HDBaseT Automotive:

Taking PCIe® to the Next Level

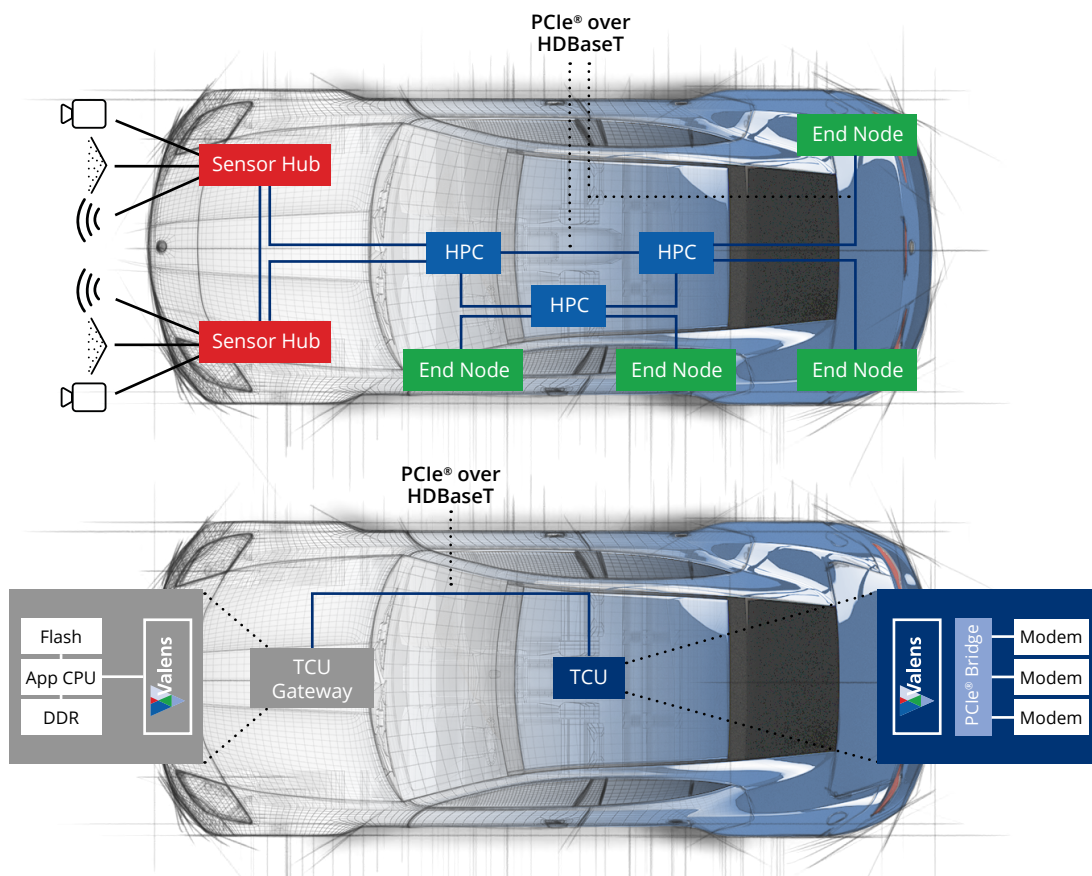# HDBaseT Automotive: Taking PCIe® to the Next Level

With an increasing number of devices in our connected cars – including cameras, sensors, radars, LiDARs and displays – our vehicles are becoming data centers on wheels, with more Central Processing Units (CPUs) and peripheral devices (such as SSDs, wireless modems etc.) Valens' HDBaseT Automotive solution is here to deliver more bandwidth, more applications, over a leaner infrastructure.

HDBaseT Automotive is an enabling technology for in-vehicle connectivity, realizing the potential of the connected and autonomous car, by tunneling simultaneous streams of high-throughput data, to provide a single, holistic, cost-effective approach for the challenges of the connected car.

HDBaseT Automotive introduces a newcomer to its portfolio of tunneled interfaces, becoming the first and ONLY technology able to extend native PCIe® interfaces for up to 50ft/15m over an unshielded twisted pair (UTP) wire, bringing:

> Ability to simultaneously transmit and receive (full duplex) 4Gbps each direction (8Gbps total) on a single, unshielded twisted pair wire (such as 1000BaseT automotive)
> Distributed compute power with more flexibility on CPU placement
> Savings on devices, as a single central SSD can connect to all the CPUs distributed in the car
> "Place and route" devices in an optimal physical location (e.g., modems on the car's roof and TCU gateway inside the car for easier cooling and maintenance)
> Additional features include dynamic power management, diagnostics, and data link protection (encryption and authentication)

HDBaseT Automotive: Connectivity that Drives the Future

For more information, visit https://www.valens.com/automotive-solutions, follow @ValensAuto, or contact us at info-auto@valens.com.