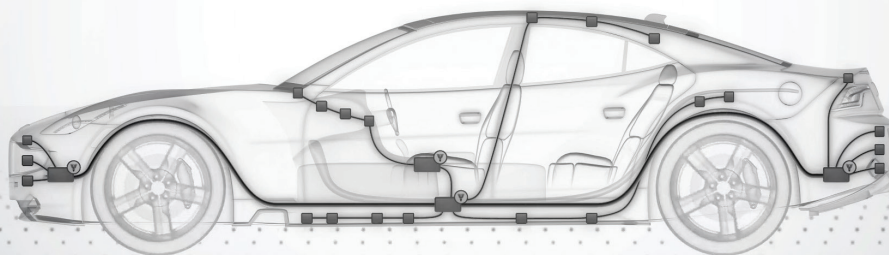




# Driving the Future of Automotive Connectivity

With an increasing number of devices in our connected cars – including cameras, sensors, radars, LiDARs and displays – our in-vehicle infrastructure is being pushed to its limit. Today's existing automotive connectivity infrastructure is unable to deliver the required bandwidth and performance necessary to address the needs of the connected and, eventually, autonomous cars. Valens' technology is here to tackle these challenges.

**Valens is simplifying in-vehicle architecture with safe, resilient, zero-latency, high-speed, error-free connectivity.**



- ▶ Fewer Devices
- ▶ Fewer Connectors
- ▶ Fewer Cables
- ▶ Less Complexity
- ▶ Lower BOM

## Product Offering

### Symmetric Products



#### VA60XX Family

**The highest bandwidth long-reach solution deployed in vehicles**

- 2Gbps/2Gbps over UTP Cable
- USB, 1GbE, I2S, I2C, UART
- Up to 15m/50ft with 4 inline connectors
- Daisy-chain topology support
- Infotainment, smart antenna

### Asymmetric Products



#### VA70XX Family

**The first MIPI A-PHY-compliant chipsets on the market**

- Aggregating up to 32Gbps of video from multiple remote sensors
- UTP for speeds up to 4Gbps
- SDP, Coax for speeds up to 8Gbps
- Tunneling of CSI-2, GPIO, I<sup>2</sup>C
- Remote sensor connectivity
- DSI to CSI connectivity (SoC-2-SoC)
- Extreme low packet error rate <math><1e^{-19}</math>

# Highlights of Valens Automotive

Valens is leading the market with innovative connectivity technology for multi-gig solutions that are on the road in leading vehicles around the world.

## › Setting the standard for in-vehicle connectivity with MIPI A-PHY

Valens technology was selected as the baseline for the MIPI Alliance's A-PHY connectivity standard, which has also been adopted by the IEEE standards association to expand market reach.

Valens is ahead of the curve with its VA70XX chipsets, the first A-PHY compliant chipsets in the industry.



## › Established partnerships with leading industry players

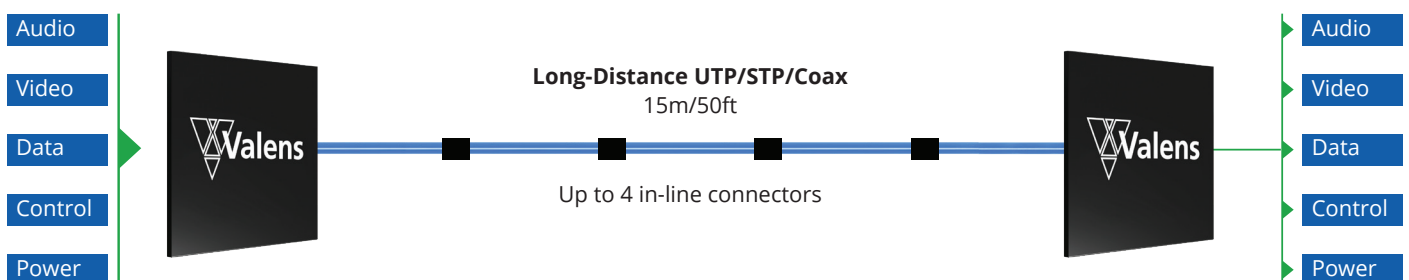
Over recent years, Valens has nurtured strong relationships with leading Tier 1s and OEMs. This has enabled Valens' automotive chipsets to become the highest bandwidth long-reach solutions deployed in vehicles around the world.

### Select Automotive Customers & Partners

DAIMLER  BOSCH  Continental  HARMAN  molex  • APTIV •  SONY  mobileye  
An Intel Company

## › Converging multiple native interfaces over the same link

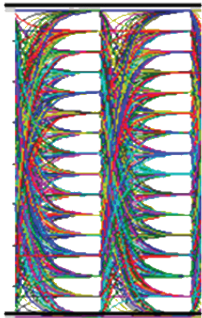
Valens' chipsets simplify connectivity of different applications over the same link, including the unique capability and flexibility to support and extend any protocol (such as USB, Ethernet) for both symmetric and asymmetric applications.



## › Providing exceptional resilience to the harsh electromagnetic automotive environment

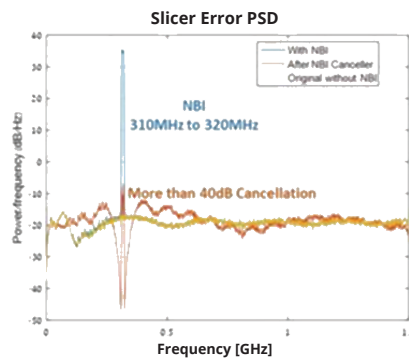
Valens provides the most resilient technology for ultra-high-speed links. Our VA70XX chipsets boast a PER of 10-19, equivalent to one error every 10,000 car lifetimes - guaranteeing enhanced passenger safety. The chips utilize three main mechanisms to withstand the harsh automotive electromagnetic environment.

### High-Level PAM (up to PAM16)



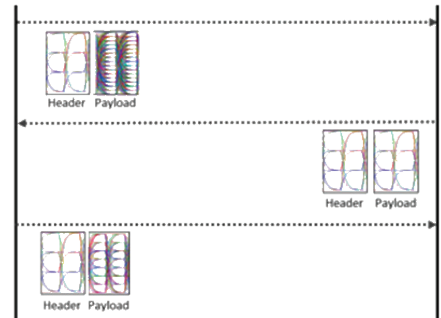
Reduces the symbol rate for multi-gigabit link bandwidths, which lowers the signal losses in the cable

### Just-in-Time Noise Cancellation



Fast adaptive noise cancellation to remove the effects of automotive EMI/EMC noises

### Dynamic Modulation Local Retransmission



Ultra-fast PHY-level retransmission mechanism for correction of packet errors

## About Valens

Valens is a leading provider of semiconductor products, pushing the boundaries of connectivity by enabling long-reach, high-speed video and data transmission for the audio-video and automotive industries.

Valens' Emmy® award-winning HDBaseT technology is the leading standard in the professional audio-video market with tens of millions of Valens chipsets integrated into thousands of HDBaseT-enabled products. Valens Automotive is a key enabler of the evolution of autonomous driving, providing chipsets that are on the road in vehicles around the world. The underlying technology has been selected to become the basis for the global standard for automotive connectivity. Founded in 2006, Valens is based in Hod Hasharon, Israel, with offices in the US, Europe and Asia.

For more, visit <https://www.valens.com/>.