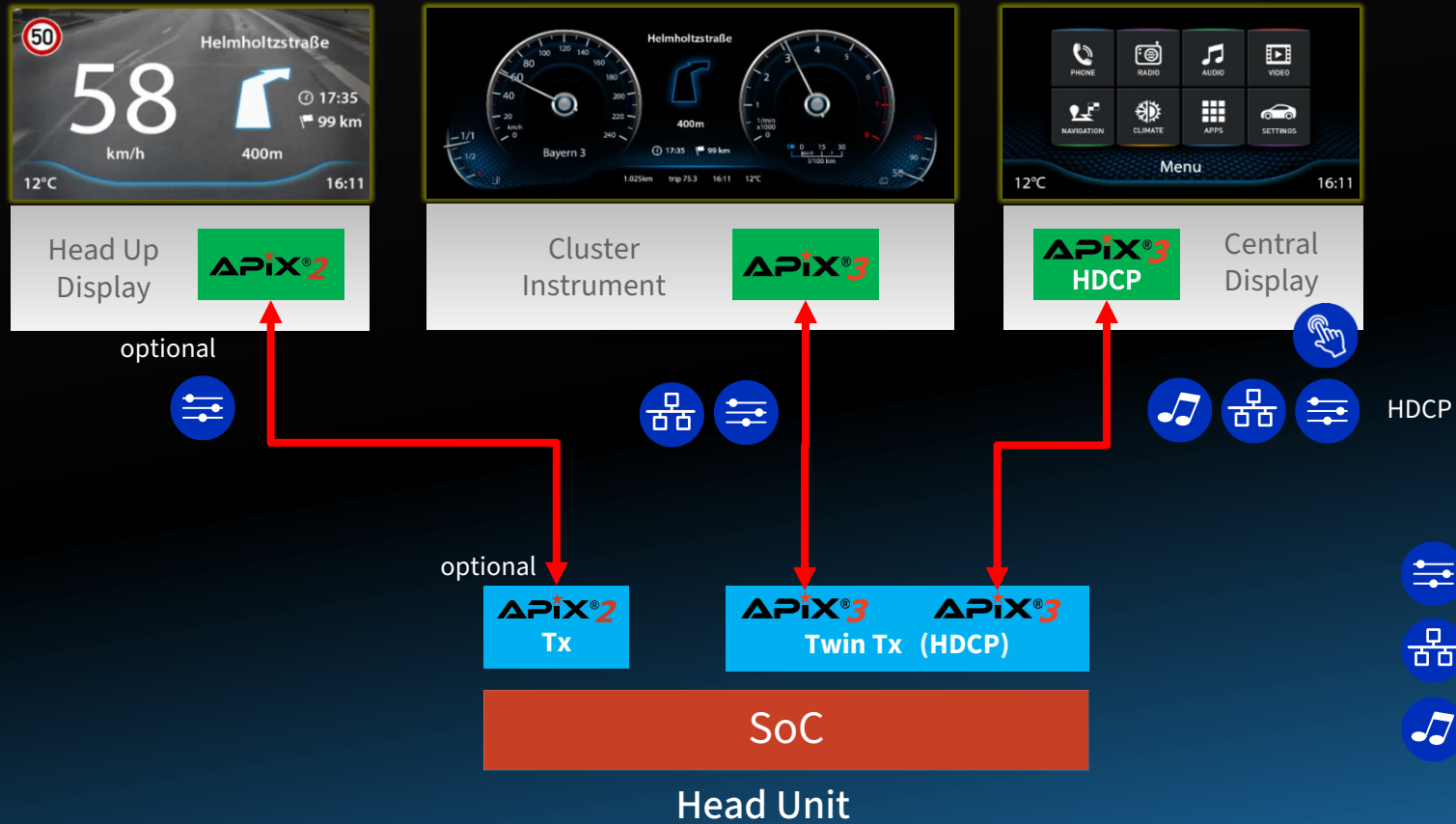


| 2008       | 2012   | 2018   | 2022  |
|------------|--|--|---|
| 1 Gbps     | 3 Gbps   | 12 Gbps  | 12 Gbps   |
| Video only | Multichannel HD Video<br>Content Protection<br>Ethernet<br>Digital Audio | Multichannel UHD Video<br>Content Protection<br>Ethernet<br>Digital Audio<br>DSI & HDMI<br>Digital Stream Compression<br>Diagnostics<br>Safety | Multichannel UHD Video<br>Content Protection<br>Ethernet<br>Digital Audio<br>DSI & HDMI<br>Digital Stream Compression<br>Diagnostics<br>Safety<br>Multistream Transport<br>Display Port |

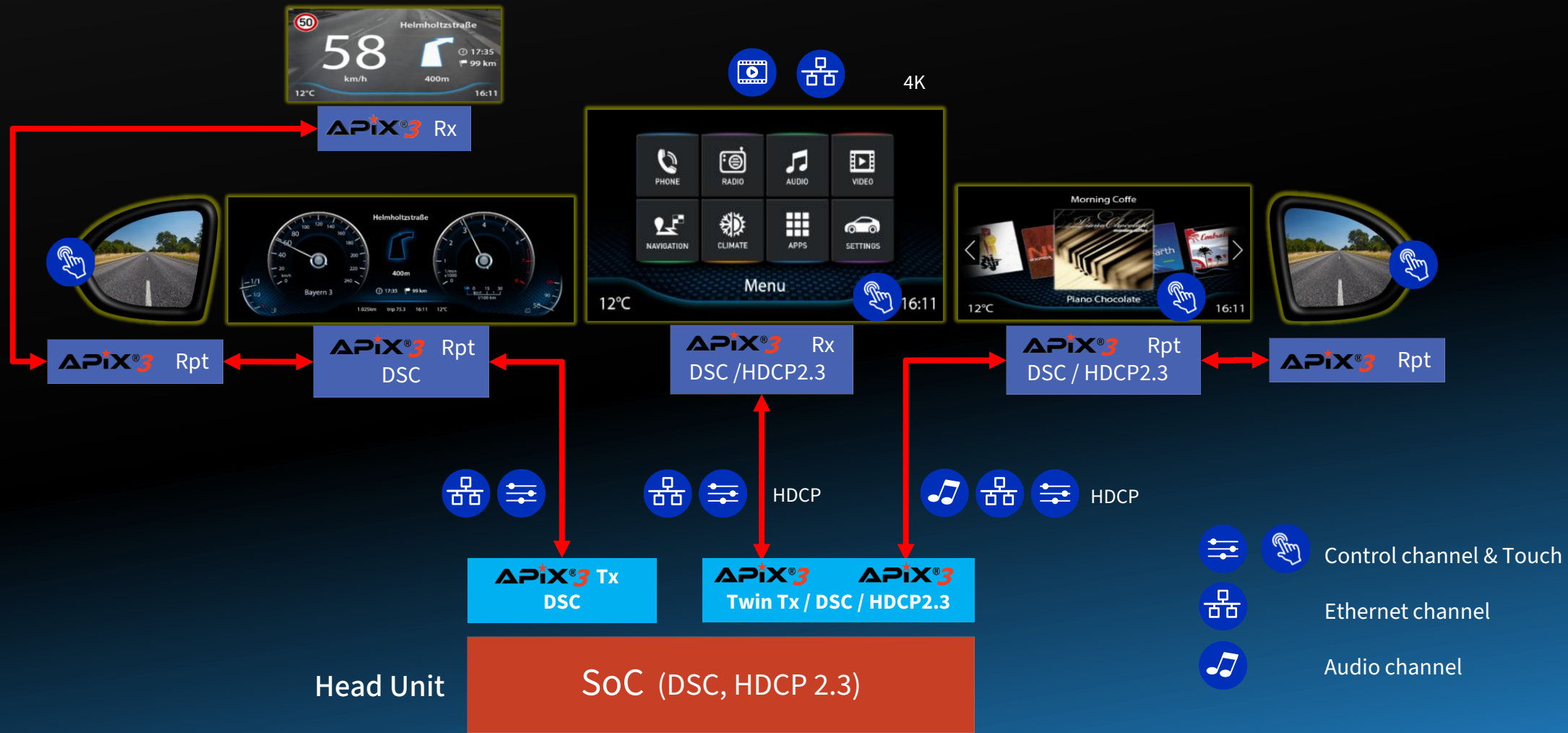
**Coming soon**

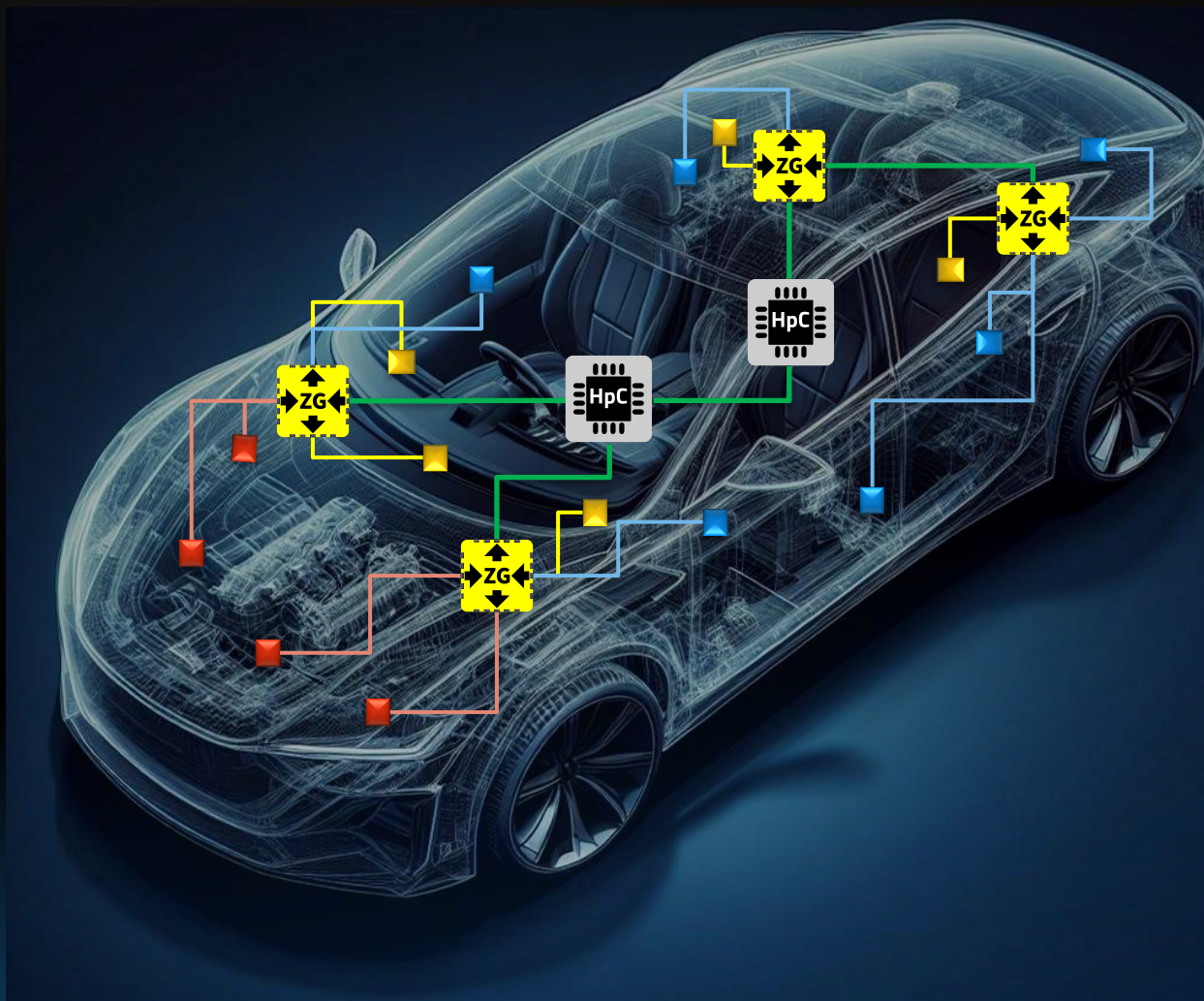


# Entry Level Cockpit Application



# APIX<sup>®</sup>3 High-End Pilar-to-Pilar Cockpit

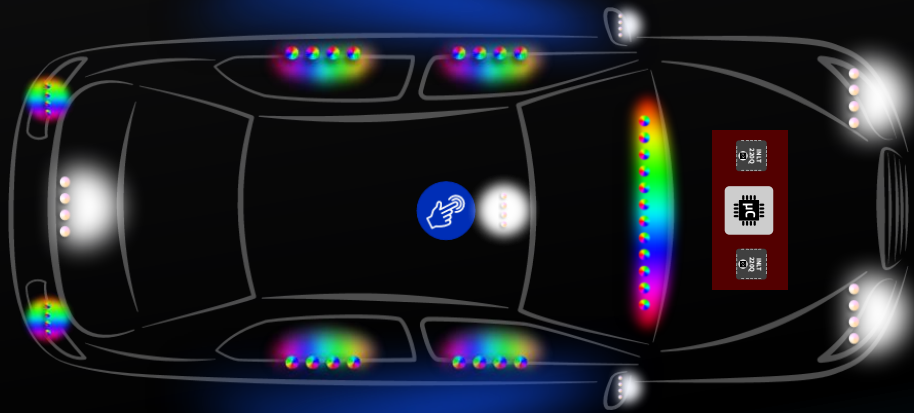




Migration of functionality from many domains to some **zonal gateways (ZG)** and **central processor (HpC)**

- Wide variety of data interfaces.  
Video, CAN, LIN, ASA, Audio, SPI, MII, I2C, I2S, DP, HDMI, APIX3, ISELED, LVDS, PCIe, MIPI-DSI
- Variable bandwidths  
kBps up to several Gbps
- Flexible safety concepts  
Powertrain data vs. Infotainment Audio
- Weight reduction by data stream bundling  
up to 500 virtual data paths
- Designed for automotive
- Link interface with low power automotive Phy for 28dB/32Gbps
- Software defined architecture  
Add / remove sensors and actuators

# Business Segments Software Defined Lighting



Providing **Smart LED** Driver Chips and  
**Light & Sensor Networks** solutions  
for the **Automotive Market**.

Dynamic Ambient Lighting

Roof Lighting

Functional Lighting

Mood Lighting

External Lighting

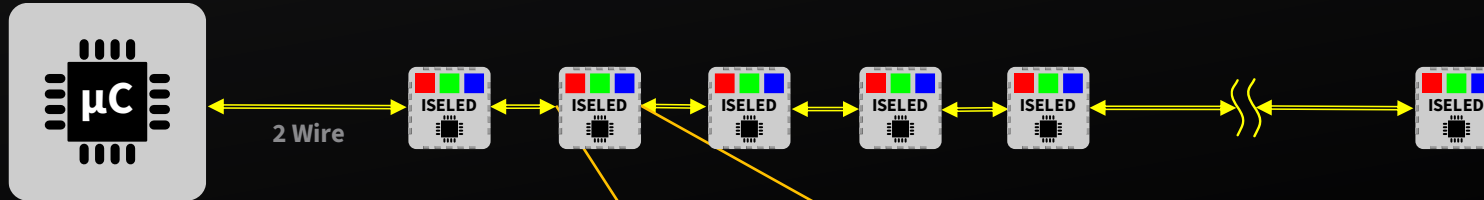
Welcome Lighting

Logo Lighting

Smart User Interface

# ISELED® the smart LED Technology

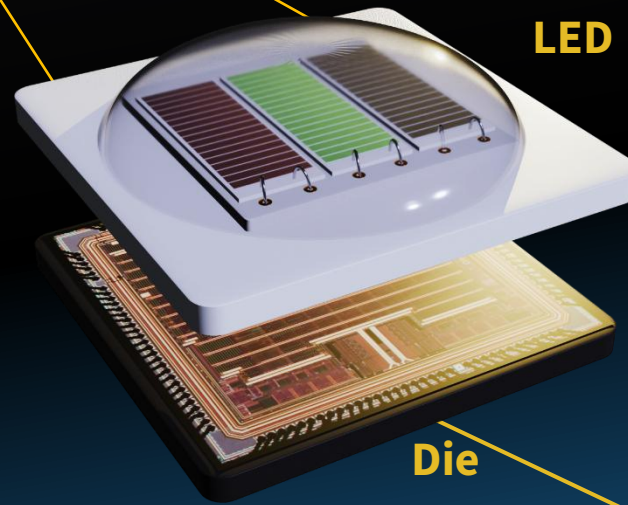
Light Effects



## High Integration

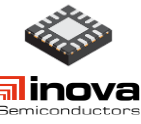
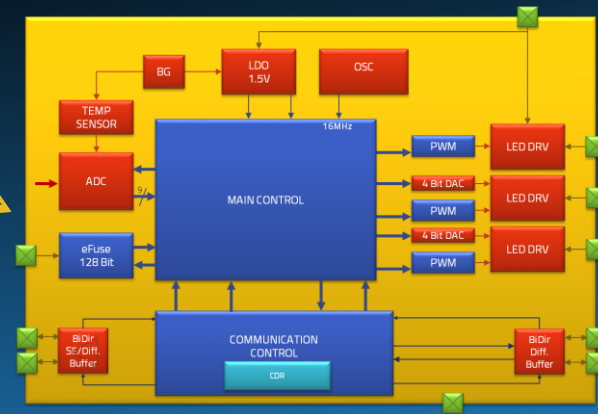
- ISELED Driver & Controller IC
- LEDs
- Optics
- Integrated oscillator, bandgap etc,
- Nearly no external components necessary
- Lowest System Costs

Daisy-Chaining of up to 4079 LEDs  
 Calibration by LED manufacturer  
 Bi-directional communication, Diagnostic



LED

Die







# Ecosystem Members

The open Alliance provides complete system solutions for smart LED, initially targeting automotive interior lighting.

inova Semiconductors NXP DOMINANT™ Opto Technologies DISPLAY LAB PFORZHEIM UNIVERSITY TE motherson PRETTL novem PERFECT CAR INTERIOR

feno LUCIE LABS MAGNA MICROCHIP preh LITEON ANTOLIN Coasia ITSWELL

EVERLIGHT polycontact ASE UNO MINDA ALLEGRO microsystems LIGHTWORKS® PART OF OSBRA GROUP DRAXLMAIER

ANALOG DEVICES MARQUARDT technica engineering TACTOTEK Ennostar JOYSONQUIN AUTOMOTIVE SYSTEMS UG SYSTEMS

FORVIA HELIX FORVIA faurecia Valeo SIMOLDES PLASTICOS 星宇股份 XINGYU CO., LTD. hebatronic intron 英恒

elmos RENESAS REFOND CEMM THOME a member of Amphenol HARVATEK autochips WEIDPLAS

GLAND GRAMMER Hongbright ALPSALPINE Perfecting the Art of Electronics BLUE WHALE Rosenberger Yanfeng LUXPIA

旗芯微半导体 Flagchip as Flagship opmobility SP3 云途 YUNTU KEBODA Creating Value, Sharing Progress WOOREE E&L ZHIXIN 智芯科技 華皓 H-GREAT

# Supply Chain

Processing

Wafer Probing

Packaging

Final Test

Main Supplier

 **GlobalFoundries**  
Singapore:  
FAB 5 Woodlands Park  
FAB 7 Woodlands Park

 **ASE**  
Singapore  
 **GlobalFoundries**  
Porto, Portugal

 **ASE**  
Taiwan:  
Chung-Li

 **RoodMicrotec**  
Germany:  
Nördlingen

Second Source

 **GlobalFoundries**  
Singapore:  
FAB 3e Tampines Airport\*

 **RoodMicrotec**  
Germany:  
Nördlingen  
 **ASE**  
Taiwan:  
Chung-Li

 **ASE**  
Taiwan:  
Kaohsiung \*

 **ASE**  
Taiwan:  
Chung-Li

\* Transfer and Qualification required

- Dual Supply Chain
- Multisource production
  - Different foundries
  - Geographically different regions
- Support manufacturing with buffer stocks
- Contingency plan in place (since 2015)
- Never ever missed any delivery up to now



Inova is an ISO 9001:2015 certified company

All Foundries are IATF 16949 certified

Own quality and process management system

- ✓ AEC-Q100, PPAP, APQP etc. are all mandatory
- ✓ Continuous improvement process

High track records in delivery and quality

- ✓ A-supplier status with several customers

Inova's company values emphasize a strong focus on quality and being a consistent reliable partner to its customers.



## Standards

Inova is working with several standards such as VESA, MIPI Alliance, HDMI, DisplayPort Technology, High-bandwidth Digital Content Protection, Open LDI, and DVN.

## Sales & Licensing

We sell our products worldwide – directly and via distributors.  
We are also licensing our technologies worldwide.

## Awards 2020-2026

**Focus:** Growth Champion 2021, 2023, 2024, 2025 and Innovation Champion 2026

**F.A.Z. - Institut:** Germany's Innovation Leader 2020/2022 , 2022/2023, 2024 & 2025

**Capital:** Innovativste Unternehmen Deutschlands 2022

**Chip:** Digital Innovator 2021, 2022, 2023 & 2024

**SZ Institut:** Innovativer Arbeitgeber 2022, 2024, Krisensicherste Unternehmen 2023 & 2024 , Innovativste Unternehmen 2023, 2024 & 2025

**DIND:** Arbeitgeber der Zukunft 2023

**FT- Financial Times:** Europe's long-term growth champions 2025, Europe's fastest growing company 2025

**WELT:** Innovations-Champion 2025 und 2026

**EU Business News:** German CEO Excellence Awards 2026





Inova Semiconductors GmbH  
Zielstattstraße 32  
D-81379 München - Germany  
Phone: +49-89-457475-60  
Fax: +49-89-457475-88  
[info@inova-semiconductors.de](mailto:info@inova-semiconductors.de)  
[www.inova-semiconductors.de](http://www.inova-semiconductors.de)


General Manager: Robert Isele, Roland Neumann  
Commercial register of the local courts  
Registergericht München: HRB 125050  
VAT identification number: DE 812 692 754

D-U-N-S: 34-130-9297

# Disclaimer

 <sup>®</sup> is a registered trademark of Inova Semiconductors GmbH

 <sup>®</sup> is a registered trademark of Inova Semiconductors GmbH

 <sup>®</sup> is a registered trademark of Inova Semiconductors GmbH

All other trademarks or registered trademarks are the property of their respective holders.

Inova Semiconductors GmbH does not assume any liability arising out of the applications or use of the product described herein; nor does it convey any license under its patents, copyright rights or any rights of others.

Inova Semiconductors products are not designed, intended or authorized for use as components in systems to support or sustain life, or for any other application in which the failure of the product could create a situation where personal injury or death may occur. The information contained in this document is believed to be current and accurate as of the publication date.

Inova Semiconductors GmbH reserves the right to make changes at any time in order to improve reliability, function or performance to supply the best product possible.

Inova Semiconductors GmbH assumes no obligation to correct any errors contained herein or to advise any user of this text of any correction if such be made.

© Inova Semiconductors 2024